



ISTRUZIONI

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Basta cliccare su un argomento di qualsiasi indice del catalogo per andare alla pagina.

Si può continuare la consultazione scorrendo le pagine oppure usare i pulsanti di ritorno all'indice del capitolo o all'indice del catalogo.

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ed è arricchito con aggiornamenti, approfondimenti e correzioni.

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è preferibile scaricare il file sul computer o sul tablet per consultarlo dall'applicazione di Adobe.**

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PRODOTTO
PRODUCT TECHNICAL DATA

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DIN 69893-1 HSK A WE DIN 1835-2 Form B

MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON

DIMENSIONI DELL'ATTACCO
SHANK DIMENSIONS

Articolo	D	H	A	Shank	PREZZO
HSK100A.H100.WE16	16	100	48	Ø16H9/d9	€ 219,00
HSK100A.H130.WE16	16	130	48	Ø16H9/d9	€ 236,00
HSK100A.H160.WE16	16	160	48	Ø16H9/d9	€ 229,00
HSK100A.H200.WE16	16	200	48	Ø16H9/d9	€ 236,00
HSK100A.H100.WE18	18	100	50	Ø18H9/d9	€ 232,00
HSK100A.H130.WE18	18	130	50	Ø18H9/d9	€ 236,00
HSK100A.H160.WE18	18	160	50	Ø18H9/d9	€ 229,00
HSK100A.H200.WE18	18	200	50	Ø18H9/d9	€ 236,00
HSK100A.H100.WE20	20	100	52	Ø20H9/d9	€ 232,00
HSK100A.H130.WE20	20	130	52	Ø20H9/d9	€ 236,00
HSK100A.H160.WE20	20	160	52	Ø20H9/d9	€ 229,00
HSK100A.H200.WE20	20	200	52	Ø20H9/d9	€ 236,00
HSK100A.H100.WE25	25	100	65	Ø25H9/d9	€ 239,00
HSK100A.H130.WE25	25	130	65	Ø25H9/d9	€ 236,00
HSK100A.H160.WE25	25	160	65	Ø25H9/d9	€ 236,00
HSK100A.H200.WE25	25	200	65	Ø25H9/d9	€ 236,00
HSK100A.H100.WE32	32	100	72	Ø32H9/d9	€ 236,00
HSK100A.H130.WE32	32	130	72	Ø32H9/d9	€ 236,00
HSK100A.H160.WE32	32	160	72	Ø32H9/d9	€ 236,00
HSK100A.H200.WE32	32	200	72	Ø32H9/d9	€ 236,00
HSK100A.H120.WE40	40	120	80	Ø40H9/d9	€ 275,00
HSK100A.H160.WE40	40	160	80	Ø40H9/d9	€ 245,00
HSK100A.H200.WE40	40	200	80	Ø40H9/d9	€ 279,00
HSK100A.H130.WE50	50	130	100	Ø50H9/d9	€ 289,00

DIN 69893-1 HSK A WE E

MANDRINI PORTAFRESA WELDON PER ALTE VELOCITA'
END MILL HOLDERS WELDON FOR HIGH SPEEDS

Articolo	D	H	A	Shank	PREZZO
HSK63A.H65.WE8	8	65	26	Ø8H9/d9	€ 122,00
HSK63A.H65.WE6	6	65	26	Ø6H9/d9	€ 118,00
HSK63A.H65.WE10	10	65	35	Ø10H9/d9	€ 129,00
HSK63A.H80.WE12	12	80	42	Ø12H9/d9	€ 128,00
HSK63A.H80.WE14E	14	80	44	Ø14H9/d9	€ 129,00
HSK63A.H80.WE16E	16	80	48	Ø16H9/d9	€ 128,00
HSK63A.H80.WE18E	18	80	50	Ø18H9/d9	€ 129,00
HSK63A.H80.WE20E	20	80	52	Ø20H9/d9	€ 128,00
HSK63A.H110.WE25E	25	110	65	Ø25H9/d9	€ 229,00
HSK63A.H110.WE32E	32	110	72	Ø32H9/d9	€ 229,00

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PORTA ALLE PAGINE DEGLI ACCESSORI
TO ACCESSORIES PAGES

I DISEGNI SONO RAPPRESENTAZIONI ESEMPLIFICATIVE DELLE GAMME DI PRODOTTI

LE DIMENSIONI E LE CARATTERISTICHE TECNICHE DEI PRODOTTI POSSONO VARIARE NEL TEMPO

EVENTUALI VARIAZIONI DI DIMENSIONI O CARATTERISTICHE TECNICHE VERRANNO COMUNICATE VIA NEWSLETTER

BILANCIATURE DIFFERENTI DA QUELLE INDICATE SONO ESEGUIBILI A RICHIESTA

PER RICHIESTE SCRIVERE A info@caporali.net

PER ACQUISTARE ONLINE ISCRIVERSI AL PORTALE store.caporali.net

DRAWINGS ARE EXAMPLES OF RANGE OF PRODUCTS

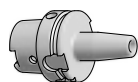
SIZES AND TECHNICAL FEATURES OF PRODUCTS MAY VARY OVER TIME

ANY VARIATIONS IN SIZES AND TECHNICAL FEATURES WILL BE COMMUNICATED BY NEWSLETTER

DIFFERENT BALANCINGS CAN BE EXECUTED ON REQUEST

FOR INQUIRIES WRITE TO info@caporali.net

FOR SHOPPING ONLINE VISIT store.caporali.net

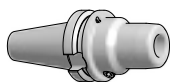


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MANDRINI HSK
HSK TOOLHOLDERS

DIN 69893
FORM A
FORM E
FORM F

PAG. 1

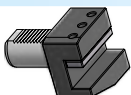


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MANDRINI BT
BT TOOLHOLDERS

MAS 403

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MANDRINI VDI
VDI TOOLHOLDERS

DIN 10889 (DIN69880)

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MANDRINI REGISTRABILI TR
TR ADJUSTABLE TOOLHOLDERS

DIN 6327

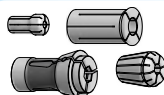
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TIRANTI
PULL STUDS

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PINZE DI SERRAGGIO
CLAMPING COLLETS

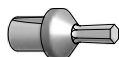
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BROCCHE
BROACHES

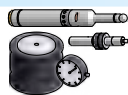
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SUPPORTI DI MONTAGGIO
TOOL ASSEMBLY DEVICES

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STRUMENTI DI MISURA
MEASURING DEVICES

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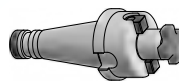


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MANDRINI TC
TC TOOLHOLDERS

DIN ISO 7388-1 (DIN69871)

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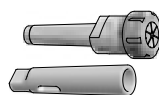


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MANDRINI ISO
ISO TOOLHOLDERS

DIN 2080

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MANDRINI CM
CM TOOLHOLDERS

DIN 228

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MANDRINI R8
R8 TOOLHOLDERS

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MANDRINI A GAMBO CILINDRICO
CYLINDRICAL SHANK TOOLHOLDERS

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GHIERE DI SERRAGGIO
CLAMPING NUTS

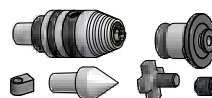
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BUSSOLE DI RIDUZIONE CILINDRICHE
CYLINDRICAL REDUCTION BUSHES

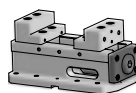
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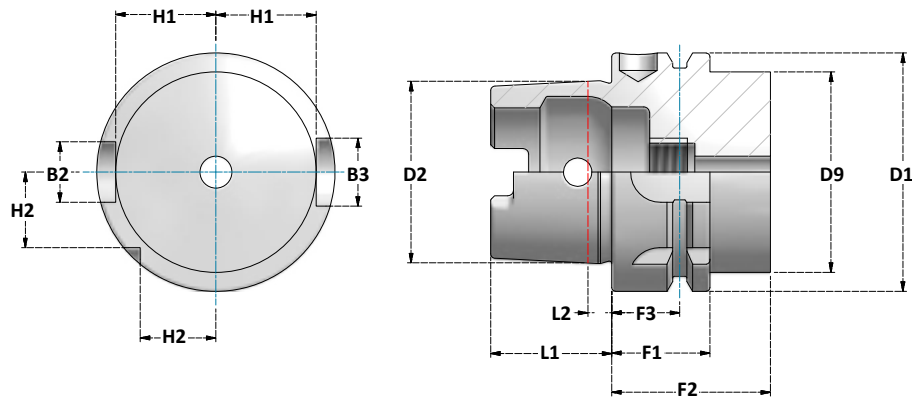
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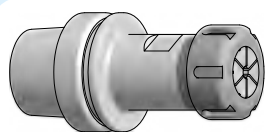
DIN 69893-1

MANDRINI HSK FORMA A
HSK FORM A TOOLHOLDERS



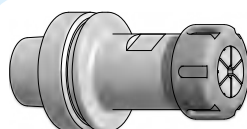
DIMENSIONI DELL'ATTACCO
SHANK DIMENSIONS

ATTACCO SHANK	D1	D2	D9	L1	L2	F1	F2	F3	H1	H2	B2	B3
	h10		max	0 -0,2		0 -0,1	min	±0,1	0 -0,2	0 -0,3	H10	H10
50	50	38,009	42	25	5	26	42	18	21	15,5	12	14
63	63	48,010	53	32	6,3	26	42	18	26,5	20	16	18
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HSK FORM E
DIN 69893-5

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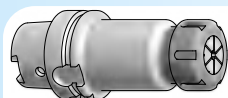


HSK FORM F
DIN 69893-6

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DIN 69893-1

HSK A

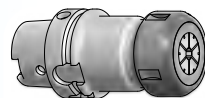


MANDRINI PORTAPINZA ER

COLLET CHUCKS ER

DIN ISO 15488 (DIN6499)

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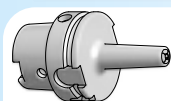


MANDRINI PORTAPINZA EOC

COLLET CHUCKS EOC

DIN ISO 10897 (DIN6388)

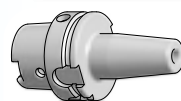
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MANDRINI PORTAPINZA P8

COLLET CHUCKS P8

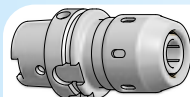
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MANDRINI A CALETTAMENTO A CALDO

SHRINK FIT CHUCKS

PAG. 12



MANDRINI A FORTE SERRAGGIO

POWER MILLING CHUCKS

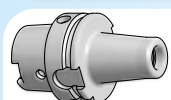
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MANDRINI A SERRAGGIO IDRAULICO

HYDRAULIC CHUCKS

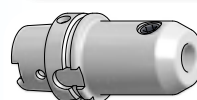
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MANDRINI PORTAFRESA CON ATTACCO FILETTATO

SCREW IN MILL CHUCKS

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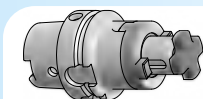


MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON

DIN 1835-2

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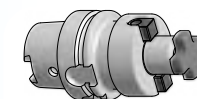


MANDRINI PORTAFRESA COMBI

COMBI SHELL MILL HOLDERS

DIN 6358

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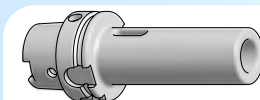


MANDRINI PORTAFRESA FISSI

SHELL MILL HOLDERS

DIN 6357

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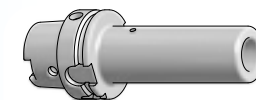


RIDUZIONI A CONO MORSE PER PUNTE

MORSE TAPER ADAPTERS FOR DRILLS

DIN 6383

PAG. 28



RIDUZIONI A CONO MORSE PER FRESE

MORSE TAPER ADAPTERS FOR THREADED MILLS

DIN 6364

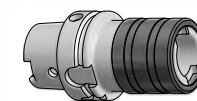
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MANDRINI DA TRAPANO

DRILL CHUCKS

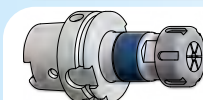
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PORTAMASCHI

TAPPING CHUCKS

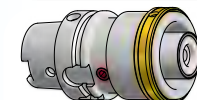
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MANDRINI PER MASCHIATURA SINCRONIZZATA

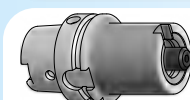
CHUCKS FOR SYNC TAPPING

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RIDUZIONI ADAPTERS

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MANDRINI MODULARI TIPO VARILOCK

MODULAR TOOLHOLDERS VARILOCK TYPE

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MANDRINI CON STELO LAVORABILE

BLANK ARBORS

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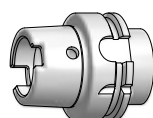
BARRE DI COLLAUDO

TEST ARBORS

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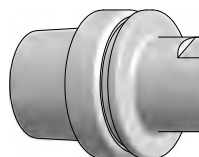
SCHEDA TECNICA
DATA SHEET

HSK FORM A



HSK FORM E

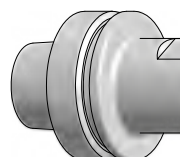
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HSK FORM F

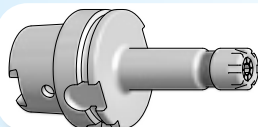
DIN 69893-6



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MANDRINI PORTAPINZA ER ER COLLET CHUCKS

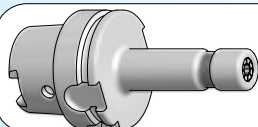
DIN ISO 15488 (DIN6499)



**MANDRINI PORTAPINZA ER
GHIERE MINI**
COLLET CHUCKS ER
MINI NUTS

PAG. 4

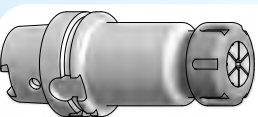
G6,3



**MANDRINI PORTAPINZA ER PER ALTA VELOCITA'
GHIERE MINI SENZA TACCHE**
COLLET CHUCKS ER FOR HIGH SPEED
MINI NOTCH FREE NUTS

PAG. 5

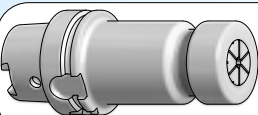
G2,5



**MANDRINI PORTAPINZA ER
GHIERE STANDARD**
COLLET CHUCKS ER
STANDARD NUTS

PAG. 6-7

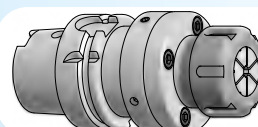
G6,3



**MANDRINI PORTAPINZA ER PER ALTA VELOCITA'
GHIERE STANDARD SENZA TACCHE**
COLLET CHUCKS ER FOR HIGH SPEED
STANDARD NOTCH FREE NUTS

PAG. 8

G2,5



**MANDRINI PORTAPINZA ER A CENTRATURA REGOLABILE
GHIERE STANDARD SENZA TACCHE**
COLLET CHUCKS ER FOR HIGH SPEED
STANDARD NOTCH FREE NUTS

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G6,3

DIN 69893-1

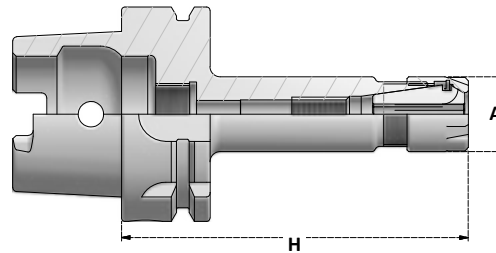
HSK A

ERC MINI

DIN ISO 15488 (DIN6499)

MANDRINI PORTAPINZA ER

ER COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO

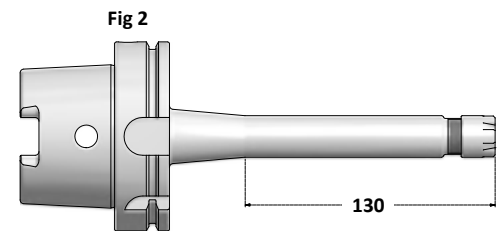
SHANK
DIMENSIONS

G6,3 18000-r.p.m.	Articolo	H	A	Collets Range	Ghiera Nut
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HSK50A.H100.ERC11M	100	16	1÷7	G11M	
HSK50A.H100.ERC16M	100	22	1÷10	G16M	
HSK50A.H100.ERC20M	100	28	1÷14	G20M	
HSK50A.H100.ERC25M	100	35	1÷20	G25M	

G6,3 18000-r.p.m.	Articolo	H	A	Collets Range	Ghiera Nut
	HSK63A.H100.ERC11M	100	16	1÷7	G11M
HSK63A.H130.ERC11M	130	16	1÷7	G11M	
HSK63A.H160.ERC11M	160	16	1÷7	G11M	
HSK63A.H100.ERC16M	100	22	1÷10	G16M	
HSK63A.H130.ERC16M	130	22	1÷10	G16M	
HSK63A.H160.ERC16M	160	22	1÷10	G16M	
HSK63A.H100.ERC20M	100	28	1÷14	G20M	
HSK63A.H130.ERC20M	130	28	1÷14	G20M	
HSK63A.H160.ERC20M	160	28	1÷14	G20M	
HSK63A.H100.ERC25M	100	35	1÷20	G25M	
HSK63A.H130.ERC25M	130	35	1÷20	G25M	
HSK63A.H160.ERC25M	160	35	1÷20	G25M	

G6,3 15000-r.p.m.	Articolo	H	A	Collets Range	Ghiera Nut
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HSK100A.H130.ERC16M	130	22	1÷10	G16M	
HSK100A.H160.ERC16M	160	22	1÷10	G16M	
*HSK100A.H200.ERC16M	200	22	1÷10	G16M	
HSK100A.H100.ERC20M	100	28	1÷14	G20M	
HSK100A.H130.ERC20M	130	28	1÷14	G20M	
HSK100A.H160.ERC20M	160	28	1÷14	G20M	
HSK100A.H200.ERC20M	200	28	1÷14	G20M	
HSK100A.H100.ERC25M	100	35	1÷20	G25M	
HSK100A.H130.ERC25M	130	35	1÷20	G25M	
HSK100A.H160.ERC25M	160	35	1÷20	G25M	
HSK100A.H200.ERC25M	200	35	1÷20	G25M	

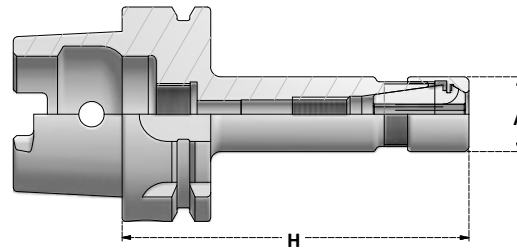
* =Fig2



ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER PER ALTE VELOCITA'
ER COLLET CHUCKS FOR HIGH SPEEDS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G2,5

25000rpm.

Articolo	H	A	Collets Range	Ghiera Nut
HSK63A.H100.ERC11MNF	100	16	1÷7	G11NFM
HSK63A.H130.ERC11MNF	130	16	1÷7	G11NFM
HSK63A.H160.ERC11MNF	160	16	1÷7	G11NFM
HSK63A.H100.ERC16MNF	100	22	1÷10	G16NFM
HSK63A.H130.ERC16MNF	130	22	1÷10	G16NFM
HSK63A.H160.ERC16MNF	160	22	1÷10	G16NFM
HSK63A.H100.ERC20MNF	100	28	1÷14	G20NFM
HSK63A.H130.ERC20MNF	130	28	1÷14	G20NFM
HSK63A.H160.ERC20MNF	160	28	1÷14	G20NFM
HSK63A.H100.ERC25MNF	100	35	1÷20	G25NFM
HSK63A.H130.ERC25MNF	130	35	1÷20	G25NFM
HSK63A.H160.ERC25MNF	160	35	1÷20	G25NFM

ALTRI A RICHIESTA
OTHERS ON REQUEST

NFM

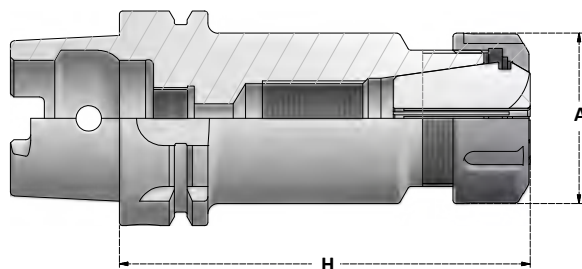


GHIERE **MINI** SENZA TACCHE
*NOTCH-FREE **MINI** NUTS*

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G6,3
18000.r.p.m.

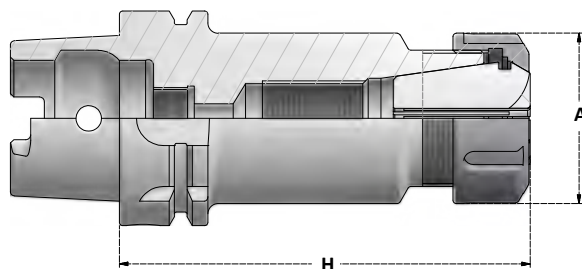
Articolo	H	A	Collets Range	Ghiera Nut
HSK50A.H100.ERC16	100	28	1÷10	G16SE
HSK50A.H100.ERC20	100	34	1÷14	G20SE
HSK50A.H100.ERC25	100	42	1÷20	G25S
HSK50A.H100.ERC32	100	50	2÷22	G32S

G6,3
18000.r.p.m.

Articolo	H	A	Collets Range	Ghiera Nut
HSK63A.H100.ERC16	100	28	1÷10	G16SE
HSK63A.H130.ERC16	130	28	1÷10	G16SE
HSK63A.H160.ERC16	160	28	1÷10	G16SE
HSK63A.H200.ERC16	200	28	1÷10	G16SE
HSK63A.H100.ERC20	100	34	1÷14	G20SE
HSK63A.H130.ERC20	130	34	1÷14	G20SE
HSK63A.H160.ERC20	160	34	1÷14	G20SE
HSK63A.H200.ERC20	200	34	1÷14	G20SE
HSK63A.H100.ERC25	100	42	1÷20	G25S
HSK63A.H130.ERC25	130	42	1÷20	G25S
HSK63A.H160.ERC25	160	42	1÷20	G25S
HSK63A.H200.ERC25	200	42	1÷20	G25S
HSK63A.H80.ERC32	80	50	2÷22	G32S
HSK63A.H100.ERC32	100	50	2÷22	G32S
HSK63A.H130.ERC32	130	50	2÷22	G32S
HSK63A.H160.ERC32	160	50	2÷22	G32S
HSK63A.H200.ERC32	200	50	2÷22	G32S
HSK63A.H100.ERC40	100	63	3÷30	G40S
HSK63A.H130.ERC40	130	63	3÷30	G40S
HSK63A.H160.ERC40	160	63	3÷30	G40S
HSK63A.H200.ERC40	200	63	3÷30	G40S



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G6,3

1.5000,ip,m.

Articolo	H	A	Collets Range	Ghiera Nut
HSK100A.H100.ERC16	100	28	1÷10	G16SE
HSK100A.H130.ERC16	130	28	1÷10	G16SE
HSK100A.H160.ERC16	160	28	1÷10	G16SE
HSK100A.H200.ERC16	200	28	1÷10	G16SE
HSK100A.H100.ERC20	100	34	1÷14	G20SE
HSK100A.H130.ERC20	130	34	1÷14	G20SE
HSK100A.H160.ERC20	160	34	1÷14	G20SE
HSK100A.H200.ERC20	200	34	1÷14	G20SE
HSK100A.H100.ERC25	100	42	1÷20	G25S
HSK100A.H130.ERC25	130	42	1÷20	G25S
HSK100A.H160.ERC25	160	42	1÷20	G25S
HSK100A.H200.ERC25	200	42	1÷20	G25S
HSK100A.H80.ERC32	80	50	2÷22	G32S
HSK100A.H100.ERC32	100	50	2÷22	G32S
HSK100A.H130.ERC32	130	50	2÷22	G32S
HSK100A.H160.ERC32	160	50	2÷22	G32S
HSK100A.H200.ERC32	200	50	2÷22	G32S
HSK100A.H250.ERC32	250	50	2÷22	G32S
HSK100A.H100.ERC40	100	63	3÷30	G40S
HSK100A.H130.ERC40	130	63	3÷30	G40S
HSK100A.H160.ERC40	160	63	3÷30	G40S
HSK100A.H200.ERC40	200	63	3÷30	G40S
HSK100A.H250.ERC40	250	63	3÷30	G40S

SE

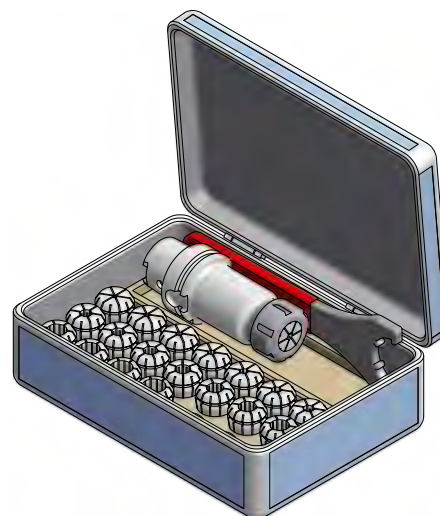


GHIERE **STANDARD** ESAGONALI
HEXAGONAL **STANDARD** NUTS

S



GHIERE **STANDARD** CON TACCHE
STANDARD NUTS WITH SLOTS



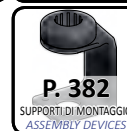
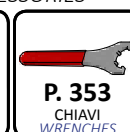
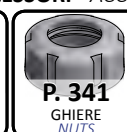
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

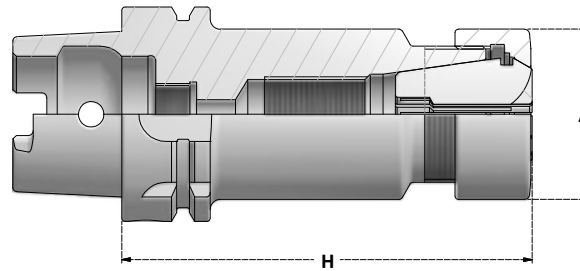
Articolo	Pinze Collets	Mandrino Toolholder	Chiave Wrench
BX.HSK63A.ERC32	ERC32.D3÷20 x 1,0mm	HSK63A.H100.ERC32	CH32S
BX.HSK63A.ERC40	ERC40.D4÷26 x 1,0mm	HSK63A.H100.ERC40	CH40S
BX.HSK100A.ERC32	ERC32.D3÷20 x 1,0mm	HSK100A.H100.ERC32	CH32S
BX.HSK100A.ERC40	ERC40.D4÷26 x 1,0mm	HSK100A.H100.ERC40	CH40S

ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER PER ALTE VELOCITA'
ER COLLET CHUCKS FOR HIGH SPEEDS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G2,5

25000rpm.

Articolo	H	A	Collets Range	Ghiera Nut
HSK63A.H100.ERC16NF	100	32	1÷10	G16NF
HSK63A.H130.ERC16NF	130	32	1÷10	G16NF
HSK63A.H160.ERC16NF	160	32	1÷10	G16NF
HSK63A.H100.ERC20NF	100	35	1÷14	G20NF
HSK63A.H130.ERC20NF	130	35	1÷14	G20NF
HSK63A.H160.ERC20NF	160	35	1÷14	G20NF
HSK63A.H100.ERC25NF	100	42	1÷20	G25NF
HSK63A.H130.ERC25NF	130	42	1÷20	G25NF
HSK63A.H160.ERC25NF	160	42	1÷20	G25NF
HSK63A.H100.ERC32NF	100	50	2÷22	G32NF
HSK63A.H130.ERC32NF	130	50	2÷22	G32NF
HSK63A.H160.ERC32NF	160	50	2÷22	G32NF

ALTRI A RICHIESTA
OTHERS ON REQUEST

NF



GHIERE **STANDARD** SENZA TACCHE
*NOTCH-FREE **STANDARD** NUTS*

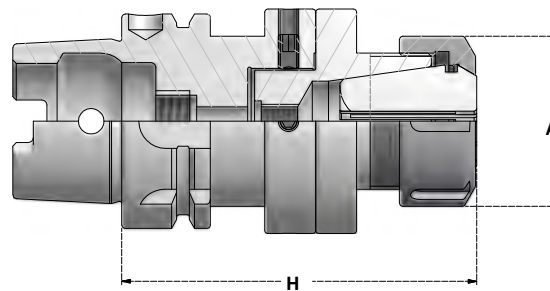
ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER A CENTRATURA REGOLABILE
RUNOUT ADJUSTABLE ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

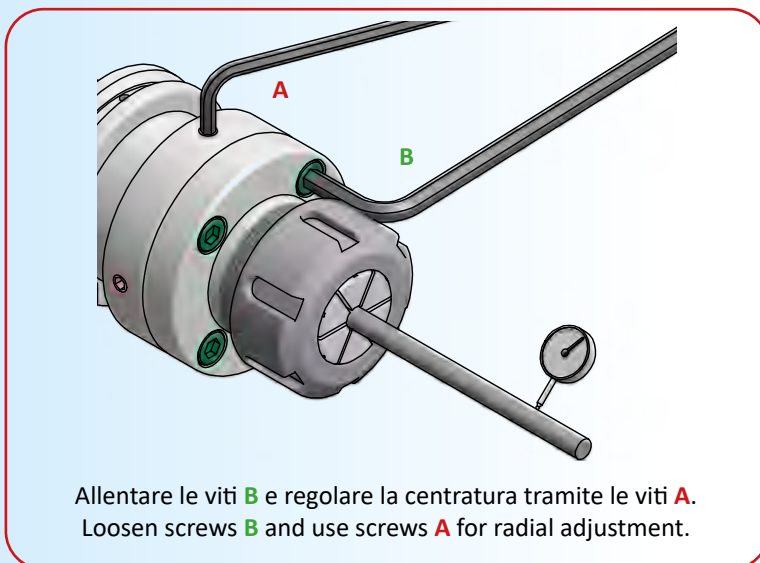


±0,1mm

Articolo	H	A	Collets Range	Ghiera Nut
HSK63A.H100.ERC16RG	100	28	1÷10	G16SE
HSK63A.H102.ERC20RG	102	34	1÷14	G20SE
HSK63A.H103.ERC25RG	103	42	1÷20	G25S
HSK63A.H104.ERC32RG	104	50	2÷22	G32S
HSK63A.H138.ERC40RG	138	63	3÷30	G40S

Centratura regolabile 0,1mm
Adjustable runout 0,1mm

Articolo	H	A	Collets Range	Ghiera Nut
HSK100A.H103.ERC16RG	103	28	1÷10	G16SE
HSK100A.H105.ERC20RG	105	34	1÷14	G20SE
HSK100A.H106.ERC25RG	106	42	1÷20	G25S
HSK100A.H107.ERC32RG	107	50	2÷22	G32S
HSK100A.H141.ERC40RG	141	63	3÷30	G40S

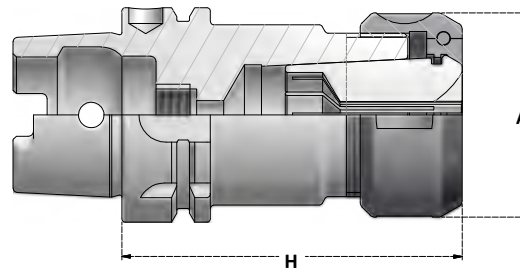


Allentare le viti B e regolare la centratura tramite le viti A.
Loosen screws B and use screws A for radial adjustment.

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA EOC
EOC COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G6,3

15000 r.p.m.

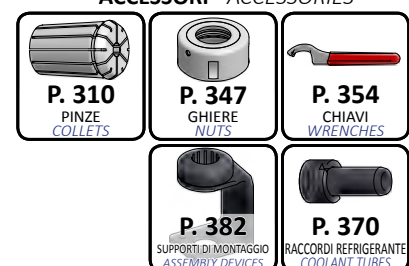
Articolo	H	A	Collets Range	Ghiera Nut
HSK63A.H100.EOC16	100	43	2÷16	G16OCC
HSK63A.H100.EOC25	100	60	2÷25	G25OCC
HSK63A.H130.EOC32	130	72	3÷32	G32OCC

G6,3

15000 r.p.m.

Articolo	H	A	Collets Range	Ghiera Nut
HSK100A.H110.EOC16	110	43	2÷16	G16OCC
HSK100A.H120.EOC25	120	60	2÷25	G25OCC
HSK100A.H130.EOC32	130	72	3÷32	G32OCC

ACCESSORI - ACCESSORIES



P. 310
PINZE
COLLETS

P. 347
GHIERE
NUTS

P. 354
CHIAVI
WRENCHES

P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES

P. 370
RACCORDI REFRIGERANTE
COOLANT TUBES

DIN 69893-1

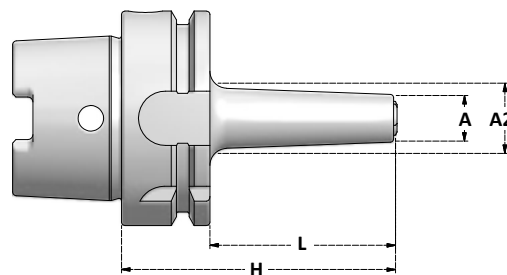
HSK A

P8

MANDRINI PORTAPINZA P8
P8 SLIM FIT COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

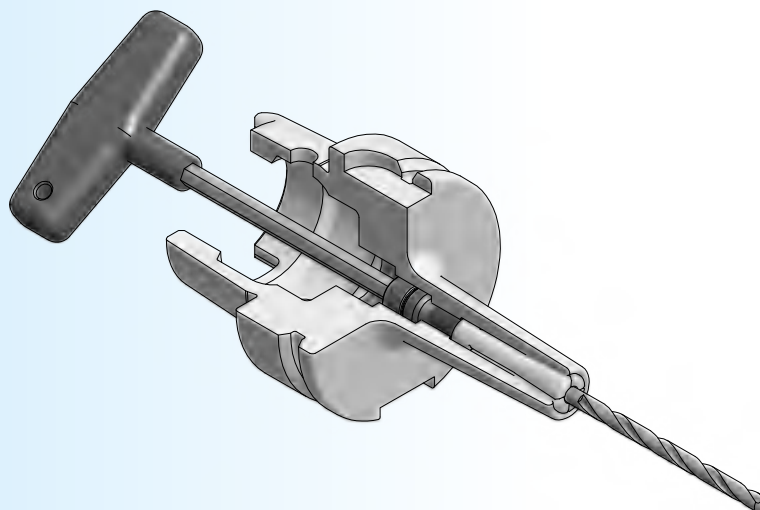


G2,5

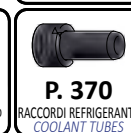
25000 r.p.m.

Articolo	H	L	A	A2	Collets Range
HSK63A.H80.P8	80	54	14	17	3+6
HSK100A.H120.P8	120	94	14	17	3+6

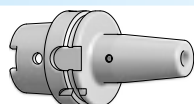
ALTRI A RICHIESTA
OTHERS ON REQUEST



ACCESSORI - ACCESSORIES

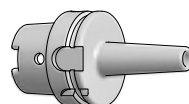


MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



STANDARD
STANDARD

PAG. 12-13



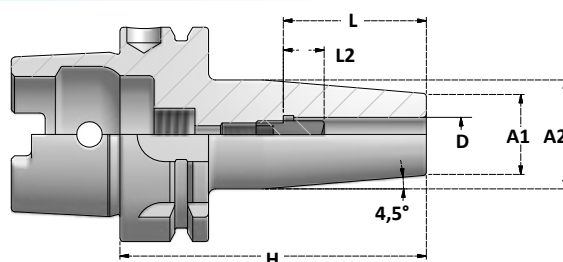
SLIM
SLIM FIT

PAG. 14

HSK

TM

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



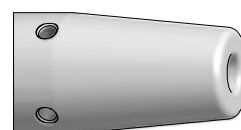
G2,5

25000 r.p.m.

Articolo	D	H	L	L2	A1	A2
* HSK63A.H80.TM3	3	80	12	/	10	20
* HSK63A.H120.TM3	3	120	12	/	10	20
* HSK63A.H160.TM3	3	160	12	/	10	20
* HSK63A.H80.TM4	4	80	16	/	15	25
* HSK63A.H120.TM4	4	120	16	/	15	25
* HSK63A.H160.TM4	4	160	16	/	15	25
* HSK63A.H80.TM5	5	80	20	/	15	25
* HSK63A.H120.TM5	5	120	20	/	15	25
* HSK63A.H160.TM5	5	160	20	/	15	25
HSK63A.H80.TM6	6	80	36	10	21	27
HSK63A.H130.TM6	6	130	36	10	21	27
HSK63A.H160.TM6	6	160	36	10	21	27
HSK63A.H80.TM8	8	80	36	10	21	27
HSK63A.H130.TM8	8	130	36	10	21	27
HSK63A.H160.TM8	8	160	36	10	21	27
HSK63A.H85.TM10	10	85	41	10	24	32
HSK63A.H130.TM10	10	130	41	10	24	32
HSK63A.H160.TM10	10	160	41	10	24	32
HSK63A.H90.TM12	12	90	46	10	24	32
HSK63A.H130.TM12	12	130	46	10	24	32
HSK63A.H160.TM12	12	160	46	10	24	32
HSK63A.H90.TM14	14	90	46	10	24	32
HSK63A.H130.TM14	14	130	46	10	24	32
HSK63A.H160.TM14	14	160	46	10	24	32
HSK63A.H95.TM16	16	95	49	10	24	32
HSK63A.H130.TM16	16	130	49	10	24	32
HSK63A.H160.TM16	16	160	49	10	24	32
HSK63A.H95.TM18	18	95	49	10	33	42
HSK63A.H130.TM18	18	130	49	10	33	42
HSK63A.H160.TM18	18	160	49	10	33	42
HSK63A.H100.TM20	20	100	51	10	33	42
HSK63A.H130.TM20	20	130	51	10	33	42
HSK63A.H160.TM20	20	160	51	10	33	42
HSK63A.H115.TM25	25	115	57	10	44	53
HSK63A.H130.TM25	25	130	57	10	44	53
HSK63A.H160.TM25	25	160	57	10	44	53
HSK63A.H120.TM32	32	120	61	10	44	53
HSK63A.H160.TM32	32	160	61	10	44	53

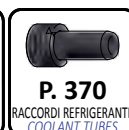
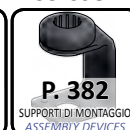
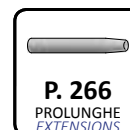
* Senza vite di regolazione
Without adjusting screw

Profondità regolabile L2
Adjustable depth L2



Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.

ACCESSORI - ACCESSORIES

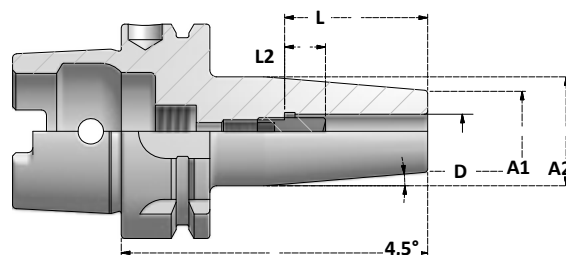


DIN 69893-1

HSK A

TM

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



H

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

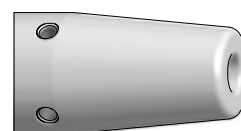
G2,5

25000 rpm

Articolo	D	H	L	L2	A1	A2
* HSK100A.H85.TM3	3	85	12	/	10	20
* HSK100A.H120.TM3	3	120	12	/	10	20
* HSK100A.H160.TM3	3	160	12	/	10	20
* HSK100A.H85.TM4	4	85	16	/	15	25
* HSK100A.H120.TM4	4	120	16	/	15	25
* HSK100A.H160.TM4	4	160	16	/	15	25
* HSK100A.H85.TM5	5	85	20	/	15	25
* HSK100A.H120.TM5	5	120	20	/	15	25
* HSK100A.H160.TM5	5	160	20	/	15	25
HSK100A.H85.TM6	6	85	36	10	21	27
HSK100A.H120.TM6	6	120	36	10	21	27
HSK100A.H160.TM6	6	160	36	10	21	27
HSK100A.H85.TM8	8	85	36	10	21	27
HSK100A.H120.TM8	8	120	36	10	21	27
HSK100A.H160.TM8	8	160	36	10	21	27
HSK100A.H90.TM10	10	90	41	10	24	32
HSK100A.H120.TM10	10	120	41	10	24	32
HSK100A.H160.TM10	10	160	41	10	24	32
HSK100A.H95.TM12	12	95	46	10	24	32
HSK100A.H120.TM12	12	120	46	10	24	32
HSK100A.H160.TM12	12	160	46	10	24	32
HSK100A.H95.TM14	14	95	46	10	24	32
HSK100A.H120.TM14	14	120	46	10	24	32
HSK100A.H160.TM14	14	160	46	10	24	32
HSK100A.H100.TM16	16	100	49	10	24	32
HSK100A.H120.TM16	16	120	49	10	24	32
HSK100A.H160.TM16	16	160	49	10	24	32
HSK100A.H100.TM18	18	100	49	10	33	42
HSK100A.H120.TM18	18	120	49	10	33	42
HSK100A.H160.TM18	18	160	49	10	33	42
HSK100A.H105.TM20	20	105	51	10	33	42
HSK100A.H120.TM20	20	120	51	10	33	42
HSK100A.H160.TM20	20	160	51	10	33	42
HSK100A.H120.TM25	25	120	57	10	44	53
HSK100A.H160.TM25	25	160	57	10	44	53
HSK100A.H120.TM32	32	120	61	10	44	53
HSK100A.H160.TM32	32	160	61	10	44	53

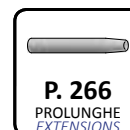
* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2



Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.

ACCESSORI - ACCESSORIES

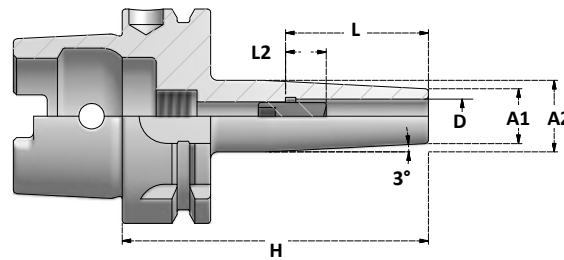


DIN 69893-1

HSK A

TM SL

MANDRINI A CALETTAMENTO A CALDO SLIM
SLIM SHRINK FIT CHUCKS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G2,5

25000 rpm

Articolo	D	H	L	L2	A1	A2
* HSK63A.H80.TM3SL	3	80	12	/	9	13
* HSK63A.H120.TM3SL	3	120	12	/	9	16
* HSK63A.H80.TM4SL	4	80	16	/	10	15
* HSK63A.H120.TM4SL	4	120	16	/	10	20
* HSK63A.H80.TM5SL	5	80	20	/	11	16
* HSK63A.H120.TM5SL	5	120	20	/	11	20
HSK63A.H80.TM6SL	6	80	36	10	12	17
HSK63A.H130.TM6SL	6	130	36	10	12	19
HSK63A.H160.TM6SL	6	160	36	10	12	19
HSK63A.H80.TM8SL	8	80	36	10	14	19
HSK63A.H130.TM8SL	8	130	36	10	14	21
HSK63A.H160.TM8SL	8	160	36	10	14	21
HSK63A.H85TM10SL	10	85	41	10	16	21
HSK63A.H130.TM10SL	10	130	41	10	16	23
HSK63A.H160.TM10SL	10	160	41	10	16	23
HSK63A.H90.TM12SL	12	90	46	10	18	23
HSK63A.H130.TM12SL	12	130	46	10	18	25
HSK63A.H160.TM12SL	12	160	46	10	18	25
HSK63A.H90.TM14SL	14	90	46	10	22	25
HSK63A.H130.TM14SL	14	130	46	10	22	27
HSK63A.H160.TM14SL	14	160	46	10	22	27
HSK63A.H95.TM16SL	16	90	49	10	24	29
HSK63A.H130.TM16SL	16	130	49	10	24	31
HSK63A.H160.TM16SL	16	160	49	10	24	31
HSK63A.H95.TM18SL	18	95	49	10	28	34
HSK63A.H130.TM18SL	18	130	49	10	28	35
HSK63A.H160.TM18SL	18	160	49	10	28	35
HSK63A.H100.TM20SL	20	100	51	10	32	39
HSK63A.H130.TM20SL	20	130	51	10	32	39
HSK63A.H160.TM20SL	20	160	51	10	32	39

* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2

ACCESSORI - ACCESSORIES



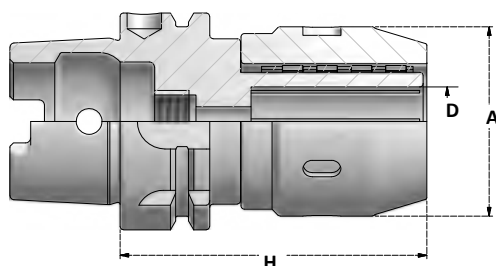
DIN 69893-1

HSK A

FS

MANDRINI A FORTE SERRAGGIO POWER MILLING CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



G6,3 15000 r.p.m.	Articolo	D	H	A
	HSK63A.H120.FS20	20	120	55
	HSK63A.H120.FS32	32	120	69

G6,3 15000 r.p.m.	Articolo	D	H	A
	HSK100A.H120.FS20	20	120	55
	HSK100A.H120.FS32	32	120	69

**I TAGLI LONGITUDINALI PER TUTTA LA LUNGHEZZA DELLA SEDE
PORTAUTENSILE AUMENTANO LA FORZA DI SERRAGGIO MA NON
PERMETTONO LA TOTALE TENUTA DEL LIQUIDO REFRIGERANTE.**

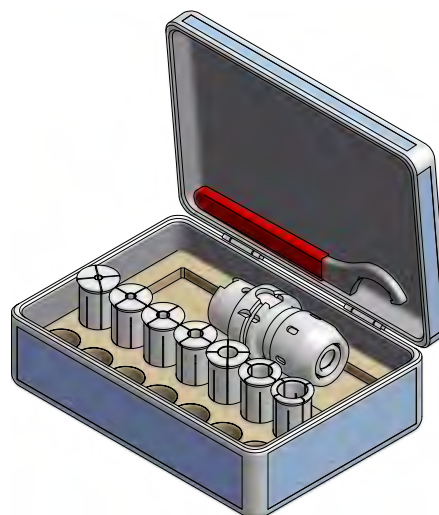
*LONGITUDINAL CUTS ALL ALONG SEAT OF TOOL INCREASE CLAMPING
FORCE BUT DO NOT ALLOW TOTAL SEALING.*

KIT - MANDRINO, CHIAVE E PINZE

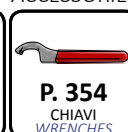
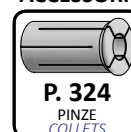
KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.HSK63A.FS20	4SR20.D6-D8-D10-D12-D16	HSK63A.H120.FS20
BX.HSK63A.FS32	4SR32.D6-D8-D10-D12-D16-D20-D25	HSK63A.H120.FS32

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.HSK100A.FS20	4SR20.D6-D8-D10-D12-D16	HSK100A.H120.FS20
BX.HSK100A.FS32	4SR32.D6-D8-D10-D12-D16-D20-D25	HSK100A.H120.FS32



ACCESSORI - ACCESSORIES



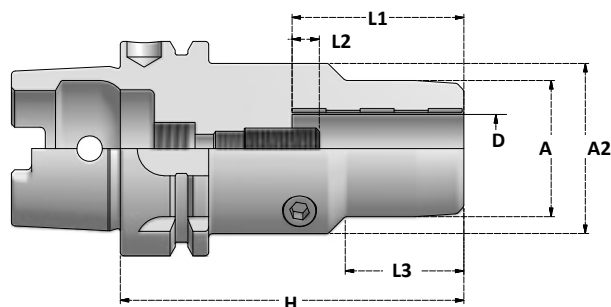
DIN 69893-1

HSK A

HY

MANDRINI IDRAULICI
HYDRAULIC CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



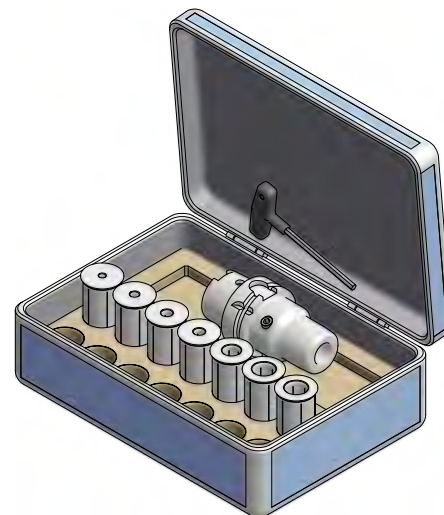
Profondità regolabile L2
Adjustable depth L2

Momento torcente consigliato **10/12Nm**
Recommended tightening torque

G2,5
25000rpm

Articolo	D	H	L1	L2	L3	A	A2
HSK63A.H70.HY6	6	70	37	10	26	26	50
HSK63A.H150.HY6	6	150	37	10	105	26	50
HSK63A.H200.HY6	6	200	37	10	155	26	50
HSK63A.H70.HY8	8	70	37	10	26	28	50
HSK63A.H150.HY8	8	150	37	10	105	28	50
HSK63A.H200.HY8	8	200	37	10	155	28	50
HSK63A.H80.HY10	10	80	41	10	35	30	50
HSK63A.H150.HY10	10	150	41	10	105	30	50
HSK63A.H200.HY10	10	200	41	10	155	30	50
HSK63A.H85.HY12	12	85	46	10	40	32	50
HSK63A.H150.HY12	12	150	46	10	105	32	50
HSK63A.H200.HY12	12	200	46	10	155	32	50
HSK63A.H85.HY14	14	85	46	10	40	34	50
HSK63A.H150.HY14	14	150	46	10	105	34	50
HSK63A.H200.HY14	14	200	46	10	155	34	50
HSK63A.H90.HY16	16	90	49	10	46	38	50
HSK63A.H150.HY16	16	150	49	10	105	38	50
HSK63A.H200.HY16	16	200	49	10	155	38	50
HSK63A.H90.HY18	18	90	49	10	46	40	50
HSK63A.H150.HY18	18	150	49	10	105	40	50
HSK63A.H200.HY18	18	200	49	10	155	40	50
HSK63A.H90.HY20	20	90	51	10	46	42	50
HSK63A.H150.HY20	20	150	51	10	105	42	50
HSK63A.H200.HY20	20	200	51	10	155	42	50
HSK63A.H120.HY25	25	120	57	10	46	49,5	63
HSK63A.H125.HY32	32	125	61	10	99	56	63

Forza di serraggio Clamping force	Chiave Wrench
HY6	12Nm CH.EX5
HY8	30Nm CH.EX5
HY10	40Nm CH.EX5
HY12	70Nm CH.EX5
HY14	100Nm CH.EX5
HY16	135Nm CH.EX5
HY18	180Nm CH.EX5
HY20	220Nm CH.EX5
HY25	500Nm CH.EX6
HY32	700Nm CH.EX6



KIT - MANDRINO, CHIAVE E PINZE
KIT - TOOLHOLDERS, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.HSK63A.HY20	6SR20.D6-D8-D10-D12-D16	HSK63A.H90.HY20
BX.HSK63A.HY32	6SR32.D6-D8-D10-D12-D16-D20-D25	HSK63A.H125.HY32

ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST

ACCESSORI - ACCESSORIES



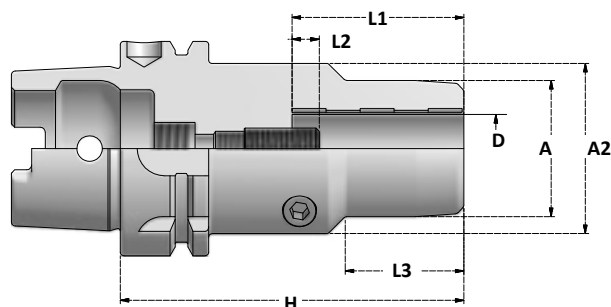
DIN 69893-1

HSK A

HY

MANDRINI IDRAULICI
HYDRAULIC CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Profondità regolabile L2
Adjustable depth L2

Momento torcente consigliato **10/12Nm**
Recommended tightening torque

G2,5
25000rpm

Articolo	D	H	L1	L2	L3	A	A2
HSK100A.H75.HY6	6	75	37	10	26	26	50
HSK100A.H150.HY6	6	150	37	10	105	26	50
HSK100A.H200.HY6	6	200	37	10	155	26	50
HSK100A.H75.HY8	8	75	37	10	26	28	50
HSK100A.H150.HY8	8	150	37	10	105	28	50
HSK100A.H200.HY8	8	200	37	10	155	28	50
HSK100A.H90.HY10	10	90	41	10	35	30	50
HSK100A.H150.HY10	10	150	41	10	105	30	50
HSK100A.H200.HY10	10	200	41	10	155	30	50
HSK100A.H95.HY12	12	95	46	10	40	32	50
HSK100A.H150.HY12	12	150	46	10	105	32	50
HSK100A.H200.HY12	12	200	46	10	155	32	50
HSK100A.H95.HY14	14	95	46	10	40	34	50
HSK100A.H150.HY14	14	150	46	10	105	34	50
HSK100A.H200.HY14	14	200	46	10	155	34	50
HSK100A.H100.HY16	16	100	49	10	46	38	50
HSK100A.H150.HY16	16	150	49	10	105	38	50
HSK100A.H200.HY16	16	200	49	10	155	38	50
HSK100A.H100.HY18	18	100	49	10	46	40	50
HSK100A.H150.HY18	18	150	49	10	105	40	50
HSK100A.H200.HY18	18	200	49	10	155	40	50
HSK100A.H105.HY20	20	105	51	10	46	42	50
HSK100A.H150.HY20	20	150	51	10	105	42	50
HSK100A.H200.HY20	20	200	51	10	155	42	50
HSK100A.H115.HY25	25	115	57	10	46	49,5	55
HSK100A.H120.HY32	32	120	61	10	99	56	63

Forza di serraggio Clamping force	Chiave Wrench
HY6	12Nm CH.EX5
HY8	30Nm CH.EX5
HY10	40Nm CH.EX5
HY12	70Nm CH.EX5
HY14	100Nm CH.EX5
HY16	135Nm CH.EX5
HY18	180Nm CH.EX5
HY20	220Nm CH.EX5
HY25	500Nm CH.EX6
HY32	700Nm CH.EX6

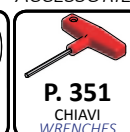
KIT - MANDRINO, CHIAVE E PINZE
KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.HSK100A.HY20	6SR20.D6-D8-D10-D12-D16	HSK100A.H105.HY20
BX.HSK100A.HY32	6SR32.D6-D8-D10-D12-D16-D20-D25	HSK100A.H120.HY32

ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST



ACCESSORI - ACCESSORIES

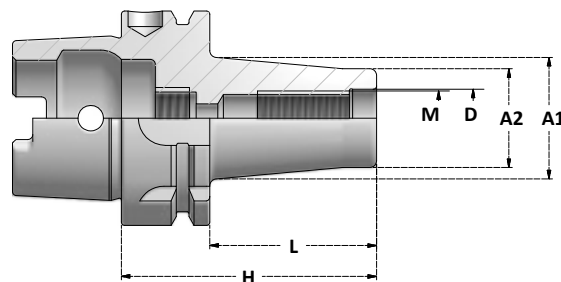


DIN 69893-1

HSK A

CPY

MANDRINI PER FRESE CON ATTACCO FILETTATO
SCREW IN MILL CHUCKS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G2,5
25000.r.p.m.

Articolo	M	D	H	L	A1	A2
HSK63A.H59.M8CPY	M8	8,5	59	33	15	13
HSK63A.H84.M8CPY	M8	8,5	84	58	23	13
HSK63A.H109.M8CPY	M8	8,5	109	83	23	13
HSK63A.H134.M8CPY	M8	8,5	134	108	25	13
HSK63A.H59.M10CPY	M10	10,5	59	33	20	18
HSK63A.H84.M10CPY	M10	10,5	84	58	25	18
HSK63A.H109.M10CPY	M10	10,5	109	83	28	18
HSK63A.H134.M10CPY	M10	10,5	134	108	28	18
HSK63A.H159.M10CPY	M10	10,5	159	133	34	18
HSK63A.H59.M12CPY	M12	12,5	59	33	24	21
HSK63A.H84.M12CPY	M12	12,5	84	58	24	21
HSK63A.H109.M12CPY	M12	12,5	109	83	31	21
HSK63A.H134.M12CPY	M12	12,5	134	108	31	21
HSK63A.H159.M12CPY	M12	12,5	159	133	38	21
HSK63A.H184.M12CPY	M12	12,5	184	158	42	21
HSK63A.H59.M16CPY	M16	17	59	33	34	29
HSK63A.H84.M16CPY	M16	17	84	58	34	29
HSK63A.H109.M16CPY	M16	17	109	83	34	29
HSK63A.H134.M16CPY	M16	17	134	108	39	29
HSK63A.H159.M16CPY	M16	17	159	133	39	29
HSK63A.H184.M16CPY	M16	17	184	158	39	29

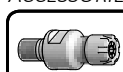
G2,5
15000.r.p.m.

Articolo	M	D	H	L	A1	A2
HSK100A.H87.M12CPY	M12	12,5	87	58	32	21
HSK100A.H137.M12CPY	M12	12,5	137	108	32	21
HSK100A.H187.M12CPY	M12	12,5	187	158	36	21
HSK100A.H87.M16CPY	M16	17	87	58	36	29
HSK100A.H137.M16CPY	M16	17	137	108	40	29
HSK100A.H187.M16CPY	M16	17	187	158	42	29
HSK100A.H237.M16CPY	M16	17	237	208	48	29

Momento di serraggio consigliato
Recommended tightening torque

M8	25Nm
M10	40Nm
M12	60Nm
M16	80Nm

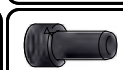
ACCESSORI - ACCESSORIES



P. 267
RIDUZIONI ER
ER ADAPTERS



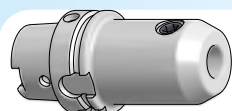
P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



P. 370
RACCORDI REFRIGERANTE
COOLANT TUBES

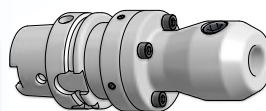
MANDRINI PORTAFRESA WELDON - DIN1835-2

END MILL HOLDERS WELDON - DIN1835-2



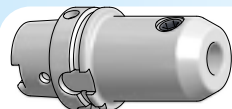
STANDARD
STANDARD

PAG. 20



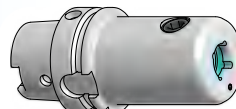
A CENTRATURA REGOLABILE
RUNOUT ADJUSTABLE

PAG. 22



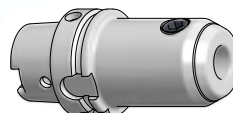
PER ALTE VELOCITA'
FOR HIGH SPEEDS

PAG. 21



CON CANALI DI LUBRIFICAZIONE
WITH COOLANT CHANNELS

PAG. 23



A 2° - WHISTLE NOTCH
WHISTLE NOTCH - 2°

PAG. 24

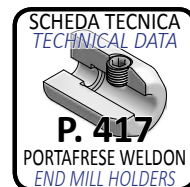
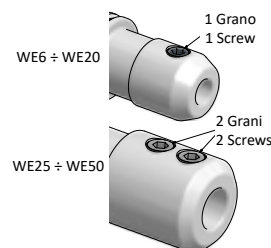
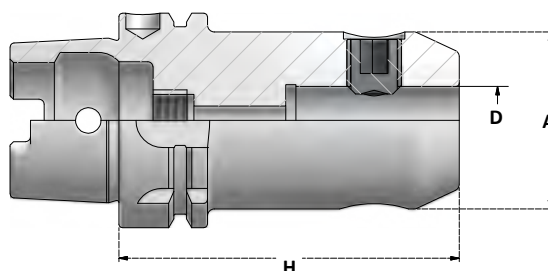
HSK A

WE

DIN 1835-2 Form B

MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON



G6,3

15000 r.p.m.

Articolo	D	H	A	Grano Screw
HSK50A.H65.WE6	6	65	25	GR.WE6
HSK50A.H65.WE8	8	65	28	GR.WE8
HSK50A.H65.WE10	10	65	35	GR.WE10
HSK50A.H80.WE12	12	80	42	GR.WE12-14
HSK50A.H80.WE14	14	80	44	GR.WE12-14
HSK50A.H80.WE16	16	80	48	GR.WE16-18
HSK50A.H80.WE18	18	80	50	GR.WE16-18
HSK50A.H80.WE20	20	80	52	GR.WE20

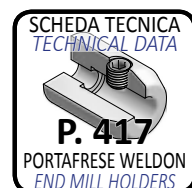
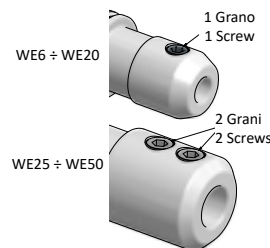
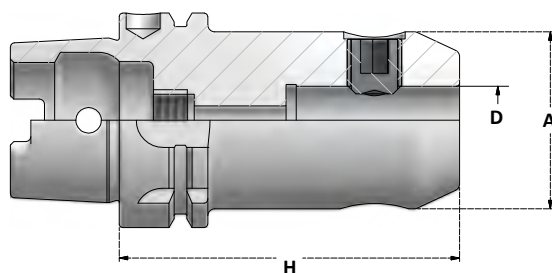
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3

15000-r.p.m.

Articolo	D	H	A	Grano Screw
HSK63A.H65.WE6	6	65	25	GR.WE6
HSK63A.H100.WE6	6	100	25	GR.WE6
HSK63A.H130.WE6	6	130	25	GR.WE6
HSK63A.H160.WE6	6	160	25	GR.WE6
HSK63A.H65.WE8	8	65	28	GR.WE8
HSK63A.H100.WE8	8	100	28	GR.WE8
HSK63A.H130.WE8	8	130	28	GR.WE8
HSK63A.H160.WE8	8	160	28	GR.WE8
HSK63A.H65.WE10	10	65	35	GR.WE10
HSK63A.H100.WE10	10	100	35	GR.WE10
HSK63A.H130.WE10	10	130	35	GR.WE10
HSK63A.H160.WE10	10	160	35	GR.WE10
HSK63A.H80.WE12	12	80	42	GR.WE12-14
HSK63A.H100.WE12	12	100	42	GR.WE12-14
HSK63A.H130.WE12	12	130	42	GR.WE12-14
HSK63A.H160.WE12	12	160	42	GR.WE12-14
HSK63A.H80.WE14	14	80	44	GR.WE12-14
HSK63A.H100.WE14	14	100	44	GR.WE12-14
HSK63A.H130.WE14	14	130	44	GR.WE12-14
HSK63A.H160.WE14	14	160	44	GR.WE12-14

G6,3

15000-r.p.m.

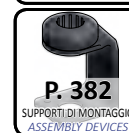
Articolo	D	H	A	Grano Screw
HSK63A.H80.WE16	16	80	48	GR.WE16-18
HSK63A.H100.WE16	16	100	48	GR.WE16-18
HSK63A.H130.WE16	16	130	48	GR.WE16-18
HSK63A.H160.WE16	16	160	48	GR.WE16-18
HSK63A.H80.WE18	18	80	50	GR.WE16-18
HSK63A.H100.WE18	18	100	50	GR.WE16-18
HSK63A.H130.WE18	18	130	50	GR.WE16-18
HSK63A.H160.WE18	18	160	50	GR.WE16-18
HSK63A.H80.WE20	20	80	52	GR.WE20
HSK63A.H100.WE20	20	100	52	GR.WE20
HSK63A.H130.WE20	20	130	52	GR.WE20
HSK63A.H160.WE20	20	160	52	GR.WE20
HSK63A.H110.WE25	25	110	65	GR.WE25
HSK63A.H130.WE25	25	130	65	GR.WE25
HSK63A.H160.WE25	25	160	65	GR.WE25
HSK63A.H110.WE32	32	110	72	GR.WE32-40
HSK63A.H130.WE32	32	130	72	GR.WE32-40
HSK63A.H160.WE32	32	160	72	GR.WE32-40
HSK63A.H125.WE40	40	125	80	GR.WE32-40

G6,3

15000-r.p.m.

Articolo	D	H	A	Grano Screw
HSK100A.H80.WE6	6	80	25	GR.WE6
HSK100A.H130.WE6	6	130	25	GR.WE6
HSK100A.H160.WE6	6	160	25	GR.WE6
HSK100A.H200.WE6	6	200	25	GR.WE6
HSK100A.H80.WE8	8	80	28	GR.WE8
HSK100A.H130.WE8	8	130	28	GR.WE8
HSK100A.H160.WE8	8	160	28	GR.WE8
HSK100A.H200.WE8	8	200	28	GR.WE8
HSK100A.H80.WE10	10	80	35	GR.WE10
HSK100A.H130.WE10	10	130	35	GR.WE10
HSK100A.H160.WE10	10	160	35	GR.WE10
HSK100A.H200.WE10	10	200	35	GR.WE10
HSK100A.H80.WE12	12	80	42	GR.WE12-14
HSK100A.H130.WE12	12	130	42	GR.WE12-14
HSK100A.H160.WE12	12	160	42	GR.WE12-14
HSK100A.H200.WE12	12	200	42	GR.WE12-14
HSK100A.H80.WE14	14	80	44	GR.WE12-14
HSK100A.H130.WE14	14	130	44	GR.WE12-14
HSK100A.H160.WE14	14	160	44	GR.WE12-14
HSK100A.H200.WE14	14	200	44	GR.WE12-14

ACCESSORI - ACCESSORIES



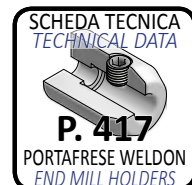
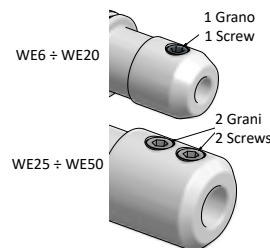
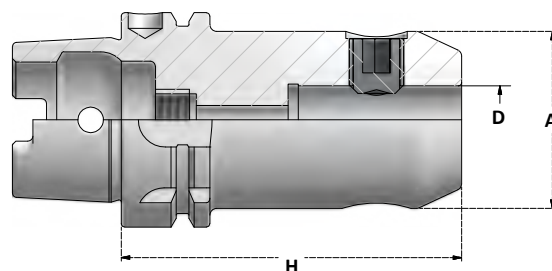
DIN 69893-1

HSK A

WE

DIN 1835-2 Form B

MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G6,3 15000 r.p.m.	Articolo	D	H	A	Grano Screw
	HSK100A.H100.WE16	16	100	48	GR.WE16-18
HSK100A.H130.WE16	16	130	48	GR.WE16-18	
HSK100A.H160.WE16	16	160	48	GR.WE16-18	
HSK100A.H200.WE16	16	200	48	GR.WE16-18	
HSK100A.H100.WE18	18	100	50	GR.WE16-18	
HSK100A.H130.WE18	18	130	50	GR.WE16-18	
HSK100A.H160.WE18	18	160	50	GR.WE16-18	
HSK100A.H200.WE18	18	200	50	GR.WE16-18	
HSK100A.H100.WE20	20	100	52	GR.WE20	
HSK100A.H130.WE20	20	130	52	GR.WE20	
HSK100A.H160.WE20	20	160	52	GR.WE20	
HSK100A.H200.WE20	20	200	52	GR.WE20	
HSK100A.H100.WE25	25	100	65	GR.WE25	
HSK100A.H130.WE25	25	130	65	GR.WE25	
HSK100A.H160.WE25	25	160	65	GR.WE25	
HSK100A.H200.WE25	25	200	65	GR.WE25	
HSK100A.H100.WE32	32	100	72	GR.WE32-40	
HSK100A.H130.WE32	32	130	72	GR.WE32-40	
HSK100A.H160.WE32	32	160	72	GR.WE32-40	
HSK100A.H200.WE32	32	200	72	GR.WE32-40	
HSK100A.H120.WE40	40	120	80	GR.WE32-40	
HSK100A.H160.WE40	40	160	80	GR.WE32-40	
HSK100A.H200.WE40	40	200	80	GR.WE32-40	
HSK100A.H130.WE50	50	130	100	GR.WE50	

DIN 69893-1

HSK A

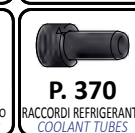
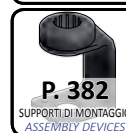
WE E

MANDRINI PORTAFRESA WELDON PER ALTE VELOCITA'
END MILL HOLDERS WELDON FOR HIGH SPEEDS

G2,5 25000 r.p.m.	Articolo	D	H	A	Grano Screw
	HSK63A.H65.WE6E	6	65	25	GR.WE6
HSK63A.H65.WE8E	8	65	28	GR.WE8	
HSK63A.H65.WE10E	10	65	35	GR.WE10	
HSK63A.H80.WE12E	12	80	42	GR.WE12-14	
HSK63A.H80.WE14E	14	80	44	GR.WE12-14	
HSK63A.H80.WE16E	16	80	48	GR.WE16-18	
HSK63A.H80.WE18E	18	80	50	GR.WE16-18	
HSK63A.H80.WE20E	20	80	52	GR.WE20	
HSK63A.H110.WE25E	25	110	65	GR.WE25	
HSK63A.H110.WE32E	32	110	72	GR.WE32-40	

ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES

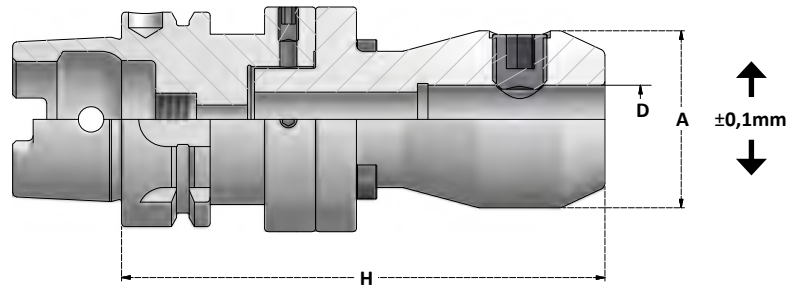


MANDRINI PORTAFRESA WELDON A CENTRATURA REGOLABILE

RUNOUT ADJUSTABLE END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

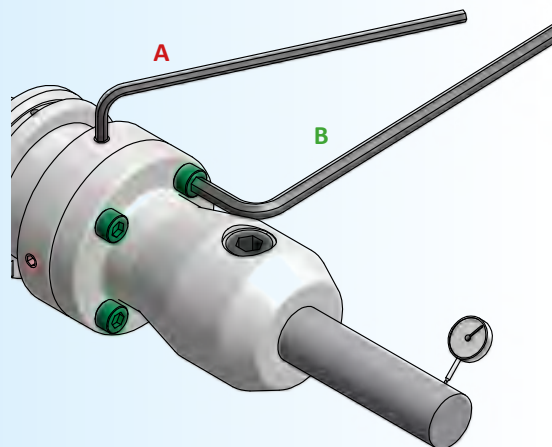
SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
HSK63A.H107.WE6RG	6	107	25	GR.WE6
HSK63A.H107.WE8RG	8	107	28	GR.WE8
HSK63A.H107.WE10RG	10	107	35	GR.WE10
HSK63A.H117.WE12RG	12	117	42	GR.WE12-14
HSK63A.H117.WE14RG	14	117	44	GR.WE12-14
HSK63A.H137.WE16RG	16	137	48	GR.WE16-18
HSK63A.H137.WE18RG	18	137	50	GR.WE16-18
HSK63A.H142.WE20RG	20	142	52	GR.WE20

Centratura regolabile 0,1mm
Adjustable runout 0,1mm

Articolo	D	H	A	Grano Screw
HSK100A.H110.WE6RG	6	110	25	GR.WE6
HSK100A.H110.WE8RG	8	110	28	GR.WE8
HSK100A.H110.WE10RG	10	110	35	GR.WE10
HSK100A.H120.WE12RG	12	120	42	GR.WE12-14
HSK100A.H120.WE14RG	14	120	44	GR.WE12-14
HSK100A.H140.WE16RG	16	140	48	GR.WE16-18
HSK100A.H140.WE18RG	18	140	50	GR.WE16-18
HSK100A.H145.WE20RG	20	145	52	GR.WE20



Allentare le viti **B** e regolare la centratura tramite le viti **A**.
Loosen screws **B** and use screws **A** for radial adjustment.

ACCESSORI - ACCESSORIES



P. 367
GRANI
SCREWS



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



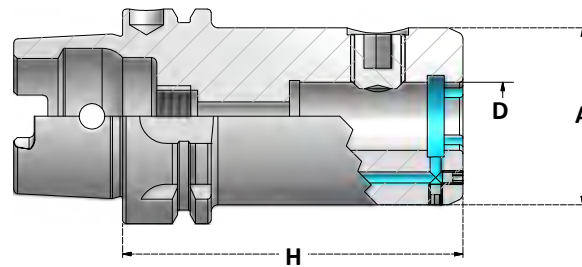
P. 370
RACCORDI REFRIGERANTE
COOLANT TUBES

MANDRINI PORTAFRESA WELDON CON CANALI DI LUBRIFICAZIONE

END MILL HOLDERS WELDON WITH COOLANT CHANNELS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



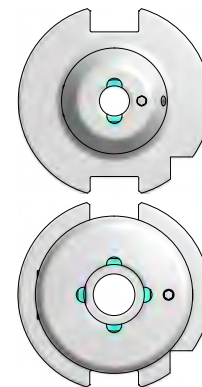
WE6 ÷ WE20

1 Grano
1 Screw

WE25 ÷ WE50

2 Grani
2 Screws

SCHEDA TECNICA
TECHNICAL DATA
P. 417
PORTAFRESE WELDON
END MILL HOLDERS



WE6÷WE14

WE16÷WE50

G6,3

15000 r.p.m.

Articolo	D	H	A	Grano Screw
HSK63A.H75.WE6C	6	75	27	GR.WE6
HSK63A.H75.WE8C	8	75	28	GR.WE8
HSK63A.H75.WE10C	10	75	35	GR.WE10
HSK63A.H80.WE12C	12	80	42	GR.WE12-14
HSK63A.H80.WE14C	14	80	44	GR.WE12-14
HSK63A.H80.WE16C	16	80	48	GR.WE16-18
HSK63A.H80.WE18C	18	80	50	GR.WE16-18
HSK63A.H80.WE20C	20	80	52	GR.WE20
HSK63A.H110.WE25C	25	110	65	GR.WE25
HSK63A.H110.WE32C	32	110	72	GR.WE32-40
HSK63A.H120.WE40C	40	120	90	GR.WE32-40

G6,3

15000 r.p.m.

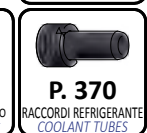
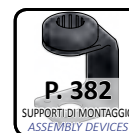
Articolo	D	H	A	Grano Screw
HSK100A.H75.WE6C	6	75	27	GR.WE6
HSK100A.H75.WE8C	8	75	28	GR.WE8
HSK100A.H80.WE10C	10	80	35	GR.WE10
HSK100A.H90.WE12C	12	90	42	GR.WE12-14
HSK100A.H90.WE14C	14	90	44	GR.WE12-14
HSK100A.H100.WE16C	16	100	48	GR.WE16-18
HSK100A.H100.WE18C	18	100	50	GR.WE16-18
HSK100A.H100.WE20C	20	100	52	GR.WE20
HSK100A.H100.WE25C	25	100	65	GR.WE25
HSK100A.H100.WE32C	32	100	72	GR.WE32-40
HSK100A.H120.WE40C	40	120	90	GR.WE32-40

Regolando il grano si può scegliere se indirizzare il liquido refrigerante ai fori del mandrino o attraverso l'utensile.

Lock screw for coolant through tool.
Unlock screw for coolant through toolholder.



ACCESSORI - ACCESSORIES

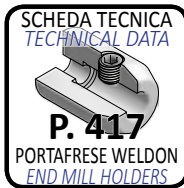
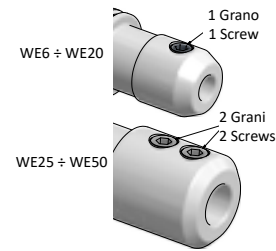
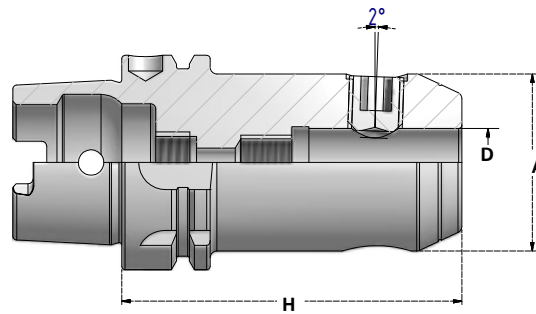


MANDRINI PORTAFRESA WHISTLE NOTCH

END MILL HOLDERS WHISTLE NOTCH

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3
15000 r.p.m.

Articolo	D	H	A	Grano Screw
HSK63A.H80.WHN6	6	80	25	GR.WE6
HSK63A.H80.WHN8	8	80	28	GR.WE8
HSK63A.H80.WHN10	10	80	35	GR.WE10
HSK63A.H90.WHN12	12	90	42	GR.WE12-14
HSK63A.H90.WHN14	14	90	44	GR.WE12-14
HSK63A.H100.WHN16	16	100	48	GR.WE16-18
HSK63A.H100.WHN18	18	100	50	GR.WE16-18
HSK63A.H100.WHN20	20	100	52	GR.WE20
HSK63A.H110.WHN25	25	110	65	GR.WE25
HSK63A.H110.WHN32	32	110	72	GR.WE32-40

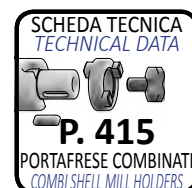
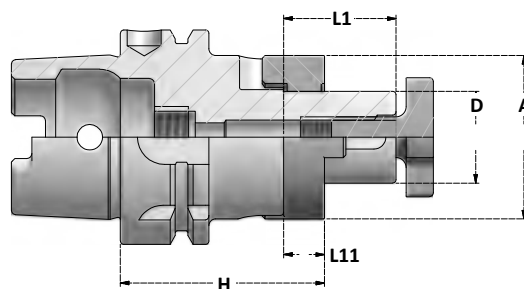
G6,3
15000 r.p.m.

Articolo	D	H	A	Grano Screw
HSK100A.H90.WHN6	6	90	25	GR.WE6
HSK100A.H90.WHN8	8	90	28	GR.WE8
HSK100A.H90.WHN10	10	90	35	GR.WE10
HSK100A.H100.WHN12	12	100	42	GR.WE12-14
HSK100A.H100.WHN14	14	100	44	GR.WE12-14
HSK100A.H100.WHN16	16	100	48	GR.WE16-18
HSK100A.H100.WHN18	18	100	50	GR.WE16-18
HSK100A.H110.WHN20	20	110	52	GR.WE20
HSK100A.H120.WHN25	25	120	65	GR.WE25
HSK100A.H120.WHN32	32	120	72	GR.WE32-40
HSK100A.H120.WHN40	40	120	80	GR.WE32-40

ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA COMBINATI
COMBI SHELL MILL HOLDERS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G6,3
15000.p.p.m.

Articolo	D	H	A	L1	L11	ATR	VTC	CHV
HSK50A.H50.D16C	16	50	32	27	10	ATR.D16	VTC.D16	CHV.D16
HSK50A.H50.D22C	22	50	40	31	12	ATR.D22	VTC.D22	CHV.D22
HSK50A.H65.D27C	27	65	48	33	12	ATR.D27	VTC.D27	CHV.D27
HSK50A.H65.D32C	32	65	58	38	14	ATR.D32	VTC.D32	CHV.D32

G6,3
15000.p.p.m.

Articolo	D	H	A	L1	L11	ATR	VTC	CHV
HSK63A.H60.D16C	16	60	32	27	10	ATR.D16	VTC.D16	CHV.D16
HSK63A.H100.D16C	16	100	32	27	10	ATR.D16	VTC.D16	CHV.D16
HSK63A.H160.D16C	16	160	32	27	10	ATR.D16	VTC.D16	CHV.D16
HSK63A.H60.D22C	22	60	40	31	12	ATR.D22	VTC.D22	CHV.D22
HSK63A.H100.D22C	22	100	40	31	12	ATR.D22	VTC.D22	CHV.D22
HSK63A.H160.D22C	22	160	40	31	12	ATR.D22	VTC.D22	CHV.D22
HSK63A.H60.D27C	27	60	48	33	12	ATR.D27	VTC.D27	CHV.D27
HSK63A.H100.D27C	27	100	48	33	12	ATR.D27	VTC.D27	CHV.D27
HSK63A.H160.D27C	27	160	48	33	12	ATR.D27	VTC.D27	CHV.D27
HSK63A.H60.D32C	32	60	58	38	14	ATR.D32	VTC.D32	CHV.D32
HSK63A.H100.D32C	32	100	58	38	14	ATR.D32	VTC.D32	CHV.D32
HSK63A.H160.D32C	32	160	58	38	14	ATR.D32	VTC.D32	CHV.D32
HSK63A.H70.D40C	40	70	70	41	14	ATR.D40	VTC.D40	CHV.D40
HSK63A.H100.D40C	40	100	70	41	14	ATR.D40	VTC.D40	CHV.D40
HSK63A.H160.D40C	40	160	70	41	14	ATR.D40	VTC.D40	CHV.D40

G6,3
15000.p.p.m.

Articolo	D	H	A	L1	L11	ATR	VTC	CHV
HSK100A.H60.D16C	16	60	32	27	10	ATR.D16	VTC.D16	CHV.D16
HSK100A.H100.D16C	16	100	32	27	10	ATR.D16	VTC.D16	CHV.D16
HSK100A.H160.D16C	16	160	32	27	10	ATR.D16	VTC.D16	CHV.D16
HSK100A.H60.D22C	22	60	40	31	12	ATR.D22	VTC.D22	CHV.D22
HSK100A.H100.D22C	22	100	40	31	12	ATR.D22	VTC.D22	CHV.D22
HSK100A.H160.D22C	22	160	40	31	12	ATR.D22	VTC.D22	CHV.D22
HSK100A.H60.D27C	27	60	48	33	12	ATR.D27	VTC.D27	CHV.D27
HSK100A.H100.D27C	27	100	48	33	12	ATR.D27	VTC.D27	CHV.D27
HSK100A.H160.D27C	27	160	48	33	12	ATR.D27	VTC.D27	CHV.D27
HSK100A.H60.D32C	32	60	58	38	14	ATR.D32	VTC.D32	CHV.D32
HSK100A.H100.D32C	32	100	58	38	14	ATR.D32	VTC.D32	CHV.D32
HSK100A.H160.D32C	32	160	58	38	14	ATR.D32	VTC.D32	CHV.D32
HSK100A.H70.D40C	40	70	70	41	14	ATR.D40	VTC.D40	CHV.D40
HSK100A.H100.D40C	40	100	70	41	14	ATR.D40	VTC.D40	CHV.D40
HSK100A.H160.D40C	40	160	70	41	14	ATR.D40	VTC.D40	CHV.D40

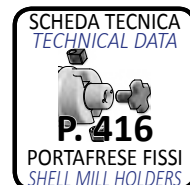
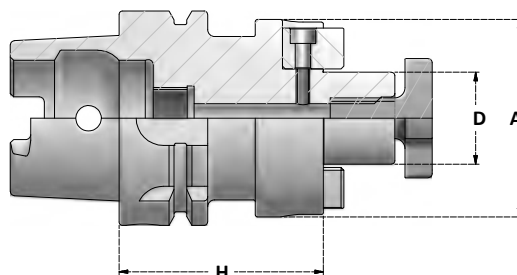
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

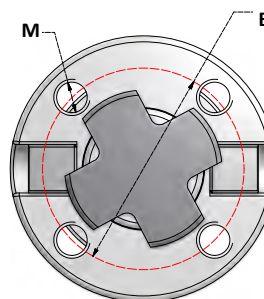


G6,3
15000 r.p.m.

Articolo	D	H	A	TTR	VTC
HSK50A.H50.D16S	16	50	38	TTR.D16	VTC.D16
HSK50A.H60.D22S	22	60	48	TTR.D22	VTC.D22
HSK50A.H60.D27S	27	60	58	TTR.D27	VTC.D27
HSK50A.H60.D32S	32	60	78	TTR.D32	VTC.D32

G6,3
15000 r.p.m.

Articolo	D	H	A	TTR	VTC
HSK63A.H50.D16S	16	50	38	TTR.D16	VTC.D16
HSK63A.H100.D16S	16	100	38	TTR.D16	VTC.D16
HSK63A.H130.D16S	16	130	38	TTR.D16	VTC.D16
HSK63A.H160.D16S	16	160	38	TTR.D16	VTC.D16
HSK63A.H50.D22S	22	50	48	TTR.D22	VTC.D22
HSK63A.H100.D22S	22	100	48	TTR.D22	VTC.D22
HSK63A.H130.D22S	22	130	48	TTR.D22	VTC.D22
HSK63A.H160.D22S	22	160	48	TTR.D22	VTC.D22
HSK63A.H60.D27S	27	60	58	TTR.D27	VTC.D27
HSK63A.H100.D27S	27	100	58	TTR.D27	VTC.D27
HSK63A.H130.D27S	27	130	58	TTR.D27	VTC.D27
HSK63A.H160.D27S	27	160	58	TTR.D27	VTC.D27
HSK63A.H60.D32S	32	60	78	TTR.D32	VTC.D32
HSK63A.H100.D32S	32	100	78	TTR.D32	VTC.D32
HSK63A.H130.D32S	32	130	78	TTR.D32	VTC.D32
HSK63A.H160.D32S	32	160	78	TTR.D32	VTC.D32
HSK63A.H60.D40S	40	60	88	TTR.D40	VTC.D40
HSK63A.H100.D40S	40	100	88	TTR.D40	VTC.D40
HSK63A.H130.D40S	40	130	88	TTR.D40	VTC.D40
HSK63A.H160.D40S	40	160	88	TTR.D40	VTC.D40



MANDRINI PER FRESE A SPIANARE CON 4 FORI

FACE MILL HOLDERS WITH 4 HOLES

G6,3
15000 r.p.m.

Articolo	D	H	A	B	M	TTR	VTC
HSK63A.H60.D40FM	40	60	88	66,7	M12	TTR.D40	VTC.D40

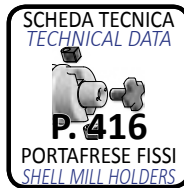
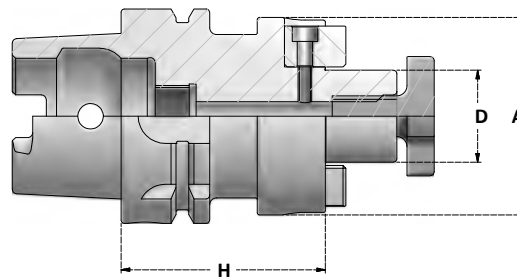
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3

15000.p.p.m.

Articolo	D	H	A	TTR	VTC
HSK100A.H50.D16S	16	50	38	TTR.D16	VTC.D16
HSK100A.H100.D16S	16	100	38	TTR.D16	VTC.D16
HSK100A.H130.D16S	16	130	38	TTR.D16	VTC.D16
HSK100A.H160.D16S	16	160	38	TTR.D16	VTC.D16
HSK100A.H50.D22S	22	50	48	TTR.D22	VTC.D22
HSK100A.H100.D22S	22	100	48	TTR.D22	VTC.D22
HSK100A.H130.D22S	22	130	48	TTR.D22	VTC.D22
HSK100A.H160.D22S	22	160	48	TTR.D22	VTC.D22
HSK100A.H50.D27S	27	50	58	TTR.D27	VTC.D27
HSK100A.H100.D27S	27	100	58	TTR.D27	VTC.D27
HSK100A.H130.D27S	27	130	58	TTR.D27	VTC.D27
HSK100A.H160.D27S	27	160	58	TTR.D27	VTC.D27
HSK100A.H50.D32S	32	50	78	TTR.D32	VTC.D32
HSK100A.H100.D32S	32	100	78	TTR.D32	VTC.D32
HSK100A.H130.D32S	32	130	78	TTR.D32	VTC.D32
HSK100A.H160.D32S	32	160	78	TTR.D32	VTC.D32
HSK100A.H60.D40S	40	60	88	TTR.D40	VTC.D40
HSK100A.H100.D40S	40	100	88	TTR.D40	VTC.D40
HSK100A.H130.D40S	40	130	88	TTR.D40	VTC.D40
HSK100A.H160.D40S	40	160	88	TTR.D40	VTC.D40

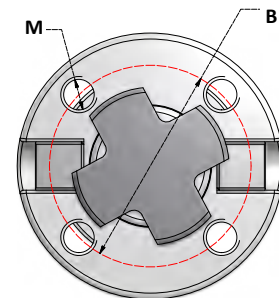
MANDRINI PER FRESE A SPIANARE CON 4 FORI

FACE MILL HOLDERS WITH 4 HOLES

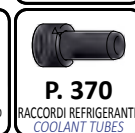
G6,3

15000.p.p.m.

Articolo	D	H	A	B	M	TTR	VTC
HSK100A.H60.D40FM	40	60	88	66,7	M12	TTR.D40	VTC.D40
HSK100A.H70.D60FM	60	70	129	101,6	M16	TTR.D60	VTC.D60



ACCESSORI - ACCESSORIES



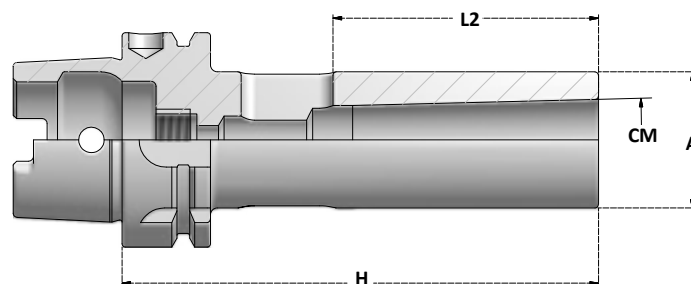
DIN 69893-1

HSK A

CM P

DIN 6383

MANDRINI DI RIDUZIONE CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS



SCHEDA TECNICA
TECHNICAL DATA

P. 418

RIDUZIONI CM PUNTE
ADAPTERS FOR DRILLS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G6,3 15000 r.p.m.	Articolo	CM	H	A	L2
	HSK63A.H100.CM1P	CM1	100	25	56
	HSK63A.H120.CM2P	CM2	120	32	67
	HSK63A.H140.CM3P	CM3	140	40	84
	HSK63A.H160.CM4P	CM4	160	48	107

G6,3 15000 r.p.m.	Articolo	CM	H	A	L2
	HSK100A.H110.CM1P	CM1	110	25	56
	HSK100A.H120.CM2P	CM2	120	32	67
	HSK100A.H150.CM3P	CM3	150	40	84
	HSK100A.H170.CM4P	CM4	170	48	107
	HSK100A.H200.CM5P	CM5	200	63	135

PER UTENSILI DIN228B CON TENONE

FOR TOOLS DIN228B WITH TANG

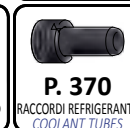
ACCESSORI - ACCESSORIES



P. 376
ESTRATTORI
PULLERS



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



P. 370
RACCORDI REFRIGERANTE
COOLANT TUBES

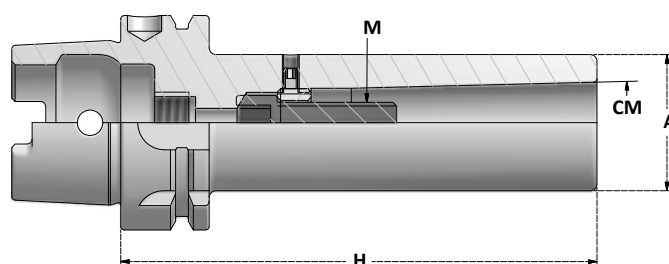
DIN 69893-1

HSK A

CM FV

DIN 6364

MANDRINI DI RIDUZIONE CONO MORSE PER FRESE
MORSE TAPER ADAPTERS FOR THREADED MILLS



SCHEDA TECNICA
TECHNICAL DATA

P. 419

RIDUZIONI CM FRESE
ADAPTERS FOR MILLS

G6,3 15000 r.p.m.	Articolo	CM	H	A	M
	HSK63A.H100.CM1FV	CM1	100	25	M6
	HSK63A.H120.CM2FV	CM2	120	32	M10
	HSK63A.H150.CM3FV	CM3	150	40	M12
	HSK63A.H170.CM4FV	CM4	170	48	M16

G6,3 10000 r.p.m.	Articolo	CM	H	A	M
	HSK100A.H120.CM1FV	CM1	120	25	M6
	HSK100A.H120.CM2FV	CM2	120	32	M10
	HSK100A.H150.CM3FV	CM3	150	40	M12
	HSK100A.H170.CM4FV	CM4	170	48	M16
	HSK100A.H200.CM5FV	CM5	200	63	M20

PER UTENSILI DIN228A CON FILETTO

FOR TOOLS DIN228A WITH THREAD

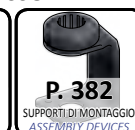
**FORNITI CON VITE SENZA FORO
PER IL PASSAGGIO DEL REFRIGERANTE**

*SUPPLIED WITH SCREW
WITHOUT COOLANT THROUGH*

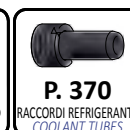
ACCESSORI - ACCESSORIES



P. 327
PINZE
COLLETS



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



P. 370
RACCORDI REFRIGERANTE
COOLANT TUBES

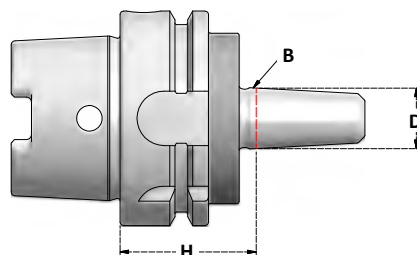
DIN 69893-1

HSK A

B

DIN 238

ATTACCHI PER MANDRINI AUTOSERRANTI
DRILL CHUCKS ARBORS

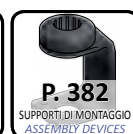


DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

Articolo	B	D	H
HSK63A.H45.B12	B12	12,065	45
HSK63A.H45.B16	B16	15,733	45
HSK63A.H45.B18	B18	17,78	45

ACCESSORI - ACCESSORIES



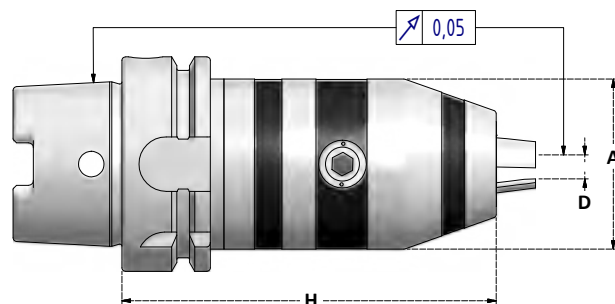
DIN 69893-1

HSK A

HD

MANDRINI PORTAPUNTA AUTOSERRANTI CON PASSAGGIO DEL REFRIGERANTE
ROTAZIONE DESTRA E SINISTRA

DRILL CHUCKS WITH COOLANT THROUGH - RIGHT AND LEFT ROTATION



Articolo	D	H	A	Chiave Wrench
HSK63A.H90.HD8	0,5-8	90	36	CH.EX4
HSK63A.H110.HD13	1-13	110	50	CH.EX6
HSK63A.H115.HD16	3-16	115	50	CH.EX6

Fuori produzione / While stocks last

FUORI PRODUZIONE / OUT OF PRODUCTION

Fino a esaurimento / While stocks last

ACCESSORI - ACCESSORIES



Articolo	D	H	A	Chiave Wrench
HSK100A.H110.HD13	1-13	110	50	CH.EX6
HSK100A.H115.HD16	3-16	115	50	CH.EX6

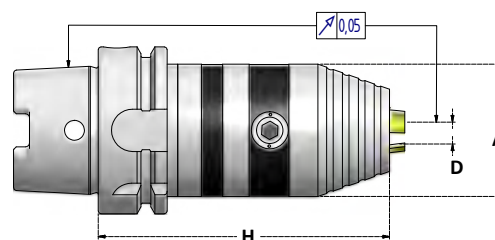
Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last



Disponibile da Ottobre 2022 / Available since October 2022

Articolo	D	H	A	Chiave Wrench
HSK63A.H105.CP13S	1-13	105	50,5	CH.EX6
HSK63A.H110.CP16S	2,5-16	110	57	CH.EX6

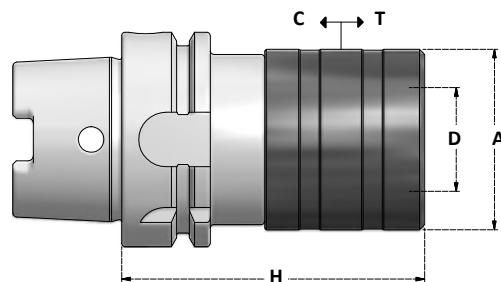


DIN 69893-1

HSK A

MCR TC

**MASCHIATORI A CAMBIO RAPIDO
CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESIONE**
QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
HSK63A.MCR1TC	B1 / BF1	19	M2÷M14	36	81	7,5	7,5
HSK63A.MCR2TC	B2 / BF2	31	M6÷M27	53	119	12,5	12,5
HSK63A.MCR3TC	B3 / BF3	48	M14÷M45	78	176	20	20

Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
HSK100A.MCR1TC	B1 / BF1	19	M2÷M14	36	90	7,5	7,5
HSK100A.MCR2TC	B2 / BF2	31	M6÷M27	53	138	12,5	12,5
HSK100A.MCR3TC	B3 / BF3	48	M14÷M45	78	190	20	20
HSK100A.MCR4TC	B4 / BF4	60	M22÷M45	96	225	22,5	22,5

ACCESSORI - ACCESSORIES



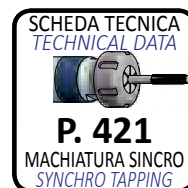
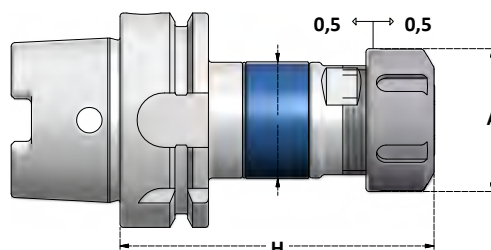
DIN 69893-1

HSK A

ERC SY

MANDRINI PER MASCHIATURA SINCRONIZZATA

TAPPING CHUCKS FOR SYNCHRONIZED TAPPING



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

Articolo	H	A	A2	Collets Range	Tapping Range	Ghiera Nut
HSK63A.ERC16MSY	89	22	34	3,5 ÷ 10	M3 ÷ M12	G16M

Articolo	H	A	A2	Collets Range	Tapping Range	Ghiera Nut
HSK63A.ERC16SY	89	32	34	3,5 ÷ 10	M3 ÷ M12	G16S
HSK63A.ERC20SY	90	35	34	3,5 ÷ 12	M3 ÷ M16	G20S
HSK63A.ERC25SY	94	42	45	3,5 ÷ 16	M3 ÷ M20	G25S
HSK63A.ERC32SY	105	50	45	3,5 ÷ 20	M3 ÷ M27	G32S
HSK63A.ERC40SY	133	63	62	6 ÷ 25	M5 ÷ M33	G40S

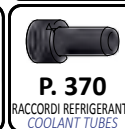
Articolo	H	A	A2	Collets Range	Tapping Range	Ghiera Nut
HSK100A.ERC16MSY	96	22	34	3,5 ÷ 10	M3 ÷ M12	G16M

Articolo	H	A	A2	Collets Range	Tapping Range	Ghiera Nut
HSK100A.ERC16SY	96	32	34	3,5 ÷ 10	M3 ÷ M12	G16S
HSK100A.ERC20SY	97	35	34	3,5 ÷ 12	M3 ÷ M16	G20S
HSK100A.ERC25SY	102	42	45	3,5 ÷ 16	M3 ÷ M20	G25S
HSK100A.ERC32SY	110	50	45	3,5 ÷ 20	M3 ÷ M27	G32S
HSK100A.ERC40SY	133	63	62	6 ÷ 25	M5 ÷ M33	G40S
HSK100A.ERC50SY	133	78	62	8 ÷ 32	M10-M42	G50S

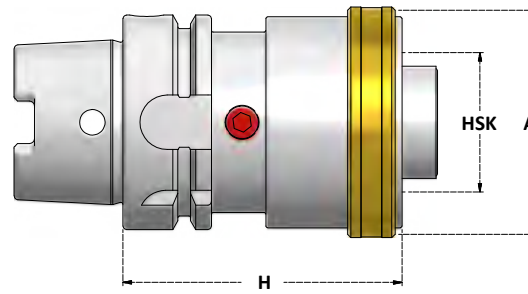
VANTAGGI RISPETTO AL SISTEMA CON BUSSOLE ADVANTAGES COMPARED TO ADAPTERS SYSTEM

- PASSAGGIO DEL REFRIGERANTE
 - ADATTO PER MASCHIATURA AD ALTE VELOCITÀ
 - SISTEMA PORTAPINZE ER
- COOLANT THROUGH
- SUITABLE FOR HIGH SPEED TAPPING
- ER COLLET SYSTEM

ACCESSORI - ACCESSORIES



ADATTATORI HSK FORMA A/C
ADAPTERS HSK FORM A/C



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

Articolo	H	A	HSK A/C
HSK63A.H80.HSK50AC	80	55	50
HSK63A.H80.HSK63AC	80	70	63
HSK63A.H100.HSK63AC	100	70	63
HSK63A.H160.HSK63AC	160	70	63
HSK63A.H120.HSK63AC	120	70	63

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

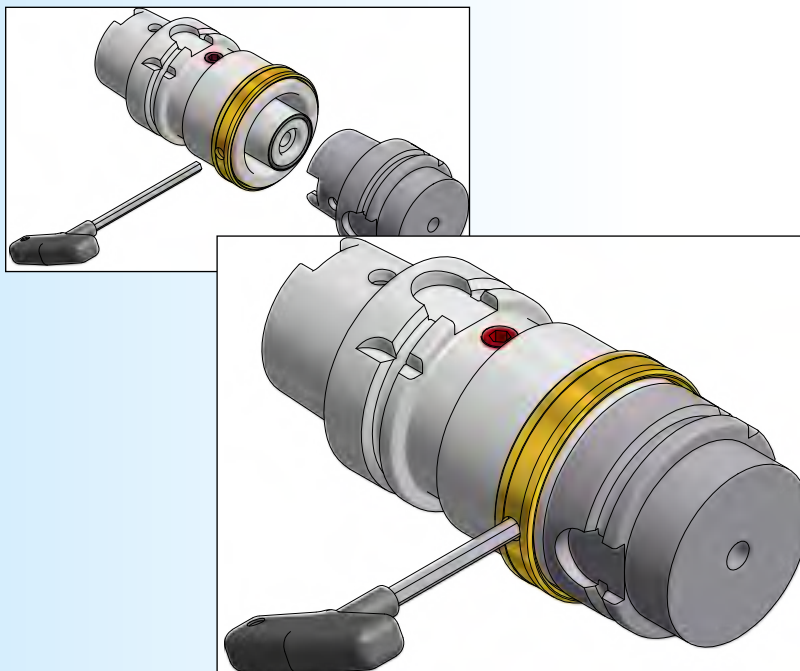
Articolo	H	A	HSK A/C
HSK100A.H70.HSK63AC	70	70	63
HSK100A.H100.HSK63AC	100	70	63
HSK100A.H90.HSK100AC	90	110	100
HSK100A.H140.HSK100AC	140	110	100
HSK100A.H160.HSK100AC	160	110	100
HSK100A.H200.HSK100AC	200	110	100

Fuori produzione / Out of production

Fuori produzione / Out of production

Fino a esaurimento / While stocks last

ALTRI A RICHIESTA
OTHERS ON REQUEST



ACCESSORI - ACCESSORIES

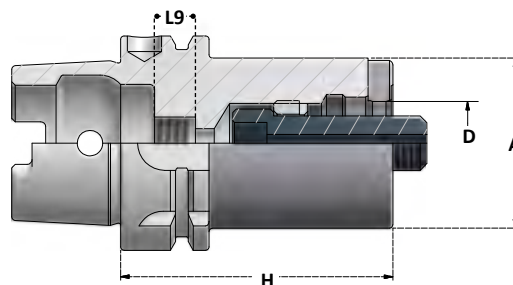


DIN 69893-1

HSK A

MD

MANDRINI MODULARI TIPO VARILOCK
MODULAR TOOLHOLDERS VARILOCK TYPE



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

Articolo	A	H	L9	D	Attacco
HSK63A.H75.MD50 *	50	75	10	27,3 / 27	MD50
HSK63A.H80.MD50	50	80	12	27,3 / 27	MD50
HSK63A.H85.MD63 *	63	85	10	32,3 / 32	MD63
HSK63A.H90.MD63	63	90	12	32,3 / 32	MD63

Fuori produzione / Out of production

Fuori produzione / Out of production

Articolo	A	H	L9	D	Attacco
HSK100A.H80.MD50 *	50	80	14,5	27,3 / 27	MD50
HSK100A.H85.MD50	50	85	16	27,3 / 27	MD50
HSK100A.H90.MD63 *	63	90	14,5	32,3 / 32	MD63
HSK100A.H95.MD63	63	95	16	32,3 / 32	MD63
HSK100A.H90.MD80 *	80	90	14,5	32,3 / 32	MD80
HSK100A.H95.MD80	80	95	16	32,3 / 32	MD80

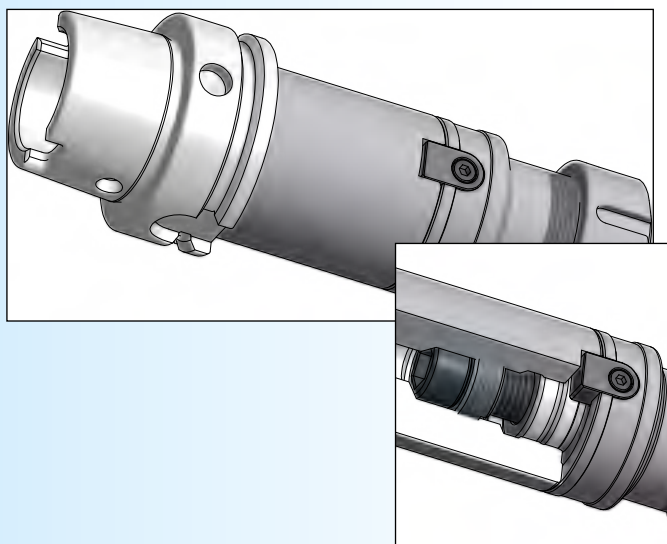
Fuori produzione / Out of production

Fuori produzione / Out of production

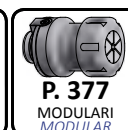
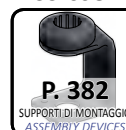
Fuori produzione / Out of production

* PER L'UTILIZZO DEL REFRIGERANTE MONTARE I RACCORDI CON FILETTO CORTO
HSK63.CFM18S E HSK100.CFM24S
DISPONIBILI A RICHIESTA

* FOR COOLING USE ASK FOR COOLING TUBES WITH SHORT THREAD
HSK63.CFM18S E HSK100.CFM24S



ACCESSORI - ACCESSORIES



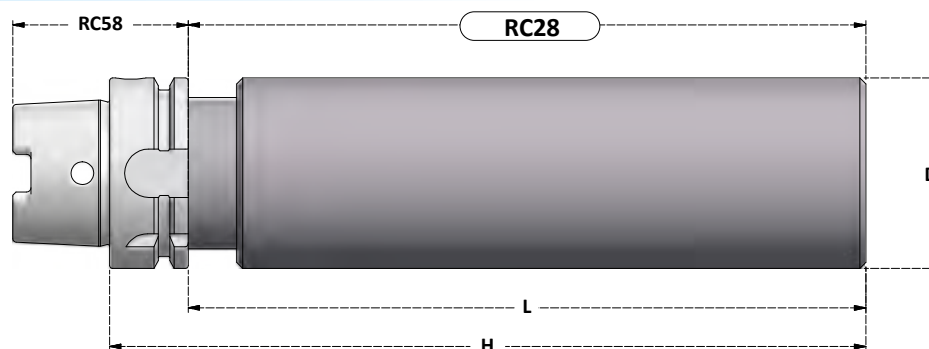
DIN 69893-1

HSK A

D BL

MANDRINI CON STELO LAVORABILE

BLANK ARBORS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

Articolo	D	H	L
HSK63A.H150.D63BL	63	150	124
HSK63A.H250.D80BL	80	250	224

Articolo	D	H	L
HSK100A.H250.D97BL	97	250	221

DIN 69893-1

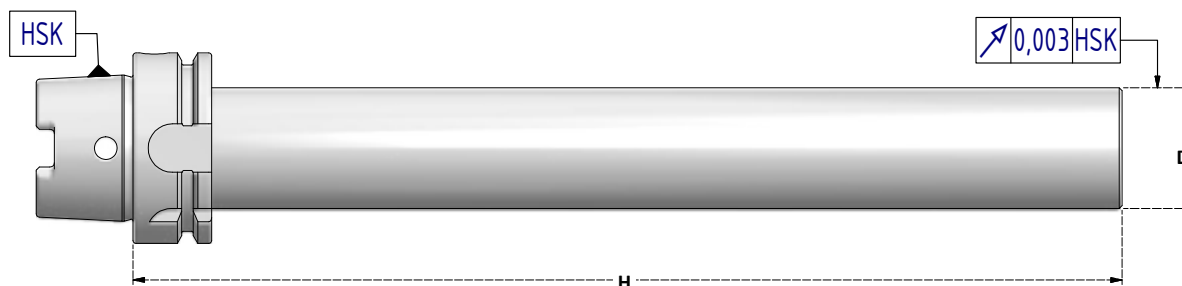
HSK A

CK

ISO-R230

MANDRINI DI COLLAUDO

TEST ARBORS



Articolo	D	H
HSK63A.H300.CK40	40	300
HSK100A.H300.CK50	50	300

Articolo	D	H
HSK63A.H335.CK40	40	335
HSK100A.H335.CK50	50	335

PRECISIONE DEL CONO TAPER SHANK PRECISION	AT2
ROTONDITÀ ROUNDNESS	0,001mm
RUGOSITÀ SURFACE ROUGHNES	Ra <0,4
CONCENTRICITÀ CONCENTRICITY	0,003mm

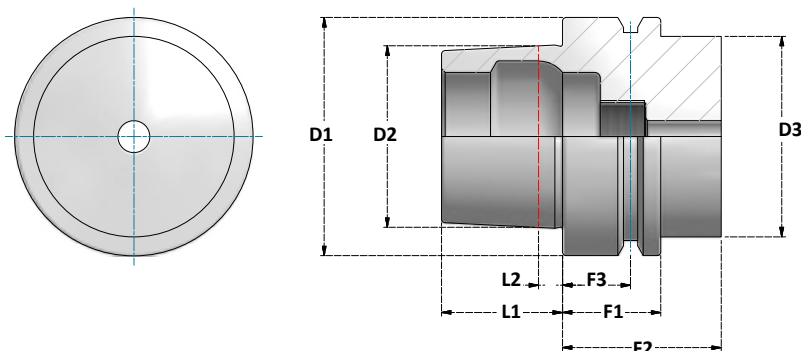
**FORNITI IN BOX VERTICALI
CON CERTIFICATO DI COLLAUDO**

SUPPLIED IN VERTICAL BOX
AND WITH TESTING REPORT



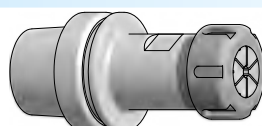
DIN 69893-5

MANDRINI HSK FORMA E
HSK FORM E TOOLHOLDERS



DIMENSIONI DELL'ATTACCO
SHANK DIMENSIONS

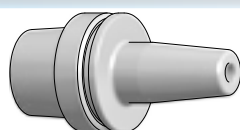
ATTACCO SHANK	D1	D2	D3	L1	L2	F1	F2	F3
	h10		max	0 -0,2		0 -0,1	min	±0,1
50	50	38,009	42	25	5	26	42	18
63	63	48,010	53	32	6,3	26	42	18



MANDRINI PORTAPINZA ER STANDARD
COLLET CHUCKS ER STANDARD

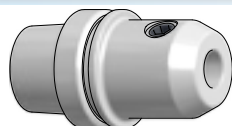
DIN ISO 15488 (DIN6499)

PAG. 36



MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS

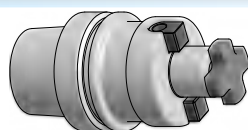
PAG. 37



MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON

DIN 1835-2

PAG. 38



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

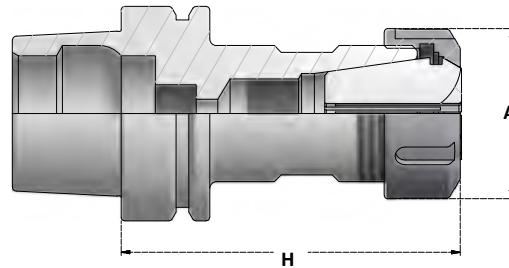
DIN 6357

PAG. 39

MANDRINI PORTAPINZA ER PER ROTAZIONE DESTRA
RIGHT ROTATION ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3 24000 r.p.m.	Articolo	H	A	Range ERC	Ghiera Nut
	HSK50E.H100.ERC16	100	32	1÷10	G16WD
	HSK50E.H100.ERC20	100	35	1÷14	G20WD
	HSK50E.H100.ERC25	100	42	1÷20	G25WD
	HSK50E.H100.ERC32	100	50	2÷22	G32WD

MANDRINI PER ROTAZIONE SINISTRA A RICHIESTA
LEFT ROTATION COLLET CHUCKS ON REQUEST

G6,3 24000 r.p.m.	Articolo	H	A	Range ERC	Ghiera Nut
	HSK63E.H73.ERC32	73	50	2÷22	G32WD
	HSK63E.H78.ERC40	78	63	3÷30	G40WD

MANDRINI PER ROTAZIONE SINISTRA A RICHIESTA
LEFT ROTATION COLLET CHUCKS ON REQUEST

WD



GHIERE **CONCENTRICHE** CON TACCHE
CONCENTRIC NUTS WITH SLOTS

ACCESSORI - ACCESSORIES



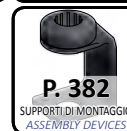
P. 280
PINZE
COLLETS



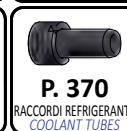
P. 341
GHIERE
NUTS



P. 353
CHIAVI
WRENCHES



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



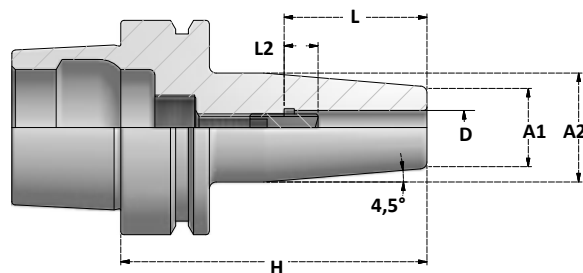
P. 370
RACCORDI REFRIGERANTE
COOLANT TUBES

DIN 69893-5

HSK E

TM

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



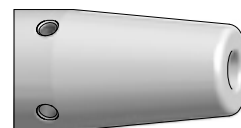
DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G2,5

25000.r.p.m.

Articolo	D	H	L	L2	A1	A2
* HSK50E.H80.TM3	3	80	12	/	10	20
* HSK50E.H80.TM4	4	80	16	/	15	25
* HSK50E.H80.TM5	5	80	20	/	15	25
HSK50E.H80.TM6	6	80	36	10	21	27
HSK50E.H80.TM8	8	80	36	10	21	27
HSK50E.H85.TM10	10	85	41	10	24	32
HSK50E.H90.TM12	12	90	46	10	24	32
HSK50E.H90.TM14	14	90	46	10	27	34
HSK50E.H95.TM16	16	95	49	10	27	34
HSK50E.H95.TM18	18	95	49	10	33	42
HSK50E.H100.TM20	20	100	51	10	33	42

Profondità regolabile L2
Adjustable depth L2



Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.

G2,5

25000.r.p.m.

Articolo	D	H	L	L2	A1	A2
* HSK63E.H80.TM3	3	80	12	/	10	20
* HSK63E.H80.TM4	4	80	16	/	15	25
* HSK63E.H80.TM5	5	80	20	/	15	25
HSK63E.H80.TM6	6	80	36	10	21	27
HSK63E.H80.TM8	8	80	36	10	21	27
HSK63E.H85.TM10	10	85	41	10	24	32
HSK63E.H90.TM12	12	90	46	10	24	32
HSK63E.H90.TM14	14	90	46	10	27	34
HSK63E.H95.TM16	16	95	49	10	27	34
HSK63E.H95.TM18	18	95	49	10	33	42
HSK63E.H100.TM20	20	100	51	10	33	42
HSK63E.H115.TM25	25	115	57	10	44	53
HSK63E.H120.TM32	32	120	61	10	44	53

* Senza vite di regolazione / Without adjusting screw

ACCESSORI - ACCESSORIES



DIN 69893-5

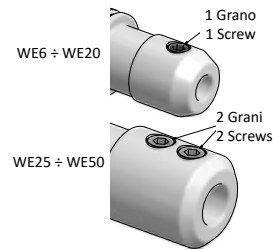
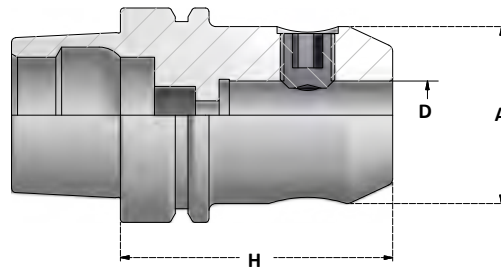
HSK E

WE

MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3
24000 r.p.m.

Articolo	D	H	A	Grano Screw
HSK50E.H65.WE6	6	65	25	GR.WE6
HSK50E.H65.WE8	8	65	28	GR.WE8
HSK50E.H65.WE10	10	65	35	GR.WE10
HSK50E.H80.WE12	12	80	42	GR.WE12-14
HSK50E.H80.WE14	14	80	44	GR.WE12-14
HSK50E.H80.WE16	16	80	48	GR.WE16-18
HSK50E.H80.WE18	18	80	50	GR.WE16-18
HSK50E.H80.WE20	20	80	52	GR.WE20

G6,3
24000 r.p.m.

Articolo	D	H	A	Grano Screw
HSK63E.H65.WE6	6	65	25	GR.WE6
HSK63E.H65.WE8	8	65	28	GR.WE8
HSK63E.H65.WE10	10	65	35	GR.WE10
HSK63E.H80.WE12	12	80	42	GR.WE12-14
HSK63E.H80.WE14	14	80	44	GR.WE12-14
HSK63E.H80.WE16	16	80	48	GR.WE16-18
HSK63E.H80.WE18	18	80	50	GR.WE16-18
HSK63E.H80.WE20	20	80	52	GR.WE20
HSK63E.H110.WE25	25	110	65	GR.WE25
HSK63E.H110.WE32	32	110	72	GR.WE32-40

ACCESSORI - ACCESSORIES



DIN 69893-5

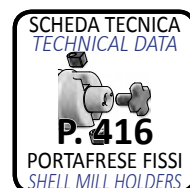
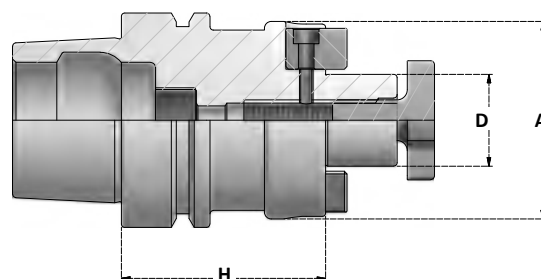
HSK E

D S

MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

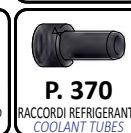
SHANK
DIMENSIONS



G6,3 24000 r.p.m.	Articolo	D	H	A	TTR	VTC
	HSK50E.H50.D16S	16	50	38	TTR.D16	VTC.D16
HSK50E.H60.D22S	22	60	48	TTR.D22	VTC.D22	
HSK50E.H60.D27S	27	60	58	TTR.D27	VTC.D27	
HSK50E.H60.D32S	32	60	78	TTR.D32	VTC.D32	

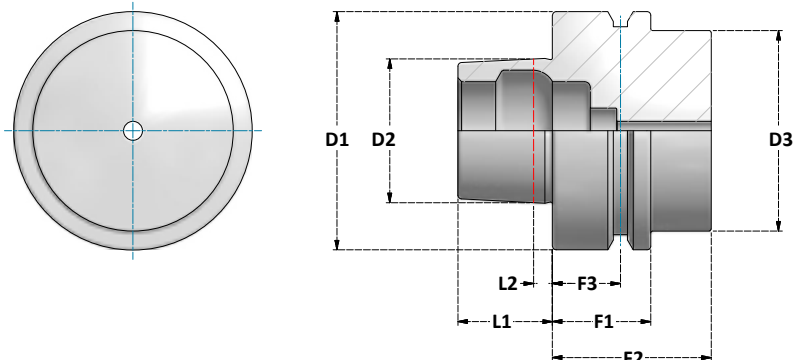
G6,3 24000 r.p.m.	Articolo	D	H	A	TTR	VTC
	HSK63E.H50.D16S	16	50	38	TTR.D16	VTC.D16
HSK63E.H50.D22S	22	50	48	TTR.D22	VTC.D22	
HSK63E.H60.D27S	27	60	58	TTR.D27	VTC.D27	
HSK63E.H60.D32S	32	60	78	TTR.D32	VTC.D32	
HSK63E.H65.D40S	40	65	88	TTR.D40	VTC.D40	

ACCESSORI - ACCESSORIES



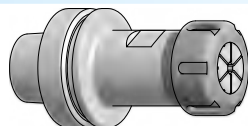
DIN 69893-6

MANDRINI HSK FORMA F
HSK FORM F TOOLHOLDERS



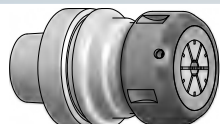
DIMENSIONI DELL'ATTACCO
SHANK DIMENSIONS

ATTACCO SHANK	D1	D2	D3	L1	L2	F1	F2	F3
	h10		max	0 -0,2		0 -0,1	min	±0,1
63	63	38,009	53	25	5	26	42	18



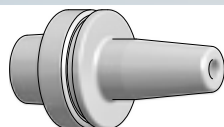
MANDRINI PORTAPINZA ER STANDARD
COLLET CHUCKS ER STANDARD
DIN ISO 15488 (DIN6499)

PAG. 41



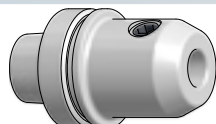
MANDRINI PORTAPINZA EOC
EOC COLLET CHUCKS
DIN ISO 10897 (DIN6388)

PAG. 41



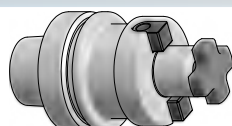
MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS

PAG. 42



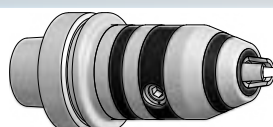
MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON
DIN 1835-2

PAG. 43



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS
DIN 6357

PAG. 43



MANDRINI DA TRAPANO
DRILL CHUCKS

PAG. 44



MANDRINI DI COLLAUDO
TEST ARBORS

PAG. 44

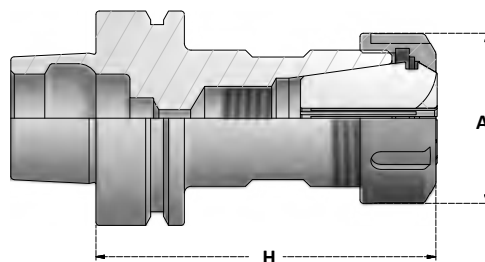
DIN 69893-6

HSK F

ERC

DIN ISO 15488 (DIN6499)

MANDRINI PORTAPINZA ER PER ROTAZIONE DESTRA
RIGHT ROTATION ER COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO

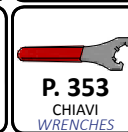
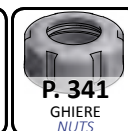
SHANK
DIMENSIONS

G6,3 24000,ip.m.	Articolo	H	A	Range ERC	Ghiera Nut
	HSK63F.H70.ERC16	70	32	1÷10	G16WD
HSK63F.H100.ERC16	100	32	1÷10	G16WD	
HSK63F.H70.ERC20	70	35	1÷14	G20WD	
HSK63F.H100.ERC20	100	35	1÷14	G20WD	
HSK63F.H70.ERC25	70	42	1÷20	G25WD	
HSK63F.H100.ERC25	100	42	1÷20	G25WD	
HSK63F.H73.ERC32	73	50	2÷22	G32WD	
HSK63F.H100.ERC32	100	50	2÷22	G32WD	
HSK63F.H78.ERC40	78	63	3÷30	G40WD	
HSK63F.H100.ERC40	100	63	3÷30	G40WD	

MANDRINI PER ROTAZIONE SINISTRA A RICHIESTA
LEFT ROTATION COLLET CHUCKS ON REQUEST



ACCESSORI - ACCESSORIES



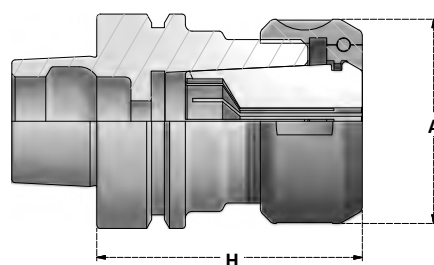
DIN 69893-6

HSK F

EOC

DIN ISO 10897 (DIN6388)

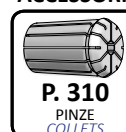
MANDRINI PORTAPINZA EOC PER ROTAZIONE DESTRA
RIGHT ROTATION EOC COLLET CHUCKS



G6,3 24000,ip.m.	Articolo	H	A	Range EOC	Ghiera Nut
	HSK63F.H78.EOC25	78	60	2÷25	G25OCC

MANDRINI PER ROTAZIONE SINISTRA A RICHIESTA
LEFT ROTATION COLLET CHUCKS ON REQUEST

ACCESSORI - ACCESSORIES



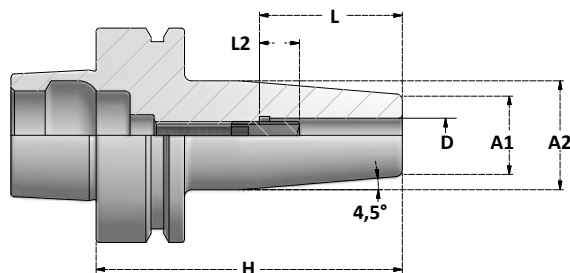
DIN 69893-6

HSK F

TM

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

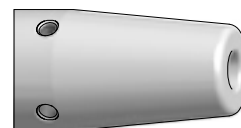


G2,5

25000 r.p.m.

Articolo	D	H	L	L2	A1	A2
* HSK63F.H80.TM3	3	80	12	/	10	20
* HSK63F.H120.TM3	3	120	12	/	10	20
* HSK63F.H160.TM3	3	160	12	/	10	20
* HSK63F.H80.TM4	4	80	16	/	15	25
* HSK63F.H120.TM4	4	120	16	/	15	25
* HSK63F.H160.TM4	4	160	16	/	15	25
* HSK63F.H80.TM5	5	80	20	/	15	25
* HSK63F.H120.TM5	5	120	20	/	15	25
* HSK63F.H160.TM5	5	160	20	/	15	25
HSK63F.H80.TM6	6	80	36	10	21	27
HSK63F.H120.TM6	6	120	36	10	21	27
HSK63F.H160.TM6	6	160	36	10	21	27
HSK63F.H80.TM8	8	80	36	10	21	27
HSK63F.H120.TM8	8	120	36	10	21	27
HSK63F.H160.TM8	8	160	36	10	21	27
HSK63F.H85.TM10	10	85	41	10	24	32
HSK63F.H120.TM10	10	120	41	10	24	32
HSK63F.H160.TM10	10	160	41	10	24	32
HSK63F.H90.TM12	12	90	46	10	24	32
HSK63F.H120.TM12	12	120	46	10	24	32
HSK63F.H160.TM12	12	160	46	10	24	32
HSK63F.H90.TM14	14	90	46	10	24	32
HSK63F.H120.TM14	14	120	46	10	24	32
HSK63F.H160.TM14	14	160	46	10	24	32
HSK63F.H95.TM16	16	95	49	10	24	32
HSK63F.H120.TM16	16	120	49	10	24	32
HSK63F.H160.TM16	16	160	49	10	24	32
HSK63F.H95.TM18	18	95	49	10	33	42
HSK63F.H120.TM18	18	120	49	10	33	42
HSK63F.H160.TM18	18	160	49	10	33	42
HSK63F.H100.TM20	20	100	51	10	33	42
HSK63F.H160.TM20	20	160	51	10	33	42
HSK63F.H125.TM25	25	125	57	10	44	53
HSK63F.H125.TM32	32	125	61	10	44	53

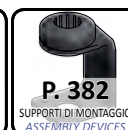
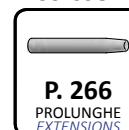
Profondità regolabile L2
Adjustable depth L2



Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.

* Senza vite di regolazione / Without adjusting screw

ACCESSORI - ACCESSORIES



DIN 69893-6

HSK F

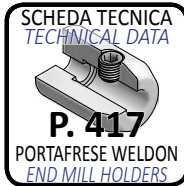
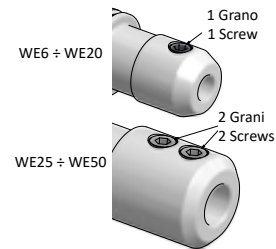
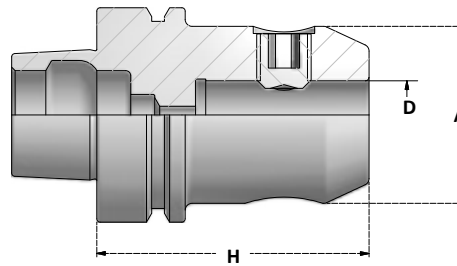
WE

MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON

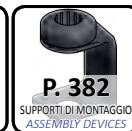
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3 24000 r.p.m.	Articolo	D	H	A	Grano Screw
	HSK63F.H65.WE6	6	65	25	GR.WE6
	HSK63F.H65.WE8	8	65	28	GR.WE8
	HSK63F.H65.WE10	10	65	35	GR.WE10
	HSK63F.H80.WE12	12	80	42	GR.WE12-14
	HSK63F.H80.WE14	14	80	44	GR.WE12-14
	HSK63F.H80.WE16	16	80	48	GR.WE16-18
	HSK63F.H80.WE18	18	80	50	GR.WE16-18
	HSK63F.H80.WE20	20	80	52	GR.WE20
	HSK63F.H110.WE25	25	110	65	GR.WE25
	HSK63F.H110.WE32	32	110	72	GR.WE32-40

ACCESSORI - ACCESSORIES



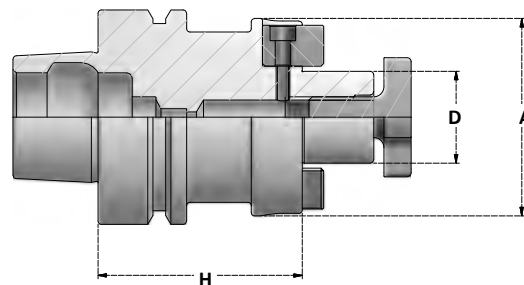
DIN 69893-6

HSK F

D S

MANDRINI PORTAFRESA FISSI

SHELL MILL HOLDERS



G6,3 24000 r.p.m.	Articolo	D	H	A	TTR	VTC
	HSK63F.H50.D16S	16	50	38	TTR.D16	VTC.D16
	HSK63F.H50.D22S	22	50	48	TTR.D22	VTC.D22
	HSK63F.H60.D27S	27	60	58	TTR.D27	VTC.D27
	HSK63F.H60.D32S	32	60	78	TTR.D32	VTC.D32
	HSK63F.H60.D40S	40	60	88	TTR.D40	VTC.D40

ACCESSORI - ACCESSORIES



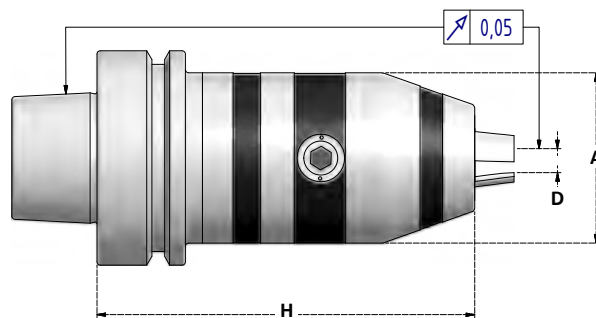
DIN 69893-6

HSK F

HD

MANDRINI PORTAPUNTA AUTOSERRANTI ROTAZIONE DESTRA E SINISTRA
DRILL CHUCKS - RIGHT AND LEFT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

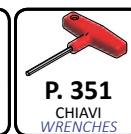


Articolo	D	H	A	Chiave Wrench
HSK63F.H110.HD13	1÷13	110	50	CH.EX6
HSK63F.H115.HD16	2,5÷16	115	50	CH.EX6

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

ACCESSORI - ACCESSORIES



DIN 69893-6

HSK F

CK

ISO-R230

MANDRINI DI COLLAUDO
TEST ARBORS



Articolo	D	H
HSK63F.H250.CK40	40	250
Articolo	D	H
HSK63F.H335.CK40	40	335

PRECISIONE DEL CONO <i>TAPER SHANK PRECISION</i>	AT2
ROTONDITÀ <i>ROUNDNESS</i>	0,001mm
RUGOSITÀ <i>SURFACE ROUGHNES</i>	Ra <0,4
CONCENTRICITÀ <i>CONCENTRICITY</i>	0,003mm

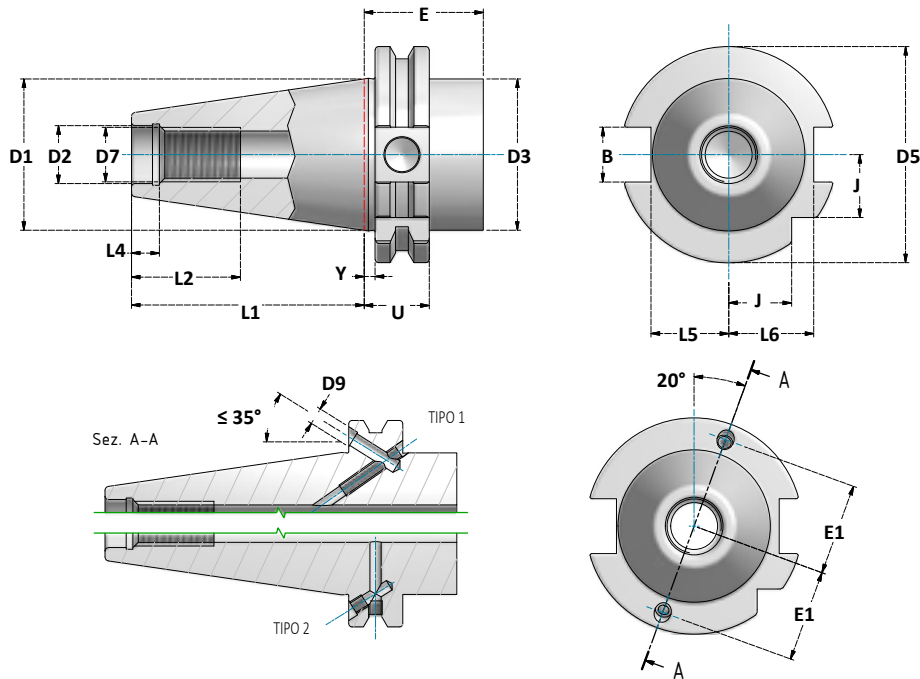
**FORNITI IN BOX VERTICALI
CON CERTIFICATO DI COLLAUDO**

*SUPPLIED IN VERTICAL BOX
AND WITH TESTING REPORT*



DIN ISO 7388 (DIN69871) - TC

MANDRINI TC
TC TOOLHOLDERS



* FORM
AD+B

DIMENSIONI CONO
TAPER DIMENSIONS

CONO / TAPER	B	D1	D2	D3	D5	D7	D9*	E	E1*	J	L1	L2	L4	L5	L6	Y	U
	+0,2 0		H7	Max	0 -0,1	6H	Max	min			0 -0,3						0 -0,1
TC30	16,1	31,75	13	45	50	M12	-	35	-	15	47,8	24	5,5	16,3	18,8	3,2	19,1
DTC30	16,1	31,75	13	45	50	M12	-	35	-	15	47,8	24	5,5	16,3	18,8	1	19,1
TC40 / TCB40	16,1	44,45	17	50	63,55	M16	4	35	27	18,5	68,4	32	8,2	22,7	25	3,2	19,1
DTCB40	16,1	44,45	17	50	63,55	M16	4	35	27	18,5	68,4	32	8,2	22,7	25	1,01	19,1
TC50 / TCB50	25,7	69,85	25	80	97,5	M24	6	35	42	30	101,75	47	11,5	35,5	37,7	3,2	19,1
DTCB50	25,7	69,85	25	80	97,5	M24	6	35	42	30	101,75	47	11,5	35,5	37,7	1,5	19,1

Esempio di codice in base alle caratteristiche del cono.

Example of code based on the features of taper.

D TC B 40 DOPPIO CONTATTO DOUBLE CONTACT TIPO DI CONO TAPER TYPE CANALINI LATERALI SIDE CHANNELS GRANDEZZA CONO TAPER SIZE	SENZA PASSAGGIO DEL REFRIGERANTE WITHOUT COOLANT THROUGH	A
	PASSAGGIO DEL REFRIGERANTE CENTRALE COOLANT FROM CENTRE	AD
	PASSAGGIO DEL REFRIGERANTE CENTRALE O DALLA FLANGIA COOLANT FROM CENTRE OR FLANGE	AD+B
	DOPPIO CONTATTO CONO+FLANGIA DOUBLE CONTACT	

SCHEDA TECNICA
DATA SHEET

**ADDUZIONE DEL
REFRIGERANTE
COOLANT THROUGH**

SCHEDA TECNICA
DATA SHEET

**DOPPIO CONTATTO
DOUBLE CONTACT**

INDICE
INDEX





**MANDRINI TC
TC TOOLHOLDERS**

ADDUZIONE DEL REFRIGERANTE

COOLANT THROUGH

NEI CONI TC DIN ISO7388-1 (EX DIN69871) E BT (MAS 403)

ON TC DIN ISO7388-1 (EX DIN69871) AND BT (MAS 403) TOOLHOLDERS

	SENZA ADDUZIONE DEL REFRIGERANTE <i>WITHOUT COOLANT THROUGH</i>	A
	ADDUZIONE DEL REFRIGERANTE CENTRALE <i>COOLANT FROM CENTRE</i>	AD
	ADDUZIONE DEL REFRIGERANTE DALLA FLANGIA <i>COOLANT FROM FLANGE</i>	B
	ADDUZIONE DEL REFRIGERANTE CENTRALE O DALLA FLANGIA <i>COOLANT FROM CENTRE OR FLANGE</i>	AD+B

I mandrini in forma AD+B possono essere usati per l'adduzione del refrigerante dalla flangia e per l'adduzione del refrigerante dal canale centrale.

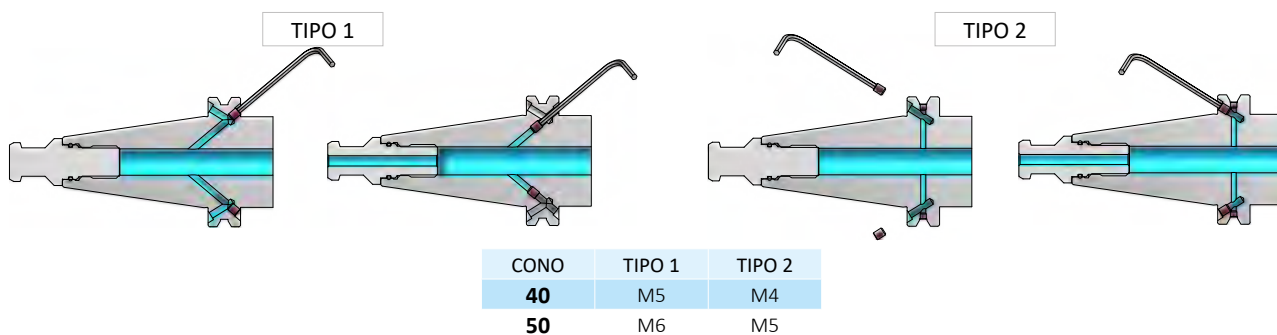
Nel sistema "TIPO 1" la regolazione avviene chiudendo il grano.

Nel sistema "TIPO 2" la regolazione avviene rimuovendo il grano.

Toolholders AD+B can be used with coolant through "V" flange and with coolant through centre.

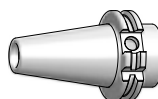
"TIPO 1" system works closing the screw.

"TIPO 2" system works removing the screw.



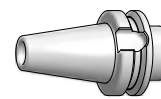
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MANDRINI TC
TC TOOLHOLDERS



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MANDRINI BT
BT TOOLHOLDERS

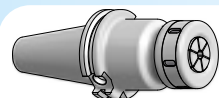


DIN ISO 7388 (DIN69871) - TC



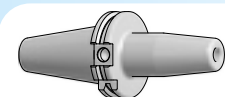
MANDRINI PORTAPINZA ER
COLLET CHUCKS ER

DIN ISO 15488 (DIN6499) PAG. 48



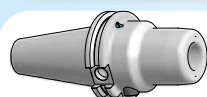
MANDRINI PORTAPINZA SKS
COLLET CHUCKS SKS

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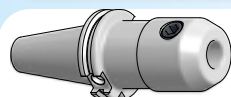
**MANDRINI
A CALETTAMENTO A CALDO**
SHRINK FIT CHUCKS

PAG. 62



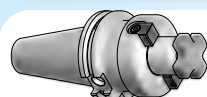
**MANDRINI
A SERRAGGIO IDRAULICO**
HYDRAULIC CHUCKS

PAG. 67



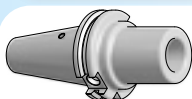
**MANDRINI
PORTAFRESA WELDON**
END MILL HOLDERS WELDON

DIN 1835-2 PAG. 70



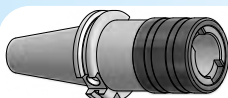
MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIN 6357 PAG. 82



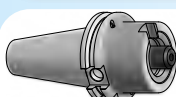
**RIDUZIONI A CONO MORSE
PER FRESE**
MORSE TAPER ADAPTERS FOR
THREADED MILLS

DIN 6364 PAG. 87



PORTAMASCHI
TAPPING CHUCKS

PAG. 92



**MANDRINI MODULARI TIPO
VARILOCK**
MODULAR TOOLHOLDERS
VARILOCK TYPE

PAG. 98



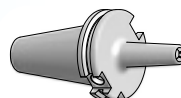
**MANDRINI
CON STELE LAVORABILE**
BLANK ARBORS

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MANDRINI PORTAPINZA EOC
COLLET CHUCKS EOC

DIN ISO 10897 (DIN6388) PAG. 59



MANDRINI PORTAPINZA P8
COLLET CHUCKS P8

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MANDRINI A FORTE SERRAGGIO
POWER MILLING CHUCKS

PAG. 66



**MANDRINI PORTAFRESA
CON ATTACCO FILETTATO**
SCREW IN MILL CHUCKS

PAG. 69



MANDRINI PORTAFRESA COMBI
COMBI SHELL MILL HOLDERS

DIN 6358 PAG. 80



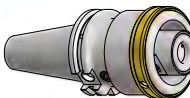
**RIDUZIONI A CONO MORSE
PER PUNTE**
MORSE TAPER ADAPTERS
FOR DRILLS

DIN 6383 PAG. 86



MANDRINI DA TRAPANO
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RIDUZIONI
ADAPTERS

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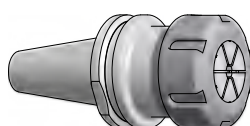
**DISTRIBUTORI ROTANTI
DEL REFRIGERANTE**
OIL HOLE HOLDERS

PAG. 99



BARRE DI COLLAUDO
TEST ARBORS

PAG. 103



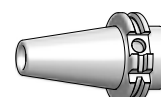
**MANDRINI PER LA LAVORAZIONE
DEL LEGNO E DELL'ALLUMINIO**

TOOLHOLDERS FOR WOOD AND
ALUWORKING MACHINES

PAG. 104

SCHEDA TECNICA
DATA SHEET

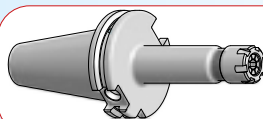
**CONO TC
TC TAPER**



DIN ISO 7388 (DIN69871) - TC

MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

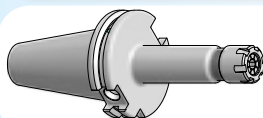
DIN ISO 15488 (DIN6499)



MANDRINI PORTAPINZA ER A DOPPIO CONTATTO
GHIERE MINI
DOUBLE CONTACT COLLET CHUCKS ER
MINI NUTS

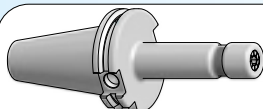
PAG. 49

G2,5



MANDRINI PORTAPINZA ER
GHIERE MINI
COLLET CHUCKS ER
MINI NUTS

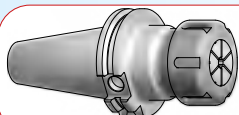
PAG. 50



MANDRINI PORTAPINZA ER PER ALTA VELOCITA'
GHIERE MINI SENZA TACCHE
COLLET CHUCKS ER FOR HIGH SPEED
MINI NOTCH FREE NUTS

PAG. 51

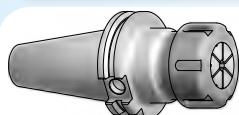
G2,5



MANDRINI PORTAPINZA ER A DOPPIO CONTATTO
GHIERE STANDARD
DOUBLE CONTACT COLLET CHUCKS ER
STANDARD NUTS

PAG. 52

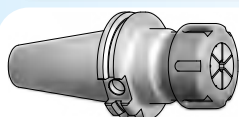
G2,5



MANDRINI PORTAPINZA ER - FORMA AD
GHIERE STANDARD
COLLET CHUCKS ER - AD FORM
STANDARD NUTS

PAG. 53

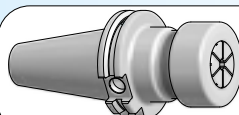
G6,3



MANDRINI PORTAPINZA ER - FORMA AD+B
GHIERE STANDARD
COLLET CHUCKS ER - FORM AD+B
STANDARD NUTS

PAG. 54-55

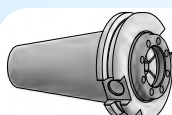
G6,3



MANDRINI PORTAPINZA ER PER ALTA VELOCITA'
GHIERE STANDARD SENZA TACCHE
COLLET CHUCKS ER FOR HIGH SPEED
STANDARD NOTCH FREE NUTS

PAG. 56

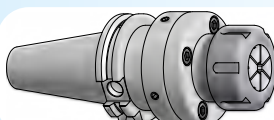
G2,5



MANDRINI PORTAPINZA ER - EXTRACORTI
GHIERE CON FILETTATURA ESTERNA
COLLET CHUCKS ER - STUB LENGTH
EXTERNALLY THREADED NUTS

PAG. 57

G6,3



MANDRINI PORTAPINZA ER A CENTRATURA REGOLABILE
GHIERE STANDARD SENZA TACCHE
COLLET CHUCKS ER FOR HIGH SPEED
STANDARD NOTCH FREE NUTS

PAG. 58

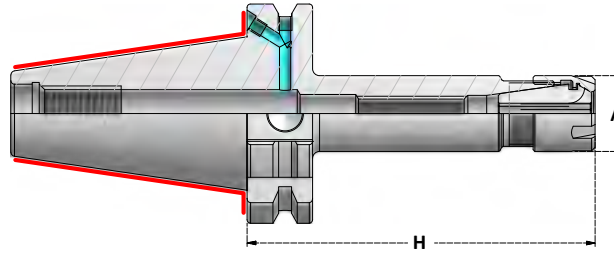
G6,3

MANDRINI A DOPPIO CONTATTO PORTAPINZA ER

DOUBLE CONTACT ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

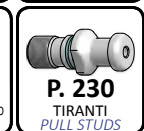


G2,5 25000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		DTCB40.H100.ERC11M	100	16	1÷7
	DTCB40.H100.ERC16M	100	22	1÷10	G16M
	DTCB40.H100.ERC20M	100	28	1÷14	G20M

G2,5 25000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		DTCB50.H100.ERC11M	100	16	1÷7
	DTCB50.H100.ERC16M	100	22	1÷10	G16M
	DTCB50.H100.ERC20M	100	28	1÷14	G20M



ACCESSORI - ACCESSORIES

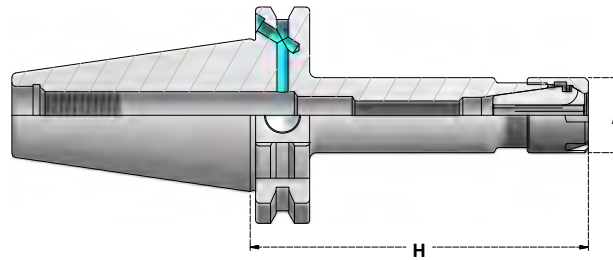


MANDRINI PORTAPINZA ER

ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

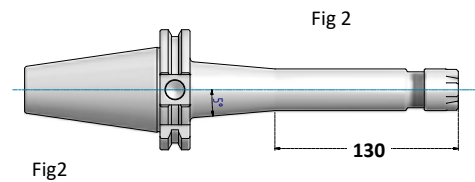


G6,3 15000 r.p.m. AD	Articolo	H	A	Collets Range	Ghiera Nut
	TC30.H100.ERC8M	100	12	1÷5	G8M
TC30.H100.ERC11M	100	16	1÷7	G11M	
TC30.H100.ERC16M	100	22	1÷10	G16M	
TC30.H100.ERC20M	100	28	1÷14	G20M	
TC30.H100.ERC25M	100	35	1÷20	G25M	



G6,3 15000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
	TCB40.H100.ERC11M	100	16	1÷7	G11M
TCB40.H130.ERC11M	130	16	1÷7	G11M	
TCB40.H160.ERC11M	160	16	1÷7	G11M	
TCB40.H70.ERC16M	70	22	1÷10	G16M	
TCB40.H100.ERC16M	100	22	1÷10	G16M	
TCB40.H130.ERC16M	130	22	1÷10	G16M	
TCB40.H160.ERC16M	160	22	1÷10	G16M	
* TCB40.H200.ERC16M	200	22	1÷10	G16M	
TCB40.H100.ERC20M	100	28	1÷14	G20M	
TCB40.H130.ERC20M	130	28	1÷14	G20M	
TCB40.H160.ERC20M	160	28	1÷14	G20M	
TCB40.H200.ERC20M	200	28	1÷14	G20M	
TCB40.H100.ERC25M	100	35	1÷20	G25M	
TCB40.H130.ERC25M	130	35	1÷20	G25M	
TCB40.H160.ERC25M	160	35	1÷20	G25M	
TCB40.H200.ERC25M	200	35	1÷20	G25M	

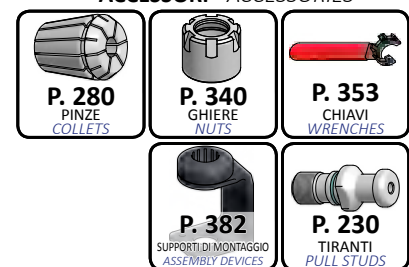
* =Fig2



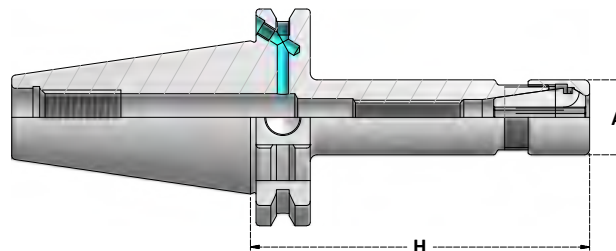
G6,3 15000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
	TCB50.H100.ERC16M	100	22	1÷10	G16M
TCB50.H130.ERC16M	130	22	1÷10	G16M	
TCB50.H160.ERC16M	160	22	1÷10	G16M	
* TCB50.H200.ERC16M	200	22	1÷10	G16M	
TCB50.H100.ERC20M	100	28	1÷14	G20M	
TCB50.H130.ERC20M	130	28	1÷14	G20M	
TCB50.H160.ERC20M	160	28	1÷14	G20M	
TCB50.H200.ERC20M	200	28	1÷14	G20M	
TCB50.H100.ERC25M	100	35	1÷20	G25M	
TCB50.H130.ERC25M	130	35	1÷20	G25M	
TCB50.H160.ERC25M	160	35	1÷20	G25M	
TCB50.H200.ERC25M	200	35	1÷20	G25M	

* =Fig2

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER PER ALTE VELOCITA'
ER COLLET CHUCKS FOR HIGH SPEEDS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G2,5
25000.r.p.m.
AD

Articolo	H	A	Collets Range	Ghiera Nut
TC30.H100.ERC8MNF	100	12	1÷5	G8MNF
TC30.H100.ERC11MNF	100	16	1÷7	G11MNF
TC30.H100.ERC16MNF	100	22	1÷10	G16MNF
TC30.H100.ERC20MNF	100	28	1÷14	G20MNF
TC30.H100.ERC25MNF	100	35	1÷20	G25MNF

MNF



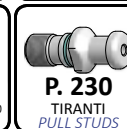
GHIERE **MINI** SENZA TACCHE
*NOTCH-FREE **MINI** NUTS*

G2,5
25000.r.p.m.
AD+B

Articolo	H	A	Collets Range	Ghiera Nut
TCB40.H100.ERC11MNF	100	16	1÷7	G11MNF
TCB40.H130.ERC11MNF	130	16	1÷7	G11MNF
TCB40.H160.ERC11MNF	160	16	1÷7	G11MNF
TCB40.H100.ERC16MNF	100	22	1÷10	G16MNF
TCB40.H130.ERC16MNF	130	22	1÷10	G16MNF
TCB40.H160.ERC16MNF	160	22	1÷10	G16MNF
TCB40.H100.ERC20MNF	100	28	1÷14	G20MNF
TCB40.H130.ERC20MNF	130	28	1÷14	G20MNF
TCB40.H160.ERC20MNF	160	28	1÷14	G20MNF
TCB40.H100.ERC25MNF	100	35	1÷20	G25MNF
TCB40.H130.ERC25MNF	130	35	1÷20	G25MNF
TCB40.H160.ERC25MNF	160	35	1÷20	G25MNF

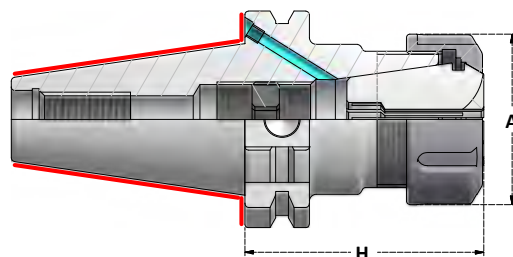
ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES



MANDRINI A DOPPIO CONTATTO PORTAPINZA ER
DOUBLE CONTACT ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

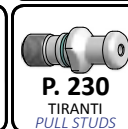
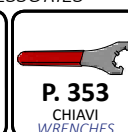
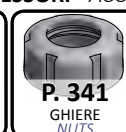


Articolo	H	A	Collets Range	Ghiera Nut
DTCB40.H70.ERC16	70	28	1÷10	G16SE
DTCB40.H100.ERC16	100	28	1÷10	G16SE
DTCB40.H70.ERC20	70	34	1÷14	G20SE
DTCB40.H100.ERC20	100	34	1÷14	G20SE
DTCB40.H70.ERC25	70	42	1÷20	G25S
DTCB40.H100.ERC25	100	42	1÷20	G25S
DTCB40.H70.ERC32	70	50	2÷22	G32S
DTCB40.H100.ERC32	100	50	2÷22	G32S
DTCB40.H70.ERC40	70	63	3÷30	G40S
DTCB40.H100.ERC40	100	63	3÷30	G40S

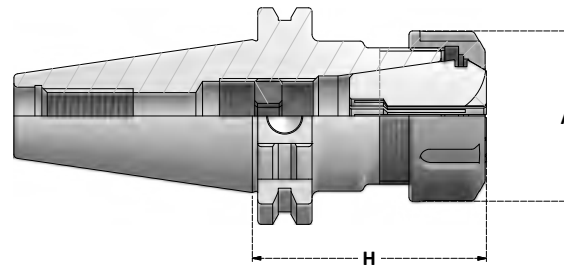


Articolo	H	A	Collets Range	Ghiera Nut
DTCB50.H80.ERC16	80	28	1÷10	G16SE
DTCB50.H100.ERC16	100	28	1÷10	G16SE
DTCB50.H80.ERC20	80	34	1÷14	G20SE
DTCB50.H100.ERC20	100	34	1÷14	G20SE
DTCB50.H80.ERC25	80	42	1÷20	G25S
DTCB50.H100.ERC25	100	42	1÷20	G25S
DTCB50.H80.ERC32	80	50	2÷22	G32S
DTCB50.H100.ERC32	100	50	2÷22	G32S
DTCB50.H130.ERC32	130	50	2÷22	G32S
DTCB50.H160.ERC32	160	50	2÷22	G32S
DTCB50.H200.ERC32	200	50	2÷22	G32S
DTCB50.H80.ERC40	80	63	3÷30	G40S
DTCB50.H100.ERC40	100	63	3÷30	G40S
DTCB50.H130.ERC40	130	63	3÷30	G40S

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



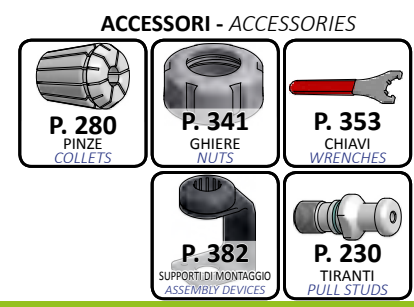
Articolo	H	A	Collets Range	Ghiera Nut
TC30.H63.ERC16	63	28	1÷10	G16SE
TC30.H100.ERC16	100	28	1÷10	G16SE
TC30.H63.ERC20	63	34	1÷14	G20SE
TC30.H100.ERC20	100	34	1÷14	G20SE
TC30.H63.ERC25	63	42	1÷20	G25S
TC30.H100.ERC25	100	42	1÷20	G25S
TC30.H63.ERC32	63	50	2÷22	G32S
TC30.H100.ERC32	100	50	2÷22	G32S
TC30.H75.ERC40	75	63	3÷30	G40S
TC30.H100.ERC40	100	63	3÷30	G40S



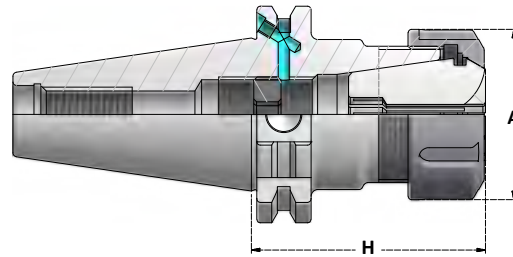
Articolo	H	A	Collets Range	Ghiera Nut
TC40.H70.ERC16	70	28	1÷10	G16SE
TC40.H70.ERC25	70	42	1÷20	G25S
TC40.H70.ERC32	70	50	2÷22	G32S
TC40.H100.ERC32	100	50	2÷22	G32S
TC40.H70.ERC40	70	63	3÷30	G40S
TC40.H100.ERC40	100	63	3÷30	G40S



Articolo	H	A	Collets Range	Ghiera Nut
TC50.H80.ERC32	80	50	2÷22	G32S
TC50.H100.ERC32	100	50	2÷22	G32S
TC50.H80.ERC40	80	63	3÷30	G40S



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

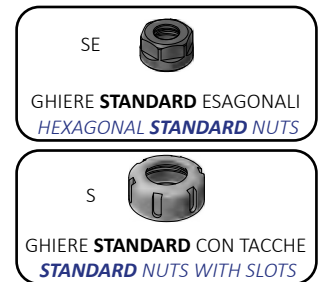


DIMENSIONI
DELL'ATTACCO

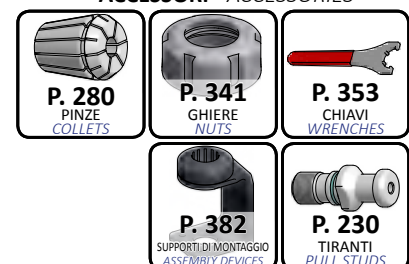
SHANK
DIMENSIONS



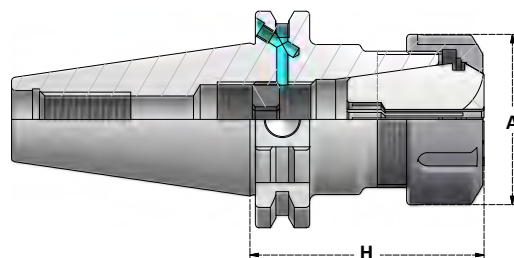
Articolo	H	A	Collets Range	Ghiera Nut
TCB40.H70.ERC16	70	28	1÷10	G16SE
TCB40.H100.ERC16	100	28	1÷10	G16SE
TCB40.H130.ERC16	130	28	1÷10	G16SE
TCB40.H160.ERC16	160	28	1÷10	G16SE
TCB40.H200.ERC16	200	28	1÷10	G16SE
TCB40.H70.ERC20	70	34	1÷14	G20SE
TCB40.H100.ERC20	100	34	1÷14	G20SE
TCB40.H130.ERC20	130	34	1÷14	G20SE
TCB40.H160.ERC20	160	34	1÷14	G20SE
TCB40.H200.ERC20	200	34	1÷14	G20SE
TCB40.H70.ERC25	70	42	1÷20	G25S
TCB40.H100.ERC25	100	42	1÷20	G25S
TCB40.H130.ERC25	130	42	1÷20	G25S
TCB40.H160.ERC25	160	42	1÷20	G25S
TCB40.H200.ERC25	200	42	1÷20	G25S
TCB40.H47.ERC32	47	50	2÷22	G32S
TCB40.H70.ERC32	70	50	2÷22	G32S
TCB40.H100.ERC32	100	50	2÷22	G32S
TCB40.H130.ERC32	130	50	2÷22	G32S
TCB40.H160.ERC32	160	50	2÷22	G32S
TCB40.H200.ERC32	200	50	2÷22	G32S
TCB40.H70.ERC40	70	63	3÷30	G40S
TCB40.H100.ERC40	100	63	3÷30	G40S
TCB40.H130.ERC40	130	63	3÷30	G40S
TCB40.H160.ERC40	160	63	3÷30	G40S
TCB40.H200.ERC40	200	63	3÷30	G40S
TCB40.H85.ERC50	85	78	6÷34	G50S



ACCESSORI - ACCESSORIES



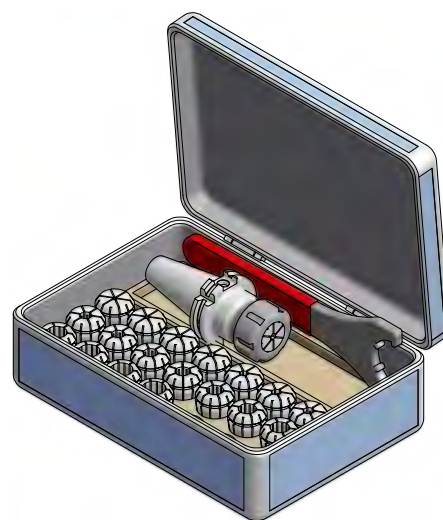
MANDRINI PORTAPINZA ER
ER COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	H	A	Collets Range	Ghiera Nut
TCB50.H80.ERC16	80	28	1÷10	G16SE
TCB50.H100.ERC16	100	28	1÷10	G16SE
TCB50.H130.ERC16	130	28	1÷10	G16SE
TCB50.H160.ERC16	160	28	1÷10	G16SE
TCB50.H200.ERC16	200	28	1÷10	G16SE
TCB50.H80.ERC20	80	34	1÷14	G20SE
TCB50.H100.ERC20	100	34	1÷14	G20SE
TCB50.H130.ERC20	130	34	1÷14	G20SE
TCB50.H160.ERC20	160	34	1÷14	G20SE
TCB50.H200.ERC20	200	34	1÷14	G20SE
TCB50.H80.ERC25	80	42	1÷20	G25S
TCB50.H100.ERC25	100	42	1÷20	G25S
TCB50.H130.ERC25	130	42	1÷20	G25S
TCB50.H160.ERC25	160	42	1÷20	G25S
TCB50.H200.ERC25	200	42	1÷20	G25S
TCB50.H80.ERC32	80	50	2÷22	G32S
TCB50.H100.ERC32	100	50	2÷22	G32S
TCB50.H130.ERC32	130	50	2÷22	G32S
TCB50.H160.ERC32	160	50	2÷22	G32S
TCB50.H200.ERC32	200	50	2÷22	G32S
TCB50.H250.ERC32	250	50	2÷22	G32S
TCB50.H80.ERC40	80	63	3÷30	G40S
TCB50.H100.ERC40	100	63	3÷30	G40S
TCB50.H130.ERC40	130	63	3÷30	G40S
TCB50.H160.ERC40	160	63	3÷30	G40S
TCB50.H200.ERC40	200	63	3÷30	G40S
TCB50.H250.ERC40	250	63	3÷30	G40S
TCB50.H100.ERC50	100	78	6÷34	G50S
TCB50.H130.ERC50	130	78	6÷34	G50S
TCB50.H160.ERC50	160	78	6÷34	G50S



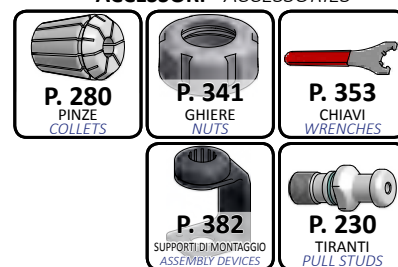
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

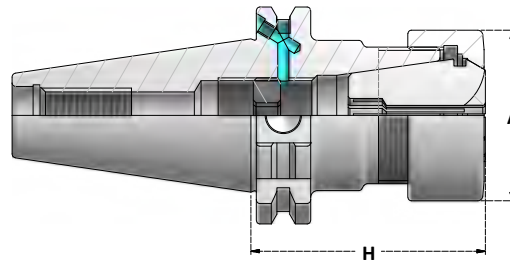
Articolo	Pinze Collets	Mandrino Toolholder	Chiave Wrench
BX.TC30.ERC32	ERC32.D3÷20 x 1,0mm	TC30.H63.ERC32	CH32S
BX.TCB40.ERC32	ERC32.D3÷20 x 1,0mm	TCB40.H70.ERC32	CH32S
BX.TCB50.ERC32	ERC32.D3÷20 x 1,0mm	TCB50.H80.ERC32	CH32S
BX.TC30.ERC40	ERC40.D4÷26 x 1,0mm	TC30.H75.ERC40	CH40S
BX.TCB40.ERC40	ERC40.D4÷26 x 1,0mm	TCB40.H70.ERC40	CH40S
BX.TCB50.ERC40	ERC40.D4÷26 x 1,0mm	TCB50.H80.ERC40	CH40S

ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER PER ALTE VELOCITA'
ER COLLET CHUCKS FOR HIGH SPEEDS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G2,5
25000.p.p.m.
AD

Articolo	H	A	Collets Range	Ghiera Nut
TC30.H63.ERC16NF	63	32	1÷10	G16NF
TC30.H63.ERC20NF	63	35	1÷14	G20NF
TC30.H63.ERC25NF	63	42	1÷20	G25NF
TC30.H63.ERC32NF	63	50	2÷22	G32NF

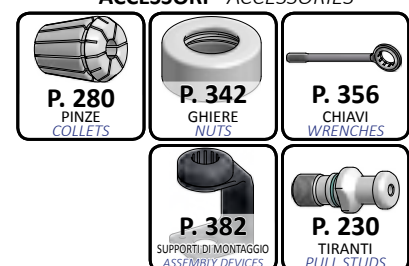


G2,5
25000.p.p.m.
AD+B

Articolo	H	A	Collets Range	Ghiera Nut
TCB40.H70.ERC16NF	70	32	1÷10	G16NF
TCB40.H100.ERC16NF	100	32	1÷10	G16NF
TCB40.H130.ERC16NF	130	32	1÷10	G16NF
TCB40.H160.ERC16NF	160	32	1÷10	G16NF
TCB40.H70.ERC20NF	70	35	1÷14	G20NF
TCB40.H100.ERC20NF	100	35	1÷14	G20NF
TCB40.H130.ERC20NF	130	35	1÷14	G20NF
TCB40.H160.ERC20NF	160	35	1÷14	G20NF
TCB40.H70.ERC25NF	70	42	1÷20	G25NF
TCB40.H100.ERC25NF	100	42	1÷20	G25NF
TCB40.H130.ERC25NF	130	42	1÷20	G25NF
TCB40.H160.ERC25NF	160	42	1÷20	G25NF
TCB40.H70.ERC32NF	70	50	2÷22	G32NF
TCB40.H100.ERC32NF	100	50	2÷22	G32NF
TCB40.H130.ERC32NF	130	50	2÷22	G32NF
TCB40.H160.ERC32NF	160	50	2÷22	G32NF

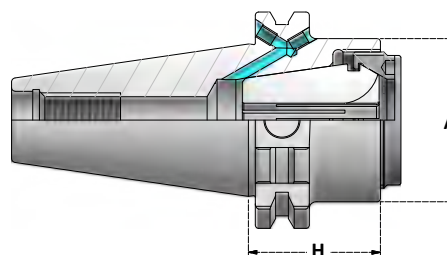
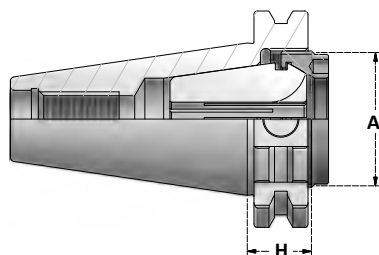
ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER - EXTRACORTI
ER COLLET CHUCKS - STUB LENGTH

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	H	A	Collets Range	Ghiera Nut
TC40.H21.ERC25A	21	32	1÷20	G25A
TC40.H21.ERC32A	21	40	2÷22	G32A



Articolo	H	A	Collets Range	Ghiera Nut
TC50.H21.ERC32A	21	40	2÷22	G32A



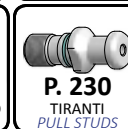
Articolo	H	A	Collets Range	Ghiera Nut
TCB40.H40.ERC32A	40	50	2÷22	G32A



Articolo	H	A	Collets Range	Ghiera Nut
TCB50.H40.ERC32A	40	50	2÷22	G32A



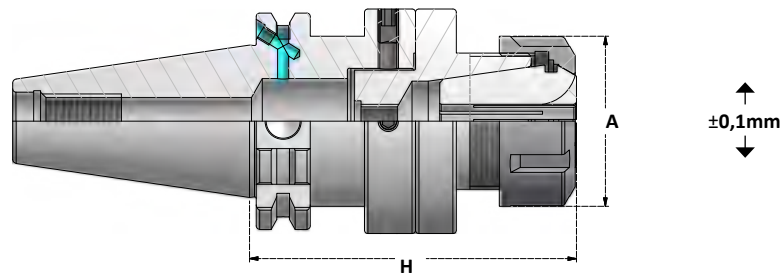
ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER A CENTRATURA REGOLABILE
RUNOUT ADJUSTABLE ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

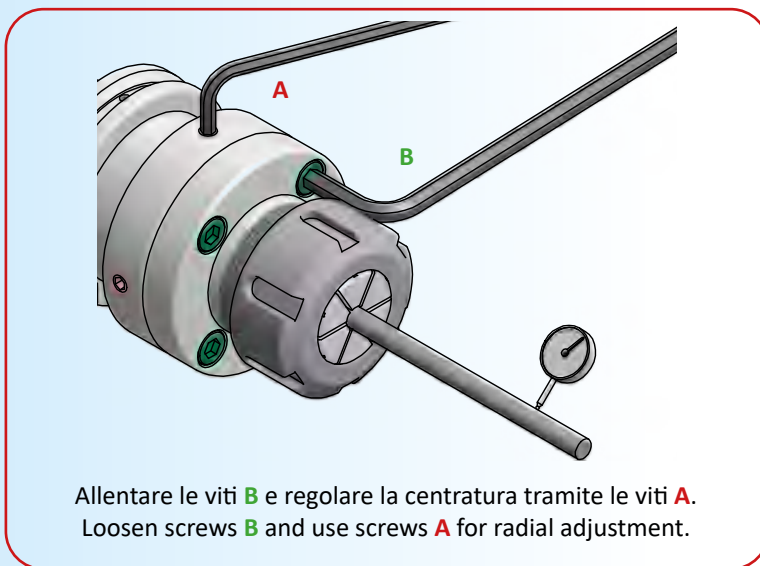


Articolo	H	A	Collets Range	Ghiera Nut
TCB40.H93.ERC16RG	93	28	1÷10	G16SE
TCB40.H95.ERC20RG	95	34	1÷14	G20SE
TCB40.H96.ERC25RG	96	42	1÷20	G25S
TCB40.H97.ERC32RG	97	50	2÷22	G32S
TCB40.H131.ERC40RG	131	63	3÷30	G40S

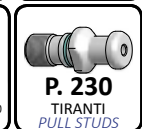
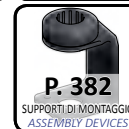
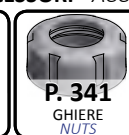
Centratura regolabile 0,1mm
Adjustable runout 0,1mm



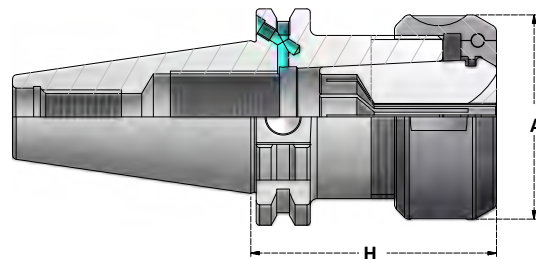
Articolo	H	A	Collets Range	Ghiera Nut
TCB50.H93.ERC16RG	93	28	1÷10	G16SE
TCB50.H95.ERC20RG	95	34	1÷14	G20SE
TCB50.H96.ERC25RG	96	42	1÷20	G25S
TCB50.H97.ERC32RG	97	50	2÷22	G32S
TCB50.H131.ERC40RG	131	63	3÷30	G40S



ACCESSORI - ACCESSORIES





MANDRINI PORTAPINZA EOC
EOC COLLET CHUCKS



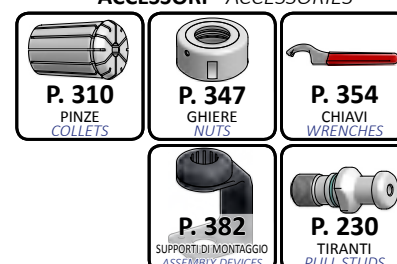
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G6,3 15000 _{pp,m.} AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		TCB40.H70.EOC16	70	43	2÷16
	TCB40.H100.EOC16	100	43	2÷16	G16OCC
	TCB40.H70.EOC25	70	60	2÷25	G25OCC
	TCB40.H100.EOC25	100	60	2÷25	G25OCC
	TCB40.H90.EOC32	90	72	3÷32	G32OCC

G6,3 15000 _{pp,m.} AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		TCB50.H70.EOC16	70	43	2÷16
	TCB50.H70.EOC25	70	60	2÷25	G25OCC
	TCB50.H80.EOC32	80	72	3÷32	G32OCC

ACCESSORI - ACCESSORIES



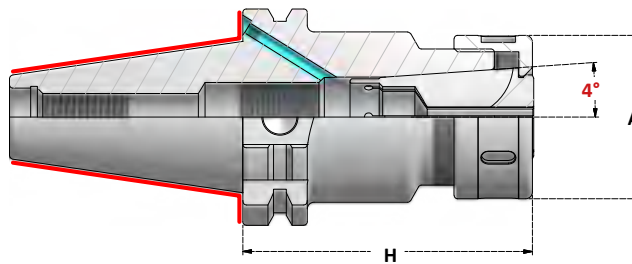
DIN ISO 7388 (DIN69871)

TC

SKS

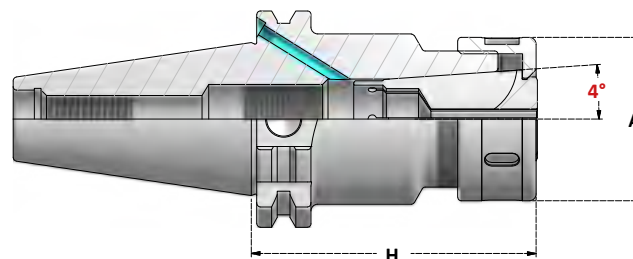
MANDRINI A DOPPIO CONTATTO PORTAPINZA SKS
DOUBLE CONTACT SKS COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



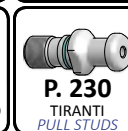
G2,5 25000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		DTCB40.H90.SKS10	90	30	2÷10
	DTCB40.H90.SKS16	90	40	3÷16	G16SKS
	DTCB40.H90.SKS20	90	48,5	3÷20	G20SKS
	DTCB40.H90.SKS25	90	55,1	3÷25	G25SKS

MANDRINI PORTAPINZA SKS
SKS COLLET CHUCKS



G2,5 25000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		TCB40.H90.SKS10	90	30	2÷10
	TCB40.H90.SKS16	90	40	3÷16	G16SKS
	TCB40.H90.SKS20	90	48,5	3÷20	G20SKS
	TCB40.H90.SKS25	90	55,1	3÷25	G25SKS

ACCESSORI - ACCESSORIES



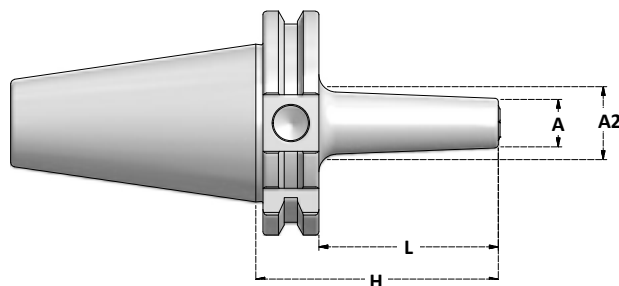
DIN ISO 7388 (DIN69871)

TC

P8

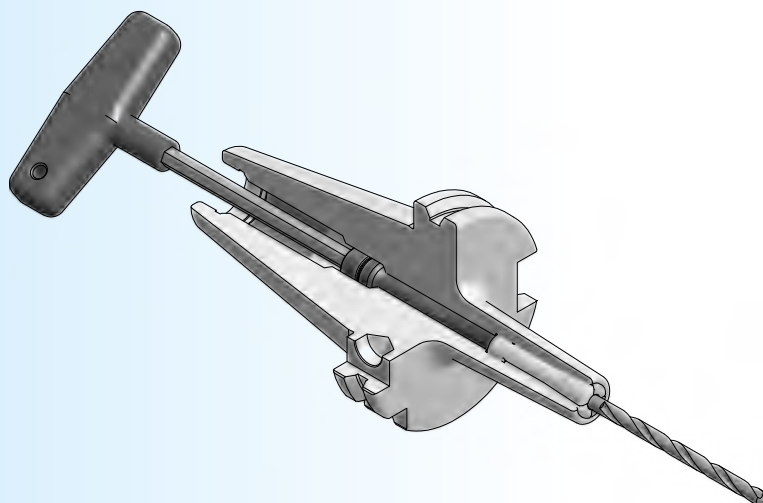
MANDRINI PORTAPINZA P8
P8 SLIM FIT COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

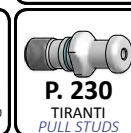
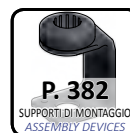


Articolo	H	L	A	A2	Collets Range
TC40.H70.P8	70	36	14	17	3+6
TC50.H70.P8	70	36	14	17	3+6

ALTRI A RICHIESTA
OTHERS ON REQUEST

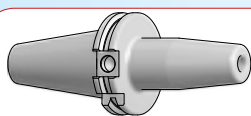


ACCESSORI - ACCESSORIES



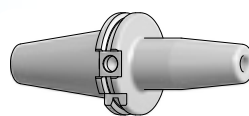
DIN ISO 7388 (DIN69871) - TC

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



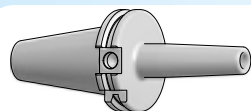
A DOPPIO CONTATTO
DOUBLE CONTACT

PAG. 62



STANDARD
STANDARD

PAG. 63-64



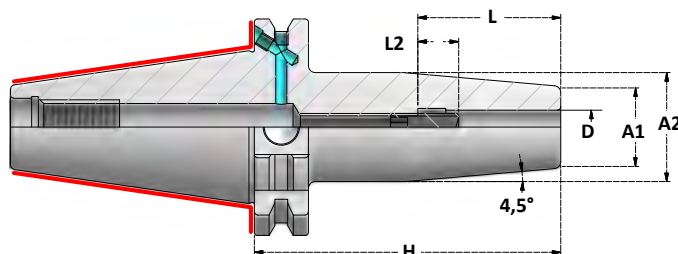
SLIM
SLIM FIT

PAG. 65

TC

TM

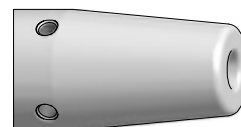
MANDRINI A DOPPIO CONTATTO A CALETTAMENTO A CALDO
DOUBLE CONTACT SHRINK FIT CHUCKS



Articolo	D	H	L	L2	A1	A2
* DTCB40.H80.TM3	3	80	12	10	10	20
* DTCB40.H80.TM4	4	80	16	10	15	25
* DTCB40.H80.TM5	5	80	20	10	15	25
DTCB40.H80.TM6	6	80	36	10	21	27
DTCB40.H80.TM8	8	80	36	10	21	27
DTCB40.H80.TM10	10	80	41	10	24	32
DTCB40.H80.TM12	12	80	46	10	24	32
DTCB40.H80.TM14	14	80	46	10	27	34
DTCB40.H80.TM16	16	80	49	10	27	34
DTCB40.H80.TM18	18	80	49	10	33	42
DTCB40.H80.TM20	20	80	51	10	33	42
DTCB40.H100.TM25	25	100	57	10	44	53
DTCB40.H100.TM32	32	100	61	10	44	53

* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2



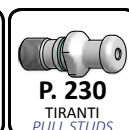
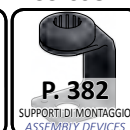
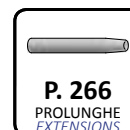
Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.



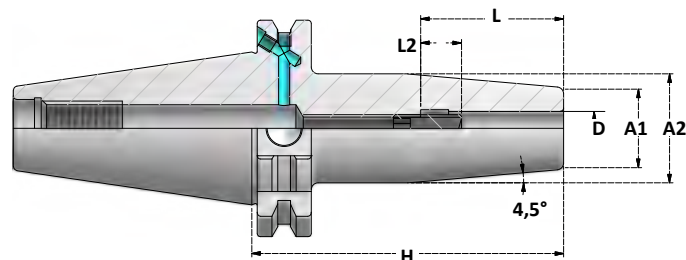
Articolo	D	H	L	L2	A1	A2
* DTCB50.H80.TM3	3	80	12	10	10	20
* DTCB50.H80.TM4	4	80	16	10	15	25
* DTCB50.H80.TM5	5	80	20	10	15	25
DTCB50.H80.TM6	6	80	36	10	21	27
DTCB50.H80.TM8	8	80	36	10	21	27
DTCB50.H80.TM10	10	80	41	10	24	32
DTCB50.H80.TM12	12	80	46	10	24	32
DTCB50.H80.TM14	14	80	46	10	27	34
DTCB50.H80.TM16	16	80	49	10	27	34
DTCB50.H80.TM18	18	80	49	10	33	42
DTCB50.H80.TM20	20	80	51	10	33	42
DTCB50.H100.TM25	25	100	57	10	44	53
DTCB50.H100.TM32	32	100	61	10	44	53

* Senza vite di regolazione / Without adjusting screw

ACCESSORI - ACCESSORIES



MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



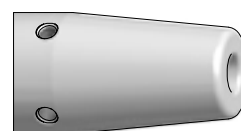
DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	L	L2	A1	A2
* TCB40.H80.TM3	3	80	12	/	10	20
* TCB40.H120.TM3	3	120	12	/	10	20
* TCB40.H160.TM3	3	160	12	/	10	20
* TCB40.H80.TM4	4	80	16	/	15	25
* TCB40.H120.TM4	4	120	16	/	15	25
* TCB40.H160.TM4	4	160	16	/	15	25
* TCB40.H80.TM5	5	80	20	/	15	25
* TCB40.H120.TM5	5	120	20	/	15	25
* TCB40.H160.TM5	5	160	20	/	15	25
TCB40.H80.TM6	6	80	36	10	21	27
TCB40.H130.TM6	6	130	36	10	21	27
TCB40.H160.TM6	6	160	36	10	21	27
TCB40.H80.TM8	8	80	36	10	21	27
TCB40.H130.TM8	8	130	36	10	21	27
TCB40.H160.TM8	8	160	36	10	21	27
TCB40.H80.TM10	10	80	41	10	24	32
TCB40.H130.TM10	10	130	41	10	24	32
TCB40.H160.TM10	10	160	41	10	24	32
TCB40.H80.TM12	12	80	46	10	24	32
TCB40.H130.TM12	12	130	46	10	24	32
TCB40.H160.TM12	12	160	46	10	24	32
TCB40.H80.TM14	14	80	46	10	24	32
TCB40.H130.TM14	14	130	46	10	24	32
TCB40.H160.TM14	14	160	46	10	24	32
TCB40.H80.TM16	16	80	49	10	24	32
TCB40.H130.TM16	16	130	49	10	24	32
TCB40.H160.TM16	16	160	49	10	24	32
TCB40.H80.TM18	18	80	49	10	33	42
TCB40.H130.TM18	18	130	49	10	33	42
TCB40.H160.TM18	18	160	49	10	33	42
TCB40.H80.TM20	20	80	51	10	33	42
TCB40.H130.TM20	20	130	51	10	33	42
TCB40.H160.TM20	20	160	51	10	33	42
TCB40.H100.TM25	25	100	57	10	44	53
TCB40.H130.TM25	25	130	57	10	44	53
TCB40.H160.TM25	25	160	57	10	44	53
TCB40.H100.TM32	32	100	61	10	44	53
TCB40.H130.TM32	32	130	61	10	44	53
TCB40.H160.TM32	32	160	61	10	44	53

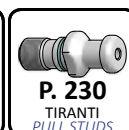
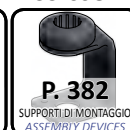
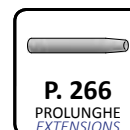
* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2

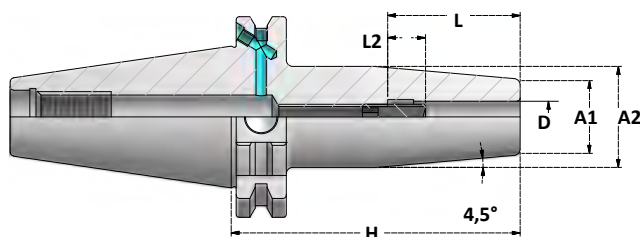


Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.

ACCESSORI - ACCESSORIES



MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



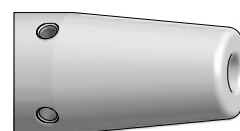
DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	L	L2	A1	A2
* TCB50.H80.TM3	3	80	12	/	10	16
* TCB50.H120.TM3	3	120	12	/	10	16
* TCB50.H160.TM3	3	160	12	/	10	16
* TCB50.H80.TM4	4	80	16	/	12	20
* TCB50.H120.TM4	4	120	16	/	12	20
* TCB50.H160.TM4	4	160	16	/	12	20
* TCB50.H80.TM5	5	80	20	/	12	21,6
* TCB50.H120.TM5	5	120	20	/	12	22
* TCB50.H160.TM5	5	160	20	/	12	22
TCB50.H80.TM6	6	80	36	10	21	27
TCB50.H120.TM6	6	120	36	10	21	27
TCB50.H160.TM6	6	160	36	10	21	27
TCB50.H80.TM8	8	80	36	10	21	27
TCB50.H120.TM8	8	120	36	10	21	27
TCB50.H160.TM8	8	160	36	10	21	27
TCB50.H80.TM10	10	80	41	10	24	32
TCB50.H120.TM10	10	120	41	10	24	32
TCB50.H160.TM10	10	160	41	10	24	32
TCB50.H80.TM12	12	80	46	10	24	32
TCB50.H120.TM12	12	120	46	10	24	32
TCB50.H160.TM12	12	160	46	10	24	32
TCB50.H80.TM14	14	80	46	10	27	34
TCB50.H120.TM14	14	120	46	10	27	34
TCB50.H160.TM14	14	160	46	10	27	34
TCB50.H80.TM16	16	80	49	10	27	34
TCB50.H120.TM16	16	120	49	10	27	34
TCB50.H160.TM16	16	160	49	10	27	34
TCB50.H80.TM18	18	80	49	10	33	42
TCB50.H120.TM18	18	120	49	10	33	42
TCB50.H160.TM18	18	160	49	10	33	42
TCB50.H80.TM20	20	80	51	10	33	42
TCB50.H120.TM20	20	120	51	10	33	42
TCB50.H160.TM20	20	160	51	10	33	42
TCB50.H100.TM25	25	100	57	10	44	53
TCB50.H120.TM25	25	120	57	10	44	53
TCB50.H160.TM25	25	160	57	10	44	53
TCB50.H100.TM32	32	100	61	10	44	53
TCB50.H120.TM32	32	120	61	10	44	53
TCB50.H160.TM32	32	160	61	10	44	53

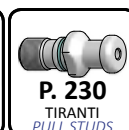
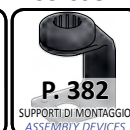
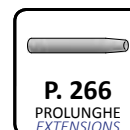
* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2



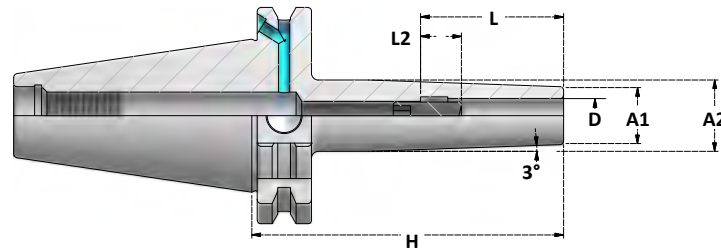
Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.

ACCESSORI - ACCESSORIES



MANDRINI A CALETTAMENTO A CALDO SLIM
SLIM SHRINK FIT CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



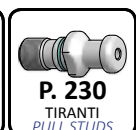
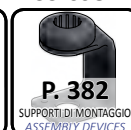
G2,5
25000 r.p.m.
AD+B

Articolo	D	H	L	L2	A1	A2
* TCB40.H80.TM3SL	3	80	12	/	9	13
* TCB40.H120.TM3SL	3	120	12	/	9	16
* TCB40.H80.TM4SL	4	80	16	/	10	15
* TCB40.H120.TM4SL	4	120	16	/	10	20
* TCB40.H80.TM5SL	5	80	20	/	11	16
* TCB40.H120.TM5SL	5	120	20	/	11	20
TCB40.H80.TM6SL	6	80	36	10	12	17
TCB40.H130.TM6SL	6	130	36	10	12	19
TCB40.H160.TM6SL	6	160	36	10	12	19
TCB40.H80.TM8SL	8	80	36	10	14	19
TCB40.H130.TM8SL	8	130	36	10	14	21
TCB40.H160.TM8SL	8	160	36	10	14	21
TCB40.H80.TM10SL	10	80	41	10	16	21
TCB40.H130.TM10SL	10	130	41	10	16	23
TCB40.H160.TM10SL	10	160	41	10	16	23
TCB40.H80.TM12SL	12	80	46	10	18	23
TCB40.H130.TM12SL	12	130	46	10	18	25
TCB40.H160.TM12SL	12	160	46	10	18	25
TCB40.H80.TM14SL	14	80	46	10	22	25
TCB40.H130.TM14SL	14	130	46	10	22	27
TCB40.H160.TM14SL	14	160	46	10	22	27
TCB40.H80.TM16SL	16	80	49	10	24	29
TCB40.H130.TM16SL	16	130	49	10	24	31
TCB40.H160.TM16SL	16	160	49	10	24	31
TCB40.H80.TM18SL	18	80	49	10	28	34
TCB40.H130.TM18SL	18	130	49	10	28	35
TCB40.H160.TM18SL	18	160	49	10	28	35
TCB40.H80.TM20SL	20	80	51	10	32	39
TCB40.H130.TM20SL	20	130	51	10	32	39
TCB40.H160.TM20SL	20	160	51	10	32	39

* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2

ACCESSORI - ACCESSORIES



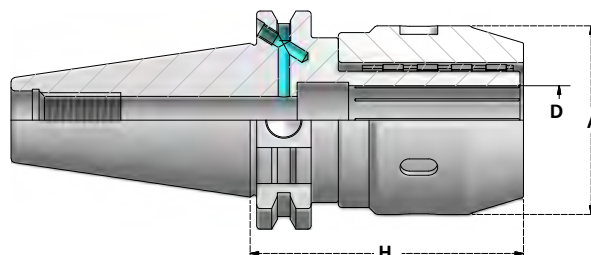
DIN ISO 7388 (DIN69871)

TC

FS

MANDRINI A FORTE SERRAGGIO
POWER MILLING CHUCKS

FORZA DI SERRAGGIO
CLAMPING FORCE
300 Nm



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G6,3 12000rpm
AD+B

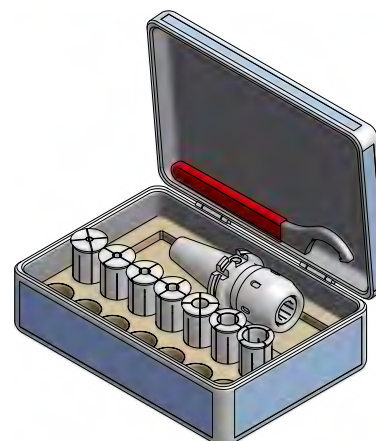
Articolo	D	H	A
TCB40.H98.FS20	20	98	55
TCB40.H100.FS32	32	100	69

G6,3 12000rpm
AD+B

Articolo	D	H	A
TCB50.H98.FS20	20	98	55
TCB50.H103.FS32	32	103	69

I TAGLI LONGITUDINALI PER TUTTA LA LUNGHEZZA DELLA SEDE PORTAUTENSILE AUMENTANO LA FORZA DI SERRAGGIO MA NON PERMETTONO LA TOTALE TENUTA DEL LIQUIDO REFRIGERANTE.

LONGITUDINAL CUTS ALL ALONG SEAT OF TOOL INCREASE CLAMPING FORCE BUT DO NOT ALLOW TOTAL SEALING.



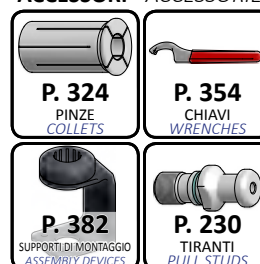
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.TCB40.FS20	4SR20.D6-D8-D10-D12-D16	TCB40.H98.FS20
BX.TCB40.FS32	4SR32.D6-D8-D10-D12-D16-D20-D25	TCB40.H100.FS32

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.TCB50.FS20	4SR20.D6-D8-D10-D12-D16	TCB50.H98.FS20
BX.TCB50.FS32	4SR32.D6-D8-D10-D12-D16-D20-D25	TCB50.H103.FS32

ACCESSORI - ACCESSORIES



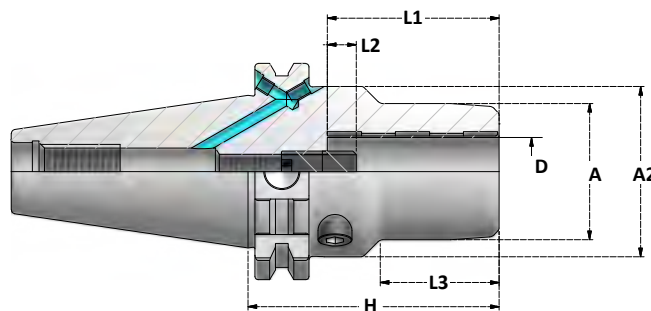
DIN ISO 7388 (DIN69871)

TC

HY

MANDRINI IDRAULICI
HYDRAULIC CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



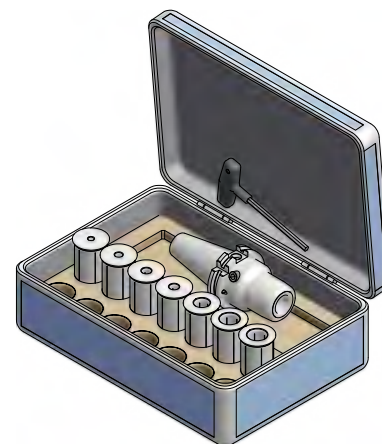
Articolo	D	H	L1	L2	L3	A	A2
TCB40.H65.HY20	20	65	51	10	/	49,5	/



Articolo	D	H	L1	L2	L3	A	A2
TCB40.H80.HY6	6	80	37	10	40	26	49,5
TCB40.H110.HY6	6	110	37	10	40	26	49,5
TCB40.H80.HY8	8	80	37	10	40	28	49,5
TCB40.H110.HY8	8	110	37	10	40	28	49,5
TCB40.H80.HY10	10	80	41	10	40	30	49,5
TCB40.H110.HY10	10	110	41	10	40	30	49,5
TCB40.H80.HY12	12	80	46	10	40	32	49,5
TCB40.H110.HY12	12	110	46	10	40	32	49,5
TCB40.H80.HY14	14	80	46	10	40	34	49,5
TCB40.H110.HY14	14	110	46	10	40	34	49,5
TCB40.H80.HY16	16	80	49	10	46	38	49,5
TCB40.H110.HY16	16	110	49	10	46	38	49,5
TCB40.H80.HY18	18	80	49	10	46	40	49,5
TCB40.H110.HY18	18	110	49	10	46	40	49,5
TCB40.H80.HY20	20	80	51	10	46	42	49,5
TCB40.H110.HY20	20	110	51	10	46	42	49,5
TCB40.H95.HY25	25	95	57	10	76	49,5	55
TCB40.H110.HY25	25	110	57	10	91	49,5	55
TCB40.H95.HY32	32	95	61	10	76	56	63
TCB40.H110.HY32	32	110	61	10	91	56	63

Momento torcente consigliato **10/12Nm**
Recommended tightening torque

Forza di serraggio Clamping force	Chiave Wrench
HY6 12Nm	CH.EX5
HY8 30Nm	CH.EX5
HY10 40Nm	CH.EX5
HY12 70Nm	CH.EX5
HY14 100Nm	CH.EX5
HY16 135Nm	CH.EX5
HY18 180Nm	CH.EX5
HY20 220Nm	CH.EX5
HY25 500Nm	CH.EX6
HY32 700Nm	CH.EX6



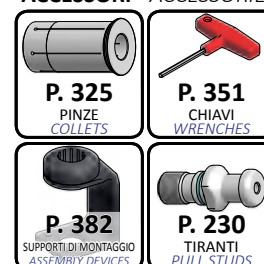
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.TCB40.HY20	6SR20.D6-D8-D10-D12-D16	TCB40.H80.HY20
BX.TCB40.HY32	6SR32.D6-D8-D10-D12-D16-D20-D25	TCB40.H95.HY32

ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST

ACCESSORI - ACCESSORIES



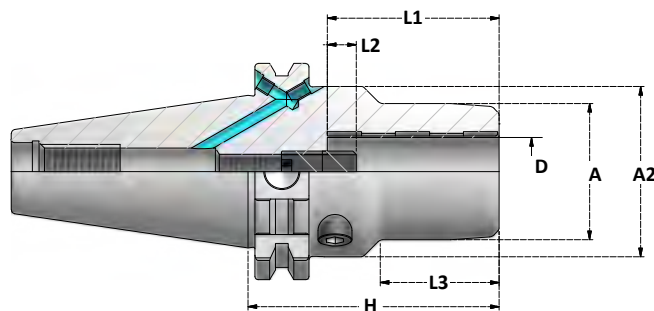
DIN ISO 7388 (DIN69871)

TC

HY

MANDRINI IDRAULICI
HYDRAULIC CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



G2,5
25000 r.p.m.
AD+B

Articolo	D	H	L1	L2	L3	A	A2
TCB50.H81.HY32	32	81	61	10	/	72	/

G2,5
25000 r.p.m.
AD+B

Articolo	D	H	L1	L2	L3	A	A2
TCB50.H80.HY6	6	80	37	10	40	26	49,5
TCB50.H110.HY6	6	110	37	10	40	26	49,5
TCB50.H80.HY8	8	80	37	10	40	28	49,5
TCB50.H110.HY8	8	110	37	10	40	28	49,5
TCB50.H80.HY10	10	80	41	10	40	30	49,5
TCB50.H110.HY10	10	110	41	10	40	30	49,5
TCB50.H80.HY12	12	80	46	10	40	32	49,5
TCB50.H110.HY12	12	110	46	10	40	32	49,5
TCB50.H80.HY14	14	80	46	10	40	34	49,5
TCB50.H110.HY14	14	110	46	10	40	34	49,5
TCB50.H80.HY16	16	80	49	10	46	38	49,5
TCB50.H110.HY16	16	110	49	10	46	38	49,5
TCB50.H80.HY18	18	80	49	10	46	40	49,5
TCB50.H110.HY18	18	110	49	10	46	40	49,5
TCB50.H80.HY20	20	80	51	10	46	42	49,5
TCB50.H110.HY20	20	110	51	10	46	42	49,5
TCB50.H100.HY25	25	100	57	10	55	49,5	55
TCB50.H120.HY25	25	120	57	10	55	49,5	55
TCB50.H100.HY32	32	100	61	10	55	56	63
TCB50.H120.HY32	32	120	61	10	55	56	63

Momento torcente consigliato **10/12Nm**
Recommended tightening torque

Forza di serraggio Clamping force	Chiave Wrench
HY6 12Nm	CH.EX5
HY8 30Nm	CH.EX5
HY10 40Nm	CH.EX5
HY12 70Nm	CH.EX5
HY14 100Nm	CH.EX5
HY16 135Nm	CH.EX5
HY18 180Nm	CH.EX5
HY20 220Nm	CH.EX5
HY25 500Nm	CH.EX6
HY32 700Nm	CH.EX6



KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.TCB50.HY20	6SR20.D6-D8-D10-D12-D16	TCB50.H80.HY20
BX.TCB50.HY32	6SR32.D6-D8-D10-D12-D16-D20-D25	TCB50.H100.HY32

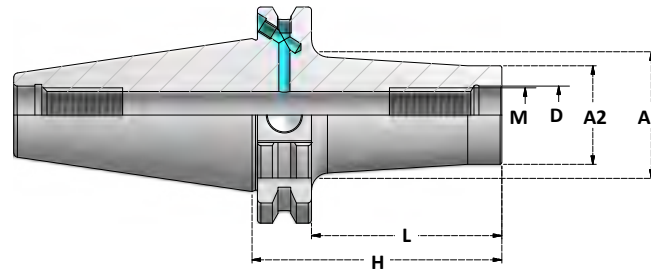
ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST

ACCESSORI - ACCESSORIES



MANDRINI PER FRESE CON ATTACCO FILETTATO

SCREW IN MILL CHUCKS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G2,5 25000 r.p.m.
AD+B

Articolo	M	D	H	L	A1	A2
TCB40.H55.M8CPY	M8	8,5	55	35	15	13
TCB40.H75.M8CPY	M8	8,5	75	55	23	13
TCB40.H95.M8CPY	M8	8,5	95	75	23	13
TCB40.H115.M8CPY	M8	8,5	115	95	25	13
TCB40.H55.M10CPY	M10	10,5	55	35	20	18
TCB40.H75.M10CPY	M10	10,5	75	55	25	18
TCB40.H95.M10CPY	M10	10,5	95	75	28	18
TCB40.H115.M10CPY	M10	10,5	115	95	28	18
TCB40.H145.M10CPY	M10	10,5	145	125	34	18
TCB40.H55.M12CPY	M12	12,5	55	35	24	21
TCB40.H75.M12CPY	M12	12,5	75	55	24	21
TCB40.H95.M12CPY	M12	12,5	95	75	31	21
TCB40.H115.M12CPY	M12	12,5	115	95	31	21
TCB40.H145.M12CPY	M12	12,5	145	125	38	21
TCB40.H175.M12CPY	M12	12,5	175	155	42	21
TCB40.H55.M16CPY	M16	17	55	35	34	29
TCB40.H75.M16CPY	M16	17	75	55	34	29
TCB40.H95.M16CPY	M16	17	95	75	34	29
TCB40.H115.M16CPY	M16	17	115	95	39	29
TCB40.H145.M16CPY	M16	17	145	125	39	29
TCB40.H175.M16CPY	M16	17	175	155	39	29

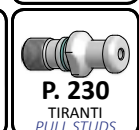
Momento di serraggio consigliato
Recommended tightening torque

M8	25Nm
M10	40Nm
M12	60Nm
M16	80Nm

G2,5 15000 r.p.m.
AD+B

Articolo	M	D	H	L	A1	A2
TCB50.H85.M10CPY	M10	10,5	85	65	28	18
TCB50.H135.M10CPY	M10	10,5	135	115	28	18
TCB50.H185.M10CPY	M10	10,5	185	165	32	18
TCB50.H85.M12CPY	M12	12,5	85	65	32	21
TCB50.H135.M12CPY	M12	12,5	135	115	32	21
TCB50.H185.M12CPY	M12	12,5	185	165	36	21
TCB50.H85.M16CPY	M16	17	85	65	36	29
TCB50.H135.M16CPY	M16	17	135	115	40	29
TCB50.H185.M16CPY	M16	17	185	165	42	29

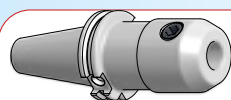
ACCESSORI - ACCESSORIES



DIN ISO 7388 (DIN69871) - TC

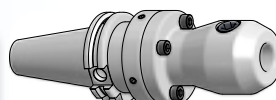
MANDRINI PORTAFRESA WELDON - DIN1835-2

END MILL HOLDERS WELDON - DIN1835-2



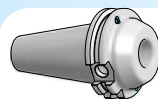
A DOPPIO CONTATTO
DOUBLE CONTACT

PAG. 70



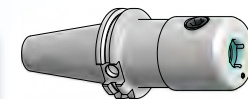
A CENTRATURA REGOLABILE
RUNOUT ADJUSTABLE

PAG. 77



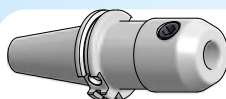
EXTRACORTI
STUB LENGTH

PAG. 71



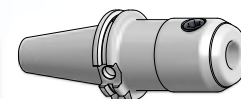
CON CANALI DI LUBRIFICAZIONE
WITH COOLANT CHANNELS

PAG. 78



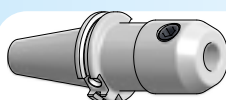
STANDARD
STANDARD

PAG. 72 - 75



A 2° - WHISTLE NOTCH
WHISTLE NOTCH - 2°

PAG. 79



PER ALTE VELOCITA'
FOR HIGH SPEEDS

PAG. 76

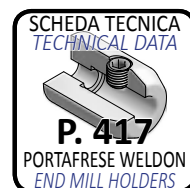
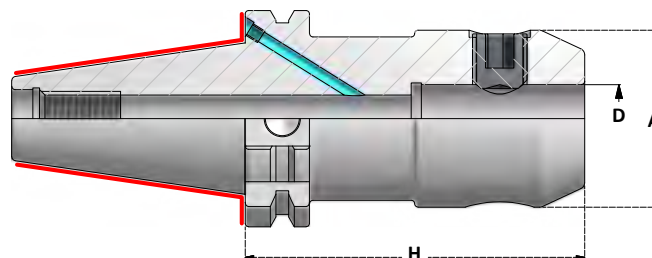
TC

WE

DIN 1835-2 Form B

MANDRINI A DOPPIO CONTATTO PORTAFRESE WELDON

DOUBLE CONTACT END MILL HOLDERS WELDON



SCHEDA TECNICA
TECHNICAL DATA

P. 417
PORTAFRESE WELDON
END MILL HOLDERS

G2,5
25000.p.m.



Articolo	D	H	A	Grano Screw
DTCB40.H50.WE6	6	50	25	GR.WE6
DTCB40.H50.WE8	8	50	28	GR.WE8
DTCB40.H50.WE10	10	50	35	GR.WE10
DTCB40.H50.WE12	12	50	42	GR.WE12-14
DTCB40.H63.WE16	16	63	48	GR.WE16-18
DTCB40.H63.WE20	20	63	52	GR.WE20
DTCB40.H100.WE25	25	100	65	GR.WE25
DTCB40.H100.WE32	32	100	72	GR.WE32-40

G2,5
25000.p.m.



Articolo	D	H	A	Grano Screw
DTCB50.H63.WE6	6	63	25	GR.WE6
DTCB50.H63.WE8	8	63	28	GR.WE8
DTCB50.H63.WE10	10	63	35	GR.WE10
DTCB50.H63.WE12	12	63	42	GR.WE12-14
DTCB50.H63.WE16	16	63	48	GR.WE16-18
DTCB50.H63.WE20	20	63	52	GR.WE20
DTCB50.H80.WE25	25	80	65	GR.WE25
DTCB50.H100.WE32	32	100	72	GR.WE32-40
DTCB50.H112.WE40	40	112	80	GR.WE32-40
DTCB50.H130.WE50	50	130	100	GR.WE50

ACCESSORI - ACCESSORIES



P. 367
GRANI
SCREWS



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



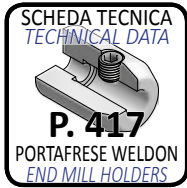
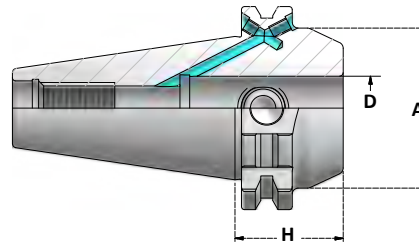
P. 230
TIRANTI
PULL STUDS

MANDRINI PORTAFRESA WELDON - EXTRACORTI

END MILL HOLDERS WELDON - STUB LENGTH

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Grano 1 Screw 1	Grano 2 Screw 2	Fig
TC30.H30.WE6	6	30	25	GR.WE6	/	1
TC30.H30.WE8	8	30	28	GR.WE8	/	1
TC30.H30.WE10	10	30	35	GR.WE10	/	1
TC30.H35.WE12	12	35	42	GR.WEC12-14	/	1
TC30.H35.WE14	14	35	44	GR.WEC12-14	/	1
TC30.H35.WE16	16	35	44	GR.WEC16	/	1
TC30.H35.WE18	18	35	44	GR.WEC25-32	/	1
TC30.H35.WE20	20	35	45	GR.WEC25-32	/	1



Articolo	D	H	A	Grano 1 Screw 1	Grano 2 Screw 2	Fig
TCB40.H35.WE16	16	35	44,5	GR.WEC16	/	1
TCB40.H35.WE20	20	35	44,5	GR.WEC20	/	1
TCB40.H35.WE25	25	35	44,5	GR.WEC20	/	1
TCB40.H60.WE25	25	60	49	GR.WEC25-32	GR.WEC25	2
TCB40.H40.WE32	32	40	43,7	GR.WEC25-32	/	1
TCB40.H70.WE32	32	70	72	GR.WEC25-32	GR.WE32-40	2



Articolo	D	H	A	Grano 1 Screw 1	Grano 2 Screw 2	Fig
TCB50.H35.WE16	16	35	48	GR.WE16-18	/	1
TCB50.H35.WE20	20	35	52	GR.WE20	/	1
TCB50.H35.WE25	25	35	72	GR.WE25	/	1
TCB50.H35.WE32	32	35	72	GR.WE32-40	/	1
TCB50.H35.WE40	40	35	80	GR.WEC32-40	/	1

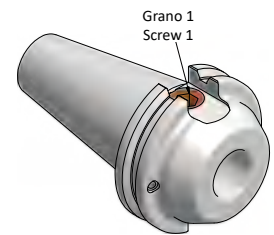


Fig 1

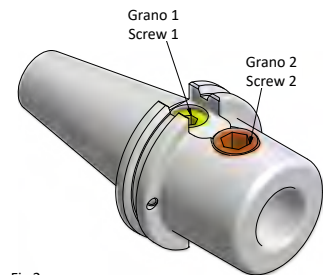
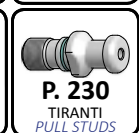
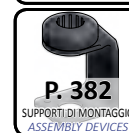


Fig 2

Montano utensili weldon con piano come da norma DIN1835-1.

Mount tools with DIN1835-1 slots.

ACCESSORI - ACCESSORIES

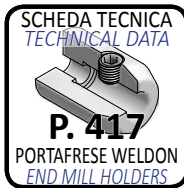
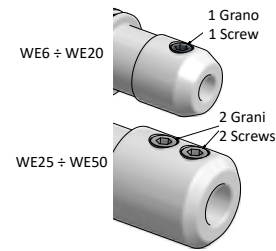
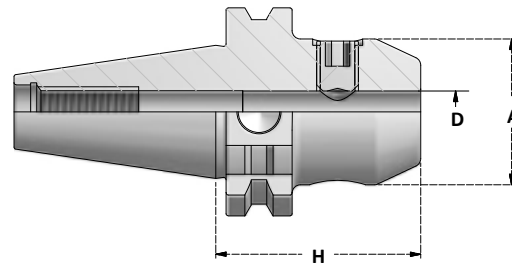


MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON

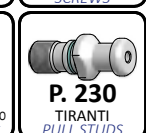
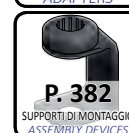
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
TC30.H50.WE6	6	50	25	GR.WE6
TC30.H100.WE6	6	100	25	GR.WE6
TC30.H50.WE8	8	50	28	GR.WE8
TC30.H100.WE8	8	100	28	GR.WE8
TC30.H50.WE10	10	50	35	GR.WE10
TC30.H100.WE10	10	100	35	GR.WE10
TC30.H50.WE12	12	50	42	GR.WE12-14
TC30.H100.WE12	12	100	42	GR.WE12-14
TC30.H50.WE14	14	50	44	GR.WE12-14
TC30.H100.WE14	14	100	44	GR.WE12-14
TC30.H63.WE16	16	63	44	GR.WEC16
TC30.H100.WE16	16	100	48	GR.WE16-18
TC30.H63.WE18	18	63	44	GR.WEC16
TC30.H100.WE18	18	100	50	GR.WE16-18
TC30.H63.WE20	20	63	44	GR.WEC20
TC30.H100.WE20	20	100	52	GR.WE20

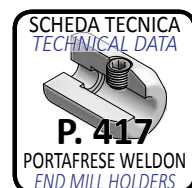
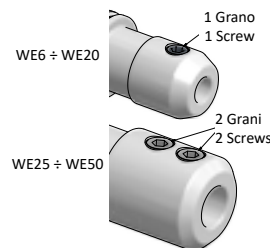
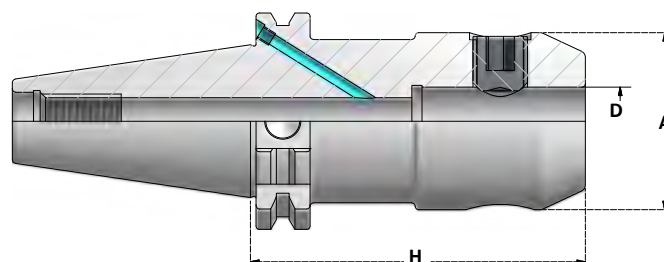
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON

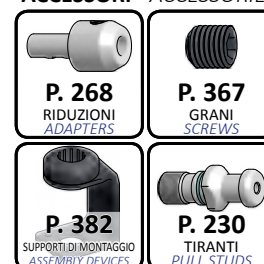
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
TCB40.H50.WE6	6	50	25	GR.WE6
TCB40.H100.WE6	6	100	25	GR.WE6
TCB40.H130.WE6	6	130	25	GR.WE6
TCB40.H160.WE6	6	160	25	GR.WE6
TCB40.H200.WE6	6	200	25	GR.WE6
TCB40.H50.WE8	8	50	28	GR.WE8
TCB40.H100.WE8	8	100	28	GR.WE8
TCB40.H130.WE8	8	130	28	GR.WE8
TCB40.H160.WE8	8	160	28	GR.WE8
TCB40.H200.WE8	8	200	28	GR.WE8
TCB40.H50.WE10	10	50	35	GR.WE10
TCB40.H100.WE10	10	100	35	GR.WE10
TCB40.H130.WE10	10	130	35	GR.WE10
TCB40.H160.WE10	10	160	35	GR.WE10
TCB40.H200.WE10	10	200	35	GR.WE10
TCB40.H50.WE12	12	50	42	GR.WE12-14
TCB40.H100.WE12	12	100	42	GR.WE12-14
TCB40.H130.WE12	12	130	42	GR.WE12-14
TCB40.H160.WE12	12	160	42	GR.WE12-14
TCB40.H200.WE12	12	200	42	GR.WE12-14
TCB40.H50.WE14	14	50	44	GR.WE12-14
TCB40.H100.WE14	14	100	44	GR.WE12-14
TCB40.H130.WE14	14	130	44	GR.WE12-14
TCB40.H160.WE14	14	160	44	GR.WE12-14
TCB40.H200.WE14	14	200	44	GR.WE12-14
TCB40.H63.WE16	16	63	48	GR.WE16-18
TCB40.H100.WE16	16	100	48	GR.WE16-18
TCB40.H130.WE16	16	130	48	GR.WE16-18
TCB40.H160.WE16	16	160	48	GR.WE16-18
TCB40.H200.WE16	16	200	48	GR.WE16-18
TCB40.H63.WE18	18	63	50	GR.WE16-18
TCB40.H100.WE18	18	100	50	GR.WE16-18
TCB40.H130.WE18	18	130	50	GR.WE16-18
TCB40.H160.WE18	18	160	50	GR.WE16-18
TCB40.H200.WE18	18	200	50	GR.WE16-18
TCB40.H63.WE20	20	63	52	GR.WE20
TCB40.H100.WE20	20	100	52	GR.WE20
TCB40.H130.WE20	20	130	52	GR.WE20
TCB40.H160.WE20	20	160	52	GR.WE20
TCB40.H200.WE20	20	200	52	GR.WE20

ACCESSORI - ACCESSORIES

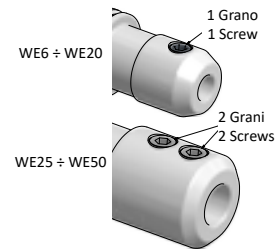
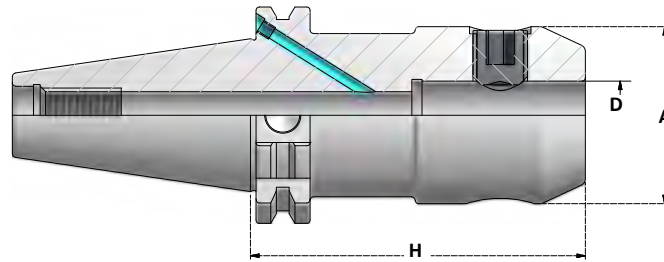


MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

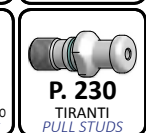
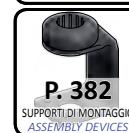
SHANK
DIMENSIONS



G6,3 15000 r.p.m. AD+B	Articolo	D	H	A	Grano Screw
	TCB40.H100.WE25	25	100	65	GR.WE25
TCB40.H130.WE25	25	130	65	GR.WE25	
TCB40.H160.WE25	25	160	65	GR.WE25	
TCB40.H200.WE25	25	200	65	GR.WE25	
TCB40.H100.WE32	32	100	72	GR.WE32-40	
TCB40.H130.WE32	32	130	72	GR.WE32-40	
TCB40.H160.WE32	32	160	72	GR.WE32-40	
TCB40.H200.WE32	32	200	72	GR.WE32-40	
TCB40.H120.WE40	40	120	80	GR.WE32-40	

G6,3 15000 r.p.m. AD+B	Articolo	D	H	A	Grano Screw
	TCB50.H63.WE6	6	63	25	GR.WE6
TCB50.H100.WE6	6	100	25	GR.WE6	
TCB50.H130.WE6	6	130	25	GR.WE6	
TCB50.H160.WE6	6	160	25	GR.WE6	
TCB50.H200.WE6	6	200	25	GR.WE6	
TCB50.H63.WE8	8	63	28	GR.WE8	
TCB50.H100.WE8	8	100	28	GR.WE8	
TCB50.H130.WE8	8	130	28	GR.WE8	
TCB50.H160.WE8	8	160	28	GR.WE8	
TCB50.H200.WE8	8	200	28	GR.WE8	
TCB50.H63.WE10	10	63	35	GR.WE10	
TCB50.H100.WE10	10	100	35	GR.WE10	
TCB50.H130.WE10	10	130	35	GR.WE10	
TCB50.H160.WE10	10	160	35	GR.WE10	
TCB50.H200.WE10	10	200	35	GR.WE10	
TCB50.H63.WE12	12	63	42	GR.WE12-14	
TCB50.H100.WE12	12	100	42	GR.WE12-14	
TCB50.H130.WE12	12	130	42	GR.WE12-14	
TCB50.H160.WE12	12	160	42	GR.WE12-14	
TCB50.H200.WE12	12	200	42	GR.WE12-14	
TCB50.H63.WE14	14	63	44	GR.WE12-14	
TCB50.H100.WE14	14	100	44	GR.WE12-14	
TCB50.H130.WE14	14	130	44	GR.WE12-14	
TCB50.H160.WE14	14	160	44	GR.WE12-14	
TCB50.H200.WE14	14	200	44	GR.WE12-14	

ACCESSORI - ACCESSORIES

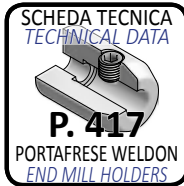
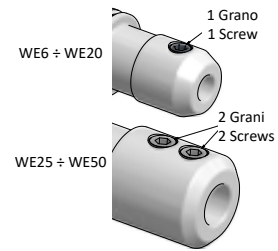
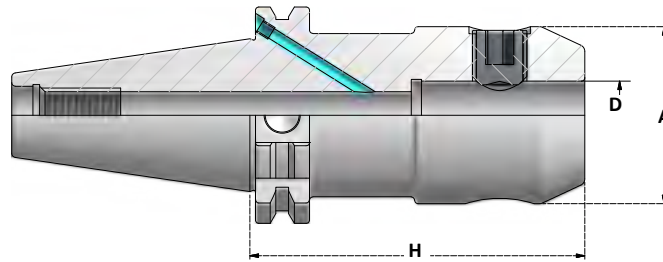


MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON

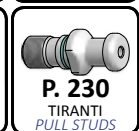
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
TCB50.H63.WE16	16	63	48	GR.WE16-18
TCB50.H100.WE16	16	100	48	GR.WE16-18
TCB50.H130.WE16	16	130	48	GR.WE16-18
TCB50.H160.WE16	16	160	48	GR.WE16-18
TCB50.H200.WE16	16	200	48	GR.WE16-18
TCB50.H63.WE18	18	63	50	GR.WE16-18
TCB50.H100.WE18	18	100	50	GR.WE16-18
TCB50.H130.WE18	18	130	50	GR.WE16-18
TCB50.H160.WE18	18	160	50	GR.WE16-18
TCB50.H200.WE18	18	200	50	GR.WE16-18
TCB50.H63.WE20	20	63	52	GR.WE20
TCB50.H100.WE20	20	100	52	GR.WE20
TCB50.H130.WE20	20	130	52	GR.WE20
TCB50.H160.WE20	20	160	52	GR.WE20
TCB50.H200.WE20	20	200	52	GR.WE20
TCB50.H250.WE20	20	250	52	GR.WE20
TCB50.H80.WE25	25	80	65	GR.WE25
TCB50.H100.WE25	25	100	65	GR.WE25
TCB50.H130.WE25	25	130	65	GR.WE25
TCB50.H160.WE25	25	160	65	GR.WE25
TCB50.H200.WE25	25	200	65	GR.WE25
TCB50.H250.WE25	25	250	65	GR.WE25
TCB50.H100.WE32	32	100	72	GR.WE32-40
TCB50.H130.WE32	32	130	72	GR.WE32-40
TCB50.H160.WE32	32	160	72	GR.WE32-40
TCB50.H200.WE32	32	200	72	GR.WE32-40
TCB50.H250.WE32	32	250	72	GR.WE32-40
TCB50.H112.WE40	40	112	80	GR.WE32-40
TCB50.H130.WE40	40	130	80	GR.WE32-40
TCB50.H160.WE40	40	160	80	GR.WE32-40
TCB50.H200.WE40	40	200	80	GR.WE32-40
TCB50.H130.WE50	50	130	100	GR.WE50

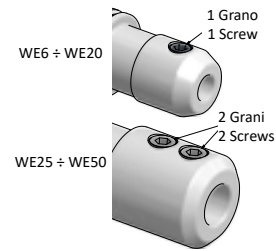
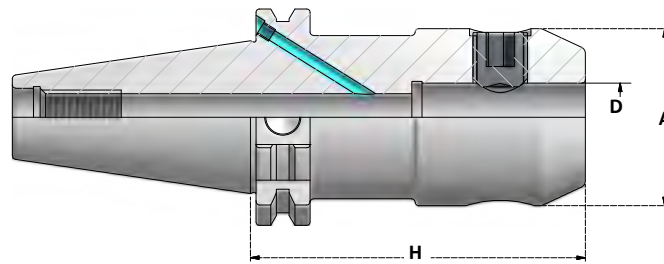
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON PER ALTE VELOCITA'
END MILL HOLDERS WELDON FOR HIGH SPEEDS

DIMENSIONI
DELL'ATTACCO

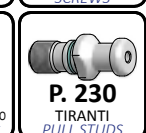
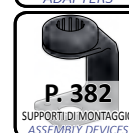
SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
TCB40.H50.WE6E	6	50	25	GR.WE6
TCB40.H50.WE8E	8	50	28	GR.WE8
TCB40.H50.WE10E	10	50	35	GR.WE10
TCB40.H50.WE12E	12	50	42	GR.WE12-14
TCB40.H50.WE14E	14	50	44	GR.WE12-14
TCB40.H63.WE16E	16	63	48	GR.WE16-18
TCB40.H63.WE18E	18	63	50	GR.WE16-18
TCB40.H63.WE20E	20	63	52	GR.WE20
TCB40.H100.WE25E	25	100	65	GR.WE25
TCB40.H100.WE32E	32	100	72	GR.WE32-40

ALTRI A RICHIESTA
OTHERS ON REQUEST

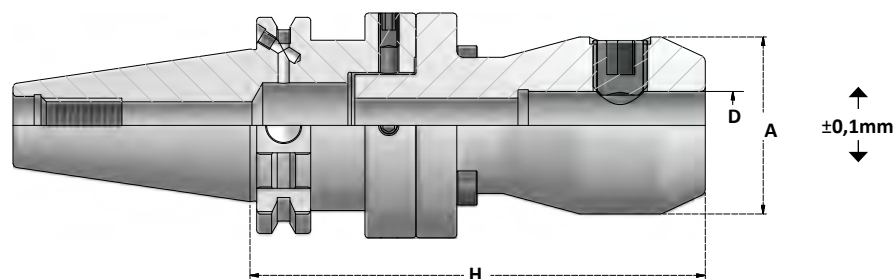
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON A CENTRATURA REGOLABILE
RUNOUT ADJUSTABLE END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

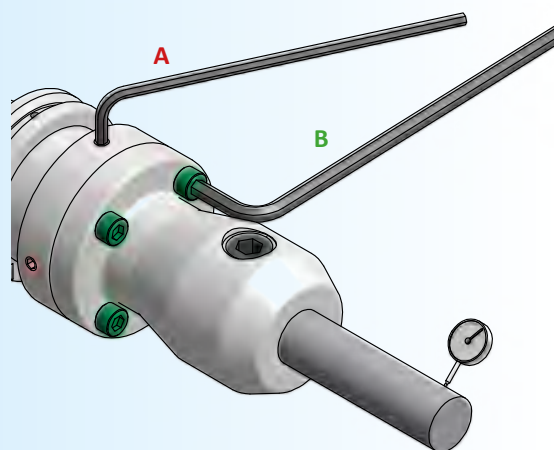


Articolo	D	H	A	Grano Screw
TCB40.H100.WE6RG	6	100	25	GR.WE6
TCB40.H100.WE8RG	8	100	28	GR.WE8
TCB40.H100.WE10RG	10	100	35	GR.WE10
TCB40.H110.WE12RG	12	110	42	GR.WE12-14
TCB40.H110.WE14RG	14	110	44	GR.WE12-14
TCB40.H130.WE16RG	16	130	48	GR.WE16-18
TCB40.H130.WE18RG	18	130	50	GR.WE16-18
TCB40.H135.WE20RG	20	135	52	GR.WE20

Centratura regolabile 0,1mm
Adjustable runout 0,1mm



Articolo	D	H	A	Grano Screw
TCB50.H100.WE6RG	6	100	25	GR.WE6
TCB50.H100.WE8RG	8	100	28	GR.WE8
TCB50.H100.WE10RG	10	100	35	GR.WE10
TCB50.H110.WE12RG	12	110	42	GR.WE12-14
TCB50.H110.WE14RG	14	110	44	GR.WE12-14
TCB50.H130.WE16RG	16	130	48	GR.WE16-18
TCB50.H130.WE18RG	18	130	50	GR.WE16-18
TCB50.H135.WE20RG	20	135	52	GR.WE20



Allentare le viti **B** e regolare la centratura tramite le viti **A**.
Loosen screws **B** and use screws **A** for radial adjustment.

ACCESSORI - ACCESSORIES



P. 367
GRANI
SCREWS



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



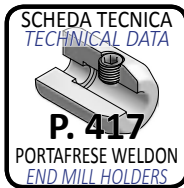
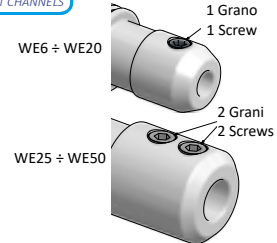
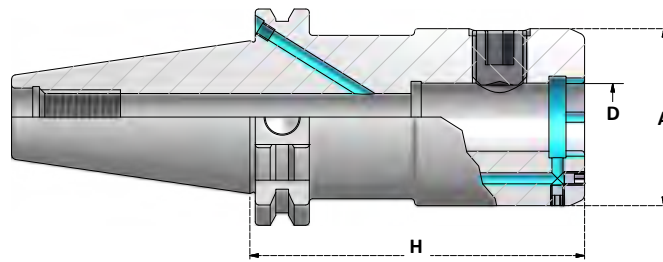
P. 230
TIRANTI
PULL STUDS

MANDRINI PORTAFRESA WELDON CON CANALI DI LUBRIFICAZIONE

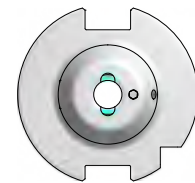
END MILL HOLDERS WELDON WITH COOLANT CHANNELS

DIMENSIONI
DELL'ATTACCO

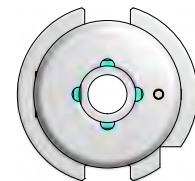
SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
TCB40.H65.WE6C	6	65	25	GR.WE6
TCB40.H65.WE8C	8	65	28	GR.WE8
TCB40.H65.WE10C	10	65	35	GR.WE10
TCB40.H65.WE12C	12	65	42	GR.WE12-14
TCB40.H65.WE14C	14	65	44	GR.WE12-14
TCB40.H65.WE16C	16	65	48	GR.WE16-18
TCB40.H65.WE18C	18	65	50	GR.WE16-18
TCB40.H65.WE20C	20	65	52	GR.WE20
TCB40.H100.WE25C	25	100	65	GR.WE25
TCB40.H100.WE32C	32	100	72	GR.WE32-40



WE6 ÷ WE14



WE16 ÷ WE50



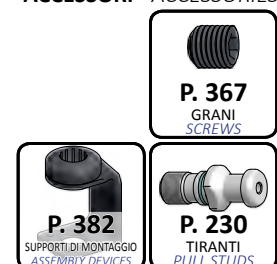
Articolo	D	H	A	Grano Screw
TCB50.H63.WE6C	6	63	25	GR.WE6
TCB50.H63.WE8C	8	63	28	GR.WE8
TCB50.H63.WE10C	10	63	35	GR.WE10
TCB50.H63.WE12C	12	63	42	GR.WE12-14
TCB50.H63.WE14C	14	63	44	GR.WE12-14
TCB50.H63.WE16C	16	63	48	GR.WE16-18
TCB50.H63.WE18C	18	63	50	GR.WE16-18
TCB50.H63.WE20C	20	63	52	GR.WE20
TCB50.H100.WE25C	25	100	65	GR.WE25
TCB50.H100.WE32C	32	100	72	GR.WE32-40
TCB50.H100.WE40C	40	100	80	GR.WE32-40

Regolando il grano si può scegliere se indirizzare il liquido refrigerante ai fori del mandrino o attraverso l'utensile.

Lock screw for coolant through tool.
Unlock screw for coolant through toolholder.



ACCESSORI - ACCESSORIES

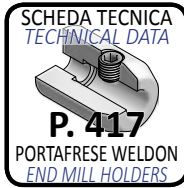
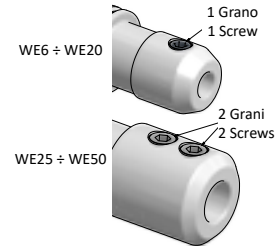
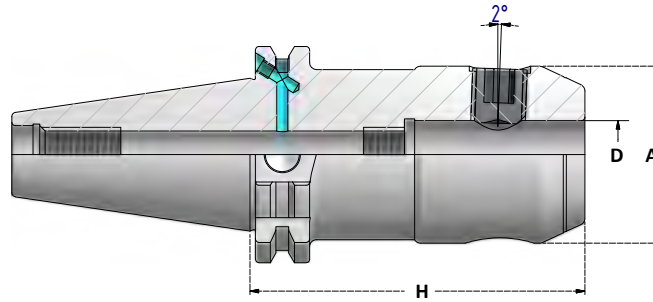


MANDRINI PORTAFRESA WHISTLE NOTCH

END MILL HOLDERS WHISTLE NOTCH

DIMENSIONI
DELL'ATTACCO

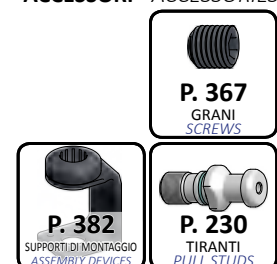
SHANK
DIMENSIONS



G6,3 15000 r.p.m. AD+B	Articolo	D	H	A	Grano Screw
	TCB40.H50.WHN6	6	50	25	GR.WE6
TCB40.H50.WHN8	8	50	28	GR.WE8	
TCB40.H50.WHN10	10	50	35	GR.WE10	
TCB40.H50.WHN12	12	50	42	GR.WE12-14	
TCB40.H50.WHN14	14	50	44	GR.WE12-14	
TCB40.H63.WHN16	16	63	48	GR.WE16-18	
TCB40.H63.WHN18	18	63	50	GR.WE16-18	
TCB40.H63.WHN20	20	63	52	GR.WE20	
TCB40.H100.WHN25	25	100	65	GR.WE25	
TCB40.H100.WHN32	32	100	72	GR.WE32-40	

G6,3 15000 r.p.m. AD+B	Articolo	D	H	A	Grano Screw
	TCB50.H63.WHN6	6	63	25	GR.WE6
TCB50.H63.WHN8	8	63	28	GR.WE8	
TCB50.H63.WHN10	10	63	35	GR.WE10	
TCB50.H63.WHN12	12	63	42	GR.WE12-14	
TCB50.H63.WHN14	14	63	44	GR.WE12-14	
TCB50.H63.WHN16	16	63	48	GR.WE16-18	
TCB50.H63.WHN18	18	63	50	GR.WE16-18	
TCB50.H63.WHN20	20	63	52	GR.WE20	
TCB50.H80.WHN25	25	80	65	GR.WE25	
TCB50.H100.WHN32	32	100	72	GR.WE32-40	
TCB50.H112.WHN40	40	112	80	GR.WE32-40	

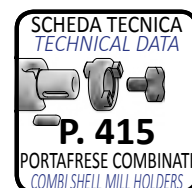
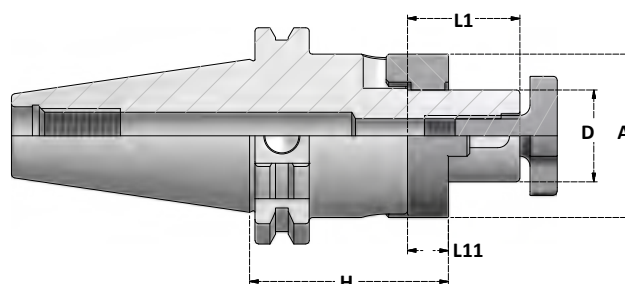
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA COMBINATI
COMBI SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

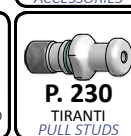


Articolo	D	H	A	L1	L11	ATR	VTC	CHV
TC30.H50.D16C	16	50	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC30.H50.D22C	22	50	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC30.H55.D27C	27	55	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC30.H60.D32C	32	60	58	38	14	ATR.D32	VTC.D32	CHV.D32



Articolo	D	H	A	L1	L11	ATR	VTC	CHV
TC40.H55.D16C	16	55	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC40.H100.D16C	16	100	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC40.H130.D16C	16	130	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC40.H160.D16C	16	160	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC40.H200.D16C	16	200	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC40.H55.D22C	22	55	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC40.H100.D22C	22	100	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC40.H130.D22C	22	130	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC40.H160.D22C	22	160	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC40.H200.D22C	22	200	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC40.H55.D27C	27	55	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC40.H100.D27C	27	100	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC40.H130.D27C	27	130	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC40.H160.D27C	27	160	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC40.H200.D27C	27	200	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC40.H60.D32C	32	60	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC40.H100.D32C	32	100	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC40.H130.D32C	32	130	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC40.H160.D32C	32	160	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC40.H200.D32C	32	200	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC40.H60.D40C	40	60	70	41	14	ATR.D40	VTC.D40	CHV.D40
TC40.H100.D40C	40	100	70	41	14	ATR.D40	VTC.D40	CHV.D40
TC40.H130.D40C	40	130	70	41	14	ATR.D40	VTC.D40	CHV.D40
TC40.H160.D40C	40	160	70	41	14	ATR.D40	VTC.D40	CHV.D40
TC40.H200.D40C	40	200	70	41	14	ATR.D40	VTC.D40	CHV.D40

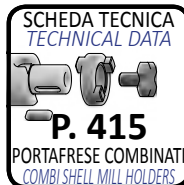
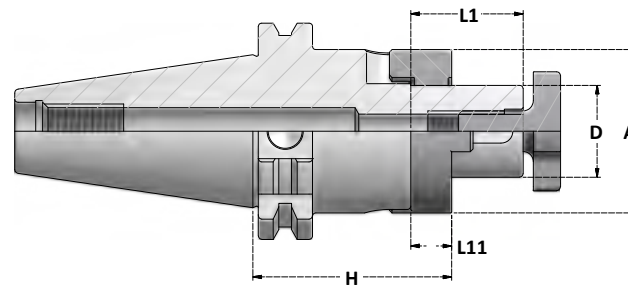
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA COMBINATI
COMBI SHELL MILL HOLDERS

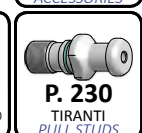
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	L1	L11	ATR	VTC	CHV
TC50.H55.D16C	16	55	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC50.H100.D16C	16	100	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC50.H130.D16C	16	130	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC50.H160.D16C	16	160	32	27	10	ATR.D16	VTC.D16	CHV.D16
TC50.H55.D22C	22	55	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC50.H100.D22C	22	100	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC50.H130.D22C	22	130	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC50.H160.D22C	22	160	40	31	12	ATR.D22	VTC.D22	CHV.D22
TC50.H55.D27C	27	55	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC50.H100.D27C	27	100	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC50.H130.D27C	27	130	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC50.H160.D27C	27	160	48	33	12	ATR.D27	VTC.D27	CHV.D27
TC50.H55.D32C	32	55	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC50.H100.D32C	32	100	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC50.H130.D32C	32	130	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC50.H160.D32C	32	160	58	38	14	ATR.D32	VTC.D32	CHV.D32
TC50.H55.D40C	40	55	70	41	14	ATR.D40	VTC.D40	CHV.D40
TC50.H100.D40C	40	100	70	41	14	ATR.D40	VTC.D40	CHV.D40
TC50.H130.D40C	40	130	70	41	14	ATR.D40	VTC.D40	CHV.D40
TC50.H160.D40C	40	160	70	41	14	ATR.D40	VTC.D40	CHV.D40

ACCESSORI - ACCESSORIES

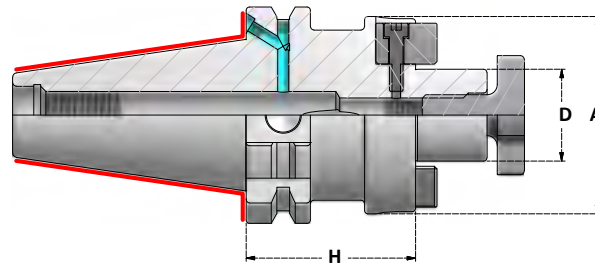


MANDRINI A DOPPIO CONTATTO PORTAFRESA FISSI

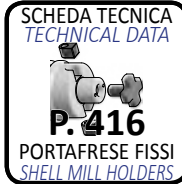
DOUBLE CONTACT SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS




CANALI PER
REFRIGERANTE
COOLANT CHANNELS



SCHEDA TECNICA
TECHNICAL DATA

P. 416
PORTAFRESE FISSI
SHELL MILL HOLDERS

G2,5 25000r.p.m. AD+B	Articolo	D	H	A	TTR	VTC
		DTCB40.H35.D16S	16	35	38	TTR.D16
	DTCB40.H35.D22S	22	35	48	TTR.D22	VTC.D22
	DTCB40.H60.D27S	27	60	58	TTR.D27	VTC.D27
	DTCB40.H60.D32S	32	60	78	TTR.D32	VTC.D32
	DTCB40.H60.D40S	40	60	88	TTR.D40	VTC.D40

G2,5 25000r.p.m. AD+B	Articolo	D	H	A	TTR	VTC
		DTCB50.H35.D16S	16	35	38	TTR.D16
	DTCB50.H35.D22S	22	35	48	TTR.D22	VTC.D22
	DTCB50.H35.D27S	27	35	58	TTR.D27	VTC.D27
	DTCB50.H35.D32S	32	35	78	TTR.D32	VTC.D32
	DTCB50.H50.D40S	40	50	88	TTR.D40	VTC.D40

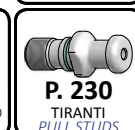
ACCESSORI - ACCESSORIES



P. 368
ACCESSORI
ACCESSORIES



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



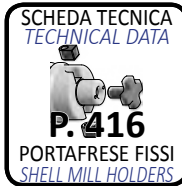
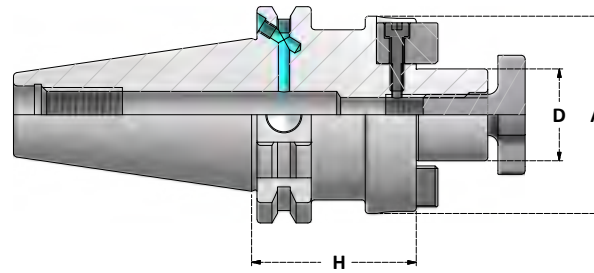
P. 230
TIRANTI
PULL STUDS

MANDRINI PORTAFRESA FISSI

SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

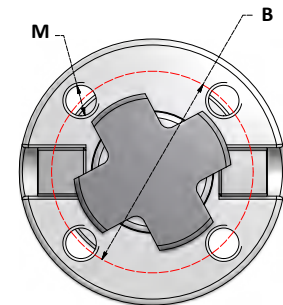
SHANK
DIMENSIONS



G6,3 15000.r.p.m. AD	Articolo	D	H	A	TTR	VTC
	* TC30.H35.D16S	16	35	38	TTR.D16	VTC.D16
* TC30.H35.D22S	22	35	45	TTR.D22	VTC.D22	
* TC30.H60.D27S	27	60	58	TTR.D27	VTC.D27	
* TC30.H60.D32S	32	60	78	TTR.D32	VTC.D32	

* SENZA CANALI PER IL REFRIGERANTE
WITHOUT COOLANT CHANNELS

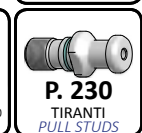
G6,3 15000.r.p.m. AD+B	Articolo	D	H	A	TTR	VTC
	TCB40.H35.D16S	16	35	38	TTR.D16	VTC.D16
TCB40.H45.D16S	16	45	38	TTR.D16	VTC.D16	
TCB40.H100.D16S	16	100	38	TTR.D16	VTC.D16	
TCB40.H130.D16S	16	130	38	TTR.D16	VTC.D16	
TCB40.H160.D16S	16	160	38	TTR.D16	VTC.D16	
TCB40.H200.D16S	16	200	38	TTR.D16	VTC.D16	
TCB40.H35.D22S	22	35	48	TTR.D22	VTC.D22	
TCB40.H45.D22S	22	45	48	TTR.D22	VTC.D22	
TCB40.H100.D22S	22	100	48	TTR.D22	VTC.D22	
TCB40.H130.D22S	22	130	48	TTR.D22	VTC.D22	
TCB40.H160.D22S	22	160	48	TTR.D22	VTC.D22	
TCB40.H200.D22S	22	200	48	TTR.D22	VTC.D22	
TCB40.H35.D27S	27	35	50	TTR.D27	VTC.D27	
TCB40.H50.D27S	27	50	58	TTR.D27	VTC.D27	
TCB40.H100.D27S	27	100	58	TTR.D27	VTC.D27	
TCB40.H130.D27S	27	130	58	TTR.D27	VTC.D27	
TCB40.H160.D27S	27	160	58	TTR.D27	VTC.D27	
TCB40.H200.D27S	27	200	58	TTR.D27	VTC.D27	
TCB40.H50.D32S	32	50	78	TTR.D32	VTC.D32	
TCB40.H55.D32S	32	55	78	TTR.D32	VTC.D32	
TCB40.H100.D32S	32	100	78	TTR.D32	VTC.D32	
TCB40.H130.D32S	32	130	78	TTR.D32	VTC.D32	
TCB40.H160.D32S	32	160	78	TTR.D32	VTC.D32	
TCB40.H200.D32S	32	200	78	TTR.D32	VTC.D32	
TCB40.H60.D40S	40	60	88	TTR.D40	VTC.D40	
TCB40.H100.D40S	40	100	88	TTR.D40	VTC.D40	
TCB40.H130.D40S	40	130	88	TTR.D40	VTC.D40	
TCB40.H160.D40S	40	160	88	TTR.D40	VTC.D40	
TCB40.H200.D40S	40	200	88	TTR.D40	VTC.D40	



MANDRINI PER FRESE A SPIANARE CON 4 FORI
FACE MILL HOLDERS WITH 4 HOLES

G6,3 15000.r.p.m. AD+B	Articolo	D	H	A	B	M	TTR	VTC
	TCB40.H60.D40FM	40	60	88	66,7	M12	TTR.D40	VTC.D40

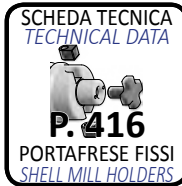
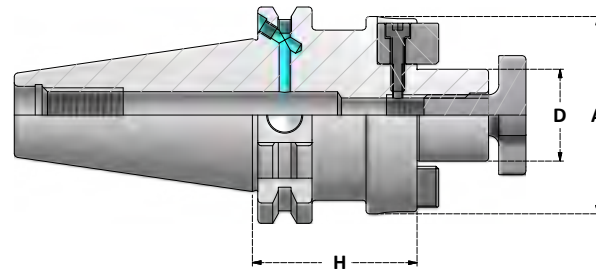
ACCESSORI - ACCESSORIES



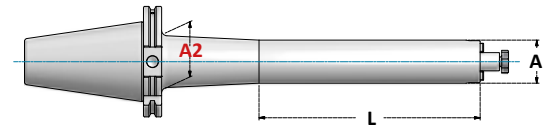
MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



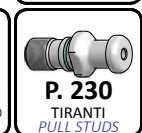
Articolo	D	H	A	TTR	VTC
TCB50.H35.D16S	16	35	38	TTR.D16	VTC.D16
TCB50.H45.D16S	16	45	38	TTR.D16	VTC.D16
TCB50.H75.D16S	16	75	38	TTR.D16	VTC.D16
TCB50.H100.D16S	16	100	38	TTR.D16	VTC.D16
TCB50.H130.D16S	16	130	38	TTR.D16	VTC.D16
TCB50.H160.D16S	16	160	38	TTR.D16	VTC.D16
TCB50.H200.D16S	16	200	38	TTR.D16	VTC.D16
TCB50.H250.D16S	16	250	38	TTR.D16	VTC.D16
TCB50.H300.D16S	16	300	38	TTR.D16	VTC.D16
TCB50.H350.D16S	16	350	38	TTR.D16	VTC.D16
TCB50.H35.D22S	22	35	48	TTR.D22	VTC.D22
TCB50.H45.D22S	22	45	48	TTR.D22	VTC.D22
TCB50.H75.D22S	22	75	48	TTR.D22	VTC.D22
TCB50.H100.D22S	22	100	48	TTR.D22	VTC.D22
TCB50.H130.D22S	22	130	48	TTR.D22	VTC.D22
TCB50.H160.D22S	22	160	48	TTR.D22	VTC.D22
TCB50.H200.D22S	22	200	48	TTR.D22	VTC.D22
TCB50.H250.D22S	22	250	48	TTR.D22	VTC.D22
TCB50.H300.D22S	22	300	48	TTR.D22	VTC.D22
TCB50.H350.D22S	22	350	48	TTR.D22	VTC.D22
TCB50.H35.D27S	27	35	58	TTR.D27	VTC.D27
TCB50.H45.D27S	27	45	58	TTR.D27	VTC.D27
TCB50.H75.D27S	27	75	58	TTR.D27	VTC.D27
TCB50.H100.D27S	27	100	58	TTR.D27	VTC.D27
TCB50.H130.D27S	27	130	58	TTR.D27	VTC.D27
TCB50.H160.D27S	27	160	58	TTR.D27	VTC.D27
TCB50.H200.D27S	27	200	58	TTR.D27	VTC.D27
TCB50.H250.D27S	27	250	58	TTR.D27	VTC.D27
TCB50.H300.D27S	27	300	58	TTR.D27	VTC.D27
TCB50.H350.D27S	27	350	58	TTR.D27	VTC.D27
TCB50.H35.D32S	32	35	78	TTR.D32	VTC.D32
TCB50.H50.D32S	32	50	78	TTR.D32	VTC.D32
TCB50.H75.D32S	32	75	78	TTR.D32	VTC.D32
TCB50.H100.D32S	32	100	78	TTR.D32	VTC.D32
TCB50.H130.D32S	32	130	78	TTR.D32	VTC.D32
TCB50.H160.D32S	32	160	78	TTR.D32	VTC.D32
TCB50.H200.D32S	32	200	78	TTR.D32	VTC.D32
TCB50.H250.D32S	32	250	78	TTR.D32	VTC.D32
TCB50.H300.D32S	32	300	78	TTR.D32	VTC.D32
TCB50.H350.D32S	32	350	78	TTR.D32	VTC.D32



A2=50 L=200
A2=50 L=230

A2=54 L=300

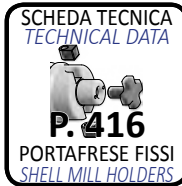
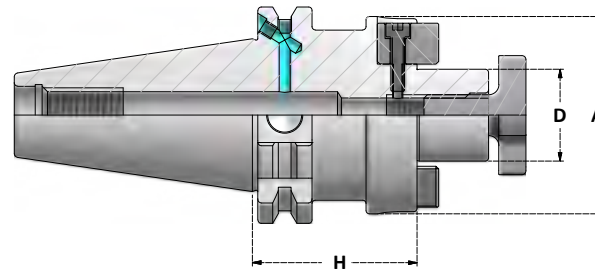
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

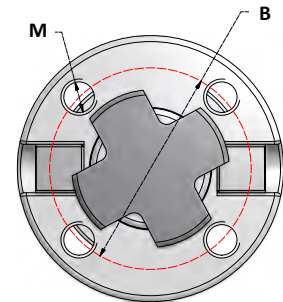


Articolo	D	H	A	TTR	VTC
TCB50.H50.D40S	40	50	88	TTR.D40	VTC.D40
TCB50.H75.D40S	40	75	88	TTR.D40	VTC.D40
TCB50.H100.D40S	40	100	88	TTR.D40	VTC.D40
TCB50.H130.D40S	40	130	88	TTR.D40	VTC.D40
TCB50.H160.D40S	40	160	88	TTR.D40	VTC.D40
TCB50.H200.D40S	40	200	88	TTR.D40	VTC.D40

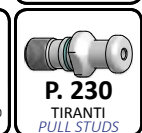


MANDRINI PER FRESE A SPIANARE CON 4 FORI
FACE MILL HOLDERS WITH 4 HOLES

Articolo	D	H	A	B	M	TTR	VTC
TCB50.H50.D40FM	40	50	88	66,7	M12	TTR.D40	VTC.D40
TCB50.H70.D60FM	60	70	129	101,6	M16	TTR.D60	VTC.D60



ACCESSORI - ACCESSORIES



MANDRINI DI RIDUZIONE CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS

Fig.1

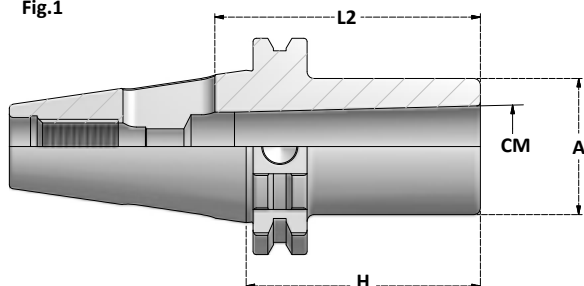
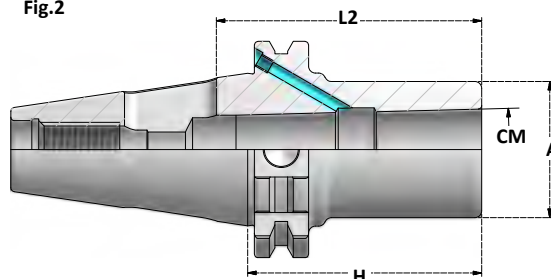


Fig.2



SCHEDA TECNICA
TECHNICAL DATA
P. 418
RIDUZIONI CM PUNTE
ADAPTERS FOR DRILLS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G6,3 15000 r.p.m. AD	Articolo	CM	H	A	L2	Fig
	TC30.H50.CM1P	CM1	50	25	56	1
	TC30.H60.CM2P	CM2	60	32	67	1
	TC30.H80.CM3P	CM3	80	40	84	1

G6,3 15000 r.p.m. AD	Articolo	CM	H	A	L2	Fig
	TC40.H50.CM1P	CM1	50	25	56	1
	TC40.H120.CM1P	CM1	120	25	56	3
	TC40.H50.CM2P	CM2	50	32	67	1
	TC40.H120.CM2P	CM2	120	32	67	3
	TC40.H70.CM3P	CM3	70	40	84	1
	TC40.H135.CM3P	CM3	135	40	84	3
	TC40.H95.CM4P	CM4	95	48	107	1
	TC40.H165.CM4P	CM4	165	48	107	3

G6,3 15000 r.p.m. AD	Articolo	CM	H	A	L2	Fig
	TC50.H45.CM1P	CM1	45	25	56	1
	TC50.H120.CM1P	CM1	120	25	56	3
	TC50.H60.CM2P	CM2	60	32	67	1
	TC50.H135.CM2P	CM2	135	32	67	3
	TC50.H65.CM3P	CM3	65	40	84	1
	TC50.H155.CM3P	CM3	155	40	84	3
	TC50.H95.CM4P	CM4	95	48	107	1
	TC50.H180.CM4P	CM4	180	48	107	3
	TC50.H105.CM5P	CM5	105	63	135	1
	TC50.H215.CM5P	CM5	215	63	135	3

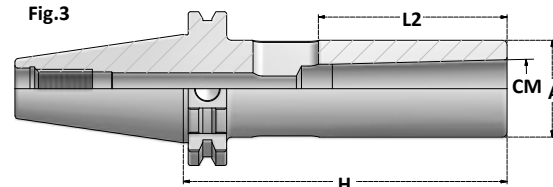
G6,3 15000 r.p.m. AD+B	Articolo	CM	H	A	L2	Fig
	TCB40.H50.CM2P	CM2	50	32	67	2
	TCB40.H70.CM3P	CM3	70	40	84	2
	TCB40.H95.CM4P	CM4	95	48	107	2

G6,3 15000 r.p.m. AD+B	Articolo	CM	H	A	L2	Fig
	TCB50.H60.CM2P	CM2	60	32	67	2
	TCB50.H65.CM3P	CM3	65	40	84	2
	TCB50.H95.CM4P	CM4	95	48	107	2
	TCB50.H120.CM5P	CM5	120	63	135	2

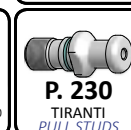
**PER UTENSILI DIN228B
CON TENONE**

*FOR TOOLS DIN228B
WITH TANG*

Fig.3

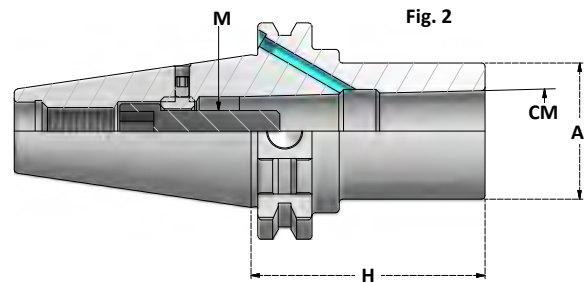
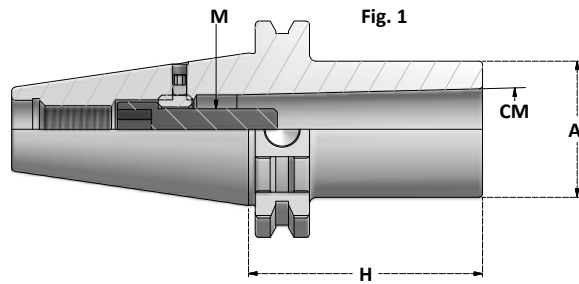


ACCESSORI - ACCESSORIES



MANDRINI DI RIDUZIONE CONO MORSE PER FRESE
MORSE TAPER ADAPTERS FOR THREADED MILLS

DIMENSIONI DELL'ATTACCO
SHANK DIMENSIONS



SCHEDA TECNICA
TECHNICAL DATA
P. 419
RIDUZIONI CM FRESE
ADAPTERS FOR MILLS

	Articolo	CM	H	A	M	Fig
	TC30.H50.CM1FV	CM1	50	25	M6	1
	* TC30.H60.CM2FV	CM2	60	32	M10	1
	* TC30.H85.CM3FV	CM3	85	40	M12	1

	Articolo	CM	H	A	M	Fig
	TC40.H50.CM1FV	CM1	50	25	M6	1
	TC40.H50.CM2FV	CM2	50	32	M10	1
	TC40.H70.CM3FV	CM3	70	40	M12	1
	TC40.H95.CM4FV	CM4	95	48	M16	1

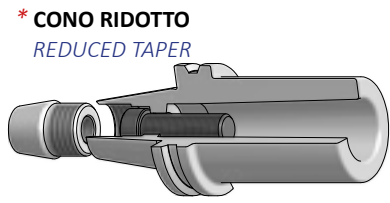
	Articolo	CM	H	A	M	Fig
	TC50.H45.CM1FV	CM1	45	25	M6	1
	TC50.H60.CM2FV	CM2	60	32	M10	1
	TC50.H100.CM2FV	CM2	100	32	M10	1
	TC50.H65.CM3FV	CM3	65	40	M12	1
	TC50.H120.CM3FV	CM3	120	40	M12	1
	TC50.H95.CM4FV	CM4	95	48	M16	1
	TC50.H170.CM4FV	CM4	170	48	M16	1

	Articolo	CM	H	A	M	Fig
	TCB40.H50.CM2FV	CM2	50	32	M10	2
	TCB40.H70.CM3FV	CM3	70	40	M12	2
	TCB40.H95.CM4FV	CM4	95	48	M16	2

	Articolo	CM	H	A	M	Fig
	TCB50.H60.CM2FV	CM2	60	32	M10	2
	TCB50.H65.CM3FV	CM3	65	40	M12	2
	TCB50.H95.CM4FV	CM4	95	48	M16	2
	TCB50.H120.CM5FV	CM5	120	63	M20	2

**PER UTENSILI DIN228A
CON FILETTO**
*FOR TOOLS DIN228A
WITH THREAD*

**FORNITI CON VITE SENZA FORO
PER IL PASSAGGIO DEL
REFRIGERANTE**
*SUPPLIED WITH SCREW WITHOUT
COOLANT THROUGH*

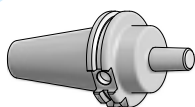


ACCESSORI - ACCESSORIES

 P. 327 PINZE COLLETS	 P. 382 SUPPORTI DI MONTAGGIO ASSEMBLY DEVICES	 P. 230 TIRANTI PULL STUDS
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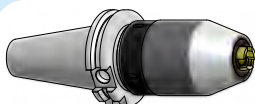
DIN ISO 7388 (DIN69871) - TC

MANDRINI DA TRAPANO
DRILL CHUCKS



STANDARD
STANDARD

PAG. 88



MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA
DRILL CHUCKS - RIGHT ROTATION

PAG. 89



MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA E SINISTRA
FOR HIGH SP DRILL CHUCKS - RIGHT AND LEFT ROTATION EEDS

PAG. 90



**MANDRINI PORTAPUNTA AUTOSERRANTI CON PASSAGGIO DEL REFRIGERANTE
ROTAZIONE DESTRA E SINISTRA**
DRILL CHUCKS WITH COOLANT THROUGH - RIGHT AND LEFT ROTATION

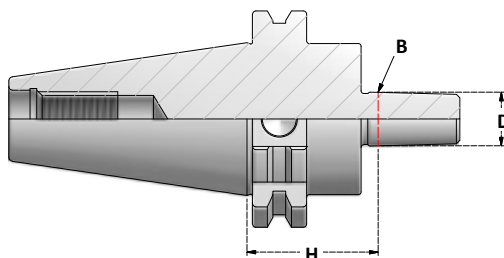
PAG. 91

TC

B

DIN 238

ATTACCHI PER MANDRINI AUTOSERRANTI
DRILL CHUCKS ARBORS



Articolo	B	D	H
TC30.H25.B12	B12	12,065	25
TC30.H25.B16	B16	15,733	25

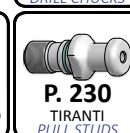


Articolo	B	D	H
TC40.H40.B12	B12	12,065	40
TC40.H40.B16	B16	15,733	40
TC40.H40.B18	B18	17,78	40



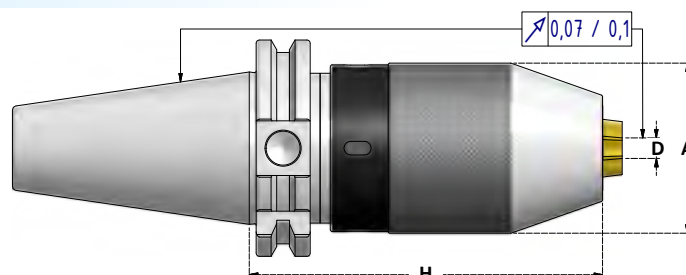
Articolo	B	D	H
TC50.H40.B16	B16	15,733	40
TC50.H40.B18	B18	17,78	40

ACCESSORI - ACCESSORIES



MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA
DRILL CHUCKS - RIGHT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
TC30.H80.DCK8S	0,5 - 8	80	37,5	CH.DC8
TC30.H100.DCK13S	1 - 13	100	50,5	CH.DC13

**GRIFFE RIVESTITE
IN TITANIO**

**TITANIUM
COATED JAWS**

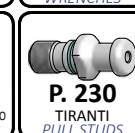
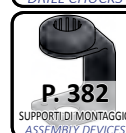


Articolo	D	H	A	Chiave Wrench
TC40.H79.DCK8S	0,5 - 8	79	37,5	CH.DC8
TC40.H100.DCK13S	1 - 13	100	50,5	CH.DC13
TC40.H115.DCK16S	2,5 - 16	115	57	CH.DC16



Articolo	D	H	A	Chiave Wrench
TC50.H88.DCK13S	1 - 13	88	50,5	CH.DC13
TC50.H90.DCK16S	2,5 - 16	90	57	CH.DC16

ACCESSORI - ACCESSORIES



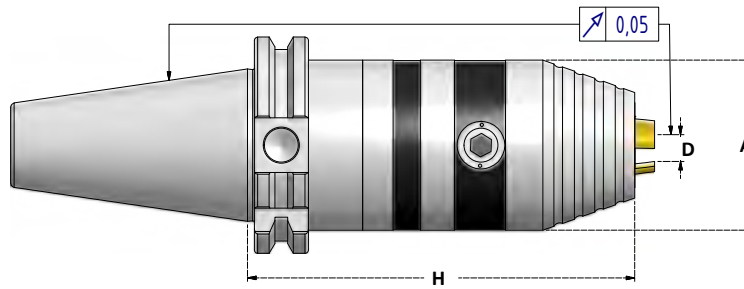
DIN ISO 7388 (DIN69871)

TC

CP

MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA E SINISTRA
DRILL CHUCKS - RIGHT AND LEFT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
TC40.H89.CP8S	0,5 - 8	89	37,5	CH.EX4
TC40.H115.CP13S	1 - 13	115	50,5	CH.EX6
TC40.H120.CP16S	2,5 - 16	120	57	CH.EX6

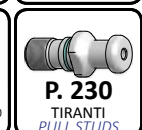
**GRIFFE RIVESTITE
IN TITANIO**

**TITANIUM
COATED JAWS**



Articolo	D	H	A	Chiave Wrench
TC50.H103.CP13S	1 - 13	103	50,5	CH.EX6
TC50.H108.CP16S	2,5 - 16	108	57	CH.EX6

ACCESSORI - ACCESSORIES



DIN ISO 7388 (DIN69871)

TC

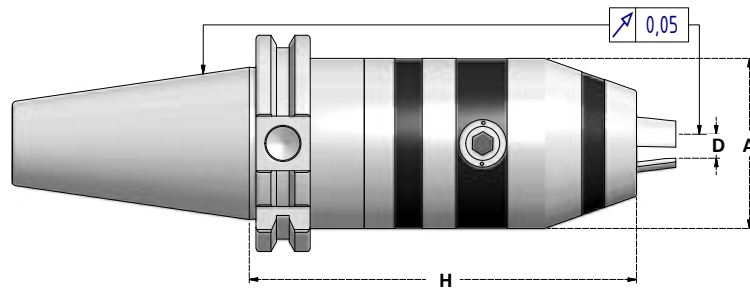
HD

**MANDRINI PORTAPUNTA AUTOSERRANTI CON PASSAGGIO DEL REFRIGERANTE
ROTAZIONE DESTRA E SINISTRA**

DRILL CHUCKS WITH COOLANT THROUGH - RIGHT AND LEFT ROTATION

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
TC40.H70.HD8	0,5- 8	70	36	CH.EX4
TC40.H90.HD13	1-13	90	50	CH.EX6
TC40.H95.HD16	2,5-16	95	50	CH.EX6

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

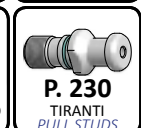


Articolo	D	H	A	Chiave Wrench
TC50.H90.HD13	1-13	90	50	CH.EX6
TC50.H95.HD16	2,5-16	95	50	CH.EX6

FUORI PRODUZIONE / OUT OF PRODUCTION

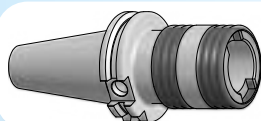
Fino a esaurimento / While stocks last

ACCESSORI - ACCESSORIES



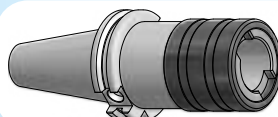
DIN ISO 7388 (DIN69871) - TC

MANDRINI PER MASCHIATURA
TAPPING CHUCKS



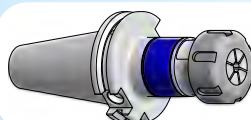
MASCHIATORI A CAMBIO RAPIDO PER MASCHIATURA RIGIDA
QUICK CHANGE TAPPING CHUCKS FOR RIGID TAPPING

PAG. 92



**MASCHIATORI A CAMBIO RAPIDO
CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESIONE**
QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION

PAG. 93



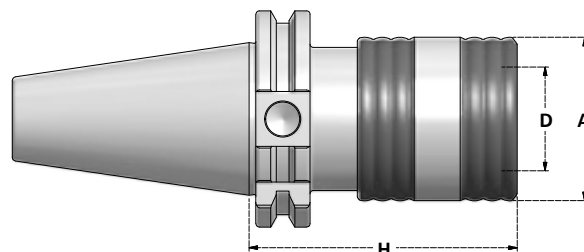
MANDRINI PER MASCHIATURA SINCRONIZZATA
TAPPING CHUCKS FOR SYNCHRONIZED TAPPING

PAG. 94

TC

MCR

MASCHIATORI A CAMBIO RAPIDO PER MASCHIATURA RIGIDA
QUICK CHANGE TAPPING CHUCKS FOR RIGID TAPPING



Articolo	Bussola Adapter	D	Tapping Range	A	H
TC30.MCR1R	B1 / BF1	19	M2÷M14	32	60
TC30.MCR2R	B2 / BF2	31	M6÷M27	54	82

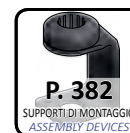


Articolo	Bussola Adapter	D	Tapping Range	A	H
TC40.MCR1R	B1 / BF1	19	M2÷M14	32	62
TC40.MCR2R	B2 / BF2	31	M6÷M27	54	90

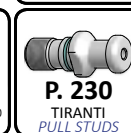
ACCESSORI - ACCESSORIES



P. 371
PINZE
COLLETS



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



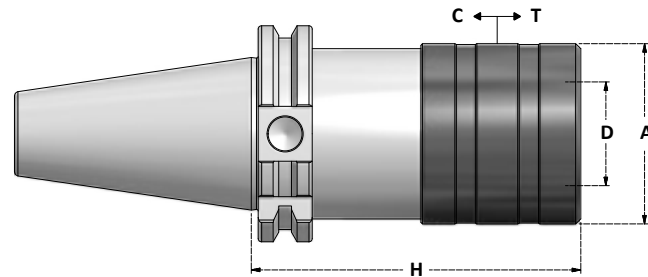
P. 230
TIRANTI
PULL STUDS

DIN ISO 7388 (DIN69871)

TC

MCR

**MASCHIATORI A CAMBIO RAPIDO
CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESIONE**
QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

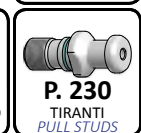


Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
TC40.MCR1TC	B1 / BF1	19	M2÷M14	36	60	7,5	7,5
TC40.MCR2TC	B2 / BF2	31	M6÷M27	53	98	12,5	12,5
TC40.MCR3TC	B3 / BF3	48	M14÷M45	78	150	20	20
TC40.MCR4TC	B4 / BF4	60	M22÷M45	96	165	22,5	22,5



Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
TC50.MCR1TC	B1 / BF1	19	M2÷M14	36	60	7,5	7,5
TC50.MCR2TC	B2 / BF2	31	M6÷M27	53	98	12,5	12,5
TC50.MCR3TC	B3 / BF3	48	M14÷M45	78	150	20	20
TC50.MCR4TC	B4 / BF4	60	M22÷M45	96	165	22,5	22,5

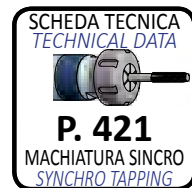
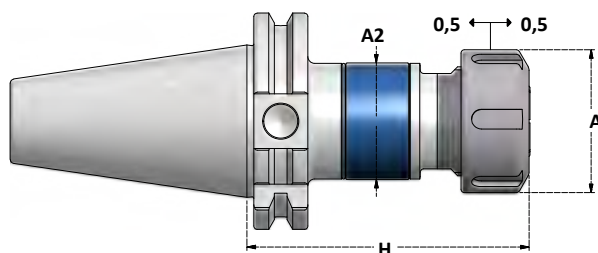
ACCESSORI - ACCESSORIES



MANDRINI PER MASCHIATURA SINCRONIZZATA

TAPPING CHUCKS FOR SYNCHRONIZED TAPPING

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	H	A	A2	Collets Range	Tapping Range	Ghiera Nut
TCB40.ERC16MSY	79	22	34	3,5 ÷ 10	M3 ÷ M12	G16M

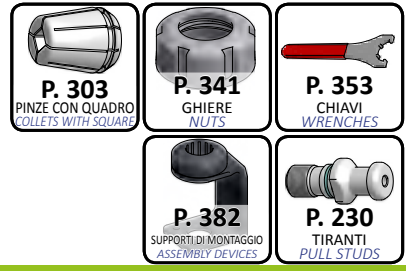


Articolo	H	A	A2	Collets Range	Tapping Range	Ghiera Nut
TCB40.ERC16SY	79	32	34	3,5 ÷ 10	M3 ÷ M12	G16S
TCB40.ERC20SY	80	35	34	3,5 ÷ 12	M3 ÷ M16	G20S
TCB40.ERC25SY	84	42	45	3,5 ÷ 16	M3 ÷ M20	G25S
TCB40.ERC32SY	95	50	45	3,5 ÷ 20	M3 ÷ M27	G32S
TCB40.ERC40SY	120	63	62	6 ÷ 25	M5 ÷ M33	G40S

VANTAGGI RISPETTO AL SISTEMA CON BUSSOLE
ADVANTAGES COMPARED TO ADAPTERS SYSTEM

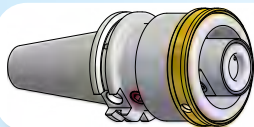
- PASSAGGIO DEL REFRIGERANTE
 - ADATTO PER MASCHIATURA AD ALTE VELOCITÀ
 - SISTEMA PORTAPINZE ER
- COOLANT THROUGH
- SUITABLE FOR HIGH SPEED TAPPING
- ER COLLET SYSTEM

ACCESSORI - ACCESSORIES



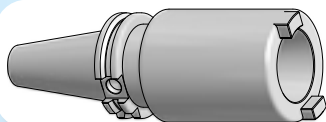
DIN ISO 7388 (DIN69871) - TC

ADATTATORI E RIDUZIONI
ADAPTERS AND REDUCTION SLEEVES



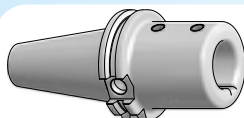
ADATTATORI HSK FORMA A/C
ADAPTERS HSK FORM A/C

PAG. 95



MANDRINI DI RIDUZIONE TC-BT-ISO
TC-BT-ISO REDUCTION SLEEVES

PAG. 96



MANDRINI PORTA INSERZIONI REGISTRABILI DIN 6327
HOLDERS FOR ADJUSTABLE ADAPTERS DIN 6327

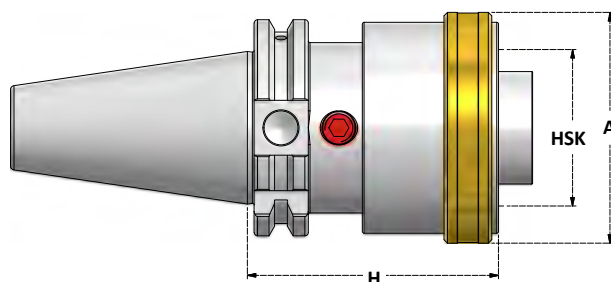
PAG. 97

TC

HSK AC

DIN 69893

ADATTATORI HSK FORMA A/C
ADAPTERS HSK FORM A/C

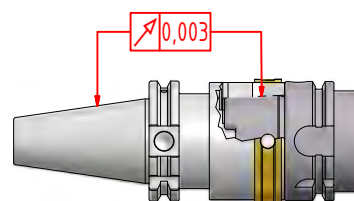
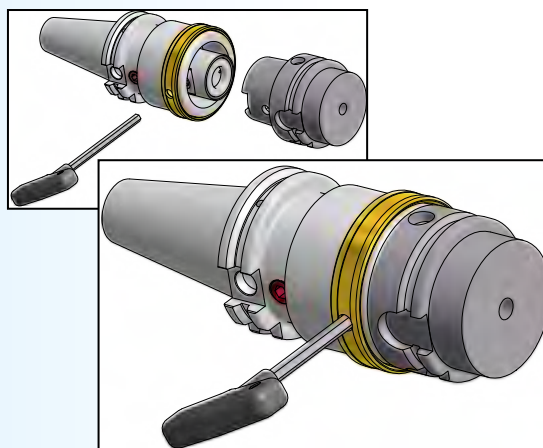


Articolo	H	A	HSK A/C
TCB40.H65.HSK50AC	65	55	50
TCB40.H75.HSK63AC	75	70	63

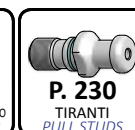
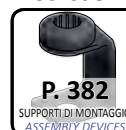


Articolo	H	A	HSK A/C
TCB50.H65.HSK50AC	65	55	50
TCB50.H75.HSK63AC	75	70	63
TCB50.H100.HSK100AC	100	110	100

ALTRI A RICHIESTA
OTHERS ON REQUEST



ACCESSORI - ACCESSORIES

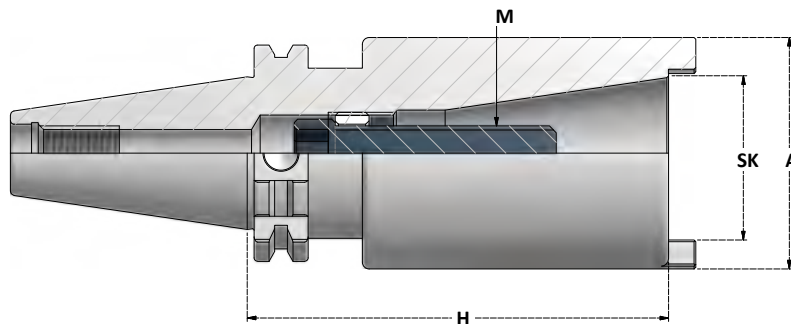


DIN ISO 7388 (DIN69871)

TC

MANDRINI DI RIDUZIONE TC-BT-ISO
TC-BT-ISO REDUCTION SLEEVES

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	H	A	M	SK
TC40.H60.TB30	60	50	M12	TC30 / BT30
TC40.H95.TB40	95	70	M16	TC40 / BT40



Articolo	H	A	M	SK
TC40.H60.ISO30	60	50	M12	ISO30
TC40.H95.ISO40	95	70	M16	ISO40



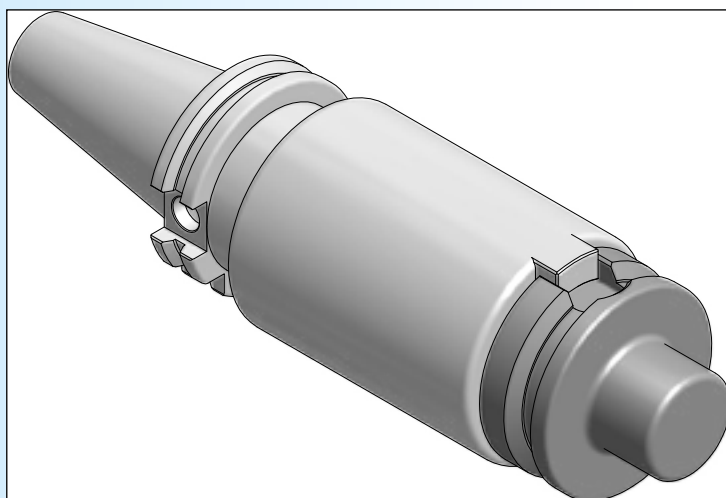
Articolo	H	A	M	SK
TC50.H70.TB40	70	70	M16	TC40 / BT40
TC50.H120.TB50	120	90	M24	TC50 / BT50



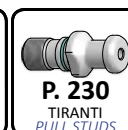
Articolo	H	A	M	SK
TC50.H70.ISO40	70	70	M16	ISO40
TC50.H120.ISO50	120	90	M24	ISO50

**FORNITI CON VITE SENZA FORO
PER IL PASSAGGIO DEL
REFRIGERANTE**

*SUPPLIED WITH SCREW WITHOUT
COOLANT THROUGH*



ACCESSORI - ACCESSORIES

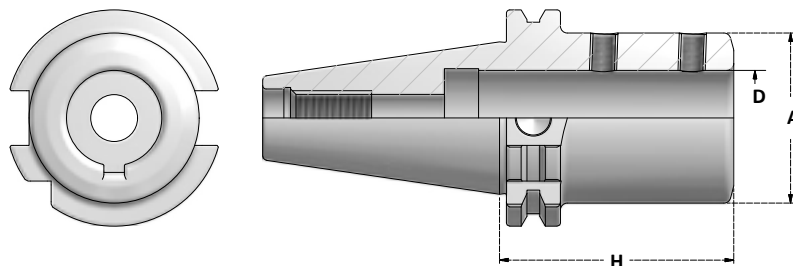


MANDRINI PORTA INSERZIONI REGISTRABILI DIN 6327

HOLDERS FOR ADJUSTABLE ADAPTERS DIN 6327

DIMENSIONI
DELL'ATTACCO

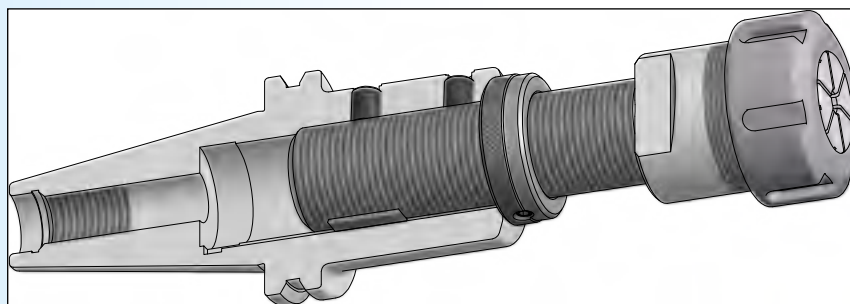
SHANK
DIMENSIONS



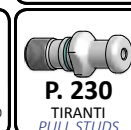
Articolo	D	H	A
TC40.H75.TR16	16	75	25
TC40.H80.TR20	20	80	32
TC40.H100.TR28	28	100	40
TC40.H115.TR36	36	115	50



Articolo	D	H	A
TC50.H85.TR16	16	85	25
TC50.H85.TR20	20	85	32
TC50.H100.TR28	28	100	40
TC50.H100.TR36	36	100	50
TC50.H105.TR48	48	105	67



ACCESSORI - ACCESSORIES



DIN ISO 7388 (DIN69871)

TC

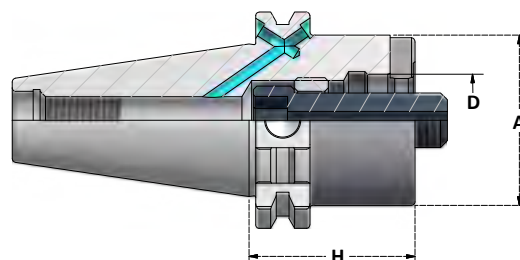
MD

MANDRINI MODULARI TIPO VARILOCK

MODULAR TOOLHOLDERS VARILOCK TYPE

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



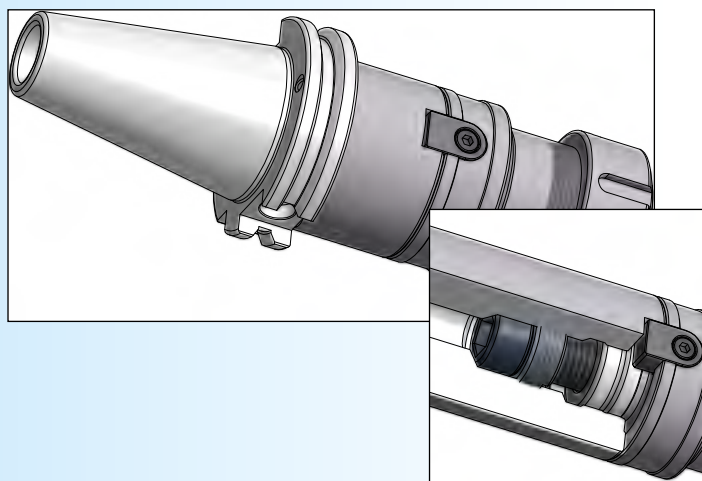
Articolo	A	H	D	Attacco
TCB40.H27.MD50	50	27	27,3 / 27	MD50
TCB40.H50.MD50	50	50	27,3 / 27	MD50
TCB40.H50.MD63	63	50	32,3 / 32	MD63



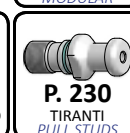
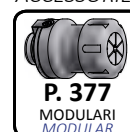
Articolo	A	H	D	Attacco
TC40.H27.MD63	63	27	32,3 / 32	MD63



Articolo	A	H	D	Attacco
TCB50.H27.MD50	50	27	27,3 / 27	MD50
TCB50.H50.MD50	50	50	27,3 / 27	MD50
TCB50.H27.MD63	63	27	32,3 / 32	MD63
TCB50.H50.MD63	63	50	32,3 / 32	MD63
TCB50.H27.MD80	80	27	32,3 / 32	MD80
TCB50.H50.MD80	80	50	32,3 / 32	MD80

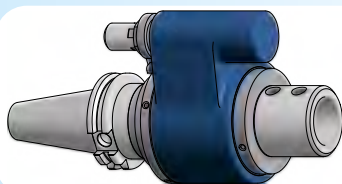


ACCESSORI - ACCESSORIES



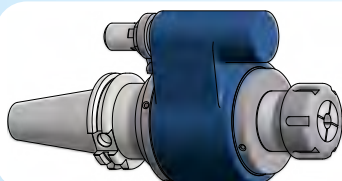
DIN ISO 7388 (DIN69871) - TC

DISTRIBUTORI ROTANTI DEL REFRIGERANTE
SIDE LOCK OIL HOLE HOLDERS



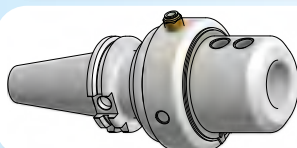
DISTRIBUTORI ROTANTI DEL REFRIGERANTE PER ATTACCHI CILINDRICI
SIDE LOCK OIL HOLE HOLDERS

PAG. 99



DISTRIBUTORI ROTANTI DEL REFRIGERANTE PORTAPINZA ER
ER OIL HOLE HOLDERS COLLET CHUCKS

PAG. 100



DISTRIBUTORI ROTANTI DEL REFRIGERANTE A CAMBIO MANUALE PER ATTACCHI CILINDRICI
MANUAL SIDE LOCK OIL HOLE HOLDERS

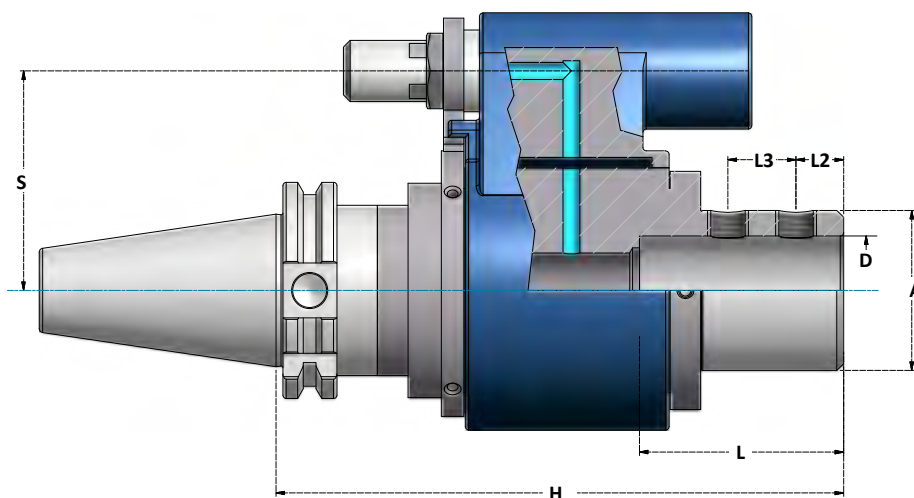
PAG. 101

TC

DR

DIN 69893

DISTRIBUTORI ROTANTI DEL REFRIGERANTE PER ATTACCHI CILINDRICI
SIDE LOCK OIL HOLE HOLDERS



Pressione d'esercizio: MAX 7 bar

Numero di giri: MAX 3000 r.p.m.

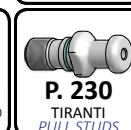
Per preservare dall'usura precoce le speciali guarnizioni di tenuta del distributore, il liquido refrigerante deve essere filtrato con residuo max 5 micron.

Per il collegamento necessita dello "stop block" acquistabile tra gli accessori.

Articolo	D	H	A	L	S	L2	L3
TC40.D16DR	16	165	46,5	48	65	25	/
TC40.D20DR	20	165	46,5	50	65	25	/
TC40.D25DR	25	165	46,5	56	65	15	20
TC40.D32DR	32	165	47	60	65	15	20

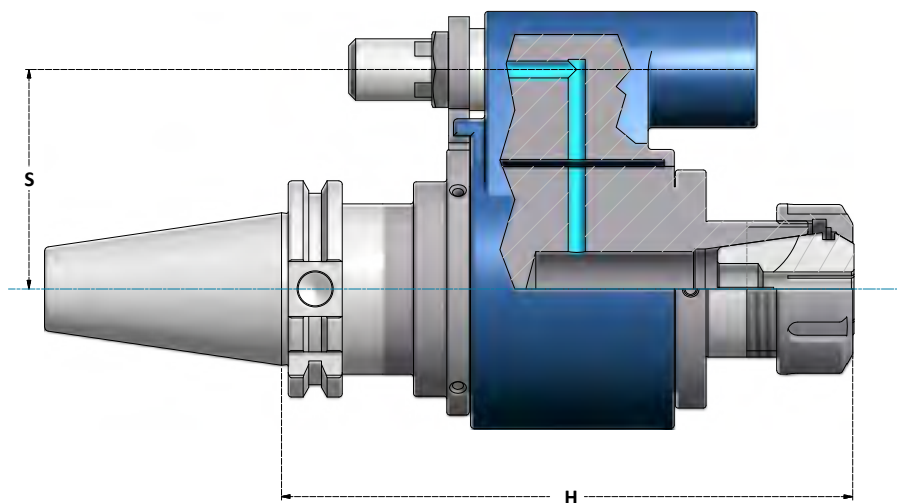
Articolo	D	H	A	L	S	L2	L3
TC50.D16DR	16	165	56	48	80	25	/
TC50.D20DR	20	165	56	50	80	25	/
TC50.D25DR	25	165	56	56	80	15	20
TC50.D32DR	32	170	56	60	80	15	20
TC50.D40DR	40	170	56	62	80	15	25

ACCESSORI - ACCESSORIES



DISTRIBUTORI ROTANTI DEL REFRIGERANTE PORTAPINZA ER
ER OIL HOLE HOLDERS COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	H	S	Collets Range	Ghiera Nut
TC40.ERC16DR	160	65	1÷10	G16HTE
TC40.ERC20DR	160	65	1÷14	G20HTE
TC40.ERC25DR	160	65	1÷20	G25HT
TC40.ERC32DR	160	65	2÷22	G32HT

Articolo	H	S	Collets Range	Ghiera Nut
TC50.ERC16DR	160	80	1÷10	G16HTE
TC50.ERC20DR	160	80	1÷14	G20HTE
TC50.ERC25DR	160	80	1÷20	G25HT
TC50.ERC32DR	160	80	2÷22	G32HT
TC50.ERC40DR	160	80	3÷30	G40HT

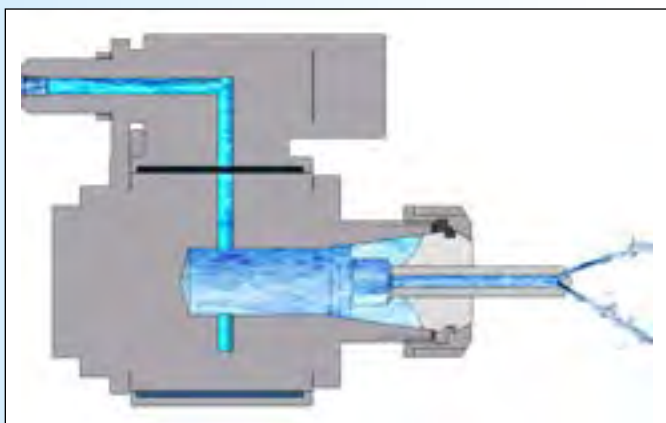
La forniture comprende un disco di tenuta RG D10.
Supplied with RG D10 sealing disc.

Pressione d'esercizio: MAX 7 bar

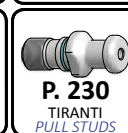
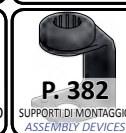
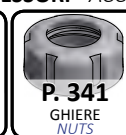
Numero di giri: MAX 3000 r.p.m.

Per preservare dall'usura precoce le speciali guarnizioni di tenuta del distributore, il liquido refrigerante deve essere filtrato con residuo max 5 micron.

Per il collegamento necessita dello "stop block" acquistabile tra gli accessori.



ACCESSORI - ACCESSORIES



DIN ISO 7388 (DIN69871)

TC

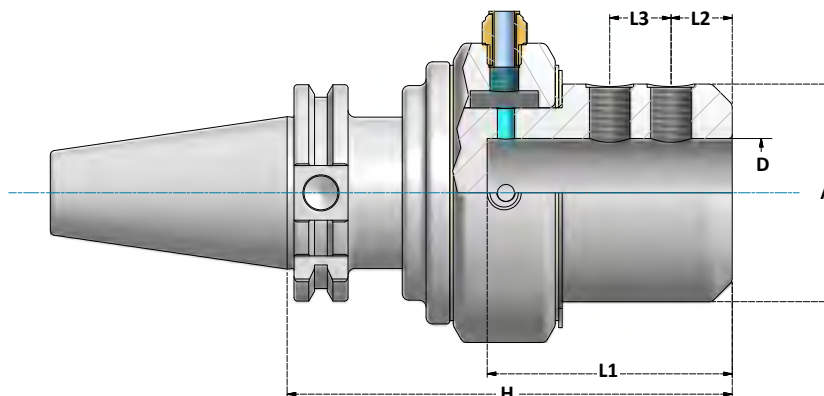
DRM

**DISTRIBUTORI ROTANTI DEL REFRIGERANTE A CAMBIO MANUALE
PER ATTACCHI CILINDRICI**

MANUAL SIDE LOCK OIL HOLE HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	L1	L2	L3	GRANI SCREWS
TC40.DRM32	32	125	64,5	72	20	20	M14

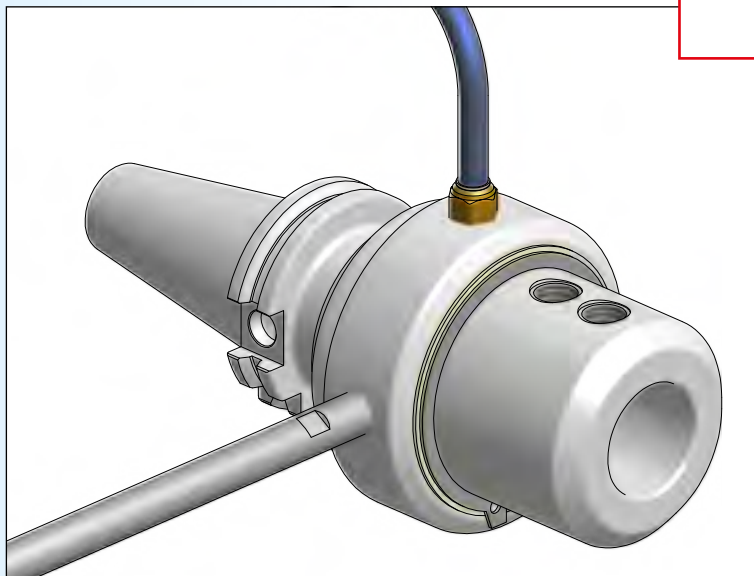
Articolo	D	H	A	L1	L2	L3	GRANI SCREWS
TC50.DRM40	40	135	64,5	82	20	25	M16

Pressione d'esercizio: MAX 20 bar

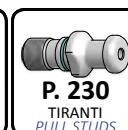
Numero di giri: MAX 1000 r.p.m.

**Per preservare dall'usura precoce
le speciali guarnizioni di tenuta del
distributore, il liquido refrigerante
deve essere filtrato con residuo
max 5 micron.**

**Fornito con la barra filettata da
agganciare ad un fermo nella
macchina utensile**



ACCESSORI - ACCESSORIES



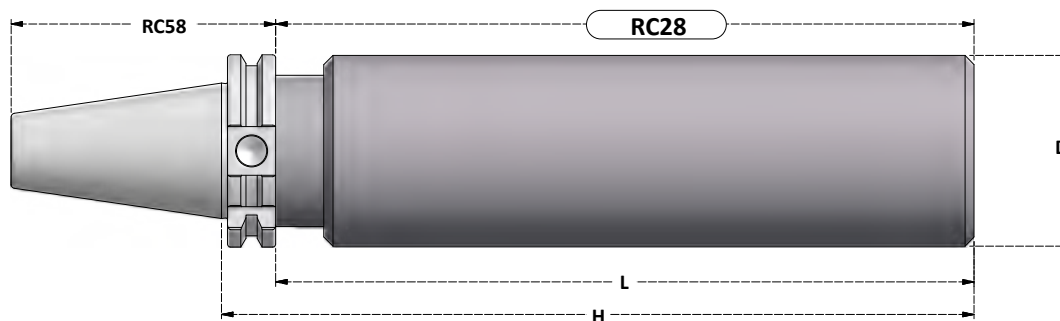
DIN ISO 7388 (DIN69871)

TC

BL

MANDRINI CON STELO LAVORABILE

BLANK ARBORS



DIMENSIONI
DELL'ATTACCO

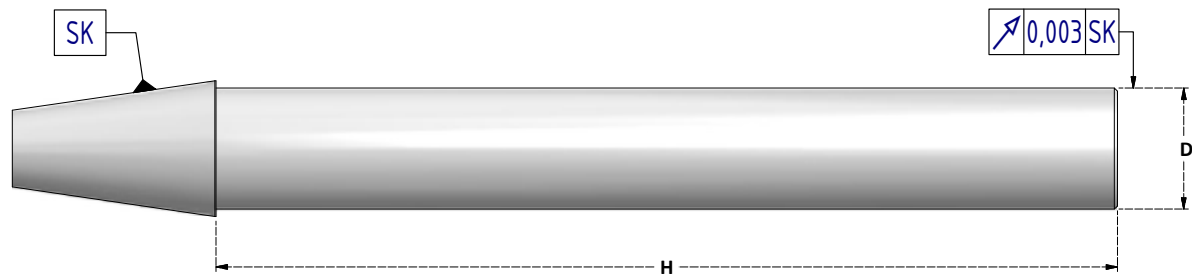
SHANK
DIMENSIONS

Articolo	D	H	L
TC40.H250.D40BL	40	250	230
TC40.H250.D63BL	63	250	230
TC40.H270.D80BL	80	270	250

Articolo	D	H	L
TC50.H330.D50BL	50	330	310
TC50.H315.D63BL	63	315	295
TC50.H330.D80BL	80	330	310
TC50.H315.D97BL	97	315	295

MANDRINI DI COLLAUDO

TEST ARBORS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

Articolo	D	H
TC30.H200.CK32	32	200
TC40.H300.CK40	40	300
TC50.H300.CK50	50	300
Articolo	D	H
TC30.H235.CK32	32	235
TC40.H335.CK40	40	335
TC50.H340.CK50	50	340

PRECISIONE DEL CONO
TAPER SHANK PRECISION **AT2**

ROTONDITÀ
ROUNDNESS **0,001mm**

RUGOSITÀ
SURFACE ROUGHNES **Ra <0,4**

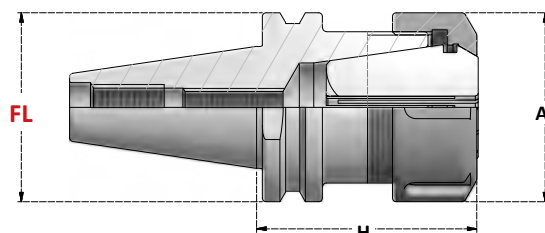
CONCENTRICITÀ
CONCENTRICITY **0,003mm**

**FORNITI IN BOX VERTICALI
CON CERTIFICATO DI COLLAUDO**

*SUPPLIED IN VERTICAL BOX
AND WITH TESTING REPORT*



MANDRINI PORTAPINZA ER SENZA TACCHE DI TRASCINAMENTO - FL50
ER COLLET CHUCKS WITHOUT DRIVING SLOTS - FL50



UTILIZZATI SULLE MACCHINE
PER LA LAVORAZIONE
DEL LEGNO E DELL'ALLUMINIO

SUITABLE FOR WOOD AND
ALUWORKING MACHINES

ROTAZIONE DESTRA
RIGHT HAND ROTATION

G6,3 24000.r.p.m.	Articolo	FL	H	A	Collets Range	Ghiera Nut
		WD30.H50.ERC32RH	50	50	50	2÷22
	WD30.H67.ERC32RH	50	67	50	2÷22	G32WD
	WD30.H57.ERC40RH	50	57	63	3÷30	G40WD
	WD30.H65.ERC40RH	50	65	63	3÷30	G40WD

ROTAZIONE SINISTRA
LEFT HAND ROTATION

G6,3 24000.r.p.m.	Articolo	FL	H	A	Collets Range	Ghiera Nut
		WD30.H50.ERC32LH	50	50	50	2÷22
	WD30.H67.ERC32LH	50	67	50	2÷22	G32WDL
	WD30.H57.ERC40LH	50	57	63	3÷30	G40WDL
	WD30.H65.ERC40LH	50	65	63	3÷30	G40WDL

MANDRINI PORTAPINZA ER SENZA TACCHE DI TRASCINAMENTO - FL46
ER COLLET CHUCKS WITHOUT DRIVING SLOTS - FL46

ROTAZIONE DESTRA
RIGHT HAND ROTATION

G6,3 24000.r.p.m.	Articolo	FL	H	A	Collets Range	Ghiera Nut
		WD30C.H60.ERC32RH	46	60	50	2÷22
	WD30C.H65.ERC40RH	46	65	63	3÷30	G40WD

ROTAZIONE SINISTRA
LEFT HAND ROTATION

G6,3 24000.r.p.m.	Articolo	FL	H	A	Collets Range	Ghiera Nut
		WD30C.H60.ERC32LH	46	60	50	2÷22
	WD30C.H65.ERC40LH	46	65	63	3÷30	G40WDL

MANDRINI PORTAPINZA ER SENZA TACCHE DI TRASCINAMENTO - FL58
ER COLLET CHUCKS WITHOUT DRIVING SLOTS - FL58

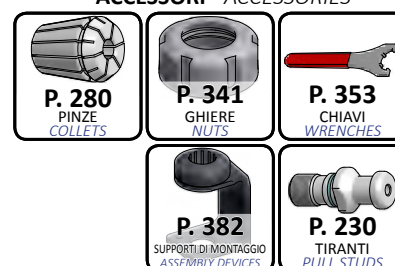
ROTAZIONE DESTRA
RIGHT HAND ROTATION

G6,3 24000.r.p.m.	Articolo	FL	H	A	Collets Range	Ghiera Nut
		WD30U.H50.ERC32RH	58	50	50	2÷22

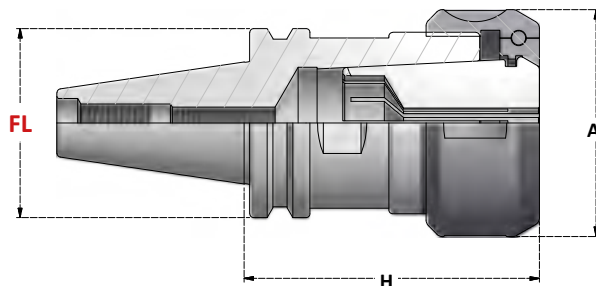
ROTAZIONE SINISTRA
LEFT HAND ROTATION

G6,3 24000.r.p.m.	Articolo	FL	H	A	Collets Range	Ghiera Nut
		WD30U.H50.ERC32LH	58	50	50	2÷22

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA EOC SENZA TACCHE DI TRASCINAMENTO - FL50
EOC COLLET CHUCKS WITHOUT DRIVING SLOTS - FL50



UTILIZZATI SULLE MACCHINE
PER LA LAVORAZIONE
DEL LEGNO E DELL'ALLUMINIO

SUITABLE FOR WOOD AND
ALUWORKING MACHINES

ROTAZIONE DESTRA
RIGHT HAND ROTATION

G6,3

24000 rpm

Articolo	FL	H	A	Collets Range	Ghiera Nut
WD30.H80.EOC25RH	50	80	60	2÷25	G25OCC

ROTAZIONE SINISTRA
LEFT HAND ROTATION

G6,3

24000 rpm

Articolo	FL	H	A	Collets Range	Ghiera Nut
WD30.H80.EOC25LH	50	80	60	2÷25	G25OCCL

MANDRINI PORTAPINZA EOC SENZA TACCHE DI TRASCINAMENTO - FL46
EOC COLLET CHUCKS WITHOUT DRIVING SLOTS - FL46

ROTAZIONE DESTRA
RIGHT HAND ROTATION

G6,3

24000 rpm

Articolo	FL	H	A	Collets Range	Ghiera Nut
WD30C.H80.EOC25RH	46	80	60	2÷25	G25OCC

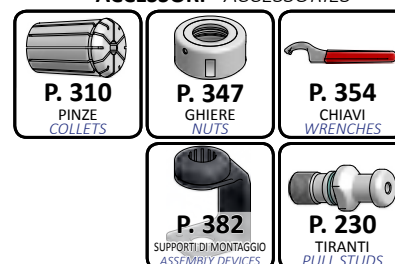
ROTAZIONE SINISTRA
LEFT HAND ROTATION

G6,3

24000 rpm

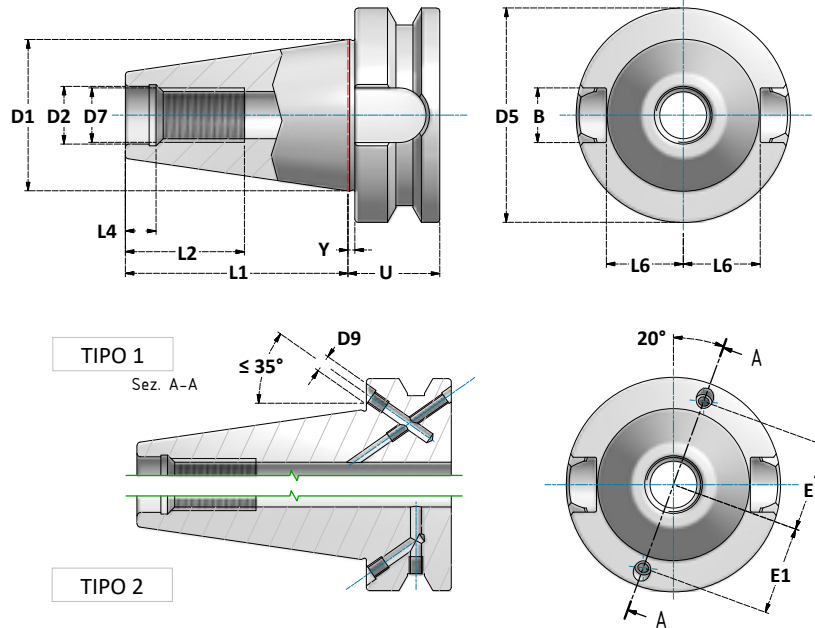
Articolo	FL	H	A	Collets Range	Ghiera Nut
WD30C.H80.EOC25LH	46	80	60	2÷25	G25OCCL

ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339) - BT

MANDRINI BT
BT TOOLHOLDERS



DIMENSIONI CONO
TAPER DIMENSIONS

CONO / TAPER	B	D1	D2	D5	D7	D9*	E1*	L1	L2	L4	L6	Y	U
	+0,2 0		H8	h8	6H	Max		±0,3	min.	min.	0 -0,3		0 -0,1
BT30	16,1	31,75	12,5	46	M12	-	-	48,4	24	7	16,3	2	22
DBT30	16,1	31,75	12,5	46	M12	-	-	48,4	24	7	16,3	1	22
BT40 / BTB40	16,1	44,45	17	63	M16	4	27	65,4	30	9	22,6	2	27
DBTB40	16,1	44,45	17	63	M16	4	27	65,4	30	9	22,6	1,01	27
BT50 / BTB50	25,7	69,85	25	100	M24	6	42	101,8	45	13	35,4	3	38
DBTB50	25,7	69,85	25	100	M24	6	42	101,8	45	13	35,4	1,5	38

Esempio di codice in base alle caratteristiche del cono.

Example of code based on features of taper.

D BT B 40 <small>DOPPIO CONTATTO DOUBLE CONTACT TIPO DI CONO TAPER TYPE CANALINI LATERALI SIDE CHANNELS GRANDEZZA CONO TAPER SIZE</small>		SENZA PASSAGGIO DEL REFRIGERANTE WITHOUT COOLANT THROUGH	A
		PASSAGGIO DEL REFRIGERANTE CENTRALE COOLANT FROM CENTRE	AD
		PASSAGGIO DEL REFRIGERANTE CENTRALE O DALLA FLANGIA COOLANT FROM CENTRE OR FLANGE	AD+B
		DOPPIO CONTATTO CONO+FLANGIA DOUBLE CONTACT	

SCHEDA TECNICA
DATA SHEET

ADDUZIONE DEL REFRIGERANTE
COOLANT THROUGH

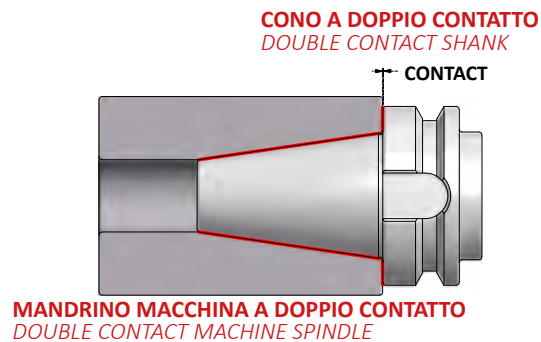
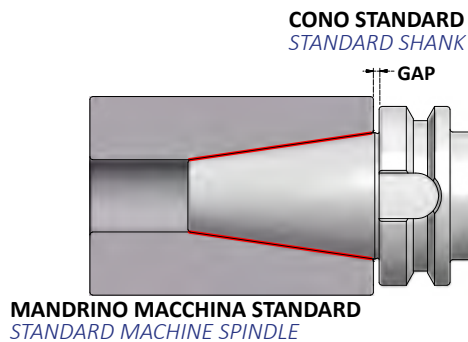
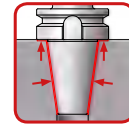
SCHEDA TECNICA
DATA SHEET

DOPPIO CONTATTO
DOUBLE CONTACT

INDICE
INDEX

MANDRINI BT
BT TOOLHOLDERS

SISTEMA A DOPPIO CONTATTO CONO+FLANGIA
DOUBLE CONTACT TAPER+FLANGE SYSTEM



Disponibili per i mandrini
TC DIN ISO7388-1 (EX DIN69871)
e per i mandrini
BT (MAS 403)

VANTAGGI

- Maggiore stabilità tra portautensile e naso macchina.
- Vibrazioni ridotte per una maggiore precisione durante i lavori ad alta velocità o i lavori gravosi.
- Ridotta usura dell'utensile.

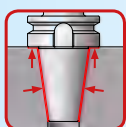
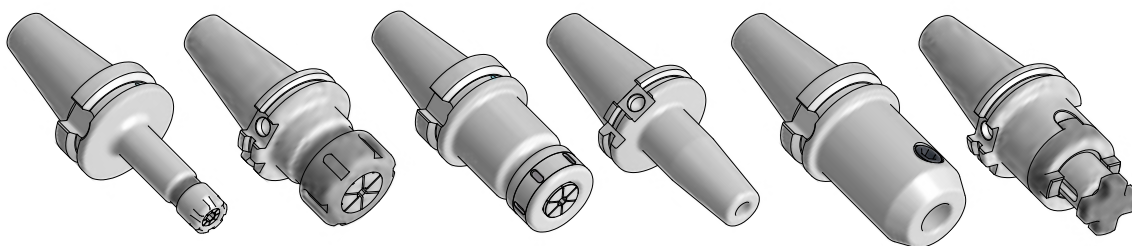
Available for
TC DIN ISO7388-1 (EX DIN69871)
and
BT (MAS 403) toolholders.

BENEFITS

- Increased stiffness.
- Increased holding reliability.
- Increased tool position accuracy.
- Improved precision during high speed operations or heavy cutting applications.
- Extended tool life.

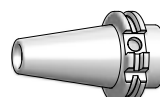
I mandrini con sistema a doppio contatto si identificano con il prefisso **D** (es: DBT30... DTCB40...).

Codes of toolholders with double contact system have prefix D (es: DBT30... DTCB40...).

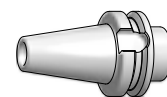


I portautensili con questo simbolo nell'indice sono disponibili nella versione con cono a doppio contatto
This symbol matches which toolholders of the index are available with double contact taper

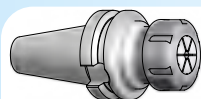
INDICE
INDEX
MANDRINI TC
TC TOOLHOLDERS



INDICE
INDEX
MANDRINI BT
BT TOOLHOLDERS



MAS 403 (JIS B 6339) - BT

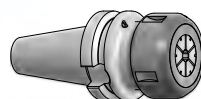


MANDRINI PORTAPINZA ER

COLLET CHUCKS ER

DIN ISO 15488 (DIN6499)

PAG. 109

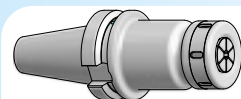


MANDRINI PORTAPINZA EOC

COLLET CHUCKS EOC

DIN ISO 10897 (DIN6388)

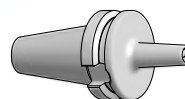
PAG. 120



MANDRINI PORTAPINZA SKS

COLLET CHUCKS SKS

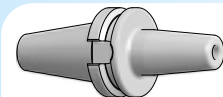
PAG. 121



MANDRINI PORTAPINZA P8

COLLET CHUCKS P8

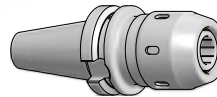
PAG. 122



MANDRINI A CALETTAMENTO A CALDO

SHRINK FIT CHUCKS

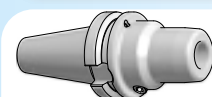
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MANDRINI A FORTE SERRAGGIO

POWER MILLING CHUCKS

PAG. 127



MANDRINI A SERRAGGIO IDRAULICO

HYDRAULIC CHUCKS

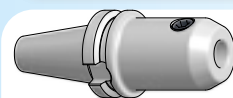
PAG. 128



MANDRINI PORTAFRESA CON ATTACCO FILETTATO

SCREW IN MILL CHUCKS

PAG. 130

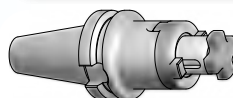


MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON

DIN 1835-2

PAG. 131

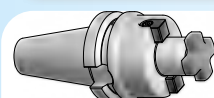


MANDRINI PORTAFRESA COMBI

COMBI SHELL MILL HOLDERS

DIN 6358

PAG. 141



MANDRINI PORTAFRESA FISSI

SHELL MILL HOLDERS

DIN 6357

PAG. 143

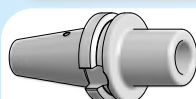


RIDUZIONI A CONO MORSE PER PUNTE

MORSE TAPER ADAPTERS FOR DRILLS

DIN 6383

PAG. 147



RIDUZIONI A CONO MORSE PER FRESE

MORSE TAPER ADAPTERS FOR THREADED MILLS

DIN 6364

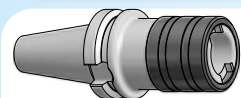
PAG. 148



MANDRINI DA TRAPANO

DRILL CHUCKS

PAG. 149



PORTAMASCHI

TAPPING CHUCKS

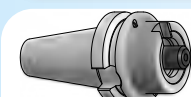
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RIDUZIONI

ADAPTERS

PAG. 156



MANDRINI MODULARI TIPO VARILOCK

MODULAR TOOLHOLDERS VARILOCK TYPE

PAG. 159



DISTRIBUTORI ROTANTI DEL REFRIGERANTE

OIL HOLE HOLDERS

PAG. 160



MANDRINI CON STELO LAVORABILE

BLANK ARBORS

PAG. 163



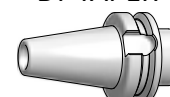
BARRE DI COLLAUDO

TEST ARBORS

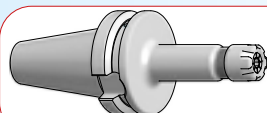
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SCHEDA TECNICA
DATA SHEET

CONO BT
BT TAPER



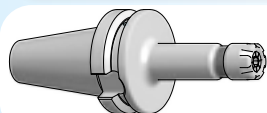
MAS 403 (JIS B 6339) - BT



**MANDRINI PORTAPINZA ER A DOPPIO CONTATTO
GHIERE MINI**
*DOUBLE CONTACT COLLET CHUCKS ER
MINI NUTS*

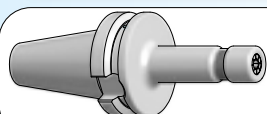
PAG. 110

G2,5



**MANDRINI PORTAPINZA ER
GHIERE MINI**
*COLLET CHUCKS ER
MINI NUTS*

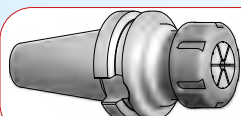
PAG. 111



**MANDRINI PORTAPINZA ER PER ALTA VELOCITA'
GHIERE MINI SENZA TACCHE**
*COLLET CHUCKS ER FOR HIGH SPEED
MINI NOTCH FREE NUTS*

PAG. 112

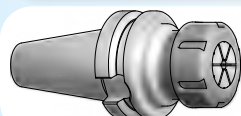
G2,5



**MANDRINI PORTAPINZA ER A DOPPIO CONTATTO
GHIERE STANDARD**
*DOUBLE CONTACT COLLET CHUCKS ER
STANDARD NUTS*

PAG. 113

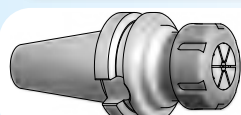
G2,5



**MANDRINI PORTAPINZA ER - FORMA AD
GHIERE STANDARD**
*COLLET CHUCKS ER - AD FORM
STANDARD NUTS*

PAG. 114

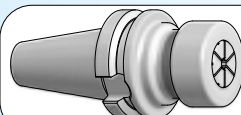
G6,3



**MANDRINI PORTAPINZA ER - FORMA AD+B
GHIERE STANDARD**
*COLLET CHUCKS ER - FORM AD+B
STANDARD NUTS*

PAG. 115-116

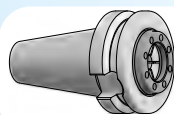
G6,3



**MANDRINI PORTAPINZA ER PER ALTA VELOCITA'
GHIERE STANDARD SENZA TACCHE**
*COLLET CHUCKS ER FOR HIGH SPEED
STANDARD NOTCH FREE NUTS*

PAG. 117

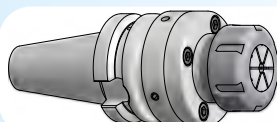
G2,5



**MANDRINI PORTAPINZA ER - EXTRACORTI
GHIERE CON FILETTATURA ESTERNA**
*COLLET CHUCKS ER - STUB LENGTH
EXTERNALLY THREADED NUTS*

PAG. 118

G6,3



**MANDRINI PORTAPINZA ER A CENTRATURA REGOLABILE
GHIERE STANDARD SENZA TACCHE**
*COLLET CHUCKS ER FOR HIGH SPEED
STANDARD NOTCH FREE NUTS*

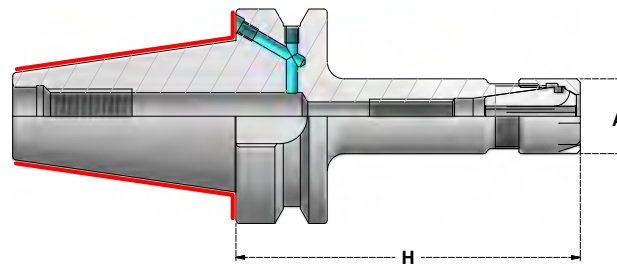
PAG. 119

G6,3

MANDRINI A DOPPIO CONTATTO PORTAPINZA ER
DOUBLE CONTACT ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



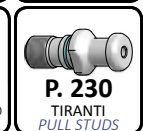
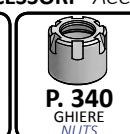
G2,5 25000 r.p.m. AD	Articolo	H	A	Collets Range	Ghiera Nut
		DBT30.H70.ERC11M	70	16	1÷7
	DBT30.H100.ERC11M	100	16	1÷7	G11M
	DBT30.H70.ERC16M	70	22	1÷10	G16M
	DBT30.H100.ERC16M	100	22	1÷10	G16M
	DBT30.H70.ERC20M	70	28	1÷14	G20M
	DBT30.H100.ERC20M	100	28	1÷14	G20M

G2,5 25000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		DBTB40.H70.ERC11M	70	16	1÷7
	DBTB40.H100.ERC11M	100	16	1÷7	G11M
	DBTB40.H70.ERC16M	70	22	1÷10	G16M
	DBTB40.H100.ERC16M	100	22	1÷10	G16M
	DBTB40.H70.ERC20M	70	28	1÷14	G20M
	DBTB40.H100.ERC20M	100	28	1÷14	G20M

G2,5 25000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		DBTB50.H100.ERC11M	100	16	1÷7
	DBTB50.H100.ERC16M	100	22	1÷10	G16M
	DBTB50.H100.ERC20M	100	28	1÷14	G20M



ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339)

BT

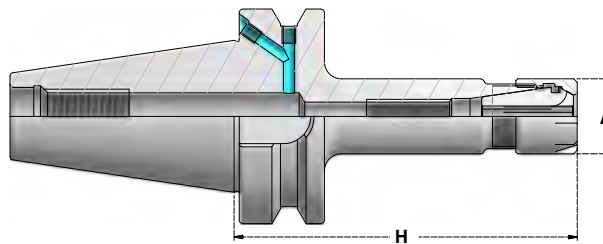
ERC MINI

DIN ISO 15488 (DIN6499)

MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

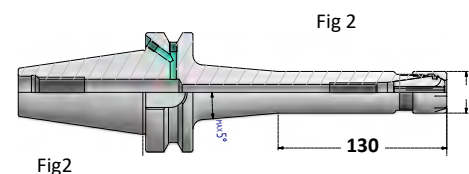


Articolo	H	A	Collets Range	Ghiera Nut
BT30.H100.ERC8M	100	12	1÷5	G8M
BT30.H100.ERC11M	100	16	1÷7	G11M
BT30.H100.ERC16M	100	22	1÷10	G16M
BT30.H100.ERC20M	100	28	1÷14	G20M
BT30.H100.ERC25M	100	35	1÷20	G25M



Articolo	H	A	Collets Range	Ghiera Nut
BTB40.H100.ERC11M	100	16	1÷7	G11M
BTB40.H130.ERC11M	130	16	1÷7	G11M
BTB40.H160.ERC11M	160	16	1÷7	G11M
BTB40.H100.ERC16M	100	22	1÷10	G16M
BTB40.H130.ERC16M	130	22	1÷10	G16M
BTB40.H160.ERC16M	160	22	1÷10	G16M
* BTB40.H200.ERC16M	200	22	1÷10	G16M
BTB40.H100.ERC20M	100	28	1÷14	G20M
BTB40.H130.ERC20M	130	28	1÷14	G20M
BTB40.H160.ERC20M	160	28	1÷14	G20M
BTB40.H200.ERC20M	200	28	1÷14	G20M
BTB40.H100.ERC25M	100	35	1÷20	G25M
BTB40.H130.ERC25M	130	35	1÷20	G25M
BTB40.H160.ERC25M	160	35	1÷20	G25M
BTB40.H200.ERC25M	200	35	1÷20	G25M

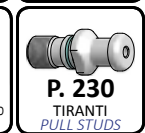
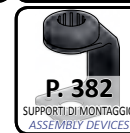
* =Fig2



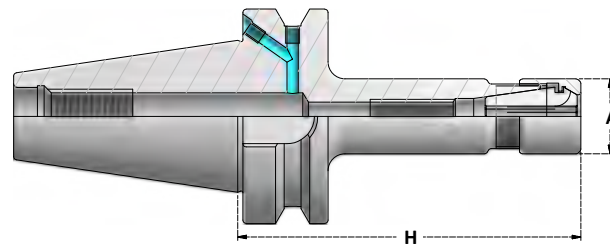
Articolo	H	A	Collets Range	Ghiera Nut
BTB50.H100.ERC16M	100	22	1÷10	G16M
BTB50.H130.ERC16M	130	22	1÷10	G16M
BTB50.H160.ERC16M	160	22	1÷10	G16M
* BTB50.H200.ERC16M	200	22	1÷10	G16M
BTB50.H100.ERC20M	100	28	1÷14	G20M
BTB50.H130.ERC20M	130	28	1÷14	G20M
BTB50.H160.ERC20M	160	28	1÷14	G20M
BTB50.H200.ERC20M	200	28	1÷14	G20M
BTB50.H100.ERC25M	100	35	1÷20	G25M
BTB50.H130.ERC25M	130	35	1÷20	G25M
BTB50.H160.ERC25M	160	35	1÷20	G25M
BTB50.H200.ERC25M	200	35	1÷20	G25M

* =Fig2

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER PER ALTE VELOCITA'
ER COLLET CHUCKS FOR HIGH SPEEDS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G2,5 25000.r.p.m. AD	Articolo	H	A	Collets Range	Ghiera Nut
		BT30.H100.ERC8MNF	100	12	1÷5
	BT30.H100.ERC11MNF	100	16	1÷7	G11MNF
	BT30.H100.ERC16MNF	100	22	1÷10	G16MNF
	BT30.H100.ERC20MNF	100	28	1÷14	G20MNF
	BT30.H100.ERC25MNF	100	35	1÷20	G25MNF

MNF

GHIERE **MINI** SENZA TACCHE
*NOTCH-FREE **MINI** NUTS*

G2,5 25000.r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		BTB40.H100.ERC11MNF	100	16	1÷7
	BTB40.H130.ERC11MNF	130	16	1÷7	G11MNF
	BTB40.H160.ERC11MNF	160	16	1÷7	G11MNF
	BTB40.H100.ERC16MNF	100	22	1÷10	G16MNF
	BTB40.H130.ERC16MNF	130	22	1÷10	G16MNF
	BTB40.H160.ERC16MNF	160	22	1÷10	G16MNF
	BTB40.H100.ERC20MNF	100	28	1÷14	G20MNF
	BTB40.H130.ERC20MNF	130	28	1÷14	G20MNF
	BTB40.H160.ERC20MNF	160	28	1÷14	G20MNF
	BTB40.H100.ERC25MNF	100	35	1÷20	G25MNF
	BTB40.H130.ERC25MNF	130	35	1÷20	G25MNF
	BTB40.H160.ERC25MNF	160	35	1÷20	G25MNF

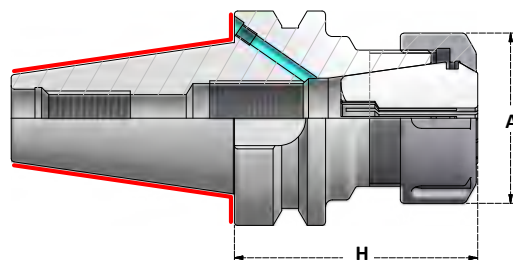
ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES

 P. 280 PINZE COLLETS	 P. 342 GHIERE NUTS	 P. 356 CHIAVI WRENCHES
 P. 382 SUPPORTI DI MONTAGGIO ASSEMBLY DEVICES	 P. 230 TIRANTI PULL STUDS	

MANDRINI A DOPPIO CONTATTO PORTAPINZA ER
DOUBLE CONTACT ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



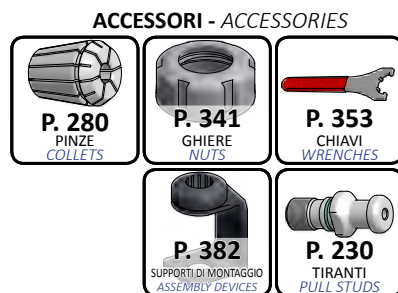
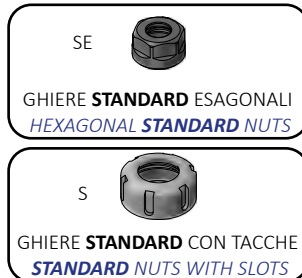
Articolo	H	A	Collets Range	Ghiera Nut
DBT30.H70.ERC16	70	28	1÷10	G16SE
DBT30.H70.ERC20	70	34	1÷14	G20SE
DBT30.H70.ERC25	70	42	1÷20	G25S
DBT30.H70.ERC32	70	50	2÷22	G32S
DBT30.H80.ERC40	80	63	3÷30	G40S



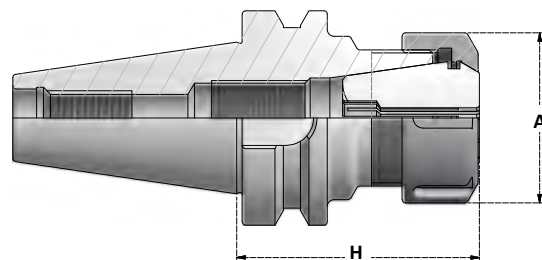
Articolo	H	A	Collets Range	Ghiera Nut
DBTB40.H70.ERC16	70	28	1÷10	G16SE
DBTB40.H100.ERC16	100	28	1÷10	G16SE
DBTB40.H70.ERC20	70	34	1÷14	G20SE
DBTB40.H100.ERC20	100	34	1÷14	G20SE
DBTB40.H70.ERC25	70	42	1÷20	G25S
DBTB40.H100.ERC25	100	42	1÷20	G25S
DBTB40.H70.ERC32	70	50	2÷22	G32S
DBTB40.H100.ERC32	100	50	2÷22	G32S
DBTB40.H70.ERC40	70	63	3÷30	G40S
DBTB40.H100.ERC40	100	63	3÷30	G40S



Articolo	H	A	Collets Range	Ghiera Nut
DBTB50.H80.ERC16	80	28	1÷10	G16SE
DBTB50.H100.ERC16	100	28	1÷10	G16SE
DBTB50.H80.ERC20	80	34	1÷14	G20SE
DBTB50.H100.ERC20	100	34	1÷14	G20SE
DBTB50.H80.ERC25	80	42	1÷20	G25S
DBTB50.H100.ERC25	100	42	1÷20	G25S
DBTB50.H80.ERC32	80	50	2÷22	G32S
DBTB50.H100.ERC32	100	50	2÷22	G32S
DBTB50.H130.ERC32	130	50	2÷22	G32S
DBTB50.H160.ERC32	160	50	2÷22	G32S
DBTB50.H200.ERC32	200	50	2÷22	G32S
DBTB50.H80.ERC40	80	63	3÷30	G40S
DBTB50.H100.ERC40	100	63	3÷30	G40S



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G6,3 15000 r.p.m. AD	Articolo	H	A	Collets Range	Ghiera Nut
		BT30.H55.ERC16	55	28	1÷10
	BT30.H70.ERC16	70	28	1÷10	G16SE
	BT30.H100.ERC16	100	28	1÷10	G16SE
	BT30.H70.ERC20	70	34	1÷14	G20SE
	BT30.H100.ERC20	100	34	1÷14	G20SE
	BT30.H70.ERC25	70	42	1÷20	G25S
	BT30.H100.ERC25	100	42	1÷20	G25S
	BT30.H70.ERC32	70	50	2÷22	G32S
	BT30.H100.ERC32	100	50	2÷22	G32S
	BT30.H80.ERC40	80	63	3÷30	G40S
	BT30.H100.ERC40	100	63	3÷30	G40S

SE

GHIERE **STANDARD** ESAGONALI
HEXAGONAL **STANDARD** NUTS

S

GHIERE **STANDARD** CON TACCHE
STANDARD NUTS WITH SLOTS

G6,3 12000 r.p.m. AD	Articolo	H	A	Collets Range	Ghiera Nut
		BT40.H70.ERC16	70	28	1÷10
	BT40.H70.ERC25	70	42	1÷20	G25S
	BT40.H70.ERC32	70	50	2÷22	G32S
	BT40.H100.ERC32	100	50	2÷22	G32S
	BT40.H80.ERC40	80	63	3÷30	G40S
	BT40.H100.ERC40	100	63	3÷30	G40S

G6,3 8000 r.p.m. AD	Articolo	H	A	Collets Range	Ghiera Nut
		BT50.H80.ERC32	80	50	2÷22
	BT50.H100.ERC32	100	50	2÷22	G32S
	BT50.H80.ERC40	80	63	3÷30	G40S

ACCESSORI - ACCESSORIES

P. 280
PINZE
COLLETS

P. 341
GHIERE
NUTS

P. 353
CHIAVI
WRENCHES

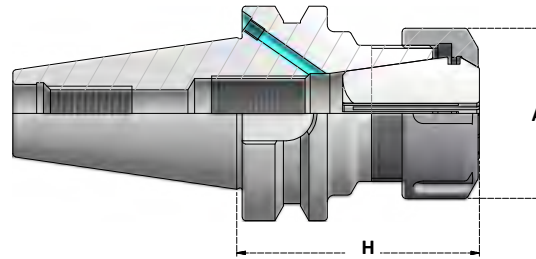
P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES

P. 230
TIRANTI
PULL STUDS

MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	H	A	Collets Range	Ghiera Nut
BTB40.H70.ERC16	70	28	1÷10	G16SE
BTB40.H100.ERC16	100	28	1÷10	G16SE
BTB40.H130.ERC16	130	28	1÷10	G16SE
BTB40.H160.ERC16	160	28	1÷10	G16SE
BTB40.H200.ERC16	200	28	1÷10	G16SE
BTB40.H70.ERC20	70	34	1÷14	G20SE
BTB40.H100.ERC20	100	34	1÷14	G20SE
BTB40.H130.ERC20	130	34	1÷14	G20SE
BTB40.H160.ERC20	160	34	1÷14	G20SE
BTB40.H200.ERC20	200	34	1÷14	G20SE
BTB40.H70.ERC25	70	42	1÷20	G25S
BTB40.H100.ERC25	100	42	1÷20	G25S
BTB40.H130.ERC25	130	42	1÷20	G25S
BTB40.H160.ERC25	160	42	1÷20	G25S
BTB40.H200.ERC25	200	42	1÷20	G25S
BTB40.H70.ERC32	70	50	2÷22	G32S
BTB40.H100.ERC32	100	50	2÷22	G32S
BTB40.H130.ERC32	130	50	2÷22	G32S
BTB40.H160.ERC32	160	50	2÷22	G32S
BTB40.H200.ERC32	200	50	2÷22	G32S
BTB40.H70.ERC40	70	63	3÷30	G40S
BTB40.H100.ERC40	100	63	3÷30	G40S
BTB40.H130.ERC40	130	63	3÷30	G40S
BTB40.H160.ERC40	160	63	3÷30	G40S
BTB40.H200.ERC40	200	63	3÷30	G40S
BTB40.H85.ERC50	85	78	6÷34	G50S

SE



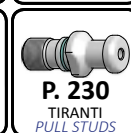
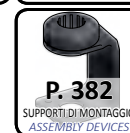
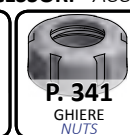
GHIERE **STANDARD** ESAGONALI
HEXAGONAL **STANDARD** NUTS

S

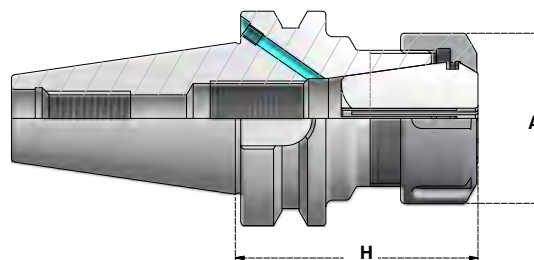


GHIERE **STANDARD** CON TACCHE
STANDARD NUTS WITH SLOTS

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

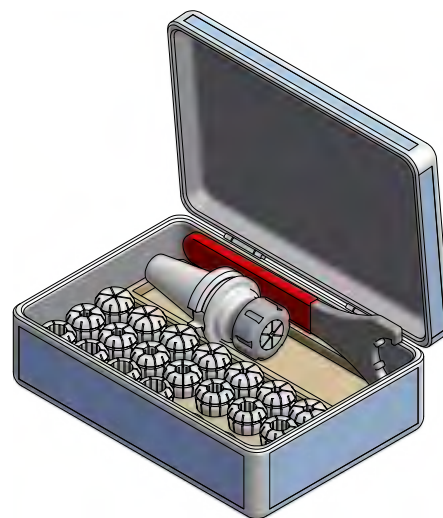


DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	H	A	Collets Range	Ghiera Nut
BTB50.H80.ERC16	80	28	1÷10	G16SE
BTB50.H100.ERC16	100	28	1÷10	G16SE
BTB50.H130.ERC16	130	28	1÷10	G16SE
BTB50.H160.ERC16	160	28	1÷10	G16SE
BTB50.H200.ERC16	200	28	1÷10	G16SE
BTB50.H80.ERC20	80	34	1÷14	G20SE
BTB50.H100.ERC20	100	34	1÷14	G20SE
BTB50.H130.ERC20	130	34	1÷14	G20SE
BTB50.H160.ERC20	160	34	1÷14	G20SE
BTB50.H200.ERC20	200	34	1÷14	G20SE
BTB50.H80.ERC25	80	42	1÷20	G25S
BTB50.H100.ERC25	100	42	1÷20	G25S
BTB50.H130.ERC25	130	42	1÷20	G25S
BTB50.H160.ERC25	160	42	1÷20	G25S
BTB50.H200.ERC25	200	42	1÷20	G25S
BTB50.H80.ERC32	80	50	2÷22	G32S
BTB50.H100.ERC32	100	50	2÷22	G32S
BTB50.H130.ERC32	130	50	2÷22	G32S
BTB50.H160.ERC32	160	50	2÷22	G32S
BTB50.H200.ERC32	200	50	2÷22	G32S
BTB50.H250.ERC32	250	50	2÷22	G32S
BTB50.H80.ERC40	80	63	3÷30	G40S
BTB50.H100.ERC40	100	63	3÷30	G40S
BTB50.H130.ERC40	130	63	3÷30	G40S
BTB50.H160.ERC40	160	63	3÷30	G40S
BTB50.H200.ERC40	200	63	3÷30	G40S
BTB50.H250.ERC40	250	63	3÷30	G40S
BTB50.H100.ERC50	100	78	6÷34	G50S
BTB50.H130.ERC50	130	78	6÷34	G50S
BTB50.H160.ERC50	160	78	6÷34	G50S



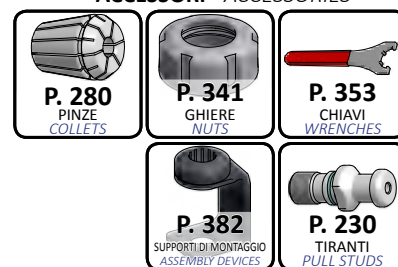
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

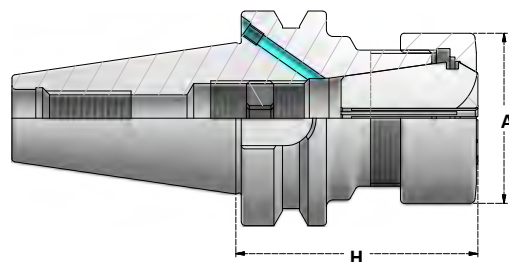
Articolo	Pinze Collets	Mandrino Toolholder	Chiave Wrench
BX.BT30.ERC32	ERC32.D3÷20 x 1,0mm	BT30.H70.ERC32	CH32S
BX.BT40.ERC32	ERC32.D3÷20 x 1,0mm	BT40.H70.ERC32	CH32S
BX.BT50.ERC32	ERC32.D3÷20 x 1,0mm	BTB50.H80.ERC32	CH32S
BX.BT30.ERC40	ERC40.D4÷26 x 1,0mm	BT30.H80.ERC40	CH40S
BX.BT40.ERC40	ERC40.D4÷26 x 1,0mm	BT40.H70.ERC40	CH40S
BX.BT50.ERC40	ERC40.D4÷26 x 1,0mm	BTB50.H80.ERC40	CH40S

ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER PER ALTE VELOCITA'
ER COLLET CHUCKS FOR HIGH SPEEDS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G2,5
25000 r.p.m.
AD

Articolo	H	A	Collets Range	Ghiera Nut
BT30.H70.ERC16NF	70	32	1÷10	G16NF
BT30.H70.ERC20NF	70	35	1÷14	G20NF
BT30.H70.ERC25NF	70	42	1÷20	G25NF
BT30.H70.ERC32NF	70	50	2÷22	G32NF

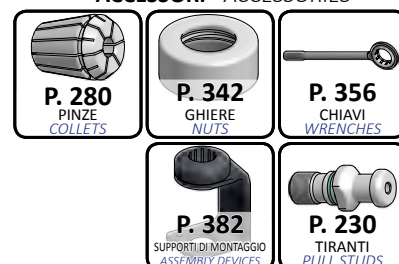


G2,5
25000 r.p.m.
AD+B

Articolo	H	A	Collets Range	Ghiera Nut
BTB40.H70.ERC16NF	70	32	1÷10	G16NF
BTB40.H100.ERC16NF	100	32	1÷10	G16NF
BTB40.H130.ERC16NF	130	32	1÷10	G16NF
BTB40.H160.ERC16NF	160	32	1÷10	G16NF
BTB40.H70.ERC20NF	70	35	1÷14	G20NF
BTB40.H100.ERC20NF	100	35	1÷14	G20NF
BTB40.H130.ERC20NF	130	35	1÷14	G20NF
BTB40.H160.ERC20NF	160	35	1÷14	G20NF
BTB40.H70.ERC25NF	70	42	1÷20	G25NF
BTB40.H100.ERC25NF	100	42	1÷20	G25NF
BTB40.H130.ERC25NF	130	42	1÷20	G25NF
BTB40.H160.ERC25NF	160	42	1÷20	G25NF
BTB40.H70.ERC32NF	70	50	2÷22	G32NF
BTB40.H100.ERC32NF	100	50	2÷22	G32NF
BTB40.H130.ERC32NF	130	50	2÷22	G32NF
BTB40.H160.ERC32NF	160	50	2÷22	G32NF

ALTRI A RICHIESTA
OTHERS ON REQUEST

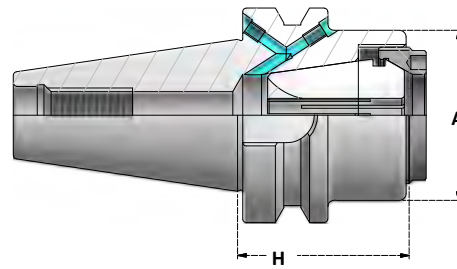
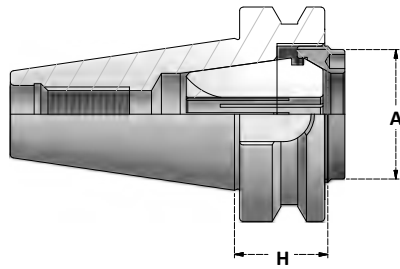
ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER - EXTRACORTI
ER COLLET CHUCKS - STUB LENGTH

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	H	A	Collets Range	Ghiera Nut
BT40.H29.ERC25A	29	32	1÷20	G25A
BT40.H29.ERC32A	29	40	2÷22	G32A



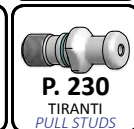
Articolo	H	A	Collets Range	Ghiera Nut
BTB40.H50.ERC32A	50	50	2÷22	G32A



Articolo	H	A	Collets Range	Ghiera Nut
BTB50.H40.ERC32A	40	50	2÷22	G32A

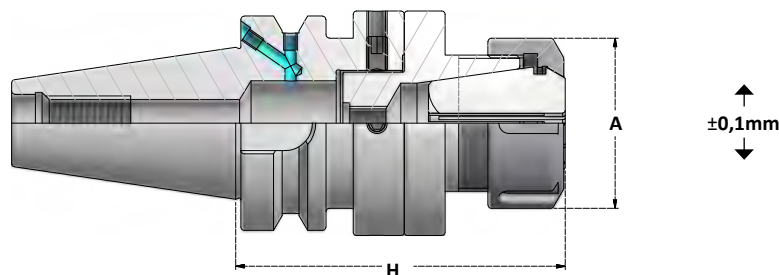


ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER A CENTRATURA REGOLABILE
RUNOUT ADJUSTABLE ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

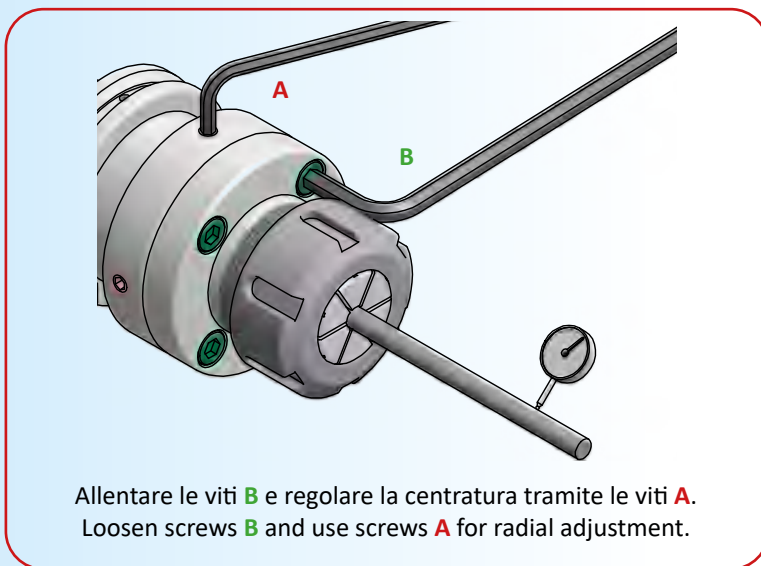


Articolo	H	A	Collets Range	Ghiera Nut
BTB40.H93.ERC16RG	93	28	1÷10	G16SE
BTB40.H95.ERC20RG	95	34	1÷14	G20SE
BTB40.H96.ERC25RG	96	42	1÷20	G25S
BTB40.H97.ERC32RG	97	50	2÷22	G32S
BTB40.H131.ERC40RG	131	63	3÷30	G40S

Centratura regolabile 0,1mm
Adjustable runout 0,1mm

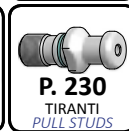
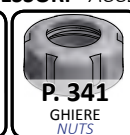


Articolo	H	A	Collets Range	Ghiera Nut
BTB50.H103.ERC16RG	103	28	1÷10	G16SE
BTB50.H105.ERC20RG	105	34	1÷14	G20SE
BTB50.H106.ERC25RG	106	42	1÷20	G25S
BTB50.H107.ERC32RG	107	50	2÷22	G32S
BTB50.H141.ERC40RG	141	63	3÷30	G40S



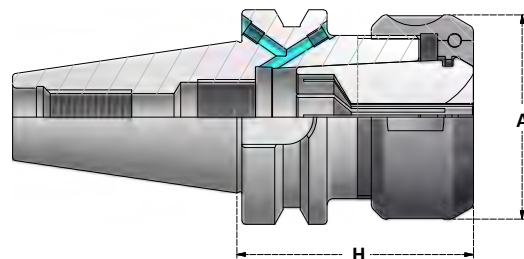
Allentare le viti **B** e regolare la centratura tramite le viti **A**.
Loosen screws **B** and use screws **A** for radial adjustment.


ACCESSORI - ACCESSORIES




MANDRINI PORTAPINZA EOC
EOC COLLET CHUCKS

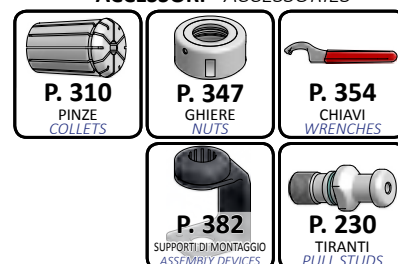
DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



G6,3 15000 _{pp,m.} AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		BTB40.H70.EOC16	70	43	2÷16
	BTB40.H100.EOC16	100	43	2÷16	G16OCC
	BTB40.H70.EOC25	70	60	2÷25	G25OCC
	BTB40.H100.EOC25	100	60	2÷25	G25OCC
	BTB40.H90.EOC32	90	72	3÷32	G32OCC

G6,3 15000 _{pp,m.} AD+B	Articolo	H	A	Collets Range	Ghiera Nut
		BTB50.H70.EOC16	70	43	2÷16
	BTB50.H70.EOC25	70	60	2÷25	G25OCC
	BTB50.H80.EOC32	80	72	3÷32	G32OCC

ACCESSORI - ACCESSORIES



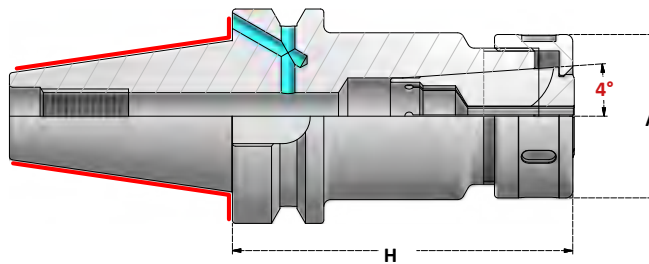
MAS 403 (JIS B 6339)

BT

SKS

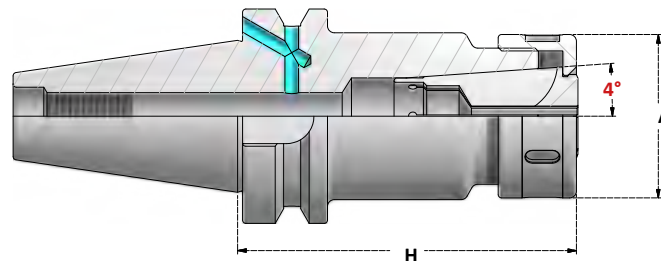
MANDRINI A DOPPIO CONTATTO PORTAPINZA SKS
DOUBLE CONTACT SKS COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



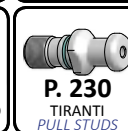
G2,5 25000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
	DBTB40.H90.SKS10	90	30	2÷10	G10SKS
	DBTB40.H90.SKS16	90	40	3÷16	G16SKS
	DBTB40.H90.SKS20	90	48,5	3÷20	G20SKS
	DBTB40.H90.SKS25	90	55,1	3÷25	G25SKS

MANDRINI PORTAPINZA SKS
SKS COLLET CHUCKS



G2,5 25000 r.p.m. AD+B	Articolo	H	A	Collets Range	Ghiera Nut
	BTB40.H90.SKS10	90	30	2÷10	G10SKS
	BTB40.H90.SKS16	90	40	3÷16	G16SKS
	BTB40.H90.SKS20	90	48,5	3÷20	G20SKS
	BTB40.H90.SKS25	90	55,1	3÷25	G25SKS

ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339)

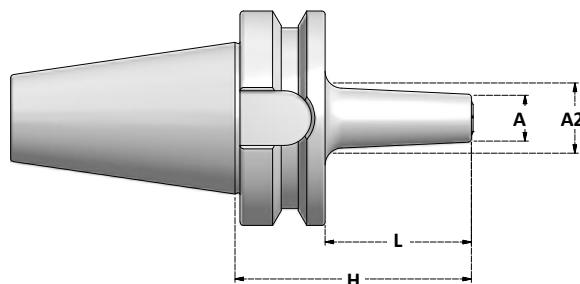
BT

P8

MANDRINI PORTAPINZA P8
P8 SLIM FIT COLLET CHUCKS

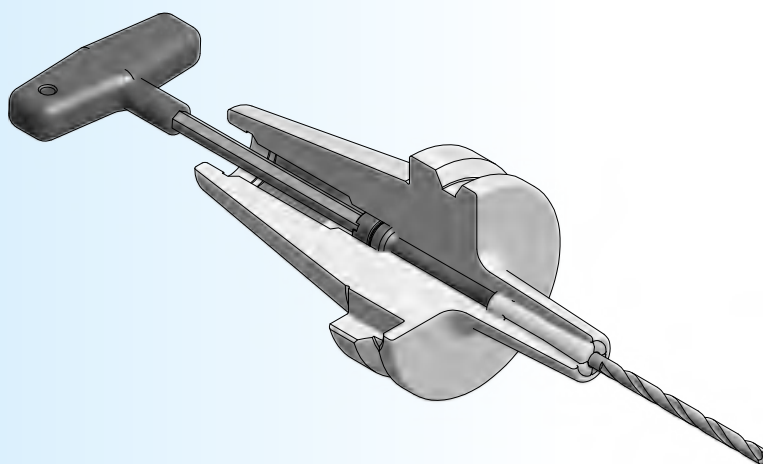
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

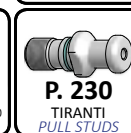


Articolo	H	L	A	A2	Collets Range
BT40.H70.P8	70	36	14	17	3+6
BT50.H70.P8	70	36	14	17	3+6

ALTRI A RICHIESTA
OTHERS ON REQUEST

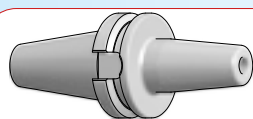


ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339) - BT

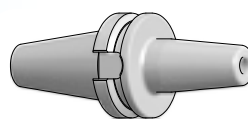
MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



A DOPPIO CONTATTO

DOUBLE CONTACT

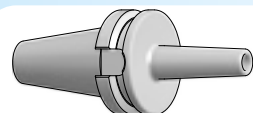
PAG. 123



STANDARD

STANDARD

PAG. 124-125



SLIM

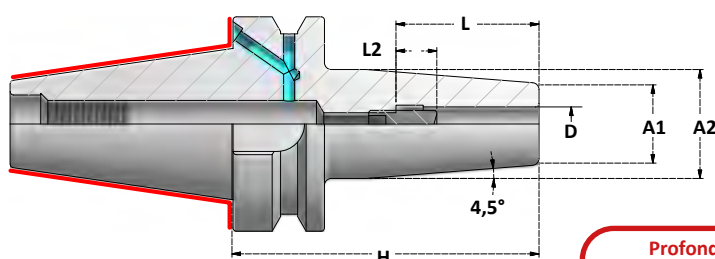
SLIM FIT

PAG. 126

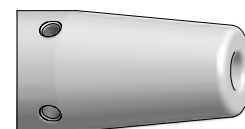
BT

TM

MANDRINI A DOPPIO CONTATTO A CALETTAMENTO A CALDO
DOUBLE CONTACT SHRINK FIT CHUCKS



Profondità regolabile L2
Adjustable depth L2



Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.

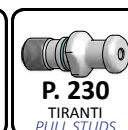
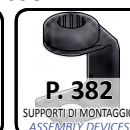
G2,5 AD 25000-r.p.m.	Articolo	D	H	L	L2	A1	A2
	* DBT30.H80.TM4	4	80	16	/	15	25
* DBT30.H80.TM5	5	80	20	/	15	25	
* DBT30.H80.TM6	6	80	36	/	21	27	
DBT30.H80.TM8	8	80	36	10	21	27	
DBT30.H80.TM10	10	80	41	10	24	32	
DBT30.H80.TM12	12	80	46	10	24	32	
DBT30.H80.TM16	16	80	49	10	27	34	
DBT30.H90.TM20	20	90	51	10	33	42	

* Senza vite di regolazione / Without adjusting screw

G2,5 AD+B 25000-r.p.m.	Articolo	D	H	L	L2	A1	A2
	* DBTB40.H90.TM3	3	90	12	/	10	20
* DBTB40.H90.TM4	4	90	16	/	15	25	
* DBTB40.H90.TM5	5	90	20	/	15	25	
DBTB40.H90.TM6	6	90	36	10	21	27	
DBTB40.H90.TM8	8	90	36	10	21	27	
DBTB40.H90.TM10	10	90	41	10	24	32	
DBTB40.H90.TM12	12	90	46	10	24	32	
DBTB40.H90.TM14	14	90	46	10	27	34	
DBTB40.H90.TM16	16	90	49	10	27	34	
DBTB40.H100.TM18	18	100	49	10	33	42	
DBTB40.H100.TM20	20	100	51	10	33	42	
DBTB40.H100.TM25	25	100	57	10	44	53	
DBTB40.H100.TM32	32	100	61	10	44	53	

G2,5 AD+B 25000-r.p.m.	Articolo	D	H	L	L2	A1	A2
	* DBTB50.H100.TM3	3	100	12	/	10	20
* DBTB50.H100.TM4	4	100	16	/	15	25	
* DBTB50.H100.TM5	5	100	20	/	15	25	
DBTB50.H100.TM6	6	100	36	10	21	27	
DBTB50.H100.TM8	8	100	36	10	21	27	
DBTB50.H100.TM10	10	100	41	10	24	32	
DBTB50.H100.TM12	12	100	46	10	24	32	
DBTB50.H100.TM14	14	100	46	10	27	34	
DBTB50.H100.TM16	16	100	49	10	27	34	
DBTB50.H100.TM18	18	100	49	10	33	42	
DBTB50.H100.TM20	20	100	51	10	33	42	
DBTB50.H110.TM25	25	110	57	10	44	53	
DBTB50.H110.TM32	32	110	61	10	44	53	

ACCESSORI - ACCESSORIES

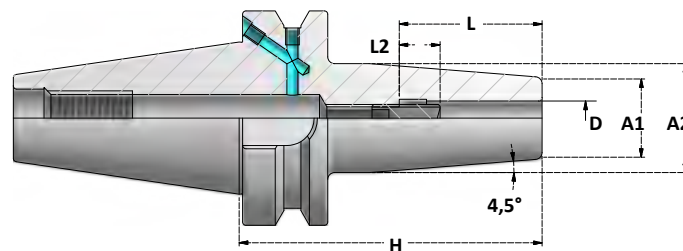


MAS 403 (JIS B 6339)

BT

TM

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



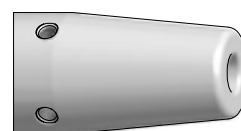
DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	L	L2	A1	A2
* BTB40.H90.TM3	3	90	12	/	10	20
* BTB40.H120.TM3	3	120	12	/	10	20
* BTB40.H160.TM3	3	160	12	/	10	20
* BTB40.H90.TM4	4	90	16	/	15	25
* BTB40.H120.TM4	4	120	16	/	15	25
* BTB40.H160.TM4	4	160	16	/	15	25
* BTB40.H90.TM5	5	90	20	/	15	25
* BTB40.H120.TM5	5	120	20	/	15	25
* BTB40.H160.TM5	5	160	20	/	15	25
BTB40.H90.TM6	6	90	36	10	21	27
BTB40.H130.TM6	6	130	36	10	21	27
BTB40.H160.TM6	6	160	36	10	21	27
BTB40.H90.TM8	8	90	36	10	21	27
BTB40.H130.TM8	8	130	36	10	21	27
BTB40.H160.TM8	8	160	36	10	21	27
BTB40.H90.TM10	10	90	41	10	24	32
BTB40.H130.TM10	10	130	41	10	24	32
BTB40.H160.TM10	10	160	41	10	24	32
BTB40.H90.TM12	12	90	46	10	24	32
BTB40.H130.TM12	12	130	46	10	24	32
BTB40.H160.TM12	12	160	46	10	24	32
BTB40.H90.TM14	14	90	46	10	27	34
BTB40.H130.TM14	14	130	46	10	27	34
BTB40.H160.TM14	14	160	46	10	27	34
BTB40.H90.TM16	16	90	49	10	27	34
BTB40.H130.TM16	16	130	49	10	27	34
BTB40.H160.TM16	16	160	49	10	27	34
BTB40.H90.TM18	18	90	49	10	33	42
BTB40.H130.TM18	18	130	49	10	33	42
BTB40.H160.TM18	18	160	49	10	33	42
BTB40.H90.TM20	20	90	51	10	33	42
BTB40.H130.TM20	20	130	51	10	33	42
BTB40.H160.TM20	20	160	51	10	33	42
BTB40.H100.TM25	25	100	57	10	44	53
BTB40.H130.TM25	25	130	57	10	44	53
BTB40.H160.TM25	25	160	57	10	44	53
BTB40.H100.TM32	32	100	61	10	44	53
BTB40.H130.TM32	32	130	61	10	44	53
BTB40.H160.TM32	32	160	61	10	44	53

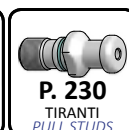
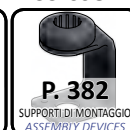
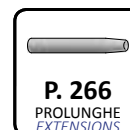
* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2



Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.

ACCESSORI - ACCESSORIES

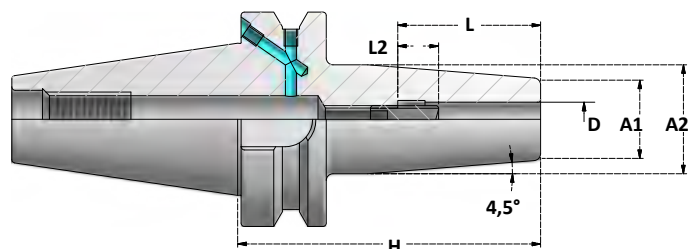


MAS 403 (JIS B 6339)

BT

TM

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS



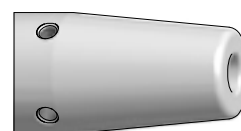
DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



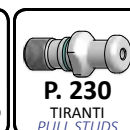
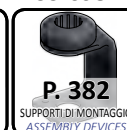
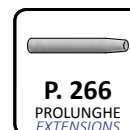
Articolo	D	H	L	L2	A1	A2
* BTB50.H100.TM3	3	100	12	/	10	16
* BTB50.H120.TM3	3	120	12	/	10	16
* BTB50.H160.TM3	3	160	12	/	10	16
* BTB50.H100.TM4	4	100	16	/	12	20
* BTB50.H120.TM4	4	120	16	/	12	20
* BTB50.H160.TM4	4	160	16	/	12	20
* BTB50.H100.TM5	5	100	20	/	12	21,6
* BTB50.H120.TM5	5	120	20	/	12	22
* BTB50.H160.TM5	5	160	20	/	12	22
BTB50.H100.TM6	6	100	36	10	21	27
BTB50.H120.TM6	6	120	36	10	21	27
BTB50.H160.TM6	6	160	36	10	21	27
BTB50.H100.TM8	8	100	36	10	21	27
BTB50.H120.TM8	8	120	36	10	21	27
BTB50.H160.TM8	8	160	36	10	21	27
BTB50.H100.TM10	10	100	41	10	24	32
BTB50.H120.TM10	10	120	41	10	24	32
BTB50.H160.TM10	10	160	41	10	24	32
BTB50.H100.TM12	12	100	46	10	24	32
BTB50.H120.TM12	12	120	46	10	24	32
BTB50.H160.TM12	12	160	46	10	24	32
BTB50.H100.TM14	14	100	46	10	27	34
BTB50.H120.TM14	14	120	46	10	27	34
BTB50.H160.TM14	14	160	46	10	27	34
BTB50.H100.TM16	16	100	49	10	27	34
BTB50.H120.TM16	16	120	49	10	27	34
BTB50.H160.TM16	16	160	49	10	27	34
BTB50.H100.TM18	18	100	49	10	33	42
BTB50.H120.TM18	18	120	49	10	33	42
BTB50.H160.TM18	18	160	49	10	33	42
BTB50.H100.TM20	20	100	51	10	33	42
BTB50.H120.TM20	20	120	51	10	33	42
BTB50.H160.TM20	20	160	51	10	33	42
BTB50.H110.TM25	25	110	57	10	44	53
BTB50.H120.TM25	25	120	57	10	44	53
BTB50.H160.TM25	25	160	57	10	44	53
BTB50.H110.TM32	32	110	61	10	44	53
BTB50.H120.TM32	32	120	61	10	44	53
BTB50.H160.TM32	32	160	61	10	44	53

* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2



Con 4 fori per la bilanciatura.
Grani non compresi.
With 4 holes for balancing.
Screws not supplied.



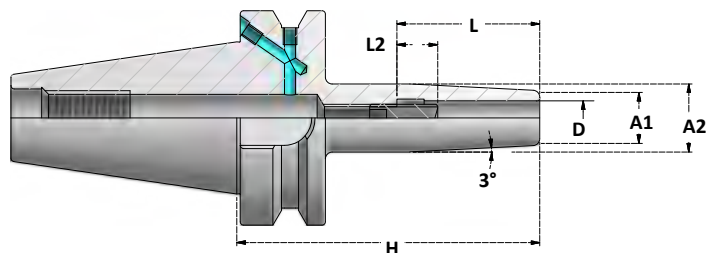
ACCESSORI - ACCESSORIES

MAS 403 (JIS B 6339)

BT

TM

MANDRINI A CALETTAMENTO A CALDO SLIM
SLIM SHRINK FIT CHUCKS



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

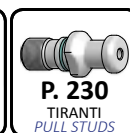
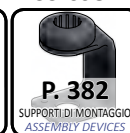
G2,5
25000 r.p.m.
AD+B

Articolo	D	H	L	L2	A1	A2
* BTB40.H90.TM3SL	3	90	12	/	9	13
* BTB40.H120.TM3SL	3	120	12	/	9	16
* BTB40.H90.TM4SL	4	90	16	/	10	15
* BTB40.H120.TM4SL	4	120	16	/	10	20
* BTB40.H90.TM5SL	5	90	20	/	11	16
* BTB40.H120.TM5SL	5	120	20	/	11	20
BTB40.H90.TM6SL	6	90	36	10	12	17
BTB40.H130.TM6SL	6	130	36	10	12	19
BTB40.H160.TM6SL	6	160	36	10	12	19
BTB40.H90.TM8SL	8	90	36	10	14	19
BTB40.H130.TM8SL	8	130	36	10	14	21
BTB40.H160.TM8SL	8	160	36	10	14	21
BTB40.H90.TM10SL	10	90	41	10	16	21
BTB40.H130.TM10SL	10	130	41	10	16	23
BTB40.H160.TM10SL	10	160	41	10	16	23
BTB40.H90.TM12SL	12	90	46	10	18	23
BTB40.H130.TM12SL	12	130	46	10	18	25
BTB40.H160.TM12SL	12	160	46	10	18	25
BTB40.H90.TM14SL	14	90	46	10	22	25
BTB40.H130.TM14SL	14	130	46	10	22	27
BTB40.H160.TM14SL	14	160	46	10	22	27
BTB40.H90.TM16SL	16	90	49	10	24	29
BTB40.H130.TM16SL	16	130	49	10	24	31
BTB40.H160.TM16SL	16	160	49	10	24	31
BTB40.H90.TM18SL	18	90	49	10	28	34
BTB40.H130.TM18SL	18	130	49	10	28	35
BTB40.H160.TM18SL	18	160	49	10	28	35
BTB40.H90.TM20SL	20	90	51	10	32	39
BTB40.H130.TM20SL	20	130	51	10	32	39
BTB40.H160.TM20SL	20	160	51	10	32	39

* Senza vite di regolazione / Without adjusting screw

Profondità regolabile L2
Adjustable depth L2

ACCESSORI - ACCESSORIES



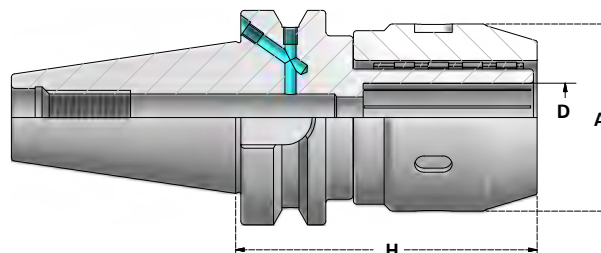
MAS 403 (JIS B 6339)

BT

FS

MANDRINI A FORTE SERRAGGIO
POWER MILLING CHUCKS

FORZA DI SERRAGGIO
CLAMPING FORCE
300 Nm



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G6,3 12000rpm
AD+B

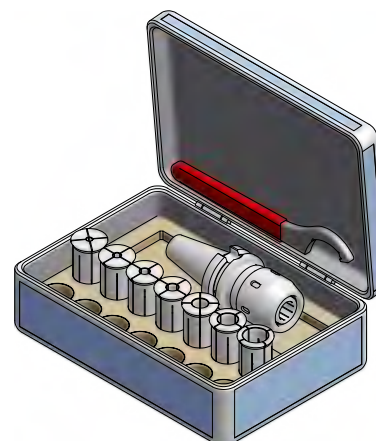
Articolo	D	H	A
BTB40.H100.FS20	20	100	55
BTB40.H100.FS32	32	100	69

G6,3 12000rpm
AD+B

Articolo	D	H	A
BTB50.H105.FS20	20	105	55
BTB50.H105.FS32	32	105	69

I TAGLI LONGITUDINALI PER TUTTA LA LUNGHEZZA DELLA SEDE PORTAUTENSILE AUMENTANO LA FORZA DI SERRAGGIO MA NON PERMETTONO LA TOTALE TENUTA DEL LIQUIDO REFRIGERANTE.

LONGITUDINAL CUTS ALL ALONG SEAT OF TOOL INCREASE CLAMPING FORCE BUT DO NOT ALLOW TOTAL SEALING.



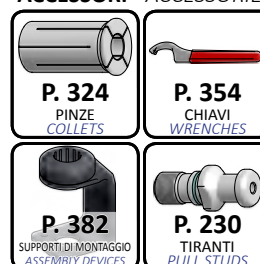
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.BTB40.FS20	4SR20.D6-D8-D10-D12-D16	BTB40.H100.FS20
BX.BTB40.FS32	4SR32.D6-D8-D10-D12-D16-D20-D25	BTB40.H100.FS32

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.BTB50.FS20	4SR20.D6-D8-D10-D12-D16	BTB50.H105.FS20
BX.BTB50.FS32	4SR32.D6-D8-D10-D12-D16-D20-D25	BTB50.H105.FS32

ACCESSORI - ACCESSORIES



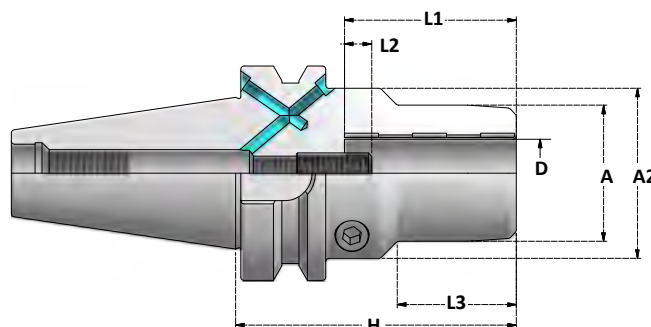
MAS 403 (JIS B 6339)

BT

HY

MANDRINI IDRAULICI
HYDRAULIC CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



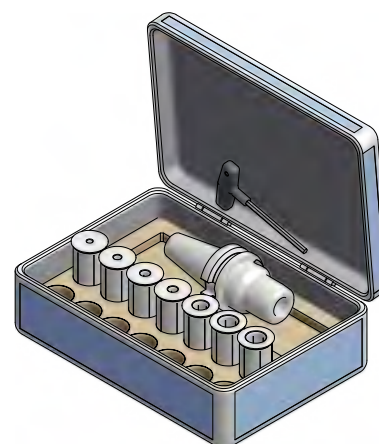
Articolo	D	H	L1	L2	L3	A	A2
BTB40.H73.HY20	20	73	51	10	/	49,5	/



Articolo	D	H	L1	L2	L3	A	A2
BTB40.H90.HY6	6	90	37	10	40	26	49,5
BTB40.H140.HY6	6	140	37	10	40	26	49,5
BTB40.H90.HY8	8	90	37	10	40	28	49,5
BTB40.H140.HY8	8	140	37	10	40	28	49,5
BTB40.H90.HY10	10	90	41	10	40	30	49,5
BTB40.H140.HY10	10	140	41	10	40	30	49,5
BTB40.H90.HY12	12	90	46	10	40	32	49,5
BTB40.H140.HY12	12	140	46	10	40	32	49,5
BTB40.H90.HY14	14	90	46	10	40	34	49,5
BTB40.H140.HY14	14	140	46	10	40	34	49,5
BTB40.H90.HY16	16	90	49	10	46	38	49,5
BTB40.H140.HY16	16	140	49	10	46	38	49,5
BTB40.H90.HY18	18	90	49	10	46	40	49,5
BTB40.H140.HY18	18	140	49	10	46	40	49,5
BTB40.H90.HY20	20	90	51	10	46	42	49,5
BTB40.H140.HY20	20	140	51	10	46	42	49,5
BTB40.H90.HY25	25	90	57	10	76	49,5	55
BTB40.H140.HY25	25	140	57	10	91	49,5	55
BTB40.H90.HY32	32	90	61	10	76	56	63
BTB40.H140.HY32	32	140	61	10	91	56	63

Momento torcente consigliato **10/12Nm**
Recommended tightening torque

Forza di serraggio Clamping force	Chiave Wrench
HY6 12Nm	CH.EX5
HY8 30Nm	CH.EX5
HY10 40Nm	CH.EX5
HY12 70Nm	CH.EX5
HY14 100Nm	CH.EX5
HY16 135Nm	CH.EX5
HY18 180Nm	CH.EX5
HY20 220Nm	CH.EX5
HY25 500Nm	CH.EX6
HY32 700Nm	CH.EX6



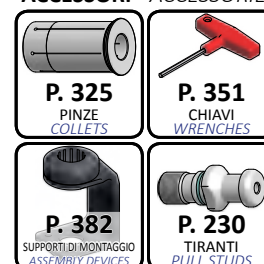
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.BTB40.HY20	6SR20.D6-D8-D10-D12-D16	BTB40.H90.HY20
BX.BTB40.HY32	6SR32.D6-D8-D10-D12-D16-D20-D25	BTB40.H90.HY32

ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST

ACCESSORI - ACCESSORIES



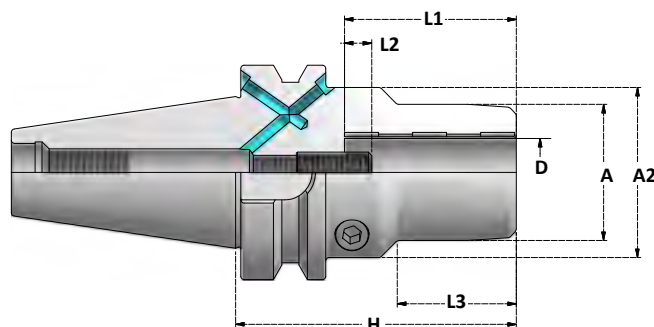
MAS 403 (JIS B 6339)

BT

HY

MANDRINI IDRAULICI
HYDRAULIC CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	L1	L2	L3	A	A2
BTB50.H90.HY32	32	90	61	10	/	72	/



Articolo	D	H	L1	L2	L3	A	A2
BTB50.H110.HY6	6	110	37	10	40	26	49,5
BTB50.H140.HY6	6	140	37	10	40	26	49,5
BTB50.H110.HY8	8	110	37	10	40	28	49,5
BTB50.H140.HY8	8	140	37	10	40	28	49,5
BTB50.H110.HY10	10	110	41	10	40	30	49,5
BTB50.H140.HY10	10	140	41	10	40	30	49,5
BTB50.H110.HY12	12	110	46	10	40	32	49,5
BTB50.H140.HY12	12	140	46	10	40	32	49,5
BTB50.H110.HY14	14	110	46	10	40	34	49,5
BTB50.H140.HY14	14	140	46	10	40	34	49,5
BTB50.H110.HY16	16	110	49	10	46	38	49,5
BTB50.H140.HY16	16	140	49	10	46	38	49,5
BTB50.H110.HY18	18	110	49	10	46	40	49,5
BTB50.H140.HY18	18	140	49	10	46	40	49,5
BTB50.H110.HY20	20	110	51	10	46	42	49,5
BTB50.H140.HY20	20	140	51	10	46	42	49,5
BTB50.H110.HY25	25	110	57	10	55	49,5	55
BTB50.H140.HY25	25	140	57	10	55	49,5	55
BTB50.H115.HY32	32	115	61	10	55	56	63
BTB50.H140.HY32	32	140	61	10	55	56	63

Momento torcente consigliato **10/12Nm**
Recommended tightening torque

Forza di serraggio Clamping force	Chiave Wrench
HY6 12Nm	CH.EX5
HY8 30Nm	CH.EX5
HY10 40Nm	CH.EX5
HY12 70Nm	CH.EX5
HY14 100Nm	CH.EX5
HY16 135Nm	CH.EX5
HY18 180Nm	CH.EX5
HY20 220Nm	CH.EX5
HY25 500Nm	CH.EX6
HY32 700Nm	CH.EX6



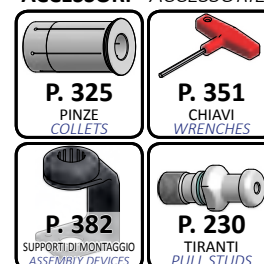
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.BTB50.HY20	6SR20.D6-D8-D10-D12-D16	BTB50.H110.HY20
BX.BTB50.HY32	6SR32.D6-D8-D10-D12-D16-D20-D25	BTB50.H115.HY32

ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST

ACCESSORI - ACCESSORIES



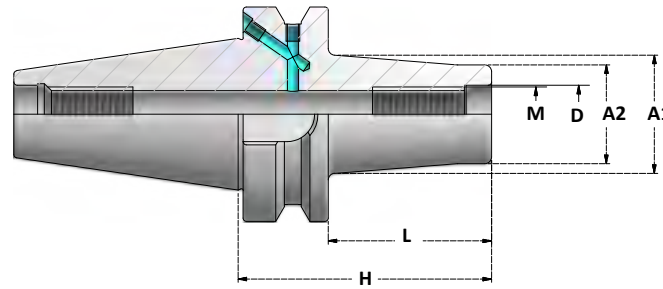
MAS 403 (JIS B 6339)

BT

CPY

MANDRINI PER FRESE CON ATTACCO FILETTATO

SCREW IN MILL CHUCKS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

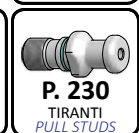
G2,5 25000 r.p.m. AD+B	Articolo	M	D	H	L	A1	A2
	BTB40.H63.M8CPY	M8	8,5	63	36	15	13
BTB40.H83.M8CPY	M8	8,5	83	56	23	13	
BTB40.H103.M8CPY	M8	8,5	103	76	23	13	
BTB40.H123.M8CPY	M8	8,5	123	96	25	13	
BTB40.H63.M10CPY	M10	10,5	63	36	20	18	
BTB40.H83.M10CPY	M10	10,5	83	56	25	18	
BTB40.H103.M10CPY	M10	10,5	103	76	28	18	
BTB40.H123.M10CPY	M10	10,5	123	96	28	18	
BTB40.H153.M10CPY	M10	10,5	153	126	34	18	
BTB40.H63.M12CPY	M12	12,5	63	36	24	21	
BTB40.H83.M12CPY	M12	12,5	83	56	24	21	
BTB40.H103.M12CPY	M12	12,5	103	76	31	21	
BTB40.H123.M12CPY	M12	12,5	123	96	31	21	
BTB40.H153.M12CPY	M12	12,5	153	126	38	21	
BTB40.H183.M12CPY	M12	12,5	183	156	42	21	
BTB40.H63.M16CPY	M16	17	63	36	34	29	
BTB40.H83.M16CPY	M16	17	83	56	34	29	
BTB40.H103.M16CPY	M16	17	103	76	34	29	
BTB40.H123.M16CPY	M16	17	123	96	39	29	
BTB40.H153.M16CPY	M16	17	153	126	39	29	
BTB40.H183.M16CPY	M16	17	183	156	39	29	

Momento di serraggio consigliato
Recommended tightening torque

M8	25Nm
M10	40Nm
M12	60Nm
M16	80Nm

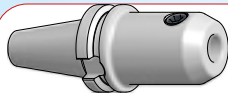
G2,5 15000 r.p.m. AD+B	Articolo	M	D	H	L	A1	A2
	BTB50.H104.M10CPY	M10	10,5	104	66	28	18
BTB50.H154.M10CPY	M10	10,5	154	116	28	18	
BTB50.H104.M12CPY	M12	12,5	104	66	32	21	
BTB50.H154.M12CPY	M12	12,5	154	116	32	21	
BTB50.H104.M16CPY	M16	17	104	66	36	29	
BTB50.H154.M16CPY	M16	17	154	116	40	29	

ACCESSORI - ACCESSORIES



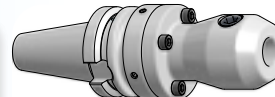
MANDRINI PORTAFRESA WELDON - DIN1835-2

END MILL HOLDERS WELDON - DIN1835-2



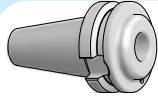
A DOPPIO CONTATTO
DOUBLE CONTACT

PAG. 131



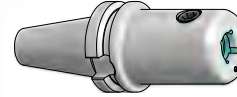
A CENTRATURA REGOLABILE
RUNOUT ADJUSTABLE

PAG. 138



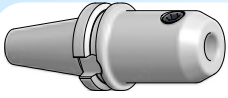
EXTRACORTI
STUB LENGTH

PAG. 132



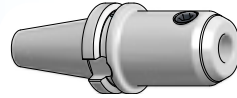
CON CANALI DI LUBRIFICAZIONE
WITH COOLANT CHANNELS

PAG. 139



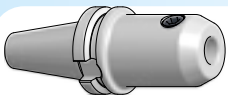
STANDARD
STANDARD

PAG. 133-136



A 2° - WHISTLE NOTCH
WHISTLE NOTCH - 2°

PAG. 140



PER ALTE VELOCITA'
FOR HIGH SPEEDS

PAG. 137

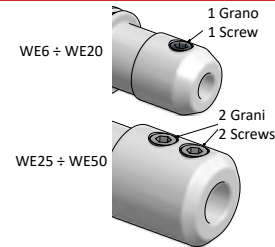
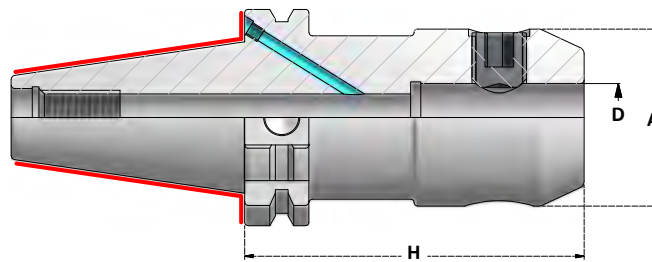
BT

WE

DIN 1835-2 Form B

MANDRINI A DOPPIO CONTATTO PORTAFRESE WELDON

DOUBLE CONTACT END MILL HOLDERS WELDON

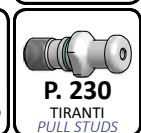


G2,5 25000.p.m. AD	Articolo	D	H	A	Grano Screw
	DBT30.H50.WE6	6	50	25	GR.WE6
DBT30.H50.WE8	8	50	28	GR.WE8	
DBT30.H50.WE10	10	50	35	GR.WE10	
DBT30.H50.WE12	12	50	42	GR.WE12-14	
DBT30.H63.WE16	16	63	48	GR.WE16-18	
DBT30.H63.WE20	20	63	52	GR.WE20	
DBT30.H90.WE25	25	90	65	GR.WE25	

G2,5 25000.p.m. AD+B	Articolo	D	H	A	Grano Screw
	DBTB40.H50.WE6	6	50	25	GR.WE6
DBTB40.H50.WE8	8	50	28	GR.WE8	
DBTB40.H63.WE10	10	63	35	GR.WE10	
DBTB40.H63.WE12	12	63	42	GR.WE12-14	
DBTB40.H63.WE16	16	63	48	GR.WE16-18	
DBTB40.H63.WE18	18	63	50	GR.WE16-18	
DBTB40.H63.WE20	20	63	52	GR.WE20	
DBTB40.H100.WE25	25	100	65	GR.WE25	
DBTB40.H100.WE32	32	100	72	GR.WE32-40	

G2,5 25000.p.m. AD+B	Articolo	D	H	A	Grano Screw
	DBTB50.H63.WE6	6	63	25	GR.WE6
DBTB50.H63.WE8	8	63	28	GR.WE8	
DBTB50.H63.WE10	10	63	35	GR.WE10	
DBTB50.H80.WE12	12	80	42	GR.WE12-14	
DBTB50.H80.WE16	16	80	48	GR.WE16-18	
DBTB50.H80.WE20	20	80	52	GR.WE20	
DBTB50.H100.WE25	25	100	65	GR.WE25	
DBTB50.H105.WE32	32	105	72	GR.WE32-40	
DBTB50.H120.WE40	40	120	80	GR.WE32-40	
DBTB50.H125.WE50	50	125	100	GR.WE50	

ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339)

BT

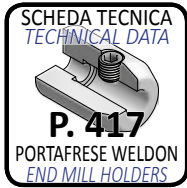
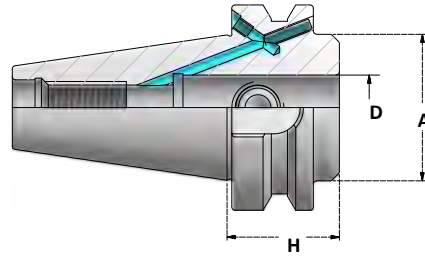
WE

MANDRINI PORTAFRESA WELDON - EXTRACORTI

END MILL HOLDERS WELDON - STUB LENGTH

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Grano 1 Screw 1	Grano 2 Screw 2	Fig
BT30.H32.WE6	6	32	25	GR.WE6	/	1
BT30.H32.WE8	8	32	28	GR.WE8	/	1
BT30.H32.WE10	10	32	35	GR.WE10	/	1
BT30.H32.WE12	12	32	42	GR.WEC12-14	/	1
BT30.H32.WE14	14	32	44	GR.WEC12-14	/	1
BT30.H35.WE16	16	35	40	GR.WEC16	/	1
BT30.H35.WE18	18	35	44	GR.WEC25-32	/	1
BT30.H35.WE20	20	35	43	GR.WEC20	/	1



Articolo	D	H	A	Grano 1 Screw 1	Grano 2 Screw 2	Fig
BTB40.H35.WE16	16	35	43,5	GR.WEC16	/	1
BTB40.H35.WE20	20	35	43,5	GR.WEC20	/	1
BTB40.H35.WE25	25	35	43,5	GR.WEC20	/	1
BTB40.H60.WE25	25	60	50	GR.WEC25-32	GR.WEC25	2
BTB40.H40.WE32	32	40	60	GR.WEC25-32	/	1
BTB40.H70.WE32	32	70	72	GR.WEC25-32	GR.WE32-40	2



Articolo	D	H	A	Grano 1 Screw 1	Grano 2 Screw 2	Fig
BTB50.H44.WE16	16	44	48	GR.WE16-18	/	1
BTB50.H44.WE20	20	44	60	GR.WE20	/	1
BTB50.H44.WE25	25	44	70	GR.WE25	/	1
BTB50.H44.WE32	32	44	70	GR.WE32-40	/	1
BTB50.H44.WE40	40	44	70	GR.WEC32-40	/	1

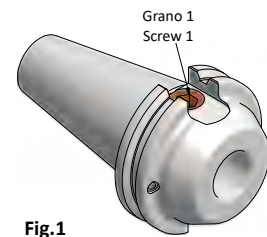


Fig.1

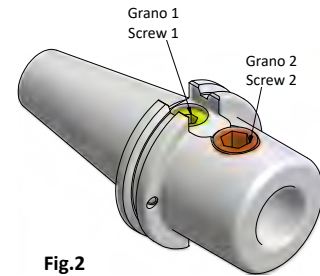
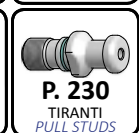
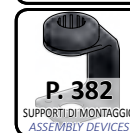


Fig.2

Montano utensili weldon con piano come da norma DIN1835-1.

Mount tools with DIN1835-1 slots.

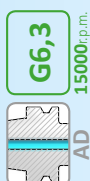
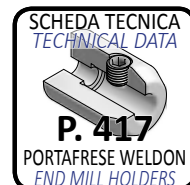
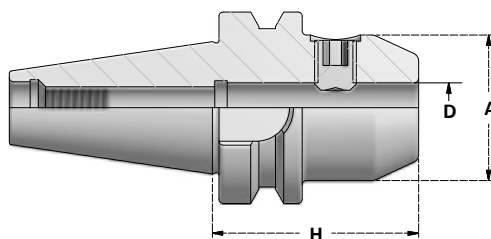
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON

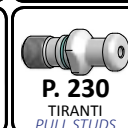
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
BT30.H50.WE6	6	50	25	GR.WE6
BT30.H100.WE6	6	100	25	GR.WE6
BT30.H50.WE8	8	50	28	GR.WE8
BT30.H100.WE8	8	100	28	GR.WE8
BT30.H50.WE10	10	50	35	GR.WE10
BT30.H100.WE10	10	100	35	GR.WE10
BT30.H50.WE12	12	50	42	GR.WE12-14
BT30.H100.WE12	12	100	42	GR.WE12-14
BT30.H50.WE14	14	50	44	GR.WE12-14
BT30.H100.WE14	14	100	44	GR.WE12-14
BT30.H63.WE16	16	63	48	M16x10
BT30.H100.WE16	16	100	48	GR.WE16-18
BT30.H63.WE18	18	63	50	GR.WE16-18
BT30.H100.WE18	18	100	50	GR.WE16-18
BT30.H63.WE20	20	63	52	GR.WE20
BT30.H100.WE20	20	100	52	GR.WE20

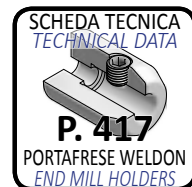
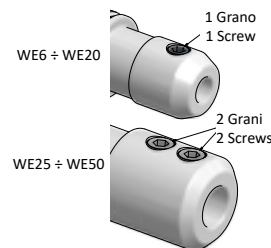
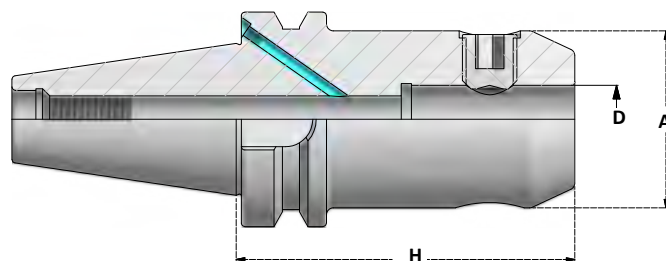
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
BTB40.H50.WE6	6	50	25	GR.WE6
BTB40.H100.WE6	6	100	25	GR.WE6
BTB40.H130.WE6	6	130	25	GR.WE6
BTB40.H160.WE6	6	160	25	GR.WE6
BTB40.H200.WE6	6	200	25	GR.WE6
BTB40.H50.WE8	8	50	28	GR.WE8
BTB40.H100.WE8	8	100	28	GR.WE8
BTB40.H130.WE8	8	130	28	GR.WE8
BTB40.H160.WE8	8	160	28	GR.WE8
BTB40.H200.WE8	8	200	28	GR.WE8
BTB40.H63.WE10	10	63	35	GR.WE10
BTB40.H100.WE10	10	100	35	GR.WE10
BTB40.H130.WE10	10	130	35	GR.WE10
BTB40.H160.WE10	10	160	35	GR.WE10
BTB40.H200.WE10	10	200	35	GR.WE10
BTB40.H63.WE12	12	63	42	GR.WE12-14
BTB40.H100.WE12	12	100	42	GR.WE12-14
BTB40.H130.WE12	12	130	42	GR.WE12-14
BTB40.H160.WE12	12	160	42	GR.WE12-14
BTB40.H200.WE12	12	200	42	GR.WE12-14
BTB40.H63.WE14	14	63	44	GR.WE12-14
BTB40.H100.WE14	14	100	44	GR.WE12-14
BTB40.H130.WE14	14	130	44	GR.WE12-14
BTB40.H160.WE14	14	160	44	GR.WE12-14
BTB40.H200.WE14	14	200	44	GR.WE12-14
BTB40.H63.WE16	16	63	48	GR.WE16-18
BTB40.H100.WE16	16	100	48	GR.WE16-18
BTB40.H130.WE16	16	130	48	GR.WE16-18
BTB40.H160.WE16	16	160	48	GR.WE16-18
BTB40.H200.WE16	16	200	48	GR.WE16-18
BTB40.H63.WE18	18	63	50	GR.WE16-18
BTB40.H100.WE18	18	100	50	GR.WE16-18
BTB40.H130.WE18	18	130	50	GR.WE16-18
BTB40.H160.WE18	18	160	50	GR.WE16-18
BTB40.H200.WE18	18	200	50	GR.WE16-18
BTB40.H63.WE20	20	63	52	GR.WE20
BTB40.H100.WE20	20	100	52	GR.WE20
BTB40.H130.WE20	20	130	52	GR.WE20
BTB40.H160.WE20	20	160	52	GR.WE20
BTB40.H200.WE20	20	200	52	GR.WE20

ACCESSORI - ACCESSORIES

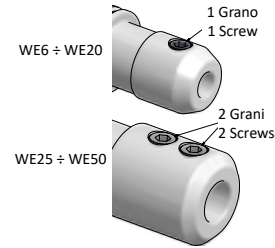
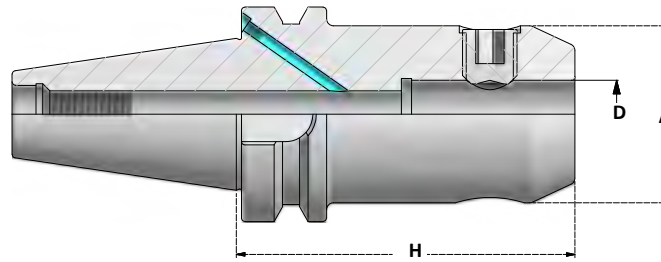


MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

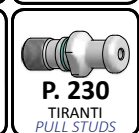
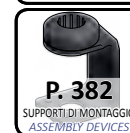
SHANK
DIMENSIONS



G6,3 15000 r.p.m. AD+B	Articolo	D	H	A	Grano Screw
	BTB40.H90.WE25	25	90	65	GR.WE25
BTB40.H130.WE25	25	130	65	GR.WE25	
BTB40.H160.WE25	25	160	65	GR.WE25	
BTB40.H200.WE25	25	200	65	GR.WE25	
BTB40.H100.WE32	32	100	72	GR.WE32-40	
BTB40.H130.WE32	32	130	72	GR.WE32-40	
BTB40.H160.WE32	32	160	72	GR.WE32-40	
BTB40.H200.WE32	32	200	72	GR.WE32-40	
BTB40.H120.WE40	40	120	80	GR.WE32-40	

G6,3 15000 r.p.m. AD+B	Articolo	D	H	A	Grano Screw
	BTB50.H63.WE6	6	63	25	GR.WE6
BTB50.H100.WE6	6	100	25	GR.WE6	
BTB50.H130.WE6	6	130	25	GR.WE6	
BTB50.H160.WE6	6	160	25	GR.WE6	
BTB50.H200.WE6	6	200	25	GR.WE6	
BTB50.H63.WE8	8	63	28	GR.WE8	
BTB50.H100.WE8	8	100	28	GR.WE8	
BTB50.H130.WE8	8	130	28	GR.WE8	
BTB50.H160.WE8	8	160	28	GR.WE8	
BTB50.H200.WE8	8	200	28	GR.WE8	
BTB50.H63.WE10	10	63	35	GR.WE10	
BTB50.H100.WE10	10	100	35	GR.WE10	
BTB50.H130.WE10	10	130	35	GR.WE10	
BTB50.H160.WE10	10	160	35	GR.WE10	
BTB50.H200.WE10	10	200	35	GR.WE10	
BTB50.H80.WE12	12	80	42	GR.WE12-14	
BTB50.H100.WE12	12	100	42	GR.WE12-14	
BTB50.H130.WE12	12	130	42	GR.WE12-14	
BTB50.H160.WE12	12	160	42	GR.WE12-14	
BTB50.H200.WE12	12	200	42	GR.WE12-14	
BTB50.H80.WE14	14	80	44	GR.WE12-14	
BTB50.H100.WE14	14	100	44	GR.WE12-14	
BTB50.H130.WE14	14	130	44	GR.WE12-14	
BTB50.H160.WE14	14	160	44	GR.WE12-14	
BTB50.H200.WE14	14	200	44	GR.WE12-14	

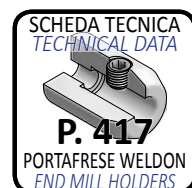
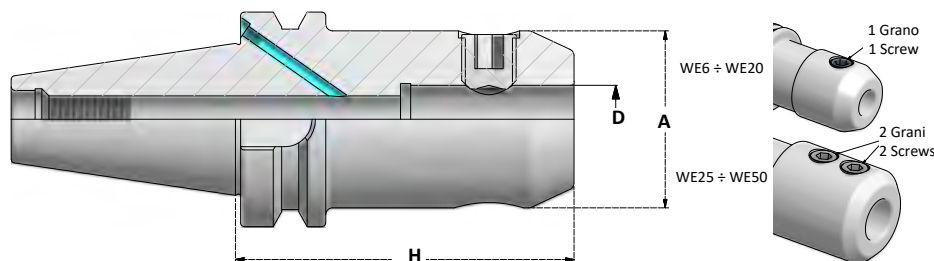
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON
END MILL HOLDERS WELDON

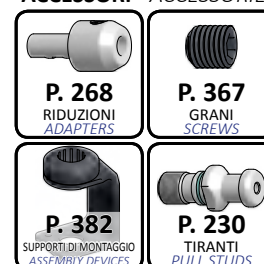
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
BTB50.H80.WE16	16	80	48	GR.WE16-18
BTB50.H100.WE16	16	100	48	GR.WE16-18
BTB50.H130.WE16	16	130	48	GR.WE16-18
BTB50.H160.WE16	16	160	48	GR.WE16-18
BTB50.H200.WE16	16	200	48	GR.WE16-18
BTB50.H80.WE18	18	80	50	GR.WE16-18
BTB50.H100.WE18	18	100	50	GR.WE16-18
BTB50.H130.WE18	18	130	50	GR.WE16-18
BTB50.H160.WE18	18	160	50	GR.WE16-18
BTB50.H200.WE18	18	200	50	GR.WE16-18
BTB50.H80.WE20	20	80	52	GR.WE20
BTB50.H100.WE20	20	100	52	GR.WE20
BTB50.H130.WE20	20	130	52	GR.WE20
BTB50.H160.WE20	20	160	52	GR.WE20
BTB50.H200.WE20	20	200	52	GR.WE20
BTB50.H250.WE20	20	250	52	GR.WE20
BTB50.H100.WE25	25	100	65	GR.WE25
BTB50.H130.WE25	25	130	65	GR.WE25
BTB50.H160.WE25	25	160	65	GR.WE25
BTB50.H200.WE25	25	200	65	GR.WE25
BTB50.H250.WE25	25	250	65	GR.WE25
BTB50.H105.WE32	32	105	72	GR.WE32-40
BTB50.H130.WE32	32	130	72	GR.WE32-40
BTB50.H160.WE32	32	160	72	GR.WE32-40
BTB50.H200.WE32	32	200	72	GR.WE32-40
BTB50.H250.WE32	32	250	72	GR.WE32-40
BTB50.H120.WE40	40	120	80	GR.WE32-40
BTB50.H160.WE40	40	160	80	GR.WE32-40
BTB50.H200.WE40	40	200	80	GR.WE32-40
BTB50.H125.WE50	50	125	100	GR.WE50

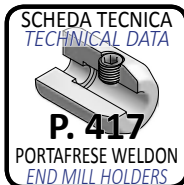
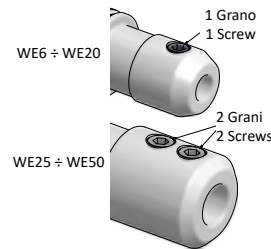
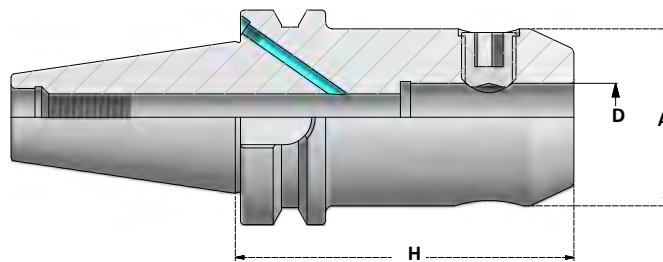
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON PER ALTE VELOCITA'
END MILL HOLDERS WELDON FOR HIGH SPEEDS

DIMENSIONI
DELL'ATTACCO

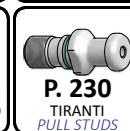
SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
BTB40.H50.WE6E	6	50	25	GR.WE6
BTB40.H50.WE8E	8	50	28	GR.WE8
BTB40.H63.WE10E	10	63	35	GR.WE10
BTB40.H63.WE12E	12	63	42	GR.WE12-14
BTB40.H63.WE14E	14	63	44	GR.WE12-14
BTB40.H63.WE16E	16	63	48	GR.WE16-18
BTB40.H63.WE18E	18	63	50	GR.WE16-18
BTB40.H63.WE20E	20	63	52	GR.WE20
BTB40.H90.WE25E	25	90	65	GR.WE25
BTB40.H100.WE32E	32	100	72	GR.WE32-40

ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES

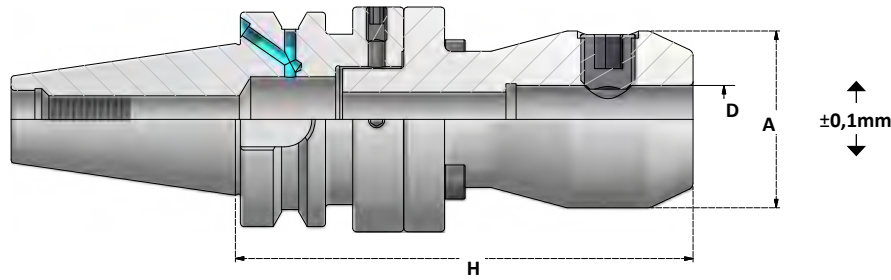


MANDRINI PORTAFRESA WELDON A CENTRATURA REGOLABILE

RUNOUT ADJUSTABLE END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

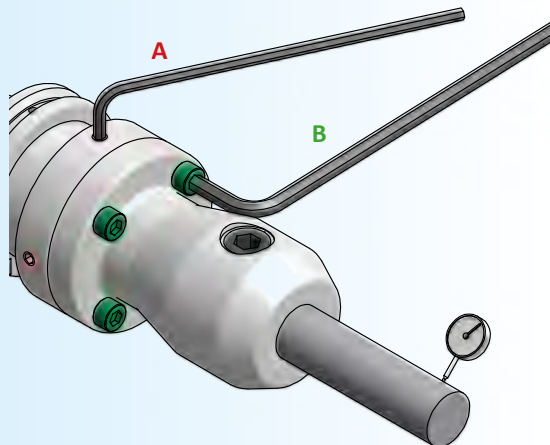


Articolo	D	H	A	Grano Screw
BTB40.H100.WE6RG	6	100	25	GR.WE6
BTB40.H100.WE8RG	8	100	28	GR.WE8
BTB40.H100.WE10RG	10	100	35	GR.WE10
BTB40.H110.WE12RG	12	110	42	GR.WE12-14
BTB40.H110.WE14RG	14	110	44	GR.WE12-14
BTB40.H130.WE16RG	16	130	48	GR.WE16-18
BTB40.H130.WE18RG	18	130	50	GR.WE16-18
BTB40.H135.WE20RG	20	135	52	GR.WE20

Centratura regolabile 0,1mm
Adjustable runout 0,1mm



Articolo	D	H	A	Grano Screw
BTB50.H110.WE6RG	6	110	25	GR.WE6
BTB50.H110.WE8RG	8	110	28	GR.WE8
BTB50.H110.WE10RG	10	110	35	GR.WE10
BTB50.H120.WE12RG	12	120	42	GR.WE12-14
BTB50.H120.WE14RG	14	120	44	GR.WE12-14
BTB50.H140.WE16RG	16	140	48	GR.WE16-18
BTB50.H140.WE18RG	18	140	50	GR.WE16-18
BTB50.H145.WE20RG	20	145	52	GR.WE20



Allentare le viti **B** e regolare la centratura tramite le viti **A**.
Loosen screws **B** and use screws **A** for radial adjustment.

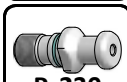
ACCESSORI - ACCESSORIES



P. 367
GRANI
SCREWS



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



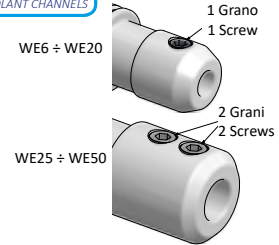
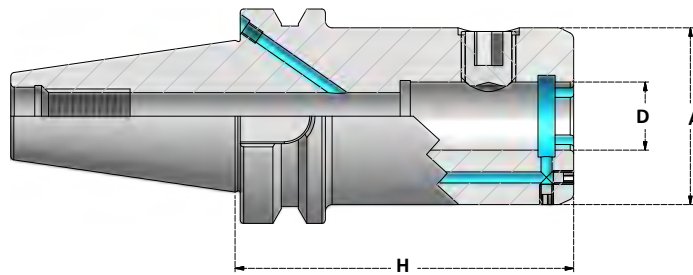
P. 230
TIRANTI
PULL STUDS

MANDRINI PORTAFRESA WELDON CON CANALI DI LUBRIFICAZIONE

END MILL HOLDERS WELDON WITH COOLANT CHANNELS

DIMENSIONI
DELL'ATTACCO

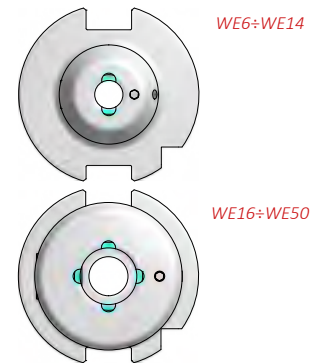
SHANK
DIMENSIONS



Articolo	D	H	A	Grano Screw
BTB40.H65.WE6C	6	65	25	GR.WE6
BTB40.H65.WE8C	8	65	28	GR.WE8
BTB40.H65.WE10C	10	65	35	GR.WE10
BTB40.H65.WE12C	12	65	42	GR.WE12-14
BTB40.H65.WE14C	14	65	44	GR.WE12-14
BTB40.H65.WE16C	16	65	48	GR.WE16-18
BTB40.H65.WE18C	18	65	50	GR.WE16-18
BTB40.H65.WE20C	20	65	52	GR.WE20
BTB40.H100.WE25C	25	100	65	GR.WE25
BTB40.H100.WE32C	32	100	72	GR.WE32-40
BTB40.H120.WE40C	40	120	90	GR.WE32-40



Articolo	D	H	A	Grano Screw
BTB50.H80.WE6C	6	80	25	GR.WE6
BTB50.H80.WE8C	8	80	28	GR.WE8
BTB50.H80.WE10C	10	80	35	GR.WE10
BTB50.H80.WE12C	12	80	42	GR.WE12-14
BTB50.H80.WE14C	14	80	44	GR.WE12-14
BTB50.H80.WE16C	16	80	48	GR.WE16-18
BTB50.H80.WE18C	18	80	50	GR.WE16-18
BTB50.H80.WE20C	20	80	52	GR.WE20
BTB50.H100.WE25C	25	100	65	GR.WE25
BTB50.H105.WE32C	32	105	72	GR.WE32-40
BTB50.H120.WE40C	40	120	80	GR.WE32-40

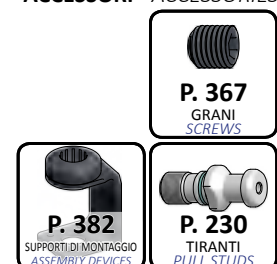


Regolando il grano si può scegliere se indirizzare il liquido refrigerante ai fori del mandrino o attraverso l'utensile.

Lock screw for coolant through tool.
Unlock screw for coolant through toolholder.



ACCESSORI - ACCESSORIES

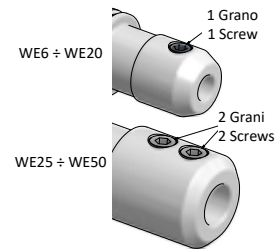
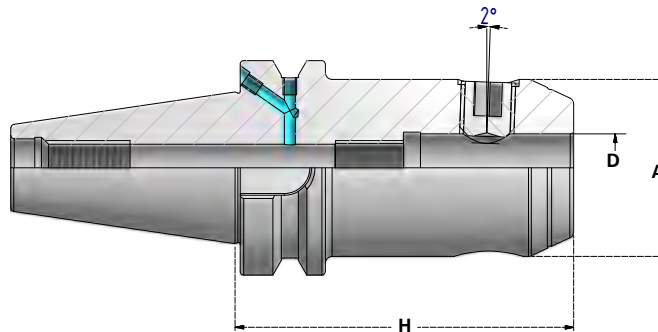


MANDRINI PORTAFRESA WHISTLE NOTCH

END MILL HOLDERS WHISTLE NOTCH

DIMENSIONI
DELL'ATTACCO

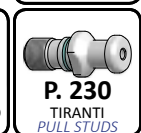
SHANK
DIMENSIONS



G6,3 15000 r.p.m. AD+B	Articolo	D	H	A	Grano Screw
		BTB40.H50.WHN6	6	50	25
	BTB40.H50.WHN8	8	50	28	GR.WE8
	BTB40.H63.WHN10	10	63	35	GR.WE10
	BTB40.H63.WHN12	12	63	42	GR.WE12-14
	BTB40.H63.WHN14	14	63	44	GR.WE12-14
	BTB40.H63.WHN16	16	63	48	GR.WE16-18
	BTB40.H63.WHN18	18	63	50	GR.WE16-18
	BTB40.H63.WHN20	20	63	52	GR.WE20
	BTB40.H90.WHN25	25	90	65	GR.WE25
	BTB40.H100.WHN32	32	100	72	GR.WE32-40

G6,3 15000 r.p.m. AD+B	Articolo	D	H	A	Grano Screw
		BTB50.H63.WHN6	6	63	25
	BTB50.H63.WHN8	8	63	28	GR.WE8
	BTB50.H63.WHN10	10	63	35	GR.WE10
	BTB50.H80.WHN12	12	80	42	GR.WE12-14
	BTB50.H80.WHN14	14	80	44	GR.WE12-14
	BTB50.H80.WHN16	16	80	48	GR.WE16-18
	BTB50.H80.WHN18	18	80	50	GR.WE16-18
	BTB50.H80.WHN20	20	80	52	GR.WE20
	BTB50.H100.WHN25	25	100	65	GR.WE25
	BTB50.H105.WHN32	32	105	72	GR.WE32-40
	BTB50.H120.WHN40	40	120	80	GR.WE32-40

ACCESSORI - ACCESSORIES

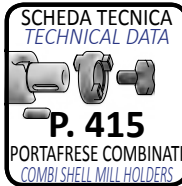
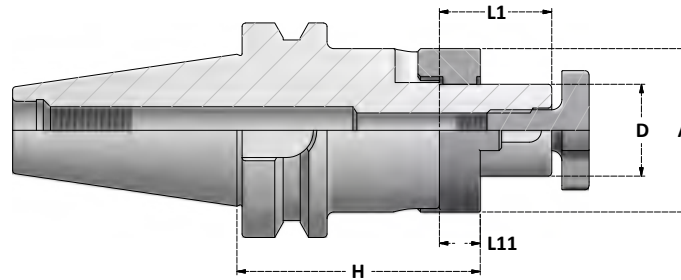


MANDRINI PORTAFRESA COMBINATI

COMBI SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

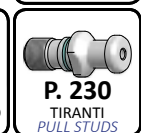


Articolo	D	H	A	L1	L11	ATR	VTC	CHV
BT30.H43.D16C	16	43	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT30.H50.D22C	22	50	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT30.H50.D27C	27	50	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT30.H60.D32C	32	60	58	38	14	ATR.D32	VTC.D32	CHV.D32



Articolo	D	H	A	L1	L11	ATR	VTC	CHV
BT40.H55.D16C	16	55	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT40.H100.D16C	16	100	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT40.H130.D16C	16	130	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT40.H160.D16C	16	160	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT40.H200.D16C	16	200	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT40.H55.D22C	22	55	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT40.H100.D22C	22	100	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT40.H130.D22C	22	130	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT40.H160.D22C	22	160	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT40.H200.D22C	22	200	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT40.H55.D27C	27	55	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT40.H100.D27C	27	100	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT40.H130.D27C	27	130	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT40.H160.D27C	27	160	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT40.H200.D27C	27	200	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT40.H60.D32C	32	60	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT40.H100.D32C	32	100	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT40.H130.D32C	32	130	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT40.H160.D32C	32	160	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT40.H200.D32C	32	200	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT40.H60.D40C	40	60	70	41	14	ATR.D40	VTC.D40	CHV.D40
BT40.H100.D40C	40	100	70	41	14	ATR.D40	VTC.D40	CHV.D40
BT40.H130.D40C	40	130	70	41	14	ATR.D40	VTC.D40	CHV.D40
BT40.H160.D40C	40	160	70	41	14	ATR.D40	VTC.D40	CHV.D40
BT40.H200.D40C	40	200	70	41	14	ATR.D40	VTC.D40	CHV.D40

ACCESSORI - ACCESSORIES

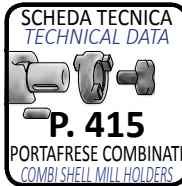
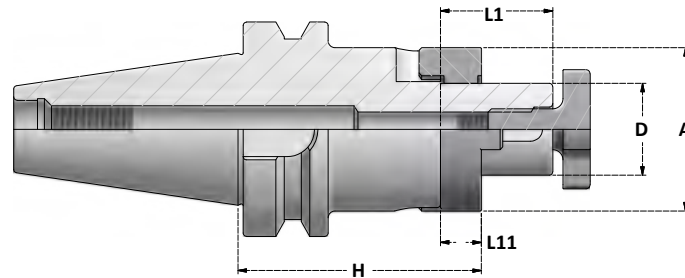


MANDRINI PORTAFRESA COMBINATI

COMBI SHELL MILL HOLDERS

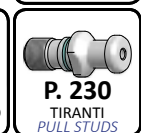
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	L1	L11	ATR	VTC	CHV
BT50.H70.D16C	16	70	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT50.H100.D16C	16	100	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT50.H130.D16C	16	130	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT50.H160.D16C	16	160	32	27	10	ATR.D16	VTC.D16	CHV.D16
BT50.H70.D22C	22	70	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT50.H100.D22C	22	100	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT50.H130.D22C	22	130	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT50.H160.D22C	22	160	40	31	12	ATR.D22	VTC.D22	CHV.D22
BT50.H70.D27C	27	70	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT50.H100.D27C	27	100	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT50.H130.D27C	27	130	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT50.H160.D27C	27	160	48	33	12	ATR.D27	VTC.D27	CHV.D27
BT50.H70.D32C	32	70	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT50.H100.D32C	32	100	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT50.H130.D32C	32	130	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT50.H160.D32C	32	160	58	38	14	ATR.D32	VTC.D32	CHV.D32
BT50.H70.D40C	40	70	70	41	14	ATR.D40	VTC.D40	CHV.D40
BT50.H100.D40C	40	100	70	41	14	ATR.D40	VTC.D40	CHV.D40
BT50.H130.D40C	40	130	70	41	14	ATR.D40	VTC.D40	CHV.D40
BT50.H160.D40C	40	160	70	41	14	ATR.D40	VTC.D40	CHV.D40

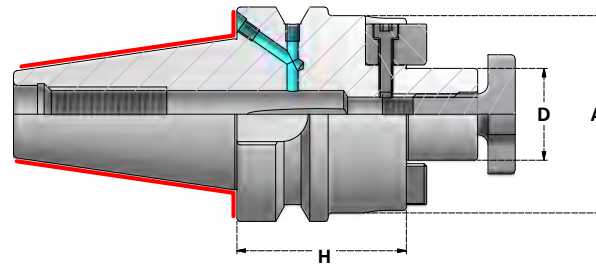
ACCESSORI - ACCESSORIES



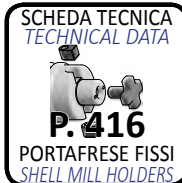
MANDRINI A DOPPIO CONTATTO PORTAFRESA FISSI
DOUBLE CONTACT SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



CANALI PER
REFRIGERANTE
COOLANT CHANNELS



SCHEDA TECNICA
TECHNICAL DATA

P. 416
PORTAFRESA FISSI
SHELL MILL HOLDERS



SENZA CANALI PER
REFRIGERANTE
WITHOUT COOLANT
CHANNELS



Articolo	D	H	A	TTR	VTC
DBT30.H45.D16S	16	45	38	TTR.D16	VTC.D16
DBT30.H45.D22S	22	45	48	TTR.D22	VTC.D22
DBT30.H45.D27S	27	45	58	TTR.D27	VTC.D27
DBT30.H45.D32S	32	45	78	TTR.D32	VTC.D32



Articolo	D	H	A	TTR	VTC
DBTB40.H45.D16S	16	45	38	TTR.D16	VTC.D16
DBTB40.H60.D16S	16	60	38	TTR.D16	VTC.D16
DBTB40.H45.D22S	22	45	48	TTR.D22	VTC.D22
DBTB40.H60.D22S	22	60	48	TTR.D22	VTC.D22
DBTB40.H45.D27S	27	45	58	TTR.D27	VTC.D27
DBTB40.H60.D27S	27	60	58	TTR.D27	VTC.D27
DBTB40.H60.D32S	32	60	78	TTR.D32	VTC.D32
DBTB40.H60.D40S	40	60	88	TTR.D40	VTC.D40



Articolo	D	H	A	TTR	VTC
DBTB50.H50.D16S	16	50	38	TTR.D16	VTC.D16
DBTB50.H55.D22S	22	55	48	TTR.D22	VTC.D22
DBTB50.H55.D27S	27	55	58	TTR.D27	VTC.D27
DBTB50.H55.D32S	32	55	78	TTR.D32	VTC.D32
DBTB50.H55.D40S	40	55	88	TTR.D40	VTC.D40

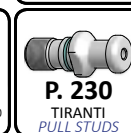
ACCESSORI - ACCESSORIES



P. 368
ACCESSORI
ACCESSORIES



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES

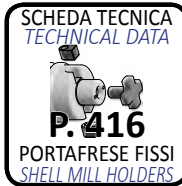
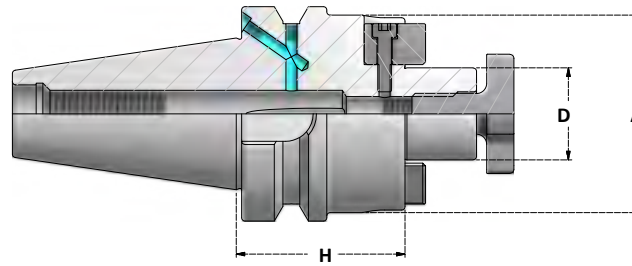


P. 230
TIRANTI
PULL STUDS

MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



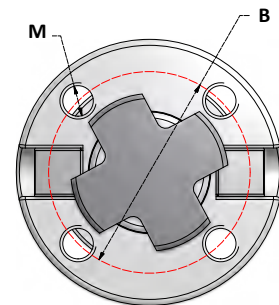
G6,3
15000 (p.m.)
AD

Articolo	D	H	A	TTR	VTC
* BT30.H43.D16S	16	43	38	TTR.D16	VTC.D16
* BT30.H43.D22S	22	43	48	TTR.D22	VTC.D22
* BT30.H50.D27S	27	50	58	TTR.D27	VTC.D27
* BT30.H50.D32S	32	50	78	TTR.D32	VTC.D32

* SENZA CANALI PER IL REFRIGERANTE
WITHOUT COOLANT CHANNELS

G6,3
15000 (p.m.)
AD+B

Articolo	D	H	A	TTR	VTC
BTB40.H45.D16S	16	45	38	TTR.D16	VTC.D16
BTB40.H100.D16S	16	100	38	TTR.D16	VTC.D16
BTB40.H130.D16S	16	130	38	TTR.D16	VTC.D16
BTB40.H160.D16S	16	160	38	TTR.D16	VTC.D16
BTB40.H200.D16S	16	200	38	TTR.D16	VTC.D16
BTB40.H45.D22S	22	45	48	TTR.D22	VTC.D22
BTB40.H100.D22S	22	100	48	TTR.D22	VTC.D22
BTB40.H130.D22S	22	130	48	TTR.D22	VTC.D22
BTB40.H160.D22S	22	160	48	TTR.D22	VTC.D22
BTB40.H200.D22S	22	200	48	TTR.D22	VTC.D22
BTB40.H45.D27S	27	45	58	TTR.D27	VTC.D27
BTB40.H100.D27S	27	100	58	TTR.D27	VTC.D27
BTB40.H130.D27S	27	130	58	TTR.D27	VTC.D27
BTB40.H160.D27S	27	160	58	TTR.D27	VTC.D27
BTB40.H200.D27S	27	200	58	TTR.D27	VTC.D27
BTB40.H56.D32S	32	56	78	TTR.D32	VTC.D32
BTB40.H100.D32S	32	100	78	TTR.D32	VTC.D32
BTB40.H130.D32S	32	130	78	TTR.D32	VTC.D32
BTB40.H160.D32S	32	160	78	TTR.D32	VTC.D32
BTB40.H200.D32S	32	200	78	TTR.D32	VTC.D32
BTB40.H60.D40S	40	60	88	TTR.D40	VTC.D40
BTB40.H100.D40S	40	100	88	TTR.D40	VTC.D40
BTB40.H130.D40S	40	130	88	TTR.D40	VTC.D40
BTB40.H160.D40S	40	160	88	TTR.D40	VTC.D40
BTB40.H200.D40S	40	200	88	TTR.D40	VTC.D40

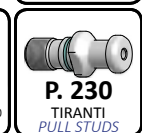


G6,3
15000 (p.m.)
AD+B

MANDRINI PER FRESE A SPIANARE CON 4 FORI
FACE MILL HOLDERS WITH 4 HOLES

Articolo	D	H	A	B	M	TTR	VTC
BTB40.H60.D40FM	40	60	88	66,7	M12	TTR.D40	VTC.D40

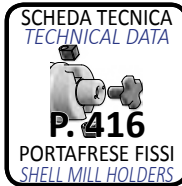
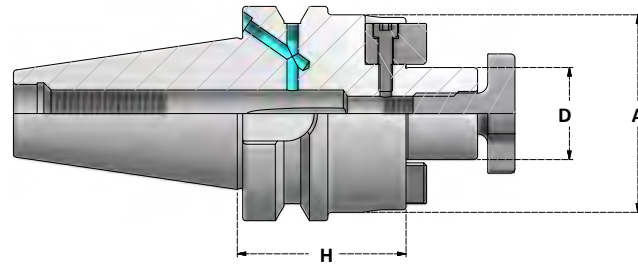
ACCESSORI - ACCESSORIES



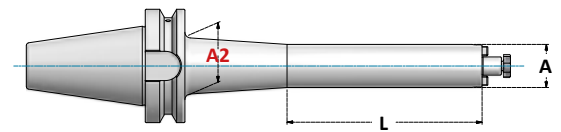
MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	TTR	VTC
BTB50.H50.D16S	16	50	38	TTR.D16	VTC.D16
BTB50.H75.D16S	16	75	38	TTR.D16	VTC.D16
BTB50.H100.D16S	16	100	38	TTR.D16	VTC.D16
BTB50.H130.D16S	16	130	38	TTR.D16	VTC.D16
BTB50.H160.D16S	16	160	38	TTR.D16	VTC.D16
BTB50.H200.D16S	16	200	38	TTR.D16	VTC.D16
BTB50.H250.D16S	16	250	38	TTR.D16	VTC.D16
BTB50.H300.D16S	16	300	38	TTR.D16	VTC.D16
BTB50.H350.D16S	16	350	38	TTR.D16	VTC.D16
BTB50.H55.D22S	22	55	48	TTR.D22	VTC.D22
BTB50.H75.D22S	22	75	48	TTR.D22	VTC.D22
BTB50.H100.D22S	22	100	48	TTR.D22	VTC.D22
BTB50.H130.D22S	22	130	48	TTR.D22	VTC.D22
BTB50.H160.D22S	22	160	48	TTR.D22	VTC.D22
BTB50.H200.D22S	22	200	48	TTR.D22	VTC.D22
BTB50.H250.D22S	22	250	48	TTR.D22	VTC.D22
BTB50.H300.D22S	22	300	48	TTR.D22	VTC.D22
BTB50.H350.D22S	22	350	48	TTR.D22	VTC.D22
BTB50.H55.D27S	27	55	58	TTR.D27	VTC.D27
BTB50.H75.D27S	27	75	58	TTR.D27	VTC.D27
BTB50.H100.D27S	27	100	58	TTR.D27	VTC.D27
BTB50.H130.D27S	27	130	58	TTR.D27	VTC.D27
BTB50.H160.D27S	27	160	58	TTR.D27	VTC.D27
BTB50.H200.D27S	27	200	58	TTR.D27	VTC.D27
BTB50.H250.D27S	27	250	58	TTR.D27	VTC.D27
BTB50.H300.D27S	27	300	58	TTR.D27	VTC.D27
BTB50.H350.D27S	27	350	58	TTR.D27	VTC.D27
BTB50.H55.D32S	32	55	78	TTR.D32	VTC.D32
BTB50.H75.D32S	32	75	78	TTR.D32	VTC.D32
BTB50.H100.D32S	32	100	78	TTR.D32	VTC.D32
BTB50.H130.D32S	32	130	78	TTR.D32	VTC.D32
BTB50.H160.D32S	32	160	78	TTR.D32	VTC.D32
BTB50.H200.D32S	32	200	78	TTR.D32	VTC.D32
BTB50.H250.D32S	32	250	78	TTR.D32	VTC.D32
BTB50.H300.D32S	32	300	78	TTR.D32	VTC.D32
BTB50.H350.D32S	32	350	78	TTR.D32	VTC.D32

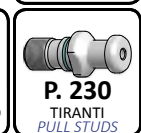
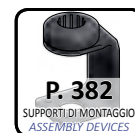


A2=50 L=200

A2=50 L=230

A2=54 L=300

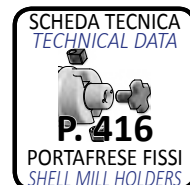
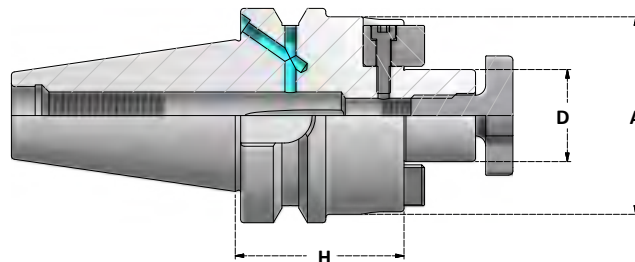
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



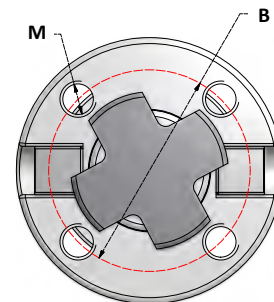
Articolo	D	H	A	TTR	VTC
BTB50.H55.D40S	40	55	88	TTR.D40	VTC.D40
BTB50.H75.D40S	40	75	88	TTR.D40	VTC.D40
BTB50.H100.D40S	40	100	88	TTR.D40	VTC.D40
BTB50.H130.D40S	40	130	88	TTR.D40	VTC.D40
BTB50.H160.D40S	40	160	88	TTR.D40	VTC.D40
BTB50.H200.D40S	40	200	88	TTR.D40	VTC.D40



MANDRINI PER FRESE A SPIANARE CON 4 FORI

FACE MILL HOLDERS WITH 4 HOLES

Articolo	D	H	A	B	M	TTR	VTC
BTB50.H55.D40FM	40	55	88	66,7	M12	TTR.D40	VTC.D40
BTB50.H80.D60FM	60	80	129	101,6	M16	TTR.D60	VTC.D60



ACCESSORI - ACCESSORIES



MANDRINI DI RIDUZIONE CONO MORSE PER PUNTE

MORSE TAPER ADAPTERS FOR DRILLS

Fig.1

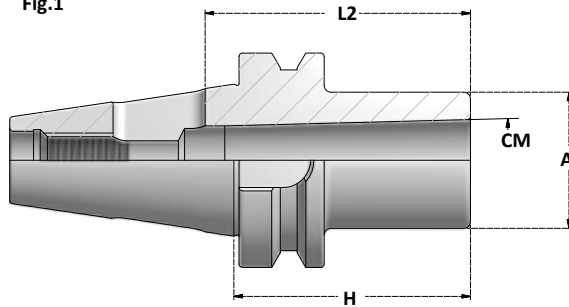
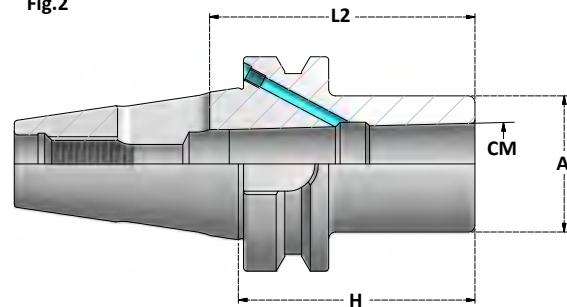


Fig.2



SCHEDA TECNICA
TECHNICAL DATA
P. 418
RIDUZIONI CM PUNTE
ADAPTERS FOR DRILLS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

G6,3 15000 r.p.m. AD	Articolo	CM	H	A	L2	Fig
	BT30.H50.CM1P	CM1	50	25	56	1
	BT30.H60.CM2P	CM2	60	32	67	1
	BT30.H79.CM3P	CM3	79	40	84	1

G6,3 15000 r.p.m. AD	Articolo	CM	H	A	L2	Fig
	BT40.H50.CM1P	CM1	50	25	56	1
	BT40.H120.CM1P	CM1	120	25	56	3
	BT40.H50.CM2P	CM2	50	32	67	1
	BT40.H120.CM2P	CM2	120	32	67	3
	BT40.H70.CM3P	CM3	70	40	84	1
	BT40.H135.CM3P	CM3	135	40	84	3
	BT40.H95.CM4P	CM4	95	48	107	1
	BT40.H165.CM4P	CM4	165	48	107	3

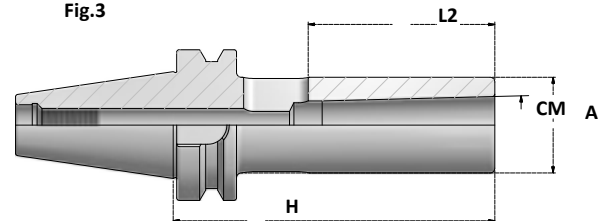
G6,3 15000 r.p.m. AD	Articolo	CM	H	A	L2	Fig
	BT50.H45.CM1P	CM1	45	25	56	1
	BT50.H120.CM1P	CM1	120	25	56	3
	BT50.H60.CM2P	CM2	60	32	67	1
	BT50.H135.CM2P	CM2	135	32	67	3
	BT50.H65.CM3P	CM3	65	40	84	1
	BT50.H155.CM3P	CM3	155	40	84	3
	BT50.H95.CM4P	CM4	95	48	107	1
	BT50.H180.CM4P	CM4	180	48	107	3
	BT50.H105.CM5P	CM5	105	63	135	1
	BT50.H215.CM5P	CM5	215	63	135	3

G6,3 15000 r.p.m. AD+B	Articolo	CM	H	A	L2	Fig
	BTB40.H50.CM2P	CM2	50	32	67	2
	BTB40.H70.CM3P	CM3	70	40	84	2
	BTB40.H95.CM4P	CM4	95	48	107	2

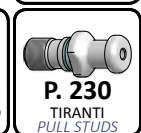
G6,3 15000 r.p.m. AD+B	Articolo	CM	H	A	L2	Fig
	BTB50.H60.CM2P	CM2	60	32	67	2
	BTB50.H65.CM3P	CM3	65	40	84	2
	BTB50.H95.CM4P	CM4	95	48	107	2
	BTB50.H105.CM5P	CM5	105	63	135	2

**PER UTENSILI DIN228B
CON TENONE**
*FOR TOOLS DIN228B
WITH TANG*

Fig.3

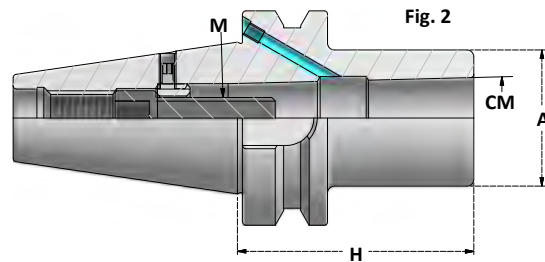
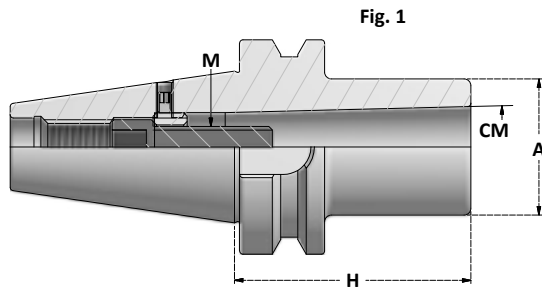


ACCESSORI - ACCESSORIES



MANDRINI DI RIDUZIONE CONO MORSE PER FRESE
MORSE TAPER ADAPTERS FOR THREADED MILLS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



	Articolo	CM	H	A	M	Fig
	BT30.H50.CM1FV	CM1	50	25	M6	1
	* BT30.H60.CM2FV	CM2	60	32	M10	1
	* BT30.H80.CM3FV	CM3	80	40	M12	1

	Articolo	CM	H	A	M	Fig
	BT40.H50.CM1FV	CM1	50	25	M6	1
	BT40.H50.CM2FV	CM2	50	32	M10	1
	BT40.H70.CM3FV	CM3	70	40	M12	1
	BT40.H95.CM4FV	CM4	95	48	M16	1

	Articolo	CM	H	A	M	Fig
	BT50.H45.CM1FV	CM1	45	25	M6	1
	BT50.H60.CM2FV	CM2	60	32	M10	1
	BT50.H100.CM2FV	CM2	100	32	M10	1
	BT50.H65.CM3FV	CM3	65	40	M12	1
	BT50.H120.CM3FV	CM3	120	40	M12	1
	BT50.H90.CM4FV	CM4	90	48	M16	1
	BT50.H95.CM4FV	CM4	95	48	M16	1
	BT50.H170.CM4FV	CM4	170	48	M16	1
BT50.H120.CM5FV	CM5	120	63	M20	1	

	Articolo	CM	H	A	M	Fig
	BTB40.H50.CM2FV	CM2	50	32	M10	2
	BTB40.H70.CM3FV	CM3	70	40	M12	2
	BTB40.H95.CM4FV	CM4	95	48	M16	2

	Articolo	CM	H	A	M	Fig
	BTB50.H60.CM2FV	CM2	60	32	M10	2
	BTB50.H65.CM3FV	CM3	65	40	M12	2
	BTB50.H95.CM4FV	CM4	95	48	M16	2
	BTB50.H120.CM5FV	CM5	120	63	M20	2

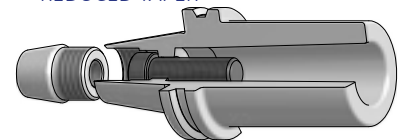
PER UTENSILI DIN228A
CON FILETTO

FOR TOOLS DIN228A
WITH THREAD

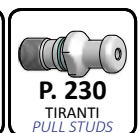
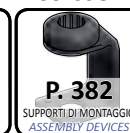
FORNITI CON VITE SENZA FORO
PER IL PASSAGGIO DEL
REFRIGERANTE

SUPPLIED WITH SCREW WITHOUT
COOLANT THROUGH

* CONO RIDOTTO
REDUCED TAPER

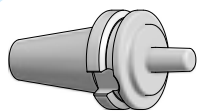


ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339) - BT

MANDRINI DA TRAPANO
DRILL CHUCKS



STANDARD
STANDARD

PAG. 149



MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA
DRILL CHUCKS - RIGHT ROTATION

PAG. 150



MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA E SINISTRA
FOR HIGH SP DRILL CHUCKS - RIGHT AND LEFT ROTATION EEDS

PAG. 151



MANDRINI PORTAPUNTA AUTOSERRANTI CON PASSAGGIO DEL REFRIGERANTE
ROTAZIONE DESTRA E SINISTRA
DRILL CHUCKS WITH COOLANT THROUGH - RIGHT AND LEFT ROTATION

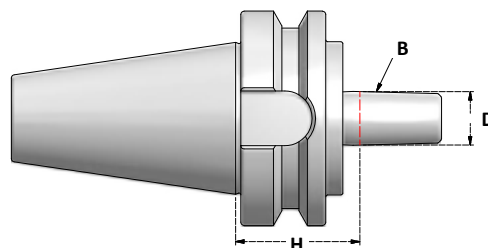
PAG. 152

BT

B

DIN 238

ATTACCHI PER MANDRINI AUTOSERRANTI
DRILL CHUCKS ARBORS



Articolo	D	H	B
BT30.H30.B12	12,065	30	B12
BT30.H30.B16	15,733	30	B16

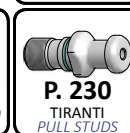


Articolo	D	H	B
BT40.H42.B12	12,065	42	B12
BT40.H42.B16	15,733	42	B16
BT40.H42.B18	17,78	42	B18



Articolo	D	H	B
BT50.H45.B16	15,733	45	B16
BT50.H45.B18	17,78	45	B18

ACCESSORI - ACCESSORIES



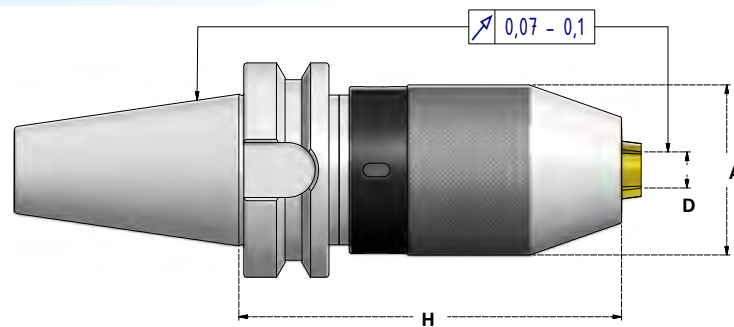
MAS 403 (JIS B 6339)

BT

DCK

MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA
DRILL CHUCKS - RIGHT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
BT30.H75.DCK8S	0,5 - 8	75	37,5	CH.DC8
BT30.H90.DCK13S	1 - 13	90	50,5	CH.DC13

**GRIFFE RIVESTITE
IN TITANIO**

**TITANIUM
COATED JAWS**

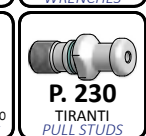


Articolo	D	H	A	Chiave Wrench
BT40.H84.DCK8S	0,5 - 8	84	37,5	CH.DC8
BT40.H98.DCK13S	1 - 13	98	50,5	CH.DC13
BT40.H105.DCK16S	2,5 - 16	105	57	CH.DC16



Articolo	D	H	A	Chiave Wrench
BT50.H105.DCK13S	1 - 13	105	50,5	CH.DC13
BT50.H110.DCK16S	2,5 - 16	110	57	CH.DC16

ACCESSORI - ACCESSORIES



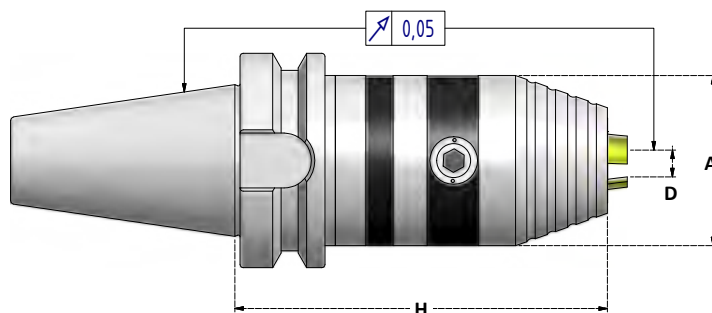
MAS 403 (JIS B 6339)

BT

CP

MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA E SINISTRA
DRILL CHUCKS - RIGHT AND LEFT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
BT40.H89.CP8S	0,5 - 8	89	37,5	CH.EX4
BT40.H115.CP13S	1 - 13	115	50,5	CH.EX6
BT40.H120.CP16S	2,5 - 16	120	57	CH.EX16

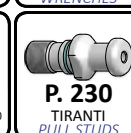
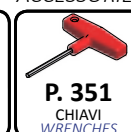
**GRIFFE RIVESTITE
IN TITANIO**

**TITANIUM
COATED JAWS**



Articolo	D	H	A	Chiave Wrench
BT50.H120.CP13S	1 - 13	120	50,5	CH.EX6
BT50.H125.CP16S	2,5 - 16	125	57	CH.EX6

ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339)

BT

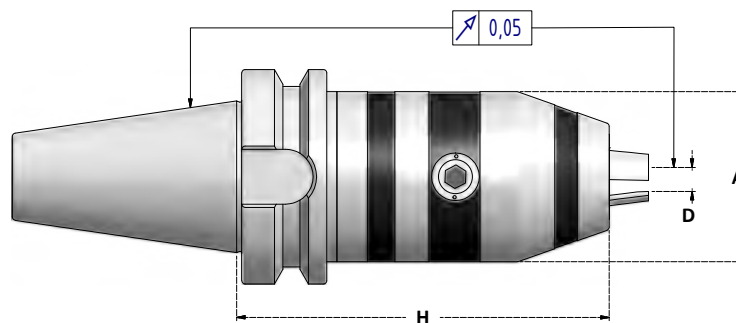
HD

**MANDRINI PORTAPUNTA AUTOSERRANTI CON PASSAGGIO DEL REFRIGERANTE
ROTAZIONE DESTRA E SINISTRA**

DRILL CHUCKS WITH COOLANT THROUGH - RIGHT AND LEFT ROTATION

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
BT40.H78.HD8	0,5- 8	78	36	CH.EX4
BT40.H98.HD13	1-13	98	50	CH.EX6
BT40.H103.HD16	2,5-16	103	50	CH.EX6

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

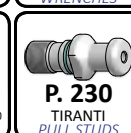
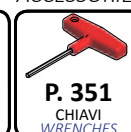


Articolo	D	H	A	Chiave Wrench
BT50.H109.HD13	1-13	109	50	CH.EX16
BT50.H114.HD16	2,5-16	114	50	CH.EX16

Fino a esaurimento / While stocks last

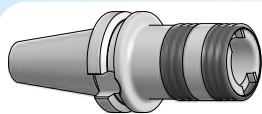
Fino a esaurimento / While stocks last

ACCESSORI - ACCESSORIES



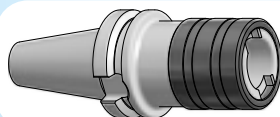
MAS 403 (JIS B 6339) - BT

MANDRINI PER MASCHIATURA
TAPPING CHUCKS



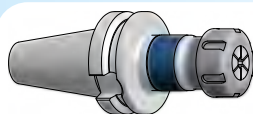
MASCHIATORI A CAMBIO RAPIDO PER MASCHIATURA RIGIDA
QUICK CHANGE TAPPING CHUCKS FOR RIGID TAPPING

PAG. 153



**MASCHIATORI A CAMBIO RAPIDO
CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESIONE**
QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION

PAG. 154



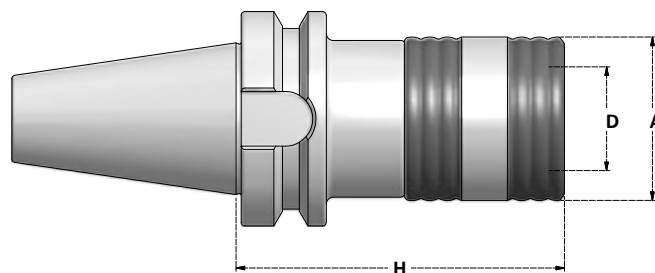
MANDRINI PER MASCHIATURA SINCRONIZZATA
TAPPING CHUCKS FOR SYNCHRONIZED TAPPING

PAG. 155

BT

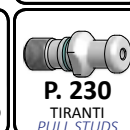
MCR

MASCHIATORI A CAMBIO RAPIDO PER MASCHIATURA RIGIDA
QUICK CHANGE TAPPING CHUCKS FOR RIGID TAPPING



Articolo	Bussola Adapter	D	Tapping Range	A	H
BT40.MCR1R	B1 / BF1	19	M2÷M14	32	65
BT40.MCR2R	B2 / BF2	31	M6÷M27	54	93

ACCESSORI - ACCESSORIES

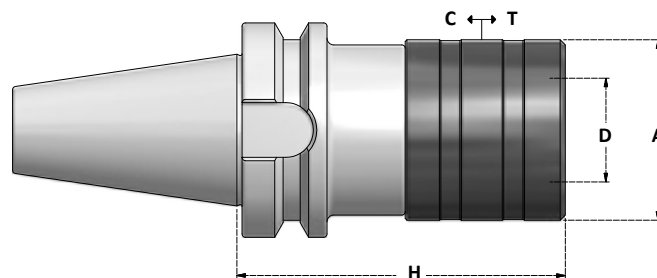


MAS 403 (JIS B 6339)

BT

MCR

**MASCHIATORI A CAMBIO RAPIDO
CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESIONE**
QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

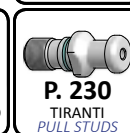


Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
BT40.MCR1TC	B1 / BF1	19	M2÷M14	36	67,5	7,5	7,5
BT40.MCR2TC	B2 / BF2	31	M6÷M27	53	94,5	12,5	12,5
BT40.MCR3TC	B3 / BF3	48	M14÷M45	78	164,5	20	20
BT40.MCR4TC	B4 / BF4	60	M22÷M45	96	180	22,5	22,5



Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
BT50.MCR1TC	B1 / BF1	19	M2÷M14	36	77	7,5	7,5
BT50.MCR2TC	B2 / BF2	31	M6÷M27	53	102,5	12,5	12,5
BT50.MCR3TC	B3 / BF3	48	M14÷M45	78	142,5	20	20
BT50.MCR4TC	B4 / BF4	60	M22÷M45	96	164,5	22,5	22,5

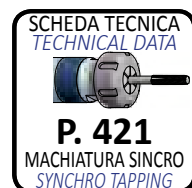
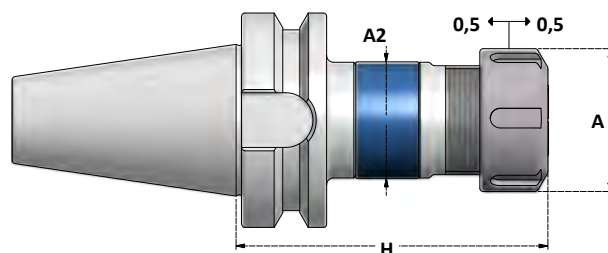
ACCESSORI - ACCESSORIES



MANDRINI PER MASCHIATURA SINCRONIZZATA

TAPPING CHUCKS FOR SYNCHRONIZED TAPPING

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	H	A	A2	Collets Range	Tapping Range	Ghiera Nut
BTB40.ERC16MSY	79	22	34	3,5 ÷ 10	M3 ÷ M12	G16M

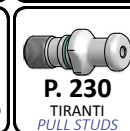
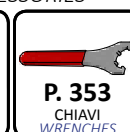


Articolo	H	A	A2	Collets Range	Tapping Range	Ghiera Nut
BTB40.ERC16SY	79	32	34	3,5 ÷ 10	M3 ÷ M12	G16S
BTB40.ERC25SY	89	42	45	3,5 ÷ 16	M3 ÷ M20	G25S
BTB40.ERC32SY	110	50	45	3,5 ÷ 20	M3 ÷ M27	G32S
BTB40.ERC40SY	115	63	62	6 ÷ 25	M5 ÷ M33	G40S

VANTAGGI RISPETTO AL SISTEMA CON BUSSOLE
ADVANTAGES COMPARED TO ADAPTERS SYSTEM

- PASSAGGIO DEL REFRIGERANTE
- ADATTO PER MASCHIATURA AD ALTE VELOCITÀ
- SISTEMA PORTAPINZE ER
- COOLANT THROUGH
- SUITABLE FOR HIGH SPEED TAPPING
- ER COLLET SYSTEM

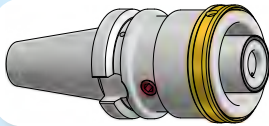
ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339) - BT

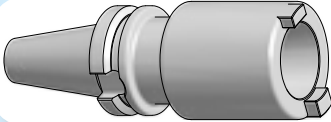
ADATTATORI E RIDUZIONI

ADAPTERS AND REDUCTION SLEEVES



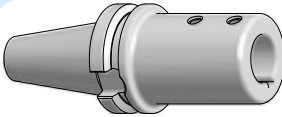
ADATTATORI HSK FORMA A/C
ADAPTERS HSK FORM A/C

PAG. 156



MANDRINI DI RIDUZIONE TC-BT-ISO
TC-BT-ISO REDUCTION SLEEVES

PAG. 157



MANDRINI PORTA INSERZIONI REGISTRABILI DIN 6327
HOLDERS FOR ADJUSTABLE ADAPTERS DIN 6327

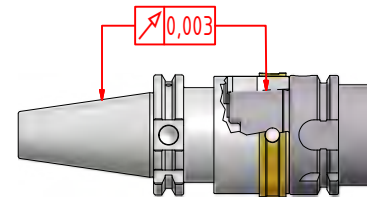
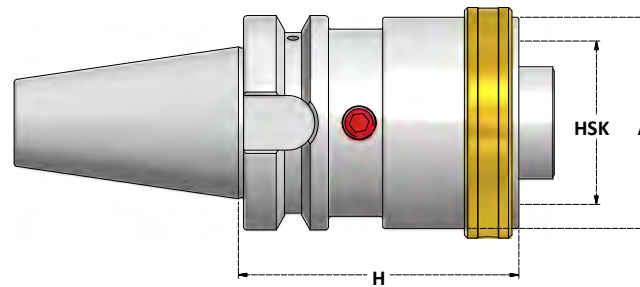
PAG. 158

BT

HSK AC

DIN 69893

ADATTATORI HSK FORMA A/C
ADAPTERS HSK FORM A/C



Articolo	H	A	HSK A/C
BTB40.H70.HSK50AC	70	55	50
BT40.H80.HSK50AC	80	55	50
BTB40.H75.HSK63AC	90	70	63
BT40.H90.HSK63AC	90	70	63

Fuori produzione / Out of production

Fino a esaurimento / While stocks last



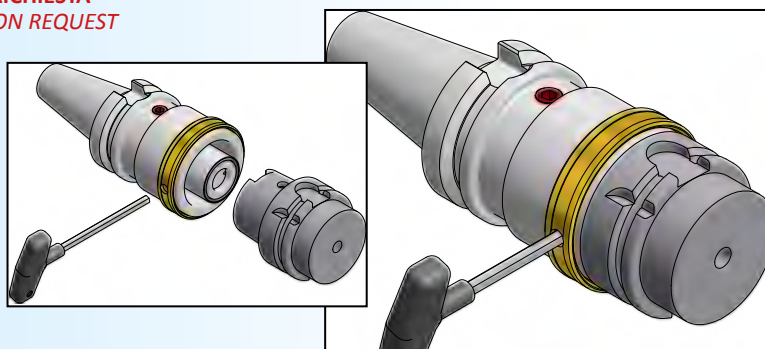
Articolo	H	A	HSK A/C
BTB50.H65.HSK50AC	65	55	50
BTB50.H80.HSK50AC	80	55	50
BTB50.H75.HSK63AC	75	70	63
BTB50.H100.HSK63AC	100	70	63
BTB50.H100.HSK100AC	100	110	100
BTB50.H120.HSK100AC	120	110	100

Fuori produzione / Out of production

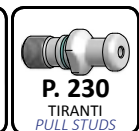
Fuori produzione / Out of production

Fuori produzione / Out of production

ALTRI A RICHIESTA
OTHERS ON REQUEST



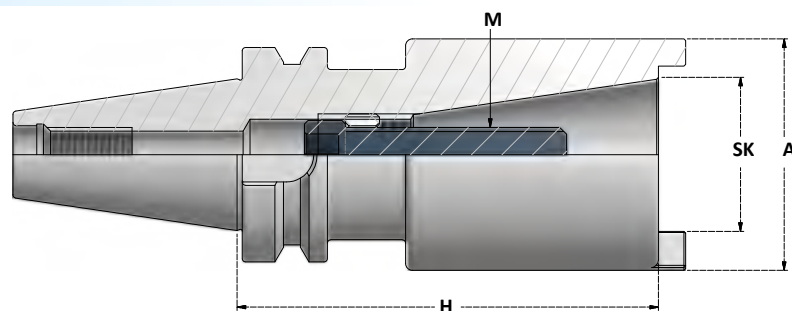
ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339)

BT

MANDRINI DI RIDUZIONE TC-BT-ISO
TC-BT-ISO REDUCTION SLEEVES



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	H	A	M	SK
BT40.H60.TB30	60	50	M12	TC30 / BT30
BT40.H95.TB40	95	70	M16	TC40 / BT40



Articolo	H	A	M	SK
BT40.H60.ISO30	60	50	M12	ISO30
BT40.H95.ISO40	95	70	M16	ISO40



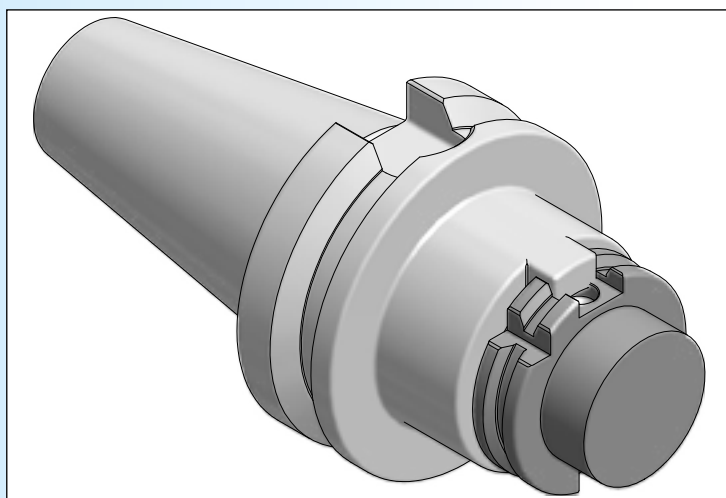
Articolo	H	A	M	SK
BT50.H70.TB40	70	70	M16	TC40 / BT40
BT50.H130.TB50	130	90	M24	TC50 / BT50



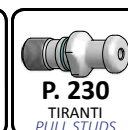
Articolo	H	A	M	SK
BT50.H70.ISO40	70	70	M16	ISO40
BT50.H130.ISO50	130	90	M24	ISO50

**FORNITI CON VITE SENZA FORO
PER IL PASSAGGIO DEL
REFRIGERANTE**

*SUPPLIED WITH SCREW WITHOUT
COOLANT THROUGH*



ACCESSORI - ACCESSORIES

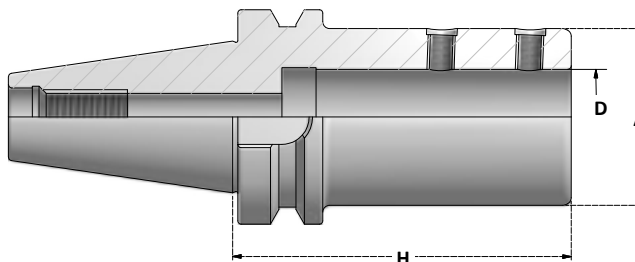
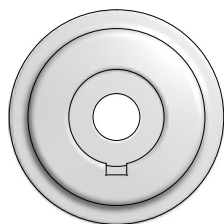


MANDRINI PORTA INSERZIONI REGISTRABILI DIN 6327

HOLDERS FOR ADJUSTABLE ADAPTERS DIN 6327

DIMENSIONI
DELL'ATTACCO

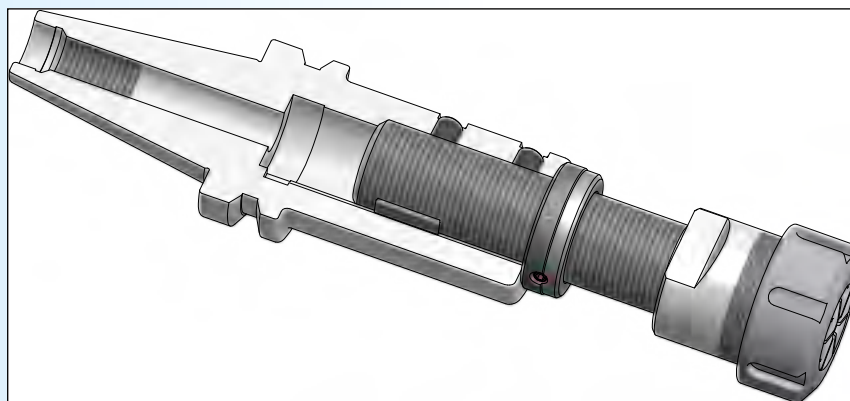
SHANK
DIMENSIONS



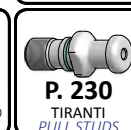
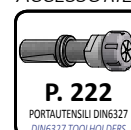
Articolo	D	H	A
BT40.H75.TR16	16	75	25
BT40.H80.TR20	20	80	32
BT40.H100.TR28	28	100	40
BT40.H115.TR36	36	115	50



Articolo	D	H	A
BT50.H85.TR16	16	85	25
BT50.H85.TR20	20	85	32
BT50.H100.TR28	28	100	40
BT50.H100.TR36	36	100	50
BT50.H105.TR48	48	105	67



ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339)

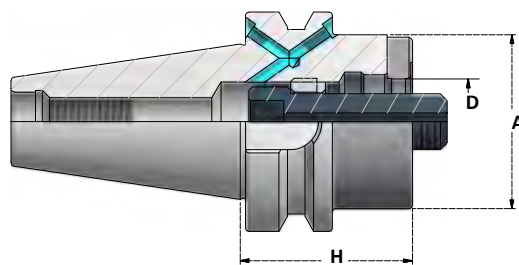
BT

MD

MANDRINI MODULARI TIPO VARILOCK
MODULAR TOOLHOLDERS VARILOCK TYPE

DIMENSIONI
DELL'ATTACCO

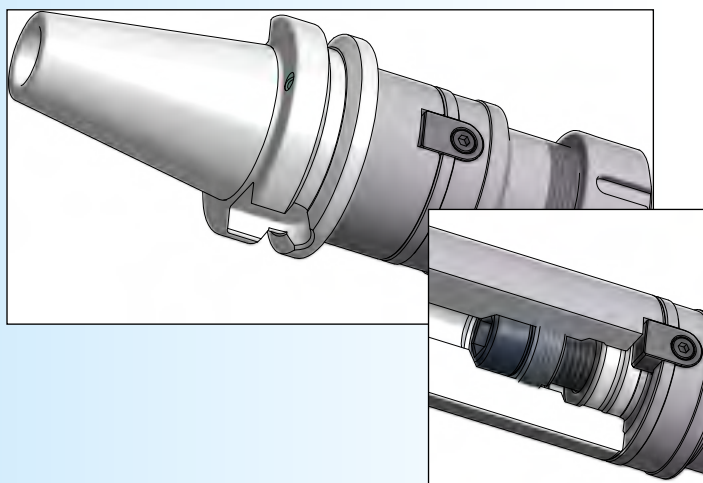
SHANK
DIMENSIONS



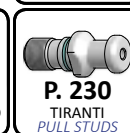
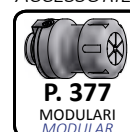
Articolo	A	H	D	Attacco
BTB40.H27.MD50	50	27	27,3 / 27	MD50
BTB40.H50.MD50	50	50	27,3 / 27	MD50
BTB40.H27.MD63	63	27	32,3 / 32	MD63
BTB40.H50.MD63	63	50	32,3 / 32	MD63



Articolo	A	H	D	Attacco
BTB50.H38.MD50	50	38	27,3 / 27	MD50
BTB50.H50.MD50	50	50	27,3 / 27	MD50
BTB50.H50.MD63	63	50	32,3 / 32	MD63
BTB50.H50.MD80	80	50	32,3 / 32	MD80

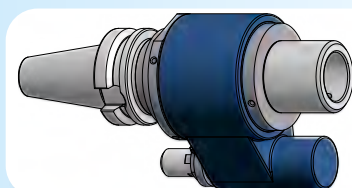


ACCESSORI - ACCESSORIES



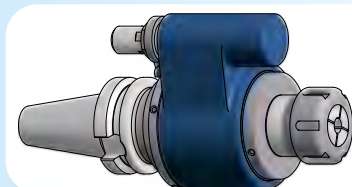
MAS 403 (JIS B 6339) - BT

DISTRIBUTORI ROTANTI DEL REFRIGERANTE
SIDE LOCK OIL HOLE HOLDERS



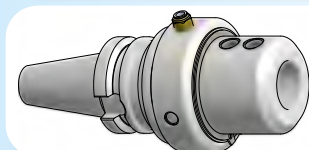
DISTRIBUTORI ROTANTI DEL REFRIGERANTE PER ATTACCHI CILINDRICI
SIDE LOCK OIL HOLE HOLDERS

PAG. 160



DISTRIBUTORI ROTANTI DEL REFRIGERANTE PORTAPINZA ER
ER OIL HOLE HOLDERS COLLET CHUCKS

PAG. 161



DISTRIBUTORI ROTANTI DEL REFRIGERANTE A CAMBIO MANUALE PER ATTACCHI CILINDRICI
MANUAL SIDE LOCK OIL HOLE HOLDERS

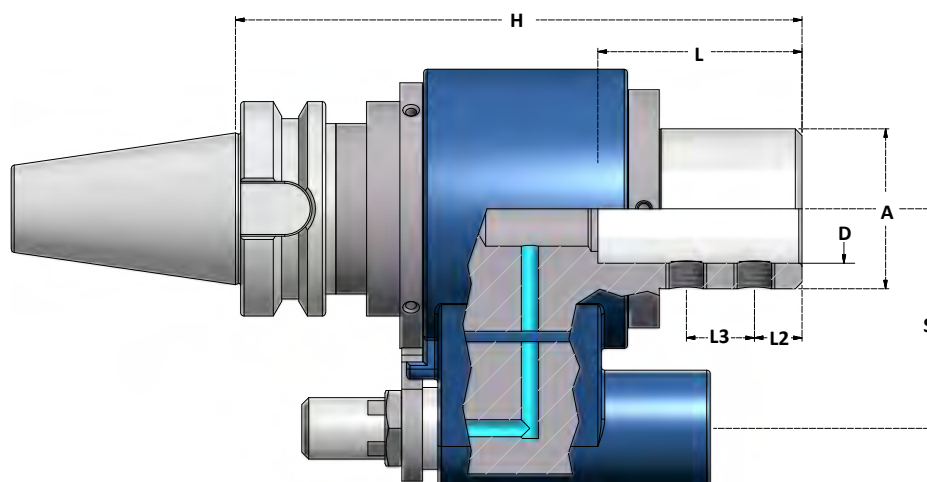
PAG. 162

BT

DR

DIN 69893

DISTRIBUTORI ROTANTI DEL REFRIGERANTE PER ATTACCHI CILINDRICI
SIDE LOCK OIL HOLE HOLDERS



Pressione d'esercizio: MAX 7 bar

Numero di giri: MAX 3000 r.p.m.

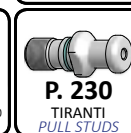
Per preservare dall'usura precoce le speciali guarnizioni di tenuta del distributore, il liquido refrigerante deve essere filtrato con residuo max 5 micron.

Per il collegamento necessita dello "stop block" acquistabile tra gli accessori.

Articolo	D	H	A	L	S	L2	L3
BT40.D16DR	16	165	46,5	58	65	25	/
BT40.D20DR	20	165	46,5	60	65	25	/
BT40.D25DR	25	165	46,5	66	65	15	20
BT40.D32DR	32	165	47	70	65	15	20

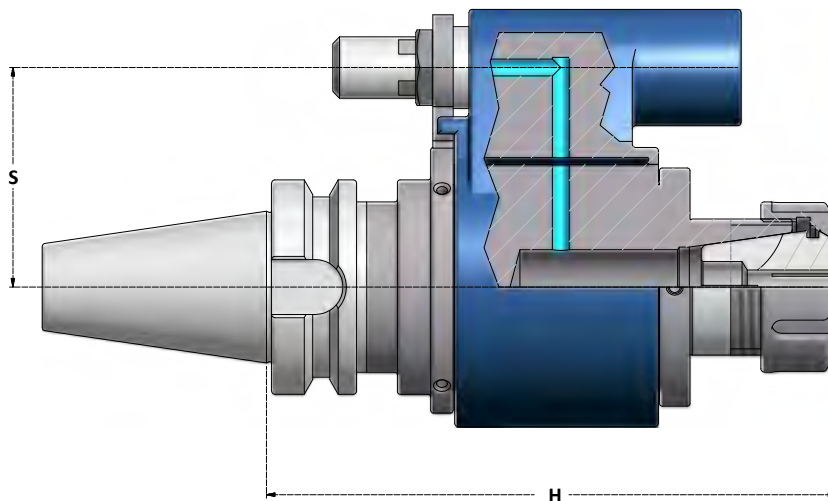
Articolo	D	H	A	L	S	L2	L3
BT50.D16DR	16	165	56	58	80	25	/
BT50.D20DR	20	165	56	60	80	25	/
BT50.D25DR	25	165	56	66	80	15	20
BT50.D32DR	32	165	56	70	80	15	20
BT50.D40DR	40	170	56	70	80	15	25

ACCESSORI - ACCESSORIES



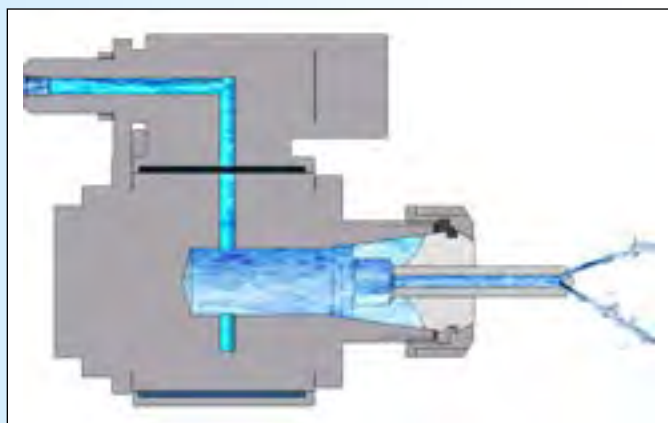
DISTRIBUTORI ROTANTI DEL REFRIGERANTE PORTAPINZA ER
ER OIL HOLE HOLDERS COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	H	S	Collets Range	Ghiera Nut
BT40.ERC16DR	160	65	1÷10	G16HTE
BT40.ERC20DR	160	65	1÷14	G20HTE
BT40.ERC25DR	160	65	1÷20	G25HT
BT40.ERC32DR	160	65	2÷22	G32HT

Articolo	H	S	Collets Range	Ghiera Nut
BT50.ERC16DR	160	80	1÷10	G16HTE
BT50.ERC20DR	160	80	1÷14	G20HTE
BT50.ERC25DR	160	80	1÷20	G25HT
BT50.ERC32DR	160	80	2÷22	G32HT
BT50.ERC40DR	160	80	3÷30	G40HT



La forniture comprende un disco di tenuta RG D10.
Supplied with RG D10 sealing disc.

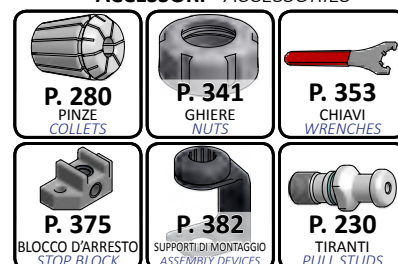
Pressione d'esercizio: MAX 7 bar

Numero di giri: MAX 3000 r.p.m.

Per preservare dall'usura precoce le speciali guarnizioni di tenuta del distributore, il liquido refrigerante deve essere filtrato con residuo max 5 micron.

Per il collegamento necessita dello "stop block" acquistabile tra gli accessori.

ACCESSORI - ACCESSORIES



MAS 403 (JIS B 6339)

BT

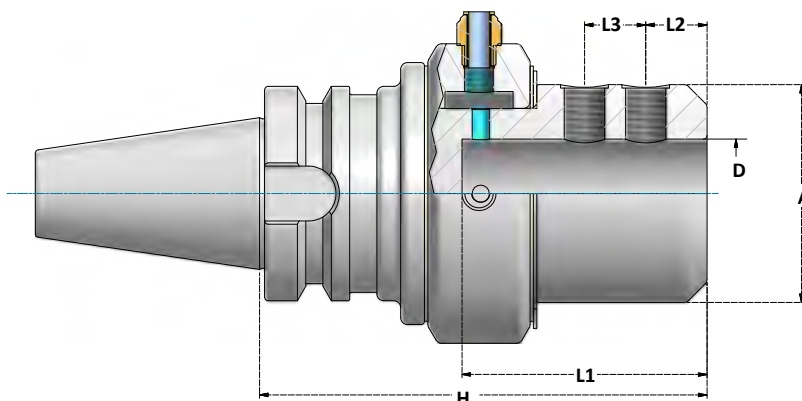
DRM

**DISTRIBUTORI ROTANTI DEL REFRIGERANTE A CAMBIO MANUALE
PER ATTACCHI CILINDRICI**

MANUAL SIDE LOCK OIL HOLE HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



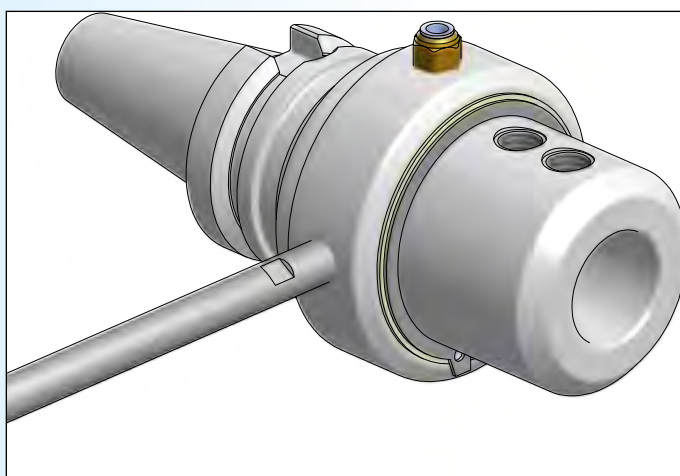
Articolo	D	H	A	L1	L2	L3	GRANI SCREWS
BT40.DRM32	32	125	64,5	72	20	20	M14

Articolo	D	H	A	L1	L2	L3	GRANI SCREWS
BT50.DRM40	40	145	64,5	82	20	25	M16

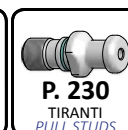
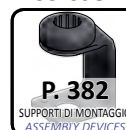
Pressione d'esercizio: MAX 20 bar

Numero di giri: MAX 1000 r.p.m.

**Per preservare dall'usura precoce
le speciali guarnizioni di tenuta del
distributore, il liquido refrigerante
deve essere filtrato con residuo
max 5 micron.**

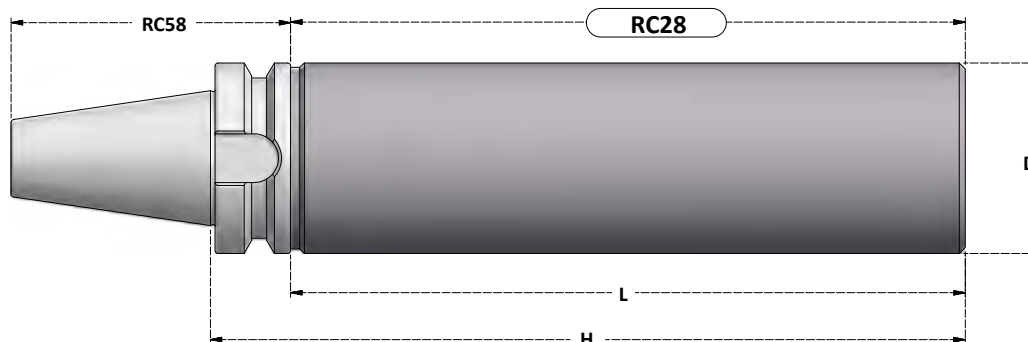


ACCESSORI - ACCESSORIES



MANDRINI CON STELO LAVORABILE

BLANK ARBORS

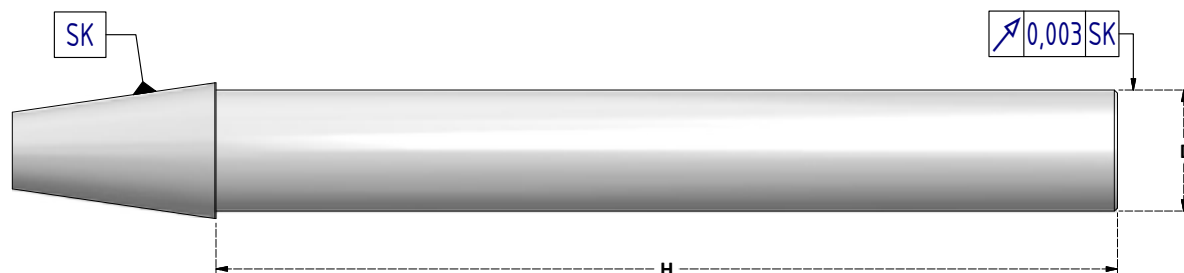


DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

Articolo	D	H	L
BT40.H250.D40BL	40	250	223
BT40.H160.D63BL	63	160	133
BT40.H250.D63BL	63	250	223
BT40.H270.D80BL	80	270	243

Articolo	D	H	L
BT50.H330.D50BL	50	330	292
BT50.H330.D80BL	80	330	292
BT50.H315.D97BL	97	315	277

MANDRINI DI COLLAUDO
TEST ARBORS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

Articolo	D	H
BT30.H200.CK32	32	200
BT40.H300.CK40	40	300
BT50.H300.CK50	50	300

Articolo	D	H
BT30.H235.CK32	32	235
BT40.H335.CK40	40	335
BT50.H340.CK50	50	340

PRECISIONE DEL CONO
TAPER SHANK PRECISION **AT2**

ROTONDITÀ
ROUNDNESS **0,001mm**

RUGOSITÀ
SURFACE ROUGHNES **Ra <0,4**

CONCENTRICITÀ
CONCENTRICITY **0,003mm**

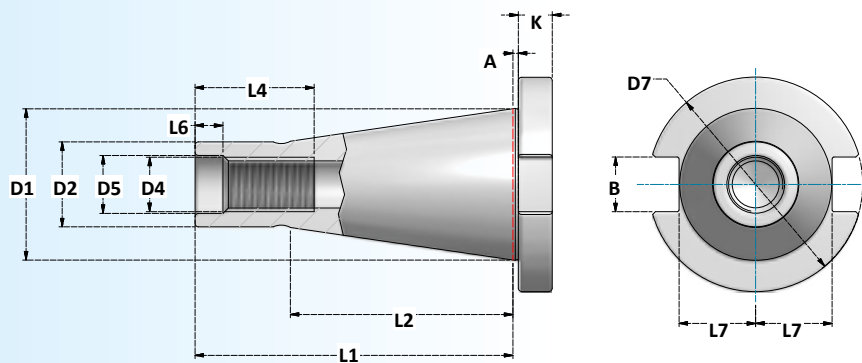
**FORNITI IN BOX VERTICALI
CON CERTIFICATO DI COLLAUDO**

*SUPPLIED IN VERTICAL BOX
AND WITH TESTING REPORT*



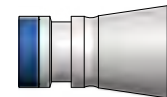
DIN 2080 - ISO

MANDRINI ISO
ISO TOOLHOLDERS



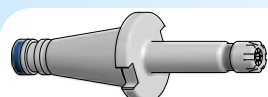
DIMENSIONI CONO
TAPER DIMENSIONS

CONO / TAPER	A	B	D1	D2	D4	D5	D7	L1	L2	L4	L6	L7	K	
	±0,2	H12					$\begin{matrix} 0 \\ -0,4 \end{matrix}$				$\begin{matrix} +0,5 \\ 0 \end{matrix}$	max	±0,15	
30	1,6	16,1	31,75	17,4	M12	13	50	68,4	48,4	24	5,5	16,2	8	
40	1,6	16,1	44,45	25,3	M16	17	63	93,4	65,4	32	8,2	22,5	10	OTT
50	3,2	25,7	69,85	39,6	M24	26	97,5	126,8	101,8	47	11,5	35,3	12	



GOLA MAHO - OTT
MAHO - OTT GROOVE

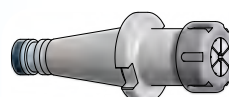
DIN 2080 - ISO



**MANDRINI PORTAPINZA ER
GHIERE MINI**
COLLET CHUCKS ER
MINI NUTS

DIN ISO 15488 (DIN6499)

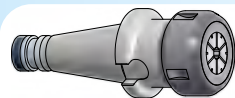
PAG. 168



**MANDRINI PORTAPINZA ER
GHIERE STANDARD**
COLLET CHUCKS ER
STANDARD NUTS

DIN ISO 15488 (DIN6499)

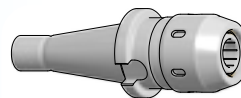
PAG. 169



MANDRINI PORTAPINZA EOC
COLLET CHUCKS EOC

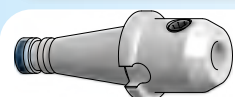
DIN ISO 10897 (DIN6388)

PAG. 171



MANDRINI A FORTE SERRAGGIO
POWER MILLING CHUCKS

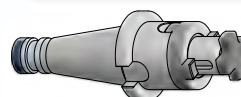
PAG. 172



**MANDRINI
PORTAFRESA WELDON**
END MILL HOLDERS WELDON

DIN 1835-2

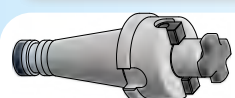
PAG. 173



MANDRINI PORTAFRESA COMBI
COMBI SHELL MILL HOLDERS

DIN 6358

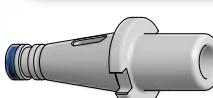
PAG. 174



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIN 6357

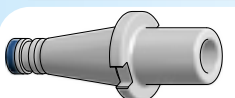
PAG. 175



**RIDUZIONI A CONO MORSE
PER PUNTE**
MORSE TAPER ADAPTERS
FOR DRILLS

DIN 6383

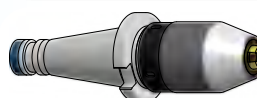
PAG. 177



**RIDUZIONI A CONO MORSE
PER FRESE**
MORSE TAPER ADAPTERS FOR
THREADED MILLS

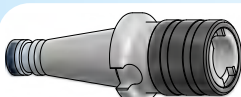
DIN 6364

PAG. 178



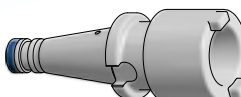
MANDRINI DA TRAPANO
DRILL CHUCKS

PAG. 179



PORTAMASCHI
TAPPING CHUCKS

PAG. 183



RIDUZIONI
ADAPTERS

PAG. 185



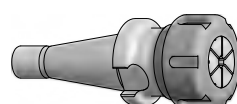
**MANDRINI
CON STELO LAVORABILE**
BLANK ARBORS

PAG. 186



BARRE DI COLLAUDO
TEST ARBORS

PAG. 187

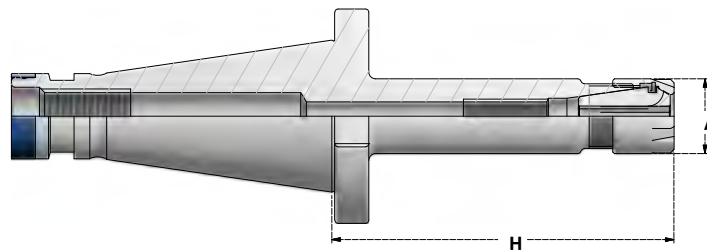


MANDRINI NMTB PORTAPINZA ER
NMTB ER COLLET CHUCKS

ANSI B5.18 / USA

PAG. 188

MANDRINI PORTAPINZA ER
ER COLLET CHUCKS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G6,3

8000.p.p.m.

Articolo	H	A	Collets Range	Ghiera Nut
ISO30.H100.ERC8M	100	12	1÷5	G8M
ISO30.H100.ERC11M	100	16	1÷7	G11M
ISO30.H100.ERC16M	100	22	1÷10	G16M
ISO30.H100.ERC20M	100	28	1÷14	G20M
ISO30.H100.ERC25M	100	35	1÷20	G25M

M



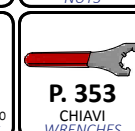
GHIERE **MINI**
MINI NUTS

G6,3

8000.p.p.m.

Articolo	H	A	Collets Range	Ghiera Nut
ISO40.H100.ERC11M	100	16	1÷7	G11M
ISO40.H100.ERC16M	100	22	1÷10	G16M
ISO40.H100.ERC20M	100	28	1÷14	G20M
ISO40.H100.ERC25M	100	35	1÷20	G25M

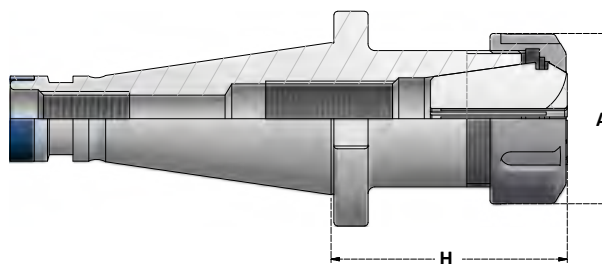
ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3
8000r.p.m.

Articolo	H	A	Collets Range	Ghiera Nut
ISO30.H50.ERC16	50	28	1÷10	G16SE
ISO30.H70.ERC16	70	28	1÷10	G16SE
ISO30.H100.ERC16	100	28	1÷10	G16SE
ISO30.H50.ERC20	50	34	1÷14	G20SE
ISO30.H70.ERC20	70	34	1÷14	G20SE
ISO30.H100.ERC20	100	34	1÷14	G20SE
ISO30.H50.ERC25	50	42	1÷20	G25S
ISO30.H70.ERC25	70	42	1÷20	G25S
ISO30.H100.ERC25	100	42	1÷20	G25S
ISO30.H50.ERC32	50	50	2÷22	G32S
ISO30.H70.ERC32	70	50	2÷22	G32S
ISO30.H100.ERC32	100	50	2÷22	G32S
ISO30.H70.ERC40	70	63	3÷30	G40S
ISO30.H84.ERC40	84	63	3÷30	G40S
ISO30.H100.ERC40	100	63	3÷30	G40S

G6,3
8000r.p.m.

Articolo	H	A	Collets Range	Ghiera Nut
ISO40.H50.ERC16	50	28	1÷10	G16SE
ISO40.H70.ERC16	70	28	1÷10	G16SE
ISO40.H100.ERC16	100	28	1÷10	G16SE
ISO40.H50.ERC20	50	34	1÷14	G20SE
ISO40.H70.ERC20	70	34	1÷14	G20SE
ISO40.H100.ERC20	100	34	1÷14	G20SE
ISO40.H50.ERC25	50	42	1÷20	G25S
ISO40.H70.ERC25	70	42	1÷20	G25S
ISO40.H100.ERC25	100	42	1÷20	G25S
ISO40.H130.ERC25	130	42	1÷20	G25S
ISO40.H50.ERC32	50	50	2÷22	G32S
ISO40.H70.ERC32	70	50	2÷22	G32S
ISO40.H100.ERC32	100	50	2÷22	G32S
ISO40.H130.ERC32	130	50	2÷22	G32S
ISO40.H160.ERC32	160	50	2÷22	G32S
ISO40.H56.ERC40	56	63	3÷30	G40S
ISO40.H70.ERC40	70	63	3÷30	G40S
ISO40.H100.ERC40	100	63	3÷30	G40S
ISO40.H130.ERC40	130	63	3÷30	G40S
ISO40.H160.ERC40	160	63	3÷30	G40S
ISO40.H200.ERC40	200	63	3÷30	G40S
ISO40.H100.ERC50	100	78	6÷34	G50S

SE



GHIERE **STANDARD** ESAGONALI
HEXAGONAL **STANDARD** NUTS

S



GHIERE **STANDARD** CON TACCHE
STANDARD NUTS WITH SLOTS

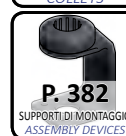
ACCESSORI - ACCESSORIES



P. 280
PINZE
COLLETS



P. 341
GHIERE
NUTS



P. 382
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES

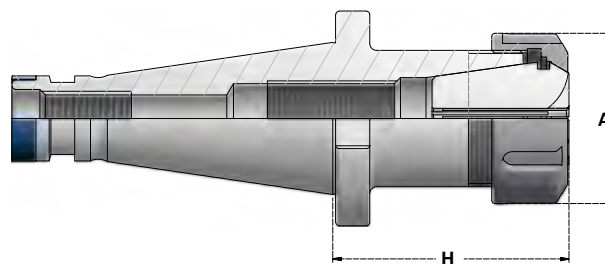


P. 353
CHIAVI
WRENCHES

MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3
8000 r.p.m.

Articolo	H	A	Collets Range	Ghiera Nut
ISO50.H70.ERC16	70	28	1÷10	G16SE
ISO50.H100.ERC16	100	28	1÷10	G16SE
ISO50.H130.ERC16	130	28	1÷10	G16SE
ISO50.H70.ERC20	70	34	1÷14	G20SE
ISO50.H100.ERC20	100	34	1÷14	G20SE
ISO50.H130.ERC20	130	34	1÷14	G20SE
ISO50.H70.ERC25	70	42	1÷20	G25S
ISO50.H100.ERC25	100	42	1÷20	G25S
ISO50.H130.ERC25	130	42	1÷20	G25S
ISO50.H160.ERC25	160	42	1÷20	G25S
ISO50.H70.ERC32	70	50	2÷22	G32S
ISO50.H100.ERC32	100	50	2÷22	G32S
ISO50.H130.ERC32	130	50	2÷22	G32S
ISO50.H160.ERC32	160	50	2÷22	G32S
ISO50.H200.ERC32	200	50	2÷22	G32S
ISO50.H70.ERC40	70	63	3÷30	G40S
ISO50.H100.ERC40	100	63	3÷30	G40S
ISO50.H130.ERC40	130	63	3÷30	G40S
ISO50.H160.ERC40	160	63	3÷30	G40S
ISO50.H200.ERC40	200	63	3÷30	G40S
ISO50.H67.ERC50	67	78	6÷34	G50S
ISO50.H83.ERC60	83	83	10÷40	G60C

SE



GHIERE **STANDARD** ESAGONALI
HEXAGONAL **STANDARD** NUTS

S



GHIERE **STANDARD** CON TACCHE
STANDARD NUTS WITH SLOTS

C



GHIERE A SFERE CON TACCHE
FRICTION BEARING NUTS WITH SLOTS



KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino Toolholder	Chiave Wrench
BX.ISO30.ERC32	ERC32.D3÷20 x 1,0mm	ISO30.H70.ERC32	CH32S
BX.ISO40.ERC32	ERC32.D3÷20 x 1,0mm	ISO40.H70.ERC32	CH32S
BX.ISO50.ERC32	ERC32.D3÷20 x 1,0mm	ISO50.H70.ERC32	CH32S
BX.ISO30.ERC40	ERC40.D4÷26 x 1,0mm	ISO30.H70.ERC40	CH40S
BX.ISO40.ERC40	ERC40.D4÷26 x 1,0mm	ISO40.H70.ERC40	CH40S
BX.ISO50.ERC40	ERC40.D4÷26 x 1,0mm	ISO50.H70.ERC40	CH40S

ALTRI A RICHIESTA
OTHERS ON REQUEST

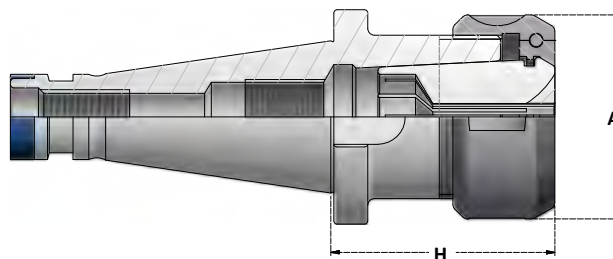
ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA EOC
EOC COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3 8000.r.p.m.	Articolo	H	A	Collets Range	Ghiera Nut
	ISO40.H55.EOC16	55	43	2÷16	G16OCC
	ISO40.H66.EOC25	66	60	2÷25	G25OCC
	ISO40.H95.EOC32	95	72	3÷32	G32OCC

G6,3 8000.r.p.m.	Articolo	H	A	Collets Range	Ghiera Nut
	ISO50.H57.EOC25	57	60	2÷25	G25OCC
	ISO50.H73.EOC32	73	72	3÷32	G32OCC

ACCESSORI - ACCESSORIES



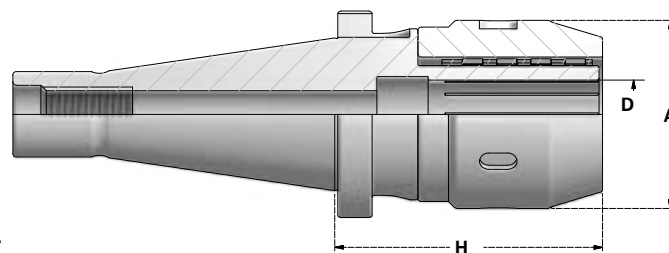
DIN 2080

ISO

FS

MANDRINI A FORTE SERRAGGIO
POWER MILLING CHUCKS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



SENZA GOLA MAHO - OTT
WITHOUT MAHO - OTT GROOVE

G6,3 12000 r.p.m.	Articolo	D	H	A
	ISO40.H100.FS32	32	100	69
	ISO50.H100.FS32	32	100	69

I TAGLI LONGITUDINALI PER TUTTA LA LUNGHEZZA DELLA SEDE PORTAUTENSILE AUMENTANO LA FORZA DI SERRAGGIO MA NON PERMETTONO LA TOTALE TENUTA DEL LIQUIDO REFRIGERANTE.
LONGITUDINAL CUTS ALL ALONG THE SEAT OF THE TOOL INCREASE THE CLAMPING FORCE BUT DO NOT ALLOW TOTAL SEALING.



KIT - MANDRINO, CHIAVE E PINZE
KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.ISO40.FS32	4SR32.D6-D8-D10-D12-D16-D20-D25	ISO40.H100.FS32
BX.ISO50.FS32	4SR32.D6-D8-D10-D12-D16-D20-D25	ISO50.H100.FS32

ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA WELDON

END MILL HOLDERS WELDON

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

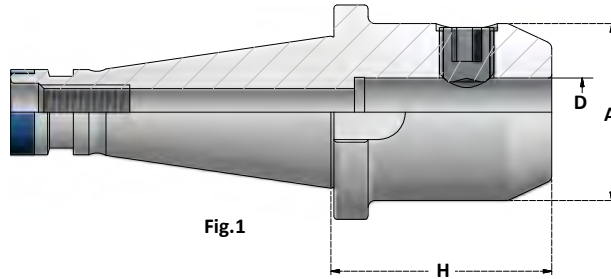


Fig.1

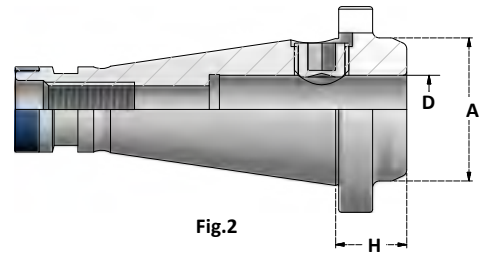
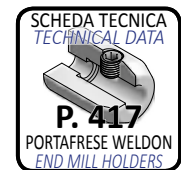
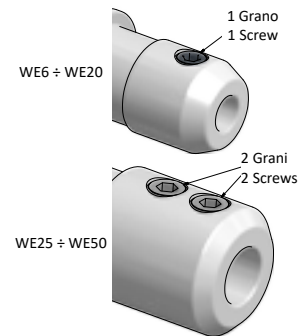


Fig.2

G6,3 8000 r.p.m.	Articolo	D	H	A	Grano Screw	Fig
	ISO30.H40.WE6	6	40	25	GR.WE6	1
	ISO30.H40.WE8	8	40	28	GR.WE8	1
	ISO30.H40.WE10	10	40	35	GR.WE10	1
	ISO30.H40.WE12	12	40	42	GR.WE12-14	1
	ISO30.H40.WE14	14	40	44	GR.WE12-14	1
	ISO30.H50.WE16	16	50	48	GR.WE16-18	1
	ISO30.H50.WE18	18	50	50	GR.WE16-18	1
	ISO30.H63.WE20	20	63	52	GR.WE20	1
ISO30.H85.WE25	25	85	65	GR.WE25	1	

G6,3 8000 r.p.m.	Articolo	D	H	A	Grano Screw	Fig
	ISO40.H50.WE6	6	50	25	GR.WE6	1
	ISO40.H50.WE8	8	50	28	GR.WE8	1
	ISO40.H50.WE10	10	50	35	GR.WE10	1
	ISO40.H50.WE12	12	50	42	GR.WE12-14	1
	ISO40.H50.WE14	14	50	44	GR.WE12-14	1
	ISO40.H60.WE16	16	60	48	GR.WE16-18	1
	ISO40.H65.WE18	18	65	50	GR.WE16-18	1
	ISO40.H65.WE20	20	65	52	GR.WE20	1
	ISO40.H80.WE25	25	80	65	GR.WE25	1
	ISO40.H80.WE32	32	80	72	GR.WE32-40	1
ISO40.H90.WE40	40	90	80	GR.WE32-40	1	

G6,3 8000 r.p.m.	Articolo	D	H	A	Grano Screw	Fig
	ISO50.H63.WE6	6	63	25	GR.WE6	1
	ISO50.H63.WE8	8	63	28	GR.WE8	1
	ISO50.H63.WE10	10	63	35	GR.WE10	1
	ISO50.H63.WE12	12	63	42	GR.WE12-14	1
	ISO50.H63.WE14	14	63	44	GR.WE12-14	1
	ISO50.H63.WE16	16	63	48	GR.WE16-18	1
	ISO50.H63.WE18	18	63	50	GR.WE16-18	1
	ISO50.H63.WE20	20	63	52	GR.WE20	1
	ISO50.H80.WE25	25	80	65	GR.WE25	1
	ISO50.H80.WE32	32	80	72	GR.WE32-40	1
	ISO50.H90.WE40	40	90	80	GR.WE32-40	1
	ISO50.H110.WE50	50	110	100	GR.WE50	1

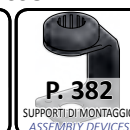


MANDRINI PORTAFRESA WELDON - EXTRACORTI

END MILL HOLDERS WELDON - STUB LENGTH

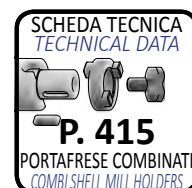
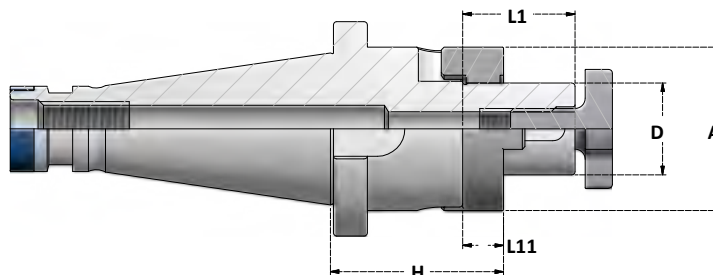
G6,3 8000 r.p.m.	Articolo	D	H	A	Grano Screw	Fig
	ISO40.H22.WE16	16	22	48	GR.WEC16	2
	ISO40.H22.WE20	20	22	48	GR.WEC20	2
	ISO40.H22.WE25	25	22	48	GR.WEC20	2

ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA COMBINATI
COMBI SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

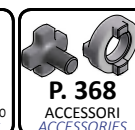


G6,3 8000 r.p.m.	Articolo	D	H	A	L1	L11	ATR	VTC	CHV
		ISO30.H50.D16C	16	50	32	27	10	ATR.D16	VTC.D16
	ISO30.H50.D22C	22	50	40	31	12	ATR.D22	VTC.D22	CHV.D22
	ISO30.H50.D27C	27	50	48	33	12	ATR.D27	VTC.D27	CHV.D27
	ISO30.H50.D32C	32	50	58	38	14	ATR.D32	VTC.D32	CHV.D32

G6,3 8000 r.p.m.	Articolo	D	H	A	L1	L11	ATR	VTC	CHV
		ISO40.H52.D16C	16	52	32	27	10	ATR.D16	VTC.D16
	ISO40.H100.D16C	16	100	32	27	10	ATR.D16	VTC.D16	CHV.D16
	ISO40.H52.D22C	22	52	40	31	12	ATR.D22	VTC.D22	CHV.D22
	ISO40.H100.D22C	22	100	40	31	12	ATR.D22	VTC.D22	CHV.D22
	ISO40.H52.D27C	27	52	48	33	12	ATR.D27	VTC.D27	CHV.D27
	ISO40.H100.D27C	27	100	48	33	12	ATR.D27	VTC.D27	CHV.D27
	ISO40.H52.D32C	32	52	58	38	14	ATR.D32	VTC.D32	CHV.D32
	ISO40.H100.D32C	32	100	58	38	14	ATR.D32	VTC.D32	CHV.D32
	ISO40.H52.D40C	40	52	70	41	14	ATR.D40	VTC.D40	CHV.D40
	ISO40.H100.D40C	40	100	70	41	14	ATR.D40	VTC.D40	CHV.D40

G6,3 8000 r.p.m.	Articolo	D	H	A	L1	L11	ATR	VTC	CHV
		ISO50.H55.D16C	16	55	32	27	10	ATR.D16	VTC.D16
	ISO50.H100.D16C	16	100	32	27	10	ATR.D16	VTC.D16	CHV.D16
	ISO50.H125.D16C	16	125	32	27	10	ATR.D16	VTC.D16	CHV.D16
	ISO50.H55.D22C	22	55	40	31	12	ATR.D22	VTC.D22	CHV.D22
	ISO50.H100.D22C	22	100	40	31	12	ATR.D22	VTC.D22	CHV.D22
	ISO50.H125.D22C	22	125	40	31	12	ATR.D22	VTC.D22	CHV.D22
	ISO50.H55.D27C	27	55	48	33	12	ATR.D27	VTC.D27	CHV.D27
	ISO50.H100.D27C	27	100	48	33	12	ATR.D27	VTC.D27	CHV.D27
	ISO50.H125.D27C	27	125	48	33	12	ATR.D27	VTC.D27	CHV.D27
	ISO50.H55.D32C	32	55	58	38	14	ATR.D32	VTC.D32	CHV.D32
	ISO50.H100.D32C	32	100	58	38	14	ATR.D32	VTC.D32	CHV.D32
	ISO50.H125.D32C	32	125	58	38	14	ATR.D32	VTC.D32	CHV.D32
	ISO50.H55.D40C	40	55	70	41	14	ATR.D40	VTC.D40	CHV.D40
	ISO50.H100.D40C	40	100	70	41	14	ATR.D40	VTC.D40	CHV.D40
	ISO50.H125.D40C	40	125	70	41	14	ATR.D40	VTC.D40	CHV.D40

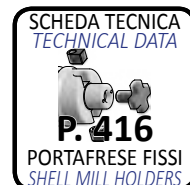
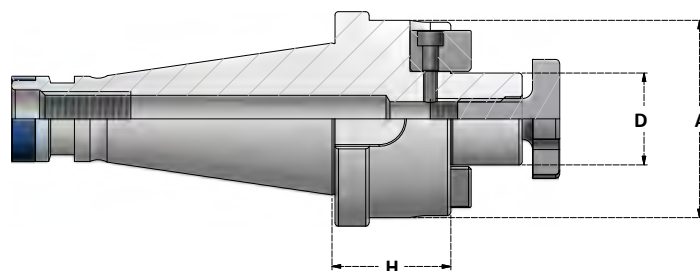
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



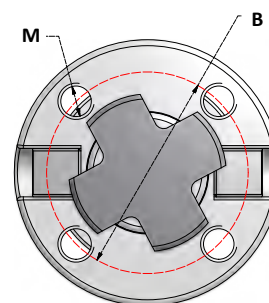
G6,3 8000 r.p.m.	Articolo	D	H	A	TTR	VTC
	ISO30.H35.D16S	16	35	38	TTR.D16	VTC.D16
ISO30.H35.D22S	22	35	48	TTR.D22	VTC.D22	
ISO30.H35.D27S	27	35	58	TTR.D27	VTC.D27	
ISO30.H35.D32S	32	35	78	TTR.D32	VTC.D32	

G6,3 8000 r.p.m.	Articolo	D	H	A	TTR	VTC
	ISO40.H30.D16S	16	30	38	TTR.D16	VTC.D16
ISO40.H52.D16S	16	52	38	TTR.D16	VTC.D16	
ISO40.H100.D16S	16	100	38	TTR.D16	VTC.D16	
ISO40.H35.D22S	22	35	48	TTR.D22	VTC.D22	
ISO40.H52.D22S	22	52	48	TTR.D22	VTC.D22	
ISO40.H100.D22S	22	100	48	TTR.D22	VTC.D22	
ISO40.H35.D27S	27	35	58	TTR.D27	VTC.D27	
ISO40.H52.D27S	27	52	58	TTR.D27	VTC.D27	
ISO40.H100.D27S	27	100	58	TTR.D27	VTC.D27	
ISO40.H35.D32S	32	35	78	TTR.D32	VTC.D32	
ISO40.H52.D32S	32	52	78	TTR.D32	VTC.D32	
ISO40.H100.D32S	32	100	78	TTR.D32	VTC.D32	
ISO40.H35.D40S	40	35	88	TTR.D40	VTC.D40	
ISO40.H52.D40S	40	52	88	TTR.D40	VTC.D40	
ISO40.H100.D40S	40	100	88	TTR.D40	VTC.D40	

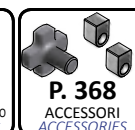
MANDRINI PER FRESE A SPIANARE CON 4 FORI

FACE MILL HOLDERS WITH 4 HOLES

Articolo	D	H	A	M	B	TTR	VTC
ISO40.H35.D40FM	40	35	88	M12	66,7	TTR.D40	VTC.D40



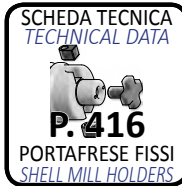
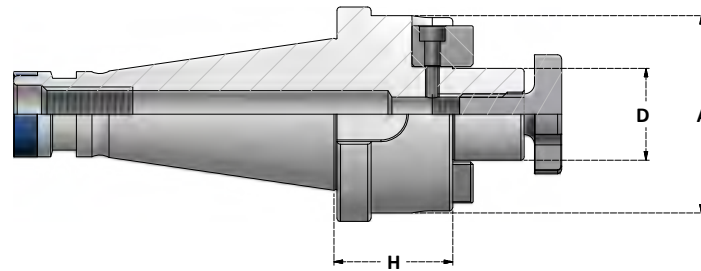
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA FISSI
SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



G6,3

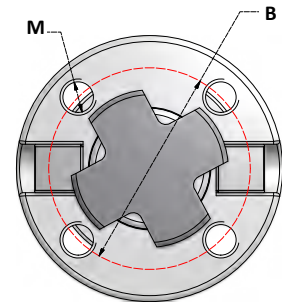
8000 p.p.m.

Articolo	D	H	A	TTR	VTC
ISO50.H45.D16S	16	45	38	TTR.D16	VTC.D16
ISO50.H100.D16S	16	100	38	TTR.D16	VTC.D16
ISO50.H125.D16S	16	125	38	TTR.D16	VTC.D16
ISO50.H45.D22S	22	45	48	TTR.D22	VTC.D22
ISO50.H100.D22S	22	100	48	TTR.D22	VTC.D22
ISO50.H125.D22S	22	125	48	TTR.D22	VTC.D22
ISO50.H45.D27S	27	45	58	TTR.D27	VTC.D27
ISO50.H100.D27S	27	100	58	TTR.D27	VTC.D27
ISO50.H125.D27S	27	125	58	TTR.D27	VTC.D27
ISO50.H45.D32S	32	45	78	TTR.D32	VTC.D32
ISO50.H100.D32S	32	100	78	TTR.D32	VTC.D32
ISO50.H125.D32S	32	125	78	TTR.D32	VTC.D32
ISO50.H45.D40S	40	45	88	TTR.D40	VTC.D40
ISO50.H100.D40S	40	100	88	TTR.D40	VTC.D40
ISO50.H125.D40S	40	125	88	TTR.D40	VTC.D40

MANDRINI PER FRESE A SPIANARE CON 4 FORI

FACE MILL HOLDERS WITH 4 HOLES

Articolo	D	H	A	M	B	TTR	VTC
ISO50.H45.D40FM	40	45	88	M12	66,7	TTR.D40	VTC.D40
ISO50.H55.D60FM	60	55	129	M16	101,6	TTR.D60	VTC.D60



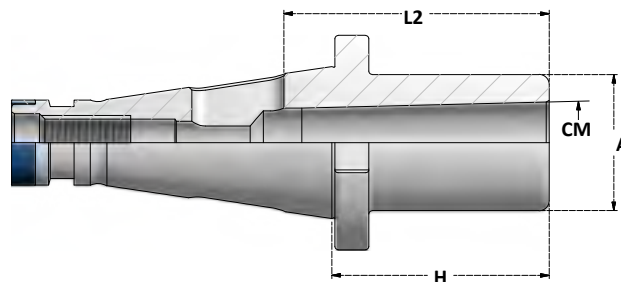
ACCESSORI - ACCESSORIES



MANDRINI DI RIDUZIONE CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



SCHEDA TECNICA
TECHNICAL DATA
P. 418
RIDUZIONI CM PUNTE
ADAPTERS FOR DRILLS

G6,3 8000 r.p.m.

Articolo	CM	H	A	L2
ISO30.H50.CM1P	CM1	50	25	56
ISO30.H50.CM2P	CM2	50	32	67
ISO30.H72.CM3P	CM3	72	40	84

G6,3 8000 r.p.m.

Articolo	CM	H	A	L2
ISO40.H50.CM1P	CM1	50	25	56
ISO40.H92.CM1P	CM1	92	25	56
ISO40.H50.CM2P	CM2	50	32	67
ISO40.H109.CM2P	CM2	109	32	67
ISO40.H65.CM3P	CM3	65	40	84
ISO40.H129.CM3P	CM3	129	40	84
ISO40.H95.CM4P	CM4	95	48	107
ISO40.H152.CM4P	CM4	152	48	107

G6,3 8000 r.p.m.

Articolo	CM	H	A	L2
ISO50.H45.CM1P	CM1	45	25	56
ISO50.H100.CM1P	CM1	100	25	56
ISO50.H60.CM2P	CM2	60	32	67
ISO50.H113.CM2P	CM2	113	32	67
ISO50.H65.CM3P	CM3	65	40	84
ISO50.H133.CM3P	CM3	133	40	84
ISO50.H70.CM4P	CM4	70	48	107
ISO50.H163.CM4P	CM4	163	48	107
ISO50.H105.CM5P	CM5	105	63	135
ISO50.H193.CM5P	CM5	193	63	135

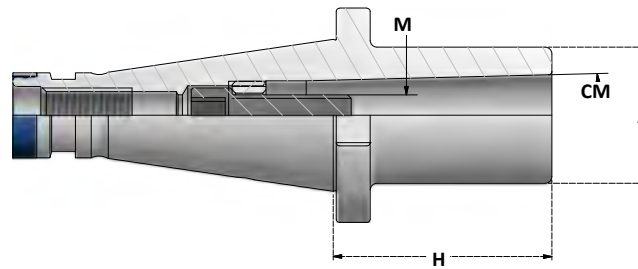
**PER UTENSILI DIN228B
CON TENONE**

*FOR TOOLS DIN228B
WITH TANG*

ACCESSORI - ACCESSORIES



MANDRINI DI RIDUZIONE CONO MORSE PER FRESE
MORSE TAPER ADAPTERS FOR THREADED MILLS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

G6,3 8000 r.p.m.

Articolo	CM	H	A	M
ISO30.H50.CM1FV	CM1	50	25	M6
ISO30.H50.CM2FV	CM2	50	32	M10
ISO30.H78.CM3FV	CM3	78	40	M12

G6,3 8000 r.p.m.

Articolo	CM	H	A	M
ISO40.H50.CM1FV	CM1	50	25	M6
ISO40.H50.CM2FV	CM2	50	32	M10
ISO40.H65.CM3FV	CM3	65	40	M12
ISO40.H95.CM4FV	CM4	95	48	M16

G6,3 8000 r.p.m.

Articolo	CM	H	A	M
ISO50.H60.CM1FV	CM1	60	25	M6
ISO50.H60.CM2FV	CM2	60	32	M10
ISO50.H115.CM2FV	CM2	115	32	M10
ISO50.H165.CM2FV	CM2	165	32	M10
ISO50.H65.CM3FV	CM3	65	40	M12
ISO50.H165.CM3FV	CM3	165	40	M12
ISO50.H65.CM4FV	CM4	65	48	M16
ISO50.H165.CM4FV	CM4	165	48	M16
ISO50.H120.CM5FV	CM5	120	63	M20

**PER UTENSILI DIN228A
CON FILETTO**

*FOR TOOLS DIN228A
WITH THREAD*

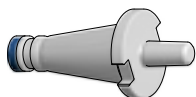
ACCESSORI - ACCESSORIES



DIN 2080 - ISO

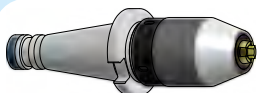
DIN 238

MANDRINI DA TRAPANO
DRILL CHUCKS



STANDARD
STANDARD

PAG. 179



MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA
DRILL CHUCKS - RIGHT ROTATION

PAG. 180



MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA E SINISTRA
FOR HIGH SP DRILL CHUCKS - RIGHT AND LEFT ROTATION EEDS

PAG. 181



MANDRINI PORTAPUNTA AUTOSERRANTI CON PASSAGGIO DEL REFRIGERANTE
ROTAZIONE DESTRA E SINISTRA
DRILL CHUCKS WITH COOLANT THROUGH - RIGHT AND LEFT ROTATION

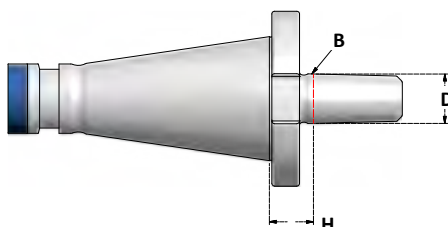
PAG. 182

BT

B

DIN 238

ATTACCHI PER MANDRINI AUTOSERRANTI
DRILL CHUCKS ARBORS



Articolo	B	H	D
ISO30.H15.B12	B12	15	12,065
ISO30.H15.B16	B16	15	15,733

Articolo	B	H	D
ISO40.H17.B12	B12	17	12,065
ISO40.H17.B16	B16	17	15,733
ISO40.H17.B18	B18	17	17,78

Articolo	B	H	D
ISO50.H20.B16	B16	20	15,733
ISO50.H20.B18	B18	20	17,78

ACCESSORI - ACCESSORIES



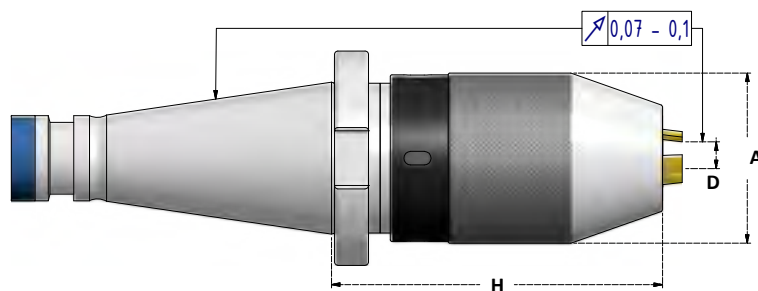
DIN 2080

ISO

DCK

MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA
DRILL CHUCKS - RIGHT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
ISO40.H70.DCK8S	0,5 - 8	70	37,5	CH.DC8
ISO40.H88.DCK13S	1 - 13	88	50,5	CH.DC13
ISO40.H100.DCK16S	2,5 - 16	100	57	CH.DC16

**GRIFFE RIVESTITE
IN TITANIO**

**TITANIUM
COATED JAWS**

Articolo	D	H	A	Chiave Wrench
ISO50.H80.DCK13S	1 - 13	80	50,5	CH.DC13
ISO50.H90.DCK16S	2,5 - 16	90	57	CH.DC16

ACCESSORI - ACCESSORIES



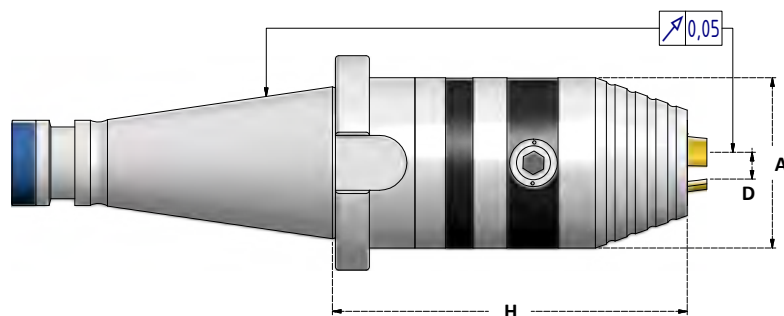
DIN 2080

ISO

CP

MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA E SINISTRA
DRILL CHUCKS - RIGHT AND LEFT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



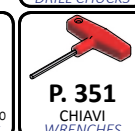
Articolo	D	H	A	Chiave Wrench
ISO40.H71.CP8S	0,5 - 8	71	37,5	CH.EX4
ISO40.H105.CP13S	1 - 13	105	50,5	CH.EX6
ISO40.H110.CP16S	2,5 - 16	110	57	CH.EX6

**GRIFFE RIVESTITE
IN TITANIO**

**TITANIUM
COATED JAWS**

Articolo	D	H	A	Chiave Wrench
ISO50.H98.CP13S	1 - 13	98	50,5	CH.EX6
ISO50.H103.CP16S	2,5 - 16	103	57	CH.EX6

ACCESSORI - ACCESSORIES



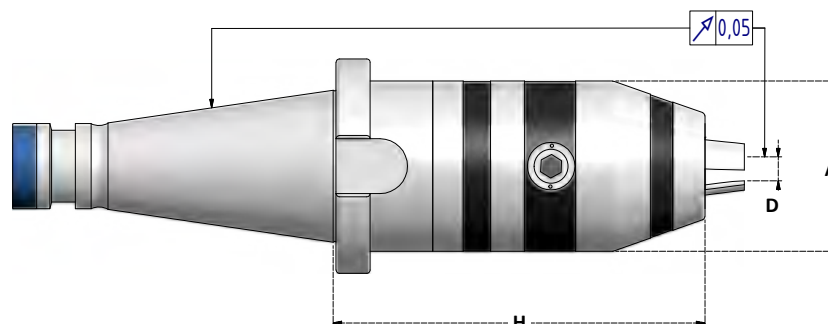
DIN 2080

ISO

HD

MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA E SINISTRA
DRILL CHUCKS - RIGHT AND LEFT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
ISO40.H62.HD8	0,5- 8	62	36	CH.EX4
ISO40.H82.HD13	0,5-13	82	50	CH.EX6
ISO40.H87.HD16	2,5-13	87	50	CH.EX6

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

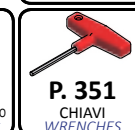
Fino a esaurimento / While stocks last

Articolo	D	H	A	Chiave Wrench
ISO50.H86.HD13	0,5-13	86	50	CH.EX6
ISO50.H91.HD16	2,5-13	91	50	CH.EX6

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

ACCESSORI - ACCESSORIES



DIN 2080

ISO

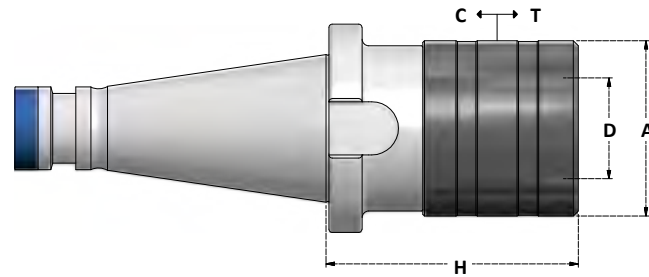
MCR

**MASCHIATORI A CAMBIO RAPIDO
CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESIONE**

QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
ISO40.MCR1TC	B1 / BF1	19	M2÷M14	36	50	7,5	7,5
ISO40.MCR2TC	B2 / BF2	31	M6÷M27	53	78	12,5	12,5
ISO40.MCR3TC	B3 / BF3	48	M14÷M45	78	143	20	20

Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
ISO50.MCR2TC	B2 / BF2	31	M6÷M27	53	80	12,5	12,5
ISO50.MCR3TC	B3 / BF3	48	M14÷M45	78	130	20	20

ACCESSORI - ACCESSORIES



DIN 2080

ISO

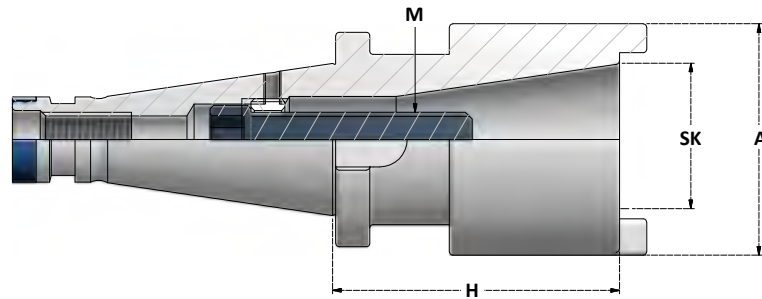
TB / ISO

MANDRINI DI RIDUZIONE TC-BT-ISO

TC-BT-ISO REDUCTION SLEEVES

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	H	A	M	SK
ISO40.H50.TB30	50	50	12	TC30 / BT30
ISO40.H85.TB40	85	70	16	TC40 / BT40

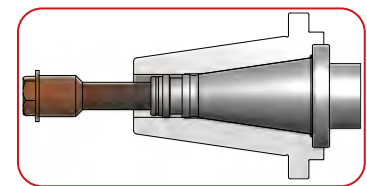
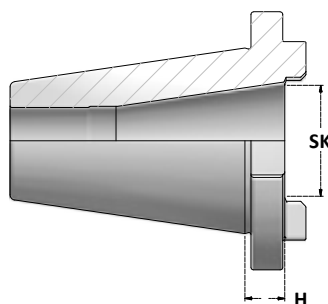
Articolo	H	A	M	SK
ISO40.H50.ISO30	50	50	12	ISO30
ISO40.H85.ISO40	85	70	16	ISO40

Articolo	H	A	M	SK
ISO50.H60.TB40	60	70	16	TC40 / BT40
ISO50.H115.TB50	115	90	24	TC50 / BT50

Articolo	H	A	M	SK
ISO50.H60.ISO40	60	70	16	ISO40
ISO50.H115.ISO50	115	90	24	ISO50

MANDRINI DI RIDUZIONE - EXTRACORTI

REDUCTION SLEEVES - STUB LENGTH



Articolo	H	SK
ISO40.H13.SK30	13	ISO30
ISO50.H16.SK30	16	ISO30
ISO50.H16.SK40	16	ISO40

VITE NON INCLUSA

SCREW NOT INCLUDED

ACCESSORI - ACCESSORIES



DIN 2080

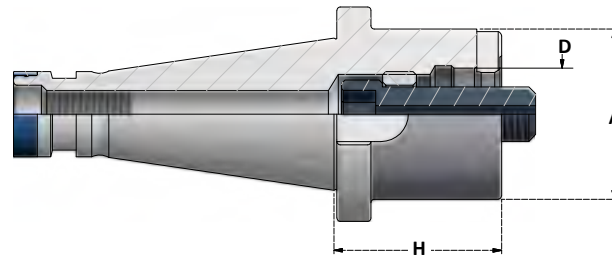
ISO

MD

MANDRINI MODULARI TIPO VARILOCK
MODULAR TOOLHOLDERS VARILOCK TYPE

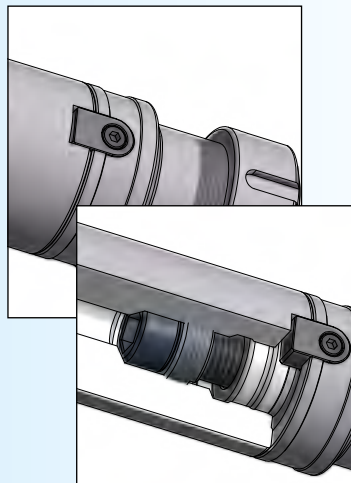
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

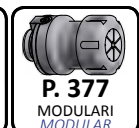


Articolo	A	H	D	Attacco
ISO40.H50.MD50	50	50	27,3 / 27	MD50
ISO40.H50.MD63	63	50	32,3 / 32	MD63

Articolo	A	H	D	Attacco
ISO50.H27.MD50	50	27	27,3 / 27	MD50
ISO50.H50.MD50	50	50	27,3 / 27	MD50
ISO50.H27.MD63	63	27	32,3 / 32	MD63
ISO50.H50.MD63	63	50	32,3 / 32	MD63
ISO50.H27.MD80	80	27	32,3 / 32	MD80
ISO50.H50.MD80	80	50	32,3 / 32	MD80

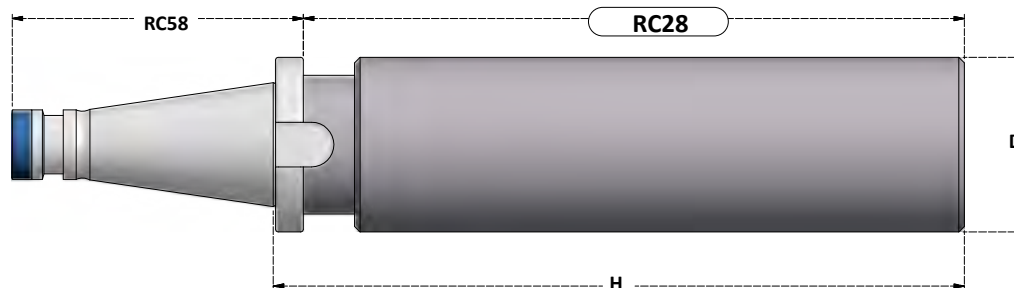


ACCESSORI - ACCESSORIES



MANDRINI CON STELO LAVORABILE

BLANK ARBORS



DIMENSIONI
DELL'ATTACCO

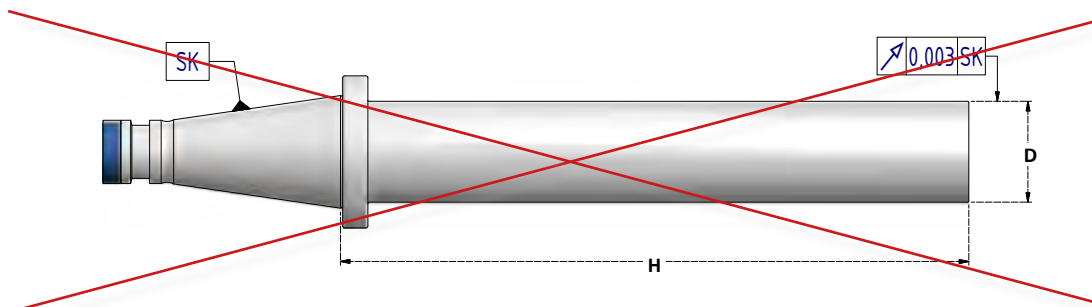
SHANK
DIMENSIONS

Articolo	D	H
ISO40.H250.D40BL	40	250
ISO40.H160.D63BL	63	160
ISO40.H250.D63BL	63	250
ISO40.H270.D80BL	80	270

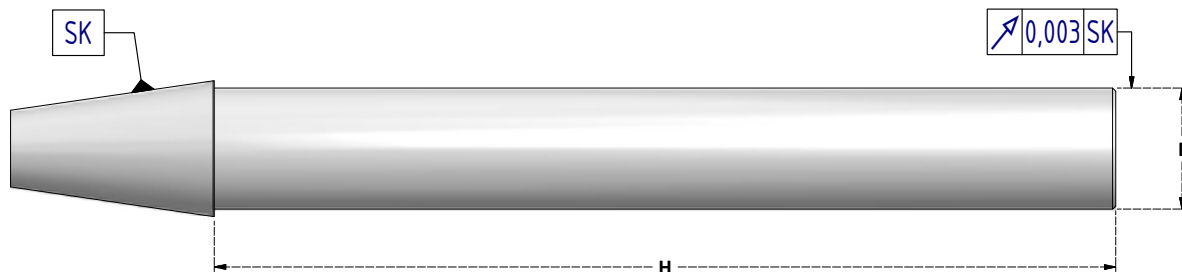
Articolo	D	H
ISO50.H330.D50BL	50	330
ISO50.H250.D63BL	63	250
ISO50.H330.D80BL	80	330
ISO50.H315.D97BL	97	315

MANDRINI DI COLLAUDO
TEST ARBORS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	
ISO40.H300.CK40	40	300	Fuori produzione / Out of production
ISO50.H300.CK50	50	300	Fuori produzione / Out of production



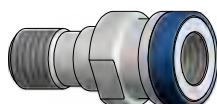
MANDRINI DI COLLAUDO CON ATTACCO "TC" DIN69871 - DA PAGINA 103
TEST ARBORS WITH "TC" DIN69871 SHANK - FROM PAGE 103

Articolo	D	H
TC40.H335.CK40	40	335
TC50.H340.CK50	50	340

PRECISIONE DEL CONO TAPER SHANK PRECISION	AT2
ROTONDITÀ ROUNDNESS	0,001mm
RUGOSITÀ SURFACE ROUGHNES	Ra <0,4
CONCENTRICITÀ CONCENTRICITY	0,003mm

POSSONO ESSERE UTILIZZATI CON TIRANTI "OTT"
PER IL COLLAUDO DI SEDI DIN2080

CAN BE USED WITH "OTT" PULL STUDS FOR DIN2080 SPINDLES



TIRANTI OTT NON FORATI
OTT PULL STUDS WITHOUT COOLANT BORE

Articolo	M	CONO
PS.OTT40.TCSF	M16	TC40
PS.OTT50.TBSF	M24	TC/BT50

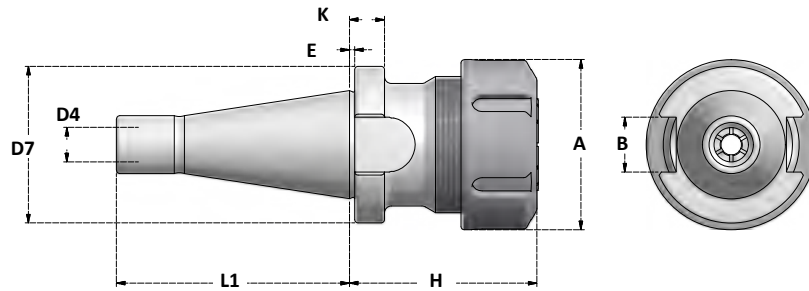
DA PAGINA 235
FROM PAGE 235

**FORNITI IN BOX VERTICALI
CON CERTIFICATO DI COLLAUDO**

SUPPLIED IN VERTICAL BOX
AND WITH TESTING REPORT



MANDRINI NMTB PORTAPINZA ER
NMTB ER COLLET CHUCKS



DIMENSIONI IN POLLICI
INCH DIMENSIONS

G6,3

8000 p.p.m.

Articolo	B	D4	D7	L1	E	K	H	A	Collets Range	Ghiera Nut
NMTB30-H3.30-ERC40	.635	1/2- 13	1.81	2.692	.078	.344	3.30	2.48	.118 ÷ 1.18	G40S
NMTB40-H2.20-ERC40	.635	5/8- 11	2.50	3.677	.078	.314	2.20	2.48	.118 ÷ 1.18	G40S
NMTB50-H2.75-ERC40	1.013	1"- 8	3.50	4.992	.179	.455	2.75	2.48	.118 ÷ 1.18	G40S

**PER MACCHINE
TIPO ERICKSON**
SUITABLE FOR ERICKSON
MACHINES

S



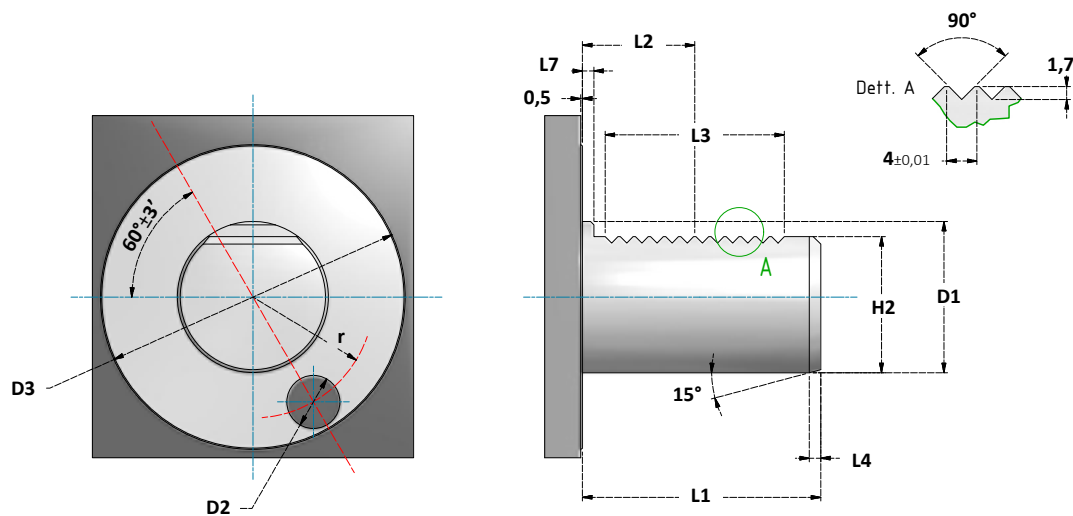
GHIERE **STANDARD** CON TACCHE
STANDARD NUTS WITH SLOTS

ACCESSORI - ACCESSORIES



DIN ISO 10889 (DIN69880) - VDI

MANDRINI VDI
VDI TOOLHOLDERS



DIMENSIONI
DIMENSIONS

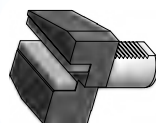
VDI	D1	D2	D3	L1	L2	L3	L4	L7	H2	r
	h6	H8		±0,3	±0,05	min	$\begin{matrix} +1 \\ 0 \end{matrix}$		±0,1	±0,02
30	30	14	68	55	29,7	40	2	7	27	25
40	40	14	83	63	29,7	40	3	7	36	32
50	50	16	98	78	35,7	48	3	8	45	37
60	60	16	123	94	43,7	56	4	10	55	48

DIN ISO 10889 (DIN69880) - VDI



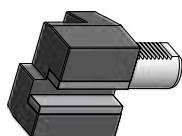
PORTAUTENSILI VDI FORMA A
VDI TOOLHOLDERS FORM A

PAG. 191



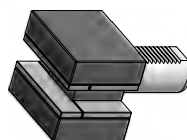
PORTAUTENSILI VDI FORMA B
VDI TOOLHOLDERS FORM B

PAG. 192



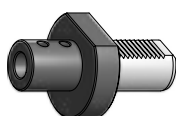
PORTAUTENSILI VDI FORMA C
VDI TOOLHOLDERS FORM C

PAG. 194



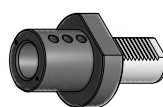
PORTAUTENSILI VDI FORMA D
VDI TOOLHOLDERS FORM D

PAG. 195



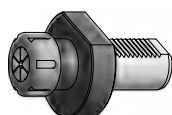
PORTAUTENSILI VDI FORMA E1
VDI TOOLHOLDERS FORM E1

PAG. 196



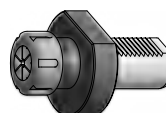
PORTAUTENSILI VDI FORMA E2
VDI TOOLHOLDERS FORM E2

PAG. 197



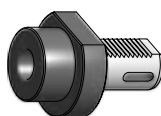
PORTAUTENSILI VDI FORMA E3
VDI TOOLHOLDERS FORM E3

PAG. 198



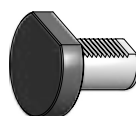
PORTAUTENSILI VDI FORMA E4
VDI TOOLHOLDERS FORM E4

PAG. 199



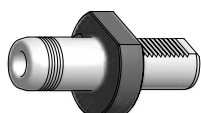
PORTAUTENSILI VDI FORMA F
VDI TOOLHOLDERS FORM F

PAG. 200



PORTAUTENSILI VDI FORMA Z
VDI TOOLHOLDERS FORM Z

PAG. 201



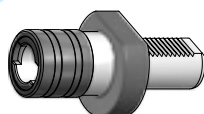
PORTAUTENSILI IDRAULICI
HYDRAULIC TOOLHOLDERS

PAG. 202



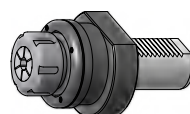
MANDRINI DA TRAPANO
DRILL CHUCKS

PAG. 202



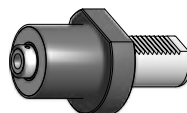
MASCHIATORI
TAPPING CHUCKS

PAG. 203



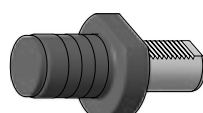
PORTA ALESATORI OSCILLANTI
FLOATING REAMER HOLDERS

PAG. 204



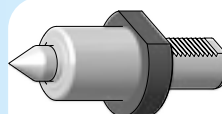
BROCCIATORI
BROACHING TOOLHOLDERS

PAG. 205



FERMI BARRA
STOP SHOCK ABSORBERS

PAG. 206



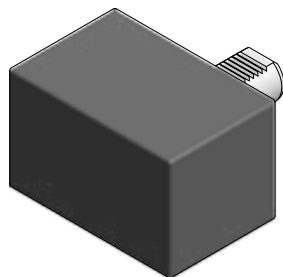
CONTROPUNTE ROTANTI
LIVE CENTERS

PAG. 206

PORTAUTENSILI VDI LAVORABILI
MACHINABLE VDI TOOLHOLDERS

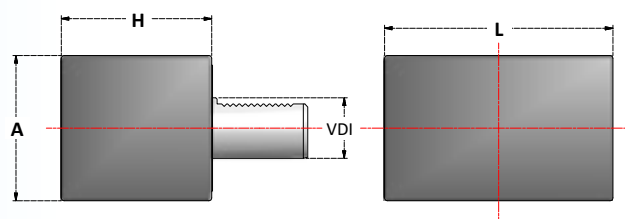
DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



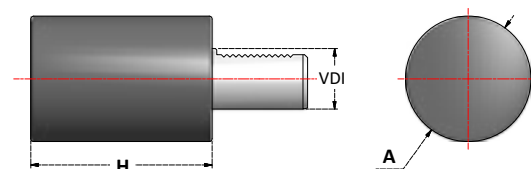
PORTAUTENSILI LAVORABILI RETTANGOLARI
RECTANGULAR BLANK TOOLHOLDERS

Articolo	VDI	H	A	L
VDI30.A1	30	85	76	130
VDI40.A1	40	100	96	151
VDI50.A1	50	125	120	160
VDI60.A1	60	160	125	165



PORTAUTENSILI LAVORABILI ROTONDI
ROUND BLANK TOOLHOLDERS

Articolo	VDI	H	A
VDI30.A2	30	100	68
VDI40.A2	40	120	83
VDI50.A2	50	135	98
VDI60.A2	60	150	123

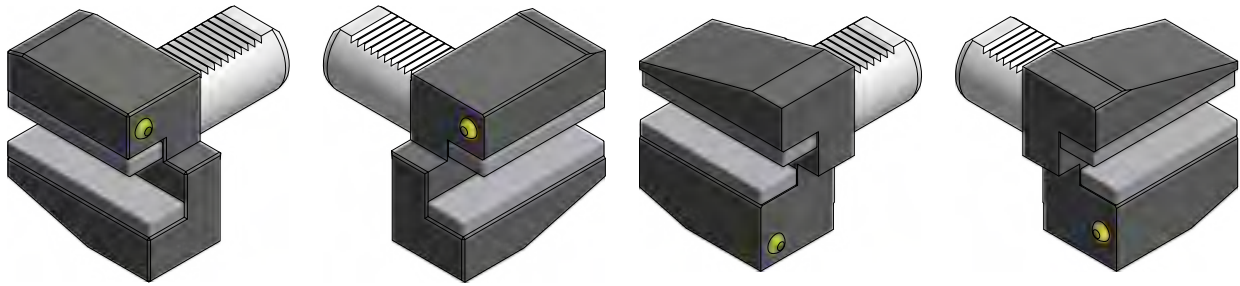


PORTAUTENSILI VDI CON SEDE TRASVERSALE

RADIAL VDI TOOLHOLDERS

DIMENSIONI
DELL'ATTACCO

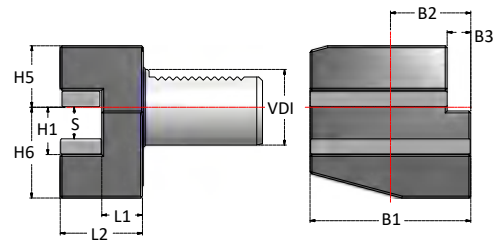
SHANK
DIMENSIONS



PORTAUTENSILI VDI FORMA B1 - DESTRI - CORTI

VDI TOOLHOLDERS FORM B1 - RIGHT - SHORT

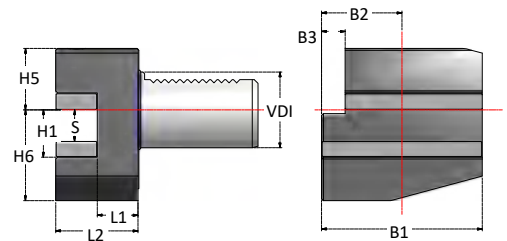
Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.B1	30	20	16	28	38	22	40	70	35	10
VDI40.B1	40	25	20	32,5	48	22	44	85	42,5	12,5
VDI50.B1	50	32	25	35	60	30	55	100	50	16
VDI60.B1	60	32	25	42,5	62,5	30	60	125	62,5	16



PORTAUTENSILI VDI FORMA B2 - SINISTRI - CORTI

VDI TOOLHOLDERS FORM B2 - LEFT - SHORT

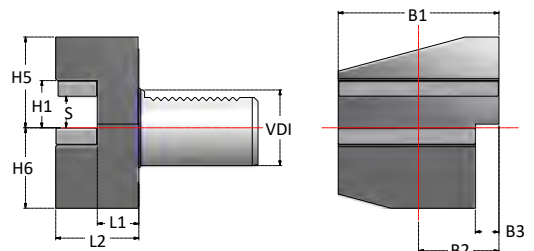
Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.B2	30	20	16	28	38	22	40	70	35	10
VDI40.B2	40	25	20	32,5	48	22	44	85	42,5	12,5
VDI50.B2	50	32	25	35	60	30	55	100	50	16
VDI60.B2	60	32	25	42,5	62,5	40	60	125	62,5	16



PORTAUTENSILI VDI FORMA B3 - ROVESCIA TI DESTRI - CORTI

VDI TOOLHOLDERS FORM B3 - OVERHEAD RIGHT - SHORT

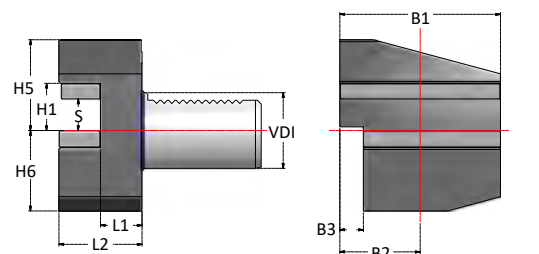
Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.B3	30	20	16	28	38	22	40	70	35	10
VDI40.B3	40	25	20	32,5	48	22	44	85	42,5	12,5
VDI50.B3	50	32	25	35	60	30	55	100	50	16
VDI60.B3	60	32	25	42,5	62,5	40	60	125	62,5	16



PORTAUTENSILI VDI FORMA B4 - ROVESCIA TI SINISTRI - CORTI

VDI TOOLHOLDERS FORM B4 - OVERHEAD LEFT - SHORT

Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.B4	30	20	16	28	38	22	40	70	35	10
VDI40.B4	40	25	20	32,5	48	22	44	85	42,5	12,5
VDI50.B4	50	32	25	35	60	30	55	100	50	16
VDI60.B4	60	32	25	42,5	62,5	40	60	125	62,5	16

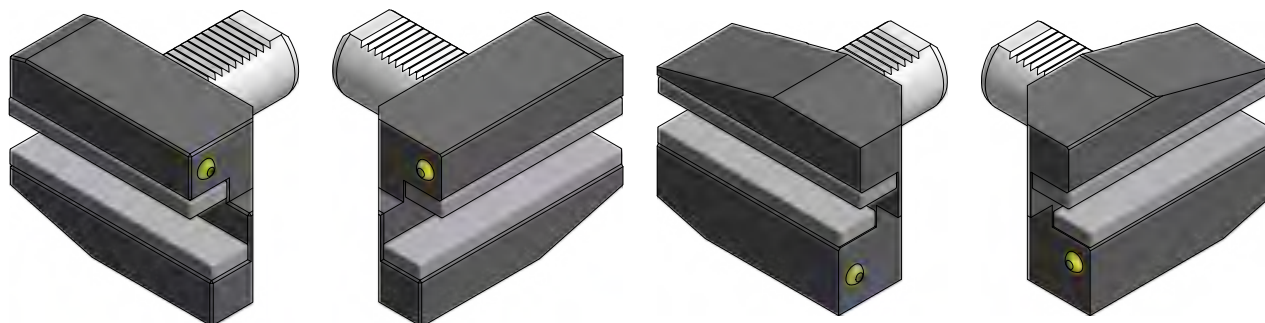


PORTAUTENSILI VDI CON SEDE TRASVERSALE

RADIAL VDI TOOLHOLDERS

DIMENSIONI
DELL'ATTACCO

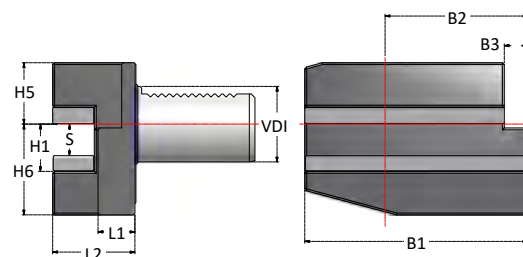
SHANK
DIMENSIONS



PORTAUTENSILI VDI FORMA B5 - DESTRI - LUNGHI

VDI TOOLHOLDERS FORM B5 - RIGHT - LONG

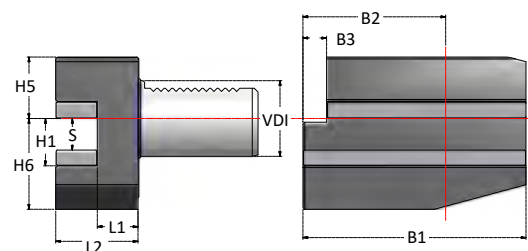
Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.B5	30	20	16	28	38	22	40	100	65	10
VDI40.B5	40	25	20	32,5	48	22	44	118	75,5	12,5
VDI50.B5	50	32	25	35	60	30	55	130	80	16
VDI60.B5	60	32	25	42,5	62,5	40	60	145	82,5	16



PORTAUTENSILI VDI FORMA B6 - SINISTRI - LUNGHI

VDI TOOLHOLDERS FORM B6 - LEFT - LONG

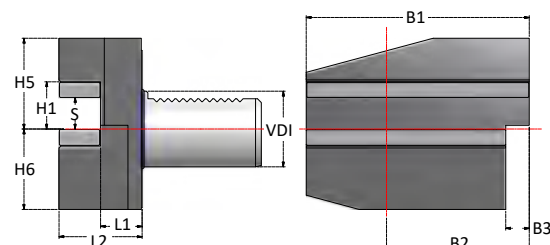
Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.B6	30	20	16	28	38	22	40	100	65	10
VDI40.B6	40	25	20	32,5	48	22	44	118	75,5	12,5
VDI50.B6	50	32	25	35	60	30	55	130	80	16
VDI60.B6	60	32	25	42,5	62,5	40	60	145	82,5	16



PORTAUTENSILI VDI FORMA B7 - ROVESCIA TI DESTRI - LUNGHI

VDI TOOLHOLDERS FORM B7 - OVERHEAD RIGHT - LONG

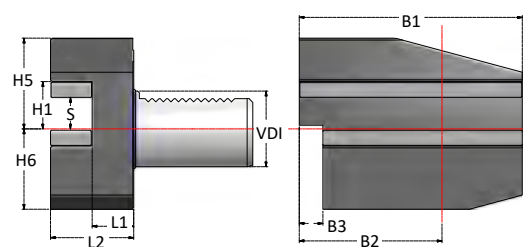
Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.B7	30	20	16	28	38	22	40	100	65	10
VDI40.B7	40	25	20	32,5	48	22	44	118	75,5	12,5
VDI50.B7	50	32	25	35	60	30	55	130	80	16
VDI60.B7	60	32	25	42,5	62,5	40	60	145	82,5	16



PORTAUTENSILI VDI FORMA B8 - ROVESCIA TI SINISTRI - LUNGHI

VDI TOOLHOLDERS FORM B8 - OVERHEAD LEFT - LONG

Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.B8	30	20	16	28	38	22	40	100	65	10
VDI40.B8	40	25	20	32,5	48	22	44	118	75,5	12,5
VDI50.B8	50	32	25	35	60	30	55	130	80	16
VDI60.B8	60	32	25	42,5	62,5	40	60	145	82,5	16

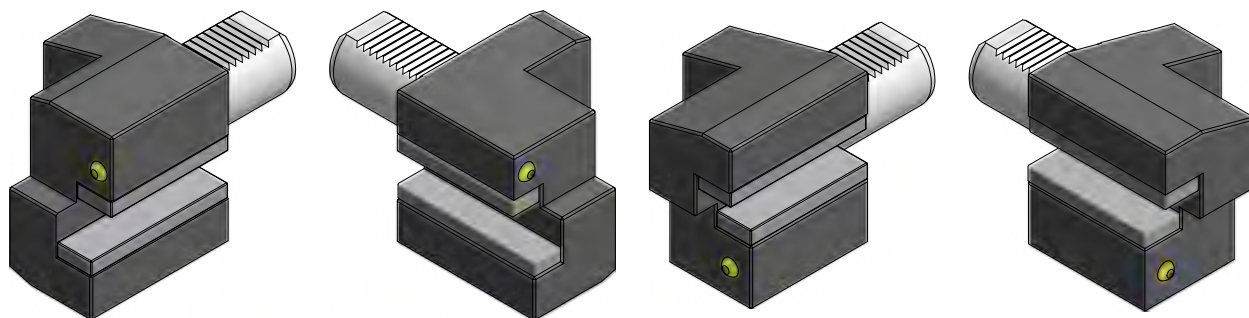


ACCESSORI - ACCESSORIES



PORTAUTENSILI VDI CON SEDE LONGITUDINALE
AXIAL VDI TOOLHOLDERS

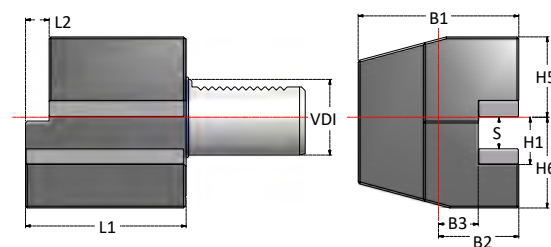
DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



PORTAUTENSILI VDI FORMA C1 - DESTRI

VDI TOOLHOLDERS FORM C1 - RIGHT

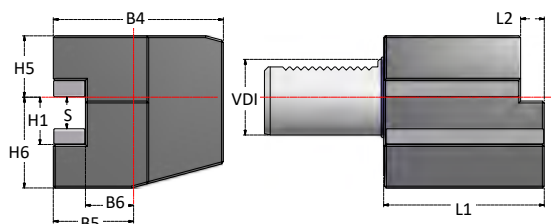
Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.C1	30	20	16	28	38	70	10	70	35	17
VDI40.C1	40	25	20	32,5	48	85	12,5	85	42,5	21
VDI50.C1	50	32	25	35	60	100	16	100	50	26
VDI60.C1	60	32	25	42,5	62,5	125	16	125	62,5	33



PORTAUTENSILI VDI FORMA C2 - SINISTRI

VDI TOOLHOLDERS FORM C2 - LEFT

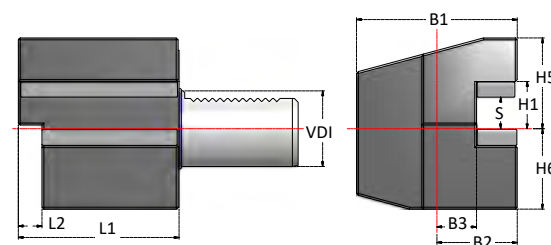
Articolo	VDI	H1	S	H5	H6	L1	L2	B4	B5	B6
VDI30.C2	30	20	16	28	38	70	10	76	41	23
VDI40.C2	40	25	20	32,5	48	85	12,5	90	47,5	25,5
VDI50.C2	50	32	25	35	60	100	16	105	55	30,5
VDI60.C2	60	32	25	42,5	62,5	125	16	125	62,5	33



PORTAUTENSILI VDI FORMA C3 - ROVESCIATI DESTRI

VDI TOOLHOLDERS FORM C3 - OVERHEAD RIGHT

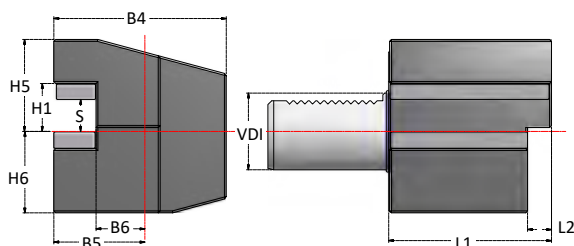
Articolo	VDI	H1	S	H5	H6	L1	L2	B1	B2	B3
VDI30.C3	30	20	16	28	38	70	10	70	35	17
VDI40.C3	40	25	20	32,5	48	85	12,5	85	42,5	21
VDI50.C3	50	32	25	35	60	100	16	100	50	26
VDI60.C3	60	32	25	42,5	62,5	125	16	125	62,5	33



PORTAUTENSILI VDI FORMA C4 - ROVESCIATI SINISTRI

VDI TOOLHOLDERS FORM C4 - OVERHEAD LEFT

Articolo	VDI	H1	S	H5	H6	L1	L2	B4	B5	B6
VDI30.C4	30	20	16	28	38	70	10	76	41	23
VDI40.C4	40	25	20	32,5	48	85	12,5	90	47,5	25,5
VDI50.C4	50	32	25	35	60	100	16	105	55	30,5
VDI60.C4	60	32	25	42,5	62,5	125	16	125	62,5	33

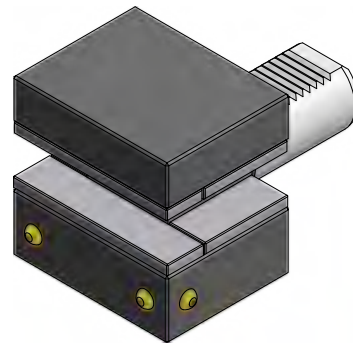
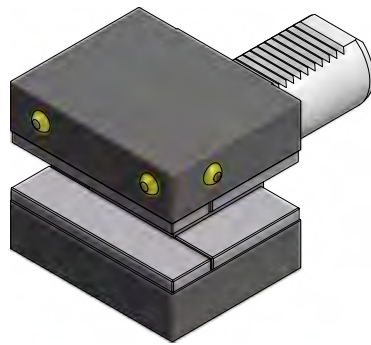


ACCESSORI - ACCESSORIES



PORTAUTENSILI VDI A PIU' SEDI
VDI TOOLHOLDERS WITH MULTIPLE SEATS

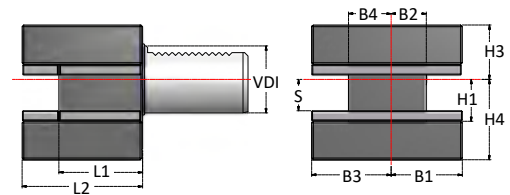
DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



PORTAUTENSILI VDI FORMA D1

VDI TOOLHOLDERS FORM D1

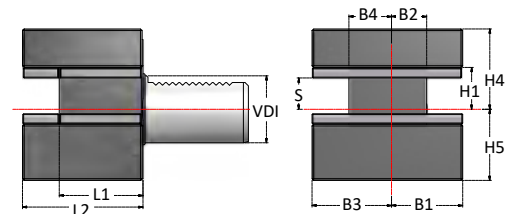
Articolo	VDI	H1	S	H3	H4	L1	L2	B1	B2	B3	B4
VDI30.D1	30	20	16	28	38	42	60	35	17	41	23
VDI40.D1	40	25	20	32,5	48	50	72	42,5	21	47,5	25,5
VDI50.D1	50	32	25	35	60	60	85	50	26	55	30,5
VDI60.D1	60	32	25	42,5	62,5	85	110	57,5	33	57,5	33



PORTAUTENSILI VDI FORMA D2

VDI TOOLHOLDERS FORM D2

Articolo	VDI	H1	S	H4	H5	L1	L2	B1	B2	B3	B4
VDI30.D2	30	20	16	38	35	42	60	35	17	41	23
VDI40.D2	40	25	20	48	42,5	50	72	42,5	21	47,5	25,5
VDI50.D2	50	32	25	60	50	60	85	50	26	55	30,5
VDI60.D2	60	32	25	62,5	62,5	85	110	57,5	33	57,5	33

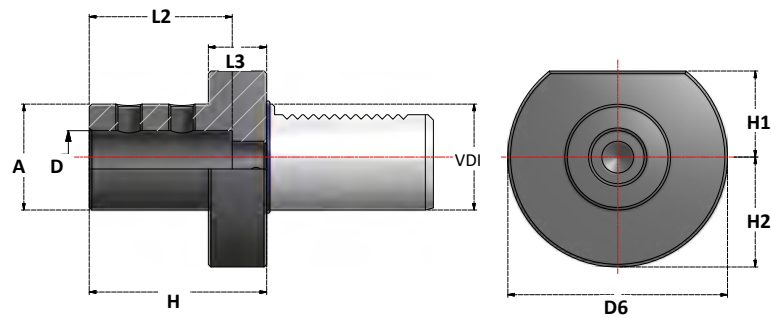


ACCESSORI - ACCESSORIES

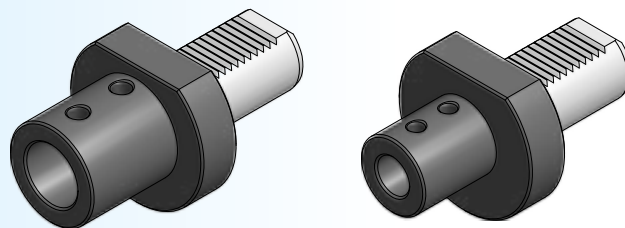


PORTAUTENSILI VDI PER PUNTE A INSERTI
VDI TOOLHOLDERS FOR INDEXABLE INSERT DRILLS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	VDI	D	A	H	L2	L3	D6	H1	H2
VDI30.E1-16	30	16	36	67	54	22	68	28	30
VDI30.E1-20	30	20	40	67	54	22	68	28	30
VDI30.E1-25	30	25	45	71	59	22	68	28	30
VDI30.E1-32	30	32	52	75	63	22	68	28	30
VDI30.E1-40	30	40	65	90	72	22	68	28	30
VDI40.E1-16	40	16	36	67	54	22	83	32,5	/
VDI40.E1-20	40	20	40	67	54	22	83	32,5	/
VDI40.E1-25	40	25	45	75	59	22	83	32,5	/
VDI40.E1-32	40	32	52	75	63	22	83	32,5	/
VDI40.E1-40	40	40	65	90	73	22	83	32,5	/
VDI40.E1-50	40	50	70	100	83	22	83	32,5	/
VDI50.E1-16	50	16	36	80	54	30	98	35	/
VDI50.E1-20	50	20	40	80	54	30	98	35	/
VDI50.E1-25	50	25	45	80	59	30	98	35	/
VDI50.E1-32	50	32	52	80	63	30	98	35	/
VDI50.E1-40	50	40	65	90	73	30	98	35	/
VDI50.E1-50	50	50	75	100	83	30	98	35	/
VDI60.E1-16	60	16	36	80	54	30	123	42,5	/
VDI60.E1-20	60	20	40	80	54	30	123	42,5	/
VDI60.E1-25	60	25	45	80	59	30	123	42,5	/
VDI60.E1-32	60	32	52	80	63	30	123	42,5	/
VDI60.E1-40	60	40	65	90	73	30	123	42,5	/
VDI60.E1-50	60	50	75	100	83	30	123	42,5	/



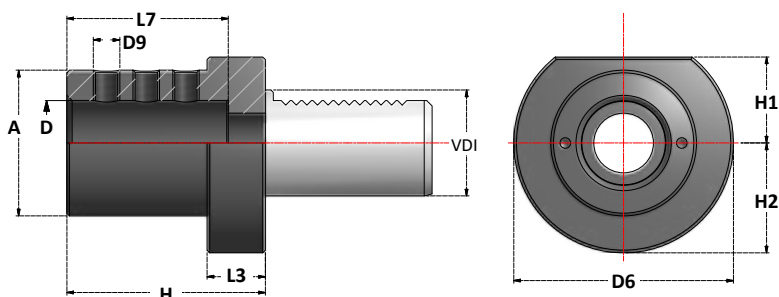
ACCESSORI - ACCESSORIES



PORTAUTENSILI VDI PER BARENI
VDI BORING BAR TOOLHOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

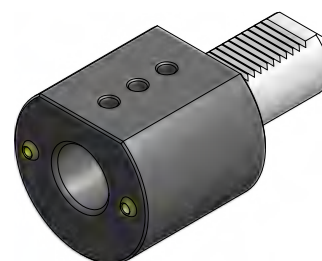
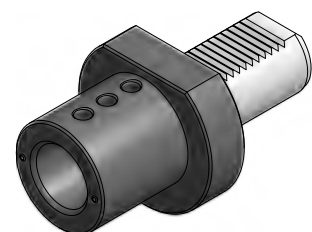


Articolo	VDI	D	A	H	L3	L7	D6	D9	H1	H2
VDI30.E2-6	30	6	55	60	22	51	68	M6	28	30
VDI30.E2-8	30	8	55	60	22	51	68	M6	28	30
VDI30.E2-10	30	10	55	60	22	51	68	M8	28	30
VDI30.E2-12	30	12	55	60	22	51	68	M8	28	30
VDI30.E2-16	30	16	55	60	22	51	68	M8	28	30
VDI30.E2-20	30	20	55	60	22	51	68	M8	28	30
VDI30.E2-25	30	25	55	60	22	51	68	M8	28	30
VDI30.E2-32	30	32	68	75	22	61	68	M8	28	30
VDI30.E2-40	30	40	68	75	22	61	68	M8	28	30

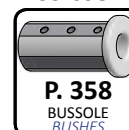
VDI40.E2-6	40	6	55	75	22	43	83	M6	32,5	/
VDI40.E2-8	40	8	55	75	22	43	83	M6	32,5	/
VDI40.E2-10	40	10	55	75	22	43	83	M8	32,5	/
VDI40.E2-12	40	12	55	75	22	58	83	M8	32,5	/
VDI40.E2-16	40	16	55	75	22	61	83	M10	32,5	/
VDI40.E2-20	40	20	55	75	22	61	83	M10	32,5	/
VDI40.E2-25	40	25	55	75	22	61	83	M10	32,5	/
VDI40.E2-32	40	32	83	75	22	61	83	M10	32,5	/
VDI40.E2-40	40	40	83	90	22	76	83	M10	32,5	/
VDI40.E2-50	40	50	83	90	22	76	83	M10	32,5	/

VDI50.E2-8	50	8	68	90	30	71	98	M6	35	/
VDI50.E2-10	50	10	68	90	30	71	98	M8	35	/
VDI50.E2-12	50	12	68	90	30	71	98	M8	35	/
VDI50.E2-16	50	16	68	90	30	76	98	M10	35	/
VDI50.E2-20	50	20	68	90	30	76	98	M12	35	/
VDI50.E2-25	50	25	68	90	30	76	98	M12	35	/
VDI50.E2-32	50	32	68	90	30	76	98	M12	35	/
VDI50.E2-40	50	40	98	90	30	76	98	M12	35	/
VDI50.E2-50	50	50	98	90	30	76	98	M12	35	/

VDI60.E2-16	60	16	68	90	30	76	123	M10	42,5	/
VDI60.E2-20	60	20	68	90	30	76	123	M12	42,5	/
VDI60.E2-25	60	25	68	90	30	76	123	M12	42,5	/
VDI60.E2-32	60	32	68	90	30	76	123	M12	42,5	/
VDI60.E2-40	60	40	98	90	30	76	123	M12	42,5	/
VDI60.E2-50	60	50	98	90	30	86	123	M12	42,5	/



ACCESSORI - ACCESSORIES



DIN ISO 10889-6

VDI

E3

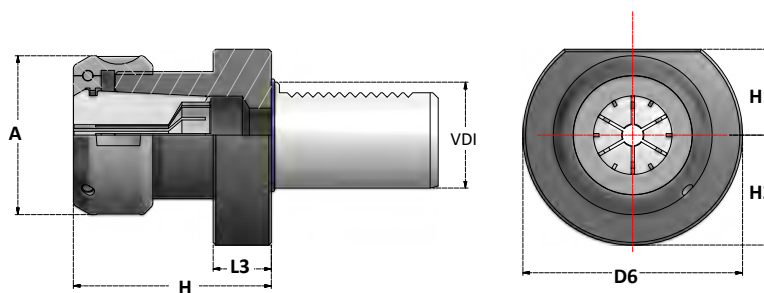
FORM E3

PORTAUTENSILI VDI - FORMA E3

VDI TOOLHOLDERS - FORM E3

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



PORTAPINZE DIN6388

DIN6388 COLLETS CHUCKS

Articolo	VDI	A	H	L3	D6	H1	H2	Collets Range	Ghiera Nut
VDI30.E3.EOC25	30	60	75	22	68	28	30	2÷25	G25OCC
VDI30.E3.EOC32	30	72	90	22	68	28	30	3÷32	G32OCC
VDI40.E3.EOC25	40	60	75	22	83	32,5	/	2÷25	G25OCC
VDI40.E3.EOC32	40	72	90	22	83	32,5	/	3÷32	G32OCC
VDI50.E3.EOC25	50	60	75	30	98	35	/	2÷25	G25OCC
VDI50.E3.EOC32	50	72	90	30	98	35	/	3÷32	G32OCC
VDI60.E3.EOC25	60	60	75	30	123	42,5	/	2÷25	G25OCC
VDI60.E3.EOC32	60	72	90	30	123	42,5	/	3÷32	G32OCC

ACCESSORI - ACCESSORIES



DIN ISO 10889-6

VDI

E4

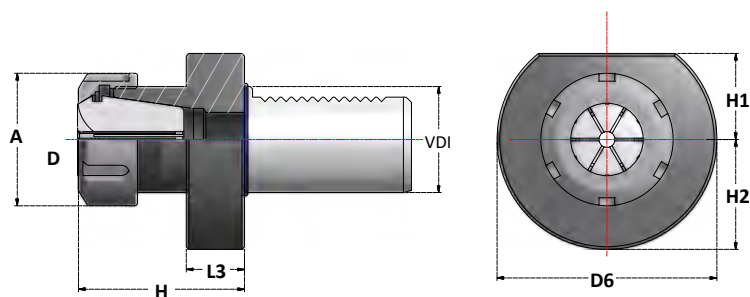
FORM E4

PORTAUTENSILI VDI - FORMA E4

VDI TOOLHOLDERS - FORM E4

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

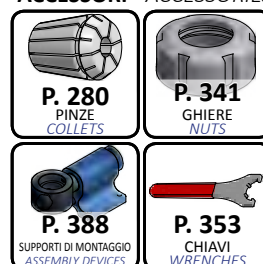


PORTAPINZE DIN6499

DIN6499 COLLETS CHUCKS

Articolo	VDI	A	H	H1	H2	D6	L3	Collets Range	Ghiera Nut
VDI30.E4.ERC16	30	28	59	28	30	68	22	1+10	G16SE
VDI30.E4.ERC25	30	42	57	28	30	68	22	1+20	G25S
VDI30.E4.ERC32	30	50	78	28	30	68	22	2+22	G32S
VDI30.E4.ERC40	30	63	80	28	30	68	22	3+30	G40S
VDI40.E4.ERC25	40	42	57	32,5	/	83	22	1+20	G25S
VDI40.E4.ERC32	40	50	78	32,5	/	83	22	2+22	G32S
VDI40.E4.ERC40	40	63	80	32,5	/	83	22	3+30	G40S
VDI50.E4.ERC25	50	42	67	35	/	98	30	1+20	G25S
VDI50.E4.ERC32	50	50	92	35	/	98	30	2+22	G32S
VDI50.E4.ERC40	50	63	80	35	/	98	30	3+30	G40S
VDI60.E4.ERC32	60	50	78	42,5	/	123	30	2+22	G32S
VDI60.E4.ERC40	60	63	80	42,5	/	123	30	3+30	G40S

ACCESSORI - ACCESSORIES

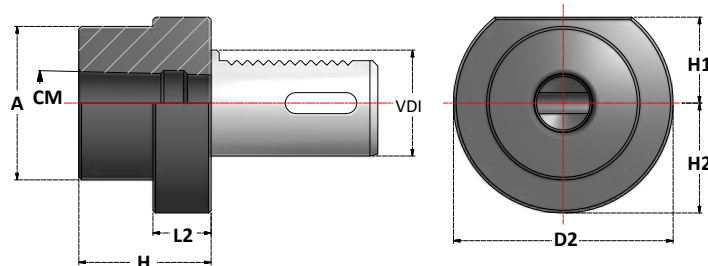


PORTAUTENSILI VDI - FORMA F

VDI TOOLHOLDERS - FORM F

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



PORTAUTENSILI CON SEDE CONO MORSE

MORSE TAPER TOOLHOLDERS

Articolo	VDI	CM	A	H	L2	D2	H1	H2
VDI30.F.CM1P	30	1	/	27	-	68	28	30
VDI30.F.CM2P	30	2	55	36	27	68	28	30
VDI30.F.CM3P	30	3	55	66	41	68	28	30
VDI40.F.CM1P	40	1	55	23	22	83	32,5	/
VDI40.F.CM2P	40	2	55	36	22	83	32,5	/
VDI40.F.CM3P	40	3	58	36	22	83	32,5	/
VDI40.F.CM4P	40	4	68	80	22	83	32,5	/
VDI50.F.CM2P	50	2	55	36	30	98	35	/
VDI50.F.CM3P	50	3	58	45	30	98	35	/
VDI50.F.CM4P	50	4	68	55	30	98	35	/
VDI50.F.CM5P	50	5	75	72	30	98	35	/
VDI60.F.CM2P	60	2	55	35	30	123	42,5	/
VDI60.F.CM3P	60	3	58	45	30	123	42,5	/
VDI60.F.CM4P	60	4	68	55	30	123	42,5	/
VDI60.F.CM5P	60	5	98	64	30	123	42,5	/

ACCESSORI - ACCESSORIES

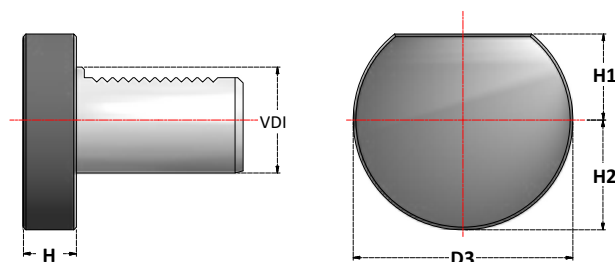


TAPPI DI PROTEZIONE VDI - FORMA Z

VDI PROTECTION PLUGS - FORM Z

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



TAPPI DI PROTEZIONE VDI IN ACCIAIO

STEEL VDI PROTECTION PLUGS

Articolo	VDI	H	D3	H1	H2
VDI30.Z2.A	30	16	68	28	30
VDI40.Z2.A	40	20	83	32,5	/
VDI50.Z2.A	50	20	98	35	/
VDI60.Z2.A	60	20	123	42,5	/

TAPPI DI PROTEZIONE VDI IN PLASTICA

PLASTIC VDI PROTECTION PLUGS

VDI30.Z2.P	30	16	68	28	30
VDI40.Z2.P	40	20	83	32,5	/
VDI50.Z2.P	50	20	98	35	/
VDI60.Z2.P	60	20	123	42,5	/

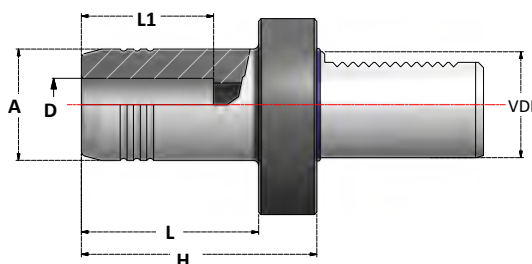
DIN ISO 10889

VDI

HY

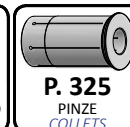
PORTAUTENSILI IDRAULICI VDI
VDI HYDRAULIC TOOLHOLDERS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	VDI	D	A	H	L	L1
VDI30.HY20	30	20	42	89	73	42
VDI30.HY32	30	32	60	94	78	52
VDI40.HY20	40	20	42	95	73	42
VDI40.HY32	40	32	60	100	78	52
VDI50.HY20	50	20	42	95	65	42
VDI50.HY32	50	32	60	95	65	52

ACCESSORI - ACCESSORIES

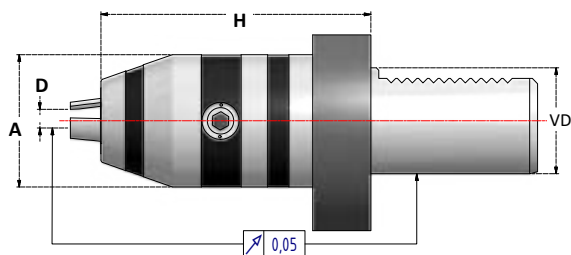


DIN ISO 10889

VDI

HD

PORTAPUNTE AUTOSERRANTI VDI CON PASSAGGIO DEL REFRIGERANTE
VDI DRILL CHUCK WITH COOLANT BORE



Articolo	D	VDI	H	A	
VDI30.HD8	0,5 ÷ 8	30	68	36	FUORI PRODUZIONE / OUT OF PRODUCTION
VDI30.HD13	1 ÷ 13	30	92	57	Fino a esaurimento / While stocks last
VDI30.HD16	2,5 ÷ 16	30	98	57	Fino a esaurimento / While stocks last
VDI40.HD13	1 ÷ 13	40	87	57	Fino a esaurimento / While stocks last
VDI40.HD16	2,5 ÷ 16	40	92	57	FUORI PRODUZIONE / OUT OF PRODUCTION
VDI50.HD13	1 ÷ 13	50	92	57	FUORI PRODUZIONE / OUT OF PRODUCTION
VDI50.HD16	2,5 ÷ 16	50	97	57	FUORI PRODUZIONE / OUT OF PRODUCTION

ACCESSORI - ACCESSORIES



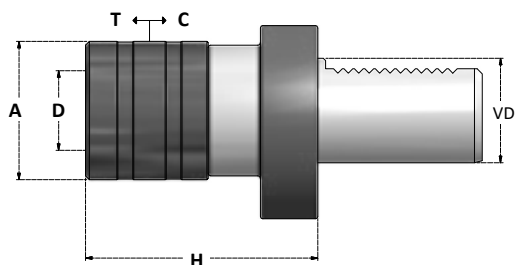
DIN ISO 10889

VDI

MCR TC

MASCHIATORI VDI CON COMPENSAZIONE ASSIALE

VDI TAPPING CHUCKS WITH AXIAL COMPENSATION



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

Articolo	VDI	Bussola Adapter	D	Capacità Bussola Adapter Range	H	A	T	C
VDI30.MCR1TC	30	B1/BF1	19	M3÷M12	61	38	7,5	7,5
VDI30.MCR2TC	30	B2/BF2	31	M6÷M20	84	55	12,5	12,5
VDI40.MCR1TC	40	B1/BF1	19	M3÷M12	55	38	7,5	7,5
VDI40.MCR2TC	40	B2/BF2	31	M6÷M20	77	55	12,5	12,5
VDI40.MCR3TC	40	B3/BF3	48	M14÷M33	123	79	20	20
VDI50.MCR1TC	50	B1/BF1	19	M3÷M12	55	38	7,5	7,5
VDI50.MCR2TC	50	B2/BF2	31	M6÷M20	79	55	12,5	12,5
VDI50.MCR3TC	50	B3/BF3	48	M14÷M33	110	79	20	20

ACCESSORI - ACCESSORIES



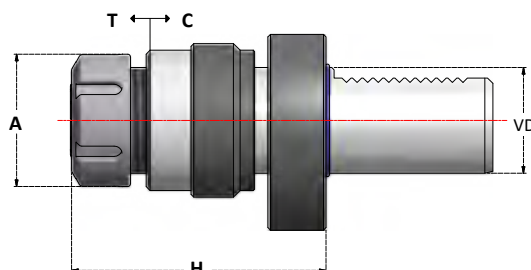
DIN ISO 10889

VDI

ERC TC

PORTAMASCHI VDI AD ESTRAZIONE E COMPRESIONE

EXTRACTION AND COMPRESSION VDI TAP HOLDERS



Articolo	VDI	A	H	T	C	Collets Range	Tapping Range	Ghiera Nut
VDI30.ERC25TC	30	42	84	12	4	3,5 ÷ 16	M3 ÷ M20	G25S
VDI30.ERC32TC	30	50	94	12	4	3,5 ÷ 20	M3 ÷ M27	G32S
VDI40.ERC25TC	40	42	86	12	4	3,5 ÷ 16	M3 ÷ M20	G25S
VDI40.ERC32TC	40	50	94	12	4	3,5 ÷ 20	M3 ÷ M27	G32S



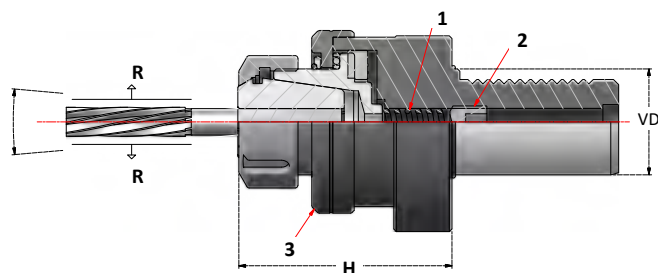
PER GHIERE CON FILETTATURA **STANDARD**
FOR NUTS WITH **STANDARD** THREAD

ACCESSORI - ACCESSORIES



PORTA ALESATORI FLOTTANTI CON PASSAGGIO DEL REFRIGERANTE
FLOATING REAMER HOLDERS WITH COOLANT FLOW

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	VDI	H	R	Collets range	Ghiera Nut
VDI30.RM25	30	64	± 1	1÷20	G25S
VDI30.RM32	30	68	± 1,5	2÷22	G32S
VDI40.RM32	40	74	± 1,5	2÷22	G32S
VDI40.RM40	40	74	± 1,5	3÷30	G40S

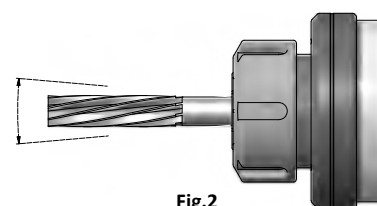


Fig.2

R = Capacità di movimento radiale più o meno dal centro
R = Radial stroke from center

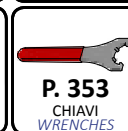
L'alesatore oscilla su un cuscinetto a sfere per compensare gli errori di allineamento tra il mandrino della macchina e il pezzo in lavorazione.

- La spinta della molla **1** mantiene l'utensile centrato anche in posizione orizzontale.
- La vite **2** regola la pressione della molla per regolare il movimento radiale.
- Allentando di 0,1/0,2mm la ghiera **3** si permette all'alesatore di avere un movimento pendolare. (Fig2)

Free moving ball bearing drive permits to reamer to follow drilled hole of workpiece.

- Pressure of spring **1** keeps reamer centered, even in the horizontal position.
- Screw **2** allows adjustment of floating level.
- Unscrewing nut **3** for 0,1/0,2mm, reamer has a pendulum float. (Fig 2)

ACCESSORI - ACCESSORIES



DIN ISO 10889

VDI

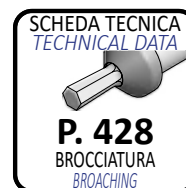
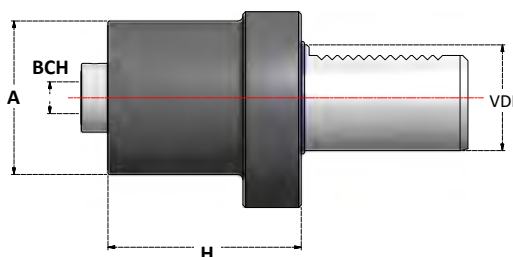
BCH

BROCCIATORI

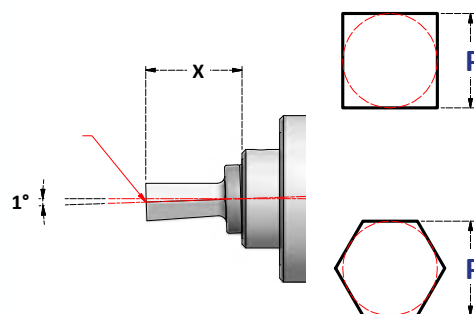
BROACHING TOOLHOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	VDI	BCH	X	H	A
VDI30.BCH12	30	12	25	66	58
VDI30.BCH16	30	16	40	66	58
VDI40.BCH12	40	12	25	67	58
VDI40.BCH16	40	16	40	83	58



ISTRUZIONI D'USO

- DIAMETRO DI FORATURA

Eseguire una foratura maggiorata di 0,2 - 0,3mm rispetto alla quota **P** della brocciatura da eseguire per rendere meno gravoso l'avanzamento dell'utensile.

- GIRI DELLA BROCCIA

1000 - 1500 (giri/min)

- AVANZAMENTO DELLA BROCCIA

0,01 - 0,03 (mm/giro)

- LUNGHEZZA DELLE BROCCIE

Per questi brocciatori è importante usare brocce con lunghezza **X**.

INSTRUCTIONS

- DRILLING DIAMETER

Make hole 0,2-0,3mm larger than size **P** of broach.

- ROTATION SPEED

1000 - 1500 (rpm)

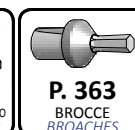
- FEED

0,01 - 0,03 (mm/rpm)

- BROACHING LENGHT

In this toolholder is important to use broaches with lenghts **X**.

ACCESSORI - ACCESSORIES



DIN ISO 10889

VDI

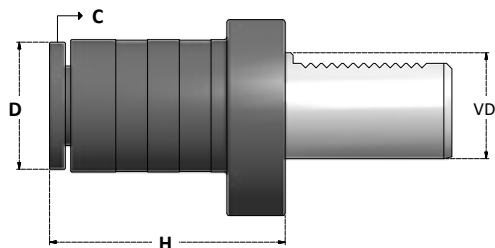
SAS

FERMI BARRA ROTANTI

ROTATING STOP SHOCK ABSORBERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	VDI	D	H	C*
VDI30.SAS35	30	35	70	3
VDI30.SAS56	30	56	70	3
VDI40.SAS40	40	40	78	3
VDI40.SAS60	40	60	78	3

* CORSA DI COMPRESSIONE

* ABSORBER STROKE

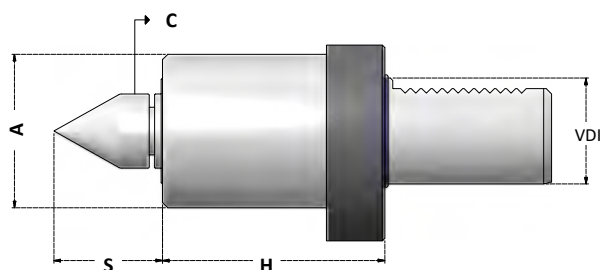
DIN ISO 10889

VDI

CNP

CONTROPUNTE ROTANTI CON COMPRESSIONE

LIVE CENTRES WITH COMPRESSION



Articolo	VDI	A	H	S	C*
VDI30.CNP	30	58	78	34	2,5
VDI40.CNP	40	58	80	34	2,5

* CORSA DI COMPRESSIONE

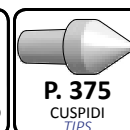
* ABSORBER STROKE

**FORNITI CON CUSPIDE
CNP.CS1**

SUPPLIED WITH TIP
CNP.CS1

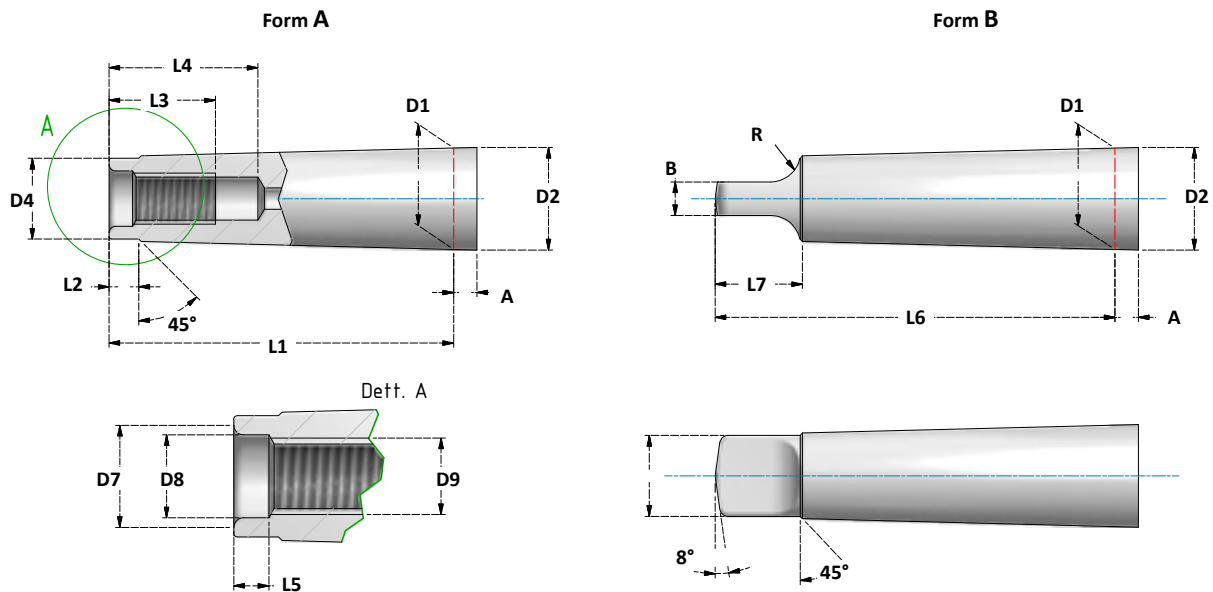
**CUSPIDI INTERCAMBIABILI
INTERCHANGEABLE TIPS**

ACCESSORI - ACCESSORIES



DIN 228 - CM

MANDRINI CONO MORSE - CM
MORSE TAPER TOOLHOLDERS - CM



DIMENSIONI CONO
TAPER DIMENSIONS

CONO TAPER	A	B	D1	D2	D4	D6	D7	D8	D9	L1	L2	L3	L4	L5	L6	L7	R	$\alpha/2$
		h13			MAX					MAX		MAX	min	+0,5 0	0 -1	MAX		
1	3,5	5,2	12,065	12,2	9	8,7	8,5	6,4	M6	53,5	5	16	22	4	62	13,5	5	1° 25' 43"
2	5	6,3	17,78	18	14	13,5	13,2	10,5	M10	64	5	24	31,5	5	75	16	6	1° 25' 50"
3	5	7,9	23,825	24,1	19	18,5	16	13	M12	81	7	24	33,5	5,5	94	20	7	1° 26' 16"
4	6,5	11,9	31,267	31,6	25	24,5	21,5	17	M16	102,5	9	32	42,5	8,2	117,5	24	8	1° 29' 15"
5	6,5	15,9	44,399	44,7	35,7	35,7	26	21	M20	129,5	10	40	52,5	10	149,5	29	10	1° 30' 26"
6	8	19	63,348	63,8	51	51	32	25	M24	182	16	47	61,5	11,5	210	40	13	1° 29' 36"

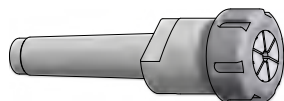
DIN 228 - CM



MANDRINI PORTAPINZA ER - GHIERE MINI
COLLET CHUCKS ER - MINI NUTS

DIN ISO 15488 (DIN6499)

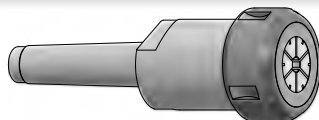
PAG. 209



MANDRINI PORTAPINZA ER - GHIERE STANDARD
COLLET CHUCKS ER - STANDARD NUTS

DIN ISO 15488 (DIN6499)

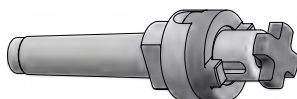
PAG. 210



MANDRINI PORTAPINZA EOC
COLLET CHUCKS EOC

DIN ISO 10897(DIN6388)

PAG. 211



MANDRINI PORTAFRESA COMBI
COMBI SHELL MILL HOLDERS

DIN 6358

PAG. 212



RIDUZIONI CONO MORSE
MORSE TAPER SLEEVES

DIN 2185

PAG. 213



PROLUNGHE CONO MORSE
MORSE TAPER EXTENSIONS

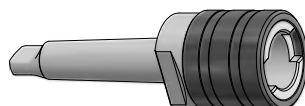
DIN 2187

PAG. 214



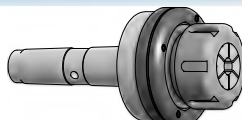
MANDRINI DA TRAPANO
DRILL CHUCKS

PAG. 215



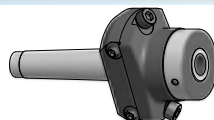
PORTAMASCHI
TAPPING CHUCKS

PAG. 217



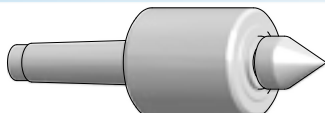
PORTA ALESATORI
REAMER HOLDERS

PAG. 218



BROCCIATORI
BROACH TOOLHOLDERS

PAG. 219



CONTROPUNTE ROTANTI
LIVE CENTRES

PAG. 221



MANDRINI DI COLLAUDO
TEST ARBORS

ISO-R230

PAG. 221

DIN 228 - A

CM

ERC MINI

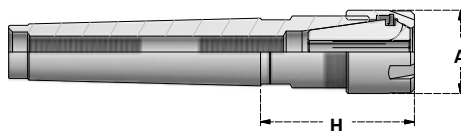
DIN ISO 15488 (DIN6499)

MANDRINI PORTAPINZA ER MINI

MINI ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	H	A	Collets Range	Ghiera Nut
CM1.H25.ERC11M	25	16	1÷7	G11M
CM1.H40.ERC16M	40	22	1÷10	G16M
CM2.H42.ERC16M	42	22	1÷10	G16M
CM2.H50.ERC20M	50	28	1÷14	G20M
CM2.H54.ERC25M	54	35	1÷20	G25M
CM3.H43.ERC16M	43	22	1÷10	G16M
CM3.H47.ERC20M	47	28	1÷14	G20M
CM3.H58.ERC25M	58	35	1÷20	G25M

M



GHIERE MINI
MINI NUTS

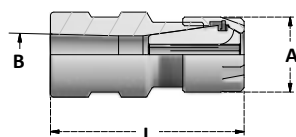
DIN238

B

ERC MINI

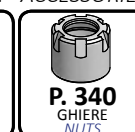
MANDRINI PORTAPINZA ER MINI CON ATTACCO DIN238

DIN238 SHANK MINI ER COLLET CHUCKS



Articolo	B	L	A	Collets Range	Ghiera Nut
B12.L62.ERC11M	B12	62	16	1÷7	G11M
B12.L55.ERC16M	B12	55	22	1÷10	G16M
B12.L67.ERC20M	B12	67	28	1÷14	G20M
B16.L85.ERC16M	B16	85	22	1÷10	G16M
B16.L80.ERC20M	B16	80	28	1÷14	G20M

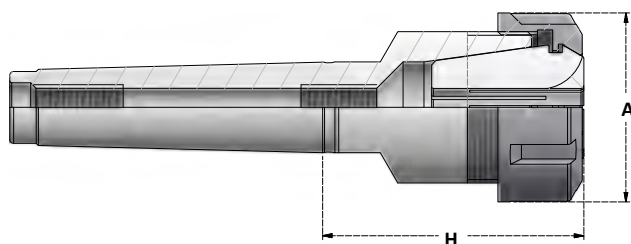
ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	H	A	Collets Range	Ghiera Nut
CM1.H25.ERC11	25	19	1÷7	G11SE
CM1.H40.ERC16	40	28	1÷10	G16SE
CM2.H42.ERC16	42	28	1÷10	G16SE
CM2.H50.ERC20	50	34	1÷14	G20SE
CM2.H54.ERC25	54	42	1÷20	G25S
CM3.H53.ERC25	53	42	1÷20	G25S
CM3.H70.ERC32	70	50	2÷22	G32S
CM3.H80.ERC40	80	63	3÷30	G40S
CM4.H56.ERC25	56	42	1÷20	G25S
CM4.H60.ERC32	60	50	2÷22	G32S
CM4.H81.ERC40	81	63	3÷30	G40S
CM4.H96.ERC50	96	78	6÷34	G50S
CM5.H50.ERC32	50	50	2÷22	G32S
CM5.H82.ERC40	82	63	3÷30	G40S
CM5.H91.ERC50	91	78	6÷34	G50S

SE



GHIERE **STANDARD** ESAGONALI
HEXAGONAL STANDARD NUTS

S



GHIERE **STANDARD** CON TACCHE
STANDARD NUTS WITH SLOTS

KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.CM1.ERC16	ERC16.D1÷D10 x 1,0mm	CM1.H40.ERC16	CH.E25
BX.CM2.ERC16	ERC16.D1÷D10 x 1,0mm	CM2.H42.ERC16	CH.E25
BX.CM3.ERC25	ERC25.D2÷D16 x 1,0mm	CM3.H53.ERC25	CH25S
BX.CM3.ERC32	ERC32.D3÷D20 x 1,0mm	CM3.H70.ERC32	CH32S
BX.CM4.ERC32	ERC32.D3÷D20 x 1,0mm	CM4.H60.ERC32	CH32S
BX.CM4.ERC40	ERC40.D4÷D26 x 1,0mm	CM4.H81.ERC40	CH40S

ALTRI A RICHIESTA
OTHERS ON REQUEST



MANDRINI CON FILETTI A POLLICI

TOOLHOLDERS WITH INCH THREAD

Articolo	H	A	Collets Range	Ghiera Nut	Filetto Thread
MT3-H3.00-ERC40	76	63	3÷30	G40S	1/2- 13
MT4-H3.18-ERC40	80	63	3÷30	G40S	5/8- 11
MT5-H3.22-ERC40	82	63	3÷30	G40S	3/4- 10

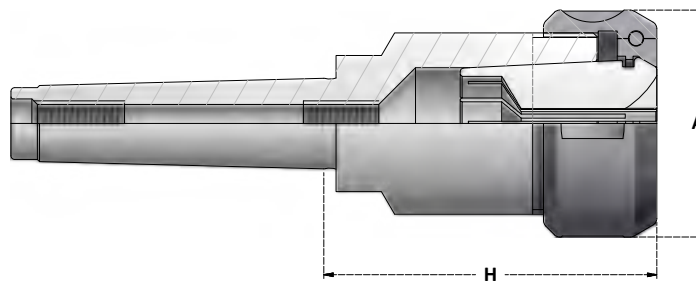
ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA EOC
EOC COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	H	A	Range D	Ghiera Nut
CM2.H57.EOC16	57	43	2÷16	G16OCC
CM2.H76.EOC25	76	60	2÷25	G25OCC
CM3.H61.EOC16	61	43	2÷16	G16OCC
CM3.H90.EOC25	90	60	2÷25	G25OCC
CM4.H84.EOC25	84	60	2÷25	G25OCC
CM4.H84.EOC32	84	72	4÷32	G32OCC
CM5.H84.EOC25	84	60	2÷25	G25OCC
CM5.H84.EOC32	84	72	4÷32	G32OCC

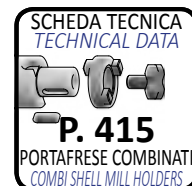
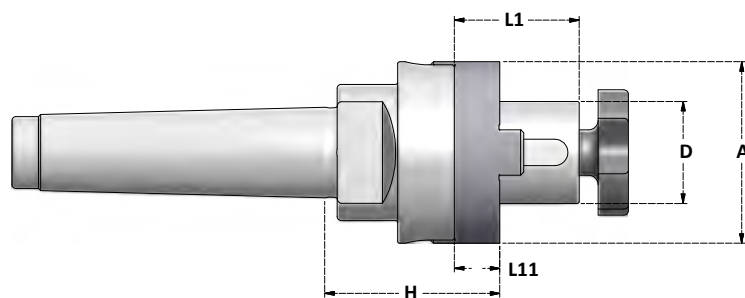
ACCESSORI - ACCESSORIES



MANDRINI PORTAFRESA COMBINATI
COMBI SHELL MILL HOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	D	H	A	L1	L11	ATR	VTC	CHV
CM3.H48.D16C	16	48	32	27	10	ATR.D16	VTC.D16	CHV.D16
CM3.H48.D22C	22	48	40	31	12	ATR.D22	VTC.D22	CHV.D22
CM3.H48.D27C	27	48	48	33	12	ATR.D27	VTC.D27	CHV.D27
CM3.H63.D32C	32	63	58	38	14	ATR.D32	VTC.D32	CHV.D32
CM4.H55.D16C	16	55	32	27	10	ATR.D16	VTC.D16	CHV.D16
CM4.H55.D22C	22	55	40	31	12	ATR.D22	VTC.D22	CHV.D22
CM4.H55.D27C	27	55	48	33	12	ATR.D27	VTC.D27	CHV.D27
CM4.H55.D32C	32	55	58	38	14	ATR.D32	VTC.D32	CHV.D32
CM5.H75.D22C	22	75	40	31	12	ATR.D22	VTC.D22	CHV.D22
CM5.H75.D27C	27	75	48	33	12	ATR.D27	VTC.D27	CHV.D27
CM5.H75.D32C	32	75	58	38	14	ATR.D32	VTC.D32	CHV.D32
CM5.H75.D40C	40	75	70	41	14	ATR.D40	VTC.D40	CHV.D40

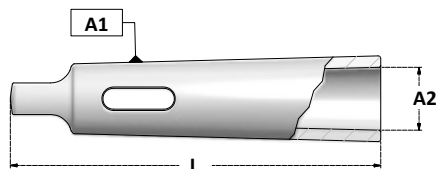
ACCESSORI - ACCESSORIES



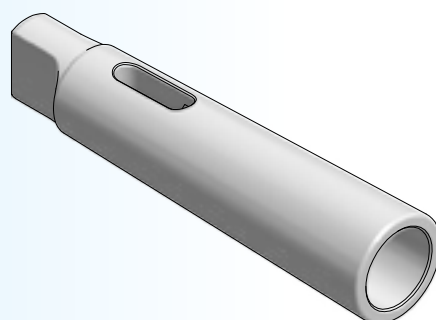
RIDUZIONI CONO MORSE
MORSE TAPER SLEEVES

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



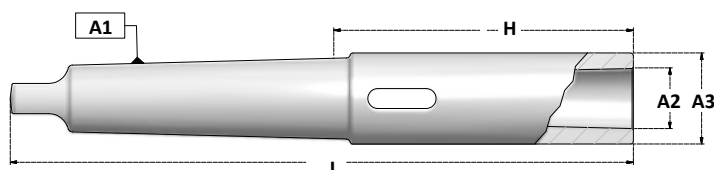
Articolo	A1	A2	L
CMB2-1	CM2	CM1	92
CMB3-1	CM3	CM1	99
CMB3-2	CM3	CM2	112
CMB4-1	CM4	CM1	124
CMB4-2	CM4	CM2	124
CMB4-3	CM4	CM3	140
CMB5-1	CM5	CM1	156
CMB5-2	CM5	CM2	156
CMB5-3	CM5	CM3	156
CMB5-4	CM5	CM4	171
CMB6-1	CM6	CM1	218
CMB6-2	CM6	CM2	218
CMB6-3	CM6	CM3	218
CMB6-4	CM6	CM4	218
CMB6-5	CM6	CM5	218



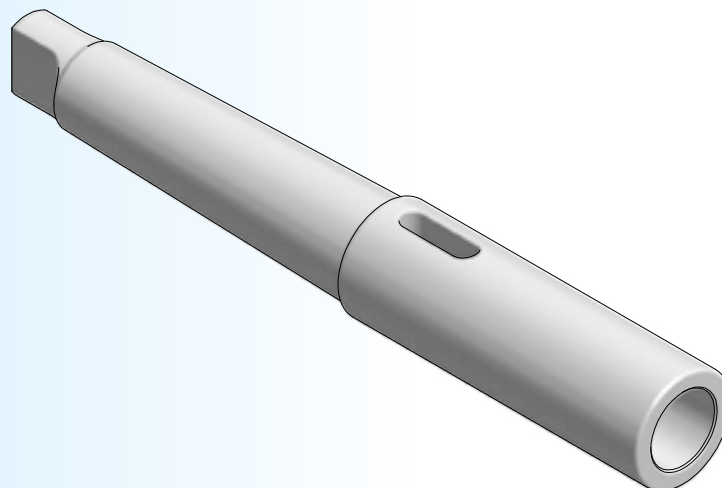
PROLUNGHE CONO MORSE
MORSE TAPER EXTENSIONS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



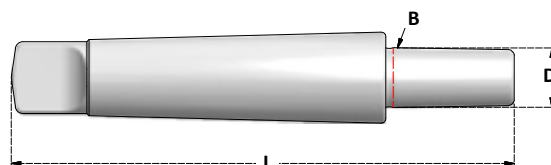
Articolo	A1	A2	A3	L	H
CMBL1-1	CM1	CM1	20	145	83
CMBL1-2	CM1	CM2	30	160	98
CMBL2-1	CM2	CM1	20	160	85
CMBL2-2	CM2	CM2	30	175	100
CMBL2-3	CM2	CM3	36	196	121
CMBL3-1	CM3	CM1	30	175	81
CMBL3-2	CM3	CM2	30	194	100
CMBL3-3	CM3	CM3	36	215	121
CMBL3-4	CM3	CM4	48	240	146
CMBL4-1	CM4	CM1	20	200	82,5
CMBL4-2	CM4	CM2	30	215	97,5
CMBL4-3	CM4	CM3	36	240	122,5
CMBL4-4	CM4	CM4	48	265	147,5
CMBL4-5	CM4	CM5	63	300	182,5
CMBL5-1	CM5	CM1	20	232	82,5
CMBL5-2	CM5	CM2	30	247	97,5
CMBL5-3	CM5	CM3	36	268	118,5
CMBL5-4	CM5	CM4	48	300	150,5
CMBL5-5	CM5	CM5	63	335	185,5
CMBL5-6	CM5	CM6	80	396	247
CMBL6-3	CM6	CM3	20	330	120
CMBL6-4	CM6	CM4	48	355	145
CMBL6-5	CM6	CM5	63	399	180
CMBL6-6	CM6	CM6	80	451	241



ATTACCHI PER MANDRINI AUTOSERRANTI
DRILL CHUCKS ARBORS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	L	B	D
CM1.B10	86	B10	10,094
CM2.B10	105	B10	10,094
CM3.B10	121	B10	10,094

Articolo	L	B	D
CM1.B12	89	B12	12,065
CM2.B12	106	B12	12,065
CM3.B12	125	B12	12,065
CM4.B12	152,5	B12	12,065

Articolo	L	B	D
CM1.B16	99	B16	15,733
CM2.B16	112	B16	15,733
CM3.B16	134	B16	15,733
CM4.B16	159	B16	15,733
CM5.B16	196	B16	15,733

Articolo	L	B	D
CM2.B18	119	B18	17,78
CM3.B18	140	B18	17,78
CM4.B18	168	B18	17,78
CM5.B18	205	B18	17,78

ACCESSORI - ACCESSORIES



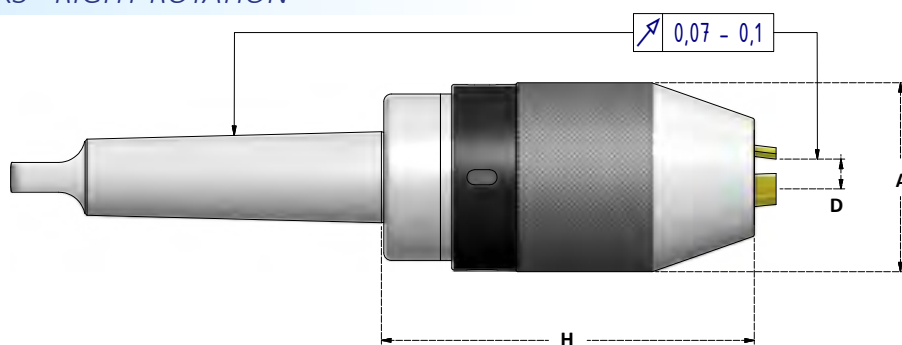
DIN 228 - B

CM

DCK

MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA
DRILL CHUCKS - RIGHT ROTATION

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	D	H	A	Chiave Wrench
CM2B.H61.DCK8S	0,5 - 8	61	37,5	CH.DC8
CM2B.H70.DCK10S	0,5 - 10	70	43	CH.DC10
CM2B.H81.DCK13S	1 - 13	81	50,5	CH.DC13
CM3B.H81.DCK13S	1 - 13	81	50,5	CH.DC13
CM4B.H81.DCK13S	1 - 13	81	50,5	CH.DC13
CM3B.H85.DCK16S	3 - 16	85	57	CH.DC16
CM4B.H85.DCK16S	3 - 16	85	57	CH.DC16

**GRIFFE RIVESTITE
IN TITANIO**

**TITANIUM
COATED JAWS**

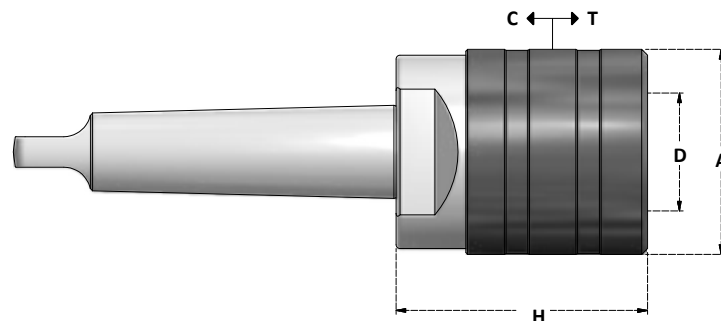
ACCESSORI - ACCESSORIES



MASCHIATORI CON COMPENSAZIONE ASSIALE
TAPPING CHUCKS WITH AXIAL COMPENSATION

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

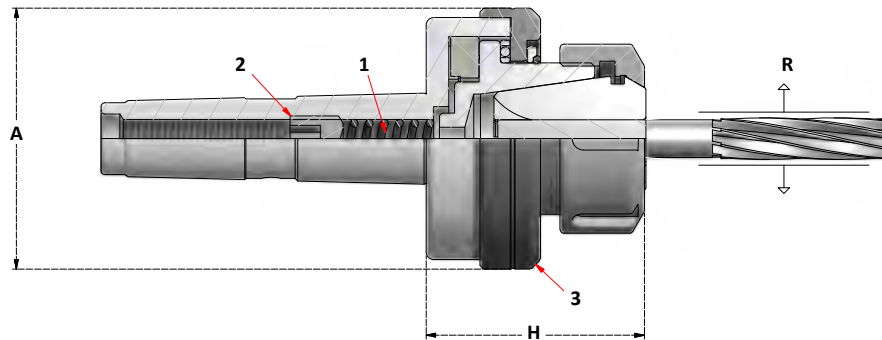


Articolo	Bussola Adapter	D	Tapping Range	H	A	T	C
CM2B.MCR1TC	B1 / BF1	19	M2÷M14	47	36	7,5	7,5
CM3B.MCR1TC	B1 / BF1	19	M2÷M14	47	36	7,5	7,5
CM3B.MCR2TC	B2 / BF2	31	M6÷M27	71	53	12,5	12,5
CM4B.MCR2TC	B2 / BF2	31	M6÷M27	72	53	12,5	12,5
CM4B.MCR3TC	B3 / BF3	48	M14÷M45	105	78	20	20
CM5B.MCR3TC	B3 / BF3	48	M14÷M45	105	78	20	20
CM5B.MCR4TC	B4 / BF4	60	M22÷M45	117	96	22,5	22,5

ACCESSORI - ACCESSORIES

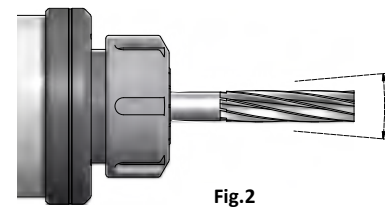


PORTA ALESATORI FLOTTANTI CON REFRIGERAZIONE INTERNA
FLOATING REAMER HOLDERS WITH COOLANT FLOW



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

Articolo	H	A	R	Collets Range	Ghiera Nut
CM2.RM11	40	42	± 1 mm	1÷7	G11A.EX
CM3.RM11	40	42	± 1 mm	1÷7	G11A.EX
CM2.RM16	44	42	± 1 mm	1÷10	G16SE
CM3.RM16	44	42	± 1 mm	1÷10	G16SE
CM2.RM20	50	50	± 1 mm	1÷14	G20SE
CM3.RM20	50	50	± 1 mm	1÷14	G20SE
CM2.RM25	53	57	± 1 mm	1÷20	G25S
CM3.RM25	53	57	± 1 mm	1÷20	G25S
CM3.RM32	58	69	± 1,5 mm	2÷22	G32S
CM4.RM32	58	69	± 1,5 mm	2÷22	G32S
CM3.RM40	64	79	± 1,5 mm	3÷30	G40S
CM4.RM40	64	79	± 1,5 mm	3÷30	G40S



R = Capacità di movimento radiale

R = Radial stroke

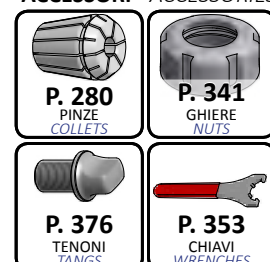
L'alesatore oscilla su un cuscinetto a sfere per compensare gli errori di allineamento tra il mandrino della macchina e il pezzo in lavorazione.

- La spinta della molla **1** mantiene l'utensile centrato anche in posizione orizzontale.
- La vite **2** regola la pressione della molla per regolare il movimento radiale.
- Allentando di 0,1/0,2mm la ghiera **3** si permette all'alesatore di avere un movimento pendolare. (Fig2)

Free moving ball bearing drive, permit to the reamer to follow the drilled hole of the workpiece.

- *Pressure of spring 1 keeps reamer centered, even in horizontal position.*
- *Screw 2 allows adjustment of floating level.*
- *Unscrewing nut 3 for 0,1/0,2mm, reamer have a pendulum float. (Fig 2)*

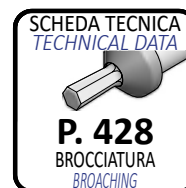
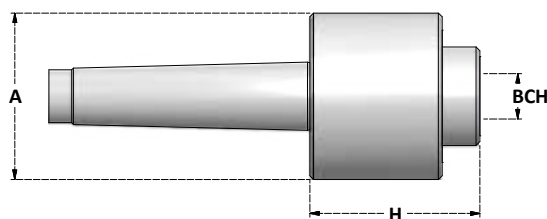
ACCESSORI - ACCESSORIES



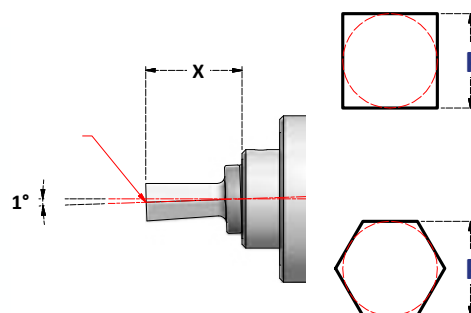
BROCCIATORI FISSI
BROACH TOOLHOLDERS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	BCH	H	A	X
CM2.BCH8	8	38	32	18
CM2.BCH12	12	46	44	25
CM3.BCH16	16	76	58	40
CM4.BCH16	16	76	58	40



ISTRUZIONI D'USO

- DIAMETRO DI FORATURA

Eseguire una foratura maggiorata di 0,2 - 0,3mm rispetto alla quota **P** della broccatura da eseguire per rendere meno gravoso l'avanzamento dell'utensile.

- GIRI DELLA BROCCIA

1000 - 1500 (giri/min)

- AVANZAMENTO DELLA BROCCIA

0,01 - 0,03 (mm/giro)

- LUNGHEZZA DELLE BROCCHE

Per questi brocciatori è importante usare brocche con lunghezza **X**.

INSTRUCTIONS

- DRILLING DIAMETER

Make the hole 0,2-0,3mm larger than size **P** of broach.

- ROTATION SPEED

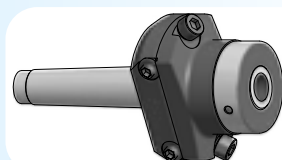
1000 - 1500 (rpm)

- FEED

0,01 - 0,03 (mm/rpm)

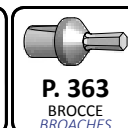
- BROACHING LENGTH

In this toolholder is important to use broaches with lengths **X**.



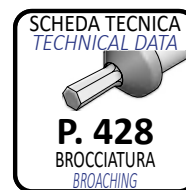
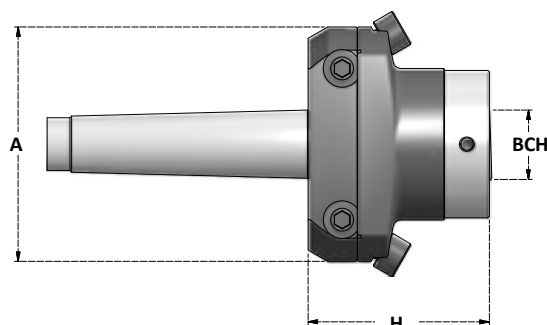
**BROCCIATORI REGISTRABILI
CON ATTACCO CONO MORSE - DIN228**
DIN228 MORSE TAPER SHANK
ADJUSTABLE BROACH TOOLHOLDERS
PAG. 220

ACCESSORI - ACCESSORIES

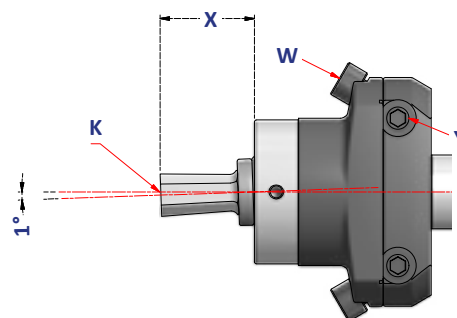
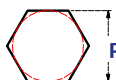


BROCCIATORI REGISTRABILI
ADJUSTABLE BROACH TOOLHOLDERS

DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS



Articolo	BCH	H	A
CM2.BCH8R	8	34	50
CM2.BCH12R	12	52	62



ISTRUZIONI D'USO

- DIAMETRO DI FORATURA

Eseguire una foratura maggiorata di 0,2 - 0,3mm rispetto alla quota **P** della brocciatura da eseguire per rendere meno gravoso l'avanzamento dell'utensile.

- GIRI DELLA BROCCIA

1000 - 1500 (giri/min)

- AVANZAMENTO DELLA BROCCIA

0,01 - 0,03 (mm/giro)

- LUNGHEZZA DELLE BROCCHE

Si possono usare brocche di diversa lunghezza **X**, consentendo così di eseguire brocciature all'interno di incamerature relativamente poco profonde.

- CENTRATURA DELLA BROCCIA

La registrazione mediante le viti **Y** in senso laterale e le viti **W** in senso verticale permette di ottenere la centratura del punto **K** rispetto all'asse del gambo **D** più precisa rispetto ai tradizionali brocciatori non regolabili.

- DISASSAMENTO TORRETTA

Permette, nei casi in cui l'alloggiamento in macchina del gambo **D** non sia in asse con il mandrino della fantina, di correggere tale disassamento agendo sempre sulle viti di registrazione **Y** e **W**.

INSTRUCTIONS

- DRILLING DIAMETER

Make hole 0,2-0,3mm larger than size **P** of broach.

- ROTATION SPEED

1000 - 1500 (rpm)

- FEED

0,01 - 0,03 (mm/rpm)

- BROACHING LENGHT

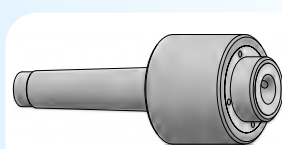
You can use different broaching lengths **X**, so that you can even broach inside quite deep chambers.

- BROACH CENTRING

By adjusting screws **Y** sideways and screws **W** vertically, you can centre point **K** compared to centre-line of shaft **D**, which is more precise compared to traditional broaching toolholders that are not adjustable.

- TURRET OFFSET

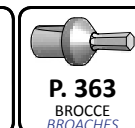
If shaft is not lodged in machine centred with chuck of head stock, you can correct this offset again by adjusting screws **Y** and **W**.



BROCCIATORI FISSI
CON ATTACCO CONO MORSE - DIN228
DIN228MORSE TAPER SHANK
BROACH TOOLHOLDERS

PAG. 219

ACCESSORI - ACCESSORIES

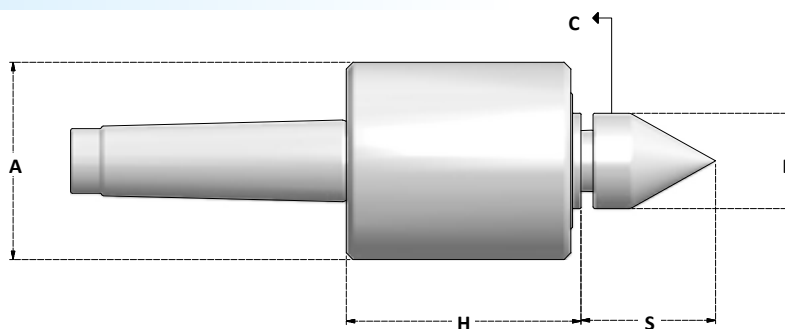


DIN 228 - A

CM

CNP

CONTROPUNTE ROTANTI CON COMPRESIONE
LIVE CENTRES WITH COMPRESSION



DIMENSIONI
DELL'ATTACCO
SHANK
DIMENSIONS

Articolo	H	A	E	S	C *
CM3.CNP	71	58	28	34	2,5
CM4.CNP	71	58	28	34	2,5

* **CORSA DI COMPRESIONE**

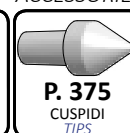
* *ABSORBER STROKE*

**FORNITI CON CUSPIDE
CNP.CS1**

*SUPPLIED WITH TIP
CNP.CS1*

CUSPIDI INTERCAMBIABILI
INTERCHANGEABLE TIPS

ACCESSORI - ACCESSORIES

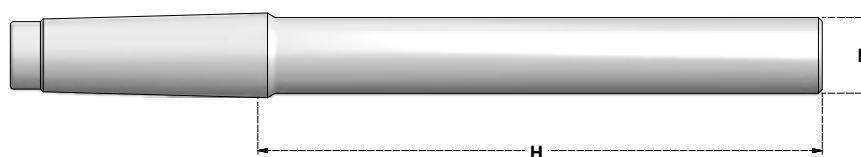


CM

CK

ISO-R230

MANDRINI DI COLLAUDO
TEST ARBORS



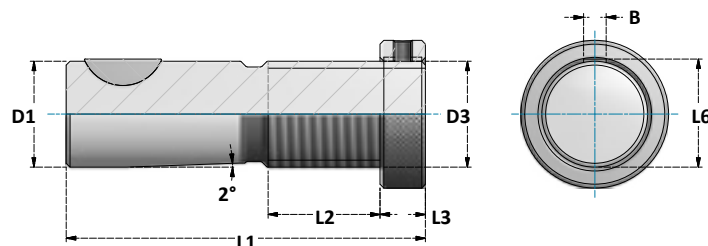
Articolo	D	H
CM4.H300.CK40	40	300
CM5.H300.CK50	50	300

**FORNITI CON BOX
E CERTIFICATO DI COLLAUDO**

*SUPPLIED IN BOX
AND WITH TESTING REPORT*

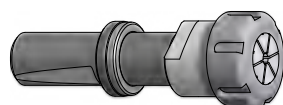
DIN 6327

INSERZIONI REGISTRABILI "TR"
"TR" ADJUSTABLE ADAPTERS



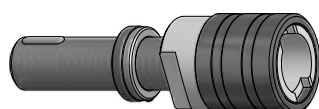
DIMENSIONI
DIMENSIONS

ATTACCO	D1	D3	L1	L2	L3	L6	B
	g5						
TR16	16	TR16 x 1,5	85	28	12	17,1	5
TR20	20	TR20 x 1,5	88	28	12	21,1	5
TR28	28	TR28 x 2	95	30	12	29,5	6
TR36	36	TR36 x 2	118	36	14	37,5	8
TR48	48	TR48 x 2	144	47	18	49,9	10



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

PAG. 223



PORTAMASCHI
TAPPING CHUCKS

PAG. 224



RIDUZIONI A CONO MORSE - CORTE
MORSE TAPER ADAPTERS - SHORT

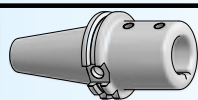
PAG. 225



RIDUZIONI A CONO MORSE - LUNGHE
MORSE TAPER ADAPTERS - LONG

PAG. 226

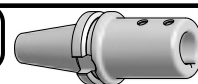
TC



P. 97

PORTA INSERZIONI REGISTRABILI
HOLDERS FOR ADJUSTABLE ADAPTERS

BT



P. 158

PORTA INSERZIONI REGISTRABILI
HOLDERS FOR ADJUSTABLE ADAPTERS

DIN 6327

TR

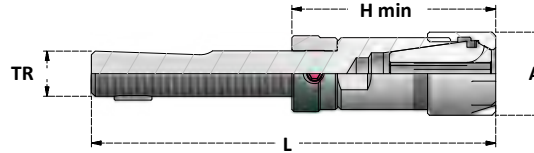
ERC MINI

DIN ISO 15488 (DIN6499)

MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	H min	A	L	Range D	Ghiera Nut
TR16.H59.ERC16M	59	22	132	1 ÷ 10	G16M
TR16.H63.ERC20M	63	28	136	1 ÷ 14	G20M
TR20.H59.ERC16M	59	22	135	1 ÷ 10	G16M
TR20.H63.ERC20M	63	28	139	1 ÷ 14	G20M
TR20.H64.ERC25M	64	35	140	1 ÷ 20	G25M



SENZA PASSAGGIO DEL REFRIGERANTE
WITHOUT COOLANT BORE

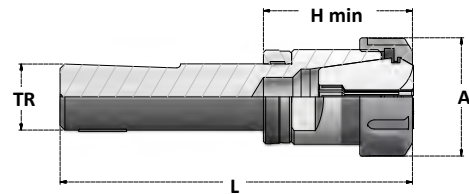
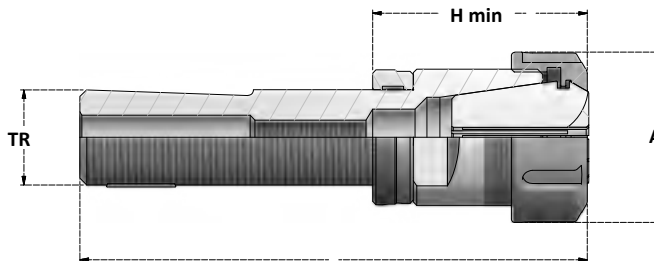
DIN 6327

TR

ERC

DIN ISO 15488 (DIN6499)

MANDRINI PORTAPINZA ER
ER COLLET CHUCKS



Articolo	H min	A	L	Range D	Ghiera Nut
TR16.H45.ERC11	*	45	19	1 ÷ 7	G11SE
TR16.H56.ERC16	*	56	28	1 ÷ 10	G16SE
TR20.H56.ERC16	*	56	28	1 ÷ 10	G16SE
TR20.H61.ERC20	*	61	34	1 ÷ 14	G20SE
TR28.H56.ERC16		56	28	1 ÷ 10	G16SE
TR28.H61.ERC20		61	34	1 ÷ 14	G20SE
TR28.H60.ERC25		60	42	1 ÷ 20	G25S
TR28.H70.ERC32		70	50	2 ÷ 22	G32S
TR28.H76.ERC40	76	63	159	3 ÷ 30	G40S
TR36.H62.ERC25		62	42	1 ÷ 20	G25S
TR36.H65.ERC32		65	50	2 ÷ 22	G32S
TR36.H78.ERC40		78	63	3 ÷ 30	G40S
TR48.H69.ERC32		69	50	2 ÷ 22	G32S
TR48.H82.ERC40		82	63	3 ÷ 30	G40S



Fuori produzione / Out of production

* = SENZA PASSAGGIO DEL REFRIGERANTE
* = WITHOUT COOLANT BORE



DIN 6327

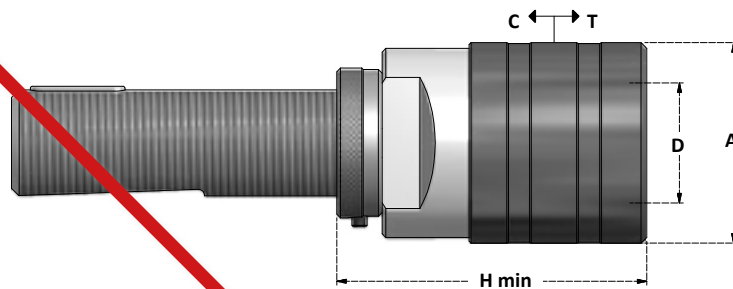
TR

MCR

**MASCHIATORI A CAMBIO RAPIDO
CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESIONE**
QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	Bussola Adapter	D	Tapping Range	A	H	T	C
TR16.MCR0TC	B0 / BF0	13	M1 : M1	25,5	49	6,5	6,5
TR20.MCR0TC	B0 / BF0	13	M1 : M10	25,5	49	6,5	6,5
TR16.MCR1TC	B1 / BF1	19	M3 : M12	36	51	7,5	7,5
TR20.MCR1TC	B1 / BF1	19	M3 : M12	36	51	7,5	7,5
TR28.MCR1TC	B1 / BF1	19	M3 : M12	36	51	7,5	7,5
TR36.MCR1TC	B1 / BF1	19	M3 : M12	36	53	7,5	7,5
TR20.MCR2TC	B2 / BF2	31	M6 : M20	53	75	12,5	12,5
TR28.MCR2TC	B2 / BF2	31	M6 : M20	53	75	12,5	12,5
TR36.MCR2TC	B2 / BF2	31	M6 : M20	53	77	12,5	12,5
TR28.MCR3TC	B3 / BF3	48	M14 : M33	78	108	20	20
TR36.MCR3TC	B3 / BF3	48	M14 : M33	78	110	20	20
TR48.MCR3TC	B3 / BF3	48	M14 : M33	78	114	20	20
TR36.MCR4TC	B4 / BF4	60	M22 : M48	96	121	22,5	22,5
TR48.MCR4TC	B4 / BF4	60	M22 : M48	96	125	22,5	22,5

ACCESSORI - ACCESSORIES

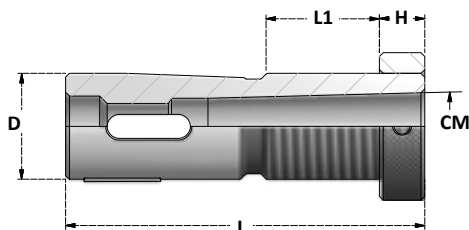


DIN 6327

E

CM

INSERZIONI REGISTRABILI CONO MORSE
ADJUSTABLE MORSE TAPER ADAPTERS



DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

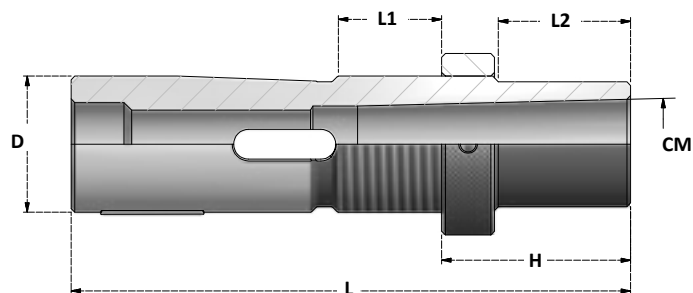
Articolo	D	CM	L	H	L1
E16.CM1	16	CM1	85	12	28
E20.CM1	20	CM1	88	12	28
E28.CM1	28	CM1	95	12	30
E28.CM2	28	CM2	95	12	30
E36.CM1	36	CM1	118	14	36
E36.CM2	36	CM2	118	14	36
E36.CM3	36	CM3	118	14	36
E48.CM1	48	CM1	144	18	47
E48.CM2	48	CM2	144	18	47
E48.CM3	48	CM3	144	18	47
E48.CM4	48	CM4	144	18	47

DIN 6327

G

CM

INSERZIONI REGISTRABILI CONO MORSE ADJUSTABLE MORSE TAPER ADAPTERS

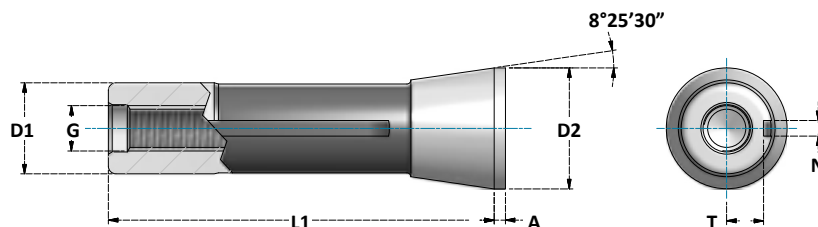


DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS

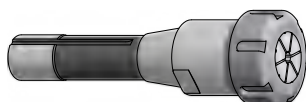
Articolo	D	CM	L	H	L1	L2
G16.CM1.25	16	1	110	37	28	25
G16.CM1.50	16	1	135	62	28	50
G16.CM1.75	16	1	160	87	28	75
G16.CM1.100	16	1	185	112	28	100
G20.CM1.25	20	1	113	37	28	25
G20.CM1.50	20	1	138	62	28	50
G20.CM1.75	20	1	163	87	28	75
G20.CM1.100	20	1	188	112	28	100
G28.CM1.25	28	1	120	37	30	25
G28.CM1.50	28	1	145	62	30	50
G28.CM1.75	28	1	170	87	30	75
G28.CM1.100	28	1	195	112	30	100
G28.CM2.25	28	2	120	37	30	25
G28.CM2.50	28	2	145	62	30	50
G28.CM2.75	28	2	170	87	30	75
G28.CM2.100	28	2	195	112	30	100
G36.CM2.30	36	2	148	44	36	30
G36.CM2.60	36	2	178	74	36	60
G36.CM2.90	36	2	208	104	36	90
G36.CM2.120	36	2	238	134	36	120
G36.CM3.30	36	3	148	44	36	30
G36.CM3.60	36	3	178	74	36	60
G36.CM3.90	36	3	208	104	36	90
G36.CM3.120	36	3	238	134	36	120
G48.CM3.40	48	3	184	58	47	40
G48.CM3.80	48	3	224	98	47	80
G48.CM3.120	48	3	264	138	47	120
G48.CM3.160	48	3	304	178	47	160
G48.CM4.40	48	4	184	58	47	40
G48.CM4.80	48	4	224	98	47	80
G48.CM4.120	48	4	264	138	47	120
G48.CM4.160	48	4	304	178	47	160

MANDRINI R8
R8 TOOLHOLDERS



DIMENSIONI
DIMENSIONS

D1	D2	L1	G	A	N	T
		MAX	MAX			
24,12	32	101,6	7/16- 20 NF-2B	3,17	4	2,5



MANDRINI PORTAPINZA ER
ER COLLET CHUCKS

PAG. 228



MANDRINI DI RIDUZIONE CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS

PAG. 228



ATTACCHI PER MANDRINI AUTOSERRANTI
DRILL CHUCKS ARBORS

PAG. 229



MANDRINI DA TRAPANO
DRILL CHUCKS

PAG. 229

R8

R8

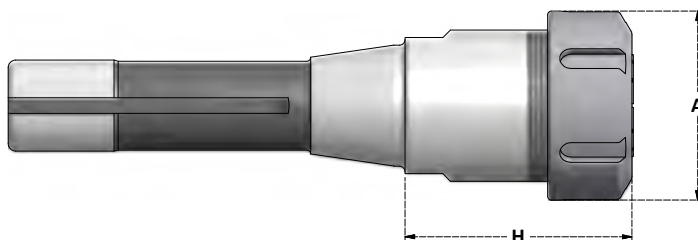
ERC

DIN ISO 15488 (DIN6499)

MANDRINI PORTAPINZA ER ER COLLET CHUCKS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



SE



GHIERE **STANDARD** ESAGONALI
HEXAGONAL **STANDARD** NUTS

S



GHIERE **STANDARD** CON TACCHE
STANDARD NUTS WITH SLOTS

Articolo	H	A	Range D	Ghiera Nut
R8.H44.ERC16	44	28	1÷10	G16SE
R8.H47.ERC20	47	34	1÷14	G20SE
R8.H50.ERC25	50	42	1÷20	G25
R8.H63.ERC32	63	50	2÷22	G32
R8.H72.ERC40	72	63	3÷30	G40

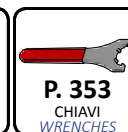
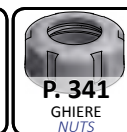
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.R8.ERC16	ERC16.D1÷D10 x 1,0mm	R8.H44.ERC16	CH.E25
BX.R8.ERC20	ERC20.D2÷D13 x 1,0mm	R8.H47.ERC20	CH.E30
BX.R8.ERC25	ERC25.D2÷D16 x 1,0mm	R8.H50.ERC25	CH25S
BX.R8.ERC32	ERC32.D3÷D20 x 1,0mm	R8.H63.ERC32	CH32S
BX.R8.ERC40	ERC40.D4÷D26 x 1,0mm	R8.H72.ERC40	CH40S



ACCESSORI - ACCESSORIES



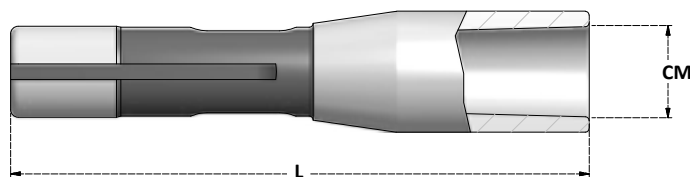
R8

R8

CM

DIN 6383

MANDRINI DI RIDUZIONE CON MORSE PER PUNTE MORSE TAPER ADAPTERS FOR DRILLS



Articolo	CM	L
R8.L114.CM1	CM1	114
R8.L127.CM2	CM2	127
R8.L153.CM3	CM3	153
R8.L240.CM4	CM4	240

**PER UTENSILI DIN228B
CON TENONE**

FOR TOOLS DIN228B
WITH TANG

ACCESSORI - ACCESSORIES



R8

R8

B

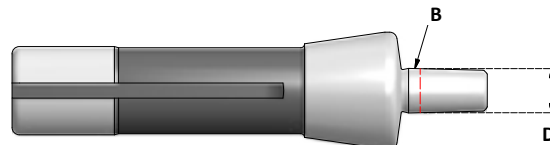
DIN 238

ATTACCHI PER MANDRINI AUTOSERRANTI

DRILL CHUCKS ARBORS

DIMENSIONI
DELL'ATTACCO

SHANK
DIMENSIONS



Articolo	B	D
R8.B10	B10	10,094
R8.B12	B12	12,065
R8.B16	B16	15,733
R8.B18	B18	17,780

Fuori produzione / Out of production

ACCESSORI - ACCESSORIES



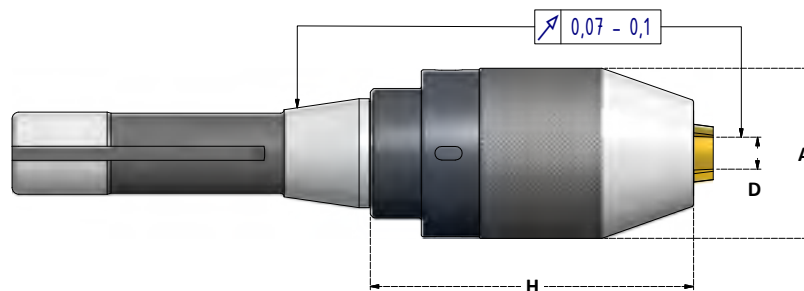
R8

R8

DCK

MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA

DRILL CHUCKS - RIGHT ROTATION



Articolo	Range D	H	A	Chiave Wrench
R8.H83.DCK13S	1÷13	83	50,5	CH.DC13
R8.H83.DCK16S	2,5÷16	83	57	CH.DC16

**GRIFFE RIVESTITE
IN TITANIO**

TITANIUM
COATED JAWS

ACCESSORI - ACCESSORIES



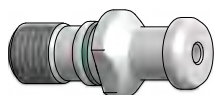
TIRANTI

PULL STUDS



FILETTO THREAD	Sforzo di chiusura Torque
M12	2÷2,4 Kgm
M16	6÷7,8 Kgm
M24	20÷24 Kgm

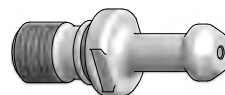
TIRANTI A DISEGNO O CON FILETTO A POLLICI FORNIBILI A RICHIESTA
SPECIAL PULL STUDS OR WITH INCH THREAD CAN BE SUPPLIED ON REQUEST



DIN69872

PS.DIN

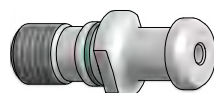
PAG. 231



MAS403BT

PS.BT

PAG. 239



ISO7388/2A

PS.TC

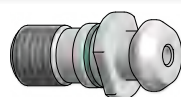
PAG. 233



HURCO

PS.BT HC

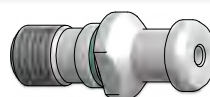
PAG. 241



ISO7388/2B

PS.CAT

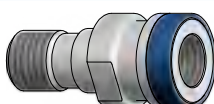
PAG. 234



KITAMURA

PS.KIT

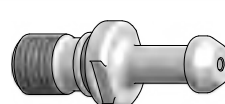
PAG. 242



OTT

PS.OTT

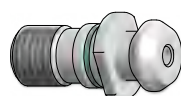
PAG. 235



MITSUI SEIKI

PS.MIT

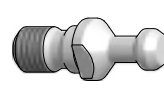
PAG. 243



MAZAK

PS.MZ

PAG. 236



ALBERTI / COLOMBO

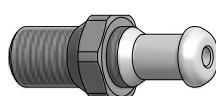
BIESSE

CMS

CSM

PS.WD

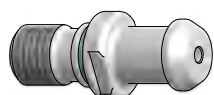
PAG. 244



C.B. FERRARI

PS.CBF

PAG. 237



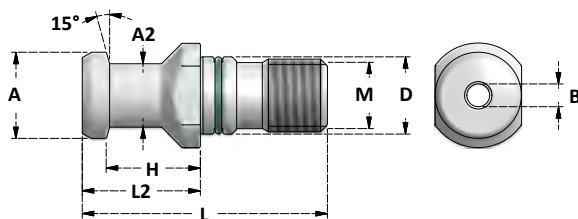
JIS-B 6339

PS.JS

PAG. 238

TIRANTI DIN69872

PULL STUDS DIN69872

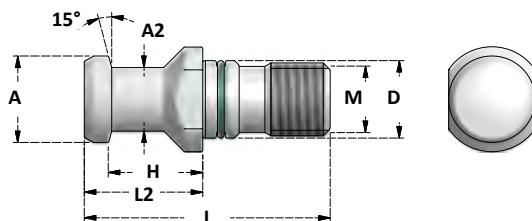


TIRANTI DIN69872A FORATI

PULL STUDS DIN69872A WITH COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
* PS.DIN30F	M12	13	19	13	44	2,5	9	24	30
PS.DIN40F	M16	19	20	17	54	7	14	26	40
PS.DIN50F	M24	28	25	25	74	11,5	21	34	50

* Senza O-Ring
Without O-Ring

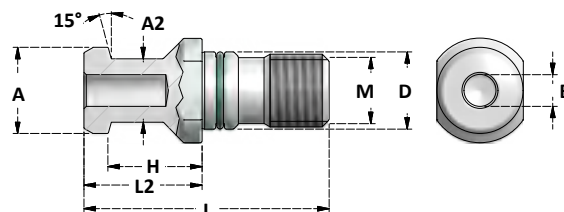


TIRANTI DIN69872A SENZA FORO

PULL STUDS DIN69872A WITHOUT COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
* PS.DIN30SF	M12	13	19	13	44	/	9	24	30
PS.DIN40SF	M16	19	20	17	54	/	14	26	40
PS.DIN50SF	M24	28	25	25	74	/	21	34	50

* Senza O-Ring
Without O-Ring



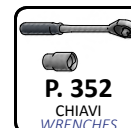
TIRANTI 69872B SEMIFORATI

PULL STUDS 69872B WITH HALF BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
PS.DIN40B	M16	19	20	17	54	7	14	26	40
PS.DIN50B	M24	28	25	25	74	11,5	21	34	50

SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

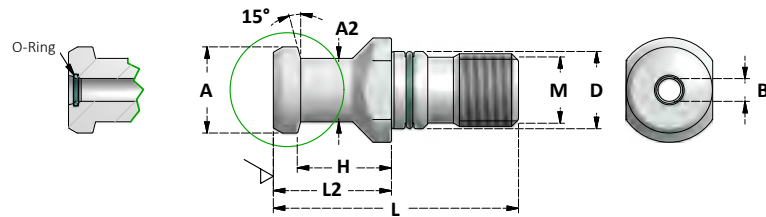
ACCESSORI - ACCESSORIES



TIRANTI DIN69872

PULL STUDS DIN69872

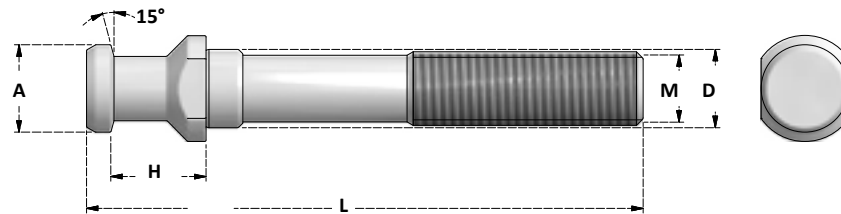
TESTA RETTIFICATA
GRINDED HEAD



TIRANTI CON DOPPIO O-RING PER REFRIGERANTE AD ALTA PRESSIONE

PULL STUDS WITH DOUBLE O-RING FOR HIGH PRESSION COOLANT

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
PS.DIN40.2OR	M16	19	20	17	54	7	9	26	40
PS.DIN40.2OR-BT	M16	19	23	17	54	7	14	29	40
PS.DIN50.2OR	M24	28	25	25	74	11,5	21	34	50



TIRANTI DIN69872 PROLUNGATI PER RIDUZIONI A CONO MORSE

PULL STUDS DIN69872 EXTENDED FOR MORSE TAPER SLEEVES

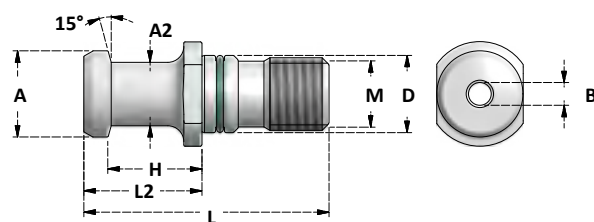
Articolo	M	A	H±0,05	D	L	B	CONO
PSL.DIN40.M10	M10	19	20	17	111	/	40
PSL.DIN40.M12	M12	19	20	17	116	/	40
PSL.DIN40.M16	M16	19	20	17	121	/	40

Fino a esaurimento / While stocks last

ACCESSORI - ACCESSORIES



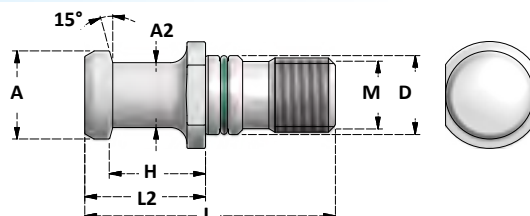
TIRANTI ISO 7388/2A
PULL STUDS ISO 7388/2A



TIRANTI ISO7388/2A FORATI
PULL STUDS ISO7388/2A WITH COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
* PS.TC30F	M12	12	19	13	44	4	8	24	30
PS.TC40F	M16	19	20	17	54	7	14	26	40
PS.TC50F	M24	28	25	25	74	11,5	21	34	50

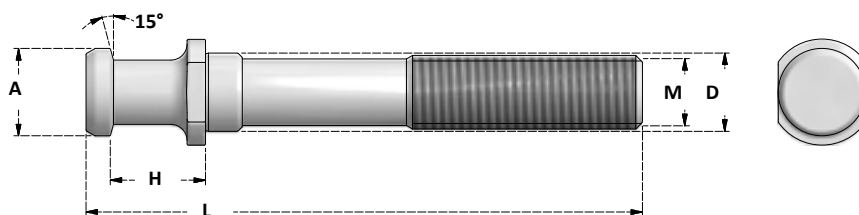
* Senza O-Ring
Without O-Ring



TIRANTI ISO7388/2A SENZA FORO
PULL STUDS ISO7388/2A WITHOUT COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
* PS.TC30SF	M12	12	19	13	44	/	8	24	30
PS.TC40SF	M16	19	20	17	54	/	14	26	40
PS.TC50SF	M24	28	25	25	74	/	21	34	50

* Senza O-Ring
Without O-Ring



TIRANTI ISO7388/2A PROLUNGATI PER RIDUZIONI A CONO MORSE
PULL STUDS ISO7388/2A EXTENDED FOR MORSE TAPER SLEEVES

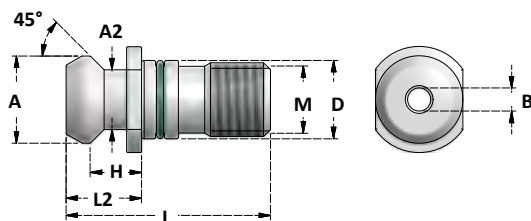
Articolo	M	A	H±0,05	D	L	B	CONO
PSL.TC40.M10	M10	19	20	17	111	/	40
PSL.TC40.M12	M12	19	20	17	116	/	40
PSL.TC40.M16	M16	19	20	17	121	/	40

Fino a esaurimento / While stocks last

SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

TIRANTI ISO 7388/2B

PULL STUDS ISO7388/2B

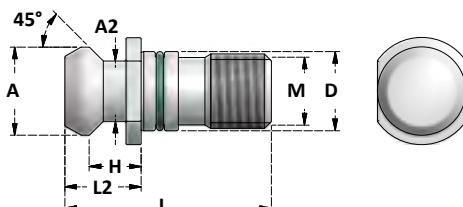


TIRANTI ISO7388/2B FORATI

PULL STUDS ISO7388/2B WITH COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
* PS.CAT30F	M12	13,35	8,15	12,5	34	4	9,3	11,8	30
PS.CAT40F	M16	18,95	11,15	17	44,5	7	12,95	16,4	40
PS.CAT50F	M24	29,1	17,95	25	65,5	11,5	19,6	25,55	50

* Senza O-Ring
Without O-Ring

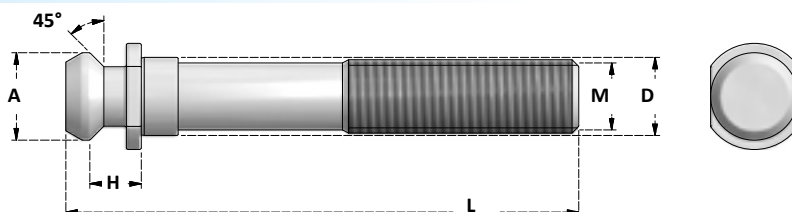


TIRANTI ISO7388/2B SENZA FORO

PULL STUDS ISO7388/2B WITHOUT COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
* PS.CAT30SF	M12	13,35	8,15	12,5	34	/	9,3	11,8	30
PS.CAT40SF	M16	18,95	11,15	17	44,5	/	12,95	16,4	40
PS.CAT50SF	M24	29,1	17,95	25	65,5	/	19,6	25,55	50

* Senza O-Ring
Without O-Ring



TIRANTI ISO7388/2B PROLUNGATI PER RIDUZIONI CONO MORSE

PULL STUDS ISO7388/2B EXTENDED FOR MORSE TAPER SLEEVES

Articolo	M	A	H±0,05	D	L	B	CONO
PSL.CAT40.M10	M10	18,95	11,15	17	101,4	/	40
PSL.CAT40.M12	M12	18,95	11,15	17	106,4	/	40
PSL.CAT40.M16	M16	18,95	11,15	17	111,4	/	40

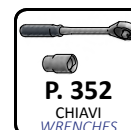
Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

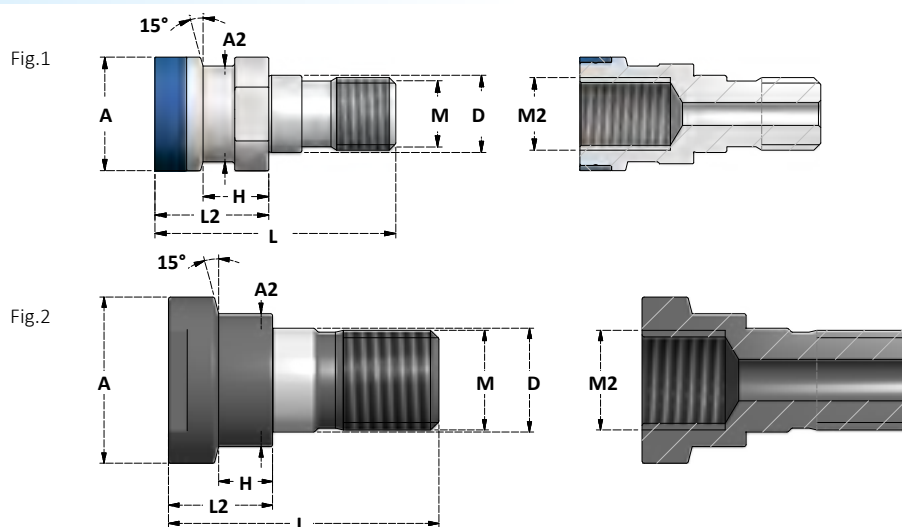
Fino a esaurimento / While stocks last

SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

ACCESSORI - ACCESSORIES



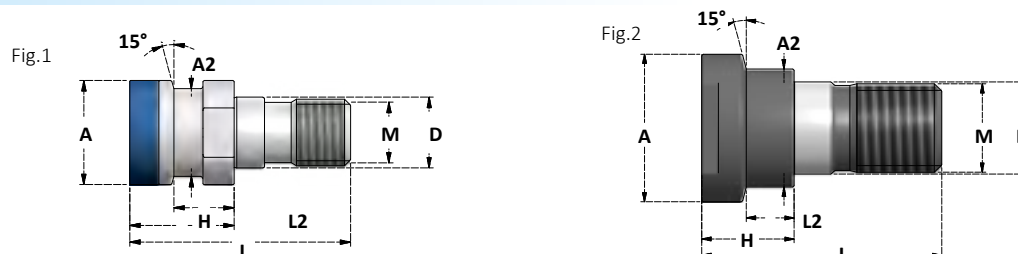
TIRANTI OTT
OTT PULL STUDS



TIRANTI OTT FORATI

OTT PULL STUDS WITH COOLANT BORE

Articolo	M	A	H±0,05	D	L	M2	A2	L2	CONO	Fig
PS.OTT40.TCF	M16	25	14,52	17	53,1	M16	21,1	25,1	TC40	Fig.1
PS.OTT40.BTF	M16	25	17,54	17	56	M16	21,1	28	BT40	Fig.1
PS.OTT50.TBF	M24	39,6	14	25	65	M24	32	25	TC/BT50	Fig.2



TIRANTI OTT NON FORATI

OTT PULL STUDS WITHOUT COOLANT BORE

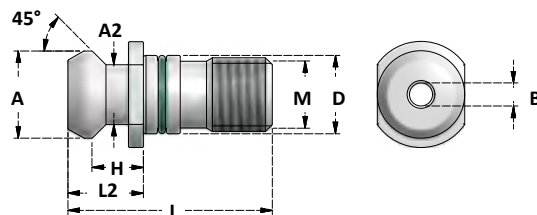
Articolo	M	A	H±0,05	D	L	M2	A2	L2	CONO	Fig
PS.OTT40.TCSF	M16	25	14,52	17	53,1	/	21,1	25,1	TC40	Fig.1
PS.OTT40.BTSF	M16	25	17,54	17	56	/	21,1	28	BT40	Fig.1
PS.OTT50.TBSF	M24	39,6	14	25	65	/	32	25	TC/BT50	Fig.2

I CODOLI OTT SERVONO PER MONTARE I MANDRINI TC(DIN69871) E BT(MAS403) SU MACCHINE CON SEDE ISO(DIN2080)

OTT PULL STUDS ALLOW TO MOUNT TC(DIN69871) AND BT(MAS403) TOOLHOLDERS ON ISO(DIN2080) MACHINES

TIRANTI MAZAK

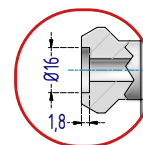
MAZAK PULL STUDS



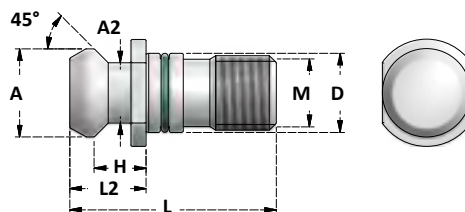
TIRANTI MAZAK FORATI

PULL STUDS MAZAK WITH COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
PS.CAT40.MZ1F	M16	18,8	11,17	17	41,25	7	12,45	16,25	40
PS.CAT40.MZ2F	M16	18,8	14,02	17	44,1	7	12,45	19,1	40
PS.CAT50.MZ3F*	M24	28,95	17,58	25	65,2	10	20,83	25,2	50
PS.CAT50.MZ4F*	M24	28,95	17,78	25	65,4	10	20,83	25,4	50



* Con sede chip
With chip slot

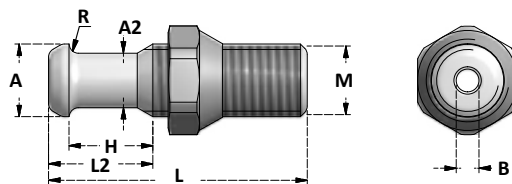


TIRANTI MAZAK SENZA FORO

PULL STUDS MAZAK WITHOUT COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
PS.CAT40.MZ1SF	M16	18,8	11,17	17	41,25	/	12,45	16,25	40
PS.CAT40.MZ2SF	M16	18,8	14,02	17	44,1	/	12,45	19,1	40

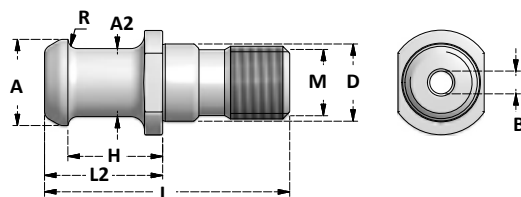
TIRANTI C.B. FERRARI
PULL STUDS C.B. FERRARI



TIRANTI C.B. FERRARI FORATI
PULL STUDS C.B. FERRARI WITH COOLANT BORE

Articolo	M	R	A	H±0,05	L	B	A2	L2	CONO
PS.CBF40.050	M16	3,7	16	18,1	57	5	12	23	40

Dado incluso
Nut included



TIRANTI C.B. FERRARI FORATI
PULL STUDS C.B. FERRARI WITH COOLANT BORE

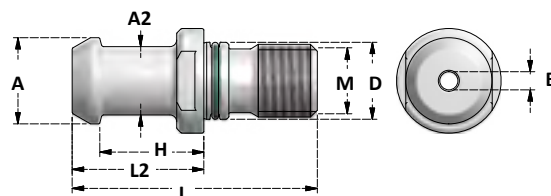
Articolo	M	R	A	H±0,05	D	L	B	A2	L2	CONO
PS.CBF30.051	M12	3,4	12	19,5	13	44	3	8	24	30
PS.CBF40.051	M16	3,7	19	20,31	17	54	5	15	26	40
PS.CBF50.051	M24	4,3	28	25,5	25	74	6	22,2	34	50

SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

TIRANTI JIS-B 6339

PULL STUDS JIS-B 6339

TESTA RETTIFICATA
GRINDED HEAD

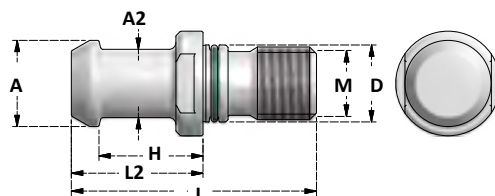


TIRANTI JIS-B 6339 FORATI

PULL STUDS JIS-B 6339 WITH COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
* PS.JS30.F3	M12	12	18,4	12,5	43	3	8	23,4	30
PS.JS40.F3	M16	19	23	17	54	3	14	29	40
PS.JS40.F4	M16	19	23	17	54	4	14	29	40
PS.JS40.F5	M16	19	23	17	54	5	14	29	40
PS.JS40.F554	M16	19	23	17	54	5,5-4	14	29	40
PS.JS40.F6	M16	19	23	17	54	6	14	29	40
PS.JS40.F7	M16	19	23	17	54	7	14	29	40
PS.JS50.F10	M24	28	25	25	74	10	21	34	50

* Senza O-Ring
Without O-Ring

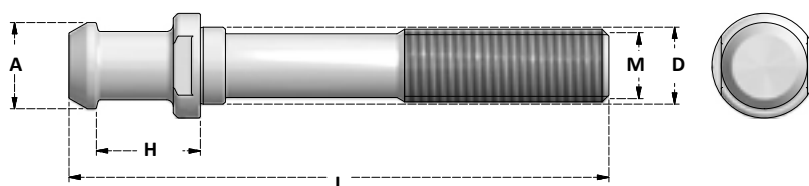


TIRANTI JIS-B 6339 SENZA FORO

PULL STUDS JIS-B 6339 WITHOUT COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
* PS.JS30SF	M12	12	18,4	12,5	43	/	8	23,4	30
PS.JS40SF	M16	19	23	17	54	/	14	29	40
PS.JS50SF	M24	28	25	25	74	/	21	34	50

* Senza O-Ring
Without O-Ring



TIRANTI JIS-B 6339 PROLUNGATI PER RIDUZIONI CONO MORSE

PULL STUDS JIS-B 6339 EXTENDED FOR MORSE TAPER SLEEVES

Articolo	M	A	H±0,05	D	L	B	CONO
PSL.JS40.M10	M10	19	23	17	114	/	40
PSL.JS40.M12	M12	19	23	17	114	/	40
PSL.JS40.M16	M16	19	23	17	119	/	40

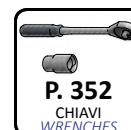
Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

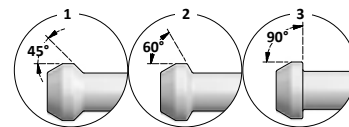
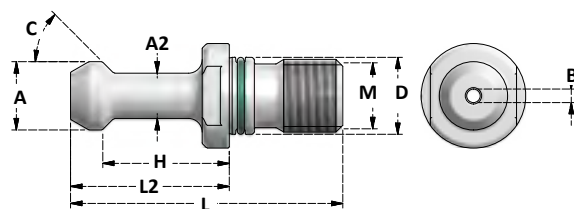
SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

ACCESSORI - ACCESSORIES



TIRANTI MAS403BT

PULL STUDS MA403BT

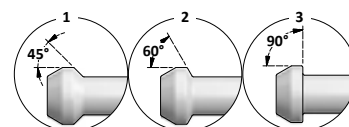
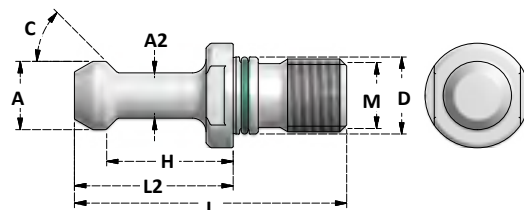


TIRANTI MAS403BT FORATI

PULL STUDS MAS403BT WITH COOLANT BORE

Articolo	M	C	A	H±0,05	D	L	B	A2	L2	CONO
* PS.BT30.1F	M12	45°	11	18	12,5	43	2,5	7	23	BT30
* PS.BT30.2F	M12	60°	11	18	12,5	43	2,5	7	23	BT30
* PS.BT30.3F	M12	90°	11	18	12,5	43	2,5	7	23	BT30
PS.BT40.1F	M16	45°	15	28	17	60	3	10	35	BT40
PS.BT40.2F	M16	60°	15	28	17	60	3	10	35	BT40
PS.BT40.3F	M16	90°	15	28	17	60	3	10	35	BT40
PS.BT50.1F	M24	45°	23	35	25	85	6	17	45	BT50
PS.BT50.2F	M24	60°	23	35	25	85	6	17	45	BT50
PS.BT50.3F	M24	90°	23	35	25	85	6	17	45	BT50

* Senza O-Ring
Without O-Ring



TIRANTI MAS403BT SENZA FORO

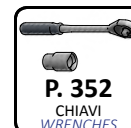
PULL STUDS MAS403BT WITHOUT COOLANT BORE

Articolo	M	C	A	H±0,05	D	L	B	A2	L2	CONO
* PS.BT30.1SF	M12	45°	11	18	12,5	43	/	7	23	BT30
* PS.BT30.2SF	M12	60°	11	18	12,5	43	/	7	23	BT30
* PS.BT30.3SF	M12	90°	11	18	12,5	43	/	7	23	BT30
PS.BT40.1SF	M16	45°	15	28	17	60	/	10	35	BT40
PS.BT40.2SF	M16	60°	15	28	17	60	/	10	35	BT40
PS.BT40.3SF	M16	90°	15	28	17	60	/	10	35	BT40
PS.BT50.1SF	M24	45°	23	35	25	85	/	17	45	BT50
PS.BT50.2SF	M24	60°	23	35	25	85	/	17	45	BT50
PS.BT50.3SF	M24	90°	23	35	25	85	/	17	45	BT50

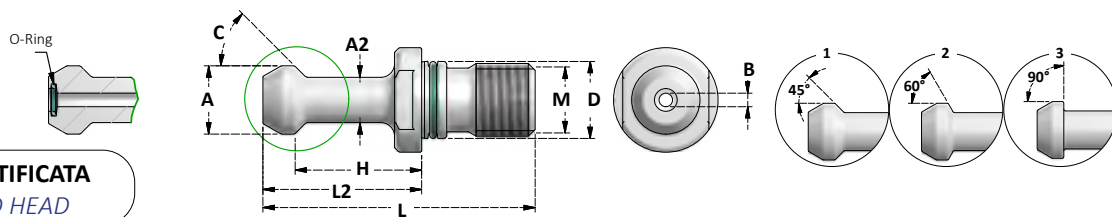
* Senza O-Ring
Without O-Ring

SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

ACCESSORI - ACCESSORIES



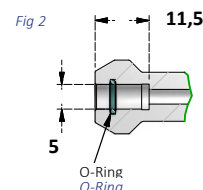
TIRANTI MAS403BT
PULL STUDS MAS403BT



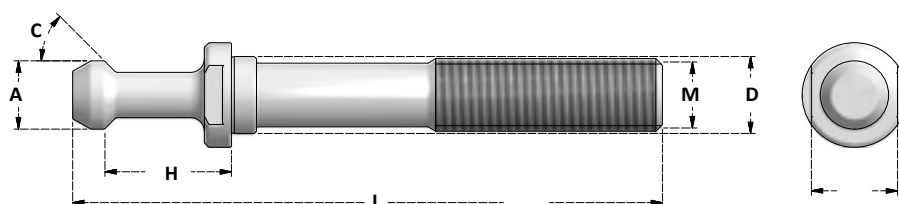
TESTA RETTIFICATA
GRINDED HEAD

TIRANTI CON DOPPIO O-RING PER REFRIGERANTE AD ALTA PRESSIONE
PULL STUDS WITH DOUBLE O-RING FOR HIGH PRESSION COOLANT

Articolo	M	C	A	H±0,05	D	L	B	A2	L2	CONO
PS.BT40.1.2OR	M16	45°	15	28	17	60	3	10	35	40
* PS.BT40.1.2OR-5	M16	45°	15	28	17	60	3	10	35	40
PS.BT40.2.2OR	M16	60°	15	28	17	60	3	10	35	40
PS.BT50.1.2OR	M24	45°	23	35	25	85	6	17	45	50
PS.BT50.2.2OR	M24	60°	23	35	25	85	6	17	45	50
PS.BT50.3.2OR	M24	90°	23	35	25	85	6	17	45	50

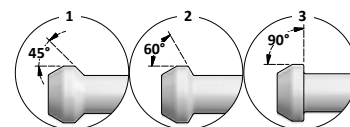


* Fig 2



TIRANTI MAS403 PROLUNGATI PER RIDUZIONI A CONO MORSE
PULL STUDS MAS403 EXTENDED FOR MORSE TAPER SLEEVES

Articolo	M	C	A	H±0,05	D	L	B	CONO
PSL.BT40.1M10	M10	45°	15	28	17	120	/	40
PSL.BT40.1M12	M12	45°	15	28	17	120	/	40
PSL.BT40.1M16	M16	45°	15	28	17	125	/	40
PSL.BT40.2M10	M10	60°	15	28	17	120	/	40
PSL.BT40.2M12	M12	60°	15	28	17	120	/	40
PSL.BT40.2M16	M16	60°	15	28	17	125	/	40
PSL.BT40.3M10	M10	90°	15	28	17	120	/	40
PSL.BT40.3M12	M12	90°	15	28	17	120	/	40
PSL.BT40.3M16	M16	90°	15	28	17	125	/	40



Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

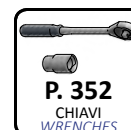
Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

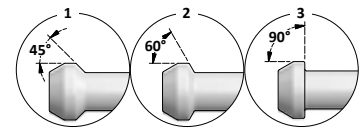
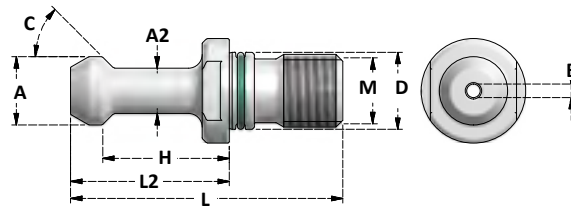
Fino a esaurimento / While stocks last

SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

ACCESSORI - ACCESSORIES

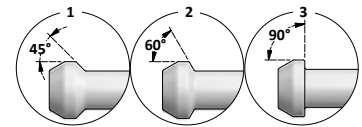
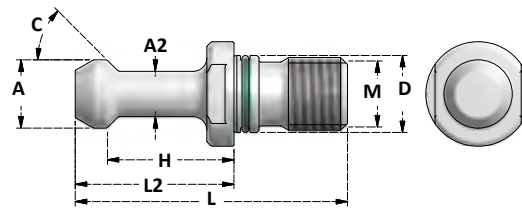


TIRANTI HURCO
PULL STUDS HURCO



TIRANTI HURCO FORATI
PULL STUDS HURCO WITH COOLANT BORE

Articolo	M	C	A	H±0,05	D	L	B	A2	L2	CONO
PS.BT40.HC1F	M16	45°	15	25,15	17	57,15	3	10	32,15	40
PS.BT40.HC2F	M16	60°	15	25,15	17	57,15	3	10	32,15	40
PS.BT40.HC3F	M16	90°	15	25,15	17	57,15	3	10	32,15	40

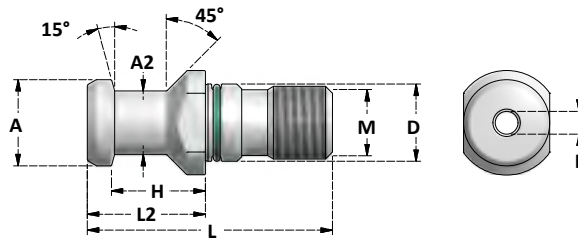


TIRANTI HURCO SENZA FORO
PULL STUDS HURCO WITHOUT COOLANT BORE

Articolo	M	C	A	H±0,05	D	L	B	A2	L2	CONO
PS.BT40.HC1SF	M16	45°	15	25,15	17	57,15	/	10	32,15	40
PS.BT40.HC2SF	M16	60°	15	25,15	17	57,15	/	10	32,15	40
PS.BT40.HC3SF	M16	90°	15	25,15	17	57,15	/	10	32,15	40

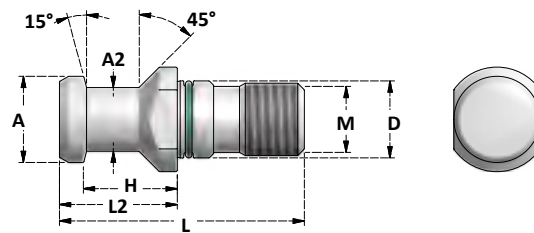
SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

TIRANTI KITAMURA PULL STUDS KITAMURA



TIRANTI KITAMURA FORATI PULL STUDS KITAMURA WITH COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
PS.KIT40F	M16	19	23	17	54	7	14	29	40



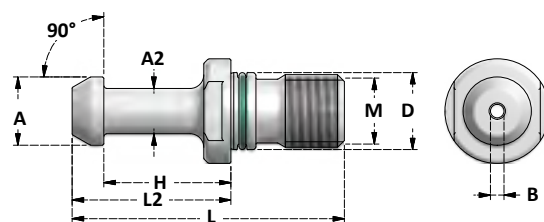
TIRANTI KITAMURA SENZA FORO PULL STUDS KITAMURA WITHOUT COOLANT BORE

Articolo	M	C	A	H±0,05	D	L	B	A2	L2	CONO
* PS.KIT30SF	M12	45°	13	22,2	21,5	48	/	8,5	28	30
PS.KIT40SF	M16	15°	19	23,2	17	57,2	/	14	32,2	40

* Senza O-Ring
Without O-Ring

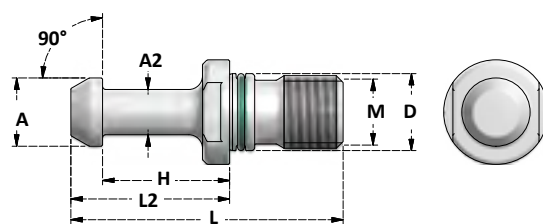
SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

TIRANTI MITSUI SEIKI
PULL STUDS MITSUI SEIKI



TIRANTI MITSUI SEIKI FORATI
PULL STUDS MITSUI SEIKI WITH COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
PS.MIT40F	M16	15	18	17	50	3	10	25	40
PS.MIT50F	M24	24	23	25	71	8	18	31	50

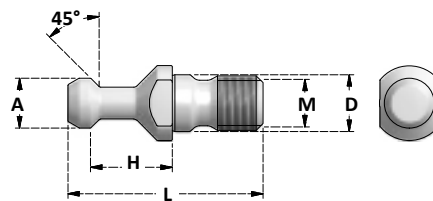


TIRANTI MITSUI SEIKI SENZA FORO
PULL STUDS MITSUI SEIKI WITHOUT COOLANT BORE

Articolo	M	A	H±0,05	D	L	B	A2	L2	CONO
PS.MIT40SF	M16	15	18	17	50	/	10	25	40
PS.MIT50SF	M24	24	23	25	71	/	18	31	50

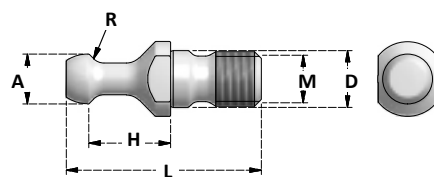
SEDE CHIP A RICHIESTA
CHIP HOLE ON REQUEST

TIRANTI PER MANDRINI PER LAVORAZIONE DEL LEGNO
PULL STUDS FOR WOODWORKING TOOL HOLDERS



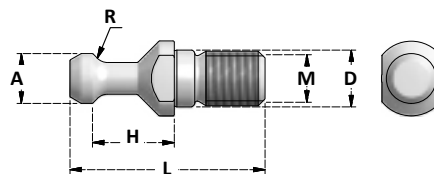
ALBERTI - COLOMBO

Articolo	M	A	H±0,05	D	L	CONO
PS.WD30.ALB	M12	12,8	19	13	44	30



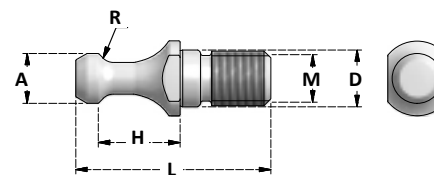
BIESSE

Articolo	M	R	A	H±0,05	D	L	CONO
PS.WD30.BS	M12	3,2	12	19	13	44	30



CMS

Articolo	M	R	A	H±0,05	D	L	CONO
PS.WD30.CMS	M12	2,4	12,8	19	11	44	30



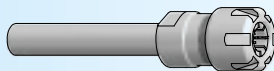
SCM

Articolo	M	R	A	H±0,05	D	L	CONO
PS.WD30.SCM	M10	2,3	8,5	18,3	11	42,5	30

MANDRINI A GAMBO CILINDRICO

CYLINDRICAL SHANK TOOLHOLDERS

**MANDRINI CILINDRICI PORTAPINZA
CON GHIERA MINI**
*CYLINDRICAL COLLET CHUCKS
WITH MINI NUT*



ERC8M

PAG. 246

ERC11M

PAG. 247

ERC16M

PAG. 249

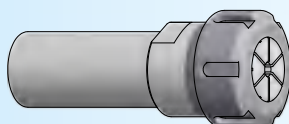
ERC20M

PAG. 252

ERC25M

PAG. 255

**MANDRINI CILINDRICI PORTAPINZA
CON GHIERA STANDARD**
*CYLINDRICAL COLLET CHUCKS
WITH STANDARD NUT*



ERC16

PAG. 251

ERC20

PAG. 254

ERC25

PAG. 257

ERC32

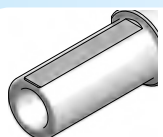
PAG. 258

ERC40

PAG. 260

ERC50

PAG. 261



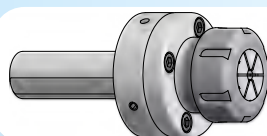
**MANDRINI CILINDRICI PORTAPINZA
- CON PIANO**
*CYLINDRICAL COLLET CHUCKS
- WITH FLAT*

PAG. 262



**MANDRINI CILINDRICI PORTAPINZA
- CON PIANI WELDON**
*CYLINDRICAL COLLET CHUCKS
- WITH DIN1835 FLATS*

PAG. 262



**MANDRINI CILINDRICI
PORTAPINZA - REGISTRABILI**
*CYLINDRICAL COLLET CHUCKS
- ADJUSTABLE*

PAG. 263



MANDRINI CILINDRICI PORTAPINZA - BILATERALI
CYLINDRICAL COLLET CHUCKS - DOUBLE

PAG. 264

PROLUNGHE PORTAPINZA P8
P8 COLLET CHUCK EXTENSIONS



PAG. 265

PROLUNGHE A CALETTAMENTO
SHRINK EXTENSIONS

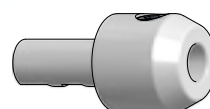


PAG. 266

ADATTATORI PER PORTAFRESE FILETTATE
SCREW IN MILL CHUCKS EXTENSIONS



PAG. 267



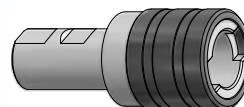
RIDUZIONI WELDON
END MILL WELDON SHANK ADAPTERS

PAG. 268



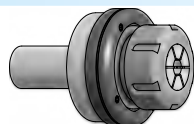
MANDRINI DA TRAPANO
DRILL CHUCKS

PAG. 269



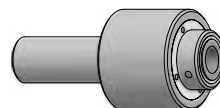
PORTAMASCHI
TAPPING CHUCKS

PAG. 270



PORTA ALESATORI
REAMER HOLDERS

PAG. 274



BROCCIATORI
BROACH TOOLHOLDERS

PAG. 275



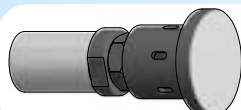
PORTASEGHE CIRCOLARI
ADAPTERS FOR SAW BLADES

PAG. 277



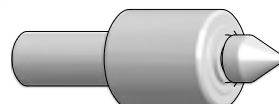
MANDRINI PORTAPINZE A FLANGIA
FLANGE COLLET CHUCKS

PAG. 277



FERMI BARRA
SHOCK ABSORBERS

PAG. 278



CONTROPUNTE ROTANTI
LIVE CENTRES

PAG. 278

PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA MINI
CYLINDRICAL SHANK ER COLLET CHUCKS WITH MINI NUT

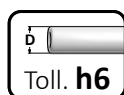


Fig.1

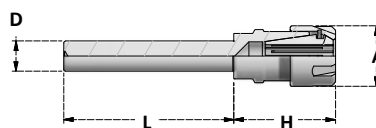
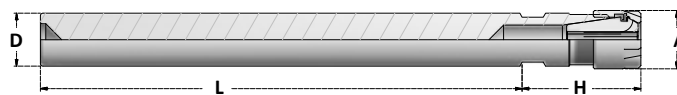


Fig.2



Articolo		D	A	L	H	Collets Range	Ghiera Nut	FIG
D6.L45.ERC8M	*	6	12	45	22,5	1+5	G8M	1
D6.L60.ERC8M	*	6	12	60	22,5	1+5	G8M	1
D6.L80.ERC8M	*	6	12	80	22,5	1+5	G8M	1
D6.L100.ERC8M	*	6	12	100	22,5	1+5	G8M	1
D8.L45.ERC8M	*	8	12	45	22,5	1+5	G8M	1
D8.L60.ERC8M	*	8	12	60	22,5	1+5	G8M	1
D8.L80.ERC8M	*	8	12	80	22,5	1+5	G8M	1
D8.L100.ERC8M	*	8	12	100	22,5	1+5	G8M	1
D8.L130.ERC8M	*	8	12	130	22,5	1+5	G8M	1
D10.L45.ERC8M	*	10	12	45	25,5	1+5	G8M	2
D10.L60.ERC8M	*	10	12	60	25,5	1+5	G8M	2
D10.L80.ERC8M	*	10	12	80	25,5	1+5	G8M	2
D10.L100.ERC8M	*	10	12	100	25,5	1+5	G8M	2
D10.L130.ERC8M	*	10	12	130	25,5	1+5	G8M	2
D10.L160.ERC8M	*	10	12	160	25,5	1+5	G8M	2
D12.L45.ERC8M	*	12	12	45	25,5	1+5	G8M	2
D12.L60.ERC8M	*	12	12	60	25,5	1+5	G8M	2
D12.L80.ERC8M	*	12	12	80	25,5	1+5	G8M	2
D12.L100.ERC8M	*	12	12	100	25,5	1+5	G8M	2
D12.L130.ERC8M	*	12	12	130	25,5	1+5	G8M	2
D12.L160.ERC8M	*	12	12	160	25,5	1+5	G8M	2
D12.L200.ERC8M	*	12	12	200	25,5	1+5	G8M	2

* = SENZA PASSAGGIO DEL REFRIGERANTE

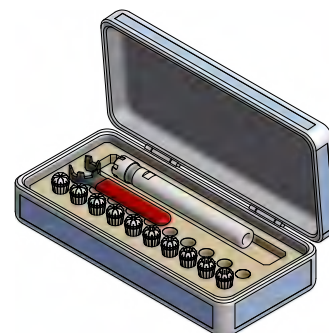
* = WITHOUT COOLANT BORE

KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.D10.L100.8M	ERC8.D1+5 x 0,5mm	D10.L100.ERC8M	CH8M
BX.D10.L130.8M	ERC8.D1+5 x 0,5mm	D10.L130.ERC8M	CH8M
BX.D10.L160.8M	ERC8.D1+5 x 0,5mm	D10.L160.ERC8M	CH8M
BX.D12.L100.8M	ERC8.D1+5 x 0,5mm	D12.L100.ERC8M	CH8M
BX.D12.L130.8M	ERC8.D1+5 x 0,5mm	D12.L130.ERC8M	CH8M
BX.D12.L160.8M	ERC8.D1+5 x 0,5mm	D12.L160.ERC8M	CH8M

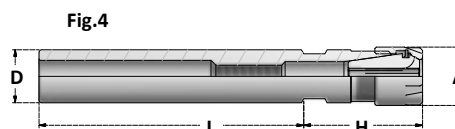
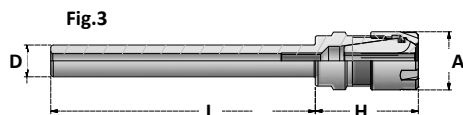
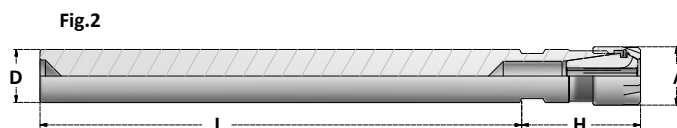
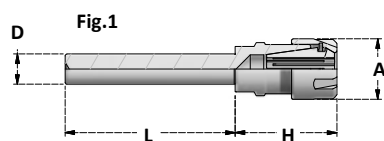
ALTRI A RICHIESTA
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ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA MINI
CYLINDRICAL SHANK ER COLLET CHUCKS WITH MINI NUT

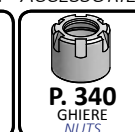


Articolo		D	A	L	H	Collets Range	Ghiera Nut	FIG
D6.L45.ERC11M	*	6	16	45	27	1÷7	G11M	1
D6.L60.ERC11M	*	6	16	60	27	1÷7	G11M	1
D6.L80.ERC11M	*	6	16	80	27	1÷7	G11M	1
D6.L100.ERC11M	*	6	16	100	27	1÷7	G11M	1
D8.L45.ERC11M	*	8	16	45	30	1÷7	G11M	1
D8.L60.ERC11M	*	8	16	60	30	1÷7	G11M	1
D8.L80.ERC11M	*	8	16	80	26	1÷7	G11M	1
D8.L100.ERC11M	*	8	16	100	26	1÷7	G11M	1
D8.L130.ERC11M	*	8	16	130	26	1÷7	G11M	1
D10.L45.ERC11M	*	10	16	45	26	1÷7	G11M	1
D10.L60.ERC11M	*	10	16	60	26	1÷7	G11M	1
D10.L80.ERC11M	*	10	16	80	26	1÷7	G11M	1
D10.L100.ERC11M	*	10	16	100	26	1÷7	G11M	1
D10.L130.ERC11M	*	10	16	130	26	1÷7	G11M	1
D10.L160.ERC11M	*	10	16	160	26	1÷7	G11M	1
D12.L45.ERC11M		12	16	45	26	1÷7	G11M	3
D12.L60.ERC11M		12	16	60	26	1÷7	G11M	3
D12.L80.ERC11M		12	16	80	26	1÷7	G11M	3
D12.L100.ERC11M	*	12	16	100	26	1÷7	G11M	1
D12.L130.ERC11M	*	12	16	130	26	1÷7	G11M	1
D12.L160.ERC11M	*	12	16	160	26	1÷7	G11M	1
D12.L200.ERC11M	*	12	16	200	26	1÷7	G11M	1
D16.L45.ERC11M		16	16	45	33	1÷7	G11M	4
D16.L60.ERC11M		16	16	60	33	1÷7	G11M	4
D16.L80.ERC11M		16	16	80	33	1÷7	G11M	4
D16.L100.ERC11M		16	16	100	33	1÷7	G11M	4
D16.L130.ERC11M		16	16	130	33	1÷7	G11M	4
D16.L160.ERC11M		16	16	160	33	1÷7	G11M	4
D16.L200.ERC11M	*	16	16	200	33	1÷7	G11M	2
D16.L250.ERC11M	*	16	16	250	33	1÷7	G11M	2
D16.L300.ERC11M	*	16	16	300	33	1÷7	G11M	2
D20.L60.ERC11M		20	16	60	35	1÷7	G11M	4
D20.L80.ERC11M		20	16	80	35	1÷7	G11M	4
D20.L100.ERC11M		20	16	100	35	1÷7	G11M	4
D20.L130.ERC11M		20	16	130	35	1÷7	G11M	4
D20.L160.ERC11M		20	16	160	35	1÷7	G11M	4
D20.L200.ERC11M		20	16	200	35	1÷7	G11M	4
D20.L250.ERC11M		20	16	250	35	1÷7	G11M	4
D20.L300.ERC11M	*	20	16	300	35	1÷7	G11M	2

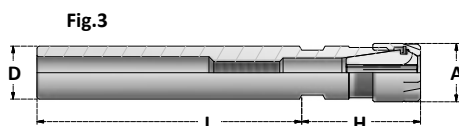
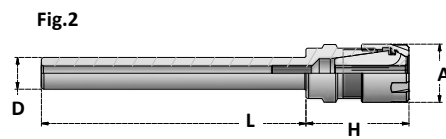
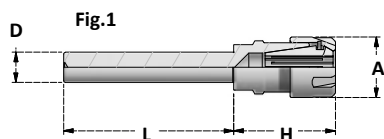
* = SENZA PASSAGGIO DEL REFRIGERANTE

* = WITHOUT COOLANT BORE

ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA MINI
CYLINDRICAL SHANK ER COLLET CHUCKS WITH MINI NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D25.L60.ERC11M	25	16	60	35	1÷7	G11M	3
D25.L80.ERC11M	25	16	80	35	1÷7	G11M	3
D25.L100.ERC11M	25	16	100	35	1÷7	G11M	3
D25.L130.ERC11M	25	16	130	35	1÷7	G11M	3
D25.L160.ERC11M	25	16	160	35	1÷7	G11M	3
D25.L200.ERC11M	25	16	200	35	1÷7	G11M	3
D25.L250.ERC11M	25	16	250	35	1÷7	G11M	3
D25.L300.ERC11M	25	16	300	35	1÷7	G11M	3

Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D1/2-L2.36-ERC11M	12,7	16	59,9	26	1÷7	G11M	2
D1/2-L3.93-ERC11M	* 12,7	16	99,8	26	1÷7	G11M	1
D1/2-L5.11-ERC11M	* 12,7	16	129,8	26	1÷7	G11M	1
D1/2-L6.29-ERC11M	* 12,7	16	159,9	26	1÷7	G11M	1
D5/8-L2.36-ERC11M	15,875	16	59,9	33	1÷7	G11M	2
D5/8-L3.93-ERC11M	15,875	16	99,8	33	1÷7	G11M	2
D5/8-L5.11-ERC11M	15,875	16	129,8	33	1÷7	G11M	2
D5/8-L6.29-ERC11M	15,875	16	159,9	33	1÷7	G11M	2
D3/4-L2.36-ERC11M	19,05	16	59,9	35	1÷7	G11M	2
D3/4-L3.93-ERC11M	19,05	16	99,8	35	1÷7	G11M	2
D3/4-L5.11-ERC11M	19,05	16	129,8	35	1÷7	G11M	2
D3/4-L6.29-ERC11M	19,05	16	159,9	35	1÷7	G11M	2

* = SENZA PASSAGGIO DEL REFRIGERANTE

* = WITHOUT COOLANT BORE

KIT - MANDRINO, CHIAVE E PINZE

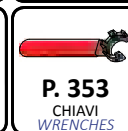
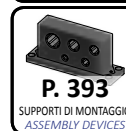
KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.D12.L100.11M	ERC11.D1÷7 x 0,5mm	D12.L100.ERC11M	CH11M
BX.D12.L130.11M	ERC11.D1÷7 x 0,5mm	D12.L130.ERC11M	CH11M
BX.D12.L160.11M	ERC11.D1÷7 x 0,5mm	D12.L160.ERC11M	CH11M
BX.D16.L100.11M	ERC11.D1÷7 x 0,5mm	D16.L100.ERC11M	CH11M
BX.D16.L130.11M	ERC11.D1÷7 x 0,5mm	D16.L130.ERC11M	CH11M
BX.D16.L160.11M	ERC11.D1÷7 x 0,5mm	D16.L160.ERC11M	CH11M

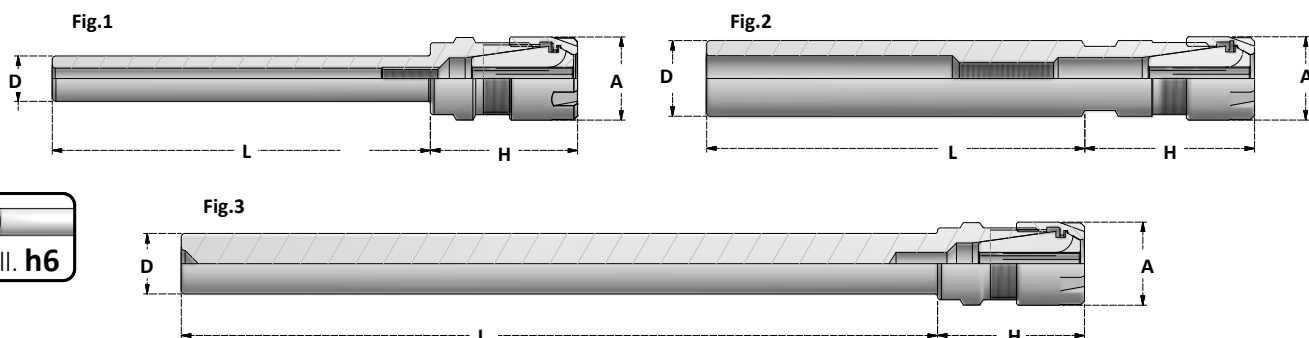
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PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA MINI
CYLINDRICAL SHANK ER COLLET CHUCKS WITH MINI NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG	
D10.L60.ERC16M	10	22	60	38	1÷10	G16M	1	
D10.L80.ERC16M	10	22	80	38	1÷10	G16M	1	
D10.L100.ERC16M	*	10	22	100	38	1÷10	G16M	3
D10.L130.ERC16M	*	10	22	130	38	1÷10	G16M	3
D10.L160.ERC16M	*	10	22	160	38	1÷10	G16M	3
D12.L60.ERC16M	12	22	60	38	1÷10	G16M	1	
D12.L80.ERC16M	12	22	80	38	1÷10	G16M	1	
D12.L100.ERC16M	12	22	100	38	1÷10	G16M	3	
D12.L130.ERC16M	*	12	22	130	38	1÷10	G16M	3
D12.L160.ERC16M	*	12	22	160	38	1÷10	G16M	3
D12.L200.ERC16M	*	12	22	200	38	1÷10	G16M	3
D16.L60.ERC16M	16	22	60	38	1÷10	G16M	1	
D16.L80.ERC16M	16	22	80	38	1÷10	G16M	1	
D16.L100.ERC16M	16	22	100	38	1÷10	G16M	1	
D16.L130.ERC16M	16	22	130	38	1÷10	G16M	1	
D16.L160.ERC16M	16	22	160	38	1÷10	G16M	1	
D16.L200.ERC16M	*	16	22	200	38	1÷10	G16M	3
D16.L250.ERC16M	*	16	22	250	38	1÷10	G16M	3
D16.L300.ERC16M	*	16	22	300	38	1÷10	G16M	3
D20.L60.ERC16M	20	22	60	40	1÷10	G16M	2	
D20.L80.ERC16M	20	22	80	40	1÷10	G16M	2	
D20.L100.ERC16M	20	22	100	40	1÷10	G16M	2	
D20.L130.ERC16M	20	22	130	40	1÷10	G16M	2	
D20.L160.ERC16M	20	22	160	40	1÷10	G16M	2	
D20.L200.ERC16M	20	22	200	40	1÷10	G16M	2	
D20.L250.ERC16M	20	22	250	40	1÷10	G16M	2	
D20.L300.ERC16M	*	20	22	300	40	1÷10	G16M	3
D25.L60.ERC16M	25	22	60	40	1÷10	G16M	2	
D25.L80.ERC16M	25	22	80	40	1÷10	G16M	2	
D25.L100.ERC16M	25	22	100	40	1÷10	G16M	2	
D25.L130.ERC16M	25	22	130	40	1÷10	G16M	2	
D25.L160.ERC16M	25	22	160	40	1÷10	G16M	2	
D25.L200.ERC16M	25	22	200	40	1÷10	G16M	2	
D25.L250.ERC16M	25	22	250	40	1÷10	G16M	2	
D25.L300.ERC16M	25	22	300	40	1÷10	G16M	2	

* = SENZA PASSAGGIO DEL REFRIGERANTE

* = WITHOUT COOLANT BORE

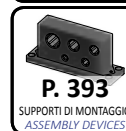
ACCESSORI - ACCESSORIES



P. 280
PINZE
COLLETS



P. 340
GHIERE
NUTS



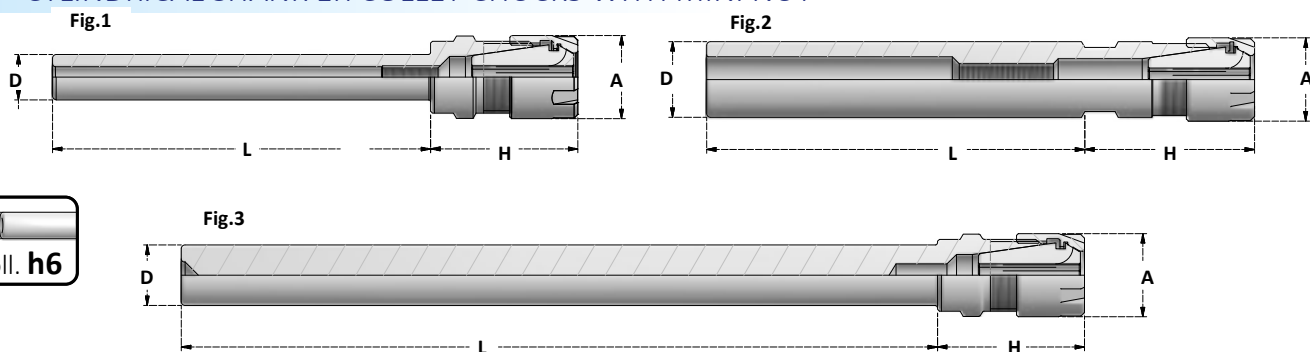
P. 393
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



P. 353
CHIAVI
WRENCHES

PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA MINI

CYLINDRICAL SHANK ER COLLET CHUCKS WITH MINI NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG	
D1/2-L2.36-ERC16M	12,7	22	59,9	38	1+10	G16M	1	
D1/2-L3.93-ERC16M	*	12,7	22	99,8	38	1+10	G16M	3
D1/2-L5.11-ERC16M	*	12,7	22	129,8	38	1+10	G16M	3
D1/2-L6.29-ERC16M	*	12,7	22	159,8	38	1+10	G16M	3
D5/8-L2.36-ERC16M	15,875	22	59,9	38	1+10	G16M	1	
D5/8-L3.93-ERC16M	15,875	22	99,8	38	1+10	G16M	1	
D5/8-L5.11-ERC16M	15,875	22	129,8	38	1+10	G16M	1	
D5/8-L6.29-ERC16M	15,875	22	159,8	38	1+10	G16M	1	
D3/4-L2.36-ERC16M	19,05	22	59,9	40	1+10	G16M	2	
D3/4-L3.93-ERC16M	19,05	22	99,8	40	1+10	G16M	2	
D3/4-L5.11-ERC16M	19,05	22	129,8	40	1+10	G16M	2	
D3/4-L6.29-ERC16M	19,05	22	159,8	40	1+10	G16M	2	
D1"-L2.36-ERC16M	25,4	22	59,9	40	1+10	G16M	2	
D1"-L3.93-ERC16M	25,4	22	99,8	40	1+10	G16M	2	
D1"-L5.11-ERC16M	25,4	22	129,8	40	1+10	G16M	2	
D1"-L6.29-ERC16M	25,4	22	159,8	40	1+10	G16M	2	

* = SENZA PASSAGGIO DEL REFRIGERANTE

* = WITHOUT COOLANT BORE



KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

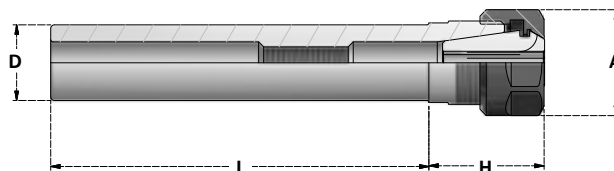
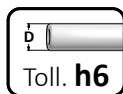
Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.D16.L100.16M	ERC16.D1÷10 x 1mm	D16.L100.ERC16M	CH16M
BX.D16.L130.16M	ERC16.D1÷10 x 1mm	D16.L130.ERC16M	CH16M
BX.D16.L160.16M	ERC16.D1÷10 x 1mm	D16.L160.ERC16M	CH16M
BX.D16.L200.16M	ERC16.D1÷10 x 1mm	D16.L200.ERC16M	CH16M
BX.D20.L100.16M	ERC16.D1÷10 x 1mm	D20.L100.ERC16M	CH16M
BX.D20.L130.16M	ERC16.D1÷10 x 1mm	D20.L130.ERC16M	CH16M
BX.D20.L160.16M	ERC16.D1÷10 x 1mm	D20.L160.ERC16M	CH16M
BX.D20.L200.16M	ERC16.D1÷10 x 1mm	D20.L200.ERC16M	CH16M

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ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA ESAGONALE
CYLINDRICAL SHANK ER COLLET CHUCKS WITH HEXAGONAL NUT



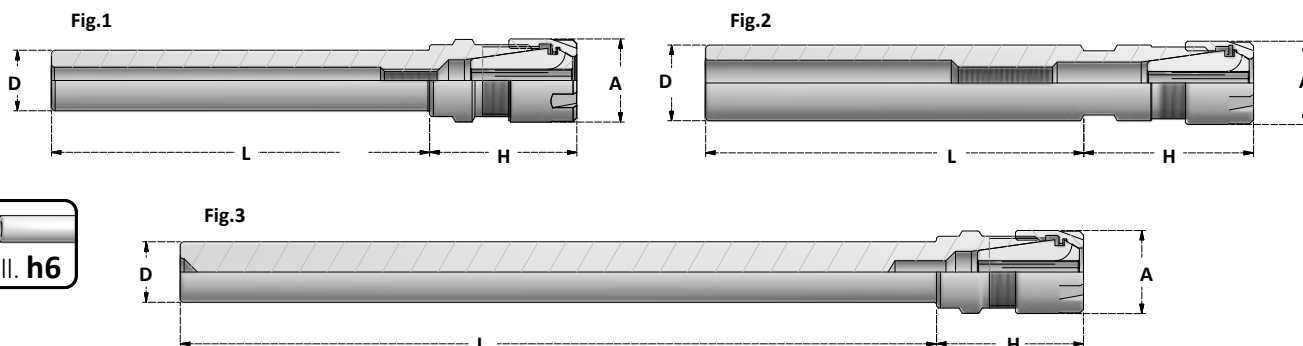
Articolo	D	A	L	H	Collets Range	Ghiera Nut
D16.L60.ERC16	16	28	60	31	1÷10	G16SE
D16.L80.ERC16	16	28	80	31	1÷10	G16SE
D16.L100.ERC16	16	28	100	31	1÷10	G16SE
D16.L130.ERC16	16	28	130	31	1÷10	G16SE
D16.L160.ERC16	16	28	160	31	1÷10	G16SE
D20.L60.ERC16	20	28	60	31	1÷10	G16SE
D20.L80.ERC16	20	28	80	31	1÷10	G16SE
D20.L100.ERC16	20	28	100	31	1÷10	G16SE
D20.L130.ERC16	20	28	130	31	1÷10	G16SE
D20.L160.ERC16	20	28	160	31	1÷10	G16SE

Articolo	D	A	L	H	Collets Range	Ghiera Nut
D1/2-L2.36-ERC16	12,7	28	59,9	31	1÷10	G16SE
D1/2-L3.93-ERC16	12,7	28	99,8	31	1÷10	G16SE
D1/2-L5.11-ERC16	12,7	28	129,8	31	1÷10	G16SE
D1/2-L6.29-ERC16	12,7	28	159,8	31	1÷10	G16SE
D5/8-L2.36-ERC16	15,875	28	59,9	31	1÷10	G16SE
D5/8-L3.93-ERC16	15,875	28	99,8	31	1÷10	G16SE
D5/8-L5.11-ERC16	15,875	28	129,8	31	1÷10	G16SE
D5/8-L6.29-ERC16	15,875	28	159,8	31	1÷10	G16SE
D3/4-L2.36-ERC16	19,05	28	59,9	31	1÷10	G16SE
D3/4-L3.93-ERC16	19,05	28	99,8	31	1÷10	G16SE
D3/4-L5.11-ERC16	19,05	28	129,8	31	1÷10	G16SE
D3/4-L6.29-ERC16	19,05	28	159,8	31	1÷10	G16SE

ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA MINI
CYLINDRICAL SHANK ER COLLET CHUCKS WITH MINI NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG	
D16.L60.ERC20M	16	28	60	41,5	1÷14	G20M	1	
D16.L80.ERC20M	16	28	80	41,5	1÷14	G20M	1	
D16.L100.ERC20M	16	28	100	41,5	1÷14	G20M	1	
D16.L130.ERC20M	16	28	130	41,5	1÷14	G20M	1	
D16.L160.ERC20M	16	28	160	41,5	1÷14	G20M	1	
D16.L200.ERC20M	*	16	28	200	41,5	1÷14	G20M	3
D16.L250.ERC20M	*	16	28	250	41,5	1÷14	G20M	3
D16.L300.ERC20M	*	16	28	300	41,5	1÷14	G20M	3
D20.L60.ERC20M	20	28	60	36,5	1÷14	G20M	1	
D20.L80.ERC20M	20	28	80	36,5	1÷14	G20M	1	
D20.L100.ERC20M	20	28	100	36,5	1÷14	G20M	1	
D20.L130.ERC20M	20	28	130	36,5	1÷14	G20M	1	
D20.L160.ERC20M	20	28	160	36,5	1÷14	G20M	1	
D20.L200.ERC20M	20	28	200	36,5	1÷14	G20M	1	
D20.L250.ERC20M	20	28	250	36,5	1÷14	G20M	1	
D20.L300.ERC20M	*	20	28	300	36,5	1÷14	G20M	3
D25.L60.ERC20M	25	28	60	44,5	1÷14	G20M	2	
D25.L80.ERC20M	25	28	80	44,5	1÷14	G20M	2	
D25.L100.ERC20M	25	28	100	44,5	1÷14	G20M	2	
D25.L130.ERC20M	25	28	130	44,5	1÷14	G20M	2	
D25.L160.ERC20M	25	28	160	44,5	1÷14	G20M	2	
D25.L200.ERC20M	25	28	200	44,5	1÷14	G20M	2	
D25.L250.ERC20M	25	28	250	44,5	1÷14	G20M	2	
D25.L300.ERC20M	25	28	300	44,5	1÷14	G20M	2	

* = SENZA PASSAGGIO DEL REFRIGERANTE
* = WITHOUT COOLANT BORE

KIT - MANDRINO, CHIAVE E PINZE
KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.D16.L100.20M	ERC20.D2÷13 x 1mm	D16.L100.ERC20M	CH20M
BX.D16.L130.20M	ERC20.D2÷13 x 1mm	D16.L130.ERC20M	CH20M
BX.D16.L160.20M	ERC20.D2÷13 x 1mm	D16.L160.ERC20M	CH20M
BX.D16.L200.20M	ERC20.D2÷13 x 1mm	D16.L200.ERC20M	CH20M
BX.D20.L100.20M	ERC20.D2÷13 x 1mm	D20.L100.ERC20M	CH20M
BX.D20.L130.20M	ERC20.D2÷13 x 1mm	D20.L130.ERC20M	CH20M
BX.D20.L160.20M	ERC20.D2÷13 x 1mm	D20.L160.ERC20M	CH20M
BX.D20.L200.20M	ERC20.D2÷13 x 1mm	D20.L200.ERC20M	CH20M

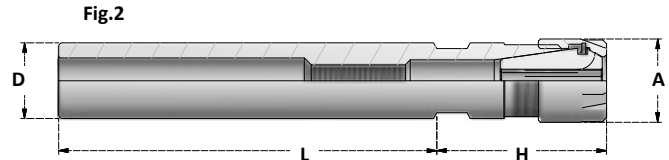
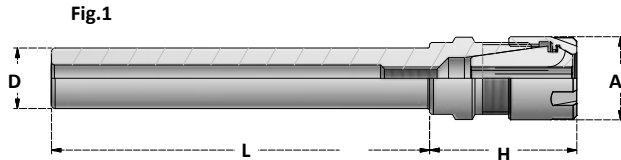
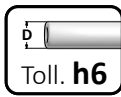
ALTRI A RICHIESTA
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ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA MINI
CYLINDRICAL SHANK ER COLLET CHUCKS WITH MINI NUT

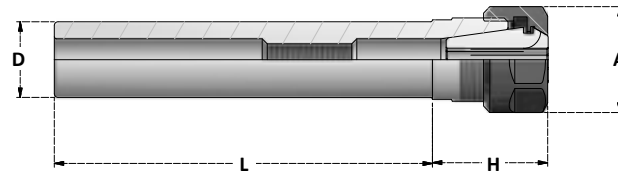
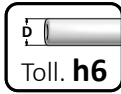


Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D1/2-L2.36-ERC20M	12,7	28	59,9	41,5	1÷14	G20M	1
D1/2-L3.93-ERC20M	12,7	28	99,8	41,5	1÷14	G20M	1
D1/2-L5.11-ERC20M	12,7	28	129,8	41,5	1÷14	G20M	1
D1/2-L6.29-ERC20M	12,7	28	159,8	41,5	1÷14	G20M	1
D5/8-L2.36-ERC20M	15,875	28	59,9	41,5	1÷14	G20M	1
D5/8-L3.93-ERC20M	15,875	28	99,8	41,5	1÷14	G20M	1
D5/8-L5.11-ERC20M	15,875	28	129,8	41,5	1÷14	G20M	1
D5/8-L6.29-ERC20M	15,875	28	159,8	41,5	1÷14	G20M	1
D3/4-L2.36-ERC20M	19,05	28	59,9	36,5	1÷14	G20M	1
D3/4-L3.93-ERC20M	19,05	28	99,8	36,5	1÷14	G20M	1
D3/4-L5.11-ERC20M	19,05	28	129,8	36,5	1÷14	G20M	1
D3/4-L6.29-ERC20M	19,05	28	159,8	36,5	1÷14	G20M	1
D1"-L2.36-ERC20M	25,4	28	59,9	44,5	1÷14	G20M	2
D1"-L3.93-ERC20M	25,4	28	99,8	44,5	1÷14	G20M	2
D1"-L5.11-ERC20M	25,4	28	129,8	44,5	1÷14	G20M	2
D1"-L6.29-ERC20M	25,4	28	159,8	44,5	1÷14	G20M	2

ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA STANDARD ESAGONALE
CYLINDRICAL SHANK ER COLLET CHUCKS WITH STANDARD HEXAGONAL NUT



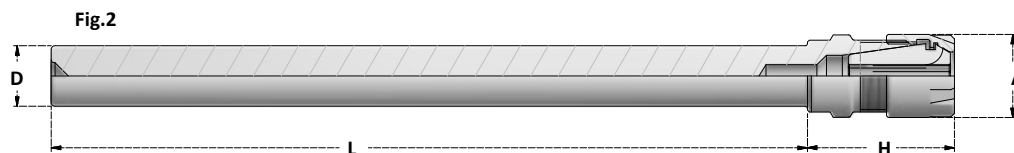
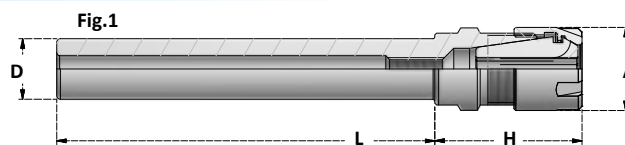
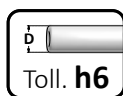
Articolo	D	A	L	H	Collets Range	Ghiera Nut
D20.L60.ERC20	20	34	60	36,5	1÷14	G20SE
D20.L80.ERC20	20	34	80	36,5	1÷14	G20SE
D20.L100.ERC20	20	34	100	36,5	1÷14	G20SE
D20.L130.ERC20	20	34	130	36,5	1÷14	G20SE
D20.L160.ERC20	20	34	160	36,5	1÷14	G20SE
D25.L60.ERC20	25	34	60	44,5	1÷14	G20SE
D25.L80.ERC20	25	34	80	44,5	1÷14	G20SE
D25.L100.ERC20	25	34	100	44,5	1÷14	G20SE
D25.L130.ERC20	25	34	130	44,5	1÷14	G20SE
D25.L160.ERC20	25	34	160	44,5	1÷14	G20SE

Articolo	D	A	L	H	Collets Range	Ghiera Nut
D3/4-L2.36-ERC20	19,05	34	59,9	36,5	1÷14	G20SE
D3/4-L3.93-ERC20	19,05	34	99,8	36,5	1÷14	G20SE
D3/4-L5.11-ERC20	19,05	34	129,8	36,5	1÷14	G20SE
D3/4-L6.29-ERC20	19,05	34	159,8	36,5	1÷14	G20SE
D1"-L2.36-ERC20	25,4	34	59,9	44,5	1÷14	G20SE
D1"-L3.93-ERC20	25,4	34	99,8	44,5	1÷14	G20SE
D1"-L5.11-ERC20	25,4	34	129,8	44,5	1÷14	G20SE
D1"-L6.83-ERC20	25,4	34	159,8	44,5	1÷14	G20SE

ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA MINI
CYLINDRICAL SHANK ER COLLET CHUCKS WITH MINI NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG	
D20.L60.ERC25M	20	35	60	46	1÷20	G25M	1	
D20.L80.ERC25M	20	35	80	46	1÷20	G25M	1	
D20.L100.ERC25M	20	35	100	46	1÷20	G25M	1	
D20.L130.ERC25M	20	35	130	46	1÷20	G25M	1	
D20.L160.ERC25M	20	35	160	46	1÷20	G25M	1	
D20.L200.ERC25M	20	35	200	46	1÷20	G25M	1	
D20.L250.ERC25M	20	35	250	46	1÷20	G25M	2	
D20.L300.ERC25M	*	20	35	300	46	1÷20	G25M	2
D25.L60.ERC25M	25	35	60	40	1÷20	G25M	1	
D25.L80.ERC25M	25	35	80	40	1÷20	G25M	1	
D25.L100.ERC25M	25	35	100	40	1÷20	G25M	1	
D25.L130.ERC25M	25	35	130	40	1÷20	G25M	1	
D25.L160.ERC25M	25	35	160	40	1÷20	G25M	1	
D25.L200.ERC25M	25	35	200	40	1÷20	G25M	1	
D25.L250.ERC25M	25	35	250	40	1÷20	G25M	1	
D25.L300.ERC25M	25	35	300	40	1÷20	G25M	1	

* = SENZA PASSAGGIO DEL REFRIGERANTE

* = WITHOUT COOLANT BORE

Articolo	D	A	L	H	Collets Range	Ghiera Nut
D3/4-L2.36-ERC25M	19,05	35	59,9	46	1÷20	G25M
D3/4-L3.93-ERC25M	19,05	35	99,8	46	1÷20	G25M
D3/4-L5.11-ERC25M	19,05	35	129,8	46	1÷20	G25M
D3/4-L6.29-ERC25M	19,05	35	159,8	46	1÷20	G25M
D1"-L2.36-ERC25M	25,4	35	59,9	40	1÷20	G25M
D1"-L3.93-ERC25M	25,4	35	99,8	40	1÷20	G25M
D1"-L5.11-ERC25M	25,4	35	129,8	40	1÷20	G25M
D1"-L6.29-ERC25M	25,4	35	159,8	40	1÷20	G25M

KIT - MANDRINO, CHIAVE E PINZE

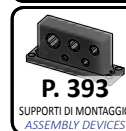
KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.D20.L100.25M	ERC25.D2÷16 x 1mm	D20.L100.ERC25M	CH25M
BX.D20.L130.25M	ERC25.D2÷16 x 1mm	D20.L130.ERC25M	CH25M
BX.D20.L160.25M	ERC25.D2÷16 x 1mm	D20.L160.ERC25M	CH25M
BX.D20.L200.25M	ERC25.D2÷16 x 1mm	D20.L200.ERC25M	CH25M
BX.D25.L100.25M	ERC25.D2÷16 x 1mm	D25.L100.ERC25M	CH25M
BX.D25.L130.25M	ERC25.D2÷16 x 1mm	D25.L130.ERC25M	CH25M
BX.D25.L160.25M	ERC25.D2÷16 x 1mm	D25.L160.ERC25M	CH25M
BX.D25.L200.25M	ERC25.D2÷16 x 1mm	D25.L200.ERC25M	CH25M

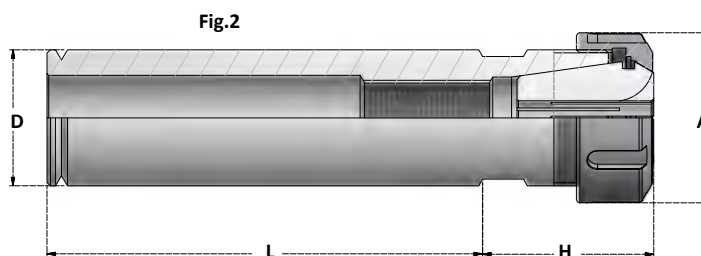
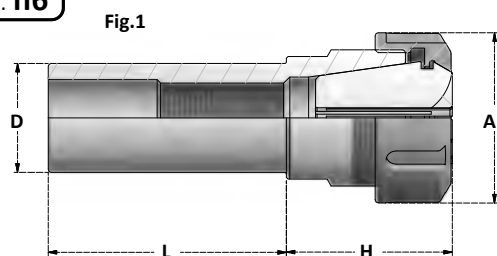
ALTRI A RICHIESTA
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ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA STANDARD
CYLINDRICAL SHANK ER COLLET CHUCKS WITH STANDARD NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D20.L60.ERC25	20	42	60	46	1÷20	G25S	1
D20.L80.ERC25	20	42	80	46	1÷20	G25S	1
D20.L100.ERC25	20	42	100	46	1÷20	G25S	1
D20.L130.ERC25	20	42	130	46	1÷20	G25S	1
D20.L160.ERC25	20	42	160	46	1÷20	G25S	1
D25.L60.ERC25	25	42	60	40	1÷20	G25S	1
D25.L80.ERC25	25	42	80	40	1÷20	G25S	1
D25.L100.ERC25	25	42	100	40	1÷20	G25S	1
D25.L130.ERC25	25	42	130	40	1÷20	G25S	1
D25.L160.ERC25	25	42	160	40	1÷20	G25S	1
D32.L60.ERC25	32	42	60	44	1÷20	G25S	2
D32.L80.ERC25	32	42	80	44	1÷20	G25S	2
D32.L100.ERC25	32	42	100	44	1÷20	G25S	2
D32.L130.ERC25	32	42	130	44	1÷20	G25S	2
D32.L160.ERC25	32	42	160	44	1÷20	G25S	2
D40.L60.ERC25	40	42	60	49	1÷20	G25S	2
D40.L80.ERC25	40	42	80	49	1÷20	G25S	2
D40.L100.ERC25	40	42	100	49	1÷20	G25S	2
D40.L130.ERC25	40	42	130	49	1÷20	G25S	2
D40.L160.ERC25	40	42	160	49	1÷20	G25S	2

KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

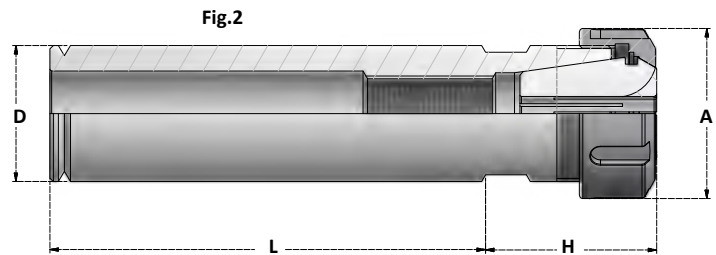
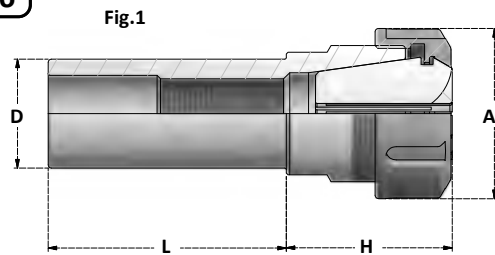
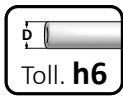
Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.D20.L80.25	ERC25.D2÷16 x 1mm	D20.L80.ERC25	CH25S
BX.D20.L100.25	ERC25.D2÷16 x 1mm	D20.L100.ERC25	CH25S
BX.D25.L80.25	ERC25.D2÷16 x 1mm	D25.L80.ERC25	CH25S
BX.D25.L100.25	ERC25.D2÷16 x 1mm	D25.L100.ERC25	CH25S
BX.D32.L80.25	ERC25.D2÷16 x 1mm	D32.L80.ERC25	CH25S
BX.D32.L100.25	ERC25.D2÷16 x 1mm	D32.L100.ERC25	CH25S
BX.D40.L80.25	ERC25.D2÷16 x 1mm	D40.L80.ERC25	CH25S
BX.D40.L100.25	ERC25.D2÷16 x 1mm	D40.L100.ERC25	CH25S

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PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA STANDARD
CYLINDRICAL SHANK ER COLLET CHUCKS WITH STANDARD NUT

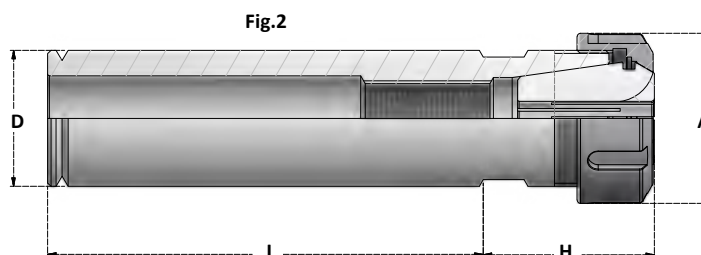
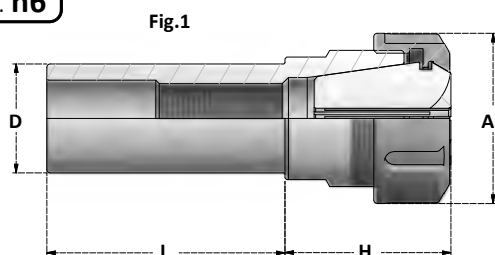


Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D3/4-L2.36-ERC25	19,05	42	59,9	46	1÷20	G25S	1
D3/4-L3.93-ERC25	19,05	42	99,8	46	1÷20	G25S	1
D3/4-L5.11-ERC25	19,05	42	129,8	46	1÷20	G25S	1
D1"-L2.36-ERC25	25,4	42	59,9	40	1÷20	G25S	1
D1"-L3.93-ERC25	25,4	42	99,8	40	1÷20	G25S	1
D1"-L5.11-ERC25	25,4	42	129,8	40	1÷20	G25S	1
D1-1/4-L2.36-ERC25	31,75	42	59,9	44	1÷20	G25S	2
D1-1/4-L3.93-ERC25	31,75	42	99,8	44	1÷20	G25S	2
D1-1/4-L5.11-ERC25	31,75	42	129,8	44	1÷20	G25S	2
D1-1/2-L2.36-ERC25	38,1	42	59,9	49	1÷20	G25S	2
D1-1/2-L3.93-ERC25	38,1	42	99,8	49	1÷20	G25S	2
D1-1/2-L5.11-ERC25	38,1	42	129,8	49	1÷20	G25S	2
D1-3/4-L2.36-ERC25	44,45	42	59,9	49	1÷20	G25S	2
D1-3/4-L3.93-ERC25	44,45	42	99,8	49	1÷20	G25S	2
D1-3/4-L5.11-ERC25	44,45	42	129,8	49	1÷20	G25S	2

ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA STANDARD
CYLINDRICAL SHANK ER COLLET CHUCKS WITH STANDARD NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D20.L60.ERC32	20	50	60	53	2÷22	G32S	1
D20.L80.ERC32	20	50	80	53	2÷22	G32S	1
D20.L100.ERC32	20	50	100	53	2÷22	G32S	1
D20.L130.ERC32	20	50	130	53	2÷22	G32S	1
D20.L160.ERC32	20	50	160	53	2÷22	G32S	1
D25.L60.ERC32	25	50	60	53	2÷22	G32S	1
D25.L80.ERC32	25	50	80	53	2÷22	G32S	1
D25.L100.ERC32	25	50	100	53	2÷22	G32S	1
D25.L130.ERC32	25	50	130	53	2÷22	G32S	1
D25.L160.ERC32	25	50	160	53	2÷22	G32S	1
D32.L60.ERC32	32	50	60	48	2÷22	G32S	1
D32.L80.ERC32	32	50	80	48	2÷22	G32S	1
D32.L100.ERC32	32	50	100	48	2÷22	G32S	1
D32.L130.ERC32	32	50	130	48	2÷22	G32S	1
D32.L160.ERC32	32	50	160	48	2÷22	G32S	1
D40.L60.ERC32	40	50	60	50	2÷22	G32S	2
D40.L80.ERC32	40	50	80	50	2÷22	G32S	2
D40.L100.ERC32	40	50	100	50	2÷22	G32S	2
D40.L130.ERC32	40	50	130	50	2÷22	G32S	2
D40.L160.ERC32	40	50	160	50	2÷22	G32S	2
D50.L130.ERC32	50	50	130	47	2÷22	G32S	2
D50.L160.ERC32	50	50	160	47	2÷22	G32S	2

KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

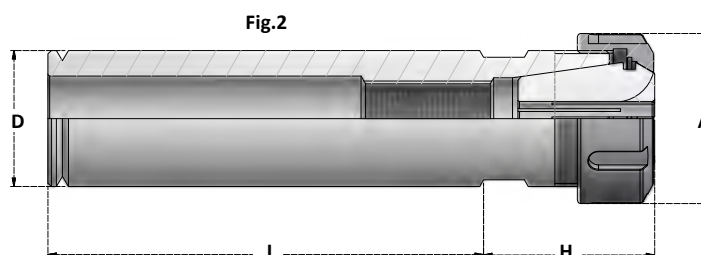
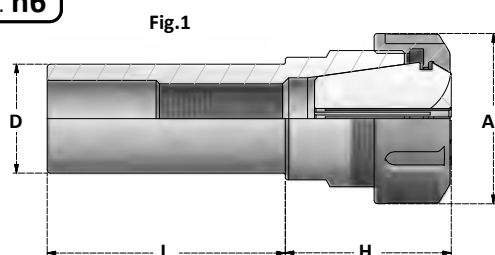
Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.D20.L80.32	ERC32.D3 ÷ D20 x 1mm	D20.L80.ERC32	G32S
BX.D20.L100.32	ERC32.D3 ÷ D20 x 1mm	D20.L100.ERC32	G32S
BX.D25.L80.32	ERC32.D3 ÷ D20 x 1mm	D25.L80.ERC32	G32S
BX.D25.L100.32	ERC32.D3 ÷ D20 x 1mm	D25.L100.ERC32	G32S
BX.D32.L80.32	ERC32.D3 ÷ D20 x 1mm	D32.L80.ERC32	G32S
BX.D32.L100.32	ERC32.D3 ÷ D20 x 1mm	D32.L100.ERC32	G32S
BX.D40.L80.32	ERC32.D3 ÷ D20 x 1mm	D40.L80.ERC32	G32S
BX.D40.L100.32	ERC32.D3 ÷ D20 x 1mm	D40.L100.ERC32	G32S

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OTHERS ON REQUEST

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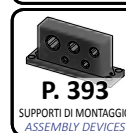


PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA STANDARD
CYLINDRICAL SHANK ER COLLET CHUCKS WITH STANDARD NUT

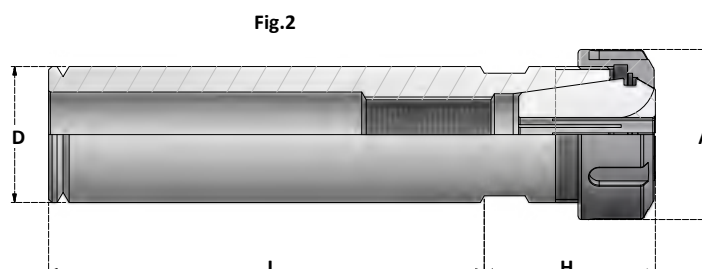
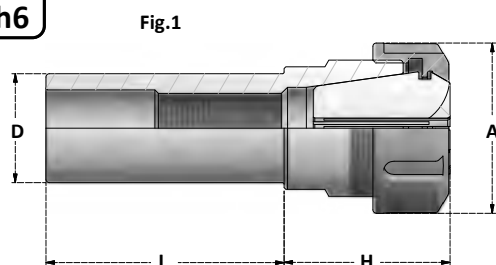


Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D3/4-L2.36-ERC32	19,05	50	59,9	53	2÷22	G32S	1
D3/4-L3.93-ERC32	19,05	50	99,8	53	2÷22	G32S	1
D3/4-L5.11-ERC32	19,05	50	129,8	53	2÷22	G32S	1
D1"-L2.36-ERC32	25,4	50	59,9	53	2÷22	G32S	1
D1"-L3.93-ERC32	25,4	50	99,8	53	2÷22	G32S	1
D1"-L5.11-ERC32	25,4	50	129,8	53	2÷22	G32S	1
D1-1/4-L2.36-ERC32	31,75	50	59,9	48	2÷22	G32S	1
D1-1/4-L3.93-ERC32	31,75	50	99,8	48	2÷22	G32S	1
D1-1/4-L5.11-ERC32	31,75	50	129,8	48	2÷22	G32S	1
D1-1/2-L2.36-ERC32	38,1	50	59,9	50	2÷22	G32S	1
D1-1/2-L3.93-ERC32	38,1	50	99,8	50	2÷22	G32S	1
D1-1/2-L5.11-ERC32	38,1	50	129,8	50	2÷22	G32S	1
D1-3/4-L2.36-ERC32	44,45	50	59,9	50	2÷22	G32S	2
D1-3/4-L3.93-ERC32	44,45	50	99,8	50	2÷22	G32S	2
D1-3/4-L5.11-ERC32	44,45	50	129,8	50	2÷22	G32S	2

ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA STANDARD
CYLINDRICAL SHANK ER COLLET CHUCKS WITH STANDARD NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D25.L60.ERC40	25	63	60	61	3÷30	G40S	1
D25.L80.ERC40	25	63	80	61	3÷30	G40S	1
D25.L100.ERC40	25	63	100	61	3÷30	G40S	1
D25.L130.ERC40	25	63	130	61	3÷30	G40S	1
D25.L160.ERC40	25	63	160	61	3÷30	G40S	1
D32.L60.ERC40	32	63	60	61	3÷30	G40S	1
D32.L80.ERC40	32	63	80	61	3÷30	G40S	1
D32.L100.ERC40	32	63	100	61	3÷30	G40S	1
D32.L130.ERC40	32	63	130	61	3÷30	G40S	1
D32.L160.ERC40	32	63	160	61	3÷30	G40S	1
D40.L80.ERC40	40	63	80	65	3÷30	G40S	1
D40.L100.ERC40	40	63	100	65	3÷30	G40S	1
D40.L130.ERC40	40	63	130	65	3÷30	G40S	1
D40.L160.ERC40	40	63	160	65	3÷30	G40S	1
D50.L120.ERC40	50	63	120	59	3÷30	G40S	2
D50.L160.ERC40	50	63	160	59	3÷30	G40S	2
D60.L160.ERC40	60	63	160	59	3÷30	G40S	2

KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino Chuck	Chiave Wrench
BX.D25.L80.40	ERC40.D4 ÷ D26 x 1mm	D25.L80.ERC40	CH40S
BX.D25.L100.40	ERC40.D4 ÷ D26 x 1mm	D25.L100.ERC40	CH40S
BX.D32.L80.40	ERC40.D4 ÷ D26 x 1mm	D32.L80.ERC40	CH40S
BX.D32.L100.40	ERC40.D4 ÷ D26 x 1mm	D32.L100.ERC40	CH40S
BX.D40.L80.40	ERC40.D4 ÷ D26 x 1mm	D40.L80.ERC40	CH40S
BX.D40.L100.40	ERC40.D4 ÷ D26 x 1mm	D40.L100.ERC40	CH40S

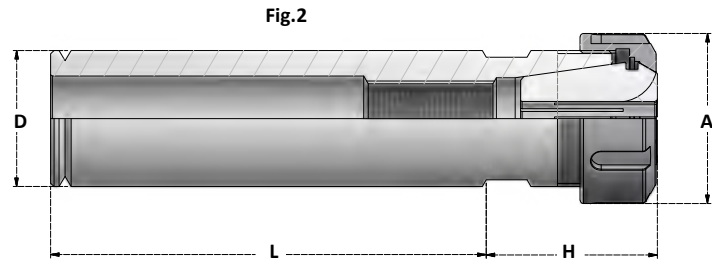
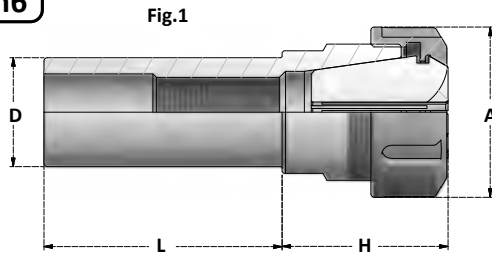
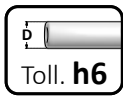
ALTRI A RICHIESTA
OTHERS ON REQUEST

ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA STANDARD

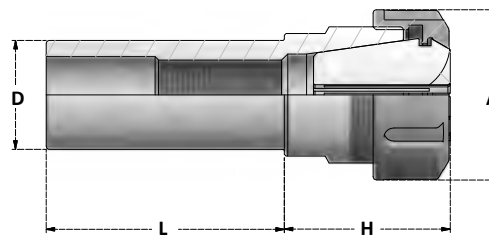
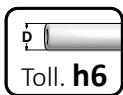
CYLINDRICAL SHANK ER COLLET CHUCKS WITH STANDARD NUT



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D1"-L2.36-ERC40	25,4	63	59,9	61	3÷30	G40S	1
D1"-L3.93-ERC40	25,4	63	99,8	61	3÷30	G40S	1
D1"-L5.11-ERC40	25,4	63	129,8	61	3÷30	G40S	1
D1-1/4-L2.36-ERC40	31,75	63	59,9	61	3÷30	G40S	1
D1-1/4-L3.93-ERC40	31,75	63	99,8	61	3÷30	G40S	1
D1-1/4-L5.11-ERC40	31,75	63	129,8	61	3÷30	G40S	1
D1-1/2-L2.36-ERC40	38,1	63	59,9	65	3÷30	G40S	1
D1-1/2-L3.93-ERC40	38,1	63	99,8	65	3÷30	G40S	1
D1-1/2-L5.11-ERC40	38,1	63	129,8	65	3÷30	G40S	1
D1-3/4-L3.93-ERC40	44,45	63	99,8	65	3÷30	G40S	2
D1-3/4-L5.11-ERC40	44,45	63	129,8	65	3÷30	G40S	2
D2"-L6.29-ERC40	50,8	63	159,8	65	3÷30	G40S	2

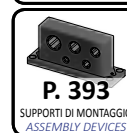
PROLUNGHE CILINDRICHE PORTAPINZA ER CON GHIERA STANDARD

CYLINDRICAL SHANK ER COLLET CHUCKS WITH STANDARD NUT



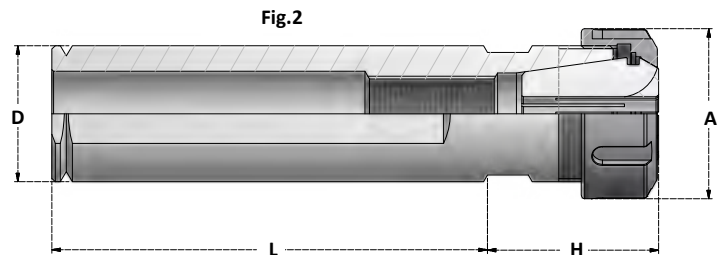
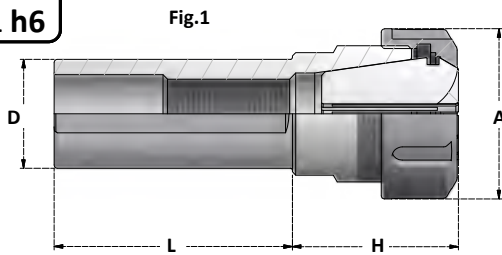
Articolo	D	A	L	H	Collets Range	Ghiera Nut
D40.L160.ERC50	40	78	160	65	6÷34	G50S
D50.L170.ERC50	50	78	170	65	6÷34	G50S
D60.L170.ERC50	60	78	170	65	6÷34	G50S

ACCESSORI - ACCESSORIES

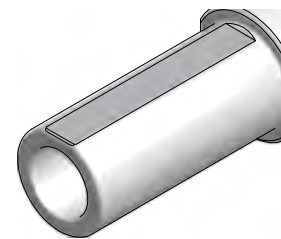


PROLUNGHE CILINDRICHE PORTAPINZA ER CON PIANO
CYLINDRICAL SHANK ER COLLET CHUCKS WITH FLAT

Toll. **h6**



Articolo	D	A	L	H	Collets Range	Ghiera Nut	FIG
D20P.L80.ERC25	20	42	80	46	1÷20	G25S	1
D25P.L80.ERC25	25	42	80	40	1÷20	G25S	1
D32P.L80.ERC25	32	42	80	44	1÷20	G25S	2
D40P.L80.ERC25	40	42	80	49	1÷20	G25S	2
D20P.L80.ERC32	20	50	80	53	2÷22	G32S	1
D25P.L80.ERC32	25	50	80	53	2÷22	G32S	1
D32P.L80.ERC32	32	50	80	48	2÷22	G32S	1
D40P.L80.ERC32	40	50	80	50	2÷22	G32S	2
D25P.L80.ERC40	25	63	80	61	3÷30	G40S	1
D32P.L80.ERC40	32	63	80	61	3÷30	G40S	1
D40P.L80.ERC40	40	63	80	61	3÷30	G40S	1



DIN 1835-1 Form B

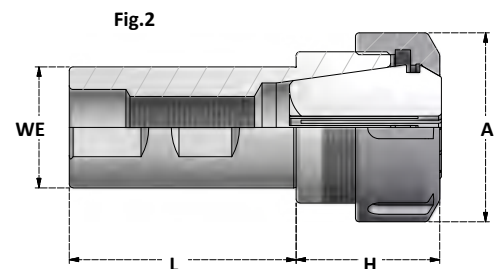
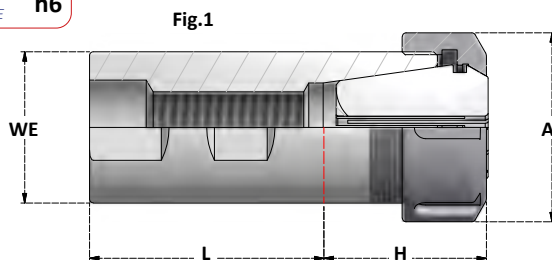
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ERC

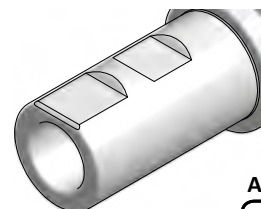
DIN ISO 15488 (DIN6499)

PROLUNGHE CILINDRICHE PORTAPINZA CON PIANI WELDON
CYLINDRICAL SHANK ER COLLET CHUCKS WITH DIN1835 FLATS

GAMBO IN TOLLERANZA
SHANK TOLERANCE **h6**



Articolo	WE	A	L	H	Collets Range	Ghiera Nut	FIG
WE20.L50.ERC16	20	28	50	31	1÷10	G16SE	2
WE20.L50.ERC25	20	42	50	46	1÷20	G25S	2
WE25.L56.ERC25	25	42	56	40	1÷20	G25S	2
WE25.L56.ERC32	25	50	56	53	2÷22	G32S	2
WE32.L60.ERC25	32	42	60	44	1÷20	G25S	1
WE32.L60.ERC32	32	50	60	38	2÷22	G32S	2
WE32.L60.ERC40	32	63	60	61	3÷30	G40S	2
WE40.L74.ERC32	40	50	74	31	2÷22	G32S	1
WE40.L74.ERC40	40	63	74	65	3÷30	G40S	2
WE50.L80.ERC40	50	63	80	37	3÷30	G40S	1



ACCESSORI - ACCESSORIES



P. 280
PINZE
COLLETS



P. 341
GHIERE
NUTS



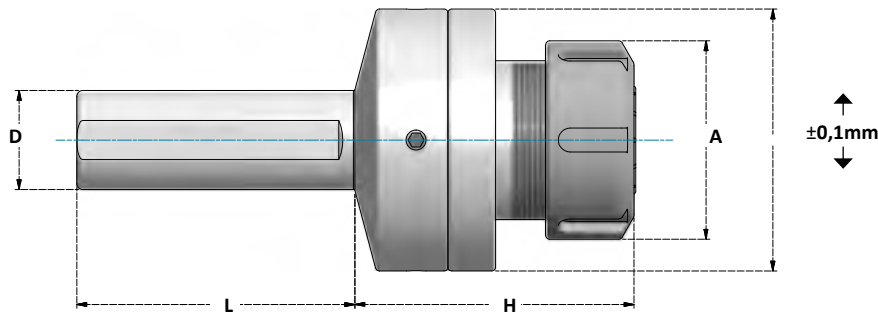
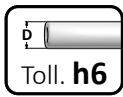
P. 393
SUPPORTI DI MONTAGGIO
ASSEMBLY DEVICES



P. 353
CHIAVI
WRENCHES

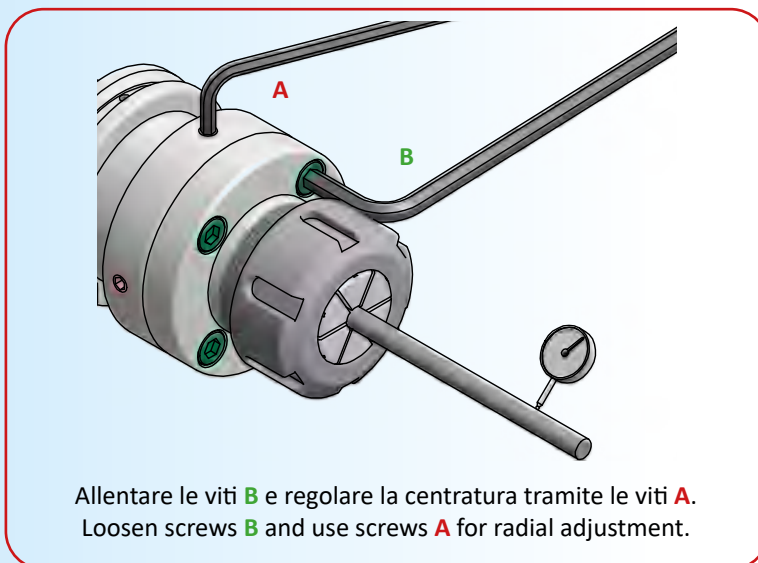
MANDRINI PORTAPINZA ER A CENTRATURA REGOLABILE

RUNOUT ADJUSTABLE ER COLLET CHUCKS



Articolo	D	A	L	H	Collets Range	Ghiera Nut
D25P.L70.ERC16RG	25	28	70	66	1÷10	G16SE
D25P.L70.ERC20RG	25	34	70	68	1÷14	G20SE
D25P.L70.ERC25RG	25	42	70	69	1÷20	G25S
D25P.L70.ERC32RG	25	50	70	70	2÷22	G32S
D25P.L70.ERC40RG	25	63	70	104	3÷30	G40S
D32P.L70.ERC16RG	32	28	70	66	1÷10	G16SE
D32P.L70.ERC20RG	32	34	70	68	1÷14	G20SE
D32P.L70.ERC25RG	32	42	70	69	1÷20	G25S
D32P.L70.ERC32RG	32	50	70	70	2÷22	G32S
D32P.L70.ERC40RG	32	63	70	104	3÷30	G40S
D40P.L70.ERC16RG	40	28	70	64	1÷10	G16SE
D40P.L70.ERC20RG	40	34	70	66	1÷14	G20SE
D40P.L70.ERC25RG	40	42	70	67	1÷20	G25S
D40P.L70.ERC32RG	40	50	70	68	2÷22	G32S
D40P.L70.ERC40RG	40	63	70	102	3÷30	G40S

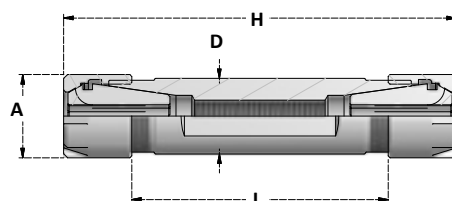
Centratura regolabile 0,1mm
Adjustable runout 0,1mm



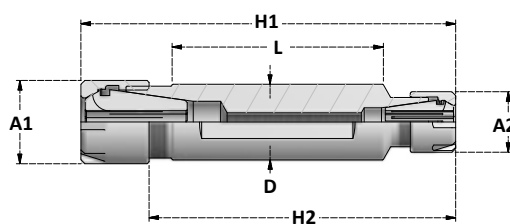
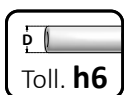
ACCESSORI - ACCESSORIES



MANDRINI PORTAPINZA ER CON GHIERA MINI DOPPI
DOUBLE ER COLLET CHUCKS WITH MINI NUT

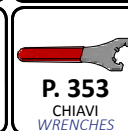
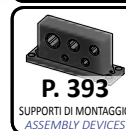


Articolo	D	A	L	H	Collets Range	Ghiera Nut
D16P.L40.ERC11M-11M	16	16	40	71	1÷7	G11M
D20P.L42.ERC11M-11M	20	16	42	70	1÷7	G11M
D20P.L52.ERC11M-11M	20	16	52	80	1÷7	G11M
D20P.L62.ERC11M-11M	20	16	62	90	1÷7	G11M
D20P.L37.ERC16M-16M	20	22	37	80	1÷10	G16M
D20P.L57.ERC16M-16M	20	22	57	100	1÷10	G16M
D20P.L67.ERC16M-16M	20	22	67	110	1÷10	G16M
D20P.L122.ERC16M-16M	20	22	122	165	1÷10	G16M
D22P.L27.ERC16M-16M	22	22	27	70	1÷10	G16M
D22P.L47.ERC16M-16M	22	22	47	90	1÷10	G16M
D22P.L67.ERC16M-16M	22	22	67	110	1÷10	G16M
D22P.L102.ERC16M-16M	22	22	102	145	1÷10	G16M
D22P.L122.ERC16M-16M	22	22	122	165	1÷10	G16M
D25P.L27.ERC16M-16M	25	22	27	70	1÷10	G16M
D25P.L47.ERC16M-16M	25	22	47	90	1÷10	G16M
D25P.L67.ERC16M-16M	25	22	67	110	1÷10	G16M
D25P.L82.ERC20M-20M	25	28	82	130	1÷14	G20M
D32P.L57.ERC20M-20M	32	28	57	105	1÷14	G20M
D32P.L82.ERC20M-20M	32	28	82	130	1÷14	G20M

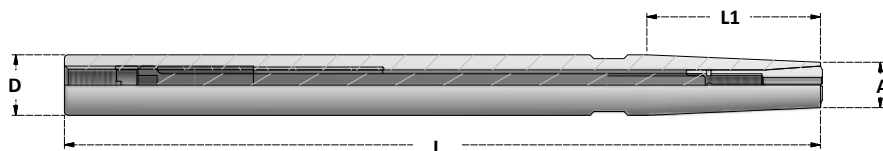
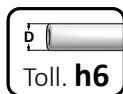


Articolo	D	A1	A2	L	H1	H2	Collets Range	Ghiera Nut	Collets Range	Ghiera Nut
D20P.L50.ERC16M-11M	20	22	16	50	85	68	1÷10	G16M	1÷7	G11M
D20P.L50.ERC20M-11M	20	28	16	50	91	72	1÷14	G20M	1÷7	G11M
D22P.L45.ERC20M-16M	22	28	22	45	90	71	1÷14	G20M	1÷10	G16M
D22P.L60.ERC20M-16M	22	28	22	60	105	86	1÷14	G20M	1÷10	G16M
D25P.L45.ERC20M-16M	25	28	22	45	90	71	1÷14	G20M	1÷10	G16M
D25P.L60.ERC20M-16M	25	28	22	60	105	86	1÷14	G20M	1÷10	G16M
D25P.L45.ERC25M-16M	25	35	22	45	91	71	1÷20	G25M	1÷10	G16M
D25P.L50.ERC25M-16M	25	35	22	50	106	86	1÷20	G25M	1÷10	G16M
D32P.L60.ERC25M-20M	32	35	28	60	108	88	1÷20	G25M	1÷14	G20M

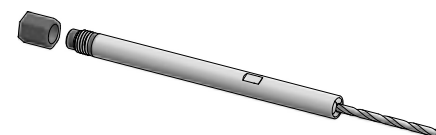
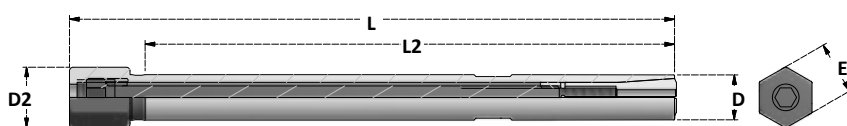
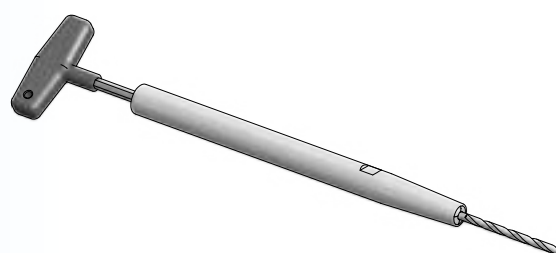
ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PORTAPINZA P8 CYLINDRICAL EXTENSIONS P8 COLLET CHUCKS



Articolo	D	A	L	L1
D16.L120.P8	16	12	120	48
D16.L150.P8	16	12	150	48
D16.L200.P8	16	12	200	48
D20.L120.P8	20	12	120	76,5
D20.L150.P8	20	12	150	86
D20.L200.P8	20	12	200	76,5
D25.L120.P8	25	14	120	60
D25.L150.P8	25	14	150	60
D25.L200.P8	25	14	200	60



LA VITE ESAGONALE PUÒ ESSERE RIMOSSA DOPO AVER SERRATO LA PINZA COSÌ DA POTER INSERIRE LA PROLUNGA NEI PORTAUTENSILI Ø12.

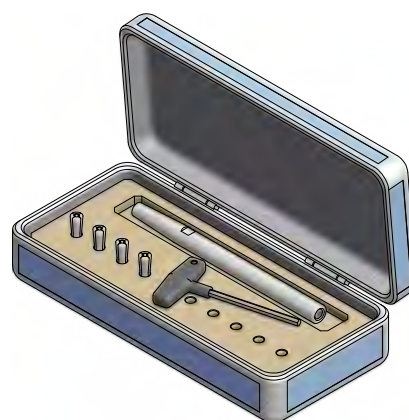
HEX SCREW CAN BE REMOVED AFTER CLAMPING THE COLLET, SO THE EXTENSION CAN BE INSERTED IN Ø12 TOOLHOLDERS.

Articolo	D	D2	L	L2	E
D12.L120.P8	12	16	130	110	14
D12.L150.P8	12	16	160	140	14

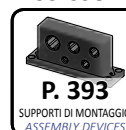
KIT - MANDRINO, CHIAVE E PINZE

KIT - TOOLHOLDER, WRENCH AND COLLETS

Articolo	Pinze Collets	Mandrino con chiave Toolholder with wrench
BX.D12.L120.P8	P8.D3- D4- D5- D6	D12.L120.P8
BX.D12.L150.P8	P8.D3- D4- D5- D6	D12.L150.P8
BX.D16.L120.P8	P8.D3- D4- D5- D6	D16.L120.P8
BX.D16.L150.P8	P8.D3- D4- D5- D6	D16.L150.P8
BX.D16.L200.P8	P8.D3- D4- D5- D6	D16.L200.P8
BX.D20.L120.P8	P8.D3- D4- D5- D6	D20.L120.P8
BX.D20.L150.P8	P8.D3- D4- D5- D6	D20.L150.P8
BX.D20.L200.P8	P8.D3- D4- D5- D6	D20.L200.P8
BX.D25.L120.P8	P8.D3- D4- D5- D6	D25.L120.P8
BX.D25.L150.P8	P8.D3- D4- D5- D6	D25.L150.P8
BX.D25.L200.P8	P8.D3- D4- D5- D60	D25.L200.P8

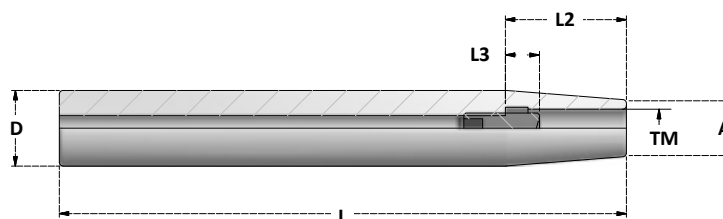


ACCESSORI - ACCESSORIES



PROLUNGHE CILINDRICHE PER CALETTAMENTO A CALDO

CYLINDRICAL SHRINK FIT EXTENSIONS



Articolo	D	TM	A	L	L2	L3
D12.L150.TM3	12	3	8	150	12	/
D12.L150.TM4	12	4	8	150	16	/
D16.L150.TM3	16	3	10	150	12	/
D16.L150.TM4	16	4	10	150	16	/
D16.L150.TM5	16	5	10	150	20	/
D16.L150.TM6	16	6	10	150	36	10
D20.L150.TM3	20	3	10	150	12	/
D20.L150.TM4	20	4	10	150	16	/
D20.L150.TM5	20	5	10	150	20	/
D20.L150.TM6	20	6	10	150	36	10
D20.L150.TM8	20	8	12	150	36	10
D20.L150.TM10	20	10	14	150	41	10
D20.L150.TM12	20	12	16	150	46	10
D25.L160.TM8	25	8	15	160	36	10
D25.L160.TM10	25	10	20	160	41	10
D25.L160.TM12	25	12	20	160	46	10
D25.L160.TM14	25	14	20	160	46	10
D25.L160.TM16	25	16	22	160	49	10
D32.L160.TM8	32	8	24	160	36	10
D32.L160.TM10	32	10	24	160	41	10
D32.L160.TM12	32	12	24	160	46	10
D32.L160.TM14	32	14	27	160	46	10
D32.L160.TM16	32	16	27	160	49	10
D32.L160.TM18	32	18	27	160	49	10
D32.L160.TM20	32	20	27	160	51	10

Profondità regolabile L3
Adjustable depth L3

ACCESSORI - ACCESSORIES

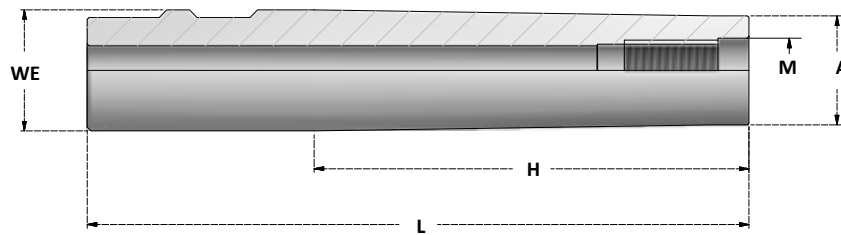
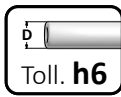


DIN 1835-1 Form B

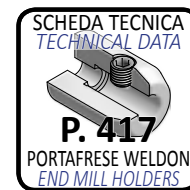
WE

CPY

PROLUNGHE CILINDRICHE CON PIANI WELDON PER FRESE CON ATTACCO FILETTATO
SCREW IN MILL EXTENSIONS WITH DIN1835 FLATS



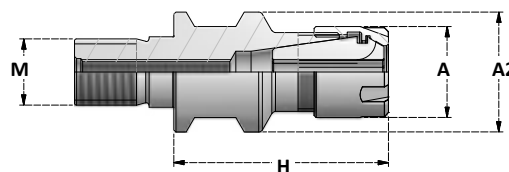
Articolo	M	WE	A	L	H
WE20.L75.M8CPY	M8	20	12,8	75	25
WE20.L100.M8CPY	M8	20	12,8	100	50
WE20.L125.M8CPY	M8	20	12,8	125	75
WE20.L150.M8CPY	M8	20	12,8	150	100
WE20.L175.M8CPY	M8	20	12,8	175	125
WE20.L200.M8CPY	M8	20	12,8	200	150
WE20.L75.M10CPY	M10	20	17,8	75	25
WE20.L100.M10CPY	M10	20	17,8	100	50
WE20.L125.M10CPY	M10	20	17,8	125	75
WE20.L150.M10CPY	M10	20	17,8	150	100
WE20.L175.M10CPY	M10	20	17,8	175	125
WE20.L200.M10CPY	M10	20	17,8	200	150
WE25.L75.M12CPY	M12	25	20,8	75	19
WE25.L100.M12CPY	M12	25	20,8	100	44
WE25.L125.M12CPY	M12	25	20,8	125	69
WE25.L150.M12CPY	M12	25	20,8	150	94
WE25.L175.M12CPY	M12	25	20,8	175	119
WE25.L200.M12CPY	M12	25	20,8	200	104
WE32.L75.M16CPY	M16	32	28,8	75	15
WE32.L100.M16CPY	M16	32	28,8	100	40
WE32.L125.M16CPY	M16	32	28,8	125	65
WE32.L150.M16CPY	M16	32	28,8	150	90
WE32.L175.M16CPY	M16	32	28,8	175	115
WE32.L200.M16CPY	M16	32	28,8	200	140



D

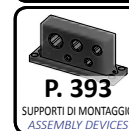
CNP

ADATTATORI PORTAPINZE ER CON ATTACCO FILETTATO
ER COLLET CHUCKS ADAPTERS WITH SCREW

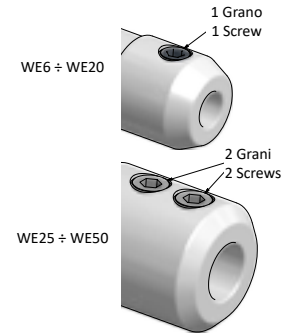
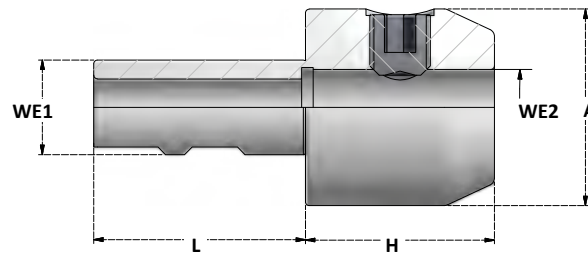
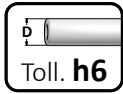


Articolo	M	A	A2	H	Range D	Ghiera Nut
M12.H50.ERC16M	M12	22	21	50	1÷10	G16M
M16.H50.ERC16M	M16	22	29	50	1÷10	G16M

ACCESSORI - ACCESSORIES



RIDUZIONI WELDON
END MILL SHANK ADAPTERS

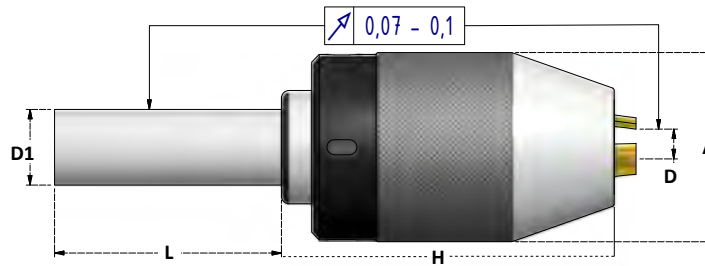
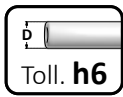


Articolo	WE1	WE2	A	L	H	
WE20.H30.WE6	20	6	25	50	30	<i>Fino a esaurimento / While stocks last</i>
WE20.H30.WE8	20	8	28	50	30	<i>Fino a esaurimento / While stocks last</i>
WE20.H30.WE10	20	10	35	50	30	<i>Fino a esaurimento / While stocks last</i>
WE20.H35.WE12	20	12	42	50	35	<i>Fino a esaurimento / While stocks last</i>
WE20.H59.WE14	20	14	44	50	59	<i>Fino a esaurimento / While stocks last</i>
WE20.H59.WE16	20	16	48	50	59	<i>Fino a esaurimento / While stocks last</i>
WE25.H25.WE6	25	6	25	56	25	<i>Fino a esaurimento / While stocks last</i>
WE25.H27.WE8	25	8	28	56	27	<i>Fino a esaurimento / While stocks last</i>
WE25.H30.WE10	25	10	35	56	30	<i>Fuori produzione / Out of production</i>
WE25.H35.WE12	25	12	42	56	35	<i>Fino a esaurimento / While stocks last</i>
WE25.H35.WE14	25	14	44	56	35	<i>Fino a esaurimento / While stocks last</i>
WE25.H38.WE16	25	16	48	56	38	<i>Fino a esaurimento / While stocks last</i>
WE25.H50.WE18	25	18	50	56	50	<i>Fuori produzione / Out of production</i>
WE25.H50.WE20	25	20	52	56	50	<i>Fuori produzione / Out of production</i>
WE32.H30.WE6	32	6	25	60	30	
WE32.H30.WE8	32	8	28	60	30	
WE32.H30.WE10	32	10	35	60	30	
WE32.H35.WE12	32	12	42	60	35	
WE32.H35.WE14	32	14	44	60	35	
WE32.H40.WE16	32	16	48	60	40	
WE32.H40.WE18	32	18	50	60	40	
WE32.H40.WE20	32	20	52	60	40	
WE32.H65.WE25	32	25	65	60	65	

ACCESSORI - ACCESSORIES



MANDRINI PORTAPUNTA AUTOSERRANTI - ROTAZIONE DESTRA
DRILL CHUCKS - RIGHT ROTATION



Articolo	Range D	D1	H	L	A	Chiave Wrench
D20.L60.DCK8S	0,5 - 8	20	61	60	37,5	CH.DC8
D20.L60.DCK13S	1 - 13	20	81	60	50,5	CH.DC13
D20.L60.DCK16S	2,5 - 16	20	85	60	57	CH.DC16
D25.L79.DCK13S	1 - 13	25	81	79	50,5	CH.DC13
D25.L80.DCK16S	2,5 - 16	25	85	80	57	CH.DC16
D32.L81.DCK13S	1 - 13	32	81	81	50,5	CH.DC13
D32.L82.DCK16S	2,5 - 16	32	85	82	57	CH.DC16

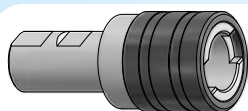
**GRIFFE RIVESTITE
IN TITANIO**

**TITANIUM
COATED JAWS**

ACCESSORI - ACCESSORIES

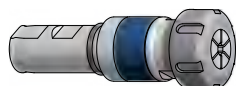


MANDRINI PORTAMASCHI TAPPING CHUCKS



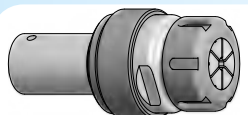
MASCHIATORI CON COMPENSAZIONE ASSIALE
TAPPING CHUCKS WITH AXIAL COMPENSATION

PAG. 270



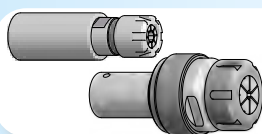
MANDRINI PER MASCHIATURA SINCRONIZZATA
TAPPING CHUCKS FOR SYNCHRONIZED TAPPING

PAG. 271



PORTAMASCHI CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESSIONE
TENSION AND COMPRESSION ER COLLET TAP HOLDERS

PAG. 272



PORTAMASCHI CON COMPENSAZIONE ASSIALE SOLO A TRAZIONE
TENSION ONLY ER COLLETS TAP HOLDERS

PAG. 273

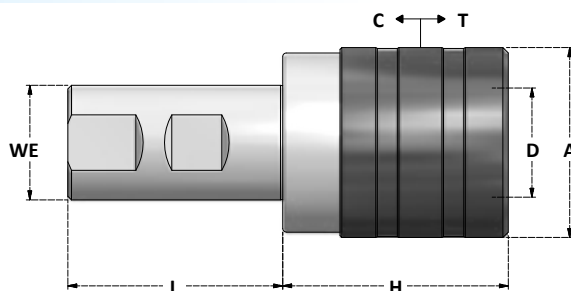
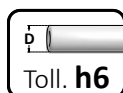
GAMBO IN TOLLERANZA
SHANK TOLERANCE **h6**

DIN 1835-1 Form B

WE

MCR TC

MASCHIATORI CON COMPENSAZIONE ASSIALE TAPPING CHUCKS WITH AXIAL COMPENSATION



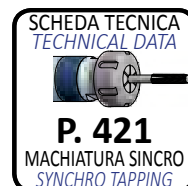
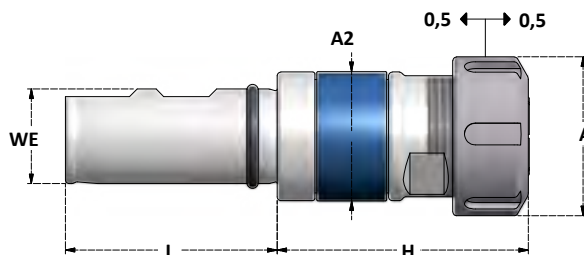
Articolo	WE	Bussola Adapter	D	Capacità Bussola Adapter Range	H	L	A	T	C
WE20.MCR1TC	20	B1 / BF1	19	M2÷M14	40	50	36	7,5	7,5
WE25.MCR1TC	25	B1 / BF1	19	M2÷M14	40	56	36	7,5	7,5
WE25.MCR2TC	25	B2 / BF2	31	M6÷M27	63	56	53	12,5	12,5
WE32.MCR1TC	32	B1 / BF1	19	M2÷M14	40	56	36	7,5	7,5
WE32.MCR2TC	32	B2 / BF2	31	M6÷M27	63	60	53	12,5	12,5
WE32.MCR3TC	32	B3 / BF3	48	M14÷M45	125	60	78	20	20
WE40.MCR1TC	40	B1 / BF1	19	M2÷M14	40	70	36	7,5	7,5
WE40.MCR2TC	40	B2 / BF2	31	M6÷M27	63	70	53	12,5	12,5
WE40.MCR3TC	40	B3 / BF3	48	M14÷M45	125	70	78	20	20
WE40.MCR4TC	40	B4 / BF4	60	M22÷M45	126	70	96	22,5	22,5

ACCESSORI - ACCESSORIES



MANDRINI PER MASCHIATURA SINCRONIZZATA

TAPPING CHUCKS FOR SYNCHRONIZED TAPPING



Articolo	WE	A	A2	L	H	Collets Range	Tapping Range	Ghiera Nut
WE20.ERC16MSY	20	22	34	51	58	3,5 ÷ 10	M3 ÷ M12	G16M

Articolo	D	A	A2	L	H	Collets Range	Tapping Range	Ghiera Nut
WE25.ERC20SY	25	34	34	56	61	3,5 ÷ 12	M3 ÷ M16	G20S
WE25.ERC25SY	25	42	45	56	65	3,5 ÷ 16	M3 ÷ M20	G25S
WE25.ERC32SY	25	50	45	56	87	3,5 ÷ 20	M3 ÷ M27	G32S
WE32.ERC40SY	32	63	62	61	108	6 ÷ 25	M5 ÷ M33	G40S

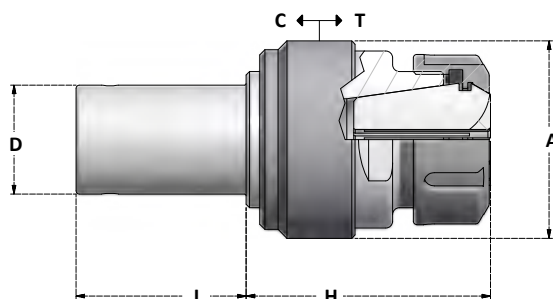
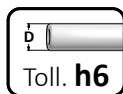
VANTAGGI RISPETTO AL SISTEMA CON BUSSOLE
ADVANTAGES COMPARED TO ADAPTERS SYSTEM

- PASSAGGIO DEL REFRIGERANTE
 - ADATTO PER MASCHIATURA AD ALTE VELOCITÀ
 - SISTEMA PORTAPINZE ER
- COOLANT THROUGH
- SUITABLE FOR HIGH SPEED TAPPING
- ER COLLET SYSTEM

ACCESSORI - ACCESSORIES

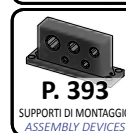


PORTAMASCHI CON COMPENSAZIONE ASSIALE A TRAZIONE E COMPRESIONE
TENSION AND COMPRESSION ER COLLET TAP HOLDERS



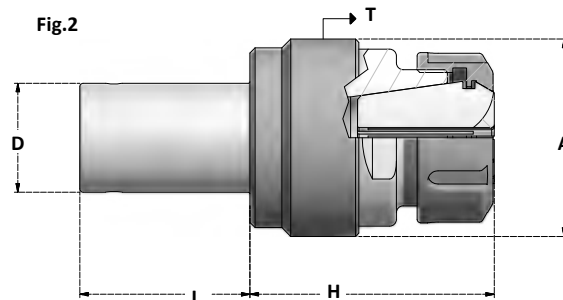
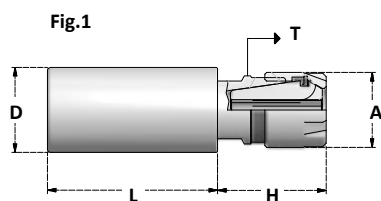
Articolo	D	A	L	H	C	T	Collets Range	Tapping Range	Ghiera Nut
D16PM.L32.ERC11	16	29	32	36	2,5	5,5	1÷7	M3 ÷ M10	G11SE
D20PM.L32.ERC11	20	29	32	36	2,5	5,5	1÷7	M3 ÷ M10	G11SE
D16PM.L32.ERC16	16	29	32	48	2,5	5,5	3,5 ÷ 10	M3 ÷ M12	G16SE
D20PM.L32.ERC16	20	29	32	48	2,5	5,5	3,5 ÷ 10	M3 ÷ M12	G16SE
D20PM.L46.ERC20	20	44	46	59	3	9	3,5 ÷ 12	M3 ÷ M16	G20SE
D25PM.L46.ERC20	25	44	46	59	3	9	3,5 ÷ 12	M3 ÷ M16	G20SE
D20PM.L46.ERC25	20	44	46	73	3	9	3,5 ÷ 16	M3 ÷ M20	G25S
D25PM.L50.ERC25	25	58	50	68	4	12	3,5 ÷ 16	M3 ÷ M20	G25S
D25PM.L80.ERC25	25	58	80	68	4	12	3,5 ÷ 16	M3 ÷ M20	G25S
D32PM.L50.ERC25	32	58	50	68	4	12	3,5 ÷ 16	M3 ÷ M20	G25S
D40PM.L85.ERC25	40	58	85	68	4	12	3,5 ÷ 16	M3 ÷ M20	G25S
D25PM.L50.ERC32	25	58	50	70	4	12	3,5 ÷ 20	M3 ÷ M27	G32S
D25PM.L80.ERC32	25	58	80	70	4	12	3,5 ÷ 20	M3 ÷ M27	G32S
D32PM.L50.ERC32	32	58	50	70	4	12	3,5 ÷ 20	M3 ÷ M27	G32S
D40PM.L85.ERC32	40	58	85	70	4	12	3,5 ÷ 20	M3 ÷ M27	G32S

ACCESSORI - ACCESSORIES



PORTAMASCHI CON COMPENSAZIONE ASSIALE SOLO A TRAZIONE

TENSION ONLY ER COLLETS TAP HOLDERS



Articolo	D	L	H	Fig
D16PMT.L40.ERC11M	16	40	21	1
D20PMT.L40.ERC11M	20	40	21	1
D25PMT.L40.ERC11M	25	40	21	1
D16PMT.L40.ERC16M	16	40	36	1
D20PMT.L50.ERC16M	20	50	30	1
D20PMT.L70.ERC16M	20	70	30	1
D20PMT.L120.ERC16M	20	120	30	1
D25PMT.L50.ERC16M	25	50	30	1
D25PMT.L70.ERC16M	25	70	30	1
D25PMT.L120.ERC16M	25	120	30	1
D20PMT.L50.ERC20M	20	50	40	1
D20PMT.L70.ERC20M	20	70	40	1
D20PMT.L120.ERC20M	20	120	40	1
D25PMT.L50.ERC20M	25	50	40	1
D25PMT.L70.ERC20M	25	70	40	1
D25PMT.L120.ERC20M	25	120	40	1
D20PMT.L50.ERC25M	20	50	42	1
D20PMT.L70.ERC25M	20	70	42	1
D20PMT.L120.ERC25M	20	120	42	1
D25PMT.L50.ERC25M	25	50	42	1
D25PMT.L70.ERC25M	25	70	42	1
D25PMT.L120.ERC25M	25	120	42	1

Articolo	A	T	Tapping Range	Collets Range	Ghiera Nut
...PMT...ERC11M	16	10	M3 ÷ M10	1÷7	G11M
...PMT...ERC16M	22	14	M3 ÷ M12	3,5 ÷ 10	G16M
...PMT...ERC20M	28	14	M3 ÷ M16	3,5 ÷ 12	G20M
...PMT...ERC25M	35	14	M3 ÷ M20	3,5 ÷ 16	G25M

Articolo	D	L	H	Fig
D16PMT.L32.ERC11	16	32	36	2
D20PMT.L32.ERC11	20	32	36	2
D16PMT.L32.ERC16	16	32	48	2
D20PMT.L32.ERC16	20	32	48	2
D20PMT.L46.ERC20	20	46	56	2
D25PMT.L46.ERC20	25	46	56	2
D20PMT.L46.ERC25	20	46	70	2
D25PMT.L50.ERC25	25	50	64	2
D25PMT.L80.ERC25	25	80	64	2
D32PMT.L50.ERC25	32	50	64	2
D40PMT.L85.ERC25	40	85	64	2
D25PMT.L50.ERC32	25	50	66	2
D25PMT.L80.ERC32	25	80	66	2
D32PMT.L50.ERC32	32	50	64	2
D40PMT.L85.ERC32	40	85	64	2

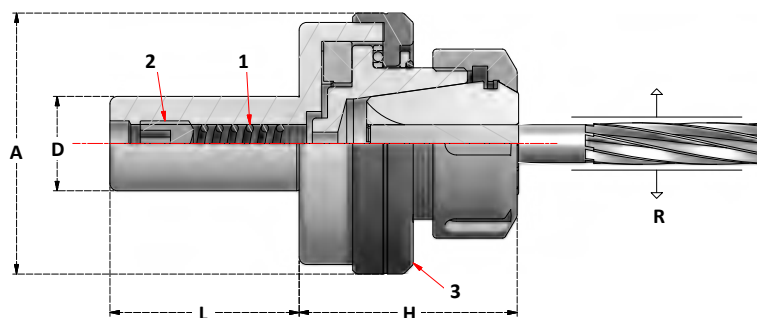
Articolo	A	T	Tapping Range	Collets Range	Ghiera Nut
...PMT...ERC11	29	8	M3 ÷ M10	1÷7	G11SE
...PMT...ERC16	29	8	M3 ÷ M12	3,5 ÷ 10	G16MSE
...PMT...ERC20	44	12	M3 ÷ M16	3,5 ÷ 12	G20SE
...PMT...ERC25	58	16	M3 ÷ M20	3,5 ÷ 16	G25S
...PMT...ERC32	58	16	M3 ÷ M27	3,5 ÷ 20	G32S

ACCESSORI - ACCESSORIES



PORTA ALESATORI FLOTTANTI CON REFRIGERAZIONE INTERNA

FLOATING REAMER HOLDERS WITH COOLANT THROUGH



Articolo	D	L	H
D16.L46.RM11	16	46	40
D20.L46.RM11	20	46	40
D25.L46.RM11	25	46	40
D16.L46.RM16	16	46	44
D20.L46.RM16	20	46	44
D25.L46.RM16	25	46	44
D16.L46.RM20	16	46	50
D20.L46.RM20	20	46	50
D25.L46.RM20	25	46	50
D16.L46.RM25	16	46	53
D20.L46.RM25	20	46	53
D25.L46.RM25	25	46	53
D32.L46.RM25	32	46	53
D25.L50.RM32	25	50	53
D32.L50.RM32	32	50	53
D25.L50.RM40	25	50	64
D32.L50.RM40	32	50	64

Articolo	D	L	H
D5/8.L46.RM11	15,875	46	40
D3/4.L46.RM11	19,05	46	40
D1".L46.RM11	25,4	46	40
D5/8.L46.RM16	15,875	46	44
D3/4.L46.RM16	19,05	46	44
D1".L46.RM16	25,4	46	44
D3/4.L46.RM20	19,5	46	50
D1".L46.RM20	25,4	46	50
D3/4.L46.RM25	19,5	46	53
D1".L46.RM25	25,4	46	53
D1".L50.RM32	25,4	50	58
D1-1/4.L50.RM32	31,75	50	58
D1".L50.RM40	25,4	50	64
D1-1/4.L50.RM40	31,75	50	64

Articolo	A	R	Collets Range	Ghiera Nut
...RM11	42	± 1 mm	1÷7	G11A.EX
...RM16	42	± 1 mm	1÷10	G16SE
...RM20	50	± 1 mm	1÷14	G20SE
...RM25	57	± 1 mm	1÷20	G25S
...RM32	69	± 1,5 mm	2÷22	G32S
...RM40	79	± 1,5 mm	3÷30	G40S

R = Capacità di movimento radiale
R = Radial stroke

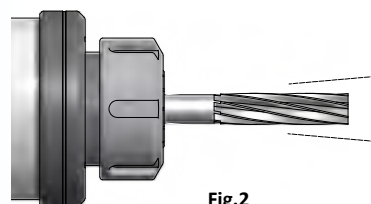


Fig.2

ACCESSORI - ACCESSORIES



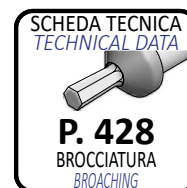
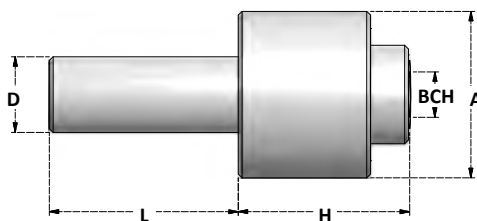
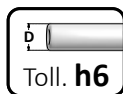
L'alesatore oscilla su un cuscinetto a sfere per compensare gli errori di allineamento tra il mandrino della macchina e il pezzo in lavorazione.

- La spinta della molla 1 mantiene l'utensile centrato anche in posizione orizzontale.
- La vite 2 regola la pressione della molla per regolare il movimento radiale.
- Allentando di 0,1/0,2mm la ghiera 3 si permette all'alesatore di avere un movimento pendolare. (Fig2)

Free moving ball bearing drive, permit to reamer to follow drilled hole of workpiece.

- Pressure of spring 1 keeps reamer centered, even in horizontal position.
- Screw 2 allows adjustment of floating level.
- Unscrewing nut 3 for 0,1/0,2mm, the reamer has a pendulum float. (Fig 2)

BROCCIATORI FISSI
BROACH HOLDERS

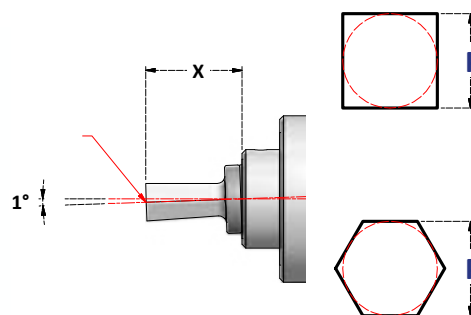


Articolo	D	BCH	A	L	H	X
D8.L35.BCH5	8	5	22	35	34	10
D10.L35.BCH5	10	5	22	35	34	10
D12.L35.BCH5	12	5	22	35	34	10
D16.L35.BCH5	16	5	22	35	34	10
D20.L46.BCH5	20	5	22	46	34	10

Articolo	D	BCH	A	L	H	X
D10.L35.BCH8	10	8	32	35	38	18
D12.L35.BCH8	12	8	32	35	38	18
D16.L35.BCH8	16	8	32	35	38	18
D20.L50.BCH8	20	8	32	50	38	18
D25.L50.BCH8	25	8	32	50	38	18

Articolo	D	BCH	A	L	H	X
D16.L50.BCH12	16	12	44	50	46	25
D20.L50.BCH12	20	12	44	50	46	25
D25.L50.BCH12	25	12	44	50	46	25
D32.L50.BCH12	32	12	44	50	46	25

Articolo	D	BCH	A	L	H	X
D20.L50.BCH16	20	16	58	50	76	40
D25.L50.BCH16	25	16	58	50	76	40
D32.L50.BCH16	32	16	58	50	76	40
D40.L80.BCH16	40	16	58	80	76	40



ISTRUZIONI D'USO

- DIAMETRO DI FORATURA

Eseguire una foratura maggiorata di 0,2 - 0,3mm rispetto alla quota **P** della brocciatura da eseguire per rendere meno gravoso l'avanzamento dell'utensile.

- GIRI DELLA BROCCIA

1000 - 1500 (giri/min)

- AVANZAMENTO DELLA BROCCIA

0,01 - 0,03 (mm/giro)

- LUNGHEZZA DELLE BROCCHE

Per questi brocciatori è importante usare brocche con lunghezza **X**.

INSTRUCTIONS

- DRILLING DIAMETER

Make hole 0,2-0,3mm larger than size **P** of broach.

- ROTATION SPEED

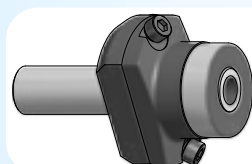
1000 - 1500 (rpm)

- FEED

0,01 - 0,03 (mm/rpm)

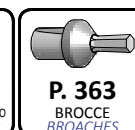
- BROACHING LENGHT

In this toolholder is important to use broaches with lengths **X**.



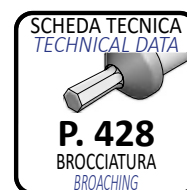
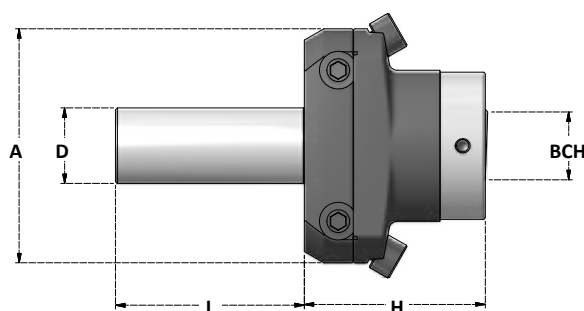
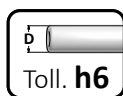
**BROCCIATORI REGISTRABILI
CON ATTACCO CILINDRICO**
*CYLINDRICAL SHANK
ADJUSTABLE BROACH TOOLHOLDERS*
PAG. 276

ACCESSORI - ACCESSORIES

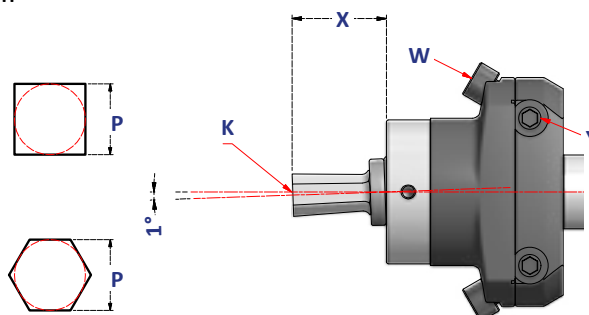


BROCCIATORI REGISTRABILI

ADJUSTABLE BROACH HOLDERS



Articolo	D	BCH	A	L	H
D10.L35.BCH8R	10	8	50	35	34
D12.L35.BCH8R	12	8	50	35	34
D16.L35.BCH8R	16	8	50	35	34
D20.L46.BCH8R	20	8	50	46	34
D25.L46.BCH8R	25	8	50	46	34
D20.L50.BCH12R	20	12	62	50	52
D25.L50.BCH12R	25	12	62	50	52
D32.L50.BCH12R	32	12	62	50	52



ISTRUZIONI D'USO

- DIAMETRO DI FORATURA

Eseguire una foratura maggiorata di 0,2 - 0,3mm rispetto alla quota **P** della brocciatura da eseguire per rendere meno gravoso l'avanzamento dell'utensile.

- GIRI DELLA BROCCIA

1000 - 1500 (giri/min)

- AVANZAMENTO DELLA BROCCIA

0,01 - 0,03 (mm/giro)

- LUNGHEZZA DELLE BROCCIE

Si possono usare brocche di diversa lunghezza **X**, consentendo così di eseguire brocciature all'interno di incamerature relativamente poco profonde.

- CENTRATURA DELLA BROCCIA

La registrazione mediante le viti **Y** in senso laterale e le viti **W** in senso verticale permette di ottenere la centratura del punto **K** rispetto all'asse del gambo **D** più precisa rispetto ai tradizionali brocciatori non regolabili.

- DISASSAMENTO TORRETTA

Permette, nei casi in cui l'alloggiamento in macchina del gambo **D** non sia in asse con il mandrino della fantina, di correggere tale disassamento agendo sempre sulle viti di registrazione **Y** e **W**.

INSTRUCTIONS

- DRILLING DIAMETER

Make hole 0,2-0,3mm larger than size **P** of broach.

- ROTATION SPEED

1000 - 1500 (rpm)

- FEED

0,01 - 0,03 (mm/rpm)

- BROACHING LENGHT

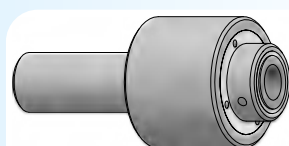
You can use different broaching lengths **X**, so that you can even broach inside quite deep chambers.

- BROACH CENTRING

By adjusting screws **Y** sideways and screws **W** vertically, you can centre point **K** compared to centre-line of shaft **D**, which is more precise compared to traditional broaching toolholders that are not adjustable.

- TURRET OFFSET

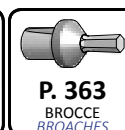
If shaft is not lodged in machine centred with chuck of head stock, you can correct this offset, again by adjusting screws **Y** and **W**.



BROCCIATORI FISSI
CON ATTACCO CILINDRICO
CYLINDRICAL SHANK
BROACH TOOLHOLDERS

PAG. 275

ACCESSORI - ACCESSORIES

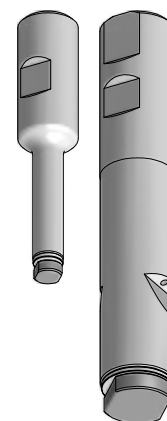
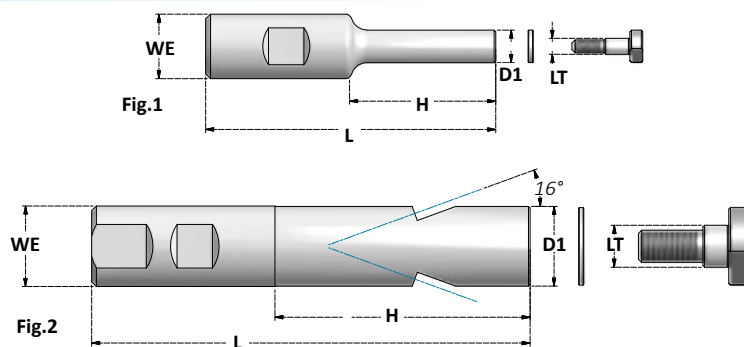


DIN 1835-1 Form B

WE

LT

MANDRINI PORTASEGHE CIRCOLARI
END MILL SHANK ADAPTERS FOR SAW BLADES



Articolo	WE	D1	LT	L	H	Fig	Per sega For saw blade
WE20-5LT	20	10,1	5	90	40	1	∅20
WE20-8LT	20	13,1	8	100	49	1	∅25
WE20-10LT	20	19,6	10	110	59	1	∅40
WE25-13LT *	25	24,7	13	136	79	2	∅50
WE25-16LT *	25	24,7	16	136	79	2	∅63

* = CON CANALINI

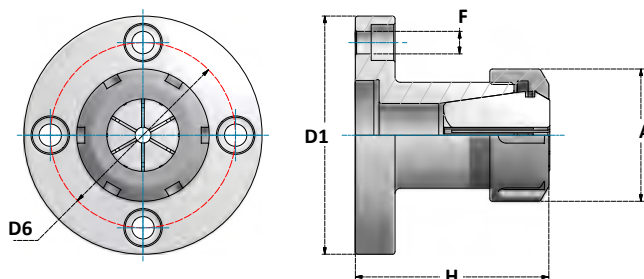
* = WITH CHANNELS

FLB

ERC

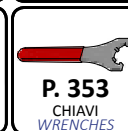
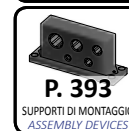
DIN ISO 15488 (DIN6499)

MANDRINI PORTAPINZA ER A FLANGIA
FLANGE ER COLLET CHUCKS



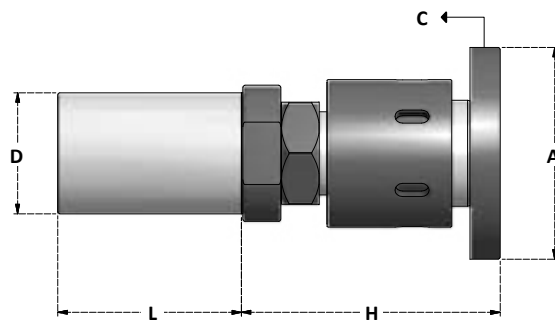
Articolo	D1	D6	F	A	H	Collets Range	Ghiera Nut
FLB50.ERC32	50	40	M6	50	72	2÷22	G32S
FLB90.ERC32	90	70	8,5	50	72	2÷22	G32S
FLB110.ERC40	110	86	8,5	63	87	3÷30	G40S
FLB110.ERC50	110	86	8,5	78	106	6÷34	G50S

ACCESSORI - ACCESSORIES



FERMO BARRA ROTANTI COMPENSATI

ADJUSTABLE STOP - SHOCK ABSORBERS FOR LATHES



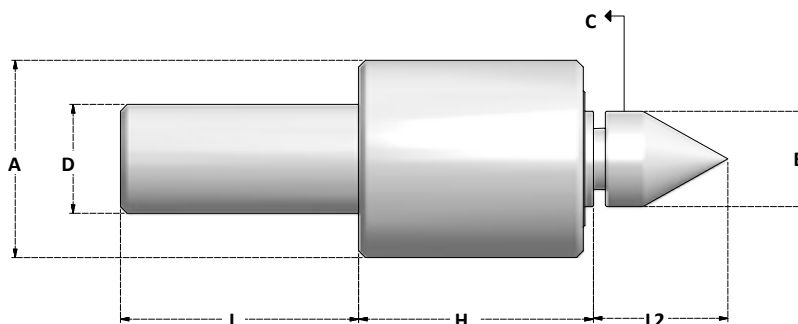
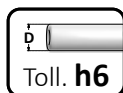
Articolo	D	A	L	H _{min}	H _{max}	C*
D20.SAS35	20	35	46	62	100	3
D25.SAS35	25	35	50	62	100	3
D32.SAS35	32	35	50	62	100	3
D40.SAS35	40	35	85	62	100	3
D25.SAS56	25	56	56	62	100	3
D32.SAS56	32	56	56	62	100	3
D40.SAS56	40	56	85	62	100	3

* CORSA DI COMPRESSIONE

* ABSORBER STROKE

CONTROPUNTE ROTANTI CON COMPRESSIONE

LIVE CENTRES WITH COMPRESSION



Articolo	D	E	A	L	H	L2	C*
D25.CNP	25	28	58	50	71	34	2,5
D32.CNP	32	28	58	70	71	34	2,5
D40.CNP	40	28	58	85	71	34	2,5

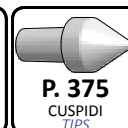
* CORSA DI COMPRESSIONE

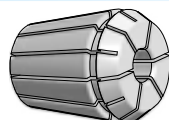
* ABSORBER STROKE

**FORNITI CON CUSPIDE
CNP.CS1**
SUPPLIED WITH TIP
CNP.CS1

CUSPIDI INTERCambiabili
INTERCHANGEABLE TIPS

ACCESSORI - ACCESSORIES

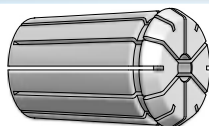




PINZE DI SERRAGGIO ER
ER CLAMPING COLLETS

DIN ISO 15488 (DIN6499)

PAG. 280



PINZE DI SERRAGGIO EOC
EOC CLAMPING COLLETS

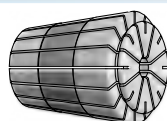
DIN ISO 10897(DIN6388)

PAG. 310



PINZE DI SERRAGGIO SKS
SKS CLAMPING COLLETS

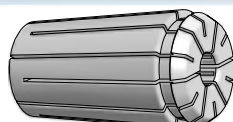
PAG. 313



PINZE DI SERRAGGIO ETS
ETS CLAMPING COLLETS

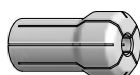
COMPATIBILE COL SISTEMA DIN ISO 15488 (DIN6499)
COMPATIBLE WITH DIN ISO 15488 (DIN6499) SYSTEM

PAG. 315



PINZE DI SERRAGGIO ETG
ETG CLAMPING COLLETS

PAG. 317



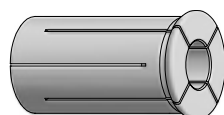
PINZE DI SERRAGGIO EDA
EDA CLAMPING COLLETS

PAG. 320



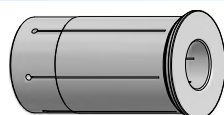
PINZE DI SERRAGGIO P8
P8 CLAMPING COLLETS

PAG. 323



PINZE DI SERRAGGIO CILINDRICHE A 4 TAGLI
CYLINDRICAL CLAMPING COLLETS WITH 4 SLOTS

PAG. 324



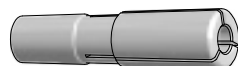
PINZE DI SERRAGGIO CILINDRICHE A 6 TAGLI
CYLINDRICAL CLAMPING COLLETS WITH 6 SLOTS

PAG. 325



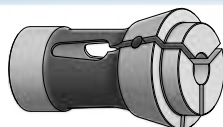
PINZE DI SERRAGGIO R8 - 369E
R8 CLAMPING COLLETS - 369E

PAG. 326



PINZE DI SERRAGGIO A CONO MORSE
MORSE TAPER CLAMPING COLLETS

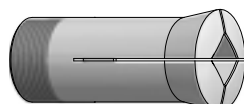
PAG. 327



PINZE DI SERRAGGIO BARRA
WORKHOLDING COLLETS

DIN 6343

PAG. 328



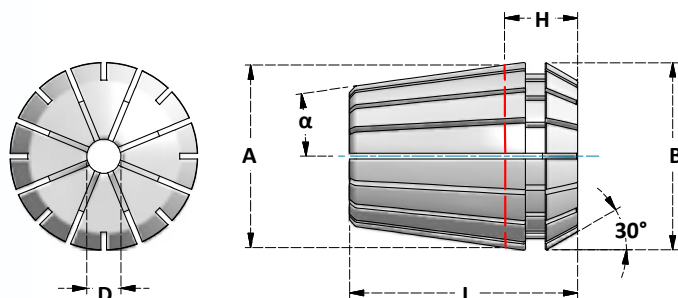
PINZE 3C / 3AT / 5C
3C / 3AT / 5C COLLETS

PAG. 334

DIN ISO 15488 (DIN6499)

PINZE DI SERRAGGIO ER
ER CLAMPING COLLETS

Grandezza Size	A	B	α	L	H	D
8	8	8,5	8°	13,5	4,5	1-5
11	11	11,5	8°	18	6,6	1-7
12	12	12	8°	19,5	5,8	1-7
16	16	17	8°	27,5	10,6	1-10
20	20	21	8°	31,5	11,5	1-14
25	25	26	8°	34	12	1-20
32	32	33	8°	40	13	2-22
40	40	41	8°	46	15	3-30
50	50	52	8°	60	21	6-34
60	60	61	10°	60	19,6	10-40

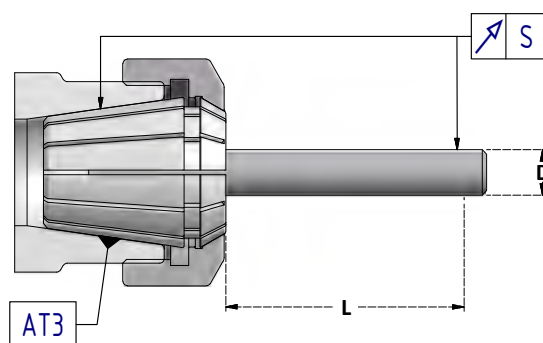


SIGLA	PAG	TIPO	CONCENTRICITÀ RUNOUT	TENUTA SEALED	GRANDEZZE SIZES
ERC	282	PINZE STANDARD- CLASSE 1 STANDARD COLLETS - CLASS 1	$\nabla 0,008$		8- 11- 12- 16- 20- 25 32- 40- 50- 60
ERC P	286	PINZE STANDARD- CLASSE 1- ALESAGGI IN POLLICI STANDARD COLLETS - CLASS 1 - INCH SIZES	$\nabla 0,0004''$		11- 16- 20- 25 - 32- 40
ER	288	PINZE STANDARD- CLASSE 2 STANDARD COLLETS - CLASS 2	$\nabla 0,015$		16- 20- 25 - 32- 40
ERC HP	290	PINZE AD ALTA PRECISIONE HIGH PRECISION COLLETS	$\nabla 0,005$		8- 11- 16- 20- 25 - 32- 40
ERC SSC	293	PINZE A TENUTA MECCANICA SOLID SEALED COLLETS	$\nabla 0,008$	MECCANICA SOLID STEEL	16- 20- 25 - 32- 40
ERC RF	295	PINZE A TENUTA CON INSERTI IN NEOPRENE RUBBER SEALED COLLETS	$\nabla 0,008$	NEOPRENE RUBBER	11 - 16- 20- 25 - 32- 40- 50
ERC IK	298	PINZE A TENUTA CON TAGLI VULCANIZZATI RUBBER SEALED COLLETS	$\nabla 0,008$	NEOPRENE RUBBER	11 - 16- 20- 25 - 32
ERC JET	300	PINZE CON FORI DI LUBRIFICAZIONE EXTERNALLY COOLING COLLETS	$\nabla 0,008$		16- 20- 25 - 32- 40- 50
ERC M	303	PINZE PORTAMASCHI CON QUADRO TAP COLLETS WITH SQUARE	$\nabla 0,008$		16- 20- 25 - 32- 40- 50
ERC MRF	305	PINZE PORTAMASCHI CON QUADRO A TENUTA SEALED TAPPING COLLETS WITH SQUARE	$\nabla 0,008$	NEOPRENE RUBBER	16- 20- 25 - 32- 40
ERC FT	306	PINZE PORTAMASCHI CON COMPENSAZIONE ASSIALE TAPPING COLLETS WITH AXIAL COMPENSATION	$\nabla 0,008$		16- 20- 25 - 32- 40
ERC PA	308	PINZE CON OSCILLAZIONE RADIALE PER ALESATORI FLOATING COLLETS FOR REAMERS			16- 20- 25 - 32- 40

*FUORI PRODUZIONE
OUT OF PRODUCTION
Fino a esaurimento
While stocks last*

DIN ISO 15488 (DIN6499)

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY



D - h6	L MAX	S MAX	
		CLASS 1	CLASSE 2
1mm ÷ 1,6mm	6mm		
1,6mm ÷ 3mm	10mm		
3mm ÷ 7mm	16mm	≤0,01	≤0,015
7mm ÷ 10mm	25mm		
10mm ÷ 18mm	40mm		
18mm ÷ 26mm	50mm	≤0,015	≤0,02
26mm ÷ 40mm	60mm		

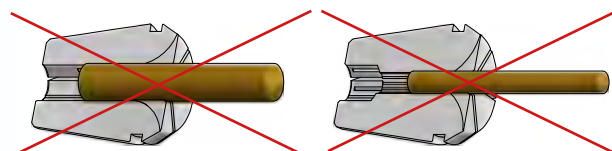
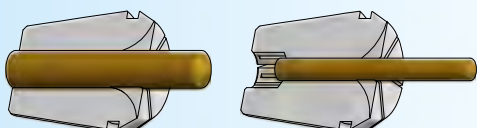
I valori di precisione indicati sono la media di 3 misurazioni a 120° eseguite con una spina di collaudo in tolleranza h6 del diametro nominale della pinza. La precisione va misurata ad una distanza L dalla pinza.
La precisione di concentricità influisce sulla qualità della lavorazione svolta e sulla vita dell'utensile.
La precisione di concentricità indicata è verificata serrando la pinza.

*Average of concentricity is tested each 120° at distance L and is valid only for nominal size of collet checked with a h6 pin.
Runout accuracy increases quality of work and life of tool.
For the best runout accuracy check tightening torque indicated in tab on page 349.*

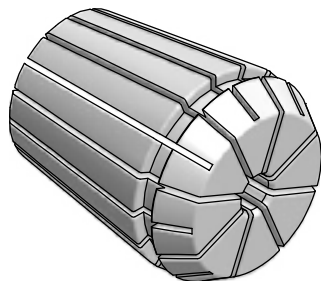
CORRETTO SERRAGGIO DELL'UTENSILE
CORRECT CLAMPING OF THE TOOL

L'utensile deve essere inserito nella pinza per tutta la lunghezza di presa.
L'errato posizionamento dell'utensile riduce la precisione e la rigidità e può deformare la sede della pinza.

*Tool must be inserted for total length of collet's bore.
Wrong positioning reduces precision and may damage collet's bore.*



PINZE STANDARD
STANDARD COLLETS



Articolo		D (mm)	D (in)	CAPACITÀ DI SERRAGGIO COLLAPSE
ERC8	4004E	1-5	/	-0,5mm
ERC11	4008E	1-7	1/16- 1/4	-0,5mm
ERC12	424E	1-7	/	-0,5mm /-1,0 mm
ERC16	426E	1-10	1/16- 1/32	-0,5mm /-1,0 mm
ERC20	428E	1-14	1/16- 1/2	-0,5mm /-1,0 mm
ERC25	430E	1-20	1/16- 5/8	-0,5mm /-1,0 mm
ERC32	470E	2-22	3/32- 3/4	-0,5mm /-1,0 mm
ERC40	472E	3-30	1/8- 1"	-1,0 mm
ERC50	477E	6-34	/	-1,0 mm
ERC60	494E	10-40	/	-2,0 mm

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY



CARATTERISTICHE:

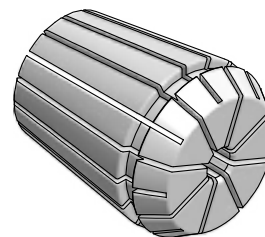
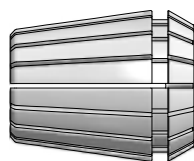
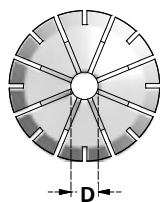
- Tagliate in 16 settori.
- Superficie finita con rugosità' rz 1,6 .

FEATURES:

- 16 slot design.
- Surface is finished rz 1,6

PINZE STANDARD - CLASSE 1 - ALESAGGI METRICI
STANDARD COLLETS - CLASS 1 - METRIC SIZES

0,008



Articolo	Range
ERC8.D1	1 ÷ 0,5
ERC8.D1,5	1,5 ÷ 1
ERC8.D2	2 ÷ 1,5
ERC8.D2,5	2,5 ÷ 2
ERC8.D3	3 ÷ 2,5
ERC8.D3,5	3,5 ÷ 3
ERC8.D4	4 ÷ 3,5
ERC8.D4,5	4,5 ÷ 4
ERC8.D5	5 ÷ 4,5

Articolo	Range
ERC11.D1	1 ÷ 0,5
ERC11.D1,5	1,5 ÷ 1
ERC11.D2	2 ÷ 1,5
ERC11.D2,5	2,5 ÷ 2
ERC11.D3	3 ÷ 2,5
ERC11.D3,5	3,5 ÷ 3
ERC11.D4	4 ÷ 3,5
ERC11.D4,5	4,5 ÷ 4
ERC11.D5	5 ÷ 4,5
ERC11.D5,5	5,5 ÷ 6
ERC11.D6	6 ÷ 5,5
ERC11.D6,5	6,5 ÷ 6
ERC11.D7	7 ÷ 6,5

Articolo	Range
ERC12.D1	1 ÷ 0,5
ERC12.D1,5	1,5 ÷ 1
ERC12.D2	2 ÷ 1,5
ERC12.D2,5	2,5 ÷ 2
ERC12.D3	3 ÷ 2,5
ERC12.D4	4 ÷ 3,5
ERC12.D5	5 ÷ 4,5
ERC12.D6	6 ÷ 5,5
ERC12.D7	7 ÷ 6,5

Articolo	Range
ERC16.D1	1 ÷ 0,5
ERC16.D2	2 ÷ 1,5
ERC16.D3	3 ÷ 2
ERC16.D4	4 ÷ 3
ERC16.D5	5 ÷ 4
ERC16.D6	6 ÷ 5
ERC16.D7	7 ÷ 6
ERC16.D8	8 ÷ 7
ERC16.D9	9 ÷ 8
ERC16.D10	10 ÷ 9

Articolo	Range
ERC20.D1	1 ÷ 0,5
ERC20.D2	2 ÷ 1,5
ERC20.D3	3 ÷ 2
ERC20.D4	4 ÷ 3
ERC20.D5	5 ÷ 4
ERC20.D6	6 ÷ 5
ERC20.D7	7 ÷ 6
ERC20.D8	8 ÷ 7
ERC20.D9	9 ÷ 8
ERC20.D10	10 ÷ 9
ERC20.D11	11 ÷ 10
ERC20.D12	12 ÷ 11
ERC20.D13	13 ÷ 12
ERC20.D14 **	14 ÷ 13,9

Articolo	Range
ERC25.D1	1 ÷ 0,5
ERC25.D2	2 ÷ 1,5
ERC25.D3	3 ÷ 2
ERC25.D4	4 ÷ 3
ERC25.D5	5 ÷ 4
ERC25.D6	6 ÷ 5
ERC25.D7	7 ÷ 6
ERC25.D8	8 ÷ 7
ERC25.D9	9 ÷ 8
ERC25.D10	10 ÷ 9
ERC25.D11	11 ÷ 10
ERC25.D12	12 ÷ 11
ERC25.D13	13 ÷ 12
ERC25.D14	14 ÷ 13
ERC25.D15	15 ÷ 14
ERC25.D16	16 ÷ 15
ERC25.D17 *	17 ÷ 16,9
ERC25.D18 *	18 ÷ 17,9
ERC25.D19 **	19 ÷ 18,9
ERC25.D20 **	20 ÷ 19,9

Articolo	Range
ERC32.D2	2 ÷ 1,5
ERC32.D3	3 ÷ 2
ERC32.D4	4 ÷ 3
ERC32.D5	5 ÷ 4
ERC32.D6	6 ÷ 5
ERC32.D7	7 ÷ 6
ERC32.D8	8 ÷ 7
ERC32.D9	9 ÷ 8
ERC32.D10	10 ÷ 9
ERC32.D11	11 ÷ 10
ERC32.D12	12 ÷ 11
ERC32.D13	13 ÷ 12
ERC32.D14	14 ÷ 13
ERC32.D15	15 ÷ 14
ERC32.D16	16 ÷ 15
ERC32.D17	17 ÷ 16
ERC32.D18	18 ÷ 17
ERC32.D19	19 ÷ 18
ERC32.D20	20 ÷ 19
ERC32.D21 *	21 ÷ 20,9
ERC32.D22 *	22 ÷ 21,9

* = DIAMETRI SPECIALI - CAPACITA' DI SERRAGGIO -0,1mm

* = SPECIAL DIAMETERS - COLLAPSE -0,1mm

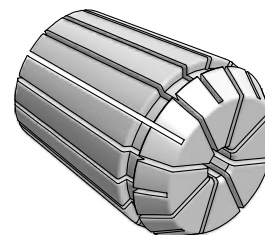
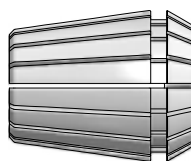
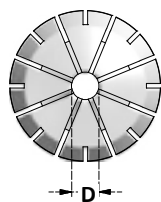
** = LUNGHEZZA RIDOTTA

** = REDUCED LENGTH

Articolo	Length
ERC20.D14	28
ERC25.D19	31
ERC25.D20	28,5

PINZE STANDARD - CLASSE 1 - ALESAGGI METRICI
STANDARD COLLETS - CLASS 1 - METRIC SIZES

↗ 0,008



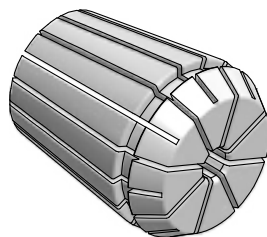
Articolo	Range
ERC40.D3	3 ÷ 2
ERC40.D4	4 ÷ 3
ERC40.D5	5 ÷ 4
ERC40.D6	6 ÷ 5
ERC40.D7	7 ÷ 6
ERC40.D8	8 ÷ 7
ERC40.D9	9 ÷ 8
ERC40.D10	10 ÷ 9
ERC40.D11	11 ÷ 10
ERC40.D12	12 ÷ 11
ERC40.D13	13 ÷ 12
ERC40.D14	14 ÷ 13
ERC40.D15	15 ÷ 14
ERC40.D16	16 ÷ 15
ERC40.D17	17 ÷ 16
ERC40.D18	18 ÷ 17
ERC40.D19	19 ÷ 18
ERC40.D20	20 ÷ 19
ERC40.D21	21 ÷ 20
ERC40.D22	22 ÷ 21
ERC40.D23	23 ÷ 22
ERC40.D24	24 ÷ 23
ERC40.D25	25 ÷ 24
ERC40.D26	26 ÷ 25
ERC40.D27	27 ÷ 26
ERC40.D28	28 ÷ 27
ERC40.D29	29 ÷ 28
ERC40.D30	30 ÷ 29

Articolo	Range
ERC50.D6	6 ÷ 5
ERC50.D7	7 ÷ 6
ERC50.D8	8 ÷ 7
ERC50.D9	9 ÷ 8
ERC50.D10	10 ÷ 9
ERC50.D11	11 ÷ 10
ERC50.D12	12 ÷ 11
ERC50.D13	13 ÷ 12
ERC50.D14	14 ÷ 13
ERC50.D15	15 ÷ 14
ERC50.D16	16 ÷ 15
ERC50.D17	17 ÷ 16
ERC50.D18	18 ÷ 17
ERC50.D19	19 ÷ 18
ERC50.D20	20 ÷ 19
ERC50.D21	21 ÷ 20
ERC50.D22	22 ÷ 21
ERC50.D23	23 ÷ 22
ERC50.D24	24 ÷ 23
ERC50.D25	25 ÷ 24
ERC50.D26	26 ÷ 25
ERC50.D27	27 ÷ 26
ERC50.D28	28 ÷ 27
ERC50.D29	29 ÷ 28
ERC50.D30	30 ÷ 29
ERC50.D31	31 ÷ 30
ERC50.D32	32 ÷ 31
ERC50.D33	33 ÷ 32
ERC50.D34	34 ÷ 33

Articolo	Range
ERC60.D10	10 ÷ 9
ERC60.D11	11 ÷ 10
ERC60.D12	12 ÷ 11
ERC60.D13	13 ÷ 12
ERC60.D14	14 ÷ 13
ERC60.D15	15 ÷ 14
ERC60.D16	16 ÷ 15
ERC60.D17	17 ÷ 16
ERC60.D18	18 ÷ 17
ERC60.D19	19 ÷ 18
ERC60.D20	20 ÷ 19
ERC60.D21	21 ÷ 20
ERC60.D22	22 ÷ 21
ERC60.D23	23 ÷ 22
ERC60.D24	24 ÷ 23
ERC60.D25	25 ÷ 24
ERC60.D26	26 ÷ 25
ERC60.D27	27 ÷ 26
ERC60.D28	28 ÷ 27
ERC60.D29	29 ÷ 28
ERC60.D30	30 ÷ 29
ERC60.D31	31 ÷ 30
ERC60.D32	32 ÷ 31
ERC60.D33	33 ÷ 32
ERC60.D34	34 ÷ 33
ERC60.D35	35 ÷ 34
ERC60.D36	36 ÷ 35
ERC60.D37	37 ÷ 36
ERC60.D38	38 ÷ 37
ERC60.D39	39 ÷ 38
ERC60.D40	40 ÷ 39

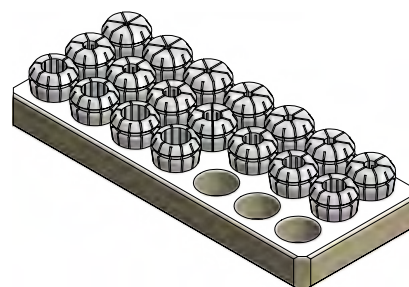
PINZE STANDARD - CLASSE 1 - ALESAGGI METRICI
STANDARD COLLETS - CLASS 1 - METRIC SIZES

0,008



SERIE DI PINZE SU BASE DI LEGNO
COLLETS SETS IN WOODEN TRAY

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.ERC8-9	ERC8.D1 ÷ D5 x 0,5mm
TY.ERC11-7	ERC11.D1 ÷ D7 x 1mm
TY.ERC11-13	ERC11.D1 ÷ D7 x 0,5mm
TY.ERC16-10	ERC16.D1 ÷ D10 x 1mm
TY.ERC20-12	ERC20.D2 ÷ D13 x 1mm
TY.ERC25-6	ERC25.D4-6-8-10-12-16
TY.ERC25-15	ERC25.D2 ÷ D16 x 1mm
TY.ERC32-6	ERC32.D6-8-10-12-16-20
TY.ERC32-18	ERC32.D3 ÷ D20 x 1mm
TY.ERC40-7	ERC40.D6-8-10-12-16-20-25
TY.ERC40-23	ERC40.D4 ÷ D26 x 1mm
TY.ERC40-28	ERC40.D3 ÷ D30 x 1mm
TY.ERC50-12	ERC50.D12 ÷ D34 x 2mm



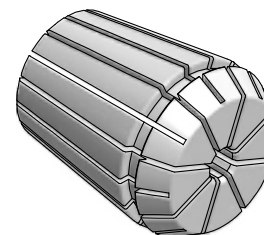
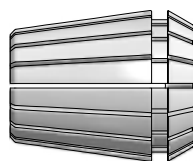
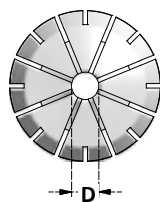
SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ERC8-9	ERC8.D1 ÷ D5 x 0,5mm
BX.ERC11-7	ERC11.D1 ÷ D7 x 1mm
BX.ERC11-13	ERC11.D1 ÷ D7 x 0,5mm
BX.ERC16-10	ERC16.D1 ÷ D10 x 1mm
BX.ERC20-12	ERC20.D2 ÷ D13 x 1mm
BX.ERC25-15	ERC25.D2 ÷ D16 x 1mm
BX.ERC32-18	ERC32.D3 ÷ D20 x 1mm
BX.ERC40-23	ERC40.D4 ÷ D26 x 1mm
BX.ERC40-28	ERC40.D3 ÷ D30 x 1mm
BX.ERC50-12	ERC50.D12 ÷ D34 x 2mm



PINZE STANDARD - CLASSE 1 - ALESAGGI IN POLLICI
STANDARD COLLETS - CLASS 1 - INCH SIZES

0,0004"



Articolo	Range
ERC11.D1/32	.043 - .021
ERC11.D1/16	.062 - .043
ERC11.D3/32	.093 - .054
ERC11.D1/8	.125 - .086
ERC11.D5/32	.156 - .117
ERC11.D3/16	.187 - .148
ERC11.D7/32	.218 - .179
ERC11.D1/4	.250 - .211

Articolo	Range
ERC16.D1/16	.062 - .043
ERC16.D3/32	.093 - .054
ERC16.D1/8	.125 - .086
ERC16.D5/32	.156 - .117
ERC16.D3/16	.187 - .148
ERC16.D7/32	.218 - .179
ERC16.D1/4	.250 - .211
ERC16.D9/32	.281 - .242
ERC16.D5/16	.312 - .273
ERC16.D11/32	.343 - .304
ERC16.D3/8	.375 - .336
ERC16.D13/32	.406 - .367

Articolo	Range
ERC20.D1/16	.062 - .043
ERC20.D3/32	.093 - .054
ERC20.D1/8	.125 - .086
ERC20.D5/32	.156 - .117
ERC20.D3/16	.187 - .148
ERC20.D7/32	.218 - .179
ERC20.D1/4	.250 - .211
ERC20.D9/32	.281 - .242
ERC20.D5/16	.312 - .273
ERC20.D11/32	.343 - .304
ERC20.D3/8	.375 - .336
ERC20.D13/32	.406 - .367
ERC20.D7/16	.437 - .398
ERC20.D15/32	.468 - .429
ERC20.D1/2	.500 - .461

Articolo	Range
ERC25.D1/16	.062 - .043
ERC25.D3/32	.093 - .054
ERC25.D1/8	.125 - .086
ERC25.D5/32	.156 - .117
ERC25.D3/16	.187 - .148
ERC25.D7/32	.218 - .179
ERC25.D1/4	.250 - .211
ERC25.D9/32	.281 - .242
ERC25.D5/16	.312 - .273
ERC25.D11/32	.343 - .304
ERC25.D3/8	.375 - .336
ERC25.D13/32	.406 - .367
ERC25.D7/16	.437 - .398
ERC25.D15/32	.468 - .429
ERC25.D1/2	.500 - .461
ERC25.D17/32	.531 - .492
ERC25.D9/16	.562 - .523
ERC25.D19/32	.593 - .554
ERC25.D5/8	.625 - .586

Articolo	Range
ERC32.D3/32	.093 - .054
ERC32.D1/8	.125 - .086
ERC32.D5/32	.156 - .117
ERC32.D3/16	.187 - .148
ERC32.D7/32	.218 - .179
ERC32.D1/4	.250 - .211
ERC32.D9/32	.281 - .242
ERC32.D5/16	.312 - .273
ERC32.D11/32	.343 - .304
ERC32.D3/8	.375 - .336
ERC32.D13/32	.406 - .367
ERC32.D7/16	.437 - .398
ERC32.D15/32	.468 - .429
ERC32.D1/2	.500 - .461
ERC32.D17/32	.531 - .492
ERC32.D9/16	.562 - .523
ERC32.D19/32	.593 - .554
ERC32.D5/8	.625 - .586
ERC32.D21/32	.656 - .617
ERC32.D11/16	.687 - .648
ERC32.D23/32	.718 - .679
ERC32.D3/4	.750 - .711
ERC32.D25/32	.781 - .742

Articolo	Range
ERC40.D1/8	.125 - .086
ERC40.D5/32	.156 - .117
ERC40.D3/16	.187 - .148
ERC40.D7/32	.218 - .179
ERC40.D1/4	.250 - .211
ERC40.D9/32	.281 - .242
ERC40.D5/16	.312 - .273
ERC40.D11/32	.343 - .304
ERC40.D3/8	.375 - .336
ERC40.D13/32	.406 - .367
ERC40.D7/16	.437 - .398
ERC40.D15/32	.468 - .429
ERC40.D1/2	.500 - .461
ERC40.D17/32	.531 - .492
ERC40.D9/16	.562 - .523
ERC40.D19/32	.593 - .554
ERC40.D5/8	.625 - .586
ERC40.D21/32	.656 - .617
ERC40.D11/16	.687 - .648
ERC40.D23/32	.718 - .679
ERC40.D3/4	.750 - .711
ERC40.D25/32	.781 - .742
ERC40.D13/16	.812 - .773
ERC40.D27/32	.843 - .804
ERC40.D7/8	.875 - .836
ERC40.D29/32	.906 - .867
ERC40.D15/16	.937 - .898
ERC40.D31/32	.969 - .930
ERC40.D1"	1.000 - .961

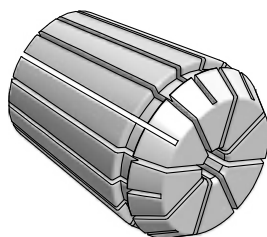
DIN ISO 15488 (DIN6499)

TY / BX

ERC P

PINZE STANDARD - CLASSE 1 - ALESAGGI IN POLLICI
STANDARD COLLETS - CLASS 1 - INCH SIZES

0,0004"



SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

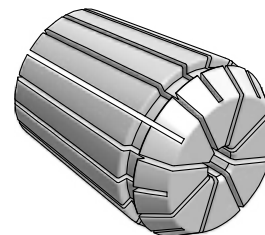
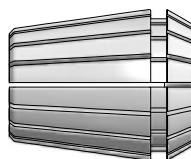
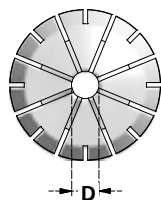
Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ERC11P-7	D1/16 - D3/32 - D1/8 - D5/32 - D3/16 - D7/32 - D1/4
BX.ERC16P-7	1/8 - 3/16 - 7/32 - 1/4 - 5/16 - 11/32 - 3/8
BX.ERC20P-10	D1/8 - D3/16 - D7/32 - D1/4 - D5/16 - D11/32 - D3/8 - D13/32 - D7/16 - D1/2
BX.ERC25P-12	1/8 - 3/16 - 7/32 - 1/4 - 5/16 - 11/32 - 3/8 - 13/32 - 7/16 - 1/2 - 17/32 - 9/16
BX.ERC32P-11	D1/8 - D3/16 - D1/4 - D5/16 - D3/8 - D7/16 - D1/2 - D9/16 - D5/8 - D11/16 - D3/4
BX.ERC40P-15	D1/8 - D3/16 - D1/4 - D5/16 - D3/8 - D7/16 - D1/2 - D9/16 - D5/8 - D11/16 - D3/4 - D13/16 - D7/8 - D15/16 - D1"



POLLICE FRAZIONATO	mm	POLLICE FRAZIONATO	mm	POLLICE FRAZIONATO	mm	POLLICE FRAZIONATO	mm	POLLICE FRAZIONATO	mm
1/64	0,397	27/64	10,716	53/64	21,034	1" - 15/64	31,353	1" - 41/64	41,672
1/32	0,794	7/16	11,113	27/32	21,431	1" - 1/4	31,750	1" - 21/32	42,069
3/64	1,191	29/64	11,509	55/64	21,828	1" - 17/64	32,147	1" - 43/64	42,466
1/16	1,588	15/32	11,906	7/8	22,225	1" - 9/32	32,544	1" - 11/16	42,863
5/64	1,984	31/64	12,303	57/64	22,622	1" - 19/64	32,941	1" - 45/64	43,259
3/32	2,381	1/2	12,700	29/32	23,109	1" - 5/16	33,338	1" - 23/32	43,656
7/64	2,778	33/64	13,097	59/64	23,416	1" - 21/64	33,734	1" - 47/64	44,053
1/8	3,175	17/32	13,494	15/16	23,813	1" - 11/32	34,131	1" - 3/4	44,450
9/64	3,572	35/64	13,891	61/64	24,209	1" - 23/64	34,528	1" - 49/64	44,847
5/32	3,969	9/16	14,288	31/32	24,606	1" - 3/8	34,925	1" - 25/32	45,244
11/64	4,366	37/64	14,684	63/64	25,003	1" - 25/64	35,322	1" - 51/64	45,641
3/16	4,763	19/32	15,081	1"	25,4	1" - 13/32	35,719	1" - 13/16	46,038
13/64	5,159	39/64	15,478	1" - 1/64	25,797	1" - 27/64	36,116	1" - 53/64	46,434
7/32	5,556	5/8	15,875	1" - 1/32	26,194	1" - 7/16	36,513	1" - 27/32	46,831
15/64	5,953	41/64	16,272	1" - 3/64	26,591	1" - 29/64	36,909	1" - 55/64	47,228
1/4	6,350	21/32	16,669	1" - 1/16	26,988	1" - 15/32	37,306	1" - 7/8	47,625
17/64	6,747	43/64	17,066	1" - 5/64	27,384	1" - 31/64	37,703	1" - 57/64	48,022
9/32	7,144	11/16	17,463	1" - 3/32	27,781	1" - 1/2	38,100	1" - 29/32	48,419
19/64	7,541	45/64	17,859	1" - 7/64	28,178	1" - 33/64	38,497	1" - 59/64	48,816
5/16	7,938	23/32	18,256	1" - 1/8	28,575	1" - 17/32	38,894	1" - 15/16	49,213
21/64	8,334	47/64	18,653	1" - 9/64	28,972	1" - 35/64	39,291	1" - 61/64	49,609
11/32	8,731	3/4	19,050	1" - 5/32	29,369	1" - 9/16	39,688	1" - 31/32	50,006
23/64	9,128	49/64	19,447	1" - 11/64	29,766	1" - 37/64	40,084	1" - 63/64	50,403
3/8	9,525	25/32	19,844	1" - 3/16	30,163	1" - 19/32	40,481	2"	50,8
25/64	9,922	51/64	20,241	1" - 13/64	30,559	1" - 39/64	40,878		
13/32	10,319	13/16	20,638	1" - 7/32	30,956	1" - 5/8	41,275		

PINZE STANDARD - CLASSE 2 - ALESAGGI METRICI
STANDARD COLLETS - CLASS 2 - METRIC SIZES

↗ 0,015



Articolo	Range
16ER.D1	1 ÷ 0,5
16ER.D1,5	1,5 ÷ 1
16ER.D2	2 ÷ 1
16ER.D2,5	2,5 ÷ 1,5
16ER.D3	3 ÷ 2
16ER.D3,5	3,5 ÷ 2,5
16ER.D4	4 ÷ 3
16ER.D4,5	4,5 ÷ 3,5
16ER.D5	5 ÷ 4
16ER.D5,5	5,5 ÷ 4,5
16ER.D6	6 ÷ 5
16ER.D6,5	6,5 ÷ 5,5
16ER.D7	7 ÷ 6
16ER.D7,5	7,5 ÷ 6,5
16ER.D8	8 ÷ 7
16ER.D8,5	8,5 ÷ 7,5
16ER.D9	9 ÷ 8
16ER.D9,5	9,5 ÷ 8,5
16ER.D10	10 ÷ 9

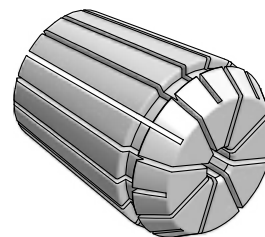
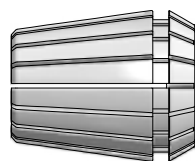
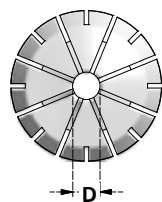
Articolo	Range
25ER.D1	1 ÷ 0,5
25ER.D1,5	1,5 ÷ 1
25ER.D2	2 ÷ 1
25ER.D2,5	2,5 ÷ 1,5
25ER.D3	3 ÷ 2
25ER.D3,5	3,5 ÷ 2,5
25ER.D4	4 ÷ 3
25ER.D4,5	4,5 ÷ 3,5
25ER.D5	5 ÷ 4
25ER.D5,5	5,5 ÷ 4,5
25ER.D6	6 ÷ 5
25ER.D6,5	6,5 ÷ 5,5
25ER.D7	7 ÷ 6
25ER.D7,5	7,5 ÷ 6,5
25ER.D8	8 ÷ 7
25ER.D8,5	8,5 ÷ 7,5
25ER.D9	9 ÷ 8
25ER.D9,5	9,5 ÷ 8,5
25ER.D10	10 ÷ 9
25ER.D10,5	10,5 ÷ 10
25ER.D11	11 ÷ 10,5
25ER.D11,5	11,5 ÷ 11
25ER.D12	12 ÷ 11,5
25ER.D12,5	12,5 ÷ 12
25ER.D13	13 ÷ 12,5
25ER.D13,5	13,5 ÷ 13
25ER.D14	14 ÷ 13,5
25ER.D14,5	14,5 ÷ 14
25ER.D15	15 ÷ 14,5
25ER.D15,5	15,5 ÷ 15
25ER.D16	16 ÷ 15,5

Articolo	Range
32ER.D2	2 ÷ 1
32ER.D2,5	2,5 ÷ 1,5
32ER.D3	3 ÷ 2
32ER.D3,5	3,5 ÷ 2,5
32ER.D4	4 ÷ 3
32ER.D4,5	4,5 ÷ 3,5
32ER.D5	5 ÷ 4
32ER.D5,5	5,5 ÷ 4,5
32ER.D6	6 ÷ 5
32ER.D6,5	6,5 ÷ 5,5
32ER.D7	7 ÷ 6
32ER.D7,5	7,5 ÷ 6,5
32ER.D8	8 ÷ 7
32ER.D8,5	8,5 ÷ 7,5
32ER.D9	9 ÷ 8
32ER.D9,5	9,5 ÷ 8,5
32ER.D10	10 ÷ 9
32ER.D10,5	10,5 ÷ 9,5
32ER.D11	11 ÷ 10
32ER.D11,5	11,5 ÷ 10,5
32ER.D12	12 ÷ 11
32ER.D12,5	12,5 ÷ 11,5
32ER.D13	13 ÷ 12
32ER.D13,5	13,5 ÷ 12,5
32ER.D14	14 ÷ 13
32ER.D14,5	14,5 ÷ 13,5
32ER.D15	15 ÷ 14
32ER.D15,5	15,5 ÷ 14,5
32ER.D16	16 ÷ 15
32ER.D16,5	16,5 ÷ 15,5
32ER.D17	17 ÷ 16
32ER.D17,5	17,5 ÷ 16,5
32ER.D18	18 ÷ 17
32ER.D18,5	18,5 ÷ 17,5
32ER.D19	19 ÷ 18
32ER.D19,5	19,5 ÷ 18,5
32ER.D20	20 ÷ 19

Articolo	Range
20ER.D1	1 ÷ 0,5
20ER.D1,5	1,5 ÷ 1
20ER.D2	2 ÷ 1
20ER.D2,5	2,5 ÷ 1,5
20ER.D3	3 ÷ 2
20ER.D3,5	3,5 ÷ 2,5
20ER.D4	4 ÷ 3
20ER.D4,5	4,5 ÷ 3,5
20ER.D5	5 ÷ 4
20ER.D5,5	5,5 ÷ 4,5
20ER.D6	6 ÷ 5
20ER.D6,5	6,5 ÷ 5,5
20ER.D7	7 ÷ 6
20ER.D7,5	7,5 ÷ 6,5
20ER.D8	8 ÷ 7
20ER.D8,5	8,5 ÷ 7,5
20ER.D9	9 ÷ 8
20ER.D9,5	9,5 ÷ 8,5
20ER.D10	10 ÷ 9
20ER.D10,5	10,5 ÷ 9,5
20ER.D11	11 ÷ 10
20ER.D11,5	11,5 ÷ 10,5
20ER.D12	12 ÷ 11
20ER.D12,5	12,5 ÷ 11,5
20ER.D13	13 ÷ 12

PINZE STANDARD - CLASSE 2 - ALESAGGI METRICI
STANDARD COLLETS - CLASS 2 - METRIC SIZES

↗ 0,015

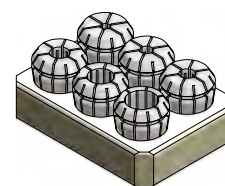


Articolo	Range
40ER.D3	3 ÷ 2
40ER.D3,5	3,5 ÷ 2,5
40ER.D4	4 ÷ 3
40ER.D4,5	4,5 ÷ 3,5
40ER.D5	5 ÷ 4
40ER.D5,5	5,5 ÷ 4,5
40ER.D6	6 ÷ 5
40ER.D6,5	6,5 ÷ 5,5
40ER.D7	7 ÷ 6
40ER.D7,5	7,5 ÷ 6,5
40ER.D8	8 ÷ 7
40ER.D8,5	8,5 ÷ 7,5
40ER.D9	9 ÷ 8
40ER.D9,5	9,5 ÷ 8,5
40ER.D10	10 ÷ 9
40ER.D10,5	10,5 ÷ 9,5
40ER.D11	11 ÷ 10
40ER.D11,5	11,5 ÷ 10,5
40ER.D12	12 ÷ 11
40ER.D12,5	12,5 ÷ 11,5
40ER.D13	13 ÷ 12
40ER.D13,5	13,5 ÷ 12,5
40ER.D14	14 ÷ 13
40ER.D14,5	14,5 ÷ 13,5

Articolo	Range
40ER.D15	15 ÷ 14
40ER.D15,5	15,5 ÷ 14,5
40ER.D16	16 ÷ 15
40ER.D16,5	16,5 ÷ 15,5
40ER.D17	17 ÷ 16
40ER.D17,5	17,5 ÷ 16,5
40ER.D18	18 ÷ 17
40ER.D18,5	18,5 ÷ 17,5
40ER.D19	19 ÷ 18
40ER.D19,5	19,5 ÷ 18,5
40ER.D20	20 ÷ 19
40ER.D20,5	20,5 ÷ 19,5
40ER.D21	21 ÷ 20
40ER.D21,5	21,5 ÷ 20,5
40ER.D22	22 ÷ 21
40ER.D22,5	22,5 ÷ 21,5
40ER.D23	23 ÷ 22
40ER.D23,5	23,5 ÷ 22,5
40ER.D24	24 ÷ 23
40ER.D24,5	24,5 ÷ 23,5
40ER.D25	25 ÷ 24
40ER.D25,5	25,5 ÷ 24,5
40ER.D26	26 ÷ 25

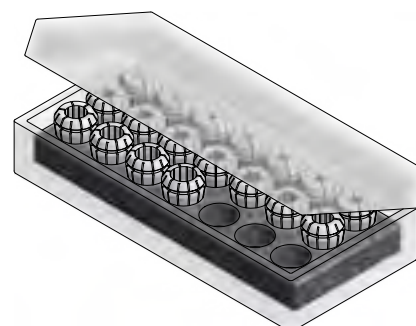
SERIE DI PINZE SU BASE DI LEGNO
COLLETS SETS IN WOODEN TRAY

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.16ER-5	16ER.D2-4-6-8-10
TY.20ER-6	20ER.D2-4-6-8-10-12
TY.25ER-6	25ER.D4-6-8-10-12-16
TY.32ER-6	32ER.D6-8-10-12-16-20
TY.40ER-7	40ER.D6-8-10-12-16-20-25

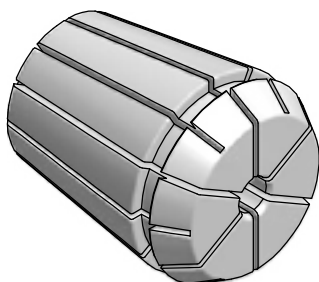


SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.16ER-10	16ER.D1 ÷ D10 x 1mm
BX.20ER-12	20ER.D2 ÷ D13 x 1mm
BX.25ER-15	25ER.D2 ÷ D16 x 1mm
BX.32ER-18	32ER.D3 ÷ D20 x 1mm
BX.40ER-23	40ER.D4 ÷ D26 x 1mm



PINZE DI ALTA PRECISIONE
HIGH PRECISION COLLETS



Articolo		D (mm)	CAPACITÀ DI SERRAGGIO COLLAPSE
ERC8HP	4004E	1-5	-0,5mm
ERC11HP	4008E	1-7	-0,5mm
ERC16HP	426E	1-10	-0,5mm
ERC20HP	428E	1-13	-0,5mm
ERC25HP	430E	1-16	-0,5mm
ERC32HP	470E	2-20	-0,5mm
ERC40HP	472E	3-26	-0,5mm

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY



Caratteristiche:

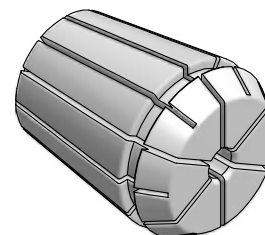
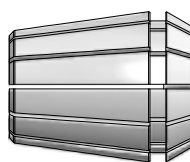
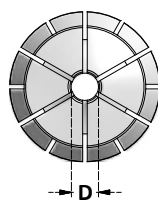
- Tagliate in 12 settori per garantire un'ottima ripetibilità di concentricità.
- **La precisione HP è garantita solo serrando l'utensile di diametro nominale.**
- Superficie finita con rugosità Rz 1,6.

Features:

- 12 slots design for the highest precision and repeatability.
- *HP precision is guaranteed only using tools with nominal size.*
- Surface finished Rz 1,6.

PINZE DI ALTA PRECISIONE
HIGH PRECISION COLLETS

↗ 0,005



Articolo
ERC8HP.D1
ERC8HP.D1,5
ERC8HP.D2
ERC8HP.D2,5
ERC8HP.D3
ERC8HP.D3,5
ERC8HP.D4
ERC8HP.D4,5
ERC8HP.D5

Articolo
ERC11HP.D1
ERC11HP.D1,5
ERC11HP.D2
ERC11HP.D2,5
ERC11HP.D3
ERC11HP.D3,5
ERC11HP.D4
ERC11HP.D4,5
ERC11HP.D5
ERC11HP.D5,5
ERC11HP.D6
ERC11HP.D6,5
ERC11HP.D7

Articolo
ERC16HP.D1
ERC16HP.D1,5
ERC16HP.D2
ERC16HP.D2,5
ERC16HP.D3
ERC16HP.D3,5
ERC16HP.D4
ERC16HP.D4,5
ERC16HP.D5
ERC16HP.D5,5
ERC16HP.D6
ERC16HP.D6,5
ERC16HP.D7
ERC16HP.D7,5
ERC16HP.D8
ERC16HP.D8,5
ERC16HP.D9
ERC16HP.D9,5
ERC16HP.D10

Articolo
ERC20HP.D1
ERC20HP.D1,5
ERC20HP.D2
ERC20HP.D2,5
ERC20HP.D3
ERC20HP.D3,5
ERC20HP.D4
ERC20HP.D4,5
ERC20HP.D5
ERC20HP.D5,5
ERC20HP.D6
ERC20HP.D6,5
ERC20HP.D7
ERC20HP.D7,5
ERC20HP.D8
ERC20HP.D8,5
ERC20HP.D9
ERC20HP.D9,5
ERC20HP.D10
ERC20HP.D10,5
ERC20HP.D11
ERC20HP.D11,5
ERC20HP.D12
ERC20HP.D12,5
ERC20HP.D13

Articolo
ERC25HP.D1
ERC25HP.D1,5
ERC25HP.D2
ERC25HP.D2,5
ERC25HP.D3
ERC25HP.D3,5
ERC25HP.D4
ERC25HP.D4,5
ERC25HP.D5
ERC25HP.D5,5
ERC25HP.D6
ERC25HP.D6,5
ERC25HP.D7
ERC25HP.D7,5
ERC25HP.D8
ERC25HP.D8,5
ERC25HP.D9
ERC25HP.D9,5
ERC25HP.D10
ERC25HP.D10,5
ERC25HP.D11
ERC25HP.D11,5
ERC25HP.D12
ERC25HP.D12,5
ERC25HP.D13
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ERC25HP.D14
ERC25HP.D14,5
ERC25HP.D15
ERC25HP.D15,5
ERC25HP.D16

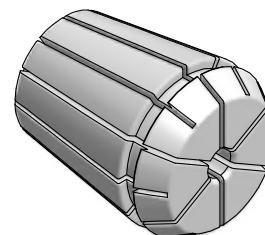
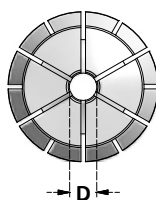
DIN ISO 15488 (DIN6499)

ERC

HP

PINZE DI ALTA PRECISIONE
HIGH PRECISION COLLETS

↗ 0,005



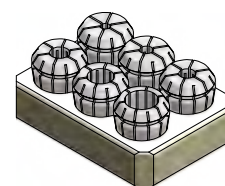
Articolo
ERC32HP.D2
ERC32HP.D2,5
ERC32HP.D3
ERC32HP.D3,5
ERC32HP.D4
ERC32HP.D4,5
ERC32HP.D5
ERC32HP.D5,5
ERC32HP.D6
ERC32HP.D6,5
ERC32HP.D7
ERC32HP.D7,5
ERC32HP.D8
ERC32HP.D8,5
ERC32HP.D9
ERC32HP.D9,5
ERC32HP.D10
ERC32HP.D10,5
ERC32HP.D11
ERC32HP.D11,5

Articolo
ERC32HP.D12
ERC32HP.D12,5
ERC32HP.D13
ERC32HP.D13,5
ERC32HP.D14
ERC32HP.D14,5
ERC32HP.D15
ERC32HP.D15,5
ERC32HP.D16
ERC32HP.D16,5
ERC32HP.D17
ERC32HP.D17,5
ERC32HP.D18
ERC32HP.D18,5
ERC32HP.D19
ERC32HP.D19,5
ERC32HP.D20

Articolo
ERC40HP.D3
ERC40HP.D4
ERC40HP.D5
ERC40HP.D6
ERC40HP.D7
ERC40HP.D8
ERC40HP.D9
ERC40HP.D10
ERC40HP.D11
ERC40HP.D12
ERC40HP.D13
ERC40HP.D14
ERC40HP.D15
ERC40HP.D16
ERC40HP.D17
ERC40HP.D18
ERC40HP.D19
ERC40HP.D20
ERC40HP.D21
ERC40HP.D22
ERC40HP.D23
ERC40HP.D24
ERC40HP.D25
ERC40HP.D26

SERIE DI PINZE SU BASE DI LEGNO
COLLETS SETS IN WOODEN TRAY

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.ERC11HP-7	ERC11HP.D1 ÷ D7 x 1mm
TY.ERC16HP-5	ERC16HP.D2- D4- D6- D8- D10
TY.ERC20HP-6	ERC20HP.D2- D4- D6- D8- D10- D12
TY.ERC25HP-6	ERC25HP.D4-6-8-10-12-16
TY.ERC32HP-6	ERC32HP.D6-8-10-12-16-20
TY.ERC40HP-7	ERC40HP.D6-8-10-12-16-20-25

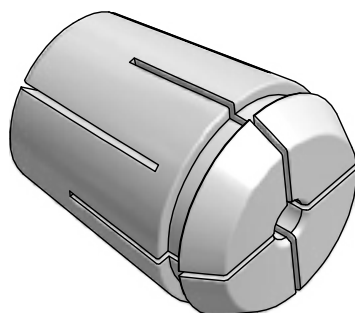


SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ERC8HP-9	ERC8HP.D1 ÷ D5 x 0,5mm
BX.ERC11HP-13	ERC11HP.D1 ÷ D7 x 0,5mm
BX.ERC16HP-10	ERC16HP.D1 ÷ D10 x 1mm
BX.ERC20HP-12	ERC20HP.D2 ÷ D13 x 1mm
BX.ERC25HP-15	ERC25HP.D2 ÷ D16 x 1mm
BX.ERC32HP-18	ERC32HP.D3 ÷ D20 x 1mm
BX.ERC40HP-23	ERC40HP.D4 ÷ D26 x 1mm



PINZE A TENUTA MECCANICA
SOLID SEALED COLLETS



Articolo	D (mm)	Capacità di serraggio Collapse
ERC16SSC	2-12	-0,1mm
ERC20SSC	3-14	-0,1mm
ERC25SSC	3-16	-0,1mm
ERC32SSC	3-22	-0,1mm
ERC40SSC	3-30	-0,1mm

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY

↗ 0,008

PRESSIONE MASSIMA AMMESSA
MAX PRESSURE

MAX
120bar

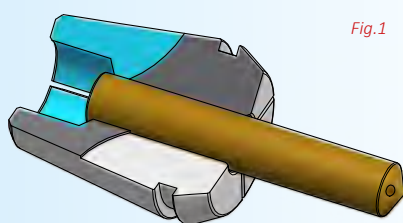


Fig.1

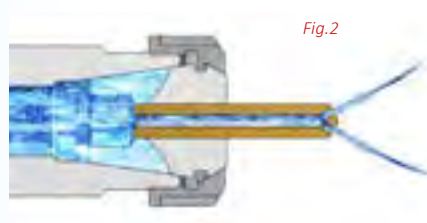


Fig.2

- La tenuta del liquido refrigerante è garantita dai tagli corti (Fig.1).
- Il refrigerante passa attraverso i fori di lubrificazione dell'utensile (Fig.2). Uscendo dai taglienti raffredda ed evacua i trucioli di lavorazione.
- La pressione massima ammessa è di 120 bar. Si raccomanda di impostare una pressione di esercizio proporzionale al diametro.
- Sono tagliate in 4+4 settori che garantiscono un'ottima rigidità e una elevata precisione di concentricità.
- Si possono montare solo in ghiera con estrazione eccentrica.
- La tenuta è garantita solo per utensili con gambo uguale al diametro nominale della pinza e inseriti per tutta la sua lunghezza di presa. (Fig.1 - Fig.3).

- Collets ERC-SSC are mechanical sealed by short rear slots (Fig.1).
- Coolant flows through cutting tool and remove chips (Fig.2).
- Coolant pressure up to 120 bar.
- 4+4 slots design allows a better runout accuracy and repeatability.
- Can be mounted only on nuts with eccentric extractor.
- Sealing is guaranteed only for tools with nominal diameter of collet inserted for total length of bore. (Fig.1 - Fig.3).

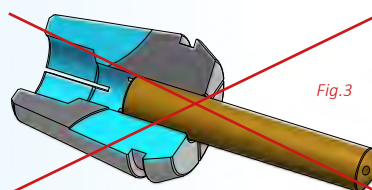


Fig.3

DIN ISO 15488 (DIN6499)

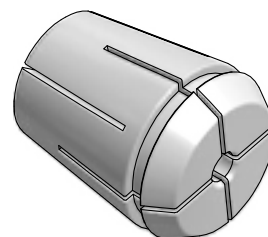
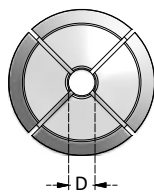
ERC

SSC

PINZE A TENUTA MECCANICA
SOLID SEALED COLLETS

MAX
120bar

↗ 0,008



Articolo
ERC16SSC.D1
ERC16SSC.D2
ERC16SSC.D3
ERC16SSC.D4
ERC16SSC.D5
ERC16SSC.D6
ERC16SSC.D7
ERC16SSC.D8
ERC16SSC.D9
ERC16SSC.D10
ERC16SSC.D11
ERC16SSC.D12

Articolo
ERC20SSC.D3
ERC20SSC.D4
ERC20SSC.D5
ERC20SSC.D6
ERC20SSC.D7
ERC20SSC.D8
ERC20SSC.D9
ERC20SSC.D10
ERC20SSC.D11
ERC20SSC.D12
ERC20SSC.D13
ERC20SSC.D14

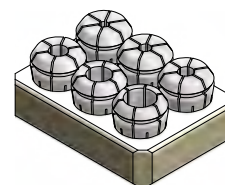
Articolo
ERC25SSC.D3
ERC25SSC.D4
ERC25SSC.D5
ERC25SSC.D6
ERC25SSC.D7
ERC25SSC.D8
ERC25SSC.D9
ERC25SSC.D10
ERC25SSC.D11
ERC25SSC.D12
ERC25SSC.D13
ERC25SSC.D14
ERC25SSC.D15
ERC25SSC.D16

Articolo
ERC32SSC.D3
ERC32SSC.D4
ERC32SSC.D5
ERC32SSC.D6
ERC32SSC.D7
ERC32SSC.D8
ERC32SSC.D9
ERC32SSC.D10
ERC32SSC.D11
ERC32SSC.D12
ERC32SSC.D13
ERC32SSC.D14
ERC32SSC.D15
ERC32SSC.D16
ERC32SSC.D17
ERC32SSC.D18
ERC32SSC.D19
ERC32SSC.D20
ERC32SSC.D21
ERC32SSC.D22

Articolo
ERC40SSC.D3
ERC40SSC.D4
ERC40SSC.D5
ERC40SSC.D6
ERC40SSC.D7
ERC40SSC.D8
ERC40SSC.D9
ERC40SSC.D10
ERC40SSC.D11
ERC40SSC.D12
ERC40SSC.D13
ERC40SSC.D14
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ERC40SSC.D16
ERC40SSC.D17
ERC40SSC.D18
ERC40SSC.D19
ERC40SSC.D20
ERC40SSC.D21
ERC40SSC.D22
ERC40SSC.D23
ERC40SSC.D24
ERC40SSC.D25
ERC40SSC.D26
ERC40SSC.D30

SERIE DI PINZE SU BASE DI LEGNO
COLLETS SETS IN WOODEN TRAY

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.ERC25SSC-6	ERC25SSC.D4-6-8-10-12-16
TY.ERC32SSC-6	ERC32SSC.D6-8-10-12-16-20
TY.ERC40SSC-7	ERC40SSC.D6-8-10-12-16-20-25



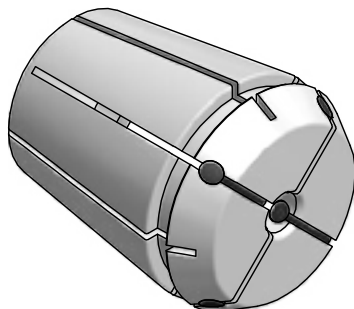
SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ERC16SSC-8	ERC16SSC.D3+10 x 1mm
BX.ERC20SSC-12	ERC20SSC.D3+14 x 1mm
BX.ERC25SSC-14	ERC25SSC.D3+16 x 1mm
BX.ERC32SSC-18	ERC32SSC.D3+20 x 1mm
BX.ERC40SSC-23	ERC40SSC.D4+26 x 1mm



PINZE A TENUTA CON INSERTI IN NEOPRENE

RUBBER SEALED COLLETS



Articolo	D (mm)	Capacità di serraggio Collapse
ERC11RF	3 ÷ 7	-0,1mm
ERC16RF	3 ÷ 10	-0,1mm
ERC20RF	3 ÷ 13	-0,1mm
ERC25RF	3 ÷ 16	-0,1mm
ERC32RF	3 ÷ 20	-0,1mm
ERC40RF	4 ÷ 26	-0,1mm
ERC50RF	10 ÷ 34	-0,1mm

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY

0,008

PRESSIONE MASSIMA AMMESSA
MAX PRESSURE

MAX
25 bar

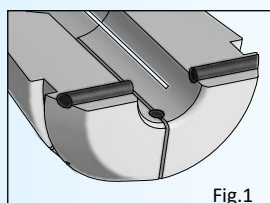


Fig.1

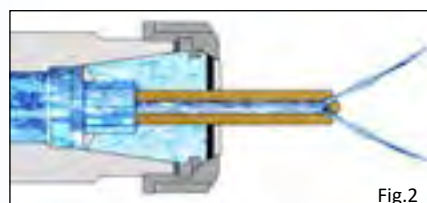


Fig.2

- La tenuta del liquido refrigerante è garantita dalle guarnizioni in neoprene inserite nel cono a 30° (Fig.1).
- Il refrigerante passa attraverso i fori di lubrificazione dell'utensile (Fig.2). Uscendo dai taglienti raffredda ed evacua i trucioli di lavorazione.
- La pressione massima ammessa è di 25 bar. Si raccomanda di impostare una pressione di esercizio proporzionale al diametro.
- Sono tagliate in 4+4 settori che garantiscono un'ottima rigidità e una elevata precisione di concentricità.
- Si possono montare solo in ghiera con estrazione eccentrica.
- **La tenuta è garantita solo per utensili con gambo uguale al diametro nominale della pinza e inseriti per tutta la sua lunghezza di presa.**
- Le frese con piano tipo weldon possono essere utilizzate solo se posizionate in modo che il piano resti al di sotto dei gommini per non favorire l'uscita del liquido (Fig.3).

- Collets ERC-RF are sealed by neoprene inserts in 30° taper (Fig.1)
- Coolant flows through cutting tool and remove chips (Fig.2).
- Coolant pressure up to 25 bar
- 4+4 slots design allows a better runout accuracy and repeatability.
- Can be mounted only on nuts with eccentric extractor.
- **Sealing is guaranteed only for tools with nominal diameter of collet inserted for total length of bore.**
- If tool has a flat it must be located under neoprene seals (Fig.3).

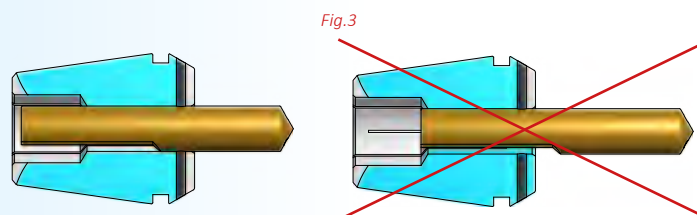


Fig.3

DIN ISO 15488 (DIN6499)

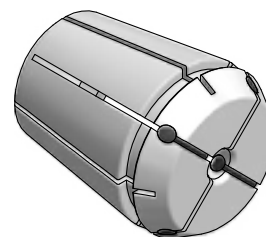
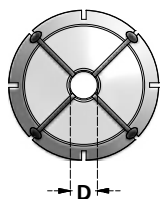
ERC

RF

PINZE A TENUTA CON INSERTI IN NEOPRENE
RUBBER SEALED COLLETS

MAX
25 bar

↗ 0,008



Articolo
ERC11RF.D3
ERC11RF.D3,5
ERC11RF.D4
ERC11RF.D4,5
ERC11RF.D5
ERC11RF.D5,5
ERC11RF.D6
ERC11RF.D6,5
ERC11RF.D7

Articolo
ERC16RF.D3
ERC16RF.D3,5
ERC16RF.D4
ERC16RF.D4,5
ERC16RF.D5
ERC16RF.D5,5
ERC16RF.D6
ERC16RF.D6,5
ERC16RF.D7
ERC16RF.D7,5
ERC16RF.D8
ERC16RF.D8,5
ERC16RF.D9
ERC16RF.D9,5
ERC16RF.D10

Articolo
ERC20RF.D3
ERC20RF.D3,5
ERC20RF.D4
ERC20RF.D4,5
ERC20RF.D5
ERC20RF.D5,5
ERC20RF.D6
ERC20RF.D6,5
ERC20RF.D7
ERC20RF.D7,5
ERC20RF.D8
ERC20RF.D8,5
ERC20RF.D9
ERC20RF.D9,5
ERC20RF.D10
ERC20RF.D10,5
ERC20RF.D11
ERC20RF.D11,5
ERC20RF.D12
ERC20RF.D12,5
ERC20RF.D13

Articolo
ERC25RF.D3
ERC25RF.D3,5
ERC25RF.D4
ERC25RF.D4,5
ERC25RF.D5
ERC25RF.D5,5
ERC25RF.D6
ERC25RF.D6,5
ERC25RF.D7
ERC25RF.D7,5
ERC25RF.D8
ERC25RF.D8,5
ERC25RF.D9
ERC25RF.D9,5
ERC25RF.D10
ERC25RF.D10,5
ERC25RF.D11
ERC25RF.D11,5
ERC25RF.D12
ERC25RF.D12,5
ERC25RF.D13
ERC25RF.D13,5
ERC25RF.D14
ERC25RF.D14,5
ERC25RF.D15
ERC25RF.D15,5
ERC25RF.D16

Articolo
ERC32RF.D3
ERC32RF.D3,5
ERC32RF.D4
ERC32RF.D4,5
ERC32RF.D5
ERC32RF.D5,5
ERC32RF.D6
ERC32RF.D6,5
ERC32RF.D7
ERC32RF.D7,5
ERC32RF.D8
ERC32RF.D8,5
ERC32RF.D9
ERC32RF.D9,5
ERC32RF.D10
ERC32RF.D10,5
ERC32RF.D11
ERC32RF.D11,5
ERC32RF.D12
ERC32RF.D12,5
ERC32RF.D13
ERC32RF.D13,5
ERC32RF.D14
ERC32RF.D14,5
ERC32RF.D15
ERC32RF.D15,5
ERC32RF.D16
ERC32RF.D16,5
ERC32RF.D17
ERC32RF.D17,5
ERC32RF.D18
ERC32RF.D18,5
ERC32RF.D19
ERC32RF.D19,5
ERC32RF.D20

DIN ISO 15488 (DIN6499)

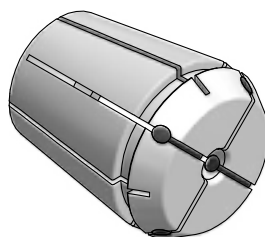
TY / BX

ERC RF

PINZE A TENUTA CON INSERTI IN NEOPRENE
RUBBER SEALED COLLETS

MAX
25 bar

↗ 0,008



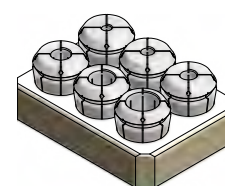
Articolo
ERC40RF.D4
ERC40RF.D4,5
ERC40RF.D5
ERC40RF.D5,5
ERC40RF.D6
ERC40RF.D6,5
ERC40RF.D7
ERC40RF.D7,5
ERC40RF.D8
ERC40RF.D8,5
ERC40RF.D9
ERC40RF.D9,5
ERC40RF.D10
ERC40RF.D10,5
ERC40RF.D11
ERC40RF.D11,5
ERC40RF.D12
ERC40RF.D12,5
ERC40RF.D13
ERC40RF.D13,5
ERC40RF.D14
ERC40RF.D14,5

Articolo
ERC40RF.D15
ERC40RF.D15,5
ERC40RF.D16
ERC40RF.D16,5
ERC40RF.D17
ERC40RF.D17,5
ERC40RF.D18
ERC40RF.D18,5
ERC40RF.D19
ERC40RF.D19,5
ERC40RF.D20
ERC40RF.D20,5
ERC40RF.D21
ERC40RF.D21,5
ERC40RF.D22
ERC40RF.D22,5
ERC40RF.D23
ERC40RF.D23,5
ERC40RF.D24
ERC40RF.D24,5
ERC40RF.D25
ERC40RF.D25,5
ERC40RF.D26

Articolo
ERC50RF.D10
ERC50RF.D12
ERC50RF.D14
ERC50RF.D16
ERC50RF.D18
ERC50RF.D20
ERC50RF.D22
ERC50RF.D24
ERC50RF.D25
ERC50RF.D26
ERC50RF.D28
ERC50RF.D30
ERC50RF.D32
ERC50RF.D34

SERIE DI PINZE SU BASE DI LEGNO
COLLETS SETS IN WOODEN TRAY

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.ERC25RF-6	ERC25RF.D4-6-8-10-12-16
TY.ERC32RF-6	ERC32RF.D6-8-10-12-16-20
TY.ERC40RF-7	ERC40RF.D6-8-10-12-16-20-25



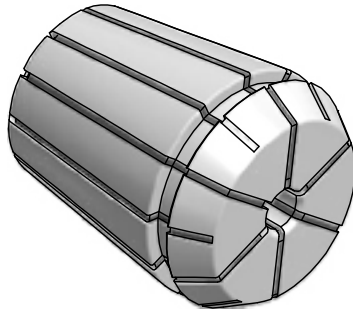
SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ERC11RF-9	ERC11RF.D3÷7 x 0,5mm
BX.ERC16RF-8	ERC16RF.D3÷10 x 1mm
BX.ERC20RF-11	ERC20RF.D3÷13 x 1mm
BX.ERC25RF-14	ERC25RF.D3÷16 x 1mm
BX.ERC32RF-18	ERC32RF.D3÷20 x 1mm
BX.ERC40RF-23	ERC40RF.D4÷26 x 1mm
BX.ERC50RF-12	ERC50RF.D12÷34 x 2mm



PINZE A TENUTA CON TAGLI VULCANIZZATI

COLLETS SEALED ALONG THE SLOTS



FUORI PRODUZIONE
OUT OF PRODUCTION

Fino a esaurimento
While stocks last

Articolo	D (mm)	Capacità di serraggio Collapse
ERC11IK	3 ÷ 7	-0,1mm
ERC16IK	3 ÷ 10	-0,1mm
ERC20IK	3 ÷ 13	-0,1mm
ERC25IK	3 ÷ 16	-0,1mm
ERC32IK	3 ÷ 20	-0,1mm

ERRORE MEDIO DI CONCENTRICITA'

AVERAGE OF RUNOUT ACCURACY

↗ 0,008

PRESSIONE MASSIMA AMMESSA

MAX PRESSURE

MAX
25 bar

- La tenuta del liquido refrigerante è garantita dai tagli vulcanizzati con il neoprene (Fig.1).
- Il refrigerante passa attraverso i fori di lubrificazione dell'utensile (Fig.2). Uscendo sui taglienti, raffredda ed evacua i trucioli di lavorazione.
- La pressione massima ammessa è di 25 bar.
- Si raccomanda di impostare una pressione di esercizio proporzionale al diametro.
- Si possono montare solo in ghiera con estrazione eccentrica.
- **La tenuta è garantita solo per utensili con gambo uguale al diametro nominale della pinza e inseriti per tutta la sua lunghezza di presa.**

- Collets ERC-IK are sealed by rubber inserts along slots (Fig.1).
- Coolant flows through cutting tool and remove chips (Fig.2).
- Coolant pressure up to 25 bar.
- Can be mounted only on nuts with eccentric extractor.
- *Sealing is guaranteed only for tools with nominal diameter of collet inserted for total length of bore.*

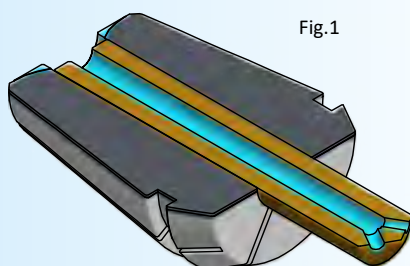


Fig.1

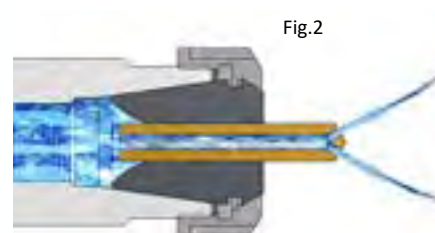
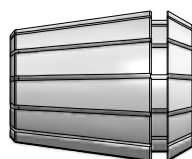
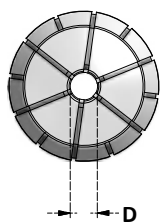


Fig.2

PINZE A TENUTA CON TAGLI VULCANIZZATI
COLLETS SEALED ALONG THE SLOTS

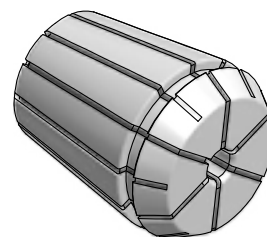
MAX
25 bar

↗ 0,008



*FUORI PRODUZIONE
OUT OF PRODUCTION*

*Fino a esaurimento
While stocks last*



Articolo
ERC11IK.D3
ERC11IK.D3,5
ERC11IK.D4
ERC11IK.D4,5
ERC11IK.D5
ERC11IK.D5,5
ERC11IK.D6
ERC11IK.D6,5
ERC11IK.D7

Articolo
ERC16IK.D3
ERC16IK.D4
ERC16IK.D5
ERC16IK.D6
ERC16IK.D7
ERC16IK.D8
ERC16IK.D9
ERC16IK.D10

Articolo
ERC20IK.D3
ERC20IK.D4
ERC20IK.D5
ERC20IK.D6
ERC20IK.D7
ERC20IK.D8
ERC20IK.D9
ERC20IK.D10
ERC20IK.D11
ERC20IK.D12
ERC20IK.D13

Articolo
ERC25IK.D3
ERC25IK.D4
ERC25IK.D5
ERC25IK.D6
ERC25IK.D7
ERC25IK.D8
ERC25IK.D9
ERC25IK.D10
ERC25IK.D11
ERC25IK.D12
ERC25IK.D13
ERC25IK.D14
ERC25IK.D15
ERC25IK.D16

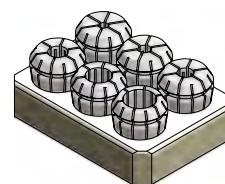
Articolo
ERC32IK.D3
ERC32IK.D4
ERC32IK.D5
ERC32IK.D6
ERC32IK.D7
ERC32IK.D8
ERC32IK.D9
ERC32IK.D10
ERC32IK.D11
ERC32IK.D12
ERC32IK.D13
ERC32IK.D14
ERC32IK.D15
ERC32IK.D16
ERC32IK.D17
ERC32IK.D18
ERC32IK.D19
ERC32IK.D20

SERIE DI PINZE SU BASE DI LEGNO
COLLETS SETS IN WOODEN TRAY

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.ERC25IK-6	ERC25IK.D4-6-8-10-12-16
TY.ERC32IK-6	ERC32IK.D6-8-10-12-16-20

SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ERC11IK-9	ERC11IK.D3÷7 x 0,5mm
BX.ERC16IK-8	ERC16IK.D3÷10 x 1mm
BX.ERC20IK-11	ERC20IK.D3÷13 x 1mm
BX.ERC25IK-14	ERC25IK.D3÷16 x 1mm
BX.ERC32IK-18	ERC32IK.D3÷20 x 1mm



PINZE CON FORI DI LUBRIFICAZIONE

EXTERNALLY COOLED COLLETS



Articolo	D (mm)	Capacità di serraggio Collapse
ERC16JET	3 ÷ 7	-0,1mm
ERC20JET	3 ÷ 10	-0,1mm
ERC25JET	3 ÷ 14	-0,1mm
ERC32JET	3 ÷ 20	-0,1mm
ERC40JET	4 ÷ 26	-0,1mm
ERC50JET	6 ÷ 34	-0,1mm

ERRORE MEDIO DI CONCENTRICITA'

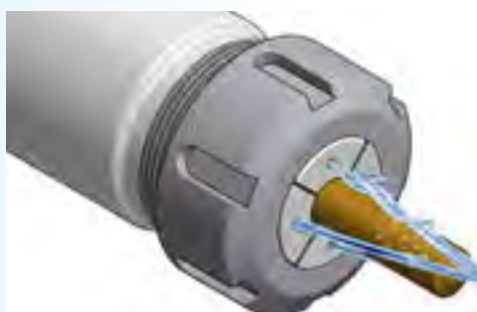
AVERAGE OF RUNOUT ACCURACY

↗ 0,008

PRESSIONE MASSIMA AMMESSA

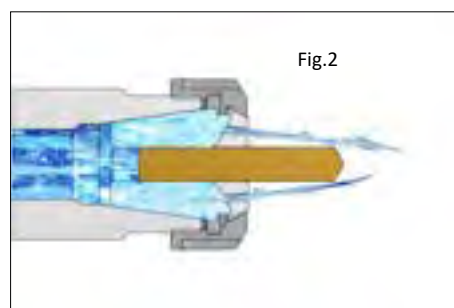
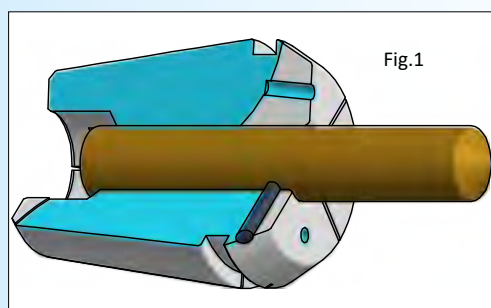
MAX PRESSURE

MAX
25 bar



- La tenuta del liquido refrigerante è garantita dalle guarnizioni in neoprene inserite nel cono a 30° (Fig.1).
- Il refrigerante passa attraverso i 4 fori frontali della pinza (Fig.2).
Il getto è indirizzato sui taglienti, raffredda ed evacua i trucioli di lavorazione.
- La pressione massima ammessa è di 25 bar.
- Si raccomanda di impostare una pressione di esercizio proporzionale al diametro.
- Sono tagliate in 4+4 settori che garantiscono un'ottima rigidità e una elevata precisione di concentricità.
- Si possono montare solo in ghiera con estrazione eccentrica.
- **La tenuta è garantita solo per gli utensili il cui gambo corrisponde al diametro nominale della pinza e che vengono inseriti per tutta la sua lunghezza di presa.**

- Collets are sealed by neoprene inserts in the 30° taper (Fig.1).
- 4 holes of ERC JET collets direct coolant flow to centre of cutting edges. Chips are easy removed (Fig.2).
- Coolant pressure up to 25 bar.
- 4+4 slots design allows a better runout accuracy and repeatability.
- Can be mounted only on nuts with eccentric extractor.
- **Sealing is guaranteed only for tools with nominal diameter of collet inserted on total length of bore.**



DIN ISO 15488 (DIN6499)

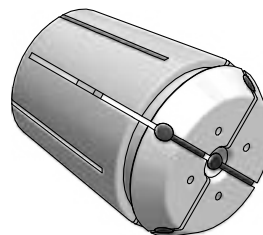
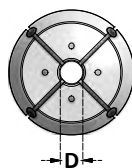
ERC

JET

PINZE CON FORI DI LUBRIFICAZIONE
EXTERNALLY COOLED COLLETS

MAX
25 bar

↗ 0,008



Articolo
ERC16JET.D3
ERC16JET.D4
ERC16JET.D5
ERC16JET.D6
ERC16JET.D7

Articolo
ERC20JET.D3
ERC20JET.D4
ERC20JET.D5
ERC20JET.D6
ERC20JET.D7
ERC20JET.D8
ERC20JET.D9
ERC20JET.D10

Articolo
ERC25JET.D3
ERC25JET.D4
ERC25JET.D5
ERC25JET.D6
ERC25JET.D7
ERC25JET.D8
ERC25JET.D9
ERC25JET.D10
ERC25JET.D11
ERC25JET.D12
ERC25JET.D13
ERC25JET.D14

Articolo
ERC32JET.D3
ERC32JET.D4
ERC32JET.D5
ERC32JET.D6
ERC32JET.D7
ERC32JET.D8
ERC32JET.D9
ERC32JET.D10
ERC32JET.D11
ERC32JET.D12
ERC32JET.D13
ERC32JET.D14
ERC32JET.D15
ERC32JET.D16
ERC32JET.D17
ERC32JET.D18
ERC32JET.D19
ERC32JET.D20

Articolo
ERC40JET.D4
ERC40JET.D5
ERC40JET.D6
ERC40JET.D7
ERC40JET.D8
ERC40JET.D9
ERC40JET.D10
ERC40JET.D11
ERC40JET.D12
ERC40JET.D13
ERC40JET.D14
ERC40JET.D15
ERC40JET.D16
ERC40JET.D17
ERC40JET.D18
ERC40JET.D19
ERC40JET.D20
ERC40JET.D21
ERC40JET.D22
ERC40JET.D23
ERC40JET.D24
ERC40JET.D25
ERC40JET.D26

Articolo
ERC50JET.D6
ERC50JET.D7
ERC50JET.D8
ERC50JET.D9
ERC50JET.D10
ERC50JET.D11
ERC50JET.D12
ERC50JET.D13
ERC50JET.D14
ERC50JET.D15
ERC50JET.D16
ERC50JET.D17
ERC50JET.D18
ERC50JET.D19
ERC50JET.D20
ERC50JET.D21
ERC50JET.D22
ERC50JET.D23
ERC50JET.D24
ERC50JET.D25
ERC50JET.D26
ERC50JET.D27
ERC50JET.D28
ERC50JET.D29
ERC50JET.D30
ERC50JET.D31
ERC50JET.D32
ERC50JET.D33
ERC50JET.D34

DIN ISO 15488 (DIN6499)

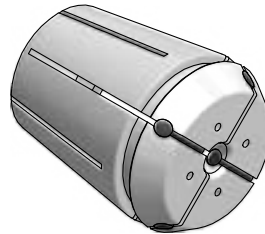
ERC

JET

PINZE CON FORI DI LUBRIFICAZIONE
EXTERNALLY COOLED COLLETS

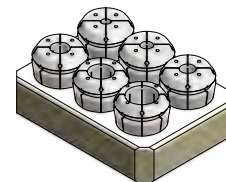
MAX
25 bar

↑ 0,008



SERIE DI PINZE SU BASE DI LEGNO
COLLETS SETS IN WOODEN TRAY

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.ERC25JET-5	ERC25JET.D4-6-8-10-12
TY.ERC32JET-6	ERC32JET.D6-8-10-12-16-20
TY.ERC40JET-7	ERC40JET.D6-8-10-12-16-20-25



SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ERC16JET-5	ERC16JET.D3 ÷ D7 x 1mm
BX.ERC20JET-8	ERC20JET.D3 ÷ D10 x 1mm
BX.ERC25JET-12	ERC25JET.D3 ÷ D14 x 1mm
BX.ERC32JET-18	ERC32JET.D3 ÷ D20 x 1mm
BX.ERC40JET-23	ERC40JET.D4 ÷ D26 x 1mm
BX.ERC50JET-12	ERC50JET.D12 ÷ D34 x 2mm



PINZE PORTAMASCHI CON QUADRO

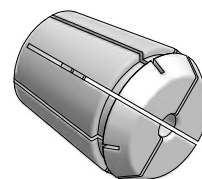
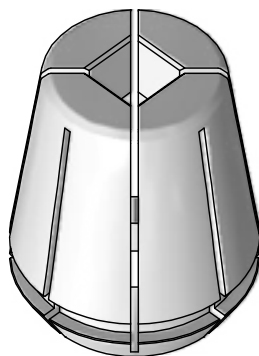
TAP COLLETS WITH SQUARE

STANDARD

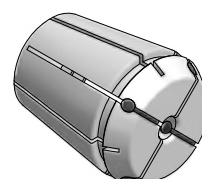
Articolo	D (mm)	MASCHI TAPS
ERC16M	3,5 ÷ 10	M3 ÷ M12
ERC20M	3,5 ÷ 12	M3 ÷ M16
ERC25M	3,5 ÷ 16	M3 ÷ M20
ERC32M	3,5 ÷ 20	M3 ÷ M27
ERC40M	6 ÷ 25	M5 ÷ M33

TENUTA CON INSERTI IN NEOPRENE RUBBER SEALED

Articolo	D (mm)	MASCHI TAPS
ERC16MRF	4 ÷ 8	M4 ÷ M10
ERC20MRF	4 ÷ 10	M4 ÷ M12
ERC25MRF	4 ÷ 12	M4 ÷ M16
ERC32MRF	4,5 ÷ 16	M4 ÷ M22
ERC40MRF	6 ÷ 20	M5 ÷ M27



PAG. 304



PAG. 305

- Utilizzate per la maschiatura sincronizzata con i maschi DIN371 - 374 - 376
- Con il quadro interno per il trascinamento del maschio.
- Senza compensazione assiale.
- Si possono montare solo in ghiera con estrazione eccentrica.
- **Bloccano solo il diametro nominale del gambo dei maschi con tolleranza h8.**
- Le caratteristiche di tenuta delle pinze MRF sono le stesse delle pinze RF illustrate a pagina 295

- Suitable for syncro tapping with DIN371 - 374 - 376 taps.
- With internal square drive for eliminate tap slippage.
- Without axial compensation.
- Can be mounted only on nuts with eccentric extractor.
- **Can clamp only the nominal size of tap shank with tollerance h8.**
- See page 295 for sealing features.

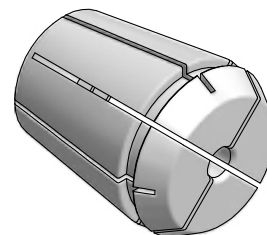
DIMENSIONI DEI GAMBI DEI MASCHI

TAP SHANKS DIMENSIONS

PAG. 374

PINZE PORTAMASCHI CON QUADRO

TAP COLLETS WITH SQUARE



Articolo	Q
ERC16M.D3,5	2,7
ERC16M.D4	3
ERC16M.D4,5	3,4
ERC16M.D5	4
ERC16M.D5,5	4,3
ERC16M.D6	4,9
ERC16M.D6,3	5
ERC16M.D7	5,5
ERC16M.D8	6,2
* ERC16M.D9	7
* ERC16M.D10	8

Articolo	Q
ERC20M.D3,5	2,7
ERC20M.D4	3
ERC20M.D4,5	3,4
ERC20M.D5	4
ERC20M.D5,5	4,3
ERC20M.D6	4,9
ERC20M.D6,3	5
ERC20M.D7	5,5
ERC20M.D8	6,2
ERC20M.D9	7
ERC20M.D10	8
* ERC20M.D11	9
* ERC20M.D12	9

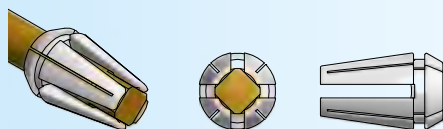
Articolo	Q
ERC25M.D3,5	2,7
ERC25M.D4	3
ERC25M.D4,5	3,4
ERC25M.D5	4
ERC25M.D5,5	4,3
ERC25M.D6	4,9
ERC25M.D6,3	5
ERC25M.D7	5,5
ERC25M.D8	6,2
ERC25M.D9	7
ERC25M.D10	8
ERC25M.D11	9
ERC25M.D11,2	9
ERC25M.D12	9
ERC25M.D14	11
ERC25M.D16	12

Articolo	Q
ERC32M.D3,5	2,7
ERC32M.D4	3
ERC32M.D4,5	3,4
ERC32M.D5	4
ERC32M.D5,5	4,3
ERC32M.D6	4,9
ERC32M.D6,3	5
ERC32M.D7	5,5
ERC32M.D8	6,2
ERC32M.D9	7
ERC32M.D10	8
ERC32M.D11	9
ERC32M.D11,2	9
ERC32M.D12	9
ERC32M.D12,5	10
ERC32M.D14	11
ERC32M.D16	12
ERC32M.D18	14,5
ERC32M.D20	16

Articolo	Q
ERC40M.D6	4,9
ERC40M.D7	5,5
ERC40M.D8	6,2
ERC40M.D9	7
ERC40M.D10	8
ERC40M.D11	9
ERC40M.D12	9
ERC40M.D14	11
ERC40M.D16	12
ERC40M.D18	14,5
ERC40M.D20	16
ERC40M.D22	18
ERC40M.D25	20

Articolo	Q
ERC50M.D8	6,2
ERC50M.D9	7
ERC50M.D10	8
ERC50M.D11	9
ERC50M.D12	9
ERC50M.D14	11
ERC50M.D16	12
ERC50M.D18	14,5
ERC50M.D20	16
ERC50M.D22	18
ERC50M.D25	20
ERC50M.D28	22
ERC50M.D32	24

* Tagli posteriori allargati invece del quadro.
* Large slots instead of square drive.



DIMENSIONI DEI GAMBI DEI MASCHI

TAP SHANKS DIMENSIONS

PAG. 374

SERIE DI PINZE IN BOX

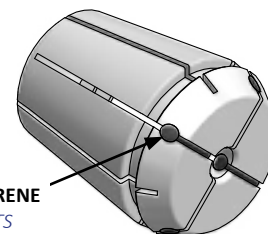
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ERC16M-11	ERC16M.D3,5-4- 4,5- 5- 5,5- 6- 6,3 - 7- 8- 9- 10
BX.ERC20M-13	ERC20M.D3,5-4- 4,5- 5- 5,5- 6- 6,3 - 7- 8- 9- 10- 11- 12
BX.ERC25M-16	ERC25M.D3,5-4- 4,5- 5- 5,5- 6- 6,3 - 7- 8- 9- 10- 11- 11,2- 12- 14- 16
BX.ERC32M-19	ERC32M.D3,5-4- 4,5- 5- 5,5- 6- 6,3 - 7- 8- 9- 10- 11- 11,2- 12- 12,5 - 14- 16- 18- 20
BX.ERC40M-13	ERC40M.D6- 7- 8- 9- 10- 11- 12- 14- 16- 18- 20- 22- 25



PINZE PORTAMASCHI A TENUTA CON QUADRO
SEALED TAP COLLETS WITH SQUARE

MAX
25 bar



INSERTI IN NEOPRENE
NEOPRENE INSERTS

Articolo	Q
ERC16MRF.D4	3
ERC16MRF.D4,5	3,4
ERC16MRF.D5	4
ERC16MRF.D5,5	4,3
ERC16MRF.D6	4,9
ERC16MRF.D7	5,5
ERC16MRF.D8	6,2

Articolo	Q
ERC20MRF.D4	3
ERC20MRF.D4,5	3,4
ERC20MRF.D5	4
ERC20MRF.D5,5	4,3
ERC20MRF.D6	4,9
ERC20MRF.D7	5,5
ERC20MRF.D8	6,2
ERC20MRF.D9	7
ERC20MRF.D10	8

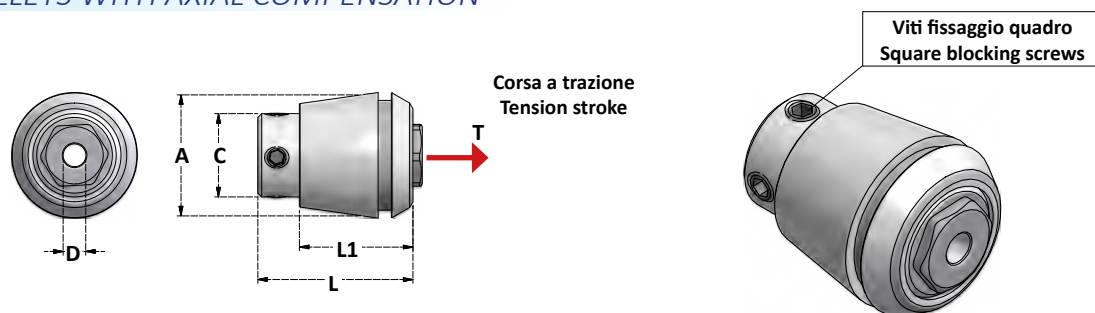
Articolo	Q
ERC25MRF.D4	3
ERC25MRF.D4,5	3,4
ERC25MRF.D5	4
ERC25MRF.D5,5	4,3
ERC25MRF.D6	4,9
ERC25MRF.D7	5,5
ERC25MRF.D8	6,2
ERC25MRF.D9	7
ERC25MRF.D10	8
ERC25MRF.D11	9
ERC25MRF.D12	9

Articolo	Q
ERC32MRF.D4,5	3,4
ERC32MRF.D5	4
ERC32MRF.D5,5	4,3
ERC32MRF.D6	4,9
ERC32MRF.D7	5,5
ERC32MRF.D8	6,2
ERC32MRF.D9	7
ERC32MRF.D10	8
ERC32MRF.D11	9
ERC32MRF.D12	9
ERC32MRF.D14	11
ERC32MRF.D16	12

Articolo	Q
ERC40MRF.D6	4,9
ERC40MRF.D7	5,5
ERC40MRF.D8	6,2
ERC40MRF.D9	7
ERC40MRF.D10	8
ERC40MRF.D11	9
ERC40MRF.D12	9
ERC40MRF.D14	11
ERC40MRF.D16	12
ERC40MRF.D18	14,5
ERC40MRF.D20	16

DIMENSIONI DEI GAMBI DEI MASCHI
TAP SHANKS DIMENSIONS
PAG. 374

PINZE PORTAMASCHI CON COMPENSAZIONE ASSIALE
TAPPING COLLETS WITH AXIAL COMPENSATION



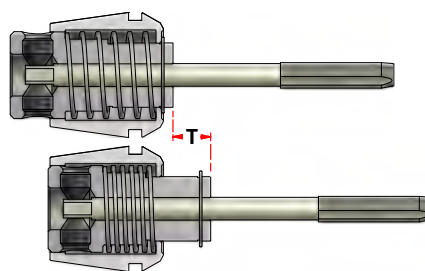
Articolo		T	A	C	L1	L	D (mm)	MASCHI TAPS
ERC16FT	4033E	7	16	11	22	27	1,4 ÷ 6	M1 ÷ M6
ERC20FT	4284E	7	20	14	24	31	2,2 ÷ 8	M1 ÷ M8
ERC25FT	4285E	8	25	19	24,5	34	2,5 ÷ 10	M3,5 ÷ M10 (M12)
ERC32FT	4538E	10	32	23	31	43	4,5 ÷ 12,5	M4 ÷ M12 (M16)
ERC40FT	4717E	13	40	28	42	54	6 ÷ 16	M6 ÷ M16 (M20)

- Si montano su tutti i tipi di portapinze ER
- L'utilizzo del refrigerante attraverso la pinza è sconsigliato.
- Si possono montare solo in ghiera con estrazione eccentrica.

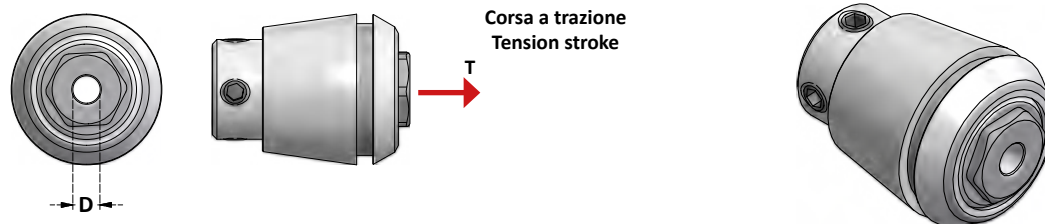
- Can be mounted on every ER collet chuck.
- Coolant through collet not recommended.
- Can be mounted only on nuts with eccentric extractor.

DIMENSIONI DEI GAMBI DEI MASCHI

TAP SHANKS DIMENSIONS
PAG. 374



PINZE PORTAMASCHI CON COMPENSAZIONE ASSIALE
TAPPING COLLETS WITH AXIAL COMPENSATION



Articolo	T
ERC16FT.D1,4	7
ERC16FT.D1,6	7
ERC16FT.D1,8	7
ERC16FT.D2	7
ERC16FT.D2,2	7
ERC16FT.D2,24	7
ERC16FT.D2,5	7
ERC16FT.D2,8	7
ERC16FT.D3	7
ERC16FT.D3,15	7
ERC16FT.D3,5	7
ERC16FT.D4	7
ERC16FT.D4,5	7
ERC16FT.D5	7
ERC16FT.D5,5	7
ERC16FT.D6	7

Articolo	T
ERC20FT.D2,5	7
ERC20FT.D2,8	7
ERC20FT.D3	7
ERC20FT.D3,5	7
ERC20FT.D4	7
ERC20FT.D4,5	7
ERC20FT.D5	7
ERC20FT.D5,5	7
ERC20FT.D6	7
ERC20FT.D7	7

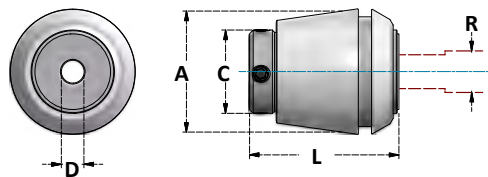
Articolo	T
ERC25FT.D2,5	8
ERC25FT.D2,8	8
ERC25FT.D3	8
ERC25FT.D3,5	8
ERC25FT.D4	8
ERC25FT.D4,5	8
ERC25FT.D5	8
ERC25FT.D5,5	8
ERC25FT.D6	8
ERC25FT.D7	8
ERC25FT.D8	8
ERC25FT.D9	8
ERC25FT.D10	8

Articolo	T
ERC32FT.D4	10
ERC32FT.D4,5	10
ERC32FT.D5	10
ERC32FT.D5,5	10
ERC32FT.D6	10
ERC32FT.D7	10
ERC32FT.D8	10
ERC32FT.D9	10
ERC32FT.D10	10
ERC32FT.D11	10
ERC32FT.D12	10
ERC32FT.D12,5	10

Articolo	T
ERC40FT.D6	13
ERC40FT.D7	13
ERC40FT.D8	13
ERC40FT.D9	13
ERC40FT.D10	13
ERC40FT.D11	13
ERC40FT.D12	13
ERC40FT.D12,5	13
ERC40FT.D14	13
ERC40FT.D16	13

DIMENSIONI DEI GAMBI DEI MASCHI
TAP SHANKS DIMENSIONS
PAG. 374

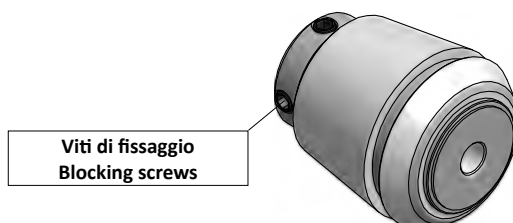
PINZE CON OSCILLAZIONE RADIALE PER ALESATORI
FLOATING COLLETS FOR REAMERS



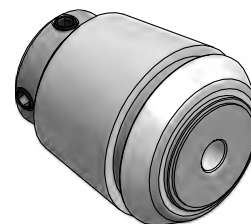
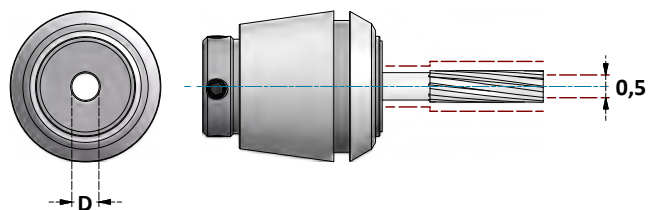
Articolo	R	C	A	L	D (mm)
ERC16PA	0,5	11	16	29	2 ÷ 7
ERC20PA	0,5	14	20	32	3 ÷ 8
ERC25PA	0,5	18,5	25	35	3 ÷ 10
ERC32PA	0,5	24	32	44	4 ÷ 14
ERC40PA	0,5	30	40	56	5 ÷ 16

- Si montano su tutti i tipi di mandrini portapinze ER.
- Sono adatte anche alla maschiatura rigida.
- Non utilizzare il refrigerante attraverso la pinza.
- Si possono montare solo in ghiera con estrazione eccentrica.

- Used with all types of ER collet chucks.
- Suitable also for tapping operations.
- Coolant through collet not recommended.
- Can be mounted only on nuts with eccentric extractor.



PINZE CON OSCILLAZIONE RADIALE PER ALESATORI
FLOATING COLLETS FOR REAMERS



Articolo
ERC16PA.D2
ERC16PA.D3
ERC16PA.D4
ERC16PA.D5
ERC16PA.D6
ERC16PA.D7

Articolo
ERC20PA.D3
ERC20PA.D4
ERC20PA.D5
ERC20PA.D6
ERC20PA.D7
ERC20PA.D8

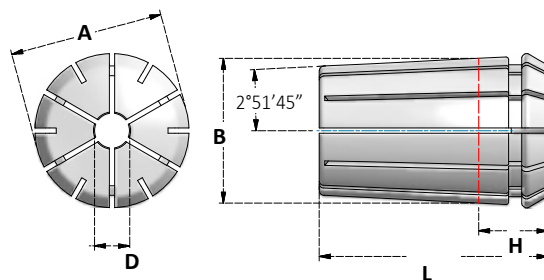
Articolo
ERC25PA.D3
ERC25PA.D4
ERC25PA.D5
ERC25PA.D6
ERC25PA.D7
ERC25PA.D8
ERC25PA.D9
ERC25PA.D10

Articolo
ERC32PA.D4
ERC32PA.D5
ERC32PA.D6
ERC32PA.D7
ERC32PA.D8
ERC32PA.D9
ERC32PA.D10
ERC32PA.D11
ERC32PA.D12
ERC32PA.D13
ERC32PA.D14

Articolo
ERC40PA.D5
ERC40PA.D6
ERC40PA.D7
ERC40PA.D8
ERC40PA.D9
ERC40PA.D10
ERC40PA.D11
ERC40PA.D12
ERC40PA.D13
ERC40PA.D14
ERC40PA.D15
ERC40PA.D16

DIN ISO 10897 (DIN6388)

PINZE DI SERRAGGIO EOC
EOC CLAMPING COLLETS



Tipo	EU	D	CAPACITÀ DI SERRAGGIO COLLAPSE	L	B	A	H
EOC16	415E	2÷16	0,5mm	40	22,65	25,5	15
EOC20	4541E	4÷20	0,5mm	45	27,4	29,8	16
EOC25	462E	2÷25	0,5mm	52	32,9	35,05	16
EOC32	467E	4÷32	0,5mm	60	41,3	43,7	17
EOC40	468E	16÷40	0,5mm	68	49,7	52,2	18

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY

0,008

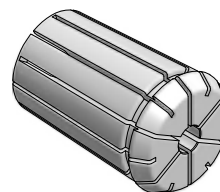
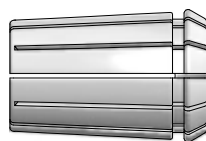
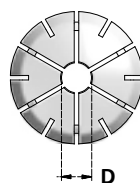
- Il basso valore di conicità e la lunga presa dell'utensile conferiscono alle pinze EOC una forza di serraggio superiore, rendendole particolarmente adatte per le operazioni di fresatura gravose e dove sia richiesta la massima rigidità.
- Sono tagliate in 6+6 settori bilaterali per una capacità di serraggio fino a 0,5mm al di sotto del diametro nominale.
- Superficie finita con rugosità Rz 1,6.

- Higher clamping force due to collet taper and longer supported length of tool shank assure strong grip and big rigidity in heavy duty milling operations.
- Double side slots 6+6 allow a wide clamping range up to 0,5mm reduced from nominal size.
- Surface finished Rz 1,6.

DIN ISO 10897 (DIN6388)

EOC

PINZE DI SERRAGGIO EOC
EOC CLAMPING COLLETS



Articolo	Capacità Range
EOC16.D2	2 ÷ 1,5
EOC16.D2,5	2,5 ÷ 2
EOC16.D3	3 ÷ 2,5
EOC16.D3,5	3,5 ÷ 3
EOC16.D4	4 ÷ 3,5
EOC16.D4,5	4,5 ÷ 4
EOC16.D5	5 ÷ 4,5
EOC16.D5,5	5,5 ÷ 5
EOC16.D6	6 ÷ 5,5
EOC16.D6,5	6,5 ÷ 6
EOC16.D7	7 ÷ 6,5
EOC16.D7,5	7,5 ÷ 7
EOC16.D8	8 ÷ 7,5
EOC16.D8,5	8,5 ÷ 8
EOC16.D9	9 ÷ 8,5
EOC16.D9,5	9,5 ÷ 9
EOC16.D10	10 ÷ 9,5
EOC16.D10,5	10,5 ÷ 10
EOC16.D11	11 ÷ 10,5
EOC16.D11,5	11,5 ÷ 11
EOC16.D12	12 ÷ 11,5
EOC16.D12,5	12,5 ÷ 12
EOC16.D13	13 ÷ 12,5
EOC16.D13,5	13,5 ÷ 13
EOC16.D14	14 ÷ 13,5
EOC16.D14,5	14,5 ÷ 14
EOC16.D15	15 ÷ 14,5
EOC16.D15,5	15,5 ÷ 15
EOC16.D16	16 ÷ 15,5

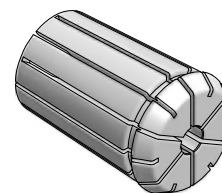
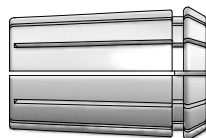
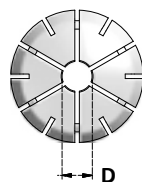
Articolo	Capacità Range
EOC20.D2	2 ÷ 1,5
EOC20.D2,5	2,5 ÷ 2
EOC20.D3	3 ÷ 2,5
EOC20.D3,5	3,5 ÷ 3
EOC20.D4	4 ÷ 3,5
EOC20.D4,5	4,5 ÷ 4
EOC20.D5	5 ÷ 4,5
EOC20.D5,5	5,5 ÷ 5
EOC20.D6	6 ÷ 5,5
EOC20.D6,5	6,5 ÷ 6
EOC20.D7	7 ÷ 6,5
EOC20.D7,5	7,5 ÷ 7
EOC20.D8	8 ÷ 7,5
EOC20.D8,5	8,5 ÷ 8
EOC20.D9	9 ÷ 8,5
EOC20.D9,5	9,5 ÷ 9
EOC20.D10	10 ÷ 9,5
EOC20.D10,5	10,5 ÷ 10
EOC20.D11	11 ÷ 10,5
EOC20.D11,5	11,5 ÷ 11
EOC20.D12	12 ÷ 11,5
EOC20.D12,5	12,5 ÷ 12
EOC20.D13	13 ÷ 12,5
EOC20.D13,5	13,5 ÷ 13
EOC20.D14	14 ÷ 13,5
EOC20.D14,5	14,5 ÷ 14
EOC20.D15	15 ÷ 14,5
EOC20.D15,5	15,5 ÷ 15
EOC20.D16	16 ÷ 15,5
EOC20.D16,5	16,5 ÷ 16
EOC20.D17	17 ÷ 16,5
EOC20.D17,5	17,5 ÷ 17
EOC20.D18	18 ÷ 17,5
EOC20.D18,5	18,5 ÷ 18
EOC20.D19	19 ÷ 18,5
EOC20.D19,5	19,5 ÷ 19
EOC20.D20	20 ÷ 19,5

Articolo	Capacità Range
EOC25.D2	2 ÷ 1,5
EOC25.D2,5	2,5 ÷ 2
EOC25.D3	3 ÷ 2,5
EOC25.D3,5	3,5 ÷ 3
EOC25.D4	4 ÷ 3,5
EOC25.D4,5	4,5 ÷ 4
EOC25.D5	5 ÷ 4,5
EOC25.D5,5	5,5 ÷ 5
EOC25.D6	6 ÷ 5,5
EOC25.D6,5	6,5 ÷ 6
EOC25.D7	7 ÷ 6,5
EOC25.D7,5	7,5 ÷ 7
EOC25.D8	8 ÷ 7,5
EOC25.D8,5	8,5 ÷ 8
EOC25.D9	9 ÷ 8,5
EOC25.D9,5	9,5 ÷ 9
EOC25.D10	10 ÷ 9,5
EOC25.D10,5	10,5 ÷ 10
EOC25.D11	11 ÷ 10,5
EOC25.D11,5	11,5 ÷ 11
EOC25.D12	12 ÷ 11,5
EOC25.D12,5	12,5 ÷ 12
EOC25.D13	13 ÷ 12,5
EOC25.D13,5	13,5 ÷ 13
EOC25.D14	14 ÷ 13,5
EOC25.D14,5	14,5 ÷ 14
EOC25.D15	15 ÷ 14,5
EOC25.D15,5	15,5 ÷ 15
EOC25.D16	16 ÷ 15,5
EOC25.D16,5	16,5 ÷ 16
EOC25.D17	17 ÷ 16,5
EOC25.D17,5	17,5 ÷ 17
EOC25.D18	18 ÷ 17,5
EOC25.D18,5	18,5 ÷ 18
EOC25.D19	19 ÷ 18,5
EOC25.D19,5	19,5 ÷ 19
EOC25.D20	20 ÷ 19,5
EOC25.D20,5	20,5 ÷ 20
EOC25.D21	21 ÷ 20,5
EOC25.D21,5	21,5 ÷ 21
EOC25.D22	22 ÷ 21,5
EOC25.D22,5	22,5 ÷ 22
EOC25.D23	23 ÷ 22,5
EOC25.D23,5	23,5 ÷ 23
EOC25.D24	24 ÷ 23,5
EOC25.D24,5	24,5 ÷ 24
EOC25.D25	25 ÷ 24,5

DIN ISO 10897 (DIN6388)

EOC

PINZE DI SERRAGGIO EOC
EOC CLAMPING COLLETS



Articolo	Capacità Range
EOC32.D3	3 ÷ 2,5
EOC32.D3,5	3,5 ÷ 3
EOC32.D4	4 ÷ 3,5
EOC32.D4,5	4,5 ÷ 4
EOC32.D5	5 ÷ 4,5
EOC32.D5,5	5,5 ÷ 5
EOC32.D6	6 ÷ 5,5
EOC32.D6,5	6,5 ÷ 6
EOC32.D7	7 ÷ 6,5
EOC32.D7,5	7,5 ÷ 7
EOC32.D8	8 ÷ 7,5
EOC32.D8,5	8,5 ÷ 8
EOC32.D9	9 ÷ 8,5
EOC32.D9,5	9,5 ÷ 9
EOC32.D10	10 ÷ 9,5
EOC32.D10,5	10,5 ÷ 10
EOC32.D11	11 ÷ 10,5
EOC32.D11,5	11,5 ÷ 11
EOC32.D12	12 ÷ 11,5
EOC32.D12,5	12,5 ÷ 12
EOC32.D13	13 ÷ 12,5
EOC32.D13,5	13,5 ÷ 13
EOC32.D14	14 ÷ 13,5
EOC32.D14,5	14,5 ÷ 14
EOC32.D15	15 ÷ 14,5
EOC32.D15,5	15,5 ÷ 15
EOC32.D16	16 ÷ 15,5
EOC32.D16,5	16,5 ÷ 16
EOC32.D17	17 ÷ 16,5
EOC32.D17,5	17,5 ÷ 17
EOC32.D18	18 ÷ 17,5
EOC32.D18,5	18,5 ÷ 18
EOC32.D19	19 ÷ 18,5
EOC32.D19,5	19,5 ÷ 19

Articolo	Capacità Range
EOC32.D20	20 ÷ 19,5
EOC32.D20,5	20,5 ÷ 20
EOC32.D21	21 ÷ 20,5
EOC32.D21,5	21,5 ÷ 21
EOC32.D22	22 ÷ 21,5
EOC32.D22,5	22,5 ÷ 22
EOC32.D23	23 ÷ 22,5
EOC32.D23,5	23,5 ÷ 23
EOC32.D24	24 ÷ 23,5
EOC32.D24,5	24,5 ÷ 24
EOC32.D25	25 ÷ 24,5
EOC32.D25,5	25,5 ÷ 25
EOC32.D26	26 ÷ 25,5
EOC32.D26,5	26,5 ÷ 26
EOC32.D27	27 ÷ 26,5
EOC32.D27,5	27,5 ÷ 27
EOC32.D28	28 ÷ 27,5
EOC32.D28,5	28,5 ÷ 28
EOC32.D29	29 ÷ 28,5
EOC32.D29,5	29,5 ÷ 29
EOC32.D30	30 ÷ 29,5
EOC32.D30,5	30,5 ÷ 30
EOC32.D31	31 ÷ 30,5
EOC32.D31,5	31,5 ÷ 31
EOC32.D32	32 ÷ 31,5

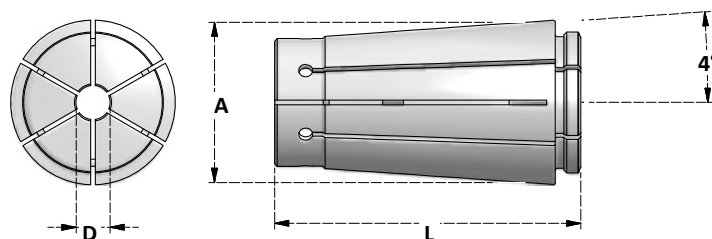
Articolo	Capacità Range
EOC40.D10	10 ÷ 9,5
EOC40.D11	11 ÷ 10,5
EOC40.D12	12 ÷ 11,5
EOC40.D13	13 ÷ 12,5
EOC40.D14	14 ÷ 13,5
EOC40.D15	15 ÷ 14,5
EOC40.D16	16 ÷ 15,5
EOC40.D17	17 ÷ 16,5
EOC40.D18	18 ÷ 17,5
EOC40.D19	19 ÷ 18,5
EOC40.D20	20 ÷ 19,5
EOC40.D21	21 ÷ 20,5
EOC40.D22	22 ÷ 21,5
EOC40.D23	23 ÷ 22,5
EOC40.D24	24 ÷ 23,5
EOC40.D25	25 ÷ 24,5
EOC40.D26	26 ÷ 25,5
EOC40.D27	27 ÷ 26,5
EOC40.D28	28 ÷ 27,5
EOC40.D29	29 ÷ 28,5
EOC40.D30	30 ÷ 29,5
EOC40.D31	31 ÷ 30,5
EOC40.D32	32 ÷ 31,5
EOC40.D33	33 ÷ 32,5
EOC40.D34	34 ÷ 33,5
EOC40.D35	35 ÷ 34,5
EOC40.D36	36 ÷ 35,5
EOC40.D37	37 ÷ 36,5
EOC40.D38	38 ÷ 37,5
EOC40.D39	39 ÷ 38,5
EOC40.D40	40 ÷ 39,5

SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.EOC16-15	EOC16.D2 ÷ D16 x 1mm
BX.EOC25-24	EOC25.D2 ÷ D25 x 1mm
BX.EOC32-30	EOC32.D3 ÷ D32 x 1mm



PINZE DI SERRAGGIO SKS
SKS CLAMPING COLLETS



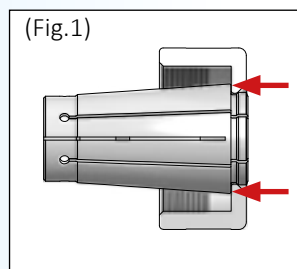
Tipo	D	L	A
SKS10	2÷10	32	15,013
SKS16	3÷16	46	23,939
SKS20	3÷20	54,3	28,5
SKS25	3÷25,4	58,2	35,029

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY

0,005

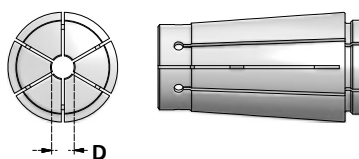
- La conicità a 4° e la lunghezza delle pinze SKS consentono di serrare gli utensili con una forza, una rigidità e una precisione elevate, rendendole particolarmente adatte per le lavorazioni alle alte velocità.
- La ghiera SKS agisce sul piano anteriore della pinza (Fig.1) riducendo l'errore di concentricità e rendendo la forza di serraggio uniforme su tutta la lunghezza di presa della pinza.
- L'estrazione con l'anello concentrico delle ghiera SKS aumenta il grado di equilibratura.
- Sono tagliate in 6+6 settori che permettono di serrare gli utensili con diametro inferiore di 0,5mm rispetto al diametro nominale.

- Small taper angle and clamping length increase force of SKS even at high speeds.
- SKS nut works axially on collet's flat (Fig.1) increasing precision and uniforming clamping force on whole length of bore.
- Concentric extraction of SKS nuts increases balancing.
- Cutted with 6+6 slots that allow a wide clamping range up to 0,5mm reduced from nominal size.



PINZE DI SERRAGGIO
CLAMPING COLLETS

0,005



Articolo	Capacità Range
SKS10.D2	2 ÷ 1,75
SKS10.D2,25	2,25 ÷ 2
SKS10.D2,5	2,5 ÷ 2,25
SKS10.D2,75	2,75 ÷ 2,5
SKS10.D3	3 ÷ 2,75
SKS10.D3,5	3,5 ÷ 3
SKS10.D4	4 ÷ 3,5
SKS10.D4,5	4,5 ÷ 4
SKS10.D5	5 ÷ 4,5
SKS10.D5,5	5,5 ÷ 5
SKS10.D6	6 ÷ 5,5
SKS10.D6,5	6,5 ÷ 6
SKS10.D7	7 ÷ 6,5
SKS10.D7,5	7,5 ÷ 7
SKS10.D8	8 ÷ 7,5
SKS10.D8,5	8,5 ÷ 8
SKS10.D9	9 ÷ 8,5
SKS10.D9,5	9,5 ÷ 9
SKS10.D10	10 ÷ 9,5

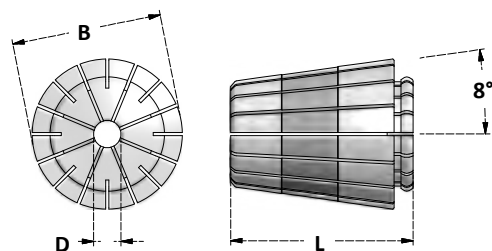
Articolo	Capacità Range
SKS16.D3	3 ÷ 2,75
SKS16.D3,5	3,5 ÷ 3
SKS16.D4	4 ÷ 3,5
SKS16.D4,5	4,5 ÷ 4
SKS16.D5	5 ÷ 4,5
SKS16.D5,5	5,5 ÷ 5
SKS16.D6	6 ÷ 5,5
SKS16.D6,5	6,5 ÷ 6
SKS16.D7	7 ÷ 6,5
SKS16.D7,5	7,5 ÷ 7
SKS16.D8	8 ÷ 7,5
SKS16.D8,5	8,5 ÷ 8
SKS16.D9	9 ÷ 8,5
SKS16.D9,5	9,5 ÷ 9
SKS16.D10	10 ÷ 9,5
SKS16.D10,5	10,5 ÷ 10
SKS16.D11	11 ÷ 10,5
SKS16.D11,5	11,5 ÷ 11
SKS16.D12	12 ÷ 11,5
SKS16.D12,5	12,5 ÷ 12
SKS16.D13	13 ÷ 12,5
SKS16.D13,5	13,5 ÷ 13
SKS16.D14	14 ÷ 13,5
SKS16.D14,5	14,5 ÷ 14
SKS16.D15	15 ÷ 14,5
SKS16.D15,5	15,5 ÷ 15
SKS16.D16	16 ÷ 15,5

Articolo	Capacità Range
SKS20.D3	3 ÷ 2,75
SKS20.D3,5	3,5 ÷ 3
SKS20.D4	4 ÷ 3,5
SKS20.D4,5	4,5 ÷ 4
SKS20.D5	5 ÷ 4,5
SKS20.D5,5	5,5 ÷ 5
SKS20.D6	6 ÷ 5,5
SKS20.D6,5	6,5 ÷ 6
SKS20.D7	7 ÷ 6,5
SKS20.D7,5	7,5 ÷ 7
SKS20.D8	8 ÷ 7,5
SKS20.D8,5	8,5 ÷ 8
SKS20.D9	9 ÷ 8,5
SKS20.D9,5	9,5 ÷ 9
SKS20.D10	10 ÷ 9,5
SKS20.D10,5	10,5 ÷ 10
SKS20.D11	11 ÷ 10,5
SKS20.D11,5	11,5 ÷ 11
SKS20.D12	12 ÷ 11,5
SKS20.D12,5	12,5 ÷ 12
SKS20.D13	13 ÷ 12,5
SKS20.D13,5	13,5 ÷ 13
SKS20.D14	14 ÷ 13,5
SKS20.D14,5	14,5 ÷ 14
SKS20.D15	15 ÷ 14,5
SKS20.D15,5	15,5 ÷ 15
SKS20.D16	16 ÷ 15,5
SKS20.D16,5	16,5 ÷ 16
SKS20.D17	17 ÷ 16,5
SKS20.D17,5	17,5 ÷ 17
SKS20.D18	18 ÷ 17,5
SKS20.D18,5	18,5 ÷ 18
SKS20.D19	19 ÷ 18,5
SKS20.D19,5	19,5 ÷ 19
SKS20.D20	20 ÷ 19,5

Articolo	Capacità Range
SKS25.D3	3 ÷ 2,75
SKS25.D3,5	3,5 ÷ 3
SKS25.D4	4 ÷ 3,5
SKS25.D4,5	4,5 ÷ 4
SKS25.D5	5 ÷ 4,5
SKS25.D5,5	5,5 ÷ 5
SKS25.D6	6 ÷ 5,5
SKS25.D6,5	6,5 ÷ 6
SKS25.D7	7 ÷ 6,5
SKS25.D7,5	7,5 ÷ 7
SKS25.D8	8 ÷ 7,5
SKS25.D8,5	8,5 ÷ 8
SKS25.D9	9 ÷ 8,5
SKS25.D9,5	9,5 ÷ 9
SKS25.D10	10 ÷ 9,5
SKS25.D10,5	10,5 ÷ 10
SKS25.D11	11 ÷ 10,5
SKS25.D11,5	11,5 ÷ 11
SKS25.D12	12 ÷ 11,5
SKS25.D12,5	12,5 ÷ 12
SKS25.D13	13 ÷ 12,5
SKS25.D13,5	13,5 ÷ 13
SKS25.D14	14 ÷ 13,5
SKS25.D14,5	14,5 ÷ 14
SKS25.D15	15 ÷ 14,5
SKS25.D15,5	15,5 ÷ 15
SKS25.D16	16 ÷ 15,5
SKS25.D16,5	16,5 ÷ 16
SKS25.D17	17 ÷ 16,5
SKS25.D17,5	17,5 ÷ 17
SKS25.D18	18 ÷ 17,5
SKS25.D18,5	18,5 ÷ 18
SKS25.D19	19 ÷ 18,5
SKS25.D19,5	19,5 ÷ 19
SKS25.D20	20 ÷ 19,5
SKS25.D20,5	20,5 ÷ 20
SKS25.D21	21 ÷ 20,5
SKS25.D21,5	21,5 ÷ 21
SKS25.D22	22 ÷ 21,5
SKS25.D22,5	22,5 ÷ 22
SKS25.D23	23 ÷ 22,5
SKS25.D23,5	23,5 ÷ 23
SKS25.D24	24 ÷ 23,5
SKS25.D24,5	24,5 ÷ 24
SKS25.D25	25 ÷ 24,5

PINZE DI SERRAGGIO ETS

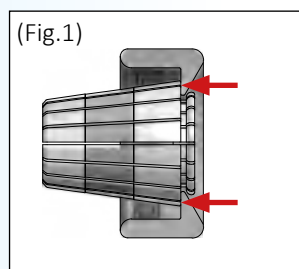
ETS CLAMPING COLLETS



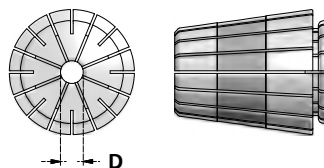
Tipo	D	L	B
ETS16	1÷10	24	17
ETS20	2÷13	30,5	21,10
ETS25	2÷16	34	26,10
ETS32	3÷20	40	33,10
ETS40	4÷26	45	41,10

- Si montano sui mandrini portapinze ISO DIN 15488 (ER-ERC) utilizzando l'apposita ghiera ETS.
- La ghiera chiudipinza del sistema ETS lavora sul piano anteriore della pinza (Fig.1) riducendo l'errore di concentricità e rendendo la forza di serraggio uniforme su tutta la lunghezza di presa della pinza.
- L'estrazione delle pinze ETS avviene con l'anello concentrico della ghiera aumentando il grado di equilibratura e rendendo queste pinze molto adatte per lavorazioni di precisione ad alta velocità.

- *Adaptable to all toolholders that mount ER/ERC collets by using ETS nuts.*
- *ETS nut works axially on collet's flat (Fig.1) increasing precision and uniforming clamping force on whole length of bore.*
- *Concentric extraction of ETS nuts increases balancing.*
- *Suitable for precision work on high speeds.*



PINZE DI SERRAGGIO ETS
ETS CLAMPING COLLETS



Articolo	Capacità Range
ETS16.D1	1 ÷ 0,5
ETS16.D2	2 ÷ 1
ETS16.D3	3 ÷ 2
ETS16.D4	4 ÷ 3
ETS16.D5	5 ÷ 4
ETS16.D6	6 ÷ 5
ETS16.D7	7 ÷ 6
ETS16.D8	8 ÷ 7
ETS16.D9	9 ÷ 8
ETS16.D10	10 ÷ 9

Articolo	Capacità Range
ETS20.D2	2 ÷ 1
ETS20.D3	3 ÷ 2
ETS20.D4	4 ÷ 3
ETS20.D5	5 ÷ 4
ETS20.D6	6 ÷ 5
ETS20.D7	7 ÷ 6
ETS20.D8	8 ÷ 7
ETS20.D9	9 ÷ 8
ETS20.D10	10 ÷ 9
ETS20.D11	11 ÷ 10
ETS20.D12	12 ÷ 11
ETS20.D13	13 ÷ 12

Articolo	Capacità Range
ETS25.D2	2 ÷ 1,5
ETS25.D3	3 ÷ 2
ETS25.D4	4 ÷ 3
ETS25.D5	5 ÷ 4
ETS25.D6	6 ÷ 5
ETS25.D7	7 ÷ 6
ETS25.D8	8 ÷ 7
ETS25.D9	9 ÷ 8
ETS25.D10	10 ÷ 9
ETS25.D11	11 ÷ 10
ETS25.D12	12 ÷ 11
ETS25.D13	13 ÷ 12
ETS25.D14	14 ÷ 13
ETS25.D15	15 ÷ 14
ETS25.D16	16 ÷ 15

Articolo	Capacità Range
ETS32.D3	3 ÷ 2
ETS32.D4	4 ÷ 3
ETS32.D5	5 ÷ 4
ETS32.D6	6 ÷ 5
ETS32.D7	7 ÷ 6
ETS32.D8	8 ÷ 7
ETS32.D9	9 ÷ 8
ETS32.D10	10 ÷ 9
ETS32.D11	11 ÷ 10
ETS32.D12	12 ÷ 11
ETS32.D13	13 ÷ 12
ETS32.D14	14 ÷ 13
ETS32.D15	15 ÷ 14
ETS32.D16	16 ÷ 15
ETS32.D17	17 ÷ 16
ETS32.D18	18 ÷ 17
ETS32.D19	19 ÷ 18
ETS32.D20	20 ÷ 19

Articolo	Capacità Range
ETS40.D4	4 ÷ 3
ETS40.D5	5 ÷ 4
ETS40.D6	6 ÷ 5
ETS40.D7	7 ÷ 6
ETS40.D8	8 ÷ 7
ETS40.D9	9 ÷ 8
ETS40.D10	10 ÷ 9
ETS40.D11	11 ÷ 10
ETS40.D12	12 ÷ 11
ETS40.D13	13 ÷ 12
ETS40.D14	14 ÷ 13
ETS40.D15	15 ÷ 14
ETS40.D16	16 ÷ 15
ETS40.D17	17 ÷ 16
ETS40.D18	18 ÷ 17
ETS40.D19	19 ÷ 18
ETS40.D20	20 ÷ 19
ETS40.D21	21 ÷ 20
ETS40.D22	22 ÷ 21
ETS40.D23	23 ÷ 22
ETS40.D24	24 ÷ 23
ETS40.D25	25 ÷ 24
ETS40.D26	26 ÷ 25

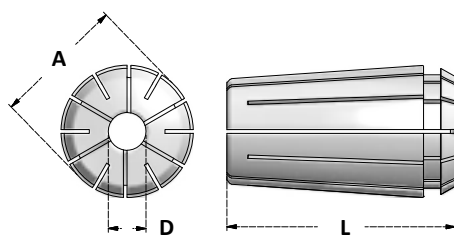
SERIE DI PINZE IN BOX
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ETS16-10	ETS16.D1 ÷ D10 x 1mm
BX.ETS20-12	ETS20.D2 ÷ D13 x 1mm
BX.ETS25-15	ETS25.D2 ÷ D16 x 1mm
BX.ETS32-18	ETS32.D3 ÷ D20 x 1mm
BX.ETS40-23	ETS40.D4 ÷ D26 x 1mm



PINZE DI SERRAGGIO ETG - ALESAGGI METRICI

ETG CLAMPING COLLETS - METRIC SIZES



Tipo	EU	D	L	A
ETG75	420E	3÷16	46,9	27
ETG100	464E	3÷25	60,32	35,02
ETG150	466E	4÷38	76,2	50,8

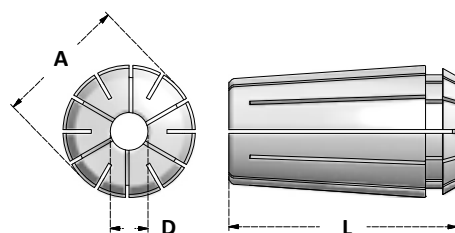
Articolo	Capacità Collapse
ETG75.D3	0,4mm
ETG75.D4	0,4mm
ETG75.D5	0,4mm
ETG75.D6	0,4mm
ETG75.D7	0,4mm
ETG75.D8	0,4mm
ETG75.D9	0,4mm
ETG75.D10	0,4mm
ETG75.D11	0,4mm
ETG75.D12	0,4mm
ETG75.D13	0,4mm
ETG75.D14	0,4mm
ETG75.D15	0,4mm
ETG75.D16	0,4mm

Articolo	Capacità Range
ETG100.D3	0,4mm
ETG100.D4	0,4mm
ETG100.D5	0,4mm
ETG100.D6	0,4mm
ETG100.D7	0,4mm
ETG100.D8	0,4mm
ETG100.D9	0,4mm
ETG100.D10	0,4mm
ETG100.D11	0,4mm
ETG100.D12	0,4mm
ETG100.D13	0,4mm
ETG100.D14	0,4mm
ETG100.D15	0,4mm
ETG100.D16	0,4mm
ETG100.D17	0,4mm
ETG100.D18	0,4mm
ETG100.D19	0,4mm
ETG100.D20	0,4mm
ETG100.D21	0,4mm
ETG100.D22	0,4mm
ETG100.D23	0,4mm
ETG100.D24	0,4mm
ETG100.D25	0,4mm

Articolo	Capacità Range
ETG150.D4	0,4mm
ETG150.D5	0,4mm
ETG150.D6	0,4mm
ETG150.D7	0,4mm
ETG150.D8	0,4mm
ETG150.D9	0,4mm
ETG150.D10	0,4mm
ETG150.D11	0,4mm
ETG150.D12	0,4mm
ETG150.D13	0,4mm
ETG150.D14	0,4mm
ETG150.D15	0,4mm
ETG150.D16	0,4mm
ETG150.D17	0,4mm
ETG150.D18	0,4mm
ETG150.D19	0,4mm
ETG150.D20	0,4mm
ETG150.D21	0,4mm
ETG150.D22	0,4mm
ETG150.D23	0,4mm
ETG150.D24	0,4mm
ETG150.D25	0,4mm
ETG150.D26	0,4mm
ETG150.D27	0,4mm
ETG150.D28	0,4mm
ETG150.D29	0,4mm
ETG150.D30	0,4mm
ETG150.D31	0,4mm
ETG150.D32	0,4mm
ETG150.D33	0,4mm
ETG150.D34	0,4mm
ETG150.D35	0,4mm
ETG150.D36	0,4mm
ETG150.D37	0,4mm
ETG150.D38	0,4mm

MANDRINI PORTAPINZE A RICHIESTA
COLLET CHUCKS ON REQUEST

PINZE DI SERRAGGIO ETG - ALESAGGI IN POLLICI
ETG CLAMPING COLLETS - FRACTIONAL SIZES



Tipo	EU	D	L	A
ETG75	420E	3/32÷3/4	1.844	1.062
ETG100	464E	3/32÷1"	2.375	1.379
ETG150	466E	1/2÷1 1/2	3.00	2.00

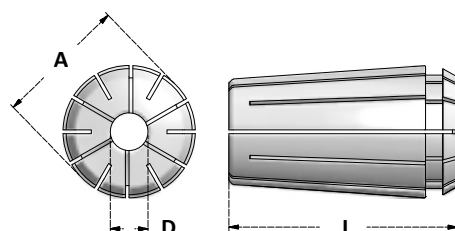
Articolo	Capacità Range
ETG75.D3/32	1/64"
ETG75.D7/64	1/64"
ETG75.D1/8	1/64"
ETG75.D9/64	1/64"
ETG75.D5/32	1/64"
ETG75.D11/64	1/64"
ETG75.D3/16	1/64"
ETG75.D13/64	1/64"
ETG75.D7/32	1/64"
ETG75.D15/64	1/64"
ETG75.D1/4	1/64"
ETG75.D17/64	1/64"
ETG75.D9/32	1/64"
ETG75.D19/64	1/64"
ETG75.D5/16	1/64"
ETG75.D21/64	1/64"
ETG75.D11/32	1/64"
ETG75.D23/64	1/64"
ETG75.D3/8	1/64"
ETG75.D25/64	1/64"
ETG75.D13/32	1/64"
ETG75.D27/64	1/64"
ETG75.D7/16	1/64"
ETG75.D29/64	1/64"
ETG75.D15/32	1/64"
ETG75.D31/64	1/64"
ETG75.D1/2	1/64"
ETG75.D33/64	1/64"
ETG75.D17/32	1/64"
ETG75.D35/64	1/64"
ETG75.D9/16	1/64"
ETG75.D37/64	1/64"
ETG75.D19/32	1/64"
ETG75.D39/64	1/64"
ETG75.D5/8	1/64"
ETG75.D41/64	1/64"
ETG75.D21/32	1/64"
ETG75.D43/64	1/64"
ETG75.D11/16	1/64"
ETG75.D45/64	1/64"
ETG75.D23/32	1/64"
ETG75.D47/64	1/64"
ETG75.D3/4	1/64"

Articolo	Capacità Range
ETG100.D3/32	1/64"
ETG100.D7/64	1/64"
ETG100.D1/8	1/64"
ETG100.D9/64	1/64"
ETG100.D5/32	1/64"
ETG100.D11/64	1/64"
ETG100.D3/16	1/64"
ETG100.D13/64	1/64"
ETG100.D7/32	1/64"
ETG100.D15/64	1/64"
ETG100.D1/4	1/64"
ETG100.D17/64	1/64"
ETG100.D9/32	1/64"
ETG100.D19/64	1/64"
ETG100.D5/16	1/64"
ETG100.D21/64	1/64"
ETG100.D11/32	1/64"
ETG100.D23/64	1/64"
ETG100.D3/8	1/64"
ETG100.D25/64	1/64"
ETG100.D13/32	1/64"
ETG100.D27/64	1/64"
ETG100.D7/16	1/64"
ETG100.D29/64	1/64"
ETG100.D15/32	1/64"
ETG100.D31/64	1/64"
ETG100.D1/2	1/64"
ETG100.D33/64	1/64"
ETG100.D17/32	1/64"
ETG100.D35/64	1/64"
ETG100.D9/16	1/64"
ETG100.D37/64	1/64"
ETG100.D19/32	1/64"
ETG100.D39/64	1/64"
ETG100.D5/8	1/64"
ETG100.D41/64	1/64"
ETG100.D21/32	1/64"
ETG100.D43/64	1/64"
ETG100.D11/16	1/64"
ETG100.D45/64	1/64"
ETG100.D23/32	1/64"
ETG100.D47/64	1/64"

Articolo	Capacità Range
ETG100.D3/4	1/64"
ETG100.D49/64	1/64"
ETG100.D25/32	1/64"
ETG100.D51/64	1/64"
ETG100.D13/16	1/64"
ETG100.D53/64	1/64"
ETG100.D27/32	1/64"
ETG100.D55/64	1/64"
ETG100.D7/8	1/64"
ETG100.D57/64	1/64"
ETG100.D29/32	1/64"
ETG100.D59/64	1/64"
ETG100.D15/16	1/64"
ETG100.D61/64	1/64"
ETG100.D31/32	1/64"
ETG100.D63/64	1/64"
ETG100.D1"	1/64"

PINZE DI SERRAGGIO ETG - ALESAGGI IN POLLICI

ETG CLAMPING COLLETS - FRACTIONAL SIZES



Tipo	EU	D	L	A
ETG75	420E	3/32÷3/4	1.844	1.062
ETG100	464E	3/32÷1"	2.375	1.379
ETG150	466E	1/2÷1 1/2	3.00	2.00

Articolo	Capacità Range
ETG150.D1/2	1/64"
ETG150.D33/64	1/64"
ETG150.D17/32	1/64"
ETG150.D35/64	1/64"
ETG150.D9/16	1/64"
ETG150.D37/64	1/64"
ETG150.D19/32	1/64"
ETG150.D39/64	1/64"
ETG150.D5/8	1/64"
ETG150.D41/64	1/64"
ETG150.D21/32	1/64"
ETG150.D43/64	1/64"
ETG150.D11/16	1/64"
ETG150.D45/64	1/64"
ETG150.D23/32	1/64"
ETG150.D47/64	1/64"
ETG150.D3/4	1/64"
ETG150.D49/64	1/64"
ETG150.D25/32	1/64"
ETG150.D51/64	1/64"
ETG150.D13/16	1/64"
ETG150.D53/64	1/64"
ETG150.D27/32	1/64"
ETG150.D55/64	1/64"
ETG150.D7/8	1/64"
ETG150.D57/64	1/64"
ETG150.D29/32	1/64"
ETG150.D59/64	1/64"
ETG150.D15/16	1/64"
ETG150.D61/64	1/64"
ETG150.D31/32	1/64"
ETG150.D63/64	1/64"
ETG150.D1"	1/64"

Articolo	Capacità Range
ETG150.D1-1/64	1/64"
ETG150.D1-1/32	1/64"
ETG150.D1-3/64	1/64"
ETG150.D1-1/16	1/64"
ETG150.D1-5/64	1/64"
ETG150.D1-3/32	1/64"
ETG150.D1-7/64	1/64"
ETG150.D1-1/8	1/64"
ETG150.D1-9/64	1/64"
ETG150.D1-5/32	1/64"
ETG150.D1-11/64	1/64"
ETG150.D1-3/16	1/64"
ETG150.D1-13/64	1/64"
ETG150.D1-7/32	1/64"
ETG150.D1-15/64	1/64"
ETG150.D1-1/4	1/64"
ETG150.D1-17/64	1/64"
ETG150.D1-9/32	1/64"
ETG150.D1-19/64	1/64"
ETG150.D1-5/16	1/64"
ETG150.D1-21/64	1/64"
ETG150.D1-11/32	1/64"
ETG150.D1-23/64	1/64"
ETG150.D1-3/8	1/64"
ETG150.D1-25/64	1/64"
ETG150.D1-13/32	1/64"
ETG150.D1-27/64	1/64"
ETG150.D1-7/16	1/64"
ETG150.D1-29/64	1/64"
ETG150.D1-15/32	1/64"
ETG150.D1-31/64	1/64"
ETG150.D1-1/2	1/64"

SERIE DI PINZE IN BOX

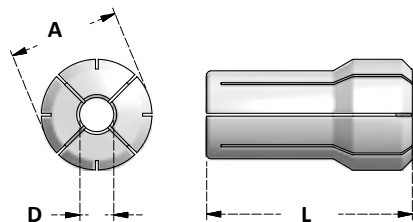
COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.ETG100P-15	ETG100.D1/8 ÷ D1" x16ths
BX.ETG100P-30	ETG100.D3/32 ÷ D1" x32nds



PINZE DI SERRAGGIO EDA - ALESAGGI METRICI

EDA CLAMPING COLLETS - METRIC SIZES



Tipo	EU	D	L	A
EDA300	416E	1,5÷6	25,4	9,52
EDA200	417E	1,5÷10	30	13,69
EDA100	418E	2÷14,5	36,3	19,53
EDA180	419E	2÷20	41,4	26,03

Articolo
EDA300.D1
EDA300.D1,5
EDA300.D2
EDA300.D2,5
EDA300.D3
EDA300.D3,5
EDA300.D4
EDA300.D4,5
EDA300.D5
EDA300.D5,5
EDA300.D6

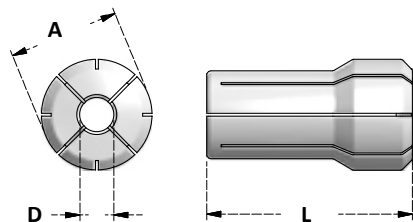
Articolo
EDA200.D1
EDA200.D1,5
EDA200.D2
EDA200.D2,5
EDA200.D3
EDA200.D3,5
EDA200.D4
EDA200.D4,5
EDA200.D5
EDA200.D5,5
EDA200.D6
EDA200.D6,5
EDA200.D7
EDA200.D7,5
EDA200.D8
EDA200.D8,5
EDA200.D9
EDA200.D9,5
EDA200.D10

Articolo
EDA100.D2
EDA100.D2,5
EDA100.D3
EDA100.D3,5
EDA100.D4
EDA100.D4,5
EDA100.D5
EDA100.D5,5
EDA100.D6
EDA100.D6,5
EDA100.D7
EDA100.D7,5
EDA100.D8
EDA100.D8,5
EDA100.D9
EDA100.D9,5
EDA100.D10
EDA100.D10,5
EDA100.D11
EDA100.D11,5
EDA100.D12
EDA100.D12,5
EDA100.D13
EDA100.D13,5
EDA100.D14
EDA100.D14,5

Articolo
EDA180.D2
EDA180.D2,5
EDA180.D3
EDA180.D3,5
EDA180.D4
EDA180.D4,5
EDA180.D5
EDA180.D5,5
EDA180.D6
EDA180.D6,5
EDA180.D7
EDA180.D7,5
EDA180.D8
EDA180.D8,5
EDA180.D9
EDA180.D9,5
EDA180.D10
EDA180.D10,5
EDA180.D11
EDA180.D11,5
EDA180.D12
EDA180.D12,5
EDA180.D13
EDA180.D13,5
EDA180.D14
EDA180.D14,5
EDA180.D15
EDA180.D15,5
EDA180.D16
EDA180.D16,5
EDA180.D17
EDA180.D17,5
EDA180.D18
EDA180.D18,5
EDA180.D19
EDA180.D19,5
EDA180.D20

PINZE DI SERRAGGIO EDA - ALESAGGI IN POLLICI

EDA CLAMPING COLLETS - FRACTIONAL SIZES



Tipo	EU	D	L	A
EDA300	416E	1/16 ÷ 1/4	1.00	.375
EDA200	417E	1/16 ÷ 3/8	1.19	.539
EDA100	418E	1/16 ÷ 9/16	1.44	.769
EDA180	419E	1/16 ÷ 49/64	1.63	1.035

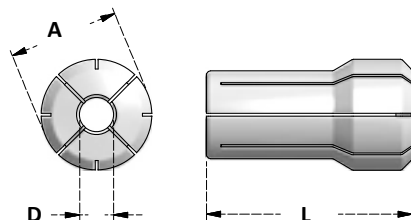
Articolo
EDA300.D1/32
EDA300.D3/64
EDA300.D1/16
EDA300.D5/64
EDA300.D3/32
EDA300.D7/64
EDA300.D1/8
EDA300.D9/64
EDA300.D5/32
EDA300.D11/64
EDA300.D3/16
EDA300.D13/64
EDA300.D7/32
EDA300.D15/64
EDA300.D1/4

Articolo
EDA200.D3/64
EDA200.D1/16
EDA200.D5/64
EDA200.D3/32
EDA200.D7/64
EDA200.D1/8
EDA200.D9/64
EDA200.D5/32
EDA200.D11/64
EDA200.D3/16
EDA200.D13/64
EDA200.D7/32
EDA200.D15/64
EDA200.D1/4
EDA200.D17/64
EDA200.D9/32
EDA200.D19/64
EDA200.D5/16
EDA200.D21/64
EDA200.D11/32
EDA200.D23/64
EDA200.D3/8
EDA200.D25/64

Articolo
EDA100.D3/64
EDA100.D1/16
EDA100.D5/64
EDA100.D3/32
EDA100.D7/64
EDA100.D1/8
EDA100.D9/64
EDA100.D5/32
EDA100.D11/64
EDA100.D3/16
EDA100.D13/64
EDA100.D7/32
EDA100.D15/64
EDA100.D1/4
EDA100.D17/64
EDA100.D9/32
EDA100.D19/64
EDA100.D5/16
EDA100.D21/64
EDA100.D11/32
EDA100.D23/64
EDA100.D3/8
EDA100.D25/64
EDA100.D13/32
EDA100.D27/64
EDA100.D7/16
EDA100.D29/64
EDA100.D15/32
EDA100.D31/64
EDA100.D1/2
EDA100.D33/64
EDA100.D17/32
EDA100.D35/64
EDA100.D9/16

PINZE DI SERRAGGIO EDA - ALESAGGI IN POLLICI

EDA CLAMPING COLLETS - FRACTIONAL SIZES



Tipo	EU	D	L	A
EDA300	416E	1/16 ÷ 1/4	1.00	.375
EDA200	417E	1/16 ÷ 3/8	1.19	.539
EDA100	418E	1/16 ÷ 9/16	1.44	.769
EDA180	419E	1/16 ÷ 49/64	1.63	1.035

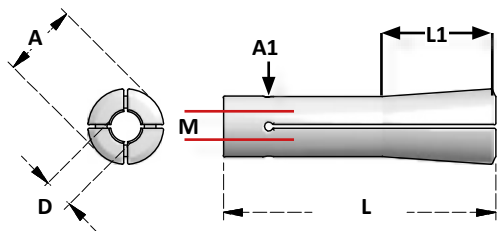
Articolo
EDA180.D3/64
EDA180.D1/16
EDA180.D5/64
EDA180.D3/32
EDA180.D7/64
EDA180.D1/8
EDA180.D9/64
EDA180.D5/32
EDA180.D11/64
EDA180.D3/16
EDA180.D13/64
EDA180.D7/32
EDA180.D15/64
EDA180.D1/4
EDA180.D17/64
EDA180.D9/32
EDA180.D19/64
EDA180.D5/16
EDA180.D21/64
EDA180.D11/32
EDA180.D23/64
EDA180.D3/8
EDA180.D25/64
EDA180.D13/32
EDA180.D27/64
EDA180.D7/16
EDA180.D29/64
EDA180.D15/32
EDA180.D31/64

Articolo
EDA180.D1/2
EDA180.D33/64
EDA180.D17/32
EDA180.D35/64
EDA180.D9/16
EDA180.D37/64
EDA180.D19/32
EDA180.D39/64
EDA180.D5/8
EDA180.D41/64
EDA180.D21/32
EDA180.D43/64
EDA180.D11/16
EDA180.D45/64
EDA180.D23/32
EDA180.D47/64
EDA180.D3/4
EDA180.D49/64

SERIE DI PINZE IN BOX COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.EDA300P-5	EDA300P.D1/8 ÷ D1/4 x32nds
BX.EDA300P-9	EDA300P.D1/8 ÷ D1/4 x64ths
BX.EDA200P-9	EDA200P.D1/8 ÷ D3/8 x32nds
BX.EDA200P-17	EDA200P.D1/8 ÷ D3/8 x64ths
BX.EDA100P-11	EDA100P.D1/4 ÷ D9/16 x32nds
BX.EDA100P-21	EDA100P.D1/4 ÷ D9/16 x64ths
BX.EDA180P-17	EDA180P.D1/4 ÷ D3/4 x32nds
BX.EDA180P-30	EDA180P.D1/4 ÷ D3/4 x64ths

PINZE DI SERRAGGIO P8
P8 CLAMPING COLLETS

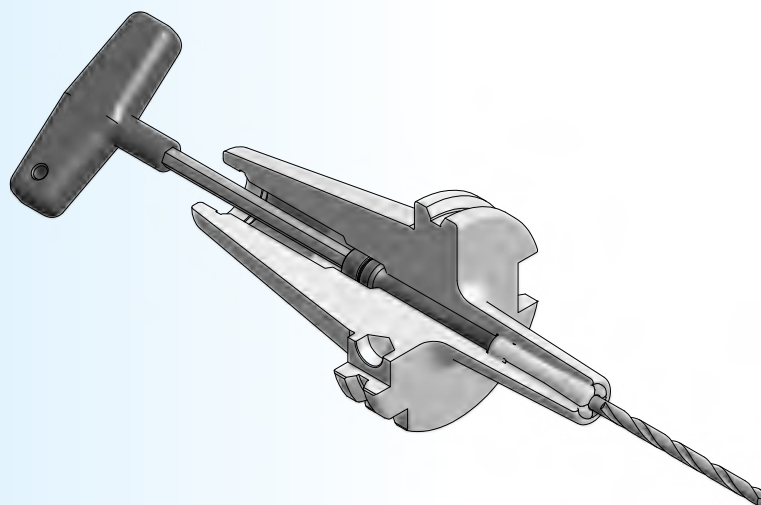


Tipo	D	L	A	A1	M	L1
P8	3÷6	36	10	8	M6	24

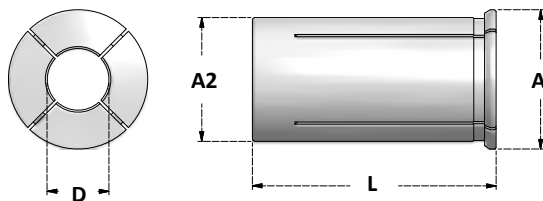
Articolo
P8.D3
P8.D4
P8.D5
P8.D6

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY

0,005



PINZE DI SERRAGGIO CILINDRICHE A 4 TAGLI - PER MANDRINI A FORTE SERRAGGIO
CYLINDRICAL COLLETS WITH 4 SLOTS - FOR POWER MILLING CHUCKS



Tipo	L	A	A2
4SR20	54	25	20
4SR32	63	36	32

A TENUTA MECCANICA
SOLID SEALED

MAX
120bar

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY

0,005

- La pinza deve essere inserita nel mandrino a forte serraggio fino al contatto della flangia sul piano del mandrino.
- I tagli corti della pinza bloccano il flusso del refrigerante per farlo defluire solo dal foro dell'utensile.
- L'utensile, di diametro in tolleranza h6, deve essere bloccato per tutta la lunghezza della pinza.

- *Collet must be inserted in milling chuck until contact with shoulder.*
- *Collets are mechanical sealed by slots.*
- *Coolant flow is direct only through hole of cutting tool.*
- *Cutting tool shank (tolerance h6) must be completely clamped for the full length of collet.*

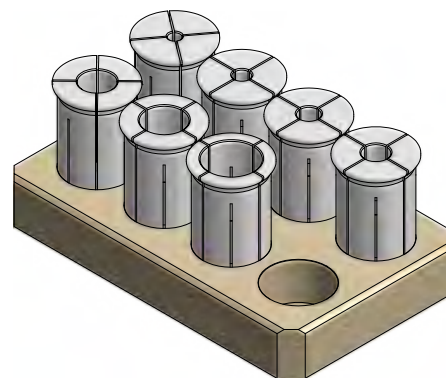
Articolo
* 4SR20.D3
* 4SR20.D4
4SR20.D5
4SR20.D6
4SR20.D7
4SR20.D8
4SR20.D9
4SR20.D10
4SR20.D11
4SR20.D12
4SR20.D13
4SR20.D14
4SR20.D15
4SR20.D16
4SR20.D17
4SR20.D18

Articolo
4SR32.D6
4SR32.D7
4SR32.D8
4SR32.D9
4SR32.D10
4SR32.D11
4SR32.D12
4SR32.D13
4SR32.D14
4SR32.D15
4SR32.D16
4SR32.D17
4SR32.D18
4SR32.D19
4SR32.D20
4SR32.D21
4SR32.D22
4SR32.D23
4SR32.D24
4SR32.D25

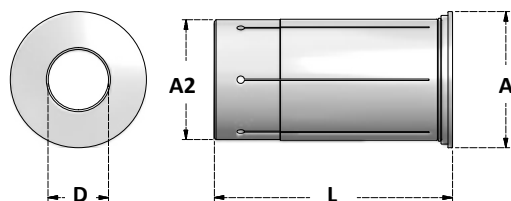
* NON A TENUTA
NOT SEALED

SERIE DI PINZE
COLLETS SETS

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.4SR20-5	4SR20.D6- 8- 10- 12- 16
TY.4SR32-7	4SR32.D6- 8- 10- 12- 16- 20- 25



PINZE DI SERRAGGIO CILINDRICHE A 6 TAGLI - PER MANDRINI IDRAULICI
CYLINDRICAL COLLETS WITH 6 SLOTS - FOR HYDRAULIC CHUCKS



Tipo	L	A	A*	A2
6SR12	47	20	16,5	12
6SR20	52,5	30	24	20
6SR32	63	36	35,5	32

A*: Nuovo modello. Vecchio modello fino a esaurimento scorte
A*: New model. Old model while stock last

A TENUTA MECCANICA
SOLID SEALED

MAX
120bar

ERRORE MEDIO DI CONCENTRICITA'
AVERAGE OF RUNOUT ACCURACY

0,005

- Inserire la pinza nel mandrino idraulico fino al contatto della flangia sul piano del mandrino.
- I tagli della pinza impediscono la fuoriuscita del refrigerante che passa solo attraverso al foro dell'utensile.
- Il gambo dell'utensile, in tolleranza h6, deve essere serrato per tutta la lunghezza della pinza.

- Collet must be inserted in hydraulic chuck until contact with shoulder
- Slots contain and direct the coolant through the hole of the cutting tool.
- Shank of tool (tolerance h6) must be clamped for all collet length.

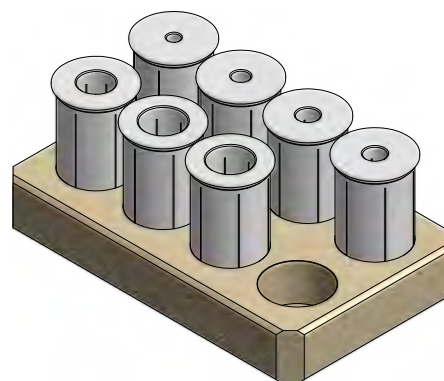
Articolo
6SR12.D3
6SR12.D4
6SR12.D5
6SR12.D6
6SR12.D7
6SR12.D8
6SR12.D10

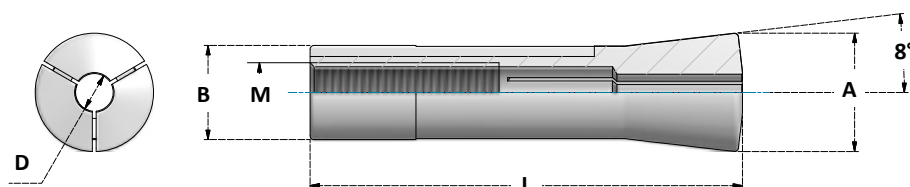
Articolo
6SR20.D3
6SR20.D4 ^{A*}
6SR20.D5 ^{A*}
6SR20.D6
6SR20.D7 ^{A*}
6SR20.D8
6SR20.D9
6SR20.D10
6SR20.D11
6SR20.D12
6SR20.D13
6SR20.D14
6SR20.D15
6SR20.D16
6SR20.D17
6SR20.D18

Articolo
6SR32.D6
6SR32.D8
6SR32.D10
6SR32.D12
6SR32.D14
6SR32.D16
6SR32.D20
6SR32.D25

SERIE DI PINZE
COLLETS SETS

Articolo	PINZE NELLA SERIE COLLETS IN SET
TY.6SR20-5	6SR20.D6- 8- 10- 12- 16
TY.6SR32-7	6SR32.D6- 8- 10- 12- 16- 20- 25





	L	A	B	M
inch	4.00"	1.25"	.9488"	7/16" - 20UNF-2B
mm	101,6	31,75	24,10	

DIMENSIONI METRICHE

METRIC SIZES

Articolo
R8.D1
R8.D2
R8.D3
R8.D4
R8.D5
R8.D6
R8.D7
R8.D8
R8.D9
R8.D10
R8.D11
R8.D12
R8.D13
R8.D14
R8.D15
R8.D16
R8.D17
R8.D18
R8.D19
R8.D20

DIMENSIONI IN POLLICI

FRACTIONAL SIZES

Articolo
R8.D1/16
R8.D3/32
R8.D1/8
R8.D5/32
R8.D3/16
R8.D7/32
R8.D1/4
R8.D9/32
R8.D5/16
R8.D11/32
R8.D3/8
R8.D13/32
R8.D7/16
R8.D15/32
R8.D1/2
R8.D17/32
R8.D9/16
R8.D19/32
R8.D5/8
R8.D21/32
R8.D11/16
R8.D23/32
R8.D3/4
R8.D25/32
R8.D13/16
R8.D27/32
R8.D7/8

TIPO BRIDGEPORT
BRIDGEPORT TYPE

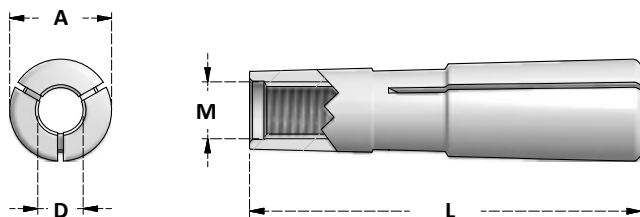
SERIE DI PINZE IN BOX

COLLETS SETS IN BOX

Articolo	PINZE NELLA SERIE COLLETS IN SET
BX.R8M-19	R8.D2 ÷ D20 x 1,0mm
BX.R8P-13	R8.D1/8-3/16-1/4-5/16-3/8-7/16-1/2-9/16-5/8-11/16-3/4-13/16-7/8
BX.R8P-27	R8.D1/16- 3/32- 1/8- 5/32- 3/16- 7/32- 1/4- 9/32- 5/16- 11/32- 3/8- 13/32- 7/16- 15/32- 1/2- 17/32- 9/16- 19/32- 5/8- 21/32- 11/16- 23/32- 3/4- 25/32 - 13/16- 27/32- 7/8

PINZE PORTAUTENSILI A CONO MORSE
MORSE TAPER TOOL CLAMPING COLLETS

↗ 0,04



Tipo	EU	A	L	M
CP-CM2	503E	18	69	M10
CP-CM3	536E	24,1	86	M12
CP-CM4	539E	31,6	109	M16
MT2		.708	2 7/8	3/8- 16
MT3		.964	4 1/64	3/8- 16

Articolo
CM2.D3
CM2.D4
CM2.D5
CM2.D6
CM2.D7
CM2.D8
CM2.D9
CM2.D10
CM2.D11
CM2.D12
CM2.D13

Articolo
CM3.D3
CM3.D4
CM3.D5
CM3.D6
CM3.D7
CM3.D8
CM3.D9
CM3.D10
CM3.D11
CM3.D12
CM3.D13
CM3.D14
CM3.D15
CM3.D16
CM3.D17
CM3.D18

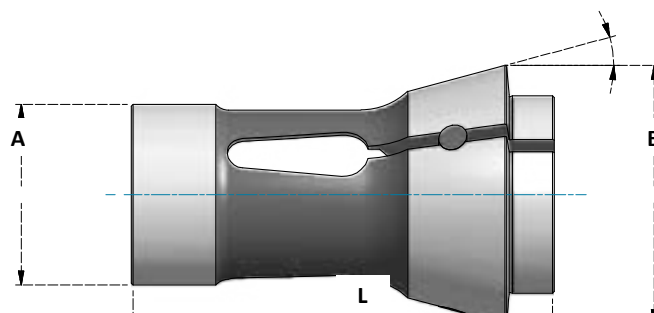
Articolo
CM4.D4
CM4.D5
CM4.D6
CM4.D7
CM4.D8
CM4.D9
CM4.D10
CM4.D11
CM4.D12
CM4.D13
CM4.D14
CM4.D15
CM4.D16
CM4.D17
CM4.D18
CM4.D19
CM4.D20
CM4.D21
CM4.D22
CM4.D23
CM4.D24
CM4.D25

Articolo
MT2.D1/8
MT2.D3/16
MT2.D1/4
MT2.D5/16
MT2.D3/8
MT2.D7/16
MT2.D1/2

Articolo
MT3.D1/8
MT3.D3/16
MT3.D1/4
MT3.D5/16
MT3.D3/8
MT3.D7/16
MT3.D1/2
MT3.D9/16
MT3.D5/8
MT3.D11/16
MT3.D3/4

DIN6343

PINZE DI SERRAGGIO BARRA WORKHOLDING COLLETS



Tipo	D	E	Q	A	B	L
140E	3 ÷ 16	4 ÷ 14	6 ÷ 12	22	30	55
161E	3 ÷ 25	4 ÷ 22	4 ÷ 18	32	45	75
173E	4 ÷ 42	5 ÷ 36	8 ÷ 30	48	60	94
177E	6 ÷ 52	-	-	58	70	94
185E	5 ÷ 60	10 ÷ 45	10 ÷ 40	66	84	110

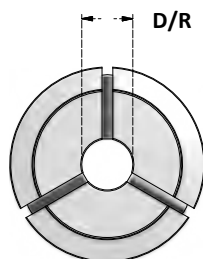
140E
Pag. 329

161E
Pag. 330

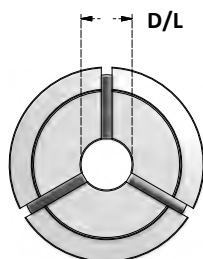
173E
Pag. 331

177E
Pag. 332

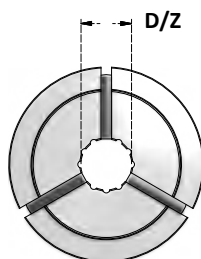
185E
Pag. 333



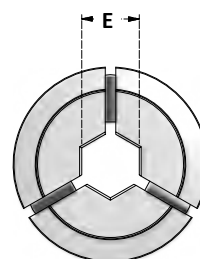
R= RIGATE
R= GROOVED



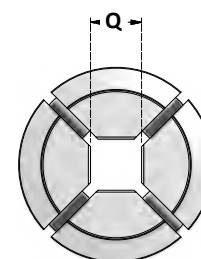
L= LISCIIE
L= SMOOTH



Z= ZIGRINATE A RICHIESTA
Z= SERRATED ON REQUEST



E= ESAGONALI
E= HEXAGONAL

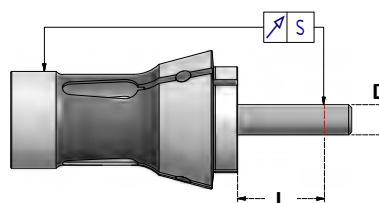


Q= QUADRE
Q= SQUARE

- Utilizzate per il serraggio della barra sui torni automatici convenzionali e a controllo numerico
- Costruite in acciaio per molle
- Temperate, rinvenute: HRC58-60 per la testa HRC42-45 per la parte elastica
- Rettificate di precisione internamente ed esternamente.
- Profilo spogliato sul cono per incrementare la forza di bloccaggio ed evitare il danneggiamento della sede pinza.

- Used on bar automatics and CNC lathes
- Made of spring steel
- Quenched and tempered: RC58-60 for clamping head RC42-45 for spring body
- Precision grinded on bore and back bearing
- Cam grinded on taper for max clamping power

D - h5	L	S
3mm ÷ 6mm	16	0,02
6mm ÷ 10mm	25	
10mm ÷ 18mm	40	0,03
18mm ÷ 24mm	50	
24mm ÷ 30mm	60	0,04
30mm ÷ 50mm	80	
50mm ÷ 60mm	100	

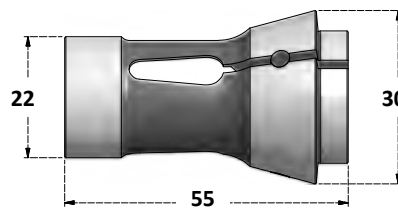
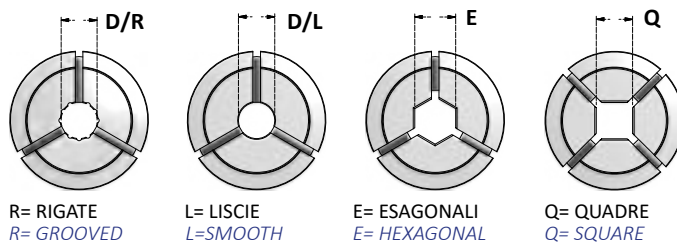


DIN6343

140E

PINZE DI SERRAGGIO BARRA

WORKHOLDING COLLETS

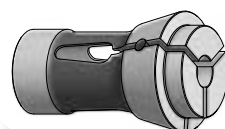


Articolo
140E.D1L
140E.D2L
140E.D3L
140E.D4L
140E.D5L
140E.D6L
140E.D7L
140E.D8R
140E.D9R
140E.D10R
140E.D11R
140E.D12R
140E.D13R
140E.D14R
140E.D15R
140E.D16R
140E.D17R
140E.D18R

Articolo
140E.E4
140E.E5
140E.E6
140E.E7
140E.E8
140E.E9
140E.E10
140E.E11
140E.E12
140E.E13
140E.E14
140E.E15

Articolo
140E.Q4
140E.Q5
140E.Q6
140E.Q7
140E.Q8
140E.Q9
140E.Q10
140E.Q11
140E.Q12

ALTRE A RICHIESTA
OTHERS ON REQUEST



PINZE DI SERRAGGIO BARRA
WORKHOLDING COLLETS

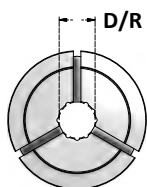
DIN 6343 *PAG. 328*

DIN6343

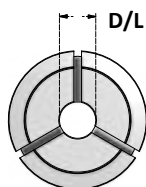
161E

PINZE DI SERRAGGIO BARRA

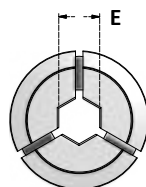
WORKHOLDING COLLETS



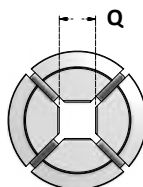
R= RIGATE
R= GROOVED



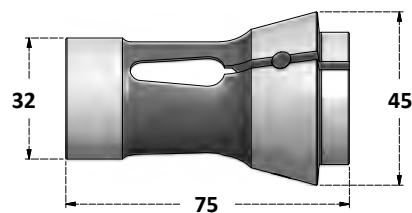
L= LISCIIE
L=SMOOTH



E= ESAGONALI
E= HEXAGONAL



Q= QUADRE
Q= SQUARE

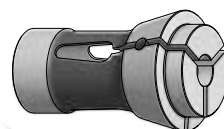


Articolo
161E.D1L
161E.D2L
161E.D3L
161E.D4L
161E.D5L
161E.D6L
161E.D7L
161E.D8R
161E.D9R
161E.D10R
161E.D11R
161E.D12R
161E.D13R
161E.D14R
161E.D15R
161E.D16R
161E.D17R
161E.D18R
161E.D19R
161E.D20R
161E.D21R
161E.D22R
161E.D23R
161E.D24R
161E.D25R
161E.D26R

Articolo
161E.E4
161E.E5
161E.E6
161E.E7
161E.E8
161E.E9
161E.E10
161E.E11
161E.E12
161E.E13
161E.E14
161E.E15
161E.E16
161E.E17
161E.E18
161E.E19
161E.E20
161E.E21
161E.E22

Articolo
161E.Q4
161E.Q5
161E.Q6
161E.Q7
161E.Q8
161E.Q9
161E.Q10
161E.Q11
161E.Q12
161E.Q13
161E.Q14
161E.Q15
161E.Q16
161E.Q17
161E.Q18

ALTRE A RICHIESTA
OTHERS ON REQUEST



PINZE DI SERRAGGIO BARRA
WORKHOLDING COLLETS

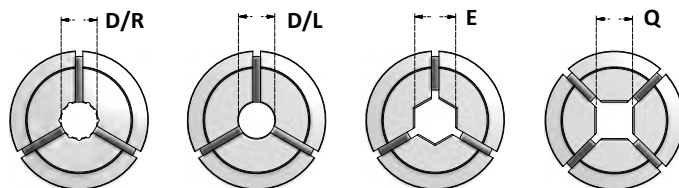
DIN 6343 *PAG. 328*

DIN6343

173E

PINZE DI SERRAGGIO BARRA

WORKHOLDING COLLETS

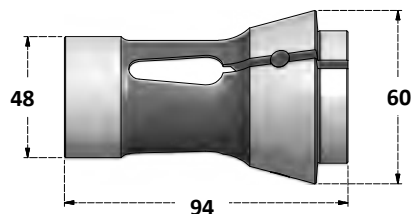


R= RIGATE
R= GROOVED

L= LISCIE
L= SMOOTH

E= ESAGONALI
E= HEXAGONAL

Q= QUADRE
Q= SQUARE

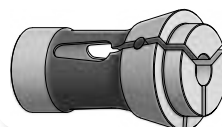


Articolo
173E.D3L
173E.D4L
173E.D5L
173E.D6L
173E.D7L
173E.D8R
173E.D9R
173E.D10R
173E.D11R
173E.D12R
173E.D13R
173E.D14R
173E.D15R
173E.D16R
173E.D17R
173E.D18R
173E.D19R
173E.D20R
173E.D21R
173E.D22R
173E.D23R
173E.D24R
173E.D25R
173E.D26R
173E.D27R
173E.D28R
173E.D29R
173E.D30R
173E.D31R
173E.D32R
173E.D33R
173E.D34R
173E.D35R
173E.D36R
173E.D37R
173E.D38R
173E.D39R
173E.D40R
173E.D41R
173E.D42R

Articolo
173E.E4
173E.E5
173E.E6
173E.E7
173E.E8
173E.E9
173E.E10
173E.E11
173E.E12
173E.E13
173E.E14
173E.E15
173E.E16
173E.E17
173E.E18
173E.E19
173E.E20
173E.E21
173E.E22
173E.E23
173E.E24
173E.E25
173E.E26
173E.E27
173E.E28
173E.E29
173E.E30
173E.E31
173E.E32
173E.E33
173E.E34
173E.E35
173E.E36

Articolo
173E.Q4
173E.Q5
173E.Q6
173E.Q7
173E.Q8
173E.Q9
173E.Q10
173E.Q11
173E.Q12
173E.Q13
173E.Q14
173E.Q15
173E.Q16
173E.Q17
173E.Q18
173E.Q19
173E.Q20
173E.Q21
173E.Q22
173E.Q23
173E.Q24
173E.Q25
173E.Q26
173E.Q27
173E.Q28
173E.Q29
173E.Q30

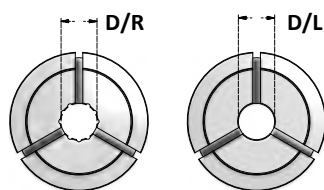
ALTRE A RICHIESTA
OTHERS ON REQUEST



PINZE DI SERRAGGIO BARRA
WORKHOLDING COLLETS

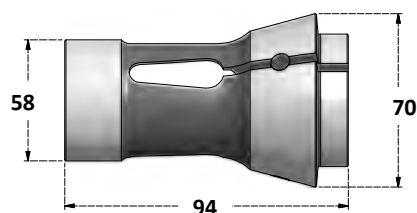
DIN 6343 *PAG. 328*

PINZE DI SERRAGGIO BARRA
WORKHOLDING COLLETS



R= RIGATE
R= GROOVED

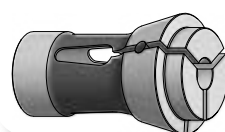
L= LISCIE
L= SMOOTH



Articolo
177E.D5L
177E.D6L
177E.D7L
177E.D8R
177E.D9R
177E.D10R
177E.D11R
177E.D12R
177E.D13R
177E.D14R
177E.D15R
177E.D16R
177E.D17R
177E.D18R
177E.D19R
177E.D20R
177E.D21R
177E.D22R
177E.D23R
177E.D24R
177E.D25R
177E.D26R
177E.D27R
177E.D28R
177E.D29R
177E.D30R
177E.D31R
177E.D32R
177E.D33R
177E.D34R
177E.D35R
177E.D36R
177E.D37R
177E.D38R
177E.D39R

Articolo
177E.D40R
177E.D41R
177E.D42R
177E.D43R
177E.D44R
177E.D45R
177E.D46R
177E.D47R
177E.D48R
177E.D49R
177E.D50R
177E.D51R
177E.D52R

ALTRE A RICHIESTA
OTHERS ON REQUEST



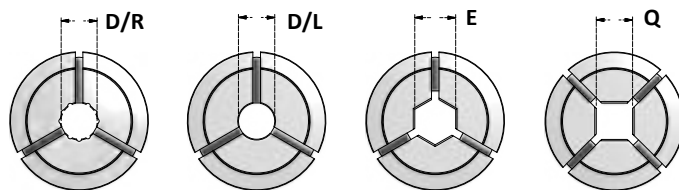
PINZE DI SERRAGGIO BARRA
WORKHOLDING COLLETS
DIN 6343 **PAG. 328**

DIN6343

185E

PINZE DI SERRAGGIO BARRA

WORKHOLDING COLLETS

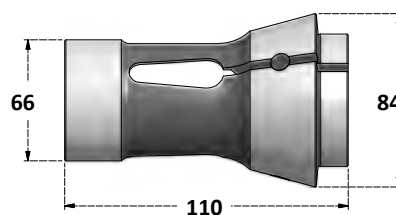


R= RIGATE
R= GROOVED

L= LISCIIE
L=SMOOTH

E= ESAGONALI
E= HEXAGONAL

Q= QUADRE
Q= SQUARE



Articolo
185E.D6L
185E.D7L
185E.D8R
185E.D9R
185E.D10R
185E.D11R
185E.D12R
185E.D13R
185E.D14R
185E.D15R
185E.D16R
185E.D17R
185E.D18R
185E.D19R
185E.D20R
185E.D21R
185E.D22R
185E.D23R
185E.D24R
185E.D25R
185E.D26R
185E.D27R
185E.D28R
185E.D29R
185E.D30R
185E.D31R
185E.D32R
185E.D33R
185E.D34R
185E.D35R
185E.D36R
185E.D37R
185E.D38R
185E.D39R

Articolo
185E.D40R
185E.D41R
185E.D42R
185E.D43R
185E.D44R
185E.D45R
185E.D46R
185E.D47R
185E.D48R
185E.D49R
185E.D50R
185E.D51R
185E.D52R
185E.D53R
185E.D54R
185E.D55R
185E.D56R
185E.D57R
185E.D58R
185E.D59R
185E.D60R

Articolo
185E.E10
185E.E11
185E.E12
185E.E13
185E.E14
185E.E15
185E.E16
185E.E17
185E.E18
185E.E19
185E.E20
185E.E21
185E.E22
185E.E23
185E.E24
185E.E25
185E.E26
185E.E27
185E.E28
185E.E29
185E.E30
185E.E31
185E.E32
185E.E33
185E.E34
185E.E35
185E.E36
185E.E37
185E.E38
185E.E39
185E.E40
185E.E41
185E.E42
185E.E43
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185E.E50
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185E.E52

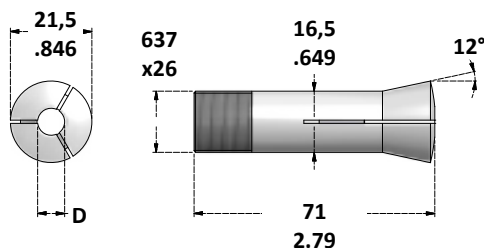
Articolo
185E.Q12
185E.Q13
185E.Q14
185E.Q15
185E.Q16
185E.Q17
185E.Q18
185E.Q19
185E.Q20
185E.Q21
185E.Q22
185E.Q23
185E.Q24
185E.Q25
185E.Q26
185E.Q27
185E.Q28
185E.Q29
185E.Q30
185E.Q31
185E.Q32
185E.Q33
185E.Q34
185E.Q35
185E.Q36
185E.Q37
185E.Q38
185E.Q39
185E.Q40
185E.Q41
185E.Q42

ALTRE A RICHIESTA
OTHERS ON REQUEST



PINZE DI SERRAGGIO BARRA
WORKHOLDING COLLETS
DIN 6343 *PAG. 328*

PINZE 3C
3C COLLETS



DIMENSIONI METRICHE

METRIC SIZES

Articolo
3C.D1
3C.D1,5
3C.D2
3C.D2,5
3C.D3
3C.D3,5
3C.D4
3C.D4,5
3C.D5
3C.D5,5
3C.D6
3C.D6,5
3C.D7
3C.D7,5
3C.D8
3C.D8,5
3C.D9
3C.D9,5
3C.D10
3C.D10,5
3C.D11
3C.D11,5
3C.D12
3C.D12,5

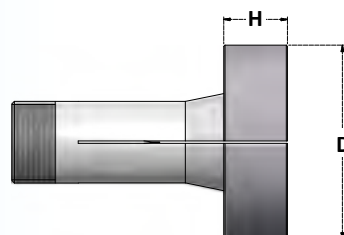
DIMENSIONI IN POLLICI

FRACTIONAL SIZES

Articolo
3C.D1/16
3C.D5/64
3C.D3/32
3C.D7/64
3C.D1/8
3C.D9/64
3C.D5/32
3C.D11/64
3C.D3/16
3C.D13/64
3C.D7/32
3C.D15/64
3C.D1/4
3C.D17/64
3C.D9/32
3C.D19/64
3C.D5/16
3C.D21/64
3C.D11/32
3C.D23/64
3C.D3/8
3C.D25/64
3C.D13/32
3C.D27/64
3C.D7/16
3C.D29/64
3C.D15/32
3C.D31/64
3C.D1/2

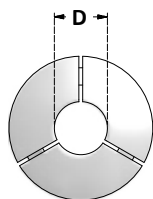
PINZE 3C CON TESTA LAVORABILE
3C MACHINABLE STEP COLLETS

Articolo	D	H
3C.STP3	3" - 76mm	1 1/8 - 28,5mm

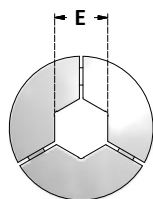


PINZE 5C - 385E - IN POLLICI

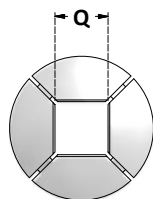
5C COLLETS - 385E - FRACTIONAL SIZES



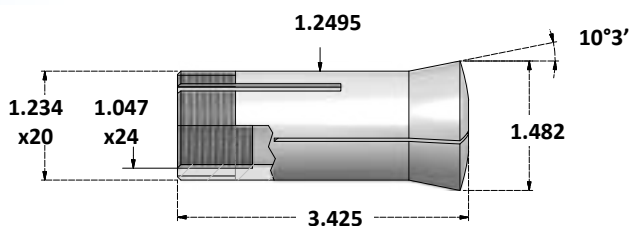
D= ROTONDE
D= ROUND



E= ESAGONALI
E= HEXAGONAL



Q= QUADRE
Q= SQUARE



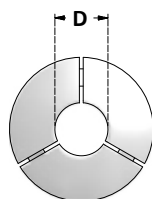
Articolo
5C.D1/32
5C.D3/64
5C.D1/16
5C.D5/64
5C.D3/32
5C.D7/64
5C.D1/8
5C.D9/64
5C.D5/32
5C.D11/64
5C.D3/16
5C.D13/64
5C.D7/32
5C.D15/64
5C.D1/4
5C.D17/64
5C.D9/32
5C.D19/64
5C.D5/16
5C.D21/64
5C.D11/32
5C.D23/64
5C.D3/8
5C.D25/64
5C.D13/32
5C.D27/64
5C.D7/16
5C.D29/64
5C.D15/32
5C.D31/64
5C.D1/2
5C.D33/64
5C.D17/32
5C.D35/64
5C.D9/16
5C.D37/64
5C.D19/32
5C.D39/64

Articolo
5C.D5/8
5C.D41/64
5C.D21/32
5C.D43/64
5C.D11/16
5C.D45/64
5C.D23/32
5C.D47/64
5C.D3/4
5C.D49/64
5C.D25/32
5C.D51/64
5C.D13/16
5C.D53/64
5C.D27/32
5C.D55/64
5C.D7/8
5C.D57/64
5C.D29/32
5C.D59/64
5C.D15/16
5C.D61/64
5C.D31/32
5C.D63/64
5C.D1"
5C.D1-1/64
5C.D1-1/32
5C.D1-3/64
5C.D1-1/16
5C.D1-5/64
5C.D1-3/32
5C.D1-7/64
5C.D1-1/8

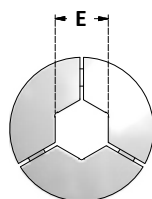
Articolo
5C.E1/8
5C.E3/16
5C.E1/4
5C.E5/16
5C.E3/8
5C.E7/16
5C.E1/2
5C.E9/16
5C.E5/8
5C.E11/16
5C.E3/4
5C.E13/16
5C.E7/8

Articolo
5C.Q1/8
5C.Q3/16
5C.Q1/4
5C.Q5/16
5C.Q3/8
5C.Q7/16
5C.Q1/2
5C.Q9/16
5C.Q5/8
5C.Q11/16
5C.Q3/4

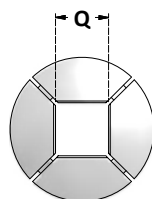
PINZE 5C METRICHE - 385E - METRICHE
METRIC 5C COLLETS - 385E - METRIC SIZES



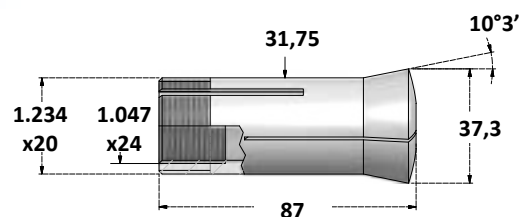
D= ROTONDE
D= ROUND



E= ESAGONALI
E= HEXAGONAL



Q= QUADRE
Q= SQUARE



Articolo
5C.D1
5C.D1,5
5C.D2
5C.D2,5
5C.D3
5C.D3,5
5C.D4
5C.D4,5
5C.D5
5C.D5,5
5C.D6
5C.D6,5
5C.D7
5C.D7,5
5C.D8
5C.D8,5
5C.D9
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5C.D10
5C.D10,5
5C.D11
5C.D11,5
5C.D12
5C.D12,5
5C.D13
5C.D13,5
5C.D14
5C.D14,5
5C.D15
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5C.D16
5C.D16,5
5C.D17
5C.D17,5
5C.D18
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5C.D19
5C.D19,5
5C.D20

Articolo
5C.D20,5
5C.D21
5C.D21,5
5C.D22
5C.D22,5
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5C.D24
5C.D24,5
5C.D25
5C.D25,5
5C.D26
5C.D26,5
5C.D27
5C.D27,5
5C.D28

Articolo
5C.E3
5C.E4
5C.E5
5C.E6
5C.E7
5C.E8
5C.E9
5C.E10
5C.E11
5C.E12
5C.E13
5C.E14
5C.E15
5C.E16
5C.E17
5C.E18
5C.E19
5C.E20
5C.E21
5C.E22

Articolo
5C.Q3
5C.Q4
5C.Q5
5C.Q6
5C.Q7
5C.Q8
5C.Q9
5C.Q10
5C.Q11
5C.Q12
5C.Q13
5C.Q14
5C.Q15
5C.Q16
5C.Q17
5C.Q18
5C.Q19

SERIE DI PINZE 5C IN BOX

5C COLLETS IN BOX

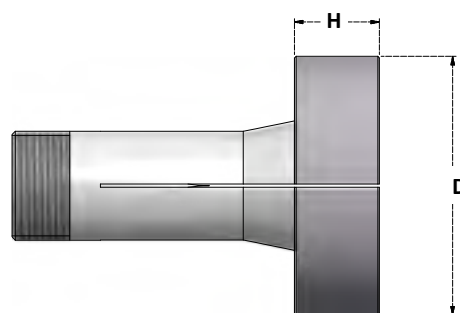
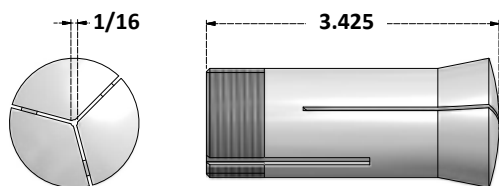
Articolo	PINZE NEL BOX COLLETS IN BOX
BX.5CM-24	5C.D3 ÷ D26 x 1,0mm

Articolo	PINZE NEL BOX COLLETS IN BOX
BX.5CP-18	5C.D1/16- 1/8- 3/16- 1/4- 5/16- 3/8- 7/16- 1/2 - 9/16- 5/8- 11/16- 3/4- 13/16- 7/8- 15/16- 1" - 1-1/16- 1-1/8



PINZE 5C LAVORABILI

MACHINABLE 5C COLLETS



PINZA 5C DI EMERGENZA

5C EMERGENCY COLLET

Articolo
5C-EMY

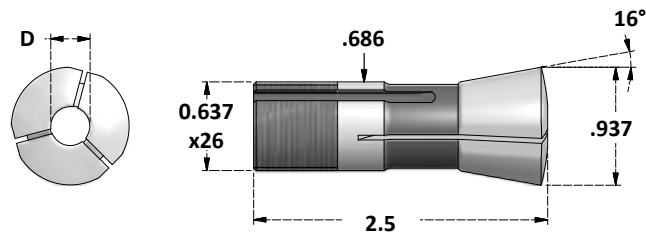
PINZE 5C CON TESTA LAVORABILE

5C MACHINABLE STEP COLLETS

Articolo	D	H
5C.STP2	2" - 51mm	1 1/8 - 28,5mm
5C.STP3	3" - 76mm	1 1/8 - 28,5mm
5C.STP4	4" - 102mm	1 1/8 - 28,5mm
5C.STP5	5" - 127mm	1 1/8 - 28,5mm
5C.STP6	6" - 153mm	1 1/8 - 28,5mm

PINZE 3AT - ALESAGGI IN POLLICI

3AT COLLETS - FRACTIONAL SIZES

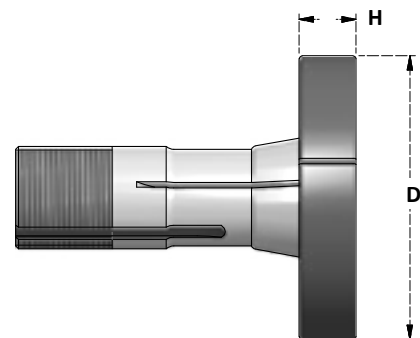


Articolo
3AT.D3/64
3AT.D1/16
3AT.D5/64
3AT.D3/32
3AT.D7/64
3AT.D1/8
3AT.D9/64
3AT.D5/32
3AT.D11/64
3AT.D3/16
3AT.D13/64
3AT.D7/32
3AT.D15/64
3AT.D1/4
3AT.D17/64
3AT.D9/32
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3AT.D11/32
3AT.D23/64
3AT.D3/8
3AT.D25/64
3AT.D13/32
3AT.D27/64
3AT.D7/16
3AT.D29/64
3AT.D15/32
3AT.D31/64
3AT.D1/2

PINZA 3AT CON TESTA LAVORABILE

MACHINABLE HEAD 3AT COLLET

Articolo	D	H
3AT.STP3	3"	11/8



ISO DIN 15488 / DIN6499



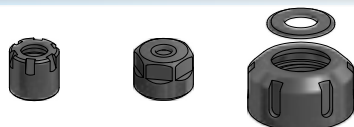
GHIERE ER CON FILETTATURA MINI
ER NUTS WITH MINI THREAD

PAG. 340



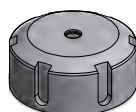
GHIERE ER CON FILETTATURA STANDARD
ER NUTS WITH STANDARD THREAD

PAG. 341



GHIERE ER A TENUTA CON DISCHETTI
ER NUTS SEALED WITH DISKS

PAG. 343



GHIERE ER A TENUTA INTEGRALI
SEALED ER NUTS

PAG. 245



GHIERE ER A TENUTA CON CANALI
SEALED ER NUTS WITH CHANNELS

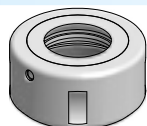
PAG. 345



GHIERE ER CON FILETTATURA ESTERNA
EXTERNALLY THREADED ER NUTS

PAG. 346

ISO DIN 10897 / DIN6388



GHIERE PER PINZE EOC
EOC NUTS

PAG. 347

SKS / ETS



GHIERE PER PINZE SKS ED ETS
SKS AND ETS NUTS

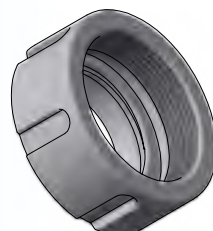
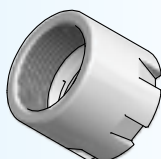
PAG. 348

La filettatura delle ghiere può essere destra o sinistra.

Nuts can be with right or left thread.

Filettatura mini destra
Mini right thread

Filettatura mini sinistra
Mini left thread



Filettatura standard destra
Standard right thread

Filettatura standard sinistra
Standard left thread

GHIERE CHIUDIPINZA ER CON FILETTATURA MINI DESTRA

ER CLAMPING NUTS WITH MINI RIGHT THREAD

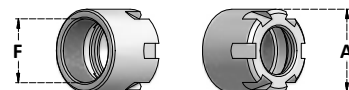
GHIERE ER MINI - ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

MINI ER NUTS - ECCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	CH1	CH2
G8M	12	M10x0,75	5÷6	CH8M	CD8M
G11M	16	M13x0,75	7÷17	CH11M	CD11M
G16M	22	M19x1	12÷24	CH16M	CD16M
G20M	28	M24x1	16÷28	CH20M	CD20M
G25M	35	M30x1	22÷32	CH25M	CD25M

Quando le scorte verranno esaurite, i nuovi modelli saranno forniti con il rivestimento Tenifer per una maggiore resistenza e proprietà antigrippaggio.

When stocks run out, the new models will ship with the Tenifer treatment for added resistance and anti-seize properties.

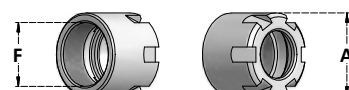


GHIERE ER MINI CONCENTRICHE - ESTRAZIONE CONCENTRICA - TACCHE PER IL SERRAGGIO

MINI CONCENTRIC ER NUTS - CONCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	CH1	CH2
G16WDM	22	M19x1	12÷24	CH16M	CD16M
G20WDM	28	M24x1	16÷28	CH20M	CD20M
G25WDM	35	M30x1	22÷32	CH25M	CD25M

Solo per pinze STANDARD e HP - Only for STANDARD and HP collets



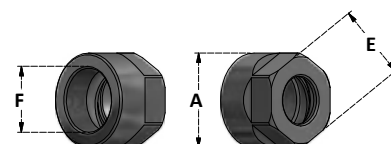
Maggiore equilibratura.
Chiusura con chiave per ghiera mini.

*Better balancing.
Closing with wrench for mini nuts.*

GHIERE ER MINI ESAGONALI - ESTRAZIONE ECCENTRICA - PIANI PER IL SERRAGGIO

MINI HEXAGONAL ER NUTS - ECCENTRIC EXTRACTOR - FLATS FOR CLAMPING

Articolo	A	E	F	Nm	CH1	CH2
G11MSE	16	14	M13x0,75	7÷17	CH.E14	CD.E14
G16MSE	25	22	M19x1	12÷24	CH.E22	CD.E22
G20MSE	30	27	M24x1	16÷28	CH.E27	CD.E27
G25MSE	37	34	M30x1	22÷32	CH.E34	CD.E34



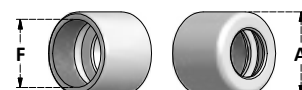
Chiusura con chiave a forchetta.
Closing with open-end wrench.

GHIERE ER MINI SENZA TACCHE - ESTRAZIONE ECCENTRICA - SERRAGGIO SENZA TACCHE

MINI NOTCH-FREE ER NUTS - ECCENTRIC EXTRACTOR - NOTCH-FREE CLAMPING

Articolo	A	F	Nm	CH1	CH2
G8NFM	12	M10x0,75	5÷6	CR8M	CD8NFM
G11NFM	16	M13x0,75	7÷17	CR11M	CD11NFM
G16NFM	22	M19x1	12÷24	CR16M	CD16NFM
G20NFM	28	M24x1	16÷28	CR20M	CD20NFM
G25NFM	35	M30x1	22÷32	CR25M	CD25NFM

Per alte velocità - For high speeds



Rumorosità ridotta alle alte velocità.
Chiusura con chiave a rulli.
*Reduced noise at high speeds.
Closing with roller wrench.*

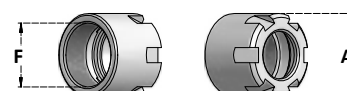
GHIERE CHIUDIPINZA ER CON FILETTATURA MINI SINISTRA

ER CLAMPING NUTS WITH MINI LEFT THREAD

GHIERE ER MINI SINISTRE - ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

MINI LEFT ER NUTS - ECCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	CH1	CH2
G11ML	16	M13x0,75 sin	7÷17	CH11M	CD11M
G16ML	22	M19x1 sin	12÷24	CH16M	CD16M
G20ML	28	M24x1 sin	16÷28	CH20M	CD20M
G25ML	35	M30x1 sin	22÷32	CH25M	CD25M



Chiusura con chiave per ghiera mini.
Closing with wrench for mini nuts.

Nm: Forza di serraggio consigliata - Recommended tightening torque
CH1: Chiave standard consigliata - Recommended standard wrench
CH2: Chiave dinamometrica consigliata - Recommended torque wrench



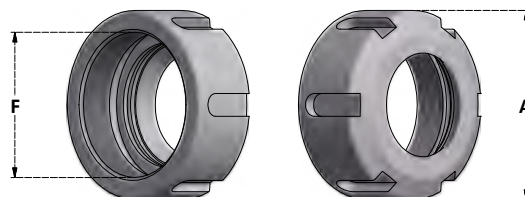
GHIERE CHIUDIPINZA ER CON FILETTATURA STANDARD DESTRA

ER CLAMPING NUTS WITH STANDARD RIGHT THREAD

GHIERE ER STANDARD - ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

STANDARD ER NUTS - ECCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	CH1	CH2
G16S	32	M22x1,5	15÷50	CH16S	CD16S
G20S	35	M25x1,5	16÷75	CH20S	CD20S
G25S	42	M32x1,5	25÷100	CH25S	CD25S
G32S	50	M40x1,5	25÷140	CH32S	CD32S
G40S	63	M50x1,5	60÷170	CH40S	CD40S
G50S	78	M64x2	120÷250	CH50S	/



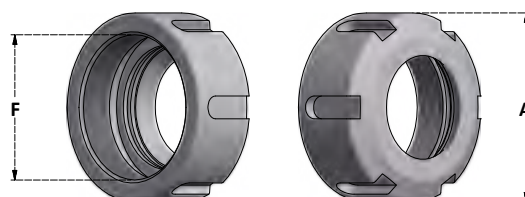
Chiusura con chiave per ghiera standard.
Closing with wrench for standard nuts.

GHIERE ER CONCENTRICHE - ESTRAZIONE CONCENTRICA - TACCHE PER IL SERRAGGIO

CONCENTRIC ER NUTS - CONCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	CH1	CH2
G16WD	32	M22x1,5	15÷50	CH16S	CD16S
G20WD	35	M25x1,5	16÷75	CH20S	CD20S
G25WD	42	M32x1,5	25÷100	CH25S	CD25S
G32WD	50	M40x1,5	25÷140	CH32S	CD32S
G40WD	63	M50x1,5	60÷170	CH40S	CD40S

Solo per pinze STANDARD e HP - Only for STANDARD and HP collets

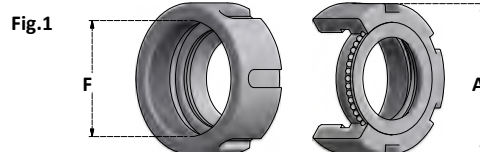


Maggiore equilibratura.
Chiusura con chiave per ghiera standard.
Better balancing.
Closing with wrench for standard nuts.

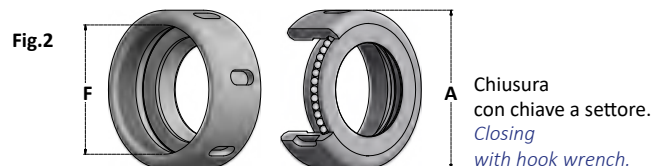
GHIERE ER A SFERE - ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

FRICTION BEARING ER NUTS - ECCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	CH1	CH2	Fig
G16C	32	M22x1,5	16÷55	CH16S	CD16S	1
G20C	35	M25x1,5	16÷80	CH20S	CD20S	1
G25C	42	M32x1,5	20÷110	CH25S	CD25S	1
G32C	50	M40x1,5	20÷140	CH32S	CD32S	1
G40C	63	M50x1,5	40÷180	CH40S	CD40S	1
G50C	78	M64x2	50÷200	CH50S	/	1
G60C	83	M70x1,5	60÷240	CHO40	/	2



Serraggio con attrito ridotto per una maggiore precisione.
Chiusura con chiave per ghiera standard.
Reduced grip increases precision.
Closing with wrench for standard nuts.

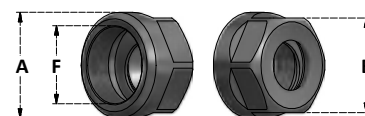


Chiusura con chiave a settore.
Closing with hook wrench.

GHIERE ER ESAGONALI - ESTRAZIONE ECCENTRICA - PIANI PER IL SERRAGGIO

HEXAGONAL ER NUTS - ECCENTRIC EXTRACTOR - FLATS FOR CLAMPING

Articolo	A	E	F	Nm	CH1	CH2
G11SE	19	17	M14x0,75	8÷24	CH.E17	CD.E17
G16SE	28	25	M22x1,5	15÷50	CH.E25	CD.E25
G20SE	34	30	M25x1,5	16÷75	CH.E30	CD.E30
G25SE	42	38	M32x1,5	25÷100	CH.E38	/



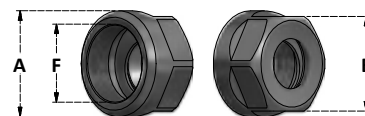
Chiusura con chiave a forchetta.
Closing with open-end wrench.

GHIERE ER ESAGONALI CONCENTRICHE - ESTRAZIONE CONCENTRICA - PIANI PER IL SERRAGGIO

HEXAGONAL ER CONCENTRIC NUTS - CONCENTRIC EXTRACTOR - FLATS FOR CLAMPING

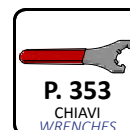
Articolo	A	E	F	Nm	CH1	CH2
G16WDE	28	25	M22x1,5	15÷50	CH.E25	CD.E25
G20WDE	34	30	M25x1,5	16÷75	CH.E30	CD.E30

Solo per pinze STANDARD e HP - Only for STANDARD and HP collets



Maggiore equilibratura.
Chiusura con chiave a forchetta.
Better balancing.
Closing with open-end wrench.

Nm: Forza di serraggio consigliata - Recommended tightening torque
CH1: Chiave standard consigliata - Recommended standard wrench
CH2: Chiave dinamometrica consigliata - Recommended torque wrench



GHIERE CHIUDIPINZA ER CON FILETTATURA STANDARD

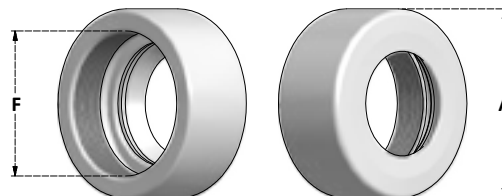
ER CLAMPING NUTS WITH STANDARD THREAD

GHIERE ER SENZA TACCHE - ESTRAZIONE ECCENTRICA - SERRAGGIO SENZA TACCHE

NOTCH-FREE ER NUTS - ECCENTRIC EXTRACTOR - NOTCH-FREE CLAMPING

Articolo	A	F	Nm	CH1	CH2
G16NF	32	M22x1,5	15÷50	CR16	CD16NF
G20NF	35	M25x1,5	16÷75	CR20	CD20NF
G25NF	42	M32x1,5	25÷100	CR25	CD25NF
G32NF	50	M40x1,5	25÷140	CR32	CD32NF
G40NF	63	M50x1,5	60÷170	CR40	CD40NF

Per alte velocità - For high speeds



Rumorosità ridotta alle alte velocità.
Chiusura con chiave a rulli.
Reduced noise at high speeds.
Closing with roller wrench.

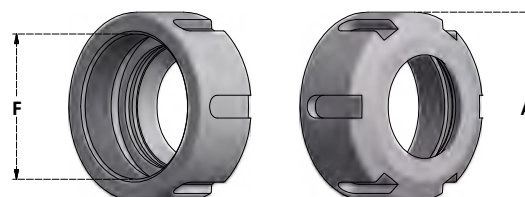
GHIERE CHIUDIPINZA ER CON FILETTATURA SINISTRA

ER CLAMPING NUTS WITH LEFT THREAD

GHIERE ER SINISTRE - ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

LEFT ER NUTS - ECCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	CH1	CH2
G16SL	32	M22x1,5 sin	15÷50	CH16S	CD16S
G20SL	35	M25x1,5 sin	16÷75	CH20S	CD20S
G25SL	42	M32x1,5 sin	25÷100	CH25S	CD25S
G32SL	50	M40x1,5 sin	25÷140	CH32S	CD32S
G40SL	63	M50x1,5 sin	60÷170	CH40S	CD40S



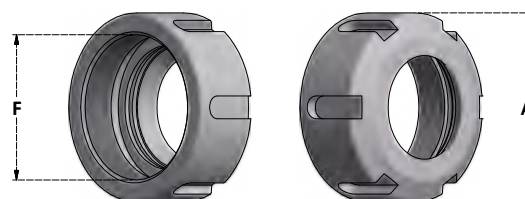
Chiusura con chiave per ghiera standard.
Closing with wrench for standard nuts.

GHIERE ER SINISTRE CONCENTRICHE - ESTRAZIONE CONCENTRICA - TACCHE PER IL SERRAGGIO

LEFT ER CONCENTRIC NUTS - CONCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	CH1	CH2
G16WDL	32	M22x1,5 sin	15÷50	CH16S	CD16S
G20WDL	35	M25x1,5 sin	16÷75	CH20S	CD20S
G25WDL	42	M32x1,5 sin	25÷100	CH25S	CD25S
G32WDL	50	M40x1,5 sin	25÷140	CH32S	CD32S
G40WDL	63	M50x1,5 sin	60÷170	CH40S	CD40S

Solo per pinze STANDARD e HP - Only for STANDARD and HP collets

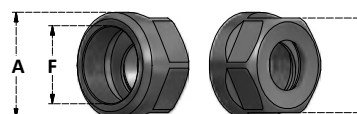


Maggiore equilibratura.
Chiusura con chiave per ghiera standard.
Better balancing.
Closing with wrench for standard nuts.

GHIERE ER SINISTRE ESAGONALI - ESTRAZIONE ECCENTRICA - PIANI PER IL SERRAGGIO

LEFT HEXAGONAL ER NUTS - ECCENTRIC EXTRACTOR - FLATS FOR CLAMPING

Articolo	A	E	F	Nm	CH1	CH2
G11SEL	19	17	M14x0,75 sin	8÷24	CH.E17	CD.E17
G16SEL	28	25	M22x1,5 sin	15÷50	CH.E25	CD.E25
G20SEL	34	30	M25x1,5 sin	16÷75	CH.E30	CD.E30



Chiusura con chiave a forchetta.
Closing with open-end wrench.

Nm: Forza di serraggio consigliata - Recommended tightening torque

CH1: Chiave standard consigliata - Recommended standard wrench

CH2: Chiave dinamometrica consigliata - Recommended torque wrench



GHIERE A TENUTA
SEALED NUTS



GHIERE ER PER DISCHETTI A TENUTA

ER NUTS FOR SEALING DISCS

PAG. 343



DISCHETTI A TENUTA

SEALING DISCS

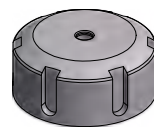
PAG. 344



GHIERE ER CON CANALINI

ER NUTS WITH CHANNELS

PAG. 345



GHIERE ER A TENUTA

SEALED ER NUTS

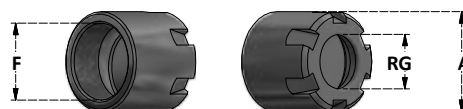
PAG. 345

GHIERE CHIUDIPINZA ER PER DISCHETTI A TENUTA DEL REFRIGERANTE
ER CLAMPING NUTS FOR SEALING DISCS

GHIERE MINI ER PER DISCHETTI ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

MINI ER NUTS FOR SEALING DISCS - ECCENTRIC EXTRACTOR - SLOTS FOR CLAMPING

Articolo	A	F	Nm	CH1	CH2
G16HTM	22	M19x1	12÷24	CH16M	CD16M
G20HTM	28	M24x1	16÷28	CH20M	CD20M
G25HTM	35	M30x1	22÷32	CH25M	CD25M

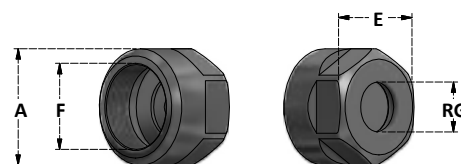


Chiusura con chiave per ghiera mini.
Closing with wrench for mini nuts.

GHIERE ER ESAGONALI PER DISCHETTI - ESTRAZIONE ECCENTRICA - PIANI PER IL SERRAGGIO

HEXAGONAL ER NUTS FOR SEALING DISCS - ECCENTRIC EXTRACTOR - FLATS FOR CLAMPING

Articolo	A	E	F	Nm	CH1	CH2
G16HTE	28	25	M22x1,5	15÷50	CH.E25	CD.E25
G20HTE	34	30	M25x1,5	16÷75	CH.E30	CD.E30

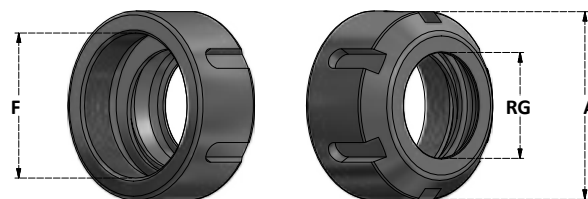


Chiusura con chiave a forchetta.
Closing with open-end wrench.

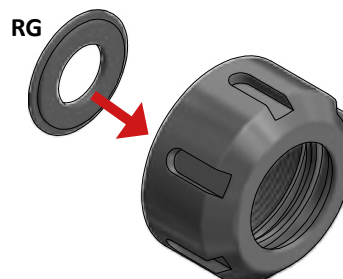
GHIERE ER STANDARD PER DISCHETTI - ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

STANDARD ER NUTS FOR SEALING DISCS - ECCENTRIC EXTRACTOR - SLOTS FOR CLAMPING

Articolo	A	F	Nm	CH1	CH2
G25HT	42	M32x1,5	25÷100	CH25S	CD25S
G32HT	50	M40x1,5	25÷140	CH32S	CD32S
G40HT	63	M50x1,5	60÷170	CH40S	CD40S



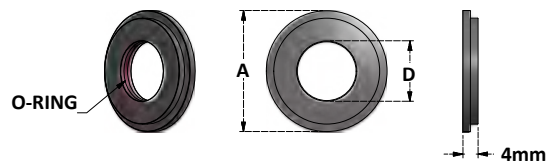
Chiusura con chiave per ghiera standard.
Closing with wrench for standard nuts.



Nm: Forza di serraggio consigliata - Recommended tightening torque
CH1: Chiave standard consigliata - Recommended standard wrench
CH2: Chiave dinamometrica consigliata - Recommended torque wrench

DISCHETTI A TENUTA DEL REFRIGERANTE

SEALING DISCS



Per ghiere G16HTM/E
For G16HTM/E nuts

Articolo	A	D
RG16.D3,5	12,9	3,5
RG16.D4	12,9	4
RG16.D4,5	12,9	4,5
RG16.D5	12,9	5
RG16.D5,5	12,9	5,5
RG16.D6	12,9	6
RG16.D6,5	12,9	6,5
RG16.D7	12,9	7
RG16.D7,5	12,9	7,5
RG16.D8	12,9	8
RG16.D8,5	12,9	8,5
RG16.D9	12,9	9
RG16.D9,5	12,9	9,5
RG16.D10	12,9	10

Per ghiere G20HTM/E
For G20HTM/E nuts

Articolo	A	D
RG20.D3,5	15,9	3,5
RG20.D4	15,9	4
RG20.D4,5	15,9	4,5
RG20.D5	15,9	5
RG20.D5,5	15,9	5,5
RG20.D6	15,9	6
RG20.D6,5	15,9	6,5
RG20.D7	15,9	7
RG20.D7,5	15,9	7,5
RG20.D8	15,9	8
RG20.D8,5	15,9	8,5
RG20.D9	15,9	9
RG20.D9,5	15,9	9,5
RG20.D10	15,9	10
RG20.D10,5	15,9	10,5
RG20.D11	15,9	11
RG20.D11,5	15,9	11,5
RG20.D12	15,9	12
RG20.D12,5	15,9	12,5
RG20.D13	15,9	13

Per ghiere G25HT
For G25HT nuts

Articolo	A	D
RG25.D3,5	21	3,5
RG25.D4	21	4
RG25.D4,5	21	4,5
RG25.D5	21	5
RG25.D5,5	21	5,5
RG25.D6	21	6
RG25.D6,5	21	6,5
RG25.D7	21	7
RG25.D7,5	21	7,5
RG25.D8	21	8
RG25.D8,5	21	8,5
RG25.D9	21	9
RG25.D9,5	21	9,5
RG25.D10	21	10
RG25.D10,5	21	10,5
RG25.D11	21	11
RG25.D11,5	21	11,5
RG25.D12	21	12
RG25.D12,5	21	12,5
RG25.D13	21	13
RG25.D13,5	21	13,5
RG25.D14	21	14
RG25.D14,5	21	14,5
RG25.D15	21	15
RG25.D15,5	21	15,5
RG25.D16	21	16

Per ghiere G32HT
For G32HT nuts

Articolo	A	D
RG32.D3,5	26,95	3,5
RG32.D4	26,95	4
RG32.D4,5	26,95	4,5
RG32.D5	26,95	5
RG32.D5,5	26,95	5,5
RG32.D6	26,95	6
RG32.D6,5	26,95	6,5
RG32.D7	26,95	7
RG32.D7,5	26,95	7,5
RG32.D8	26,95	8
RG32.D8,5	26,95	8,5
RG32.D9	26,95	9
RG32.D9,5	26,95	9,5
RG32.D10	26,95	10
RG32.D10,5	26,95	10,5
RG32.D11	26,95	11
RG32.D11,5	26,95	11,5
RG32.D12	26,95	12
RG32.D12,5	26,95	12,5
RG32.D13	26,95	13
RG32.D13,5	26,95	13,5
RG32.D14	26,95	14
RG32.D14,5	26,95	14,5
RG32.D15	26,95	15
RG32.D15,5	26,95	15,5
RG32.D16	26,95	16
RG32.D16,5	26,95	16,5
RG32.D17	26,95	17
RG32.D17,5	26,95	17,5
RG32.D18	26,95	18
RG32.D18,5	26,95	18,5
RG32.D19	26,95	19
RG32.D19,5	26,95	19,5
RG32.D20	26,95	20

Per ghiere G40HT
For G40HT nuts

Articolo	A	D
RG40.D4	33,3	4
RG40.D4,5	33,3	4,5
RG40.D5	33,3	5
RG40.D5,5	33,3	5,5
RG40.D6	33,3	6
RG40.D6,5	33,3	6,5
RG40.D7	33,3	7
RG40.D7,5	33,3	7,5
RG40.D8	33,3	8
RG40.D8,5	33,3	8,5
RG40.D9	33,3	9
RG40.D9,5	33,3	9,5
RG40.D10	33,3	10
RG40.D10,5	33,3	10,5
RG40.D11	33,3	11
RG40.D11,5	33,3	11,5
RG40.D12	33,3	12
RG40.D12,5	33,3	12,5
RG40.D13	33,3	13
RG40.D13,5	33,3	13,5
RG40.D14	33,3	14
RG40.D14,5	33,3	14,5
RG40.D15	33,3	15
RG40.D15,5	33,3	15,5
RG40.D16	33,3	16
RG40.D16,5	33,3	16,5
RG40.D17	33,3	17
RG40.D17,5	33,3	17,5
RG40.D18	33,3	18
RG40.D18,5	33,3	18,5
RG40.D19	33,3	19
RG40.D19,5	33,3	19,5
RG40.D20	33,3	20
RG40.D20,5	33,3	20,5
RG40.D21	33,3	21
RG40.D21,5	33,3	21,5
RG40.D22	33,3	22
RG40.D22,5	33,3	22,5
RG40.D23	33,3	23
RG40.D23,5	33,3	23,5
RG40.D24	33,3	24
RG40.D24,5	33,3	24,5
RG40.D25	33,3	25
RG40.D25,5	33,3	25,5
RG40.D26	33,3	26

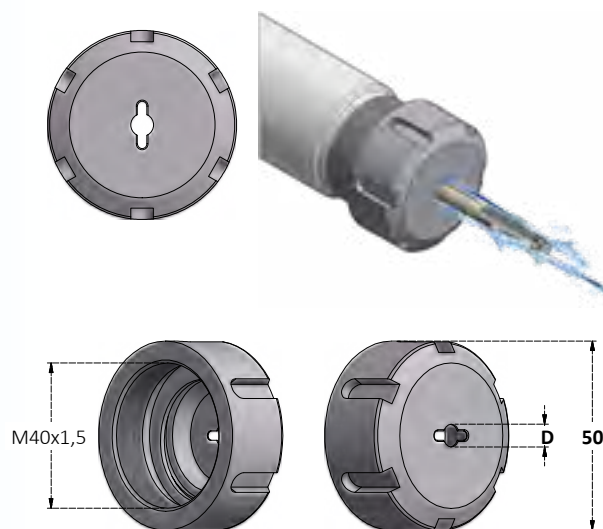
GHIERE CHIUDIPINZA ER CON CANALINI PER IL PASSAGGIO DEL REFRIGERANTE

ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

ER CLAMPING NUTS WITH CHANNELS FOR COOLANT

ECCENTRIC EXTRACTOR - SLOTS FOR CLAMPING

Articolo	Nm	CH1	CH2
G32CLS.D4	25÷140	CH32S	CD32S
G32CLS.D5	25÷140	CH32S	CD32S
G32CLS.D6	25÷140	CH32S	CD32S
G32CLS.D7	25÷140	CH32S	CD32S
G32CLS.D8	25÷140	CH32S	CD32S
G32CLS.D9	25÷140	CH32S	CD32S
G32CLS.D10	25÷140	CH32S	CD32S
G32CLS.D11	25÷140	CH32S	CD32S
G32CLS.D12	25÷140	CH32S	CD32S
G32CLS.D13	25÷140	CH32S	CD32S
G32CLS.D14	25÷140	CH32S	CD32S
G32CLS.D15	25÷140	CH32S	CD32S
G32CLS.D16	25÷140	CH32S	CD32S
G32CLS.D17	25÷140	CH32S	CD32S
G32CLS.D18	25÷140	CH32S	CD32S
G32CLS.D19	25÷140	CH32S	CD32S
G32CLS.D20	25÷140	CH32S	CD32S



Chiusura con chiave per ghiere standard.

Closing with wrench for standard nuts.

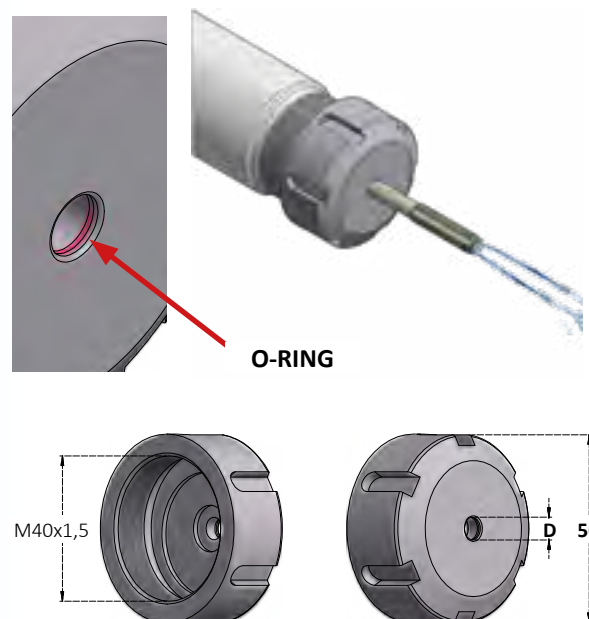
GHIERE CHIUDIPINZA ER A TENUTA DEL REFRIGERANTE

ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

SEALED ER CLAMPING NUTS

ECCENTRIC EXTRACTOR - SLOTS FOR CLAMPING

Articolo	Nm	CH1	CH2
G32THS.D4	25÷140	CH32S	CD32S
G32THS.D5	25÷140	CH32S	CD32S
G32THS.D6	25÷140	CH32S	CD32S
G32THS.D7	25÷140	CH32S	CD32S
G32THS.D8	25÷140	CH32S	CD32S
G32THS.D9	25÷140	CH32S	CD32S
G32THS.D10	25÷140	CH32S	CD32S
G32THS.D11	25÷140	CH32S	CD32S
G32THS.D12	25÷140	CH32S	CD32S
G32THS.D13	25÷140	CH32S	CD32S
G32THS.D14	25÷140	CH32S	CD32S
G32THS.D15	25÷140	CH32S	CD32S
G32THS.D16	25÷140	CH32S	CD32S
G32THS.D17	25÷140	CH32S	CD32S
G32THS.D18	25÷140	CH32S	CD32S
G32THS.D19	25÷140	CH32S	CD32S
G32THS.D20	25÷140	CH32S	CD32S



Chiusura con chiave per ghiere standard.

Closing with wrench for standard nuts.

Nm: Forza di serraggio consigliata - Recommended tightening torque

CH1: Chiave standard consigliata - Recommended standard wrench

CH2: Chiave dinamometrica consigliata - Recommended torque wrench



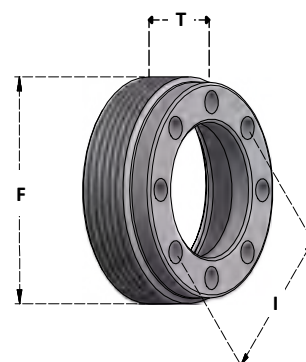
GHIERE ER CON FILETTATURA ESTERNA

EXTERNALLY THREADED ER NUTS

GHIERE ER "TIPO A" - ESTRAZIONE ECCENTRICA - TACCHE PER IL SERRAGGIO

"A TYPE" ER NUTS - ECCENTRIC EXTRACTOR - SLOTS FOR CLAMPING

Articolo	I	F	Chiave Wrench	T
G11A	13,35	M18x1	CH11A	6
G16A	17,5	M24x1	CH16A	8
G20A	20,6	M28x1,5	CH20A	11
G25A	23,75	M32x1,5	CH25A	12
G32A	31	M40x1,5	CH32A	14

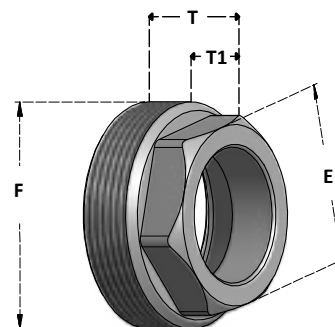


Chiusura con chiave con perni.
Closing pin-wrench.

GHIERE ER "TIPO A" ESAGONALI - ESTRAZIONE ECCENTRICA - PIANI PER IL SERRAGGIO

HEXAGONAL "A TYPE" ER NUTS - ECCENTRIC EXTRACTOR - FLATS FOR CLAMPING

Articolo	E	F	Chiave Wrench	T	T1
G11A.EX	15	M18x1	CH.E15	9	3
G16A.EX	19	M24x1	CH.E19	12	5
G20A.EX	22	M28x1,5	CH.E22	13	5
G25A.EX	27	M32x1,5	CH.E27	15	7
G32A.EX	32	M40x1,5	CH.E32	16	8
G40A.EX	42	M50x1,5	CH.E42	19	8



Chiusura con chiave a forchetta.
Closing with open-end wrench.



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CHIAVI
WRENCHES

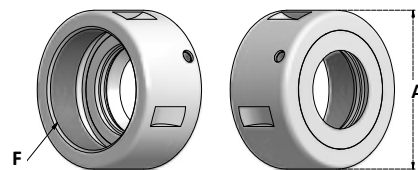
GHIERE CHIUDIPINZA EOC CON FILETTATURA DESTRA

EOC CLAMPING NUTS WITH RIGHT THREAD

GHIERE EOC STANDARD - A SFERE - ESTRAZIONE CONCENTRICA - TACCHE PER IL SERRAGGIO

EOC STANDARD NUTS - FRICTION BEARING - CONCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	Chiave Wrench
G160CC	43	M33x1,5	85	CHO16/20
G200CC	50	M42x2	95	CHO16/20
G250CC	60	M48x2	140	CHO25
G320CC	72	M60x2,5	170	CHO32
G400CC	85	M68x2,5	200	CHO40

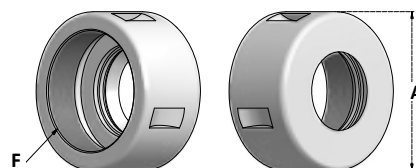


Chiusura con chiave a settore.
Closing with hook wrench.

GHIERE EOC SENZA SFERE - ESTRAZIONE CONCENTRICA - TACCHE PER IL SERRAGGIO

EOC NUTS WITHOUT FRICTION BEARING - CONCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	Chiave Wrench
G160CS	43	M33x1,5	130	CHO16/20
G200CS	50	M42x2	150	CHO16/20
G250CS	60	M48x2	200	CHO25
G320CS	72	M60x2,5	220	CHO32
G400CS	85	M68x2,5	250	CHO40



Chiusura con chiave a settore.
Closing with hook wrench.

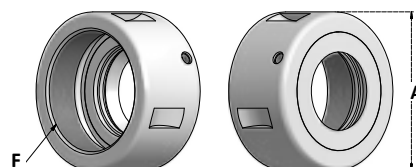
GHIERE CHIUDIPINZA EOC CON FILETTATURA SINISTRA

EOC CLAMPING NUTS WITH LEFT THREAD

GHIERE EOC SINISTRE - A SFERE - ESTRAZIONE CONCENTRICA - TACCHE PER IL SERRAGGIO

EOC LEFT NUTS - FRICTION BEARING - CONCENTRIC EXTRACTOR - CLAMPING WITH SLOTS

Articolo	A	F	Nm	Chiave Wrench
G250CCL	60	M48x2 sin	140	CHO25



Chiusura con chiave a settore.
Closing with hook wrench.



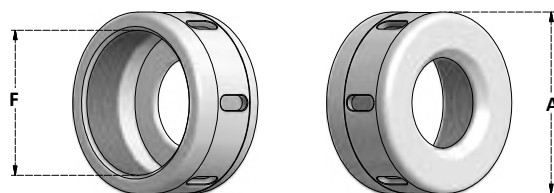
GHIERE CHIUDIPINZA SKS

SKS CLAMPING NUTS

GHIERE SKS - ESTRAZIONE CONCENTRICA - TACCHE PER IL SERRAGGIO

SKS NUTS - CONCENTRIC EXTRACTOR - SLOTS FOR CLAMPING

Articolo	A	F	Nm	CH1
G10SKS	30	M21,5x1	30-55	CH10SKS
G16SKS	40	M32x1	40-75	CH16SKS
G20SKS	48,5	M40x1	60-85	CH20SKS
G25SKS	55,1	M45x1,5	60-85	CH25SKS



Chiusura con chiave a settore per ghiera SKS.
Closing with SKS hook wrench.

DIN ISO 15488 (DIN6499)

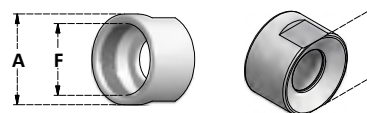
GHIERE CHIUDIPINZA ETS

ETS CLAMPING NUTS

GHIERE ETS MINI - ESTRAZIONE CONCENTRICA - PIANI PER IL SERRAGGIO

MINI ETS NUTS - CONCENTRIC EXTRACTOR - FLATS FOR CLAMPING

Articolo	A	E	F	Nm	CH1
G16ETSM	24	22	M19x1	12÷24	CH.E22
G20ETSM	30,5	28	M24x1	16÷28	CH.E28
G25ETSM	36	34	M30x1	22÷32	CH.E34



Chiusura con chiave a forchetta.
Closing with open-end wrench.

GHIERE ETS - ESTRAZIONE CONCENTRICA - TACCHE PER IL SERRAGGIO

ETS NUTS - CONCENTRIC EXTRACTOR - SLOTS FOR CLAMPING

Articolo	A	F	Nm	CH1	CH2
G16ETS	32	M22x1,5	15÷50	CH16S	CD16S
G20ETS	35	M25x1,5	16÷75	CH20S	CD20S
G25ETS	42	M32x1,5	25÷100	CH25S	CD25S
G32ETS	50	M40x1,5	25÷140	CH32S	CD32S
G40ETS	63	M50x1,5	60÷170	CH40S	CD40S



Chiusura con chiave per ghiera standard.
Closing with wrench for standard nuts.

Nm: Forza di serraggio consigliata - Recommended tightening torque

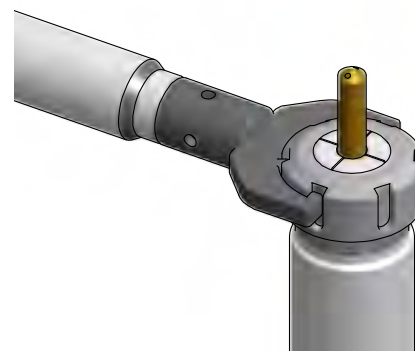
CH1: Chiave standard consigliata - Recommended standard wrench

CH2: Chiave dinamometrica consigliata - Recommended torque wrench



COPPIE DI SERRAGGIO CONSIGLIATE IN BASE ALL'ALESAGGIO DELLA PINZA
RECOMMENDED TIGHTENING TORQUE RELATED TO BORE SIZE OF COLLETS

PINZA COLLET	ALESAGGIO BORE SIZE	FORZA SERRAGGIO TORQUE			
		FILETTATURE STANDARD STANDARD THREADS		FILETTATURE MINI MINI THREADS	
ER8	1 ÷ 5	-	-	M10x0,75	< 8 Nm
ER11	1 ÷ 7	M14x0,75	< 18 Nm	M13x0,75	< 18 Nm
ER16	1 ÷ 3	M22x1,5	< 30Nm	M19x1	< 28 Nm
	3,5 ÷ 10		< 50 Nm		
ER20	1 ÷ 5	M25x1,5	< 40 Nm	M24x1	< 35 Nm
	5,5 ÷ 14		< 70 Nm		
ER25	1 ÷ 6	M32x1,5	< 55 Nm	M30x1	< 40 Nm
	6,5 ÷ 20		< 90 Nm		
ER32	2 ÷ 7	M40x1,5	< 70 Nm	-	-
	7,5 ÷ 20		< 130 Nm	-	-
ER40	3 ÷ 8	M50x1,5	< 130 Nm	-	-
	8,5 ÷ 30	M50x1,5	< 200 Nm	-	-
ER50	6 ÷ 34	M64x2	< 240 Nm	-	-



Si consiglia di chiudere le ghiera con la chiave dinamometrica con la forza di serraggio suggerita per ottenere la migliore concentricità della pinza.

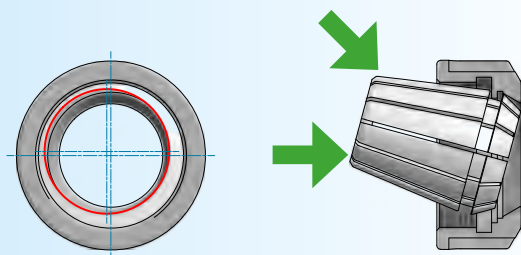
Non superare di oltre il 20% le coppie consigliate per non danneggiare il mandrino portapinze.

Clamp nuts with recommended torque to obtain the best runout accuracy.

Do not exceed more than 20% recommended tightening torque for not damage collet chuck.

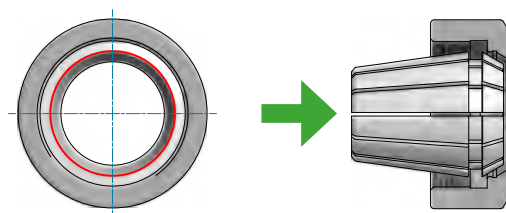
Montaggio di una pinza in una ghiera eccentrica.

Mounting of a collet in eccentric nut.



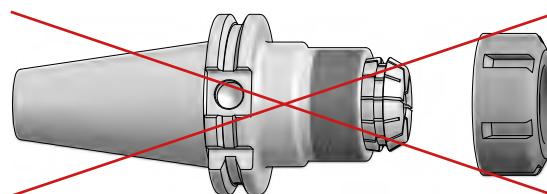
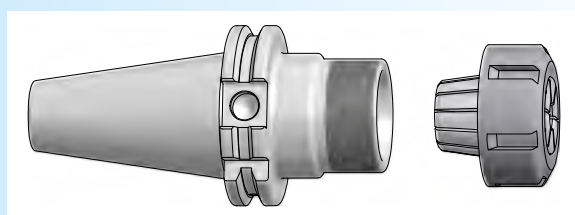
Montaggio di una pinza in una ghiera concentrica.

Mounting of a collet in concentric nut.



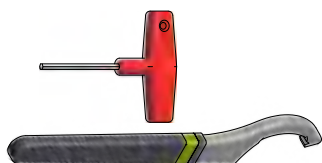
Le pinze devono essere montate sulla ghiera prima di venire serrate sul mandrino.

ER collets must be connected into nut before inserting tool or assembling onto chuck.



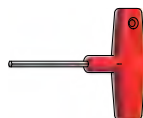
CHIAVI

WRENCHES



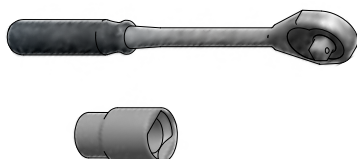
CHIAVI PER MANDRINI DA TRAPANO
WRENCHES FOR DRILL CHUCKS

PAG. 351



CHIAVI PER MANDRINI IDRAULICI
WRENCHES FOR HYDRAULIC CHUCKS

PAG. 351



CRICCHETTO E BUSSOLE DI SERRAGGIO DEI TIRANTI
QUICK RATCHET AND SOCKETS FOR PULL STUDS

PAG. 352



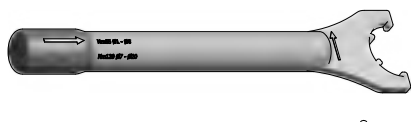
CHIAVI PER GHIERE CHIUDIPINZA
WRENCHES FOR CLAMPING NUTS

PAG. 353



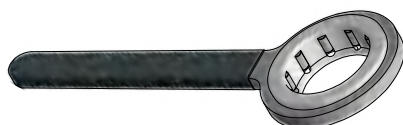
CHIAVI A SETTORE PER GHIERE CHIUDIPINZA
HOOK WRENCHES FOR CLAMPING NUTS

PAG. 354



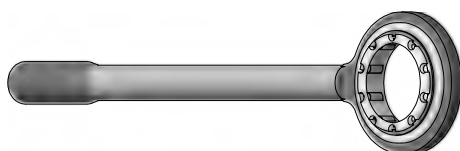
CHIAVI DINAMOMETRICHE PER GHIERE CHIUDIPINZA
TORQUE WRENCHES FOR CLAMPING NUTS

PAG. 355



CHIAVI A RULLI
WRENCHES WITH ROLLERS

PAG. 356



CHIAVI DINAMOMETRICHE A RULLI
TORQUE WRENCHES WITH ROLLERS

PAG. 356



CHIAVE DINAMOMETRICA DIGITALE
DIGITAL TORQUE WRENCH



INSERTI INTERCAMBIABILI
INTERCHANGEABLE INSERTS

PAG. 357

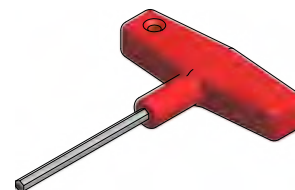
CH

EX

CHIAVI ESAGONALI PER MANDRINI PORTAPUNTA AUTOSERRANTI E PER MANDRINI IDRAULICI

WRENCHES FOR DRILL CHUCKS AND FOR HYDRAULIC CHUCKS

Articolo	EX	PER MANDRINI FOR CHUCKS	PER MANDRINI FOR TOOLHOLDERS
CH.EX4	4	CP8- HD8	
CH.EX5	5		HY6 ÷ HY20
CH.EX6	6	HD13- HD16 CP13- CP16	HY25 HY32



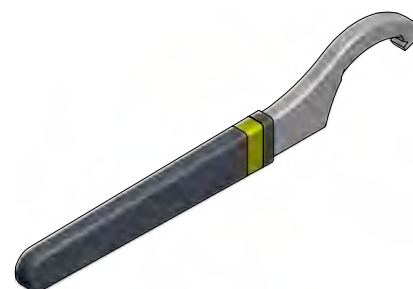
CH

DC

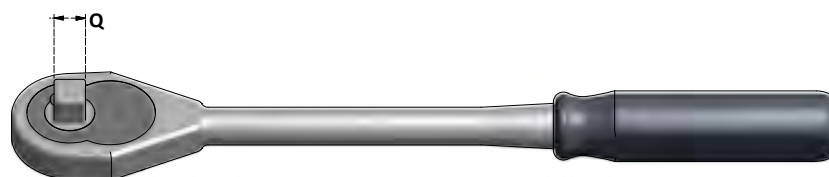
CHIAVI A SETTORE PER MANDRINI PORTAPUNTA AUTOSERRANTI

HOOK WRENCHES FOR DRILL CHUCKS

Articolo	PER MANDRINI FOR CHUCKS
CH.DC8	DC8 DCK8
CH.DC10	DC10 DCK10
CH.DC13	DC13 DCK13
CH.DC16	DC16 DCK16



CRICCHETTO E BUSSOLE PER IL SERRAGGIO DEI TIRANTI
QUICK RATCHET AND SOCKETS FOR PULL STUD CLAMPING



Articolo	Q
CH.SKT	1/2"

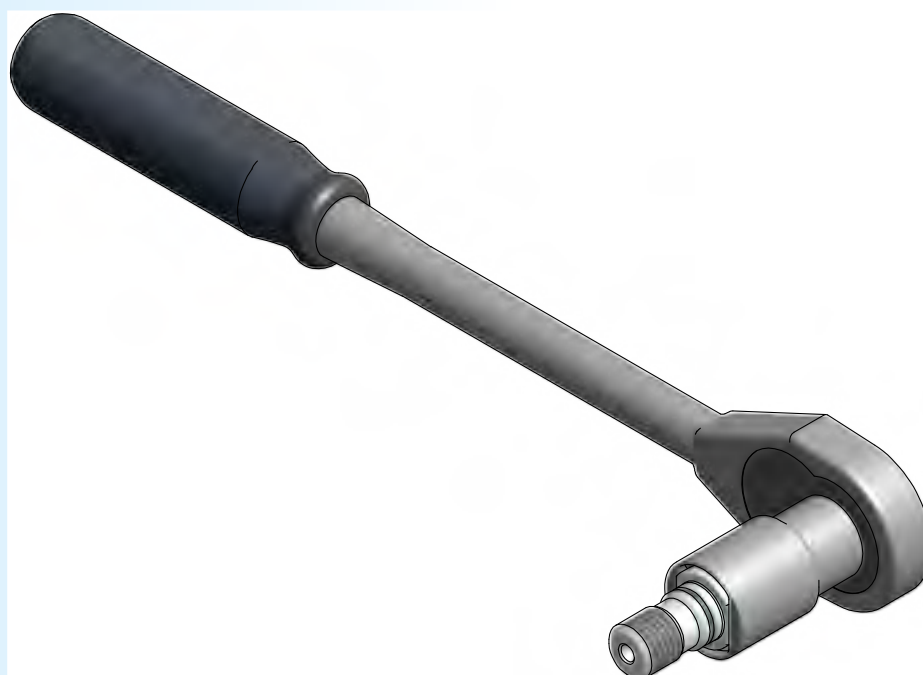
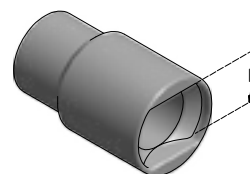
SKT

Articolo	PER I TIRANTI FOR PULL STUDS	E
SKT.DIN40	DIN40	19
SKT.DIN50	DIN50	30

Articolo	PER I TIRANTI FOR PULL STUDS	E
SKT.CAT40	CAT40	18
SKT.CAT50	CAT50	30

Articolo	PER I TIRANTI FOR PULL STUDS	E
SKT.BT40	BT40	19
SKT.BT50	BT50	30

Articolo	PER I TIRANTI FOR PULL STUDS	E
SKT.JS40	JS40	19
SKT.JS50	JS50	30



CHIAVI PER GHIERE DI SERRAGGIO WRENCHES FOR CLAMPING NUTS

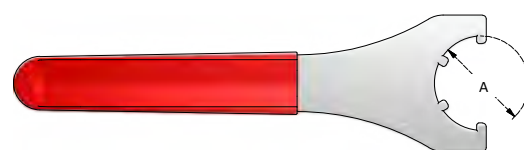
CHIAVI PER GHIERE CON TACCHE

WRENCHES FOR NUTS WITH SLOTS

Articolo	A	Per / For
CH8M	12	G8M
CH11M	16	G11M- G11ML
CH16M	22	G16M- G16WDM- G16ML- G16HTM
CH20M	28	G20M- G20WDM- G20ML- G20HTM
CH25M	35	G25M- G25WDM- G25ML- G25HTM



Articolo	A	Per / For
CH16S	32	G16S- G16WD- G16C- G16SL- G16WDL- G16ETS
CH20S	35	G20S- G20WD- G20C- G20SL- G20WDL- G20ETS
CH25S	42	G25S- G25WD- G25C- G25SL- G25WDL- G25HT- G25ETS
CH32S	50	G32S- G32WD- G32C- G32SL- G32WDL- G32HT- G32CLS- G32THS - G32ETS
CH40S	63	G40S- G40WD- G40C- G40SL- G40WDL- G40HT- G40ETS
CH50S	78	G50S



CHIAVI A FORCHETTA PER GHIERE ESAGONALI (CON PIANI)

WRENCHES WITH OPEN-END FOR HEXAGON NUTS (WITH FLATS)

Articolo	E	Per / For
CH.E14	14	G11MSE
CH.E15	15	G11A.EX
CH.E17	17	G11E- G11SEL
CH.E19	19	G16A.EX
CH.E22	22	G16MSE- G20A.EX- G16ETSM
CH.E25	25	G16SE- G16WDE- G16SEL- G16HTE
CH.E27	27	G20MSE- G25A.EX
CH.E28	28	G20ETSM
CH.E30	30	G20SE- G20WDE- G20SEL- G20HTE
CH.E32	32	G32A.EX
CH.E34	34	G25MSE- G25ETSM
CH.E36	36	
CH.E38	38	G25SE
CH.E42	42	G42A.EX
CH.E50	50	



CHIAVI CON PERNI PER GHIERE "A" CON FORI

PIN-WRENCHES FOR "A" NUTS WITH HOLES

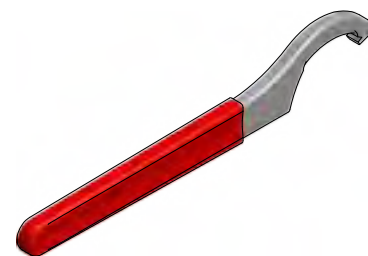
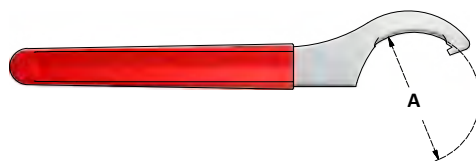
Articolo	I	Per / For
CH11A	13,35	G11A
CH16A	17,5	G16A
CH20A	20,6	G20A
CH25A	23,75	G25A
CH32A	31	G32A



CHO

CHIAVI A SETTORE PER GHIERE CHIUDIPINZA

HOOK WRENCHES FOR CLAMPING NUTS



Articolo	A
CHO16/20	45-50
CHO25	58-62-65
CHO32	68-70-75
CHO40	80-85-90

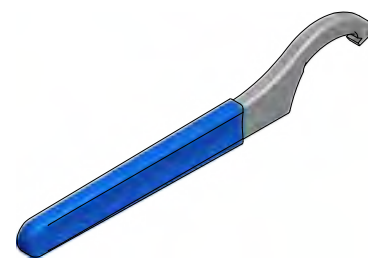
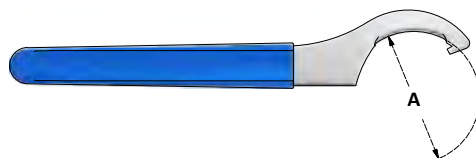
Per ghiera / For nuts	PER MANDRINI A FORTE SERRAGGIO FOR POWER MILLING CHUCKS
G160CC- G200CC- G160CS- G200CS	FS20
G250CC- G250CS- G250CCL	
G320CC- G320CS	FS32
G60C	

CH

SKS

CHIAVI A SETTORE PER GHIERE SKS

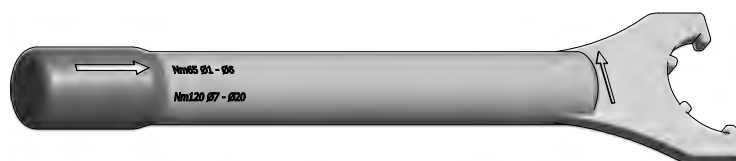
HOOK WRENCHES FOR SKS NUTS



Articolo	A
CH10SKS	30-32
CH16SKS	40-42
CH20SKS	45-50
CH25SKS	52-55

Per ghiera / For nuts
G10SKS
G16SKS
G20SKS
G25SKS

CHIAVI DINAMOMETRICHE PER GHIERE CHIUDIPINZA TORQUE WRENCHES FOR CLAMPING NUTS



CHIAVI PER GHIERE CON TACCHE

WRENCHES FOR NUTS WITH SLOTS

Articolo	SEGNALE MOMENTO TORCENTE TORQUE SIGNAL		A
CD8M	8		12
CD11M	18		16
CD16M	28		22
CD20M	35		28
CD25M	30		35

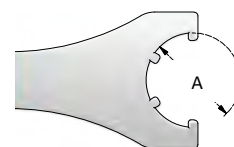
Articolo	SEGNALE MOMENTO TORCENTE TORQUE SIGNAL		A
CD16S	30	50	32
CD20S	40	75	35
CD25S	55	90	42
CD32S	70	130	50
CD40S	120	200	63

Per / For

G8M
G11M- G11ML
G16M- G16WDM- G16ML- G16HTM
G20M- G20WDM- G20ML- G20HTM
G25M- G25WDM- G25ML- G25HTM

Per / For

G16S- G16WD- G16C- G16SL- G16WDL- G16ETS
G20S- G20WD- G20C- G20SL- G20WDL- G20ETS
G25S- G25WD- G25C- G25SL- G25WDL- G25HT- G25ETS
G32S- G32WD- G32C- G32SL- G32WDL-
G32HT- G32CLS- G32THS- G32ETS
G40S- G40WD- G40C- G40SL- G40WDL- G40HT- G40ETS



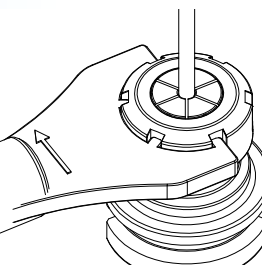
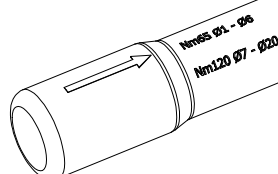
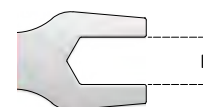
CHIAVI A FORCHETTA PER GHIERE ESAGONALI (CON PIANI)

WRENCHES WITH OPEN-END FOR HEXAGON NUTS (WITH FLATS)

Articolo	SEGNALE MOMENTO TORCENTE TORQUE SIGNAL		E
CD.E14	18		14
CD.E17	20		17
CD.E22	28		22
CD.E25	30	50	25
CD.E30	40	75	30

Per / For

G11MSE
G11E- G11SEL
G16MSE- G20A.EX- G16ETSM
G16SE- G16WDE- G16SEL- G16HTE
G20SE- G20WDE- G20SEL- G20HTE



Scegliere, ruotando il pomello sul manico, il momento torcente in base al diametro della pinza da stringere.

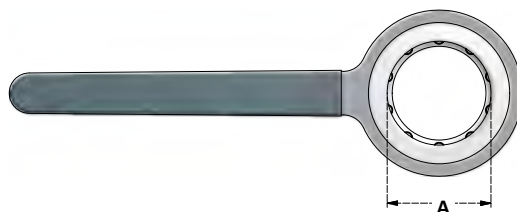
Choose torque in relation to collet's diameter.

Serrare nella direzione indicata dalla freccia, con utensile montato, fino a sentire lo scatto meccanico.

Close in strokes direction, with mounted tool, till you hear the click.

CR

CHIAVI A RULLI PER GHIERE CHIUDIPINZA SENZA TACCHE WRENCHES WITH ROLLERS FOR NOTCH FREE CLAMPING NUTS



PER GHIERE MINI SENZA TACCHE FOR NOTCH-FREE MINI NUTS

Articolo	A
CR8M	12
CR11M	16
CR16M	22
CR20M	28
CR25M	35

Per / For
G8NFM
G1NFM
G16NFM
G20NFM
G25NFM

PER GHIERE STANDARD SENZA TACCHE FOR NOTCH-FREE STANDARD NUTS

Articolo	A
CR16	32
CR20	35
CR25	42
CR32	50
CR40	63

Per / For
G16NF
G20NF
G25NF
G32NF
G40NF



CD

NF

CHIAVI DINAMOMETRICHE A RULLI PER GHIERE CHIUDIPINZA SENZA TACCHE TORQUE WRENCHES WITH ROLLERS FOR NOTCH FREE CLAMPING NUTS



PER GHIERE MINI SENZA TACCHE FOR NOTCH-FREE MINI NUTS

Articolo	A	SEGNALE MOMENTO TORCENTE TORQUE SIGNAL
CD8NFM	12	8
CD11NFM	16	18
CD16NFM	22	30
CD20NFM	28	35
CD25NFM	35	40

Per / For
G8NFM
G1NFM
G16NFM
G20NFM
G25NFM

Scegliere, ruotando il pomello sul manico, il momento torcente in base al diametro della pinza da stringere.

Choose torque in relation to collet's diameter.

Serrare nella direzione indicata dalla freccia, con utensile montato, fino a sentire lo scatto meccanico.

Close in strokes direction, with mounted tool, till you hear the click.

PER GHIERE STANDARD SENZA TACCHE FOR NOTCH-FREE STANDARD NUTS

Articolo	A	SEGNALE MOMENTO TORCENTE TORQUE SIGNAL
CD16NF	32	30 50
CD20NF	35	40 70
CD25NF	42	55 90
CD32NF	50	70 130
CD40NF	63	120 200

Per / For
G16NF
G20NF
G25NF
G32NF
G40NF



CDD

CHIAVE DINAMOMETRICA DIGITALE
DIGITAL TORQUE WRENCH

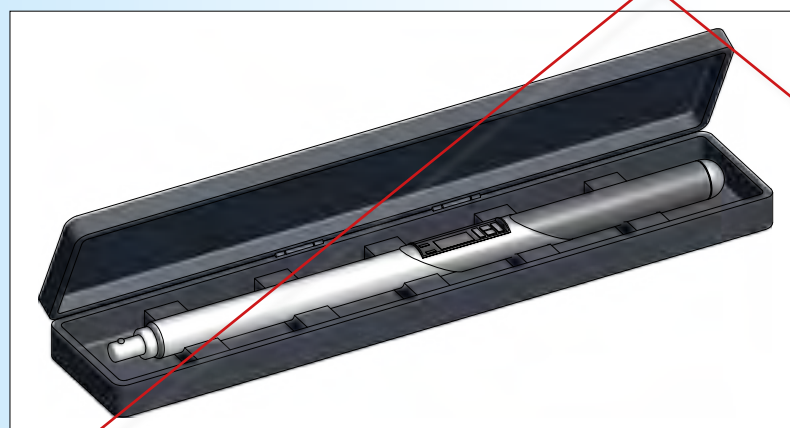
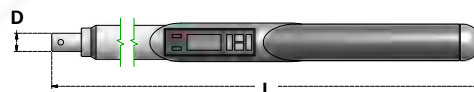


Fuori produzione / Out of production

PILE INCLUSE
BATTERIES INCLUDED

FORNITA SENZA INSERTI
SUPPLIED WITHOUT INSERTS

Articolo	L	D	Range
CDD200	540	16	20-200 Nm



ATTENZIONE
Non utilizzare la chiave dinamometrica digitale per serrare pinze con diametri per i quali è suggerita una forza di serraggio inferiore a 20Nm (Pag.349).

WARNING
Don't use digital torque wrench to clamp collets which recommended tightening is less than 20Nm (see page 349).

CORPIE DI SERRAGGIO
CONSIGLIATE
RECOMMENDED
TIGHTENING TORQUE
PAG 349

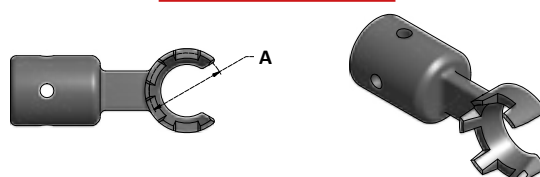
INSERTI INTERCAMBIABILI
INTERCHANGEABLE INSERTS

PER GHIERE MINI
FOR MINI NUTS

Articolo	A	Per / For
CDD.11M	16	G11M- G11ML
CDD.16M	22	
CDD.20M	28	G20M- G20WDM- G20ML- G20HTM
CDD.25M	35	G25M- G25WDM- G25ML- G25HTM

FUORI PRODUZIONE
OUT OF PRODUCTION

Fino a esaurimento
While stocks last



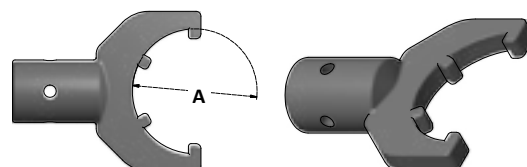
PER GHIERE ESAGONALI (CON PIANI)
FOR HEXAGON NUTS (WITH FLATS)

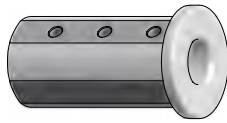
Articolo	E	Per / For
CDD.16SE	25	G16SE- G16WDE- G16SEL- G16HTE
CDD.20SE	30	G20SE- G20WDE- G20SEL- G20HTE



PER GHIERE CON TACCHE
FOR NUTS WITH SLOTS

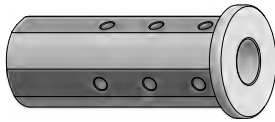
Articolo	A	Per / For
CDD.25S	42	G25S- G25WD- G25C- G25SL- G25WDL- G25HT- G25ETS
CDD.32S	50	G32S- G32WD- G32C- G32SL- G32WDL- G32HT- G32CLS- G32THS - G32ETS
CDD.40S	63	G40S- G40WD- G40C- G40SL- G40WDL- G40HT- G40ETS





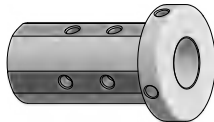
BUSSOLE DI RIDUZIONE CON BATTUTA
HEADED REDUCTION BUSHES

PAG. 359



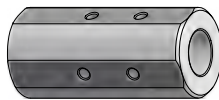
BUSSOLE DI RIDUZIONE CON BATTUTA - PROLUNGATE
HEADED REDUCTION BUSHES - EXTENDED

PAG. 360



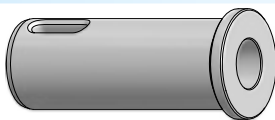
BUSSOLE DI RIDUZIONE TIPO MAZAK
HEADED REDUCTION BUSHES MAZAK TYPE

PAG. 360



BUSSOLE DI RIDUZIONE SENZA BATTUTA
UNIVERSAL REDUCTION BUSHES

PAG. 361



RIDUZIONI CILINDRICHE A CONO MORSE
MORSE TAPER REDUCTION BUSHES

PAG. 362

- **RETTIFICATI SUL GAMBO CON TOLLERANZA g7**
- **IL FORO È RETTIFICATO CON TOLLERANZA H7**

- *SHANK GRINDED WITH TOLLERANCE g7*
- *BORE IS GRINDED WITH TOLLERANCE H7*

BUSSOLE DI RIDUZIONE CON BATTUTA

HEADED REDUCTION BUSHES

Articolo	D1	D2	L	L1	M	A	Fig
E2-1.20-6	20	6	55	30	M5		1
E2-1.20-8	20	8	55	30	M5		1
E2-1.20-10	20	10	55	35	M5		1
E2-1.20-12	20	12	55	40	M6		1
E2-1.20-14	20	14	55	55		8	3
E2-1.20-16	20	16	55	55		8	3

Articolo	D1	D2	L	L1	M	A	Fig
E2-1.25-6	25	6	65	30	M5		1
E2-1.25-8	25	8	65	30	M5		1
E2-1.25-10	25	10	65	35	M5		1
E2-1.25-12	25	12	65	40	M8		1
E2-1.25-14	25	14	65	65		10	3
E2-1.25-16	25	16	65	65		10	3
E2-1.25-18	25	18	65	65		10	3
E2-1.25-20	25	20	65	65		10	3

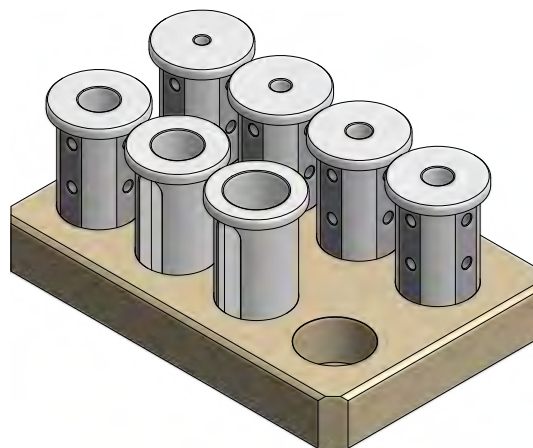
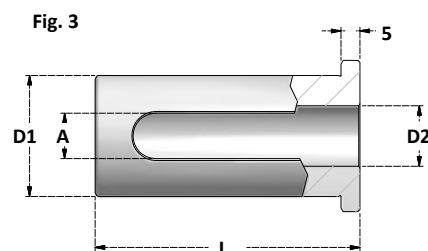
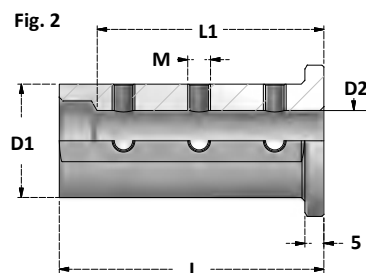
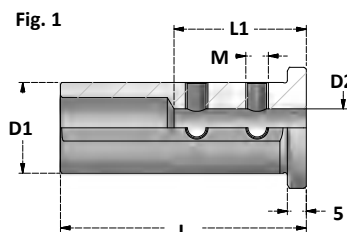
Articolo	D1	D2	L	L1	M	A	Fig
E2-1.32-6	32	6	70	30	M5		1
E2-1.32-8	32	8	70	30	M5		1
E2-1.32-10	32	10	70	35	M5		1
E2-1.32-12	32	12	70	40	M8		1
E2-1.32-14	32	14	70	40	M8		2
E2-1.32-16	32	16	70	60	M8		2
E2-1.32-18	32	18	70	60	M8		2
E2-1.32-20	32	20	70	60		12	3
E2-1.32-25	32	25	70	70		12	3

Articolo	D1	D2	L	L1	M	A	Fig
E2-1.40-6	40	6	80	30	M5		1
E2-1.40-8	40	8	80	30	M5		1
E2-1.40-10	40	10	80	35	M5		1
E2-1.40-12	40	12	80	40	M8		1
E2-1.40-14	40	14	80	40	M8		2
E2-1.40-16	40	16	80	60	M8		2
E2-1.40-18	40	18	80	60	M8		2
E2-1.40-20	40	20	80	60	M8		2
E2-1.40-25	40	25	80	70	M8		2
E2-1.40-32	40	32	80	80		12	3

Articolo	D1	D2	L	L1	M	A	Fig
E2-1.50-16	50	16	90	60	M8		2
E2-1.50-20	50	20	90	60	M8		2
E2-1.50-25	50	25	90	70	M8		2
E2-1.50-32	50	32	90	80	M8		2
E2-1.50-40	50	40	90	90		13	3

SERIE DI BUSSOLE SU BASE DI LEGNO REDUCTION BUSHES SETS IN WOODEN TRAY

Articolo	D
TY.E2-1.20-5	6-8-10-12-16
TY.E2-1.25-6	6-8-10-12-16-20
TY.E2-1.32-7	6-8-10-12-16-20-25
TY.E2-1.40-8	6-8-10-12-16-20-25-32



BSH

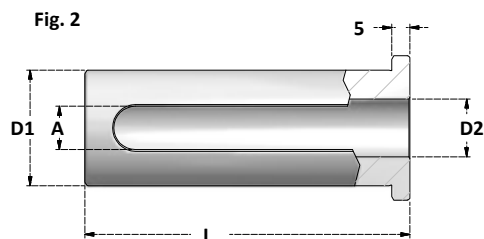
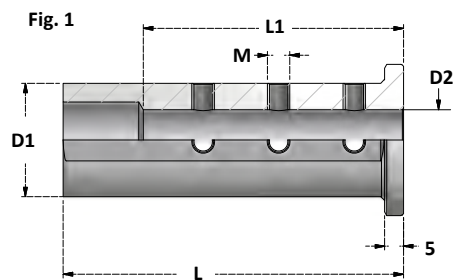
BUSSE DI RIDUZIONE CON BATTUTA - PROLUNGATE

HEADED REDUCTION BUSHES - EXTENDED

Articolo	D1	D2	L	L1	M	A	Fig
BSH32-6	32	6	90	30	M5		1
BSH32-8	32	8	90	30	M5		1
BSH32-10	32	10	90	35	M5		1
BSH32-12	32	12	90	40	M8		1
BSH32-16	32	16	90	60	M8		1
BSH32-20	32	20	90	60		10	2
BSH32-25	32	25	90	70		10	2

Articolo	D1	D2	L	L1	M	A	Fig
BSH40-6	40	6	110	30	M5		1
BSH40-8	40	8	110	30	M5		1
BSH40-10	40	10	110	35	M5		1
BSH40-12	40	12	110	40	M8		1
BSH40-16	40	16	110	60	M8		1
BSH40-20	40	20	110	60	M8		1
BSH40-25	40	25	110	70	M8		1
BSH40-32	40	32	110	110		10	2

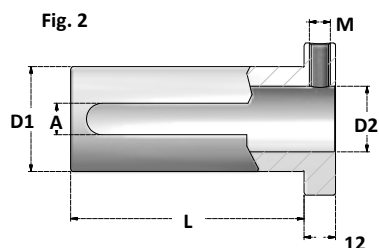
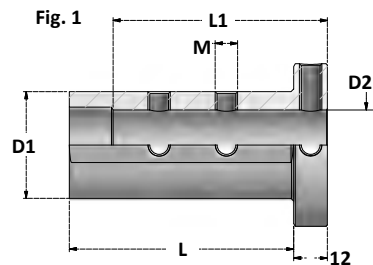
Articolo	D1	D2	L	L1	M	A	Fig
BSH50-16	50	16	130	60	M8		1
BSH50-20	50	20	130	60	M8		1
BSH50-25	50	25	130	70	M8		1
BSH50-32	50	32	130	80	M8		1
BSH50-40	50	40	130	90		12	2



BUSSE DI RIDUZIONE CON BATTUTA - TIPO MAZAK

HEADED REDUCTION BUSHES - MAZAK TYPE

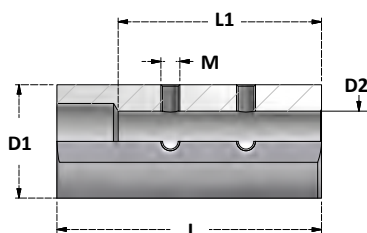
Articolo	D1	D2	L	L1	M	A	Fig
BSH40MZ-6	40	6	80	40	M5		1
BSH40MZ-8	40	8	80	45	M5		1
BSH40MZ-10	40	10	80	50	M5		1
BSH40MZ-12	40	12	80	56	M8		1
BSH40MZ-14	40	14	80	56	M8		1
BSH40MZ-16	40	16	80	60	M8		1
BSH40MZ-18	40	18	80	60	M8		1
BSH40MZ-20	40	20	80	60	M8		1
BSH40MZ-25	40	25	80	60	M8		1
BSH40MZ-32	40	32	89	89	M8	12	2



E2SB

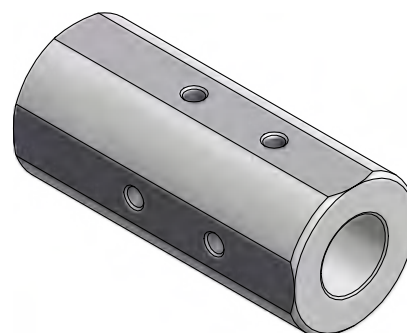
BUSSE DI RIDUZIONE SENZA BATTUTA

UNIVERSAL REDUCTION BUSHES



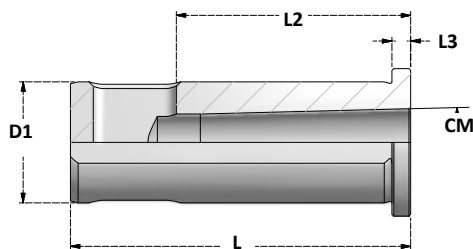
Articolo	D1	D2	L
E2SB32-8	32	8	70
E2SB32-10	32	10	70
E2SB32-12	32	12	70
E2SB32-16	32	16	70
E2SB32-20	32	20	70

Articolo	D1	D2	L
E2SB40-8	40	8	80
E2SB40-10	40	10	80
E2SB40-12	40	12	80
E2SB40-16	40	16	80
E2SB40-20	40	20	80
E2SB40-25	40	25	80



BUSSOLE DI RIDUZIONE A CONO MORSE CON BATTUTA

MORSE TAPER REDUCTION BUSHES - DRILL SOCKETS



Articolo	D	L	L2	CM	L3	Fig
D20.L65.CM1	20	65	52	CM1	5	1
D20.L80.CM2	20	80	62	CM2	29	2
D25.L65.CM1	25	65	52	CM1	5	1
D25.L75.CM2	25	75	62	CM2	5	1
D25.L100.CM3	25	100	78	CM3	55	2
D32.L90.CM1	32	90	52	CM1	5	1
D32.L90.CM2	32	90	62	CM2	5	1
D32.L100.CM3	32	100	78	CM3	5	1
D40.L90.CM1	40	90	52	CM1	5	1
D40.L110.CM2	40	110	62	CM2	5	1
D40.L110.CM3	40	110	78	CM3	5	1
D40.L135.CM4	40	135	98	CM4	5	1

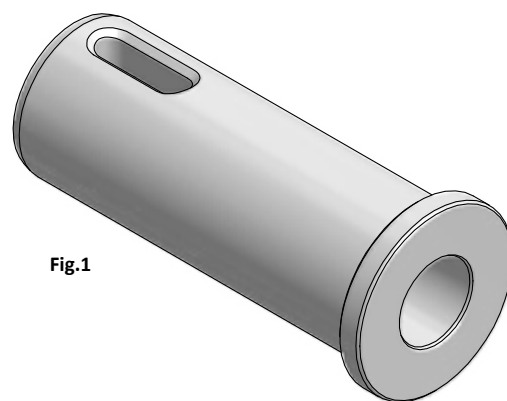


Fig.1

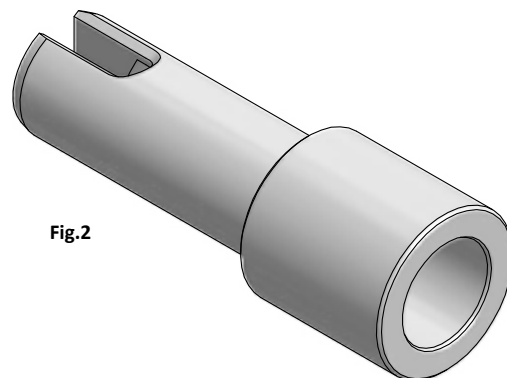
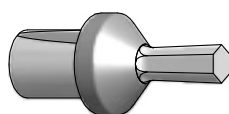
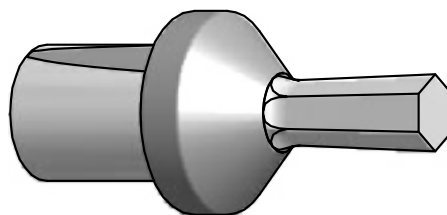


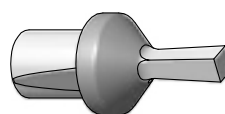
Fig.2

BROCCE
BROACHES



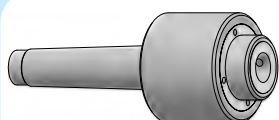
BROCCE ESAGONALI
HEXAGONAL BROACHES

PAG. 364



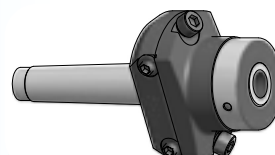
BROCCE QUADRATE
SQUARE BROACHES

PAG. 365



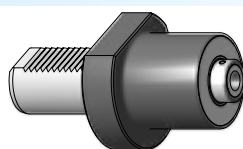
**BROCCIATORI FISSI
CON ATTACCO CONO MORSE - DIN228**
DIN228 MORSE TAPER SHANK
BROACH TOOLHOLDERS

PAG. 219



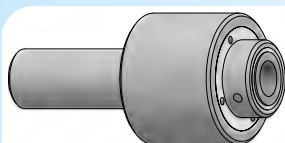
**BROCCIATORI REGISTRABILI
CON ATTACCO CONO MORSE - DIN228**
DIN228 MORSE TAPER SHANK
ADJUSTABLE BROACH TOOLHOLDERS

PAG. 220



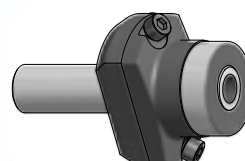
BROCCIATORI FISSI CON ATTACCO VDI
VDI SHANK BROACHING TOOLHOLDERS

PAG. 205



**BROCCIATORI FISSI
CON ATTACCO CILINDRICO**
CYLINDRICAL SHANK
BROACH TOOLHOLDERS

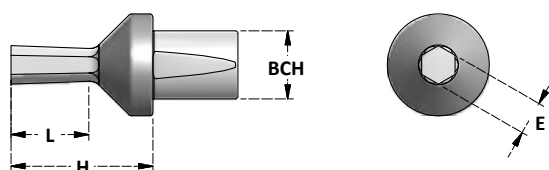
PAG. 275



**BROCCIATORI REGISTRABILI
CON ATTACCO CILINDRICO**
CYLINDRICAL SHANK
ADJUSTABLE BROACH TOOLHOLDERS

PAG. 276

BROCCE ESAGONALI HEXAGONAL BROACHES



Articolo	BCH	H	L	E	Toll.
BCH5.E1,5	5	10	3	1,5	+0,04 / +0,05
BCH5.E2	5	10	3,5	2	+0,05 / +0,06
BCH5.E2,5	5	10	4	2,5	+0,06 / +0,08
BCH5.E3	5	10	5	3	+0,07 / +0,09
BCH5.E3,5	5	10	6	3,5	+0,08 / +0,10
BCH5.E4	5	10	6	4	+0,09 / +0,11
BCH5.E5	5	10	6	5	+0,11 / +0,14
BCH5.E5,5	5	10	6	5,5	+0,11 / +0,14
BCH5.E6	5	10	6	6	+0,12 / +0,15

Articolo	BCH	H	L	E	Toll.
BCH8.E1,5	8	18	3	1,5	+0,04 / +0,05
BCH8.E2	8	18	3,5	2	+0,05 / +0,06
BCH8.E2,5	8	18	4	2,5	+0,06 / +0,08
BCH8.E3	8	18	5	3	+0,07 / +0,09
BCH8.E3,5	8	18	6	3,5	+0,08 / +0,10
BCH8.E4	8	18	6,5	4	+0,09 / +0,11
BCH8.E5	8	18	8,5	5	+0,11 / +0,14
BCH8.E5,5	8	18	9,5	5,5	+0,11 / +0,14
BCH8.E6	8	18	10,5	6	+0,12 / +0,15
BCH8.E7	8	18	12	7	+0,12 / +0,15
BCH8.E8	8	18	12,5	8	+0,13 / +0,16

Articolo	BCH	H	L	E	Toll.
BCH12.E1,5	12	25	3	1,5	+0,04 / +0,05
BCH12.E2	12	25	3,5	2	+0,05 / +0,06
BCH12.E2,5	12	25	4	2,5	+0,06 / +0,08
BCH12.E3	12	25	5	3	+0,07 / +0,09
BCH12.E3,5	12	25	6	3,5	+0,08 / +0,10
BCH12.E4	12	25	6,5	4	+0,09 / +0,11
BCH12.E5	12	25	8,5	5	+0,11 / +0,14
BCH12.E5,5	12	25	9,5	5,5	+0,11 / +0,14
BCH12.E6	12	25	10,5	6	+0,12 / +0,15
BCH12.E7	12	25	13	7	+0,12 / +0,15
BCH12.E8	12	25	15,5	8	+0,13 / +0,16
BCH12.E9	12	25	21	9	+0,13 / +0,16
BCH12.E10	12	25	21	10	+0,14 / +0,17
BCH12.E11	12	25	21	11	+0,14 / +0,17
BCH12.E12	12	25	21	12	+0,15 / +0,18
BCH12.E13	12	25	21	13	+0,15 / +0,18
BCH12.E14	12	25	21	14	+0,15 / +0,18

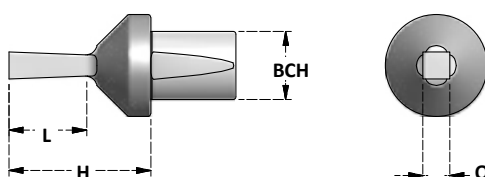
Articolo	BCH	H	L	E	Toll.
BCH16.E3	16	40	5	3	+0,07 / +0,09
BCH16.E3,5	16	40	6	3,5	+0,08 / +0,10
BCH16.E4	16	40	6,5	4	+0,09 / +0,11
BCH16.E5	16	40	8,5	5	+0,11 / +0,14
BCH16.E6	16	40	10,5	6	+0,12 / +0,15
BCH16.E7	16	40	13	7	+0,12 / +0,15
BCH16.E8	16	40	15,5	8	+0,13 / +0,16
BCH16.E9	16	40	17,5	9	+0,13 / +0,16
BCH16.E10	16	40	18,5	10	+0,14 / +0,17
BCH16.E11	16	40	20	11	+0,14 / +0,17
BCH16.E12	16	40	20	12	+0,15 / +0,18
BCH16.E13	16	40	28	13	+0,15 / +0,18
BCH16.E14	16	40	32	14	+0,15 / +0,18
BCH16.E15	16	40	32	15	+0,16 / +0,19
BCH16.E16	16	40	32	16	+0,16 / +0,19
BCH16.E17	16	40	32	17	+0,16 / +0,19
BCH16.E18	16	40	32	18	+0,17 / +0,20
BCH16.E19	16	40	32	19	+0,17 / +0,20
BCH16.E20	16	40	32	20	+0,17 / +0,20
BCH16.E21	16	40	32	21	+0,22 / +0,25
BCH16.E22	16	40	32	22	+0,22 / +0,25
BCH16.E23	16	40	32	23	+0,22 / +0,25
BCH16.E24	16	40	32	24	+0,24 / +0,27
BCH16.E25	16	40	32	25	+0,24 / +0,27

**Le brocche possono essere fornite
su richiesta con rivestimento "TiN"**

*Broaches "TiN" coated
can be supplied on request*

BROCCE QUADRATE

SQUARE BROACHES



Articolo	BCH	H	L	Q	Toll.
BCH5.Q3	5	10	5	3	+0,07 / +0,09
BCH5.Q4	5	10	6	4	+0,09 / +0,11
BCH5.Q5	5	10	6	5	+0,11 / +0,14
BCH5.Q6	5	10	6	6	+0,12 / +0,15

Articolo	BCH	H	L	Q	Toll.
BCH8.Q2	8	18	3,5	2	+0,05 / +0,06
BCH8.Q3	8	18	5	3	+0,07 / +0,09
BCH8.Q4	8	18	6,5	4	+0,09 / +0,11
BCH8.Q5	8	18	8,5	5	+0,11 / +0,14
BCH8.Q5,5	8	18	9,5	5,5	+0,11 / +0,14
BCH8.Q6	8	18	10,5	6	+0,12 / +0,15
BCH8.Q7	8	18	12	7	+0,12 / +0,15

Articolo	BCH	H	L	Q	Toll.
BCH12.Q3	12	25	5	3	+0,07 / +0,09
BCH12.Q4	12	25	6,5	4	+0,09 / +0,11
BCH12.Q5	12	25	8,5	5	+0,11 / +0,14
BCH12.Q5,5	12	25	9,5	5,5	+0,11 / +0,14
BCH12.Q6	12	25	10,5	6	+0,12 / +0,15
BCH12.Q7	12	25	13	7	+0,12 / +0,15
BCH12.Q8	12	25	15,5	8	+0,13 / +0,16
BCH12.Q9	12	25	21	9	+0,13 / +0,16
BCH12.Q10	12	25	21	10	+0,14 / +0,17
BCH12.Q11	12	25	21	11	+0,14 / +0,17
BCH12.Q12	12	25	21	12	+0,15 / +0,18

Articolo	BCH	H	L	Q	Toll.
BCH16.Q4	16	40	6,5	4	+0,09 / +0,11
BCH16.Q5	16	40	8,5	5	+0,11 / +0,14
BCH16.Q6	16	40	10,5	6	+0,12 / +0,15
BCH16.Q7	16	40	13	7	+0,12 / +0,15
BCH16.Q8	16	40	15,5	8	+0,13 / +0,16
BCH16.Q9	16	40	17,5	9	+0,13 / +0,16
BCH16.Q10	16	40	18,5	10	+0,14 / +0,17
BCH16.Q11	16	40	20	11	+0,14 / +0,17
BCH16.Q12	16	40	20	12	+0,15 / +0,18
BCH16.Q13	16	40	28	13	+0,15 / +0,18
BCH16.Q14	16	40	32	14	+0,15 / +0,18
BCH16.Q15	16	40	32	15	+0,16 / +0,19
BCH16.Q16	16	40	32	16	+0,16 / +0,19
BCH16.Q17	16	40	32	17	+0,16 / +0,19
BCH16.Q18	16	40	32	18	+0,17 / +0,20
BCH16.Q20	16	40	32	20	+0,17 / +0,20

**Le brocche possono essere fornite
su richiesta con rivestimento "TiN"**

*Broaches "TiN" coated
can be supplied on request*

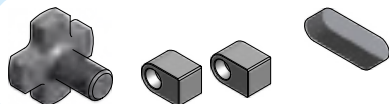
ACCESSORI

ACCESORIES



GRANI PER PORTAFRESE WELDON
SCREWS FOR END MILL HOLDERS

PAG. 367



ACCESSORI PER PORTAFRESE FISSI E COMBINATI
SPARE PARTS FOR SHELL AND COMBI MILL HOLDERS

PAG. 368



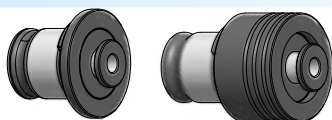
RACCORDI PER REFRIGERANTE - HSK
HSK COOLING TUBES

PAG. 370



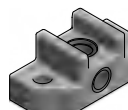
TAMPONI PULITORI
SPINDLE TAPER WIPERS

PAG. 370



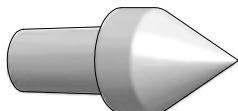
INSERZIONI PORTAMASCHI
TAPPING ADAPTERS

PAG. 371



BLOCCO D'ARRESTO PER DISTRIBUTORE ROTANTE
STOP BLOCK FOR OIL HOLDERS

PAG. 375



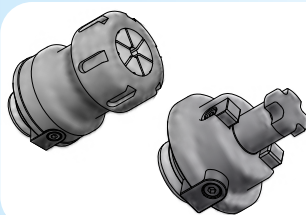
CUSPIDI
TIPS

PAG. 375



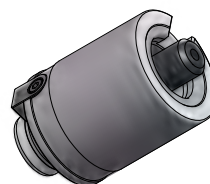
ACCESSORI PER CONO MORSE
MORSE TAPER ACCESSORIES

PAG. 376



**INSERZIONI PORTAUTENSILI
PER SISTEMA MODULARE
TIPO VARIOLOCK**
TOOLHOLDER ADAPTERS
FOR VARIOLOCK TYPE
MODULAR SYSTEM

PAG. 377



**RIDUZIONI E PROLUNGHE
PER SISTEMA MODULARE
TIPO VARIOLOCK**
EXTENSIONS AND REDUCTIONS
FOR VARIOLOCK TYPE
MODULAR SYSTEM

PAG. 377

RICAMBI PER MANDRINI DA TRAPANO
SPARE PARTS FOR DRILL CHUCKS



DCK

PAG. 379

RICAMBI PER MANDRINI DA TRAPANO
SPARE PARTS FOR DRILL CHUCKS



CP

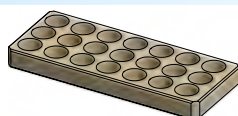
PAG. 380

RICAMBI PER MANDRINI DA TRAPANO
SPARE PARTS FOR DRILL CHUCKS



HD

PAG. 381



BASI DI LEGNO PER PINZE ER
EMPTY RACKS FOR ER COLLETS

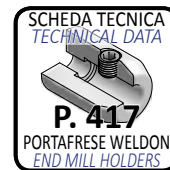
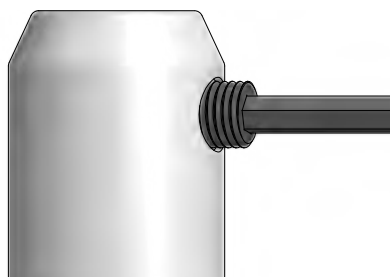
PAG. 381

DIN1835-2

GR

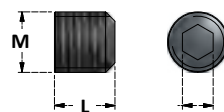
WE

GRANI PER PORTAFRESE WELDON
SCREWS FOR END MILL HOLDERS WELDON



GRANI PER PORTAFRESE WELDON STANDARD
SCREWS FOR STANDARD END MILL HOLDERS WELDON

Articolo	M	L	E
GR.WE6	M6x1	9	3
GR.WE8	M8x1,25	9	4
GR.WE10	M10x1,5	12	5
GR.WE12-14	M12x1,75	14	6
GR.WE16-18	M14x2	16	6
GR.WE20	M16x2	16	8
GR.WE25	M18x2	20	10
GR.WE32-40	M20x2	20	10
GR.WE50	M24x2	25	12

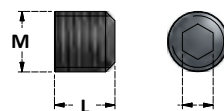


GR

WEC

GRANI PER PORTAFRESE WELDON EXTRACORTI
SCREWS FOR END MILL HOLDERS WELDON WITH STUB LENGHT

Articolo	M	L	E
GR.WEC12-14	M12x1,75	10	6
GR.WEC16	M14x2	10	6
GR.WEC20	M16x2	10	8
GR.WEC25-32	M16x1	8	10
GR.WEC25	M18x2	12	10
GR.WEC32-40	M20x2	14	10



GR

WHN

GRANI CON SFERA
SCREWS WITH HALF BALL

Articolo	M	L	E
GR.WHN6	M6x1	9	3
GR.WHN8	M8x1,25	9	4
GR.WHN10	M10x1,5	12	5
GR.WHN12-14	M12x1,75	14	6
GR.WHN16-18	M14x2	16	6
GR.WHN20	M16x2	16	8
GR.WHN25	M18x2	20	10
GR.WHN32-40	M20x2	20	10

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

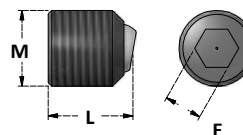
Fino a esaurimento / While stocks last

Fuori produzione / Out of production

Fuori produzione / Out of production

Fino a esaurimento / While stocks last

Fuori produzione / Out of production



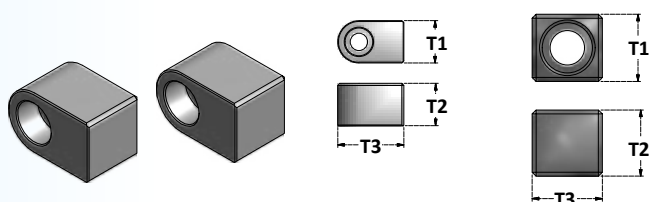
IL PIANO DI BLOCCAGGIO SULLA SFERA SI ADATTA AL PIANO INCLINATO
DEGLI UTENSILI CON GAMBO DIN1835-1 Forma E
FOR TOOLS WITH SKANK DIN1835-1 Form E

TTR

TASSELLI DI TRASCINAMENTO PER PORTAFRESE FISSI

DRIVE KEYS FOR SHELL MILL HOLDERS

Articolo	T1	T2	T3	fig
TTR.D16	8	8	14	1
TTR.D22	10	10	18	1
TTR.D27	12	12	18	1
TTR.D32	14	14	22	1
TTR.D40	16	16	25	1
TTR.D60	25,4	25	26,5	2



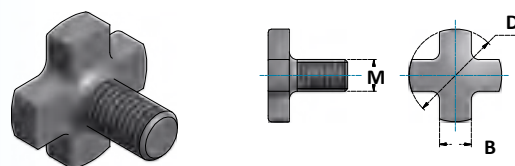
DIN6367

VTC

VITI A CROCE PER PORTAFRESE FISSI E COMBI

CROSS SCREWS FOR SHELL AND COMBI MILL HOLDERS

Articolo	M	D	B
VTC.D16	M8	20	8
VTC.D22	M10	28	10
VTC.D27	M12	35	12
VTC.D32	M16	42	16
VTC.D40	M20	52	20
VTC.D60	M30	75	28



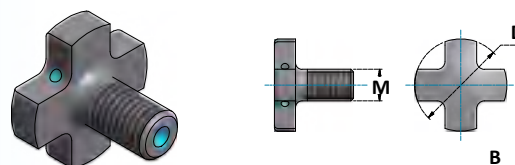
DIN6367

VTCS

VITI A CROCE CON PASSAGGIO DEL REFRIGERANTE

CROSS SCREWS WITH COOLANT THROUGH

Articolo	M	D	B
VTCS.D16	M8	20	8
VTCS.D22	M10	28	10
VTCS.D27	M12	35	12
VTCS.D32	M16	42	16
VTCS.D40	M20	52	20
VTCS.D60	M30	75	28



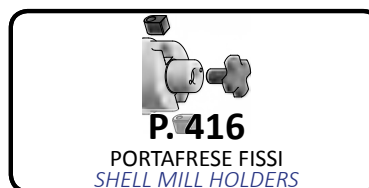
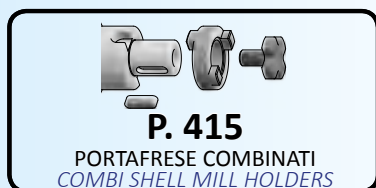
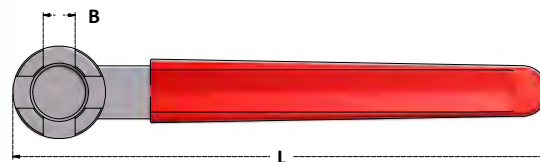
DIN6368

SP

CHIAVI PER VITI A CROCE

SPANNERS FOR CROSS SCREWS

Articolo	B	L
SP16C	8	180
SP22C	10	200
SP27C	12	225
SP32C	16	250
SP40C	20	280
SP60C	28	355



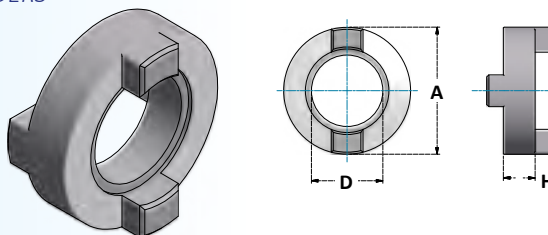
DIN6366

ATR

ANELLI DI TRASCINAMENTO PER MANDRINI COMBI

DRIVE RINGS FOR COMBI SHELL MILL HOLDERS

Articolo	D	A	H
ATR.D16	16	32	10
ATR.D22	22	40	12
ATR.D27	27	48	12
ATR.D32	32	58	14
ATR.D40	40	70	14



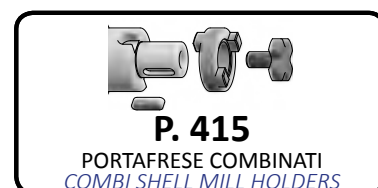
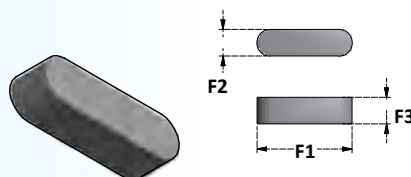
DIN6885

CHV

CHIAVETTE DI TRASCINAMENTO PER PORTAFRESE COMBI

DRIVE KEYS FOR COMBI SHELL MILL HOLDERS

Articolo	F1	F2	F3
CHV.D16C	20	4	4
CHV.D22C	25	6	6
CHV.D27C	25	7	7
CHV.D32C	28	8	7
CHV.D40C	32	10	8



DIN2084

SC

H

ANELLI DISTANZIALI

SPACING COLLARS

Articolo	A	H
SC16.H1	26	1
SC16.H2	27	2
SC16.H3	27	3
SC16.H4	27	4
SC16.H5	27	5
SC16.H6	27	6
SC16.H10	27	10
SC16.H20	27	20
SC16.H30	27	30

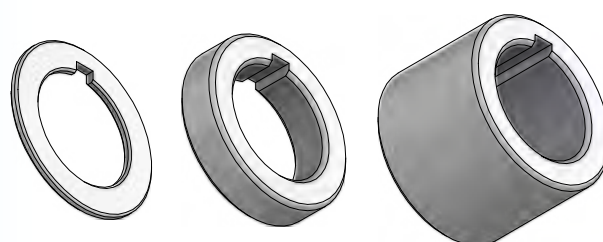
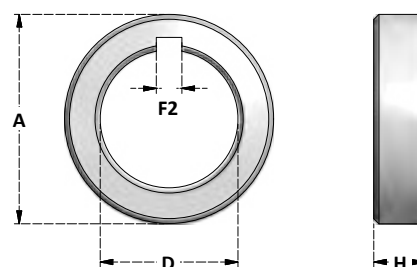
Articolo	A	H
SC22.H1	33	1
SC22.H2	34	2
SC22.H3	34	3
SC22.H4	34	4
SC22.H5	34	5
SC22.H6	34	6
SC22.H10	34	10
SC22.H20	34	20
SC22.H30	34	30
SC22.H60	34	60

Articolo	A	H
SC27.H1	40	1
SC27.H2	41	2
SC27.H3	41	3
SC27.H4	41	4
SC27.H5	41	5
SC27.H6	41	6
SC27.H10	41	10
SC27.H20	41	20
SC27.H30	41	30
SC27.H60	41	60
SC27.H100	41	100

Articolo	A	H
SC32.H1	46	1
SC32.H2	47	2
SC32.H3	47	3
SC32.H4	47	4
SC32.H5	47	5
SC32.H6	47	6
SC32.H10	47	10
SC32.H20	47	20
SC32.H30	47	30
SC32.H60	47	60
SC32.H100	47	100

Articolo	A	H
SC40.H1	54	1
SC40.H2	55	2
SC40.H3	55	3
SC40.H4	55	4
SC40.H5	55	5
SC40.H6	55	6
SC40.H10	55	10
SC40.H20	55	20
SC40.H30	55	30
SC40.H60	55	60
SC40.H100	55	100

Articolo	D	F2
SC16	12	4
SC22	16	6
SC27	22	7
SC32	28	8
SC40	35	10



HSK

CFM

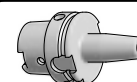
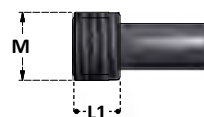
RACCORDI E CHIAVI PER L'ADDUZIONE DEL REFRIGERANTE PER MANDRINI HSK

COOLANT TUBES AND WRENCHES FOR HSK TOOLHOLDERS

RACCORDI

TUBES

Articolo	M	L1	CONO TAPER
HSK40.CFM12	M12	29,5	HSK40
HSK50.CFM16	M16	32,5	HSK50
HSK63.CFM18	M18	37,5	HSK63
HSK80.CFM20	M20	40	HSK80
HSK100.CFM24	M24	44	HSK100



DIN 69893

MANDRINI HSK
HSK TOOLHOLDERS

1

PAG. 1

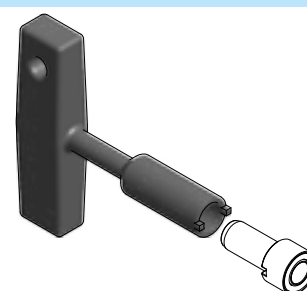
TCL

CM

CHIAVI

WRENCHES

Articolo	RACCORDO TUBE
HSK40.SP11	HSK40.CFM12
HSK50.SP15	HSK50.CFM16
HSK63.SP17	HSK63.CFM18
HSK80.SP19	HSK80.CFM20
HSK100.SP22	HSK100.CFM24



TAMPONI PULITORI DELLE SEDI PORTAUTENSILI

SPINDLE TAPER WIPERS

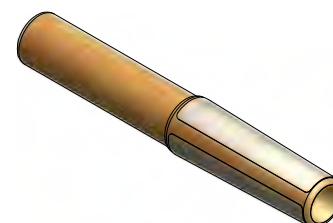
TCL

CM

CONO MORSE

MORSE TAPERS

Articolo	Cono Taper
TCL.CM1	CM1
TCL.CM2	CM2
TCL.CM3	CM3
TCL.CM4	CM4
TCL.CM5	CM5



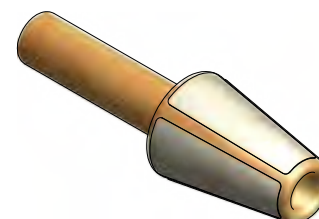
TCL

SK

CONI TC - BT - ISO

TC - BT - ISO TAPERS

Articolo	Cono Taper
TCL.SK30	30
TCL.SK40	40
TCL.SK50	50



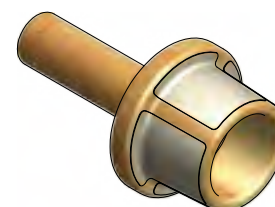
TCL

HSK

HSK

HSK

Articolo	Cono Taper
TCL.HSK40	40
TCL.HSK50	50
TCL.HSK63	63
TCL.HSK100	100

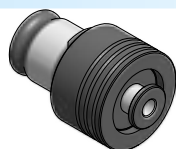


INSERZIONI PORTAMASCHI
TAPPING ADAPTERS



INSERZIONI PORTAMASCHI SENZA FRIZIONE
TAPPING ADAPTERS WITHOUT CLUTCH

PAG. 371



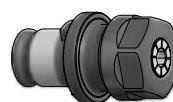
INSERZIONI PORTAMASCHI CON FRIZIONE REGISTRABILE
TAPPING ADAPTERS WITH SAFETY CLUTCH

PAG. 372



RIDUZIONI PER INSERZIONI
ADAPTERS

PAG. 373



**INSERZIONI PORTAMASCHI
CON PINZE ER**
*TAPPING ADAPTERS WITH ER
COLLETS*

PAG. 373

DIMENSIONI DEI GAMBI DEI MASCHI
TAP SHANKS DIMENSIONS

PAG. 374

B

INSERZIONI PORTAMASCHI SENZA FRIZIONE
TAPPING ADAPTERS WITHOUT CLUTCH

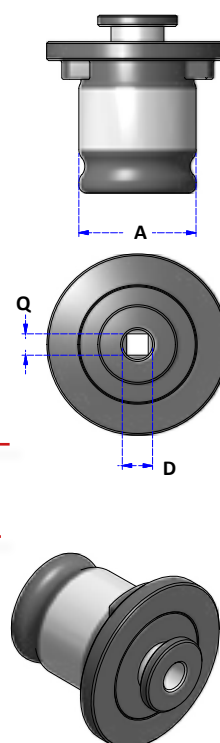
Articolo	A	D	Q
B0.25	13	2,5	2,1
B0.28	13	2,8	2,1
B0.35	13	3,5	2,7
B0.40	13	4	3,15
B0.45	13	4,5	3,4
B0.60	13	6	4,9
B0.70	13	7	5,5
B0.80	13	8	6,2

B1.28	19	2,8	2,1
B1.35	19	3,5	2,7
B1.40	19	4	3,15
B1.45	19	4,5	3,4
B1.60	19	6	4,9
B1.70	19	7	5,5
B1.80	19	8	6,2
B1.90	19	9	7
B1.100	19	10	8
B1.110	19	11	9

B2.60	31	6	4,9
B2.70	31	7	5,5
B2.80	31	8	6,2
B2.90	31	9	7
B2.100	31	10	8
B2.110	31	11	9
B2.120	31	12	9
B2.140	31	14	11
B2.160	31	16	12
B2.180	31	18	14,5
B2.200	31	20	16

B3.110	48	11	9
B3.120	48	12	9
B3.140	48	14	11
B3.160	48	16	12
B3.180	48	18	14,5
B3.200	48	20	16
B3.220	48	22	18
B3.250	48	25	20
B3.280	48	28	22
B3.320	48	32	24
B3.360	48	36	29

B4.180	60	18	14,5
B4.200	60	20	16
B4.220	60	22	18
B4.250	60	25	20
B4.280	60	28	22
B4.320	60	32	24
B4.360	60	36	29



INSERZIONI PORTAMASCHI CON FRIZIONE REGISTRABILE

TAPPING ADAPTERS WITH SAFETY CLUTCH

Articolo	A	D	Q	DIN371	DIN376
BF0.25	13	2,5	2,1	M1	
BF0.28	13	2,8	2,1	M2	
BF0.35	13	3,5	2,7	M3	
BF0.40	13	4	3,15		
BF0.45	13	4,5	3,4	M4	
BF0.60	13	6	4,9	M6	
BF0.70	13	7	5,5		M10
BF0.80	13	8	6,2	M8	

BF1.28	19	2,8	2,1	M2	
BF1.35	19	3,5	2,7	M3	
BF1.40	19	4	3,15		
BF1.45	19	4,5	3,4	M4	
BF1.60	19	6	4,9	M6	
BF1.70	19	7	5,5		M10
BF1.80	19	8	6,2	M8	
BF1.90	19	9	7		M12
BF1.100	19	10	8	M10	
BF1.110	19	11	9		M14

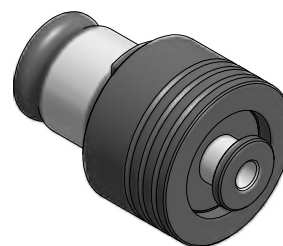
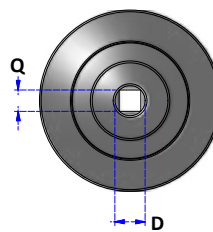
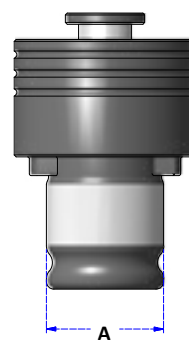
BF2.60	31	6	4,9	M6	
BF2.70	31	7	5,5		M10
BF2.80	31	8	6,2	M8	
BF2.90	31	9	7		M12
BF2.100	31	10	8	M10	
BF2.110	31	11	9		M14
BF2.120	31	12	9		M16
BF2.140	31	14	11		M18
BF2.160	31	16	12		M20
BF2.180	31	18	14,5		M22
BF2.200	31	20	16		M27

BF3.110	48	11	9		M14
BF3.120	48	12	9		M16
BF3.140	48	14	11		M18
BF3.160	48	16	12		M20
BF3.180	48	18	14,5		M22
BF3.200	48	20	16		M27
BF3.220	48	22	18		M30
BF3.250	48	25	20		M33
BF3.280	48	28	22		M36
BF3.320	48	32	24		M42
BF3.360	48	36	29		M45

BF4.180	60	18	14,5		M22
BF4.200	60	20	16		M27
BF4.220	60	22	18		M30
BF4.250	60	25	20		M33
BF4.280	60	28	22		M36
BF4.320	60	32	24		M42
BF4.360	60	36	29		M45

ALTRE TARATURE A RICHIESTA

OTHER TORQUE SETS ON REQUEST

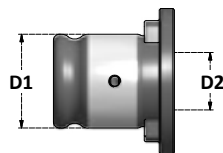


DIMENSIONI DEI GAMBI DEI MASCHI

TAP SHANKS DIMENSIONS

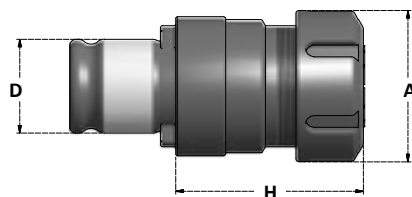
PAG. 374

RIDUZIONI PER INSERZIONI
ADAPTERS



Articolo	D1	D2
B1-B0	19	13
B2-B1	31	19
B3-B2	48	31

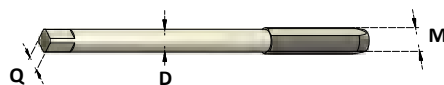
INSERZIONI PORTAMASCHI CON PINZE ER
TAPPING ADAPTERS WITH ER COLLETS



Articolo	D	A	H	Range Collet	Tapping Collet	Ghiera Nut
B1.ERC16	19	28	26	3,5 ÷ 10	M3 ÷ M12	G16SE
B1.ERC20	19	34	46	3,5 ÷ 12	M3 ÷ M16	G20SE
B1.ERC25	19	42	50	3,5 ÷ 16	M3 ÷ M20	G25S
B2.ERC25	31	42	30	3,5 ÷ 16	M3 ÷ M20	G25S
B2.ERC32	31	50	54	3,5 ÷ 20	M3 ÷ M27	G32S
B2.ERC40	31	63	65	6 ÷ 25	M5 ÷ M33	G40S

DIMENSIONI DEI GAMBI DEI MASCHI

TAP SHANKS DIMENSIONS

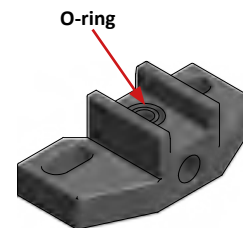
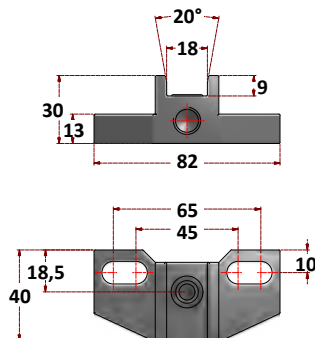


D	Q	DIN-352	DIN-371 CODOLO RINFORZATO	DIN-376 CODOLO PASSANTE	ISO-529	ISO-529
2,5	2,1	M1	M1	M3,5		
		M1,4	M1,4			
		M1,6	M1,6			
		M1,8	M1,8			
2,8	2,1	M2	M2	M4		
		M2,2	M2,2			
		M2,5	M2,5			
3,15	2,5				M4	M3
3,5	2,7	M3	M3	M5		
3,55	2,8				M4,5	M3,5
4	3,15	M3,5	M3,5		M5	M4
4,5	3,4	M4	M4	M6		
5	4					M5
6	4,9	M5	M5			
		M6	M6			
		M8		M8		
6,3	5				M8	M6
7	5,5	M10		M10		
8	6,2		M8		M10	M8
9	7,1	M12		M12	M12	
10	8		M10			M10
11	9	M14		M14		
11,2	9				M14	
12	9	M16		M16		
12,5	10				M16	
14	11	M18		M18		
14	11,2				M18	
					M20	
16	12	M20		M20		
16	12,5				M22	
18	14				M24	
18	14,5	M22		M22		
		M24		M24		
20	16	M27		M27	M27	
					M30	
22	18	M30		M30		
25	20	M33		M33	M36	
28	22	M36		M36		
32	24	M39		M39		
		M42		M42		
36	29	M45		M45		
		M48		M48		



BLOCCO D'ARRESTO PER DISTRIBUTORE ROTANTE DEL REFRIGERANTE

STOP BLOCK FOR ROTARY OIL HOLDERS



Articolo
BL.DR

TC

P. 99
DISTRIBUTORI ROTANTI
OIL HOLE HOLDERS

BT

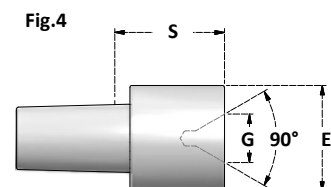
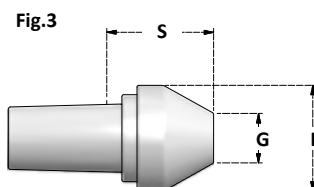
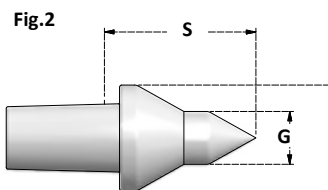
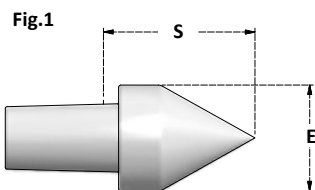
P. 160
DISTRIBUTORI ROTANTI
OIL HOLE HOLDERS

CNP

CS

CUSPIDI INTERCAMBIABILI PER CONTROPUNTE rotanti

INTERCHANGEABLE TIPS FOR LIVE CENTRES



Articolo	E	S	G	PUNTA CENTER	Fig
CNP.CS1	28	34	-	60°	1
CNP.CS2	28	40	7	60°	2
CNP.CS2B	28	40	12	60°	2
CNP.CS3	58	36	25	60°	3
CNP.CS4	28	32	24	/	4

VDI

P. 206
CONTROPUNTE ROTANTI
LIVE CENTRES

CM

P. 221
CONTROPUNTE ROTANTI
LIVE CENTRES

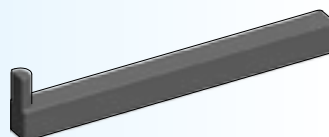
CYL

P. 278
CONTROPUNTE ROTANTI
LIVE CENTRES

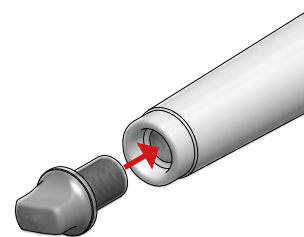
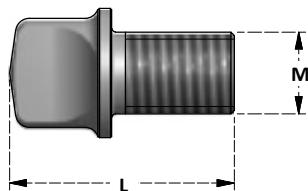
CHIAVE PER ESTRAZIONE CUSPIDI

PULLER FOR TIPS EXTRACTION

Articolo
CH.CNP



TENONI PER CONO MORSE
TANGS FOR MORSE TAPER



Articolo	CONO MORSE MORSE TAPER	M	L
TAG1.M6	CM1	M6	18
TAG2.M10	CM2	M10	29
TAG3.M12	CM3	M12	33
TAG4.M16	CM4	M16	40
TAG5.M20	CM5	M20	60

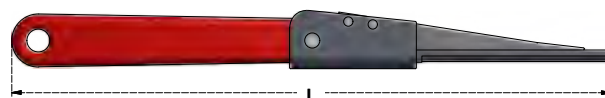
MANDRINI CM
CM TOOLHOLDERS

DIN 228

6

PAG. 207

ESTRATTORI SEMIAUTOMATICI PER MANDRINI CONO MORSE DIN6383
HALF AUTOMATIC MORSE SHANK PULLERS



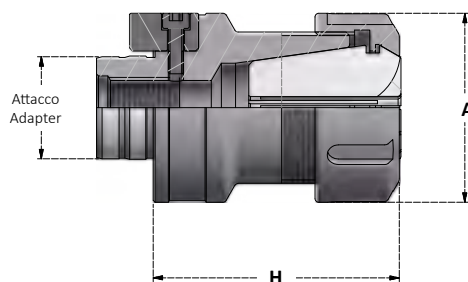
Articolo	PER CONO MORSE FOR MORSE TAPER	L
EST1-3	CM1- CM2- CM3	317
EST4-6	CM4- CM5- CM6	380

SCHEDA TECNICA
TECHNICAL DATA

P. 418
RIDUZIONI CM PUNTE
ADAPTERS FOR DRILLS

PORTAPINZE ER PER SISTEMA MODULARE VARILOCK

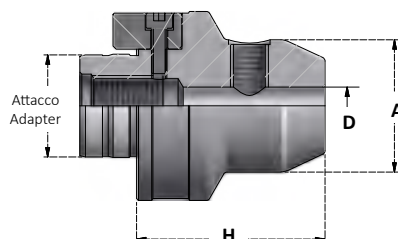
ER COLLET CHUCKS FOR VARILOCK MODULAR SYSTEM



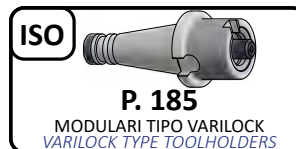
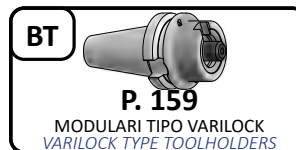
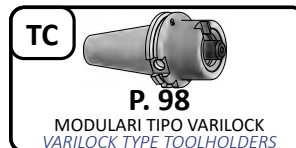
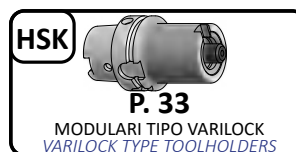
Articolo	Attacco Adapter	H	A	Range Collet	Ghiera Nut
MD50.H63.ERC20	MD50	27,3 / 27	63	34	1÷14 G20SE
MD50.H63.ERC25	MD50	27,3 / 27	63	42	1÷20 G25S
MD50.H65.ERC32	MD50	27,3 / 27	65	50	2÷22 G32S
MD63.H77.ERC32	MD63	32,3 / 32	77	50	2÷22 G32S
MD63.H86.ERC40	MD63	32,3 / 32	86	63	3÷30 G40S
MD80.H90.ERC40	MD80	32,3 / 32	90	63	3÷30 G40S

PORTAFRESE WELDON PER SISTEMA MODULARE VARILOCK

END MILL HOLDERS WELDON FOR VARILOCK MODULAR SYSTEM

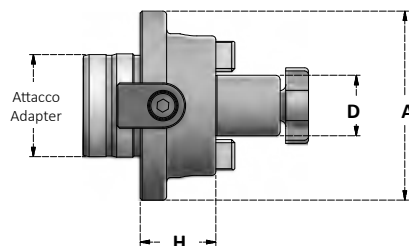


Articolo	Attacco Adapter	D	H	A	
MD50.H50.WE6	MD50	27,3 / 27	6	50	25
MD50.H50.WE8	MD50	27,3 / 27	8	50	28
MD50.H50.WE10	MD50	27,3 / 27	10	50	35
MD50.H60.WE12	MD50	27,3 / 27	12	50	42
MD50.H60.WE14	MD50	27,3 / 27	14	60	44
MD50.H60.WE16	MD50	27,3 / 27	16	60	48
MD50.H60.WE18	MD50	27,3 / 27	18	60	50
MD50.H62.WE20	MD50	27,3 / 27	20	62	52
MD50.H80.WE25	MD50	27,3 / 27	25	80	65
MD63.H70.WE10	MD63	32,3 / 32	10	70	35
MD63.H70.WE12	MD63	32,3 / 32	12	70	42
MD63.H70.WE14	MD63	32,3 / 32	14	70	44
MD63.H70.WE16	MD63	32,3 / 32	16	70	48
MD63.H70.WE18	MD63	32,3 / 32	18	70	50
MD63.H70.WE20	MD63	32,3 / 32	20	70	52
MD63.H80.WE25	MD63	32,3 / 32	25	80	62
MD63.H80.WE32	MD63	32,3 / 32	32	80	63
MD63.H90.WE40	MD63	32,3 / 32	40	90	80
MD80.H70.WE16	MD80	32,3 / 32	16	70	48
MD80.H70.WE20	MD80	32,3 / 32	20	70	52
MD80.H80.WE25	MD80	32,3 / 32	25	80	65
MD80.H80.WE32	MD80	32,3 / 32	32	80	72
MD80.H90.WE40	MD80	32,3 / 32	40	90	79



PORTAFRESE FISSI PER SISTEMA MODULARE VARILOCK

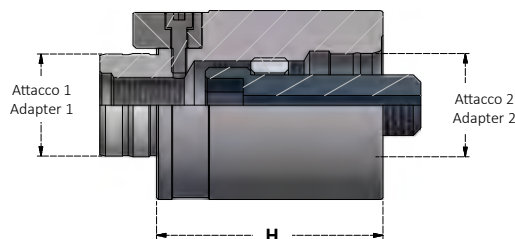
SHELL MILL HOLDERS FOR VARILOCK MODULAR SYSTEM



Articolo	Attacco Adapter	D	H	A
MD50.H30.D16S	MD50	27,3 / 27	16	30
MD50.H20.D22S	MD50	27,3 / 27	22	20
MD50.H20.D27S	MD50	27,3 / 27	27	20
MD50.H25.D32S	MD50	27,3 / 27	32	25
MD63.H30.D22S	MD63	32,3 / 32	22	30
MD63.H30.D27S	MD63	32,3 / 32	27	30
MD63.H30.D32S	MD63	32,3 / 32	32	30
MD63.H30.D40S	MD63	32,3 / 32	40	30
MD80.H30.D27S	MD80	32,3 / 32	27	30
MD80.H30.D32S	MD80	32,3 / 32	32	30
MD80.H30.D40S	MD80	32,3 / 32	40	30

ADATTATORI PER SISTEMA MODULARE VARILOCK

ADAPTERS FOR VARILOCK MODULAR SYSTEM



PROLUNGHE

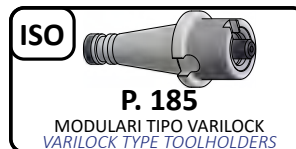
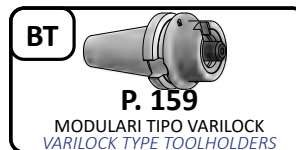
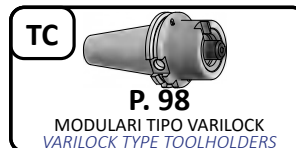
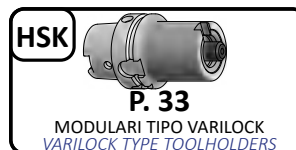
EXTENSIONS

Articolo	Attacco 1 Adapter 1	Attacco 2 Adapter 2	H
MD50.H60.MD50	MD50	MD50	27,3 / 27
MD50.H80.MD50	MD50	MD50	27,3 / 27
MD50.H100.MD50	MD50	MD50	27,3 / 27
MD63.H80.MD63	MD63	MD63	32,3 / 32
MD63.H120.MD63	MD63	MD63	32,3 / 32
MD80.H80.MD80	MD80	MD80	32,3 / 32
MD80.H100.MD80	MD80	MD80	32,3 / 32
MD80.H120.MD80	MD80	MD80	32,3 / 32
MD80.H140.MD80	MD80	MD80	32,3 / 32
MD80.H160.MD80	MD80	MD80	32,3 / 32

RIDUZIONI

REDUCTIONS

Articolo	Attacco 1 Adapter 1	Attacco 2 Adapter 2	H
MD63.H60.MD50	MD63	MD50	27,3 / 27
MD80.H80.MD63	MD80	MD63	32,3 / 32

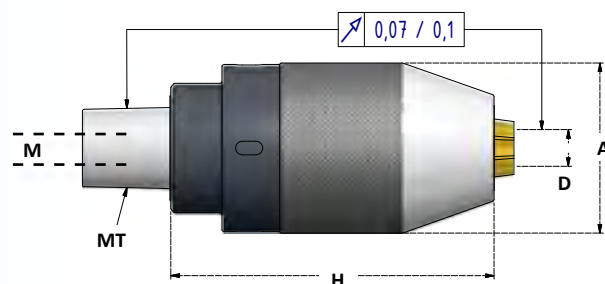


MANDRINI DA TRAPANO CON GRIFFE RIVESTITE IN TITANIO - ROTAZIONE DESTRA - ATTACCO MT

DRILL CHUCK HEADS WITH TITANIUM COATED JAWS - RIGHT ROTATION - TAPER MT

Articolo	D	A	H	MT	M
DC8S.MT2	0,5- 8	37,5	60,5	MT2	M6
DC13S.MT3	1- 13	50,5	80,5	MT3	M8
DC16S.MT3	2,5- 16	57	85	MT3	M8

FORNITI SENZA CHIAVE
SUPPLIED WITHOUT WRENCH

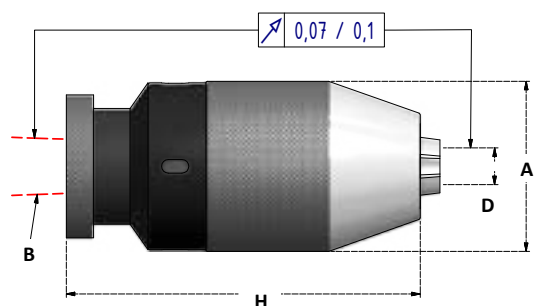


MANDRINI DA TRAPANO CON GRIFFE IN ACCIAIO - ROTAZIONE DESTRA - ATTACCO DIN238

DRILL CHUCK HEADS WITH STAINLESS JAWS - TAPER DIN238

Articolo	D	A	H	B
DC8.B12	0,5- 8	37,5	68	B12
DC8.B16	0,5- 8	37,5	68	B16
DC10.B12	0,5- 10	43	80	B12
DC10.B16	0,5- 10	43	80	B16
DC13.B12	1- 13	50,5	90	B12
DC13.B16	1- 13	50,5	90	B16
DC16.B16	2,5- 16	57	100	B16
DC16.B18	2,5- 16	57	100	B18

FORNITI SENZA CHIAVE
SUPPLIED WITHOUT WRENCH

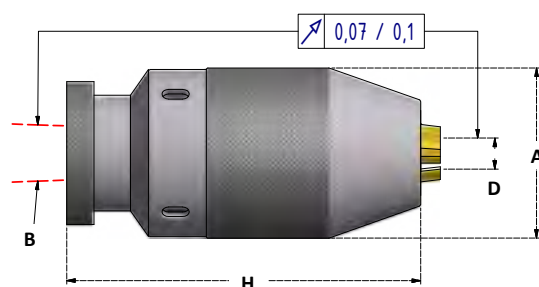


MANDRINI DA TRAPANO CON GRIFFE RIVESTITE IN TITANIO - ROTAZIONE DESTRA - ATTACCO DIN238

DRILL CHUCK HEADS WITH TITANIUM COATED JAWS - TAPER DIN238

Articolo	D	A	H	B
DC8S.B12	0,5- 8	37,5	68	B12
DC10S.B12	0,5- 10	43	80	B12
DC10S.B16	0,5- 10	43	80	B16
DC13S.B12	1- 13	50,5	90	B12
DC13S.B16	1- 13	50,5	90	B16
DC16S.B16	2,5- 16	57	100	B16
DC16S.B18	2,5- 16	57	100	B18

FORNITI SENZA CHIAVE
SUPPLIED WITHOUT WRENCH



SET DI 3 GRIFFE DI RICAMBIO RIVESTITE IN TITANIO

SET OF 3 TITANIUM COATED JAWS

Articolo
GF.DC8S
GF.DC10S
GF.DC13S
GF.DC16S



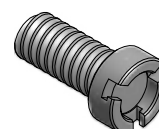
SOLO PER GLI ARTICOLI:
ONLY FOR ITEMS:

DC8S.MT2	DC8S.B12
DC13S.MT3	DC10S.B12
DC16S.MT3	DC10S.B16
	DC13S.B12
	DC13S.B16
	DC16S.B16
	DC16S.B18

VITI PER GRIFFE

JAWS SCREW

Articolo
VT.DC8S
VT.DC10S
VT.DC13S
VT.DC16S



SOLO PER GLI ARTICOLI:
ONLY FOR ITEMS:

DC8S.MT2	DC8S.B12
DC13S.MT3	DC10S.B12
DC16S.MT3	DC10S.B16
	DC13S.B12
	DC13S.B16
	DC16S.B16
	DC16S.B18

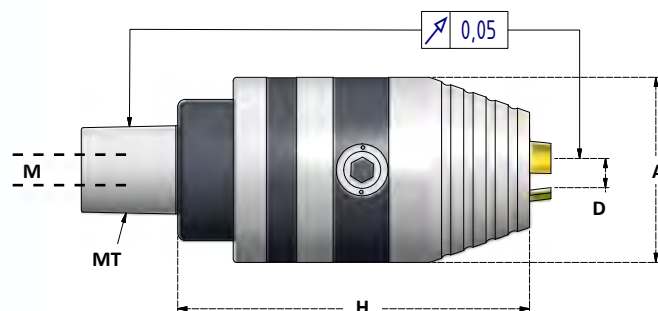
ACCESSORI - ACCESSORIES



MANDRINI DA TRAPANO CON GRIFFE RIVESTITE IN TITANIO - ROTAZIONE DESTRA E SINISTRA - ATTACCO MT
DRILL CHUCK HEADS WITH TITANIUM COATED JAWS - RIGHT AND LEFT ROTATION - TAPER MT

Articolo	D	A	H	MT	M
CP8S.MT3	0,5- 8	37,5	73	MT3	M8
CP13S.MT3	1- 13	50,5	91	MT3	M8
CP16S.MT3	2,5- 16	57	96	MT3	M8

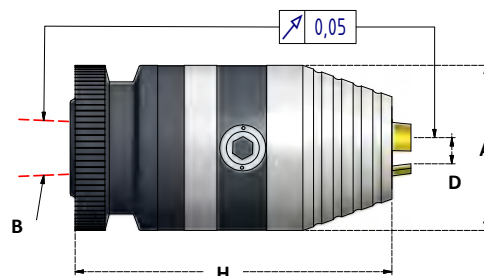
FORNITI SENZA CHIAVE
SUPPLIED WITHOUT WRENCH



MANDRINI DA TRAPANO CON GRIFFE RIVESTITE IN TITANIO - ROTAZIONE DESTRA E SINISTRA - ATTACCO DIN238
DRILL CHUCK HEADS WITH TITANIUM COATED JAWS - RIGHT AND LEFT ROTATION - TAPER DIN238

Articolo	D	A	H	B
CP13S.B16	1- 13	50,5	90	B16
CP16S.B16	2,5- 16	57	100	B16

FORNITI SENZA CHIAVE
SUPPLIED WITHOUT WRENCH



SET DI 3 GIRFFE DI RICAMBIO RIVESTITE IN TITANIO
SET OF 3 TITANIUM COATED JAWS

Articolo
GF.CP8S
GF.CP13S
GF.CP16S

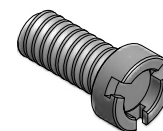


SOLO PER GLI ARTICOLI:
ONLY FOR ITEMS:

CP8S.MT2	CP13S.B16
CP13S.MT3	CP16S.B16
CP16S.MT3	

VITI PER GRIFFE
JAWS SCREWS

Articolo
VT.CP8S
VT.CP13S
VT.CP16S



SOLO PER GLI ARTICOLI:
ONLY FOR ITEMS:

CP8S.MT2	CP13S.B16
CP13S.MT3	CP16S.B16
CP16S.MT3	

ACCESSORI - ACCESSORIES



P. 351
CHIAVI
WRENCHES

HD

MANDRINI DA TRAPANO CON GIRFFE IN ACCIAIO - ROTAZIONE DESTRA E SINISTRA
CON PASSAGGIO DEL REFRIGERANTE

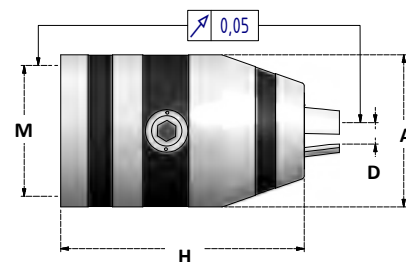
DRILL CHUCK HEADS WITH STAINLESS STEEL JAWS - RIGHT AND LEFT ROTATION - COOLANT THROUGH

Articolo	D	M	A	H
HD8	0,5- 8	M28,5 x 1	36	50
HD13	1- 13	M43,5 x 1	50	70
HD16	3- 16	M43,5 x 1	50	75

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last



FORNITI SENZA CHIAVE
SUPPLIED WITHOUT WRENCH

SET DI 3 GIRFFE DI RICAMBIO IN ACCIAIO
SET OF 3 STAINLESS STEEL JAWS

Articolo
GF.HD8
GF.HD13
GF.HD16



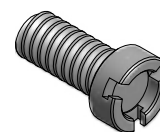
Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

VITI PER GIRFFE
JAWS SCREWS

Articolo
VT.HD8
VT.HD13
VT.HD16



Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

ACCESSORI - ACCESSORIES



P. 351
CHIAVI
WRENCHES

TYE

BASI DI LEGNO PER PINZE ER
EMPTY RACKS FOR ER COLLETS



Articolo	PER PINZE FOR COLLETS	FORI SEATS
TYE.8.18	ER8	18
TYE.11.18	ER11	18
TYE.16.15	ER16	15
TYE.20.15	ER20	15
TYE.25.6	ER25	6
TYE.25.21	ER25	21
TYE.25.28	ER25	28
TYE.32.6	ER32	6
TYE.32.21	ER32	21
TYE.32.28	ER32	28
TYE.40.10	ER40	10
TYE.40.28	ER40	28
TYE.40.30	ER40	30
TYE.50.12	ER50	12

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Fino a esaurimento / While stocks last

Articolo	PER PINZE FOR COLLETS	FORI SEATS
TYEBX.8.18	ER8	18

SUPPORTI DI MONTAGGIO

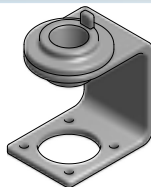
TOOL ASSEMBLY DEVICES



**SUPPORTI DI MONTAGGIO
PER MORSE**

*TOOL ASSEMBLY DEVICES
FOR VISES*

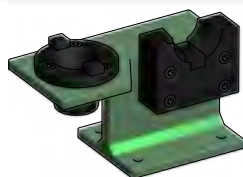
PAG. 383



SUPPORTI DI MONTAGGIO

TOOL ASSEMBLY DEVICES

PAG. 384



**SUPPORTI DI MONTAGGIO
CON DOPPIA SEDE**

*TOOL ASSEMBLY DEVICES
WITH TWO SEATS*

PAG. 385



**SUPPORTI DI MONTAGGIO
ORIENTABILI - TLD**

*TOOL ASSEMBLY DEVICES
INDEXABLE - TLD*

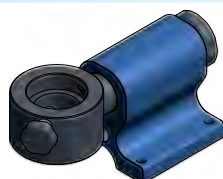
PAG. 386



**SUPPORTI DI MONTAGGIO
ORIENTABILI - TBK**

*TOOL ASSEMBLY DEVICES
INDEXABLE - TBK*

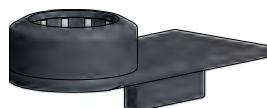
PAG. 387



**SUPPORTO DI MONTAGGIO
MODULARE**

*MODULAR
ASSEMBLY DEVICE*

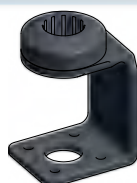
PAG. 388



**SUPPORTI DI MONTAGGIO
A RULLI PER MORSE**

*ROLLER CLAMPING
ASSEMBLY DEVICE FOR VISES*

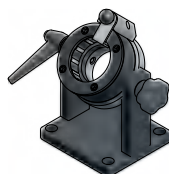
PAG. 389



SUPPORTI DI MONTAGGIO A RULLI

*ROLLER CLAMPING
ASSEMBLY DEVICE*

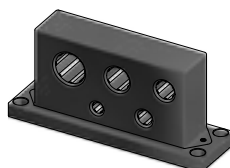
PAG. 390



**SUPPORTI DI MONTAGGIO A RULLI
ORIENTABILI**

*ROLLER CLAMPING ASSEMBLY DEVICE
INDEXABLE*

PAG. 392

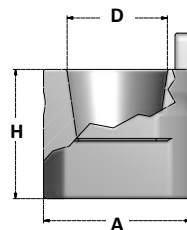


**SUPPORTI DI MONTAGGIO A RULLI
PER PROLUNGHE CILINDRICHE**

*ROLLER CLAMPING ASSEMBLY DEVICE
FOR CYLINDRICAL TOOLHOLDERS*

PAG. 393

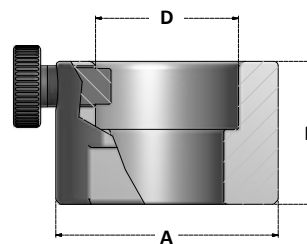
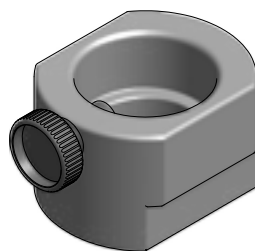
SUPPORTI DI MONTAGGIO PER MORSE
TOOL ASSEMBLY DEVICES FOR VISES



Articolo	MANDRINI / TOOLHOLDERS	D	A	H
THF30	ISO30 / NMTB30 / TC30 / CAT30 / BT30	31,75	50	43
THF40	ISO40 / NMTB40 / TC40 / CAT40 / BT40	44,45	65	57
THF50	ISO50 / NMTB50 / TC50 / CAT50 / BT50	69,85	99	80

Sono da montare in morsa.

Must be mounted in a vise.

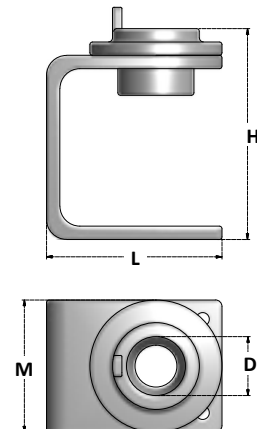
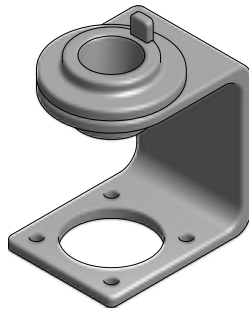


Articolo	MANDRINI / TOOLHOLDERS	D	A	H
THF63	HSK63-A- B- D- T	63	98	63
THF100	HSK100-A- B- D- T	100	128	75

Sono da montare in morsa.

Must be mounted in a vise.

SUPPORTI DI MONTAGGIO
TOOL ASSEMBLY DEVICES



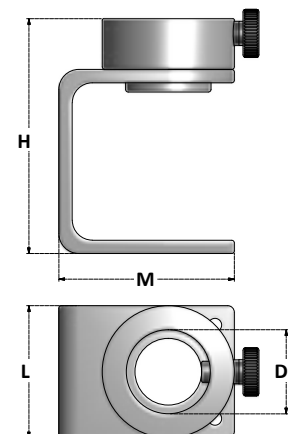
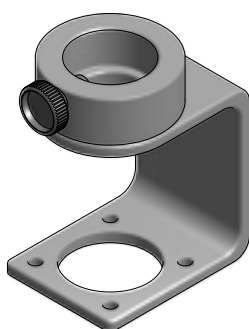
Articolo	MANDRINI / TOOLHOLDERS	D	L	M	H
TB30	ISO30 / NMTB30 / TC30 / CAT30 / BT30	31,75	90	99	140
TB40	ISO40 / NMTB40 / TC40 / CAT40 / BT40	44,45	99	113	148
TB50	ISO50 / NMTB50 / TC50 / CAT50 / BT50	69,85	99	113	173

Fuori produzione / Out of production

Fuori produzione / Out of production

Sono da fissare al banco di lavoro con 4 viti (non fornite).
Must be fixed to a bench with 4 bolts (not included).

Fino a esaurimento / While stocks last

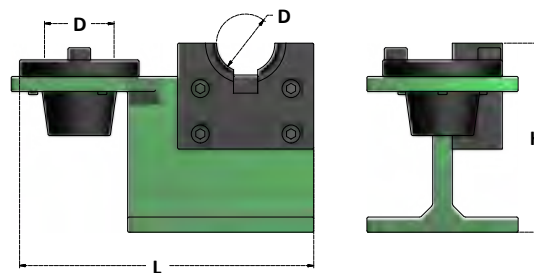
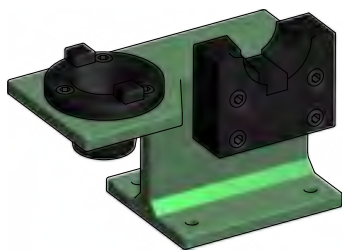


Articolo	MANDRINI / TOOLHOLDERS	D	L	M	H
TB63	HSK63 A B D T	63	99	113	166

Fuori produzione / Out of production

Sono da fissare al banco di lavoro con 4 viti (non fornite).
Must be fixed to a bench with 4 bolts (not included).

SUPPORTI DI MONTAGGIO CON DOPPIA SEDE
TOOL ASSEMBLY DEVICES WITH TWO SEATS



Articolo	MANDRINI / TOOLHOLDERS	D	L	H
TB3.SK30	TC30	31,75	205	110
TB3.SK40	TC40	44,45	205	110
TB3.SK50	TC50	69,85	280	150

Articolo	MANDRINI / TOOLHOLDERS	D	L	H
TB3.BT30	BT30	31,75	205	110
TB3.BT40	BT40	44,45	205	110
TB3.BT50	BT50	69,85	280	150

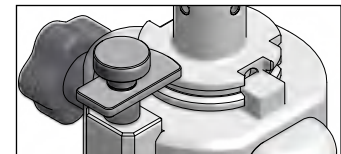
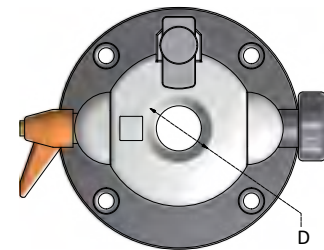
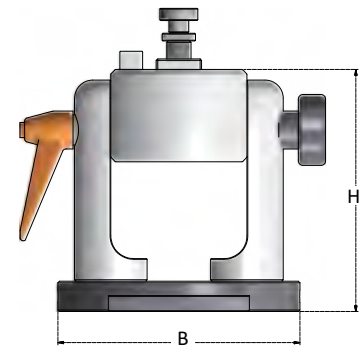
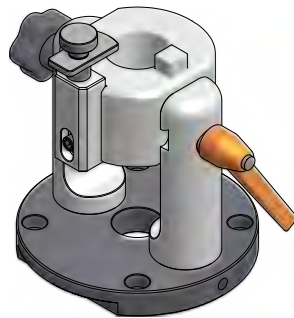
I mandrini si possono montare in orizzontale e in verticale.

Toolholders can be mounted in vertical and horizontal position.

Sono da fissare al banco di lavoro con 4 viti (non fornite).

Must be fixed to a bench with 4 bolts (not included).

SUPPORTI DI MONTAGGIO ORIENTABILI - CON SEDE CONICA
INDEXABLE ASSEMBLY DEVICES - FOR TAPERED SHANK



Articolo	MANDRINI / TOOLHOLDERS	D	B	H
TLD30SK	ISO30 NMTB30 TC30 CAT30 BT30	31,75	150	160

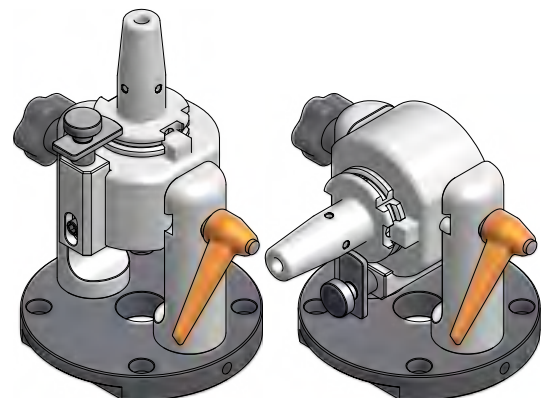
Articolo	MANDRINI / TOOLHOLDERS	D	B	H
TLD40SK	ISO40 NMTB40 TC40 CAT40 BT40	44,45	150	160

Articolo	MANDRINI / TOOLHOLDERS	D	B	H
TLD50SK	ISO50 NMTB50 TC50 CAT50 BT50	69,85	180	200

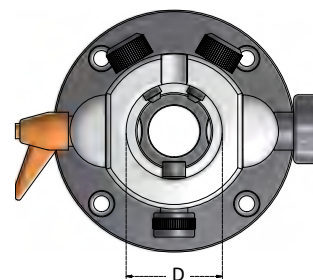
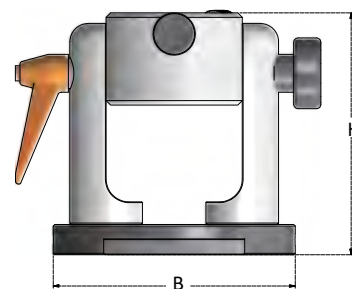
I mandrini sono orientabili in orizzontale e in verticale.
Toolholders are indexable in vertical and horizontal position.

Sono da fissare al banco di lavoro con 4 viti (non fornite).
Must be fixed to a bench with 4 bolts (not included).

Nessun contatto con la cava "V" della flangia.
No contact with "V" of the flange.



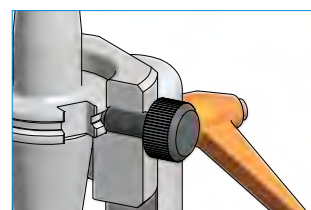
SUPPORTI DI MONTAGGIO ORIENTABILI - BLOCCAGGIO SULLA FLANGIA
INDEXABLE ASSEMBLY DEVICES - FLANGE CLAMPING



Articolo	MANDRINI / TOOLHOLDERS	D	B	H
TBK30	TC30 CAT30 BT30 HSK50A-B-D-T	50	150	160

Articolo	MANDRINI / TOOLHOLDERS	D	B	H
TBK40	TC40 CAT40 BT40 HSK63A-B-D-T	63	150	160

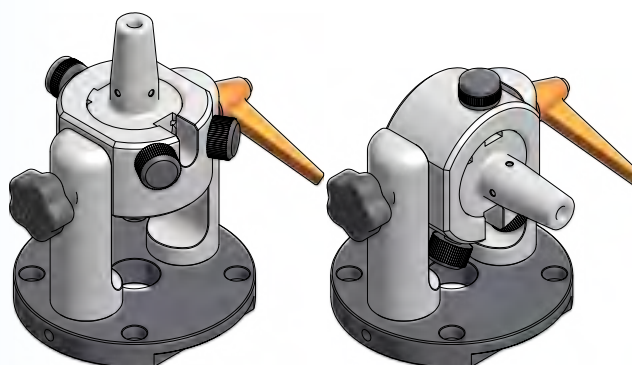
Articolo	MANDRINI / TOOLHOLDERS	D	B	H
TBK50	TC50 CAT50 BT50 HSK100A-B-D-T	100	180	200



I mandrini sono orientabili in orizzontale e in verticale.
Toolholders are indexable in vertical and horizontal position.

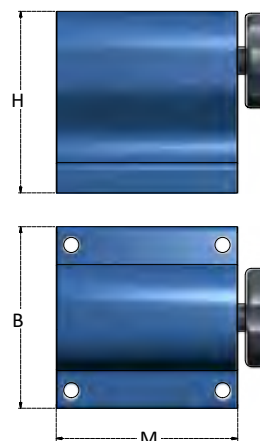
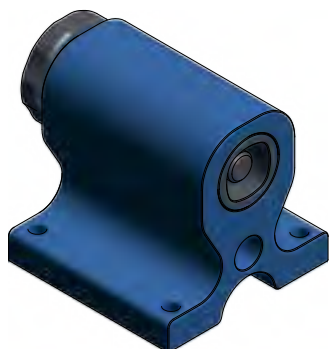
Sono da fissare al banco di lavoro con 4 viti (non fornite).
Must be fixed to a bench with 4 bolts (not included).

Nessun contatto con l'attacco conico del mandrino.
No contact with tool taper shank.



SUPPORTO DI MONTAGGIO MODULARI

MODULAR ASSEMBLY DEVICES



BASE

BASE

Articolo	H	B	M
TBT.MD	120	120	120

SEDI MANDRINO

CHUCK HOLDERS

Articolo	MANDRINI TOOLHOLDERS
MD.SK30	TC30 / BT30
MD.SK40	TC40 / BT40
MD.SK50	TC50 / BT50
MD.HSK40A	HSK40A-B-D-T
MD.HSK50A	HSK50A-B-D-T
MD.HSK63A	HSK63A-B-D-T
MD.HSK80A	HSK80A-B-D-T
MD.HSK100A	HSK100A-B-D-T
MD.VDI20	VDI20
MD.VDI30	VDI30
MD.VDI40	VDI40
MD.VDI50	VDI50
MD.PSC32	PSC CAPTO C3
MD.PSC40	PSC CAPTO C4
MD.PSC50	PSC CAPTO C5
MD.PSC63	PSC CAPTO C6
MD.PSC80	PSC CAPTO C8



I mandrini sono orientabili in 4 posizioni a 90°.

Toolholders are indexable in 4x90° positions.

I mandrini sono bloccati sulla flangia.

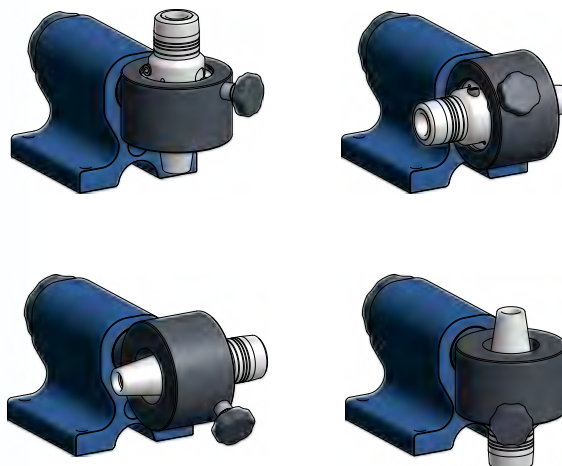
Toolholders are clamped on the flange.

Nessun contatto con l'attacco conico del mandrino.

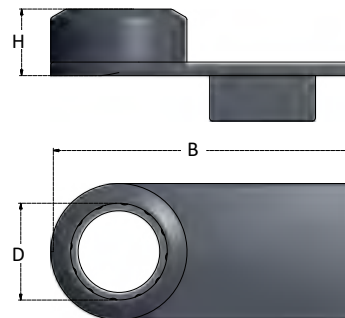
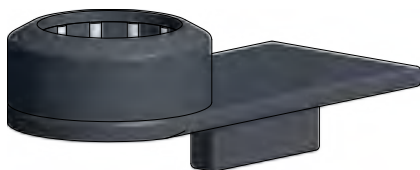
No contact with tool taper shank.

Sono da fissare al banco di lavoro con 4 viti (non fornite).

Must be fixed to a bench with 4 bolts (not included).



SUPPORTI DI MONTAGGIO A RULLI - PER MORSE
ROLLER CLAMPING ASSEMBLY DEVICES - FOR VISES



Articolo	MANDRINI / TOOLHOLDERS	D	H	B
TBRLM63	HSK63E-F / HSK63A-B-D-T / KM63 PSC CAPTO C6 / BT40	63	49	210
TBRLM63,5	SK-TC40 / CAT40	63,5	49	210

I mandrini sono bloccati sulla flangia dai rulli bidirezionali.

Toolholders are clamped on the flange by two-way needle rollers.

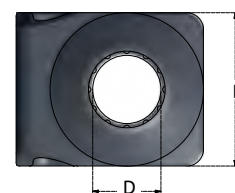
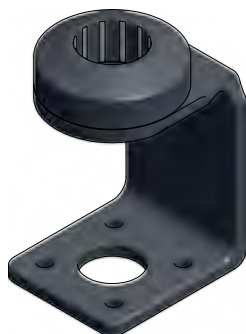
Nessun contatto con l'attacco conico del mandrino.

No contact with tool taper shank.

Sono da montare in morsa o da fissare al banco di lavoro con 4 viti (non fornite).

Must be mounted in a vice or fixed to a bench with 4 bolts (not included).

SUPPORTI DI MONTAGGIO A RULLI
ROLLER CLAMPING ASSEMBLY DEVICES

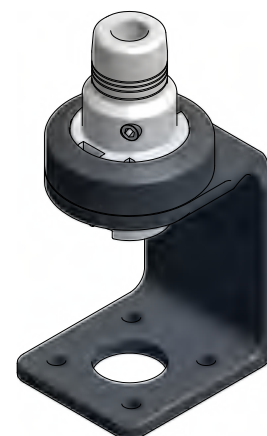


Articolo	MANDRINI / TOOLHOLDERS	D	H	B	M
TBRL25	HSK25E / HSK25A	25	132	90	100
TBRL30	S20T	30	132	90	100
TBRL32	HSK32E / HSK32A-T PSC CAPTO C3	32	162	99	113
TBRL40	HSK40E / HSK40A-B-D-T PSC CAPTO C4	40	162	99	113
TBRL46	BT30 WD30-46	46	162	99	113
TBRL50	HSK50E-F / HSK50A-B-D-T / TC30 ISO30 / WD30-50PSC CAPTO C5	50	162	99	113
TBRL58	WD30-58	58	162	99	113
TBRL63	HSK63E-F / HSK63A-B-D-T / KM63 PSC CAPTO C6 / BT40	63	162	99	113
TBRL63,5	TC40 / CAT40	63,5	162	99	113
TBRL80	HSK80A-B-D-T PSC CAPTO C8	80	240	148	170
TBRL97,5	TC50 ISO50 / NMTB50	97,5	240	148	170
TBRL100	HSK100A-B-D-T BT50	100	240	148	170

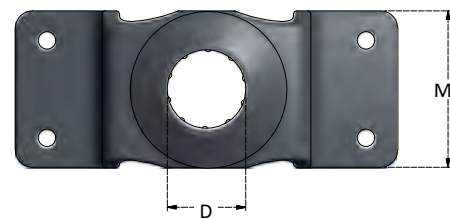
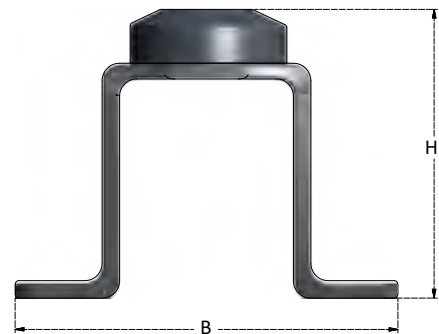
I mandrini sono bloccati sulla flangia dai rulli bidirezionali.
Toolholders are clamped on the flange by two-way needle rollers.

Nessun contatto con l'attacco conico del mandrino.
No contact with the tool taper shank.

Sono da fissare al banco di lavoro con 4 viti (non fornite).
Must be fixed to a bench with 4 bolts (not included).



SUPPORTI DI MONTAGGIO RINFORZATI A RULLI
REINFORCED ROLLER CLAMPING ASSEMBLY DEVICES



Articolo	MANDRINI / TOOLHOLDERS	D	H	B	M
TBRLH63	HSK63E-F / HSK63A-B-D-T / KM63 PSC CAPTO C6 / BT40	63	180	230	100
TBRLH63,5	TC40 / CAT40	63,5	180	230	100
TBRLH97,5	TC50 ISO50 / NMTB50	97,5	225	330	150
TBRLH100	HSK100A-B-D-T BT50	100	225	330	150

I mandrini sono bloccati sulla flangia dai rulli bidirezionali.

Toolholders are clamped on the flange by two-way needle rollers.

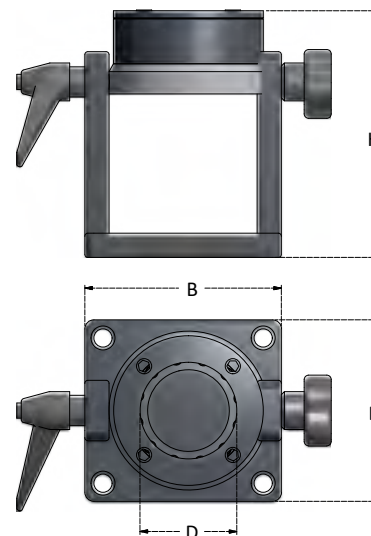
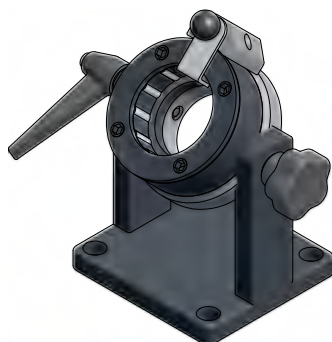
Nessun contatto con l'attacco conico del mandrino.

No contact with the tool taper shank.

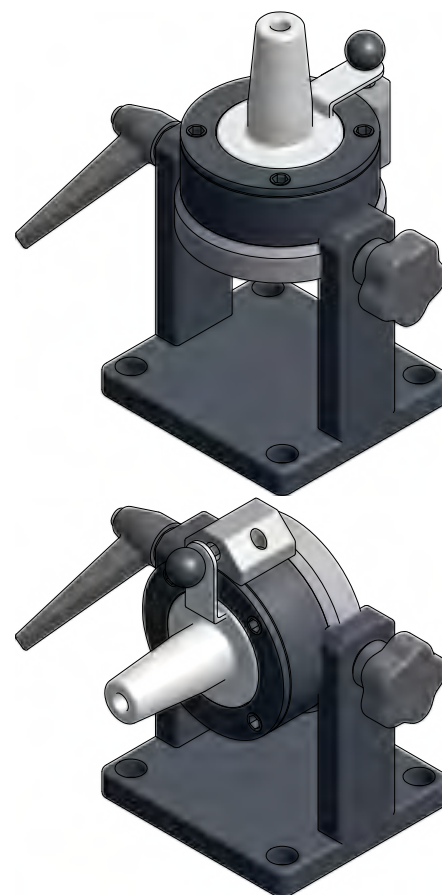
Sono da fissare al banco di lavoro con 4 viti (non fornite).

Must be fixed to a bench with 4 bolts (not included).

SUPPORTI DI MONTAGGIO A RULLI ORIENTABILI INDEXABLE ROLLER CLAMPING ASSEMBLY DEVICES



Articolo	MANDRINI / TOOLHOLDERS	D	H	B
TBRL40OR	HSK40E / HSK40A-B-D-T PSC CAPTO C4	40	162	150
TBRL46OR	BT30 WD30-46	46	162	150
TBRL50OR	HSK50E-F / HSK50A-B-D-T / TC30 ISO30 / WD30-50PSC CAPTO C5	50	162	150
TBRL63OR	HSK63E-F / HSK63A-B-D-T / KM63 PSC CAPTO C6 / BT40	63	162	150
TBRL63,5OR	TC40 / CAT40	63,5	162	150
TBRL97,5OR	TC50 ISO50 / NMTB50	97,5	240	150
TBRL100OR	HSK100A-B-D-T BT50	100	240	150



I mandrini sono orientabili in orizzontale e in verticale.

Toolholders are indexable in vertical and horizontal position.

I mandrini sono bloccati sulla flangia dai rulli bidirezionali.

Toolholders are clamped on the flange by two-way needle rollers.

Nessun contatto con l'attacco conico del mandrino.

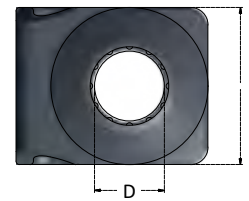
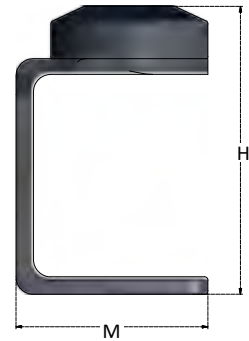
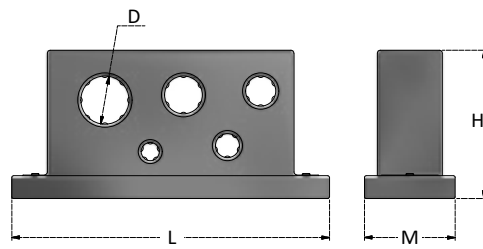
No contact with the tool taper shank.

Sono da fissare al banco di lavoro con 4 viti (non fornite).

Must be fixed to a bench with 4 bolts (not included).

SUPPORTI DI MONTAGGIO A RULLI PER PROLUNGHE CILINDRICHE

ROLLER CLAMPING ASSEMBLY DEVICES FOR CYLINDRICAL SHANK TOOLHOLDERS



Articolo	D	H	M	L	Fig
TBRL1CY	12 / 16 / 20	98	60	210	1
TBRL2CY	20 / 25 / 32	98	60	210	1
TBRL3CY	12 / 16 / 20 / 25 / 32	98	60	210	2
TBRLCY40	40	162	113	99	3
TBRLCY50	50	162	113	99	3
TBRLCY60	60	162	113	99	3

Fuori produzione / Out of production

Fuori produzione / Out of production

Fuori produzione / Out of production

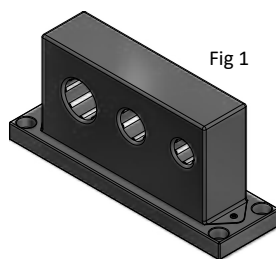


Fig 1

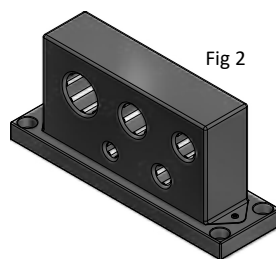


Fig 2

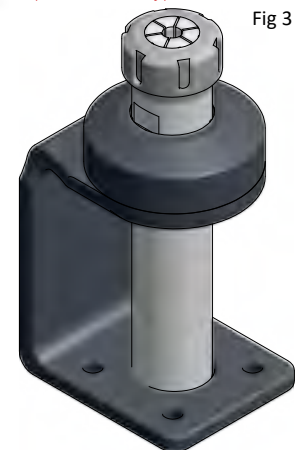
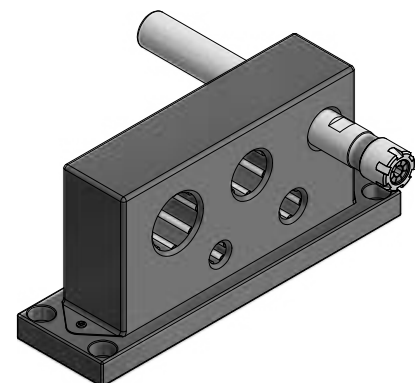


Fig 3



I mandrini sono bloccati sul gambo cilindrico dai rulli bidirezionali.

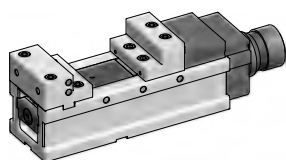
Toolholders are clamped on the cylindrical shank by two-way needle rollers

Sono da fissare al banco di lavoro con 4 viti (non fornite).

Must be fixed to a bench with 4 bolts (not included).

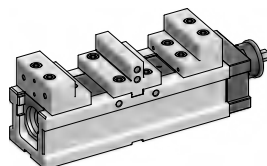
MORSE

VICES



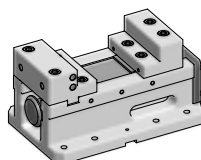
MORSE IN GHISA
CAST IRON VISES

PAG. 395



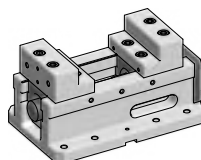
MORSE IN GHISA A DOPPIO SERRAGGIO
CAST IRON DOUBLE SEATS VISES

PAG. 396



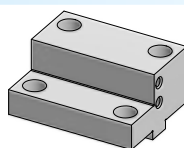
MORSE IN GHISA PER CENTRI DI LAVORO A 5 ASSI
CAST IRON VISES FOR 5 AXES CENTER

PAG. 397



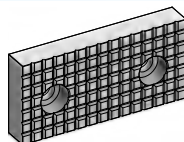
MORSE IN GHISA PER CENTRI DI LAVORO A 5 ASSI - AUTOCENTRANTI
CAST IRON VISES FOR 5 AXES CENTER - SELF CENTERING

PAG. 398



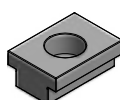
GANASCE PER MORSE IN GHISA
JAWS FOR FOR CAST IRON VISES

PAG. 399



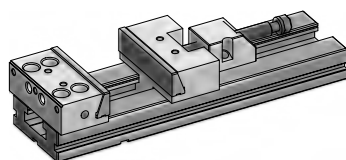
PIASTRE PER GANASCE
PLATES FOR JAWS

PAG. 401



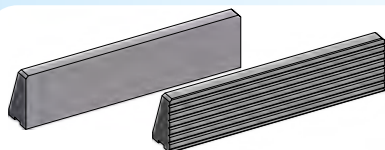
CHIAVETTE DI POSIZIONAMENTO
POSITIONING KEYS

PAG. 403



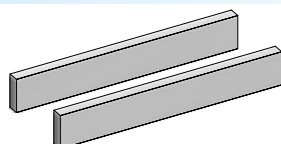
MORSE IN ACCIAIO
STEEL VISES

PAG. 404



PIASTRE PER GANASCE
PLATES FOR JAWS

PAG. 405

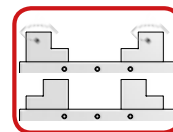
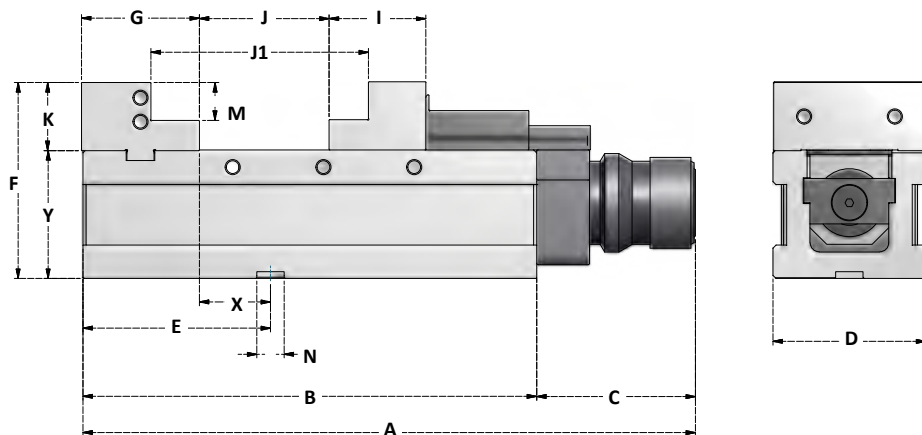


SERIE DI PARALLELE
SETS OF PARALLELS

PAG. 406

MORSE IN GHISA

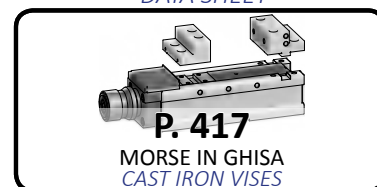
CAST IRON VISES



Le ganasce possono essere girate.

Jaws can be turned.

**SCHEDA TECNICA
DATA SHEET**



SERRAGGIO MEDIANTE VITE A CHIOCCIOLA

LEAD SCREW CLAMPING SYSTEM

Articolo	A	B	C	D	E	F	G	I	J	J1	K	M	N	X	Y
VCV-100V-SJ	398	300	98	101	124	130	78	64	155	213	45	25	18	45	85
VCV-130V-SJ	508	410	98	131	149	147	83	74	230	315	52	30	18	65	95
VCV-160V-SJ	573	475	98	161	152	160	86	86	300	370	55	30	18	65	105
VCV-200V-SJ	653	555	98	201	194	170	100	97	350	426	60	30	18	92	110

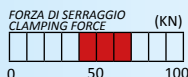


ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST

SERRAGGIO MEDIANTE MOLTIPLICATORE DI FORZA

MECHANICAL POWER CLAMPING SYSTEM

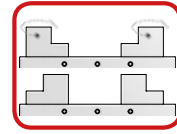
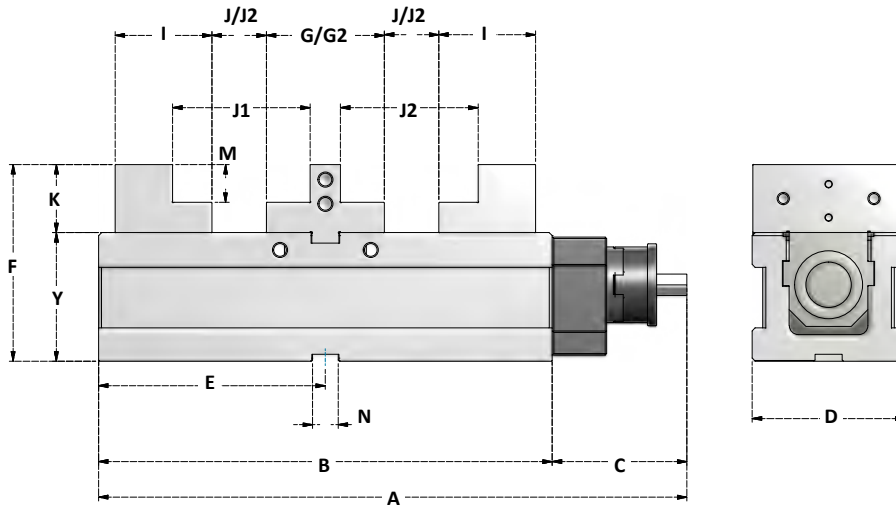
Articolo	A	B	C	D	E	F	G	I	J	J1	K	M	N	X	Y	Limit Pressure
VQV-100V-SJ	406	300	106	101	124	130	78	64	155	213	45	25	18	45	85	41KN / 4018kgf
VQV-130V-SJ	516	410	106	131	149	147	83	74	250	315	52	30	18	65	95	45KN / 4410kgf
VQV-160V-SJ	581	475	106	161	152	160	86	86	300	370	55	30	18	65	105	54KN / 5292kgf
VQV-200V-SJ	661	555	106	201	194	170	100	97	350	426	60	30	18	92	110	66KN / 6468kgf



ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST

MORSE IN GHISA A DOPPIA SEDE

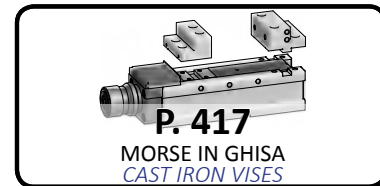
CAST IRON DOUBLE SEATS VISES



Le ganasce possono essere girate.

Jaws can be turned.

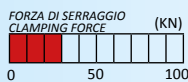
**SCHEDA TECNICA
DATA SHEET**



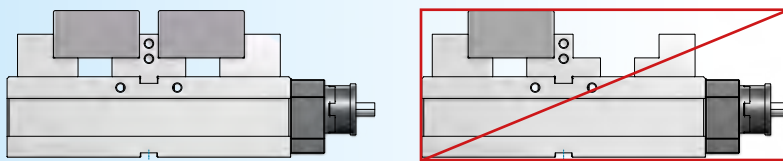
SERRAGGIO MEDIANTE VITE A CHIOCCIOLA

LEAD SCREW CLAMPING SYSTEM

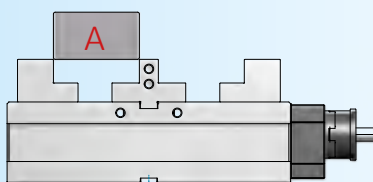
Articolo	A	B	C	D	E	F	G	G2	I	J	J1	J2	K	M	N	X	Y
VDAV-100V-SJ	396	300	96	101	150	130	83	34	64	40	95	64	45	25	18	31,5	85
VDAV-130V-SJ	506	410	96	131	205	147	88	40	74	85	145	109	52	30	18	41,5	95
VDAV-160V-SJ	571	475	96	161	237,5	160	86	42	86	100	170	122	55	30	18	43	105
VDAV-200V-SJ	651	555	96	201	275,5	170	100	46	97	125	195	152	60	30	18	50	110



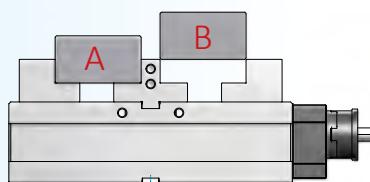
**ALTRE LUNGHEZZE A RICHIESTA
OTHER LENGTHS ON REQUEST**



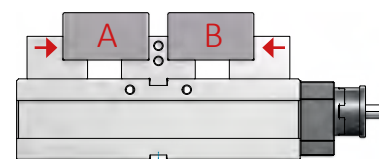
I 2 pezzi devono essere bloccati simultaneamente. Non bloccare un solo pezzo.
2 workpieces must be clamped simultaneously. Don't clamp only one workpiece.



Prima installare il pezzo A
First, install A workpiece



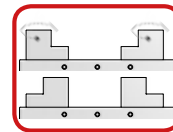
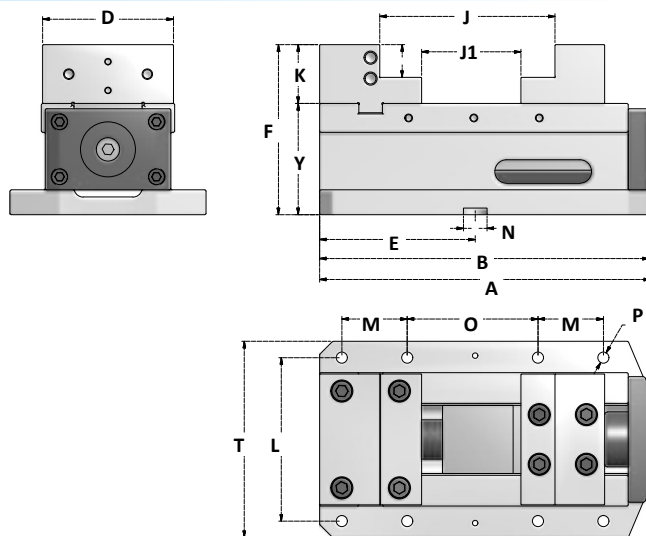
Poi installare il pezzo B
Second, install B workpiece



Infine serrare insieme i pezzi A e B usando la moanovella
Finally, clamping A&B workpiece together by handle

MORSE IN GHISA PER CENTRI DI LAVORO A 5 ASSI

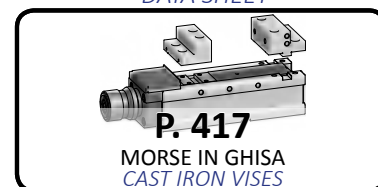
CAST IRON VISES FOR 5 AXES MACHINE CENTER



Le ganasce possono essere girate.

Jaws can be turned.

SCHEDA TECNICA
DATA SHEET



SERRAGGIO MEDIANTE VITE A CHIOCCIOLA

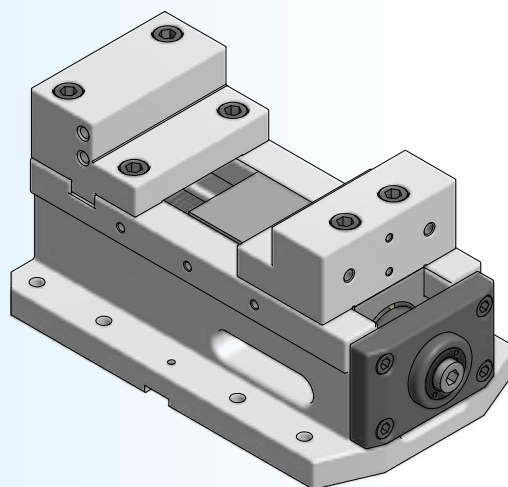
LEAD SCREW CLAMPING SYSTEM

Articolo	A	B	D	E	F	J	J1	K	L	M	N	O	P	T	Y
FAS-100C-SJ	262	252	100	117,5	130	0-145	0-90	45	125	50	18	100	M8	150	85

SERRAGGIO MEDIANTE MOLTIPLICATORE DI FORZA

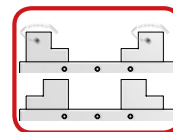
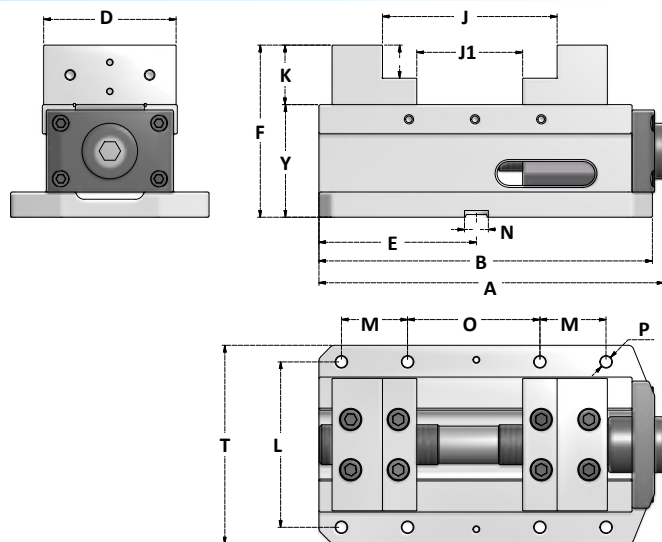
MECHANICAL POWER CLAMPING SYSTEM

Articolo	A	B	D	E	F	J	J1	K	L	M	N	O	P	T	Y	Limit Pressure
FAS-100Q-SJ	257	252	100	117,5	130	0-145	0-90	45	125	50	18	100	M8	150	85	40KN / 3920kgf



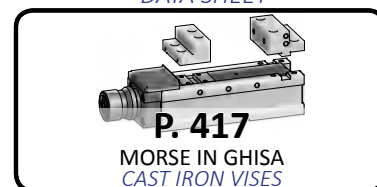
MORSE IN GHISA PER CENTRI DI LAVORO A 5 ASSI - AUTOCENTRANTI

CAST IRON VISES FOR 5 AXES MACHINE CENTER - SELF CENTERING



Le ganasce possono essere girate.
Jaws can be turned.

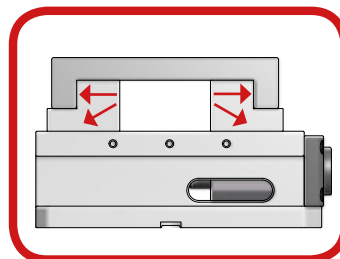
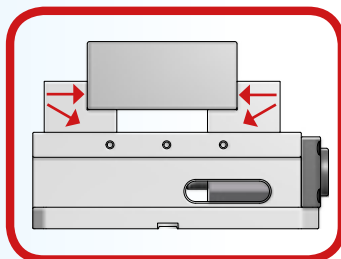
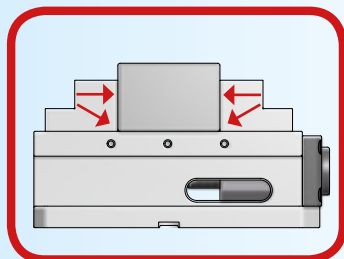
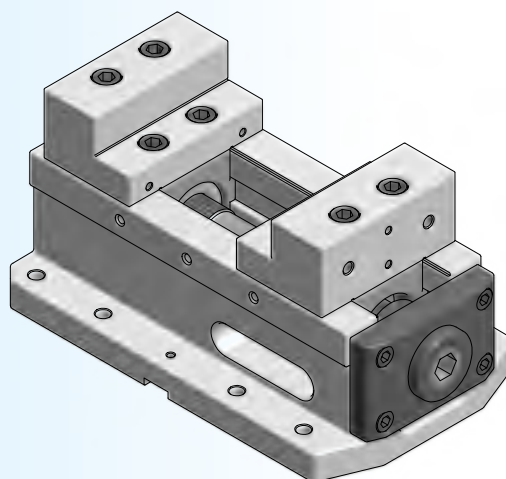
SCHEDA TECNICA
DATA SHEET



SERRAGGIO MEDIANTE VITE A CHIOCCIOLA

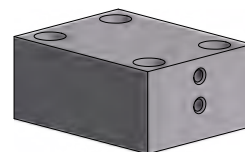
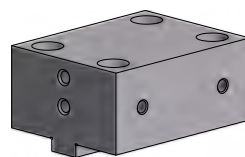
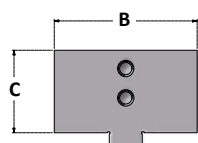
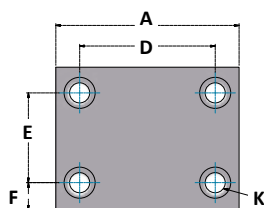
LEAD SCREW CLAMPING SYSTEM

Articolo	A	B	D	E	F	J	J1	K	L	M	N	O	P	T	Y
FAS-100B-SJ	262	252	100	117,5	130	0-145	0-90	45	125	50	18	100	M8	150	85



GANASCE PER MORSE IN GHISA

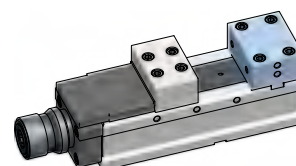
JAWS FOR CAST IRON VISES



GANASCE FISSE

STATIONARY JAWS

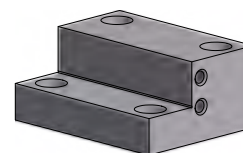
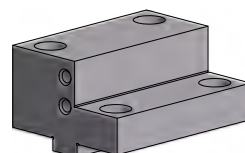
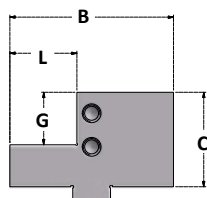
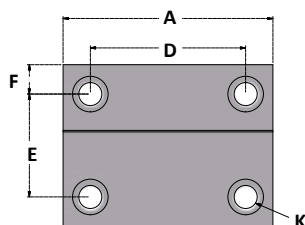
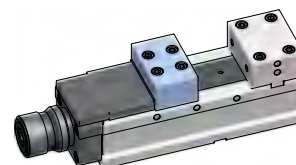
Articolo	A	B	C	D	E	F	K
MA-100A	100	78	45	74	44	19,5	M10x50L
MA-130A	130	83	52	95	45	21,5	M12x55L
MA-160A	160	86	55	124	50	18	M14x60L
MA-200A	200	100	60	150	62	19	M16x65L



GANASCE MOBILI

MOVABLE JAWS

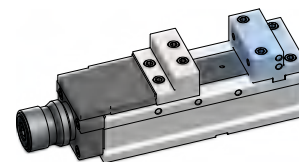
Articolo	A	B	C	D	E	F	K
MB-100A	100	64	45	37	35	14,5	M10x50L
MB-130A	130	74	52	45	42	16	M12x55L
MB-160A	160	86	55	60	50	18	M14x60L
MB-200A	200	97	60	74	59	19	M16x70L



GANASCE FISSE CON SCALINO

STATIONARY STEP JAWS

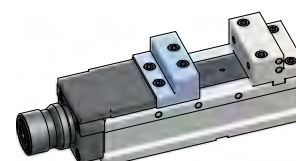
Articolo	A	B	C	D	E	F	G	L	K
MC-100A	100	78	45	74	44	19,5	25	26	M10x50L/25L
MC-130A	130	83	52	95	45	21,5	30	30	M12x55/L25L
MC-160A	160	86	55	124	50	18	30	35	M14x60L/30L
MC-200A	200	100	60	150	62	19	30	38	M16x65L/35L



GANASCE MOBILI CON SCALINO

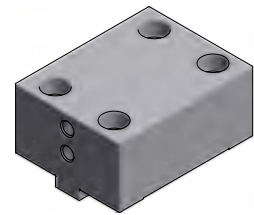
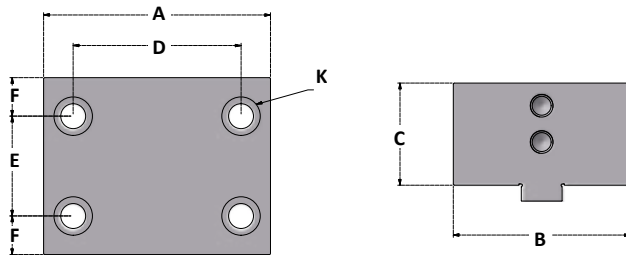
MOVABLE STEP JAWS

Articolo	A	B	C	D	E	F	G	L	K
MD-100A	100	64	45	37	35	14,5	25	26	M10x50L/25L
MD-130A	130	74	52	45	42	16	30	30	M12x55/L25L
MD-160A	160	86	55	60	50	18	30	35	M14x60L/30L
MD-200A	200	97	60	74	59	19	30	38	M16x70L/35L



GANASCE - PER MORSE VDAV

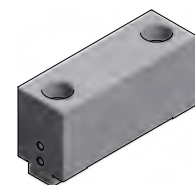
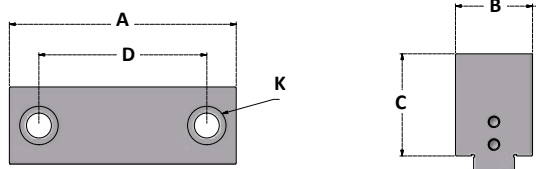
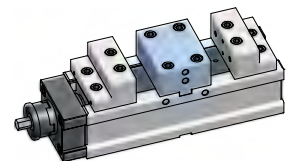
JAWS - FOR VDAV VISES



GANASCE FISSE CENTRALI

STATIONARY CENTER JAWS

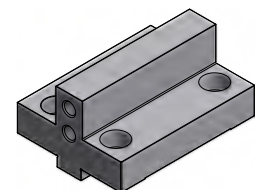
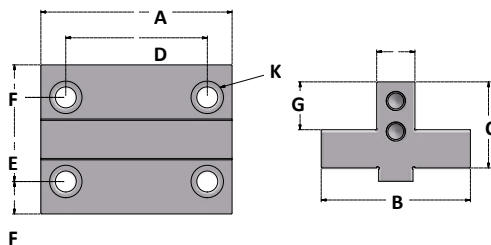
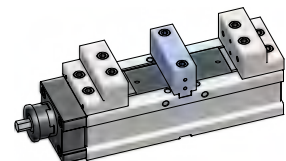
Articolo	A	B	C	D	E	F	K
ME-100A	100	124	45	74	44	19,5	M10x50L
ME-130A	130	100	52	95	45	21,5	M12x55L
ME-160A	160	86	55	124	50	18	M14x60L
ME-200A	200	83	60	150	62	19	M16x65L



GANASCE FISSE CENTRALI

STATIONARY CENTER JAWS

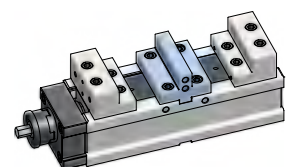
Articolo	A	B	C	D	K
MF-100A	100	34	45	74	M10x50L
MF-130A	130	40	52	95	M12x55L
MF-160A	160	42	55	124	M14x60L
MF-200A	200	46	60	150	M16x65L



GANASCE FISSE CENTRALI CON SCALINI

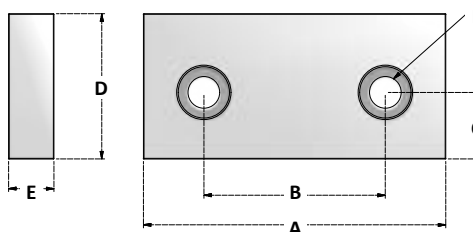
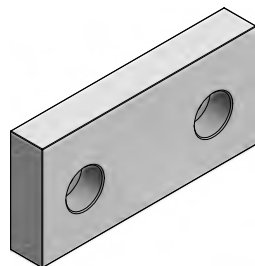
STATIONARY CENTER STEP JAWS

Articolo	A	B	C	D	E	F	G	H	K
MG-100A	100	70	45	74	44	13	25	20	M10x50L
MG-130A	130	83	52	95	45	21,5	30	45	M12x55L
MG-160A	160	86	55	124	50	18	30	50	M14x60L
MG-200A	200	100	60	150	62	19	30	62	M16x65L



PIASTRE PER MORSE IN GHISA

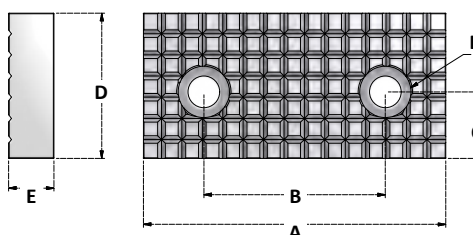
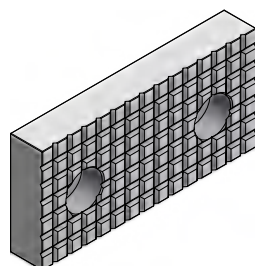
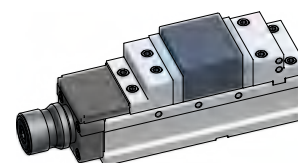
JAW PLATES FOR CAST IRON VISES



COPPIE DI PIASTRE LISCE

PAIR OF SMOOTH JAW PLATES

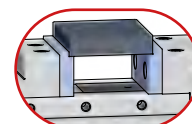
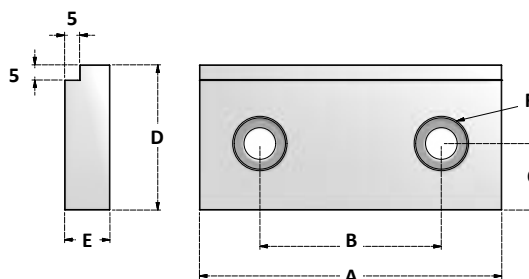
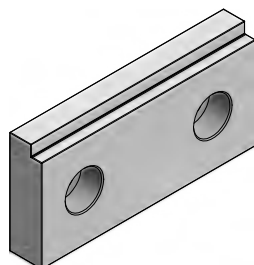
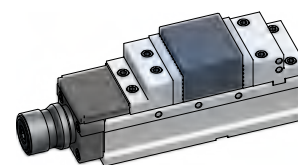
Articolo	A	B	C	D	E	F
PJ-100V	100	60	22	48	15	M10x20L
PJ-130V	130	90	25	55	15	M10x20L
PJ-160V	160	90	25	58	15	M10x20L
PJ-200V	200	120	28	63	18	M12x25L



COPPIE DI PIASTRE ZIGRINATE

PAIR OF SERRATED JAW PLATES

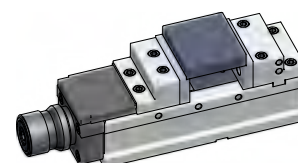
Articolo	A	B	C	D	E	F
RJ-100V	100	60	22	48	15	M10x20L
RJ-130V	130	90	25	55	15	M10x20L
RJ-160V	160	90	25	58	15	M10x20L
RJ-200V	200	120	28	63	18	M12x25L



COPPIE DI PIASTRE CON SCALINO 5x5

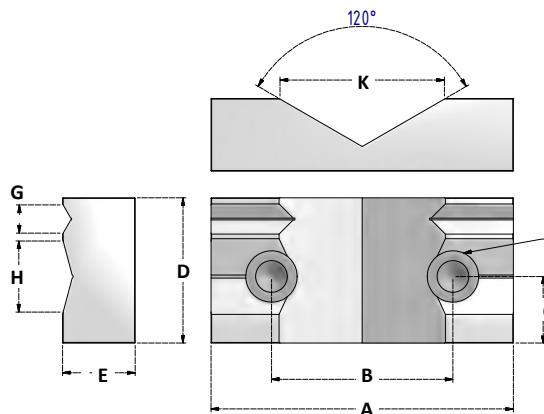
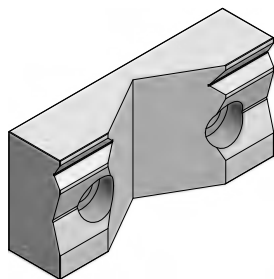
PAIR OF JAW PLATES WITH STEP 5x5

Articolo	A	B	C	D	E	F
SJ-100V	100	60	22	48	15	M10x20L
SJ-130V	130	90	25	55	15	M10x20L
SJ-160V	160	90	25	58	15	M10x20L
SJ-200V	200	120	28	63	18	M12x25L



PIASTRE PER MORSE IN GHISA

JAW PLATES FOR CAST IRON VISES

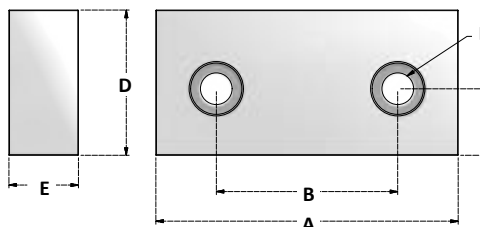
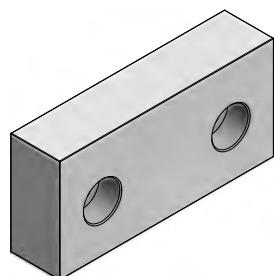
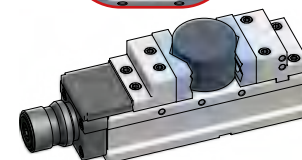
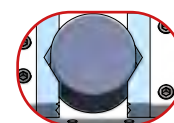


PIASTRA PER APPLICAZIONI SPECIALI

SPECIAL APPLICATION PLATE

Articolo	A	B	C	D	E	F	G	H	L	K
CJ-100V	100	60	22	48	24	M10x16L	/	25	55	94
CJ-130V	130	90	25	55	24	M10x16L	12	25	55	120
CJ-160V	160	90	25	58	30	M10x16L	12	25	55	120
CJ-200V	200	120	28	63	36	M12x16L	12	30	70	120

VENDUTA SINGOLARMENTE
SUPPLIED ONE PIECE



COPPIE DI PIASTRE LAVORABILI

PAIR OF BLANK JAW PLATES

Articolo	A	B	C	D	E	F
FJ-1001	100	60	22	48	15	M10x20L
FJ-1002	100	60	22	63	21	M10x25L
FJ-1003	100	60	22	73	23	M10x30L
FJ-1301	130	90	25	55	15	M10x20L
FJ-1302	130	90	25	73	23	M10x25L
FJ-1303	130	90	25	103	30	M10x35L
FJ-1601	160	90	25	58	15	M10x20L
FJ-1602	160	90	25	73	23	M10x25L
FJ-1603	160	90	25	103	30	M10x35L
FJ-2001	200	120	28	63	18	M12x25L
FJ-2002	200	120	28	103	30	M12x35L
FJ-2003	200	120	28	123	36	M12x45L

**NON TEMPRATE
NON RETTIFICATE**
*NOT HARDENED
AND GRINDED*

CHIAVETTE DI POSIZIONAMENTO

STEP GUIDE KEYS

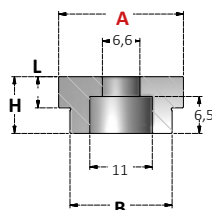


Fig.1

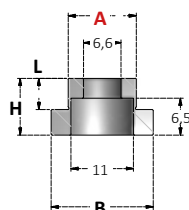


Fig.2

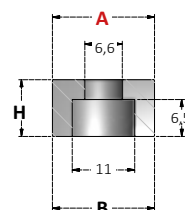


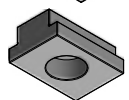
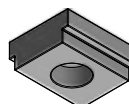
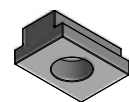
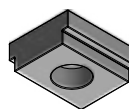
Fig.3

VENDUTE A COPPIE
SUPPLIED IN PAIRS

Articolo	A	B	H	L	Fig
KA16x12	16	12	10	5,5	1
KA16x14	16	14	10	5,5	1
KA16x18	16	18	10	5,5	2
KA16x18.B *	16	18	10	5,2	2
KA16x20	16	20	10	5,5	2
KA16x22	16	22	10	5,5	2

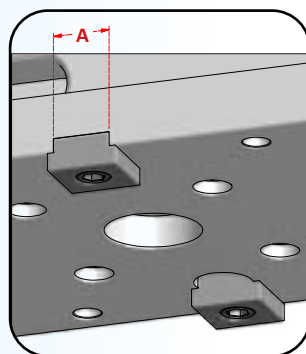
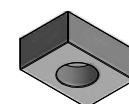
* Per morse tipo VS p.404

* For vises VS type p.404



Articolo	A	B	H	L	Fig
KA18x12	18	12	10	5,5	1
KA18x14	18	14	10	5,5	1
KA18x16	18	16	10	5,5	1
KA18x20	18	20	10	5,5	2
KA18x22	18	22	10	5,5	2

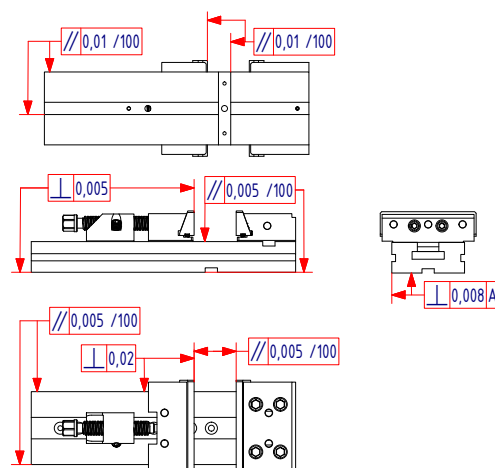
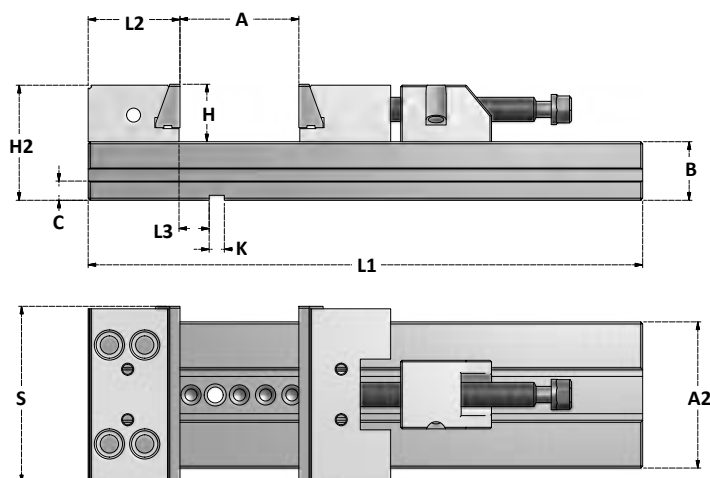
Articolo	A	B	H	L	Fig
KA12x12	12	12	8	/	3
KA14x14	14	14	10	/	3
KA16x16	16	16	10	/	3
KA18x18	18	18	10	/	3
KA20x20	20	20	10	/	3
KA22x22	22	22	12	/	3



VS

MORSE IN ACCIAIO

STEEL VISES



Articolo	S	A	A2	H	L1	L2	L3	H2	C	B	K
VS100-100	100	100	75	30	270	78	25,61	63	15	35	16
VS125-150	125	150	95	40	345	78	25,61	78	15	40	16
VS150-200	150	200	125	50	420	89,5	25,61	98	20	50	16
VS150-300	150	300	125	50	520	89,5	25,61	98	20	50	16
VS150-400	150	400	125	50	620	89,5	25,61	98	20	50	16
VS175-200	175	200	145	60	455	97	25,61	116	20	58	16
VS175-300	175	300	145	60	555	97	25,61	116	20	58	16
VS175-400	175	400	145	60	655	97	25,61	116	20	58	16
VS200-200	200	200	170	65	495	113,5	25,61	133	26	70	16
VS200-300	200	300	170	65	595	113,5	25,61	133	26	70	16
VS200-400	200	400	170	65	695	113,5	25,61	133	26	70	16
VS200-500	200	500	170	65	795	113,5	25,61	133	26	70	16
VS200-600	200	600	170	65	895	113,5	25,61	133	26	70	16

⊥	0,005	Perpendicolarità tra base inferiore e piastre <i>Squareness of two jaw plates to base surface</i>
//	0,005 /100mm	Parallelismo tra base inferiore e superiore <i>Parallelism of upper surface to base surface</i>
//	0,005 /100mm	Parallelismo tra i lati della base <i>Parallelism of two sides</i>
⊥	0,02	Perpendicolarità tra la piastra della ganascia fissa e lati della base <i>Squareness of fixed jaw plates to sides</i>
//	0,005 /100mm	Parallelismo tra le piastre <i>Parallelism of jaw plates</i>
⊥	0,008	Perpendicolarità tra base inferiore e lati <i>Squareness of two sides to base surface</i>
//	0,01 /100mm	Parallelismo tra lato della base e scanalatura longitudinale <i>Parallelism of leght wise slot to sides</i>
//	0,01 /100mm	Parallelismo tra piastra e scanalatura trasversale <i>Parallelism of transvers slot to fixed jaw plate</i>

CARATTERISTICHE:

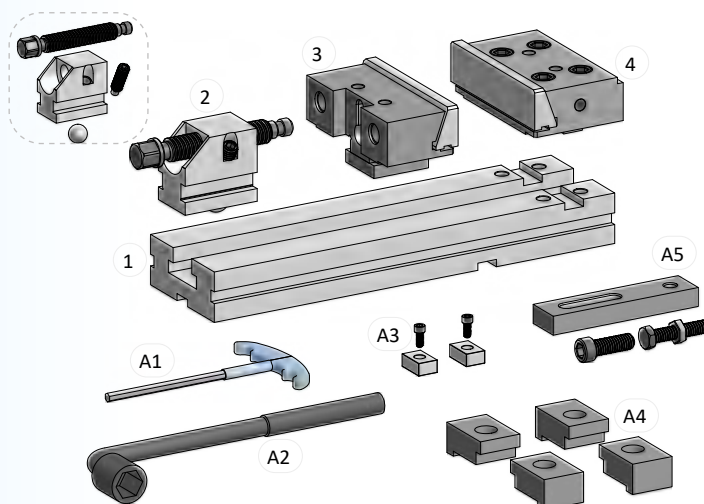
- La morsa è costruita in acciaio 20MnCr5, cementata (RC58 min) e completamente rettificata.
- La costruzione delle ganasce spinge il pezzo serrato contro la base della morsa

FEATURES:

- Vise is manufactured with high grade alloy steel, case hardened (min RC58) and grinded.
- The the jaws push the clamped workpiece against the base of the vise

COMPONENTI E ACCESSORI INCLUSI PARTS AND INCLUDED ACCESSORIES

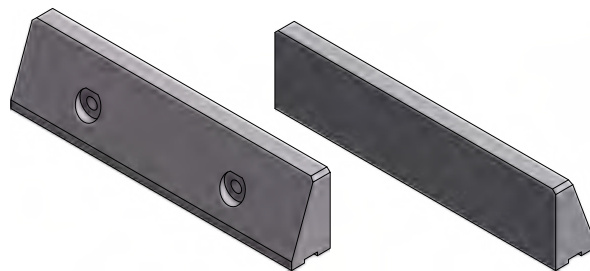
- 1 Base
Body
- 2 Blocco della vite di serraggio
Lead screw with block
- 3 Ganascia mobile con piastra liscia
Live jaw with smooth plate
- 4 Ganascia fissa con piastra liscia
Fixed jaw with smooth plate
- A1 Chiave esagonale
Hexagonal key
- A2 Chiave a pipa
Angled socket wrench
- A3 2x Chiavette di posizionamento 16x16
2x Step guide keys 16x16
- A4 4x Staffe di bloccaggio
4x Locking blocks
- A5 Fermo laterale
Side workstop



GN

PIASTRE PER MORSE IN ACCIAIO

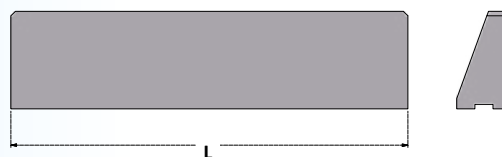
JAW PLATES FOR STEEL VISES



COPPIE DI PIASTRE LISCE PER GANASCE - TEMPRATE E RETTIFICATE

PAIR OF SMOOTH PLATES FOR JAWS - HARDENED AND GROUND

Articolo	L
GNL.VS100	100
GNL.VS125	125
GNL.VS150	150
GNL.VS175	175
GNL.VS200	200



COPPIE DI PIASTRE RIGATE PER GANASCE - TEMPRATE E RETTIFICATE

PAIR OF GROOVED PLATES FOR JAWS - HARDENED AND GRINDED

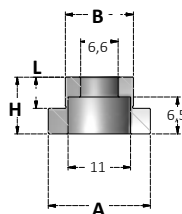
Articolo	L
GNR.VS100	100
GNR.VS125	125
GNR.VS150	150
GNR.VS175	175
GNR.VS200	200



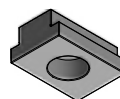
KA

CHIAVETTA DI POSIZIONAMENTO

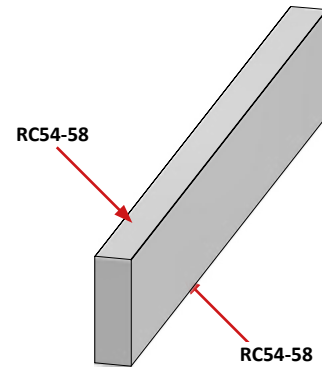
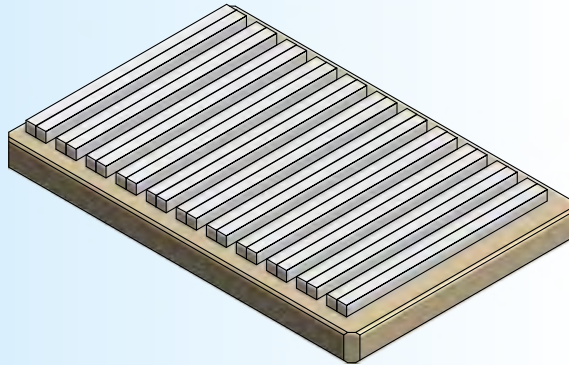
STEP GUIDE KEY



Articolo	A	B	H	L
KA16x18.B	16	18	10	5,2



SERIE DI PARALLELE TEMPRATE E RETTIFICATE
SETS OF HARDENED AND GRINDED PARALLELS



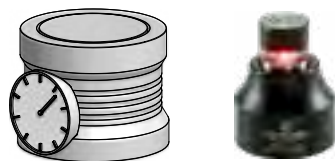
Articolo	NR COPPIE MATCHED PAIRS	A	L	B
PRL150-8/28	14	8	150	14- 16- 18- 20- 22- 24- 26- 28- 30- 32- 35- 40- 45- 50
PRL150-10/28	14	10	150	14- 16- 18- 20- 22- 24- 26- 28- 30- 32- 35- 40- 45- 50
PRL160-8/16	8	8	160	12- 17- 22- 25- 28- 32- 36- 38
PRL200-8/16	8	8	200	17- 22- 26- 28- 32- 36- 38- 42
PRL200-10/28	14	10	200	14- 16- 18- 20- 22- 24- 26- 28- 30- 32- 35- 40- 45- 50

CARATTERISTICHE:

- Costruite in acciaio legato
- Durezza sui piani AxL: RC54÷58
- Rettificate in coppia con tolleranza di parallelismo di 0,005mm
- Fornite in cassette di alluminio

FEATURES:

- *Manufactured with alloyed steel*
- *Hardness on AxL flats: RC54÷58*
- *Precision grinded by pair with tollerance 0,005mm*
- *Supplied in aluminium cases*



AZZERATORI ASSE Z
Z AXIAL ZERO SETTERS

PAG. 408



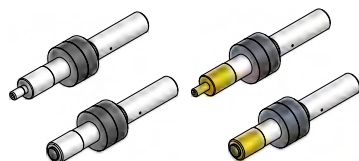
TASTATORI TRIDIMENSIONALI
3D SENSORS

PAG. 410



CENTRATORI LUMINOSI E SONORI
OPTICAL AND ACOUSTIC EDGE FINDERS

PAG. 412



TASTATORI MECCANICI FLOTTANTI
FLOATING POSITION DETECTORS

PAG. 413

AZZERATORE MECCANICO COMPATTO ASSE Z - MAGNETICO - H50

MECHANICAL COMPACT Z AXIAL ZERO SETTER - MAGNETIC - H50

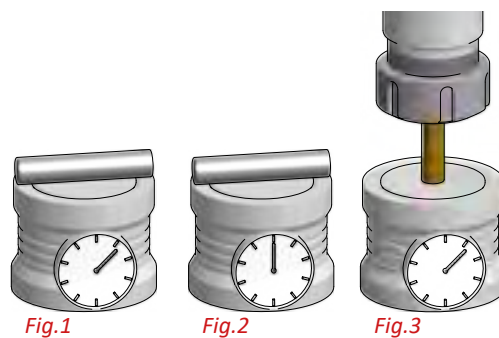
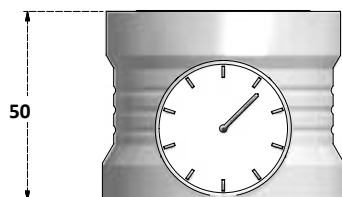


Fig.1

Fig.2

Fig.3

Articolo

AZS50

AZZERAMENTO E UTILIZZO

- Appoggiare la spina (inclusa) sulla superficie di contatto come illustrato. (Fig.1)
- Azzerare lo strumento (Fig.2), e rimuovere la spina.
- Appoggiare il misuratore sul pezzo da lavorare e avvicinare l'utensile. (Fig.3)
Al raggiungimento dello zero l'utensile sarà posizionato a 50mm dal pezzo.

RESET AND USE

- Use gauge pin (included) to press down on spring-loaded center piece as illustrated. (Fig.1)
- Turn indicator to read "0" (Fig.2), then remove gauge pin.
- Put unit on workpiece and carefully jog tool down to make contact with gauge face. (Fig.3)
When gauge reads "0" the tool is 50mm above workpiece.

AZZERATORE LUMINOSO COMPATTO ASSE Z - MAGNETICO - H50

OPTICAL COMPACT Z AXIAL ZERO SETTER - MAGNETIC - H50

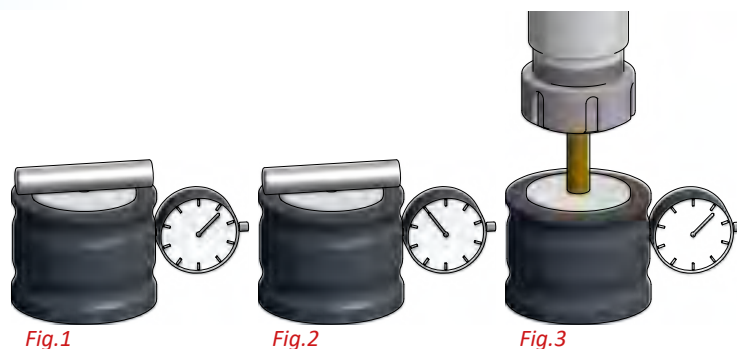
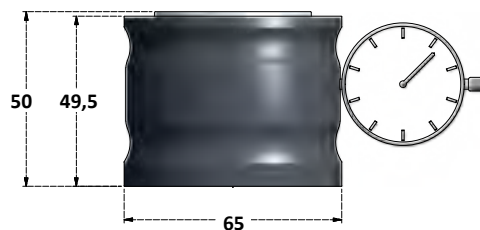


Articolo

AZL50

AZZERATORE ASSE Z - MAGNETICO - H50

Z AXIAL ZERO SETTER - MAGNETIC - H50



Articolo

AZSI50

AZZERAMENTO E UTILIZZO

Per ragioni di sicurezza il misuratore è fornito bloccato. Per rimuovere la vite di bloccaggio utilizzare la chiave inclusa.

- Appoggiare una spina (non inclusa) sulla superficie di contatto come illustrato. (Fig.1)
- Impostare lo strumento su "-0,5" (Fig.2), e rimuovere la spina.
- Appoggiare il misuratore sul pezzo da lavorare e avvicinare l'utensile. (Fig.3)

Al raggiungimento dello zero l'utensile sarà posizionato a 50mm dal pezzo.

RESET AND USE

To protect zero setter it's supplied blocked. Safety screw has to be removed by using supplied screw driver.

- Use a gauge pin (not included) to press down on spring-loaded center piece as illustrated. (Fig.1)
 - Turn indicator to read "-0,5" (Fig.2), then remove gauge pin.
 - Put unit on workpiece and carefully jog tool down to make contact with gauge face. (Fig.3)
- When gauge reads "0" tool is 50mm above workpiece.

COMPARATORE DI RICAMBIO

DIAL FOR AZSI

Articolo

DI-AZSI



AZ

AZZERATORE ASSE Z - MAGNETICO - H100

Z AXIAL ZERO SETTER - MAGNETIC - H100

Articolo

AZ100

AZZERAMENTO MANUALE

- Premere sulla superficie di contatto come illustrato in foto.
- Impostare lo strumento su "-2mm" e rilasciare.

RESET

- Push taster as illustrated in the picture.
- Turn indicator on "-2mm"



3D-PD

TASTATORE TRIDIMENSIONALE CON GAMBO Ø20

3D SENSOR - SHANK Ø20

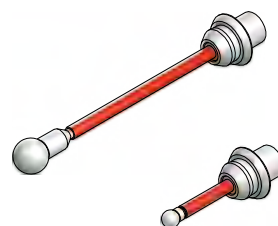
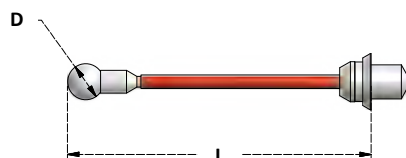


Articolo

3D-PD

INSERZIONI TASTATRICI

TIPS



Articolo	D	L
3D-LCD4	4	27
3D-LCD8	8	67

TASTATORE TRIDIMENSIONALE CON GAMBO Ø12

3D SENSOR - SHANK Ø12



TASTATORE TRIDIMENSIONALE
SLIMPLUS

3D-TESTER SLIMPLUS

Articolo
3D-TSCH.SL



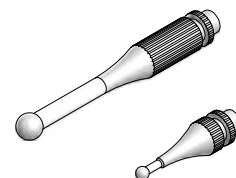
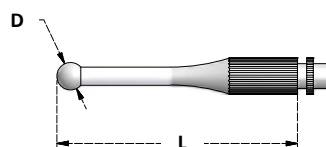
TASTATORE TRIDIMENSIONALE
VIPLUS

3D-TESTER VIPLUS

Articolo
3D-TSCH.VP

INSERZIONI TASTATRICI IN CERAMICA

CERAMIC PROBE TIPS



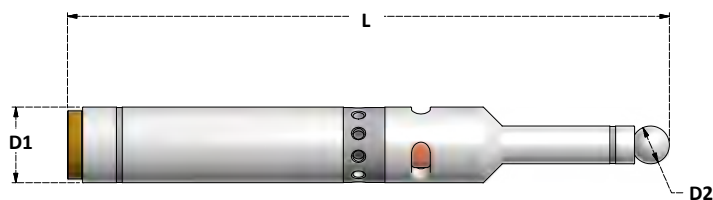
Articolo	D	L
3D-LSC3	3	24
3D-LSC6	6	54

LE INSERZIONI TASTATRICI IN CERAMICA E SFERA AMAGNETICA SOSTITUISCONO IL MODELLO PRECEDENTE PER GARANTIRE MIGLIORI PRESTAZIONI E SICUREZZA

PROBE TIPS ARE SUBSTITUTED WITH ONES WITH CERAMIC BODY AND ANTIMAGNETIC CARBIDE BALL TO GUARANTEE BETTER PROTECTION AND OPTIMISE STABILITY

CENTRATORE LUMINOSO E SONORO

OPTICAL AND ACOUSTIC EDGE FINDER

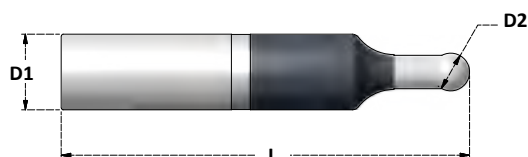


PILE INCLUDE
BATTERIES INCLUDED

2 ASSI - X e Y

2 AXIS - X and Y

Articolo	D1	D2	L
EF-D20LS	20	10	158



PILE INCLUDE
BATTERIES INCLUDED

2 ASSI - X e Y

2 AXIS - X and Y

Articolo	D1	D2	L
EF.2D	20	10	119

3 ASSI - X, Y e Z

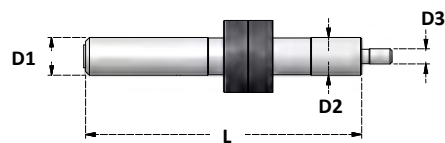
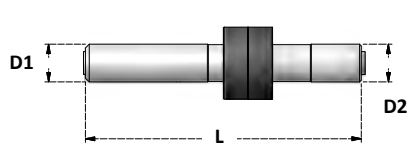
3 AXIS - X, Y and Z

Articolo	D1	D2	L
EF.3D	20	10	131



TASTATORI MECCANICI FLOTTANTI

FLOATING POSITION DETECTORS



STANDARD

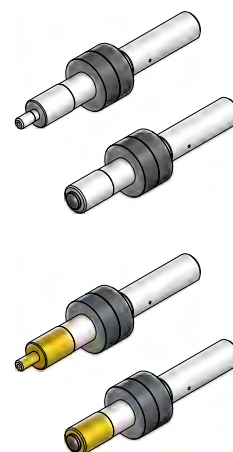
STANDARD

Articolo	D1	D2	D3	L
PEF01	10	10	/	84
PEF02	10	10	4	90

RIVESTITI AL TIN - ANTIMAGNETICI

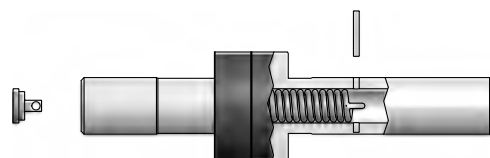
TIN COATED - ANTIMAGNETIC

Articolo	D1	D2	D3	L
PEF01TIN	10	10	/	84
PEF02TIN	10	10	4	90



MOLLA DI RICAMBIO PER TASTATORI MECCANICI FLOTTANTI

REPLACEMENT SPRING FOR FLOATING POSITION DETECTORS

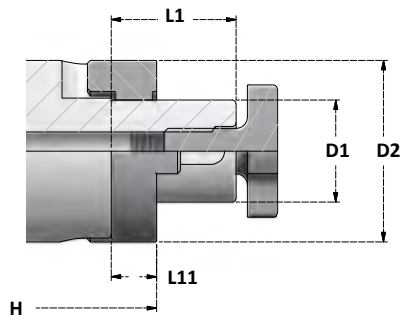


Articolo

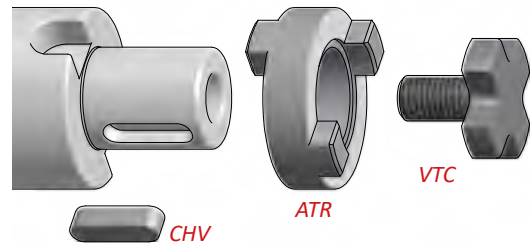
PEF01/02

MANDRINI PORTAFRESE COMBINATI

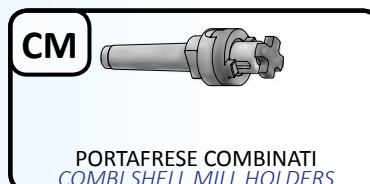
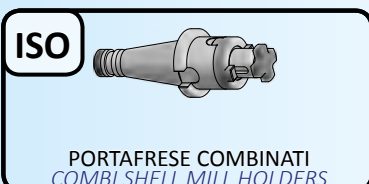
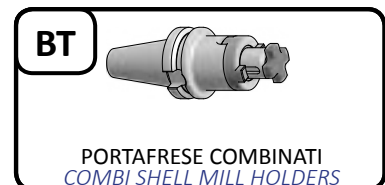
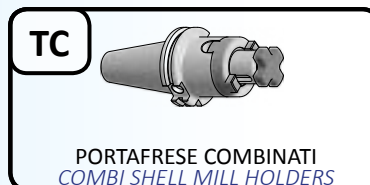
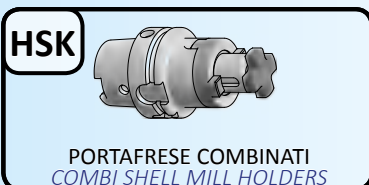
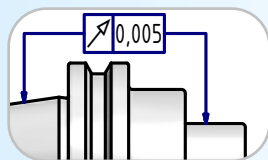
COMBI SHELL MILL HOLDERS



ACCESSORI COMPRESI
INCLUDED ACCESSORIES

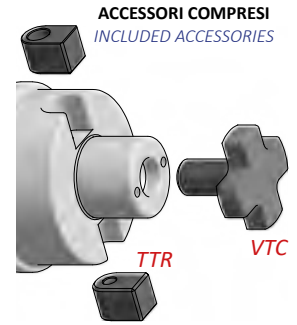
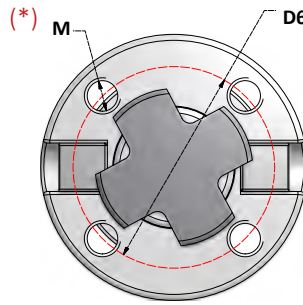
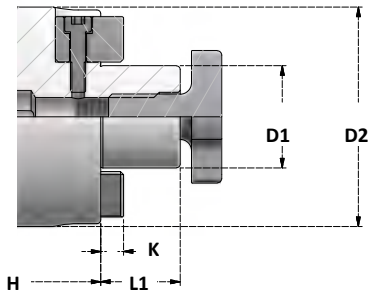


Articolo	D1	D2	L1	L11	ATR	VTC	CHV
D16C	16	32	27	10	ATR.D16	VTC.M8	CHV.D16
D22C	22	40	31	12	ATR.D22	VTC.M10	CHV.D22
D27C	27	48	33	12	ATR.D27	VTC.M12	CHV.D27
D32C	32	58	38	14	ATR.D32	VTC.M16	CHV.D32
D40C	40	70	41	14	ATR.D40	VTC.M20	CHV.D40

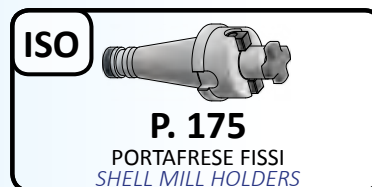
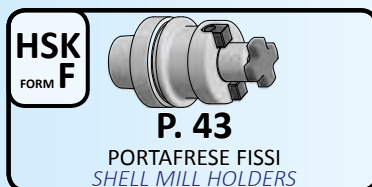
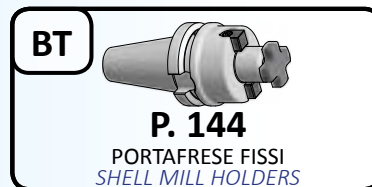
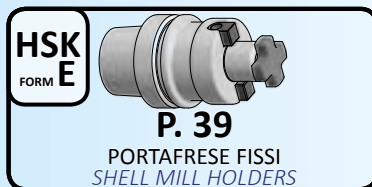
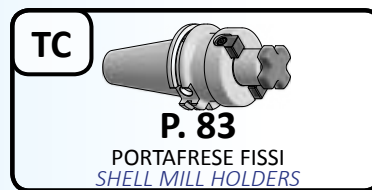
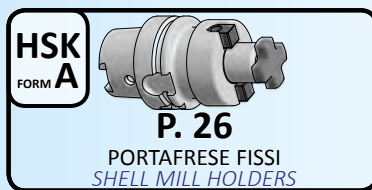
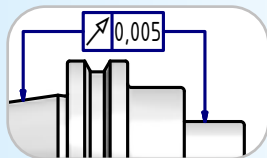
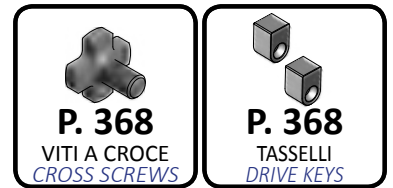


MANDRINI PORTAFRESE FISSI

SHELL MILL HOLDERS

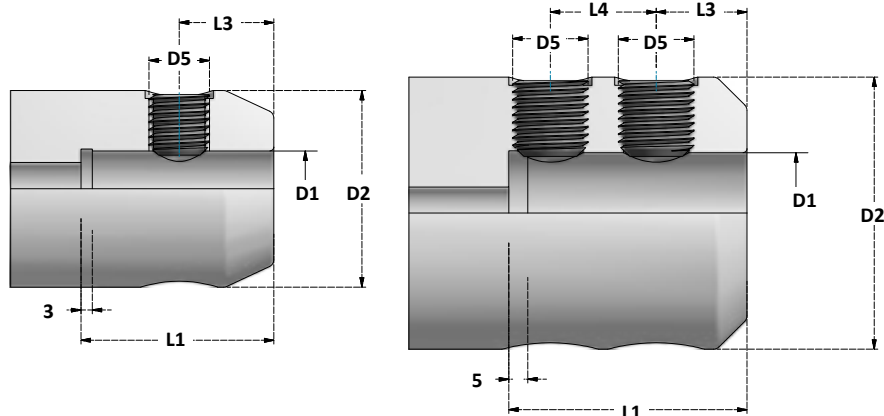


Articolo	D	A	K	L1	D6 (*)	M (*)	TTR	VTC
D16S	16	38	5	17	-	-	TTR.D16	VTC.D16
D22S	22	48	5,6	19	-	-	TTR.D22	VTC.D22
D27S	27	58	6,3	21	-	-	TTR.D27	VTC.D27
D32S	32	78	7	24	-	-	TTR.D32	VTC.D32
D40S	40	88	7	27	66,7	M12	TTR.D40	VTC.D40
D60S	60	129	8	40	101,6	M16	TTR.D60	VTC.D60

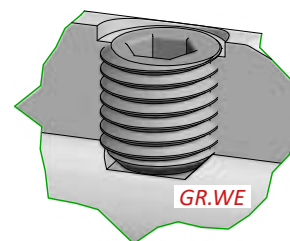


MANDRINI PORTAFRESE WELDON

END MILL HOLDERS WELDON



ACCESSORIO COMPRESO
INCLUDED ACCESSORY

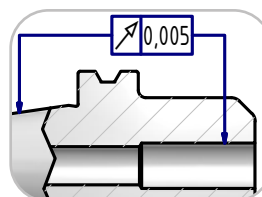


GR.WE



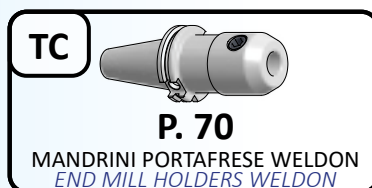
P. 367
GRANI
SCREWS

Articolo	D1	D2	D5	L1	L3	L4	GRANO SCREW
TOLL.	H5						
WE6	6	25	M6	37	18	-	GR.WE6
WE8	8	28	M8	37	18	-	GR.WE8
WE10	10	35	M10	41	20	-	GR.WE10
WE12	12	42	M12	46	20,5	-	GR.WE12-14
WE14	14	44	M12	46	20,5	-	GR.WE12-14
WE16	16	48	M14	49	24	-	GR.WE16-18
WE18	18	50	M14	49	24	-	GR.WE16-18
WE20	20	52	M16	51	25	-	GR.WE20
WE25	25	65	M18x2	59	24	25	2x GR.WE25
WE32	32	72	M20x2	63	24	28	2x GR.WE32-40
WE40	40	80	M20x2	73	30	32	2x GR.WE32-40
WE50	50	100	M24x2	83	35	35	2x GR.WE50



I mandrini weldon extracorti differiscono dalla normativa per dimensioni e tipo di grani, ma sono progettati per serrare gli utensili con gambo DIN1835 come i mandrini standard.

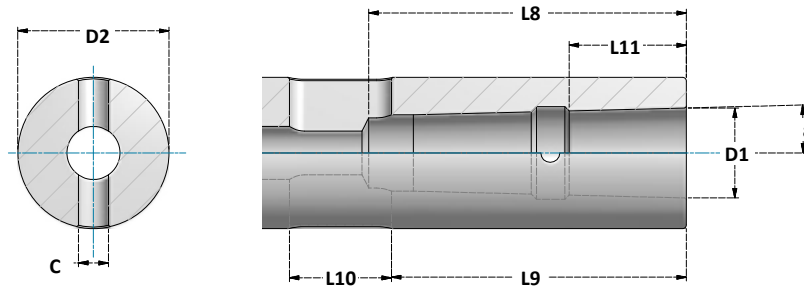
End mill holders with stub length have different screws and external dimensions, but they are build for tighten tools with DIN1835 shank as standard toolholders.



DIN6383

MANDRINI DI RIDUZIONE CONO MORSE PER PUNTE

MORSE TAPER ADAPTERS FOR DRILLS



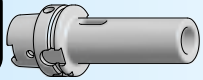
Articolo	D1	D2	L8	L9	L10	L11*	a	C
CM1	12,065	25	56	52	19	-	1°25'43"	5,2
CM2	17,78	32	67	62	22	22	1°25'50"	6,3
CM3	23,825	40	84	78	27	31	1°26'16"	7,9
CM4	31,267	48	107	98	32	41	1°29'15"	11,9
CM5	44,399	63	135	125	38	53	1°30'26"	15,9

* = Solo nei mandrini TC e BT in forma AD+B

* = Only for TC and BT toolholders with AD+B form



HSK
FORM A



P. 28
RIDUZIONI CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS

ISO



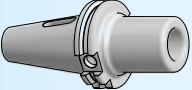
P. 177
RIDUZIONI CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS

DIN 2185



P. 213
RIDUZIONI CONO MORSE
MORSE TAPER SLEEVES

TC




P. 86
RIDUZIONI CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS

VDI
FORM F



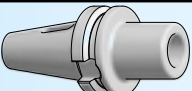
P. 200
RIDUZIONI CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS

DIN 2187



P. 214
PROLUNGHE CONO MORSE
MORSE TAPER EXTENSIONS

BT

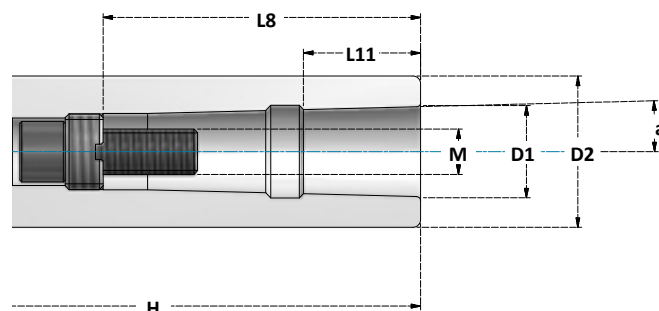


P. 147
RIDUZIONI CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS

DIN6364

MANDRINI DI RIDUZIONE CONO MORSE PER FRESE

MORSE TAPER ADAPTERS FOR THREADED MILLS



Articolo	D1	D2	L8	L11*	a	M
CM1	12,065	25	56	-	1°25'43"	M6
CM2	17,78	32	67	22	1°25'50"	M10
CM3	23,825	40	84	31	1°26'16"	M12
CM4	31,267	48	107	41	1°29'15"	M16
CM5	44,399	63	135	53	1°30'26"	M20

* = Solo nei mandrini TC e BT in forma AD+B

* = Only for TC and BT toolholders with AD+B form

La posizione dell'anello rispetto alla vite può variare in base alle caratteristiche costruttive del mandrino.

Position of screw and threaded ring may vary relatively to dimensions of the toolholder.



HSK
FORM A

P. 28
RIDUZIONI CONO MORSE PER PUNTE
MORSE TAPER ADAPTERS FOR DRILLS

BT

P. 148
RIDUZIONI CONO MORSE PER FRESE
MORSE TAPER ADAPTERS FOR THREADED MILLS

TC

P. 87
RIDUZIONI CONO MORSE PER FRESE
MORSE TAPER ADAPTERS FOR THREADED MILLS

ISO

P. 178
RIDUZIONI CONO MORSE PER FRESE
MORSE TAPER ADAPTERS FOR THREADED MILLS

CONVERSIONE DA MISURE IN POLLICI A MISURE IN MILLIMETRI

CONVERSIONE FROM INCH SIZES TO METRIC SIZES

POLLICE FRAZIONATO	mm
1/64	0,397
1/32	0,794
3/64	1,191
1/16	1,588
5/64	1,984
3/32	2,381
7/64	2,778
1/8	3,175
9/64	3,572
5/32	3,969
11/64	4,366
3/16	4,763
13/64	5,159
7/32	5,556
15/64	5,953
1/4	6,350
17/64	6,747
9/32	7,144
19/64	7,541
5/16	7,938
21/64	8,334
11/32	8,731
23/64	9,128
3/8	9,525
25/64	9,922
13/32	10,319
27/64	10,716
7/16	11,113
29/64	11,509
15/32	11,906
31/64	12,303
1/2	12,700
33/64	13,097
17/32	13,494
35/64	13,891
9/16	14,288
37/64	14,684

POLLICE FRAZIONATO	mm
19/32	15,081
39/64	15,478
5/8	15,875
41/64	16,272
21/32	16,669
43/64	17,066
11/16	17,463
45/64	17,859
23/32	18,256
47/64	18,653
3/4	19,050
49/64	19,447
25/32	19,844
51/64	20,241
13/16	20,638
53/64	21,034
27/32	21,431
55/64	21,828
7/8	22,225
57/64	22,622
29/32	23,109
59/64	23,416
15/16	23,813
61/64	24,209
31/32	24,606
63/64	25,003
1"	25,4

POLLICE FRAZIONATO	mm
1" - 1/64	25,797
1" - 1/32	26,194
1" - 3/64	26,591
1" - 1/16	26,988
1" - 5/64	27,384
1" - 3/32	27,781
1" - 7/64	28,178
1" - 1/8	28,575
1" - 9/64	28,972
1" - 5/32	29,369
1" - 11/64	29,766
1" - 3/16	30,163
1" - 13/64	30,559
1" - 7/32	30,956
1" - 15/64	31,353
1" - 1/4	31,750
1" - 17/64	32,147
1" - 9/32	32,544
1" - 19/64	32,941
1" - 5/16	33,338
1" - 21/64	33,734
1" - 11/32	34,131
1" - 23/64	34,528
1" - 3/8	34,925
1" - 25/64	35,322
1" - 13/32	35,719
1" - 27/64	36,116
1" - 7/16	36,513
1" - 29/64	36,909
1" - 15/32	37,306
1" - 31/64	37,703
1" - 1/2	38,100
1" - 33/64	38,497
1" - 17/32	38,894
1" - 35/64	39,291
1" - 9/16	39,688
1" - 37/64	40,084

POLLICE FRAZIONATO	mm
1" - 19/32	40,481
1" - 39/64	40,878
1" - 5/8	41,275
1" - 41/64	41,672
1" - 21/32	42,069
1" - 43/64	42,466
1" - 11/16	42,863
1" - 45/64	43,259
1" - 23/32	43,656
1" - 47/64	44,053
1" - 3/4	44,450
1" - 49/64	44,847
1" - 25/32	45,244
1" - 51/64	45,641
1" - 13/16	46,038
1" - 53/64	46,434
1" - 27/32	46,831
1" - 55/64	47,228
1" - 7/8	47,625
1" - 57/64	48,022
1" - 29/32	48,419
1" - 59/64	48,816
1" - 15/16	49,213
1" - 61/64	49,609
1" - 31/32	50,006
1" - 63/64	50,403
2"	50,8

MANDRINI PER MASCHIATURA SINCRONIZZATA
TAPPING CHUCKS FOR SYNCHRONIZED TAPPING

* **CORSA DI COMPRESSIONE MINIMA PER CICLI DI MASCHIATURA SINCRONIZZATA (RIGIDA)**

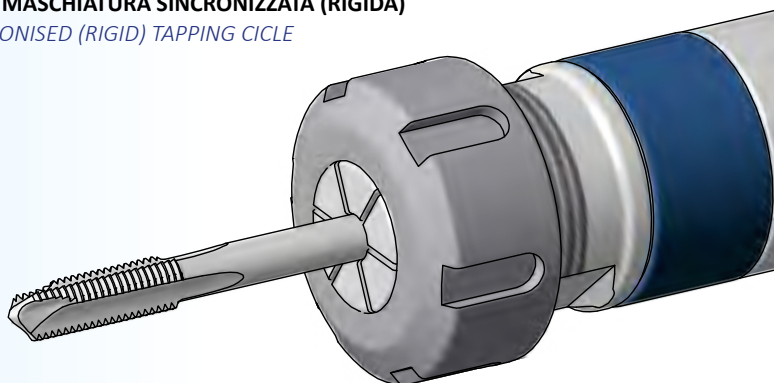
* *MINIMUM LENGTH COMPENSATION FOR SYNCHRONISED (RIGID) TAPPING CYCLE*

* **COMPRESSIONE E TRAZIONE +/- 0,5mm**

* *COMPRESSION AND ETENSION +/-0,5mm*

* **ALLUNGA LA VITA DELL'UTENSILE FINO AL 300%**

* *INCREASE TOOL LIFE UP TO 300%*



VANTAGGI RISPETTO AL SISTEMA CON BUSSOLE
ADVANTAGES COMPARED TO ADAPTERS SYSTEM

* **PASSAGGIO DEL REFRIGERANTE**

* *COOLANT THROUGH*

* **ADATTO PER MASCHIATURA AD ALTE VELOCITÀ**

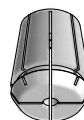
* *SUITABLE FOR HIGH SPEED TAPPING*

* **SISTEMA PORTAPINZE ER**

* *ER COLLET SYSTEM*



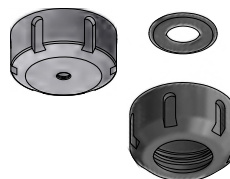
PINZE ER PORTAMASCHI
TAPPING ER COLLETS



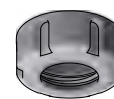
**PINZE ER PORTAMASCHI
A TENUTA**
*SEALED TAPPING
ER COLLETS*



GHIERE A TENUTA
SEALED NUTS

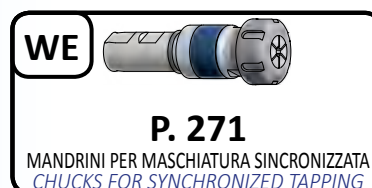
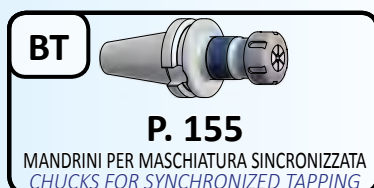
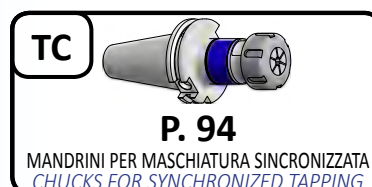
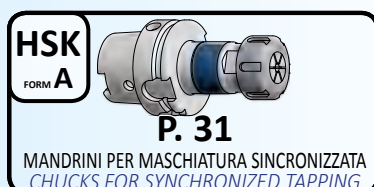


GHIERE STANDARD
STANDARD NUTS

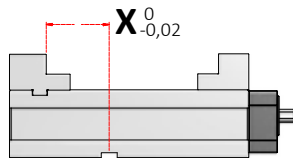

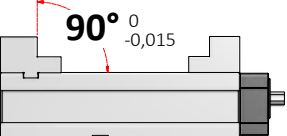
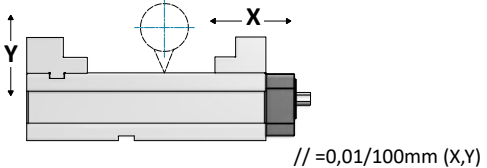


Articolo	D (mm)	MASCHI TAPS
ERC16M	3,5 ÷ 10	M3 ÷ M12
ERC20M	3,5 ÷ 12	M3 ÷ M16
ERC25M	3,5 ÷ 16	M3 ÷ M20
ERC32M	3,5 ÷ 20	M3 ÷ M27
ERC40M	6 ÷ 25	M5 ÷ M33

Articolo	D (mm)	MASCHI TAPS
ERC16MRF	4 ÷ 8	M4 ÷ M10
ERC20MRF	4 ÷ 10	M4 ÷ M12
ERC25MRF	4 ÷ 12	M4 ÷ M16
ERC32MRF	4,5 ÷ 16	M4 ÷ M22
ERC40MRF	6 ÷ 20	M5 ÷ M27

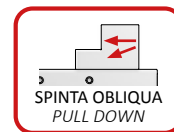


TOLLERANZE COSTRUTTIVE
MANUFACTURING TOLLERANCES

	
<p>ACCOPPIAMENTO CHIAVETTA / GANASCIA FISSA DISTANCE FROM GUIDE KEY</p>	<p>ALTEZZA DELLA SLITTA HEIGHT</p>
	
<p>ANGOLO DI CHIUSURA CLAMPING ANGLE</p>	<p>TOLLERANZA DELLA PLANARITÀ PARALLEL</p>

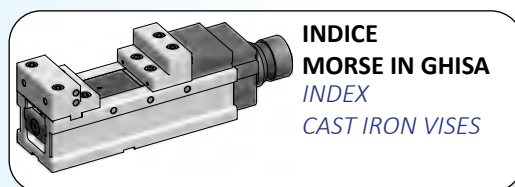
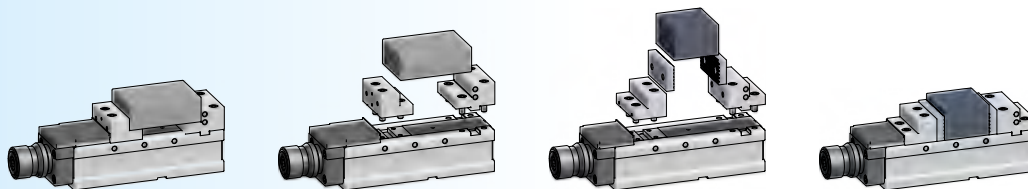
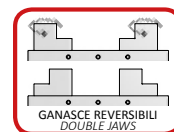
CARATTERISTICHE
FEATURES

- morse in ghisa sferoidale GGG60
- 60Kg/mm² o 80000psi di resistenza alla trazione
- massima capacità di apertura e compattezza
- piano di appoggio del pezzo temprato in HRC45: resistente all'usura e mantiene la precisione a lungo
- ganasce temprate in HRC52÷55 e rettificate
- chiusura a vite madre chiocciola
- spinta obliqua (**Pull Down**) sulla ganascia mobile
- rigid material-ductile iron FCD60 JIS (equal to GGG60)
- 60kg/mm² or 80000psi tensile strenght
- max. opening capacity and compact in total lenght
- vise bed hardened to HRC45 maintains accuracy for long time
- jaws are hardened HRC52÷55 with grinding
- clamping by lead nut screw
- slanting push (**Pull Down**) on the movable jaw



GANASCE REVERSIBILI
DOUBLE JAWS

- Le morse vengono fornite con le ganasce con scalino montate. Sono disponibili diverse ganasce di ricambio.
- Le ganasce montate possono essere girate per utilizzare la superficie su cui è possibile montare le piastre.
- Vises are supplied with step jaws mounted. Other jaws are available.
- Jaws can be turned so the bigger surface can be used and the plates can be mounted.



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MORSE IN GHISA
CAST IRON VISES

					
VCV		VQV		VDAV	
STANDARD BLOCCAGGIO A LEVA CLAMPING LEVER		POWER LOCK CON MOLTIPLICATORE DI FORZA MECCANICO MULTIPLIER OF CLAMPING FORCE		DOUBLE DOPPIO SERRAGGIO CON BLOCCAGGIO A LEVA DOUBLE LOCK - CLAMPING LEVER	
LARGHEZZA - WIDTH	APERTURA MAX - MAX SPREAD	LARGHEZZA - WIDTH	APERTURA MAX - MAX SPREAD	LARGHEZZA - WIDTH	APERTURA MAX - MAX SPREAD
100	213	100	213	100	95 x2
130	315	130	315	130	145 x2
160	370	160	370	160	170 x2
200	426	200	426	200	195 x2
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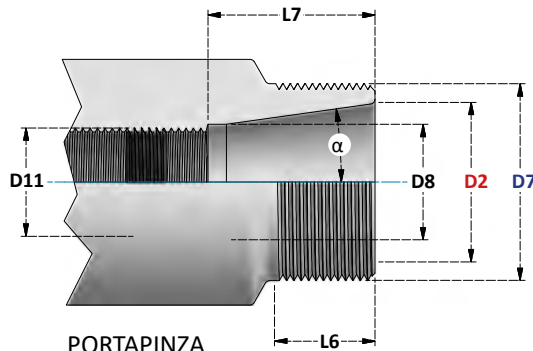
MORSE IN GHISA PER CENTRI DI LAVORO A 5 ASSI
CAST IRON VISES FOR 5 AXIS CENTERS



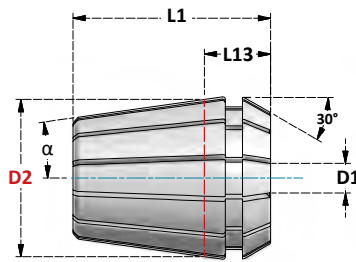
					
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STANDARD BLOCCAGGIO A LEVA CLAMPING LEVER		POWER LOCK CON MOLTIPLICATORE DI FORZA MECCANICO MULTIPLIER OF CLAMPING FORCE		CENTER AUTOCENTRANTI CON BLOCCAGGIO A LEVA SELF CENTERING - CLAMPING LEVER	
LARGHEZZA - WIDTH	APERTURA MAX - MAX SPREAD	LARGHEZZA - WIDTH	APERTURA MAX - MAX SPREAD	LARGHEZZA - WIDTH	APERTURA MAX - MAX SPREAD
100	145	100	145	100	145
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RICAMBI E ACCESSORI
SPARE PARTS AND ACCESSORIES

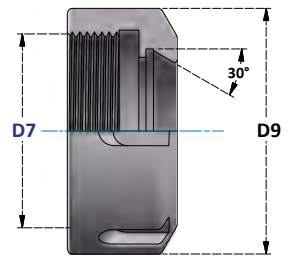
		
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PORTAPINZA
COLLET CHUCK



PINZA
COLLET



GHIERA DI SERRAGGIO
CLAMPING NUT

PORTAPINZA COLLET CHUCK	PINZA COLLET	D1	D2	GHIERA MONTATA MOUNTED NUT	D7	D8	D9	D11**	L1	L6	L7	L13	α
			±0,05		6g	+0,5 0	max.		max.	min.	min.	max.	
ERC8M*	ERC8*	1÷5	8	G8M	M10x0,75		12	M4					8°
ERC11	ERC11	1÷7	11	G11SE	M14x0,75	7,5	16	M6x1	18	10	17	6,6	8°
ERC11M*				G11M	M13x0,75								
ERC12*	ERC12*	1÷7	12	SOLO PINZE ONLY COLLETS					19,5				8°
ERC16	ERC16	1÷10	16	G16SE	M22x1,5	10,5	28	M10x1,5	27,5	13	22	10,6	8°
ERC16M*				G16M	M19x1								
ERC20	ERC20	1÷13(14*)	20	G20SE	M25x1,5	13,5	34	M12x1,75	31,5	13,5	26,5	11,5	8°
ERC20M*				G20M	M24x1								
ERC25	ERC25	1÷16(20*)	25	G25S	M32x1,5	18	42	M18x1,5	34	14	29	12	8°
ERC25M*				G25M	M30x1								
ERC32	ERC32	2÷20(22*)	32	G32S	M40x1,5	23,5	50	M22x1,5	40	16	34	13	8°
ERC40	ERC40	3÷26(30*)	40	G40S	M50x1,5	30,5	63	M27x1,5	46	17	38	15	8°
ERC50*	ERC50*	6÷34	50	G50S	M64x2	38	78		60	24	58	21	8°
ERC60*	ERC60*	10÷40	60	G60OC	M70x1,5				60				10°

* Tipi e dimensioni non regolate dalla normativa DIN

* Types and sizes not regulated by DIN norm

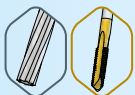
** Il grano può essere di dimensioni minori sui mandrini corti e sulle prolunghie cilindriche con gambo fine.

** Stop screw can be smaller in short toolholders and in thin cylindrical shank reductions.

TIPOLOGIE PER VARIE APPLICAZIONI TYPES FOR VARIOUS APPLICATIONS

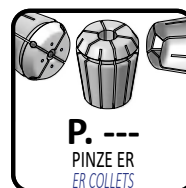


Pinze a tenuta oppure ghiera a tenuta per utensili forati.
Sealed collets or sealed nuts for tools with coolant through.



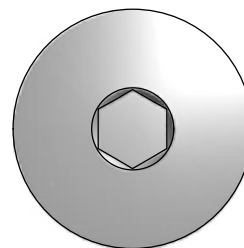
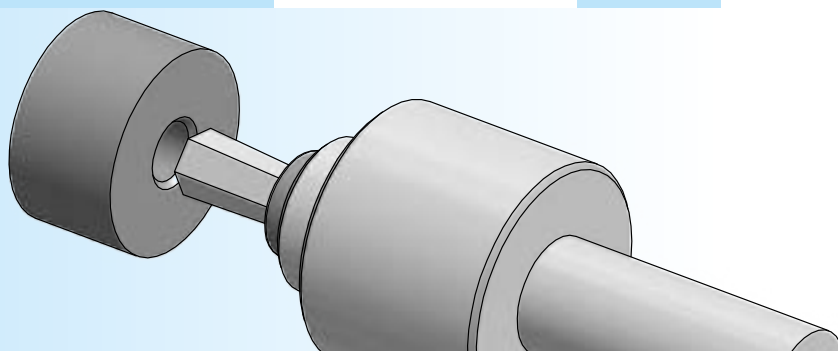
Mandrini portapinza e pinze con movimento flottante o compensazione assiale per maschiatura e alesatura.
Collet chucks and collets with floating or axial compensation for tapping or reaming.

Mandrini portapinza con ingombri ridotti e lunghezze speciali. Prolungha e adattatori.
Collet chucks with thin shape and special lengths. Extensions and reductions.



BROCCIATURA

BROACHING



Il **brocciatore** è un dispositivo che permette di eseguire cave regolari in fori passanti e ciechi. È costruito in acciaio temperato e viene fornito con diverse tipologie di attacchi (cilindrico, con morse e vdi) per applicazioni su diversi macchinari (Torni monomandrino, plurimandrino e cnc, Centri di lavoro, Trapani e Transfer).

Le **brocche** sono costruite in acciaio a tempera totale con durezza molto elevata e sono idonee alla lavorazione di acciaio, ottone, alluminio, ghisa ed altri materiali. Sono fornibili anche brocche con rivestimento TiN o BLK.

L'inclinazione (G°) della sede del brocciatore rispetto al corpo centrale della attrezzatura, insieme alla rotazione e l'avanzamento forniti dalla macchina utensile, consentono l'asportazione del materiale mediante la **broccia** avente il profilo frontale uguale a quello della figura che si vuole ottenere.

Il principio di funzionamento non cambia sui diversi macchinari:

- Sui Torni il pezzo da lavorare e l'utensile-broccia ruotano ed il brocciatore è fermo.
- Sui Centri di Lavoro il pezzo da lavorare e l'utensile-broccia sono fermi e sarà invece il corpo del brocciatore a ruotare.

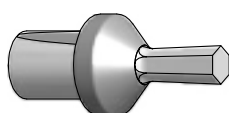
*The **broaching** toolholder is a device that allows to perform regular profiles in through and blind holes. It is manufactured in hardened steel and is supplied with various types of shanks (cylindrical, morse-taper and vdi) for use on different machines (single-spindle lathes, multi-spindle lathes, NC machines, cnc milling machines, drills and transfer machines).*

*The **broaches** are made of tempered steel with very high hardness and are suitable for the machining of steel, brass, aluminum, cast iron and other materials. Broaches with TiN or BLK coating are also available.*

The centreline of the cutting tool is inclined (G°) from the centreline of the work piece. The rotation and cutting speed of the machine enable the removal of the material by the broach with same profile as the figure to be obtained.

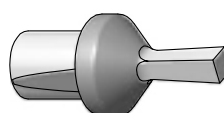
The device to be used on different machines:

- On the lathes the workpiece and the tool-broach rotate and the broaching toolholder is stopped.
- On milling machines the workpiece and the tool-broach are stopped and will be the broach toolholder body to rotate.



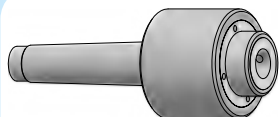
BROCCE QUADRE
HEXAGONAL BROACHES

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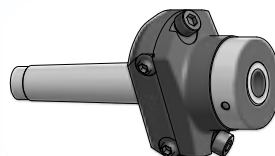
BROCCE ESAGONALI
SQUARE BROACHES

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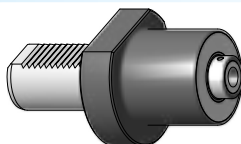
BROCCIATORI FISSI
CON ATTACCO CONO MORSE - DIN228
DIN228 MORSE TAPER SHANK
BROACH TOOLHOLDERS

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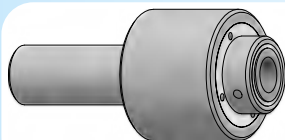
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DIN228 MORSE TAPER SHANK
ADJUSTABLE BROACH TOOLHOLDERS

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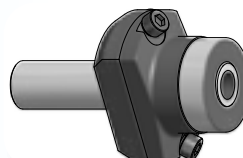
VDI SHANK BROACHING TOOLHOLDERS

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BROCCIATORI FISSI
CON ATTACCO CILINDRICO
CYLINDRICAL SHANK
BROACH TOOLHOLDERS

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BROCCIATORI REGISTRABILI
CON ATTACCO CILINDRICO
CYLINDRICAL SHANK
ADJUSTABLE BROACH TOOLHOLDERS

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**BROCCIATURA
PREPARAZIONE**

*BROACHING
PREPARATION*

Il diametro del preforo per eseguire la brocciatura deve essere maggiorato rispetto alla misura del profilo da eseguire, per rendere meno gravoso l'avanzamento dell'utensile. Eseguire uno smusso prima del preforo.

La lunghezza del preforo deve essere 20%-40% in più della lunghezza del profilo da eseguire.

Diameter of the hole must exceed the size of profile to be processed, this is for facilitate the cutting phase of broaching tool. Make a chamfer before the drill hole.

Length of the drill hole: 20%-40% more than the profile length to be executed.

		MAGGIORAZIONE / INCREASE
Per cave esagonali For hexagonal profiles	< 14 mm	1%- 3%
	> 14 mm e materiali duri / and hard materials	5%
	> 21 mm	10%
Per cave quadre For square profiles	< 14 mm	3%- 7%
	> 14 mm e materiali duri / and hard materials	10%
	> 17 mm	15%

CENTRATURA DELLA BROCCIA

BROACH CENTERING

Per ottenere una buona finitura, è molto importante che la punta della broccia sia perfettamente in centro con il pezzo da lavorare. Inoltre una corretta centratura preserva dall'usura l'utensile e i cuscinetti.

I brocciatori fissi del nostro catalogo sono sottoposti ad un rigoroso controllo per ottenere un perfetto centraggio della punta della broccia rispetto all'asse del dispositivo brocciatore montando brocce con sporgenza "H" specifica.

Il grado di precisione può essere influenzato da:

- disallineamento della macchina utensile;
- scarsa rigidità della macchina utensile che può provocare vibrazioni o disallineamento dovuto all'elevata spinta del brocciatore.

Se la brocciatura viene eseguita correttamente la misura della cava ricavata sarà identica alla misura dell'utensile- broccia.

Se si riscontrano problemi è consigliabile regolare la centratura della macchina utensile.

Nei casi in cui non sia possibile regolare la macchina utensile utilizzare i brocciatori registrabili.

To broach properly the profile it is very important for the bit of the broach to be perfectly centred with the piece to be worked.

Broach holders from our catalogue are subjected to strict control to obtain a perfect centering of the device axis by mounting broachs with "H" thickness specific.

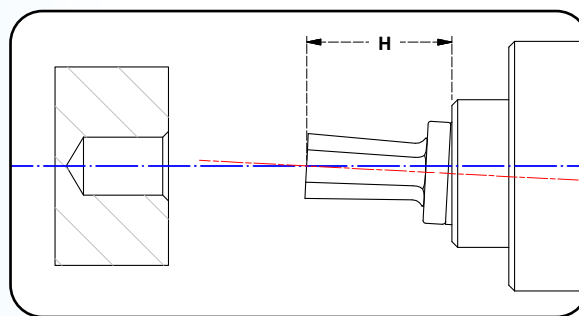
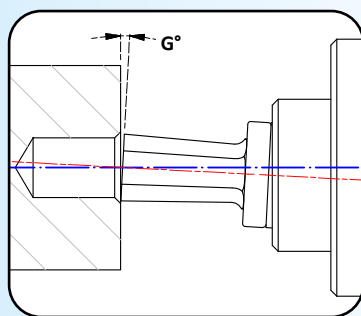
The degree of precision can be influenced by:

- *Misalignment of the tool machine;*
- *Low rigidity of the machine tool that can generate vibration or misalignment due to the high thrust of the broacher.*

If the broaching is done correctly the measurement of the slot obtained will be identical to the tool-broach size.

If there are problems, it is advisable to perfectly align the machine tool centering.

In cases where it is not possible to set the machine use adjustable broaching toolholder type.



**BROCCIATURA
PARAMETRI**

**BROACHING
PARAMETERS**

Velocità di rotazione: 1000-2500 giri/min.

Rotation speed: 1000-2500 r.p.m.

La scelta dei parametri di avanzamento dipende da più fattori:

la tipologia del materiale, la sezione, la quantità di materiale da asportare, la rigidità della macchina utensile e la presa del pezzo.

Nella fase della lavorazione in cui la broccia arriva in contatto con il pezzo da lavorare tende a strisciare: è questo il momento di maggiore usura dell'utensile. Quando invece la broccia arriva in pieno contatto, l'utensile ed il pezzo hanno una rotazione sincronizzata. Per una migliore durata è quindi consigliabile, ove possibile, iniziare la brocciatura con rotazione lenta o avanzamento rapido per una profondità di circa 0,5 mm e calare l'avanzamento sui parametri consigliati di seguito quando l'utensile e il pezzo sono in pieno contatto. Per uscire dal pezzo dopo aver eseguito la brocciatura utilizzare un avanzamento veloce ma non il rapido.

Major factor in the choice of the feeding parameters are:

Type of material, section, quantity of material to be removed, rigidity of the machine tool and the clamp of the piece.

In the processing phase where the broach touches the piece to be processed, it tends to dig (it is the major cause of tool wear).

When the broach reaches full contact, the tool and the piece rotate in synchronisation. To improve the process, it is advisable to start the broaching phase with slow rotation or fast feed for 0.5 mm deep and then reduce feed to recommended parameters when the tool and the piece are in full contact. To get out of the workpiece after broaching, use fast but not rapid feed.

Materiale da lavorare Worked material		Avanzamento per giri Feed for r.p.m.					
		Esagoni / Hexagons		Quadri / Squares		Torx	
		< 14mm	> 14mm	< 12mm	> 12mm	< T25	> t27
Acciaio dolce magnetico, Acciaio da costruzione, Acciaio da cementazione, Acciaio automatico (AVP) Magnetic soft steel, Structural steel, Case carburizing steel, Free cutting steel (AVP)	Rm < 700 N/mm ²	0,10	0,08	0,06	0,04	0,10	0,08
Acciaio al carbonio- Acciaio legato- bonificato, fusioni d'acciaio Plain carbon steel- Alloyed steel- heat-treatable steel, steel castings	Rm 700 ÷ 850 N/mm ²	0,08	0,06	0,05	0,03	0,08	0,06
Acciaio legato- bonificato- da nitrurazione- fusioni di acciaio Alloyed steel- heat-treatable steel- nitriding steel- steel casting	Rm 850 ÷ 1200 N/mm ²	0,06	0,03	0,03	0,02	0,05	0,03
Acciaio legato- alta resistenza Alloyed steel- high strength steel	Rm 1200 ÷ 1400 N/mm ²	0,02	0,02	0,02	0,02	0,03	0,02
Acciaio Inox automatico- acciaio inox austenico Free machining stainless steel- austenitic stainless steel	Rm < 850 N/mm ²	0,08	0,06	0,04	0,03	0,08	0,06
Acciaio Inox ferritico- ferritico + austenico- Martensitico Ferritic- ferritic + austenitic- martensitic stainless steel	Rm > 850 N/mm ²	0,04	0,03	0,03	0,02	0,04	0,03
Ghisa grigia lamellare Lamellar grey cast iron	Rm < 600 N/mm ²	0,11	0,08	0,07	0,04	0,11	0,08
Ghisa grigia lamellare- ghisa sferoidale- ghisa malleabile Lamellar grey cast iron- nodular cast iron- malleable cast iron	Rm 600 ÷ 1000 N/mm ²	0,07	0,05	0,04	0,03	0,07	0,05
Alluminio truciolo lungo Aluminium long chipping	Rm < 500 N/mm ² Si < 10%	0,14	0,10	0,10	0,08	0,14	0,10
Alluminio truciolo corto Aluminium short chipping	Rm > 500 N/mm ² Si > 10%	0,10	0,08	0,08	0,06	0,10	0,08
Rame- Ottone truciolo lungo Cooper- soft brass long chipping	Rm < 700 N/mm ²	0,12	0,09	0,10	0,08	0,12	0,10
Rame- Bronzo truciolo corto Cooper- hard brass short chipping	Rm < 700 N/mm ²	0,08	0,06	0,07	0,05	0,08	0,06
Titanio non legato Titanium unalloyed	Rm < 700 N/mm ²	0,06	0,03	0,03	0,02	0,05	0,03
Leghe di titanio Titanium alloys	Rm > 700 N/mm ²	0,03	0,02	0,02	0,02	0,03	0,02

PORTAUTENSILI

MASCHIATURA RIGIDA / CON COMPENSAZIONE - MASCHIATURA SINCRONIZZATA

TAPPING TOOLHOLDERS

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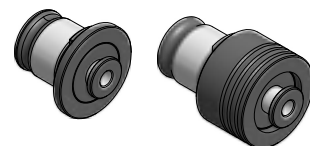
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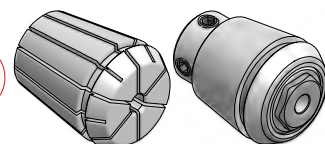
PINZE ER PORTAMASCHI DIN ISO 15488

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DIMENSIONI DEI GAMBI DEI MASCHI

TAP SHANKS DIMENSIONS



D	Q	DIN-352	DIN-371 CODOLO RINFORZATO	DIN-376 CODOLO PASSANTE	ISO-529	ISO-529
2,5	2,1	M1	M1	M3,5		
		M1,4	M1,4			
		M1,6	M1,6			
		M1,8	M1,8			
2,8	2,1	M2	M2	M4		
		M2,2	M2,2			
		M2,5	M2,5			
3,15	2,5				M4	M3
3,5	2,7	M3	M3	M5		
3,55	2,8				M4,5	M3,5
4	3,15	M3,5	M3,5		M5	M4
4,5	3,4	M4	M4	M6		
5	4					M5
6	4,9	M5	M5			
		M6	M6			
		M8		M8		
6,3	5				M8	M6
7	5,5	M10		M10		
8	6,2		M8		M10	M8
9	7,1	M12		M12	M12	
10	8		M10			M10

D	Q	DIN-352	DIN-371 CODOLO RINFORZATO	DIN-376 CODOLO PASSANTE	ISO-529	ISO-529
11	9	M14		M14		
11,2	9				M14	
12	9	M16		M16		
12,5	10				M16	
14	11	M18		M18		
14	11,2				M18	
					M20	
16	12	M20		M20		
16	12,5				M22	
18	14				M24	
18	14,5	M22		M22		
		M24		M24		
20	16	M27		M27	M27	
					M30	
22	18	M30		M30		
25	20	M33		M33	M36	
28	22	M36		M36		
32	24	M39		M39		
		M42		M42		
36	29	M45		M45		
		M48		M48		

