



**ACCESSORI PER
MACCHINE UTENSILI**
*TOOLHOLDING AND
WORKHOLDING FOR
MACHINE TOOLS*

2008

 **delta**

PORTAUTENSILI DI ALTA PRECISIONE

Delta Industrie si dedica sin dalla sua fondazione nel 1968 alla realizzazione di portautensili di alta precisione per fresatrici, centri di lavoro a CN e torni a CN.

L'utilizzo di macchine utensili dell'ultima generazione, tra le leader del mercato internazionale - parte delle quali collocate in un apposito reparto a temperatura controllata - oltre all'impiego delle migliori strumentazioni in ogni fase di lavorazione garantisce un eccellente standard qualitativo.

Il sistema di qualità interno, progettato secondo gli standard ISO 9001, permette una perfetta tracciabilità del prodotto. A tal fine tutti gli articoli Delta hanno marcatura laser con codice e lotto di produzione.

Per offrire ai clienti un servizio davvero soddisfacente, teniamo circa il 95% degli articoli presenti a catalogo sempre disponibili in un magazzino di circa 170.000 pezzi in più di 3.000 codici. Grazie all'esperienza accumulata negli anni siamo in grado di realizzare portautensili speciali su specifiche del cliente, destinati oltre che all'industria meccanica anche a macchine per lavorazione vetro, marmo e legno. Siamo inoltre specializzati nella costruzione di mandrini principali per fresatrici, torni, transfer ed elettromandrini su disegno e specifiche del cliente.

Il nostro ufficio tecnico è a disposizione dei clienti per ogni genere di richiesta o chiarimento.



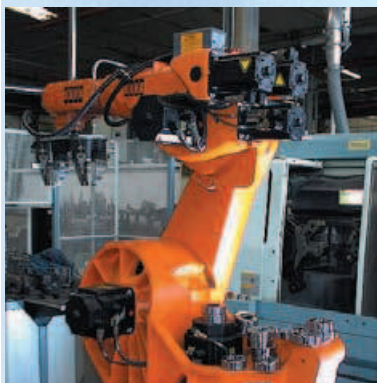
VISTA REPARTO DI FRESATURA CON CENTRI DI LAVORO MULTI PALLETS

MILLING MACHINES DIVISION WITH MULTI PALLETS MACHINING CENTERS



VISTA REPARTO RETTIFICATRICI A CONTROLLO NUMERICO IN AMBIENTE CLIMATIZZATO

CNC GRINDING MACHINES DIVISION IN AIR-CONDITIONED ROOM



VISTA REPARTO DI TORNITURA ROBOTIZZATO

AUTOMATED LATHES DIVISION



VISTA REPARTO DI TORNITURA LATHES DIVISION

HIGH PRECISION TOOL HOLDERS

Since 1968, when it was established, Delta Industrie has been manufacturing high precision tool holders for milling machines, NC machining centres and CNC lathes.

An excellent quality standard is obtained by the use of machine tools of the last generation, among the international leaders - some of which are placed in a division with controlled temperature - and of the best instruments in every working stage.

The internal quality system, planned according to ISO 9001 standard, grants a perfect tracking of the products. For this purpose, all Delta items have a laser marking including code and production lot.

For a really satisfying service to all our customers, we keep about 95% of the items listed in our catalogue always available in a stock which counts about 170.000 pieces and more than 3.000 codes.

Thank to years of experience, we can manufacture special tool holders on the customer's request, for the mechanical industry and also for glass, marble and wood-working machines.

Moreover, we are specialised in the manufacture of main spindles for milling machines, lathes, transfer machines and electric spindles on the customer's drawing and specifications.

Our technical office is always at disposal of the customers for any request or explanation.

PORTE-OUTILS D'HAUTE PRECISION

Delta Industrie s'occupe depuis sa création en 1968 de la réalisation de porte-outils d'haute précision pour fraiseuses, centres d'usinage à commande numérique et tours à commande numérique. L'emploi des machine-outils de la dernière génération, parmi les leaders du marché international - une partie de lesquelles colloquée dans un département à température contrôlée - et l'utilisation des meilleures instrumentations en chaque phase de fabrications assurent un excellent standard de qualité. Le système interne de qualité, projeté selon le standard ISO 9001, permet le parfait traçage du produit. A cette fin, tous les articles DELTA ont marquage laser avec code et lot de production.

Pour un service vraiment satisfaisant pour nos clients, environ le 95% des articles en catalogue est toujours disponible en stock, qui compte environ 170.000 pièces sur plus de 3.000 codes.

Grâce à l'expérience accumulé, nous sommes capables de réaliser porte-outils sur demande du client, non seulement pour l'industrie mécanique, mais aussi pour machines pour usinage du verre, marbre et bois.

Nous sommes spécialisés en construction de broches principales pour fraiseuses, tours, machines transfert et électrobroches sur dessins et spécifications du client.

Le bureau technique est à disposition des clients pour demandes et explications.

Hochpräzise Werkzeughalter

Delta Industrie realisiert seit dem Gründungsjahr 1968 hochpräzise Werkzeughalter für Fräsmaschinen, CN Bearbeitungszentren und CN Drehbänke.

Die Benutzung von Werkzeugmaschinen der letzten Generation, die zwischen den Leadermaschinen auf dem Internationalmarkt sind - einige deren im klimatisierten Abteilung aufgestellte - und die Benutzung der besten Werkzeugen in allen Arbeitsphasen können einen ausgezeichneten Qualitätsstandard garantieren.

Unser Qualitätssystem, das nach ISO 9001 Standard geplant ist, erlaubt das Produkt perfekt ausfindig zu machen. Das zu helfen, haben alle Artikel Delta eine Lasermarkierung mit Code und Produktionsteil.

Für einen befriedigenden Kundendienst, ist etwa 95% des Artikeln die in Katalog stehen immer lieferbar in unserem Lager, das mehr als 170.000 Stücke und 3.000 Codes enthält.

Dank unserer Erfahrung, können wir Sonderwerkzeughalter realisieren, die in der Maschinenindustrie als auch für Glas-, Marmor- und Holzbearbeitungsmaschinen benutzt werden.

Wir sind spezialisiert in die Produktion von Maschinenspindeln für Fräsmaschinen, Drehbänke, Transfermaschinen und Elektroschindeln nach Zeichnung und Kundenverzeichnis.

Das technische Büro steht zur Verfügung für Anfragen und Erklärungen.

PORTAUTENSILI BILANCIATI

I portautensili equilibrati sono l'ideale per equipaggiare l'ultima generazione di macchine utensili ad alta velocità e per l'ottenimento delle migliori prestazioni e finiture superficiali.

Tutti i portautensili presenti in questo catalogo possono essere bilanciati. A tale scopo abbiamo a disposizione una bilanciatrice tipo CEMB ZE 20/UT che ci permette di soddisfare ogni esigenza di equilibratura. Prevediamo due diverse classi di equilibratura:

- Grado G 2.5 con tolleranza più stretta
- Grado G 6.3 con tolleranza maggiore e diverse classi di velocità di rotazione:
 - 10.000 RPM
 - 15.000 RPM
 - 20.000 RPM
 - 30.000 RPM
 - 40.000 RPM

Il nostro ufficio tecnico è a disposizione per ogni ulteriore informazione.

Balanced tool holders are the ideal solution for the equipment of the last generation of high speed machines tool and the achievement of the best performances and surface finishing.

All the tool holders listed in this catalogue may be balanced. At this purpose we have at disposal a CEMB ZE 20/UT balancing machine, which allows us to satisfy every kind of balancing request.

We offer two balancing classes:

- *G 2.5 degree for a more precise tolerance*
- *G 6.3 degree for a larger tolerance and different turning speed classes:*
 - 10.000 RPM
 - 15.000 RPM
 - 20.000 RPM
 - 30.000 RPM
 - 40.000 RPM

Our technical office is at disposal for further information.



**CLASSIFICAZIONE
DEI ROTORI,
GRADI DI EQUILIBRATURA**
*Rotors classification, balancing
classes*

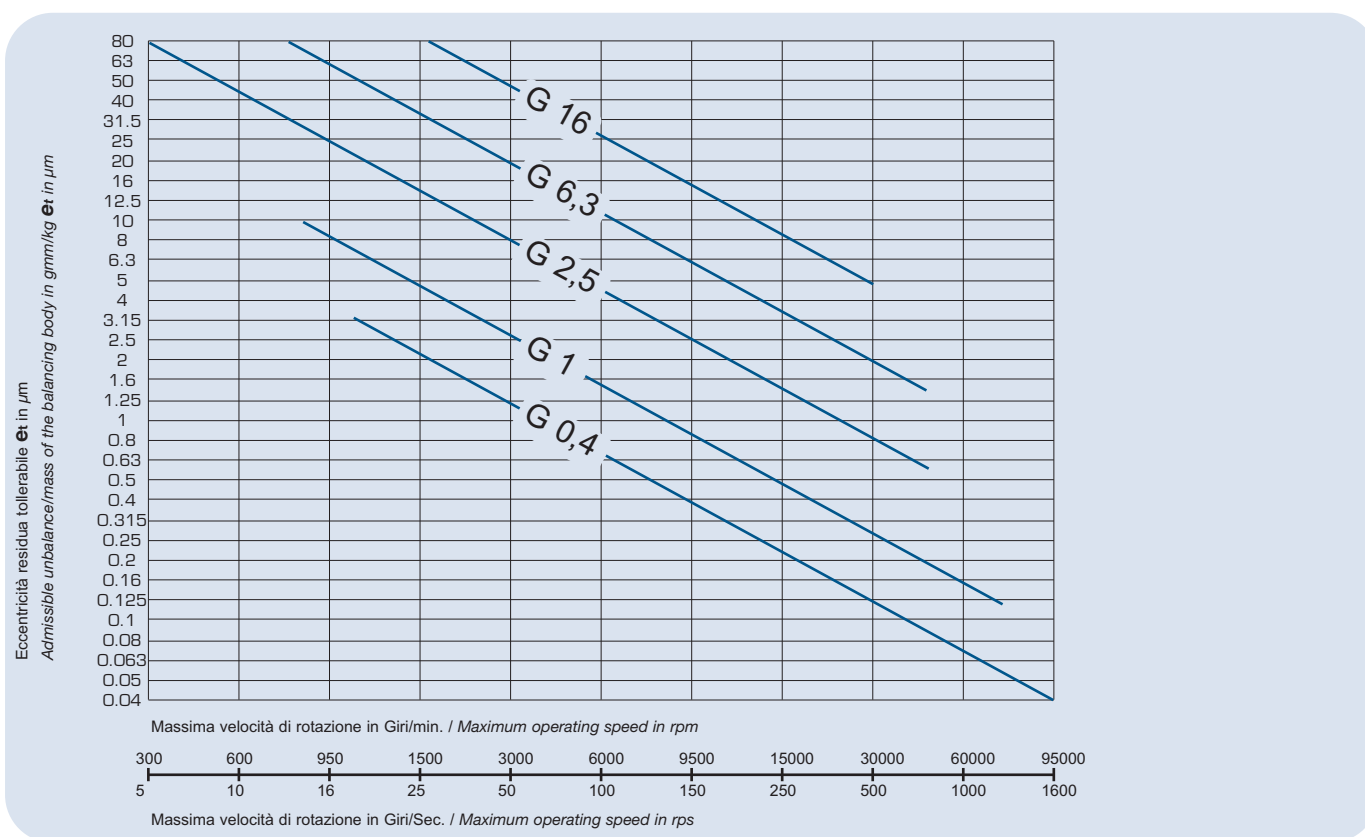


GRADO G mm/s

- G0.4** Giroscopi, mandrini dischi e indotti di rettifiche di alta precisione.
- G1.0** Indotti di piccoli motori veloci con elevate esigenze di equilibratura, azionamenti di rettifiche di alta precisione, rotor di turbine di motori molto veloci.
- G2.5** Rotor di turbine a vapore e a gas, turbopompe turboalternatori, turbosoffianti, turbine di propulsione navi mercantili. Indotti di motori medi e grandi con elevate esigenze di equilibratura, Azionamenti di macchine utensili, ingranaggi veloci di riduttori
- G6.3** Indotti di piccoli motori elettrici prodotti in serie in applicazioni non sensibili alle vibrazioni, macchine utensili e parti di macchine utensili in generale. Parti veloci di macchine operatrici, ceste di centrifughe, rotor di macchine idrauliche, volani, ventilatori, pompe, ingranaggi di riduttori.
- G16** Alberi di trasmissione, alberi cardanici con elevate esigenze di equilibratura, parti di macchine agricole. Parti di motori per vetture, autocarri, locomotori a benzina o diesel. Cerchi di ruote per autovetture e motocicli.

CLASS G mm/s

- G0.4** Gyroscopes, spindles wheels and armatures of high precision grinders.
- G1.0** Armatures of fast small engines with high balancing requirements, high precision grinders drives, turbine rotors of very high speed engines.
- G2.5** Steam turbine rotors, turbopumps, turbine generators, turboblowers, propeller-turbines of merchant vessels. Armatures of medium and big engines with high balancing requirements. Machine tools drives, regulators high speed gears.
- G6.3** Armatures of small electric mass-produced motors not sensitive to vibrations, machine tools and components for machine tools in general. High speed components of working machines, centrifuge baskets, hydraulic machines rotors, flywheels, fans, pumps, regulators gears.
- G16** Transmission-shafts, cardan shafts with high balancing requirements, agricultural machines components. Components of petrol or diesel engines of cars, trucks, locomotives. Cars and motorcycles tyres.



DATI

- U_{ACC}** = squilibrio residuo accettabile del rotore in gmm
- G** = grado di bilanciatura
- M** = massa del rotore in Kg
- n** = velocità di servizio in rpm
- 9549** = valore costante, risultato dalla conversione delle unità
- e_{ACC}** = eccentricità residua accettabile in μm
- r** = raggio di compensazione (il raggio dove si eseguono i fori per la bilanciatura)
- m_r** = massa residua in g

CLASS G mm/s

- U_{ACC}** = acceptable rest unbalance of the rotor in gmm
- G** = balance quality
- M** = mass of the rotor in Kg
- n** = operating speed in rpm
- 9549** = constant value, a result from the conversion of units
- e_{ACC}** = acceptable measure of excentricity in μm
- r** = compensation radius in mm (the compensation is the radius of drilling when balancing)
- m_r** = rest mass in g

Esempio di calcolo

Peso del mandrino **M** = 0.9 Kg
 Velocità d'impegno **n** = 18.000 1/min
 Grado di bilanciatura **G** = 6.3
 Raggio di comp. **r** = 16 mm

Example of calculation

Weight of tool holder **M** = 0.9 Kg
 Operating speed **n** = 18.000 1/min
 Balance quality **G** = 6.3
 Compensation radius **r** = 16 mm

$$U_{ACC} = \frac{(G \times M) \times 9549}{n} = 3,005 \text{ gmm}$$

(È possibile ottenere il valore dal grafico di bilanciatura)

$$U_{ACC} = \frac{(G \times M) \times 9549}{n} = 3,005 \text{ gmm}$$

(You can also obtain the value from the balance nomogram)

$$e_{ACC} = \frac{U_{ACC}}{M} = 3,34 \text{ μm}$$

(Il baricentro può avere una eccentricità massima di 3,34 μm)

$$e_{ACC} = \frac{U_{ACC}}{M} = 3,34 \text{ μm}$$

(The center of gravity can have a max offset to rotating axis of 3,34 μm)

$$m_r = \frac{e_{ACC} \times M}{r} = 0,118 \text{ g}$$

(La massa di compensazione risulta 0,188 g)

$$m_r = \frac{e_{ACC} \times M}{r} = 0,118 \text{ g}$$

(The compensation mass result as 0,188 g)

NOTE

La maggior parte dei portautensili elencati in questo catalogo è prebilanciata (vedi etichetta singolo articolo).

La bilanciatura serve perchè:

L'alta velocità è diventata ormai un'esigenza: le moderne macchine utensili lavorano a velocità superiori ai 10-15.000 giri, per cui il mandrino deve essere bilanciato.

Utensili non bilanciati sovraccaricano i cuscinetti del naso mandrino della macchina. Le conseguenze: danni ai cuscinetti, precoce usura degli utensili, superfici pezzo vibrata.

NOTES

The greatest part of the tool holders included in this catalogue are prebalanced (see each item label)

Balancing is necessary because:

High speed is a now a need: modern machine tools work at speeds superior to 10-15.000 rpm, therefore the tool holder must be balanced.

*Not balanced tools overload the main spindle bearings.
The consequences: damages of the bearings, early wear of the tools, vibrated surfaces.*



Questa etichetta indica che il mandrino è prebilanciato in fase di costruzione.

This label means that the tool holder has been prebalanced during the manufacturing.

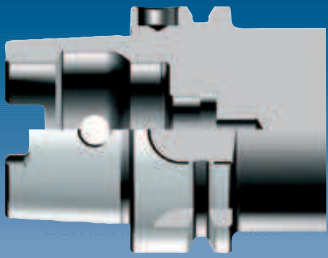


Questa etichetta indica che il mandrino è bilanciato con una bilanciatura fine eseguita sul prodotto già finito.

Questo perchè in fase di progettazione è impossibile determinare lo squilibrio di un mandrino in funzione delle variabili di lavorazione come tolleranze, eccentricità ecc...

This label means that the tool holder has a fine balancing made on the finished product. That because in the planning stage it's not possible to calculate the rest unbalance due to the working variables as tolerances, excentricity, etc...

Quando esistono esigenze particolari, a richiesta è possibile avere una bilanciatura fine
Fine balancing for particular requirements can be made on request.



HSK-A
DIN 69893/1-A
Attacchi con cono HSK-A
Attachments with HSK-A cone



1.3
• portafrese combinati
Combinet milling cutter chucks



1.4
• Portafrese a manicotto
Face milling cutter chucks



1.5
• Portafrese a manicotto
Face milling cutter chucks



1.6
• Portafrese weldon
Milling cutter chucks Weldon



1.9
• Portafrese per calettamento
Shrink chucks



1.10
• Portafrese per calettamento
Shrink chucks



1.11
• Mandrini idraulici
hydraulic clamping chucks



1.12
• Mandrini idraulici
hydraulic clamping chucks



1.13
• Mandrini portatestine filettate
Chucks for threaded heads



1.15
• Mandrini portapunte
Integral drill chucks



1.16
• Portafrese a cono Morse
Milling cutter with Morse cone



1.17
• Portapunte a cono Morse
Drill chucks with Morse cone



1.18
• Barre semifinite
Unfinished taper-shank blanks



1.19
• Mandrini a forte serraggio
Milling chuck



1.20
• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



1.21
• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



1.22
• Portaastucci registrabili
Adaptors for adjustable inserts



1.23
• Maschiatori
Tapping chuck



1.24
• Cilindri di collaudo
Test arbors



1.25
• VARILOCK
VARILOCK



HSK-E
DIN 69893/5-E
Attacchi con cono HSK-E
Attachments with HSK-E cone



1.29

• Portafrese combinati
Combined milling cutter chucks



1.30

• Portafrese a manicotto
Face milling cutter chucks



1.31

• Portafrese weldon
Milling cutter chucks Weldon



1.32

• Portafrese per calettamento
Shrink chucks



1.33

• Mandrini idraulici
hydraulic clamping chucks



1.34

• Mandrini portatestine filettate
Chucks for threaded heads



1.36

• Portafrese a cono Morse
Milling cutter with Morse cone



1.37

• Portapunte a cono Morse
Drill chucks with Morse cone



1.38

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



1.39

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



HSK-F
DIN 69893/6-F
Attacchi con cono HSK-F
Attachments with HSK-F cone



1.43

• Portafrese cil. per wood machine
Cylindrical milling cutter chucks



1.44

• Portafrese combinati
Combined milling cutter chucks



1.45

• Portafrese a manicotto
Face milling cutter chucks



1.46

• Portafrese weldon
Milling cutter chucks Weldon



1.47

• Portafrese a cono Morse
Milling cutter with Morse cone



1.48

• Portapunte a cono Morse
Drill chucks with Morse cone



1.49

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



ISO DIN 69871
DIN 69871/A-AD • DIN 69871/AD+B
Attacchi con cono ISO
Attachments with ISO cone



2.4

• Portafrese combinati
Combined milling cutter chucks



2.5

• Portafrese a manicotto
Face milling cutter chucks



2.7

• Portafrese a manicotto
Face milling cutter chucks



2.8

• Portafrese weldon
Milling cutter chucks Weldon



2.9

• Portafrese weldon
Milling cutter chucks Weldon



2.11

• Portafrese weldon
Milling cutter chucks Weldon



2.13

• Portafrese per calettamento
Shrink chucks



2.14

• Portafrese per calettamento
Shrink chucks



2.15

• Mandrini idraulici
hydraulic clamping chucks



2.16

• Mandrini idraulici
hydraulic clamping chucks



2.17

• Mandrini portatestine filettate
Chucks for threaded heads



2.18

• Mandrini portamorsetti
Taper shafts for drill chucks



2.19

• Mandrini portapunte
Integral drill chucks



2.20

• Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO



2.21

• Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO



2.22

• Riduzioni per PRESETTING
PRESETTING reduction



2.22

• Riduzioni per PRESETTING
PRESETTING reduction



2.23

• Portafrese a cono Morse
Milling cutter with Morse cone



2.24

• Portafrese a cono Morse
Milling cutter with Morse cone



2.25

• Portapunte a cono Morse
Drill chucks with Morse cone



2.27

• Barre semifinite
Unfinished taper-shank blanks



2.28

• Mandrini a forte serraggio
Milling chuck



2.29

• Portapinze EOC
Collet chucks EOC



2.29

• Portapinze DELTA
Collet chucks DELTA



2.30

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



2.32

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



2.32

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



2.33

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



2.33

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



2.35

• Portaastucci registrabili
Adaptors for adjustable inserts



2.36

• Maschiatori
Tapping chuck



2.39

• Maschiatori
Tapping chuck



2.40

• Cilindri di collaudo
Test arbors



2.41

• VARILOCK
VARILOCK



**MAS 403 BT
MAS 403 BT/B**
Attacchi con cono ISO
Attachments with ISO cone



3.4

• Portafrese combinati
Combined milling cutter chucks



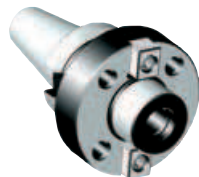
3.5

• Portafrese a manicotto
Face milling cutter chucks



3.6

• Portafrese a manicotto
Face milling cutter chucks



3.7

• Portafrese a manicotto
Face milling cutter chucks



3.8

• Portafrese weldon
Milling cutter chucks Weldon



3.9

• Portafrese weldon
Milling cutter chucks Weldon



3.11

• Portafrese weldon
Milling cutter chucks Weldon



3.13

• Mandrini idraulici
hydraulic clamping chucks



3.14

• Mandrini idraulici
hydraulic clamping chucks



3.15

• Mandrini idraulici
hydraulic clamping chucks



3.16

• Mandrini idraulici
hydraulic clamping chucks



3.17

• Mandrini portatestine filettate
chucks for threaded heads



3.19

• Mandrini portamorsetti
Taper shafts for drill chucks



3.20

• Mandrini portapunte
Integral drill chucks



3.21

- Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO



3.22

- Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO



3.23

- Portafrese a cono Morse
Milling cutter with Morse cone



3.24

- Portapunte a cono Morse
Drill chucks with Morse cone



3.26

- Barre semifinite
Unfinished taper-shank blanks



3.27

- Mandrini a forte serraggio
Milling chuck



3.28

- Portapinze EOC
Collet chucks EOC



3.29

- Portapinze DELTA
Collet chucks DELTA



3.30

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



3.32

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



3.34

- Portaastucci registrabili
Adaptors for adjustable inserts



3.35

- Maschiatori
Tapping chuck



3.37

- VARILOCK
VARILOCK



4.2

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



4.3

- Portafrese weldon
Milling cutter chucks Weldon



4.3

- Maschiatori
Tapping chuck



DIN 2080
Attacchi con cono ISO
Attachments with ISO cone



5.3

- Portafrese combinati
Combined milling cutter chucks



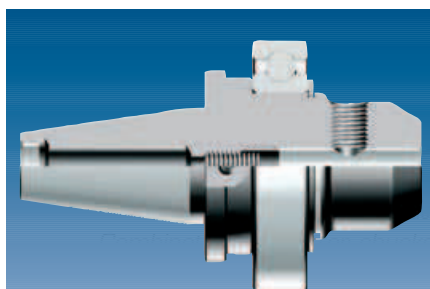
5.4

- Alberi portafrese
Cutters arbors



5.5

- Portafrese a manicotto
Face milling cutter chucks



for CHIRON
Attacchi con cono ISO 30
Attachments with ISO cone

Combined milling cutter chucks



4.2

- Portafrese combinati
Combined milling cutter chucks



5.6

• Portafrese a manicotto
Face milling cutter chucks



5.7

• Portafrese a manicotto
Face milling cutter chucks



5.8

• Portafrese weldon
Milling cutter chucks Weldon



5.9

• Mandrini di centraggio
Centring chucks



5.10

• Mandrini portamorsetti
Taper shafts for drill chucks



5.11

• Mandrini portapunte
Integral drill chucks



5.12

• Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO



5.13

• Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO



5.14

• Portafrese a cono Morse
Milling cutter with Morse cone



5.15

• Portafrese a cono Morse
Milling cutter with Morse cone



5.16

• Portapunte a cono Morse
Drill chucks with Morse cone



5.17

• Barre semifinite
Unfinished taper-shank blanks



5.18

• Portapinze DELTA
Collet chucks DELTA



5.20

• Portapinze EOC
Collet chucks EOC



5.21

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



5.22

• Portapinze ER DIN 6499
Collet chucks ER DIN 6499



5.24

• Portaastucci registrabili
Adaptors for adjustable inserts



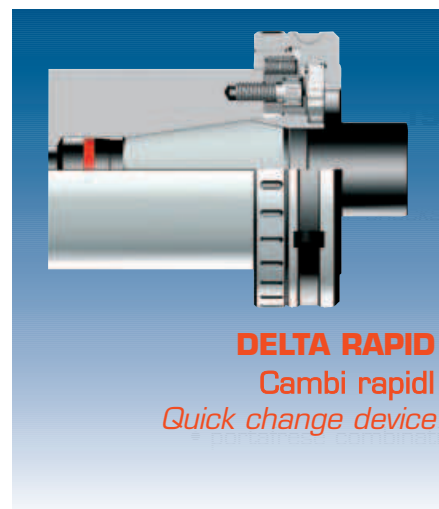
5.25

• Maschiatori
Tapping chuck



5.26

• Cilindri di collaudo
Test arbors



DELTA RAPID
Cambi rapidi
Quick change device



6.2

• cambio rapido "DELTA RAPID"
Quick change device "DELTA RAPID"



6.3

• cambio rapido "DELTA RAPID"
Quick change device "DELTA RAPID"



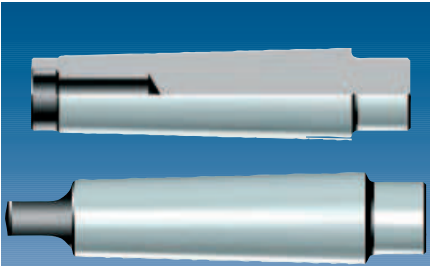
6.4

• cambio rapido "DELTA RAPID"
Quick change device "DELTA RAPID"



6.5

- cambio rapido "DELTA RAPID"
Quick change device "DELTA RAPID"



**CONI MORSE
DIN 228 A
DIN 228 B**

**Attacchi con cono Morse
*Attachments with Morse cone***



7.3

- Portafrese combinati
Combined milling cutter chucks



7.4

- Portafrese combinati
Combined milling cutter chucks



7.5

- Alberi portafrese
Cutters arbors



7.6

- Mandrini portamorsetti
Taper shafts for drill chucks



7.7

- Riduzioni cono Morse
Adaptor sleeves



7.8

- Riduzioni cono Morse
Adaptor sleeves



7.9

- Riduzioni cono Morse
Adaptor sleeves



7.10

- Riduzioni cono Morse
Adaptor sleeves



7.11

- Riduzioni cono Morse
Adaptor sleeves



7.12

- Riduzioni cono Morse
Adaptor sleeves



7.13

- Porta alesatori
Chucks for reamers-front



7.14

- Barre semifinite
Unfinished taper-shank blanks



7.15

- Portapinze DELTA
Collet chucks DELTA



7.16

- Portapinze DELTA
Collet chucks DELTA



7.17

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



7.21

- Porta bussole estraz. rapida
Quick change chucks



7.22

- bussole estraz. rapida
Quick change bushes



7.23

- bussole estraz. rapida
Quick change bushes



7.24

- Maschiatori
Tapping chuck



7.25

- Cilindri di collaudo
Test arbors



7.27

- Contropunte rotanti
Running tail centers



7.28

- Contropunte rotanti
Running tail centers



7.29

- Contropunte rotanti
Running tail centers



7.30

- Contropunte rotanti
Running tail centers



7.31

- Contropunte rotanti
Running tail centers



7.32

- Contropunte rotanti
Running tail centers



7.33

- Contropunte rotanti
Running tail centers



7.35

- Contropunte fisse
Dead centers



7.36

- Contropunte fisse
Dead centers



7.37

- Contropunte fisse
Dead centers



7.38

- Contropunte fisse
Dead centers



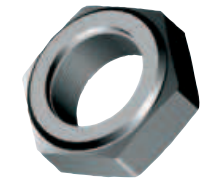
7.39

- Contropunte fisse
Dead centers



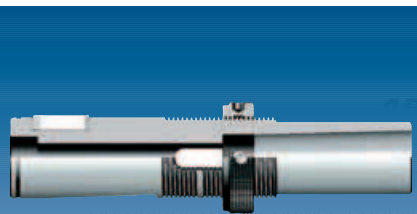
7.40

- Contropunte fisse
Dead centers



7.41

- Ghiera di estrazione contropunte
Ejector ring for dead centres



DIN 6327
Astucci registrabili
Adjustable tool bushes



8.2

- Riduzioni cono Morse
Adaptor sleeve



8.3

- Riduzioni cono Morse
Adaptor sleeve



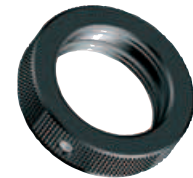
8.5

- Portapinze ER
ER Collect chucks



8.6

- Maschiatori
Tapping chuck



8.7

- Ghiera di registrazione
Setting ring



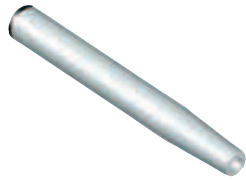
9.2

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



9.3

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



9.4

- Prolunghe cil. per calettamento
Cylindrical shrink extensions



9.5

- Maschiatori
Tapping chuck



9.6

- Cilindri di collaudo
Test arbors



RAMBAUDI
RAMBAUDI-BRIDGAPORT
Attacchi RAMBAUDI "R8"
Attachments RAMBAUDI "R8"



10.2

- portafrese combinati
Combinet milling cutter chucks



10.3

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



VARILOCK
Attacchi MODULARI
MODULAR attachments



11.2

- Prolunghe
Extensions



11.3

- Portafrese weldon
Milling cutter chucks Weldon



11.4

- Portapunte a cono Morse
Drill chucks with Morse cone



11.5

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



ACCESSORI
Accessories



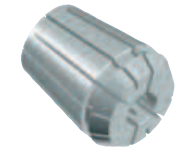
12.2

- Pinze DELTA
Collets DELTA



12.4

- Pinze EOC
Collets EOC



12.6

- Pinze ER
Collets ER



12.8

- Pinze ER
Collets ER



12.13

- Ghiere per pinze
Collet locking caps



12.18

- Bussole portamaschio
Quick change tap holder bushes



12.19

- Bussole portamaschio
Quick change tap holder bushes



12.21

- Bussole portamaschio
Quick change tap holder bushes



12.22

- Bussole porta filiere
Quick change



12.23

- Bussole portamaschio weldon
Weldon tap holder bushes



12.24

- Anelli di trascinamento
Front catch rings



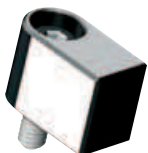
12.25

- Vite rondella bloccaggio frese
Screw and washer



12.26

- Tasselli di trascinamento
Tappets



12.27

- Tasselli di trascinamento
Tappets



12.28

- Bussole e anelli distanziali
Bushes and rings sheared



12.29

- Bussole e anelli distanziali
Bushes and rings sheared



12.30

- Bussole e anelli distanziali
Bushes and rings sheared



12.31

- Dadi e ghiera di estrazione
Treaded capnuts



12.31

- Dadi e ghiera di estrazione
Treaded capnuts



12.32

- Anelli di trascinamento
Front catch rings



12.33

- Ghiera di estrazione
Treaded capnuts



12.34

- Bussole di riduzione
Reduction bushes



12.35

- Bussole di riduzione
Reduction bushes



12.36

- Bussole di riduzione
Reduction bushes



12.37

- Bussole di riduzione
Reduction bushes



12.38

- Bussole di riduzione
Reduction bushes



12.38

- Bussole di riduzione
Reduction bushes



12.41

- Bussole di riduzione a cono Morse
Reduction bushes to Morse cone



12.42

- Adduttore refrigerante per HSK
Collant pipe for HSK



12.42

- chiavi per tubetto HSK
Key for collant pipe for HSK



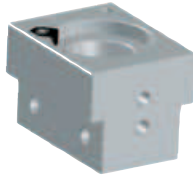
12.43

- Spina di controllo mandr. idraulici
Test shaft for hydraulic chucks



12.43

- Codoli per riduzioni art.250
Locking shanks for art.250



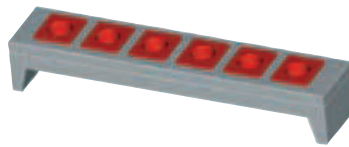
13.3

- Attrezzi smontaconi
Tightening fixture



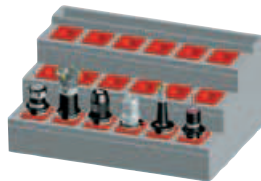
13.4

- Boccola portaconi



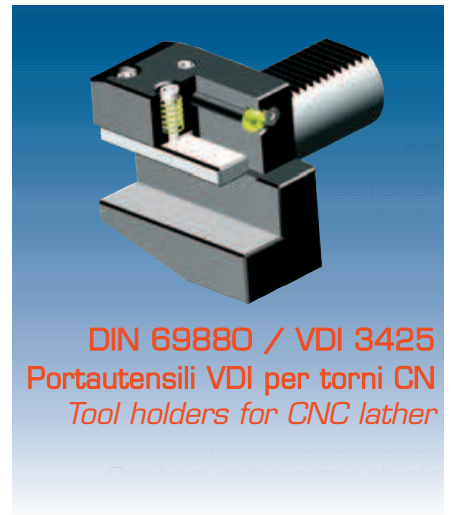
13.4

- Unità da banco
Bench unities



13.5

- Magazzini portaconi
Tools stores



DIN 69880 / VDI 3425
Portautensili VDI per torni CN
Tool holders for CNC lather



15.3

- Portautensile destro corto
Turning tool right hand short



15.4

- Portautensile sinistro corto
Turning tool left hand short



15.5

- Portautensile rovesciato destro corto
Turning tool overhead right hand short



15.6

- Portautensile rovesciato sinistro corto
Turning tool overhead left hand short



15.7

- Portautensile per utensili cilindrici
Toolholder with cylindrical shaft



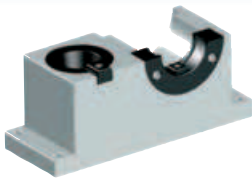
15.8

- Portautensile per utensili cilindrici
Toolholder with cylindrical shaft



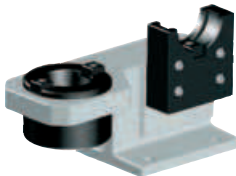
SMONTACONI

Atrezzi smontaconi e magazzini
Tightening fixture



13.2

- Attrezzi smontaconi
Tightening fixture



13.2

- Attrezzi smontaconi
Tightening fixture



13.3

- Attrezzi smontaconi
Tightening fixture



13.3

- Attrezzi smontaconi
Tightening fixture



Tiranti
Pull Studs

Combinet milling cutter chucks



14.6

- Tiranti vari
Pull studs



15.9

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



15.10

- Portautensile per utensili cono Morse
Morse taper adaptor for shanks with tang



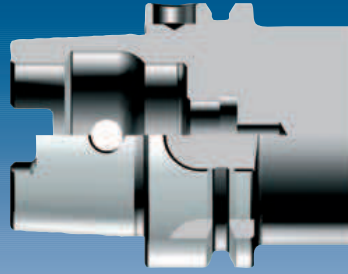
15.11

- Maschiatori
Tapping chuck



15.12

- Puntalino arresto barra
Bar stop



DIN 69893/1-A-ICTM STANDARD
Attacchi con cono HSK-A
Attachments with HSK-A cone



16.4

- Portautensile a 45°
45° toolholder



16.4

- Portautensile assiale
Axial toolholder



16.5

- Portautensile per punte ad inserti
Toolholder indexable insertdrills



16.5

- Portautensile per utensili cilindrici
Toolholder ifor cylindrical



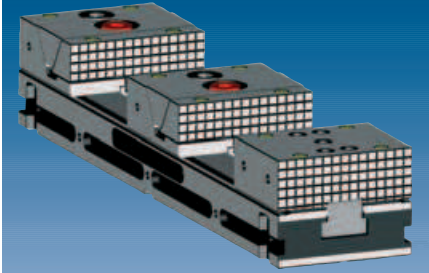
16.6

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

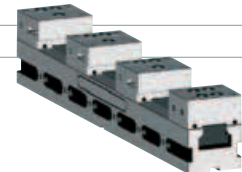


16.7

- Barre semifinite
Unfinished taper-shank blanks

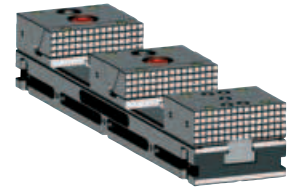


MULTI-BLOCK
MAGNUM
Morse modulari
Modular vice



17.2

- Morse Modulari MULTI-BLOCK
MULTI-BLOCK modular vice



17.12

- Morse Modulari MAGNUM
MAGNUM modular vice

1.3
• portafrese combinati
Combinet milling cutter chucks

1.4
• Portafrese a manicotto
Face milling cutter chucks

1.5
• Portafrese a manicotto
Face milling cutter chucks

1.6
• Portafrese weldon
Milling cutter chucks Weldon

1.9
• Portafrese per calettamento
Shrink chucks

1.10
• Portafrese per calettamento
Shrink chucks

1.11
• Mandrini idraulici
hydraulic clamping chucks

1.12
• Mandrini idraulici
hydraulic clamping chucks

1.13
• Mandrini portatestine filettate
Chucks for threaded heads

1.15
• Mandrini portapunte
Integral drill chucks

1.16
• Portafrese a cono Morse
Milling cutter with Morse cone

1.17
• Portapunte a cono Morse
Drill chucks with Morse cone

1.18
• Barre semifinite
Unfinished taper-shank blanks

1.19
• Mandrini a forte serraggio
Milling chuck

1.20
• Portapinze ER DIN 6499
Collet chucks ER DIN 6499

1.21
• Portapinze ER DIN 6499
Collet chucks ER DIN 6499

1.22
• Portaastucci registrabili
Adaptors for adjustable inserts

1.23
• Maschiatori
Tapping chuck

1.24
• Cilindri di collaudo
Test arbors

1.25
• VARILOCK
VARILOCK



HSK-A
DIN 69893/1-A
Attacchi
con cono HSK-A
Attachments with
HSK-A cone

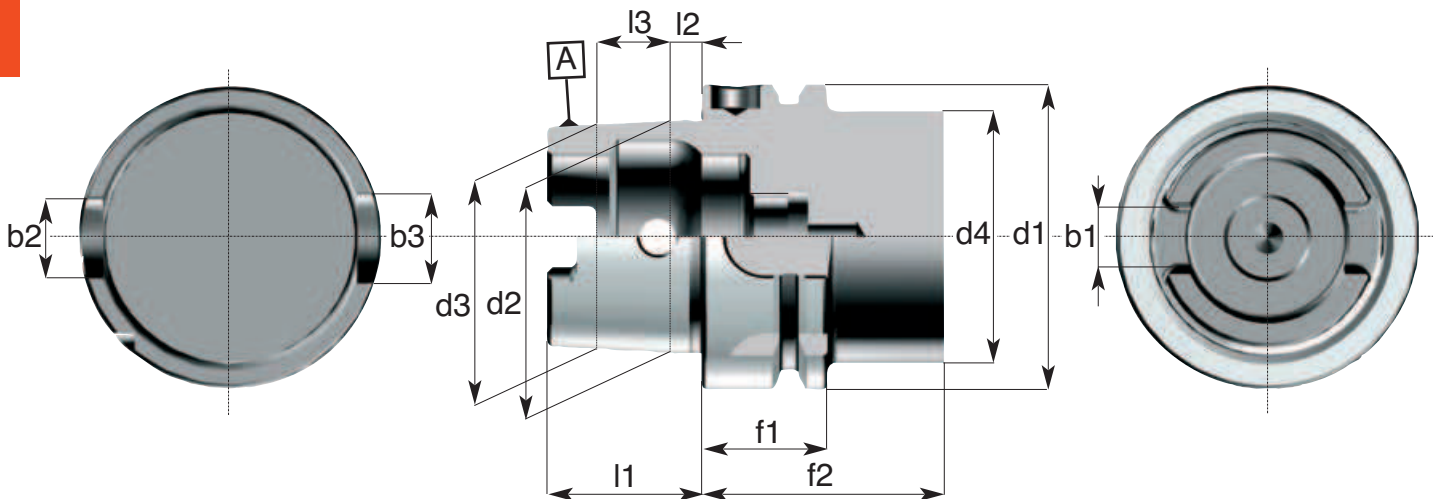


DIN 69893/1-A



Attacchi HSK DIN 69893/1-A

1.
2.



Riferimento Item	d1	d2	d3	d4 max	l1	l2	l3	f1	f2 min	b1	b2	b3
HSKA 32	32	24	23.27	26	16	3.2	7.3	20	35	7	7	9
HSKA 40	40	30	29.05	34	20	5	9.5	20	35	8	9	11
HSKA 50	50	38	36.90	42	25	5	11	26	42	10.5	12	14
HSKA 63	63	48	46.53	53	32	6.3	14.7	26	42	12.5	16	18
HSKA 80	80	60	58.10	67	40	8	19	26	42	16	18	20
HSKA 100	100	75	72.60	85	50	10	24	29	45	20	20	22

**CARATTERISTICHE TECNICHE
DEI MANDRINI HSK**

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbiati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni HSK è AT2

**STANDARD FEATURES
OF HSK TOOLING**

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of HSK SHANKS is AT2



Adduttore Refrigerante per HSK da ordinare a parte Pag. 12.42
 Coolant pipe for HSK to be ordered separately Pag. 12.42

ACCESSORI PER MACCHINE UTENSILI

Portafrese combinati con trascinamento frontale e chiavetta DIN 6358

Combined milling cutter chucks DIN 6358 B

Kombi-Aufsteckfräserdorne DIN 6358 B

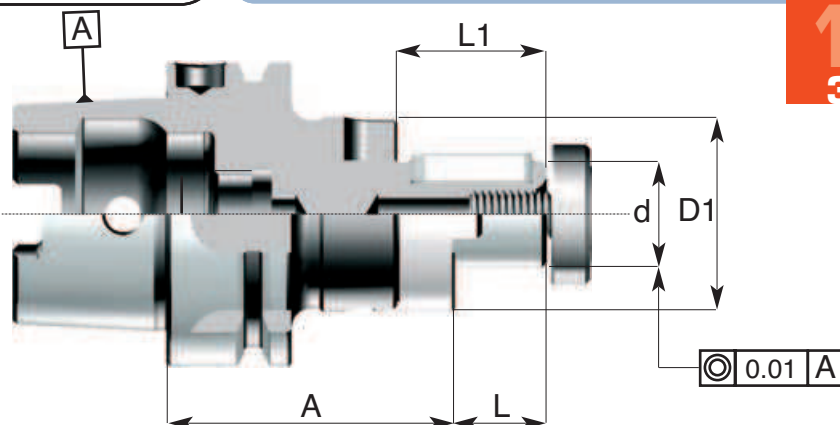
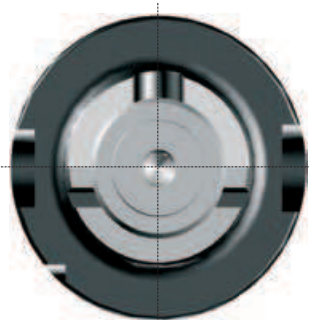
Mandrins porte-fraises combinés DIN 6358 B



Prebilanciato
Prebalanced
G6.3 / 8000rpm

DIN 69893/1-A

ART: HSKA.130



1.
3

Codice di ord Code	HSK-A	d h6	A	L	L1	D1	Trascinatore Ring	Vite Screw	Linguetta Key
HSKA.130.50.0160	HSK 50	16	60	17	27	32	190.01	191.01	130.199.01
HSKA.130.50.0220	HSK 50	22	60	19	31	40	190.02	191.02	130.199.02
HSKA.130.50.0270	HSK 50	27	70	21	33	48	190.03	191.03	130.199.03
HSKA.130.50.0320	HSK 50	32	70	24	38	58	190.04	191.04	130.199.04
HSKA.130.63.0160	HSK 63	16	60	17	27	32	190.01	191.01	130.199.01
HSKA.130.63.0162	HSK 63	16	100	17	27	32	190.01	191.01	130.199.01
HSKA.130.63.0164	HSK 63	16	150	17	27	32	190.01	191.01	130.199.01
HSKA.130.63.0220	HSK 63	22	60	19	31	40	190.02	191.02	130.199.02
HSKA.130.63.0222	HSK 63	22	100	19	31	40	190.02	191.02	130.199.02
HSKA.130.63.0224	HSK 63	22	150	19	31	40	190.02	191.02	130.199.02
HSKA.130.63.0270	HSK 63	27	60	21	33	48	190.03	191.03	130.199.03
HSKA.130.63.0272	HSK 63	27	100	21	33	48	190.03	191.03	130.199.03
HSKA.130.63.0274	HSK 63	27	150	21	33	48	190.03	191.03	130.199.03
HSKA.130.63.0320	HSK 63	32	65	24	38	58	190.04	191.04	130.199.04
HSKA.130.63.0322	HSK 63	32	100	24	38	58	190.04	191.04	130.199.04
HSKA.130.63.0324	HSK 63	32	150	24	38	58	190.04	191.04	130.199.04
HSKA.130.63.0400	HSK 63	40	77	27	41	70	190.05	191.05	130.199.05
HSKA.130.63.0402	HSK 63	40	100	27	41	70	190.05	191.05	130.199.05
HSKA.130.80.0160	HSK 80	16	60	17	27	32	190.01	191.01	130.199.01
HSKA.130.80.0220	HSK 80	22	60	19	31	40	190.02	191.02	130.199.02
HSKA.130.80.0270	HSK 80	27	60	21	33	48	190.03	191.03	130.199.03
HSKA.130.80.0320	HSK 80	32	62	24	38	58	190.04	191.04	130.199.04
HSKA.130.80.0400	HSK 80	40	75	27	41	70	190.05	191.05	130.199.05
HSKA.130.100.0160	HSK 100	16	63	17	27	32	190.01	191.01	130.199.01
HSKA.130.100.0220	HSK 100	22	60	19	31	40	190.02	191.02	130.199.02
HSKA.130.100.0222	HSK 100	22	90	19	31	40	190.02	191.02	130.199.02
HSKA.130.100.0224	HSK 100	22	120	19	31	40	190.02	191.02	130.199.02
HSKA.130.100.0270	HSK 100	27	60	21	33	48	190.03	191.03	130.199.03
HSKA.130.100.0272	HSK 100	27	90	21	33	48	190.03	191.03	130.199.03
HSKA.130.100.0274	HSK 100	27	120	21	33	48	190.03	191.03	130.199.03
HSKA.130.100.0320	HSK 100	32	65	24	38	58	190.04	191.04	130.199.04
HSKA.130.100.0322	HSK 100	32	90	24	38	58	190.04	191.04	130.199.04
HSKA.130.100.0324	HSK 100	32	120	24	38	58	190.04	191.04	130.199.04
HSKA.130.100.0400	HSK 100	40	73	27	41	70	190.05	191.05	130.199.05
HSKA.130.100.0500	HSK 100	50	80	30	46	90	190.06	191.06	130.199.06

1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Portafrese con trascinamento frontale per frese a manicotto DIN 138

Face milling cutter chucks DIN 138

Aufsteckfräserdorne DIN 138

Mandrins porte-fraises à surfacer DIN 138

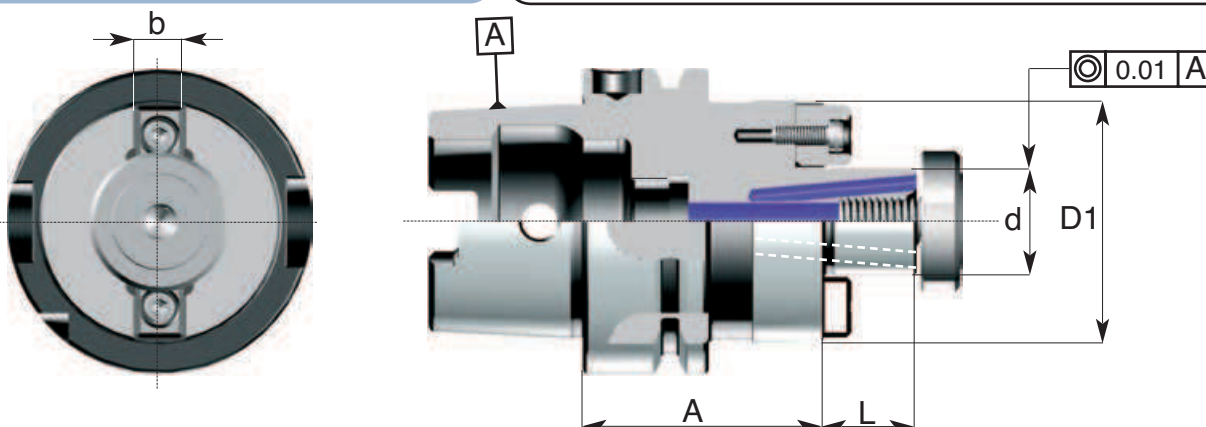
ACCESSORI PER MACCHINE UTENSILI

DIN 69893/1-A

Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: HSKA.150



Codice di ord Code	HSKA	d h6	A	L	D1	b	Tassello Tenon	Vite Screw
HSKA.150.40.0160	HSK 40	16	45	17	32	8	192.06	191.01
HSKA.150.40.0220	HSK 40	22	50	19	40	10	192.07	191.02
HSKA.150.40.0270	HSK 40	27	55	21	48	12	192.08	191.03
HSKA.150.50.0160	HSK 50	16	52	17	40	8	192.06	191.01
HSKA.150.50.0220	HSK 50	22	52	19	50	10	192.07	191.02
HSKA.150.50.0270	HSK 50	27	62	21	60	12	192.08	191.03
HSKA.150.63.0160	HSK 63	16	50	17	40	8	192.06	191.01
HSKA.150.63.0220	HSK 63	22	50	19	50	10	192.07	191.02
HSKA.150.63.0270	HSK 63	27	60	21	60	12	192.08	191.03
HSKA.150.63.0320	HSK 63	32	60	24	68	14	192.09	191.04
HSKA.150.63.0400	HSK 63	40	62	27	82	16	192.10	191.05
HSKA.150.80.0160	HSK 80	16	50	17	40	8	192.06	191.01
HSKA.150.80.0220	HSK 80	22	50	19	50	10	192.07	191.02
HSKA.150.80.0270	HSK 80	27	50	21	60	12	192.08	191.03
HSKA.150.80.0320	HSK 80	32	52	24	68	14	192.09	191.04
HSKA.150.80.0400	HSK 80	40	60	27	82	16	192.10	191.05
HSKA.150.100.0220	HSK 100	22	50	19	50	10	192.07	191.02
HSKA.150.100.0270	HSK 100	27	50	21	60	12	192.08	191.03
HSKA.150.100.0320	HSK 100	32	50	24	68	14	192.09	191.04
HSKA.150.100.0400	HSK 100	40	60	27	82	16	192.10	191.05

Pag. 1226



Pag. 1225



ACCESSORI PER MACCHINE UTENSILI

Portafrese con trascinamento frontale e Linguetta DIN 138

Face milling cutter chucks DIN 138

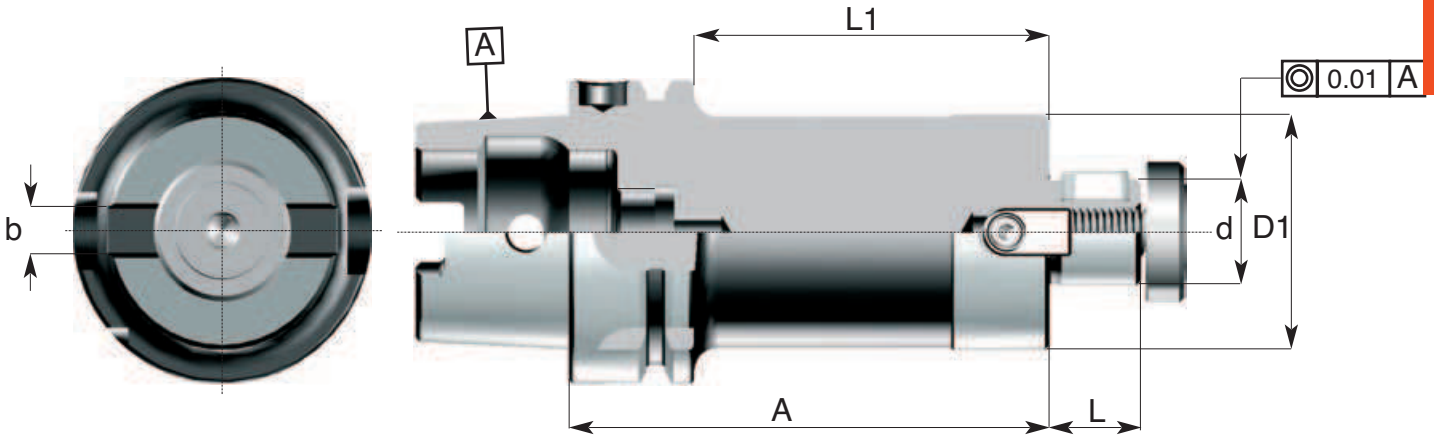
Aufsteckfräserdorne DIN 138

Mandrins porte-fraises à surfacer DIN 138

Prebilanciato
Prebalanced
G6.3 / 8000rpm

DIN 69893/1-A

ART: HSKA.151



Codice di ord Code	HSK-A	d h6	A	L	L1	b	D1	Tassello Tenon	Vite Screw	Linguetta Key
HSKA.151.63.0220	HSK 63	22	100	19	74	10	49	151.101	191.01	151.199.01
HSKA.151.63.0222	HSK 63	22	150	19	124	10	49	151.101	191.01	151.199.01
HSKA.151.63.0224	HSK 63	22	200	19	174	10	49	151.101	191.01	151.199.01
HSKA.151.63.0270	HSK 63	27	100	21	74	12	60	151.102	191.02	151.199.02
HSKA.151.63.0272	HSK 63	27	150	21	124	12	60	151.102	191.02	151.199.02
HSKA.151.63.0274	HSK 63	27	200	21	174	12	60	151.102	191.02	151.199.02
HSKA.151.63.0320	HSK 63	32	100	27	74	14	65	151.103	191.03	151.199.03
HSKA.151.63.0322	HSK 63	32	150	27	124	14	65	151.103	191.03	151.199.03



1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

ACCESSORI PER MACCHINE UTENSILI

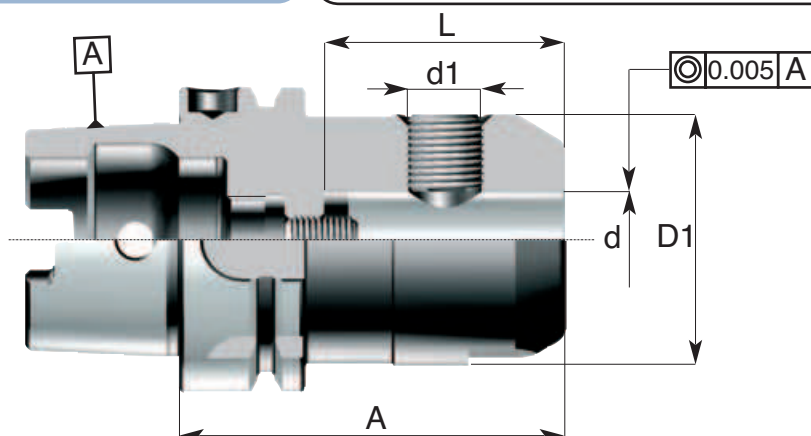


DIN 69893/1-A

Prebilanciato
 Prebalanced
 G6.3 / 8000rpm

ART: HSKA.208

1.
6



Codice di ord Code	HSKA	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
HSKA.208.32.0060	HSK 32	6	60	25	37	M6X10	208.00.0060
HSKA.208.32.0080	HSK 32	8	60	28	37	M8X10	208.00.0080
HSKA.208.32.0100	HSK 32	10	65	35	41	M10MX12	208.00.0100
HSKA.208.32.0120	HSK 32	12	75	42	46	M12X1.5X16	208.00.0120
HSKA.208.32.0140	HSK 32	14	75	42	46	M12X1.5X16	208.00.0120
HSKA.208.32.0160	HSK 32	16	75	42	49	M14X1.5X16	208.00.0140
HSKA.208.40.0060	HSK 40	6	60	25	37	M6X10	208.00.0060
HSKA.208.40.0080	HSK 40	8	60	28	37	M8X10	208.00.0080
HSKA.208.40.0100	HSK 40	10	75	35	41	M10X12	208.00.0100
HSKA.208.40.0120	HSK 40	12	75	42	46	M12X1.5X16	208.00.0120
HSKA.208.40.0140	HSK 40	14	75	42	46	M12X1.5X16	208.00.0120
HSKA.208.40.0160	HSK 40	16	80	42	49	M14X1.5X16	208.00.0140
HSKA.208.40.0180	HSK 40	18	80	42	49	M14X1.5X16	208.00.0160
HSKA.208.40.0200	HSK 40	20	80	42	51	M16X1.5X16	208.00.0160
HSKA.208.50.0060	HSK 50	6	65	25	37	M6X10	208.00.0060
HSKA.208.50.0080	HSK 50	8	65	28	37	M8X10	208.00.0080
HSKA.208.50.0100	HSK 50	10	75	35	41	M10X12	208.00.0100
HSKA.208.50.0120	HSK 50	12	80	42	46	M12X1.5X16	208.00.0120
HSKA.208.50.0140	HSK 50	14	80	44	46	M12X1.5X16	208.00.0120
HSKA.208.50.0160	HSK 50	16	80	48	49	M14X1.5X16	208.00.0140
HSKA.208.50.0180	HSK 50	18	80	50	49	M14X1.5X16	208.00.0160
HSKA.208.50.0200	HSK 50	20	80	52	51	M16X1.5X16	208.00.0160



ACCESSORI PER MACCHINE UTENSILI

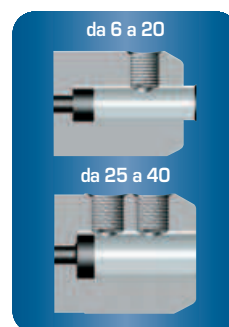
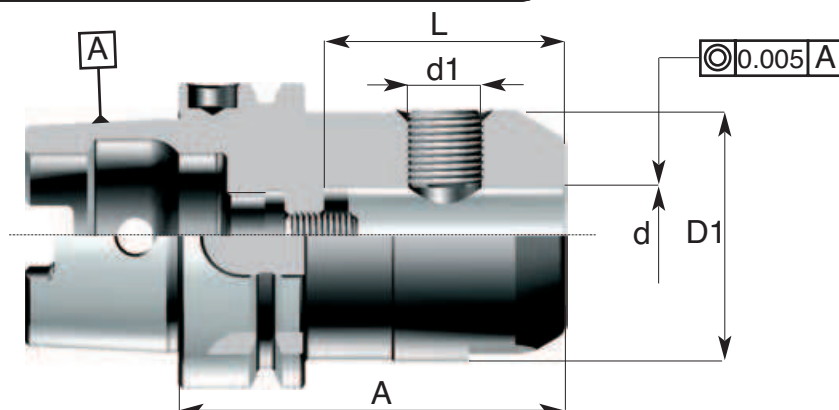


Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

DIN 69893/1-A

ART: HSKA.208



1.
7

Codice di ord Code	HSKA-A	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
HSKA.208.63.0060	HSK 63	6	65	25	38	M6X10	208.00.0060
HSKA.208.63.0080	HSK 63	8	65	28	38	M8X10	208.00.0080
HSKA.208.63.0100	HSK 63	10	75	35	45	M10X12	208.00.0100
HSKA.208.63.0120	HSK 63	12	80	42	48	M12X1.5X16	208.00.0120
HSKA.208.63.0140	HSK 63	14	80	44	48	M12X1.5X16	208.00.0120
HSKA.208.63.0160	HSK 63	16	80	48	50	M14X1.5X16	208.00.0140
HSKA.208.63.0180	HSK 63	18	80	50	50	M14X1.5X16	208.00.0160
HSKA.208.63.0200	HSK 63	20	80	52	50	M16X1.5X16	208.00.0160
HSKA.208.63.0250	HSK 63	25	110	65	65	M18X1.5X20	208.00.0180
HSKA.208.63.0320	HSK 63	32	110	72	65	M20X1.5X20	208.00.0200
HSKA.208.80.0060	HSK 80	6	80	25	38	M6X10	208.00.0060
HSKA.208.80.0080	HSK 80	8	80	28	38	M8X10	208.00.0080
HSKA.208.80.0100	HSK 80	10	80	35	45	M10X12	208.00.0100
HSKA.208.80.0120	HSK 80	12	90	42	50	M12X1.5X16	208.00.0120
HSKA.208.80.0140	HSK 80	14	90	44	50	M12X1.5X16	208.00.0120
HSKA.208.80.0160	HSK 80	16	100	48	55	M14X1.5X16	208.00.0140
HSKA.208.80.0180	HSK 80	18	100	50	55	M14X1.5X16	208.00.0160
HSKA.208.80.0200	HSK 80	20	100	52	55	M16X1.5X16	208.00.0160
HSKA.208.80.0250	HSK 80	25	110	65	65	M18X1.5X20	208.00.0180
HSKA.208.80.0320	HSK 80	32	110	72	65	M20X1.5X20	208.00.0200
HSKA.208.100.0060	HSK 100	6	80	25	38	M6X10	208.00.0060
HSKA.208.100.0080	HSK 100	8	80	28	38	M8X10	208.00.0080
HSKA.208.100.0100	HSK 100	10	85	35	45	M10X12	208.00.0100
HSKA.208.100.0120	HSK 100	12	90	42	50	M12X1.5X16	208.00.0120
HSKA.208.100.0140	HSK 100	14	90	44	50	M12X1.5X16	208.00.0120
HSKA.208.100.0160	HSK 100	16	100	48	55	M14X1.5X16	208.00.0140
HSKA.208.100.0180	HSK 100	18	100	50	55	M14X1.5X16	208.00.0160
HSKA.208.100.0200	HSK 100	20	100	52	55	M16X1.5X16	208.00.0160
HSKA.208.100.0250	HSK 100	25	100	65	60	M18X1.5X20	208.00.0180
HSKA.208.100.0320	HSK 100	32	110	72	65	M20X1.5X20	208.00.0200
HSKA.208.100.0400	HSK 100	40	120	80	75	M20X1.5X20	208.00.0200



1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

ACCESSORI PER MACCHINE UTENSILI

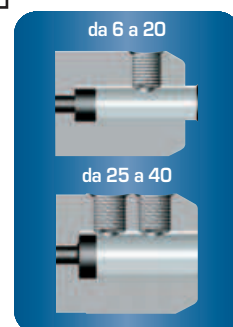
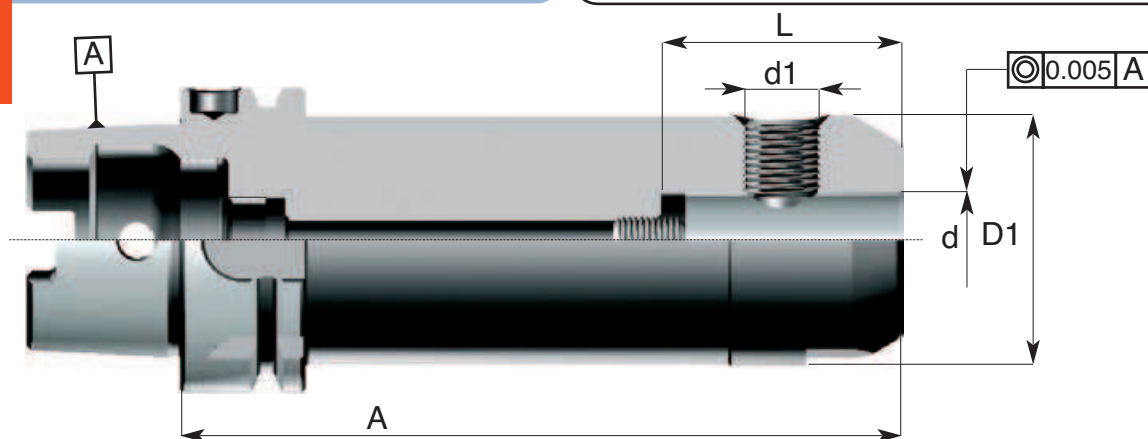


DIN 69893/1-A

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

ART: HSKA.208

1.
8



Codice di ord Code	HSKA-A	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
HSKA.208.63.0064	HSK 63	6	150	25	38	M6X10	208.00.0060
HSKA.208.63.0084	HSK 63	8	150	28	38	M8X10	208.00.0080
HSKA.208.63.0104	HSK 63	10	150	35	45	M10X12	208.00.0100
HSKA.208.63.0124	HSK 63	12	150	42	50	M12X1.5X16	208.00.0120
HSKA.208.63.0144	HSK 63	14	150	44	50	M12X1.5X16	208.00.0120
HSKA.208.63.0164	HSK 63	16	150	48	50	M14X1.5X16	208.00.0140
HSKA.208.63.0204	HSK 63	20	150	52	55	M16X1.5X16	208.00.0160
HSKA.208.100.0062	HSK 100	6	150	25	38	M6X10	208.00.0060
HSKA.208.100.0082	HSK 100	8	150	28	38	M8X10	208.00.0080
HSKA.208.100.0102	HSK 100	10	150	35	45	M10X12	208.00.0100
HSKA.208.100.0122	HSK 100	12	150	42	50	M12X1.5X16	208.00.0120
HSKA.208.100.0142	HSK 100	14	150	44	50	M12X1.5X16	208.00.0120
HSKA.208.100.0162	HSK 100	16	150	48	50	M14X1.5X16	208.00.0140
HSKA.208.100.0202	HSK 100	20	150	52	55	M16X1.5X16	208.00.0160
HSKA.208.100.0252	HSK 100	25	150	65	60	M18X1.5X20	208.00.0180
HSKA.208.100.0322	HSK 100	32	150	72	65	M20X1.5X20	208.00.0200
HSKA.208.100.0402	HSK 100	40	150	80	75	M20X1.5X20	208.00.0200



ACCESSORI PER MACCHINE UTENSILI

Portafrese per calettamento a caldo secondo DIN 69882-8

Shrink-fit chucks DIN 69882-8

Schrumpfutter DIN 69882-8

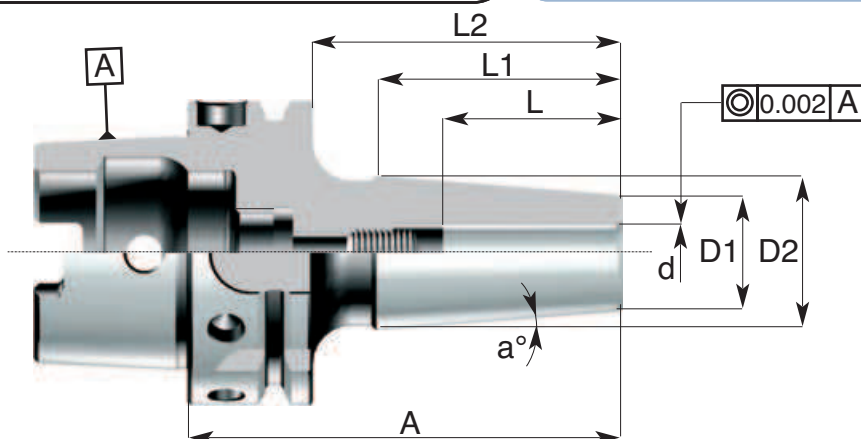
Mandrins de frettage DIN 69882-8



Bilanciatura fine
Fine balancing

DIN 69893/1-A

ART: HSKA.206



1.
9

Codice di ord Code	HSKA	d h6	D1	D2	a°	L	L1	L2	A	bilanciatura balancing
HSKA.206.50.0030	HSK 50	3	9	16	4.5°	15	44	54	80	G6.3/2000RPM
HSKA.206.50.0040	HSK 50	4	9	16	4.5°	15	44	54	80	G6.3/2000RPM
HSKA.206.50.0050	HSK 50	5	12	19	4.5°	20	44	54	80	G6.3/2000RPM
HSKA.206.50.0060	HSK 50	6	12	19	4.5°	28	44	54	80	G6.3/2000RPM
HSKA.206.50.0080	HSK 50	8	15	22	4.5°	34	44	54	80	G6.3/2000RPM
HSKA.206.50.0100	HSK 50	10	19	27	4.5°	37	51	59	90	G6.3/2000RPM
HSKA.206.50.0120	HSK 50	12	24	32	4.5°	37	51	64	90	G6.3/1500RPM
HSKA.206.63.0030	HSK 63	3	9	16	4.5°	15	44	54	80	G6.3/1500RPM
HSKA.206.63.0040	HSK 63	4	9	16	4.5°	15	44	54	80	G6.3/1500RPM
HSKA.206.63.0050	HSK 63	5	12	19	4.5°	20	44	54	80	G6.3/1500RPM
HSKA.206.63.0060	HSK 63	6	12	19	4.5°	28	44	54	80	G6.3/1500RPM
HSKA.206.63.0080	HSK 63	8	15	22	4.5°	34	44	54	80	G6.3/1500RPM
HSKA.206.63.0100	HSK 63	10	19	27	4.5°	37	51	59	85	G6.3/1500RPM
HSKA.206.63.0120	HSK 63	12	24	32	4.5°	37	51	64	90	G6.3/1500RPM
HSKA.206.63.0140	HSK 63	14	27	34	4.5°	40	44	64	90	G6.3/1500RPM
HSKA.206.63.0160	HSK 63	16	27	34	4.5°	40	44	69	95	G6.3/1500RPM
HSKA.206.63.0200	HSK 63	20	33	42	4.5°	45	57	74	100	G6.3/1500RPM
HSKA.206.100.0030	HSK 100	3	9	16	4.5°	15	44	56	85	G6.3/1500RPM
HSKA.206.100.0040	HSK 100	4	9	16	4.5°	15	44	56	85	G6.3/1500RPM
HSKA.206.100.0050	HSK 100	5	12	19	4.5°	20	44	56	85	G6.3/1500RPM
HSKA.206.100.0060	HSK 100	6	12	19	4.5°	28	44	56	85	G6.3/1500RPM
HSKA.206.100.0080	HSK 100	8	15	22	4.5°	34	44	56	85	G6.3/1500RPM
HSKA.206.100.0100	HSK 100	10	19	27	4.5°	37	51	61	90	G6.3/1500RPM
HSKA.206.100.0120	HSK 100	12	24	32	4.5°	37	51	66	95	G6.3/1500RPM
HSKA.206.100.0140	HSK 100	14	27	34	4.5°	40	44	66	95	G6.3/1500RPM
HSKA.206.100.0160	HSK 100	16	27	34	4.5°	40	44	71	100	G6.3/1500RPM
HSKA.206.100.0200	HSK 100	20	33	42	4.5°	45	57	76	105	G6.3/1500RPM

1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Portafrese per calettamento a caldo secondo DIN 69882-8

Shrink-fit chucks DIN 69882-8

Schrumpfutter DIN 69882-8

Mandrins de frettage DIN 69882-8

ACCESSORI PER MACCHINE UTENSILI

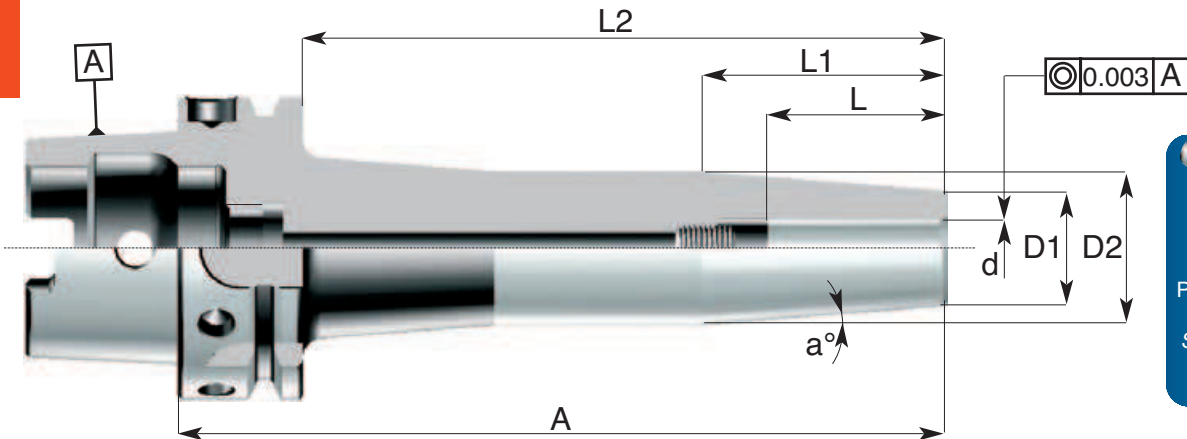


DIN 69893/1-A

Bilanciatura fine
Fine balancing

ART: HSKA.206

1
10



Codice di ord Code	HSKA-A	d h6	D1	D2	a°	L	L1	L2	A	bilanciatura balancing
HSKA.206.63.0032	HSK 63	3	9	16	4.5°	15	44	134	160	G6.3/20000RPM
HSKA.206.63.0042	HSK 63	4	9	16	4.5°	15	44	134	160	G6.3/20000RPM
HSKA.206.63.0052	HSK 63	5	12	19	4.5°	20	44	134	160	G6.3/20000RPM
HSKA.206.63.0062	HSK 63	6	12	22	4.5°	28	44	134	160	G6.3/20000RPM
HSKA.206.63.0082	HSK 63	8	15	23	4.5°	34	44	134	160	G6.3/20000RPM
HSKA.206.63.0102	HSK 63	10	19	27	4.5°	37	51	134	160	G6.3/20000RPM
HSKA.206.63.0122	HSK 63	12	24	32	4.5°	37	51	134	160	G6.3/15000RPM
HSKA.206.63.0142	HSK 63	14	27	34	4.5°	40	44	134	160	G6.3/15000RPM
HSKA.206.63.0162	HSK 63	16	27	34	4.5°	40	44	134	160	G6.3/15000RPM
HSKA.206.63.0202	HSK 63	20	33	42	4.5°	45	57	134	160	G6.3/15000RPM
HSKA.206.100.0032	HSK 100	3	9	16	4.5°	15	44	131	160	G6.3/15000RPM
HSKA.206.100.0042	HSK 100	4	9	16	4.5°	15	44	131	160	G6.3/15000RPM
HSKA.206.100.0052	HSK 100	5	12	22	4.5°	20	44	131	160	G6.3/15000RPM
HSKA.206.100.0062	HSK 100	6	12	22	4.5°	28	44	131	160	G6.3/15000RPM
HSKA.206.100.0082	HSK 100	8	15	23	4.5°	34	44	131	160	G6.3/15000RPM
HSKA.206.100.0102	HSK 100	10	19	27	4.5°	37	51	131	160	G6.3/15000RPM
HSKA.206.100.0122	HSK 100	12	24	32	4.5°	37	51	131	160	G6.3/15000RPM
HSKA.206.100.0142	HSK 100	14	27	34	4.5°	40	44	131	160	G6.3/15000RPM
HSKA.206.100.0162	HSK 100	16	27	34	4.5°	40	44	131	160	G6.3/15000RPM
HSKA.206.100.0202	HSK 100	20	33	42	4.5°	45	57	131	160	G6.3/15000RPM

ACCESSORI PER MACCHINE UTENSILI

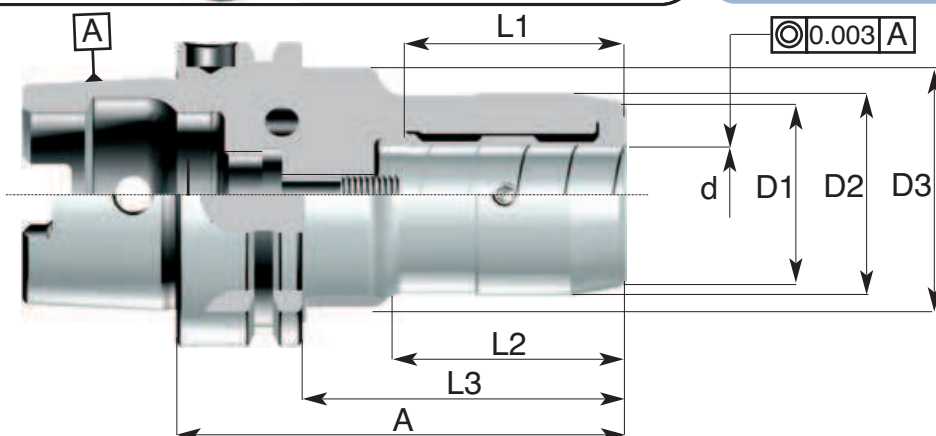
Mandrini a chiusura idraulica HYDRO-DELTA
 Hydraulic clamping chucks HYDRO DELTA
 Dehnspannfutter HYDRO DELTA
 Mandrins expansibles HYDRO DELTA



Bilanciatura fine
 Fine balancing

DIN 69893/1-A

ART:HSKA.207



1.
11



Codice di ord Code	HSKA	d	D1	D2	D3	L1	L2	L3	A	bilanciatura balancing
HSKA .207.50.0060	HSK 50	6	22	26	42	35	21	46	72	G6.3/20000RPM
HSKA .207.50.0080	HSK 50	8	24	28	42	35	21	53	79	G6.3/20000RPM
HSKA .207.50.0100	HSK 50	10	26	30	42	35	32	57	83	G6.3/20000RPM
HSKA .207.50.0120	HSK 50	12	28	32	42	44	43	65	91	G6.3/20000RPM
HSKA .207.50.0160	HSK 50	16	34	38	42	47	40	67	93	G6.3/20000RPM
HSKA .207.50.0200	HSK 50	20	38	42	42	49	40	67	93	G6.3/20000RPM
HSKA .207.63.0060	HSK 63	6	22	26	53	35	21	46	72	G6.3/15000RPM
HSKA .207.63.0080	HSK 63	8	24	28	53	35	21	53	79	G6.3/15000RPM
HSKA .207.63.0100	HSK 63	10	26	30	53	35	32	57	83	G6.3/15000RPM
HSKA .207.63.0120	HSK 63	12	28	32	53	44	43	65	91	G6.3/15000RPM
HSKA .207.63.0160	HSK 63	16	34	38	53	47	40	67	93	G6.3/15000RPM
HSKA .207.63.0200	HSK 63	20	38	42	53	49	40	67	93	G6.3/15000RPM
HSKA .207.63.0250	HSK 63	25	46	50	53	55	50	80	106	G6.3/15000RPM
HSKA .207.63.0320	HSK 63	32	52	58	53	62	55	85	111	G6.3/15000RPM
HSKA .207.80.0060	HSK 80	6	22	26	55	35	21	46	72	G6.3/15000RPM
HSKA .207.80.0080	HSK 80	8	24	28	55	35	21	53	79	G6.3/15000RPM
HSKA .207.80.0100	HSK 80	10	26	30	55	35	32	57	83	G6.3/15000RPM
HSKA .207.80.0120	HSK 80	12	28	32	55	44	43	65	91	G6.3/15000RPM
HSKA .207.80.0160	HSK 80	16	34	38	55	47	40	67	93	G6.3/15000RPM
HSKA .207.80.0200	HSK 80	20	38	42	60	49	40	67	93	G6.3/15000RPM
HSKA .207.80.0250	HSK 80	25	46	50	60	55	50	80	106	G6.3/15000RPM
HSKA .207.80.0320	HSK 80	32	52	58	60	62	55	85	111	G6.3/15000RPM
HSKA .207.100.0060	HSK 100	6	22	26	55	35	21	46	72	G6.3/15000RPM
HSKA .207.100.0080	HSK 100	8	24	28	55	35	21	53	79	G6.3/15000RPM
HSKA .207.100.0100	HSK 100	10	26	30	55	35	32	57	83	G6.3/15000RPM
HSKA .207.100.0120	HSK 100	12	28	32	55	44	43	65	91	G6.3/15000RPM
HSKA .207.100.0160	HSK 100	16	34	38	55	47	40	67	93	G6.3/15000RPM
HSKA .207.100.0200	HSK 100	20	38	42	70	49	40	67	93	G6.3/15000RPM
HSKA .207.100.0250	HSK 100	25	46	50	70	55	50	80	106	G6.3/15000RPM
HSKA .207.100.0320	HSK 100	32	52	58	70	62	55	85	111	G6.3/15000RPM

1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Mandrini a chiusura idraulica HYDRO-DELTA
 Hydraulic clamping chucks HYDRO DELTA
 Dehnspannfutter HYDRO DELTA
 Mandrins expansibles HYDRO DELTA

ACCESSORI PER MACCHINE UTENSILI

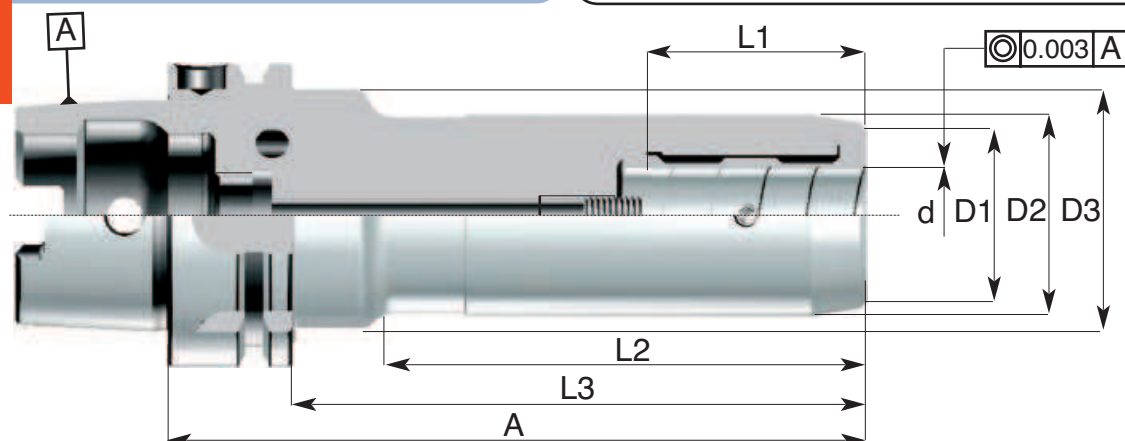


DIN 69893/1-A

Bilanciatura fine
 Fine balancing

ART: HSKA.207

1.
12



Codice di ord Code	HSKA	d	D1	D2	D3	L1	L2	L3	A	bilanciatura balancing
HSKA.207.63.0062	HSK 63	6	22	26	53	35	99	124	150	G6.3/15000RPM
HSKA.207.63.0064	HSK 63	6	22	26	53	35	149	174	200	G6.3/15000RPM
HSKA.207.63.0082	HSK 63	8	24	28	53	35	99	124	150	G6.3/15000RPM
HSKA.207.63.0084	HSK 63	8	24	28	53	35	149	174	200	G6.3/15000RPM
HSKA.207.63.0102	HSK 63	10	26	30	53	35	99	124	150	G6.3/15000RPM
HSKA.207.63.0104	HSK 63	10	26	30	53	35	149	174	200	G6.3/15000RPM
HSKA.207.63.0122	HSK 63	12	28	32	53	44	99	124	150	G6.3/15000RPM
HSKA.207.63.0124	HSK 63	12	28	32	53	44	149	174	200	G6.3/15000RPM
HSKA.207.63.0162	HSK 63	16	34	38	53	47	99	124	150	G6.3/15000RPM
HSKA.207.63.0164	HSK 63	16	34	38	53	47	149	174	200	G6.3/15000RPM
HSKA.207.63.0202	HSK 63	20	38	42	53	49	99	124	150	G6.3/15000RPM
HSKA.207.63.0204	HSK 63	20	38	42	53	49	149	174	200	G6.3/15000RPM

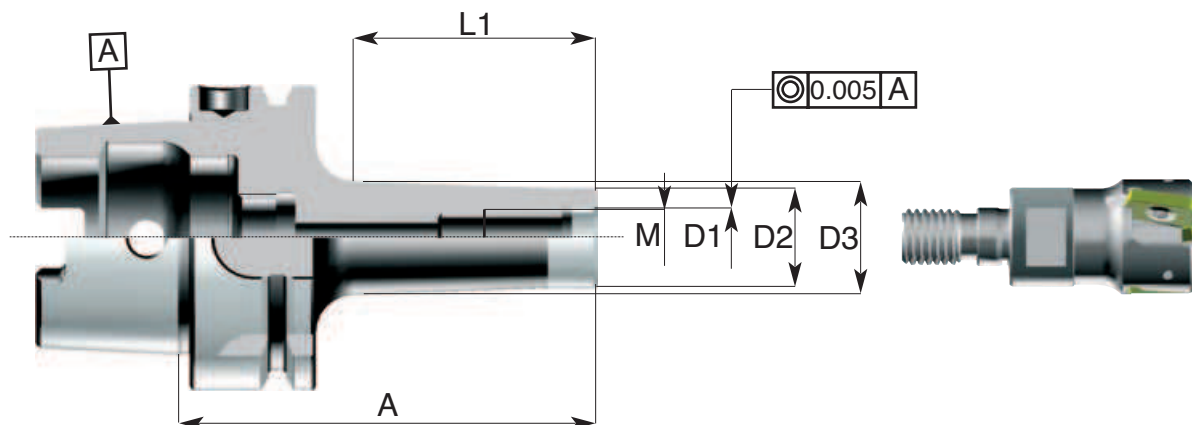


Bilanciatura fine
 Fine balancing

DIN 69893/1-A

ART: HSKA.267

1.
13



Codice di ord Code	HSKA	M	D1	D2	D3	L1	A	bilanciatura balancing
HSKA.267.40.0060	HSK 40	M6	6.5	9.7	13	25	53	G6.3/20000RPM
HSKA.267.40.0062	HSK 40	M6	6.5	9.7	20	50	78	G6.3/20000RPM
HSKA.267.40.0064	HSK 40	M6	6.5	9.7	23	75	103	G6.3/20000RPM
HSKA.267.40.0080	HSK 40	M8	8.5	12.7	15	25	53	G6.3/20000RPM
HSKA.267.40.0082	HSK 40	M8	8.5	12.7	23	50	78	G6.3/20000RPM
HSKA.267.40.0084	HSK 40	M8	8.5	12.7	23	75	103	G6.3/20000RPM
HSKA.267.40.0086	HSK 40	M8	8.5	12.7	25	100	128	G6.3/20000RPM
HSKA.267.40.0100	HSK 40	M10	10.5	17.7	20	25	53	G6.3/20000RPM
HSKA.267.40.0102	HSK 40	M10	10.5	17.7	25	50	78	G6.3/20000RPM
HSKA.267.40.0104	HSK 40	M10	10.5	17.7	28	75	103	G6.3/20000RPM
HSKA.267.40.0106	HSK 40	M10	10.5	17.7	30	100	128	G6.3/20000RPM
HSKA.267.50.0060	HSK 50	M6	6.5	9.7	13	25	59	G6.3/20000RPM
HSKA.267.50.0062	HSK 50	M6	6.5	9.7	20	50	84	G6.3/20000RPM
HSKA.267.50.0064	HSK 50	M6	6.5	9.7	23	75	109	G6.3/20000RPM
HSKA.267.50.0080	HSK 50	M8	8.5	12.7	15	25	59	G6.3/20000RPM
HSKA.267.50.0082	HSK 50	M8	8.5	12.7	23	50	84	G6.3/20000RPM
HSKA.267.50.0084	HSK 50	M8	8.5	12.7	23	75	109	G6.3/20000RPM
HSKA.267.50.0086	HSK 50	M8	8.5	12.7	25	100	134	G6.3/20000RPM
HSKA.267.50.0100	HSK 50	M10	10.5	17.7	20	25	59	G6.3/20000RPM
HSKA.267.50.0102	HSK 50	M10	10.5	17.7	25	50	84	G6.3/20000RPM
HSKA.267.50.0104	HSK 50	M10	10.5	17.7	28	75	109	G6.3/20000RPM
HSKA.267.50.0106	HSK 50	M10	10.5	17.7	30	100	134	G6.3/20000RPM
HSKA.267.50.0120	HSK 50	M12	12.5	20.7	24	25	59	G6.3/20000RPM
HSKA.267.50.0122	HSK 50	M12	12.5	20.7	24	50	84	G6.3/20000RPM
HSKA.267.50.0124	HSK 50	M12	12.5	20.7	31	75	109	G6.3/20000RPM
HSKA.267.50.0160	HSK 50	M16	17	28.7	34	25	59	G6.3/20000RPM
HSKA.267.50.0162	HSK 50	M16	17	28.7	34	50	84	G6.3/20000RPM
HSKA.267.50.0164	HSK 50	M16	17	28.7	34	75	109	G6.3/20000RPM

1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Mandriini portatestine filettate
 Chucks for threaded heads
 Mandrins pour têtes filetées
 Spannfutter für Gewindeköpfe

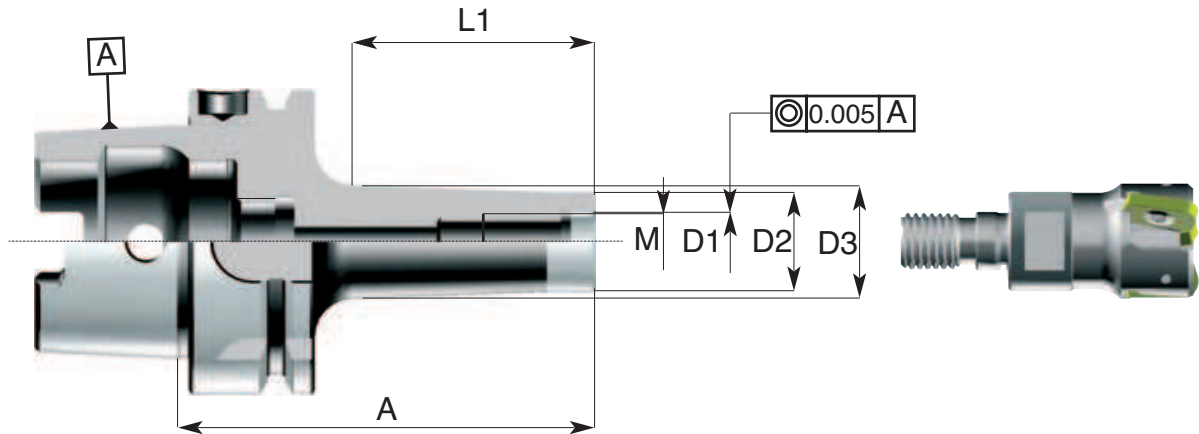
ACCESSORI PER MACCHINE UTENSILI



DIN 69893/1-A

Bilanciatura fine
 Fine balancing

ART: HSKA.267



Codice di ord Code	HSKA	M	D1	D2	D3	L1	A	bilanciatura balancing
HSKA.267.63.0060	HSK 63	M6	6.5	9.7	13	25	59	G6.3/15000RPM
HSKA.267.63.0062	HSK 63	M6	6.5	9.7	20	50	84	G6.3/15000RPM
HSKA.267.63.0064	HSK 63	M6	6.5	9.7	23	75	109	G6.3/15000RPM
HSKA.267.63.0080	HSK 63	M8	8.5	12.7	15	25	59	G6.3/15000RPM
HSKA.267.63.0082	HSK 63	M8	8.5	12.7	23	50	84	G6.3/15000RPM
HSKA.267.63.0084	HSK 63	M8	8.5	12.7	23	75	109	G6.3/15000RPM
HSKA.267.63.0086	HSK 63	M8	8.5	12.7	25	100	134	G6.3/15000RPM
HSKA.267.63.0100	HSK 63	M10	10.5	17.7	20	25	59	G6.3/15000RPM
HSKA.267.63.0102	HSK 63	M10	10.5	17.7	25	50	84	G6.3/15000RPM
HSKA.267.63.0104	HSK 63	M10	10.5	17.7	28	75	109	G6.3/15000RPM
HSKA.267.63.0106	HSK 63	M10	10.5	17.7	30	100	134	G6.3/15000RPM
HSKA.267.63.0120	HSK 63	M12	12.5	20.7	24	25	59	G6.3/15000RPM
HSKA.267.63.0122	HSK 63	M12	12.5	20.7	24	50	84	G6.3/15000RPM
HSKA.267.63.0124	HSK 63	M12	12.5	20.7	31	75	109	G6.3/15000RPM
HSKA.267.63.0126	HSK 63	M12	12.5	20.7	31	100	134	G6.3/15000RPM
HSKA.267.63.0160	HSK 63	M16	17	28.7	34	25	59	G6.3/15000RPM
HSKA.267.63.0162	HSK 63	M16	17	28.7	34	50	84	G6.3/15000RPM
HSKA.267.63.0164	HSK 63	M16	17	28.7	34	75	109	G6.3/15000RPM
HSKA.267.63.0166	HSK 63	M16	17	28.7	39	100	134	G6.3/15000RPM

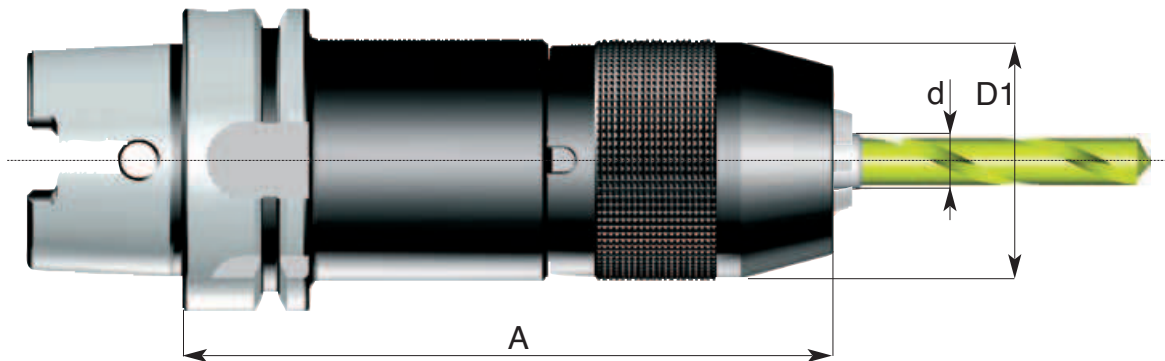
ACCESSORI PER MACCHINE UTENSILI

Mandrini portapunte integrali
Integral drill chucks
Kurzbohrfutter
Mandrins porte-forets intégraux

DIN 69893/1-A

ART: HSKA.221

1.
15



Codice di ord Code	HSK-A	A	D	capacità d Capacity range "d"
HSKA.221.50.1301	HSK 50	142	50	1-13
HSKA.221.63.1301	HSK 63	147	50	1-13
HSKA.221.63.1603	HSK 63	150	57	3-16
HSKA.221.100.1301	HSK 100	154	50	1-13
HSKA.221.100.1603	HSK 100	160	57	3-16

ADATTI SOLO A ROTAZIONE DESTRA
SUITABLE FOR RIGHT ROTATION ONLY

Forniti completi di chiave
Supplied together with key

1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Riduzioni da cono HSK a cono Morse DIN 6364 B per frese con vite interna
 Morse taper adaptors sleeves for cutters with internal screw - DIN 6364 B
 Zwischenhülsen für Morsekegel mit Auzugsgewinde - DIN 6364 B
 Douilles de réduction à cône Morse pour fraises avec vis - DIN 6364 B

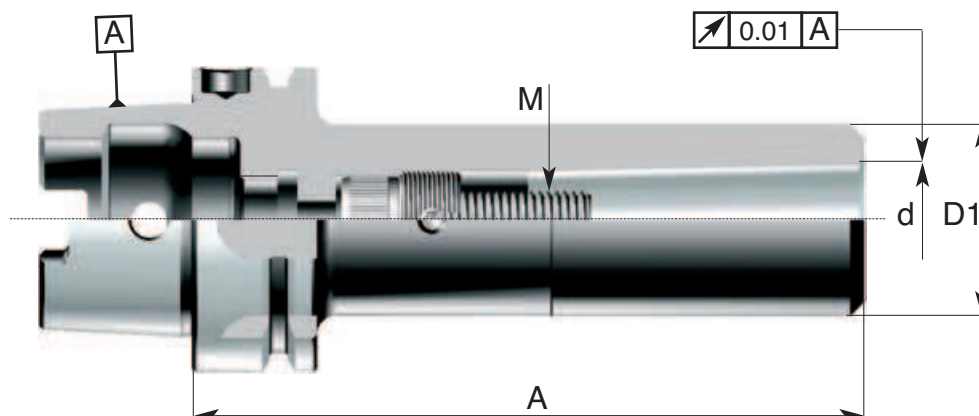
ACCESSORI PER MACCHINE UTENSILI



DIN 69893/1-A

ART: HSKA.261

1
16



Codice di ord Code	HSKA-A	Cono Morse SK	d	A	D1	M	Vite Screw	Ghiera Nut
HSKA.261.40.0100	HSK 40	Morse 1	12.065	90	25	M6	261.00.0625	261.12.0100
HSKA.261.40.0200	HSK 40	Morse 2	17.780	100	32	M10	261.00.1030.B	261.15.0200
HSKA.261.50.0100	HSK 50	Morse 1	12.065	100	25	M6	261.00.0625	261.16.1100
HSKA.261.50.0200	HSK 50	Morse 2	17.780	120	32	M10	261.00.1030.B	261.16.1100
HSKA.261.50.0300	HSK 50	Morse 3	23.825	140	40	M12	261.00.1240.B	261.00.1220
HSKA.261.63.0100	HSK 63	Morse 1	12.065	100	25	M6	261.00.0630	261.00.0612
HSKA.261.63.0200	HSK 63	Morse 2	17.780	120	32	M10	261.00.1030.E	261.00.1018
HSKA.261.63.0300	HSK 63	Morse 3	23.825	140	40	M12	261.00.1240.E	261.00.1220
HSKA.261.63.0400	HSK 63	Morse 4	31.267	160	48	M16	261.00.1650.E	261.00.1626
HSKA.261.80.0100	HSK 80	Morse 1	12.065	110	25	M6	261.00.0630	261.00.1018
HSKA.261.80.0200	HSK 80	Morse 2	17.780	120	32	M10	261.00.1030.E	261.00.1018
HSKA.261.80.0300	HSK 80	Morse 3	23.825	140	40	M12	261.00.1240.E	261.00.1220
HSKA.261.80.0400	HSK 80	Morse 4	31.267	170	48	M16	261.00.1650.E	261.00.1626
HSKA.261.80.0500	HSK 80	Morse 5	44.399	200	63	M20	261.00.2050.E	261.00.2033
HSKA.261.100.0100	HSK 100	Morse 1	12.065	110	25	M6	261.00.0645	261.00.1018
HSKA.261.100.0200	HSK 100	Morse 2	17.780	120	32	M10	261.00.1030	261.00.1018
HSKA.261.100.0300	HSK 100	Morse 3	23.825	150	40	M12	261.00.1240.E	261.00.1220
HSKA.261.100.0400	HSK 100	Morse 4	31.267	170	48	M16	261.00.1645.B.E	261.00.1626
HSKA.261.100.0500	HSK 100	Morse 5	44.399	200	63	M20	261.00.2050.BE	261.00.2033



ACCESSORI PER MACCHINE UTENSILI



Riduzioni da cono HSK a cono Morse per punte

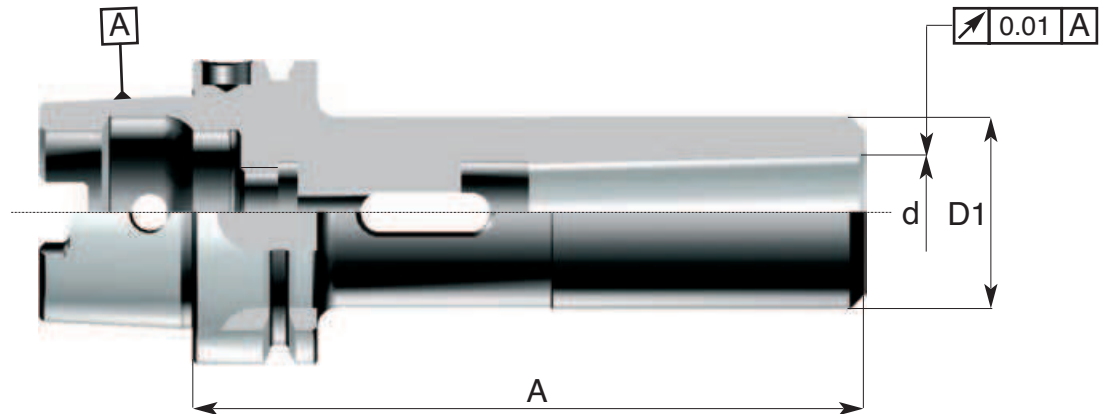
Morse taper adaptors sleeves for drills with driving shank

Zwischenhülsen für Morsekegel mit Austreibklappen

Douilles de réduction à cône Morse pour forets avec dents d'entraînement

DIN 69893/1-A

ART: HSKA.262



1.
17

Codice di ord Code	HSKA	Cono Morse SK	d	A	D1
HSKA.262.40.0100	HSK 40	Morse 1	12.065	95	25
HSKA.262.40.0200	HSK 40	Morse 2	17.780	110	32
HSKA.262.50.0100	HSK 50	Morse 1	12.065	100	25
HSKA.262.50.0200	HSK 50	Morse 2	17.780	120	32
HSKA.262.50.0300	HSK 50	Morse 3	23.825	140	40
HSKA.262.63.0100	HSK 63	Morse 1	12.065	100	25
HSKA.262.63.0200	HSK 63	Morse 2	17.780	120	32
HSKA.262.63.0300	HSK 63	Morse 3	23.825	140	40
HSKA.262.63.0400	HSK 63	Morse 4	31.267	160	48
HSKA.262.80.0100	HSK 80	Morse 1	12.065	110	25
HSKA.262.80.0200	HSK 80	Morse 2	17.780	120	32
HSKA.262.80.0300	HSK 80	Morse 3	23.825	140	40
HSKA.262.80.0400	HSK 80	Morse 4	31.267	170	48
HSKA.262.80.0500	HSK 80	Morse 5	44.399	200	63
HSKA.262.100.0100	HSK 100	Morse 1	12.065	110	25
HSKA.262.100.0200	HSK 100	Morse 2	17.780	120	32
HSKA.262.100.0300	HSK 100	Morse 3	23.825	150	40
HSKA.262.100.0400	HSK 100	Morse 4	31.267	170	48
HSKA.262.100.0500	HSK 100	Morse 5	44.399	200	63

1. MANDRINI a cono HSKA DIN 69893/1
TOOL HOLDERS with HSKA cone DIN 69893/1



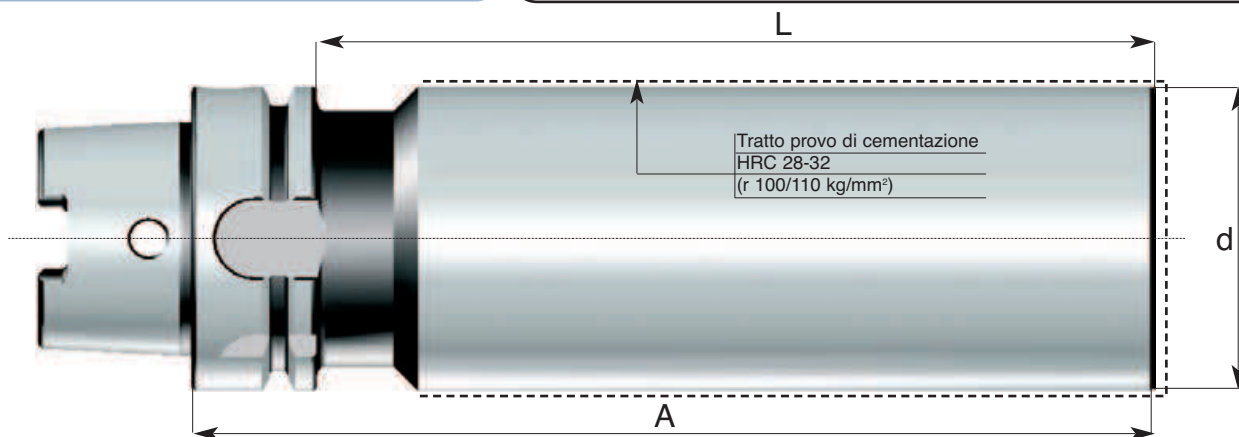
Barre semifinite con tratto cilindrico privo di cementazione per esecuzioni speciali
 Unfinished taper-shank blanks for special applications
 Rohlinge für spezielle Anwendungen
 Ebauches pour applications spéciales

ACCESSORI PER MACCHINE UTENSILI



DIN 69893/1-A

ART:HSKA.424



Codice di ord Code	SK	d	A	L
HSKA.424.50.0500	HSK 50	50	176	150
HSKA.424.63.0632	HSK 63	63	226	200
HSKA.424.63.0634	HSK 63	63	326	300
HSKA.424.80.0802	HSK 80	80	226	250
HSKA.424.100.1000	HSK 100	100	279	250

ACCESSORI PER MACCHINE UTENSILI

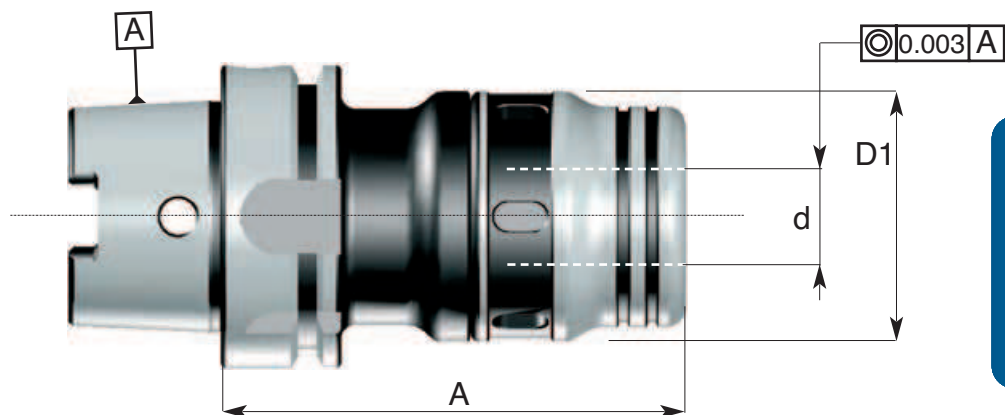
Mandrini a forte serraggio
High clamping chucks
Kraftspannfutter
Mandrins à fort serrage



Prebilanciato
Prebalanced
G6.3 / 8000rpm

DIN 69893/1-A

ART: HSKA.603



1.
19



Codice di ord Code	HSK-A	d1	D1	A	Boccola di riduzione Reduction bushes
HSKA.603.40.0200	HSK 40	20	54	100	239.20...
HSKA.603.50.0200	HSK 50	20	54	107	239.20...
HSKA.603.63.0200	HSK 63	20	54	107	239.20...
HSKA.603.63.0320	HSK 63	32	72	120	239.32...
HSKA.603.100.0200	HSK 100	20	54	110	239.20...
HSKA.603.100.0320	HSK 100	32	72	123	239.32...

1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Mandriini portapinzine ER DIN 6499 - ghiera standard
 Collet chucks ER DIN 6499 - standard nut
 Spannzangenhalter ER DIN 6499 - standard Spannmutter
 Mandrins porte-pinces ER DIN 6499 - écrou standard

ACCESSORI PER MACCHINE UTENSILI

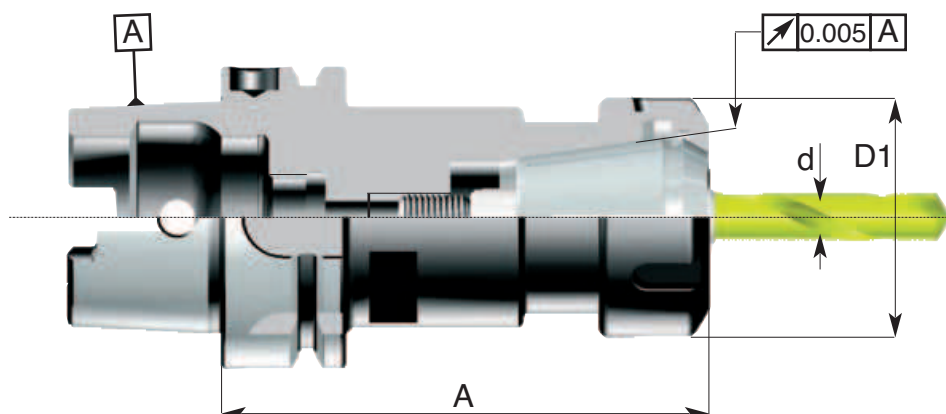


DIN 69893/1-A

Prebilanciato
 Prebalanced
 G6.3 / 8000rpm

ART: HSKA.607
 ghiera standard / standard nut

1.
20



Codice di ord Code	HSKA	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
HSKA.607.40.0250	HSK 40	ER 25	80	42	1-16	245.32.ER25
HSKA.607.40.0252	HSK 40	ER 25	120	42	1-16	245.32.ER25
HSKA.607.50.0160.C	HSK 50	ER 16	70	28	0,5-10	245.22.ER16
HSKA.607.50.0160	HSK 50	ER 16	100	28	0,5-10	245.22.ER16
HSKA.607.50.0250.C	HSK 50	ER 25	70	42	1-16	245.32.ER25
HSKA.607.50.0250	HSK 50	ER 25	100	42	1-16	245.32.ER25
HSKA.607.50.0320.C	HSK 50	ER 32	70	50	1-20	245.40.ER32
HSKA.607.50.0320	HSK 50	ER 32	100	50	1-20	245.40.ER32
HSKA.607.50.0322	HSK 50	ER 32	150	50	1-20	245.40.ER32
HSKA.607.50.0400	HSK 50	ER 40	100	63	2-30	245.50.ER40
HSKA.607.63.0160	HSK 63	ER 16	100	28	0,5-10	245.22.ER16
HSKA.607.63.0250.C	HSK 63	ER 25	70	42	1-16	245.32.ER25
HSKA.607.63.0250	HSK 63	ER 25	100	42	1-16	245.32.ER25
HSKA.607.63.0252	HSK 63	ER 25	150	42	1-16	245.32.ER25
HSKA.607.63.0320	HSK 63	ER 32	100	50	1-20	245.40.ER32
HSKA.607.63.0322	HSK 63	ER 32	150	50	1-20	245.40.ER32
HSKA.607.63.0324	HSK 63	ER 32	200	50	2-20	245.40.ER32
HSKA.607.63.0400	HSK 63	ER 40	100	63	2-30	245.50.ER40
HSKA.607.63.0402	HSK 63	ER 40	150	63	2-30	245.50.ER40
HSKA.607.80.0160	HSK 80	ER 16	100	28	0,5-10	245.22.ER16
HSKA.607.80.0250	HSK 80	ER 25	100	42	1-16	245.32.ER25
HSKA.607.80.0320	HSK 80	ER 32	100	50	1-20	245.40.ER32
HSKA.607.80.0400	HSK 80	ER 40	120	63	2-30	245.50.ER40
HSKA.607.100.0160	HSK 100	ER 16	120	28	0,5-10	245.22.ER16
HSKA.607.100.0250	HSK 100	ER 25	120	42	1-16	245.32.ER25
HSKA.607.100.0252	HSK 100	ER 25	150	42	1-16	245.32.ER25
HSKA.607.100.0320	HSK 100	ER 32	120	50	1-20	245.40.ER32
HSKA.607.100.0322	HSK 100	ER 32	150	50	1-20	245.40.ER32
HSKA.607.100.0400	HSK 100	ER 40	120	63	2-30	245.50.ER40

ACCESSORI PER MACCHINE UTENSILI



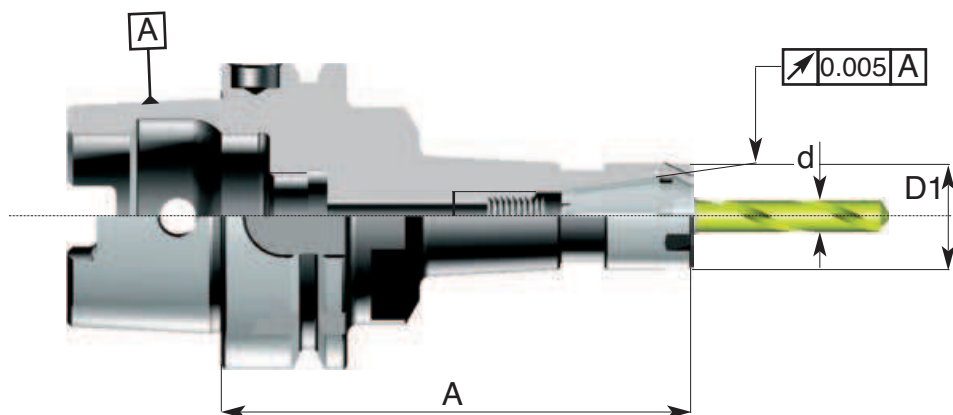
Mandrini portapinze ER DIN 6499 - ghiera mini
 Collet chucks ER DIN 6499 - mini nut
 Spannzangenhalter ER DIN 6499 - mini Spannmutter
 Mandrins porte-pinces ER DIN 6499 - écrou mini

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

DIN 69893/1-A

ART: HSKA.607
 ghiera mini/ mini nut

1.
21



Pinze / Collets
 pag: 12.6

Ghiera / Nuts
 pag: 12.13

Codice di ord Code	HSK-A	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
HSKA.607.32.0112M	HSK 32	ER 11	90	16	0,5-7	245.13.ER11M
HSKA.607.32.0160M	HSK 32	ER 16	75	22	0,5-10	245.19.ER16M
HSKA.607.32.0162M	HSK 32	ER 16	90	22	0,5-10	245.19.ER16M
HSKA.607.32.0200M	HSK 32	ER 20	80	28	0,5-13	245.24.ER20M
HSKA.607.40.0160M	HSK 40	ER 16	80	22	0,5-10	245.19.ER16M
HSKA.607.40.0162M	HSK 40	ER 16	120	22	0,5-10	245.19.ER16M
HSKA.607.40.0200M	HSK 40	ER 20	80	28	0,5-13	245.24.ER20M
HSKA.607.40.0250M	HSK 40	ER 25	80	35	1-16	245.30.ER25M
HSKA.607.50.0162M	HSK 50	ER 16	160	22	0,5-10	245.19.ER16M
HSKA.607.63.0162M	HSK 63	ER 16	160	22	0,5-10	245.19.ER16M
HSKA.607.63.0202M	HSK 63	ER 20	160	28	0,5-13	245.24.ER20M

1. MANDRINI a cono HSKA DIN 69893/1

TOOL HOLDERS with HSKA cone DIN 69893/1



Mandri per astucci registrabili e portautensili con gambo a norma DIN 6327
 Adaptors for adjustable inserts DIN 6327
 Zwischenhülsen für axialverstellbare Futter DIN 6327
 Douilles pour mandrins réglables axialement DIN 6327

ACCESSORI PER MACCHINE UTENSILI

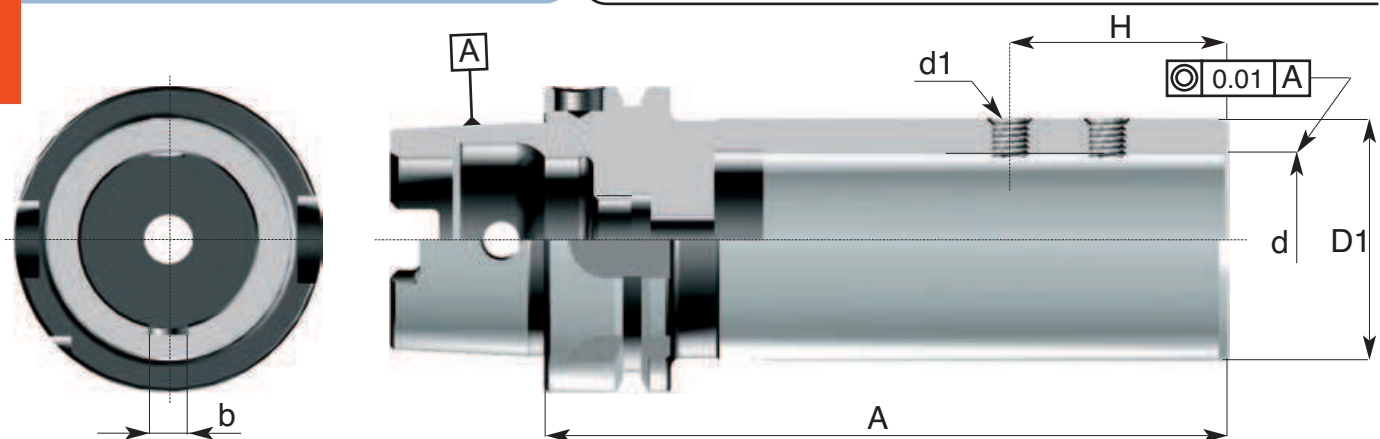


DIN 69893/1-A

Prebilanciato
 Prebalanced
 G6.3 / 8000rpm

ART: HSKA.610

1.
22



Codice di ord Code	HSKA-A	d h7	A	D1	H	b C11	Grano di serraggio "d1" Clamping screw "d1"
HSKA.610.63.0280	HSK 63	20	119	40	38	6	610.00.0080
HSKA.610.63.0360	HSK 63	28	141	50	45	8	610.00.0080
HSKA.610.100.0280	HSK 100	28	119	40	38	6	610.00.0080
HSKA.610.100.0360	HSK 100	36	141	50	45	8	610.00.0080
HSKA.610.100.0480	HSK 100	48	164	67	57	10	610.00.0100



ACCESSORI PER MACCHINE UTENSILI

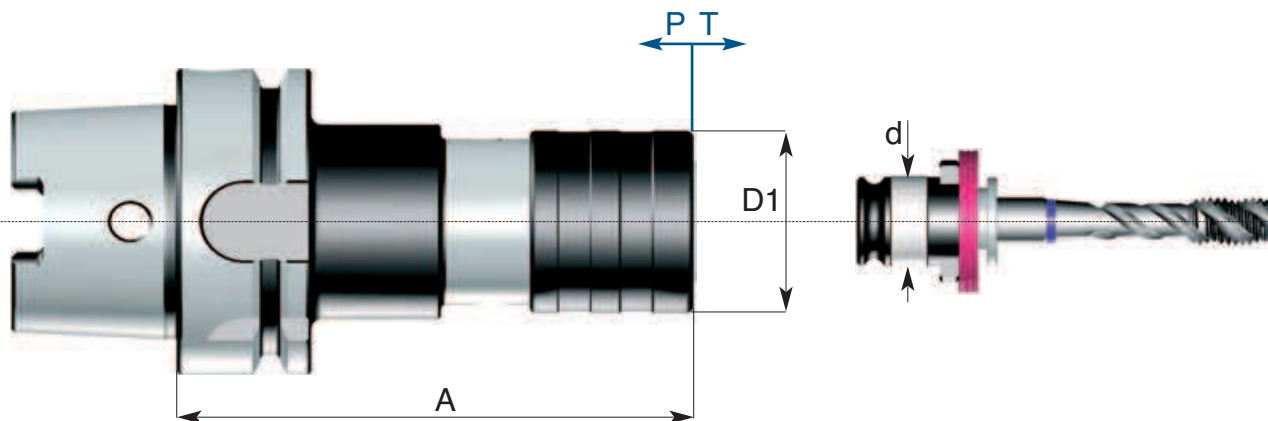


Maschiatori a cambio rapido con compensazione elastica assiale a trazione e pressione
Quick-change tapping chuck with compensation in compression and tension
Gewindeschneid- und Schnellwechselfutter mit Ausgleich auf Druck und Zug
Mandrin à tarauder à changement rapide avec compensation longitudinale et de la traction

DIN 69893/1-A

ART: HSKA.638

1.
23



Codice di ord Code	HSKA	A	D1	d	Capacità maschiatore Tapping capacity	Compensazione assiale	
						T Axial compensation	P
HSKA.638.50.1205	HSK 50	100	35	19	M3 - M14	5	7
HSKA.638.50.2008	HSK 50	146	53	31	M4.5 - M24	8	15
HSKA.638.63.1205	HSK 63	100	35	19	M3 - M14	5	7
HSKA.638.63.2008	HSK 63	146	53	31	M4.5 - M24	8	15
HSKA.638.80.1205	HSK 80	100	35	19	M3 - M14	5	7
HSKA.638.80.2008	HSK 80	150	53	31	M4.5 - M24	8	15
HSKA.638.100.2008	HSK 100	150	53	31	M4.5 - M24	8	15



1. MANDRINI a cono HSKA DIN 69893/1
TOOL HOLDERS with HSKA cone DIN 69893/1



Cilindro di collaudo certificato

Test arbors with test certificate

Kontrolldorne mit Prüfungszeugnis

Mandrins de contrôle avec certificat de bon fonctionnement

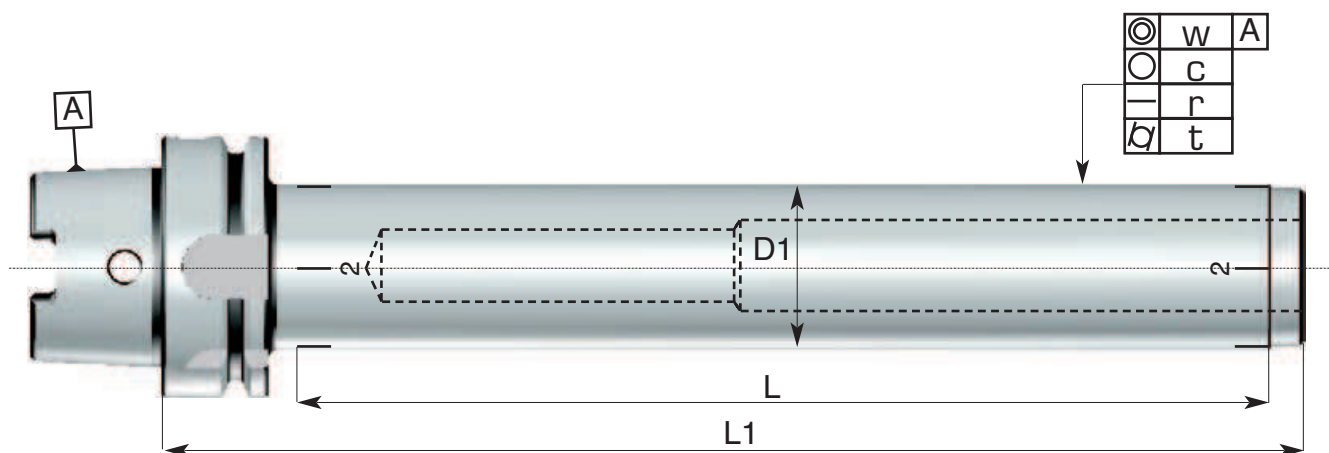
ACCESSORI PER MACCHINE UTENSILI



DIN 69893/1-A

ART: HSKA.808

1.
24



Codice di ord Code	HSK-A	D1 H5	L	L1	w	c	r	t
HSKA.808.40.0400	HSK 40	40	260	300	0.003	0.003	0.003	0.003
HSKA.808.50.0400	HSK 50	40	260	300	0.003	0.003	0.003	0.003
HSKA.808.63.0400	HSK 63	40	335	370	0.003	0.003	0.003	0.003
HSKA.808.80.0400	HSK 80	40	335	370	0.003	0.003	0.003	0.003
HSKA.808.100.0400	HSK 100	50	335	370	0.003	0.003	0.003	0.003

ACCESSORI PER MACCHINE UTENSILI



Attacchi base per sistema modulare tipo "VARILOCK"

Attachments for modular system - type "VARILOCK"

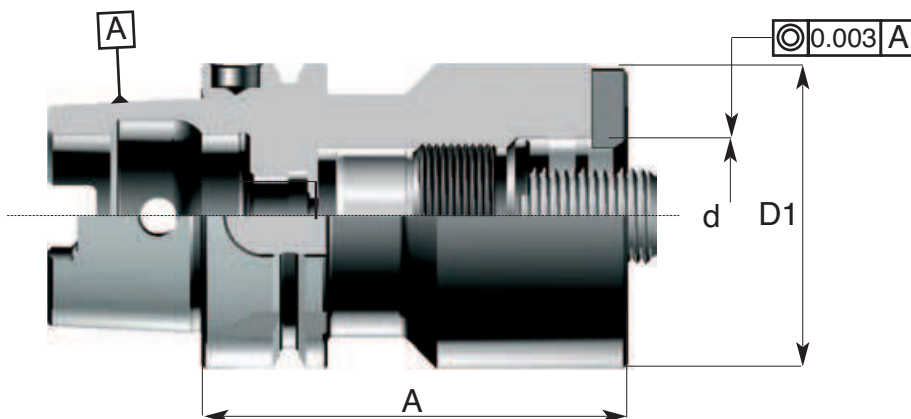
Verbindungs für Modulare Werkzeugsystem - Type "VARILOCK"

Attachements pour système modulaire - type "VARILOCK"

DIN 69893/1-A

ART: HSKA.VAR

1.
25



Codice di ord Code	HSKA	A	D1	d H5	Vite Screw	Ghiera Nut
HSKA.VAR.50.0500	HSK 50	75	50	27	VAR.HSK.0500.20	VAR.00.0500.10
HSKA.VAR.63.0500	HSK 63	75	50	27	VAR.HSK.0500.20	VAR.00.0500.10
HSKA.VAR.63.0630	HSK 63	88	63	32	VAR.HSK.0630.20	VAR.00.0800.10
HSKA.VAR.100.0500	HSK 100	82	50	27	VAR.00.0500.20	VAR.00.0500.10
HSKA.VAR.100.0630	HSK 100	95	63	32	VAR.HSK.0800.20	VAR.00.0800.10
HSKA.VAR.100.0800	HSK 100	100	80	32	VAR.HSK.0800.20	VAR.00.0800.10



1.29

- Portafrese combinati
Combined milling cutter chucks

1.30

- Portafrese a manicotto
Face milling cutter chucks

1.31

- Portafrese weldon
Milling cutter chucks Weldon

1.32

- Portafrese per calettamento
Shrink chucks

1.33

- Mandrini idraulici
hydraulic clamping chucks

1.34

- Mandrini portatestine filettate
Chucks for threaded heads

1.36

- Portafrese a cono Morse
Milling cutter with Morse cone

1.37

- Portapunte a cono Morse
Drill chucks with Morse cone

1.38

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

1.39

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



HSK-E
DIN 69893/5-E
Attacchi
con cono HSK-E
Attachments
with HSK-E cone

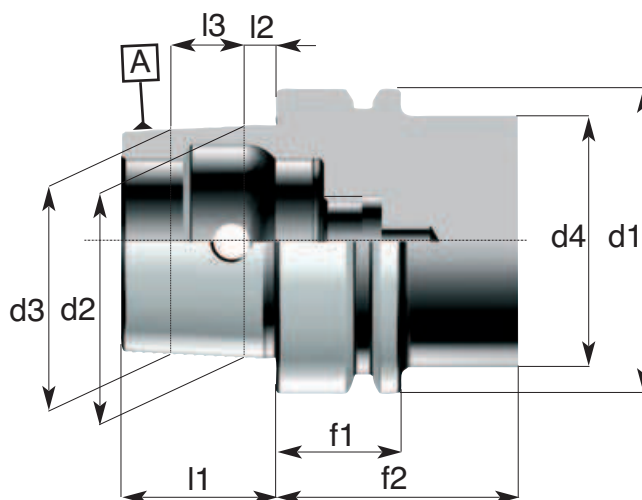


DIN 69893/5-E

Attacchi HSK DIN 69893/5-E



1.
28



Riferimento Item	d1	d2	d3	d4 max	l1	l2	l3	f1	f2 min
HSKE 25	25	19	18.15	20	13	2.5	8.5	10	20
HSKE 32	32	24	23.27	26	16	3.2	7.3	20	35
HSKE 40	40	30	29.05	34	20	5	9.5	20	35
HSKE 50	50	38	36.90	42	25	5	11	26	42
HSKE 63	63	48	46.53	53	32	6.3	14.7	26	42

**CARATTERISTICHE TECNICHE
DEI MANDRINI HSK**

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni HSK è AT2

**STANDARD FEATURES
OF HSK TOOLING**

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of HSK SHANKS is AT2



Adduttore Refrigerante per HSK da ordinare a parte Pag. 12.42
 Coolant pipe for HSK to be ordered separately Pag. 12.42

ACCESSORI PER MACCHINE UTENSILI

Portafrese combinati con trascinamento frontale e chiavetta DIN 6358

Combined milling cutter chucks DIN 6358 B

Kombi-Aufsteckfräserdorne DIN 6358 B

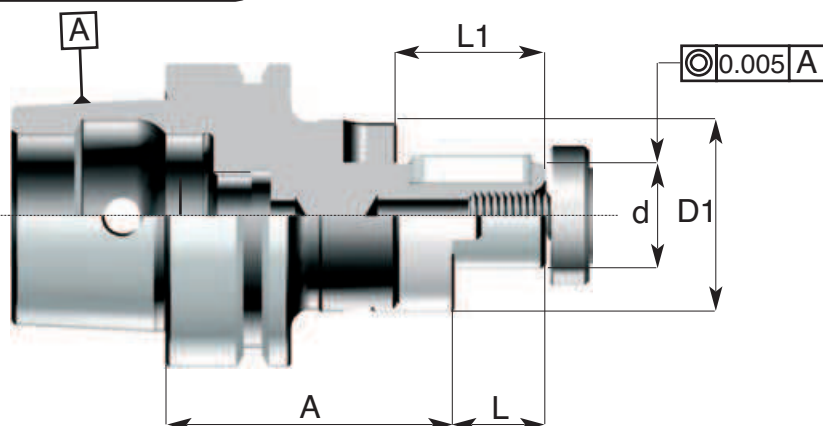
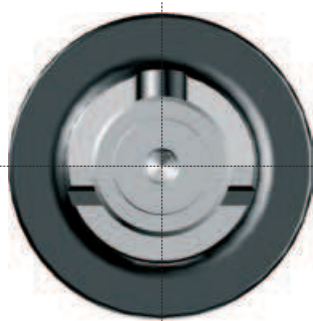
Mandrins porte-fraises combinés DIN 6358 B



Prebilanciato
Prebalanced
G6.3 / 8000rpm

DIN 69893/5-E

ART: HSKE.130



1.
29

Codice di ord Code	HSKE	d h6	A	L	L1	D1	Trascinatore Ring	Vite Screw	Linguetta Key
HSKE.130.50.0160	HSK 50	16	60	17	27	32	190.01	191.01	130.199.01
HSKE.130.50.0220	HSK 50	22	60	19	31	40	190.02	191.02	130.199.02
HSKE.130.50.0270	HSK 50	27	70	21	33	48	190.03	191.03	130.199.03
HSKE.130.50.0320	HSK 50	32	70	24	38	58	190.04	191.04	130.199.04
HSKE.130.63.0160	HSK 63	16	60	17	27	32	190.01	191.01	130.199.01
HSKE.130.63.0220	HSK 63	22	60	19	31	40	190.02	191.02	130.199.02
HSKE.130.63.0270	HSK 63	27	60	21	33	48	190.03	191.03	130.199.03
HSKE.130.63.0320	HSK 63	32	62	24	38	58	190.04	191.04	130.199.04
HSKE.130.63.0400	HSK 63	40	70	27	41	70	190.05	191.05	130.199.05

Pag. 12.24



Pag. 12.25



1. MANDRINI a cono HSKE DIN 69893/5

TOOL HOLDERS with HSKE cone DIN 69893/5



Portafrese con trascinamento frontale per frese a manicotto DIN 138

Face milling cutter chucks DIN 138

Aufsteckfräserdorne DIN 138

Mandrins porte-fraises à surfacer DIN 138

ACCESSORI PER MACCHINE UTENSILI

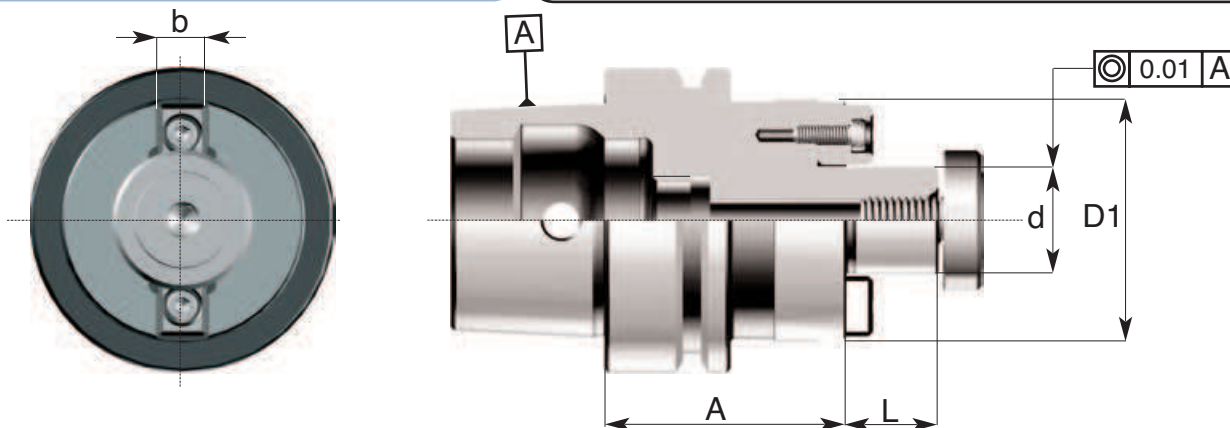
DIN 69893/5-E

Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: HSKE.150

1.
30



Codice di ord Code	HSKE	d h6	A	L	D1	b	Tassello Tenon	Vite Screw
HSKE.150.40.0160	HSK 40	16	45	17	32	8	192.06	191.01
HSKE.150.40.0220	HSK 40	22	50	19	40	10	192.07	191.02
HSKE.150.40.0270	HSK 40	27	55	21	48	12	192.08	191.03
HSKE.150.50.0160	HSK 50	16	50	17	40	8	192.06	191.01
HSKE.150.50.0220	HSK 50	22	50	19	50	10	192.07	191.02
HSKE.150.50.0270	HSK 50	27	60	21	60	12	192.08	191.03
HSKE.150.63.0160	HSK 63	16	50	17	40	8	192.06	191.01
HSKE.150.63.0220	HSK 63	22	50	19	50	10	192.07	191.02
HSKE.150.63.0270	HSK 63	27	60	21	60	12	192.08	191.03
HSKE.150.63.0320	HSK 63	32	60	24	72	14	192.09	191.04
HSKE.150.63.0400	HSK 63	40	62	27	82	16	192.10	191.05

Pag. 12.26



Pag. 12.25



ACCESSORI PER MACCHINE UTENSILI

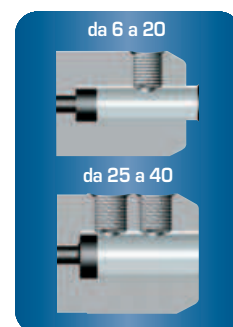
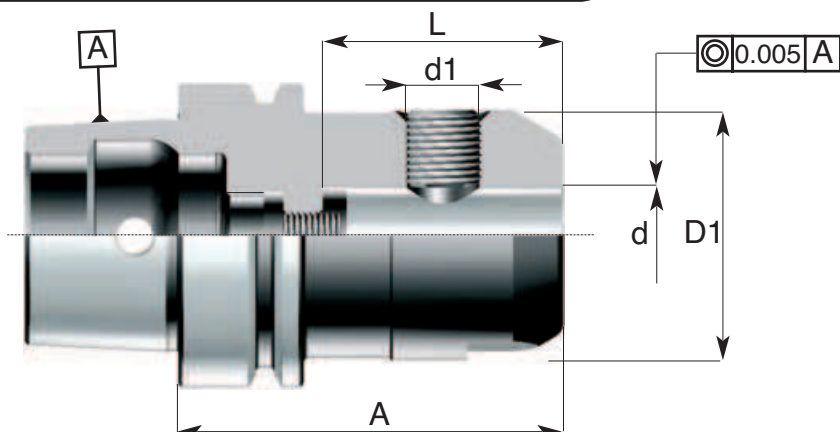
Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B



Prebilanciato
 Prebalanced
G6.3 / 8000rpm

DIN 69893/5-E

ART: HSKE.208



1.
31

Codice di ord Code	HSKE	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
HSKE.208.32.0060	HSK 32	6	60	25	35	M6X10	208.00.0060
HSKE.208.32.0080	HSK 32	8	60	28	35	M8X10	208.00.0080
HSKE.208.32.0100	HSK 32	10	65	35	39	M10X12	208.00.0100
HSKE.208.32.0120	HSK 32	12	75	42	44	M12X1.5X16	208.00.0120
HSKE.208.32.0140	HSK 32	14	75	44	44	M12X1.5X16	208.00.0120
HSKE.208.32.0160	HSK 32	16	75	48	47	M14X1.5X16	208.00.0140
HSKE.208.40.0060	HSK 40	6	60	25	40	M6X10	208.00.0060
HSKE.208.40.0080	HSK 40	8	60	28	40	M8X10	208.00.0080
HSKE.208.40.0100	HSK 40	10	75	35	45	M10X12	208.00.0100
HSKE.208.40.0120	HSK 40	12	75	42	50	M12X1.5X16	208.00.0120
HSKE.208.40.0140	HSK 40	14	75	42	50	M12X1.5X16	208.00.0120
HSKE.208.40.0160	HSK 40	16	80	42	50	M14X1.5X16	208.00.0140
HSKE.208.40.0180	HSK 40	18	80	42	50	M14X1.5X16	208.00.0160
HSKE.208.40.0200	HSK 40	20	80	42	51	M16X1.5X16	208.00.0160
HSKE.208.50.0060	HSK 50	6	65	25	35	M6X10	208.00.0060
HSKE.208.50.0080	HSK 50	8	65	28	35	M8X10	208.00.0080
HSKE.208.50.0100	HSK 50	10	75	35	39	M10X12	208.00.0100
HSKE.208.50.0120	HSK 50	12	80	42	50	M12X1.5X16	208.00.0120
HSKE.208.50.0140	HSK 50	14	80	44	50	M12X1.5X16	208.00.0120
HSKE.208.50.0160	HSK 50	16	80	48	55	M14X1.5X16	208.00.0140
HSKE.208.50.0180	HSK 50	18	80	50	55	M14X1.5X16	208.00.0140
HSKE.208.50.0200	HSK 50	20	80	52	51	M16X1.5X16	208.00.0160
HSKE.208.63.0060	HSK 63	6	65	25	38	M6X10	208.00.0060
HSKE.208.63.0080	HSK 63	8	65	28	38	M8X10	208.00.0080
HSKE.208.63.0100	HSK 63	10	75	35	45	M10X12	208.00.0100
HSKE.208.63.0120	HSK 63	12	80	42	50	M12X1.5X16	208.00.0120
HSKE.208.63.0140	HSK 63	14	80	44	50	M12X1.5X16	208.00.0120
HSKE.208.63.0160	HSK 63	16	80	48	55	M14X1.5X16	208.00.0140
HSKE.208.63.0180	HSK 63	18	80	50	55	M14X1.5X16	208.00.0140
HSKE.208.63.0200	HSK 63	20	80	52	55	M16X1.5X16	208.00.0160
HSKE.208.63.0250	HSK 63	25	110	65	65	M18X1.5X20	208.00.0180
HSKE.208.63.0320	HSK 63	32	110	72	75	M20X1.5X20	208.00.0200



1. MANDRINI a cono HSKE DIN 69893/5

TOOL HOLDERS with HSKE cone DIN 69893/5



Portafrese per calettamento a caldo secondo DIN 69882-8

Shrink-fit chucks DIN 69882-8

Schrumpfutter DIN 69882-8

Mandrins de frettage DIN 69882-8

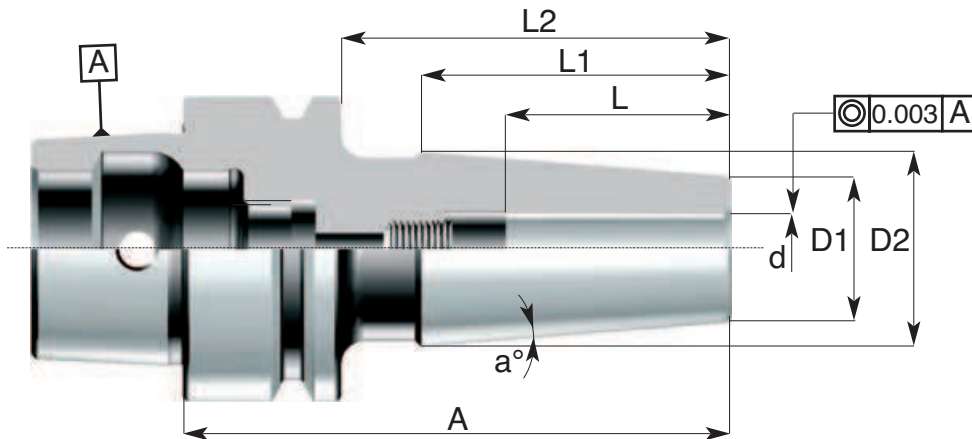
ACCESSORI PER MACCHINE UTENSILI



DIN 69893/1-E

Bilanciatura fine
Fine balancing

ART: HSKE.206



Codice di ord Code	HSKE	d h6	D1	D2	a°	L	L1	L2	A	bilanciatura balancing
HSKE.206.40.0030	HSK 40	3	9	16	4.5°	15	44	54	80	G6.3/2000RPM
HSKE.206.40.0040	HSK 40	4	9	16	4.5°	15	44	54	80	G6.3/2000RPM
HSKE.206.40.0050	HSK 40	5	12	19	4.5°	20	44	54	80	G6.3/2000RPM
HSKE.206.40.0060	HSK 40	6	12	19	4.5°	28	44	54	80	G6.3/2000RPM
HSKE.206.40.0080	HSK 40	8	15	22	4.5°	34	44	54	80	G6.3/2000RPM
HSKE.206.40.0100	HSK 40	10	19	27	4.5°	37	51	54	80	G6.3/2000RPM
HSKE.206.40.0120	HSK 40	12	24	32	4.5°	37	51	64	90	G6.3/2000RPM
HSKE.206.50.0030	HSK 50	3	9	16	4.5°	15	44	54	80	G6.3/1500RPM
HSKE.206.50.0040	HSK 50	4	9	16	4.5°	15	44	54	80	G6.3/1500RPM
HSKE.206.50.0050	HSK 50	5	12	19	4.5°	20	44	54	80	G6.3/1500RPM
HSKE.206.50.0060	HSK 50	6	12	19	4.5°	28	44	54	80	G6.3/1500RPM
HSKE.206.50.0080	HSK 50	8	15	23	4.5°	34	44	54	80	G6.3/1500RPM
HSKE.206.50.0100	HSK 50	10	19	27	4.5°	37	51	59	90	G6.3/1500RPM
HSKE.206.50.0120	HSK 50	12	24	32	4.5°	37	51	64	90	G6.3/1500RPM
HSKE.206.63.0030	HSK 63	3	9	16	4.5°	15	44	54	80	G6.3/1500RPM
HSKE.206.63.0040	HSK 63	4	9	16	4.5°	15	44	54	80	G6.3/1500RPM
HSKE.206.63.0050	HSK 63	5	12	19	4.5°	20	44	54	80	G6.3/1500RPM
HSKE.206.63.0060	HSK 63	6	12	19	4.5°	28	44	54	80	G6.3/1500RPM
HSKE.206.63.0080	HSK 63	8	15	22	4.5°	34	44	54	80	G6.3/1500RPM
HSKE.206.63.0100	HSK 63	10	19	27	4.5°	37	51	59	85	G6.3/1500RPM
HSKE.206.63.0120	HSK 63	12	24	32	4.5°	37	51	64	90	G6.3/1500RPM
HSKE.206.63.0140	HSK 63	14	27	34	4.5°	40	44	64	90	G6.3/1500RPM
HSKE.206.63.0160	HSK 63	16	27	34	4.5°	40	44	69	95	G6.3/1500RPM
HSKE.206.63.0200	HSK 63	20	33	42	4.5°	45	57	74	100	G6.3/1500RPM

1.
32

ACCESSORI PER MACCHINE UTENSILI

Mandrini a chiusura idraulica HYDRO-DELTA
 Hydraulic clamping chucks HYDRO DELTA
 Dehnspannfutter HYDRO DELTA
 Mandrins expansibles HYDRO DELTA

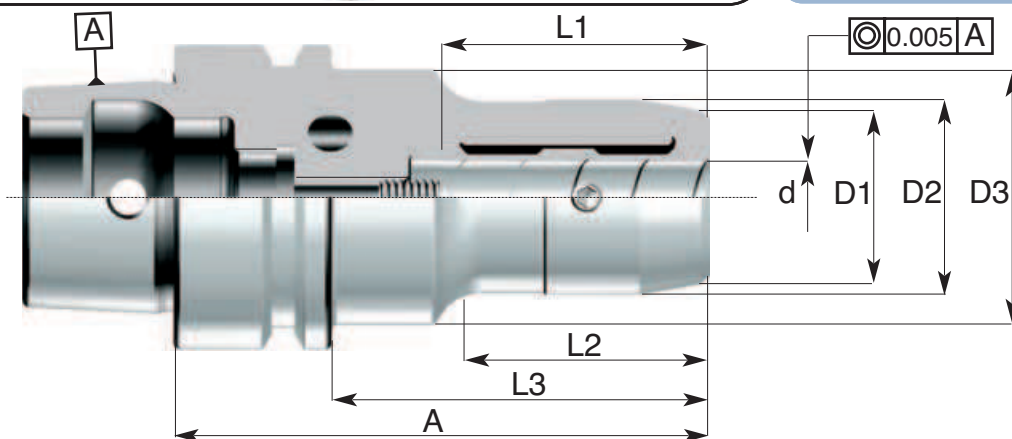


Bilanciatura fine
 Fine balancing

DIN 69893/1-E

ART: 207

1.
33



Codice di ord Code	HSKE	d	D1	D2	D3	L1	L2	L3	A	bilanciatura balancing
HSKE .207.40.0060	HSK 40	6	22	26	42	35	22	46	66	G6.3/30000RPM
HSKE .207.40.0080	HSK 40	8	24	28	42	35	25	53	73	G6.3/30000RPM
HSKE .207.40.0100	HSK 40	10	26	30	42	35	30	57	77	G6.3/30000RPM
HSKE .207.40.0120	HSK 40	12	28	32	42	44	40	65	85	G6.3/30000RPM
HSKE .207.50.0060	HSK 50	6	22	26	53	35	22	46	72	G6.3/30000RPM
HSKE .207.50.0080	HSK 50	8	24	28	53	35	25	53	79	G6.3/30000RPM
HSKE .207.50.0100	HSK 50	10	26	30	53	35	30	57	89	G6.3/30000RPM
HSKE .207.50.0120	HSK 50	12	28	32	53	44	40	65	91	G6.3/30000RPM
HSKE .207.50.0160	HSK 50	16	34	38	53	47	40	67	93	G6.3/30000RPM
HSKE .207.50.0200	HSK 50	20	38	42	53	49	40	67	93	G6.3/30000RPM

1. MANDRINI a cono HSK DIN 69893/5

TOOL HOLDERS with HSK cone DIN 69893/5



Mandrini portatestine filettate
 Chucks for threaded heads
 Mandrins pour têtes filetées
 Spannfutter für Gewindeköpfe

ACCESSORI PER MACCHINE UTENSILI

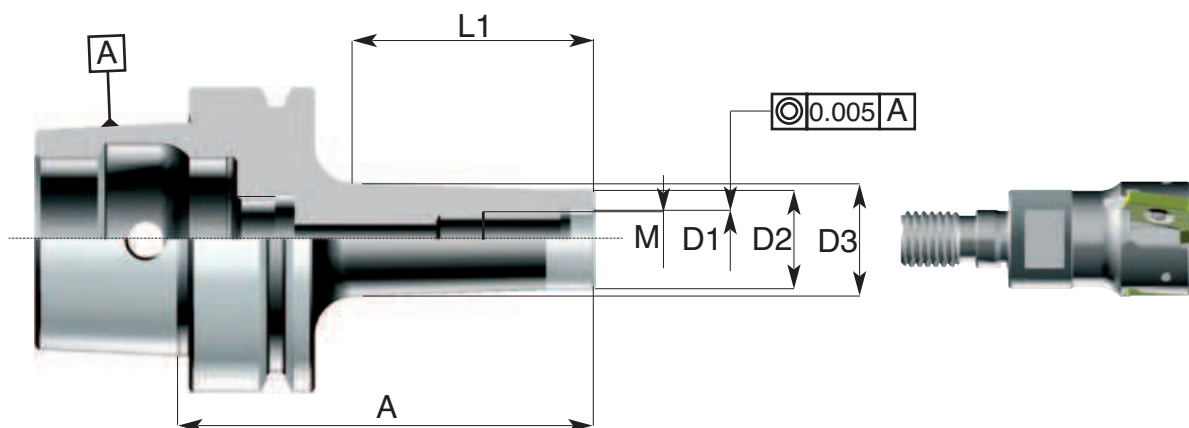


DIN 69893/1-E

Bilanciatura fine
 Fine balancing

ART: HSKE.267

1
34



Codice di ord Code	HSK-A	M	D1	D2	D3	L1	A	bilanciatura balancing
HSKE.267.40.0060	HSK 40	M6	6.5	9.7	13	25	53	G6.3/20000RPM
HSKE.267.40.0062	HSK 40	M6	6.5	9.7	20	50	78	G6.3/20000RPM
HSKE.267.40.0064	HSK 40	M6	6.5	9.7	23	75	103	G6.3/20000RPM
HSKE.267.40.0080	HSK 40	M8	8.5	12.7	15	25	53	G6.3/20000RPM
HSKE.267.40.0082	HSK 40	M8	8.5	12.7	23	50	78	G6.3/20000RPM
HSKE.267.40.0084	HSK 40	M8	8.5	12.7	23	75	103	G6.3/20000RPM
HSKE.267.40.0086	HSK 40	M8	8.5	12.7	25	100	128	G6.3/20000RPM
HSKE.267.40.0100	HSK 40	M10	10.5	17.7	20	25	53	G6.3/20000RPM
HSKE.267.40.0102	HSK 40	M10	10.5	17.7	25	50	78	G6.3/20000RPM
HSKE.267.40.0104	HSK 40	M10	10.5	17.7	28	75	103	G6.3/20000RPM
HSKE.267.40.0106	HSK 40	M10	10.5	17.7	30	100	128	G6.3/20000RPM
HSKE.267.50.0060	HSK 50	M6	6.5	9.7	13	25	59	G6.3/20000RPM
HSKE.267.50.0062	HSK 50	M6	6.5	9.7	20	50	84	G6.3/20000RPM
HSKE.267.50.0064	HSK 50	M6	6.5	9.7	23	75	109	G6.3/20000RPM
HSKE.267.50.0080	HSK 50	M8	8.5	12.7	15	25	59	G6.3/20000RPM
HSKE.267.50.0082	HSK 50	M8	8.5	12.7	23	50	84	G6.3/20000RPM
HSKE.267.50.0084	HSK 50	M8	8.5	12.7	23	75	109	G6.3/20000RPM
HSKE.267.50.0086	HSK 50	M8	8.5	12.7	25	100	134	G6.3/20000RPM
HSKE.267.50.0100	HSK 50	M10	10.5	17.7	20	25	59	G6.3/20000RPM
HSKE.267.50.0102	HSK 50	M10	10.5	17.7	25	50	84	G6.3/20000RPM
HSKE.267.50.0104	HSK 50	M10	10.5	17.7	28	75	109	G6.3/20000RPM
HSKE.267.50.0106	HSK 50	M10	10.5	17.7	30	100	134	G6.3/20000RPM
HSKE.267.50.0108	HSK 50	M10	10.5	17.7	40	130	156	G6.3/20000RPM
HSKE.267.50.0120	HSK 50	M12	12.5	20.7	24	25	59	G6.3/20000RPM
HSKE.267.50.0122	HSK 50	M12	12.5	20.7	24	50	84	G6.3/20000RPM
HSKE.267.50.0124	HSK 50	M12	12.5	20.7	31	75	109	G6.3/20000RPM
HSKE.267.50.0160	HSK 50	M16	17	28.7	34	25	59	G6.3/20000RPM
HSKE.267.50.0162	HSK 50	M16	17	28.7	34	50	84	G6.3/20000RPM
HSKE.267.50.0164	HSK 50	M16	17	28.7	34	75	109	G6.3/20000RPM

ACCESSORI PER MACCHINE UTENSILI

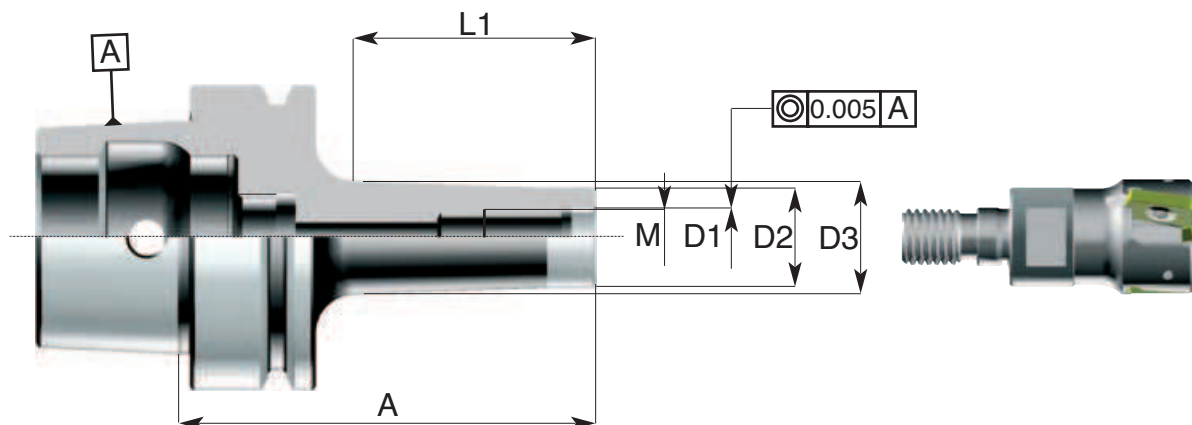
Mandrini portatestine filettate
Chucks for threaded heads
Mandrins pour têtes filetées
Spannfutter für Gewindeköpfe



Bilanciatura fine
 Fine balancing

DIN 69893/1-E

ART: HSKE.267



1.
35

Codice di ord Code	HSKA	M	D1	D2	D3	L1	A	bilanciatura balancing
HSKE.267.63.0060	HSK 63	M6	6.5	9.7	13	25	59	G6.3/20000RPM
HSKE.267.63.0062	HSK 63	M6	6.5	9.7	20	50	84	G6.3/20000RPM
HSKE.267.63.0064	HSK 63	M6	6.5	9.7	23	75	109	G6.3/20000RPM
HSKE.267.63.0080	HSK 63	M8	8.5	12.7	15	25	59	G6.3/20000RPM
HSKE.267.63.0082	HSK 63	M8	8.5	12.7	23	50	84	G6.3/20000RPM
HSKE.267.63.0084	HSK 63	M8	8.5	12.7	23	75	109	G6.3/20000RPM
HSKE.267.63.0086	HSK 63	M8	8.5	12.7	25	100	134	G6.3/20000RPM
HSKE.267.63.0100	HSK 63	M10	10.5	17.7	20	25	59	G6.3/20000RPM
HSKE.267.63.0102	HSK 63	M10	10.5	17.7	25	50	84	G6.3/20000RPM
HSKE.267.63.0104	HSK 63	M10	10.5	17.7	28	75	109	G6.3/20000RPM
HSKE.267.63.0106	HSK 63	M10	10.5	17.7	30	100	134	G6.3/20000RPM
HSKE.267.63.0120	HSK 63	M12	12.5	20.7	24	25	59	G6.3/20000RPM
HSKE.267.63.0122	HSK 63	M12	12.5	20.7	24	50	84	G6.3/20000RPM
HSKE.267.63.0124	HSK 63	M12	12.5	20.7	31	75	109	G6.3/20000RPM
HSKE.267.63.0126	HSK 63	M12	12.5	20.7	31	100	134	G6.3/20000RPM
HSKE.267.63.0160	HSK 63	M16	17	28.7	34	25	59	G6.3/20000RPM
HSKE.267.63.0162	HSK 63	M16	17	28.7	34	50	84	G6.3/20000RPM
HSKE.267.63.0164	HSK 63	M16	17	28.7	34	75	109	G6.3/20000RPM
HSKE.267.63.0166	HSK 63	M16	17	28.7	39	100	134	G6.3/20000RPM

1. MANDRINI a cono HSKE DIN 69893/5

TOOL HOLDERS with HSKE cone DIN 69893/5



Riduzioni da cono HSK a cono Morse DIN 6364 B per frese con vite interna
 Morse taper adaptors sleeves for cutters with internal screw - DIN 6364 B
 Zwischenhülsen für Morsekegel mit Auzugsgewinde - DIN 6364 B
 Douilles de réduction à cône Morse pour fraises avec vis - DIN 6364 B

ACCESSORI PER MACCHINE UTENSILI

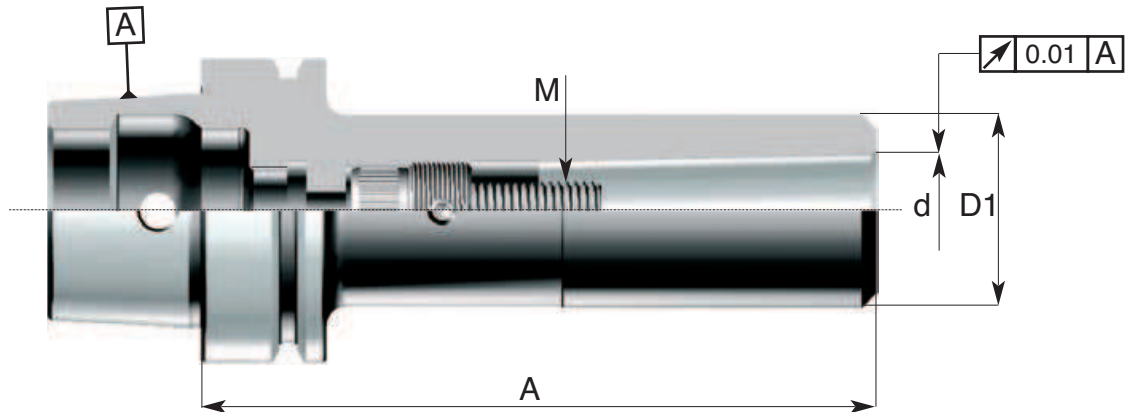


DIN 69893/5-E

Prebilanciato
 Prebalanced
 G6.3 / 8000rpm

ART: HSKE.261

1.
36



Codice di ord Code	HSKE	Cono Morse	d	A	D1	M	Vite Screw	Ghiera Nut
HSKE.261.40.0100	HSK 40	Morse 1	12.065	90	25	M6	261.00.0625	261.12.0100
HSKE.261.40.0200	HSK 40	Morse 2	17.780	100	32	M10	261.00.1030.B	261.15.200
HSKE.261.50.0100	HSK 50	Morse 1	12.065	100	25	M6	261.00.0625	261.16.1100
HSKE.261.50.0200	HSK 50	Morse 2	17.780	120	32	M10	261.00.1030.B	261.16.1100
HSKE.261.50.0300	HSK 50	Morse 3	23.825	140	40	M12	261.00.1240.B	261.00.1220
HSKE.261.63.0100	HSK 63	Morse 1	12.065	100	25	M6	261.00.0625	261.00.1018
HSKE.261.63.0200	HSK 63	Morse 2	17.780	120	32	M10	261.00.1030.E	261.00.1018
HSKE.261.63.0300	HSK 63	Morse 3	23.825	140	40	M12	261.00.1240.E	261.00.1220
HSKE.261.63.0400	HSK 63	Morse 4	31.267	160	48	M16	261.00.1650.E	261.00.1626



ACCESSORI PER MACCHINE UTENSILI

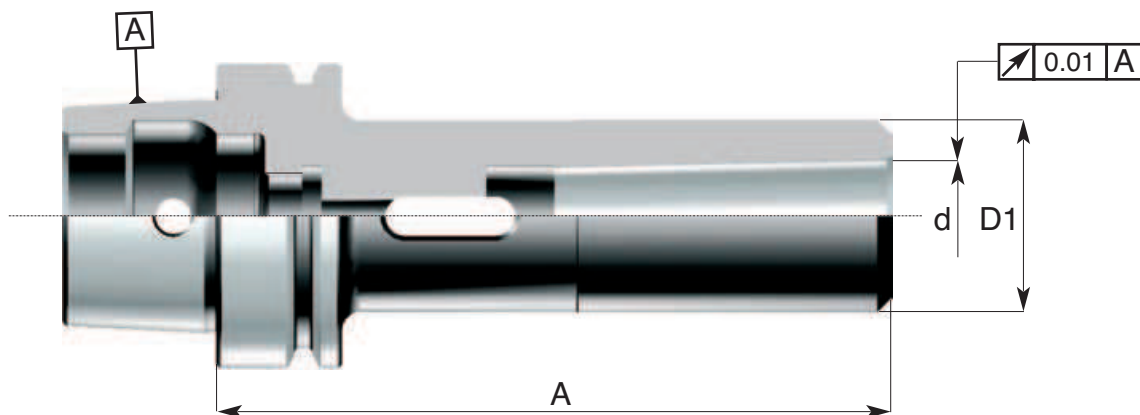


Riduzioni da cono HSK a cono Morse per punte
 Morse taper adaptors sleeves for drills with driving shank
 Zwischenhülsen für Morsekegel mit Austreiblappen
 Douilles de réduction à cône Morse pour forets avec dents d'entraînement

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

DIN 69893/5-E

ART: HSKE.262



1.
37

Codice di ord Code	HSKE	Cono Morse	d	A	D1
HSKE.262.40.0100	HSK 40	Morse 1	12.065	95	25
HSKE.262.40.0200	HSK 40	Morse 2	17.780	110	32
HSKE.262.50.0100	HSK 50	Morse 1	12.065	100	25
HSKE.262.50.0200	HSK 50	Morse 2	17.780	120	32
HSKE.262.50.0300	HSK 50	Morse 3	23.825	140	40
HSKE.262.63.0100	HSK 63	Morse 1	12.065	100	25
HSKE.262.63.0200	HSK 63	Morse 2	17.780	120	32
HSKE.262.63.0300	HSK 63	Morse 3	23.825	140	40
HSKE.262.63.0400	HSK 63	Morse 4	31.267	160	48

1. MANDRINI a cono HSKE DIN 69893/5

TOOL HOLDERS with HSKE cone DIN 69893/5



Mandrini portapinze ER DIN 6499 - ghiera standard
 Collet chucks ER DIN 6499 - standard nut
 Spannzangenhalter ER DIN 6499 - standard Spannmutter
 Mandrins porte-pinces ER DIN 6499 - écrou standard

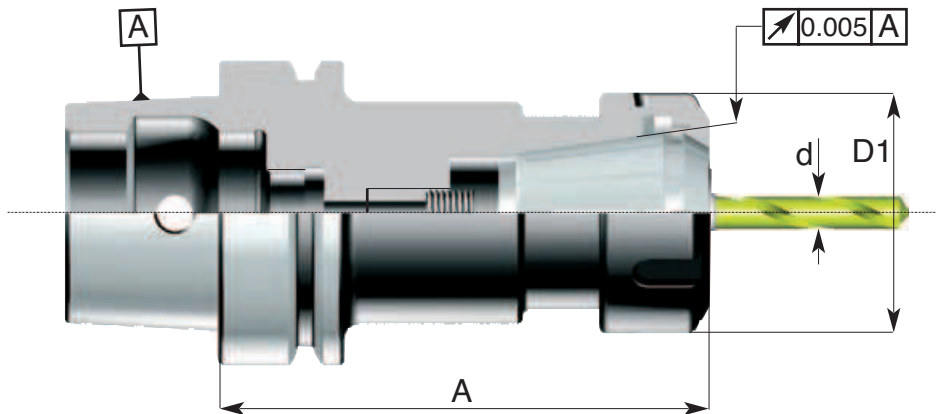
ACCESSORI PER MACCHINE UTENSILI



DIN 69893/5-E

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

ART: HSKE.607
 ghiera standard / standard nut



Pinze / Collets
 pag: 12.6

Ghiere / Nuts
 pag: 12.13

Codice di ord Code	HSKE	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
HSKE.607.40.0250	HSK 40	ER 25	80	42	1-16	245.32.ER25
HSKE.607.40.0252	HSK 40	ER 25	120	42	1-16	245.32.ER25
HSKE.607.50.0160	HSK 50	ER 16	100	28	0,5-10	245.22.ER16
HSKE.607.50.0250	HSK 50	ER 25	100	42	1-16	245.32.ER25
HSKE.607.50.0320	HSK 50	ER 32	100	50	1-20	245.40.ER32
HSKE.607.50.0322	HSK 50	ER 32	150	50	1-20	245.40.ER32
HSKE.607.50.0400	HSK 50	ER 40	100	63	2-30	245.50.ER40
HSKE.607.63.0160	HSK 63	ER 16	100	28	0,5-10	245.22.ER16
HSKE.607.63.0250	HSK 63	ER 25	100	42	1-16	245.32.ER25
HSKE.607.63.0320	HSK 63	ER 32	100	50	1-20	245.40.ER32
HSKE.607.63.0322	HSK 63	ER 32	150	50	1-20	245.40.ER32
HSKE.607.63.0400	HSK 63	ER 40	100	63	2-30	245.50.ER40

1.
38

ACCESSORI PER MACCHINE UTENSILI

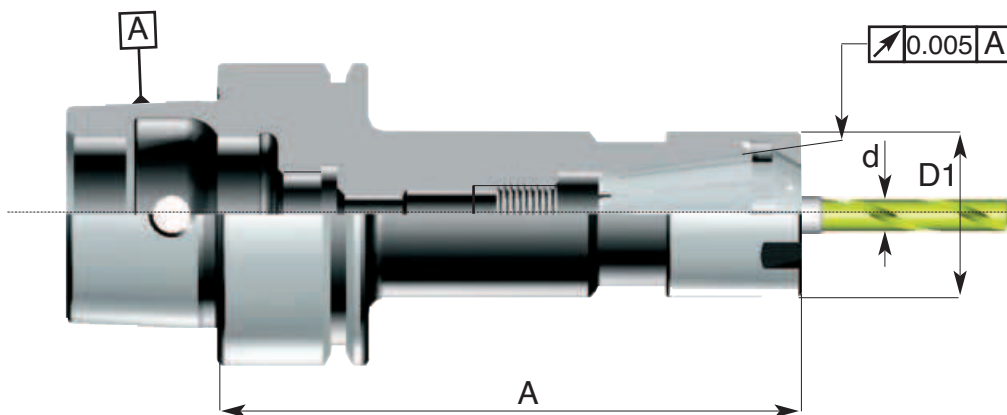


Mandrini portapinze ER DIN 6499 - ghiera mini
 Collet chucks ER DIN 6499 - mini nut
 Spannzangenhalter ER DIN 6499 - mini Spannmutter
 Mandrins porte-pinces ER DIN 6499 - écrou mini

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

DIN 69893/5-E

ART: HSKE.607
 ghiera mini / mini nut



1.
39

Pinze / Collets
 pag: 12.6

Ghiera / Nuts
 pag: 12.13

Codice di ord Code	HSK-E	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
HSKE.607.25.0110M	HSK 25	ER 11	50	16	0,5-7	245.13.ER11M
HSKE.607.25.0160M	HSK 25	ER 16	50	22	0,5-10	245.19.ER16M
HSKE.607.25.0162M	HSK 25	ER 16	75	22	0,5-10	245.19.ER16M
HSKE.607.25.0200M	HSK 25	ER 20	50	28	0,5-13	245.24.ER20M
HSKE.607.32.0112M	HSK 32	ER 11	90	16	0,5-7	245.13.ER11M
HSKE.607.32.0160M	HSK 32	ER 16	75	22	0,5-10	245.19.ER16M
HSKE.607.32.0162M	HSK 32	ER 16	90	22	0,5-10	245.19.ER16M
HSKE.607.32.0200M	HSK 32	ER 20	80	28	0,5-13	245.24.ER20M
HSKE.607.40.0160M	HSK 40	ER 16	80	22	0,5-10	245.19.ER16M
HSKE.607.40.0162M	HSK 50	ER 16	130	22	0,5-10	245.19.ER16M
HSKE.607.50.0162M	HSK 50	ER 16	160	22	0,5-10	245.19.ER16M
HSKE.607.63.0162M	HSK 63	ER 16	160	22	0,5-10	245.19.ER16M

1.43

- Portafrese cil. per wood machine
Cylindrical milling cutter chucks

1.44

- Portafrese combinati
Combined milling cutter chucks

1.45

- Portafrese a manicotto
Face milling cutter chucks

1.46

- Portafrese weldon
Milling cutter chucks Weldon

1.47

- Portafrese a cono Morse
Milling cutter with Morse cone

1.48

- Portapunte a cono Morse
Drill chucks with Morse cone

1.49

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



HSK-F
DIN 69893/6-F
Attacchi
con cono HSK-F
Attachments
with HSK-F cone



1. MANDRINI a cono HSKF DIN 69893/6
TOOL HOLDERS with HSKF cone DIN 69893/6



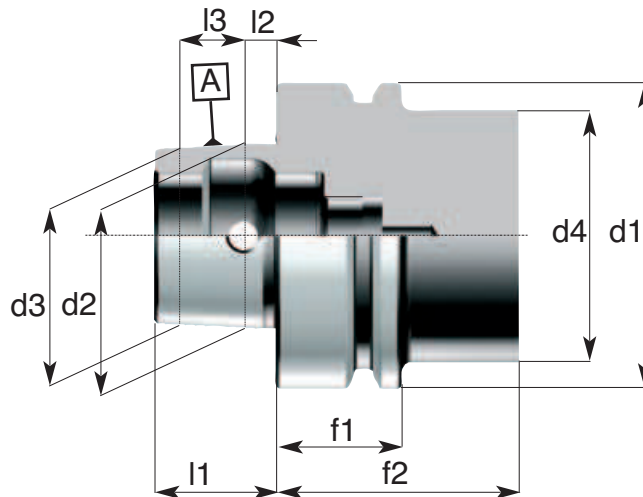
ACCESSORI PER MACCHINE UTENSILI

DIN 69893/6-F

Attacchi HSK DIN 69893/6-F



1.
42



Riferimento Item	d1	d2	d3	d4 max	l1	l2	l3	f1	f2 min
HSKF 50	50	30	29.05	42	20	4	9.5	26	42
HSKF 63	63	38	36.90	53	25	5	11	26	42

**CARATTERISTICHE TECNICHE
DEI MANDRINI HSK**

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni HSK è AT2

**STANDARD FEATURES
OF HSK TOOLING**

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of HSK SHANKS is AT2



Adduttore Refrigerante per HSK da ordinare a parte Pag. 12.42
 Coolant pipe for HSK to be ordered separately Pag. 12.42

ACCESSORI PER MACCHINE UTENSILI

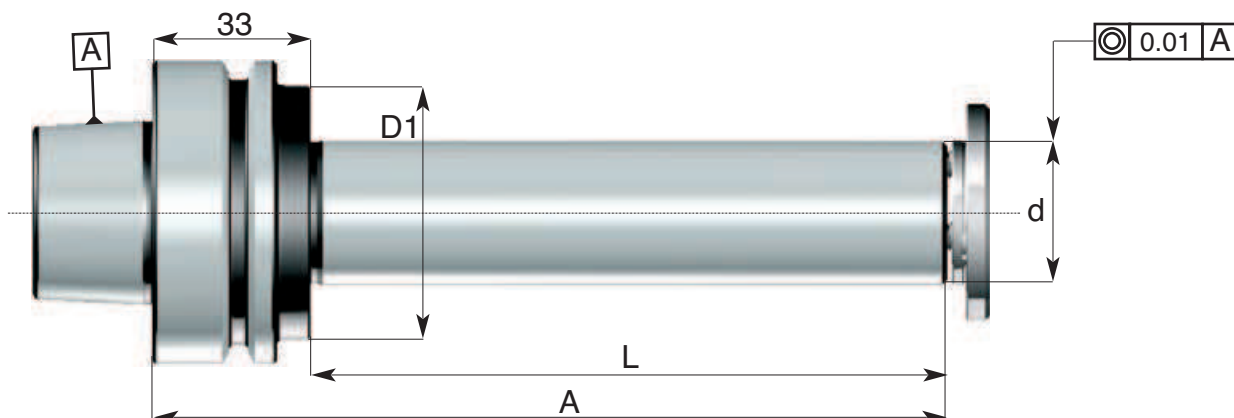


Portafrese cilindrico per macchine lavorazione legno
 Cylindrical milling cutter chucks for woodworking machine
 Aufsteckfräserdorne für Holzbearbeitungsmaschinen
 Mandrins cylindriques porte-fraises pour machines à bois

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

DIN 69893/6-F

ART: HSKF.111



1.
43

Codice di ord Code	HSKF	d h6	A	L	D1	Rondella Washer
HSKF.111.63.30093	HSK 63	30	126	93	53	R111.30
HSKF.111.63.30103	HSK 63	30	136	103	53	R111.30
HSKF.111.63.30123	HSK 63	30	156	123	53	R111.30
HSKF.111.63.30133	HSK 63	30	166	133	53	R111.30
HSKF.111.63.30143	HSK 63	30	176	143	53	R111.30
HSKF.111.63.30153	HSK 63	30	186	153	53	R111.30



1. MANDRINI a cono HSKF DIN 69893/6

TOOL HOLDERS with HSKF cone DIN 69893/6



Portafrese combinati con trascinamento frontale e chiavetta DIN 6358 B

Combined milling cutter chucks DIN 6358 B

Kombi-Aufsteckfräserdorne DIN 6358 B

Mandrins porte-fraises combinés DIN 6358 B

ACCESSORI PER MACCHINE UTENSILI

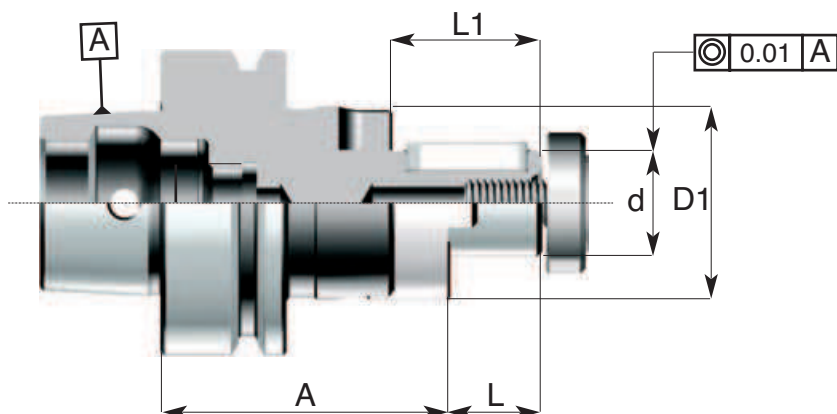
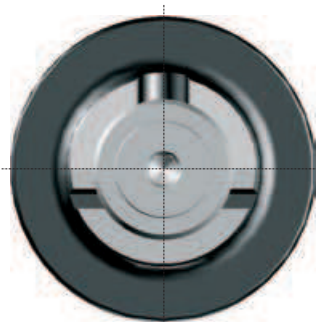
DIN 69893/6-F

Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: HSKF.130

1
44



Codice di ord Code	HSK-F	d h6	A	L	L1	D1	Trascinatore Ring	Vite Screw	Linguetta Key
HSKF.130.50.0160	HSK 50	16	60	17	27	32	190.01	191.01	130.199.01
HSKF.130.50.0220	HSK 50	22	60	19	31	40	190.02	191.02	130.199.02
HSKF.130.50.0270	HSK 50	27	60	21	33	48	190.03	191.03	130.199.03
HSKF.130.50.0320	HSK 50	32	65	24	38	58	190.04	191.04	130.199.04
HSKF.130.63.0160	HSK 63	16	60	17	27	32	190.01	191.01	130.199.01
HSKF.130.63.0220	HSK 63	22	60	19	31	40	190.02	191.02	130.199.02
HSKF.130.63.0270	HSK 63	27	60	21	33	48	190.03	191.03	130.199.03
HSKF.130.63.0320	HSK 63	32	62	24	38	58	190.04	191.04	130.199.04
HSKF.130.63.0400	HSK 63	40	75	27	41	70	190.05	191.05	130.199.05



ACCESSORI PER MACCHINE UTENSILI

Portafrese con trascinamento frontale per frese a manicotto DIN 138

Face milling cutter chucks DIN 138

Aufsteckfräserdorne DIN 138

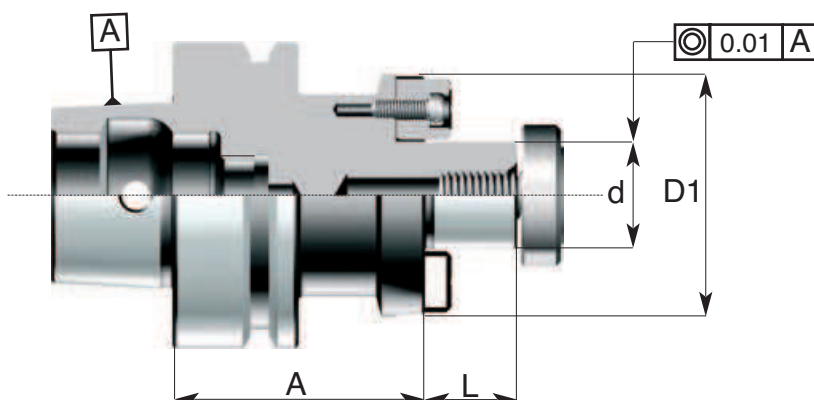
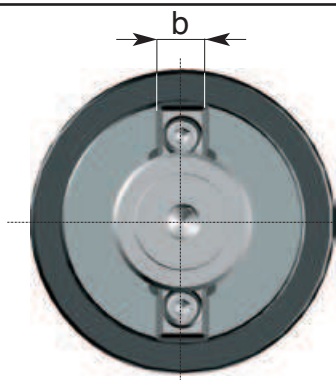
Mandrins porte-fraises à surfacer DIN 138



Prebilanciato
Prebalanced
G6.3 / 8000rpm

DIN 69893/6-F

ART: HSKF.150



1.
45

Codice di ord Code	HSK-F	d h6	A	L	D1	b	Tassello Tenon	Vite Screw
HSKF.150.50.0160	HSK 50	16	50	17	40	8	192.06	191.01
HSKF.150.50.0220	HSK 50	22	50	19	50	10	192.07	191.02
HSKF.150.50.0270	HSK 50	27	60	21	60	12	192.08	191.03
HSKF.150.63.0160	HSK 63	16	50	17	40	8	192.06	191.01
HSKF.150.63.0220	HSK 63	22	50	19	50	10	192.07	191.02
HSKF.150.63.0270	HSK 63	27	60	21	60	12	192.08	191.03
HSKF.150.63.0320	HSK 63	32	60	24	72	14	192.09	191.04
HSKF.150.63.0400	HSK 63	40	62	27	82	16	192.10	191.05



1. MANDRINI a cono HSKF DIN 69893/6

TOOL HOLDERS with HSKF cone DIN 69893/6



Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

ACCESSORI PER MACCHINE UTENSILI

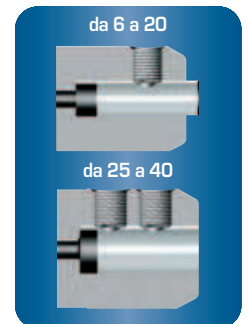
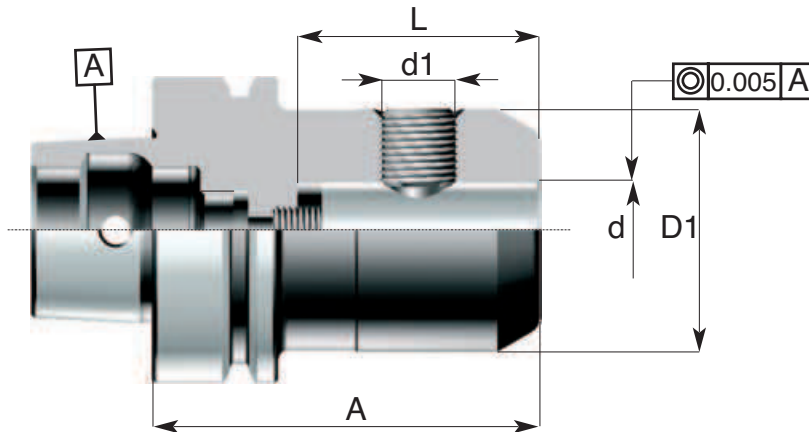


DIN 69893/6-F

Prebilanciato
 Prebalanced
 G6.3 / 8000rpm

ART: HSKF.208

1.
46



Codice di ord Code	HSKF	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
HSKF.208.50.0060	HSK 50	6	65	25	35	M6X10	208.00.0060
HSKF.208.50.0080	HSK 50	8	65	28	35	M8X10	208.00.0080
HSKF.208.50.0100	HSK 50	10	75	35	39	M10X12	208.00.0100
HSKF.208.50.0120	HSK 50	12	80	42	44	M12X1.5X16	208.00.0120
HSKF.208.50.0140	HSK 50	14	80	44	44	M12X1.5X16	208.00.0120
HSKF.208.50.0160	HSK 50	16	80	48	47	M14X1.5X16	208.00.0140
HSKF.208.50.0180	HSK 50	18	80	50	47	M16X1.5X16	208.00.0160
HSKF.208.50.0200	HSK 50	20	80	52	49	M16X1.5X16	208.00.0160
HSKF.208.63.0060	HSK 63	6	65	25	35	M6X10	208.00.0060
HSKF.208.63.0080	HSK 63	8	65	28	35	M8X10	208.00.0080
HSKF.208.63.0100	HSK 63	10	75	35	39	M10X12	208.00.0100
HSKF.208.63.0120	HSK 63	12	80	42	44	M12X1.5X16	208.00.0120
HSKF.208.63.0140	HSK 63	14	80	44	44	M12X1.5X16	208.00.0120
HSKF.208.63.0160	HSK 63	16	80	48	47	M14X1.5X16	208.00.0140
HSKF.208.63.0180	HSK 63	18	80	50	47	M14X1.5X16	208.00.0140
HSKF.208.63.0200	HSK 63	20	80	52	49	M16X1.5X16	208.00.0160
HSKF.208.63.0250	HSK 63	25	110	65	54	M18X1.5X20	208.00.0180
HSKF.208.63.0320	HSK 63	32	110	72	58	M20X1.5X20	208.00.0200



ACCESSORI PER MACCHINE UTENSILI



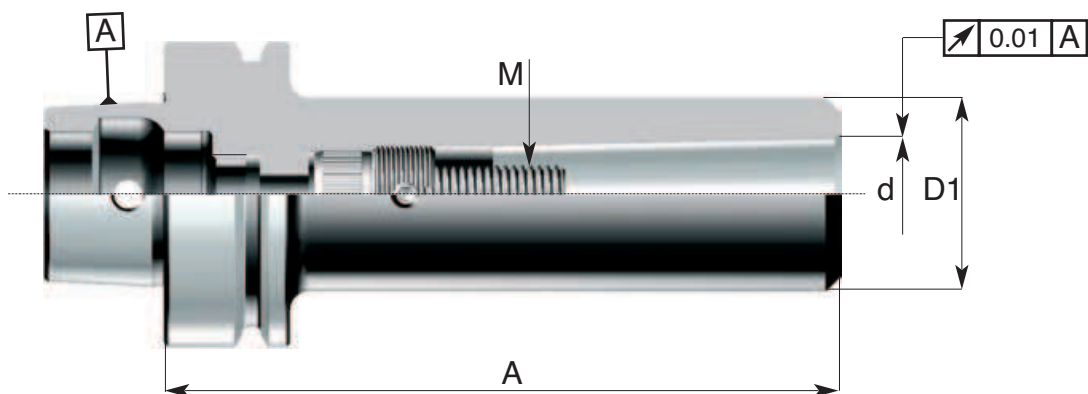
Riduzioni da cono HSK a cono Morse DIN 6364 B per frese con vite interna
 Morse taper adaptors sleeves for cutters with internal screw - DIN 6364 B
 Zwischenhülsen für Morsekegel mit Auzugsgewinde - DIN 6364 B
 Douilles de réduction à cône Morse pour fraises avec vis - DIN 6364 B

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

DIN 69893/6-F

ART: HSKF.261

1.
47



Codice di ord Code	HSK-F	Cono Morse SK	d	A	D1	M	Vite Screw	Ghiera Nut
HSKF.261.50.0100	HSK 50	Morse 1	12.065	100	25	M6	261.00.0625	261.12.0100
HSKF.261.50.0200	HSK 50	Morse 2	17.780	120	32	M10	261.00.1030	261.15.0200
HSKF.261.50.0300	HSK 50	Morse 3	17.780	140	40	M12	261.00.1240.B	261.00.1220
HSKF.261.63.0100	HSK 63	Morse 1	12.065	100	25	M6	261.00.0625	261.16.1100
HSKF.261.63.0200	HSK 63	Morse 2	17.780	120	32	M10	261.00.1030.B	261.16.1100
HSKF.261.63.0300	HSK 63	Morse 3	23.825	140	40	M12	261.00.1240.E	261.00.1220
HSKF.261.63.0400	HSK 63	Morse 4	31.267	160	48	M16	261.00.1645.B	261.00.1626



1. MANDRINI a cono HSKF DIN 69893/6

TOOL HOLDERS with HSKF cone DIN 69893/6



Riduzioni da cono HSK a cono Morse per punte

Morse taper adaptors sleeves for drills with driving shank

Zwischenhülsen für Morsekegel mit Austreibklappen

Douilles de réduction à cône Morse pour forets avec dents d'entraînement

ACCESSORI PER MACCHINE UTENSILI

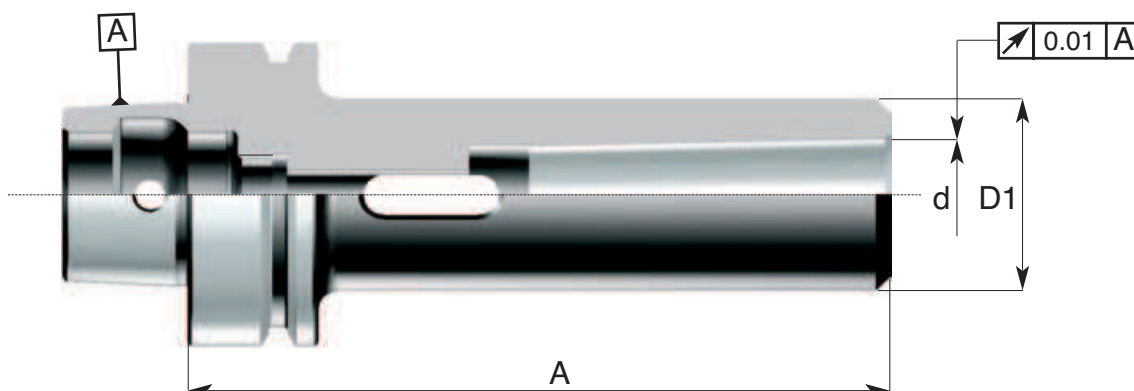


DIN 69893/6-F

Prebilanciato
Prebalanced
G6.3 / 8000rpm

ART: HSKF.262

1.
48



Codice di ord Code	HSKF	Cono Morse	d	A	D1
HSKF.262.50.0100	HSK 50	Morse 1	12.065	100	25
HSKF.262.50.0200	HSK 50	Morse 2	17.780	120	32
HSKF.262.50.0300	HSK 50	Morse 3	17.780	140	40
HSKF.262.63.0100	HSK 63	Morse 1	12.065	100	25
HSKF.262.63.0200	HSK 63	Morse 2	17.780	120	32
HSKF.262.63.0300	HSK 63	Morse 3	23.825	140	40
HSKF.262.63.0400	HSK 63	Morse 4	31.267	160	48

ACCESSORI PER MACCHINE UTENSILI



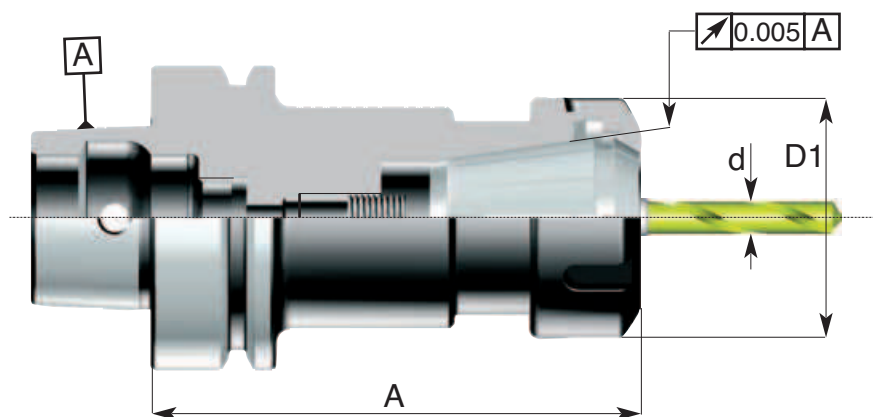
Mandrini portapinze ER DIN 6499 - ghiera standard
 Collet chucks ER DIN 6499 - standard nut
 Spannzangenhalter ER DIN 6499 - standard Spannmutter
 Mandrins porte-pinces ER DIN 6499 - écrou standard

Prebilanciato
 Prebalanced
G6.3 / 8000rpm

DIN 69893/6-F

ART: HSKF.607
 ghiera standard / standard nut

1.
49



Codice di ord Code	HSK-F	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut	Tipo ghiera Nut type
HSKF.607.50.0160	HSK 50	ER 16	100	28	0,5-10	245.22.ER16	Standard
HSKF.607.50.0162M	HSK 50	ER 16	160	22	0,5-10	245.19.ER16M	Mini
HSKF.607.50.0250	HSK 50	ER 25	100	42	1-16	245.32.ER25	Standard
HSKF.607.50.0320	HSK 50	ER 32	100	50	1-20	245.40.ER32	Standard
HSKF.607.50.0322	HSK 50	ER 32	150	50	1-20	245.40.ER32	Standard
HSKF.607.50.0400	HSK 50	ER 40	100	63	2-30	245.50.ER40	Standard
HSKF.607.63.0160	HSK 63	ER 16	100	28	0,5-10	245.22.ER16	Standard
HSKF.607.63.0162M	HSK 63	ER 16	160	22	0,5-10	245.19.ER16M	Mini
HSKF.607.63.0250	HSK 63	ER 25	100	42	1-16	245.32.ER25	Standard
HSKF.607.63.0320.C	HSK 63	ER 32	70	50	1-20	245.40.ER32	Standard
HSKF.607.63.0320	HSK 63	ER 32	100	50	1-20	245.40.ER32	Standard
HSKF.607.63.0322	HSK 63	ER 32	150	50	1-20	245.40.ER32	Standard
HSKF.607.63.0400.C	HSK 63	ER 40	70	63	2-30	245.50.ER40	Standard
HSKF.607.63.0400	HSK 63	ER 40	100	63	2-30	245.50.ER40	Standard

2.4

- Portafrese combinati
Combined milling cutter chucks

2.5

- Portafrese a manico
Face milling cutter chucks

2.7

- Portafrese a manico
Face milling cutter chucks

2.8

- Portafrese weldon
Milling cutter chucks Weldon

2.9

- Portafrese weldon
Milling cutter chucks Weldon

2.11

- Portafrese weldon
Milling cutter chucks Weldon

2.13

- Portafrese per calettamento
Shrink chucks

2.14

- Portafrese per calettamento
Shrink chucks

2.15

- Mandrini idraulici
hydraulic clamping chucks

2.16

- Mandrini idraulici
hydraulic clamping chucks

2.17

- Mandrini portatestine filettate
Chucks for threaded heads

2.18

- Mandrini portamorsetti
Taper shafts for drill chucks

2.19

- Mandrini portapunte
Integral drill chucks

2.20

- Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO

2.21

- Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO

2.22

- Riduzioni per PRESETTING
PRESETTING reduction

2.22

- Riduzioni per PRESETTING
PRESETTING reduction

2.23

- Portafrese a cono Morse
Milling cutter with Morse cone

2.24

- Portafrese a cono Morse
Milling cutter with Morse cone

2.25

- Portapunte a cono Morse
Drill chucks with Morse cone

2.27

- Barre semifinite
Unfinished taper-shank blanks

2.28

- Mandrini a forte serraggio
Milling chuck

2.29

- Portapinze EOC
Collet chucks EOC

2.29

- Portapinze DELTA
Collet chucks DELTA

2.30

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

2.32

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

2.32

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

2.33

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

2.33

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

2.35

- Portaastucci registrabili
Adaptors for adjustable inserts

2.36

- Maschiatori
Tapping chuck

2.39

- Maschiatori
Tapping chuck

2.40

- Cilindri di collaudo
Test arbors

2.41

- VARILOCK
VARILOCK



ISO DIN 69871
DIN 69871/A-AD
DIN 69871/AD+B
Attacchi con cono ISO
*Attachments
with ISO cone*

22

 **delta**

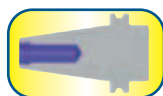
2. MANDRINI a cono ISO DIN 69871

TOOL HOLDERS with ISO cone DIN 69871

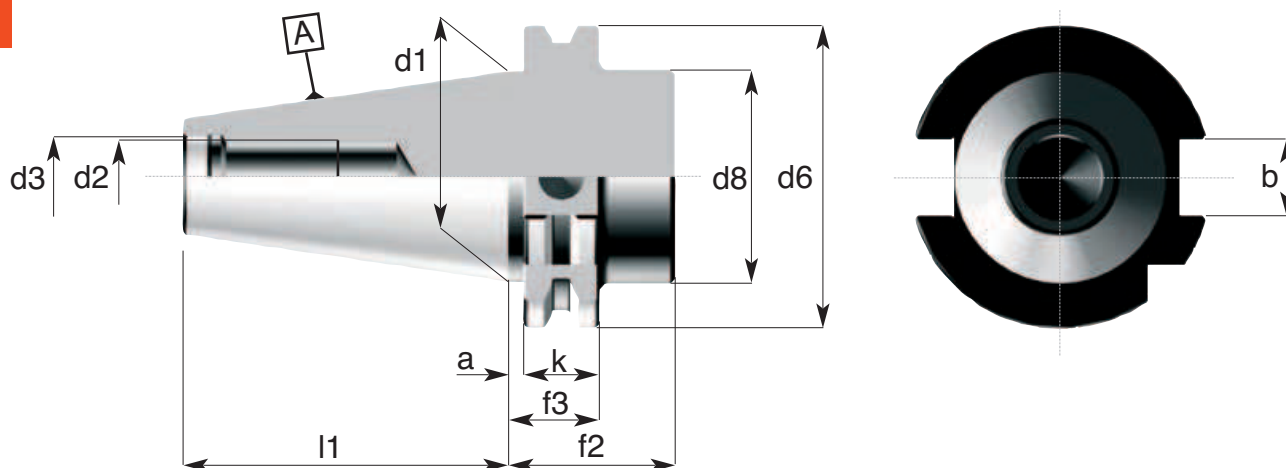


ACCESSORI PER MACCHINE UTENSILI

DIN 69871/A



Attacchi DIN 69871/A



Riferimento Item	a	b H12	d1	d2	d3 H7	d6	d8 max.	f2	f3	l1	k
ISO 30	3.2	16.1	31.75	M12	13	50	45	35	19.1	47.8	15.9
ISO 40	3.2	16.1	44.45	M16	17	63.55	50	35	19.1	68.4	15.9
ISO 45	3.2	19.3	57.15	M20	21	82.55	63	35	19.1	82.7	15.9
ISO 50	3.2	25.7	69.85	M24	25	97.50	80	35	19.1	101.75	15.9

CARATTERISTICHE TECNICHE DEI MANDRINI TC

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni ISO è inferiore ad AT3

STANDARD FEATURES OF TC TOOLING

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of ISO SHANKS lower than AT3

ACCESSORI PER MACCHINE UTENSILI

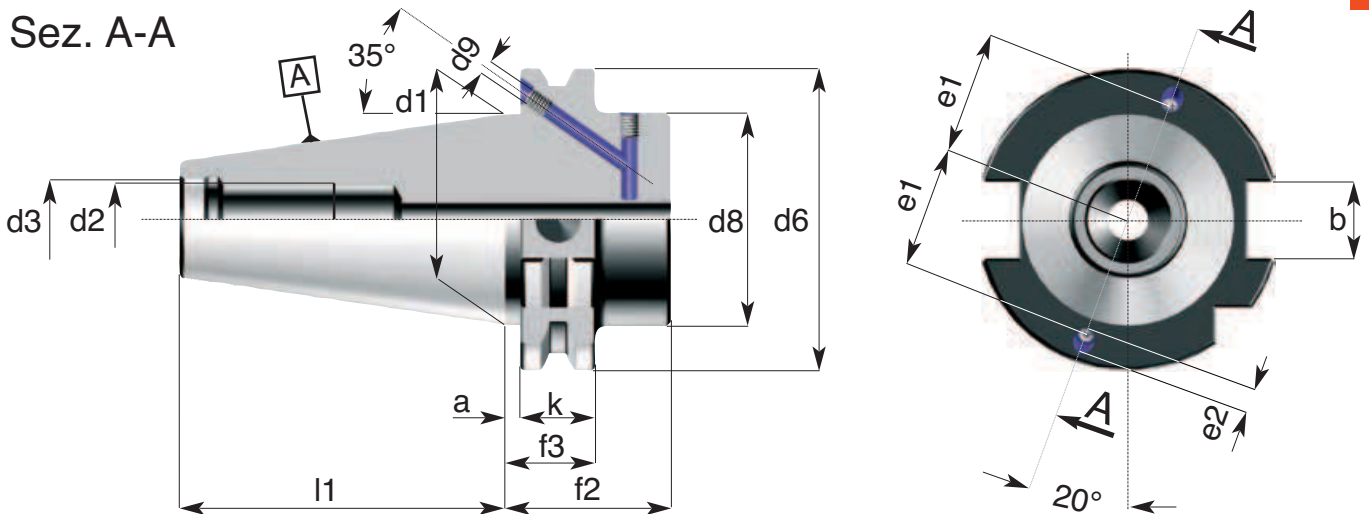


DIN 69871/AD+B

Attacchi DIN 69871/AD+B

2.
3

Sez. A-A



Riferimento Item	a	b H12	d1	d2	d3 H7	d6	d8 max.	f2	f3	l1	k	e1	e2	d9
ISO 30	3.2	16.1	31.75	M12	13	50	45	35	19.1	478	15.9	21	5	4
ISO 40	3.2	16.1	44.45	M16	17	63.55	50	35	19.1	68.4	15.9	27	5	4
ISO 45	3.2	19.3	57.15	M20	21	82.55	63	35	19.1	82.7	15.9	35	6	5
ISO 50	3.2	25.7	69.85	M24	25	97.50	80	35	19.1	101.75	15.9	42	7	6

**CARATTERISTICHE TECNICHE
DEI MANDRINI TC**

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbiati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiere chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni ISO è inferiore ad AT3

**STANDARD FEATURES
OF TC TOOLING**

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of ISO SHANKS lower than AT3

2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Portafrese combinati con trascinamento frontale e chiavetta DIN 6358

Combined milling cutter chucks DIN 6358 B

Kombi-Aufsteckfräserdorne DIN 6358 B

Mandrins porte-fraises combinés DIN 6358 B

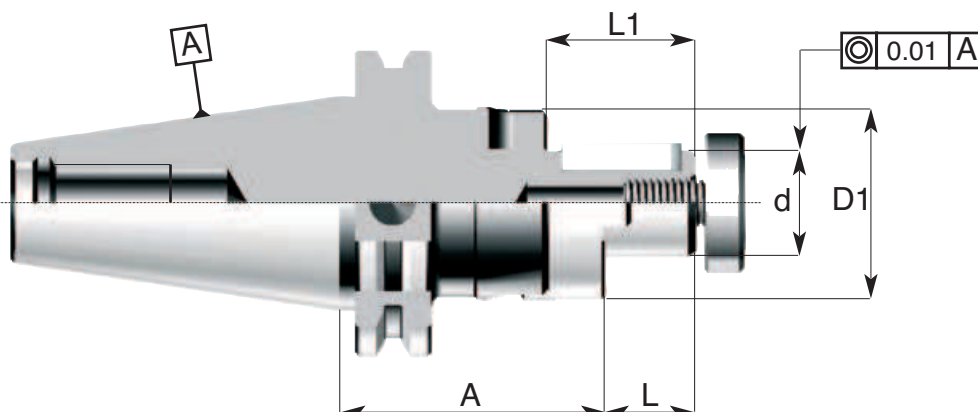
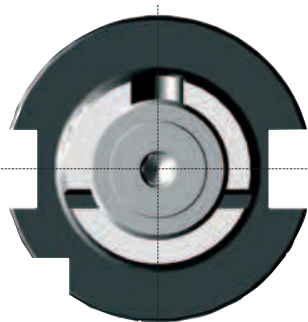
ACCESSORI PER MACCHINE UTENSILI

DIN 69871/A



Prebilanciato
Prebalanced
G6.3 / 8000rpm

ART: 001.130



Codice di ord Code	SK	d h6	A	L	L1	D1	Trascinatore Ring	Vite Screw	Linguetta Key
001.130.30.0160	SK 30	16	50	17	27	32	190.01	191.01	130.199.01
001.130.30.0220	SK 30	22	50	19	31	40	190.02	191.02	130.199.02
001.130.30.0270	SK 30	27	55	21	33	48	190.03	191.03	130.199.03
001.130.40.0160	SK 40	16	55	17	27	32	190.01	191.01	130.199.01
001.130.40.0162	SK 40	16	90	17	27	32	190.01	191.01	130.199.01
001.130.40.0220	SK 40	22	55	19	31	40	190.02	191.02	130.199.02
001.130.40.0222	SK 40	22	90	19	31	40	190.02	191.02	130.199.02
001.130.40.0270	SK 40	27	55	21	33	48	190.03	191.03	130.199.03
001.130.40.0272	SK 40	27	90	21	33	48	190.03	191.03	130.199.03
001.130.40.0320	SK 40	32	63	24	38	58	190.04	191.04	130.199.04
001.130.40.0322	SK 40	32	90	24	38	58	190.04	191.04	130.199.04
001.130.40.0400	SK 40	40	63	27	41	70	190.05	191.05	130.199.05
001.130.40.0402	SK 40	40	90	27	41	70	190.05	191.05	130.199.05
001.130.45.0160	SK 45	16	55	17	27	32	190.01	191.01	130.199.01
001.130.45.0162	SK 45	16	90	17	27	32	190.01	191.01	130.199.01
001.130.45.0220	SK 45	22	55	19	31	40	190.02	191.02	130.199.02
001.130.45.0222	SK 45	22	90	19	31	40	190.02	191.02	130.199.02
001.130.45.0270	SK 45	27	55	21	33	48	190.03	191.03	130.199.03
001.130.45.0272	SK 45	27	90	21	33	48	190.03	191.03	130.199.03
001.130.45.0320	SK 45	32	63	24	38	58	190.04	191.04	130.199.04
001.130.45.0322	SK 45	32	90	24	38	58	190.04	191.04	130.199.04
001.130.45.0400	SK 45	40	70	27	41	70	190.05	191.05	130.199.05
001.130.45.0402	SK 45	40	90	27	41	70	190.05	191.05	130.199.05
001.130.50.0160	SK 50	16	63	17	27	32	190.01	191.01	130.199.01
001.130.50.0162	SK 50	16	90	17	27	32	190.01	191.01	130.199.01
001.130.50.0220	SK 50	22	63	19	31	40	190.02	191.02	130.199.02
001.130.50.0222	SK 50	22	90	19	31	40	190.02	191.02	130.199.02
001.130.50.0270	SK 50	27	63	21	33	48	190.03	191.03	130.199.03
001.130.50.0272	SK 50	27	90	21	33	48	190.03	191.03	130.199.03
001.130.50.0320	SK 50	32	63	24	38	58	190.04	191.04	130.199.04
001.130.50.0322	SK 50	32	90	24	38	58	190.04	191.04	130.199.04
001.130.50.0400	SK 50	40	63	27	41	70	190.05	191.05	130.199.05
001.130.50.0402	SK 50	40	100	27	41	70	190.05	191.05	130.199.05
001.130.50.0500	SK 50	50	75	30	46	90	190.06	191.06	130.199.06
001.130.50.0502	SK 50	50	100	30	46	90	190.06	191.06	130.199.06

Pag. 12.24



Pag. 12.25



ACCESSORI PER MACCHINE UTENSILI

Portafrese con trascinamento frontale per frese a manicotto DIN 138

Face milling cutter chucks DIN 138

Aufsteckfräserdorne DIN 138

Mandrins porte-fraises à surfacer DIN 138

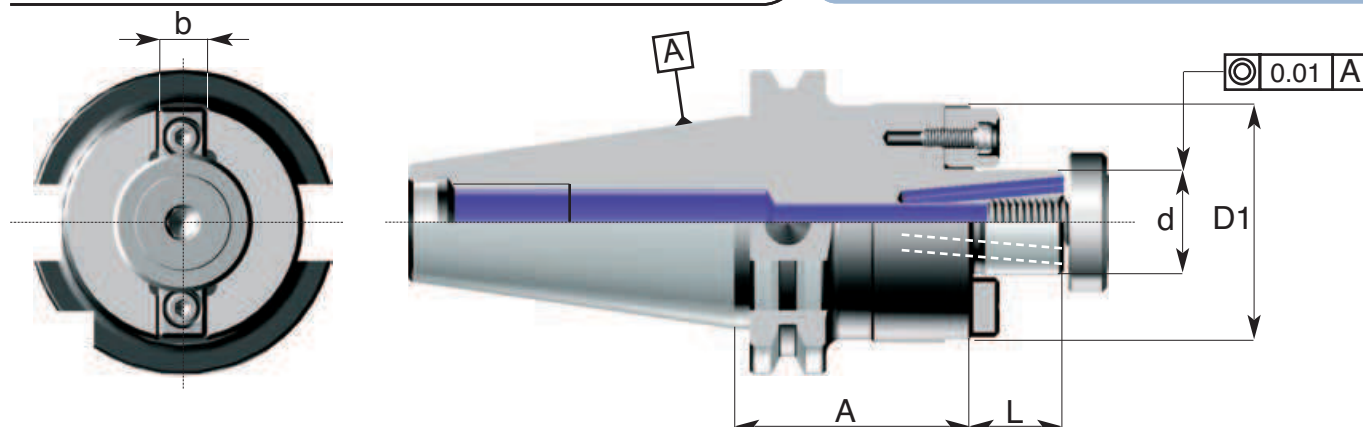


Prebilanciato
Prebalanced
G6.3 / 8000rpm



DIN 69871 / AD

ART: 001.150



2.
5

Codice di ord Code	SK	d h6	A	L	D1	b	Tassello Tenon	Vite Screw
001.150.40.0160	SK 40	16	50	17	40	8	192.06	191.01
001.150.40.0162	SK 40	16	90	17	40	8	192.06	191.01
001.150.40.0220	SK 40	22	50	19	50	10	192.07	191.02
001.150.40.0222	SK 40	22	90	19	50	10	192.07	191.02
001.150.40.0270	SK 40	27	50	21	60	12	192.08	191.03
001.150.40.0272	SK 40	27	90	21	60	12	192.08	191.03
001.150.40.0320	SK 40	32	50	24	65	14	192.09	191.04
001.150.40.0322	SK 40	32	90	24	65	14	192.09	191.04
001.150.40.0400	SK 40	40	50	27	75	16	192.10	191.05
001.150.40.0402	SK 40	40	90	27	75	16	192.10	191.05
001.150.45.0160	SK 45	16	50	17	40	8	192.06	191.01
001.150.45.0162	SK 45	16	90	17	40	8	192.06	191.01
001.150.45.0220	SK 45	22	50	19	50	10	192.07	191.02
001.150.45.0222	SK 45	22	90	19	50	10	192.07	191.02
001.150.45.0270	SK 45	27	50	21	60	12	192.08	191.03
001.150.45.0272	SK 45	27	90	21	60	12	192.08	191.03
001.150.45.0320	SK 45	32	50	24	75	14	192.09	191.04
001.150.45.0322	SK 45	32	90	24	75	14	192.09	191.04
001.150.45.0400	SK 45	40	50	27	85	16	192.10	191.05
001.150.45.0402	SK 45	40	90	27	85	16	192.10	191.05
001.150.50.0160	SK 50	16	63	17	40	8	192.06	191.01
001.150.50.0162	SK 50	16	100	17	40	8	192.06	191.01
001.150.50.0220	SK 50	22	63	19	50	10	192.07	191.02
001.150.50.0222	SK 50	22	100	19	50	10	192.07	191.02
001.150.50.0270	SK 50	27	63	21	60	12	192.08	191.03
001.150.50.0272	SK 50	27	100	21	60	12	192.08	191.03
001.150.50.0320	SK 50	32	63	24	75	14	192.09	191.04
001.150.50.0322	SK 50	32	100	24	75	14	192.09	191.04
001.150.50.0400	SK 50	40	63	27	85	16	192.10	191.05
001.150.50.0402	SK 50	40	100	27	85	16	192.10	191.05
001.150.50.0500	SK 50	50	63	31	90	18	192.11	191.06
001.150.50.0502	SK 50	50	100	31	90	18	192.11	191.06



2. MANDRINI a cono ISO DIN 69871

TOOL HOLDERS with ISO cone DIN 69871



Portafrese con trascinamento frontale e linguetta DIN 138

Face milling cutter chucks DIN 138

Aufsteckfräserdorne DIN 138

Mandrins porte-fraises à surfacer DIN 138

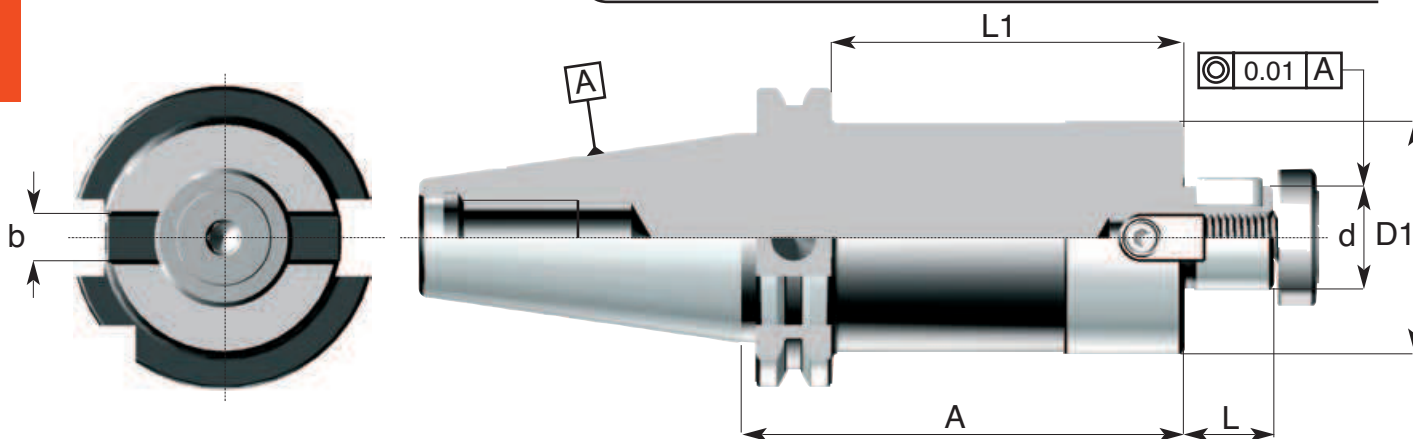
ACCESSORI PER MACCHINE UTENSILI

DIN 69871 / A



Prebilanciato
Prebalanced
G6.3 / 8000rpm

ART: 001.151



Codice di ord Code	SK	d h6	A	L	L1	D1	b	Tassello Tenon	Vite Screw	Linguetta Key
001.151.40.0160	SK 40	16	94	17	75	38	8	151.101	191.01	151.199.01
001.151.40.0162	SK 40	16	119	17	100	38	8	151.101	191.01	151.199.01
001.151.40.0164	SK 40	16	169	17	150	38	8	151.101	191.01	151.199.01
001.151.40.0220	SK 40	22	94	19	75	49	10	151.102	191.02	151.199.02
001.151.40.0222	SK 40	22	119	19	100	49	10	151.102	191.02	151.199.02
001.151.40.0224	SK 40	22	169	19	150	49	10	151.102	191.02	151.199.02
001.151.40.0226	SK 40	22	219	19	200	49	10	151.102	191.02	151.199.02
001.151.40.0227	SK 40	22	269	19	250	49	10	151.102	191.02	151.199.02
001.151.40.0270	SK 40	27	94	21	75	60	12	151.103	191.03	151.199.03
001.151.40.0272	SK 40	27	119	21	100	60	12	151.103	191.03	151.199.03
001.151.40.0274	SK 40	27	169	21	150	60	12	151.103	191.03	151.199.03
001.151.40.0276	SK 40	27	219	21	200	60	12	151.103	191.03	151.199.03
001.151.40.0277	SK 40	27	269	21	250	60	12	151.103	191.03	151.199.03
001.151.50.0220	SK 50	22	119	19	100	49	10	151.102	191.02	151.199.02
001.151.50.0222	SK 50	22	169	19	150	49	10	151.102	191.02	151.199.02
001.151.50.0224	SK 50	22	219	19	200	49	10	151.102	191.02	151.199.02
001.151.50.0225	SK 50	22	269	19	250	49	10	151.102	191.02	151.199.02
001.151.50.0226	SK 50	22	319	19	300	49	10	151.102	191.02	151.199.02
001.151.50.0228	SK 50	22	369	19	350	49	10	151.102	191.02	151.199.02
001.151.50.0229	SK 50	22	419	19	400	49	10	151.102	191.02	151.199.02
001.151.50.0270	SK 50	27	119	21	100	60	12	151.103	191.03	151.199.03
001.151.50.0272	SK 50	27	169	21	150	60	12	151.103	191.03	151.199.03
001.151.50.0274	SK 50	27	219	21	200	60	12	151.103	191.03	151.199.03
001.151.50.0275	SK 50	27	269	21	250	60	12	151.103	191.03	151.199.03
001.151.50.0276	SK 50	27	319	21	300	60	12	151.103	191.03	151.199.03
001.151.50.0278	SK 50	27	369	21	350	60	12	151.103	191.03	151.199.03
001.151.50.0279	SK 50	27	419	21	400	60	12	151.103	191.03	151.199.03
001.151.50.0320	SK 50	32	119	24	100	75	14	151.104	191.04	151.199.04
001.151.50.0322	SK 50	32	169	24	150	75	14	151.104	191.04	151.199.04
001.151.50.0324	SK 50	32	219	24	200	75	14	151.104	191.04	151.199.04
001.151.50.0402	SK 50	40	169	27	150	85	16	151.105	191.05	151.199.05



Pag: 12.27

Pag: 12.25

ACCESSORI PER MACCHINE UTENSILI

Portafrese con trascinamento frontale per frese a manicotto DIN 6357/B

Centering arbors for milling cutters DIN 6357 B

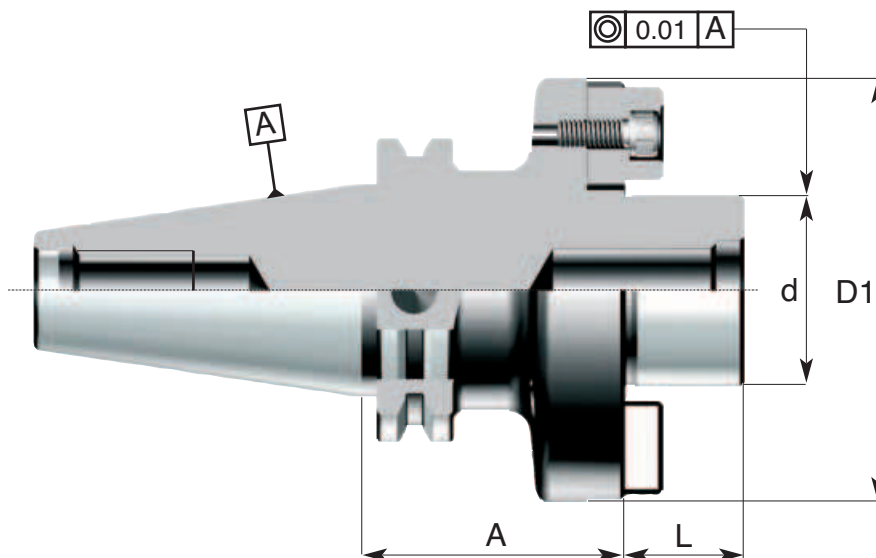
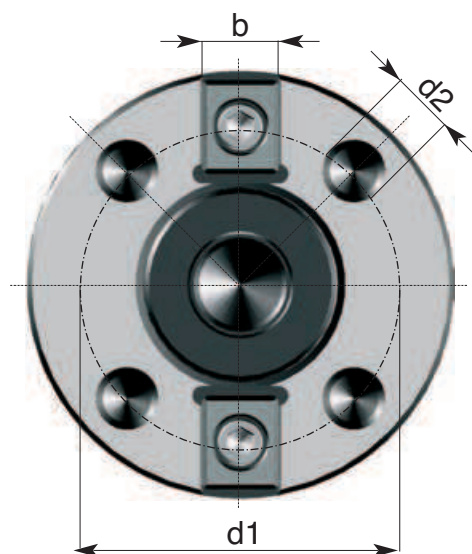
Aufnahmedornen für Messerköpfe DIN 6357 B

Mandrins porte-fraises pour têtes porte-lames DIN 6357 B



DIN 69871 / A

ART: 001.160



2.
7

Code di ord Code	SK	d h6	A	D1 h6	d1	d2	L	b	Tassello Tenon
001.160.40.0880.40	SK 40	40	55	88.882	66.70	M 12	25	15.9	192.02
001.160.40.1280.60	SK 40	60	55	128.570	101.6	M 16	35	25.4	192.03
001.160.45.0880.40	SK 45	40	55	88.882	66.70	M 12	25	15.9	192.02
001.160.45.1280.60	SK 45	60	60	128.570	101.6	M 16	35	25.4	192.03
001.160.50.0880.40	SK 50	40	60	88.882	66.70	M 12	25	15.9	192.02
001.160.50.1280.60	SK 50	60	60	128.570	101.6	M 16	35	25.4	192.03

Pag. 12.26



2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871

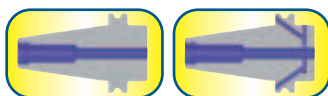


Portafrese cilindriche tipo weldon corto e tipo ribassato per punte

Milling cutter chucks for straight-shank tools Weldon System - short type and lowered type for drills
Spannfutter Weldon für Zylinderschäfte - kurze Ausführung und verringerte Ausführung für Bohrer
Mandrins porte-Weldon pour fraises à queue cylindrique - type court et type surbaissé pour forets

ACCESSORI PER MACCHINE UTENSILI

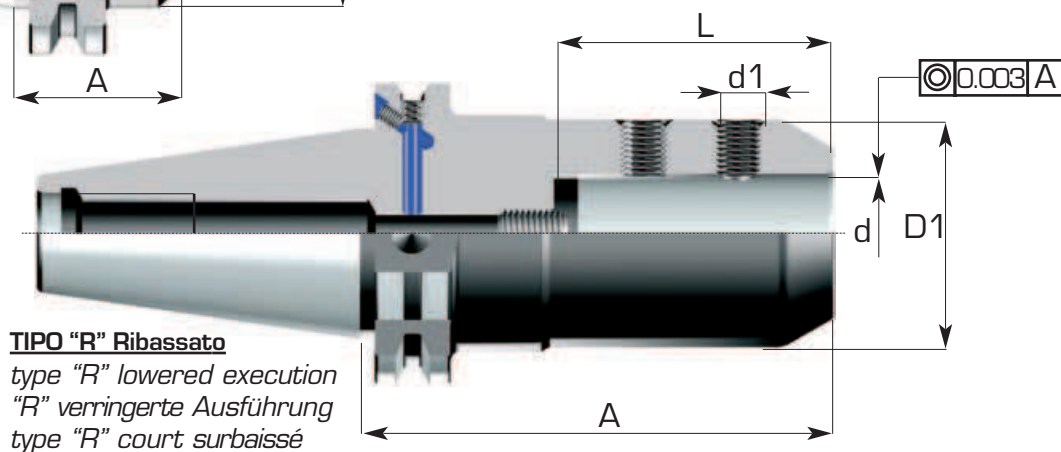
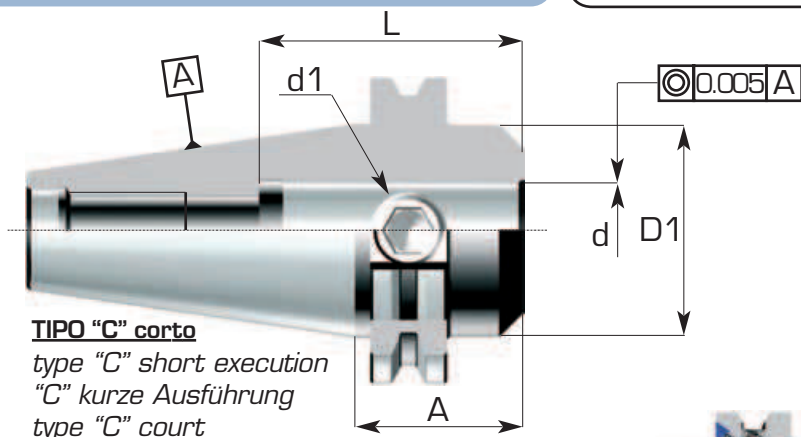
DIN 69871 / AD e AD+B



ART: 001.208.C e H01.208.R

Prebilanciato
Prebalanced
G6.3 / 8000rpm

2.8



Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
001.208.40.0160.C	SK 40	16	35	44	45	M14X1.5	208.00.0140
001.208.40.0200.C	SK 40	20	35	44	45	M14X1.5	208.00.0140
001.208.40.0250.C	SK 40	25	35	44	55	M14X1.5	208.00.0140
001.208.40.0320.C	SK 40	32	70	72	60	M16X1 - 20X1.5	208.00.0161 - 208.00.0200
001.208.50.0160.C	SK 50	16	35	70	45	M14X1.5	208.00.0140
001.208.50.0200.C	SK 50	20	35	70	45	M16X1.5	208.00.0160
001.208.50.0250.C	SK 50	25	35	70	55	M18X1.5	208.00.0180
001.208.50.0320.C	SK 50	32	35	70	60	M20X1.5	208.00.0200
H01.208.40.0250.R	SK 40	25	100	45	59	M10X1	208.00.0100.R
H01.208.40.0320.R	SK 40	32	80	52	63	M12X1	208.00.0120.R
H01.208.40.0400.R	SK 40	40	80	63	73	M16X1	208.00.0160.R
H01.208.50.0320.R	SK 50	32	90	52	63	M12X1	208.00.0120.R
H01.208.50.0400.R	SK 50	40	90	65	73	M16X1	208.00.0160.R



ACCESSORI PER MACCHINE UTENSILI

Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

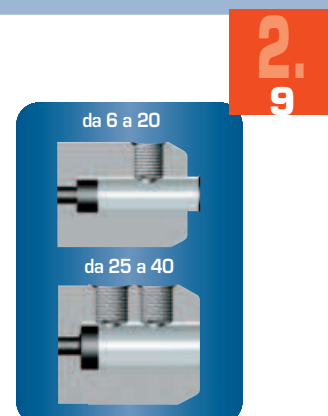
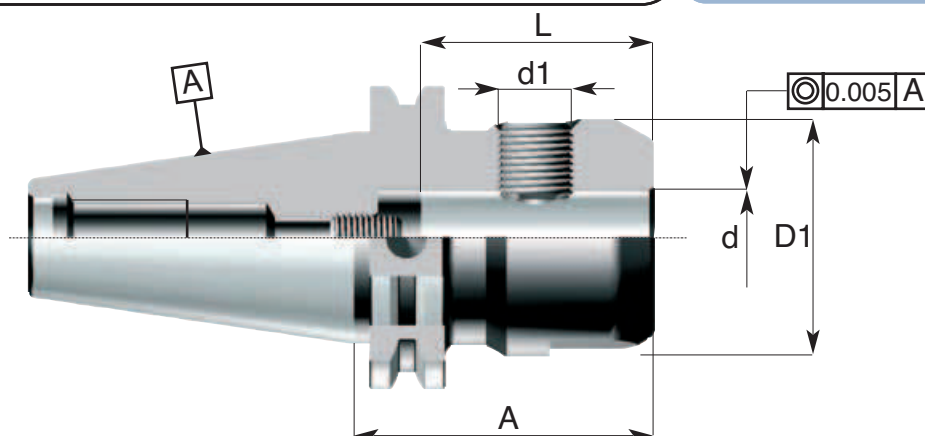


Prebilanciato
 Prebalanced
G6.3 / 8000rpm



DIN 69871 / AD

ART: 001.208



2.
9

Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
001.208.30.0060	SK 30	6	55	25	35	M6X10	208.00.0060
001.208.30.0080	SK 30	8	55	28	35	M8X10	208.00.0080
001.208.30.0100	SK 30	10	55	35	39	M10MX12	208.00.0100
001.208.30.0120	SK 30	12	55	42	44	M12X1.5X16	208.00.0120
001.208.30.0160	SK 30	16	60	48	47	M14X1.5X16	208.00.0140
001.208.30.0200	SK 30	20	60	52	49	M16X1.5X16	208.00.0160
001.208.40.0060	SK 40	6	50	25	35	M6X10	208.00.0060
001.208.40.0080	SK 40	8	50	28	35	M8X10	208.00.0080
001.208.40.0100	SK 40	10	50	35	39	M10X12	208.00.0100
001.208.40.0120	SK 40	12	50	42	44	M12X1.5X16	208.00.0120
001.208.40.0140	SK 40	14	63	44	44	M12X1.5X16	288.00.0120
001.208.40.0160	SK 40	16	63	48	47	M14X1.5X16	208.00.0140
001.208.40.0180	SK 40	18	63	50	47	M14X1.5X16	288.00.0140
001.208.40.0200	SK 40	20	63	52	49	M16X1.5X16	208.00.0160
001.208.40.0250	SK 40	25	85	65	54	M18X1.5X20	208.00.0180
001.208.40.0320	SK 40	32	85	72	58	M20X1.5X20	208.00.0200
001.208.40.0400	SK 40	40	115	80	68	M20X1.5X20	208.00.0200
001.208.50.0060	SK 50	6	63	25	35	M6X10	208.00.0060
001.208.50.0080	SK 50	8	63	28	35	M8X10	208.00.0080
001.208.50.0100	SK 50	10	63	35	39	M10X12	208.00.0100
001.208.50.0120	SK 50	12	63	42	44	M12X1.5X16	208.00.0120
001.208.50.0140	SK 50	14	63	44	44	M12X1.5X16	208.00.0120
001.208.50.0160	SK 50	16	63	48	47	M14X1.5X16	208.00.0140
001.208.50.0180	SK 50	18	63	50	47	M14X1.5X16	208.00.0140
001.208.50.0200	SK 50	20	63	52	49	M16X1.5X16	208.00.0160
001.208.50.0250	SK 50	25	85	65	54	M18X1.5X20	208.00.0180
001.208.50.0320	SK 50	32	85	72	58	M20X1.5X20	208.00.0200
001.208.50.0400	SK 50	40	100	80	68	M20X1.5X20	208.00.0200
001.208.50.0500	SK 50	50	105	90	78	M24X2X20	208.00.0240



2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
Spannfutter Weldon für Zylinderschäfte DIN 6359 B
Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

ACCESSORI PER MACCHINE UTENSILI

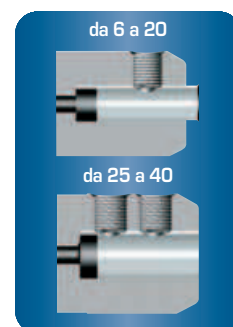
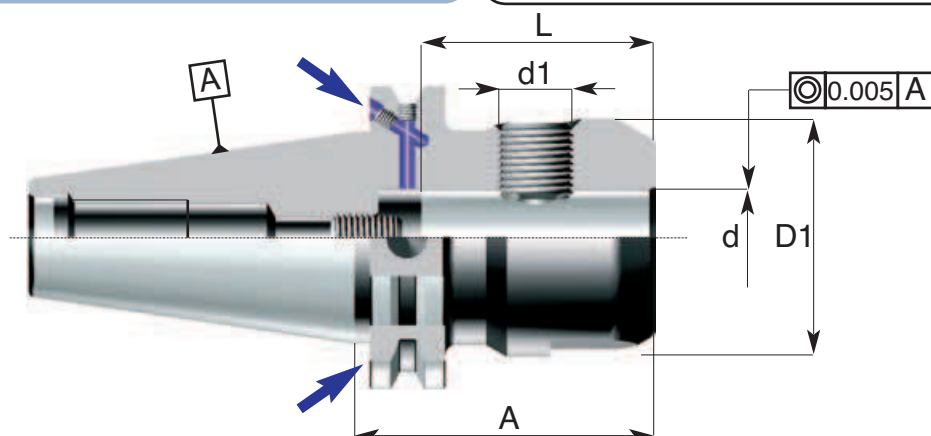
DIN 69871/AD+B



Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: 001.208



Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
H01.208.40.0060	SK 40	6	50	25	35	M6X10	208.00.0060
H01.208.40.0080	SK 40	8	50	28	35	M8X10	208.00.0080
H01.208.40.0100	SK 40	10	50	35	39	M10X12	208.00.0100
H01.208.40.0120	SK 40	12	50	42	44	M12X1,5X16	208.00.0120
H01.208.40.0140	SK 40	14	63	44	44	M12X1,5X16	208.00.0120
H01.208.40.0160	SK 40	16	63	48	47	M14X1,5X16	208.00.0140
H01.208.40.0180	SK 40	18	63	50	47	M14X1,5X16	208.00.0160
H01.208.40.0200	SK 40	20	63	52	49	M16X1,5X16	208.00.0160
H01.208.40.0250	SK 40	25	85	65	54	M18X1,5X20	208.00.0180
H01.208.40.0320	SK 40	32	85	72	58	M20X1,5X20	208.00.0200
H01.208.40.0400	SK 40	40	115	80	68	M20X1,5X20	208.00.0200
H01.208.45.0060	SK 45	6	60	25	35	M6X10	208.00.0060
H01.208.45.0080	SK 45	8	60	28	35	M8X10	208.00.0080
H01.208.45.0100	SK 45	10	65	35	39	M10X12	208.00.0100
H01.208.45.0120	SK 45	12	63	42	44	M12X1,5X16	208.00.0120
H01.208.45.0160	SK 45	16	65	48	47	M14X1,5X16	208.00.0140
H01.208.45.0200	SK 45	20	65	52	49	M16X1,5X16	208.00.0160
H01.208.45.0250	SK 45	25	85	65	54	M18X1,5X20	208.00.0180
H01.208.45.0320	SK 45	32	85	72	58	M20X1,5X20	208.00.0200
H01.208.45.0400	SK 45	40	115	80	68	M20X1,5X20	208.00.0240
H01.208.50.0060	SK 50	6	63	25	35	M6X10	208.00.0060
H01.208.50.0080	SK 50	8	63	28	35	M8X10	208.00.0080
H01.208.50.0100	SK 50	10	63	35	39	M10X12	208.00.0100
H01.208.50.0120	SK 50	12	63	42	44	M12X1,5X16	208.00.0120
H01.208.50.0140	SK 50	14	63	44	44	M12X1,5X16	208.00.0120
H01.208.50.0160	SK 50	16	63	48	47	M14X1,5X16	208.00.0140
H01.208.50.0180	SK 50	16	63	50	47	M14X1,5X16	208.00.0160
H01.208.50.0200	SK 50	20	63	52	49	M16X1,5X16	208.00.0160
H01.208.50.0250	SK 50	25	85	65	54	M18X1,5X20	208.00.0180
H01.208.50.0320	SK 50	32	85	72	58	M20X1,5X20	208.00.0200
H01.208.50.0400	SK 50	40	100	80	68	M20X1,5X20	208.00.0200
H01.208.50.0500	SK 50	50	105	90	78	M24X2X20	208.00.0240



2.
10

ACCESSORI PER MACCHINE UTENSILI

Portafrese cilindriche tipo weldon tipo prolungati DIN 6359 B
 Milling cutter chucks for straight-shank tools Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

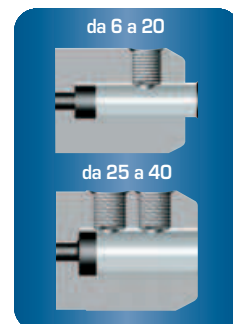
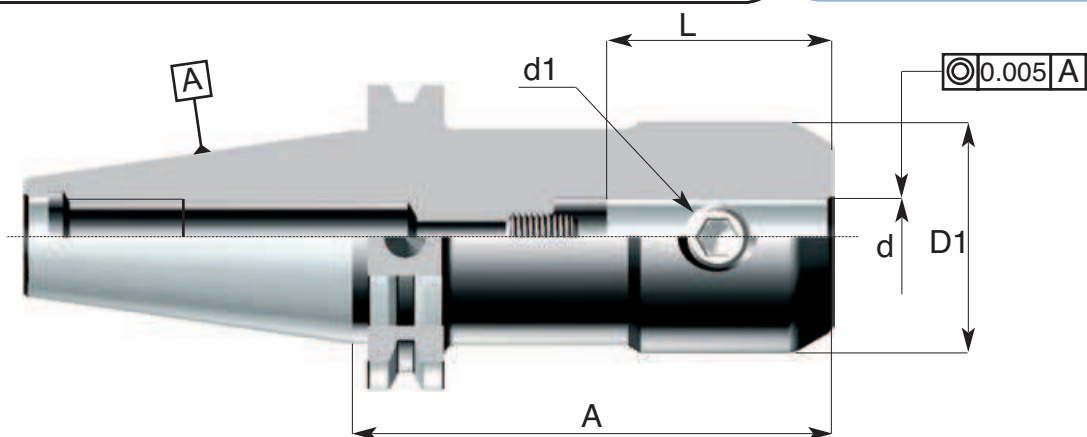


Prebilanciato
 Prebalanced
G6.3 / 8000rpm



DIN 69871 / AD

ART: 001.208



2.
11

Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
001.208.40.0062	SK 40	6	100	25	35	M6X10	208.00.0060
001.208.40.0064	SK 40	6	150	25	35	M6X10	208.00.0060
001.208.40.0082	SK 40	8	100	28	35	M8X10	208.00.0080
001.208.40.0084	SK 40	8	150	28	35	M8X10	208.00.0080
001.208.40.0102	SK 40	10	100	35	39	M10X12	288.00.0100
001.208.40.0104	SK 40	10	150	35	39	M10X12	208.00.0100
001.208.40.0122	SK 40	12	100	42	44	M12X1.5X16	288.00.0120
001.208.40.0124	SK 40	12	150	42	44	M12X1.5X16	208.00.0120
001.208.40.0142	SK 40	14	100	44	44	M12X1.5X16	208.00.0120
001.208.40.0144	SK 40	14	150	44	44	M12X1.5X16	208.00.0120
001.208.40.0162	SK 40	16	100	48	47	M14X1.5X16	208.00.0140
001.208.40.0164	SK 40	16	150	48	47	M14X1.5X16	208.00.0140
001.208.40.0182	SK 40	18	100	50	47	M14X1.5X16	208.00.0140
001.208.40.0184	SK 40	18	150	50	47	M14X1.5X16	208.00.0140
001.208.40.0202	SK 40	20	100	52	49	M16X1.5X16	208.00.0180
001.208.40.0204	SK 40	20	150	52	49	M16X1.5X16	208.00.0180
001.208.40.0254	SK 40	25	150	65	54	M18X1.5X20	208.00.0180
001.208.40.0324	SK 40	32	150	72	58	M20X1.5X20	208.00.0200
001.208.50.0062	SK 50	6	100	25	35	M6X10	208.00.0060
001.208.50.0064	SK 50	6	150	25	35	M6X10	208.00.0060
001.208.50.0082	SK 50	8	100	28	35	M8X10	208.00.0080
001.208.50.0084	SK 50	8	150	28	35	M8X10	208.00.0080
001.208.50.0102	SK 50	10	100	35	39	M10X12	288.00.0100
001.208.50.0104	SK 50	10	150	35	39	M10X12	208.00.0100
001.208.50.0122	SK 50	12	100	42	44	M12X1.5X16	288.00.0120
001.208.50.0124	SK 50	12	150	42	44	M12X1.5X16	208.00.0120
001.208.50.0142	SK 50	14	100	44	44	M12X1.5X16	208.00.0120
001.208.50.0144	SK 50	14	150	44	44	M12X1.5X16	208.00.0120
001.208.50.0162	SK 50	16	100	48	47	M14X1.5X16	208.00.0140
001.208.50.0164	SK 50	16	150	48	47	M14X1.5X16	208.00.0140
001.208.50.0182	SK 50	18	100	50	47	M14X1.5X16	208.00.0140
001.208.50.0184	SK 50	18	150	50	47	M14X1.5X16	208.00.0140
001.208.50.0202	SK 50	20	100	52	49	M16X1.5X16	208.00.0160
001.208.50.0204	SK 50	20	150	52	49	M16X1.5X16	208.00.0160
001.208.50.0252	SK 50	25	100	65	54	M18X1.5X20	208.00.0180
001.208.50.0254	SK 50	25	150	65	54	M18X1.5X20	208.00.0180
001.208.50.0324	SK 50	32	150	72	58	M20X1.5X20	208.00.0200
001.208.50.0404	SK 50	40	150	80	68	M20X1.5X20	208.00.0200



2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
Spannfutter Weldon für Zylinderschäfte DIN 6359 B
Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

ACCESSORI PER MACCHINE UTENSILI

DIN 69871/AD+B

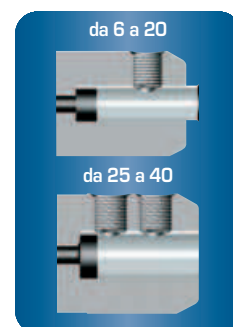
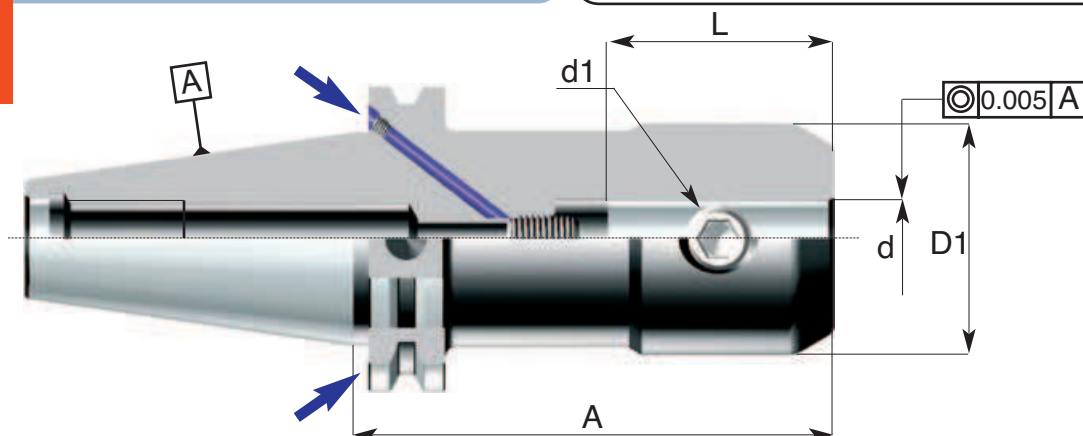


Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: H01.208

2.
12



Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
H01.208.40.0062	SK 40	6	100	25	35	M6X10	208.00.0060
H01.208.40.0064	SK 40	6	150	25	35	M6X10	208.00.0060
H01.208.40.0082	SK 40	8	100	28	35	M8X10	208.00.0080
H01.208.40.0084	SK 40	8	150	28	35	M8X10	208.00.0080
H01.208.40.0102	SK 40	10	100	35	39	M10X12	288.00.0100
H01.208.40.0104	SK 40	10	150	35	39	M10X12	208.00.0100
H01.208.40.0122	SK 40	12	100	42	44	M12X1,5X16	288.00.0120
H01.208.40.0124	SK 40	12	150	42	44	M12X1,5X16	208.00.0120
H01.208.40.0142	SK 40	14	100	44	44	M12X1,5X16	208.00.0120
H01.208.40.0144	SK 40	14	150	44	44	M12X1,5X16	208.00.0120
H01.208.40.0162	SK 40	16	100	48	47	M14X1,5X16	208.00.0140
H01.208.40.0164	SK 40	16	150	48	47	M14X1,5X16	208.00.0140
H01.208.40.0182	SK 40	18	100	50	47	M14X1,5X16	208.00.0140
H01.208.40.0184	SK 40	18	150	50	47	M14X1,5X16	208.00.0140
H01.208.40.0202	SK 40	20	100	52	49	M16X1,5X16	208.00.0180
H01.208.40.0204	SK 40	20	150	52	49	M16X1,5X16	208.00.0180
H01.208.40.0254	SK 40	25	150	65	54	M18X1,5X20	208.00.0180
H01.208.40.0324	SK 40	32	150	72	58	M20X1,5X20	208.00.0200
H01.208.50.0062	SK 50	6	100	25	35	M6X10	208.00.0060
H01.208.50.0064	SK 50	6	150	25	35	M6X10	208.00.0060
H01.208.50.0082	SK 50	8	100	28	35	M8X10	208.00.0080
H01.208.50.0084	SK 50	8	150	28	35	M8X10	208.00.0080
H01.208.50.0102	SK 50	10	100	35	39	M10X12	288.00.0100
H01.208.50.0104	SK 50	10	150	35	39	M10X12	208.00.0100
H01.208.50.0122	SK 50	12	100	42	44	M12X1,5X16	288.00.0120
H01.208.50.0124	SK 50	12	150	42	44	M12X1,5X16	208.00.0120
H01.208.50.0142	SK 50	14	100	44	44	M12X1,5X16	208.00.0120
H01.208.50.0144	SK 50	14	150	44	44	M12X1,5X16	208.00.0120
H01.208.50.0162	SK 50	16	100	48	47	M14X1,5X16	208.00.0140
H01.208.50.0164	SK 50	16	150	48	47	M14X1,5X16	208.00.0140
H01.208.50.0182	SK 50	18	100	50	47	M14X1,5X16	208.00.0140
H01.208.50.0184	SK 50	18	150	50	47	M14X1,5X16	208.00.0140
H01.208.50.0202	SK 50	20	100	52	49	M16X1,5X16	208.00.0160
H01.208.50.0204	SK 50	20	150	52	49	M16X1,5X16	208.00.0160
H01.208.50.0252	SK 50	25	100	65	54	M18X1,5X20	208.00.0180
H01.208.50.0254	SK 50	25	150	65	54	M18X1,5X20	208.00.0180
H01.208.50.0324	SK 50	32	150	72	58	M20X1,5X20	208.00.0200
H01.208.50.0404	SK 50	40	150	80	68	M20X1,5X20	208.00.0200



ACCESSORI PER MACCHINE UTENSILI

Portafrese per calettamento a caldo secondo DIN 69882-8
 Shrink-fit chucks DIN 69882-8
 Schrumpfutter DIN 69882-8
 Mandrins de frettage DIN 69882-8



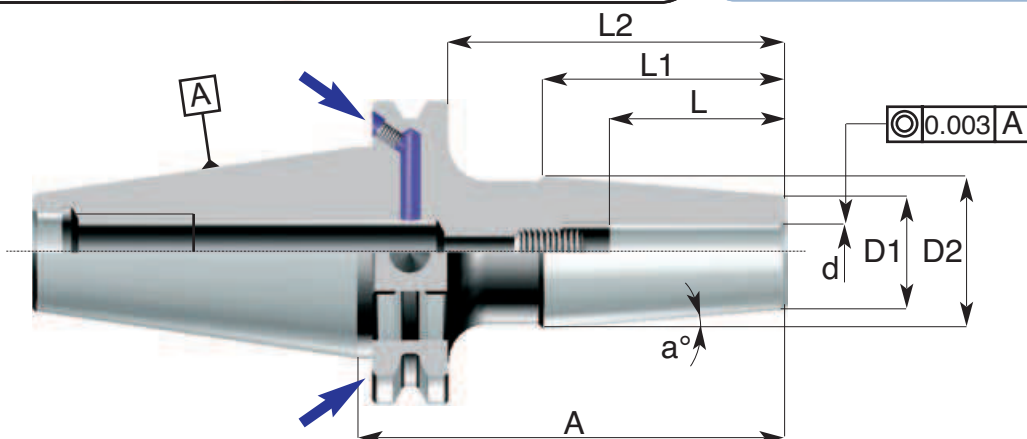
Bilanciatura fine
 Fine balancing



DIN 69871/AD+B

ART: H01.206

2.
13



Codice di ord Code	SK	d h6	D1	D2	a°	L	L1	L2	A	bilanciatura balancing
H01.206.40.0030	SK 40	3	9	16	4.5°	15	44	54	73	G6.3/2000RPM
H01.206.40.0040	SK 40	4	9	16	4.5°	15	44	54	73	G6.3/2000RPM
H01.206.40.0050	SK 40	5	12	19	4.5°	20	44	54	73	G6.3/2000RPM
H01.206.40.0060	SK 40	6	12	19	4.5°	28	44	64	83	G6.3/2000RPM
H01.206.40.0080	SK 40	8	15	22	4.5°	37	44	64	83	G6.3/2000RPM
H01.206.40.0100	SK 40	10	19	27	4.5°	37	51	66	85	G6.3/2000RPM
H01.206.40.0120	SK 40	12	24	32	4.5°	37	51	71	90	G6.3/1500RPM
H01.206.40.0140	SK 40	14	27	34	4.5°	40	44	71	90	G6.3/1500RPM
H01.206.40.0160	SK 40	16	27	34	4.5°	40	44	71	90	G6.3/1500RPM
H01.206.40.0200	SK 40	20	33	42	4.5°	45	57	81	100	G6.3/1500RPM
H01.206.50.0030	SK 50	3	9	16	4.5°	15	44	54	73	G6.3/1500RPM
H01.206.50.0040	SK 50	4	9	16	4.5°	15	44	54	73	G6.3/1500RPM
H01.206.50.0050	SK 50	5	12	19	4.5°	20	44	54	73	G6.3/1500RPM
H01.206.50.0060	SK 50	6	12	19	4.5°	28	44	64	83	G6.3/1500RPM
H01.206.50.0080	SK 50	8	15	22	4.5°	37	44	64	83	G6.3/1500RPM
H01.206.50.0100	SK 50	10	19	27	4.5°	37	51	66	85	G6.3/1500RPM
H01.206.50.0120	SK 50	12	24	32	4.5°	37	51	71	90	G6.3/1500RPM
H01.206.50.0140	SK 50	14	27	34	4.5°	40	44	71	90	G6.3/1500RPM
H01.206.50.0160	SK 50	16	27	34	4.5°	40	44	71	90	G6.3/1500RPM
H01.206.50.0200	SK 50	20	33	42	4.5°	45	57	81	100	G6.3/1500RPM

2. MANDRINI a cono ISO DIN 69871

TOOL HOLDERS with ISO cone DIN 69871



Portafrese per calettamento a caldo secondo DIN 69882-8

Shrink-fit chucks DIN 69882-8

Schrumpfutter DIN 69882-8

Mandrins de frettage DIN 69882-8

ACCESSORI PER MACCHINE UTENSILI



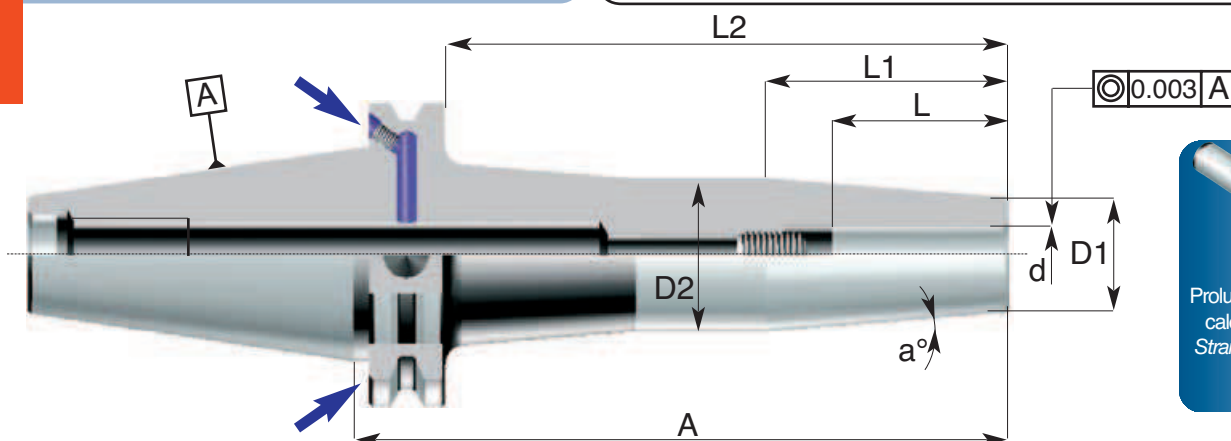
DIN 69871/AD+B



Bilanciatura fine
Fine balancing

ART: H01.206

2.
14



Codice di ord Code	SK	d h6	D1	D2	a°	L	L1	L2	A	bilanciatura balancing
H01.206.40.0032	SK 40	3	9	16	4.5°	15	44	141	160	G6.3/20000RPM
H01.206.40.0042	SK 40	4	9	16	4.5°	15	44	141	160	G6.3/20000RPM
H01.206.40.0052	SK 40	5	12	19	4.5°	20	44	141	160	G6.3/20000RPM
H01.206.40.0062	SK 40	6	12	22	4.5°	28	44	141	160	G6.3/20000RPM
H01.206.40.0082	SK 40	8	15	23	4.5°	34	44	141	160	G6.3/20000RPM
H01.206.40.0102	SK 40	10	19	27	4.5°	37	51	141	160	G6.3/20000RPM
H01.206.40.0122	SK 40	12	24	32	4.5°	37	51	141	160	G6.3/15000RPM
H01.206.40.0142	SK 40	14	27	34	4.5°	40	44	141	160	G6.3/15000RPM
H01.206.40.0162	SK 40	16	27	34	4.5°	40	44	141	160	G6.3/15000RPM
H01.206.40.0202	SK 40	20	33	42	4.5°	45	57	141	160	G6.3/15000RPM
H01.206.50.0032	SK 50	3	9	16	4.5°	15	44	141	160	G6.3/15000RPM
H01.206.50.0042	SK 50	4	9	16	4.5°	15	44	141	160	G6.3/15000RPM
H01.206.50.0052	SK 50	5	12	19	4.5°	20	44	141	160	G6.3/15000RPM
H01.206.50.0062	SK 50	6	12	22	4.5°	28	44	141	160	G6.3/15000RPM
H01.206.50.0082	SK 50	8	15	23	4.5°	34	44	141	160	G6.3/15000RPM
H01.206.50.0102	SK 50	10	19	27	4.5°	37	51	141	160	G6.3/15000RPM
H01.206.50.0122	SK 50	12	24	32	4.5°	37	51	141	160	G6.3/15000RPM
H01.206.50.0142	SK 50	14	27	34	4.5°	40	44	141	160	G6.3/15000RPM
H01.206.50.0162	SK 50	16	27	34	4.5°	40	44	141	160	G6.3/15000RPM
H01.206.50.0202	SK 50	20	33	42	4.5°	45	57	141	160	G6.3/15000RPM

ACCESSORI PER MACCHINE UTENSILI

Mandrini a chiusura idraulica HYDRO-DELTA
 Hydraulic clamping chucks HYDRO DELTA
 Dehnspannfutter HYDRO DELTA
 Mandrins expansibles HYDRO DELTA

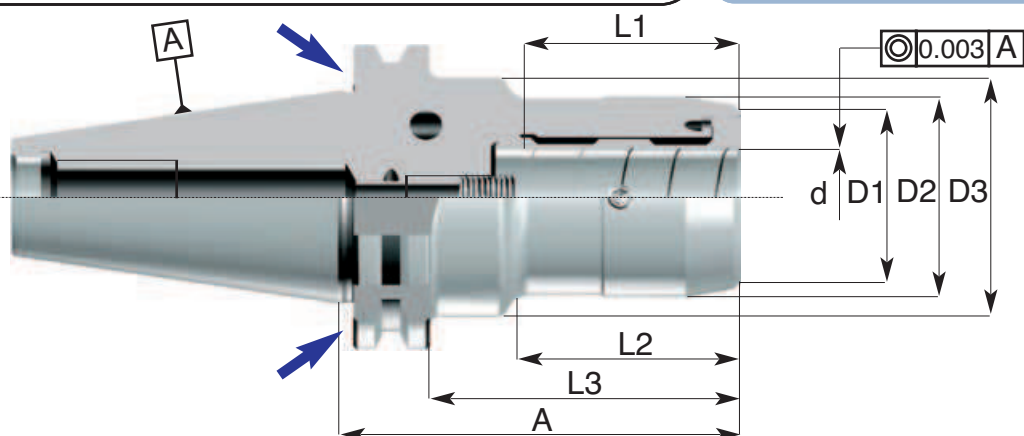


Bilanciatura fine
 Fine balancing



DIN 69871/AD+B

ART: H01.207



2.
15



Codice di ord Code	SK	d	D1	D2	D3	L1	L2	L3	A	bilanciatura balancing
H01.207.40.0060	SK 40	6	22	26	50	35	38	63	82	G6.3/15000RPM
H01.207.40.0080	SK 40	8	24	28	50	35	38	63	82	G6.3/15000RPM
H01.207.40.0100	SK 40	10	26	30	50	35	38	63	82	G6.3/15000RPM
H01.207.40.0120	SK 40	12	28	32	50	44	40	63	82	G6.3/15000RPM
H01.207.40.0140	SK 40	14	30	34	50	44	40	63	82	G6.3/15000RPM
H01.207.40.0160	SK 40	16	34	38	50	47	47	65	84	G6.3/15000RPM
H01.207.40.0200	SK 40	20	38	42	50	49	47	65	84	G6.3/15000RPM
H01.207.50.0060	SK 50	6	22	26	50	35	38	63	82	G6.3/15000RPM
H01.207.50.0080	SK 50	8	24	28	50	35	38	63	82	G6.3/15000RPM
H01.207.50.0100	SK 50	10	26	30	50	35	38	63	82	G6.3/15000RPM
H01.207.50.0120	SK 50	12	28	32	50	44	40	63	82	G6.3/15000RPM
H01.207.50.0140	SK 50	14	30	34	50	44	40	63	82	G6.3/15000RPM
H01.207.50.0160	SK 50	16	34	38	50	47	47	65	84	G6.3/15000RPM
H01.207.50.0200	SK 50	20	38	42	50	49	47	65	84	G6.3/15000RPM
H01.207.50.0250	SK 50	25	46	50	70	54	55	80	99	G6.3/15000RPM
H01.207.50.0320	SK 50	32	52	58	70	58	62	85	104	G6.3/15000RPM

2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Mandrini a chiusura idraulica HYDRO-DELTA

Hydraulic clamping chucks HYDRO DELTA

Dehnspannfutter HYDRO DELTA

Mandrins expansibles HYDRO DELTA

ACCESSORI PER MACCHINE UTENSILI

DIN 69871/AD+B

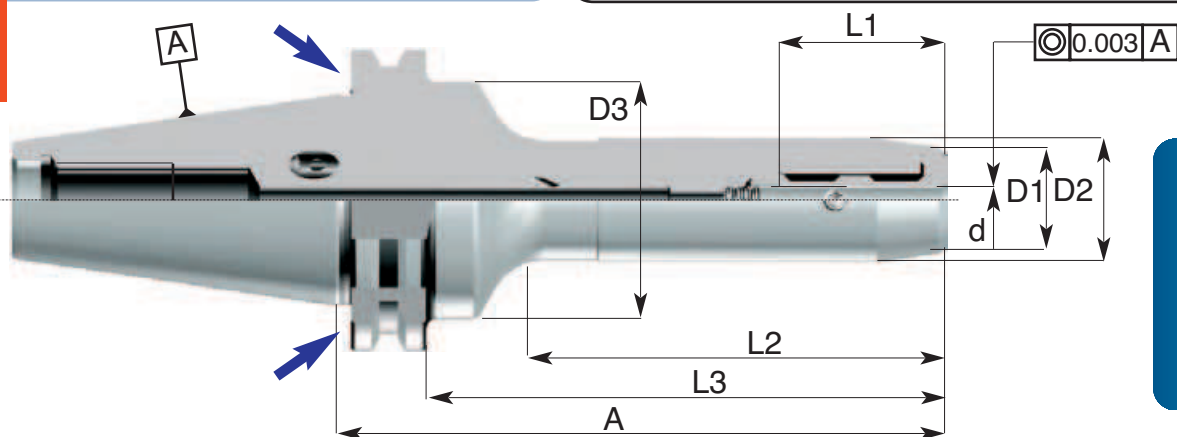


Bilanciatura fine
Fine balancing



ART: H01.207

2.
16



Codice di ord Code	SK	d	D1	D2	D3	L1	L2	L3	A	bilanciatura balancing
H01.207.40.0062	SK 40	6	22	26	50	35	106	131	150	G6.3/15000RPM
H01.207.40.0064	SK 40	6	22	26	50	35	156	181	200	G6.3/15000RPM
H01.207.40.0082	SK 40	8	24	28	50	35	106	131	150	G6.3/15000RPM
H01.207.40.0084	SK 40	8	24	28	50	35	156	181	200	G6.3/15000RPM
H01.207.40.0102	SK 40	10	26	30	50	35	106	131	150	G6.3/15000RPM
H01.207.40.0104	SK 40	10	26	30	50	35	156	181	200	G6.3/15000RPM
H01.207.40.0122	SK 40	12	28	32	50	44	106	131	150	G6.3/15000RPM
H01.207.40.0124	SK 40	12	28	32	50	44	156	181	200	G6.3/15000RPM
H01.207.40.0142	SK 40	14	30	34	50	44	106	131	150	G6.3/15000RPM
H01.207.40.0144	SK 40	14	30	34	50	44	156	181	200	G6.3/15000RPM
H01.207.40.0162	SK 40	16	34	38	50	47	106	131	150	G6.3/15000RPM
H01.207.40.0164	SK 40	16	34	38	50	47	156	181	200	G6.3/15000RPM
H01.207.40.0202	SK 40	20	38	42	50	47	106	131	150	G6.3/15000RPM
H01.207.40.0204	SK 40	20	38	42	50	47	156	181	200	G6.3/15000RPM
H01.207.50.0062	SK 50	6	22	26	50	35	106	131	150	G6.3/15000RPM
H01.207.50.0064	SK 50	6	22	26	50	35	156	181	200	G6.3/15000RPM
H01.207.50.0082	SK 50	8	24	28	50	35	106	131	150	G6.3/15000RPM
H01.207.50.0084	SK 50	8	24	28	50	35	156	181	200	G6.3/15000RPM
H01.207.50.0102	SK 50	10	26	30	50	35	106	131	150	G6.3/15000RPM
H01.207.50.0104	SK 50	10	26	30	50	35	156	181	200	G6.3/15000RPM
H01.207.50.0122	SK 50	12	28	32	50	44	106	131	150	G6.3/15000RPM
H01.207.50.0124	SK 50	12	28	32	50	44	156	181	200	G6.3/15000RPM
H01.207.50.0142	SK 50	14	30	34	50	44	106	131	150	G6.3/15000RPM
H01.207.50.0144	SK 50	14	30	34	50	44	156	181	200	G6.3/15000RPM
H01.207.50.0162	SK 50	16	34	38	50	47	106	131	150	G6.3/15000RPM
H01.207.50.0164	SK 50	16	34	38	50	47	156	181	200	G6.3/15000RPM
H01.207.50.0202	SK 50	20	38	42	50	47	106	131	150	G6.3/15000RPM
H01.207.50.0204	SK 50	20	38	42	50	47	156	181	200	G6.3/15000RPM
H01.207.50.0252	SK 50	25	46	50	70	54	106	131	150	G6.3/15000RPM
H01.207.50.0254	SK 50	25	46	50	70	54	156	181	200	G6.3/15000RPM
H01.207.50.0322	SK 50	32	52	58	70	58	106	131	150	G6.3/15000RPM
H01.207.50.0324	SK 50	32	52	58	70	58	156	181	200	G6.3/15000RPM

ACCESSORI PER MACCHINE UTENSILI

Mandrini portatestine filettate
Chucks for threaded heads
Mandrins pour têtes filetées
Spannfutter für Gewindeköpfe

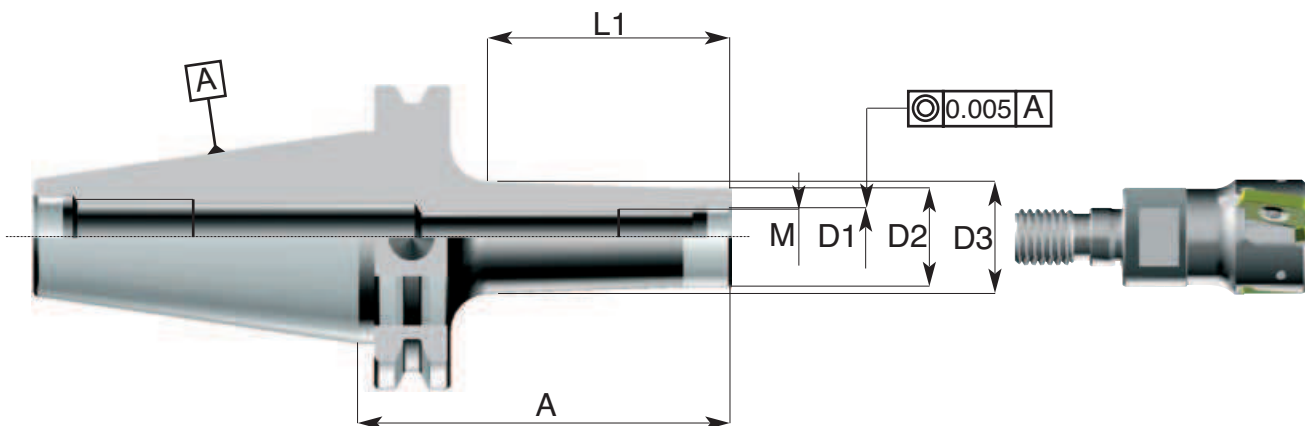


Bilanciatura fine
 Fine balancing



DIN 69871 / AD

ART: 001.267



2.
17

Codice di ord Code	SK	M	D1	D2	D3	L1	A	bilanciatura balancing
001.267.40.0060	SK 40	M6	6.5	9.7	13	30	58	G6.3/15000RPM
001.267.40.0062	SK 40	M6	6.5	9.7	20	50	78	G6.3/15000RPM
001.267.40.0064	SK 40	M6	6.5	9.7	23	70	98	G6.3/15000RPM
001.267.40.0080	SK 40	M8	8.5	12.7	15	30	58	G6.3/15000RPM
001.267.40.0082	SK 40	M8	8.5	12.7	23	50	78	G6.3/15000RPM
001.267.40.0084	SK 40	M8	8.5	12.7	23	70	98	G6.3/15000RPM
001.267.40.0086	SK 40	M8	8.5	12.7	23	90	118	G6.3/15000RPM
001.267.40.0100	SK 40	M10	10.5	17.7	20	30	58	G6.3/15000RPM
001.267.40.0102	SK 40	M10	10.5	17.7	25	50	78	G6.3/15000RPM
001.267.40.0104	SK 40	M10	10.5	17.7	28	70	98	G6.3/15000RPM
001.267.40.0106	SK 40	M10	10.5	17.7	28	90	118	G6.3/15000RPM
001.267.40.0120	SK 40	M12	12.5	20.7	24	30	58	G6.3/15000RPM
001.267.40.0122	SK 40	M12	12.5	20.7	24	50	78	G6.3/15000RPM
001.267.40.0124	SK 40	M12	12.5	20.7	31	70	98	G6.3/15000RPM
001.267.40.0126	SK 40	M12	12.5	20.7	31	90	118	G6.3/15000RPM
001.267.40.0160	SK 40	M16	17	28.7	29	30	58	G6.3/15000RPM
001.267.40.0162	SK 40	M16	17	28.7	34	50	78	G6.3/15000RPM
001.267.40.0164	SK 40	M16	17	28.7	34	70	98	G6.3/15000RPM
001.267.40.0166	SK 40	M16	17	28.7	34	90	118	G6.3/15000RPM
001.267.50.0100	SK 50	M10	10.5	17.7	20	30	58	G6.3/15000RPM
001.267.50.0102	SK 50	M10	10.5	17.7	25	50	78	G6.3/15000RPM
001.267.50.0104	SK 50	M10	10.5	17.7	28	70	98	G6.3/15000RPM
001.267.50.0106	SK 50	M10	10.5	17.7	31	100	128	G6.3/15000RPM
001.267.50.0120	SK 50	M12	12.5	20.7	24	30	58	G6.3/15000RPM
001.267.50.0122	SK 50	M12	12.5	20.7	24	50	78	G6.3/15000RPM
001.267.50.0124	SK 50	M12	12.5	20.7	31	70	98	G6.3/15000RPM
001.267.50.0126	SK 50	M12	12.5	20.7	31	100	128	G6.3/15000RPM
001.267.50.0128	SK 50	M12	12.5	20.7	41	150	178	G6.3/15000RPM
001.267.50.0160	SK 50	M16	17	28.7	29	30	58	G6.3/15000RPM
001.267.50.0162	SK 50	M16	17	28.7	34	50	78	G6.3/15000RPM
001.267.50.0164	SK 50	M16	17	28.7	34	70	98	G6.3/15000RPM
001.267.50.0166	SK 50	M16	17	28.7	41	100	128	G6.3/15000RPM
001.267.50.0168	SK 50	M16	17	28.7	52	150	178	G6.3/15000RPM
001.267.50.0169	SK 50	M16	17	28.7	57	200	228	G6.3/15000RPM

2. MANDRINI a cono ISO DIN 69871

TOOL HOLDERS with ISO cone DIN 69871



Mandriini portamorsetti autoserranti DIN 238

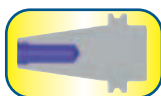
Taper shafts for drill chucks DIN 238

Bohrfutteraufnahmen DIN 238

Porte-mandrins de perceuses DIN 238

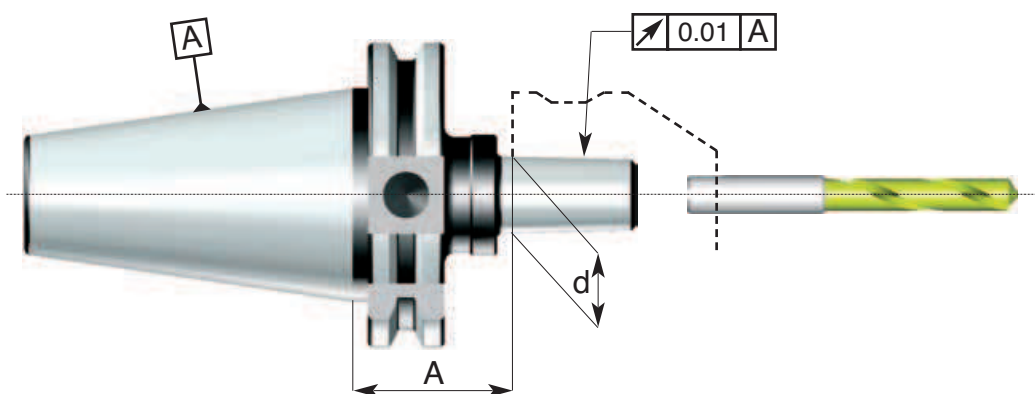
ACCESSORI PER MACCHINE UTENSILI

DIN 69871/A



ART: 001.220

2.
18



Codice di ord Code	SK	Tipo Din	A	d
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001.220.30.0160	SK 30	B 16	35	15.733
001.220.40.0120	SK 40	B 12	35	12.065
001.220.40.0160	SK 40	B 16	35	15.733
001.220.40.0180	SK 40	B 18	35	17.780
001.220.45.0160	SK 45	B 16	40	15.733
001.220.45.0180	SK 45	B 18	40	17.780
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001.220.50.0180	SK 50	B 18	40	17.780

ACCESSORI PER MACCHINE UTENSILI

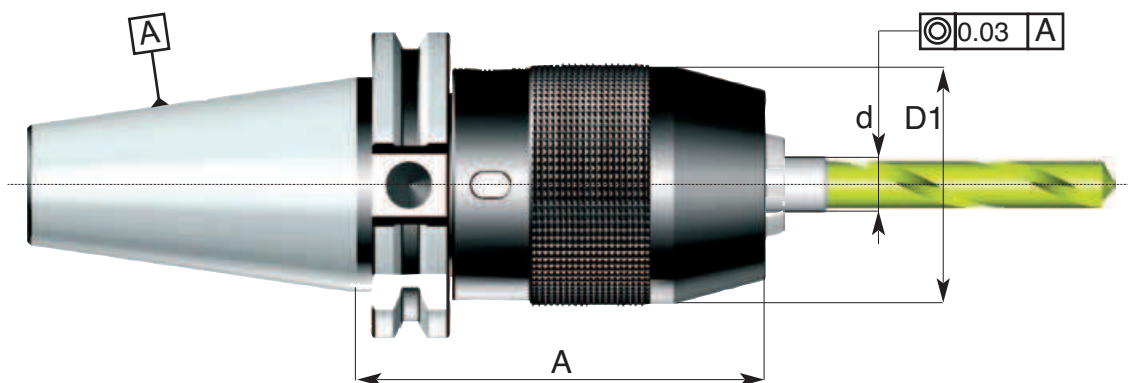
Mandrini portapunte integrali
Integral drill chucks
Kurzbohrfutter
Mandrins porte-forets intégraux



DIN 69871 / A

ART: 001.221

2.
19



Codice di ord Code	SK	A	D	capacità "d" Capacity range "d"
001.221.40.1301	SK 40	90	50	1-13
001.221.40.1603	SK 40	100	57	3-16
001.221.50.1301	SK 50	90	50	1-13
001.221.50.1603	SK 50	100	57	3-16

ADATTI SOLO A ROTAZIONE DESTRA
SUITABLE FOR RIGHT ROTATION ONLY

Forniti completi di chiave
Supplied together with key

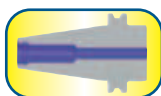
2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Riduzioni da cono ISO DIN 69871 a cono ISO DIN 2080
Adaptors sleeves ISO DIN 69871 to ISO DIN 2080 cone
Zwischenhülsen ISO DIN 69871 zu ISO DIN 2080 Steilkegel
Douilles de réduction cône ISO DIN 69871 à ISO DIN 2080

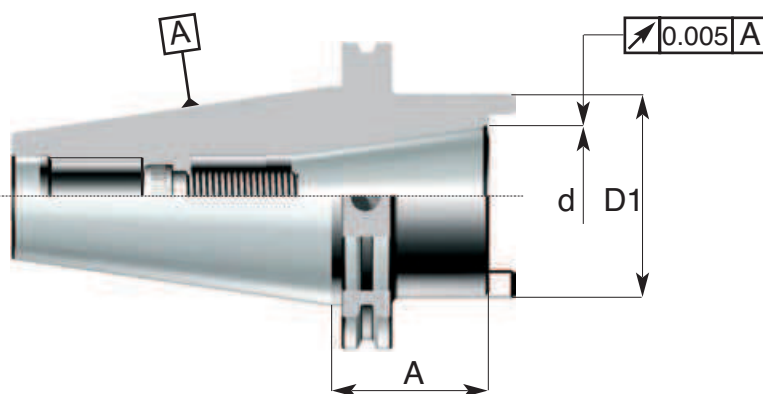
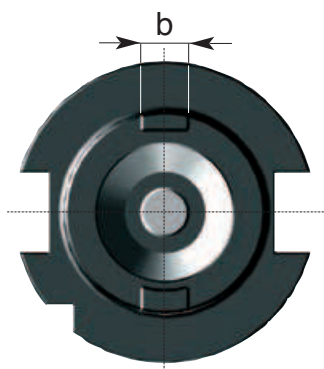
ACCESSORI PER MACCHINE UTENSILI

DIN 69871/AD



ART: 001.250

2.
20



Codice di ord Code	SK	SK DIN 2080	d	A	D1	b	Vite Screw	Ghiera Nut
001.250.40.0300	SK 40	SK 30	31.75	55	52	15.9	252.00.1230.B	252.00.1810
001.250.45.0300	SK 45	SK 30	31.75	40	55	15.9	252.00.1230.B	-
001.250.45.0400	SK 45	SK 40	44.45	72	65	15.9	252.00.1650.B	252.00.2513
001.250.50.0300	SK 50	SK 30	31.75	35	52	15.9	252.00.1235	-
001.250.50.0400	SK 50	SK 40	44.45	50	65	15.9	252.00.1640.B	-
001.250.50.0450	SK 50	SK 45	57.17	75	80	19	252.00.2050.B	252.00.3013

per DIN 69871 specificare nell'ordine la vite
for DIN 69871 specify the screw code in the order



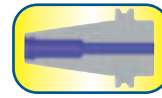
Codice di ord Code	Vite per DIN 69871 Screw for DIN 69871
001.250.40.0300	252.00.1250.B
001.250.45.0300	252.00.1250.B
001.250.45.0400	252.00.1670.B
001.250.50.0300	252.00.1255
001.250.50.0400	252.00.1660.B
001.250.50.0450	252.00.2070.B



ACCESSORI PER MACCHINE UTENSILI

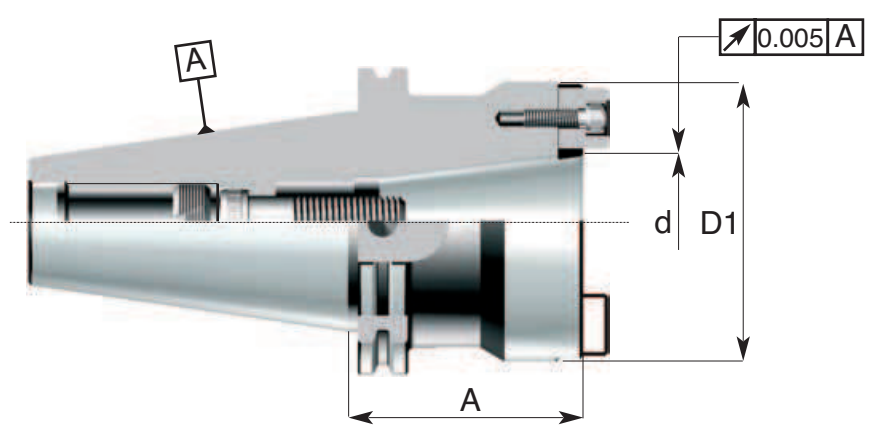
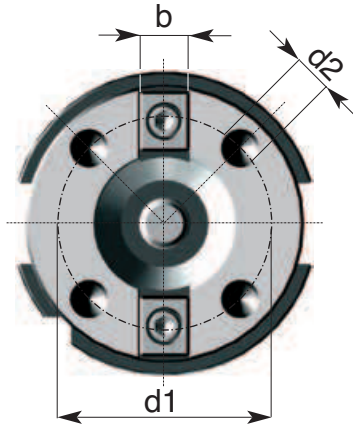


Riduzioni da cono ISO a cono ISO naso mandrino DIN 2079
 Adaptors sleeves ISO to ISO cone with DIN 2079 spindle nose
 Zwischenhülsen ISO zu ISO Steilkegel mit DIN 2079 Spindelkopf
 Douilles de réduction cône ISO à cône ISO avec nez de broche DIN 2079



DIN 69871 / AD

ART: 001.252



2.
21

Codice di ord Code	SK	SK	A	D1 h6	d1	d2	b	Tassello Tenon	Vite Screw	Ghiera Nut
001.252.45.0400	SK 45	SK 40	75	88.882	66.70	M12	15.9	192.02	252.00.1640.B	252.00.2513
001.252.50.0400	SK 50	SK 40	75	88.882	66.70	M12	15.9	192.02	252.00.1640.B	261.24.0400
001.252.50.0450	SK 50	SK 45	75	101.60	80	M12	19	192.45.0190	252.00.2050.B	252.00.2030



Pag. 12/26

2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Riduzioni da cono ISO a cono ISO per PRESETTING

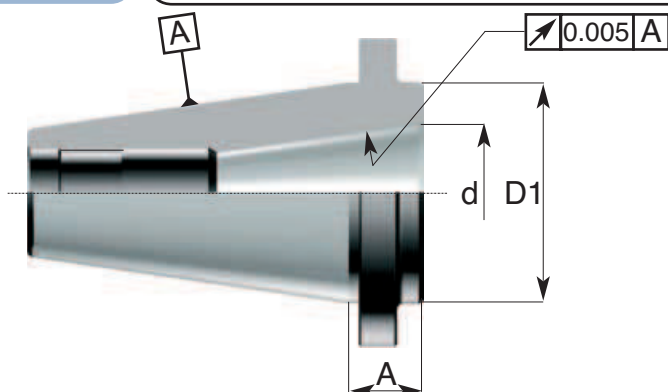
Adaptors sleeves ISO to ISO cone for presetting
Zwischenhülsen ISO zu ISO Steilkegel für Presetting
Douilles de réduction cône ISO à ISO pour presetting

ACCESSORI PER MACCHINE UTENSILI



ART: DPR.250
per coni ISO / for ISO cone

2.
22



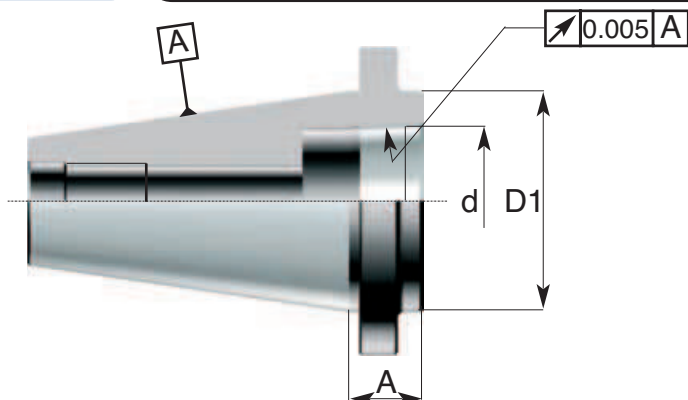
Codice di ord Code	SK	SK interno inner SK	d	A	D1
DPR.250.40.0300	SK 40	SK 30	31.750	20.2	55
DPR.250.50.0400	SK 50	SK 40	44.450	23.2	70
DPR.250.50.0450	SK 50	SK 45	57.150	33.2	80
DPR.250.60.0400	SK 60	SK 40	44.450	23.2	70
DPR.250.60.0500	SK 60	SK 80	69.850	33.2	105

Riduzioni da cono ISO a cono HSK per PRESETTING

Adaptors sleeves ISO to HSK cone for presetting
Zwischenhülsen ISO zu HSK Steilkegel für Presetting
Douilles de réduction cône ISO à HSK pour presetting



ART: DPR.250
per coni HSK / for HSK cone



Codice di ord Code	HSK	SK interno inner SK	d	A	D1
DPR.250.50.HSK40	SK 50	HSK 40	29.998	23.2	50
DPR.250.50.HSK50	SK 50	HSK 50	37.998	23.2	60
DPR.250.50.HSK63	SK 50	HSK 63	47.998	23.2	70
DPR.250.50.HSK100	SK 50	HSK 100	74.997	63.2	105

ACCESSORI PER MACCHINE UTENSILI



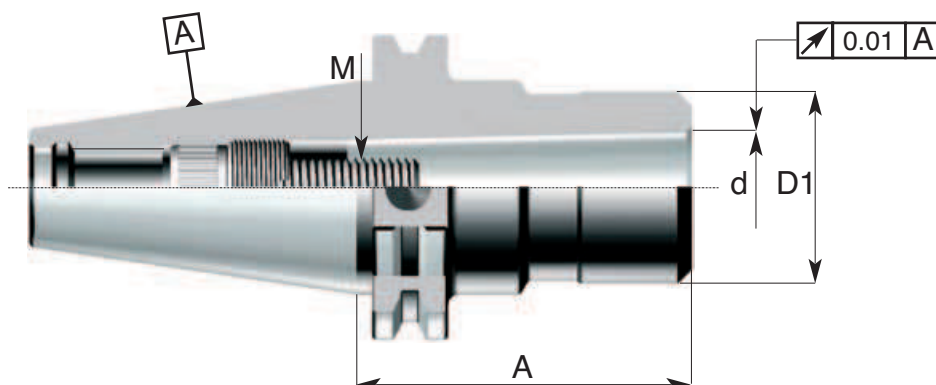
Riduzioni da cono ISO a cono Morse DIN 6364 B per frese con vite interna
 Morse taper adaptors sleeves for cutters with internal screw - DIN 6364 B
 Zwischenhülsen für Morsekegel mit Auzugsgewinde - DIN 6364 B
 Douilles de réduction à cône Morse pour fraises avec vis - DIN 6364 B



DIN 69871/AD

ART: 001.261

2.
23



Codice di ord Code	SK	Cono Morse	d	A	D1	M	Vite Screw	Ghiera Nut
001.261.40.0100	SK 40	Morse 1	12.065	40	25	M6	261.00.0625	261.16.0100
001.261.40.0200	SK 40	Morse 2	17.780	55	32	M10	261.00.1030.B	261.16.0200
001.261.40.0300	SK 40	Morse 3	23.825	70	40	M12	261.00.1240	261.00.1220
001.261.40.0400	SK 40	Morse 4	31.267	95	50	M16	261.00.1650.E	261.00.1626
001.261.45.0100	SK 45	Morse 1	12.065	40	25	M6	261.00.0630	261.20.0100
001.261.45.0200	SK 45	Morse 2	17.780	50	32	M10	261.00.1030	261.20.0200
001.261.45.0300	SK 45	Morse 3	23.825	65	40	M12	261.00.1235.B	261.20.0200
001.261.45.0400	SK 45	Morse 4	31.267	85	50	M16	261.00.1650.E	261.00.1626
001.261.45.0500	SK 45	Morse 5	44.399	115	65	M20	261.00.2050.E	261.00.2033
001.261.50.0100	SK 50	Morse 1	12.065	40	25	M6	261.00.0645	261.24.0100
001.261.50.0200	SK 50	Morse 2	17.780	50	32	M10	261.00.1040	261.24.0200
001.261.50.0300	SK 50	Morse 3	23.825	63	40	M12	261.00.1240	261.24.0300
001.261.50.0400	SK 50	Morse 4	31.267	80	50	M16	261.00.1640.B	261.24.0400
001.261.50.0500	SK 50	Morse 5	44.399	105	65	M20	261.00.2050.E	261.00.2033



2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Riduzioni da cono ISO a cono Morse per frese con ingombri ridotti

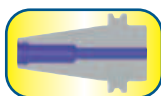
Morse taper adaptors sleeves for cutters with internal screw

Zwischenhülsen für Morsekegel mit Auzugsgewinde

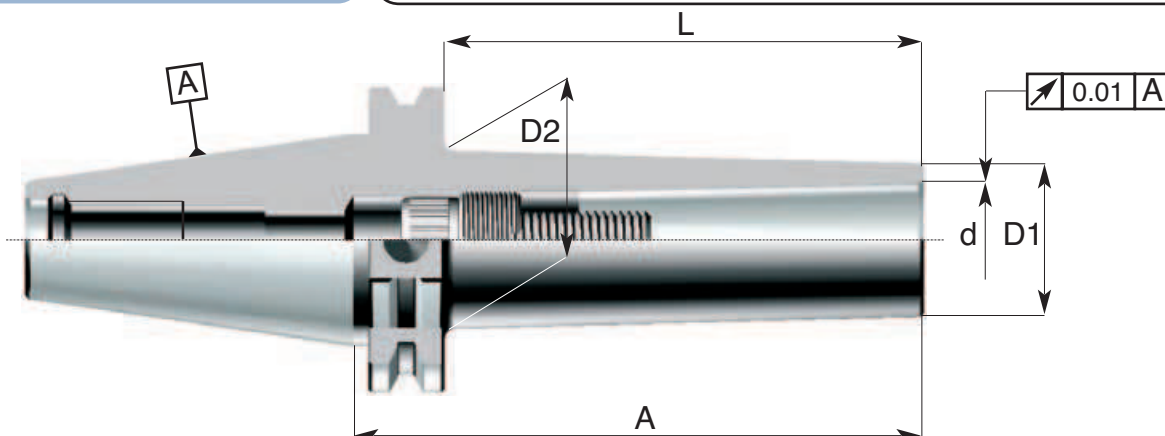
Douilles de réduction à cône Morse pour fraises avec vis

ACCESSORI PER MACCHINE UTENSILI

DIN 69871 / AD



ART: 001.266



Codice di ord Code	SK	CM	d	A	L	D1	D2	Vite Screw	Ghiera Nut
001.266.40.0200	SK 40	Morse 2	17.780	94	75	25	29	266.00.1070.B	261.16.0200
001.266.40.0202	SK 40	Morse 2	17.780	119	100	25	30	266.00.1090.B	261.16.0200
001.266.40.0204	SK 40	Morse 2	17.780	169	150	25	33	266.00.10140.B	261.16.0200
001.266.40.0206	SK 40	Morse 2	17.780	219	200	25	35.5	266.00.10180.B	261.16.0200
001.266.40.0300	SK 40	Morse 3	23.825	94	75	32	36	261.00.1240	261.00.1220
001.266.40.0302	SK 40	Morse 3	23.825	119	100	32	37	261.00.1240	261.00.1220
001.266.40.0304	SK 40	Morse 3	23.825	169	150	32	40	261.00.1240	261.00.1220
001.266.40.0306	SK 40	Morse 3	23.825	219	200	32	42.5	261.00.1240	261.00.1220
001.266.50.0200	SK 50	Morse 2	17.780	119	100	25	30	266.00.10100	261.24.0200
001.266.50.0202	SK 50	Morse 2	17.780	169	150	25	33	266.00.10130	261.24.0200
001.266.50.0204	SK 50	Morse 2	17.780	219	200	25	35.5	266.00.10180	261.24.0200
001.266.50.0206	SK 50	Morse 2	17.780	269	250	25	38	266.00.10220	261.24.0200
001.266.50.0300	SK 50	Morse 3	23.825	119	100	32	37	266.00.12100	261.24.0300
001.266.50.0302	SK 50	Morse 3	23.825	169	150	32	40	266.00.12130	261.24.0300
001.266.50.0304	SK 50	Morse 3	23.825	219	200	32	42.5	266.00.12180	261.24.0300
001.266.50.0306	SK 50	Morse 3	23.825	269	250	32	45	266.00.12200	261.24.0300
001.266.50.0308	SK 50	Morse 3	23.825	319	300	32	48	266.00.12260	261.24.0300
001.266.50.0309	SK 50	Morse 3	23.825	369	350	32	50.5	266.00.12300	261.24.0300
001.266.50.0310	SK 50	Morse 3	23.825	419	400	32	53	266.00.12300	261.24.0300
001.266.50.0400	SK 50	Morse 4	31.267	119	100	42	47	266.00.1680.B	261.24.0400
001.266.50.0402	SK 50	Morse 4	31.267	169	150	42	50	266.00.16110.B	261.24.0400
001.266.50.0404	SK 50	Morse 4	31.267	219	200	42	52.5	266.00.16160.B	261.24.0400
001.266.50.0406	SK 50	Morse 4	31.267	269	250	42	55	266.00.16200.B	261.24.0400
001.266.50.0408	SK 50	Morse 4	31.267	319	300	42	58	266.00.16260.B	261.24.0400
001.266.50.0409	SK 50	Morse 4	31.267	369	350	42	60.5	266.00.16300.B	261.24.0400
001.266.50.0410	SK 50	Morse 4	31.267	419	400	42	63	266.00.16300.B	261.24.0400



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ACCESSORI PER MACCHINE UTENSILI



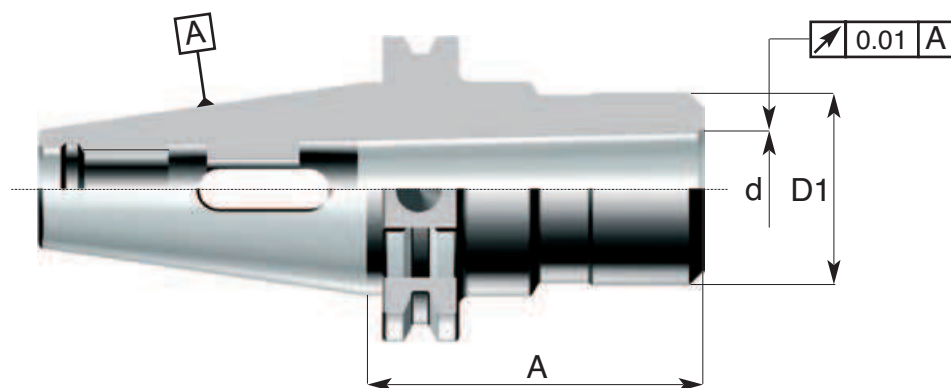
Riduzioni da cono ISO a cono Morse per punte tipo normale e prolungato
 Adaptors sleeves from ISO cone to Morse cone for tools with driving shank
 Zwischenhülsen mit Steilkegel für Werkzeuge mit Morsekegel und Austreibblappen
 Douilles de réduction de cône ISO à cône Morse pour outils munies de dents d'entraînement



DIN 69871/AD

ART: 001.262

2.
25



Codice di ord Code	SK	Cono Morse	d	A	D1	Combi*
001.262.30.0100	SK 30	Morse 1	12.065	50	25	PF
001.262.30.0200	SK 30	Morse 2	17.780	60	30	-
001.262.30.0300	SK 30	Morse 3	23.825	75	40	-
001.262.40.0100	SK 40	Morse 1	12.065	40	25	PF
001.262.40.0102	SK 40	Morse 1	12.065	120	25	PF
001.262.40.0200	SK 40	Morse 2	17.780	50	32	PF
001.262.40.0202	SK 40	Morse 2	17.780	135	32	PF
001.262.40.0300	SK 40	Morse 3	23.825	63	40	PF
001.262.40.0302	SK 40	Morse 3	23.825	150	40	-
001.262.40.0400	SK 40	Morse 4	31.267	90	50	PF
001.262.40.0402	SK 40	Morse 4	31.267	165	50	-
001.262.45.0100	SK 45	Morse 1	12.065	40	25	PF
001.262.45.0200	SK 45	Morse 2	17.780	50	32	PF
001.262.45.0300	SK 45	Morse 3	23.825	63	40	PF
001.262.45.0400	SK 45	Morse 4	31.267	80	50	PF
001.262.45.0500	SK 45	Morse 5	44.399	105	70	PF
001.262.50.0100	SK 50	Morse 1	12.065	40	25	PF
001.262.50.0102	SK 50	Morse 1	12.065	120	25	PF
001.262.50.0104	SK 50	Morse 1	12.065	180	25	PF
001.262.50.0200	SK 50	Morse 2	17.780	50	32	PF
001.262.50.0202	SK 50	Morse 2	17.780	135	32	PF
001.262.50.0204	SK 50	Morse 2	17.780	180	32	PF
001.262.50.0300	SK 50	Morse 3	23.825	63	40	PF
001.262.50.0302	SK 50	Morse 3	23.825	150	40	PF
001.262.50.0304	SK 50	Morse 3	23.825	180	40	PF
001.262.50.0400	SK 50	Morse 4	31.267	80	50	PF
001.262.50.0402	SK 50	Morse 4	31.267	180	50	PF
001.262.50.0500	SK 50	Morse 5	44.399	105	70	-

*Le riduzioni PF sono adatte anche per frese con attacco DIN 228-A; per i tipi ISO 30 CM2-3, ISO 40 CM3-4, ISO 45 CM5 e ISO 50 CM5 è necessario l'uso del tirante lungo (vedi sezione tiranti)

*PF adaptors are suitable for clamping MT-shank mills; for ISO 30 MK2-3, ISO 40 MK3-4, ISO 45 MK5 e ISO 50 MK5 long pull stud is required (see pull studs section)

2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Riduzioni da cono ISO a cono Morse per punte

Morse taper adaptors sleeves for drills with driving shank

Zwischenhülsen für Morsekegel mit Austreibblappen

Douilles de réduction à cône Morse pour forets avec dents d'entraînement

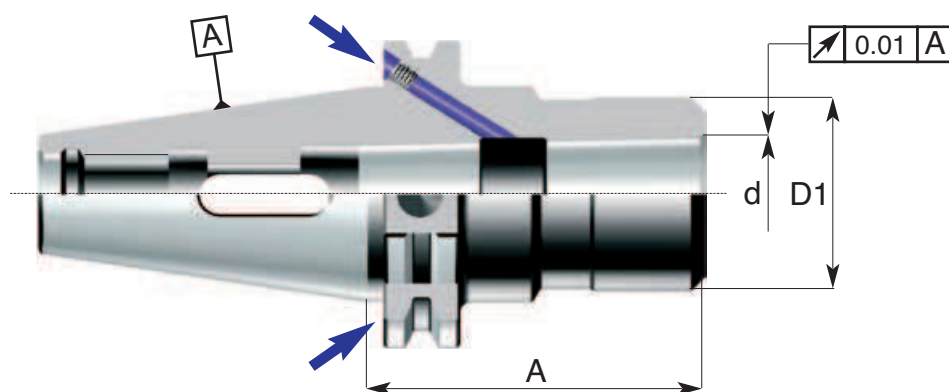
ACCESSORI PER MACCHINE UTENSILI

DIN 69871 / AD+B



ART: H01.262

2.
26

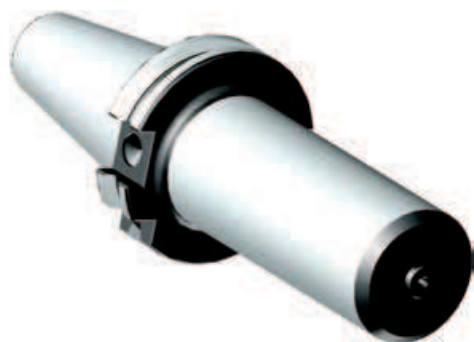


Codice di ord Code	SK	Cono Morse	d	A	D1	Combi*
H01.262.40.0100	SK 40	Morse 1	12.065	45	25	PF
H01.262.40.0200	SK 40	Morse 2	17.780	50	32	PF
H01.262.40.0300	SK 40	Morse 3	23.825	63	40	PF
H01.262.40.0400	SK 40	Morse 4	31.267	90	50	PF
H01.262.50.0100	SK 50	Morse 1	12.065	40	25	PF
H01.262.50.0200	SK 50	Morse 2	17.780	50	32	PF
H01.262.50.0300	SK 50	Morse 3	23.825	63	40	PF
H01.262.50.0400	SK 50	Morse 4	31.267	80	50	PF
H01.262.50.0500	SK 50	Morse 5	44.399	105	70	PF

*Le riduzioni PF sono adatte anche per frese con attacco DIN 228-A; per i tipi ISO 30 CM2-3, ISO 40 CM3-4, ISO 45 CM5 e ISO 50 CM5 è necessario l'uso del tirante lungo (vedi sezione tiranti)

*PF adaptors are suitable for clamping MT-shank mills; for ISO 30 MK2-3, ISO 40 MK3-4, ISO 45 MK5 e ISO 50 MK5 long pull stud is required (see pull studs section)

ACCESSORI PER MACCHINE UTENSILI

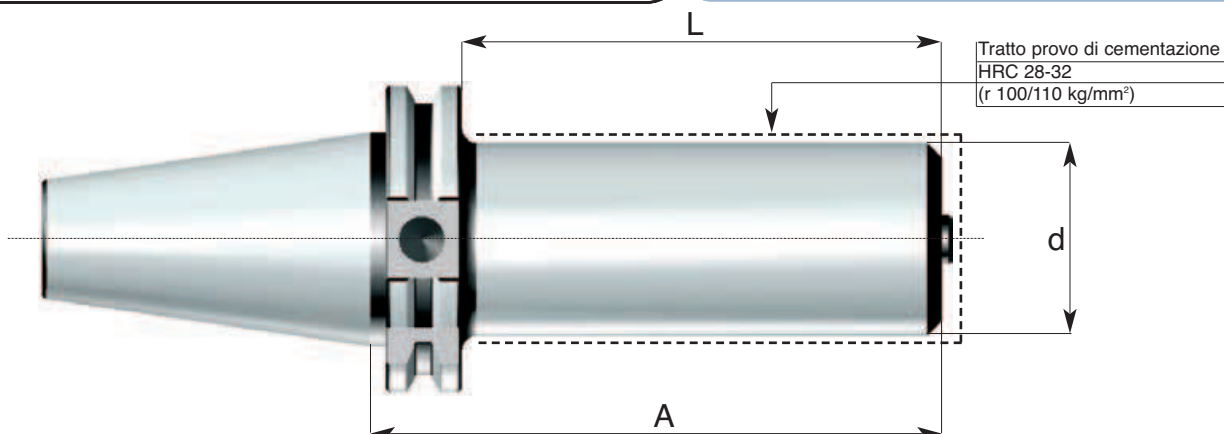


Barre semifinite con tratto cilindrico privo di cementazione per esecuzioni speciali
 Unfinished taper-shank blanks for special applications
 Rohlinge für spezielle Anwendungen
 Ebauches pour applications spéciales



DIN 69871/A

ART: 001.424



2.
27

Codice di ord Code	SK	d	A	L
001.424.40.0402	SK 40	40	189	170
001.424.40.0404	SK 40	40	269	250
001.424.40.0630	SK 40	63	169	150
001.424.40.0632	SK 40	63	269	250
001.424.45.0802	SK 45	80	269	250
001.424.50.0630	SK 50	63	169	150
001.424.50.0632	SK 50	63	269	250
001.424.50.0634	SK 50	63	419	400
001.424.50.1000	SK 50	97	269	250
001.424.50.1002	SK 50	97	419	400

2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Mandrini a forte serraggio
High clamping chucks
Kraftspannfutter
Mandrins à fort serrage

ACCESSORI PER MACCHINE UTENSILI

DIN 69871/AD+B

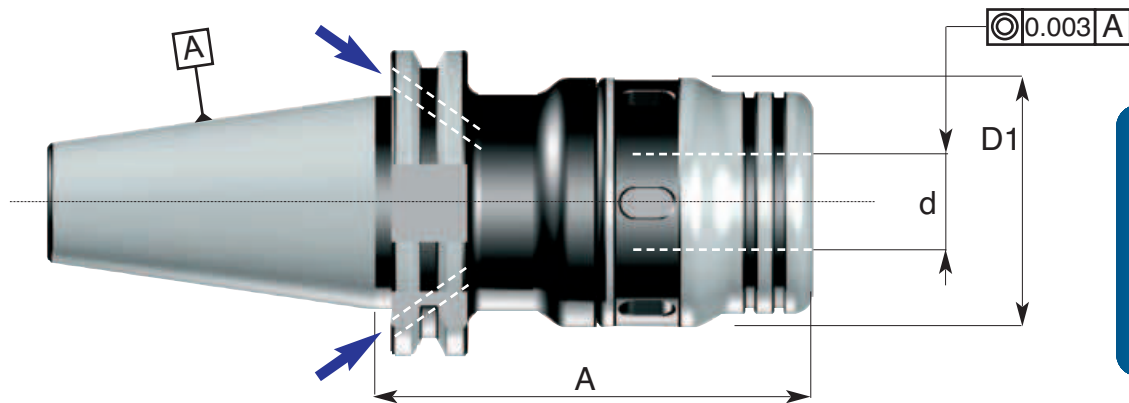


Prebilanciato
Prebalanced
G6.3 / 8000rpm

ART: H01.603



2.
28



Codice di ord Code	SK	d1	D1	A	Boccola di riduzione Reduction bushes
H01.603.40.0200	SK 40	20	54	105	239.20...
H01.603.40.0320	SK 40	32	72	105	239.32...
H01.603.40.0322	SK 40	32	72	135	239.32...
H01.603.50.0200	SK 50	20	54	105	239.20...
H01.603.50.0320	SK 50	32	72	105	239.32...
H01.603.50.0322	SK 50	32	72	135	239.32...

ACCESSORI PER MACCHINE UTENSILI

Mandrini portapinze EOC DIN 6388

Collet chucks EOC - DIN 6388

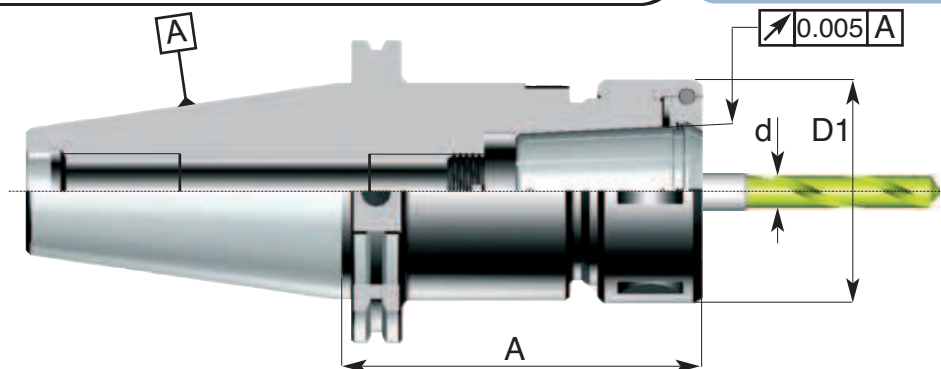
Spannzangenhalter EOC - DIN 6388

Mandrins porte-pinces EOC - DIN 6388



DIN 69871/AD

ART: 001.601



2.
29



Pinze / Collets
pag: 12.4



Ghiere / Nuts
pag: 12.14

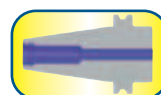
Codice di ord Code	SK	EOC	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
001.601.40.0350	SK 40	25	70	60	da 3 a 25	245.48.0350
001.601.40.0440	SK 40	32	85	72	da 4 a 32	245.60.0440
001.601.50.0350	SK 50	25	75	60	da 3 a 25	245.48.0350
001.601.50.0440	SK 50	32	75	72	da 4 a 32	245.60.0440

Mandrini portapinze Delta per pinze rif. art.209

Delta collet chucks for collets ref. art.209

Delta Spannzangenhalter für Spannzangen ref. art.209

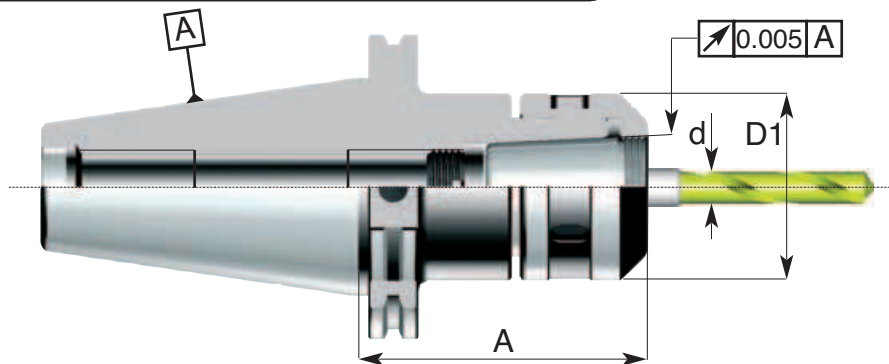
Mandrins porte-pinces Delta pour pinces ref. art.209



DIN 69871/AD

ART: 001.605

standard / standard length



Pinze / Collet
pag: 12.2



Ghiere / Nuts
pag: 12.14

Codice di ord Code	SK	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Tipo pinza Collet	Ghiera Nut
001.605.40.0320	SK 40	75	58	da 4 a 20	209.20.	245.02
001.605.40.0440	SK 40	85	73	da 4 a 32	209.30.	245.03
001.605.45.0320	SK 45	75	58	da 4 a 20	209.30	245.03
001.605.45.0440	SK 45	80	73	da 4 a 32	209.30	245.03
001.605.50.0320	SK 50	80	58	da 4 a 20	209.20.	245.02
001.605.50.0440	SK 50	82	73	da 4 a 32	209.30.	245.03

2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Mandrini portapinzine ER DIN 6499 - ghiera standard

Collet chucks ER DIN 6499 - standard nut

Spannzangenhalter ER DIN 6499 - standard Spannmutter

Mandrins porte-pinces ER DIN 6499 - écrou standard

ACCESSORI PER MACCHINE UTENSILI

DIN 69871/AD



Prebilanciato
Prebalanced
G6.3 / 8000rpm



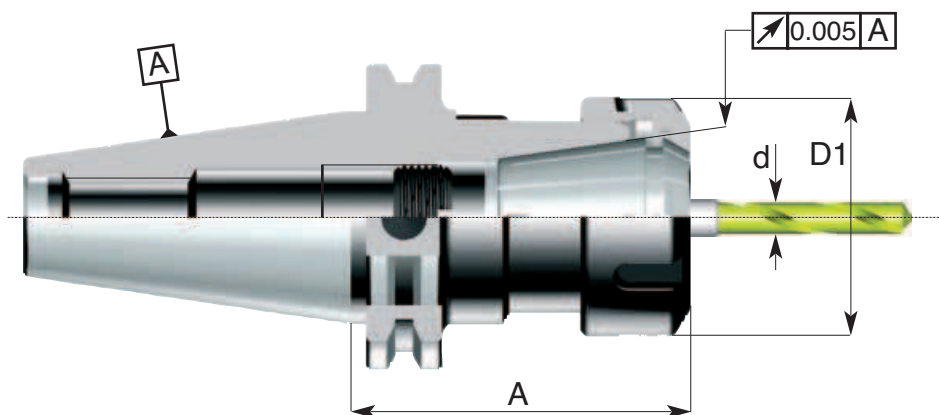
Assortimento in cassetta pag. 2.34
Kit pag. 2.34



ART: 001.607

ghiera standard / standard nut

2.
30



Pinze / Collets
pag: 12.6

Ghiere / Nuts
pag: 12.13

Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
001.607.30.0160	SK 30	ER 16	60	28	da 0,5 a 10	245.22.ER16
001.607.30.0162	SK 30	ER 16	100	28	da 0,5 a 10	245.22.ER16
001.607.30.0200	SK 30	ER 20	60	34	da 0,5 a 13	245.25.ER20
001.607.30.0250	SK 30	ER 25	60	42	da 1 a 16	245.32.ER25
001.607.30.0252	SK 30	ER 25	100	42	da 1 a 16	245.32.ER25
001.607.30.0320	SK 30	ER 32	60	50	da 1 a 20	245.40.ER32
001.607.30.0322	SK 30	ER 32	100	50	da 1 a 20	245.40.ER32
001.607.30.0400	SK 30	ER 40	70	63	da 2 a 30	245.50.ER40
001.607.30.0402	SK 30	ER 40	100	63	da 2 a 30	245.50.ER40
001.607.40.0160	SK 40	ER 16	65	28	da 0,5 a 10	245.22.ER16
001.607.40.0162	SK 40	ER 16	120	28	da 0,5 a 10	245.22.ER16
001.607.40.0164	SK 40	ER 16	150	28	da 0,5 a 10	245.22.ER16
001.607.40.0200	SK 40	ER 20	65	34	da 0,5 a 13	245.25.ER20
001.607.40.0202	SK 40	ER 20	120	34	da 0,5 a 13	245.25.ER20
001.607.40.0250	SK 40	ER 25	65	42	da 1 a 16	245.32.ER25
001.607.40.0252	SK 40	ER 25	120	42	da 1 a 16	245.32.ER25
001.607.40.0320	SK 40	ER 32	70	50	da 1 a 20	245.40.ER32
001.607.40.0321	SK 40	ER 32	100	50	da 1 a 20	245.40.ER32
001.607.40.0322	SK 40	ER 32	120	50	da 1 a 20	245.40.ER32
001.607.40.0324	SK 40	ER 32	150	50	da 1 a 20	245.40.ER32
001.607.40.0326	SK 40	ER 32	200	50	da 1 a 20	245.40.ER32
001.607.40.0400	SK 40	ER 40	70	63	da 2 a 30	245.50.ER40
001.607.40.0402	SK 40	ER 40	120	63	da 2 a 30	245.50.ER40
001.607.45.0200	SK 45	ER 20	75	34	da 0,5 a 13	245.25.ER20
001.607.45.0250	SK 45	ER 25	75	42	da 1 a 16	245.32.ER25
001.607.45.0252	SK 45	ER 25	110	42	da 1 a 16	245.32.ER25
001.607.45.0320	SK 45	ER 32	75	50	da 1 a 20	245.40.ER32
001.607.45.0322	SK 45	ER 32	120	50	da 1 a 20	245.40.ER32
001.607.45.0324	SK 45	ER 32	150	50	da 1 a 20	245.40.ER32
001.607.45.0326	SK 45	ER 32	200	50	da 1 a 20	245.40.ER32
001.607.45.0400	SK 45	ER 40	75	63	da 2 a 30	245.50.ER40
001.607.45.0402	SK 45	ER 40	120	63	da 2 a 30	245.50.ER40
001.607.50.0164	SK 50	ER 16	150	28	da 0,5 a 10	245.22.ER16
001.607.50.0250	SK 50	ER 25	75	42	da 1 a 16	245.32.ER25
001.607.50.0252	SK 50	ER 25	120	42	da 1 a 16	245.32.ER25
001.607.50.0320	SK 50	ER 32	75	50	da 1 a 20	245.40.ER32
001.607.50.0322	SK 50	ER 32	120	50	da 1 a 20	245.40.ER32
001.607.50.0324	SK 50	ER 32	150	50	da 1 a 20	245.40.ER32
001.607.50.0400	SK 50	ER 40	75	63	da 2 a 30	245.50.ER40
001.607.50.0402	SK 50	ER 40	120	63	da 2 a 30	245.50.ER40

ACCESSORI PER MACCHINE UTENSILI



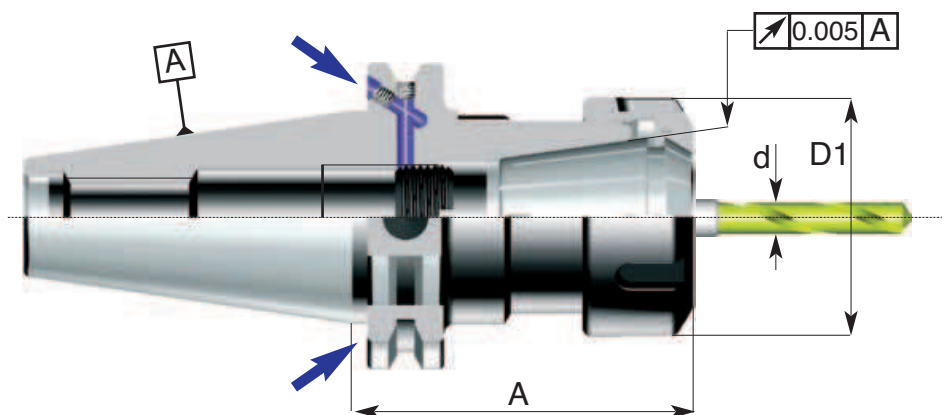
Mandrini portapinze ER DIN 6499 - ghiera standard
 Collet chucks ER DIN 6499 - standard nut
 Spannzangenhalter ER DIN 6499 - standard Spannmutter
 Mandrins porte-pinces ER DIN 6499 - écrou standard

Prebilanciato
 Prebalanced
G6.3 / 8000rpm



DIN 69871/AD+B

ART: H01.607
 ghiera standard / standard nut



2.
31



Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
H01.607.40.0160	SK 40	ER 16	65	28	da 0,5 a 10	245.22.ER16
H01.607.40.0162	SK 40	ER 16	120	28	da 0,5 a 10	245.22.ER16
H01.607.40.0164	SK 40	ER 16	150	28	da 0,5 a 10	245.22.ER16
H01.607.40.0166	SK 40	ER 16	200	28	da 0,5 a 10	245.22.ER16
H01.607.40.0204	SK 40	ER 20	150	34	da 0,5 a 13	245.25.ER20
H01.607.40.0250	SK 40	ER 25	65	42	da 1 a 16	245.32.ER25
H01.607.40.0252	SK 40	ER 25	120	42	da 1 a 16	245.32.ER25
H01.607.40.0254	SK 40	ER 25	150	42	da 1 a 16	245.32.ER25
H01.607.40.0256	SK 40	ER 25	200	42	da 1 a 16	245.32.ER25
H01.607.40.0320	SK 40	ER 32	70	50	da 1 a 20	245.40.ER32
H01.607.40.0321	SK 40	ER 32	100	50	da 1 a 20	245.40.ER32
H01.607.40.0322	SK 40	ER 32	120	50	da 1 a 20	245.40.ER32
H01.607.40.0324	SK 40	ER 32	150	50	da 1 a 20	245.40.ER32
H01.607.40.0326	SK 40	ER 32	200	50	da 1 a 20	245.40.ER32
H01.607.40.0400	SK 40	ER 40	70	63	da 2 a 30	245.50.ER40
H01.607.40.0401	SK 40	ER 40	100	63	da 2 a 30	245.50.ER40
H01.607.40.0402	SK 40	ER 40	120	63	da 2 a 30	245.50.ER40
H01.607.40.0404	SK 40	ER 40	150	63	da 2 a 30	245.50.ER40
H01.607.40.0406	SK 40	ER 40	200	63	da 2 a 30	245.50.ER40
H01.607.45.0160	SK 45	ER 16	75	28	da 0,5 a 10	245.22.ER16
H01.607.45.0162	SK 45	ER 16	120	28	da 0,5 a 10	245.22.ER16
H01.607.45.0250	SK 45	ER 25	75	42	da 1 a 16	245.32.ER25
H01.607.45.0252	SK 45	ER 25	120	42	da 1 a 16	245.40.ER32
H01.607.45.0320	SK 45	ER 32	75	50	da 1 a 20	245.40.ER32
H01.607.45.0322	SK 45	ER 32	120	50	da 1 a 16	245.40.ER32
H01.607.45.0400	SK 45	ER 40	75	63	da 2 a 30	245.50.ER40
H01.607.50.0164	SK 50	ER 16	120	28	da 0,5 a 10	245.22.ER16
H01.607.50.0166	SK 50	ER 16	200	28	da 0,5 a 10	245.22.ER16
H01.607.50.0250	SK 50	ER 25	75	42	da 1 a 16	245.32.ER25
H01.607.50.0252	SK 50	ER 25	120	42	da 1 a 16	245.32.ER25
H01.607.50.0254	SK 50	ER 25	150	42	da 1 a 16	245.32.ER25
H01.607.50.0320	SK 50	ER 32	75	50	da 1 a 20	245.40.ER32
H01.607.50.0321	SK 50	ER 32	100	50	da 1 a 20	245.40.ER32
H01.607.50.0322	SK 50	ER 32	120	50	da 1 a 20	245.40.ER32
H01.607.50.0324	SK 50	ER 32	150	50	da 1 a 20	245.40.ER32
H01.607.50.0326	SK 50	ER32	200	50	da 1 a 20	245.40.ER32
H01.607.50.0400	SK 50	ER 40	75	63	da 2 a 30	245.50.ER40
H01.607.50.0401	SK 50	ER 40	100	63	da 2 a 30	245.50.ER40
H01.607.50.0402	SK 50	ER 40	120	63	da 2 a 30	245.50.ER40
H01.607.50.0404	SK 50	ER 40	150	63	da 2 a 30	245.50.ER40

2. MANDRINI a cono ISO DIN 69871

TOOL HOLDERS with ISO cone DIN 69871



Mandrini portapinzze ER DIN 6499 mini - alta velocità per macchine del legno

Collet chucks ER DIN 6499 mini - high speed for woodworking machines

Spannzangenhalter ER DIN 6499 mini für Holzbearbeitungsmaschinen

Mandrins porte-pinzze ER DIN 6499 mini - grande vitesse pour machines à bois

ACCESSORI PER MACCHINE UTENSILI

DIN 69871 / AD

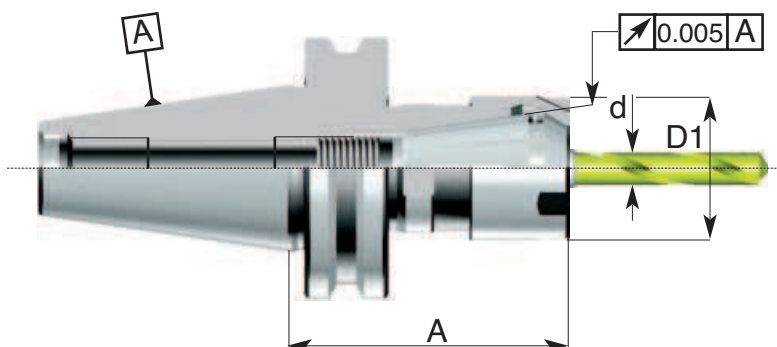


Bilanciatura fine
Fine balancing



ART: 001.607
ghiera mini / mini nut

2.
32



Pinze / Collets
pag: 12.6



Ghiere / Nuts
pag: 12.13

Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut	bilanciatura balancing
001.607.30.0160.AVM	SK 30	ER 16	50	22	da 0,5 a 10	245.19.ER16M	G6.3/15000RPM
001.607.30.0200.AVM	SK 30	ER 20	50	28	da 1 a 13	245.24.ER20M	G6.3/15000RPM

Mandrini portapinzze ER DIN 6499 - alta velocità per macchine del legno

Collet chucks ER DIN 6499 - high speed for woodworking machines

Spannzangenhalter ER DIN 6499 für Holzbearbeitungsmaschinen

Mandrins porte-pinzze ER DIN 6499 - grande vitesse pour machines à bois

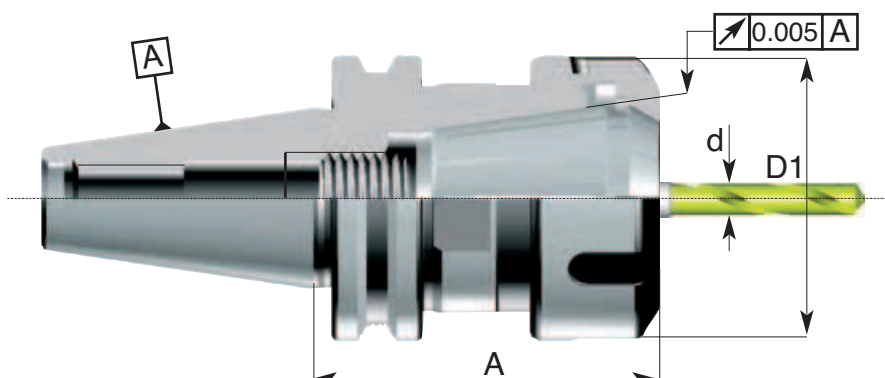
DIN 69871 / AD



Bilanciatura fine
Fine balancing



ART: 001.607
ghiera standard / standard nut



Pinze / Collets
pag: 12.6



Ghiere / Nuts
pag: 12.13

Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut	bilanciatura balancing
001.607.25.0250.AV	SK 25	ER 25	50	42	da 1 a 16	245.32.ER25	G6.3/15000RPM
001.607.30.0250.AV	SK 30	ER 25	60	42	da 1 a 16	245.32.ER25	G6.3/15000RPM
001.607.30.0320.AV	SK 30	ER 32	60	50	da 1 a 20	245.40.ER32	G6.3/15000RPM
001.607.30.0400.AV	SK 30	ER 40	65	63	da 2 a 30	245.50.ER40	G6.3/15000RPM
001.607.40.0320.AV	SK 40	ER 32	70	50	da 1 a 20	245.40.ER32	G6.3/15000RPM
001.607.40.0400.AV	SK 40	ER 40	70	63	da 2 a 30	245.50.ER40	G6.3/15000RPM

ACCESSORI PER MACCHINE UTENSILI

Mandrini portapinze ER DIN 6499

Collet chucks ER DIN 6499 - inner nut

Spannzangenhalter ER DIN 6499 - Spannmutter mit Aussengewinde

Mandrins porte-pinces ER DIN 6499 - écrou avec filet extérieur



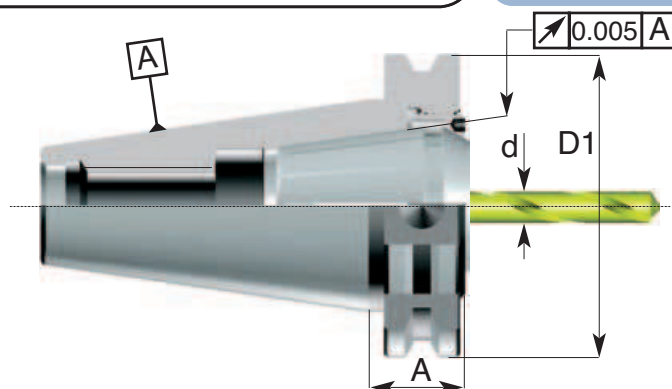
Prebilanciato
Prebalanced
G6.3 / 8000rpm



DIN 69871 / AD

ART: 001.607

ghiera interna / inner nut



2.
33



Pinze / Collets
pag: 12.6



Ghiere / Nuts
pag: 12.13

Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
001.607.40.0320.EC	SK 40	ER 32	21	40	da 1 a 20	245.40.ER32EC
001.607.50.0320.EC	SK 50	ER 32	21	40	da 1 a 20	245.40.ER32EC



Mandrini portapinze ER DIN 6499 - ghiera mini

Collet chucks ER DIN 6499 - mini nut

Spannzangenhalter ER DIN 6499 - mini Spannmutter

Mandrins porte-pinces ER DIN 6499 - écrou mini

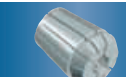
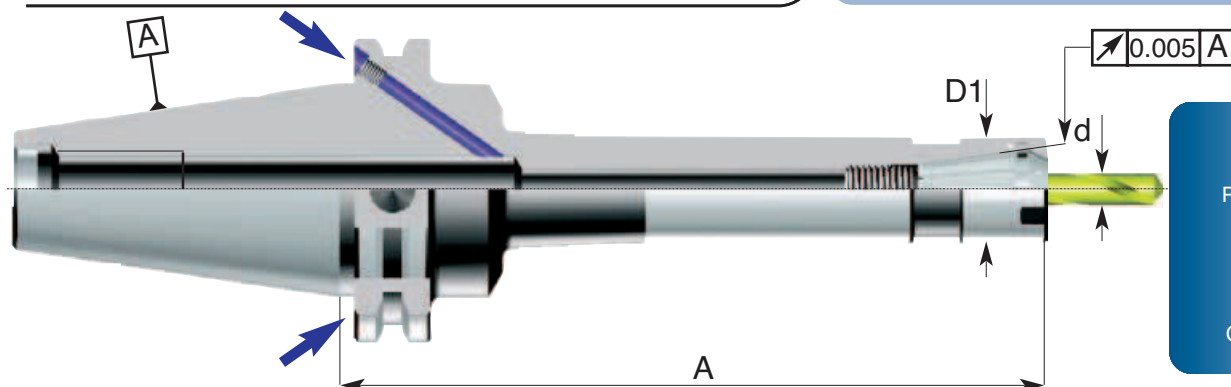
Prebilanciato
Prebalanced
G6.3 / 8000rpm



DIN 69871 / AD+B

ART: H01.607

ghiera mini / mini nut



Pinze / Collets
pag: 12.6



Ghiere / Nuts
pag: 12.13

Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
H01.607.40.0112M	SK 40	ER 11	100	16	da 0,5 a 7	245.13.ER11M
H01.607.40.0114M	SK 40	ER 11	150	16	da 0,5 a 7	245.13.ER11M
H01.607.40.0162M	SK 40	ER 16	100	22	da 0,5 a 10	245.19.ER16M
H01.607.40.0164M	SK 40	ER 16	150	22	da 0,5 a 10	245.19.ER16M
H01.607.40.0252M	SK 40	ER 25	100	35	da 1 a 16	245.24.ER25M
H01.607.40.0254M	SK 40	ER 25	150	35	da 1 a 16	245.24.ER25M
H01.607.50.0164M	SK 50	ER 16	150	22	da 0,5 a 10	245.19.ER16M
H01.607.50.0254M	SK 50	ER 25	150	35	da 1 a 16	245.24.ER25M

2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Cassette con portapinze ER pinze complete di chiave di serraggio

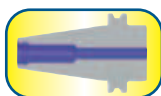
Boxes with ER collet chucks and collets - supplied with wrench

Kassetten mit Spannzangenhalter ER und Spannzangen - geliefert mit Schlüssel

Coffrets avec mandrins à pinces ER et pinces - fournis avec clé

ACCESSORI PER MACCHINE UTENSILI

DIN 69871 / AD



CASSETTE 001...
ART: 001.607...

2.
34



Codice di ord. Code	Mandrino Chuck	SK	Tipo pinza Collets type	Numero pinze Collets nr.	Ø Pinza Ø Collets
001.30.09.ER32	001.607.30.0320	ISO 30 DIN 69871/A	ER32	9	4-6-8-10-12-14-16-18-20
001.30.18.ER32	001.607.30.0320	ISO 30 DIN 69871/A	ER32	18	da 3 a 20
001.40.09.ER32	001.607.40.0320	ISO 40 DIN 69871/A	ER32	9	4-6-8-10-12-14-16-18-20
001.40.18.ER32	001.607.40.0320	ISO 40 DIN 69871/A	ER32	18	da 3 a 20
001.40.09.ER40	001.607.40.0400	ISO 40 DIN 69871/A	ER40	9	4-6-8-10-12-14-16-18-20
001.40.23.ER40	001.607.40.0400	ISO 40 DIN 69871/A	ER40	23	da 4 a 26
001.50.09.ER32	001.607.50.0320	ISO 50 DIN 69871/A	ER32	9	4-6-8-10-12-14-16-18-20
001.50.18.ER32	001.607.50.0320	ISO 50 DIN 69871/A	ER32	18	da 3 a 20
001.50.09.ER40	001.607.50.0400	ISO 50 DIN 69871/A	ER40	9	4-6-8-10-12-14-16-18-20
001.50.23.ER40	001.607.50.0400	ISO 50 DIN 69871/A	ER40	23	da 4 a 26

ACCESSORI PER MACCHINE UTENSILI

Mandrini per astucci registrabili e portautensili con gambo a norma DIN 6327

Adaptors for adjustable inserts DIN 6327

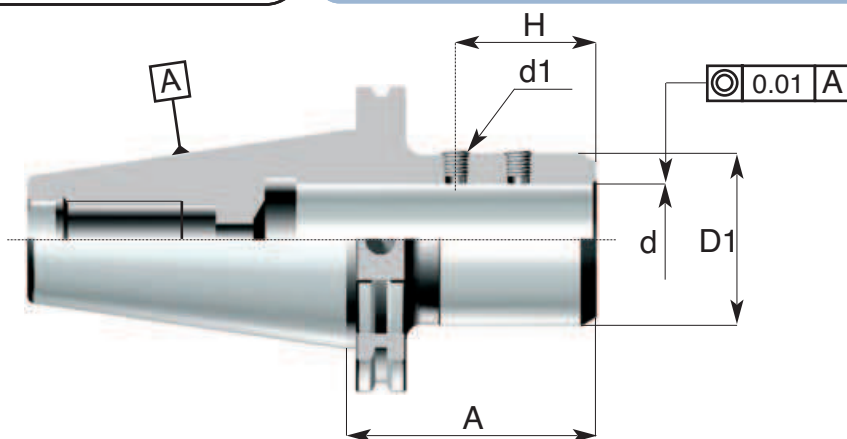
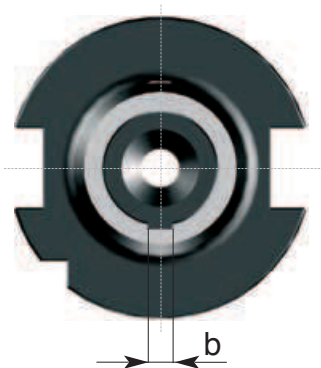
Zwischenhülsen für axialverstellbare Futter DIN 6327

Douilles pour mandrins réglables axialement DIN 6327



DIN 69871 / AD

ART: 001.610



2.
35

Codice di ord Code	SK	d h7	A	D1	H	b C11	Grano di serraggio "d1" Clamping screw "d1"
001.610.40.0200	SK 40	20	70	40	35	5	610.00.0060
001.610.40.0250	SK 40	25	70	40	38	6	610.00.0080
001.610.40.0280	SK 40	28	70	40	38	6	610.00.0080
001.610.40.0360	SK 40	36	115	55	45	8	610.00.0080
001.610.45.0280	SK 45	28	75	45	40	6	610.00.0060
001.610.45.0360	SK 45	36	100	55	50	8	610.00.0080
001.610.50.0280	SK 50	28	80	40	38	6	610.00.0080
001.610.50.0360	SK 50	36	80	50	45	8	610.00.0080
001.610.50.0480	SK 50	48	110	67	57	10	610.00.0100



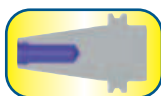
2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Maschiatori a cambio rapido con compensazione elastica assiale a trazione e pressione
Quick-change tapping chuck with compensation in compression and tension
Gewindeschneid- und Schnellwechselfutter mit Ausgleich auf Druck und Zug
Mandrin à tarauder à changement rapide avec compensation longitudinale et de la traction

ACCESSORI PER MACCHINE UTENSILI

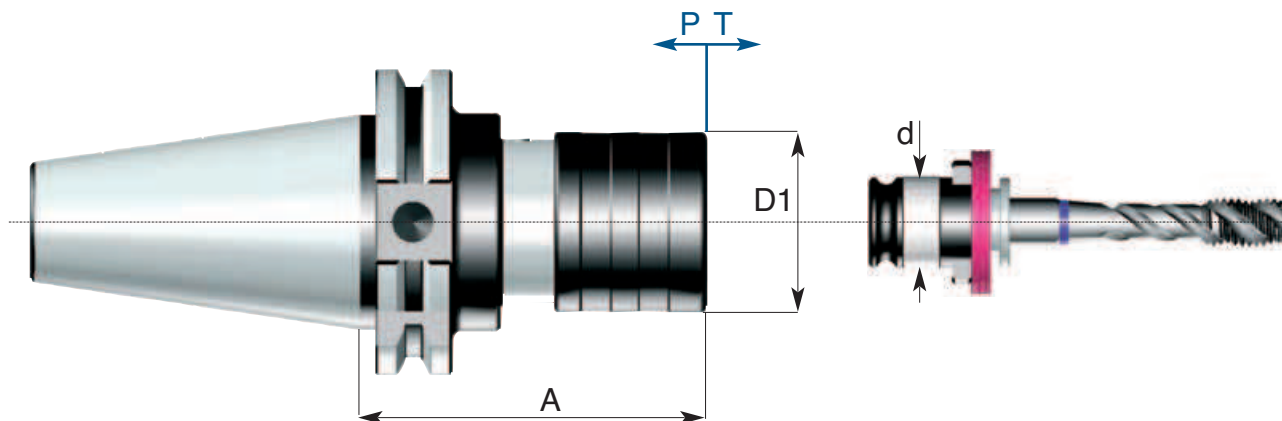
DIN 69871 / A



ART: 001.638



2.
36



Codice di ord Code	SK	A	D1	d	Capacità maschiatore Tapping capacity	Compensazione assiale	
						T Axial compensation	P
001.638.30.1205	SK 30	70	35	19	M3 - M14	5	7
001.638.30.2008	SK 30	90	53	31	M8 - M24	12	13
001.638.40.1205	SK 40	72	35	19	M3 - M14	5	7
001.638.40.2008	SK 40	93	53	31	M8 - M24	12	13
001.638.40.3310	SK 40	145	78	48	M14 - M36	15	20
001.638.45.1205	SK 45	62	35	19	M3 - M14	5	7
001.638.45.2008	SK 45	100	53	31	M8 - M24	12	13
001.638.45.3310	SK 45	135	78	48	M14 - M36	15	20
001.638.50.1205	SK 50	75	35	19	M3 - M14	5	7
001.638.50.2008	SK 50	90	53	31	M8 - M24	12	13
001.638.50.3310	SK 50	130	78	48	M14 - M36	15	20



ACCESSORI PER MACCHINE UTENSILI



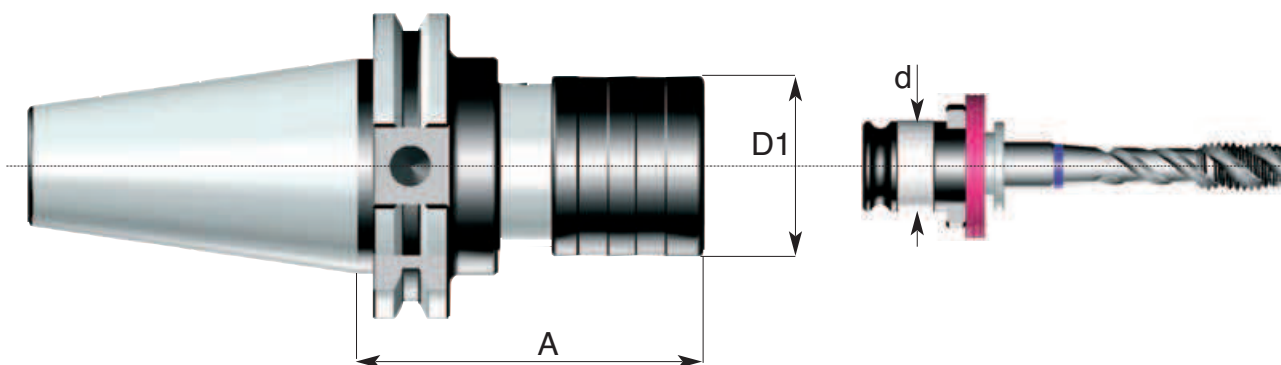
Maschiatori a cambio rapido senza compensazione per maschiatura rigida
 Quick-change tapping chuck without compensation for rigid tapping
 Gewindeschneid- und Schnellwechselfutter ohne Ausgleich für Synchronisation
 Mandrin à tarauder à changement rapid sans compensation pour taraudage synchronisé



DIN 69871/A

ART: 001.648

2.
37



Codice di ord Code	SK	A	D1	d	Capacità maschiatore Tapping capacity
001.648.30.1200	SK 30	70	32	19	M3 - M14
001.648.40.1200	SK 40	70	32	19	M3 - M14
001.648.40.2000	SK 40	80	50	31	M8 - M24
001.648.40.3300	SK 40	118	72	48	M14 - M36
001.648.45.1200	SK 45	75	32	19	M3 - M14
001.648.45.2000	SK 45	100	50	31	M8 - M24
001.648.45.3300	SK 45	150	72	48	M14 - M36
001.648.50.1200	SK 50	75	32	19	M3 - M14
001.648.50.2000	SK 50	90	50	31	M8 - M24
001.648.50.3300	SK 50	110	72	48	M14 - M36



2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871

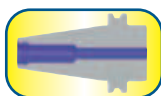


Maschiatori a cambio rapido senza comp. elastica assiale con adduzione interna
Quick-change tapping chuck without compensation with through coolant
Gewindeschneid- und Schnellwechselfutter ohne Ausgleich mit Kuhlmittelkanale
Mandrin à tarauder à changement rapide sans compensation avec arrosage central

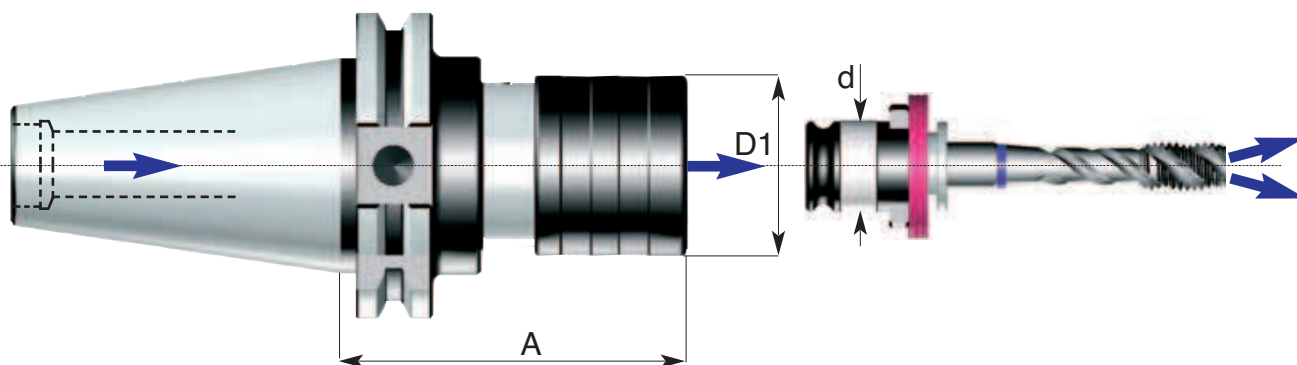
ACCESSORI PER MACCHINE UTENSILI



DIN 69871 / AD



ART: 001.658



Codice di ord Code	SK	A	D1	d	Capacità maschiatore Tapping capacity
001.658.30.1200	SK 30	70	32	19	M3 - M14
001.658.30.2000	SK 30	80	50	31	M8 - M24
001.658.40.1200	SK 40	70	32	19	M3 - M14
001.658.40.2000	SK 40	80	50	31	M8 - M24
001.658.40.3300	SK 40	118	72	48	M14 - M36
001.658.45.1200	SK 45	75	32	19	M3 - M14
001.658.50.1200	SK 50	75	32	19	M3 - M14
001.658.50.2000	SK 50	90	50	31	M8 - M24
001.658.50.3300	SK 50	110	72	48	M14 - M36



ACCESSORI PER MACCHINE UTENSILI



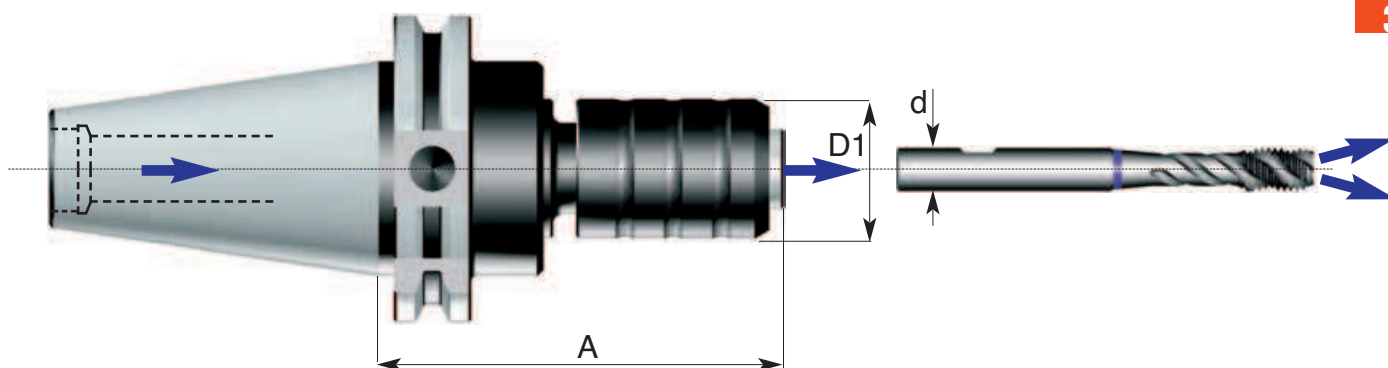
Maschiatori con minima comp. elastica ass. per maschiatura rigida con adduzione interna
 Quick-change tapping chuck with min. compensation for rigid tapping - with through coolant
 Gewindeschneid- und Schnellwechselfutter mit min. Ausgl. für Synchron.- mit Kühlmittelkanäle
 Mandrin à tarauder à chang. rapid avec min. compens. pour taraud. syncro.-arrosage central



DIN 69871/AD

ART: 001.668

2.
39



Codice di ord Code	SK	A	D1	d	Compensazione assiale	
					T Axial compensation	P
001.668.40.0060	SK 40	56	20	6	1	0.2
001.668.40.0080	SK 40	61	25	8	1	0.2
001.668.40.0100	SK 40	65	29	10	1	0.2
001.668.40.0120	SK 40	70	32	12	1	0.2
001.668.40.0160	SK 40	74	38	16	1	0.2
001.668.40.0200	SK 40	82	43	20	1	0.2
001.668.50.0060	SK 50	56	20	6	1	0.2
001.668.50.0080	SK 50	61	25	8	1	0.2
001.668.50.0100	SK 50	65	29	10	1	0.2
001.668.50.0120	SK 50	70	32	12	1	0.2
001.668.50.0160	SK 50	74	38	16	1	0.2
001.668.50.0200	SK 50	82	43	20	1	0.2

CARATTERISTICHE TECNICHE

- Per il fissaggio di maschi con codolo standardizzato secondo norma DIN 1835 B e DIN 6535 HB
- Pressione massima del fluido refrigerante 50 bar

STANDARD FEATURES

- For taps with standard shank DIN 1835 B and DIN 6535 HB
- Coolant max. pressure 50 bar

2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Cilindro di collaudo certificato

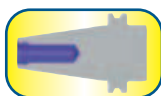
Test arbors with test certificate

Kontrolldorne mit Prüfungszeugnis

Mandrins de contrôle avec certificat de bon fonctionnement

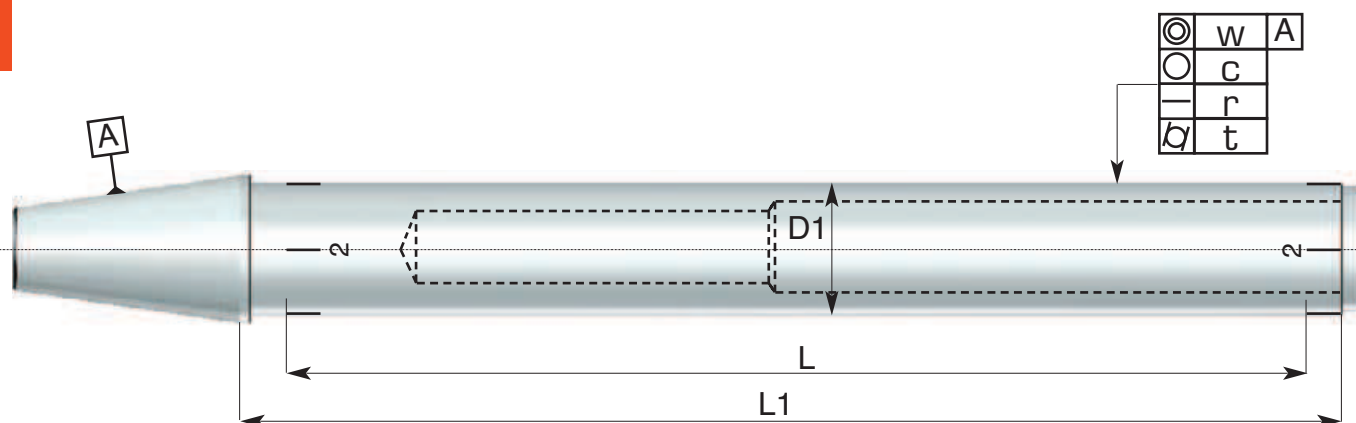
ACCESSORI PER MACCHINE UTENSILI

DIN 69871 / A



ART: 001.808

2.
40



Codice di ord Code	SK	D1 H5	L	L1	w	c	r	t
001.808.40.0320	SK 40	32	200	228	0.003	0.003	0.003	0.003
001.808.40.0400	SK 40	40	300	338	0.003	0.003	0.003	0.003
001.808.45.0400	SK 45	40	300	338	0.003	0.003	0.003	0.003
001.808.45.0630	SK 45	63	500	538	0.004	0.004	0.003	0.003
001.808.50.0400	SK 50	40	300	338	0.003	0.003	0.003	0.003
001.808.50.0630	SK 50	63	500	538	0.004	0.004	0.003	0.003

ACCESSORI PER MACCHINE UTENSILI



Attacchi base per sistema modulare tipo "VARILOCK"

Attachments for modular system - type "VARILOCK"

Grundaufnahmen für Modulare Werkzeugsystem - Type "VARILOCK"

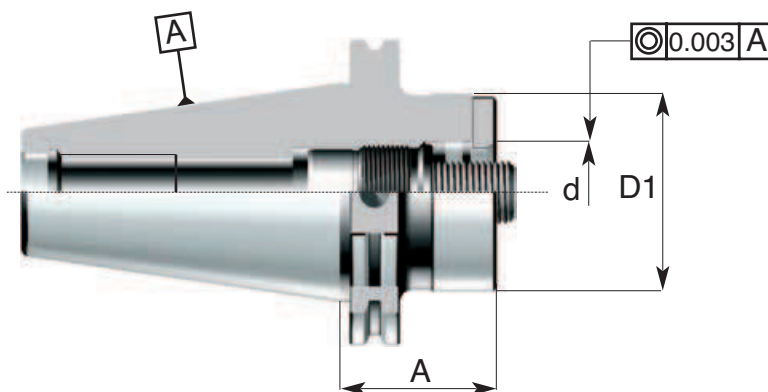
Attachements pour système modulaire - type "VARILOCK"



DIN 69871/AD

ART: 001.VAR

2.
41



Codice di ord Code	SK	A	D1	d H5	Vite Screw	Ghiera Nut
001.VAR.40.0500	SK 40	27	50	27	VAR.00.0500.20	VAR.00.0500.10
001.VAR.40.0502	SK 40	50	50	27	VAR.00.0500.20	VAR.00.0500.10
001.VAR.40.0630	SK 40	50	63	32	VAR.00.0630.20	VAR.00.0800.10
001.VAR.45.0502	SK 45	50	50	27	VAR.00.0500.20	VAR.00.0500.10
001.VAR.45.0632	SK 45	50	63	32	VAR.00.0800.20	VAR.00.0800.10
001.VAR.45.0802	SK 45	50	80	32	VAR.00.0800.20	VAR.00.0800.10
001.VAR.50.0500	SK 50	27	50	27	VAR.00.0500.20	VAR.00.0500.10
001.VAR.50.0502	SK 50	50	50	27	VAR.00.0500.20	VAR.00.0500.10
001.VAR.50.0630	SK 50	27	63	32	VAR.00.0800.20	VAR.00.0800.10
001.VAR.50.0632	SK 50	50	63	32	VAR.00.0800.20	VAR.00.0800.10
001.VAR.50.0800	SK 50	27	80	32	VAR.00.0800.20	VAR.00.0800.10
001.VAR.50.0802	SK 50	50	80	32	VAR.00.0800.20	VAR.00.0800.10
001.VAR.50.0804	SK 50	90	80	32	VAR.00.0800.20	VAR.00.0800.10



2. MANDRINI a cono ISO DIN 69871 TOOL HOLDERS with ISO cone DIN 69871



Attacchi base per sistema modulare tipo "VARILOCK"

Attachments for modular system - type "VARILOCK"

Grundaufnahmen für Modulare Werkzeugsystem - Type "VARILCKK"

Attachements pour système modulaire - type "VARILOCK"

ACCESSORI PER MACCHINE UTENSILI

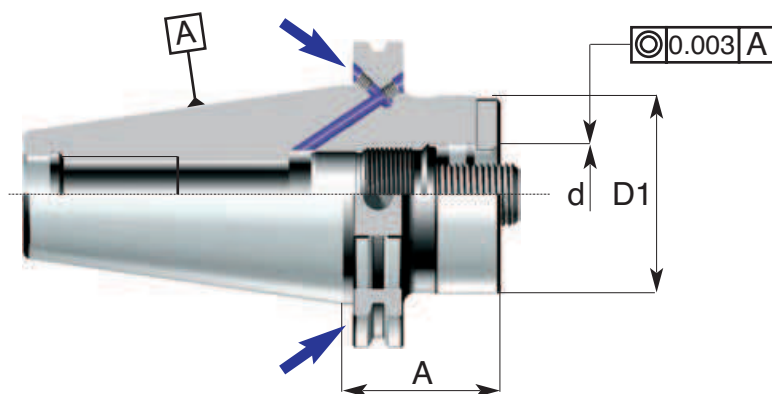


DIN 69871/AD+B



ART: HO1.VAR

2.
42



Codice di ord Code	SK	A	D1	d H5	Vite Screw	Ghiera Nut
HO1.VAR.40.0500	SK 40	27	50	27	VAR.00.0500.20	VAR.00.0500.10
HO1.VAR.40.0630	SK 40	50	63	32	VAR.00.0630.20	VAR.00.0800.10
HO1.VAR.45.0502	SK 45	50	50	27	VAR.00.0500.20	VAR.00.0500.10
HO1.VAR.45.0632	SK 45	50	63	32	VAR.00.0800.20	VAR.00.0800.10
HO1.VAR.45.0802	SK 45	50	80	32	VAR.00.0800.20	VAR.00.0800.10
HO1.VAR.50.0502	SK 50	50	50	27	VAR.00.0500.20	VAR.00.0500.10
HO1.VAR.50.0632	SK 50	50	63	32	VAR.00.0800.20	VAR.00.0800.10
HO1.VAR.50.0802	SK 50	50	80	32	VAR.00.0800.20	VAR.00.0800.10





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VERSIONI 01 02 03 04
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VERSIONI 01 02 03 04
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VERSIONI 001 002
 003 004 005 006

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DELTA

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 COMPLETE

VERSIONI 01 02 03
 COMPLETE COMPLETE COMPLETE

PORTAUTENSILI A COND ISO DIN 2088 E MORSE PER MACCHINE UTENSILI TRADIZIONALI
 CONTROPUNTE ROTANTI E FISSE - MANDRINI MASCHIATORI A CAMBIO RAPIDO

TOOLHOLDERS FOR MILLING AND BORING MACHINES WITH ISO AND MORSE
 PRECISION RUNNING TAIL CENTERS - QUICK CHANGE TAPPING CHUCKS

PORTAUTENSILI A COND ISO DIN 69871/A-B, CAT E MAS BT 405 PER CENTRI DI LATO
 A CONTROLLO NUMERICO

TOOLHOLDERS FOR CNC MACHINERY WITH ISO DIN 69871/A-B, CAT AND MAS BT 405

PORTAUTENSILI CON ATTACCO HSK DIN 69893 FORMA A -
 TOOLS HOLDERS WITH HSK TAPER DIN 69893 FORM A

MANDRINO HYDRO DELTA A CHIUSURA IDRAULICA
 HYDRO DELTA CHUCKS HYDRAULIC CLAMP

PORTAUTENSILI PER TORNI A CONTROLLO NUMERICO DIN 69880 UDI 3
 TOOLHOLDERS FOR NC LATHES DIN 69880 UDI 3

MANDRINI MACCHINA PRINCIPALI - PORTAUTENSILI SPECIALI A DISEGNO CLIENTI
 MACHINE MAIN SPINDLES - SPECIAL TOOLHOLDERS ON CUSTOMER'S REQUEST

DELTA
 001 002 003

COMPLETE COMPLETE COMPLETE COMPLETE
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DELTA
 001 002 003

COMPLETE COMPLETE COMPLETE COMPLETE
 COMPLETE

3.4

- Portafrese combinati
Combined milling cutter chucks

3.5

- Portafrese a manicotto
Face milling cutter chucks

3.6

- Portafrese a manicotto
Face milling cutter chucks

3.7

- Portafrese a manicotto
Face milling cutter chucks

3.8

- Portafrese weldon
Milling cutter chucks Weldon

3.9

- Portafrese weldon
Milling cutter chucks Weldon

3.11

- Portafrese weldon
Milling cutter chucks Weldon

3.13

- Portafrese per calettamento a caldo
Shrink-fit chucks

3.14

- Portafrese per calettamento a caldo
Shrink-fit chucks

3.15

- Mandrini idraulici
hydraulic clamping chucks

3.16

- Mandrini idraulici
hydraulic clamping chucks

3.17

- Mandrini portatestine filettate
Chucks for threaded heads

3.19

- Mandrini portamorsetti
Taper shafts for drill chucks

3.20

- Mandrini portapunte
Integral drill chucks

3.21

- Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO

3.22

- Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO

3.23

- Portafrese a cono Morse
Milling cutter with Morse cone

3.24

- Portapunte a cono Morse
Drill chucks with Morse cone

3.26

- Barre semifinite
Unfinished taper-shank blanks

3.27

- Mandrini a forte serraggio
Milling chuck

3.28

- Portapinze EOC
Collet chucks EOC

3.29

- Portapinze DELTA
Collet chucks DELTA

3.30

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

3.32

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

3.34

- Portaastucci registrabili
Adaptors for adjustable inserts

3.35

- Maschiatori
Tapping chuck

3.37

- VARILOCK
VARILOCK



MAS 403 BT
MAS 403 BT/B
Attacchi con cono ISO
*Attachments
with ISO cone*

3

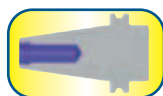
 **delta**

3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT

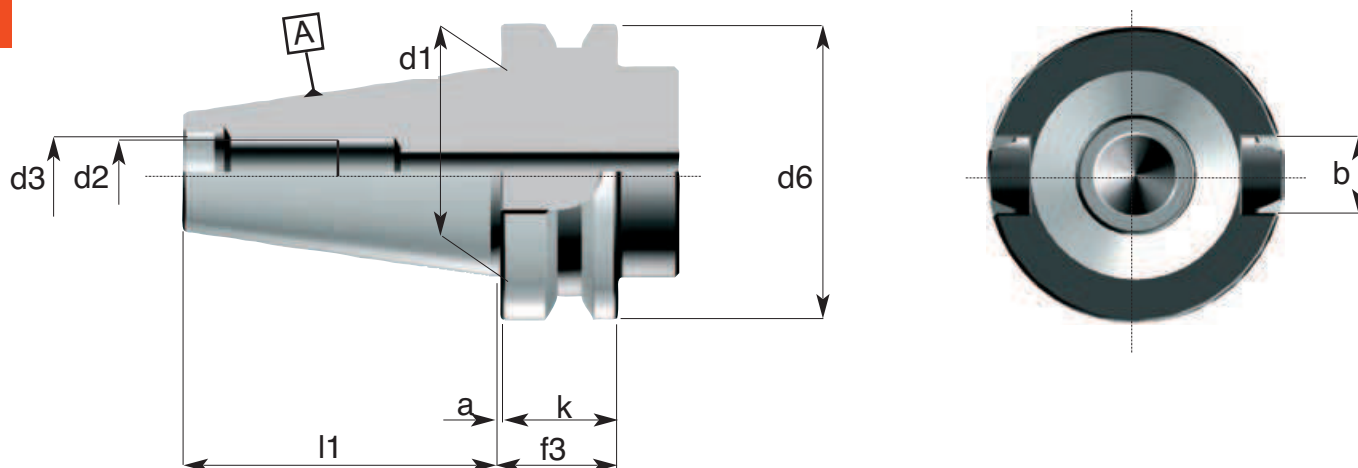


ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT



Attacchi MAS 403 BT



Riferimento Item	a	b H12	d1	d2	d3 H8	d6	f3	l1	k
BT 30	2	16.1	31.75	M12	12.5	46	22	48.4	20
BT 35	2	16.1	38.10	M12	13	53	22	56.4	20
BT 40	2	16.1	44.45	M16	17	63	27	65.4	25
BT 50	3	25.7	69.85	M24	25	100	37	101.8	35

CARATTERISTICHE TECNICHE DEI MANDRINI TC

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiere chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni ISO è inferiore ad AT3

STANDARD FEATURES OF TC TOOLING

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
•Hardened and tempered •Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of ISO SHANKS lower than AT3

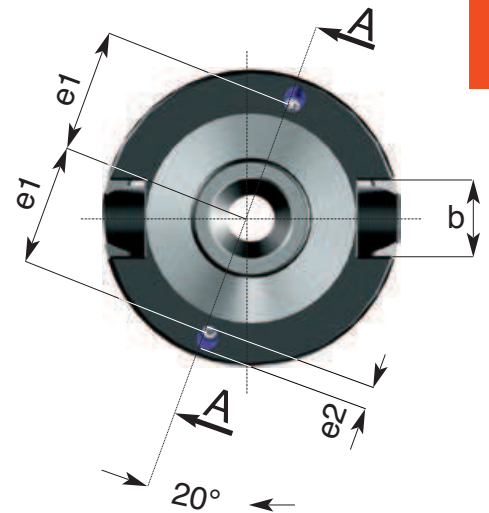
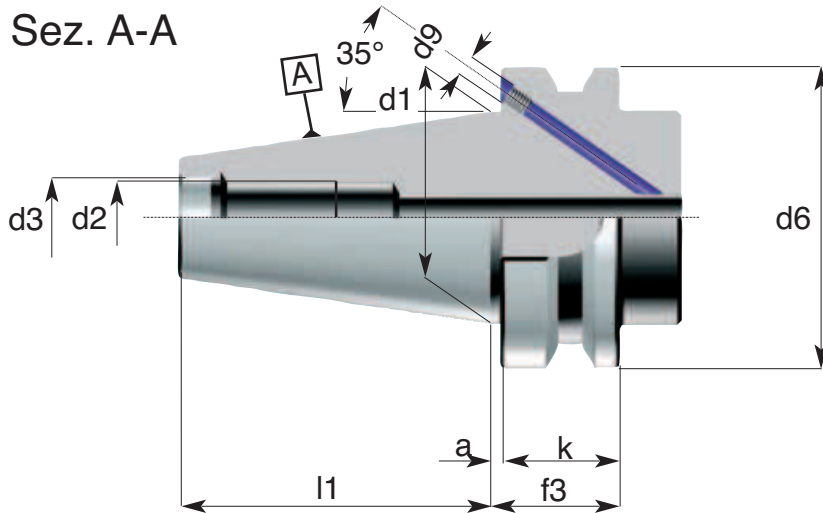
ACCESSORI PER MACCHINE UTENSILI



MAS 403 BT-B

Attacchi MAS 403 BT

Sez. A-A



3.
3

Riferimento Item	a	b H12	d1	d2	d3 H7	d6	f3	l1	k	e1	e2	d9
BT 40	2	16.1	44.45	M16	17	63	27	65.4	25	35	5	4
BT 50	3	25.7	69.85	M24	25	100	37	101.8	35	42	7	6

CARATTERISTICHE TECNICHE DEI MANDRINI TC

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbiati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiere chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni ISO è inferiore ad AT3

STANDARD FEATURES OF TC TOOLING

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
•Hardened and tempered •Black oxidized
- Surface Hardness RC 58±2 •Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of ISO SHANKS lower than AT3

3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Portafrese combinati trascinamento frontale e a chiave DIN 6358 B

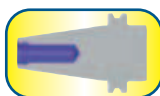
Combined milling cutter chucks DIN 6358 B

Kombi-Aufsteckfräserdorne DIN 6358 B

Mandrins porte-fraises combinés DIN 6358 B

ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT

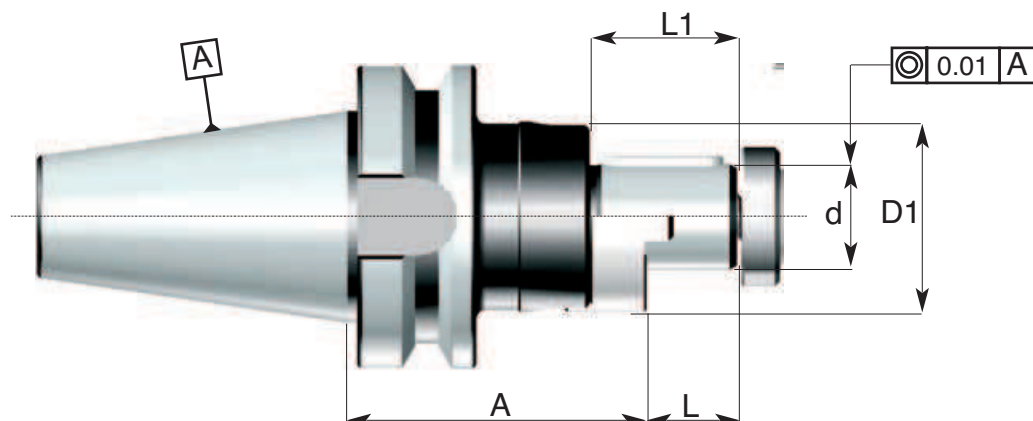
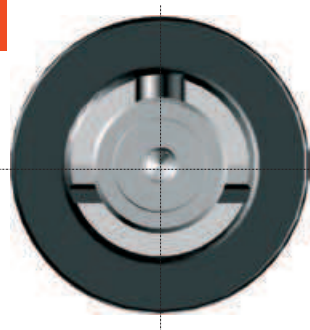


Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: 130 BT

3.
4



Codice di ord Code	SK	d h6	A	L	L1	D1	Trascinatore Rling	Vite Screw	Linguetta Key
060.130.30.0160	SK 30	16	50	17	27	32	190.01	191.01	130.199.01
060.130.30.0220	SK 30	22	50	19	31	40	190.02	191.02	130.199.02
060.130.30.0270	SK 30	27	50	21	33	48	190.03	191.03	130.199.03
061.130.35.0160	SK 35	16	50	17	27	32	190.01	191.01	130.199.01
061.130.35.0220	SK 35	22	50	19	31	40	190.02	191.02	130.199.02
061.130.35.0270	SK 35	27	50	21	33	48	190.03	191.03	130.199.03
061.130.35.0320	SK 35	32	55	24	38	58	190.04	191.04	130.199.04
063.130.40.0160	SK 40	16	50	17	27	32	190.01	191.01	130.199.01
063.130.40.0162	SK 40	16	90	17	27	32	190.01	191.01	130.199.01
063.130.40.0220	SK 40	22	55	19	31	40	190.02	191.02	130.199.02
063.130.40.0222	SK 40	22	90	19	31	40	190.02	191.02	130.199.02
063.130.40.0270	SK 40	27	55	21	33	48	190.03	191.03	130.199.03
063.130.40.0272	SK 40	27	90	21	33	48	190.03	191.03	130.199.03
063.130.40.0320	SK 40	32	60	24	38	58	190.04	191.04	130.199.04
063.130.40.0322	SK 40	32	90	24	38	58	190.04	191.04	130.199.04
063.130.40.0400	SK 40	40	60	27	41	70	190.05	191.05	130.199.05
063.130.40.0402	SK 40	40	90	27	41	70	190.05	191.05	130.199.05
065.130.50.0160	SK 50	16	65	17	27	32	190.01	191.01	130.199.01
065.130.50.0162	SK 50	16	120	17	27	32	190.01	191.01	130.199.01
065.130.50.0220	SK 50	22	65	19	31	40	190.02	191.02	130.199.02
065.130.50.0222	SK 50	22	120	19	31	40	190.02	191.02	130.199.02
065.130.50.0270	SK 50	27	70	21	33	48	190.03	191.03	130.199.03
065.130.50.0272	SK 50	27	120	21	33	48	190.03	191.03	130.199.03
065.130.50.0320	SK 50	32	70	24	38	58	190.04	191.04	130.199.04
065.130.50.0322	SK 50	32	120	24	38	58	190.04	191.04	130.199.04
065.130.50.0400	SK 50	40	75	27	41	70	190.05	191.05	130.199.05
065.130.50.0402	SK 50	40	120	27	41	70	190.05	191.05	130.199.05
065.130.50.0500	SK 50	50	75	30	46	90	190.06	191.06	130.199.06
065.130.50.0502	SK 50	50	120	30	46	90	190.06	191.06	130.199.06

Pag. 12.24



Pag. 12.25



ACCESSORI PER MACCHINE UTENSILI

Portafrese con trascinamento frontale per frese a manicotto DIN 138

Face milling cutter chucks DIN 138

Aufsteckfräserdorne DIN 138

Mandrins porte-fraises à surfacer DIN 138



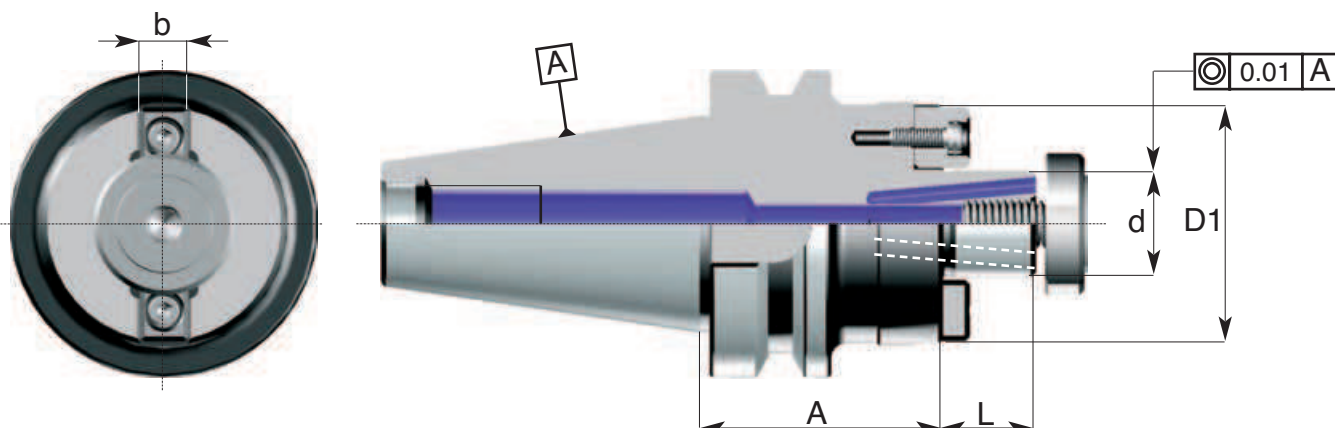
Prebilanciato
Prebalanced
G6.3 / 8000rpm



MAS 403 BT

ART:150 BT

3.
5



Codice di ord Code	SK	d h6	A	L	D1	b	Tassello Tenon	Vite Screw
063.150.40.0160	SK 40	16	50	17	40	8	192.06	191.01
063.150.40.0162	SK 40	16	90	17	40	8	192.06	191.01
063.150.40.0220	SK 40	22	50	19	50	10	192.07	191.02
063.150.40.0222	SK 40	22	90	19	50	10	192.07	191.02
063.150.40.0270	SK 40	27	50	21	60	12	192.08	191.03
063.150.40.0272	SK 40	27	90	21	60	12	192.08	191.03
063.150.40.0320	SK 40	32	50	24	65	14	192.09	191.04
063.150.40.0322	SK 40	32	90	24	65	14	192.09	191.04
063.150.40.0400	SK 40	40	50	27	75	16	192.10	191.05
063.150.40.0402	SK 40	40	90	27	75	16	192.10	191.05
065.150.50.0160	SK 50	16	60	17	40	8	192.06	191.01
065.150.50.0162	SK 50	16	100	17	40	8	192.06	191.01
065.150.50.0220	SK 50	22	60	19	50	10	192.07	191.02
065.150.50.0222	SK 50	22	100	19	50	10	192.07	191.02
065.150.50.0270	SK 50	27	60	21	60	12	192.08	191.03
065.150.50.0272	SK 50	27	100	21	60	12	192.08	191.03
065.150.50.0320	SK 50	32	60	24	75	14	192.09	191.04
065.150.50.0322	SK 50	32	100	24	75	14	192.09	191.04
065.150.50.0400	SK 50	40	60	27	85	16	192.10	191.05
065.150.50.0402	SK 50	40	100	27	85	16	192.10	191.05
065.150.50.0500	SK 50	50	60	31	90	18	192.11	191.06
065.150.50.0502	SK 50	50	100	31	90	18	192.11	191.06



3. MANDRINI a cono ISO MAS 403 BT

TOOL HOLDERS with ISO cone MAS 403 BT



Portafrese con trascinamento frontale e linguetta DIN 138

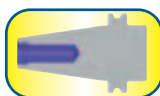
Face milling cutter chucks DIN 138

Aufsteckfräserdorne DIN 138

Mandrins porte-fraises à surfacer DIN 138

ACCESSORI PER MACCHINE UTENSILI

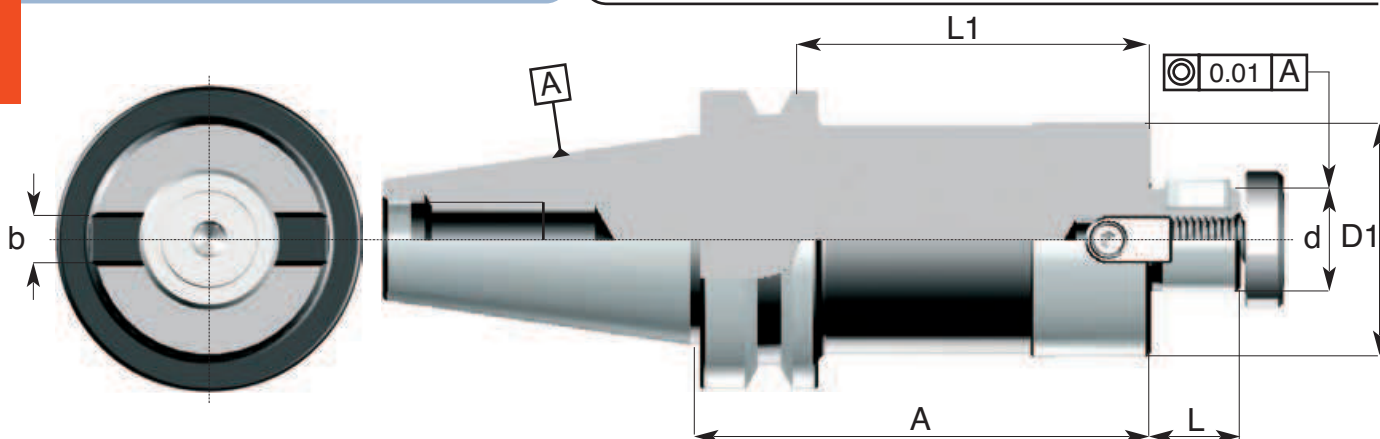
MAS 403 BT



Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: 151 BT



Codice di ord Code	SK	d h6	A	L	L1	D1	b	Tassello Tenon	Vite Screw	Linguetta Key
063.151.40.0222	SK 40	22	127	19	100	49	10	151.102	191.02	151.199.02
063.151.40.0224	SK 40	22	177	19	150	49	10	151.102	191.02	151.199.02
063.151.40.0226	SK 40	22	227	19	200	49	10	151.102	191.02	151.199.02
063.151.40.0272	SK 40	27	127	21	100	60	12	151.103	191.03	151.199.03
063.151.40.0274	SK 40	27	177	21	150	60	12	151.103	191.03	151.199.03
063.151.40.0276	SK 40	27	227	21	200	60	12	151.103	191.03	151.199.03
065.151.50.0222	SK 50	22	188	19	150	49	10	151.102	191.02	151.199.02
065.151.50.0224	SK 50	22	238	19	200	49	10	151.102	191.02	151.199.02
065.151.50.0226	SK 50	22	338	19	300	49	10	151.102	191.02	151.199.02
065.151.50.0272	SK 50	27	188	21	150	60	12	151.103	191.03	151.199.03
065.151.50.0274	SK 50	27	238	21	200	60	12	151.103	191.03	151.199.03
065.151.50.0276	SK 50	27	338	21	300	60	12	151.103	191.03	151.199.03



Pag: 12.27

Pag: 12.25

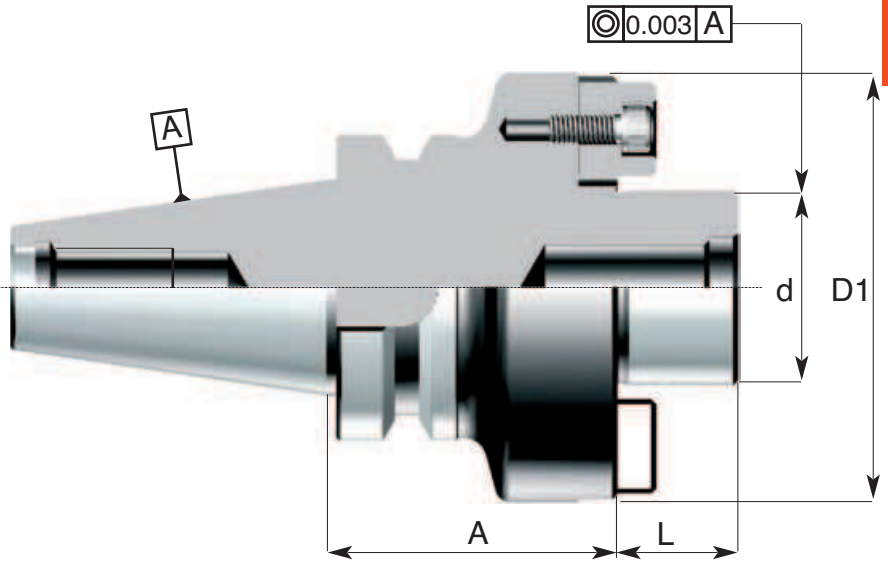
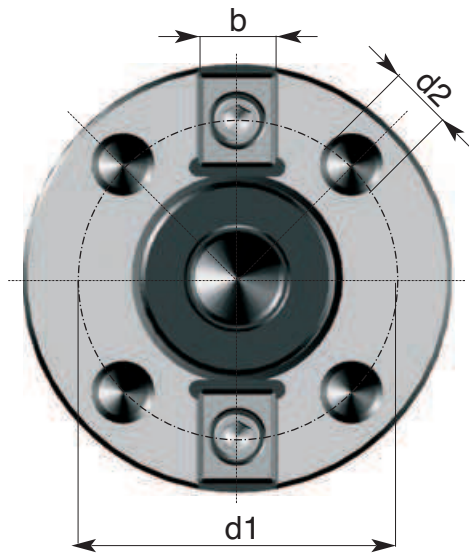
ACCESSORI PER MACCHINE UTENSILI

Portafrese trascinamento frontale per frese a inserti DIN 6357 B
 Centering arbors for milling cutters DIN 6357 B
 Aufnahmedorne für Messerköpfe DIN 6357 B
 Mandrins porte-fraises pour têtes porte-lames DIN 6357 B



MAS 403 BT

ART: 160 BT



3.
7

Codice di ord Code	SK	D1 h6	d	A h6	d1	d2	L	b	Tassello Tenon
063.160.40.0880.40	SK 40	88.882	40	60	66.70	M 12	M 12	15.9	192.02
063.160.40.1280.60	SK 40	128.570	60	60	101.6	M 16	M 16	25.4	192.03
065.160.50.0880.40	SK 50	88.882	40	70	66.70	M 12	M 12	15.9	192.02
065.160.50.1280.60	SK 50	128.570	60	75	101.6	M 16	M 16	25.4	192.03

Pag. 12.26



3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT

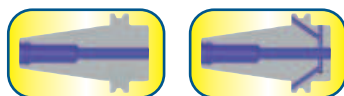


ACCESSORI PER MACCHINE UTENSILI

Portafrese cilindriche tipo weldon corto e tipo ribassato per punte

Milling cutter chucks for straight-shank tools Weldon System - short type and lowered type for drills
Spannfutter Weldon für Zylinderschäfte - kurze Ausführung und verringerte Ausführung für Bohrer
Mandrins porte-Weldon pour fraises à queue cylindrique - type court et type surbaissé pour forets

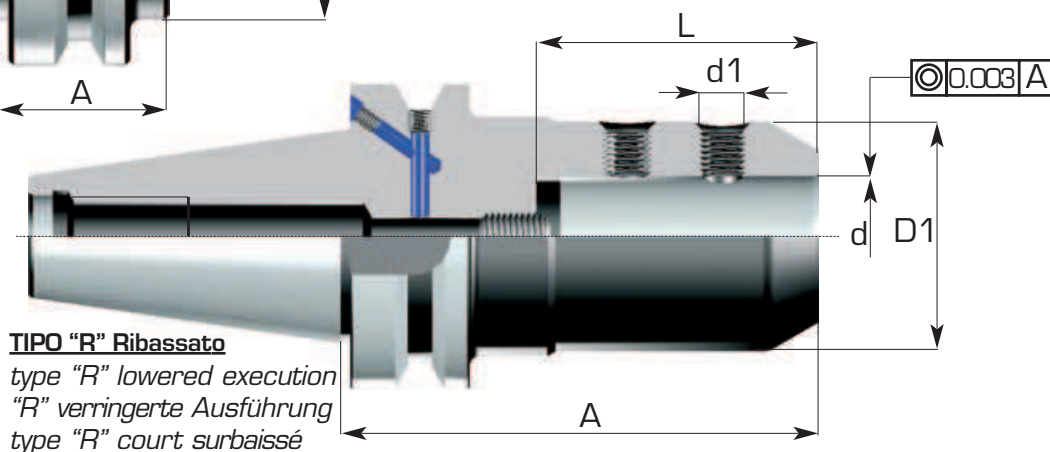
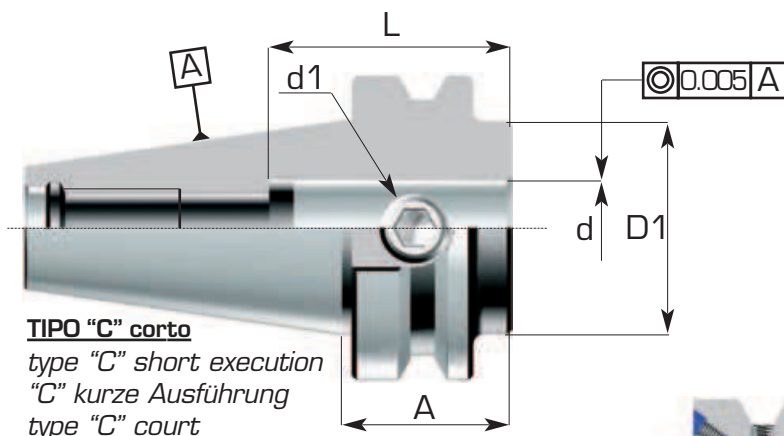
MAS 403 BT



ART: 208 BT e 208.R BT

Prebilanciato
Prebalanced
G6.3 / 8000rpm

3.
8



Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
063.208.40.0160.C	SK 40	16	35	44	45	M14X1.5	208.00.0140
063.208.40.0200.C	SK 40	20	35	44	45	M14X1.5	208.00.0140
063.208.40.0250.C	SK 40	25	35	44	55	M14X1.5	208.00.0140
063.208.40.0320.C	SK 40	32	70	72	60	M16X1 - 20X1.5	208.00.0161 - 208.00.0200
065.208.50.0160.C	SK 50	16	45	70	45	M14X1.5	208.00.0140
065.208.50.0200.C	SK 50	20	45	70	45	M16X1.5	208.00.0160
065.208.50.0250.C	SK 50	25	45	70	55	M18X1.5	208.00.0180
065.208.50.0320.C	SK 50	32	45	70	60	M20X1.5	208.00.0200
H63.208.40.0250.R	SK 40	25	100	45	59	M10X1	208.00.0100.R
H63.208.40.0320.R	SK 40	32	80	52	63	M12X1	208.00.0120.R
H63.208.40.0400.R	SK 40	40	87	63	73	M16X1	208.00.0160.R
H65.208.50.0320.R	SK 50	32	100	52	63	M12X1	208.00.0120.R
H65.208.50.0400.R	SK 50	40	115	65	73	M16X1	208.00.0160.R



ACCESSORI PER MACCHINE UTENSILI



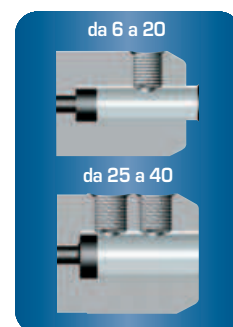
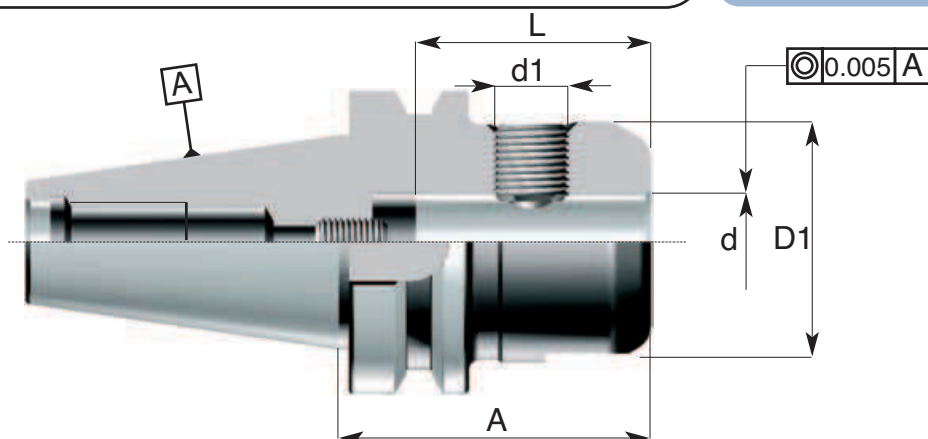
Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

Prebilanciato
 Prebalanced
G6.3 / 8000rpm



MAS 403 BT

ART: 208 BT



3.
9

Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
060.208.30.0060	SK 30	6	60	25	35	M6X10	208.00.0060
060.208.30.0080	SK 30	8	60	28	35	M8X10	208.00.0080
060.208.30.0100	SK 30	10	60	35	39	M10X12	208.00.0100
060.208.30.0120	SK 30	12	60	42	44	M12X1,5X16	208.00.0120
060.208.30.0160	SK 30	16	60	48	47	M14X1,5X16	208.00.0140
060.208.30.0200	SK 30	20	60	52	49	M16X1,5X16	208.00.0160
061.208.35.0060	SK 35	6	60	25	35	M6X10	208.00.0060
061.208.35.0080	SK 35	8	60	28	35	M8X10	208.00.0080
061.208.35.0100	SK 35	10	60	35	39	M10X12	208.00.0100
061.208.35.0120	SK 35	12	60	42	44	M12X1,5X16	208.00.0120
061.208.35.0160	SK 35	16	60	48	47	M14X1,5X16	208.00.0140
061.208.35.0200	SK 35	20	60	52	49	M16X1,5X16	208.00.0160
061.208.35.0250	SK 35	25	80	65	54	M18X1,5X20	208.00.0180
063.208.40.0060	SK 40	6	65	25	35	M6X10	208.00.0060
063.208.40.0080	SK 40	8	65	28	35	M8X10	208.00.0080
063.208.40.0100	SK 40	10	65	35	39	M10X12	208.00.0100
063.208.40.0120	SK 40	12	65	42	44	M12X1,5X16	208.00.0120
063.208.40.0140	SK 40	14	65	44	44	M12X1,5X16	208.00.0120
063.208.40.0160	SK 40	16	65	48	47	M14X1,5X16	208.00.0140
063.208.40.0180	SK 40	18	65	48	47	M14X1,5X16	208.00.0140
063.208.40.0200	SK 40	20	65	52	49	M16X1,5X16	208.00.0160
063.208.40.0250	SK 40	25	90	65	54	M18X1,5X20	208.00.0180
063.208.40.0320	SK 40	32	90	72	58	M20X1,5X20	208.00.0200
063.208.40.0400	SK 40	40	105	80	68	M20X1,5X20	208.00.0200
065.208.50.0060	SK 50	6	80	25	35	M6X10	208.00.0060
065.208.50.0080	SK 50	8	80	28	35	M8X10	208.00.0080
065.208.50.0100	SK 50	10	80	35	39	M10X12	208.00.0100
065.208.50.0120	SK 50	12	80	42	44	M12X1,5X16	208.00.0120
065.208.50.0140	SK 50	14	80	44	44	M12X1,5X16	208.00.0120
065.208.50.0160	SK 50	16	80	48	47	M14X1,5X16	208.00.0140
065.208.50.0180	SK 50	18	80	50	47	M14X1,5X16	208.00.0140
065.208.50.0200	SK 50	20	80	52	49	M16X1,5X16	208.00.0160
065.208.50.0250	SK 50	25	100	65	54	M18X1,5X20	208.00.0180
065.208.50.0320	SK 50	32	100	72	58	M20X1,5X20	208.00.0200
065.208.50.0400	SK 50	40	115	80	68	M20X1,5X20	208.00.0200
065.208.50.0500	SK 50	50	115	90	78	M24X2X20	208.00.0240



3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
Spannfutter Weldon für Zylinderschäfte DIN 6359 B
Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT/B

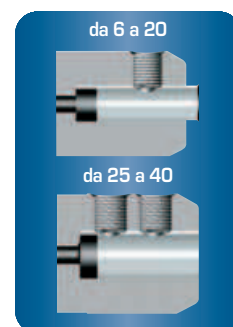
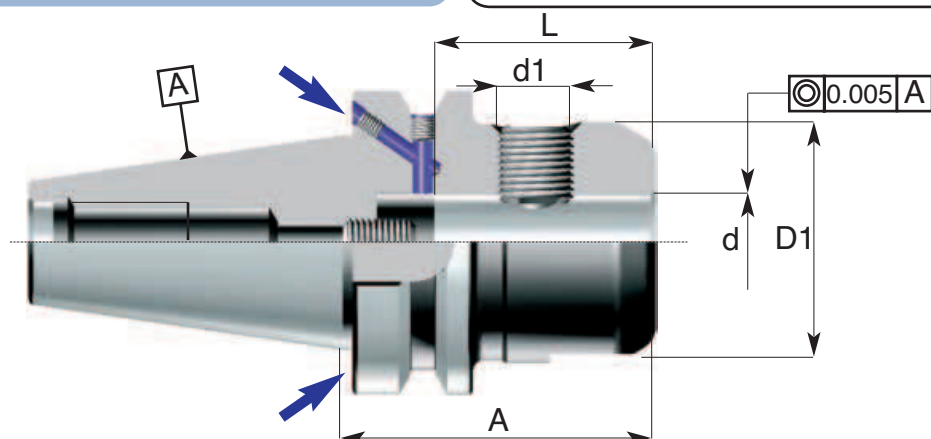


Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: H208 BT/B

3.
10



Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
H63.208.40.0060	SK 40	6	65	25	35	6MX10	208.00.0060
H63.208.40.0080	SK 40	8	65	28	35	8MX10	208.00.0080
H63.208.40.0100	SK 40	10	65	35	39	10MX12	208.00.0100
H63.208.40.0120	SK 40	12	65	42	44	12MX1,5X16	208.00.0120
H63.208.40.0140	SK 40	14	65	44	44	12MX1,5X16	288.00.0120
H63.208.40.0160	SK 40	16	65	48	47	14MX1,5X16	208.00.0140
H63.208.40.0180	SK 40	18	65	50	47	14MX1,5X16	288.00.0160
H63.208.40.0200	SK 40	20	65	52	49	16MX1,5X16	208.00.0160
H63.208.40.0250	SK 40	25	90	65	54	18MX1,5X20	208.00.0200
H63.208.40.0320	SK 40	32	90	72	58	20MX1,5X20	208.00.0200
H63.208.40.0400	SK 40	40	105	80	68	20MX1,5X20	208.00.0200
H65.208.50.0060	SK 50	6	80	25	35	6MX10	208.00.0060
H65.208.50.0080	SK 50	8	80	28	35	8MX10	208.00.0080
H65.208.50.0100	SK 50	10	80	35	39	10MX12	208.00.0100
H65.208.50.0120	SK 50	12	80	42	44	12MX1,5X16	208.00.0120
H65.208.50.0140	SK 50	14	60	44	44	12MX1,5X16	208.00.0120
H65.208.50.0160	SK 50	16	80	48	47	14MX1,5X16	208.00.0140
H65.208.50.0180	SK 50	16	60	50	47	14MX1,5X16	208.00.0160
H65.208.50.0200	SK 50	20	80	52	49	16MX1,5X16	208.00.0160
H65.208.50.0250	SK 50	25	100	65	54	18MX1,5X20	208.00.0180
H65.208.50.0320	SK 50	32	100	72	58	20MX1,5X20	208.00.0200
H65.208.50.0400	SK 50	40	115	80	68	20MX1,5X20	208.00.0200
H65.208.50.0500	SK 50	50	115	90	78	24MX2X20	208.00.0240



ACCESSORI PER MACCHINE UTENSILI

Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-fraises à queue cylindrique DIN 6359 B

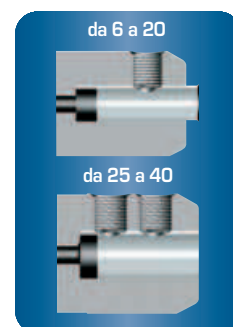
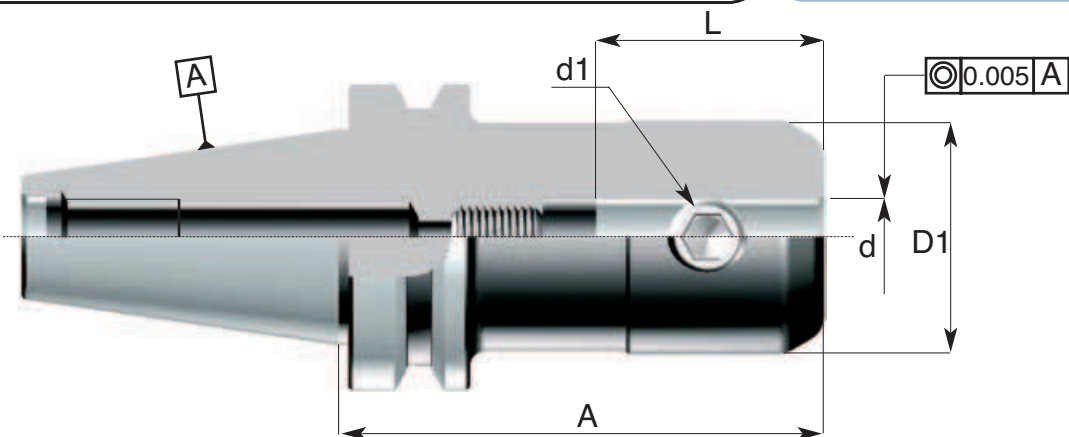


Prebilanciato
 Prebalanced
G6.3 / 8000rpm



MAS 403 BT

ART: 208 BT



3.
11

Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
063.208.40.0062	SK 40	6	100	25	35	M6X10	208.00.0060
063.208.40.0064	SK 40	6	150	25	35	M6X10	208.00.0060
063.208.40.0082	SK 40	8	100	28	35	M8X10	208.00.0080
063.208.40.0084	SK 40	8	150	28	35	M8X10	208.00.0080
063.208.40.0102	SK 40	10	100	35	39	M10X12	208.00.0100
063.208.40.0104	SK 40	10	150	35	39	M10X12	208.00.0100
063.208.40.0122	SK 40	12	100	42	44	M12X1,5X16	208.00.0120
063.208.40.0124	SK 40	12	150	42	44	M12X1,5X16	208.00.0120
063.208.40.0142	SK 40	14	100	44	44	M12X1,5X16	208.00.0120
063.208.40.0144	SK 40	14	150	44	44	M12X1,5X16	208.00.0120
063.208.40.0162	SK 40	16	100	48	47	M14X1,5X16	208.00.0140
063.208.40.0164	SK 40	16	150	48	47	M14X1,5X16	208.00.0140
063.208.40.0182	SK 40	18	100	50	47	M14X1,5X16	208.00.0160
063.208.40.0184	SK 40	18	150	50	47	M14X1,5X16	208.00.0160
063.208.40.0202	SK 40	20	100	52	49	M16X1,5X16	208.00.0180
063.208.40.0204	SK 40	20	150	52	49	M16X1,5X16	208.00.0180
063.208.40.0254	SK 40	25	150	65	54	M18X1,5X20	208.00.0180
063.208.40.0324	SK 40	32	150	72	58	M20X1,5X20	208.00.0200
065.208.50.0062	SK 50	6	100	25	35	M6X10	208.00.0060
065.208.50.0064	SK 50	6	150	25	35	M6X10	208.00.0060
065.208.50.0082	SK 50	8	100	28	35	M8X10	208.00.0080
065.208.50.0084	SK 50	8	150	28	35	M8X10	208.00.0080
065.208.50.0102	SK 50	10	100	35	39	M10X12	208.00.0100
065.208.50.0104	SK 50	10	150	35	39	M10X12	208.00.0100
065.208.50.0122	SK 50	12	100	42	44	M12X1,5X16	208.00.0120
065.208.50.0124	SK 50	12	150	42	44	M12X1,5X16	208.00.0120
063.208.50.0142	SK 50	14	100	44	44	M12X1,5X16	208.00.0120
065.208.50.0144	SK 50	14	150	44	44	M12X1,5X16	208.00.0120
065.208.50.0162	SK 50	16	100	48	47	M14X1,5X16	208.00.0140
065.208.50.0164	SK 50	16	150	48	47	M14X1,5X16	208.00.0140
065.208.50.0182	SK 50	18	100	50	47	M14X1,5X16	208.00.0140
065.208.50.0184	SK 50	18	150	50	47	M14X1,5X16	208.00.0140
065.208.50.0202	SK 50	20	100	52	49	M16X1,5X16	208.00.0160
065.208.50.0204	SK 50	20	150	52	49	M16X1,5X16	208.00.0160
065.208.50.0252	SK 50	25	100	65	54	M18X1,5X20	208.00.0180
065.208.50.0254	SK 50	25	150	65	54	M18X1,5X20	208.00.0180
065.208.50.0324	SK 50	32	150	72	58	M20X1,5X20	208.00.0200
065.208.50.0404	SK 50	40	150	80	68	M20X1,5X20	208.00.0200



3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 B



Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
Spannfutter Weldon für Zylinderschäfte DIN 6359 B
Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

ACCESSORI PER MACCHINE UTENSILI



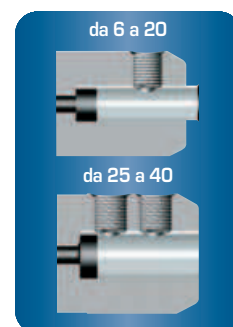
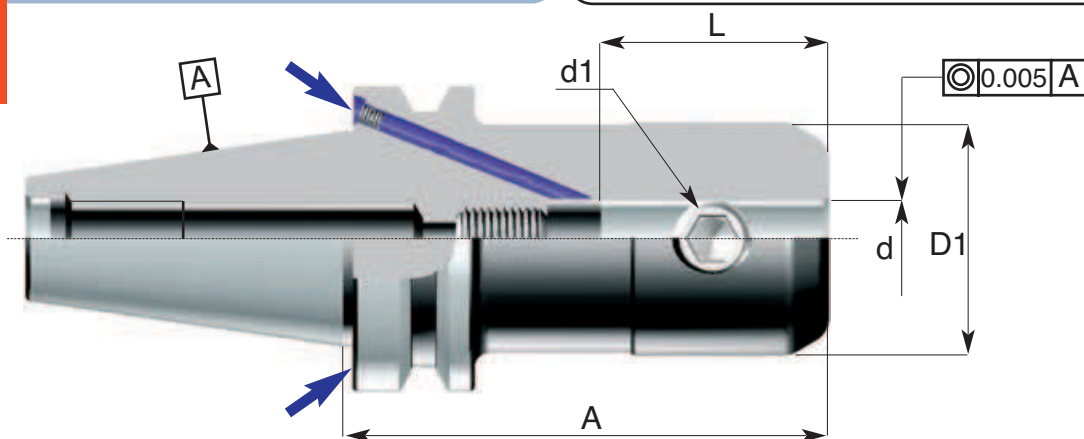
MAS 403 BT/B



Prebilanciato
Prebalanced
G6.3 / 8000rpm

ART: 208 BT/B

3.
12



Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
H63.208.40.0062	SK 40	6	100	25	35	M6X10	208.00.0060
H63.208.40.0064	SK 40	6	150	25	35	M6X10	208.00.0060
H63.208.40.0082	SK 40	8	100	28	35	M8X10	208.00.0080
H63.208.40.0084	SK 40	8	150	28	35	M8X10	208.00.0080
H63.208.40.0102	SK 40	10	100	35	39	M10X12	208.00.0100
H63.208.40.0104	SK 40	10	150	35	39	M10X12	208.00.0100
H63.208.40.0122	SK 40	12	100	42	44	M12X1,5X16	208.00.0120
H63.208.40.0124	SK 40	12	150	42	44	M12X1,5X16	208.00.0120
H63.208.40.0142	SK 40	14	100	44	44	M12X1,5X16	208.00.0120
H63.208.40.0144	SK 40	14	150	44	44	M12X1,5X16	208.00.0120
H63.208.40.0162	SK 40	16	100	48	47	M14X1,5X16	208.00.0140
H63.208.40.0164	SK 40	16	150	48	47	M14X1,5X16	208.00.0140
H63.208.40.0182	SK 40	18	100	50	47	M14X1,5X16	208.00.0160
H63.208.40.0184	SK 40	18	150	50	47	M14X1,5X16	208.00.0160
H63.208.40.0202	SK 40	20	100	52	49	M16X1,5X16	208.00.0180
H63.208.40.0254	SK 40	25	150	65	54	M18X1,5X20	208.00.0180
H63.208.40.0324	SK 40	32	150	72	58	M20X1,5X20	208.00.0200
H65.208.50.0062	SK 50	6	100	25	35	M6X10	208.00.0060
H65.208.50.0064	SK 50	6	150	25	35	M6X10	208.00.0060
H65.208.50.0082	SK 50	8	100	28	35	M8X10	208.00.0080
H65.208.50.0084	SK 50	8	150	28	35	M8X10	208.00.0080
H65.208.50.0102	SK 50	10	100	35	39	M10X12	208.00.0100
H65.208.50.0104	SK 50	10	150	35	39	M10X12	208.00.0100
H65.208.50.0122	SK 50	12	100	42	44	M12X1,5X16	208.00.0120
H65.208.50.0124	SK 50	12	150	42	44	M12X1,5X16	208.00.0120
H63.208.50.0142	SK 50	14	100	44	44	M12X1,5X16	208.00.0120
H65.208.50.0144	SK 50	14	150	44	44	M12X1,5X16	208.00.0120
H65.208.50.0162	SK 50	16	100	48	47	M14X1,5X16	208.00.0140
H65.208.50.0164	SK 50	16	150	48	47	M14X1,5X16	208.00.0140
H65.208.50.0182	SK 50	18	100	50	47	M14X1,5X16	208.00.0140
H65.208.50.0184	SK 50	18	150	50	47	M14X1,5X16	208.00.0140
H65.208.50.0202	SK 50	20	100	52	49	M16X1,5X16	208.00.0160
H65.208.50.0204	SK 50	20	150	52	49	M16X1,5X16	208.00.0160
H65.208.50.0254	SK 50	25	150	65	54	M18X1,5X20	208.00.0180
H65.208.50.0324	SK 50	32	150	72	58	M20X1,5X20	208.00.0200
H65.208.50.0404	SK 50	40	150	80	68	M20X1,5X20	208.00.0200



ACCESSORI PER MACCHINE UTENSILI

Portafrese per calettamento a caldo secondo DIN 69882-8

Shrink-fit chucks DIN 69882-8

Schrumpfutter DIN 69882-8

Mandrins de frettage DIN 69882-8

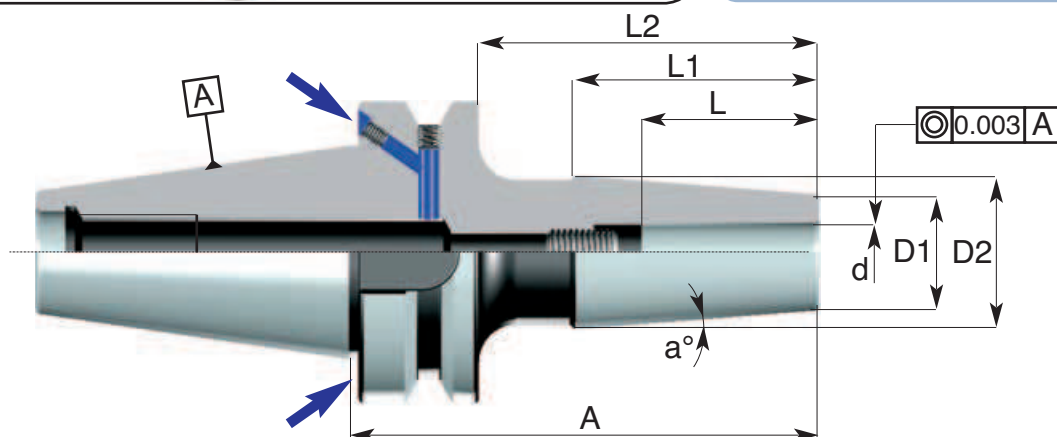


Bilanciatura fine
Fine balancing



MAS 403 BT/B

ART: H206 BT/B



3.
13



Codice di ord Code	SK	d h6	D1	D2	a°	L	L1	L2	A	bilanciatura balancing
H63.206.40.0030	SK 40	3	9	16	4.5°	15	44	54	81	G6.3/20000RPM
H63.206.40.0040	SK 40	4	9	16	4.5°	15	44	54	81	G6.3/20000RPM
H63.206.40.0050	SK 40	5	12	19	4.5°	20	44	54	81	G6.3/20000RPM
H63.206.40.0060	SK 40	6	12	19	4.5°	27	44	64	91	G6.3/15000RPM
H63.206.40.0080	SK 40	8	15	23	4.5°	37	44	64	91	G6.3/15000RPM
H63.206.40.0100	SK 40	10	19	27	4.5°	37	51	66	93	G6.3/15000RPM
H63.206.40.0120	SK 40	12	24	32	4.5°	37	51	71	98	G6.3/15000RPM
H63.206.40.0140	SK 40	14	27	34	4.5°	40	44	71	98	G6.3/15000RPM
H63.206.40.0160	SK 40	16	27	34	4.5°	40	44	71	98	G6.3/15000RPM
H63.206.40.0200	SK 40	20	33	42	4.5°	45	57	81	108	G6.3/15000RPM
H65.206.50.0030	SK 50	3	9	16	4.5°	15	44	54	92	G6.3/20000RPM
H65.206.50.0040	SK 50	4	9	16	4.5°	15	44	54	92	G6.3/20000RPM
H65.206.50.0050	SK 50	5	12	19	4.5°	20	44	54	92	G6.3/20000RPM
H65.206.50.0060	SK 50	6	12	19	4.5°	27	44	64	102	G6.3/15000RPM
H65.206.50.0080	SK 50	8	15	23	4.5°	37	44	64	102	G6.3/15000RPM
H65.206.50.0100	SK 50	10	19	27	4.5°	37	51	66	104	G6.3/15000RPM
H65.206.50.0120	SK 50	12	24	32	4.5°	37	51	71	109	G6.3/15000RPM
H65.206.50.0140	SK 50	14	27	34	4.5°	40	44	71	109	G6.3/15000RPM
H65.206.50.0160	SK 50	16	27	34	4.5°	40	44	71	109	G6.3/15000RPM
H65.206.50.0200	SK 50	20	33	42	4.5°	45	57	81	119	G6.3/15000RPM

3. MANDRINI a cono ISO MAS 403 BT

TOOL HOLDERS with ISO cone MAS 403 BT



Portafrese per calettamento a caldo secondo DIN 69882-8
 Shrink-fit chucks DIN 69882-8
 Schrumpfutter DIN 69882-8
 Mandrins de frettage DIN 69882-8

ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT/B

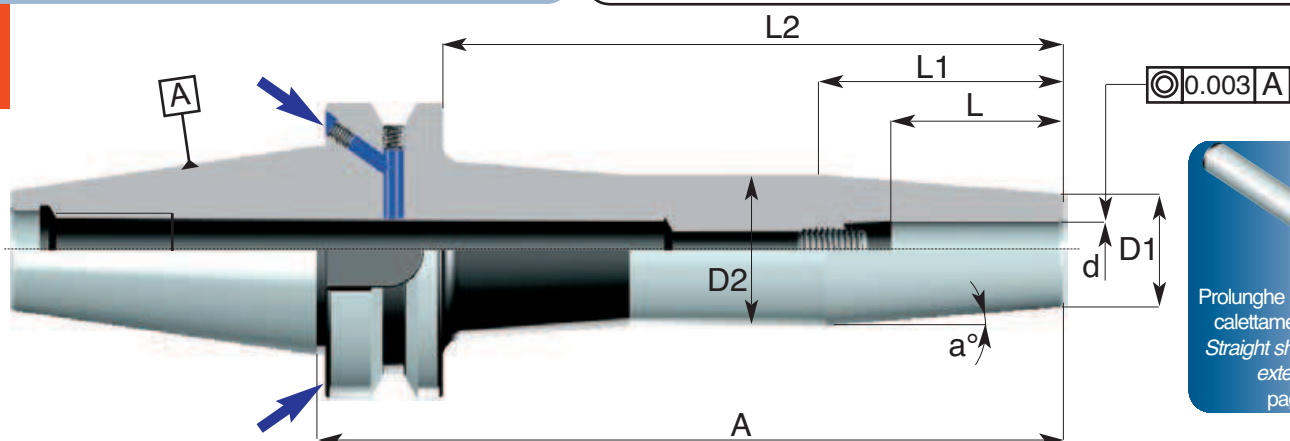


Bilanciatura fine
 Fine balancing



ART: H206 BT/B

3.
14



Prolunghe cilindriche per calettamento a caldo
 Straight shank shrink-fit extensions
 pag: 9.4

Codice di ord Code	SK	d h6	D1	D2	a°	L	L1	L2	A	bilanciatura balancing
H63.206.40.0062	SK 40	6	12	22	4.5°	24	64	133	160	G6.3/2000ORPM
H63.206.40.0082	SK 40	8	15	23	4.5°	34	50	133	160	G6.3/2000ORPM
H63.206.40.0102	SK 40	10	19	27	4.5°	37	51	133	160	G6.3/2000ORPM
H63.206.40.0122	SK 40	12	24	32	4.5°	37	51	133	160	G6.3/2000ORPM
H63.206.40.0162	SK 40	16	27	34	4.5°	40	44	133	160	G6.3/2000ORPM
H63.206.40.0202	SK 40	20	33	42	4.5°	45	57	133	160	G6.3/2000ORPM
H65.206.50.0032	SK 50	3	9	16	4.5°	15	44	122	160	G6.3/1500ORPM
H65.206.50.0042	SK 50	4	9	16	4.5°	15	44	122	160	G6.3/1500ORPM
H65.206.50.0052	SK 50	5	12	19	4.5°	20	44	122	160	G6.3/1500ORPM
H65.206.50.0062	SK 50	6	12	22	4.5°	27	63	122	160	G6.3/1500ORPM
H65.206.50.0082	SK 50	8	15	23	4.5°	34	50	122	160	G6.3/1500ORPM
H65.206.50.0102	SK 50	10	19	27	4.5°	37	50	122	160	G6.3/1500ORPM
H65.206.50.0122	SK 50	12	24	32	4.5°	37	51	122	160	G6.3/1500ORPM
H65.206.50.0142	SK 50	14	27	34	4.5°	40	44	122	160	G6.3/1500ORPM
H65.206.50.0162	SK 50	16	27	34	4.5°	40	44	122	160	G6.3/1500ORPM
H65.206.50.0202	SK 50	20	33	42	4.5°	45	57	122	160	G6.3/1500ORPM
H65.206.50.0252	SK 50	25	44	53	4.5°	48	57	122	160	G6.3/1500ORPM
H65.206.50.0322	SK 50	32	44	53	4.5°	48	57	122	160	G6.3/1500ORPM

ACCESSORI PER MACCHINE UTENSILI

Mandrini a chiusura idraulica HYDRO-DELTA
 Hydraulic clamping chucks HYDRO DELTA
 Dehnspannfutter HYDRO DELTA
 Mandrins expansibles HYDRO DELTA



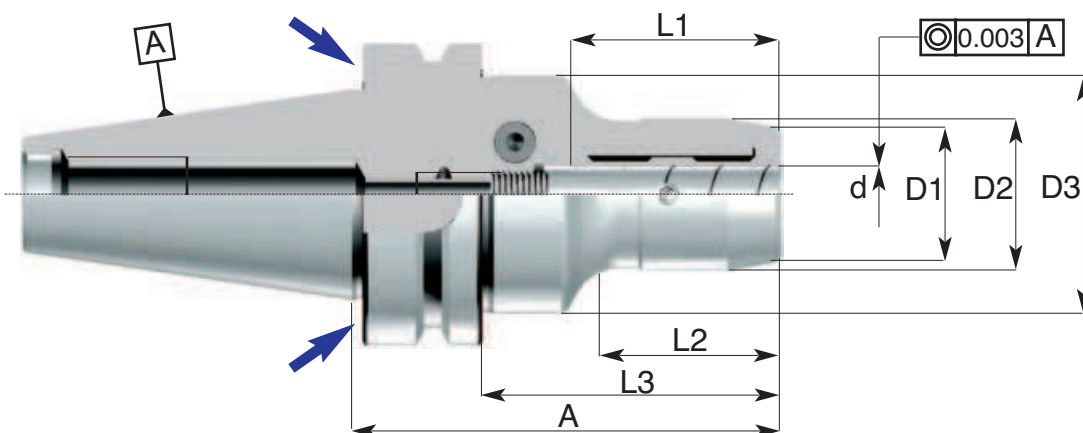
Bilanciatura fine
 Fine balancing



MAS 403 BT/B

ART: H63.207 BT/B

3.
15



Codice di ord Code	SK	d	D1	D2	D3	L1	L2	L3	A	bilanciatura balancing
H63.207.40.0060	SK 40	6	22	26	50	35	38	63	90	G6.3/15000RPM
H63.207.40.0080	SK 40	8	24	28	50	35	38	63	90	G6.3/15000RPM
H63.207.40.0100	SK 40	10	26	30	50	35	38	63	90	G6.3/15000RPM
H63.207.40.0120	SK 40	12	28	32	50	44	40	63	90	G6.3/15000RPM
H63.207.40.0140	SK 40	14	30	34	50	44	40	63	90	G6.3/15000RPM
H63.207.40.0160	SK 40	16	34	38	50	47	47	65	92	G6.3/15000RPM
H63.207.40.0200	SK 40	20	38	42	50	49	47	65	92	G6.3/15000RPM
H65.207.50.0060	SK 50	6	22	26	50	35	38	63	101	G6.3/15000RPM
H65.207.50.0080	SK 50	8	24	28	50	35	38	63	101	G6.3/15000RPM
H65.207.50.0100	SK 50	10	26	30	50	35	38	63	101	G6.3/15000RPM
H65.207.50.0120	SK 50	12	28	32	50	44	40	63	101	G6.3/15000RPM
H65.207.50.0140	SK 50	14	30	34	50	44	40	63	101	G6.3/15000RPM
H65.207.50.0160	SK 50	16	34	38	50	47	47	65	103	G6.3/15000RPM
H65.207.50.0200	SK 50	20	38	42	50	49	47	65	103	G6.3/15000RPM
H65.207.50.0250	SK 50	25	46	50	70	54	55	80	118	G6.3/15000RPM
H65.207.50.0320	SK 50	32	52	58	70	58	62	85	123	G6.3/15000RPM

3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Mandrini a chiusura idraulica HYDRO-DELTA
Hydraulic clamping chucks HYDRO DELTA
Dehnspannfutter HYDRO DELTA
Mandrins expansibles HYDRO DELTA

ACCESSORI PER MACCHINE UTENSILI

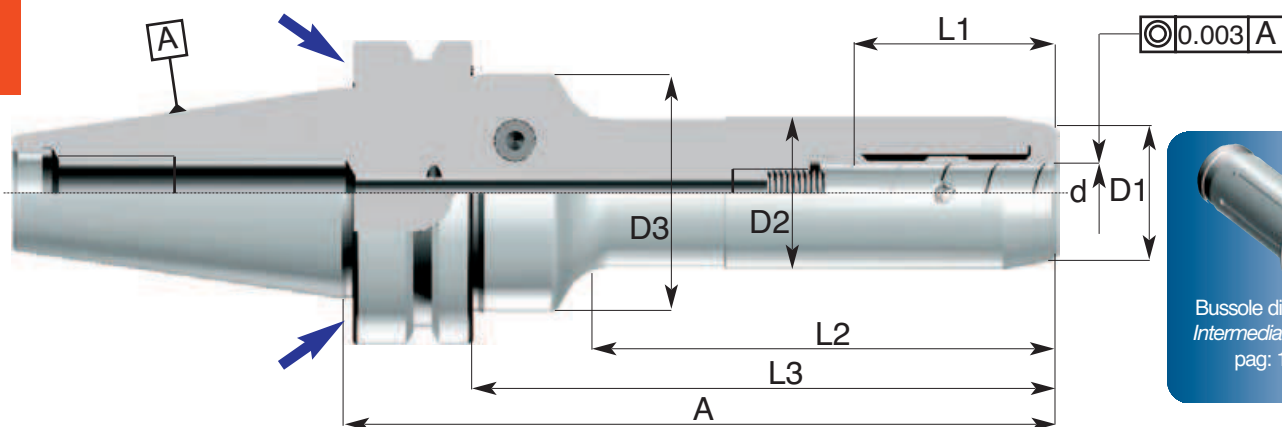
MAS 403 BT/B



Bilanciatura fine
Fine balancing



ART: H63.207 BT/B



Codice di ord Code	SK	d	D1	D2	D3	L1	L2	L3	A	bilanciatura balancing
H63.207.40.0062	SK 40	6	22	26	50	35	98	123	150	G6.3/15000RPM
H63.207.40.0064	SK 40	6	22	26	50	35	148	173	200	G6.3/15000RPM
H63.207.40.0082	SK 40	8	24	28	50	35	98	123	150	G6.3/15000RPM
H63.207.40.0084	SK 40	8	24	28	50	35	148	173	200	G6.3/15000RPM
H63.207.40.0102	SK 40	10	26	30	50	35	98	123	150	G6.3/15000RPM
H63.207.40.0104	SK 40	10	26	30	50	35	148	173	200	G6.3/15000RPM
H63.207.40.0122	SK 40	12	28	32	50	44	98	123	150	G6.3/15000RPM
H63.207.40.0124	SK 40	12	28	32	50	44	148	173	200	G6.3/15000RPM
H63.207.40.0142	SK 40	14	30	34	50	44	98	123	150	G6.3/15000RPM
H63.207.40.0144	SK 40	14	30	34	50	44	148	173	200	G6.3/15000RPM
H63.207.40.0162	SK 40	16	34	38	50	47	98	123	150	G6.3/15000RPM
H63.207.40.0164	SK 40	16	34	38	50	47	148	173	200	G6.3/15000RPM
H63.207.40.0202	SK 40	20	38	42	50	47	98	123	150	G6.3/15000RPM
H63.207.40.0204	SK 40	20	38	42	50	47	148	173	200	G6.3/15000RPM
H65.207.50.0062	SK 50	6	22	26	50	35	87	112	150	G6.3/15000RPM
H65.207.50.0064	SK 50	6	22	26	50	35	137	162	200	G6.3/15000RPM
H65.207.50.0082	SK 50	8	24	28	50	35	87	112	150	G6.3/15000RPM
H65.207.50.0084	SK 50	8	24	28	50	35	137	162	200	G6.3/15000RPM
H65.207.50.0102	SK 50	10	26	30	50	35	87	112	150	G6.3/15000RPM
H65.207.50.0104	SK 50	10	26	30	50	35	137	162	200	G6.3/15000RPM
H65.207.50.0122	SK 50	12	28	32	50	44	87	112	150	G6.3/15000RPM
H65.207.50.0124	SK 50	12	28	32	50	44	137	162	200	G6.3/15000RPM
H65.207.50.0142	SK 50	14	30	34	50	44	87	112	150	G6.3/15000RPM
H65.207.50.0144	SK 50	14	30	34	50	44	137	162	200	G6.3/15000RPM
H65.207.50.0162	SK 50	16	34	38	50	47	87	112	150	G6.3/15000RPM
H65.207.50.0164	SK 50	16	34	38	50	47	137	162	200	G6.3/15000RPM
H65.207.50.0202	SK 50	20	38	42	50	47	87	112	150	G6.3/15000RPM
H65.207.50.0204	SK 50	20	38	42	50	47	137	162	200	G6.3/15000RPM
H65.207.50.0252	SK 50	25	46	50	70	54	87	112	150	G6.3/15000RPM
H65.207.50.0254	SK 50	25	46	50	70	54	137	162	200	G6.3/15000RPM
H65.207.50.0322	SK 50	32	52	58	70	58	87	112	150	G6.3/15000RPM
H65.207.50.0324	SK 50	32	52	58	70	58	137	162	200	G6.3/15000RPM

ACCESSORI PER MACCHINE UTENSILI

Mandrini portatestine filetate
 Chucks for threaded heads
 Mandrins pour têtes filetées
 Spannfutter für Gewindeköpfe



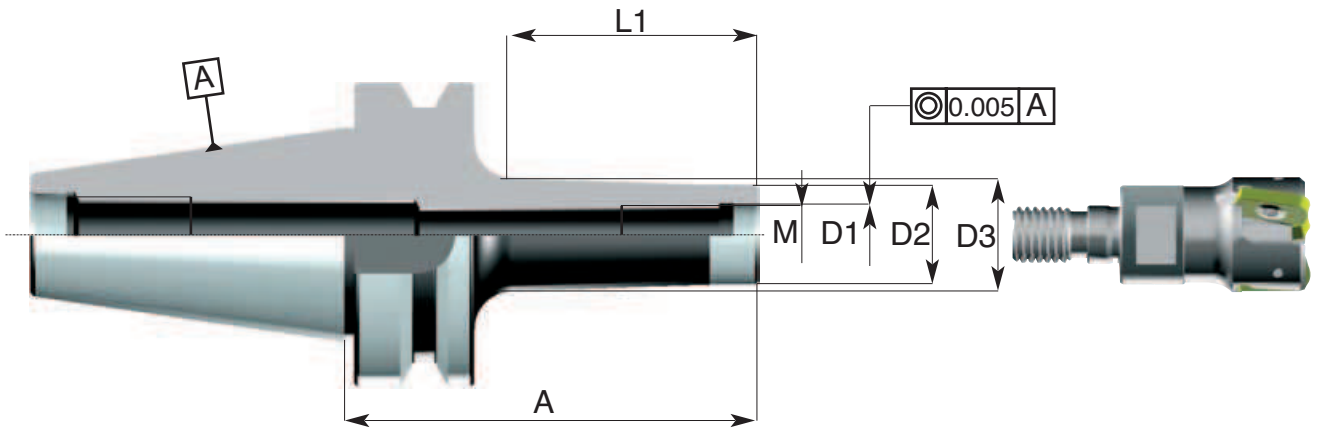
Bilanciatura fine
 Fine balancing



MAS 403 BT

ART: 267 BT

3.
17



Codice di ord Code	SK	M	D1	D2	D3	L1	A	bilanciatura balancing
063.267.40.0062	SK 40	M6	6.5	9.7	20	51	86	G6.3/15000RPM
063.267.40.0064	SK 40	M6	6.5	9.7	23	71	106	G6.3/15000RPM
063.267.40.0082	SK 40	M8	8.5	12.7	23	51	86	G6.3/15000RPM
063.267.40.0084	SK 40	M8	8.5	12.7	23	71	106	G6.3/15000RPM
063.267.40.0100	SK 40	M10	10.5	17.7	20	31	66	G6.3/15000RPM
063.267.40.0102	SK 40	M10	10.5	17.7	25	51	86	G6.3/15000RPM
063.267.40.0104	SK 40	M10	10.5	17.7	28	71	106	G6.3/15000RPM
063.267.40.0106	SK 40	M10	10.5	17.7	28	91	126	G6.3/15000RPM
063.267.40.0120	SK 40	M12	12.5	20.7	24	31	66	G6.3/15000RPM
063.267.40.0122	SK 40	M12	12.5	20.7	24	51	86	G6.3/15000RPM
063.267.40.0124	SK 40	M12	12.5	20.7	31	71	106	G6.3/15000RPM
063.267.40.0126	SK 40	M12	12.5	20.7	31	91	126	G6.3/15000RPM
063.267.40.0160	SK 40	M16	17	28.7	34	31	66	G6.3/15000RPM
063.267.40.0162	SK 40	M16	17	28.7	34	51	86	G6.3/15000RPM
063.267.40.0164	SK 40	M16	17	28.7	34	71	106	G6.3/15000RPM
063.267.40.0166	SK 40	M16	17	28.7	34	91	126	G6.3/15000RPM
063.267.40.0168	SK 40	M16	17	28.7	34	150	185	G6.3/15000RPM
063.267.40.0169	SK 40	M16	17	28.7	34	200	235	G6.3/15000RPM

3. MANDRINI a cono ISO MAS 403 BT

TOOL HOLDERS with ISO cone MAS 403 BT



Mandrini portatestine filettate
Chucks for threaded heads
Mandrins pour têtes filetées
Spannfutter für Gewindeköpfe

ACCESSORI PER MACCHINE UTENSILI

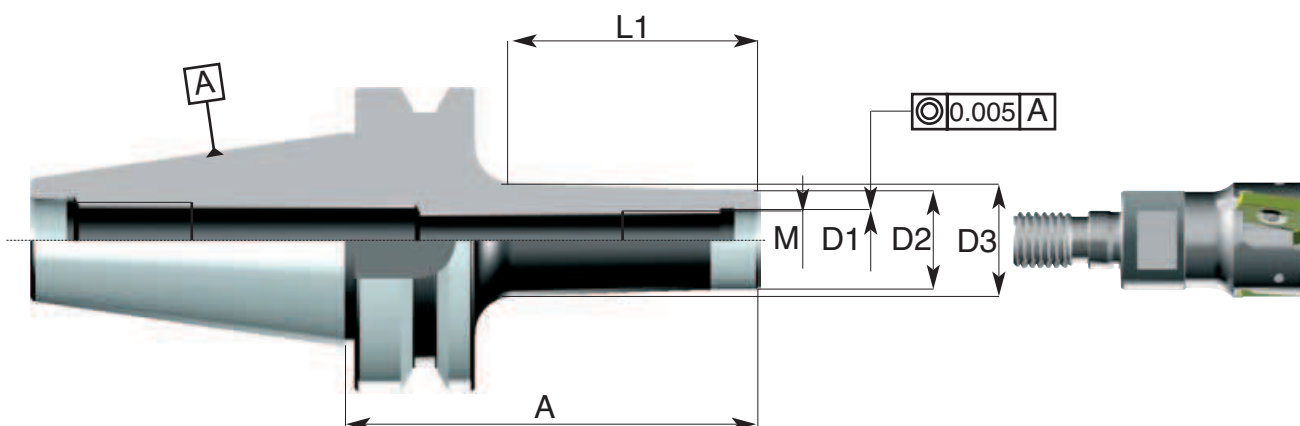


MAS 403 BT



Bilanciatura fine
Fine balancing

ART: 267 BT



Codice di ord Code	SK	M	D1	D2	D3	L1	A	bilanciatura balancing
065.267.50.0100	SK 50	M10	10.5	17.7	20	31	77	G6.3/15000RPM
065.267.50.0102	SK 50	M10	10.5	17.7	25	51	97	G6.3/15000RPM
065.267.50.0104	SK 50	M10	10.5	17.7	28	71	117	G6.3/15000RPM
065.267.50.0106	SK 50	M10	10.5	17.7	31	100	146	G6.3/15000RPM
065.267.50.0120	SK 50	M12	12.5	20.7	24	31	77	G6.3/15000RPM
065.267.50.0122	SK 50	M12	12.5	20.7	24	51	97	G6.3/15000RPM
065.267.50.0124	SK 50	M12	12.5	20.7	31	71	117	G6.3/15000RPM
065.267.50.0126	SK 50	M12	12.5	20.7	31	101	147	G6.3/15000RPM
065.267.50.0128	SK 50	M12	12.5	20.7	41	150	196	G6.3/15000RPM
065.267.50.0160	SK 50	M16	17	28.7	29	31	77	G6.3/15000RPM
065.267.50.0162	SK 50	M16	17	28.7	34	51	97	G6.3/15000RPM
065.267.50.0164	SK 50	M16	17	28.7	34	71	117	G6.3/15000RPM
065.267.50.0166	SK 50	M16	17	28.7	41	100	146	G6.3/15000RPM
065.267.50.0168	SK 50	M16	17	28.7	52	150	196	G6.3/15000RPM
065.267.50.0169	SK 50	M16	17	28.7	57	200	246	G6.3/15000RPM

ACCESSORI PER MACCHINE UTENSILI



Mandriani portamorsetti autoserranti DIN 238

Taper shafts for drill chucks DIN 238

Bohrfutteraufnahmen DIN 238

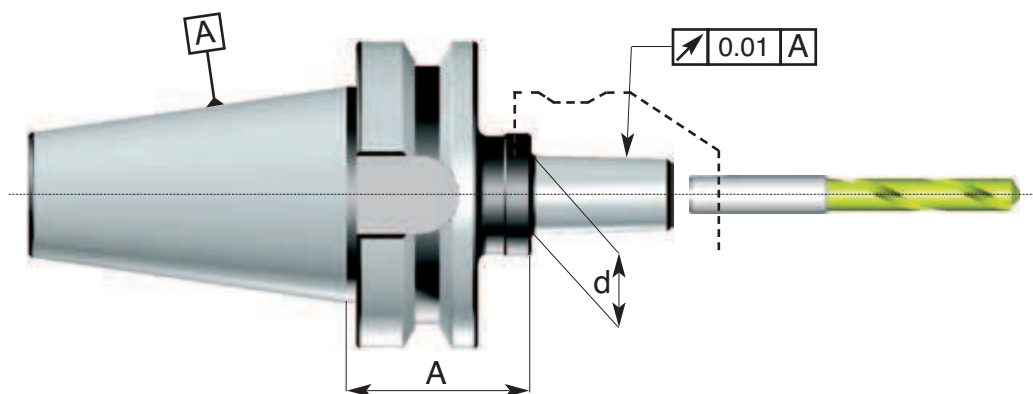
Porte-mandrins de perceuses DIN 238



MAS 403 BT

ART: 220 BT

3.
19



Codice di ord Code	SK	Tipo Din	A	d
060.220.30.0120	SK 30	B 12	35	12.065
060.220.30.0160	SK 30	B 16	35	15.733
061.220.35.0120	SK 35	B 12	35	12.065
061.220.35.0160	SK 35	B 16	35	15.733
063.220.40.0120	SK 40	B 12	50	12.065
063.220.40.0160	SK 40	B 16	50	15.733
063.220.40.0180	SK 40	B 18	50	17.780
065.220.50.0160	SK 50	B 16	70	15.733
065.220.50.0180	SK 50	B 18	70	17.780

3. MANDRINI a cono ISO MAS 403 BT

TOOL HOLDERS with ISO cone MAS 403 BT

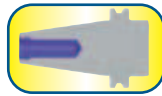


Mandrini portapunte integrali
 Integral drill chucks
 Kurzbohrfutter
 Mandrins porte-forets intégraux

ACCESSORI PER MACCHINE UTENSILI

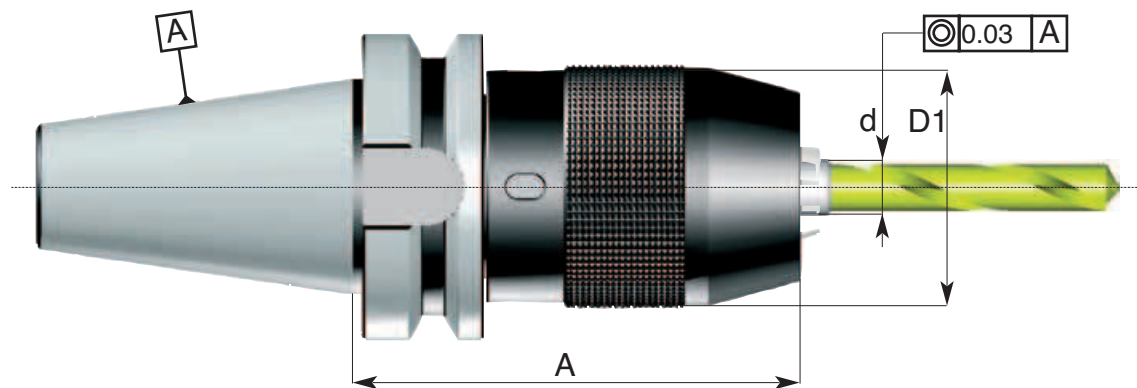


MAS 403 BT



ART: 221 BT

3.
20



Codice di ord Code	SK	A	D	capacità "d" Capacity range "d"
063.221.40.1301	SK 40	95	50	1-13
063.221.40.1603	SK 40	100	57	3-16
065.221.50.1301	SK 50	105	50	1-13
065.221.50.1603	SK 50	108	57	3-16

ADATTI SOLO A ROTAZIONE DESTRA
 SUITABLE FOR RIGHT ROTATION ONLY

Forniti completi di chiave
 Supplied together with key

ACCESSORI PER MACCHINE UTENSILI

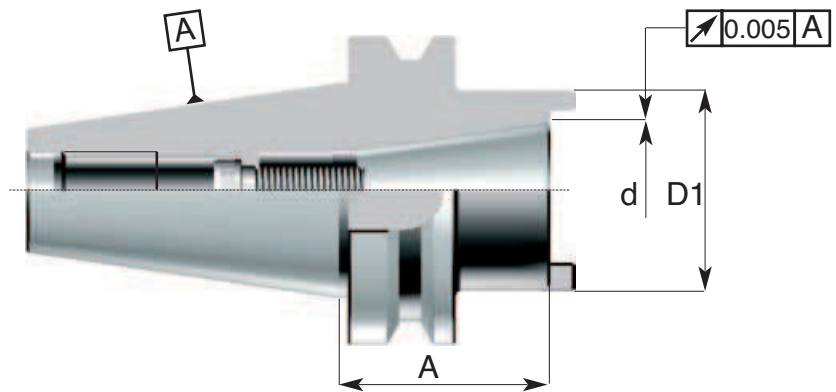
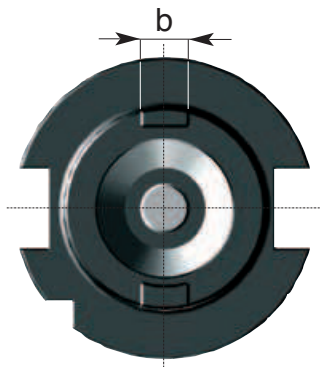


Riduzioni da cono BT a cono ISO DIN 2080 e DIN 69871
 Adaptors sleeves BT to ISO cone DIN 2080 and DIN 69871
 Zwischenhülsen BT zu ISO Steilkegel DIN 2080 und DIN 69871
 Douilles de réduction cône BT à ISO DIN 2080 et DIN 69871



MAS 403 BT

ART: 250 BT



3.
21

Codice di ord Code	BT	SK	d	A	D1	b	Vite Screw	Ghiera Nut
063.250.40.0300	SK 40	SK 30	31,75	50	52	15,9	252.00.1230.B	252.00.1810
065.250.50.0300	SK 50	SK 30	31,75	50	52	15,9	252.00.1230	261.24.0400
065.250.50.0400	SK 50	SK 40	44,45	70	70	15,9	252.00.1640.B	261.24.0400
065.250.50.0450	SK 50	SK 45	57,17	100	80	19	252.00.2050.B	252.00.3013

per DIN 69871 specificare nell'ordine la vite
 for DIN 69871 specify the screw code in the order



Codice di ord Code	Vite per DIN 69871 Screw for DIN 69871
063.250.40.0300	252.00.1250.B
065.250.50.0300	252.00.1250
065.250.50.0400	252.00.1670.B
065.250.50.0450	252.00.2080.B



3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Riduzioni da cono ISO a cono ISO naso mandrino DIN 2079

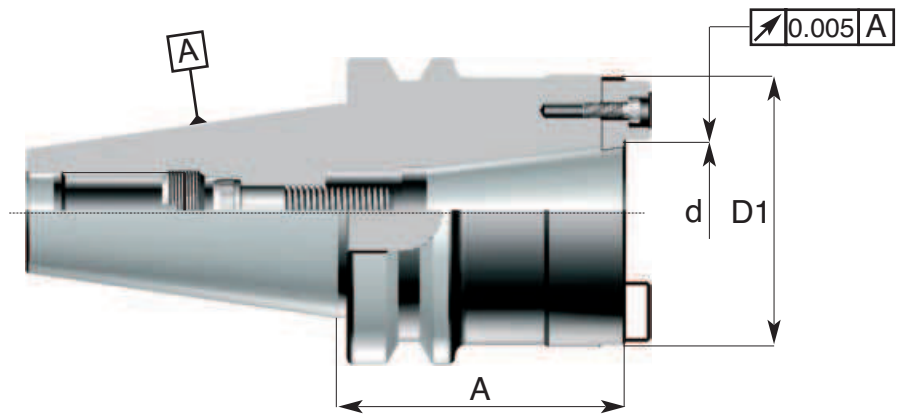
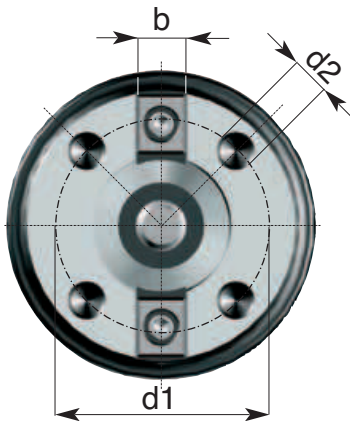
Adaptors sleeves ISO to ISO cone with DIN 2079 spindle nose
Zwischenhülsen ISO zu ISO Steilkegel mit DIN 2079 Spindelkopf
Douilles de réduction cône ISO à cône ISO avec nez de broche DIN 2079

ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT



ART:252 BT



Codice di ord Code	BT	SK	A	D1 h6	d1	d2	b	Tassello Tenon	Vite Screw	Ghiera Nut
063.252.40.0300	SK 40	SK 30	55	69.832	54	M10	15.9	192.01	252.00.1245.B	252.00.1230
065.252.50.0400	SK 50	SK 40	75	88.882	66.70	M12	15.9	192.02	252.00.1640.B	261.24.0400
065.252.50.0450	SK 50	SK 45	90	101.60	80.00	M12	19	192.45.0190	252.00.2050	252.00.3013

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ACCESSORI PER MACCHINE UTENSILI



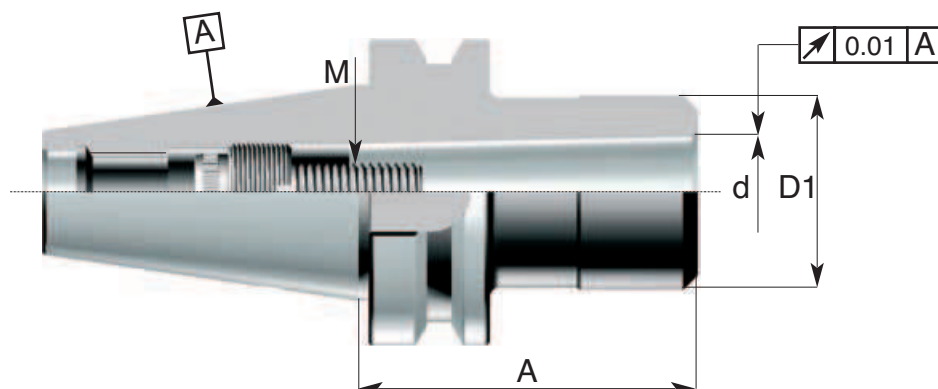
Riduzioni da cono ISO a cono Morse DIN 6364 B per frese con vite interna
 Morse taper adaptors sleeves for cutters with internal screw - DIN 6364 B
 Zwischenhülsen für Morsekegel mit Auzugsgewinde - DIN 6364 B
 Douilles de réduction à cône Morse pour fraises avec vis - DIN 6364 B



MAS 403 BT

ART: 261 BT

3.
23



Codice di ord Code	SK	Cono Morse	d	A	D1	M	Vite Screw	Ghiera Nut
063.261.40.0100	SK 40	Morse 1	12.065	40	25	6M	261.00.0625	261.16.0100
063.261.40.0200	SK 40	Morse 2	17.780	50	32	10M	261.00.1030.B	261.16.0200
063.261.40.0300	SK 40	Morse 3	23.825	70	40	12M	261.00.1240	261.00.1220
063.261.40.0400	SK 40	Morse 4	31.267	95	50	16M	261.00.1650.E	261.00.1626
065.261.50.0100	SK 50	Morse 1	12.065	50	25	6M	261.00.0645	261.24.0100
065.261.50.0200	SK 50	Morse 2	17.780	50	32	10M	261.00.1040	261.24.0200
065.261.50.0300	SK 50	Morse 3	23.825	60	40	12M	261.00.1240	261.24.0300
065.261.50.0400	SK 50	Morse 4	31.267	80	50	16M	261.00.1645B	261.24.0400
065.261.50.0500	SK 50	Morse 5	44.399	100	65	20M	261.00.2050	261.00.2033



3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Riduzioni da cono ISO a cono Morse per punte tipo normale e prolungato

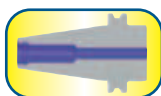
Adaptors sleeves from ISO cone to Morse cone for tools with driving shank

Zwischenhülsen mit Steilkegel für Werkzeuge mit Morsekegel und Austrablappen

Douilles de réduction de cône ISO à cône Morse pour outils munies de dents d'entraînement

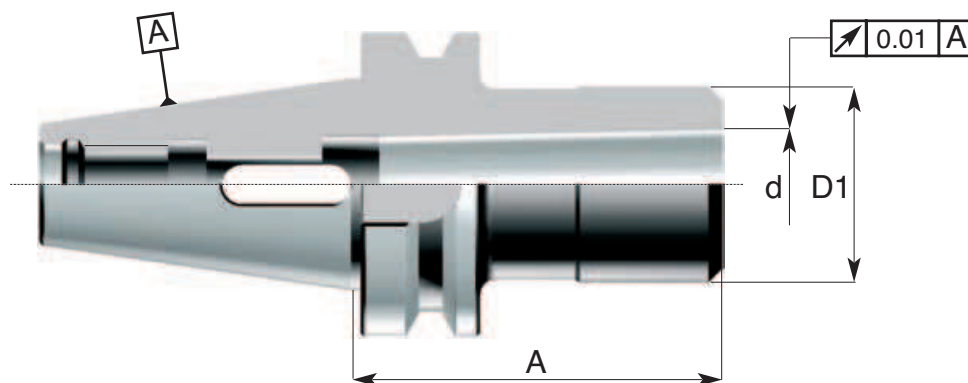
ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT



ART: 262 BT

3.
24



Codice di ord Code	SK	Cono Morse	d	A	D1	Combi*
060.262.30.0100	SK 30	Morse 1	12.065	50	25	PF
060.262.30.0200	SK 30	Morse 2	17.780	60	30	-
060.262.30.0300	SK 30	Morse 3	23.825	75	40	-
063.262.40.0100	SK 40	Morse 1	12.065	45	25	PF
063.262.40.0102	SK 40	Morse 1	12.065	120	25	PF
063.262.40.0200	SK 40	Morse 2	17.780	50	32	PF
063.262.40.0202	SK 40	Morse 2	17.780	135	32	PF
063.262.40.0300	SK 40	Morse 3	23.825	70	40	PF
063.262.40.0302	SK 40	Morse 3	23.825	150	40	-
063.262.40.0400	SK 40	Morse 4	31.267	90	50	-
063.262.40.0402	SK 40	Morse 4	31.267	165	50	-
065.262.50.0100	SK 50	Morse 1	12.065	45	25	PF
065.262.50.0102	SK 50	Morse 1	12.065	120	25	PF
065.262.50.0200	SK 50	Morse 2	17.780	50	32	PF
065.262.50.0202	SK 50	Morse 2	17.780	135	32	PF
065.262.50.0300	SK 50	Morse 3	23.825	63	40	PF
065.262.50.0302	SK 50	Morse 3	23.825	150	40	PF
065.262.50.0304	SK 50	Morse 3	23.825	180	40	PF
065.262.50.0400	SK 50	Morse 4	31.267	75	50	PF
065.262.50.0402	SK 50	Morse 4	31.267	180	50	PF
065.262.50.0500	SK 50	Morse 5	44.399	105	70	-

*Le riduzioni PF sono adatte anche per frese con attacco DIN 228-A; per i tipi ISO 30 CM2-3, ISO 40 CM3-4, ISO 45 CM5 e ISO 50 CM5 è necessario l'uso del tirante lungo (vedi sezione tiranti)

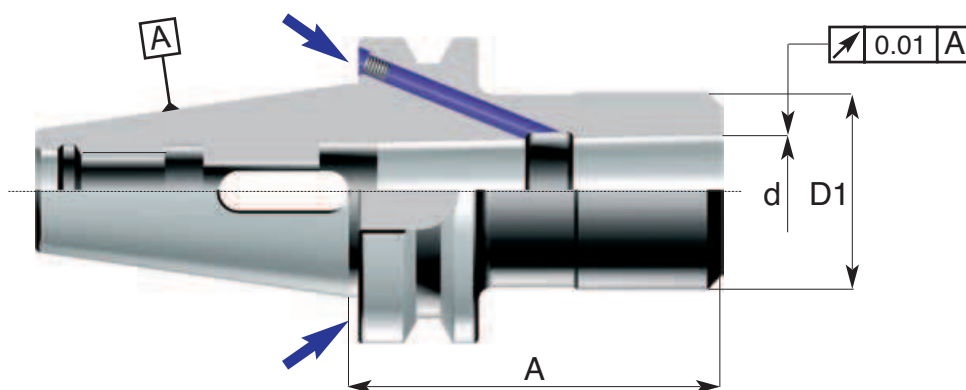
*PF adaptors are suitable for clamping MT-shank mills; for ISO 30 MK2-3, ISO 40 MK3-4, ISO 45 MK5 e ISO 50 MK5 long pull stud is required (see pull studs section)

ACCESSORI PER MACCHINE UTENSILI



MAS 403 BT/B

ART: H262 BT/B



3.
25

Codice di ord Code	SK	Cono Morse	d	A	D1	Combi*
H63.262.40.0100	SK 40	Morse 1	12.065	45	25	PF
H63.262.40.0200	SK 40	Morse 2	17.780	50	32	PF
H63.262.40.0300	SK 40	Morse 3	23.825	70	40	PF
H63.262.40.0400	SK 40	Morse 4	31.267	90	50	PF
H65.262.50.0100	SK 50	Morse 1	12.065	45	25	PF
H65.262.50.0200	SK 50	Morse 2	17.780	50	32	PF
H65.262.50.0300	SK 50	Morse 3	23.825	63	40	PF
H65.262.50.0400	SK 50	Morse 4	31.267	75	50	PF
H65.262.50.0500	SK 50	Morse 5	44.399	105	70	PF

*Le riduzioni PF sono adatte anche per frese con attacco DIN 228-A; per i tipi ISO 30 CM2-3, ISO 40 CM3-4, ISO 45 CM5 e ISO 50 CM5 è necessario l'uso del tirante lungo (vedi sezione tiranti)

*PF adaptors are suitable for clamping mills with MT-shank; for ISO 30 MK2-3, ISO 40 MK3-4, ISO 45 MK5 e ISO 50 MK5 is necessary the long pull stud (see pull studs section)

3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Barre semifinite con tratto cilindrico privo di cementazione per esecuzioni speciali
Unfinished taper-shank blanks for special applications
Rohlinge für spezielle Anwendungen
Ebauches pour applications spéciales

ACCESSORI PER MACCHINE UTENSILI

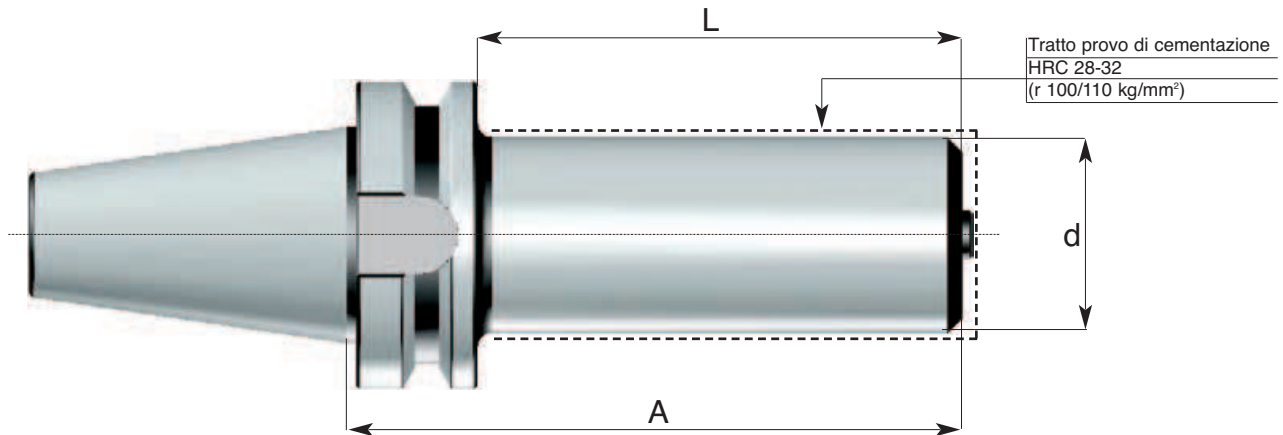


MAS 403 BT



ART: 424 BT

3.
26



Codice di ord Code	SK	d	A	L
063.424.40.0402	SK 40	40	197	170
063.424.40.0404	SK 40	40	277	250
063.424.40.0630	SK 40	63	177	150
063.424.40.0632	SK 40	63	277	250
065.424.50.0502	SK 50	50	247	210
065.424.50.0504	SK 50	50	352	315
065.424.50.0630	SK 50	63	188	150
065.424.50.0632	SK 50	63	288	250
065.424.50.0634	SK 50	63	438	400
065.424.50.1000	SK 50	100	288	250
065.424.50.1002	SK 50	100	438	400

ACCESSORI PER MACCHINE UTENSILI

Mandrini a forte serraggio
High clamping chucks
Kraftspannfutter
Mandrins à fort serrage

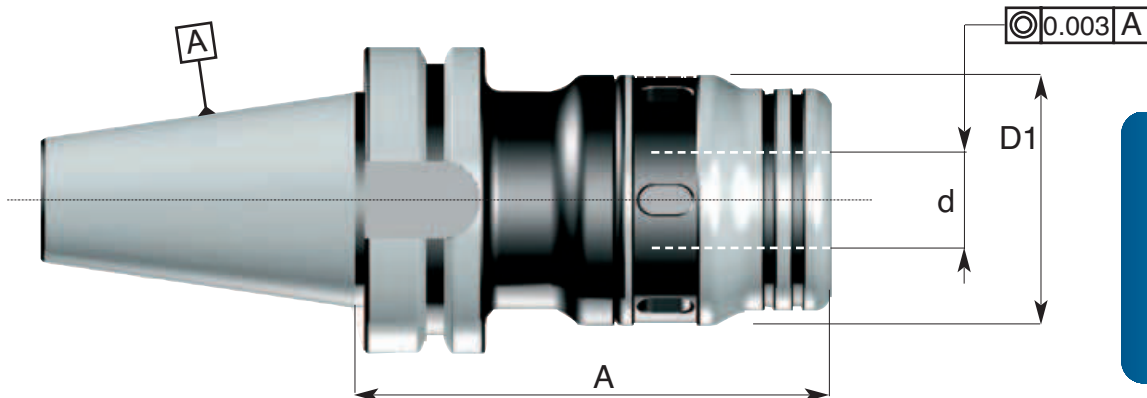


Prebilanciato
Prebalanced
G6.3 / 8000rpm



MAS 403 BT

ART: 603.BT
standard / standard lenght



3.
27



Codice di ord Code	SK	d	D1	A	Boccola di riduzione Reduction bushes
063.603.40.0200	SK 40	20	54	105	239.20...
063.603.40.0320	SK 40	32	72	105	239.32...
063.603.40.0322	SK 40	32	72	135	239.32...
065.603.50.0200	SK 50	20	54	105	239.20...
065.603.50.0320	SK 50	32	72	105	239.32...
065.603.50.0322	SK 50	32	72	135	239.32...

3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Mandrini portapinzine EOC tipo normale e prolungato DIN 6388

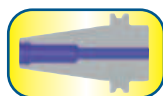
Collet chucks EOC - DIN 6388

Spannzangenhalter EOC - DIN 6388

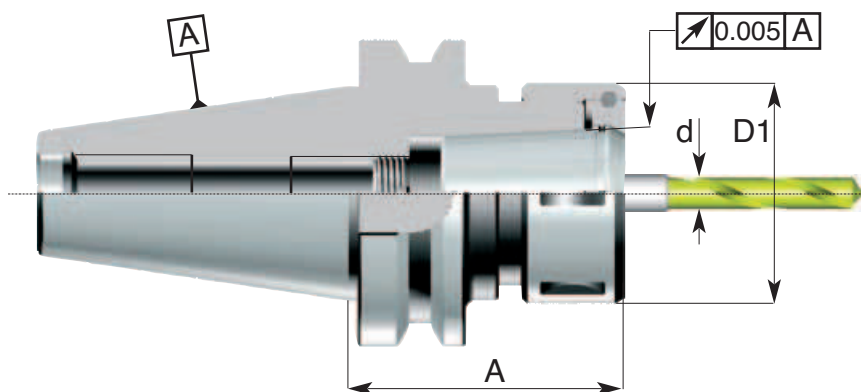
Mandrins porte-pinces EOC - DIN 6388

ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT



ART:601 BT



Codice di ord Code	SK	EOC	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
063.601.40.0350	SK 40	25	75	60	da 3 a 25	245.48.0350
063.601.40.0352	SK 40	25	120	60	da 3 a 25	245.48.0350
063.601.40.0440	SK 40	32	85	72	da 4 a 32	245.60.0440
063.601.40.0442	SK 40	32	120	72	da 4 a 32	245.60.0440
065.601.50.0350	SK 50	25	85	60	da 3 a 25	245.48.0350
065.601.50.0352	SK 50	25	120	60	da 3 a 25	245.48.0350
065.601.50.0440	SK 50	32	90	72	da 4 a 32	245.60.0440
065.601.50.0442	SK 50	32	130	72	da 4 a 32	245.60.0440

3.
28

ACCESSORI PER MACCHINE UTENSILI



Mandrini portapinze Delta per pinze rif. art.209

Delta collet chucks for collets ref. art.209

Delta Spannzangenhalter für Spannzangen ref. art.209

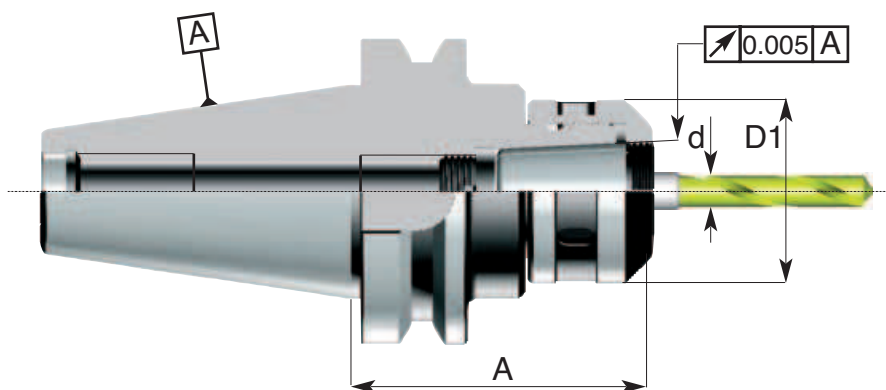
Mandrins porte-pinces Delta pour pinces ref. art.209



MAS 403 BT

ART: 605 BT

3.
29



Codice di ord Code	SK	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Tipo pinza Collet	Ghiera Nut
063.605.40.0320	SK 40	75	58	da 4 a 20	209.20	245.02
063.605.40.0440	SK 40	78	73	da 4 a 32	209.30	245.03
065.605.50.0320	SK 50	90	58	da 4 a 20	209.20	245.02
065.605.50.0440	SK 50	95	73	da 4 a 32	209.30	245.03

3. MANDRINI a cono ISO MAS 403 BT

TOOL HOLDERS with ISO cone MAS 403 BT



Mandrini portapinze ER DIN 6499 - ghiera standard

Collet chucks ER DIN 6499 - standard nut

Spannzangenhalter ER DIN 6499 - standard Spannmutter

Mandrins porte-pinces ER DIN 6499 - écrou standard

ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT



Prebilanciato
Prebalanced
G6.3 / 8000rpm

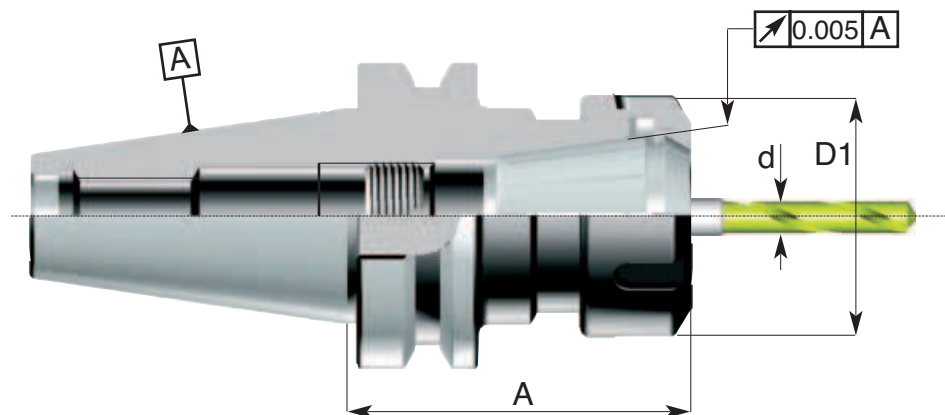


Assortimento in cassetta pag: 3.33
Kit pag. 3.33



ART:607 BT
ghiera standard / standard nut

3.
30



Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
060.607.30.0160	SK 30	ER 16	60	28	da 0,5 a 10	245.22.ER16
060.607.30.0162	SK 30	ER 16	100	28	da 0,5 a 10	245.22. ER16
060.607.30.0200	SK 30	ER 20	60	34	da 1 a 13	245.25. ER20
060.607.30.0250	SK 30	ER 25	60	42	da 1 a 16	245.32.ER25
060.607.30.0252	SK 30	ER 25	100	42	da 1 a 16	245.32.ER25
060.607.30.0320	SK 30	ER 32	60	50	da 1 a 20	245.40.ER32
060.607.30.0322	SK 30	ER 32	100	50	da 1 a 20	245.40.ER32
060.607.30.0324	SK 30	ER 32	150	50	da 1 a 20	245.40.ER32
060.607.30.0400	SK 30	ER 40	70	63	da 2 a 30	245.50.ER40
061.607.35.0160	SK 35	ER 16	60	28	da 0,5 a 10	245.22.ER16
061.607.35.0200	SK 35	ER 20	60	34	da 0,5 a 13	245.25. ER20
061.607.35.0250	SK 35	ER 25	60	42	da 1 a 16	245.32.ER25
061.607.35.0320	SK 35	ER 32	60	50	da 1 a 20	245.40.ER32
063.607.40.0160	SK 40	ER 16	70	28	da 0,5 a 10	245.22.ER16
063.607.40.0162	SK 40	ER 16	120	28	da 0,5 a 10	245.22.ER16
063.607.40.0200	SK 40	ER 20	70	34	da 0,5 a 13	245.25. ER20
063.607.40.0202	SK 40	ER 20	120	34	da 0,5 a 13	245.25. ER20
063.607.40.0250	SK 40	ER 25	70	42	da 1 a 16	245.32.ER25
063.607.40.0252	SK 40	ER 25	120	42	da 1 a 16	245.32.ER25
063.607.40.0254	SK 40	ER 25	150	42	da 1 a 16	245.32.ER25
063.607.40.0320	SK 40	ER 32	70	50	da 1 a 20	245.40.ER32
063.607.40.0321	SK 40	ER 32	100	50	da 1 a 20	245.40.ER32
063.607.40.0322	SK 40	ER 32	120	50	da 1 a 20	245.40.ER32
063.607.40.0324	SK 40	ER 32	150	50	da 1 a 20	245.40.ER32
063.607.40.0400	SK 40	ER 40	70	63	da 2 a 30	245.50.ER40
063.607.40.0402	SK 40	ER 40	120	63	da 2 a 30	245.50.ER40
065.607.50.0160	SK 50	ER 16	75	28	da 0,5 a 10	245.22.ER16
065.607.50.0200	SK 50	ER 20	90	34	da 0,5 a 13	245.25. ER20
065.607.50.0250	SK 50	ER 25	90	42	da 1 a 16	245.32.ER25
065.607.50.0252	SK 50	ER 25	120	42	da 1 a 16	245.32.ER25
065.607.50.0320	SK 50	ER 32	90	50	da 1 a 20	245.40.ER32
065.607.50.0322	SK 50	ER 32	120	50	da 1 a 20	245.40.ER32
065.607.50.0324	SK 50	ER 32	150	50	da 1 a 20	245.40.ER32
065.607.50.0400	SK 50	ER 40	90	63	da 2 a 30	245.50.ER40
065.607.50.0402	SK 50	ER 40	120	63	da 2 a 30	245.50.ER40

ACCESSORI PER MACCHINE UTENSILI



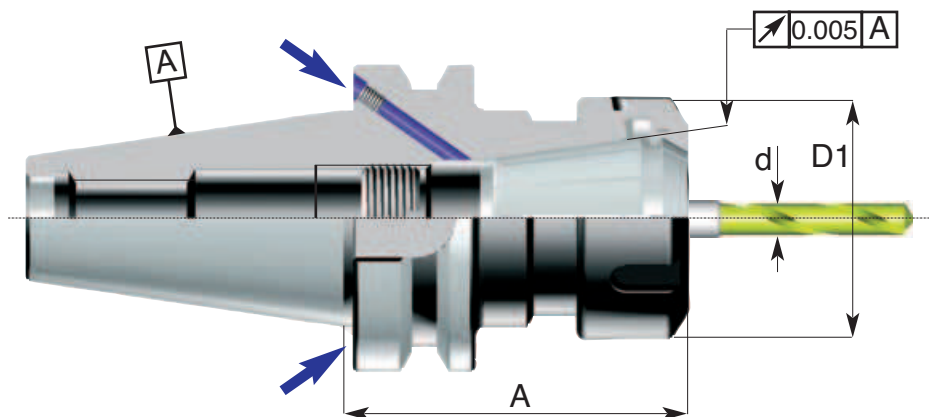
Mandrini portapinze ER DIN 6499 - ghiera standard
 Collet chucks ER DIN 6499 - standard nut
 Spannzangenhalter ER DIN 6499 - standard Spannmutter
 Mandrins porte-pinces ER DIN 6499 - écrou standard

Prebilanciato
 Prebalanced
G6.3 / 8000rpm



MAS 403 BT/B

ART: H607 BT/B
 ghiera standard / standard nut



3.
31



Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
H63.607.40.0164	SK 40	ER 16	150	28	da 0,5 a 10	245.22.ER16
H63.607.40.0166	SK 40	ER 16	200	28	da 0,5 a 10	245.22.ER16
H63.607.40.0204	SK 40	ER 20	150	34	da 0,5 a 13	245.25.ER20
H63.607.40.0250	SK 40	ER 25	60	42	da 1 a 16	245.32.ER25
H63.607.40.0252	SK 40	ER 25	120	42	da 1 a 16	245.32.ER25
H63.607.40.0254	SK 40	ER 25	150	42	da 1 a 16	245.32.ER25
H63.607.40.0256	SK 40	ER 25	200	42	da 1 a 16	245.32.ER25
H63.607.40.0320	SK 40	ER 32	70	50	da 1 a 20	245.40.ER32
H63.607.40.0322	SK 40	ER 32	120	50	da 1 a 20	245.40.ER32
H63.607.40.0324	SK 40	ER 32	150	50	da 1 a 20	245.40.ER32
H63.607.40.0326	SK 40	ER 32	200	50	da 1 a 20	245.40.ER32
H63.607.40.0400	SK 40	ER 40	70	63	da 2 a 30	245.50.ER40
H63.607.40.0402	SK 40	ER 40	120	63	da 2 a 30	245.50.ER40
H65.607.50.0250	SK 50	ER 25	90	42	da 1 a 16	245.32.ER25
H65.607.50.0252	SK 50	ER 25	120	42	da 1 a 16	245.32.ER25
H65.607.50.0320	SK 50	ER 32	90	50	da 1 a 20	245.40.ER32
H65.607.50.0322	SK 50	ER 32	120	50	da 1 a 20	245.40.ER32
H65.607.50.0324	SK 50	ER 32	150	50	da 1 a 20	245.40.ER32
H65.607.50.0400	SK 50	ER 40	90	63	da 2 a 30	245.50.ER40
H65.607.50.0402	SK 50	ER 40	120	63	da 2 a 30	245.50.ER40

3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Mandri portapinze ER DIN 6499 - ghiera mini

Collet chucks ER DIN 6499- mini nut

Spannzangenhalter ER DIN 6499 - mini Spannmutter

Mandriins porte-pinces ER DIN 6499 - ecrou mini

ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT/B

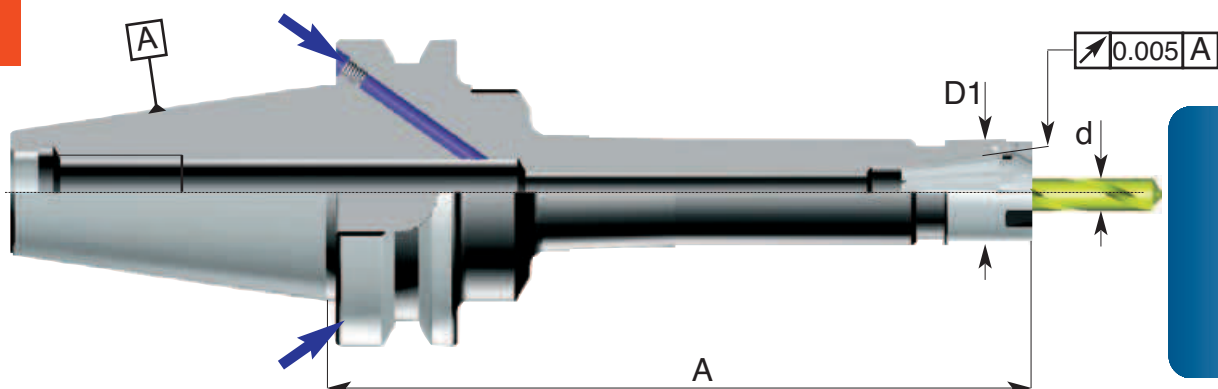


Prebilanciato
Prebalanced
G6.3 / 8000rpm



ART: H607 BT/B
ghiera mini / mini nut

3.
32



Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
H63.607.40.0112M	SK 40	ER 11	100	16	da 0,5 a 7	245.13.ER11M
H63.607.40.0114M	SK 40	ER 11	150	16	da 0,5 a 7	245.13.ER11M
H63.607.40.0162M	SK 40	ER 16	100	22	da 0,5 a 10	245.19.ER16M
H63.607.40.0164M	SK 40	ER 16	150	22	da 0,5 a 10	245.19.ER16M
H63.607.40.0252M	SK 40	ER 25	100	35	da 1 a 16	245.24.ER25M
H63.607.40.0254M	SK 40	ER 25	150	35	da 1 a 16	245.24.ER25M
H65.607.50.0164M	SK 50	ER 16	150	22	da 0,5 a 10	245.19.ER16M
H65.607.50.0254M	SK 50	ER 25	150	35	da 1 a 16	245.24.ER25M

Cassette con portapinze ER pinze complete di chiave di serraggio

Boxes with ER collet chucks and collets - supplied with wrench

Kassetten mit Spannzangenhalter ER und Spannzangen - geliefert mit Schlüssel

Coffrets avec mandrins à pinces ER et pinces - fournis avec clé



MAS 403 BT

CASSETTE BT

ART: 060... / 063... / 065...

3.
33



Codice di ord. <i>Code</i>	Mandrino <i>Chuck</i>	SK	Tipo pinza <i>Collets type</i>	Numero pinze <i>Collets nr.</i>	Ø Pinza <i>Ø Collets</i>
060.30.09.ER32	060.607.30.0320	BT30	ER32	9	4-6-8-10-12-14-16-18-20
060.30.18.ER32	060.607.30.0320	BT30	ER32	18	da 3 a 20
063.40.09.ER32	063.607.40.0320	BT40	ER32	9	4-6-8-10-12-14-16-18-20
063.40.18.ER32	063.607.40.0320	BT40	ER32	18	da 3 a 20
063.40.09.ER40	063.607.40.0400	BT40	ER40	9	4-6-8-10-12-14-16-18-20
063.40.23.ER40	063.607.40.0400	BT40	ER40	23	da 4 a 26
065.50.09.ER32	065.607.50.0320	BT50	ER32	9	4-6-8-10-12-14-16-18-20
065.50.18.ER32	065.607.50.0320	BT50	ER32	18	da 3 a 20
065.50.09.ER40	065.607.50.0400	BT50	ER40	9	4-6-8-10-12-14-16-18-20
065.50.23.ER40	065.607.50.0400	BT50	ER40	23	da 4 a 26

3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Mandrini per astucci registrabili e portautensili con gambo a norma DIN 6327

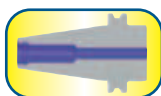
Adaptors for adjustable inserts DIN 6327

Zwischenhülsen für axialverstellbare Futter DIN 6327

Douilles pour mandrins réglables axialement DIN 6327

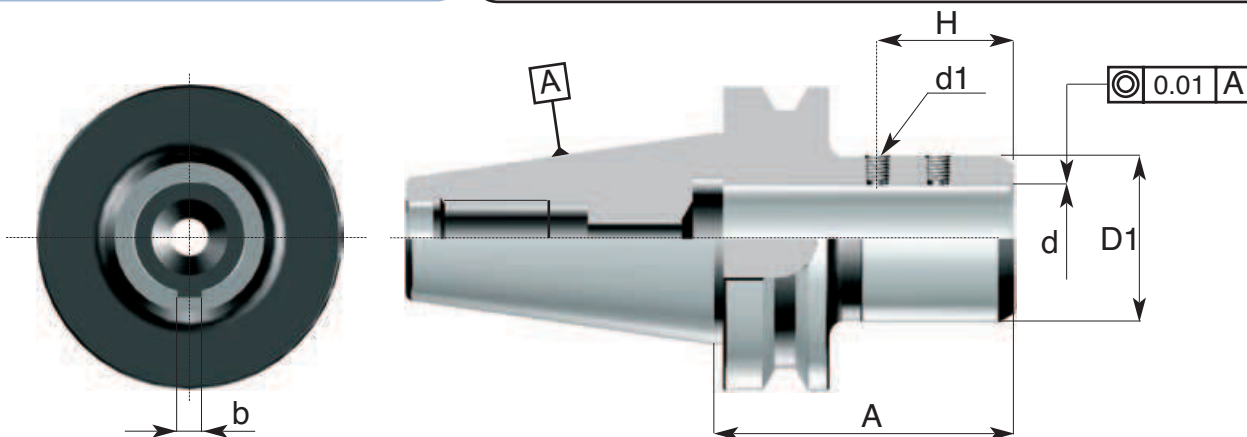
ACCESSORI PER MACCHINE UTENSILI

MAS 403 BT



ART:610 BT

3.
34



Codice di ord Code	SK	d h7	A	D1	H	b C11	Grano di serraggio "d1" Clamping screw "d1"
063.610.40.0250	SK 40	25	90	45	38	6	610.00.0080
063.610.40.0280	SK 40	28	85	45	38	8	610.00.0080
063.610.40.0360	SK 40	36	115	55	45	8	610.00.0080
065.610.50.0280	SK 50	28	100	55	38	6	610.00.0060
065.610.50.0360	SK 50	36	100	60	45	8	610.00.0080
065.610.50.0480	SK 50	48	120	75	57	10	610.00.0100



ACCESSORI PER MACCHINE UTENSILI



Maschiatori a cambio rapido con compensazione elastica assiale a trazione e pressione

Quick-change tapping chuck with compensation in compression and tension

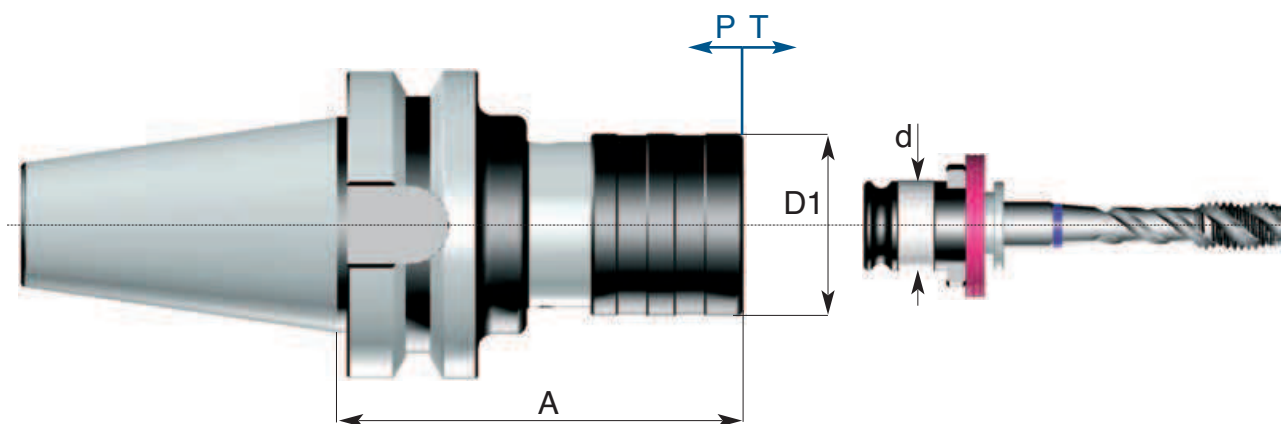
Gewindeschneid- und Schnellwechselfutter mit Ausgleich auf Druck und Zug

Mandrin à tarauder à changement rapide avec compensation longitudinale et de la traction



MAS 403 BT

ART: 638 BT



3.
35

Codice di ord Code	SK	A	D1	d	Capacità maschiatore Tapping capacity	Compensazione assiale T Axial compensation P	
060.638.30.1205	SK 30	70	35	19	M3 - M14	5	7
060.638.30.2008	SK 30	95	53	31	M8 - M24	12	13
063.638.40.1205	SK 40	80	35	19	M3 - M14	5	7
063.638.40.2008	SK 40	101	53	31	M8 - M24	12	13
063.638.40.3310	SK 40	148	78	48	M14 - M36	15	20
065.638.50.1205	SK 50	90	35	19	M3 - M14	5	7
065.638.50.2008	SK 50	115	53	31	M8 - M24	12	13
065.638.50.3310	SK 50	145	78	48	M14 - M36	15	20



3. MANDRINI a cono ISO MAS 403 BT TOOL HOLDERS with ISO cone MAS 403 BT



Maschiatori a cambio rapido senza compensazione per maschiatura rigida
Quick-change tapping chuck without compensation for rigid tapping
Gewindeschneid- und Schnellwechselfutter ohne Ausgleich für Synchronisation
Mandrin à tarauder à changement rapid sans compensation pour taraudage synchronisé

ACCESSORI PER MACCHINE UTENSILI

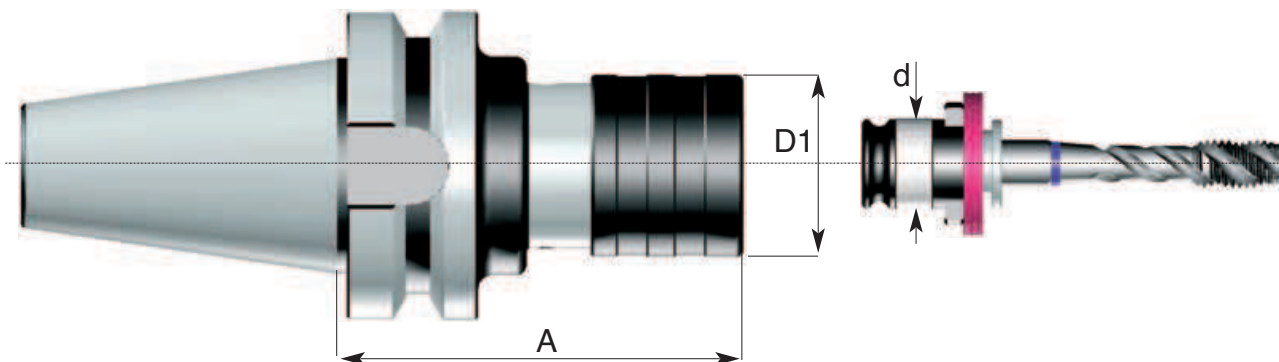


MAS 403 BT



ART:648 BT

3.
36



Codice di ord Code	SK	A	D1	d	Capacità maschiatore Tapping capacity
060.648.30.1200	SK 30	70	32	19	M 3 - M 14
060.648.30.2000	SK 30	98	50	31	M 8 - M 24
063.648.40.1200	SK 40	85	32	19	M 3 - M 14
063.648.40.2000	SK 40	85	50	31	M 8 - M 24
063.648.40.3300	SK 40	110	72	48	M 14 - M 36
065.648.50.1200	SK 50	80	32	19	M 3 - M 14
065.648.50.2000	SK 50	90	50	31	M 8 - M 24
065.648.50.3300	SK 50	115	72	48	M 14 - M 36



ACCESSORI PER MACCHINE UTENSILI



Attacchi base per sistema modulare tipo "VARILOCK"

Attachments for modular system - type "VARILOCK"

Grundaufnahmen für Modulare Werkzeugsystem - Type "VARILOCK"

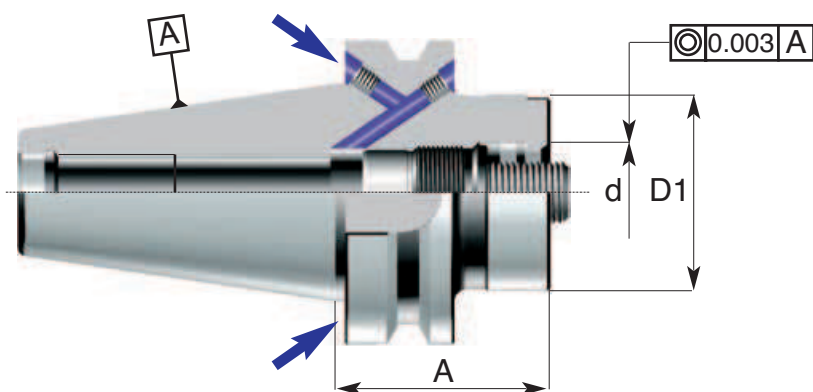
Attachements pour système modulaire - type "VARILOCK"



MAS 403 BT/B

ART:HVAR BT/B

3.
37



Codice di ord Code	SK	A	D1	d	Vite Screw	Ghiera Nut
H63.VAR.40.0500	SK 40	50	50	27	VAR.00.0500.20	VAR.00.0500.10
H63.VAR.40.0630	SK 40	50	63	32	VAR.00.0630.20	VAR.00.0630.10
H65.VAR.50.0502	SK 50	50	50	27	VAR.00.0500.20	VAR.00.0500.10
H65.VAR.50.0632	SK 50	50	63	32	VAR.00.0800.20	VAR.00.0800.10
H65.VAR.50.0802	SK 50	50	80	32	VAR.00.0800.20	VAR.00.0800.10



4.2

- Portafrese combinati
Combined milling cutter chucks

4.2

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

4.3

- Portafrese weldon
Milling cutter chucks Weldon

4.3

- Maschiatori
Tapping chuck



for CHIRON
Attacchi con
cono ISO 30
Attachments
with ISO cone

4

 **delta**

4. MANDRINI CHIRON ISO 30

TOOL HOLDERS CHIRON ISO 30



Portafrese combinati con trascinamento frontale e chiavetta DIN 6358

Combined milling cutter chucks DIN 6358 B

Kombi-Aufsteckfräserdorne DIN 6358 B

Mandrins porte-fraises combinés DIN 6358 B

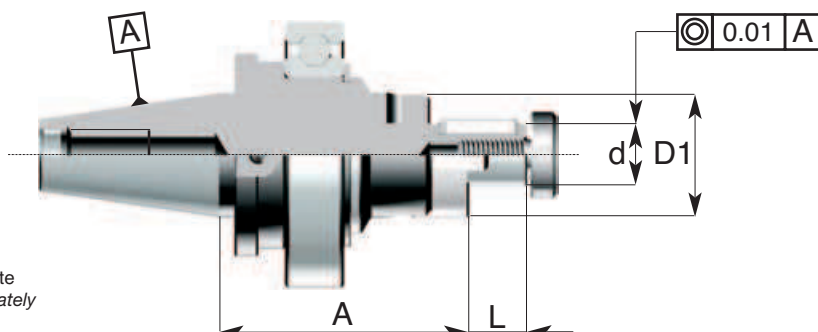
ACCESSORI PER MACCHINE UTENSILI



CHIRON ISO 30

ART: CHI.130

4.
2



Cuscinetto da ordinare a parte
Bearing to be ordered separately

Codice di ord Code	SK	d h6	A	L	L1	D1	Trascinatore Ring	Vite Screw	Linguetta Key
CHI.130.30.0160	SK 30	16	62	17	27	32	190.01	191.01	130.199.01
CHI.130.30.0220	SK 30	22	62	19	31	40	190.02	191.02	130.199.02
CHI.130.30.0270	SK 30	27	62	21	33	50	190.03	191.03	130.199.03
CHI.130.30.0320	SK 30	32	62	24	38	58	190.04	191.04	130.199.04

Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B

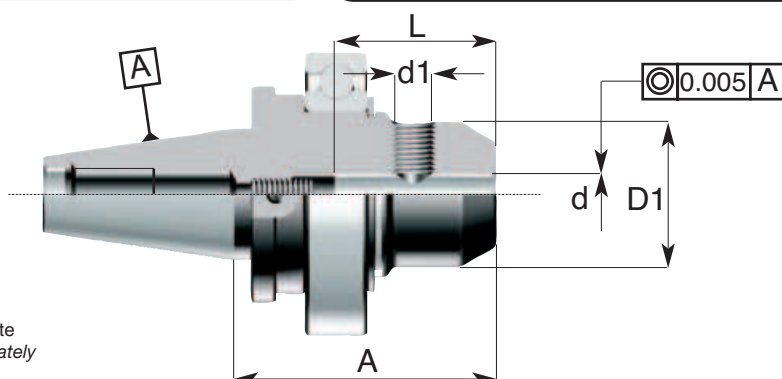
Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B

Spannfutter Weldon für Zylinderschäfte DIN 6359 B

Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

CHIRON ISO 30

ART: CHI.208



Cuscinetto da ordinare a parte
Bearing to be ordered separately

Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
CHI.208.30.0060	SK 30	6	63	25	35	M6X10	208.00.0060
CHI.208.30.0080	SK 30	8	63	28	35	M8X10	208.00.0080
CHI.208.30.0100	SK 30	10	63	35	39	M10X12	208.00.0100
CHI.208.30.0120	SK 30	12	65	40	44	M12X1,5X16	208.00.0120
CHI.208.30.0160	SK 30	16	65	48	47	M14X1,5X16	208.00.0140
CHI.208.30.0200	SK 30	20	70	50	49	M16X1,5X16	208.00.0160

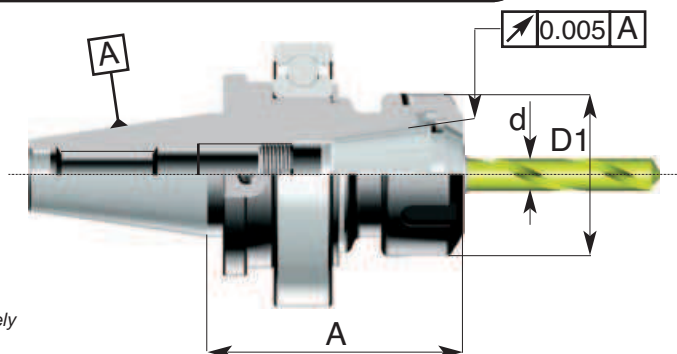
ACCESSORI PER MACCHINE UTENSILI



Mandrini portapinze ER DIN 6499
 Collet chucks ER DIN 6499
 Spannzangenhalter ER DIN 6499
 Mandrins porte-pinces ER DIN 6499

CHIRON ISO 30

ART: CHI.607



Cuscinetto da ordinare a parte
 Bearing to be ordered separately



4.
3

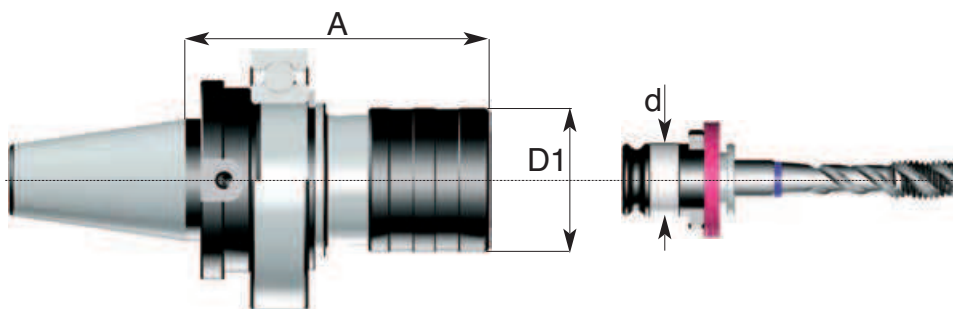
Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
CHI.607.30.0160	SK 30	ER 16	65	28	da 1 a 10	245.22.ER16
CHI.607.30.0250	SK 30	ER 25	65	42	da 2 a 16	245.32.ER25
CHI.607.30.0320	SK 30	ER 32	70	50	da 2 a 20	245.40.ER32
CHI.607.30.0322	SK 30	ER 32	120	50	da 2 a 20	245.40.ER32
CHI.607.30.0324	SK 30	ER 32	150	50	da 2 a 20	245.40.ER32
CHI.607.30.0326	SK 30	ER 32	180	50	da 2 a 20	245.40.ER32
CHI.607.30.0400	SK 30	ER 40	80	63	da 4 a 26	245.50.ER40



Maschiatori a cambio rapido con compensazione elastica assiale a trazione e pressione
 Quick-change tapping chuck with compensation in compression and tension
 Gewindeschneid- und Schnellwechselfutter mit Ausgleich auf Druck und Zug
 Mandrin à tarauder à changement rapid avec compensation longitudinale et de la traction

CHIRON ISO 30

ART: CHI.638



Cuscinetto da ordinare a parte
 Bearing to be ordered separately



Codice di ord Code	SK	A	D1	d	Capacità maschiatore Tapping capacity	Compensazione assiale T Axial compensation P
CHI.638.30.1205	SK 30	60	35	19	M3 - M14	5 7

4. MANDRINI CHIRON ISO 30

TOOL HOLDERS CHIRON ISO 30



Cuscinetto a sfere per macchine tipo CHIRON fz 16, fz 20, fz 25

Bearing - for chiron fz 16, fz 20, fz 25

Lager - für chiron fz 16, fz 20, fz 25

Roulement - pour chiron fz 16, fz 20, fz 25

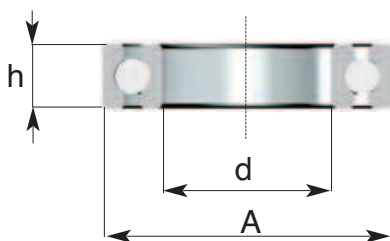
ACCESSORI PER MACCHINE UTENSILI



CHIRON ISO 30

ART:CHI.6008.2RS1

4.
4



Codice di ord Code	D	d	h
CHI.6008.2RS1	68	40	15



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DELTA
 001 002 003

COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI 01 02 03 04

COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI 01 02 03 04

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

PORTAUTENSILI A COND ISO DIN 2088 E MORSE PER MACCHINE UTENSILI TRADIZIONALI
 CONTROPUNTE ROTANTI E FISSE - MANDRINI MASCHIATORI A CAMBIO RAPIDO

TOOLHOLDERS FOR MILLING AND BORING MACHINES WITH ISO AND MORSE
 PRECISION RUNNING TAIL CENTERS - QUICK CHANGE TAPPING CHUCKS

PORTAUTENSILI A COND ISO DIN 69871/A-B, CAT E MAS BT 405 PER CENTRI DI LATO
 A CONTROLLO NUMERICO

TOOLHOLDERS FOR CNC MACHINERY WITH ISO DIN 69871/A-B, CAT AND MAS BT 405

PORTAUTENSILI CON ATTACCO HSK DIN 69893 FORMA A -

TOOLHOLDERS WITH HSK TAPER DIN 69893 FORM A

MANDRINO HYDRO DELTA A CHIUSURA IDRAULICA

HYDRO DELTA CHUCKS HYDRAULIC CLAMP

PORTAUTENSILI PER TORNI A CONTROLLO NUMERICO DIN 69880 UDI 3

TOOLHOLDERS FOR NC LATHES DIN 69880 UDI 3

MANDRINI MACCHINA PRINCIPALI - PORTAUTENSILI SPECIALI A DISEGNO CLIENTI

MACHINE MAIN SPINDLES - SPECIAL TOOLHOLDERS ON CUSTOMER'S REQUEST

DELTA
 001 002 003

COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI 01 02 03 04

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

5.3
• Portafrese combinati
Combined milling cutter chucks

5.4
• Alberi portafrese
Cutters arbors

5.5
• Portafrese a manicotto
Face milling cutter chucks

5.6
• Portafrese a manicotto
Face milling cutter chucks

5.7
• Portafrese a manicotto
Face milling cutter chucks

5.8
• Portafrese weldon
Milling cutter chucks Weldon

5.9
• Mandrini di centraggio
Centring chucks

5.10
• Mandrini portamorsetti
Taper shafts for drill chucks

5.11
• Mandrini portapunte
Integral drill chucks

5.12
• Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO

5.13
• Riduzioni cono ISO a ISO
Adaptors ISO cone to ISO

5.14
• Portafrese a cono Morse
Milling cutter with Morse cone

5.15
• Portafrese a cono Morse
Milling cutter with Morse cone

5.16
• Portapunte a cono Morse
Drill chucks with Morse cone

5.17
• Barre semifinite
Unfinished taper-shank blanks

5.18
• Portapinze DELTA
Collet chucks DELTA

5.20
• Portapinze EOC
Collet chucks EOC

5.21
• Portapinze ER DIN 6499
Collet chucks ER DIN 6499

5.22
• Portapinze ER DIN 6499
Collet chucks ER DIN 6499

5.24
• Portaastucci registrabili
Adaptors for adjustable inserts

5.25
• Maschiatori
Tapping chuck

5.26
• Cilindri di collaudo
Test arbors



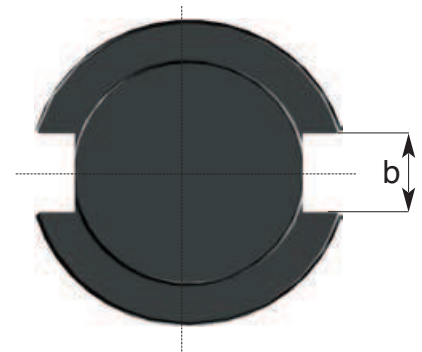
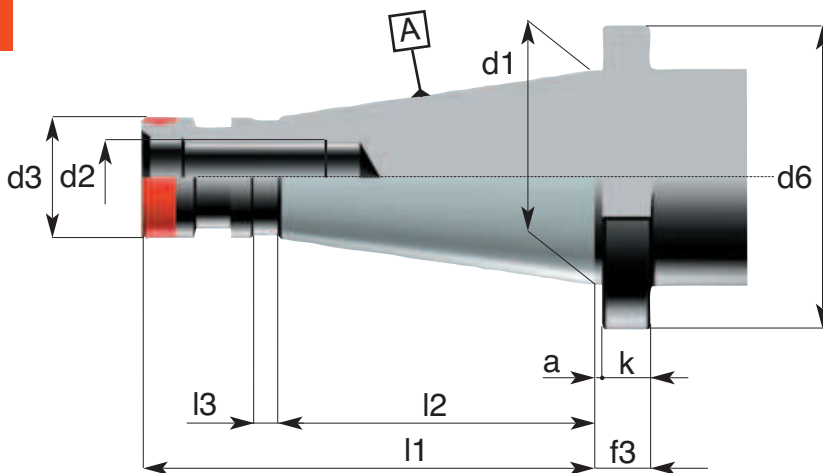
DIN 2080
Attacchi con cono ISO
*Attachments with
ISO cone*

5

 **delta**

DIN 2080

Attacchi DIN 2080



Riferimento Item	a	b H12	d1	d2	d3 H7	d6	f3	l1	l2	l3	k
ISO 30	1.6	16.1	31.75	M12	17.11	50	9.6	68.4	48.4	3	8
ISO 40	1.6	16.1	44.45	M16	25	63	11.6	93.4	65.4	5	10
ISO 50	3.2	25.7	69.85	M24	40	97.5	15.2	126.8	101.8	8	12
ISO 60	3.2	25.7	107.95	M30	60	156	19.2	206.8	161.8	10	16

**CARATTERISTICHE TECNICHE
DEI MANDRINI ISO**

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni ISO è inferiore ad AT3

**STANDARD FEATURES
OF ISO TOOLING**

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of ISO SHANKS lower than AT3

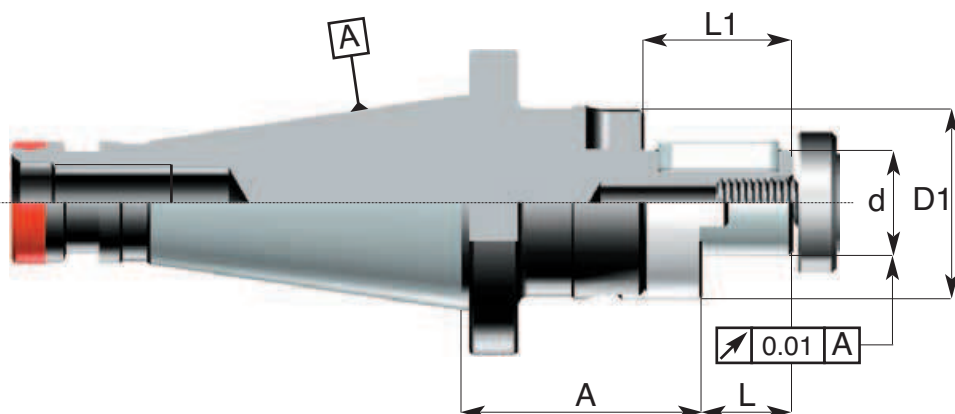
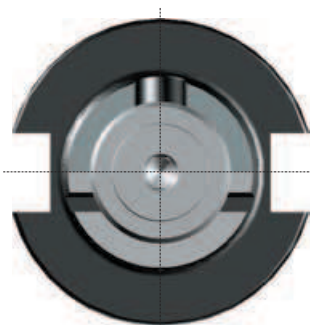
ACCESSORI PER MACCHINE UTENSILI

Portafrese combinati con trascinamento frontale e chiave DIN 6358
 Combined milling cutter chucks DIN 6358 B
 Kombi-Aufsteckfräserdorne DIN 6358 B
 Mandrins porte-fraises combinés DIN 6358 B

DIN 2080

ART: 130

5.
3



Codice di ord Code	SK	d h6	A	L	L1	D1	Trascinatore Ring	Vite Screw	Linguetta Key
130.30.0160	SK 30	16	42	17	27	32	190.01	191.01	130.199.01
130.30.0162	SK 30	16	75	17	27	32	190.01	191.01	130.199.01
130.30.0220	SK 30	22	45	19	31	40	190.02	191.02	130.199.02
130.30.0222	SK 30	22	75	19	31	40	190.02	191.02	130.199.02
130.30.0270	SK 30	27	46	21	33	48	190.03	191.03	130.199.03
130.30.0272	SK 30	27	71	21	33	48	190.03	191.03	130.199.03
130.40.0160	SK 40	16	45	17	27	32	190.01	191.01	130.199.01
130.40.0162	SK 40	16	90	17	27	32	190.01	191.01	130.199.01
130.40.0220	SK 40	22	50	19	31	40	190.02	191.02	130.199.02
130.40.0222	SK 40	22	90	19	31	40	190.02	191.02	130.199.02
130.40.0270	SK 40	27	50	21	33	48	190.03	191.03	130.199.03
130.40.0272	SK 40	27	90	21	33	48	190.03	191.03	130.199.03
130.40.0320	SK 40	32	50	24	38	58	190.04	191.04	130.199.04
130.40.0322	SK 40	32	105	24	38	58	190.04	191.04	130.199.04
130.40.0400	SK 40	40	59	27	41	75	190.05	191.05	130.199.05
130.40.0402	SK 40	40	105	27	41	75	190.05	191.05	130.199.05
130.50.0160	SK 50	16	52	17	27	32	190.01	191.01	130.199.01
130.50.0162	SK 50	16	105	17	27	32	190.01	191.01	130.199.01
130.50.0220	SK 50	22	58	19	31	40	190.02	191.02	130.199.02
130.50.0222	SK 50	22	105	19	31	40	190.02	191.02	130.199.02
130.50.0270	SK 50	27	56	21	33	48	190.03	191.03	130.199.03
130.50.0272	SK 50	27	105	21	33	48	190.03	191.03	130.199.03
130.50.0320	SK 50	32	56	24	38	58	190.04	191.04	130.199.04
130.50.0322	SK 50	32	105	24	38	58	190.04	191.04	130.199.04
130.50.0400	SK 50	40	58	27	41	70	190.05	191.05	130.199.05
130.50.0402	SK 50	40	105	27	41	70	190.05	191.05	130.199.05
130.50.0500	SK 50	50	61	30	46	90	190.06	191.06	130.199.06
130.50.0502	SK 50	50	120	30	46	90	190.06	191.06	130.199.06



5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Alberi portafrese cono ISO DIN 6354 - 6355 per fresatrici con naso mandrino DIN 2079
 Cutters arbors ISO DIN 6354 - 6355 cone for milling machines with DIN 2079 spindle nose
 Längsfräsdome mit Steilkegel DIN 6354 - 6355 für Fräsmaschinen DIN 2079
 Arbres porte-fraises à cône ISO DIN 6354 - 6355 pour fraiseuses à nez de broche DIN 2079

ACCESSORI PER MACCHINE UTENSILI

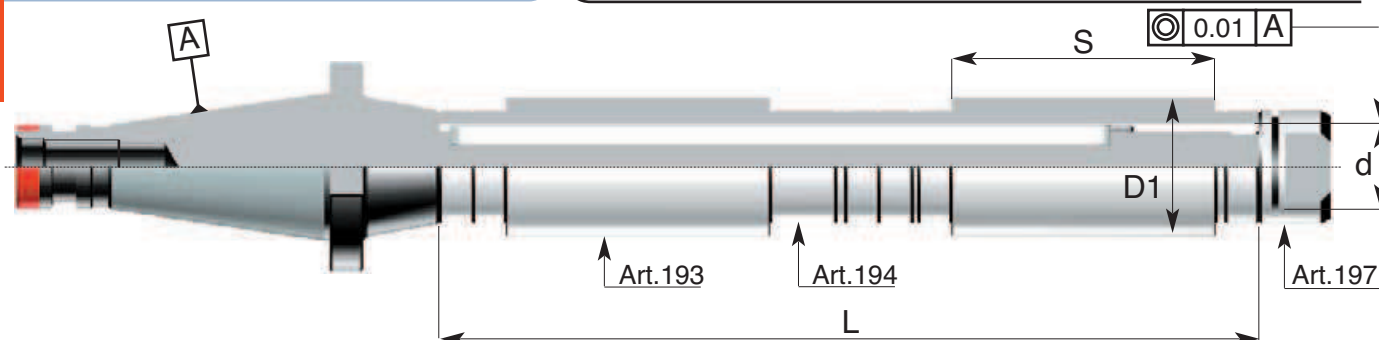
DIN 2080



ART: 141

Completi di distanziali e bussole di guida

Delivered with guide sleeves and spacer rings
 Liefert mit Führungsbuchsen und Distanzstücke
 Dotés de entretoises et douilles de guidage



Codice di ord Code	SK	d h6	L	Ghiere Nut
141.30.0160	SK 30	16	315	19701
141.30.0162	SK 30	16	400	19701
141.30.0220	SK 30	22	315	19702
141.30.0222	SK 30	22	400	19702
141.30.0270	SK 30	27	315	19703
141.30.0272	SK 30	27	400	19703
141.40.0160	SK 40	16	315	19701
141.40.0162	SK 40	16	400	19701
141.40.0220	SK 40	22	400	19702
141.40.0222	SK 40	22	500	19702
141.40.0270	SK 40	27	400	19703
141.40.0272	SK 40	27	500	19703
141.40.0320	SK 40	32	400	19704
141.40.0322	SK 40	32	500	19704
141.40.0400	SK 40	40	400	19705
141.40.0402	SK 40	40	500	19705
141.50.0220	SK 50	22	400	19702
141.50.0222	SK 50	22	500	19702
141.50.0270	SK 50	27	400	19703
141.50.0272	SK 50	27	500	19703
141.50.0320	SK 50	32	500	19704
141.50.0322	SK 50	32	630	19704
141.50.0400	SK 50	40	500	19705
141.50.0402	SK 50	40	630	19705
141.50.0404	SK 50	40	800	19705
141.50.0500	SK 50	50	500	19706
141.50.0502	SK 50	50	630	19706
141.50.0504	SK 50	50	800	19706
141.50.0602	SK 50	60	630	19707
141.50.0604	SK 50	60	800	19707



-Nell'ordine indicare le quote D1 ed S delle bussole di guida (vd. ART. 193). Dado di bloccaggio con filetto sinistro (ART. 197).

-In order state dimensions D1 and S of guide sleeves (see ART.193). End thread and nut left hand (ART.197).

-Im Auftrag angeben die Maße D1 und S der Führungsbuchsen (ART.193). End- und Muttergewinde linksgängig (ART. 197).

-Lorsque vous passez la commande, veuillez indiquer les cotes D1 et S des douilles de guidage (voir ART. 193). Le filet terminal et l'écrou ont un filetage à gauche (ART. 197).

ACCESSORI PER MACCHINE UTENSILI

Portafrese con trascinamento frontale per frese a manicotto DIN 138

Face milling cutter chucks DIN 138

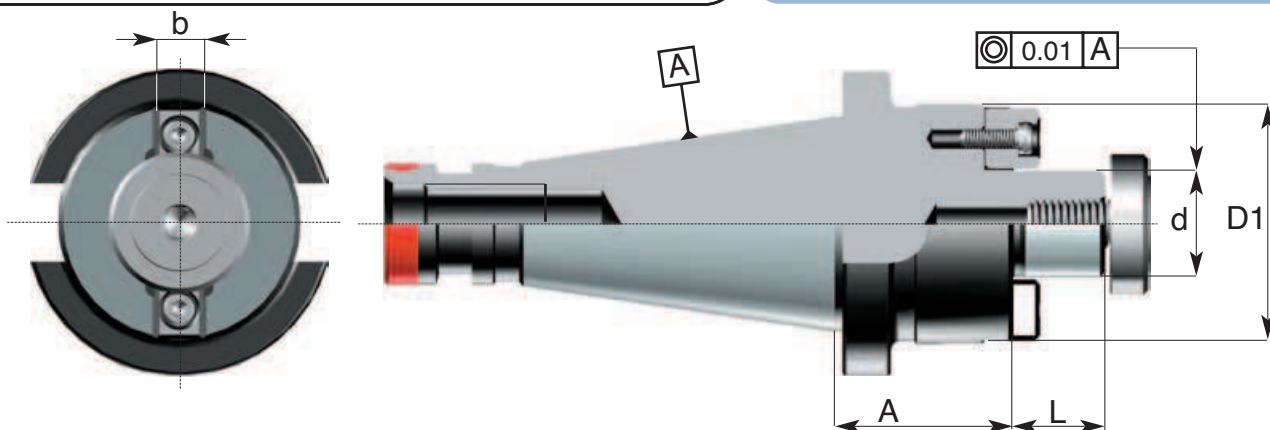
Aufsteckfräserdorne DIN 138

Mandrins porte-fraises à surfacer DIN 138

DIN 2080



ART: 150



5.
5

Codice di ord Code	SK	d h6	A	L	D1	b	Tassello Tenon	Vite Screw
150.40.0160	SK 40	16	37	17	40	8	192.06	191.01
150.40.0162	SK 40	16	100	17	40	8	192.06	191.01
150.40.0220	SK 40	22	37	19	50	10	192.07	191.02
150.40.0222	SK 40	22	100	19	50	10	192.07	191.02
150.40.0270	SK 40	27	37	21	60	12	192.08	191.03
150.40.0272	SK 40	27	100	21	60	12	192.08	191.03
150.40.0320	SK 40	32	42	24	70	14	192.09	191.04
150.40.0322	SK 40	32	100	24	70	14	192.09	191.04
150.40.0400	SK 40	40	44	27	80	16	192.10	191.05
150.40.0402	SK 40	40	100	27	80	16	192.10	191.05
150.40.0500	SK 40	50	44	31	88	18	192.11	191.06
150.40.0502	SK 40	50	100	31	88	18	192.11	191.06
150.50.0160	SK 50	16	45	17	40	8	192.06	191.01
150.50.0162	SK 50	16	120	17	40	8	192.06	191.01
150.50.0220	SK 50	22	45	19	50	10	192.07	191.02
150.50.0222	SK 50	22	120	19	50	10	192.07	191.02
150.50.0270	SK 50	27	45	21	60	12	192.08	191.03
150.50.0272	SK 50	27	120	21	60	12	192.08	191.03
150.50.0320	SK 50	32	45	24	75	14	192.09	191.04
150.50.0322	SK 50	32	120	24	75	14	192.09	191.04
150.50.0400	SK 50	40	45	27	85	16	192.10	191.05
150.50.0402	SK 50	40	120	27	85	16	192.10	191.05
150.50.0500	SK 50	50	45	31	95	18	192.11	191.06
150.50.0502	SK 50	50	120	31	95	18	192.11	191.06

Pag: 12.26



Pag: 12.25



5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Portafrese con trascinamento frontale e linguetta DIN 138

Face milling cutter chucks DIN 138

Aufsteckfräserdorne DIN 138

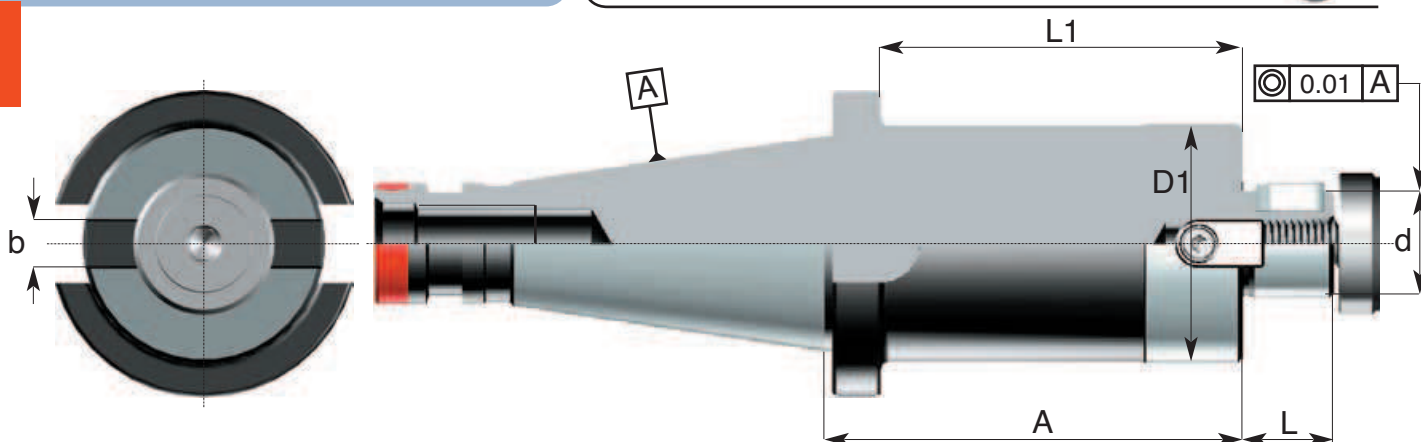
Mandrins porte-fraises à surfacer DIN 138

ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 151



Codice di ord Code	SK	d h6	A	L	L1	D1	b	Tassello Tenon	Vite Screw	Linguetta Key
151.40.0220	SK 40	22	86	19	75	49	10	151.101	191.02	151.199.02
151.40.0222	SK 40	22	111	19	100	49	10	151.101	191.02	151.199.02
151.40.0224	SK 40	22	161	19	150	49	10	151.101	191.02	151.199.02
151.40.0226	SK 40	22	211	19	200	49	10	151.101	191.02	151.199.02
151.40.0270	SK 40	27	86	21	75	60	12	151.102	191.03	151.199.03
151.40.0272	SK 40	27	111	21	100	60	12	151.102	191.03	151.199.03
151.50.0220	SK 50	22	115	19	100	49	10	151.101	191.02	151.199.02
151.50.0222	SK 50	22	165	19	150	49	10	151.101	191.02	151.199.02
151.50.0224	SK 50	22	215	19	200	49	10	151.101	191.02	151.199.02
151.50.0225	SK 50	22	265	19	250	49	10	151.101	191.02	151.199.02
151.50.0226	SK 50	22	315	19	300	49	10	151.101	191.02	151.199.02
151.50.0228	SK 50	22	365	19	350	49	10	151.101	191.02	151.199.02
151.50.0229	SK 50	22	415	19	400	49	10	151.101	191.02	151.199.02
151.50.0270	SK 50	27	115	21	100	60	12	151.102	191.03	151.199.03
151.50.0272	SK 50	27	165	21	150	60	12	151.102	191.03	151.199.03
151.50.0274	SK 50	27	215	21	200	60	12	151.102	191.03	151.199.03
151.50.0275	SK 50	27	265	21	250	60	12	151.102	191.03	151.199.03
151.50.0276	SK 50	27	315	21	300	60	12	151.102	191.03	151.199.03
151.50.0278	SK 50	27	365	21	350	60	12	151.102	191.03	151.199.03
151.50.0279	SK 50	27	415	21	400	60	12	151.102	191.03	151.199.03



Pag. 12.27

Pag. 12.25

ACCESSORI PER MACCHINE UTENSILI

Portafrese con trascinamento frontale per frese a manicotto DIN 6357/B

Centering arbors for milling cutters DIN 6357 B

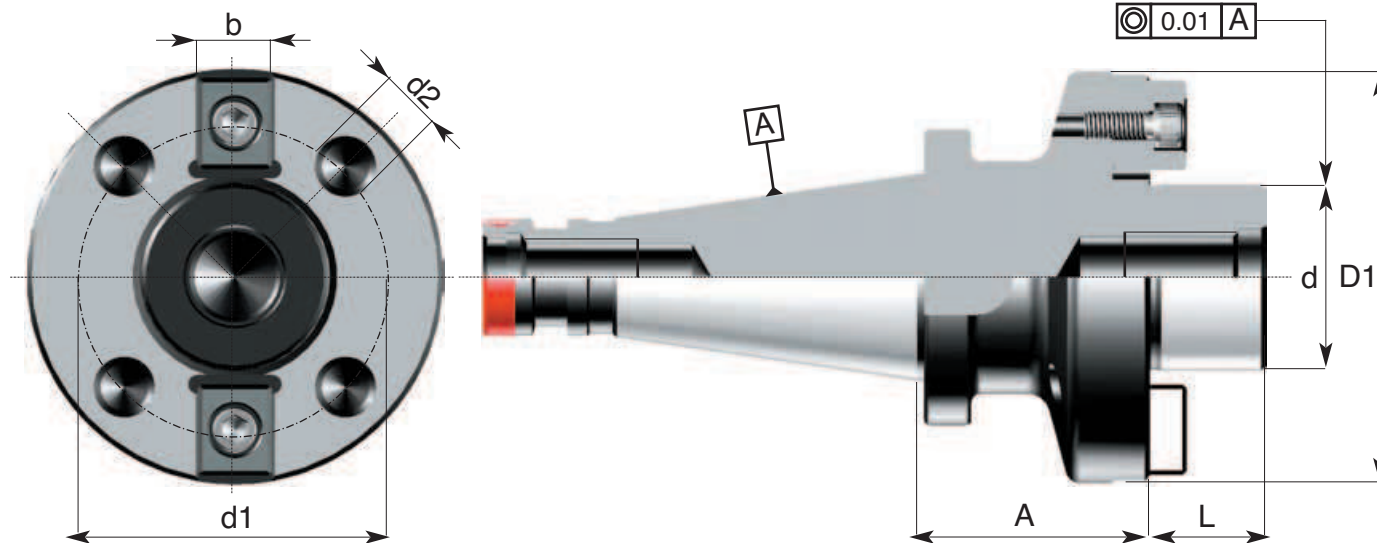
Aufnahmehorn für Messerköpfe DIN 6357 B

Mandrins porte-fraises pour têtes porte-lames DIN 6357 B

DIN 2080

ART: 160

5.
7



Codice di ord Code	SK	d h6	A	D1 h6	d1	d2	L	b	Tassello Tenon
160.40.0690.32	SK 40	32	50	69.832	54.00	M 10	25	15.9	192.01
160.40.0880.40	SK 40	40	50	88.882	66.70	M 12	25	15.9	192.01
160.50.0880.40	SK 50	40	60	88.882	66.70	M 12	25	15.9	192.01
160.50.1280.60	SK 50	60	67	128.570	101.6	M 16	35	25.4	192.03
160.60.0880.40	SK 60	40	75	88.882	66.70	M 12	25	15.9	192.01
160.60.1280.60	SK 60	60	75	128.570	101.6	M 16	35	25.4	192.03

Pag. 12/27



5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



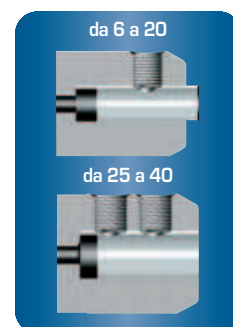
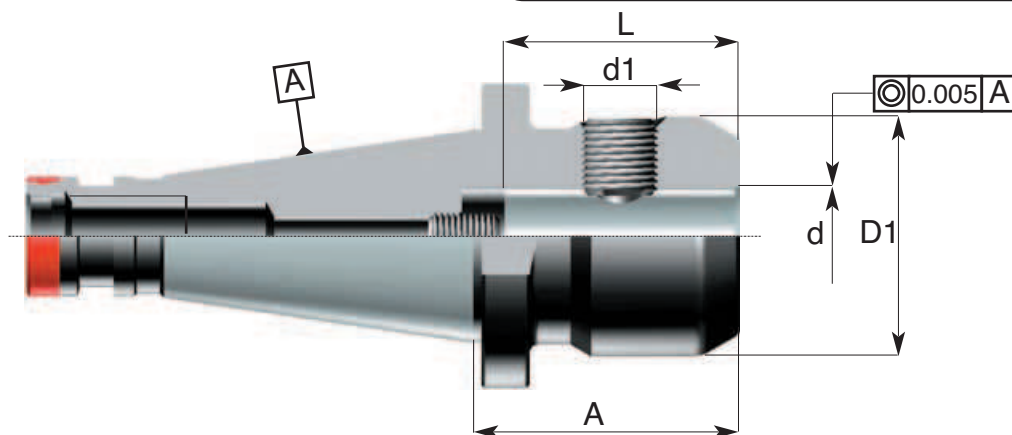
Portafrese cilindriche tipo weldon con vite di registrazione interna DIN 6359 B
 Milling cutter chucks for straight-shank tools - Weldon System DIN 6359 B
 Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Mandrins porte-Weldon pour fraises à queue cylindrique DIN 6359 B

ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 208



Codice di ord Code	SK	d H5	A	D1	L	d1	Grano di serraggio Clamping screw
208.30.0060	SK 30	6	40	25	35	M6X10	208.00.0060
208.30.0080	SK 30	8	40	28	35	M8X10	208.00.0080
208.30.0100	SK 30	10	40	35	39	M10X12	208.00.0100
208.30.0120	SK 30	12	45	42	44	M12X1,5X16	208.00.0120
208.30.0160	SK 30	16	50	48	47	M14X1,5X16	208.00.0140
208.30.0200	SK 30	20	63	52	49	M16X1,5X16	208.00.0160
208.40.0060	SK 40	6	50	25	35	M6X10	208.00.0060
208.40.0080	SK 40	8	50	28	35	M8X10	208.00.0080
208.40.0100	SK 40	10	50	35	39	M10X12	208.00.0100
208.40.0120	SK 40	12	50	42	44	M12X1,5X16	208.00.0120
208.40.0160	SK 40	16	63	48	47	M14X1,5X16	208.00.0140
208.40.0180	SK 40	18	63	50	47	M14X1,5X16	208.00.0140
208.40.0200	SK 40	20	63	52	49	M16X1,5X16	208.00.0160
208.40.0250	SK 40	25	85	65	54	M18X1,5X20	208.00.0180
208.40.0320	SK 40	32	90	72	58	M20X1,5X20	208.00.0200
208.50.0060	SK 50	6	50	25	35	M6X10	208.00.0060
208.50.0080	SK 50	8	50	28	35	M8X10	208.00.0080
208.50.0100	SK 50	10	50	35	39	M10X12	208.00.0100
208.50.0120	SK 50	12	50	42	44	M12X1,5X16	208.00.0120
208.50.0140	SK 50	14	63	44	44	M12X1,5X16	208.00.0120
208.50.0160	SK 50	16	63	48	47	M14X1,5X16	208.00.0140
208.50.0200	SK 50	20	63	52	49	M16X1,5X16	208.00.0160
208.50.0250	SK 50	25	80	65	54	M18X1,5X20	208.00.0180
208.50.0320	SK 50	32	80	72	58	M20X1,5X20	208.00.0200
208.50.0400	SK 50	40	90	80	68	M20X1,5X20	208.00.0200
208.50.0500	SK 50	50	100	90	78	M24X2X20	208.00.0240



ACCESSORI PER MACCHINE UTENSILI

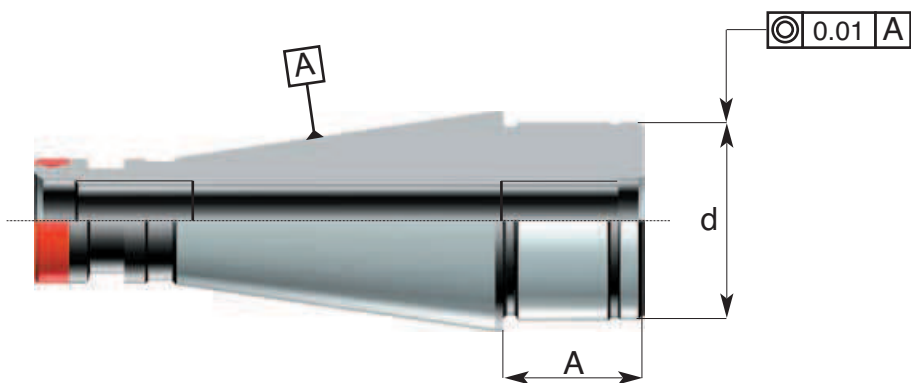


Mandrini di centraggio cono ISO DIN 6356 per frese secondo DIN 2079
Centering chucks ISO DIN 6356 cone for cutters DIN 2079
Zentrierdörner Steilkegel ISO DIN 6356 für Messerköpfe DIN 2079
Mandrins de centrage à cône ISO DIN 6356 pour fraises DIN 2079

DIN 2080

ART: 230

5.
9



Codice di ord <i>Code</i>	SK	A	d
230.40.0320	SK 40	30	32
230.40.0400	SK 40	30	40
230.50.0500	SK 50	40	50
230.50.0600	SK 50	40	60
230.60.0600	SK 60	40	60
230.60.1000	SK 60	52	100

5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Mandrini portamorsetti autoserranti DIN 238

Taper shafts for drill chucks DIN 238

Bohrfutteraufnahmen DIN 238

Porte-mandrins de perceuses DIN 238

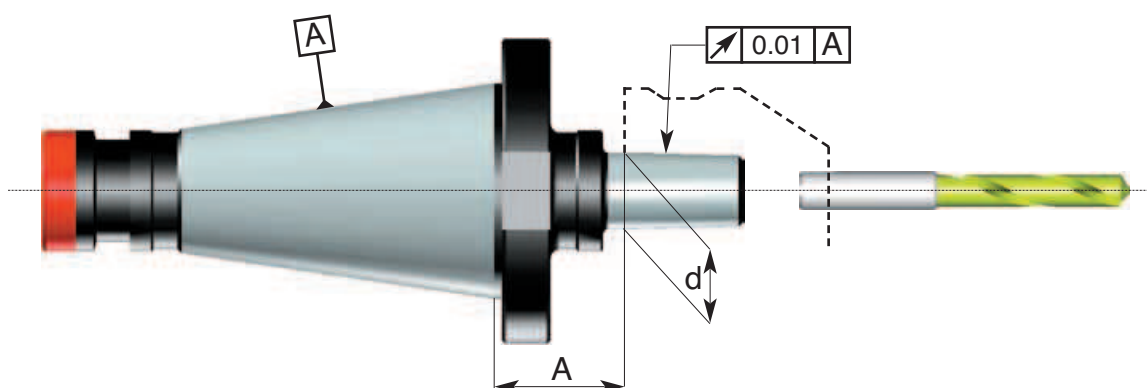
ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 220

5.
10



Codice di ord Code	SK	Tipo Din	A	d
220.30.0100	SK 30	B10	27	10.094
220.30.0120	SK 30	B12	27	12.065
220.30.0160	SK 30	B16	25	15.733
220.30.0180	SK 30	B18	27	17.780
220.40.0120	SK 40	B12	30	12.065
220.40.0160	SK 40	B16	30	15.733
220.40.0180	SK 40	B18	30	17.780
220.50.0160	SK 50	B16	40	15.733
220.50.0180	SK 50	B18	40	17.780
220.50.0220	SK 50	B22	40	23.827

ACCESSORI PER MACCHINE UTENSILI

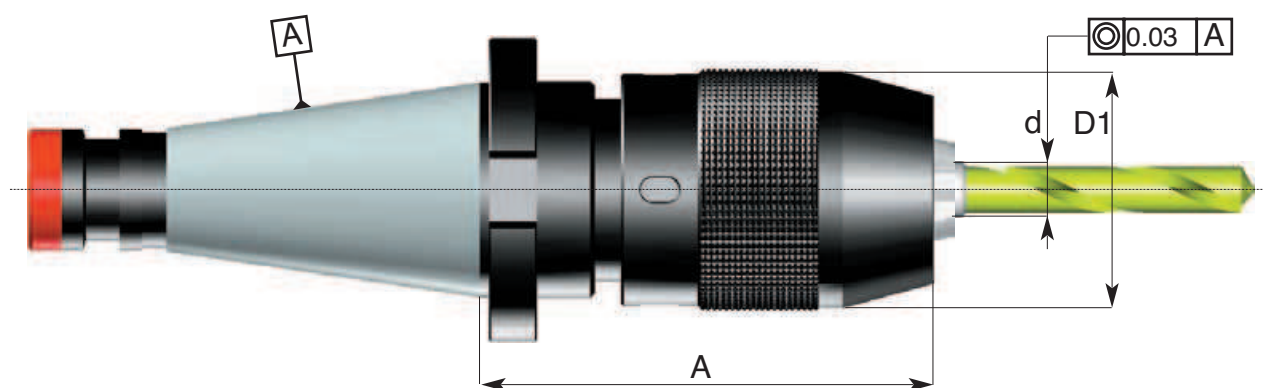
Mandrini portapunte integrali
Integral drill chucks
Kurze Bohrfutter
Mandrins porte-forets intégraux

DIN 2080



ART: 221

5.
11



Codice di ord <i>Code</i>	SK	A	D1	capacità "d" <i>Capacity range "d"</i>
221.40.1301	SK 40	90	50	1-13
221.40.1603	SK 40	90	57	3-16
221.50.1301	SK 50	90	50	1-13
221.50.1603	SK 50	90	57	3-16

ADATTI SOLO A ROTAZIONE DESTRA
SUITABLE FOR RIGHT ROTATION ONLY

Forniti completi di chiave
Supplied together with key

5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Riduzioni da cono ISO DIN 2080 a cono ISO DIN 2080
 Adaptors sleeves ISO DIN 2080 to ISO DIN 2080 cone
 Zwischenhülsen ISO DIN 2080 zu ISO DIN 2080 Steilkegel
 Douilles de réduction cône ISO DIN 2080 à ISO DIN 2080

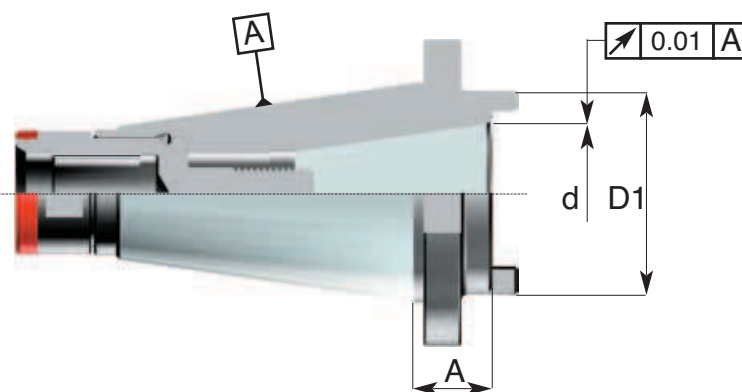
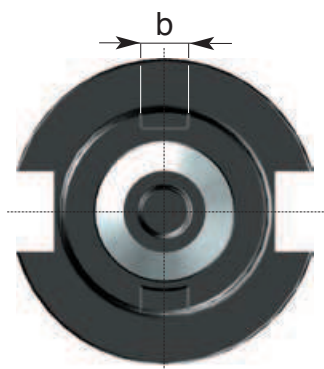
ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 250

5.
12



Codice di ord Code	SK	SK	d	A	D1	b	M	Codolo Pull stud
250.40.0300	SK 40	SK 30	31.750	17	51	15.9	M 12	296.01
250.45.0300	SK 45	SK 30	31.750	25	55	15.9	M 12	296.20.0120
250.45.0400	SK 45	SK 40	44.450	35	68	15.9	M 16	296.20.0160
250.50.0300	SK 50	SK 30	31.750	20	68	15.9	M 12	296.02
250.50.0400	SK 50	SK 40	44.450	25	80	15.9	M 16	296.03
250.50.0450	SK 50	SK 45	57.150	38	85	19	M 20	296.24.0200
250.60.0500	SK 60	SK 50	69.850	27	115	25.4	M 24	296.04



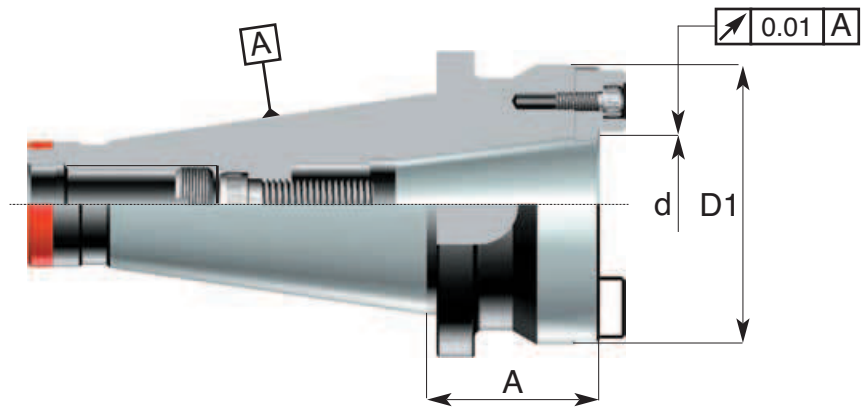
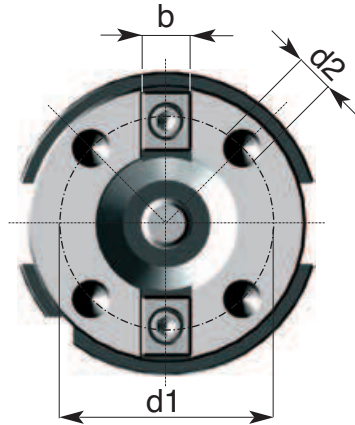
ACCESSORI PER MACCHINE UTENSILI



Riduzioni da cono ISO a cono ISO naso mandrino DIN 2079
 Adaptors sleeves ISO to ISO cone with DIN 2079 spindle nose
 Zwischenhülsen ISO zu ISO Steilkegel mit DIN 2079 Spindelkopf
 Douilles de réduction cône ISO à cône ISO avec nez de broche DIN 2079

DIN 2080

ART: 252



5.
13

Codice di ord Code	SK	SK	A	D1 h6	d1	d2	b	Tassello Tenon	Vite Screw	Ghiera Nut
252.40.0400	SK 40	SK 40	75	88.882	66.70	M 12	15.90	192.02	252.00.1640.B	261.104
252.50.0300	SK 50	SK 30	53	69.832	54.00	M 10	15.90	192.01	252.00.1260.B	261.24.0300
252.50.0400	SK 50	SK 40	55	88.882	66.70	M 12	15.90	190.02	252.00.1650.B	261.24.0400
252.50.0450	SK 50	SK 45	75	101.600	80.00	M 12	19.00	191.45.0190	252.00.2050.B	252.107



Pag. 12, 26

5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Riduzioni da cono ISO a cono Morse DIN 6364 B per frese con vite interna
 Morse taper adaptors sleeves for cutters with internal screw - DIN 6364 B
 Zwischenhülsen für Morsekegel mit Auzugsgewinde - DIN 6364 B
 Douilles de réduction à cône Morse pour fraises avec vis - DIN 6364 B

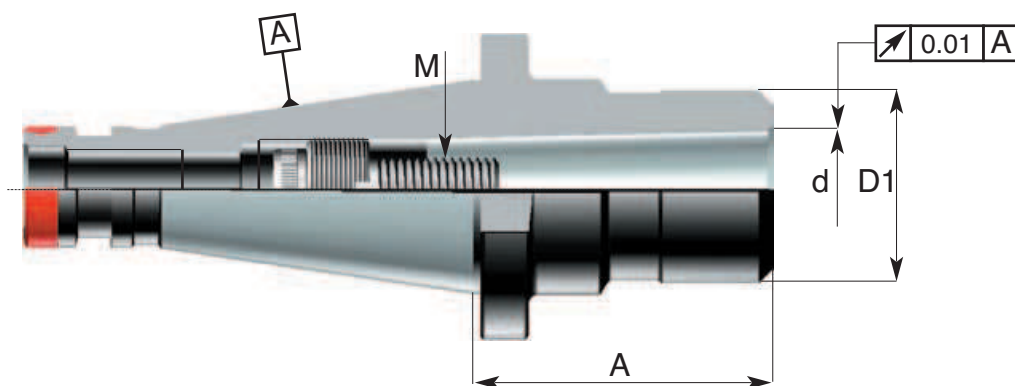
ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 261

5.
14



Codice di ord Code	SK	Cono Morse	d	A	D1	M	Vite Screw	Ghiera Nut
261.40.0100	SK 40	Morse 1	12.065	40	25	M 6	261.00.0630	261.16.0100
261.40.0200	SK 40	Morse 2	17.780	50	32	M 10	261.00.1035.B	261.16.0200
261.40.0300	SK 40	Morse 3	23.825	70	40	M 12	261.00.1240	261.00.1220
261.40.0400	SK 40	Morse 4	31.267	95	50	M 16	261.00.1650.E	261.00.1626
261.50.0100	SK 50	Morse 1	12.065	36	25	M 6	261.00.0645	261.24.0100
261.50.0200	SK 50	Morse 2	17.780	50	32	M 10	261.00.1040	261.24.0200
261.50.0300	SK 50	Morse 3	23.825	55	40	M 12	261.00.1240	261.24.0300
261.50.0400	SK 50	Morse 4	31.267	70	50	M 16	261.00.1645.B	261.24.0400
261.50.0500	SK 50	Morse 5	44.399	90	65	M 20	261.00.2050.E	261.00.2033



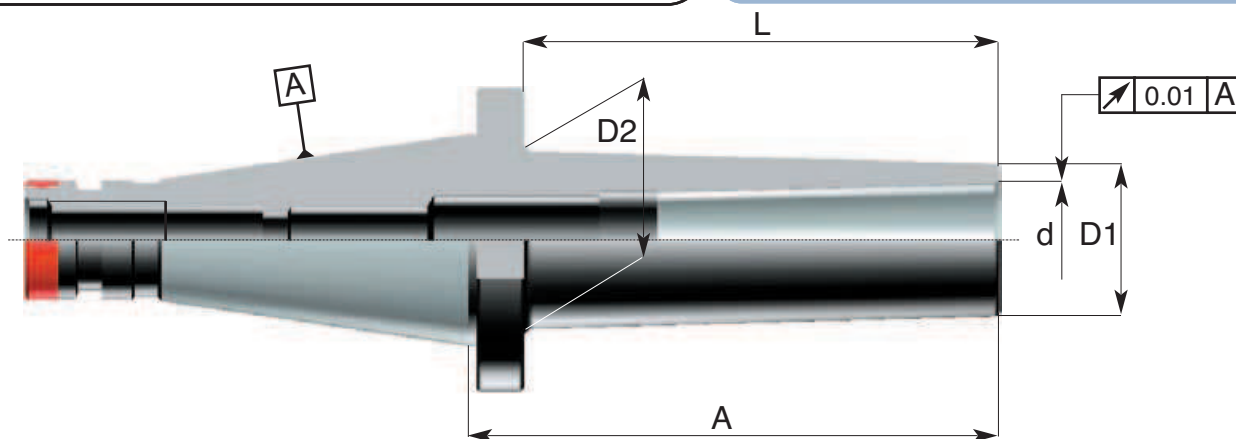
ACCESSORI PER MACCHINE UTENSILI

Riduzioni da cono ISO a cono Morse per frese con ingombri ridotti
 Morse taper adaptors sleeves for cutters with internal screw
 Zwischenhülsen für Morsekegel mit Auzugsgewinde
 Douilles de réduction à cône Morse pour fraises avec vis

DIN 2080

ART: 266

5.
15



Codice di ord Code	SK	CM	d	A	L	D1	D2	Vite Screw	Ghiera Nut
266.40.0202	SK 40	Morse 2	17.780	111,8	100	25	30	266.00.1090.B	261.16.0200
266.40.0204	SK 40	Morse 2	17.780	161,8	150	25	33	266.00.10140.B	261.16.0200
266.40.0206	SK 40	Morse 2	17.780	211,8	200	25	35,5	266.00.10180.B	261.16.0200
266.40.0300	SK 40	Morse 3	23.825	86,8	75	32	36	266.00.1240	261.00.1220
266.40.0302	SK 40	Morse 3	23.825	111,8	100	32	37	266.00.1240	261.00.1220
266.40.0304	SK 40	Morse 3	23.825	161,8	150	32	40	266.00.1240	261.00.1220
266.40.0306	SK 40	Morse 3	23.825	211,8	200	32	42,5	266.00.1240	261.00.1220
266.50.0200	SK 50	Morse 2	17.780	115,2	100	25	30	266.00.10100	261.24.0200
266.50.0202	SK 50	Morse 2	17.780	165,2	150	25	33	266.00.10130	261.24.0200
266.50.0204	SK 50	Morse 2	17.780	215,2	200	25	35,5	266.00.10180	261.24.0200
266.50.0206	SK 50	Morse 2	17.780	265,2	250	25	38	266.00.10220	261.24.0200
266.50.0300	SK 50	Morse 3	23.825	115,2	100	32	37	266.00.12100	261.24.0300
266.50.0302	SK 50	Morse 3	23.825	165,2	150	32	40	266.00.12130	261.24.0300
266.50.0304	SK 50	Morse 3	23.825	215,2	200	32	42,5	266.00.12180	261.24.0300
266.50.0306	SK 50	Morse 3	23.825	265,2	250	32	45	266.00.12200	261.24.0300
266.50.0308	SK 50	Morse 3	23.825	315,2	300	32	48	266.00.12260	261.24.0300
266.50.0309	SK 50	Morse 3	23.825	365,2	350	32	50,5	266.00.12300	261.24.0300
266.50.0310	SK 50	Morse 3	23.825	415,2	400	32	53	266.00.12300	261.24.0300
266.50.0400	SK 50	Morse 4	31.267	115,2	100	42	47	266.00.1680.B	261.24.0400
266.50.0402	SK 50	Morse 4	31.267	165,2	150	42	50	266.00.16110.B	261.24.0400
266.50.0404	SK 50	Morse 4	31.267	215,2	200	42	52,5	266.00.16160.B	261.24.0400
266.50.0406	SK 50	Morse 4	31.267	265,2	250	42	55	266.00.16200.B	261.24.0400
266.50.0408	SK 50	Morse 4	31.267	315,2	300	42	58	266.00.16260.B	261.24.0400
266.50.0409	SK 50	Morse 4	31.267	365,2	350	42	60,5	266.00.16300.B	261.24.0400



5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Riduzioni da cono ISO a cono Morse per punte tipo normale e prolungato

Adaptors sleeves from ISO cone to Morse cone for tools with driving shank

Zwischenhülsen mit Steilkegel für Werkzeuge mit Morsekegel und Austreibklappen

Douilles de réduction de cône ISO à cône Morse pour outils munies de dents d'entraînement

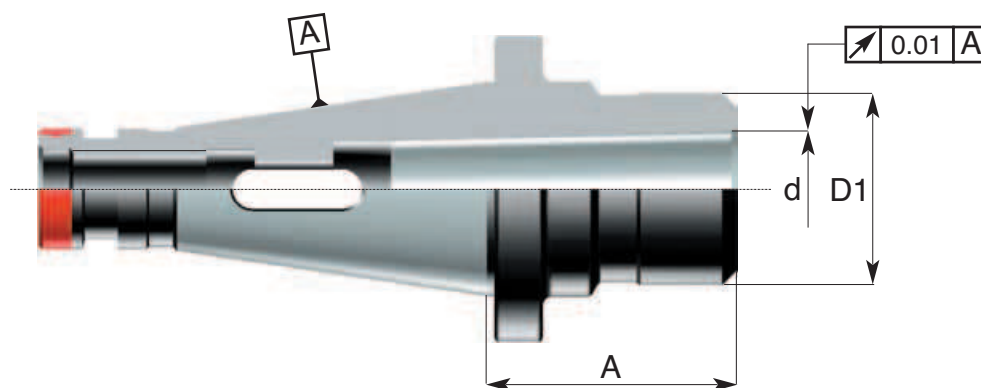
ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 262

5.
16



Codice di ord Code	SK	Cono Morse	d	A	D1	Combi*
262.30.0100	SK 30	Morse 1	12.065	35	25	PF
262.30.0102	SK 30	Morse 1	12.065	100	20	-
262.30.0200	SK 30	Morse 2	17.780	47	30	-
262.30.0202	SK 30	Morse 2	17.780	115	30	-
262.30.0300	SK 30	Morse 3	23.825	75	35	-
262.30.0302	SK 30	Morse 3	23.825	135	38	-
262.40.0100	SK 40	Morse 1	12.065	32	25	PF
262.40.0200	SK 40	Morse 2	17.780	35	30	PF
262.40.0202	SK 40	Morse 2	17.780	115	30	PF
262.40.0300	SK 40	Morse 3	23.825	52	40	PF
262.40.0302	SK 40	Morse 3	23.825	140	38	-
262.40.0400	SK 40	Morse 4	31.267	80	50	-
262.40.0402	SK 40	Morse 4	31.267	160	48	-
262.40.0502	SK 40	Morse 5	44.399	195	60	-
262.50.0100	SK 50	Morse 1	12.065	35	35	PF
262.50.0200	SK 50	Morse 2	17.780	40	35	PF
262.50.0202	SK 50	Morse 2	17.780	125	30	PF
262.50.0300	SK 50	Morse 3	23.825	45	40	PF
262.50.0302	SK 50	Morse 3	23.825	145	40	PF
262.50.0400	SK 50	Morse 4	31.267	55	50	PF
262.50.0402	SK 50	Morse 4	31.267	175	50	PF
262.50.0500	SK 50	Morse 5	44.399	85	65	-
262.50.0502	SK 50	Morse 5	44.399	205	65	-
262.50.0600	SK 50	Morse 6	63.348	190	85	-
262.50.0602	SK 50	Morse 6	63.348	265	85	-

*Le riduzioni PF sono adatte anche per frese con attacco DIN 228-A; per i tipi ISO 30 CM2-3, ISO 40 CM3-4, ISO 45 CM5 e ISO 50 CM5 è necessario l'uso del tirante lungo (vedi sezione tiranti)

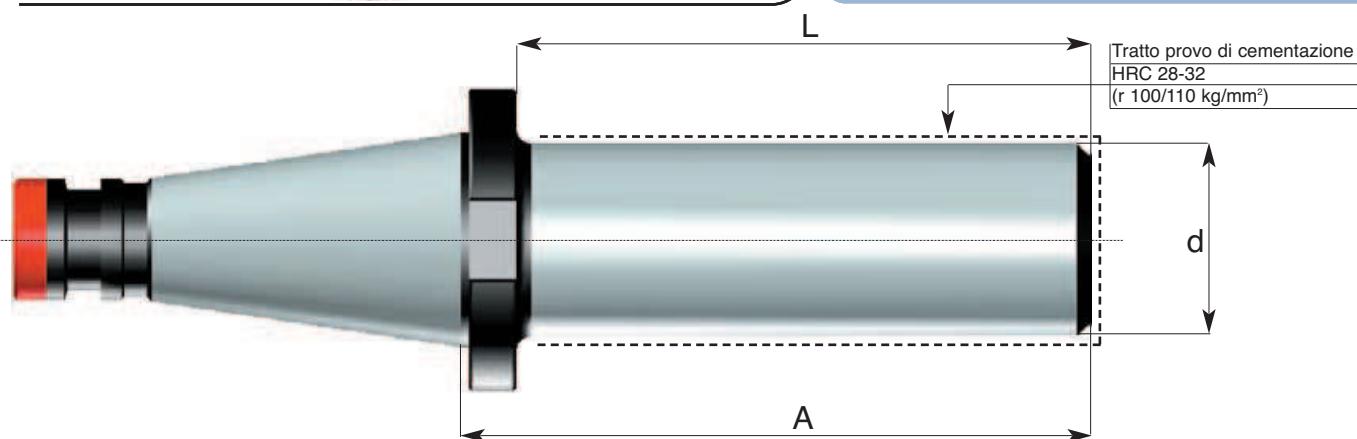
*PF adaptors are suitable for clamping mills with MT-shank; for ISO 30 MK2-3, ISO 40 MK3-4, ISO 45 MK5 e ISO 50 MK5 is necessary the long pull stud (see pull studs section)

ACCESSORI PER MACCHINE UTENSILI

Barre semifinite con tratto cilindrico privo di cementazione per esecuzioni speciali
 Unfinished taper-shank blanks for special applications
 Rohlinge für spezielle Anwendungen
 Ebauches pour applications spéciales

DIN 2080

ART: 424



5.
17

Codice di ord Code	SK	d	A	L
424.40.0402	SK 40	40	182	170
424.40.0404	SK 40	40	262	250
424.40.0630	SK 40	63	162	150
424.40.0632	SK 40	63	262	250
424.50.0502	SK 50	50	225	210
424.50.0504	SK 50	50	330	315
424.50.0632	SK 50	63	265	250
424.50.0634	SK 50	63	415	400
424.50.1000	SK 50	97	265	250
424.50.1002	SK 50	97	415	400

5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Mandrini portapinze Delta per pinze rif. art.209

Delta collet chucks for collets ref. art.209

Delta Spannzangenhalter für Spannzangen ref. art.209

Mandrins porte-pinces Delta pour pinces ref. art.209

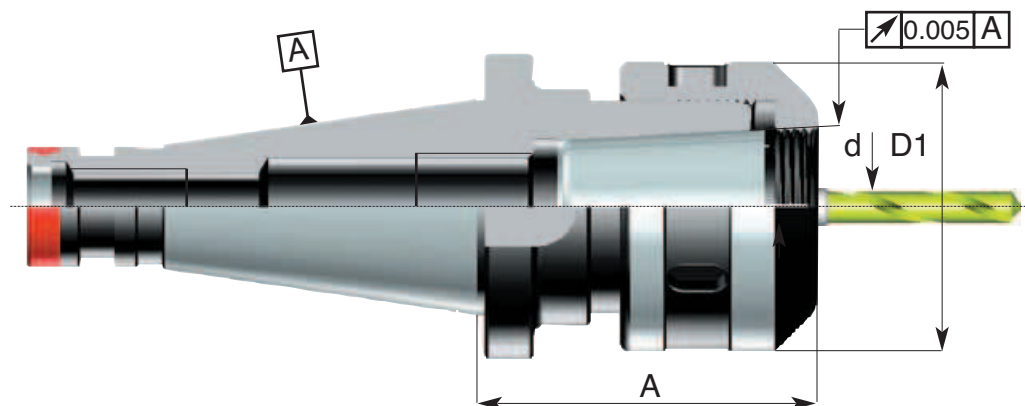
ACCESSORI PER MACCHINE UTENSILI

DIN 2080

ART: 200



5.18



Codice di ord Code	SK	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Tipo pinza Collet	Ghiera Nut
200.30.0260	SK 30	63	50	da 3 a 18	209.10	245.01
200.40.0320	SK 40	70	58	da 3 a 22	209.20	245.02
200.40.0440	SK 40	79	73	da 4 a 32	209.30	245.03
200.50.0320	SK 50	70	58	da 3 a 22	209.20	245.02
200.50.0440	SK 50	75	73	da 4 a 32	209.30	245.03
200.60.0440	SK 60	95	73	da 4 a 32	209.30	245.03

Cassette con mandrini per pinze Delta rif. art.209

Boxes with Delta collet chucks and collets ref. art.209

Kassetten mit Spannzangenhalter Delta und Spannzangen ref. art.209

Coffrets avec mandrins à pinces Delta et pinces ref. art.209

DIN 2080

CASSETTE 15

ART: 202

5.
19



Codice di ord. Code	Mandrino Chuck	SK	Tipo pinza Collets type	Numero pinze Collets nr.	Ø Pinza Ø Collets
15.01	200.30.0260	ISO 30 DIN 2080	209.10	7	3-4-6-8-10-12-16
15.02	200.30.0260	ISO 30 DIN 2080	209.10	14	da 3 a 16
15.05	200.40.0320	ISO 40 DIN 2080	209.20	7	4-6-8-10-12-16-20
15.06	200.40.0320	ISO 40 DIN 2080	209.20	18	da 3 a 20
15.07	200.40.0440	ISO 40 DIN 2080	209.30	9	4-6-8-10-12-16-20-25-32
15.08	200.40.0440	ISO 40 DIN 2080	209.30	28	da 4 a 32
15.09	200.50.0440	ISO 50 DIN 2080	209.30	9	4-6-8-10-12-16-20-25-32
15.10	200.50.0440	ISO 50 DIN 2080	209.30	28	da 4 a 32

5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Mandrini portapinze EOC tipo normale e prolungato DIN 6388

Collet chucks EOC - DIN 6388

Spannzangenhalter EOC - DIN 6388

Mandrins porte-pinces EOC - DIN 6388

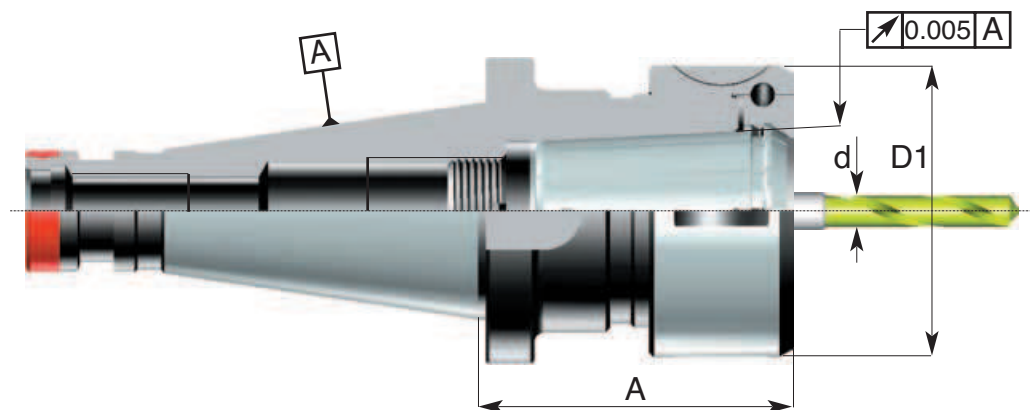
ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 601

5.
20



Codice di ord Code	SK	EOC	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
601.40.0350	SK 40	25	70	60	da 3 a 25	245.48.0350
601.40.0352	SK 40	25	120	60	da 3 a 25	245.48.0350
601.40.0440	SK 40	32	70	72	da 4 a 32	245.60.0440
601.40.0442	SK 40	32	120	72	da 4 a 32	245.60.0440
601.50.0350	SK 50	25	75	60	da 3 a 25	245.48.0350
601.50.0352	SK 50	25	120	60	da 3 a 25	245.48.0350
601.50.0440	SK 50	32	80	72	da 4 a 32	245.60.0440
601.50.0442	SK 50	32	120	72	da 4 a 32	245.60.0440

ACCESSORI PER MACCHINE UTENSILI

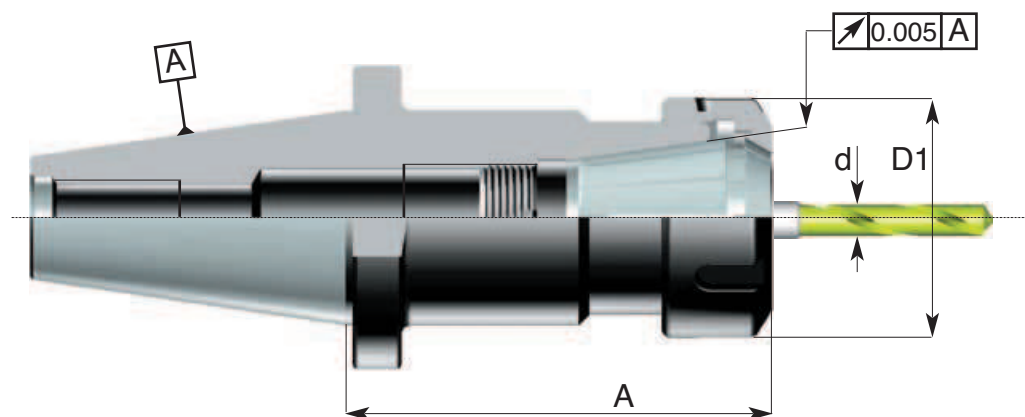
Mandrini "GNUTTI" portapinze ER DIN 6499 - ghiera standard
 Collet chucks "GNUTTI" ER DIN 6499 - standard nut
 Spannzangenhalter "GNUTTI" ER DIN 6499 - standard Spannmutter
 Mandrins porte-pinces "GNUTTI" ER DIN 6499 - écrou standard

GNUTTI



ART: GNU.607
 ghiera standard / standard nut

5.
21



Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
GNU.60730032050	SK 30	ER32	50	50	da 1 a 20	245.40.ER32
GNU.60730032070	SK 30	ER32	70	50	da 1 a 20	245.40.ER32
GNU.60730032080	SK 30	ER32	80	50	da 1 a 20	245.40.ER32
GNU.60730032090	SK 30	ER32	90	50	da 1 a 20	245.40.ER32
GNU.607300320100	SK 30	ER32	100	50	da 1 a 20	245.40.ER32
GNU.607300320110	SK 30	ER32	110	50	da 1 a 20	245.40.ER32
GNU.60730040070	SK 30	ER40	70	63	da 2 a 30	245.50.ER40
GNU.60730040080	SK 30	ER40	80	63	da 2 a 30	245.50.ER40
GNU.60730040090	SK 30	ER40	90	63	da 2 a 30	245.50.ER40
GNU.607300400100	SK 30	ER40	100	63	da 2 a 30	245.50.ER40
GNU.607300400110	SK 30	ER40	110	63	da 2 a 30	245.50.ER40
GNU.60740032070	SK 40	ER32	70	50	da 1 a 20	245.40.ER32
GNU.60740032090	SK 40	ER32	90	50	da 1 a 20	245.40.ER32
GNU.607400320100	SK 40	ER32	100	50	da 1 a 20	245.40.ER32
GNU.607400320120	SK 40	ER32	120	50	da 1 a 20	245.40.ER32
GNU.607400320150	SK 40	ER32	150	50	da 1 a 20	245.40.ER32
GNU.60740040070	SK 40	ER40	70	63	da 2 a 30	245.50.ER40
GNU.60740040090	SK 40	ER40	90	63	da 2 a 30	245.50.ER40
GNU.607400400100	SK 40	ER40	100	63	da 2 a 30	245.50.ER40
GNU.607400400120	SK 40	ER40	120	63	da 2 a 30	245.50.ER40

5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Mandrini portapinze ER DIN 6499 - ghiera standard

Collet chucks ER DIN 6499 - standard nut

Spannzangenhalter ER DIN 6499 - standard Spannmutter

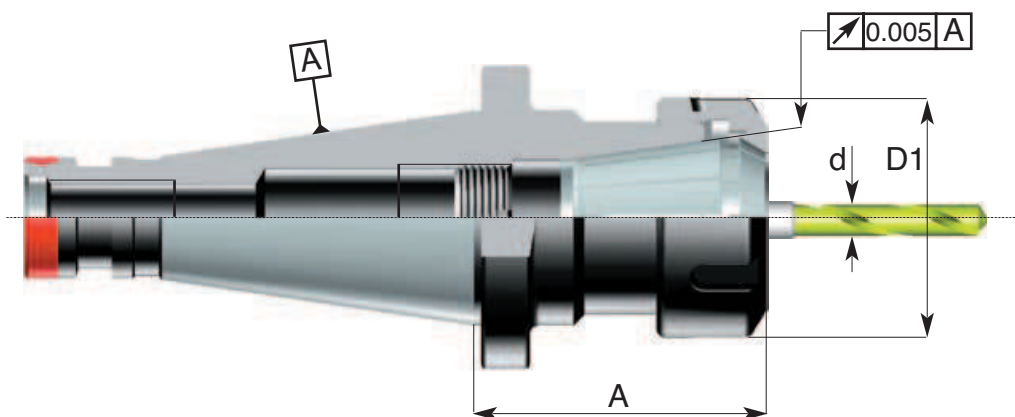
Mandrins porte-pinces ER DIN 6499 - écrou standard

ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 607
ghiera standard / standard nut



Codice di ord Code	SK	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
607.30.0250	SK 30	ER 25	50	42	da 1 a 16	245.32.ER25
607.30.0252	SK 30	ER 25	90	42	da 1 a 16	245.32.ER25
607.30.0320	SK 30	ER 32	50	50	da 1 a 20	245.40.ER32
607.30.0320.A	SK 30	ER 32	60	50	da 1 a 20	245.40.ER32
607.30.0321	SK 30	ER 32	70	50	da 1 a 20	245.40.ER32
607.30.0321.A	SK 30	ER 32	80	50	da 1 a 20	245.40.ER32
607.30.0322	SK 30	ER 32	90	50	da 1 a 20	245.40.ER32
607.30.0323	SK 30	ER 32	100	50	da 1 a 20	245.40.ER32
607.30.0323.A	SK 30	ER 32	110	50	da 1 a 20	245.40.ER32
607.30.0324	SK 30	ER 32	120	50	da 1 a 20	245.40.ER32
607.30.0400	SK 30	ER 40	70	63	da 2 a 30	245.50.ER40
607.30.0401	SK 30	ER 40	80	63	da 2 a 30	245.50.ER40
607.30.0401.A	SK 30	ER 40	90	63	da 2 a 30	245.50.ER40
607.30.0402	SK 30	ER 40	100	63	da 2 a 30	245.50.ER40
607.40.0160	SK 40	ER 16	60	28	da 0,5 a 10	245.22. ER16
607.40.0162	SK 40	ER 16	120	28	da 0,5 a 10	245.22. ER16
607.40.0200	SK 40	ER 20	60	34	da 0,5 a 13	245.25.ER20
607.40.0202	SK 40	ER 20	120	34	da 0,5 a 13	245.25.ER20
607.40.0250	SK 40	ER 25	60	42	da 1 a 16	245.32.ER25
607.40.0252	SK 40	ER 25	120	42	da 1 a 16	245.32.ER25
607.40.0320.C	SK 40	ER 32	50	50	da 1 a 20	245.40.ER32
607.40.0320	SK 40	ER 32	60	50	da 1 a 20	245.40.ER32
607.40.0320.A	SK 40	ER 32	80	50	da 1 a 20	245.40.ER32
607.40.0320.90	SK 40	ER 32	90	50	da 1 a 20	245.40.ER32
607.40.0321	SK 40	ER 32	100	50	da 1 a 20	245.40.ER32
607.40.0321.A	SK 40	ER 32	110	50	da 1 a 20	245.40.ER32
607.40.0322	SK 40	ER 32	120	50	da 1 a 20	245.40.ER32
607.40.0324	SK 40	ER 32	150	50	da 1 a 20	245.40.ER32
607.40.0400	SK 40	ER 40	60	63	da 2 a 30	245.50.ER40
607.40.0401.A	SK 40	ER 40	100	63	da 2 a 30	245.50.ER40
607.40.0402	SK 40	ER 40	120	63	da 2 a 30	245.50.ER40
607.40.0404	SK 40	ER 40	150	63	da 2 a 30	245.50.ER40
607.50.0250	SK 50	ER 25	70	42	da 1 a 16	245.32.ER25
607.50.0252	SK 50	ER 25	120	42	da 1 a 16	245.32.ER25
607.50.0320	SK 50	ER 32	70	50	da 1 a 20	245.40.ER32
607.50.0322	SK 50	ER 32	120	50	da 1 a 20	245.40.ER32
607.50.0400	SK 50	ER 40	70	63	da 2 a 30	245.50.ER40
607.50.0402	SK 50	ER 40	120	63	da 2 a 30	245.50.ER40

Cassette con portapinze ER pinze complete di chiave di serraggio
 Boxes with ER collet chucks and collets - supplied with wrench
 Kassetten mit Spannzangenhalter ER und Spannzangen - geliefert mit Schlüssel
 Coffrets avec mandrins à pinces ER et pinces - fournis avec clé

DIN 2080

CASSETTE DIN 2080
ART: 607...

5.
23



Codice di ord. Code	Mandrino Chuck	SK	Tipo pinza Collets type	Numero pinze Collets nr.	Ø Pinza Ø Collets
30.09.ER32	607.30.0320	ISO 30 DIN 2080	ER32	9	4-6-8-10-12-14-16-18-20
30.18.ER32	607.30.0320	ISO 30 DIN 2080	ER32	18	da 3 a 20
40.09.ER32	607.40.0320	ISO 40 DIN 2080	ER32	9	4-6-8-10-12-14-16-18-20
40.18.ER32	607.40.0320	ISO 40 DIN 2080	ER32	18	da 3 a 20
40.09.ER40	607.40.0400	ISO 40 DIN 2080	ER40	9	4-6-8-10-12-14-16-18-20
40.23.ER40	607.40.0400	ISO 40 DIN 2080	ER40	23	da 4 a 26
50.09.ER32	607.50.0320	ISO 50 DIN 2080	ER32	9	4-6-8-10-12-14-16-18-20
50.18.ER32	607.50.0320	ISO 50 DIN 2080	ER32	18	da 3 a 20
50.09.ER40	607.50.0400	ISO 50 DIN 2080	ER40	9	4-6-8-10-12-14-16-18-20
50.23.ER40	607.50.0400	ISO 50 DIN 2080	ER40	23	da 4 a 26

5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Mandrini per astucci registrabili e portautensili con gambo a norma din 6327

Adaptors for adjustable inserts DIN 6327

Zwischenhülsen für axialverstellbare Futter DIN 6327

Douilles pour mandrins réglables axialement DIN 6327

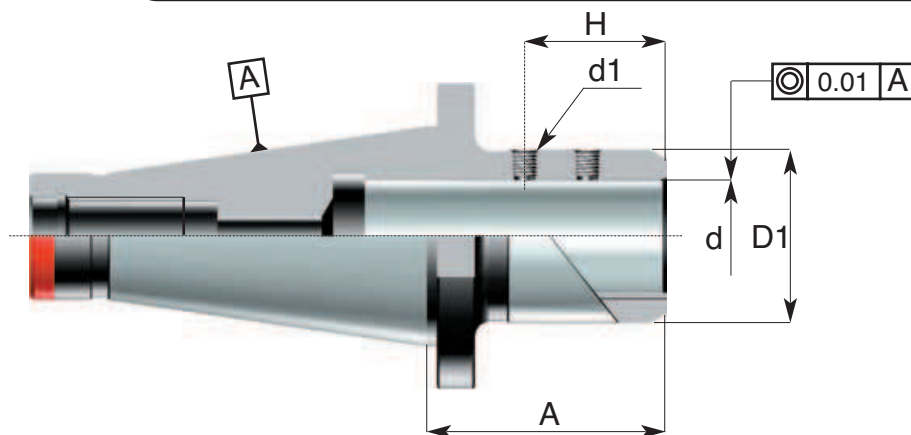
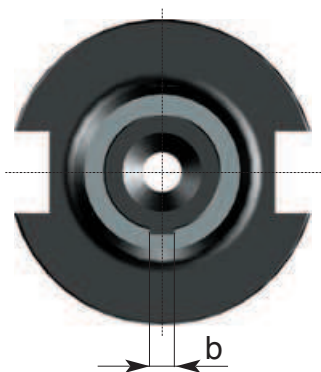
ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 610

5.
24



Codice di ord Code	SK	d h7	A	D1	H	b C11	Grano di serraggio "d1" Clamping screw "d1"
610.40.0250	SK 40	25	65	37	38	6	610.00.0060
610.40.0280	SK 40	28	70	40	38	6	610.00.0060
610.40.0320	SK 40	32	110	45	45	8	610.00.0080
610.40.0360	SK 40	36	115	50	45	8	610.00.0080
610.50.0280	SK 50	28	70	40	38	6	610.00.0080
610.50.0320	SK 50	32	70	45	45	8	610.00.0080
610.50.0360	SK 50	36	70	50	45	8	610.00.0080
610.50.0480	SK 50	48	100	67	57	10	610.00.0100



ACCESSORI PER MACCHINE UTENSILI

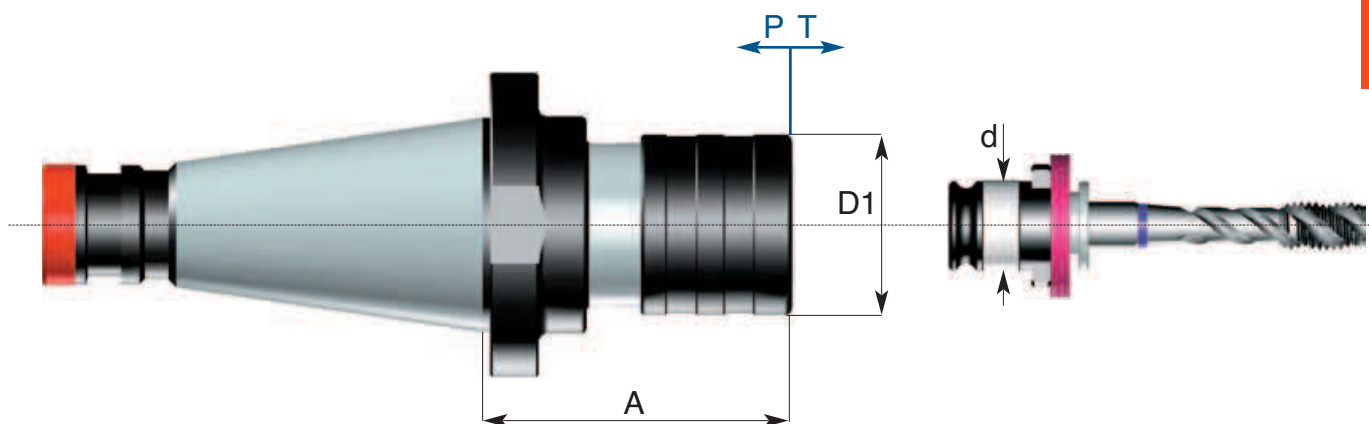


Maschiatori a cambio rapido con compensazione elastica assiale a trazione e pressione
quick-change tapping chuck with compensation in compression and tension
Gewindeschneid- und Schnellwechselfutter mit Ausgleich auf Druck und Zug
Mandrin à tarauder à changement rapid avec compensation longitudinale et de la traction

DIN 2080

ART: 638

5.
25



Codice di ord <i>Code</i>	SK	A	D1	d	Capacità maschiatore <i>Tapping capacity</i>	Compensazione assiale <i>T Axial compensation P</i>	
638.30.1205	SK 30	60	36	19	M3 - M14	5	7
638.40.1205	SK 40	60	36	19	M3 - M14	5	7
638.40.2008	SK 40	85	53	31	M8 - M24	12	13
638.50.1205	SK 50	70	36	19	M3 - M14	5	7
638.50.2008	SK 50	95	53	31	M8 - M24	12	12
638.50.3310	SK 50	130	78	48	M14 - M36	15	20



5. MANDRINI a cono ISO DIN 2080

TOOL HOLDERS with ISO cone DIN 2080



Cilindro di collaudo certificato

Test arbors with test certificate

Kontrolldorne mit Prüfungszeugnis

Mandrins de contrôle avec certificat de bon fonctionnement

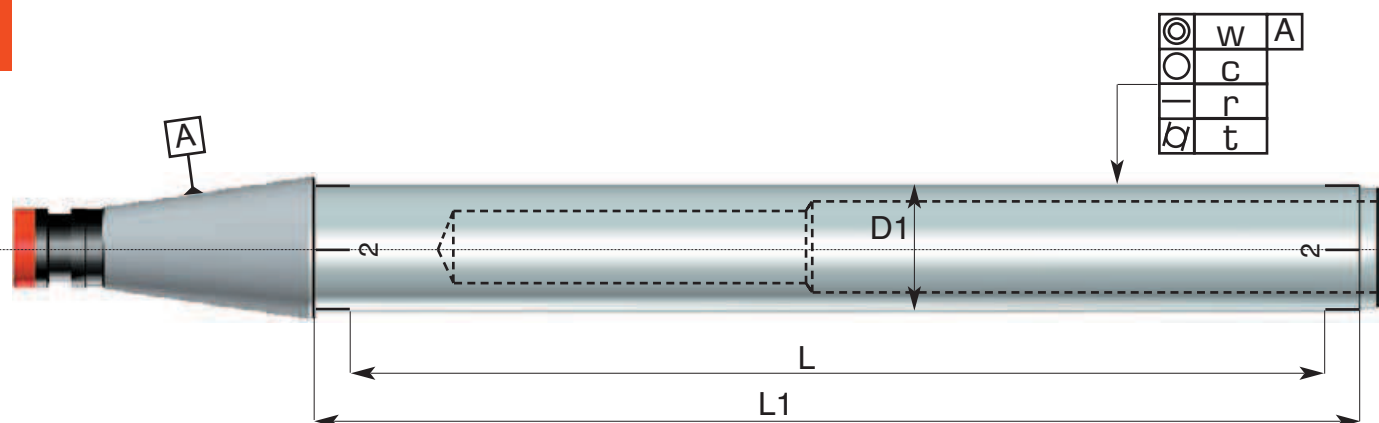
ACCESSORI PER MACCHINE UTENSILI



DIN 2080

ART: 808

5.
26



Codice di ord Code	SK	D1 H5	L	L1	w	c	r	t
808.30.0320	SK 30	32	200	225	0.003	0.003	0.003	0.003
808.40.0400	SK 40	40	300	337	0.004	0.003	0.003	0.003
808.50.0400	SK 50	40	300	338	0.003	0.003	0.003	0.003
808.50.0630	SK 50	63	500	538	0.004	0.004	0.003	0.003



www.delta-spa.com



DELTA
 001 881 882
 001 883 883

COMPLETE COMPLETE COMPLETE COMPLETE
 COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI BY A2 A3 A4
 COMPLETE COMPLETE COMPLETE COMPLETE

COMPLETE COMPLETE COMPLETE COMPLETE
 COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI BY A2 A3 A4
 COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI BY A2 A3 A4
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VERSIONI BY A2 A3 A4
 COMPLETE COMPLETE COMPLETE COMPLETE

DELTA

DELTA

DELTA

PORTAUTENSILI A COND ISO DIN 2088 E MORSE PER MACCHINE UTENSILI TRADIZIONALI
 CONTROPUNTE ROTANTI E FISSE - MANDRINI MASCHIATORI A CAMBIO RAPIDO

TOOLHOLDERS FOR MILLING AND BORING MACHINES WITH ISO AND MORSE
 PRECISION RUNNING TAIL CENTERS - QUICK CHANGE TAPPING CHUCKS

PORTAUTENSILI A COND ISO DIN 69871/A-B, CAT E MAS BT 405 PER CENTRI DI LATO
 A CONTROLLO NUMERICO

TOOLHOLDERS FOR CNC MACHINERY WITH ISO DIN 69871/A-B, CAT AND MAS BT 405

PORTAUTENSILI CON ATTACCO HSK DIN 69893 FORMA A -
 MANDRINI MASCHIATORI A CAMBIO RAPIDO

TOOLHOLDERS WITH HSK TAPER DIN 69893 FORM A -
 QUICK CHANGE TAPPING CHUCKS

MANDRINO HYDRO DELTA A CHIUSURA IDRAULICA
 HYDRO DELTA CHUCKS HYDRAULIC CLAMP

PORTAUTENSILI PER TORNI A CONTROLLO NUMERICO DIN 69880 UDI 3
 MANDRINI MASCHIATORI A CAMBIO RAPIDO

TOOLHOLDERS FOR NC LATHES DIN 69880 UDI 3
 QUICK CHANGE TAPPING CHUCKS

MANDRINI MACCHINA PRINCIPALI - PORTAUTENSILI SPECIALI A DISEGNO CLIENTI
 MACHINE MAIN SPINDLES - SPECIAL TOOLHOLDERS ON CUSTOMER'S REQUEST

MACHINE MAIN SPINDLES - SPECIAL TOOLHOLDERS ON CUSTOMER'S REQUEST

DELTA

DELTA

DELTA

DELTA

DELTA

DELTA

DELTA

DELTA

6.2

- cambio rapido "DELTA RAPID"
Quick change device "DELTA RAPID"

6.3

- cambio rapido "DELTA RAPID"
Quick change device "DELTA RAPID"

6.4

- cambio rapido "DELTA RAPID"
Quick change device "DELTA RAPID"

6.5

- cambio rapido "DELTA RAPID"
Quick change device "DELTA RAPID"



DELTA RAPID
Cambi rapidi
Quick change device

6

 **delta**

6. CAMBI RAPIDI DELTA QUICK CHANGE DEVICES



Dispositivo di cambio rapido "DELTA RAPID" per fresatrici-alesatrici

Quick change device "Delta Rapid" for milling and boring machines

Schnellwechseinrichtung "Delta Rapid" für Bohr- und Fräsmaschinen

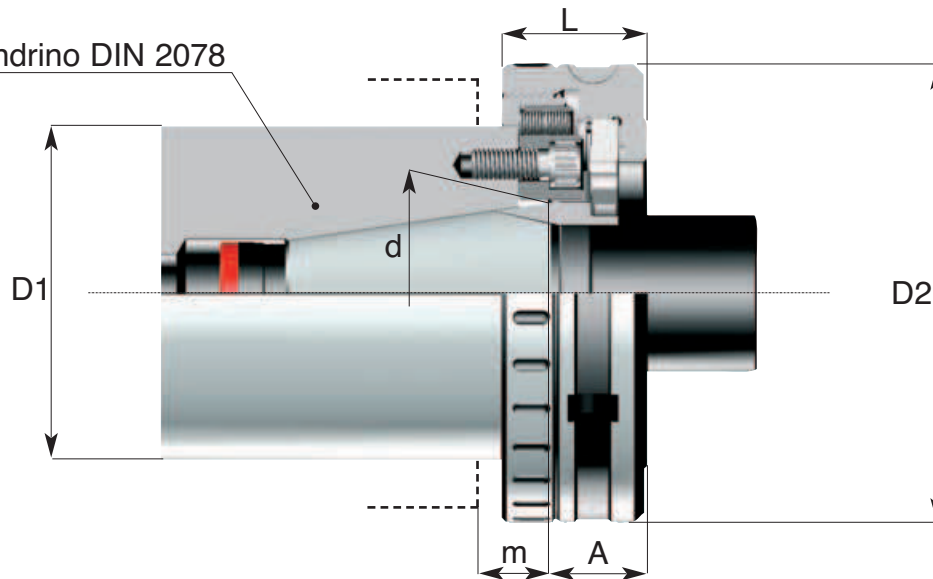
Dispositif pour changement rapide d'outillages "Delta Rapid" pour fraiseuses et aléseuses

ACCESSORI PER MACCHINE UTENSILI



ART: 100

Naso mandrino DIN 2078



Codice di ord Code	SK	d	D1 h5	D2	m	A	L
100.30.0300	SK 30	31.750	69.832	103	12.5	26	38
100.40.0400	SK 40	44.450	88.882	129	16	30	46
100.50.0500	SK 50	69.850	128.570	178	19	38	56

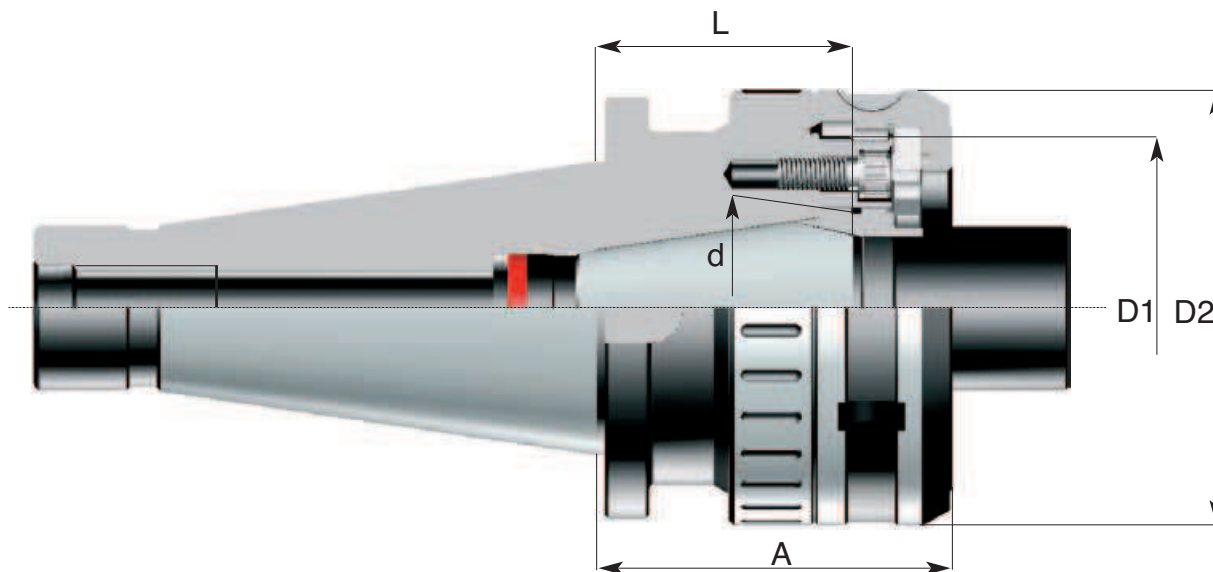
ACCESSORI PER MACCHINE UTENSILI

Dispositivo di cambio rapido "DELTA RAPID" da cono ISO a cono ISO per fresatrici-alesatrici
 Quick change device "Delta Rapid" ISO to ISO cone for milling and boring machines
 Schnellwechseleinrichtung "Delta Rapid" Steilkegel ISO zu ISO für Bohr- und Fräsmaschinen
 Dispositif pour chang. rapid "Delta Rapid" cône ISO à ISO pour fraiseuses et aléseuses



DIN 2080

ART: 102



6.
3

Codice di ord Code	SK ext. DIN 2080	SK int. DIN 2080	d	D1 h5	D2	L	A
102.40.0300	SK 40	SK 30	31.750	69.832	92	45	70
102.40.0400	SK 40	SK 40	44.450	88.882	118	78	105
102.45.0400	SK 45	SK 40	44.450	88.882	118	60	90
102.50.0400	SK 50	SK 40	44.450	88.882	118	60	90
102.50.0500	SK 50	SK 50	69.850	128.570	158	100	130
102.60.0500	SK 60	SK 50	69.850	128.570	158	80	117

6. CAMBI RAPIDI DELTA QUICK CHANGE DEVICES



Dispositivo di cambio rapido "Delta" da cono Morse e Metrico a cono ISO

"Delta" quick change device from metric and Morse to ISO cone

Schnellwechseinrichtung "Delta" von Morse und metrischem Kegel zu Steilkegel ISO

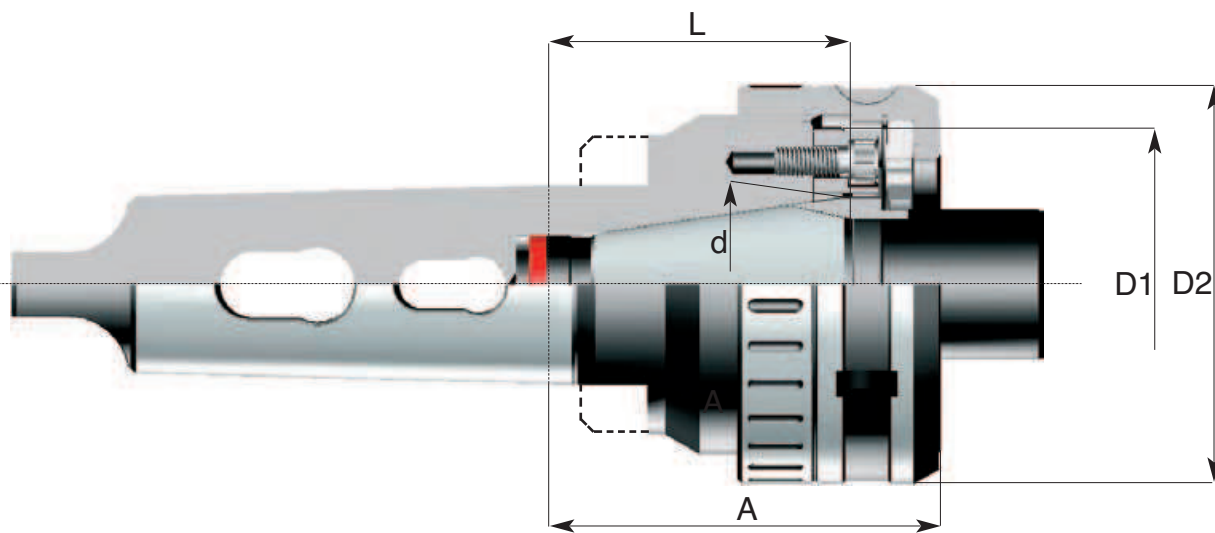
Dispositif de blocage et déblocage rapide "Delta" de cône Morse et metrique à ISO

ACCESSORI PER MACCHINE UTENSILI



DIN 228 B

ART: 105



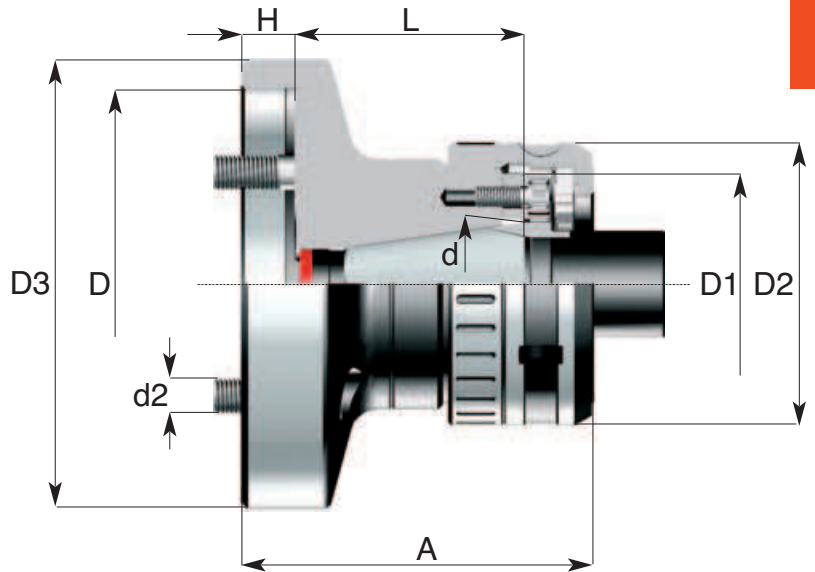
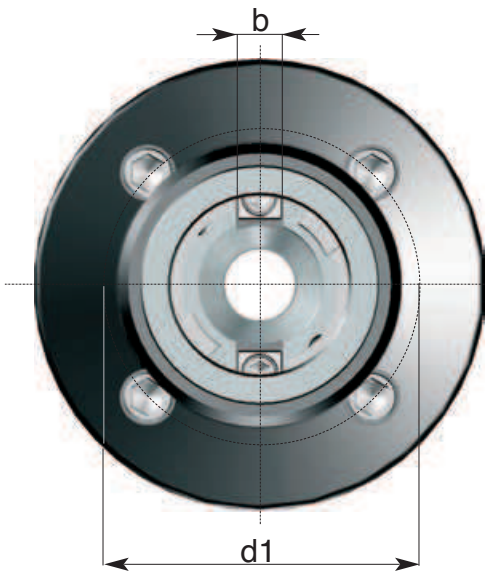
Codice di ord Code	SK ext. DIN 2080	SK int. DIN 2080	d	D1 h5	D2	L	A
105.05.0400	Morse 5	SK 40	44.450	88.882	118	78	105
105.06.0500	Morse 6	SK 50	69.850	128.570	158	115	152
105.08.0400	Metr. 80	SK 40	44.450	88.882	118	95	123
105.08.0500	Metr. 80	SK 50	69.850	128.570	158	115	152
105.10.0500	Metr. 100	SK 50	69.850	128.570	158	125	162
105.12.0500	Metr. 120	SK 50	69.850	128.570	158	122	159

ACCESSORI PER MACCHINE UTENSILI

Dispositivo di cambio rapido "Delta" con ISO con attacco a flangia secondo DIN 2079
 "Delta " quick change device with ISO cone and DIN 2079 flanged coupling
 Schnellwechseinrichtung "Delta " mit Befestigungsflanschsteigeel DIN 2079
 Dispositif de blocage et déblocage rapide "Delta" à cône ISO avec système d'attaque à bride DIN 2079



ART: 108



6.
5

Codice di ord Code	SK int.	d	D H6	D1 h5	D2	D3	L	A	H	d1	d2	b
108.40.1280	SK 40	44.450	128.570	88.882	118	160	101	149	20	101.60	M16	25.4
108.50.1280	SK 50	69.850	128.570	128.570	158	168.5	131	187	20	101.60	M16	25.4

7.3

- Portafrese combinati
Combined milling cutter chucks

7.4

- Portafrese combinati
Combined milling cutter chucks

7.5

- Alberi portafrese
Cutters arbors

7.6

- Mandrini portamorsetti
Taper shafts for drill chucks

7.7

- Riduzioni cono Morse
Adaptor sleeves

7.8

- Riduzioni cono Morse
Adaptor sleeves

7.9

- Riduzioni cono Morse
Adaptor sleeves

7.10

- Riduzioni cono Morse
Adaptor sleeves

7.11

- Riduzioni cono Morse
Adaptor sleeves

7.12

- Riduzioni cono Morse
Adaptor sleeves

7.13

- Porta alesatori
Chucks for reamers-front

7.14

- Barre semifinite
Unfinished taper-shank blanks

7.15

- Portapinzette DELTA
Collet chucks DELTA

7.16

- Portapinzette DELTA
Collet chucks DELTA

7.17

- Portapinzette ER DIN 6499
Collet chucks ER DIN 6499

7.21

- Porta bussole estraz. rapida
Quick change chucks

7.22

- bussole estraz. rapida
Quick change bushes

7.23

- bussole estraz. rapida
Quick change bushes

7.24

- Maschiatori
Tapping chuck

7.25

- Cilindri di collaudo
Test arbors

7.27

- Contropunte rotanti
Running tail centers

7.28

- Contropunte rotanti
Running tail centers

7.29

- Contropunte rotanti
Running tail centers

7.30

- Contropunte rotanti
Running tail centers

7.31

- Contropunte rotanti
Running tail centers

7.32

- Contropunte rotanti
Running tail centers

7.33

- Contropunte rotanti
Running tail centers

7.35

- Contropunte fisse
Dead centers

7.36

- Contropunte fisse
Dead centers

7.37

- Contropunte fisse
Dead centers

7.38

- Contropunte fisse
Dead centers

7.39

- Contropunte fisse
Dead centers

7.40

- Contropunte fisse
Dead centers

7.41

- Ghiera di estrazione contropunte
Ejector ring for dead centres



**CONI MORSE
DIN 228 A
DIN 228 B**

**Attacchi con cono
Morse**

*Attachments with Mor-
se cone*



7. MANDRINI a cono MORSE DIN 228

TOOL HOLDERS with cone MORSE DIN 228



ACCESSORI PER MACCHINE UTENSILI

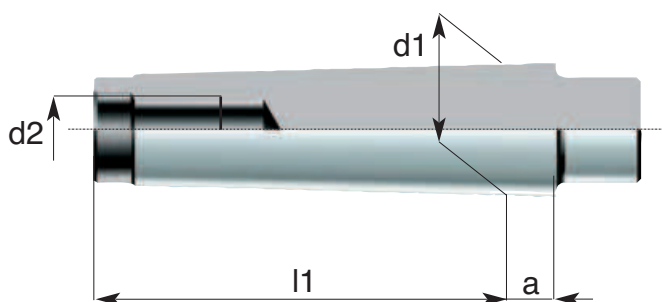
DIN 228

Attacchi DIN 228

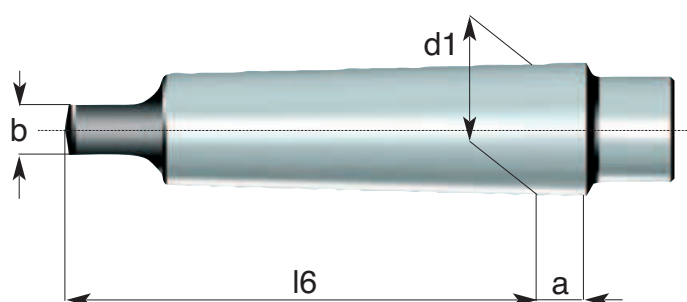


7.
2

Form. "A"



Form. "B"



Riferimento Item	d1	d2	l1	a
Morse 1	12.065	M6	53.5	3.5
Morse 2	17.780	M10	64	5
Morse 3	23.825	M12	81	5
Morse 4	31.267	M16	102.5	6.5
Morse 5	44.399	M20	129.5	6.5
Morse 6	63.648	M24	182	8

Riferimento Item	d1	b	l6	a
Morse 1	12.065	5.2	62	3.5
Morse 2	17.780	6.3	75	5
Morse 3	23.825	7.9	94	5
Morse 4	31.267	11.9	117.5	6.5
Morse 5	44.399	15.9	149.5	6.5
Morse 6	63.648	19	210	8
Metrico 80	80	26	220	8
Metrico 100	100	32	260	10
Metrico 120	120	38	300	12

CARATTERISTICHE TECNICHE DEI MANDRINI TC

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni MORSE è AT3

STANDARD FEATURES OF TC TOOLING

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of MORSE SHANKS is AT3

ACCESSORI PER MACCHINE UTENSILI

Portafrese combinati con trascinamento frontale e chiavetta DIN 6358

Combined milling cutter chucks DIN 6358 B

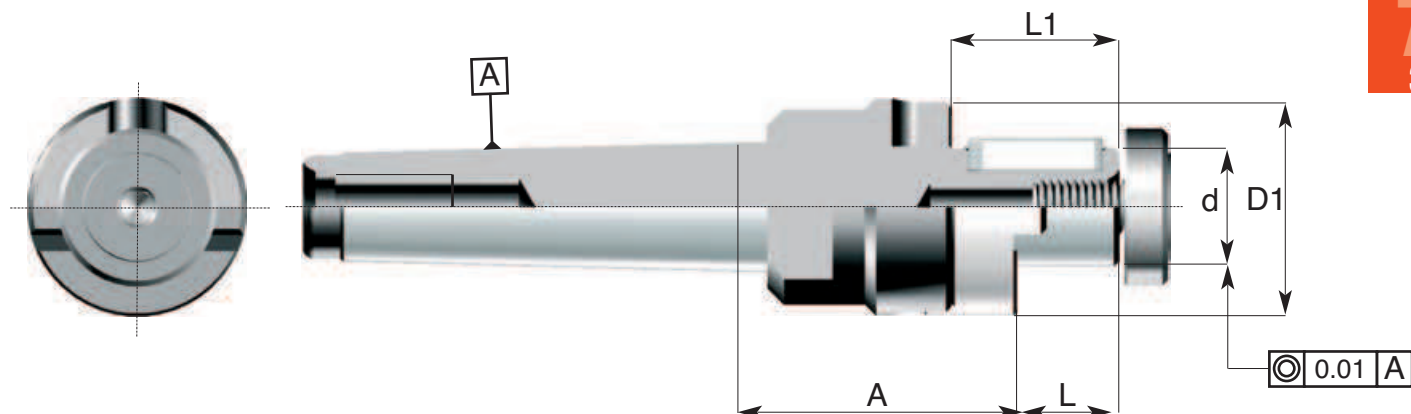
Kombi-Aufsteckfräserdorne DIN 6358 B

Mandrins porte-fraises combinés DIN 6358 B

DIN 228 A



ART: 132



7.
3

Codice di ord Code	CM	d h6	A	L	L1	D1	Trascinatore Ring	Vite Screw	Linguetta Key
132.01	Morse 3	16	44	17	27	32	190.01	191.01	199.01
132.02	Morse 3	22	46	19	31	40	190.02	191.02	199.02
132.04	Morse 3	27	45	21	33	48	190.03	191.03	199.03
132.06	Morse 4	16	56	17	27	32	190.01	191.01	199.01
132.07	Morse 4	22	52	19	31	40	190.02	191.02	199.02
132.09	Morse 4	27	51	21	33	48	190.03	191.03	199.03
132.10	Morse 4	32	56	24	38	58	190.04	191.04	199.04
132.11	Morse 4	40	57	27	41	70	190.05	191.05	199.05
132.13	Morse 5	16	60	17	27	32	190.01	191.01	199.01
132.14	Morse 5	22	62	19	31	40	190.02	191.02	199.02
132.15	Morse 5	27	64	21	33	48	190.03	191.03	199.03
132.17	Morse 5	32	66	24	38	58	190.04	191.04	199.04
132.18	Morse 5	40	64	27	41	70	190.05	191.05	199.05
132.19	Morse 5	50	68	30	46	90	190.06	191.06	199.06

Pag. 12.24



Pag. 12.25



7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Portafrese combinati con trascinamento frontale e chiavetta DIN 6358

Combined milling cutter chucks DIN 6358 B

Kombi-Aufsteckfräserdorne DIN 6358 B

Mandrins porte-fraises combinés DIN 6358 B

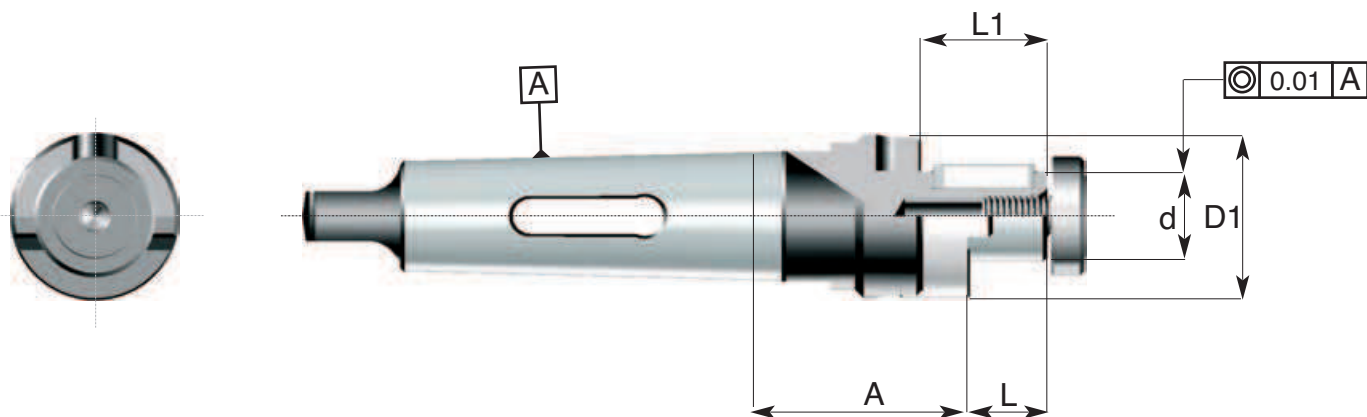
ACCESSORI PER MACCHINE UTENSILI



DIN 228 B

ART: 135

7.
4



Codice di ord Code	CM	d h6	A	L	L1	D1	Trascinatore Ring	Vite Screw	Linguetta Key
135.06	Morse 4	16	42	17	27	32	190.08	191.01	135.199.01
135.07	Morse 4	22	48	19	31	40	190.09	191.02	135.199.02
135.09	Morse 4	27	46	21	33	48	190.10	191.03	135.199.03
135.10	Morse 4	32	44	24	38	58	190.12	191.04	135.199.04
135.11	Morse 4	40	48	27	41	70	190.13	191.05	135.199.05
135.13	Morse 5	16	42	17	27	32	190.08	191.01	135.199.01
135.14	Morse 5	22	48	19	31	40	190.09	191.02	135.199.02
135.16	Morse 5	27	46	21	33	48	190.10	191.03	135.199.03
135.17	Morse 5	32	46	24	38	58	190.12	191.04	135.199.04
135.18	Morse 5	40	44	27	41	70	190.13	191.05	135.199.05
135.19	Morse 5	50	49	30	46	90	190.06	191.06	135.199.06
135.21	Morse 6	22	49	19	31	40	190.09	191.02	135.199.02
135.23	Morse 6	27	56	21	33	48	190.10	191.03	135.199.03
135.24	Morse 6	32	56	24	38	58	190.12	191.04	135.199.04
135.25	Morse 6	40	55	27	41	70	190.13	191.05	135.199.05
135.26	Morse 6	50	55	30	46	90	190.06	191.06	135.199.06



ACCESSORI PER MACCHINE UTENSILI



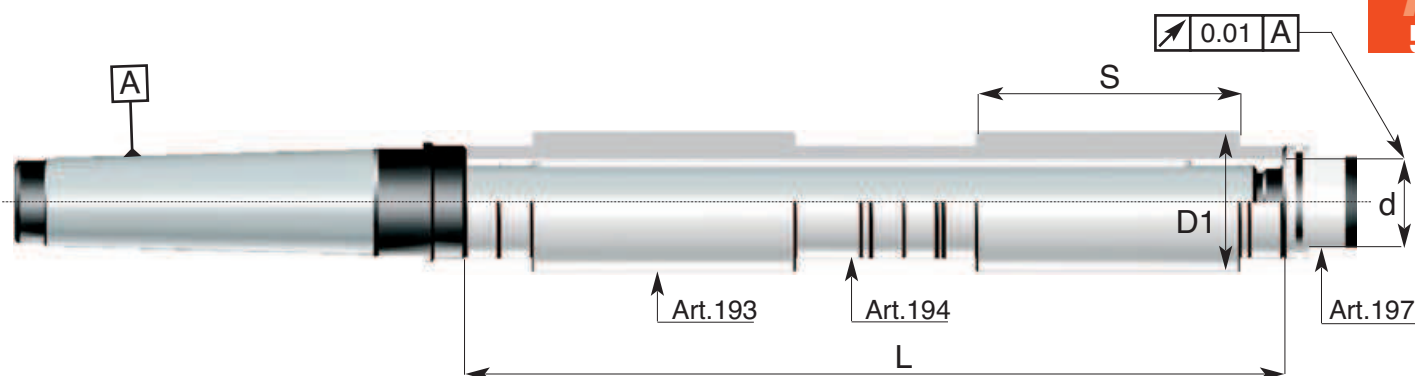
Alberi portafrese cono ISO DIN 6354 - 6355 per fresatrici con naso mandrino DIN 2079
 Cutters arbors with ISO DIN 6354 - 6355 cone for milling machines with DIN 2079 spindle nose
 Längsfräsdome mit Steilkegel DIN 6354 - 6355 für Fräsmaschinen DIN 2079
 Arbres porte-fraises à cône ISO DIN 6354 - 6355 pour fraiseuses à nez de broche DIN 2079

DIN 228 A

Completi di distanziali e bussole di guida
 Delivered with guide sleeves and spacer rings
 Geliefert mit Führungsbuchsen und Distanzstücke
 Dotés de entretoises et douilles de guidage

ART: 142

**7.
5**



Codice di ord Code	CM	d h6	L	Ghiere Nut
142.01	Morse 3	16	315	197.01
142.03	Morse 3	22	315	197.02
142.05	Morse 3	27	315	197.03
142.10	Morse 4	16	400	197.01
142.12	Morse 4	22	500	197.02
142.14	Morse 4	27	500	197.03
142.16	Morse 4	32	500	197.04
142.18	Morse 4	40	500	197.05
142.22	Morse 5	22	500	197.02
142.24	Morse 5	27	630	197.03
142.26	Morse 5	32	630	197.04
142.28	Morse 5	40	630	197.05
142.30	Morse 5	50	630	197.06



-Nell'ordine indicare le quote D1 ed S delle bussole di guida (vd. ART. 193). Dado di bloccaggio con filetto sinistro (ART. 197).
 -In order state dimensions D1 and S of guide sleeves (see ART.193). End thread and nut left hand (ART.197).
 -Im Auftrag angeben die Masse D1 und S der Führungsbuchsen (ART.193). End- und Muttergewinde linksgängig (ART. 197).
 -Lorsque vous passez la commande, veuillez indiquer les cotes D1 et S des douilles de guidage (voir ART. 193).
 Le filet terminal et l'ecrou ont un filetage à gauche (ART. 197).

7. MANDRINI a cono MORSE DIN 228

TOOL HOLDERS with cone MORSE DIN 228



Mandrini portamorsetti autoserranti DIN 238

Taper shafts for drill chucks DIN 238

Bohrfutteraufnahmen DIN 238

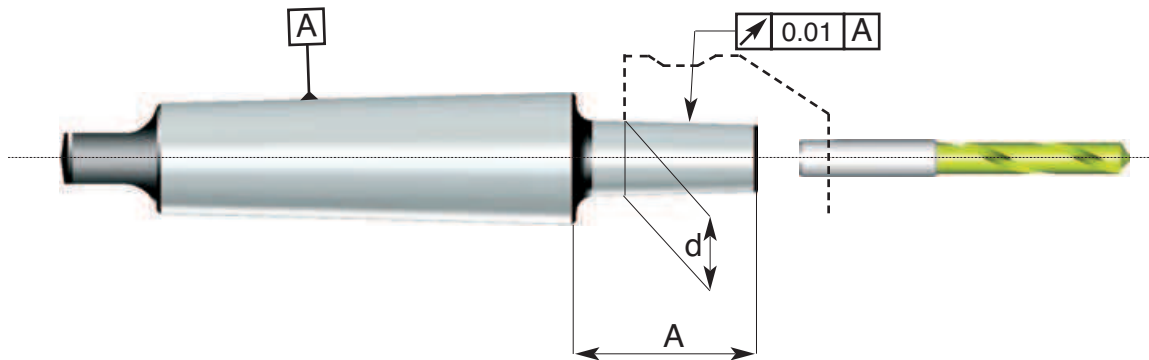
Porte-mandrins de perceuses DIN 238

ACCESSORI PER MACCHINE UTENSILI



DIN 228 B

ART: 222



Codice di ord Code	CM	Tipo Din	A	d
222.05	Morse 1	B10	25	10.094
222.06	Morse 2	B10	25	10.094
222.09	Morse 2	B12	26	12.065
222.10	Morse 1	B16	33	15.733
222.11	Morse 2	B16	32	15.733
222.12	Morse 3	B16	35	15.733
222.12.A	Morse 4	B16	33	15.733
222.14	Morse 2	B18	39	17.780
222.15	Morse 3	B18	41	17.780
222.15.A	Morse 4	B18	41	17.780
222.18	Morse 4	B22	52	21.793

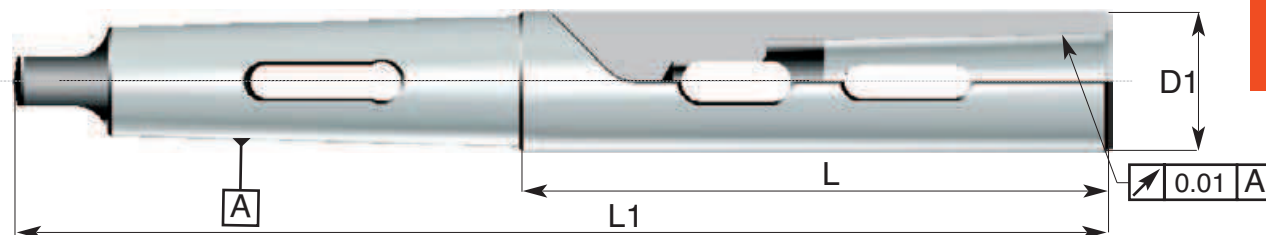
ACCESSORI PER MACCHINE UTENSILI



Riduzioni da cono morse esterno a cono interno per alesatrici DIN 6382
 Adaptors sleeves from outer Morse to inner Morse cone for boring machines DIN 6382
 Zwischenhülsen mit Morsekegel für Bohrmachines DIN 6382
 Douilles de réduction de cône Morse à cône Morse pour aléseuses DIN 6382

DIN 228 B

ART: 270



7.
7

Codice di ord Code	CM esterno Outer MT	CM interno Inner MT	D1 f7	L	L1
270.01	Morse 3	Morse 2	25	200	299
270.02	Morse 3	Morse 2	25	300	399
270.03	Morse 3	Morse 2	25	400	499
270.04	Morse 3	Morse 3	32	200	299
270.05	Morse 3	Morse 3	32	300	399
270.06	Morse 3	Morse 3	32	400	499
270.07	Morse 4	Morse 2	25	200	324
270.08	Morse 4	Morse 2	25	300	424
270.09	Morse 4	Morse 2	25	400	524
270.10	Morse 4	Morse 2	25	500	624
270.11	Morse 4	Morse 3	32	200	324
270.12	Morse 4	Morse 3	32	300	424
270.13	Morse 4	Morse 3	32	400	524
270.14	Morse 4	Morse 3	32	500	624
270.15	Morse 4	Morse 4	40	200	324
270.16	Morse 4	Morse 4	40	300	424
270.17	Morse 4	Morse 4	40	400	524
270.18	Morse 4	Morse 4	40	500	625
270.19	Morse 5	Morse 2	25	200	356
270.20	Morse 5	Morse 2	25	300	456
270.21	Morse 5	Morse 2	25	400	556
270.22	Morse 5	Morse 2	25	500	656
270.23	Morse 5	Morse 3	32	200	356
270.24	Morse 5	Morse 3	32	300	456
270.25	Morse 5	Morse 3	32	400	556
270.26	Morse 5	Morse 3	32	500	656
270.27	Morse 5	Morse 4	40	200	356
270.28	Morse 5	Morse 4	40	300	456
270.29	Morse 5	Morse 4	40	400	556
270.30	Morse 5	Morse 4	40	500	656
270.31	Morse 5	Morse 5	56	200	356
270.32	Morse 5	Morse 5	56	300	456
270.33	Morse 5	Morse 5	56	400	556
270.34	Morse 5	Morse 5	56	500	656
270.35	Morse 6	Morse 3	32	200	418
270.36	Morse 6	Morse 3	32	300	518
270.37	Morse 6	Morse 3	32	400	618
270.38	Morse 6	Morse 3	32	500	718
270.39	Morse 6	Morse 4	40	300	518
270.40	Morse 6	Morse 4	40	400	618
270.41	Morse 6	Morse 4	40	500	718
270.42	Morse 6	Morse 4	40	600	818
270.43	Morse 6	Morse 5	56	300	518
270.44	Morse 6	Morse 5	56	400	618
270.45	Morse 6	Morse 5	56	500	718
270.46	Morse 6	Morse 5	56	600	818

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Riduzioni da cono morse esterno a cono morse interno tipo prolungato DIN 2187

Adaptors sleeves from outer Morse to inner Morse cone - extended executions DIN 2187

Zwischenhülsen mit Morsekegel - lange Ausführung DIN 2187

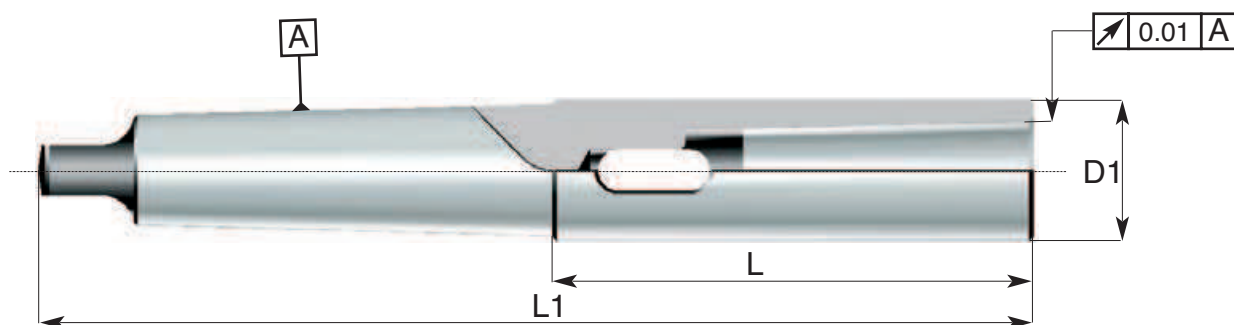
Douilles de réduction de cône Morse à cône Morse - type rallongé DIN 2187

ACCESSORI PER MACCHINE UTENSILI



DIN 228 B

ART: 272



Codice di ord Code	CM esterno Outer MT	CM interno Inner MT	D1 h11	L	L1
272.01	Morse 1	Morse 1	18	80	145
272.02	Morse 1	Morse 1	18	135	200
272.03	Morse 2	Morse 1	18	80	160
272.04	Morse 2	Morse 1	18	150	230
272.05	Morse 2	Morse 2	25	95	175
272.06	Morse 2	Morse 2	25	170	250
272.07	Morse 3	Morse 1	18	80	179
272.08	Morse 3	Morse 1	18	171	270
272.09	Morse 3	Morse 2	25	95	194
272.10	Morse 3	Morse 2	25	201	300
272.11	Morse 3	Morse 3	32	116	215
272.12	Morse 3	Morse 3	32	221	320
272.13	Morse 4	Morse 2	25	95	219
272.14	Morse 4	Morse 2	25	206	330
272.15	Morse 4	Morse 3	32	116	240
272.16	Morse 4	Morse 3	32	226	350
272.17	Morse 4	Morse 4	40	144	268
272.18	Morse 4	Morse 4	40	246	370
272.19	Morse 5	Morse 3	32	116	272
272.20	Morse 5	Morse 3	32	244	400
272.21	Morse 5	Morse 4	40	144	300
272.22	Morse 5	Morse 4	40	294	450
272.23	Morse 5	Morse 5	56	184	340
272.24	Morse 5	Morse 5	56	344	500
272.25	Morse 6	Morse 3	32	117	335
272.26	Morse 6	Morse 3	32	232	450
272.29	Morse 6	Morse 5	56	175	393
272.30	Morse 6	Morse 5	56	382	600
272.31	Morse 6	Morse 6	80	252	470

ACCESSORI PER MACCHINE UTENSILI

Riduzioni da cono morse esterno a cono morse interno superiore tipo DIN 2187

Adaptors sleeves from outer Morse to inner Morse cone DIN 2187

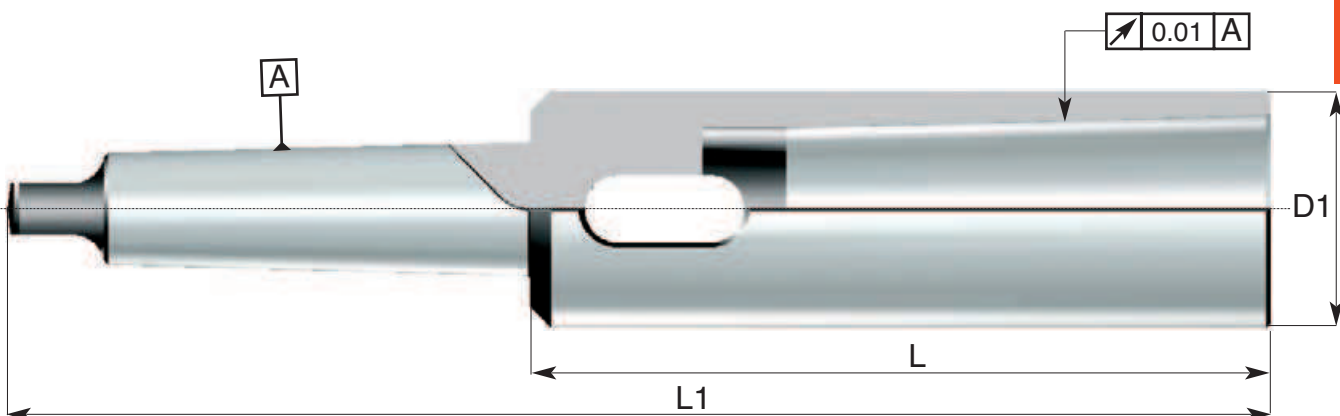
Zwischenhülsen mit Morsekegel DIN 2187

Douilles de réduction de cône Morse extérieur à cône Morse intérieur supérieur DIN 2187



DIN 228 B

ART: 275



7.
9

Codice di ord Code	CM esterno Outer MT	CM interno Inner MT	D1 h11	L	L1
275.01	Morse 1	Morse 2	25	95	160
275.02	Morse 1	Morse 2	25	169	235
275.03	Morse 2	Morse 3	32	116	196
275.04	Morse 2	Morse 3	32	220	300
275.05	Morse 3	Morse 4	40	141	240
275.06	Morse 3	Morse 4	40	246	345
275.07	Morse 3	Morse 5	56	176	275
275.08	Morse 3	Morse 5	56	341	440
275.09	Morse 4	Morse 5	56	176	300
275.10	Morse 4	Morse 5	56	346	470
275.11	Morse 5	Morse 6	80	240	396

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Riduzioni da cono morse a cono morse interno DIN 2185

Adaptors sleeves from Morse to Morse cone DIN 2185

Reduzierhülsen mit Morsekegel DIN 2185

Douilles de réduction de cône Morse à cône Morse DIN 2185

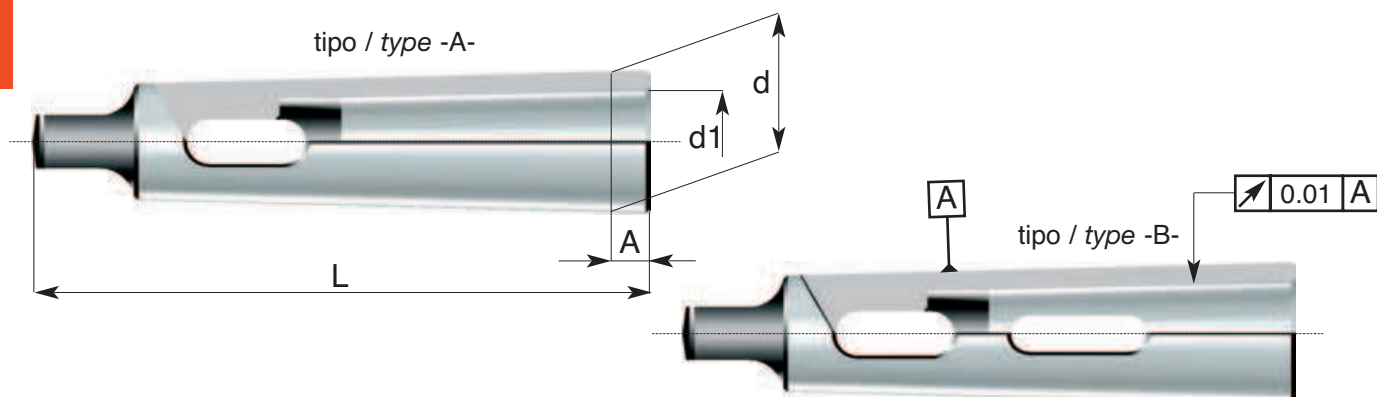
ACCESSORI PER MACCHINE UTENSILI



DIN 228 B

ART: 280

7.
10



Codice di ord Code	CM esterno Outer MT	CM interno Inner MT	A	d	d1	L	Tipo Type
280.01	Morse 2	Morse 1	17	17.780	12.065	92	A
280.02	Morse 3	Morse 1	5	23.825	12.065	99	A
280.03	Morse 3	Morse 2	18	23.825	17.780	112	A
280.04	Morse 4	Morse 1	6.5	31.267	12.065	124	A
280.05	Morse 4	Morse 2	6.5	31.267	17.780	124	A
280.06	Morse 4	Morse 3	22.5	31.267	23.825	140	A
280.07	Morse 5	Morse 1	6.5	44.399	12.065	156	A
280.08	Morse 5	Morse 2	6.5	44.399	17.780	156	A
280.09	Morse 5	Morse 3	6.5	44.399	23.825	156	A
280.10	Morse 5	Morse 4	21.5	44.399	31.267	171	A
280.11	Morse 6	Morse 2	8	63.348	17.780	218	A
280.12	Morse 6	Morse 3	8	63.348	23.825	218	A
280.13	Morse 6	Morse 4	8	63.348	31.267	218	A
280.14	Morse 6	Morse 5	8	63.348	44.399	218	A
280.16	Metr: 80	Morse 4	8	80	31.264	228	B
280.17	Metr: 80	Morse 5	8	80	44.399	228	B
280.18	Metr: 80	Morse 6	60	80	63.348	280	B
280.19	Metr: 100	Morse 5	10	100	44.399	270	B
280.20	Metr: 100	Morse 6	57	100	63.348	317	B
280.21	Metr: 100	Metr: 80	68	100	80	328	B

ACCESSORI PER MACCHINE UTENSILI

Riduzioni da cono morse a cono morse UNI 4603 con ghiera di estrazione

Adaptors sleeves Morse to Morse cone with ejector ring - UNI 4603

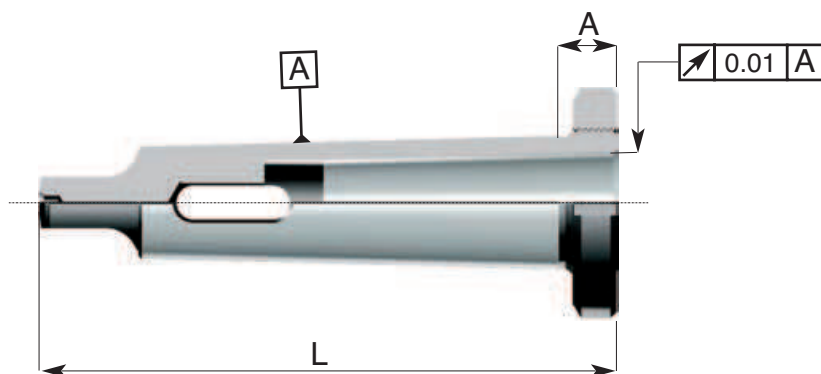
Reduzierhülsen mit Morsekegel und Abdrückmutter - UNI 4603

Douilles de réduction de cône Morse à cône Morse avec manchon d'extraction - UNI 4603



DIN 228 B

ART: 285



7.
11

Codice di ord Code	CM esterno Outer MT	CM interno Inner MT	A	L	Ghiera Nut
285.02.0100	Morse 2	Morse 1	12	89	297.01
285.03.0100	Morse 3	Morse 1	12	108	297.02
285.03.0200	Morse 3	Morse 2	12	108	297.02
285.04.0100	Morse 4	Morse 1	15	135	297.03
285.04.0200	Morse 4	Morse 2	15	135	297.03
285.04.0300	Morse 4	Morse 3	15	135	297.03
285.05.0200	Morse 5	Morse 2	18	170	297.04
285.05.0300	Morse 5	Morse 3	18	170	297.04
285.05.0400	Morse 5	Morse 4	18	170	297.04
285.06.0200	Morse 6	Morse 2	20	234	297.05
285.06.0300	Morse 6	Morse 3	20	234	297.05
285.06.0400	Morse 6	Morse 4	20	234	297.05
285.06.0500	Morse 6	Morse 5	20	234	297.05

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Riduzioni da cono morse a cono morse UNI 4603 con ghiera di estrazione

Adaptors sleeves Morse to Morse cone with ejector ring - UNI 4603

Reduzierhülsen mit Morsekegel und Abdrückmutter - UNI 4603

Douilles de réduction de cône Morse à cône Morse avec manchon d'extraction - UNI 4603

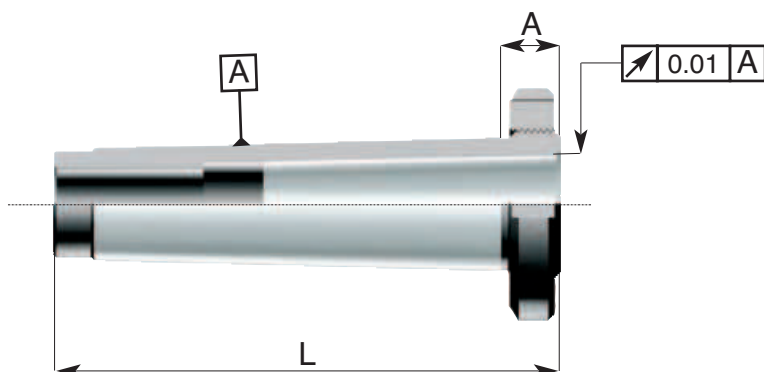
ACCESSORI PER MACCHINE UTENSILI



DIN 228 A

ART: 286

7.
12



Codice di ord Code	CM esterno Outer MT	CM interno Inner MT	A	L	Ghiera Nut
286.02.0100	Morse 2	Morse 1	12	70	297.01
286.03.0100	Morse 3	Morse 1	12	85	297.02
286.03.0200	Morse 3	Morse 2	12	85	297.02
286.04.0100	Morse 4	Morse 1	14	105	297.03
286.04.0200	Morse 4	Morse 2	14	105	297.03
286.04.0300	Morse 4	Morse 3	14	105	297.03
286.05.0200	Morse 5	Morse 2	18	130	297.04
286.05.0300	Morse 5	Morse 3	18	130	297.04
286.05.0400	Morse 5	Morse 4	18	130	297.04
286.06.0200	Morse 6	Morse 2	20	180	297.05
286.06.0300	Morse 6	Morse 3	20	180	297.05
286.06.0400	Morse 6	Morse 4	20	180	297.05
286.06.0500	Morse 6	Morse 5	20	180	297.05

ACCESSORI PER MACCHINE UTENSILI



Mandrini per allargatori ed alesatori registrabili

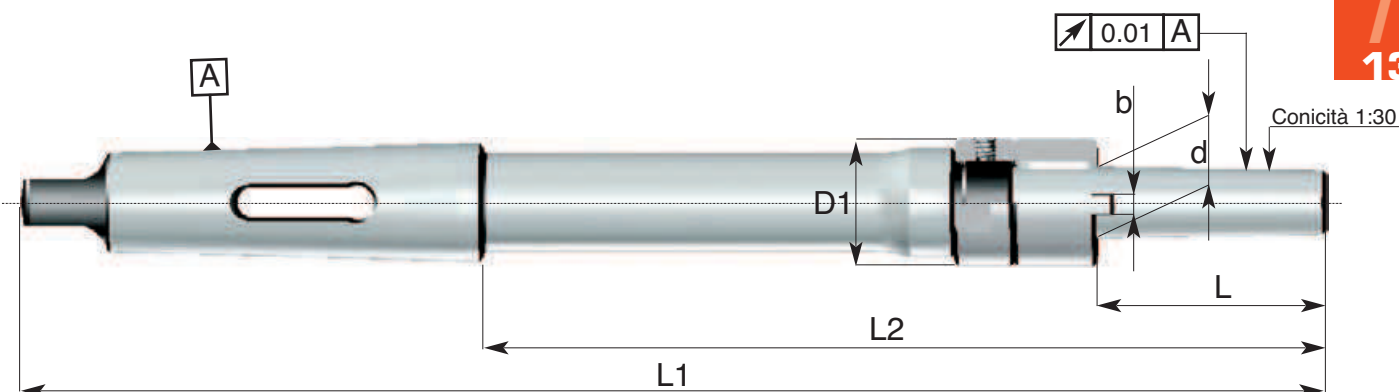
Chucks for shell counterarbors and reamers-front drivers-set ring

Aufsteckhalter für Aufsteck-Reibahlen und Aufsteck-Aufbohrer

Mandrins pour alésoirs creux avec dispositif de réglage

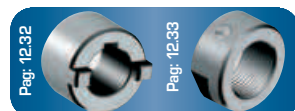
DIN 228 B

ART: 340



7.
13

Codice di ord Code	CM MT	d h6	L	L1	L2	D1	b h11	Trascinatore Ring	Ghiera Nut
340.01. N	Morse 2	10	45	165	90	18	4	346.01	347.01
340.01. L	Morse 2	10	45	255	180	18	4	346.01	347.01
340.02. C	Morse 3	13	50	190	96	23	4	346.02	347.02
340.02. N	Morse 3	13	50	250	156	23	4	346.02	347.02
340.02. L	Morse 3	13	50	290	196	23	4	346.02	347.02
340.03. C	Morse 3	16	55	200	106	28	5	346.03	347.03
340.03. N	Morse 3	16	55	261	167	28	5	346.03	347.03
340.03. L	Morse 3	16	55	310	216	28	5	346.03	347.03
340.04. C	Morse 4	19	60	232	114.5	34	6	346.04	347.04
340.04. N	Morse 4	19	60	298	180.5	34	6	346.04	347.04
340.04. L	Morse 4	19	60	350	232.5	34	6	346.04	347.04
340.05. C	Morse 4	22	65	242	124.5	38	7	346.05	347.05
340.05. N	Morse 4	22	65	312	194.5	38	7	346.05	347.05
340.05. L	Morse 4	22	65	370	252.5	38	7	346.05	347.05
340.06. C	Morse 4	27	70	255	137.5	45	8	346.06	347.06
340.06. N	Morse 4	27	70	328	210.5	45	8	346.06	347.06
340.06. L	Morse 4	27	70	390	272.5	45	8	346.06	347.06
340.07. C	Morse 4	32	80	270	152.5	51	10	346.07	347.07
340.07. N	Morse 4	32	80	376	258.5	51	10	346.07	347.07
340.07. L	Morse 4	32	80	440	322.5	51	10	346.07	347.07
340.09. N	Morse 4	40	90	396	278.5	62	12	346.09	347.09
340.09. L	Morse 4	40	90	470	352.5	62	12	346.09	347.09



7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Barre semifinite con tratto cilindrico privo di cementazione per esecuzioni speciali
Unfinished taper-shank blanks for special applications
Rohlinge für spezielle Anwendungen
Ebauches pour applications spéciales

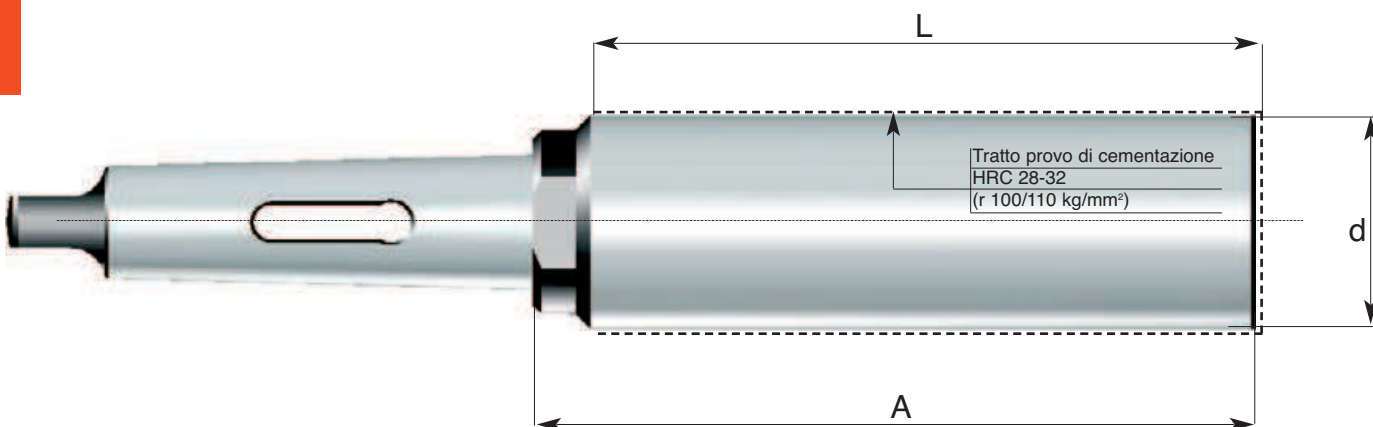
ACCESSORI PER MACCHINE UTENSILI



DIN 228 B

ART: 425

7.
14



Codice di ord Code	CM	d	A	L
425.08	Morse 4	50	170	100
425.09	Morse 4	50	250	225
425.22	Morse 5	63	250	225
425.23	Morse 5	63	400	330
425.34	Morse 6	80	250	225
425.35	Morse 6	80	400	330

ACCESSORI PER MACCHINE UTENSILI

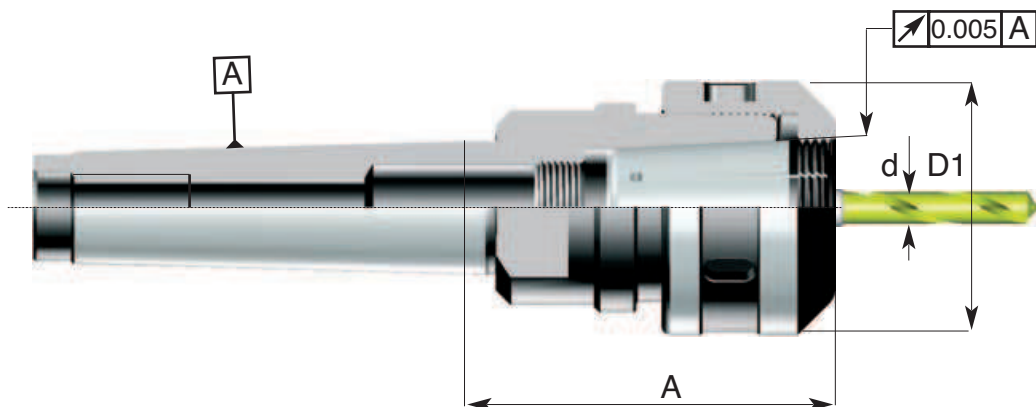


Mandrini portapinze Delta per pinze rif. art.209
Delta collet chucks for collets ref. art.209
Delta Spannzangenhalter für Spannzangen ref. art.209
Mandrins porte-pinces Delta pour pinces ref. art.209

DIN 228 A

ART: 202

7.
15



Codice di ord Code	CM	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Tipo pinza Collet	Ghiera Nut
202.03	Morse 3	68	50	da 3 a 18	209.10	245.01
202.04	Morse 3	82	58	da 3 a 22	209.20	245.02
202.05	Morse 4	80	58	da 3 a 22	209.20	245.02
202.06	Morse 4	100	74	da 4 a 32	209.30	245.03
202.07	Morse 5	95	74	da 4 a 32	209.30	245.03

7. MANDRINI a cono MORSE DIN 228

TOOL HOLDERS with cone MORSE DIN 228



Mandriini portapinze Delta per pinze rif. art.209

Delta collet chucks for collets ref. art.209

Delta Spannzangenhalter für Spannzangen ref. art.209

Mandriins porte-pinces Delta pour pinces ref. art.209

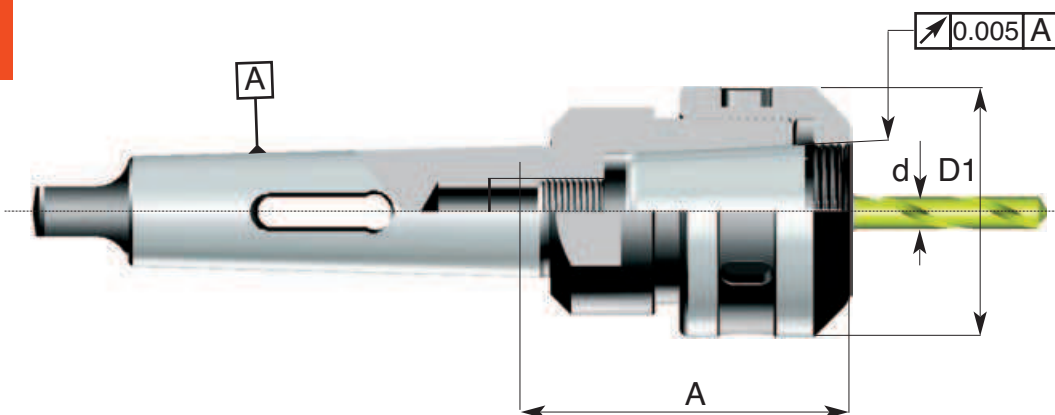
ACCESSORI PER MACCHINE UTENSILI

DIN 228 B

ART: 205



7.16



Codice di ord Code	CM	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Tipo pinza Collet	Ghiera Nut
205.01	Morse 2	60	50	da 3 a 18	209.10	245.01
205.03	Morse 3	60	50	da 3 a 18	209.10	245.01
205.04	Morse 3	70	58	da 3 a 22	209.20	245.02
205.05	Morse 4	70	58	da 3 a 22	209.20	245.02
205.06	Morse 4	83	73	da 4 a 32	209.30	245.03
205.07	Morse 5	78	73	da 4 a 32	209.30	245.03
205.09	Morse 6	92	73	da 4 a 32	209.30	245.03

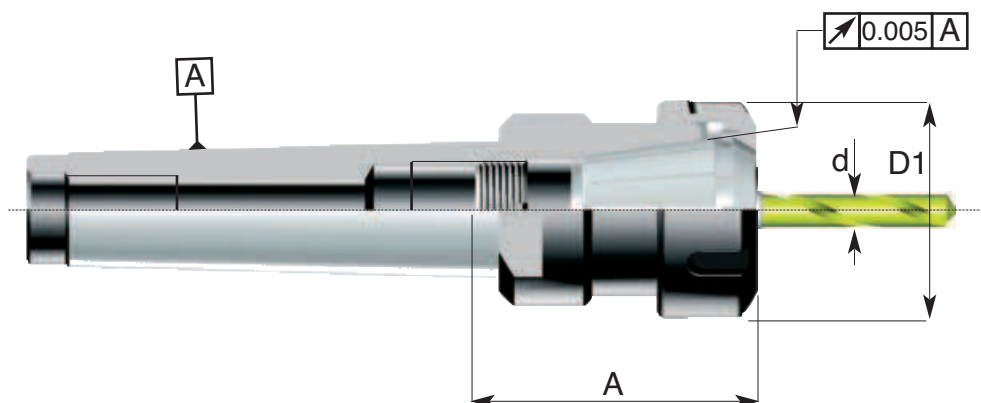
ACCESSORI PER MACCHINE UTENSILI



Mandrini portapinze ER DIN 6499 - ghiera standard
Collet chucks ER DIN 6499 - standard nut
Spannzangenhalter ER DIN 6499 - standard Spannmutter
Mandrins porte-pinces ER DIN 6499 - écrou standard

DIN 228 A

ART: 614
ghiera standard / standard nut



7.
17

Codice di ord Code	ER	CM	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
614.02.0160	ER 16	Morse 2	45	28	da 0.5 a 10	245.22.ER16
614.02.0200	ER 20	Morse 2	50	34	da 0.5 a 13	245.25.ER20
614.02.0250	ER 25	Morse 2	55	42	da 1 a 16	245.32.ER25
614.03.0250	ER 25	Morse 3	55	42	da 1 a 16	245.32.ER25
614.03.0320	ER 32	Morse 3	65	50	da 1 a 20	245.40.ER32
614.03.0400	ER 40	Morse 3	80	63	da 2 a 30	245.50.ER40
614.04.0250	ER 25	Morse 4	55	42	da 1 a 16	245.32.ER25
614.04.0320	ER 32	Morse 4	65	50	da 1 a 20	245.40.ER32
614.04.0400	ER 40	Morse 4	80	63	da 2 a 30	245.50.ER40
614.05.0320	ER 32	Morse 5	75	50	da 1 a 20	245.40.ER32
614.05.0400	ER 40	Morse 5	80	63	da 2 a 30	245.50.ER40

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with MORSE cone DIN 228



Cassette con mandrini per pinze Delta rif. art.209

Boxes with Delta collet chucks and collets ref. art.209

Kassetten mit Spannzangenhalter Delta und Spannzangen ref. art.209

Coffrets avec mandrins à pinces Delta et pinces ref. art.209

ACCESSORI PER MACCHINE UTENSILI

DIN 228 A

CASSETTE 16...
ART: 202...



7.
18

Codice di ord. Code	Mandrino Chuck	Cono Morse DIN 228/A	Tipo pinza Collets type	Numero pinze Collets nr.	Ø Pinza Ø Collets
16.03	202.03	Morse 3 DIN 228/A	209.10	7	3-4-6-8-10-12-16
16.04	202.03	Morse 3 DIN 228/A	209.10	14	da 3 a 16
16.05	202.04	Morse 3 DIN 228/A	209.20	7	4-6-8-10-12-16-20
16.06	202.04	Morse 3 DIN 228/A	209.20	18	da 3 a 20
16.07	202.05	Morse 4 DIN 228/A	209.20	7	4-6-8-10-12-16-20
16.08	202.05	Morse 4 DIN 228/A	209.20	18	da 3 a 20
16.09	202.06	Morse 4 DIN 228/A	209.30	9	4-6-8-10-12-16-20-25-32
16.10	202.06	Morse 4 DIN 228/A	209.30	28	da 4 a 32

Cassette con mandrini per pinze Delta rif. art.209

Boxes with Delta collet chucks and collets ref. art.209

Kassetten mit Spannzangenhalter Delta und Spannzangen ref. art.209

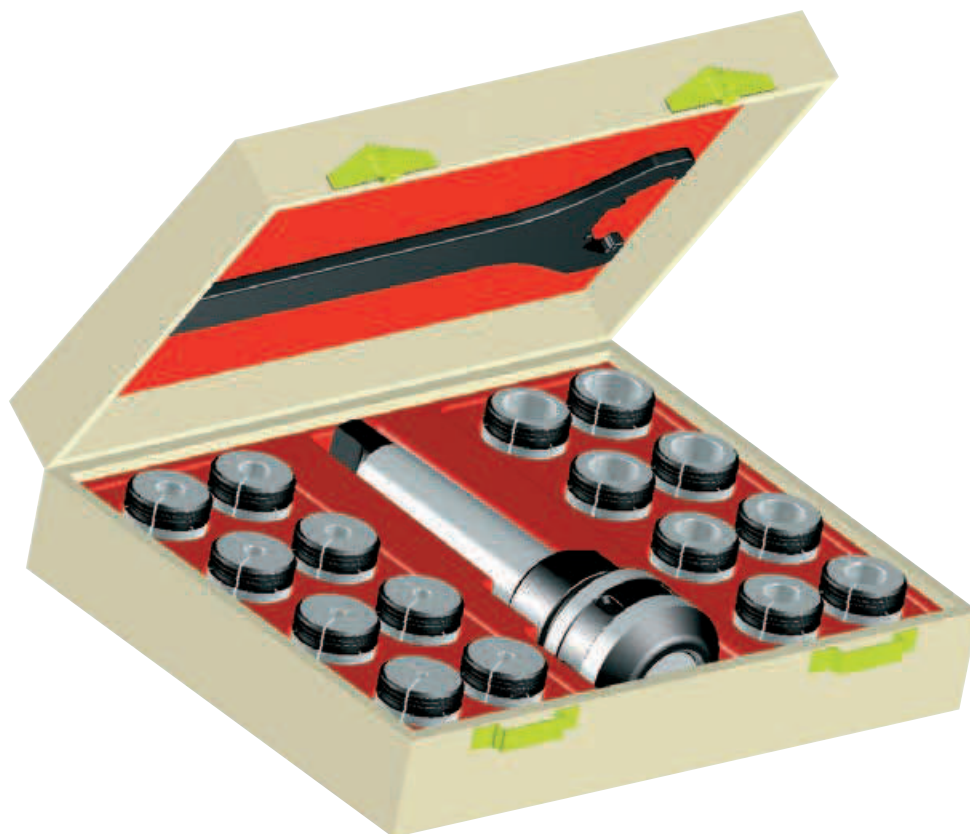
Coffrets avec mandrins à pinces Delta et pinces ref. art.209

DIN 228 B

CASSETTE 18...

ART: 205...

7.
19



Codice di ord. Code	Mandrino Chuck	Cono Morse DIN 228/B	Tipo pinza Collets type	Numero pinze Collets nr.	Ø Pinza Ø Collets
18.05	205.05	Morse 4 DIN 228/B	209.20	7	4-6-8-10-12-16-20
18.06	205.05	Morse 4 DIN 228/B	209.20	18	da 3 a 20
18.09	205.07	Morse 5 DIN 228/B	209.30	9	4-6-8-10-12-16-20-25-32
18.10	205.07	Morse 5 DIN 228/B	209.30	28	da 4 a 32

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with MORSE cone DIN 228



Cassette con portapinze ER pinze complete di chiave di serraggio

Boxes with ER collet chucks and collets - supplied with wrench

Kassetten mit Spannzangenhalter ER und Spannzangen - geliefert mit Schlüssel

Coffrets avec mandrins à pinces ER et pinces - fournis avec clé

ACCESSORI PER MACCHINE UTENSILI

DIN 228 A

CASSETTE ER
ART: 614...



Codice di ord. Code	Mandrino Chuck	Cono Morse DIN 228/A	Tipo pinza Collets type	Numero pinze Collets nr.	Ø Pinza Ø Collets
02.07.ER25	614.02.0250	Morse 2 DIN 228/A	ER 25	7	4-6-8-10-12-14-16
02.14.ER25	614.02.0250	Morse 2 DIN 228/A	ER 25	14	da 3 a 16
03.09.ER32	614.03.0320	Morse 3 DIN 228/A	ER 32	9	4-6-8-10-12-14-16-18-20
03.18.ER32	614.03.0320	Morse 3 DIN 228/A	ER 32	18	da 3 a 20
04.09.ER32	614.04.0320	Morse 4 DIN 228/A	ER 32	9	4-6-8-10-12-14-16-18-20
04.18.ER32	614.04.0320	Morse 4 DIN 228/A	ER 32	18	da 3 a 20
04.09.ER40	614.04.0400	Morse 4 DIN 228/A	ER 40	9	4-6-8-10-12-14-16-18-20
04.23.ER40	614.04.0400	Morse 4 DIN 228/A	ER 40	23	da 4 a 26
05.09.ER32	614.05.0320	Morse 5 DIN 228/A	ER 32	9	4-6-8-10-12-14-16-18-20
05.18.ER32	614.05.0320	Morse 5 DIN 228/A	ER 32	18	da 3 a 20
05.09.ER40	614.05.0400	Morse 5 DIN 228/A	ER 40	9	4-6-8-10-12-14-16-18-20
05.23.ER40	614.05.0400	Morse 5 DIN 228/A	ER 40	23	da 4 a 26

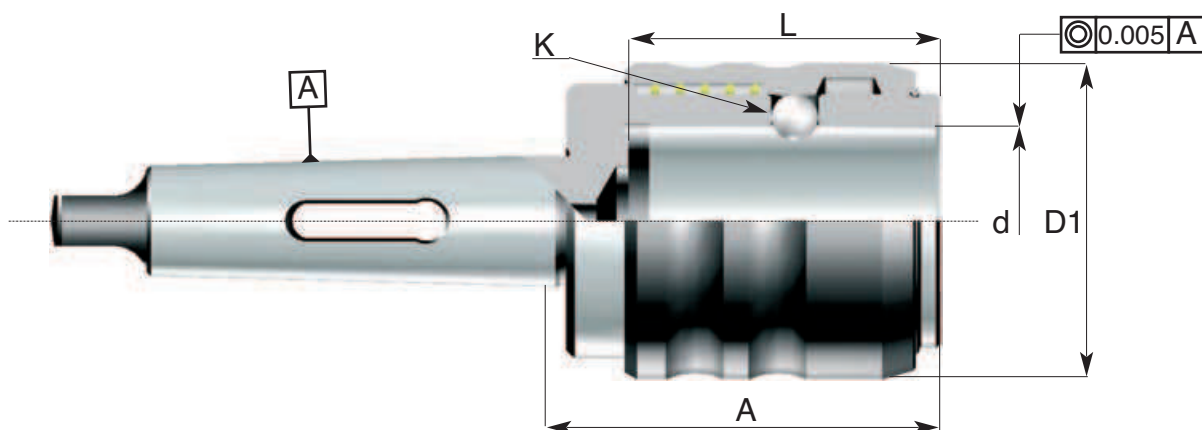
ACCESSORI PER MACCHINE UTENSILI



Mandrini portautensili ad estrazione rapida per trapani e alesatrici
 Quick change chucks for drills and boring machines
 Schnellwechselfutter für Bohrmaschinen
 Mandrins porte-outils à extraction rapide pour perceuses et aléseuses

DIN 228 B

ART: 302



7.
21

Codice di ord Code	CM	Per bussole Tap collet	Tipo type	d H7	A	L	K
302.01	Morse 2	1-2	A	26	80	58	5/16"
302.02	Morse 3	1-2-3	B	35	90	67	3/8"
302.04	Morse 4	1-2-3-4	C	46	102	75	7/16"
302.05	Morse 5	1-2-3-4	C	46	102	75	7/16"
302.07	Morse 6	1-2-3-4-5	D	60	130	95	1/2"



7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Bussole ad estrazione rapida per mandrini porta utensili art. 302

Quick change bushes for chucks art.302

Hülsen für Schnellwechselfutter art.302

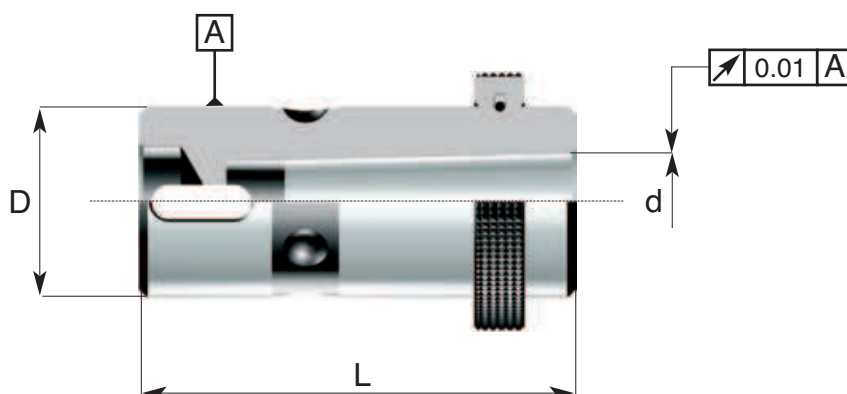
Douilles à extraction rapide pour mandrins porte-outils art.302

ACCESSORI PER MACCHINE UTENSILI



ART: 310

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22



Codice di ord Code	D h6	CM interno Inner MT	d	per mandrinoTipo Chuck type	L
310.01	26	Morse 1	12.065	A 302.01	75
310.02	26	Morse 2	17.780	A 302.01	80
310.03	35	Morse 1	12.065	B 302.02-302.03	90
310.04	35	Morse 2	17.780	B 302.02-302.03	90
310.05	35	Morse 3	23.825	B 302.02-302.03	100
310.06	46	Morse 1	12.065	C 302.04-302.05	100
310.07	46	Morse 2	17.780	C 302.04-302.05	100
310.08	46	Morse 3	23.825	C 302.04-302.05	100
310.09	46	Morse 4	31.267	C 302.04-302.05	120
310.10	50	Morse 1	12.065	D 302.06-302.07	120
310.11	50	Morse 2	17.780	D 302.06-302.07	120
310.12	50	Morse 3	23.825	D 302.06-302.07	120
310.13	50	Morse 4	31.267	D 302.06-302.07	125
310.14	50	Morse 5	44.399	D 302.06-302.07	150

ACCESSORI PER MACCHINE UTENSILI

Bussole portamorsetto ad estrazione rapida per mandrini porta utensili art. 302

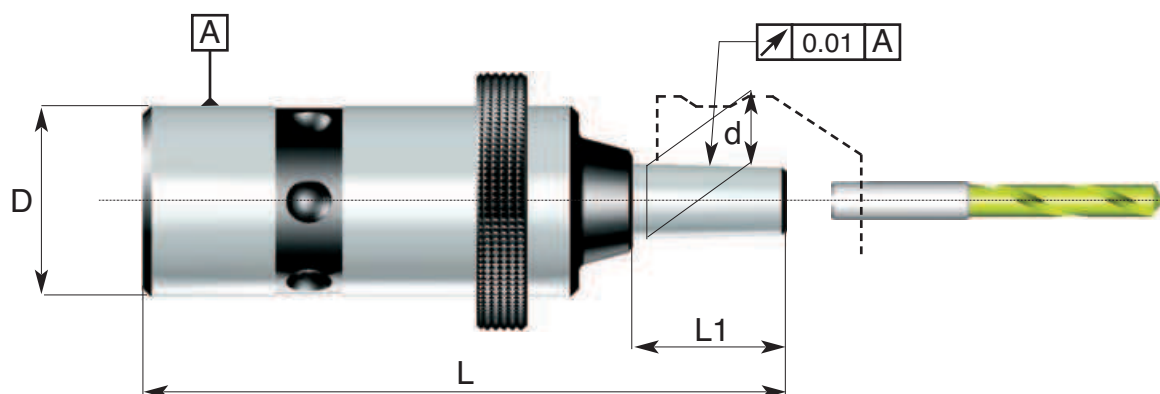
Quick change bushes for center collets for chucks art. 302

Hülsen für Schnellwechselfutter art. 302

Douilles à extraction rapide pour mandrins porte-outils art. 302



ART: 312



7.
23

Codice di ord Code	D h6	attacco DIN	d	per mandrinoTipo Chuck type	L	L1
312.01	26	B 10	10.094	A 302.01	103	22
312.02	26	B 12	12.065	A 302.01	107	22
312.03	26	B 16	15.733	A 302.01	114	29
312.04	35	B 12	12.065	B 302.02-302.03	122	22
312.05	35	B 16	15.733	B 302.02-302.03	129	29
312.06	35	B 18	17.780	B 302.02-302.03	137	37
312.07	46	B 16	15.733	C 302.04-302.05	142	29
312.08	46	B 18	17.780	C 302.04-302.05	150	37
312.09/A	60	B 16	15.733	D 302.06-302.07	163	29
312.10	60	B 18	17.780	D 302.06-302.07	171	37
312.11	60	B 22	21.793	D 302.06-302.07	183.5	55

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Maschiatori a cambio rapido con compensazione elastica assiale a trazione e pressione
Quick-change tapping chuck with compensation in compression and tension
Gewindeschneid- und Schnellwechselfutter mit Ausgleich auf Druck und Zug
Mandrin à tarauder à changement rapide avec compensation longitudinale et de la traction

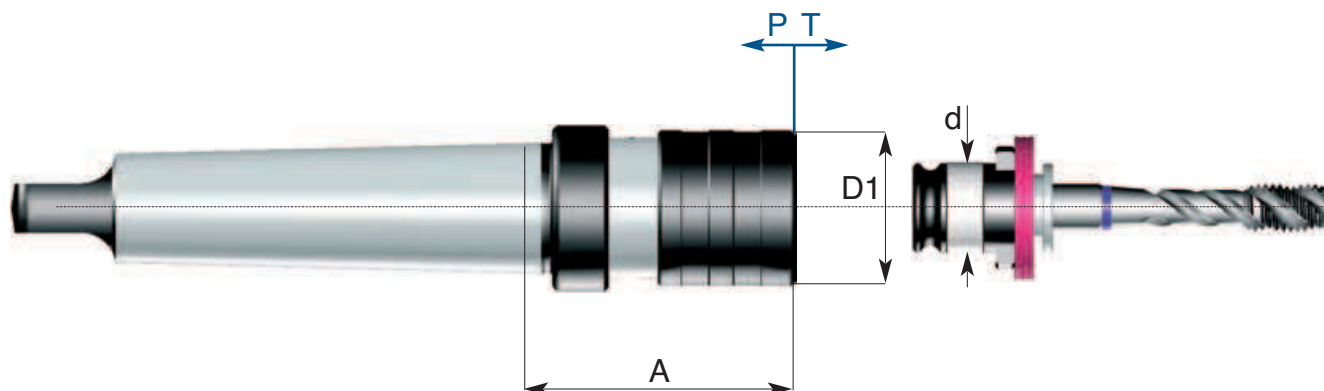
ACCESSORI PER MACCHINE UTENSILI



DIN 228 B

ART: 642

7.
24



Codice di ord Code	CM	A	D1	d	Capacità maschiatore Tapping capacity	Compensazione assiale	
						T Axial compensation	P
642.02.1205	Morse 2	55	36	19	M3 - M14	5	7
642.03.1205	Morse 3	55	36	19	M3 - M14	5	7
642.03.2008	Morse 3	82	53	31	M8 - M24	12	13
642.04.1205	Morse 4	60	36	19	M3 - M14	5	7
642.04.2008	Morse 4	82	53	31	M8 - M24	12	13
642.04.3310	Morse 4	115	78	48	M14 - M36	15	20
642.05.2008	Morse 5	85	53	31	M8 - M24	12	13
642.05.3310	Morse 5	115	78	48	M14 - M36	15	20



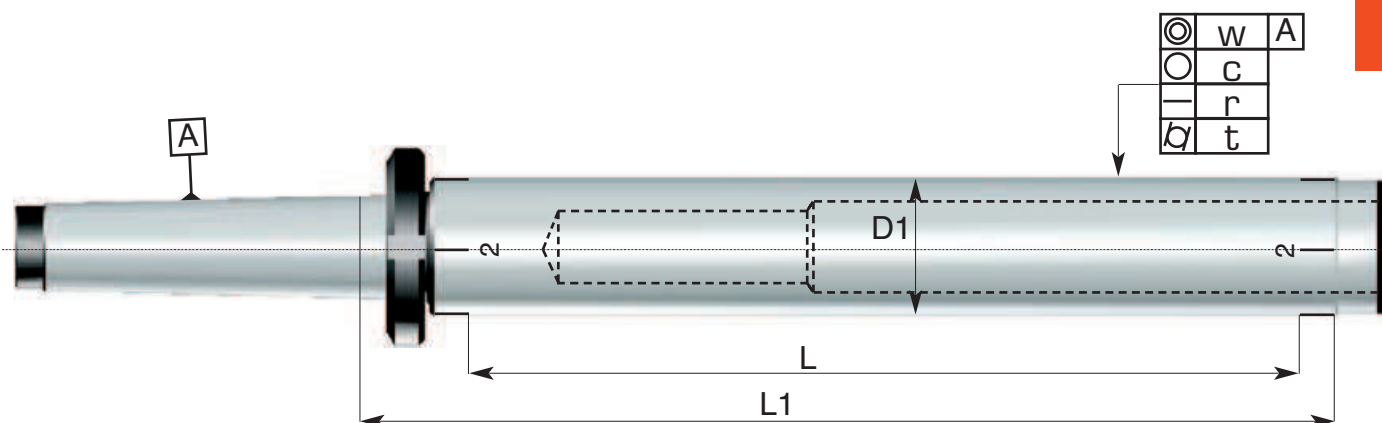
ACCESSORI PER MACCHINE UTENSILI



Cilindro di collaudo certificato
 Test arbors with test certificate
 Kontrolldorne mit Prüfungszeugnis
 Mandrins de contrôle avec certificat de bon fonctionnement

DIN 228 A

ART: 805



7.
25

Codice di ord Code	CM	D1 H5	L	L1	w	c	r	t
805.03.0320	Morse 3	32	200	235	0.003	0.003	0.003	0.003
805.04.0400	Morse 4	40	300	335	0.003	0.003	0.003	0.003
805.05.0400	Morse 5	40	300	335	0.003	0.003	0.003	0.003
805.06.0630	Morse 6	63	500	535	0.004	0.004	0.003	0.003

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Contropunte rotanti di precisione "Delta"
Precision running tail centers
Reitstockspitzen
Contrepointes de précision tournantes

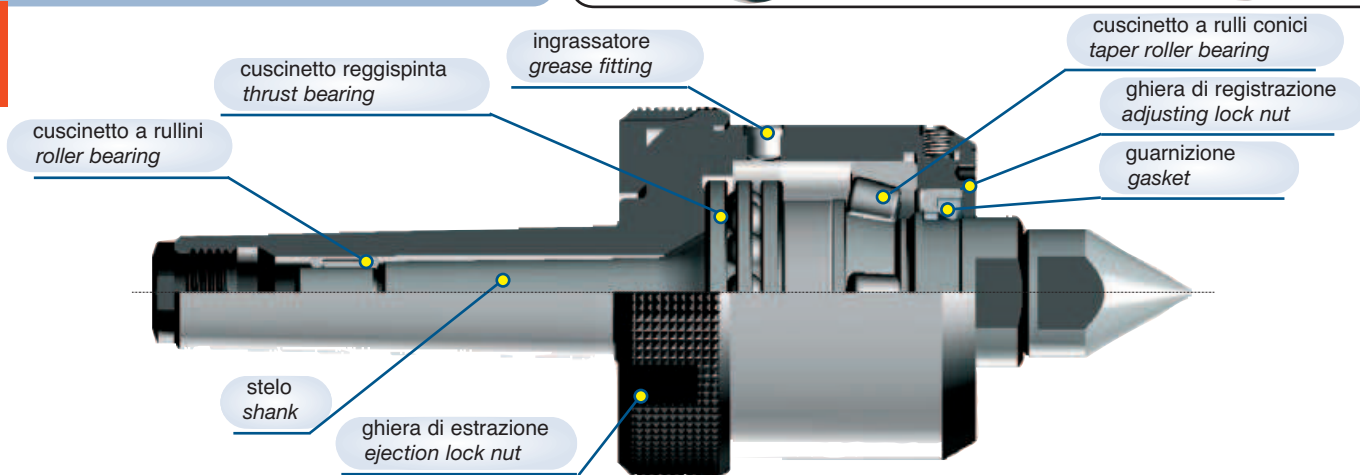
ACCESSORI PER MACCHINE UTENSILI



DIN 228/A

ART: 350 - 355 - 360
364 - 365

7.
26



CARATTERISTICHE TECNICHE DELLE CONTROPUNTE DI PRECISIONE "DELTA"

- COEFFICIENTE DI CARICO DINAMICO "C": Indica in Kg. il carico ammissibile per un cuscinetto la cui durata teorica prevedibile sia di 1 milione di giri.
- VELOCITA' MASSIMA: I valori della velocità max. vanno considerati come orientativi e valgono nell' ipotesi che i cuscinetti siano soggetti ad un carico relativamente basso (tale cioè che la loro durata sia Lh 100.000 ore) e che le loro condizioni di raffreddamento siano normali.
- Costruite in acciaio da cementazione legato
- Cementate con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 60±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificate di precisione esternamente, internamente
- Controllate con strumenti di misura certificati e fornite con certificato di collaudo
- La tolleranza di precisione dei coni MORSE è AT3

STANDARD FEATURES OF PRECISION RUNNING TAIL CENTERS "DELTA"

- DYNAMIC LOAD COEFFICIENT: shows the allowable load in Kg. for a bearing with a theoretical service life corresponding to 1 millions of revolutions.
- MAX. SPEED: Values of max. speed are standard values basing on the hypothesis that the bearing are subject to a relatively low load (to achieve a duration of Lh 100.000 hours) and that cooling conditions are normal.
- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 60±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks
- Tested with high precision gaging equipments and supplied with test certificate
- Taper accuracy of MORSE SHANKS is AT3

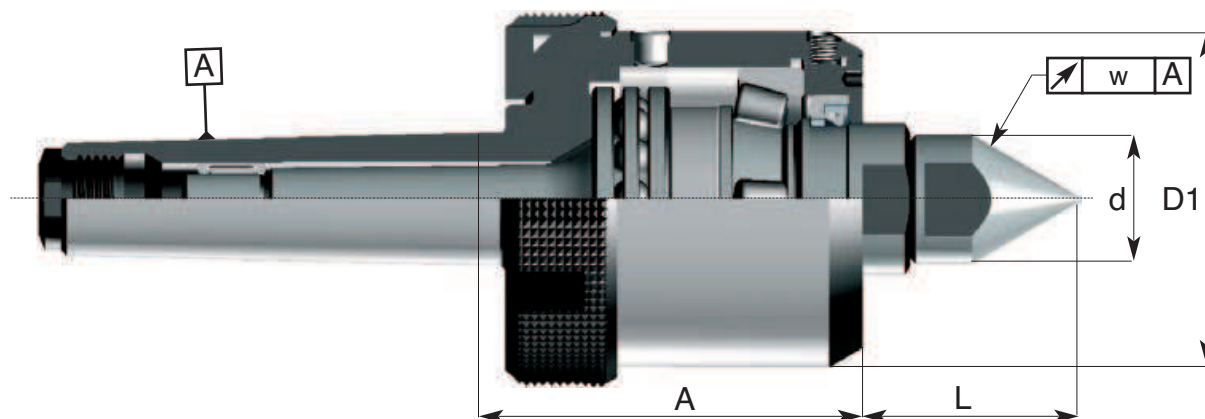
ACCESSORI PER MACCHINE UTENSILI

Contropunte rotanti di precisione a punta intercambiabile - brevettate
 Precision running tail centers with interchangeable center
 Reitstockspitzen
 Contrepontes de précision tournantes à pointe interchangeable

DIN 228/A



ART: 350



7.
27

Codice di ord Code	CM	d	D1	A	L	w mm	coeff. di carico dinamico live load coeff.		max. rpm
							"C" radiale / radial	"C" assiale / axial	
350.02	Morse 2	23	57	62	35	0.01	27000 N	22000 N	4500
350.03	Morse 3	23	60	69	40	0.01	27000 N	22000 N	4500
350.04	Morse 4	28	68	70	46	0.01	35000 N	27000 N	4000
350.04.P	Morse 4	35	83	75	55	0.01	50000 N	25000 N	3600
350.05	Morse 5	35	83	75	55	0.01	50000 N	25000 N	3600
350.05.P	Morse 5	45	100	94	68	0.01	100000 N	46500 N	2800
350.06	Morse 6	58	124	107	80	0.01	138000 N	61500 N	2800



7. MANDRINI a cono MORSE DIN 228

TOOL HOLDERS with cone MORSE DIN 228



Punte di ricambio per contropunte rotanti art. 350

Spare centers for running tail centers art.350

Ersatzspitzen für Drehbankspitzen art.350

Pointes de rechange pour contrepointes tournantes art.350

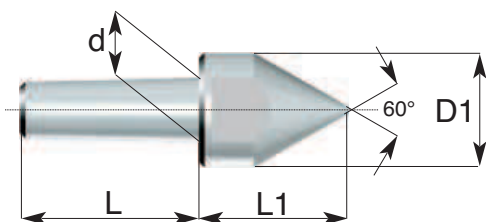
ACCESSORI PER MACCHINE UTENSILI



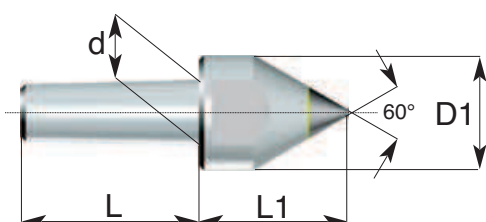
DIN 228/A

ART: 351

7.
28

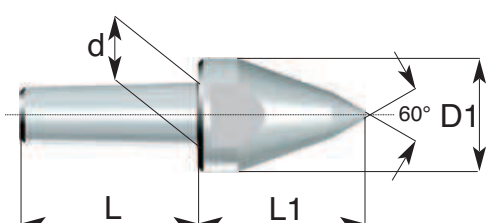


Codice di ord Code	Per contropunte for tail centres	d	D1	L	L1	d1
351.02	350.02	13	23	36	30	-
351.03	350.03	13	23	36	30	-
351.04	350.04	17	28	41	35	-
351.05	350.04.P - 350.05	20	35	46	42	-
351.05.P	350.05.P	30	45	56	55	-
351.06	350.06	40	58	65	68	-

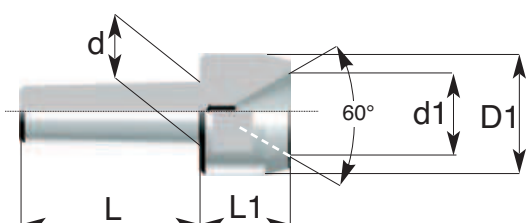


Codice di ord Code	Per contropunte for tail centres	d	D1	L	L1	d1
351.12	350.02	13	23	36	30	-
351.13	350.03	13	23	36	30	-
351.14	350.04	17	28	41	35	-
351.15	350.04.P - 350.05	20	35	46	42	-
351.15.P	350.05.P	30	45	56	55	-
351.16	350.06	40	58	65	68	-

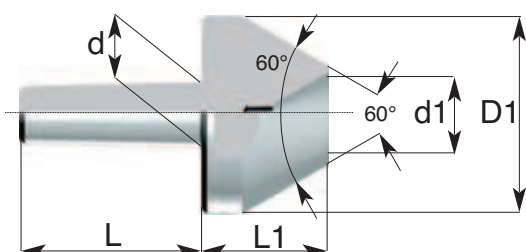
Con cuspidi in metallo duro
Carbide tipped



Codice di ord Code	Per contropunte for tail centres	d	D1	L	L1	d1
351.22	350.02	13	23	36	36	-
351.23	350.03	13	23	36	36	-
351.24	350.04	17	28	41	42	-
351.25	350.04.P - 350.05	20	35	46	52	-
351.25.P	350.05.P	30	45	56	65	-
351.26	350.06	40	48	65	81	-



Codice di ord Code	Per contropunte for tail centres	d	D1	L	L1	d1
351.42	350.02	13	24	36	18	18
351.43	350.03	13	24	36	18	18
351.44	350.04	17	30	41	22	22
351.45	350.04.P - 350.05	20	38	46	27	28
351.45.P	350.05.P	30	48	56	35	38
351.46	350.06	40	63	65	45	50



Codice di ord Code	Per contropunte for tail centres	d	D1	L	L1	d1
351.52	350.02	13	39	36	25	17
351.53	350.03	13	39	36	25	17
351.54	350.04	17	52	41	32	21
351.55	350.04.P - 350.05	20	64	46	37	27
351.55.P	350.05.P	30	78	56	42	30
351.56	350.06	40	98	65	50	45

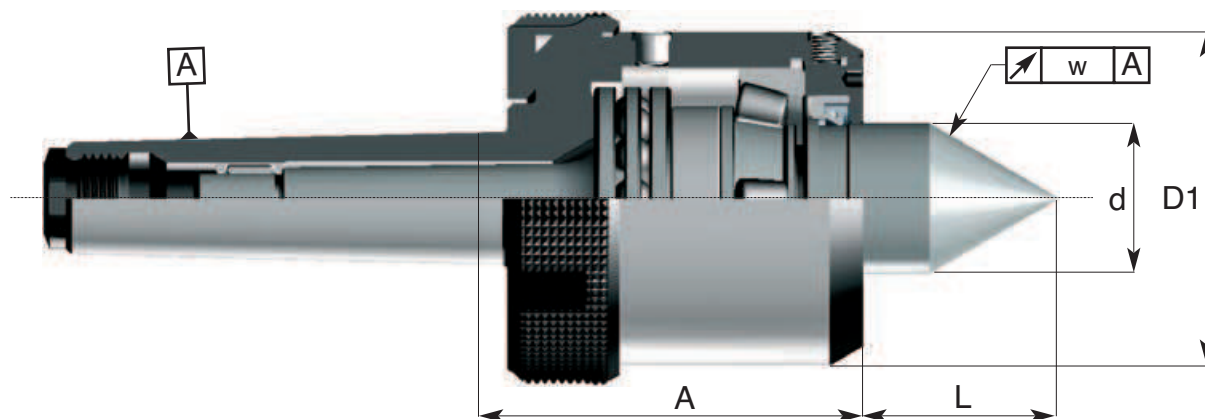
ACCESSORI PER MACCHINE UTENSILI



Contropunte rotanti di precisione
Precision running tail centers
Reitstockspitzen
Contrepointes de précision tournantes

DIN 228

ART: 355



7.
29

Codice di ord Code	CM	d	D1	A	L	w mm	coeff. di carico dinamico live load coeff.		max. rpm
							"C" radiale / radial	"C" assiale / axial	
355.02	Morse 2	20	57	62	25	0.005	27000 N	22000 N	4500
355.03	Morse 3	27	60	69	35	0.005	27000 N	22000 N	4500
355.04	Morse 4	32	68	70	40	0.005	35000 N	27000 N	4000
355.04.P	Morse 4	38	83	75	45	0.005	50000 N	25000 N	3600
355.05	Morse 5	38	83	75	45	0.005	50000 N	25000 N	3600
355.05.P	Morse 5	48	100	94	58	0.005	100000 N	46500 N	2800
355.06	Morse 6	60	124	107	70	0.01	138000 N	61500 N	2800
355.07	Metr. 80	80	160	139	80	0.01	168000 N	100000 N	1600
355.08	Metr. 100	97	200	172	80	0.01	333000 N	210000 N	1000

7. MANDRINI a cono MORSE DIN 228

TOOL HOLDERS with cone MORSE DIN 228



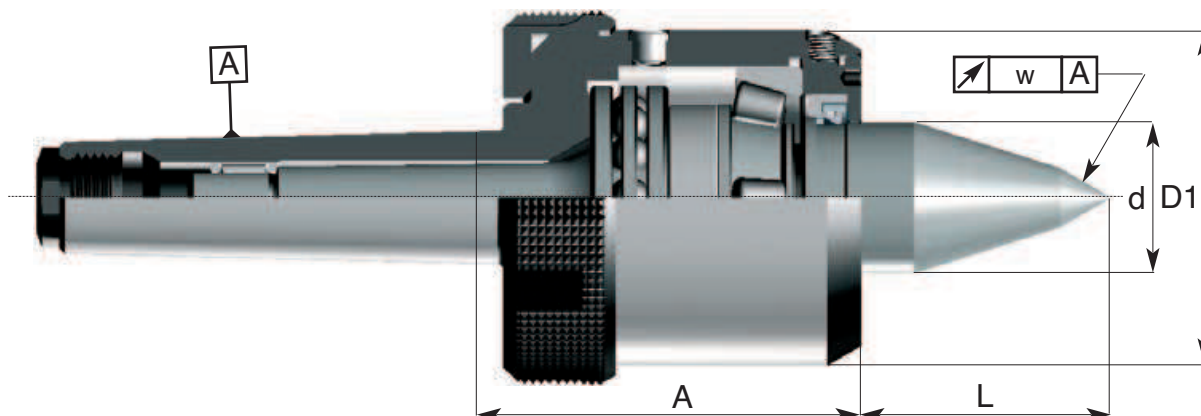
Contropunte rotanti di precisione prolungate per torni a copiare
 Extended precision running tail centers for copying lathes
 Reitstockspitzen für Kopierdrehbank
 Contrepointes de précision tournantes rallongées pour tours à copier

ACCESSORI PER MACCHINE UTENSILI



DIN 228/A

ART: 360



7.
30

Codice di ord Code	CM	d	D1	A	L	w mm	coeff. di carico dinamico live load coeff.		max. rpm
							"C" radiale / radial	"C" assiale / axial	
360.03	Morse 3	27	60	69	45	0.005	27000 N	22000 N	4500
360.04	Morse 4	32	68	70	52	0.005	35000 N	27000 N	4000
360.04.P	Morse 4	38	83	75	65	0.005	50000 N	25000 N	3600
360.05	Morse 5	38	83	75	65	0.005	50000 N	25000 N	3600
360.05.P	Morse 5	48	100	95	75	0.005	100000 N	46500 N	2800
360.06	Morse 6	60	124	107	92	0.01	138000 N	61500 N	2800
360.07	Metr. 80	80	160	139	100	0.01	168000 N	100000 N	1600

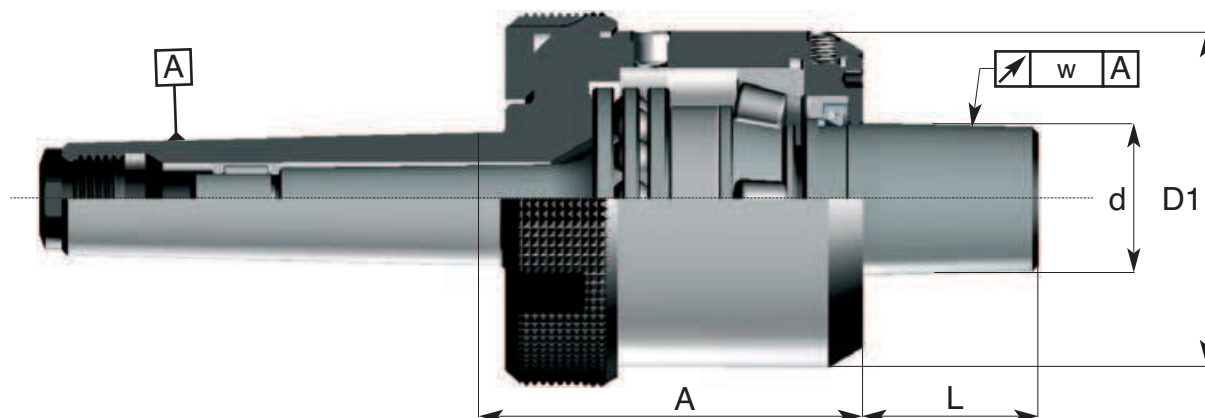
ACCESSORI PER MACCHINE UTENSILI

Contropunte rotanti di precisione con stelo conicità 1/20
 Precision running tail centers for special applications - Shank with 1/20 taper
 Reitstockspitzen für spezielle Anwendungen - Konizität 1/20-
 Contrepontes de précision tournantes pour applications spéciales - Tige à conicité 1/20



DIN 228/A

ART: 364



7.
31

Codice di ord Code	CM	d	D1	A	L	w mm	coeff. di carico dinamico live load coeff.		max. rpm
							"C" radiale / radial	"C" assiale / axial	
364.03	Morse 3	27	60	69	28	0.006	27000 N	22000 N	4500
364.04	Morse 4	32	68	70	35	0.006	35000 N	27000 N	4000
364.04 P	Morse 4	38	83	75	40	0.006	50000 N	25000 N	3600
364.05	Morse 5	38	83	75	40	0.006	50000 N	25000 N	3600
364.05 P	Morse 5	48	100	95	45	0.006	100000 N	46500 N	2800
364.06	Morse 6	60	124	107	55	0.01	138000 N	61500 N	2800
364.07	Metr: 80	80	160	139	65	0.01	168000 N	100000 N	1600
364.08	Metr: 100	97	200	172	75	0.01	333000 N	210000 N	1000

*Per punte ricambio Art. 365/366 pag. 7.33
 *For spare centers page 7.33

7. MANDRINI a cono MORSE DIN 228

TOOL HOLDERS with cone MORSE DIN 228



Contropunte rotanti di precisione per lavorazioni di tubi

Precision running tail centers for pipe machining

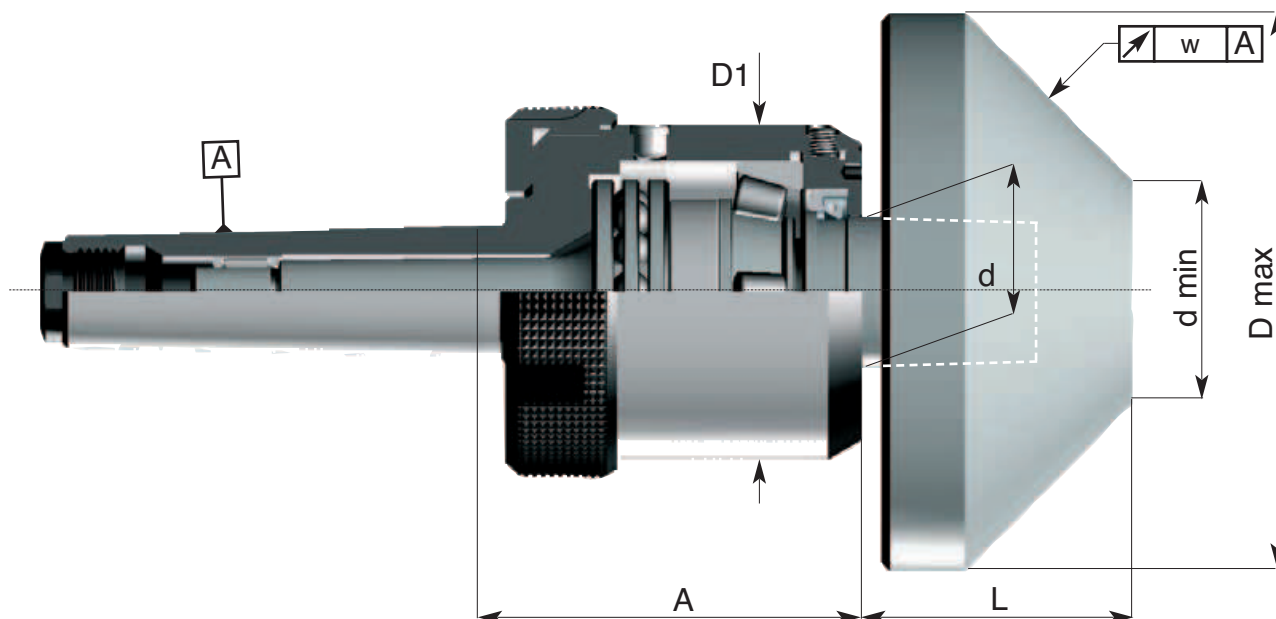
Reitstockspitzen für Rohrearbeitung

Contrepointes de précision tournantes pour usinage des pièces tubulaires

ACCESSORI PER MACCHINE UTENSILI

DIN 228/A

ART: 365



7.
32

Codice di ord Code	CM	d	d min	D max	A	D1	L	w mm	coeff. di carico dinamico live load coeff.		max. rpm
									"C" radiale / radial	"C" assiale / axial	
365.03	Morse 3	27	22	100	65	60	47	0.006	27000 N	22000 N	4500
365.04	Morse 4	32	25	125	70	68	57	0.006	35000 N	27000 N	4000
365.04 P	Morse 4	38	30	150	75	83	68	0.006	50000 N	25000 N	3600
365.05	Morse 5	38	30	150	75	83	68	0.006	50000 N	25000 N	3600
365.05 P	Morse 5	48	40	200	95	100	90	0.006	100000 N	46500 N	2800
365.06	Morse 6	60	60	250	107	124	105	0.01	138000 N	61500 N	2800
365.07	Metr: 80	80	80	300	139	160	125	0.01	168000 N	100000 N	1600
365.08	Metr: 100	97	90	350	172	200	145	0.01	333000 N	210000 N	1000

*Per punte ricambio Art. 365/366 pag. 7.33

*For spare centers page 7.33

ACCESSORI PER MACCHINE UTENSILI

Punte intercambiabili per contropunte rotanti di precisione lavorazione tubi art. 364 - 365

Spare centers for running tail centers art. 364 - 365

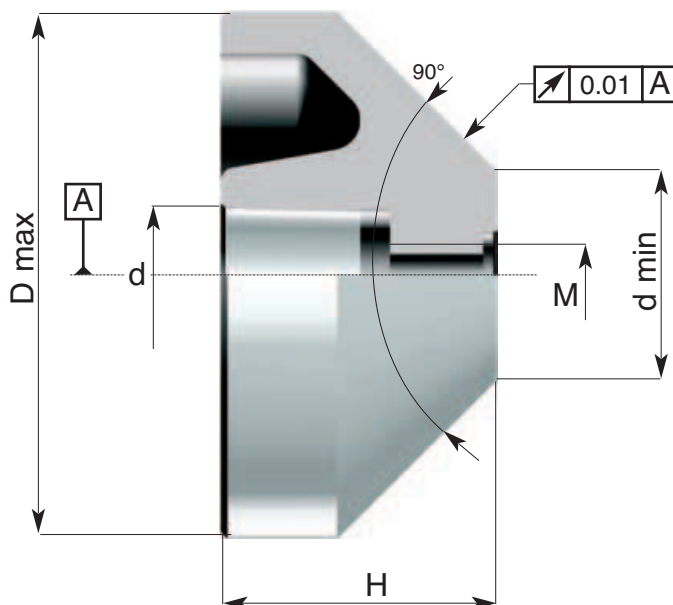
Ersatzspitzen für Drehbankspitzen art. 364 - 365

Pointes de rechange pour contrepontes tournantes art. 364 - 365



ART: 365 - 366

7.
33



Codice di ord Code	D max	d min	d	H	M	per contropunta for tail centres
366.03.065	65	20	27	45	M12	364.03 - 365.03
366.03.100	100	60	27	45	M12	364.03 - 365.03
365.03.03	100	27	27	47	M12	364.03 - 365.03
366.04.080	80	25	32	50	M14	364.04 - 365.04
366.04.125	125	75	32	50	M14	364.04 - 365.04
365.04.03	125	25	32	47	M14	364.04 - 365.04
366.05.100	100	30	38	60	M14	364.04.P - 364.05 - 364.04.P - 365.05
366.05.150	150	95	38	60	M14	364.04.P - 364.05 - 364.04.P - 365.05
365.05.03	150	30	38	68	M14	364.04.P - 364.05 - 364.04.P - 365.05
366.05.P.130	130	40	48	65	M20	364.05.P - 365.05.P
366.05.P.200	200	125	48	65	M20	364.05.P - 365.05.P
365.05.03.P	200	40	48	90	M20	364.05.P - 365.05.P
366.06.130	130	55	60	75	M24	364.06 - 365.06
366.06.190	190	120	60	75	M24	364.06 - 365.06
366.06.250	250	180	60	75	M24	364.06 - 365.06
365.06.03	250	60	60	105	M24	364.06 - 365.06
366.07.150	150	55	80	90	M24	364.07 - 365.07
366.07.230	230	120	80	90	M24	364.07 - 365.07
366.07.300	300	180	80	90	M24	364.07 - 365.07
365.07.03	300	80	80	125	M24	364.07 - 365.07
366.08.180	180	85	98	100	M24	364.08 - 365.08
366.08.265	265	170	98	100	M24	364.08 - 365.08
366.08.350	350	255	98	100	M24	364.08 - 365.08
365.08.03	350	90	98	145	M24	364.08 - 365.08

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Cassette con contropunte rotanti e punte intercambiabili

Boxes with precision running tail centers and spare centers

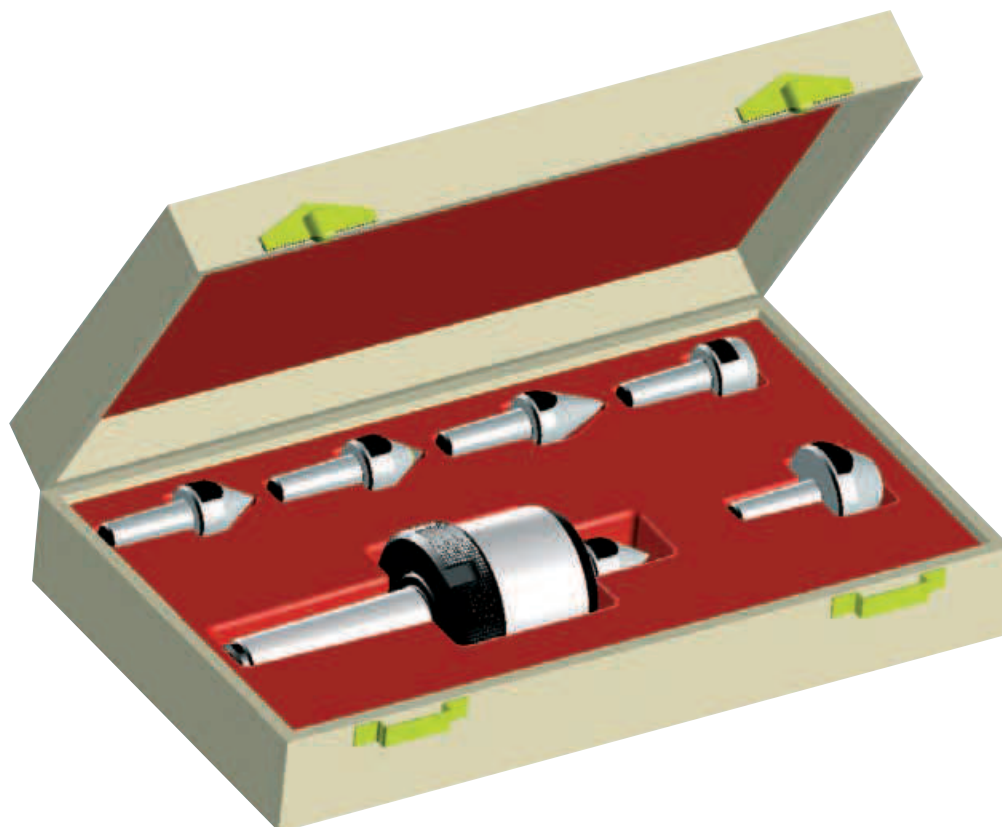
Kassetten mit Reitstockspitzen und Ersatzspitzen

Coffrets avec contrepoinces de précision tournantes et pointes de rechange

ACCESSORI PER MACCHINE UTENSILI

DIN 228/A

KIT CONTROPUNTA
ART: 30...



7.
34

Codice di ord Code	Contropunta	CM	Punta tipo "N"	Punta tipo "S"	Punta tipo "P"	Punta tipo "I"	Punta tipo "C"
30.02	350.02	Morse 2	351.02	351.12	351.22	351.42	351.52
30.03	350.03	Morse 3	351.03	351.13	351.23	351.43	351.53
30.04	350.04	Morse 4	351.04	351.14	351.24	351.44	351.54
30.04.P	350.04.P	Morse 4	351.05	351.15	351.25	351.45	351.55
30.05	350.05	Morse 5	351.05	351.15	351.25	351.45	351.55
30.05.P	350.05.P	Morse 5	351.05.P	351.15 P	351.25. P	351.45. P	351.55 P
30.06	350.06	Morse 6	351.06	351.16	351.26	351.46	351.56

ACCESSORI PER MACCHINE UTENSILI

Contropunte fisse per tornio DIN 806

Dead centers for lathes DIN 806

Körnerspitzen für Drehmaschinen DIN 806

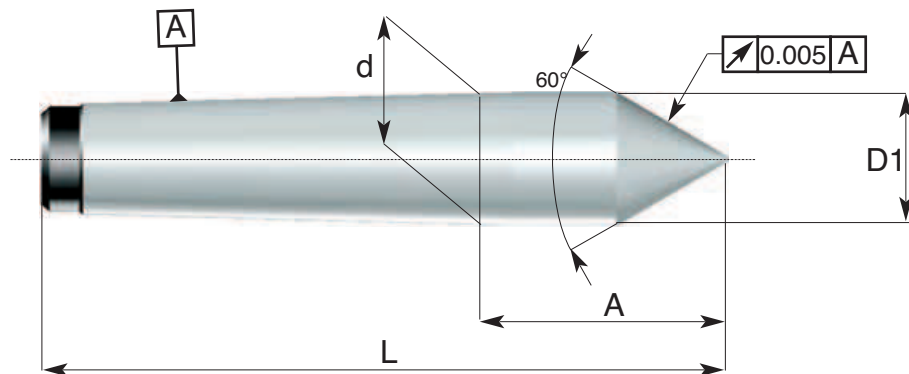
Contrepointes fixes pour tour DIN 806

DIN 228 A



ART: 380

7.
35



Codice di ord Code	CM	d	D1	A	L
380.00	Morse 0	9.20	9.20	20	70
380.01	Morse 1	12.065	12.20	27.5	80
380.02	Morse 2	17.780	18.00	36	100
380.03	Morse 3	23.825	24.10	44	125
380.04	Morse 4	31.267	31.60	57.5	160
380.05	Morse 5	44.399	44.70	70.5	200
380.06	Morse 6	63.348	63.80	88	270

7. MANDRINI a cono MORSE DIN 228

TOOL HOLDERS with cone MORSE DIN 228



Contropunte fisse per rettifica DIN 806

Dead centers for grinding machines DIN 806
 Körnerspitzen für Schleifmaschinen DIN 806
 Contrepointes fixes pour rectifieuses DIN 806

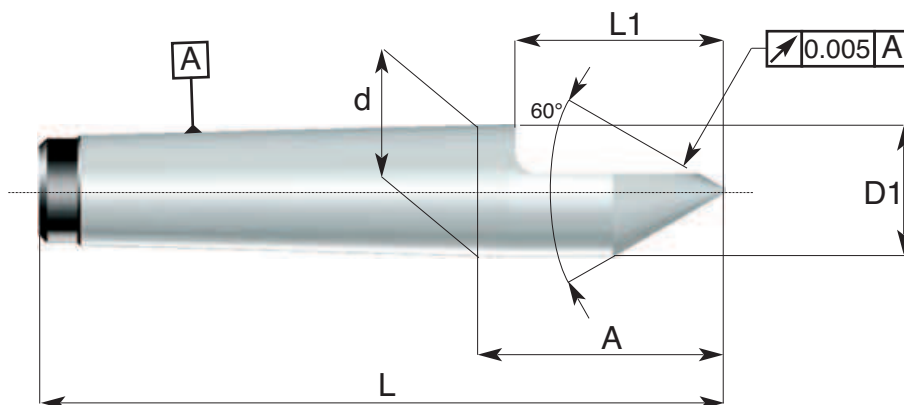
ACCESSORI PER MACCHINE UTENSILI



DIN 228 A

ART: 382

7.
36



Codice di ord Code	CM	d	D1	A	L	L1
382.01	Morse 1	12.065	12.20	27.5	80	22
382.02	Morse 2	17.780	18.00	36	100	30
382.03	Morse 3	23.825	24.10	44	125	38
382.04	Morse 4	31.267	31.60	57.5	160	50
382.05	Morse 5	44.399	44.70	70.5	200	63
382.06	Morse 6	63.348	63.80	88	270	79

ACCESSORI PER MACCHINE UTENSILI



Contropunte fisse con cuspidi in metallo duro DIN 806

Carbide tipped dead centers DIN 806

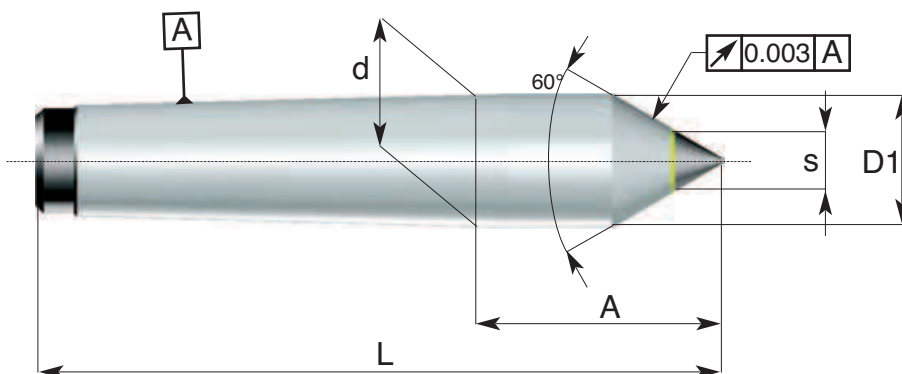
Körnerspitzen mit Hartmetall DIN 806

Contrepointes fixes avec pointe d'extrémité en metal dur DIN 806

DIN 228 A

ART: 385

7.
37



Codice di ord Code	CM	d	D1	A	L	S
385.01	Morse 1	12.065	12.20	27.5	80	6
385.02	Morse 2	17.780	18.00	36	100	7
385.03	Morse 3	23.825	24.10	44	125	11
385.04	Morse 4	31.267	31.60	57.5	160	14
385.05	Morse 5	44.399	44.70	70.5	200	18
385.06	Morse 6	63.348	63.80	88	270	20

7. MANDRINI a cono MORSE DIN 228 TOOL HOLDERS with cone MORSE DIN 228



Contropunte fisse per rettifica con cuspide in metallo duro DIN 806

Carbide tipped dead centers for grinding machines DIN 806

Körnerspitzen mit Hartmetall für Schleifmaschinen DIN 806

Contrepointes fixes avec pointe d'extrémité en metal dur pour rectifieuses DIN 806

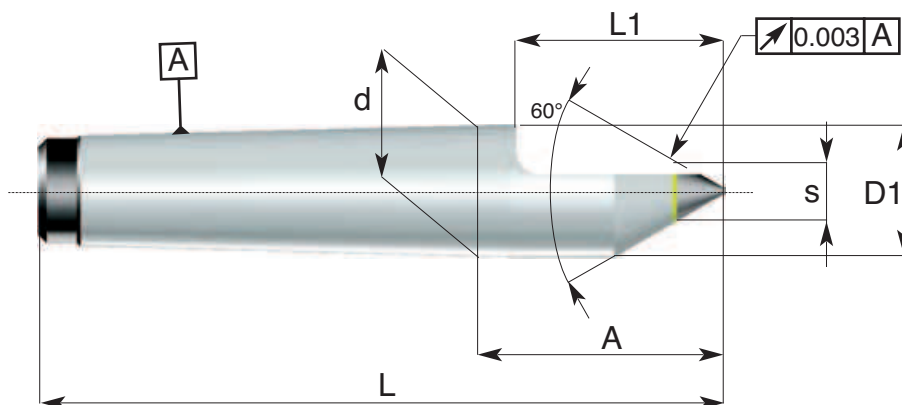
ACCESSORI PER MACCHINE UTENSILI



DIN 228 A

ART: 386

7.
38



Codice di ord Code	CM	d	D1	A	L	L1	s
386.01	Morse 1	12.065	12.20	27.5	80	22	6
386.02	Morse 2	17.780	18.00	36	100	30	7
386.03	Morse 3	23.825	24.10	44	125	38	11
386.04	Morse 4	31.267	31.60	57.5	160	50	14
386.05	Morse 5	44.399	44.70	70.5	200	63	18
386.06	Morse 6	63.348	63.80	88	270	79	20

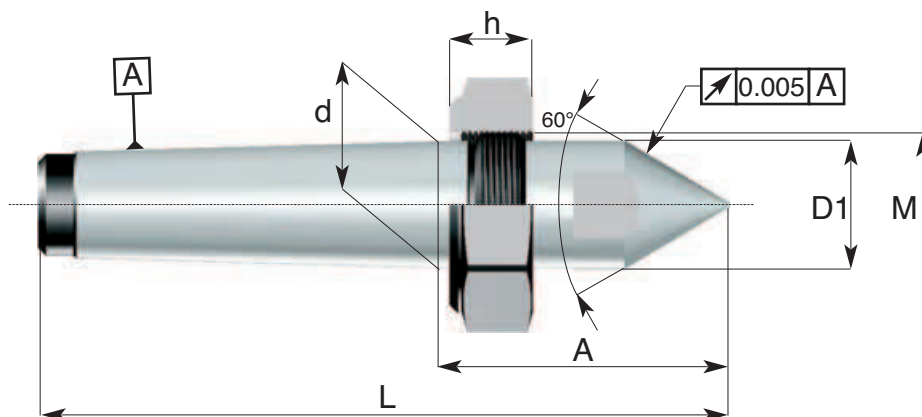
ACCESSORI PER MACCHINE UTENSILI



Contropunte fisse per tornio complete di ghiera di estrazione DIN 807
 Dead centers with ejector ring for lathes DIN 807
 Körnerspitzen mit Abdrückmutter für Drehmaschinen DIN 807
 Contrepointes fixes avec manchon d'extraction pour tour DIN 807

DIN 228 A

ART: 387



7.
39

Codice di ord Code	CM	d	D1	A	L	M	h	Ghiere Nut
387.02	Morse 2	17.780	18.00	46.5	112	M22 X 1.5	15.5	398.02
387.03	Morse 3	23.825	24.10	58.5	138	M27 X 1.5	17.5	398.03
387.04	Morse 4	31.267	31.60	72.5	175	M36 X 1.5	21	398.04
387.05	Morse 5	44.399	44.70	88.5	217	M48 X 1.5	23	398.05
387.06	Morse 6	63.348	63.80	108	290	M68 X 1.5	25	398.06

7. MANDRINI a cono MORSE DIN 228

TOOL HOLDERS with cone MORSE DIN 228



Contropunte fisse pesanti complete di ghiera di estrazione conicità 1/10 e 1/20

Heavy duty dead centers with ejector ring - 1/10 and 1/20 taper

Körnerspitzen mit Abdrückmutter für Drehmaschinen- Konizität 1/10 und 1/20

Contrepoinces fixes série pour travaux pénibles avec manchon d'extraction- Conicité 1/10 et 1/20

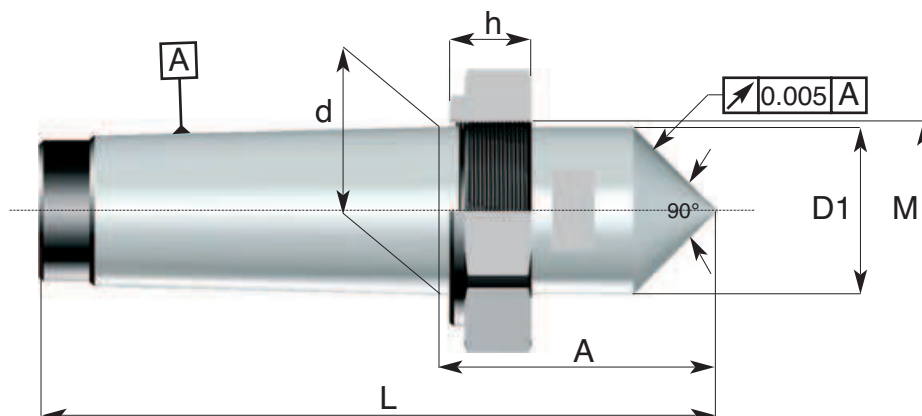
ACCESSORI PER MACCHINE UTENSILI



DIN 228 A

ART: 388

7.40



Codice di ord Code	CM	d	D1	A	L	M	h	Ghiere Nut
388.01	Metr: 80	80	80	130	321	M85 x 2	40	399.01
388.02	Metr: 100	100	100	145	385	M108 x 3	48	399.02
388.03	Metr: 120	120	120	155	435	M128 x 3	50	399.03
388.04	Metr: 140	140	140	170	490	M148 x 3	55	399.04

In caso d'ordine specificare il tipo di conicità (1/10 o 1/20).

In case of order, please indicate the taper (1/10 o 1/20).

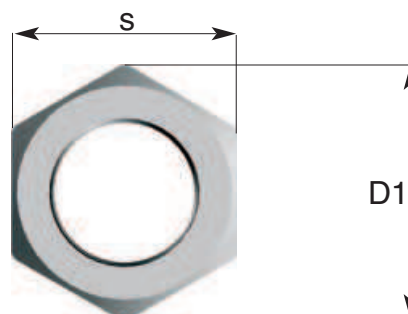
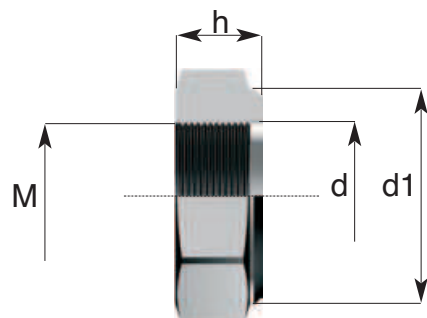
Bei Auftragserteilung, die Konizität angeben (1/10 o 1/20).

En cas de commande il faut indiquer la conicité (1/10 o 1/20).



Ghiere d'estrazione

ART: 398



7.
41

Codice di ord Code	M	d	d1	h	s	Per contropunte Tail centres
398.01	M 16 x 1.5	17	23	12	24	387.01
398.02	M 22 x 1.5	23	30	15.5	32	387.02
398.03	M 27 x 1.5	28	39	17.5	41	387.03
398.04	M 36 x 1.5	37	53	21	55	387.04
398.05	M 48 x 1.5	50	67	23	75	387.05
398.06	M 68 x 1.5	17	90	25.5	100	387.06

Ghiera di estrazione per contropunte fisse a conicità metrica 1/10 e 1/20 art. 388

Ejector ring for heavy duty dead centers - 1/10 and 1/20 taper - art. 388

Abdrückmutter für Körnerspitzen Konizität 1/10 und 1/20 - art. 388

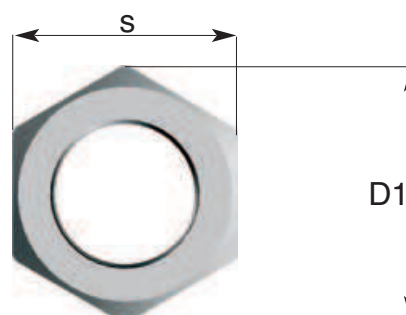
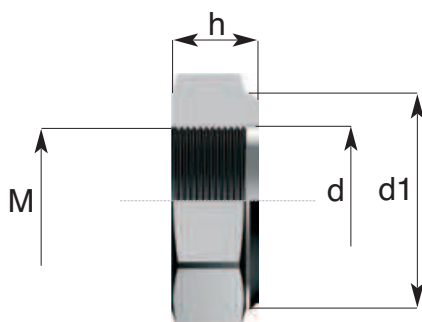
Manchon d'extraction pour contrepointes fixes - Conicité 1/10 et 1/20 - art. 388



Ghiere d'estrazione

ART: 399

standard / standard



Codice di ord Code	M	d	d1	h	s	Per contropunte Tail centres
399.01	M 85 x 2	87	119	40	120	388.01
399.02	M108 x 3	110	144	48	145	388.02
399.03	M128 x 3	130	169	50	170	388.03
399.04	M148 x 3	150	198	55	200	388.04

8.2

- Riduzioni cono Morse
Adaptor sleeve

8.3

- Riduzioni cono Morse
Adaptor sleeve

8.5

- Riduzioni cono Morse
Adaptor sleeve

8.6

- Maschiatori
Tapping chuck

8.7

- Ghiera di registrazione
Setting ring



DIN 6327
Astucci registrabili
Adjustable tool bushes

8

 **delta**

8. Astucci Registrabili DIN 6327

Adjustable Toolbushes DIN 6327



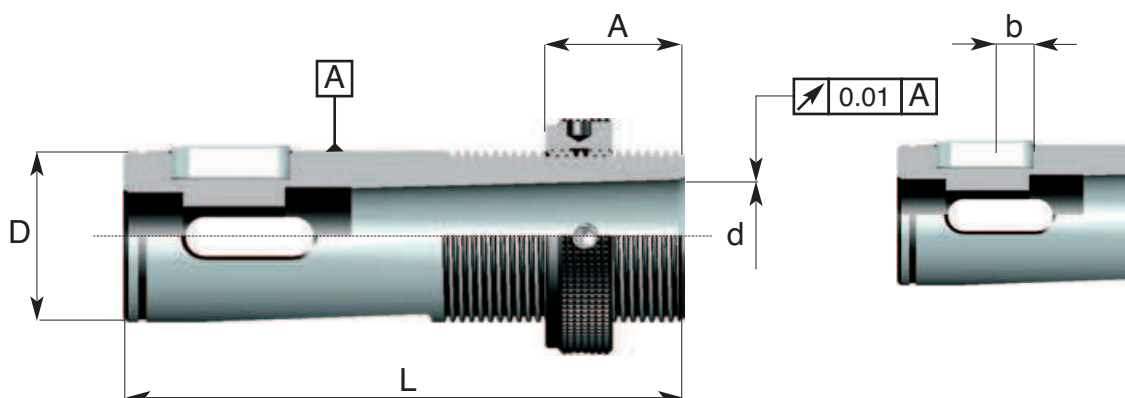
Astucci registrabili DIN 6327 riduzione cono morse tipo corto
 Adjustable adaptors DIN 6327 to Morse cone - short type
 Nachstellbare Werkzeugfutter DIN 6327 zu Morsekegel- kurze Ausführung
 Trousses réglables porte-outils DIN 6327 à cône Morse- type court

ACCESSORI PER MACCHINE UTENSILI



DIN 6327 Forma E

ART: 620



Codice di ord Code	D h6 X passo	CM	d	L	b	A	
						min	max
620.16.0100	16 x 1.5 Tr	Morse 1	12.065	85	5	12	40
620.20.0100	20 x 2 Tr	Morse 1	12.065	88	5	12	40
620.25.0100	25 x 2 Tr	Morse 1	12.065	95	6	12	42
620.25.0200	25 x 2 Tr	Morse 2	17.780	95	6	12	42
620.28.0100	28 x 2 Tr	Morse 1	12.065	95	6	12	42
620.28.0200	28 x 2 Tr	Morse 2	17.078	95	6	12	42
620.32.0100	32 x 2 Tr	Morse 1	12.065	118	8	12	50
620.32.0200	32 x 2 Tr	Morse 2	17.780	118	8	12	50
620.32.0300	32 x 2 Tr	Morse 3	23.825	118	8	12	50
620.36.0100	36 x 2 Tr	Morse 1	12.065	118	8	14	50
620.36.0200	36 x 2 Tr	Morse 2	17.780	118	8	14	50
620.36.0300	36 x 2 Tr	Morse 3	23.825	118	8	14	50
620.48.0100	48 x 2 Tr	Morse 1	12.065	144	10	18	65
620.48.0200	48 x 2 Tr	Morse 2	17.780	144	10	18	65
620.48.0300	48 x 2 Tr	Morse 3	23.825	144	10	18	65
620.48.0400	48 x 2 Tr	Morse 4	31.267	144	10	18	65

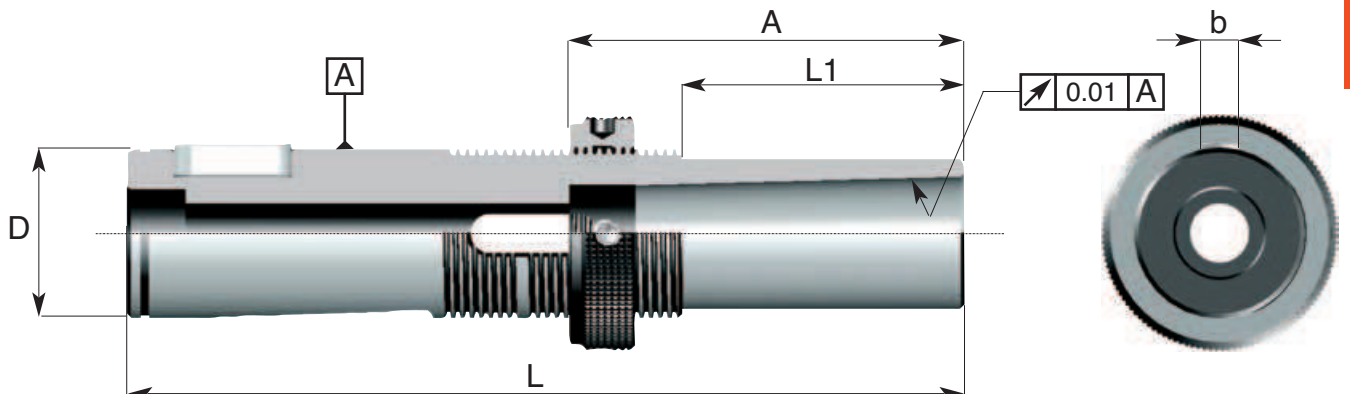
ACCESSORI PER MACCHINE UTENSILI

Astucci registrabili portautensili tipo lungo DIN 6327 completi di linguetta e ghiera
 Adjustable adaptors DIN 6327 - long type, with feather key and ring nut
 Nachstellbare Werkzeugsfutter DIN 6327 - lange Ausführung mit Zunge und Klemmutter
 Trousses réglables porte-outils DIN 6327 - type long avec languettes et bague



DIN 6327 Forma G

ART: 622



8.
3

Codice di ord Code	D h6 X passo	CM	L	L1	b	A	
						min	max
622.16.0100	16 x 1.5 Tr.	Morse 1	110	25	5	37	65
622.16.0102	16 x 1.5 Tr.	Morse 1	135	50	5	62	80
622.16.0104	16 x 1.5 Tr.	Morse 1	160	75	5	87	115
622.16.0106	16 x 1.5 Tr.	Morse 1	185	100	5	112	140
622.20.0100	20 x 2 Tr.	Morse 1	113	25	5	37	65
622.20.0102	20 x 2 Tr.	Morse 1	138	50	5	62	80
622.20.0104	20 x 2 Tr.	Morse 1	163	75	5	87	115
622.20.0106	20 x 2 Tr.	Morse 1	188	100	5	112	140
622.25.0100	25 x 2 Tr.	Morse 1	120	25	6	37	67
622.25.0102	25 x 2 Tr.	Morse 1	145	50	6	62	92
622.25.0104	25 x 2 Tr.	Morse 1	170	75	6	87	117
622.25.0106	25 x 2 Tr.	Morse 1	195	100	6	112	142
622.25.0200	25 x 2 Tr.	Morse 2	120	25	6	37	67
622.25.0202	25 x 2 Tr.	Morse 2	145	50	6	62	92
622.28.0100	28 x 2 Tr.	Morse 1	120	25	6	37	67
622.28.0102	28 x 2 Tr.	Morse 1	145	50	6	62	92
622.28.0104	28 x 2 Tr.	Morse 1	170	75	6	87	117
622.28.0106	28 x 2 Tr.	Morse 1	195	100	6	112	142
622.28.0200	28 x 2 Tr.	Morse 2	120	25	6	37	67
622.28.0202	28 x 2 Tr.	Morse 2	145	50	6	62	92
622.28.0204	28 x 2 Tr.	Morse 2	170	75	6	87	117
622.28.0206	28 x 2 Tr.	Morse 2	195	100	6	112	142
622.32.0100	32 x 2 Tr.	Morse 1	178	60	8	42	80
622.32.0102	32 x 2 Tr.	Morse 1	178	60	8	102	140
622.32.0200	32 x 2 Tr.	Morse 2	178	60	8	42	80
622.32.0202	32 x 2 Tr.	Morse 2	178	60	8	102	140
622.32.0204	32 x 2 Tr.	Morse 2	208	90	8	132	170
622.32.0300	32 x 2 Tr.	Morse 3	178	60	8	42	80
622.32.0302	32 x 2 Tr.	Morse 3	178	60	8	102	140
622.32.0304	32 x 2 Tr.	Morse 3	208	90	8	132	170
622.32.0306	32 x 2 Tr.	Morse 3	238	120	8	132	170
622.32.0308	32 x 2 Tr.	Morse 3	268	150	8	162	200
622.32.0310	32 x 2 Tr.	Morse 3	298	180	8	192	230

8. Astucci Registrabili DIN 6327

Adjustable Toolbushes DIN 6327



Astucci registrabili portautensili tipo lungo DIN 6327 completi di linguetta e ghiera

Adjustable adaptors DIN 6327 - long type, with feather key and ring nut

Nachstellbare Werkzeugfutter DIN 6327 - lange Ausführung mit Zunge und Klemmutter

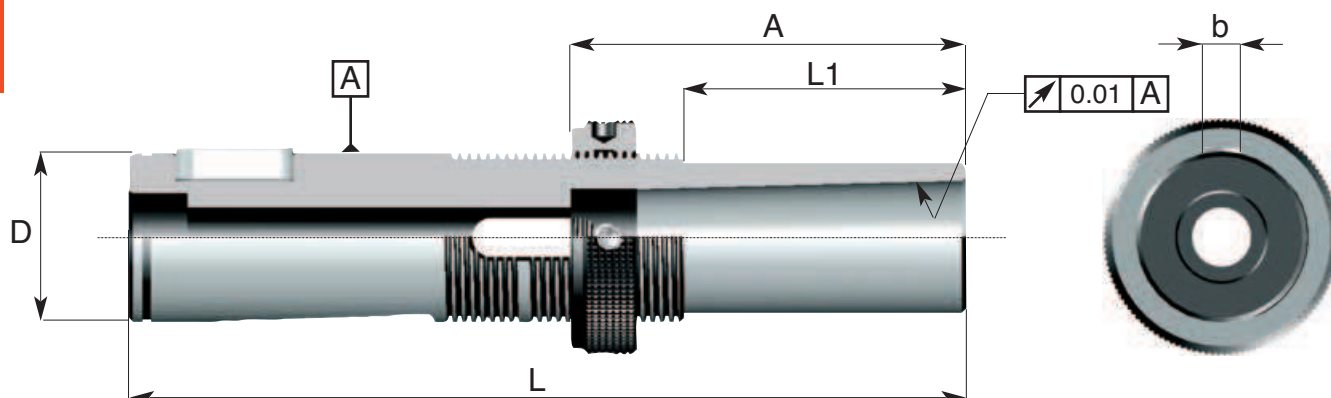
Trousses réglables porte-outils DIN 6327 - type long avec languettes et bague

ACCESSORI PER MACCHINE UTENSILI



DIN 6327 Forma G

ART: 622



Codice di ord Code	D h6 X passo	CM	L	L1	b	A	
						min	max
622.36.0100	36 x 2 Tr.	Morse 1	148	30	8	44	80
622.36.0102	36 x 2 Tr.	Morse 1	178	60	8	74	110
622.36.0104	36 x 2 Tr.	Morse 1	208	90	8	104	140
622.36.0106	36 x 2 Tr.	Morse 1	238	120	8	134	170
622.36.0108	36 x 2 Tr.	Morse 1	268	150	8	164	200
622.36.0110	36 x 2 Tr.	Morse 1	298	180	8	194	230
622.36.0200	36 x 2 Tr.	Morse 2	148	30	8	44	80
622.36.0202	36 x 2 Tr.	Morse 2	178	60	8	74	110
622.36.0204	36 x 2 Tr.	Morse 2	208	90	8	104	140
622.36.0206	36 x 2 Tr.	Morse 2	238	120	8	134	170
622.36.0300	36 x 2 Tr.	Morse 3	148	30	8	44	80
622.36.0302	36 x 2 Tr.	Morse 3	178	60	8	74	110
622.36.0304	36 x 2 Tr.	Morse 3	208	90	8	104	140
622.36.0306	36 x 2 Tr.	Morse 3	238	120	8	134	170
622.36.0308	36 x 2 Tr.	Morse 3	268	150	8	164	200
622.36.0310	36 x 2 Tr.	Morse 3	298	180	8	194	230
622.48.0200	48 x 2 Tr.	Morse 2	184	40	10	58	105
622.48.0202	48 x 2 Tr.	Morse 2	224	80	10	98	145
622.48.0204	48 x 2 Tr.	Morse 2	264	120	10	138	185
622.48.0206	48 x 2 Tr.	Morse 2	304	160	10	178	225
622.48.0208	48 x 2 Tr.	Morse 2	344	200	10	218	265
622.48.0300	48 x 2 Tr.	Morse 3	184	40	10	58	105
622.48.0302	48 x 2 Tr.	Morse 3	224	80	10	98	145
622.48.0304	48 x 2 Tr.	Morse 3	264	120	10	138	185
622.48.0306	48 x 2 Tr.	Morse 3	304	160	10	178	225
622.48.0308	48 x 2 Tr.	Morse 3	344	200	10	218	265
622.48.0400	48 x 2 Tr.	Morse 4	184	40	10	58	105
622.48.0402	48 x 2 Tr.	Morse 4	224	80	10	98	145
622.48.0404	48 x 2 Tr.	Morse 4	264	120	10	138	185
622.48.0406	48 x 2 Tr.	Morse 4	304	160	10	178	225
622.48.0408	48 x 2 Tr.	Morse 4	344	200	10	218	265

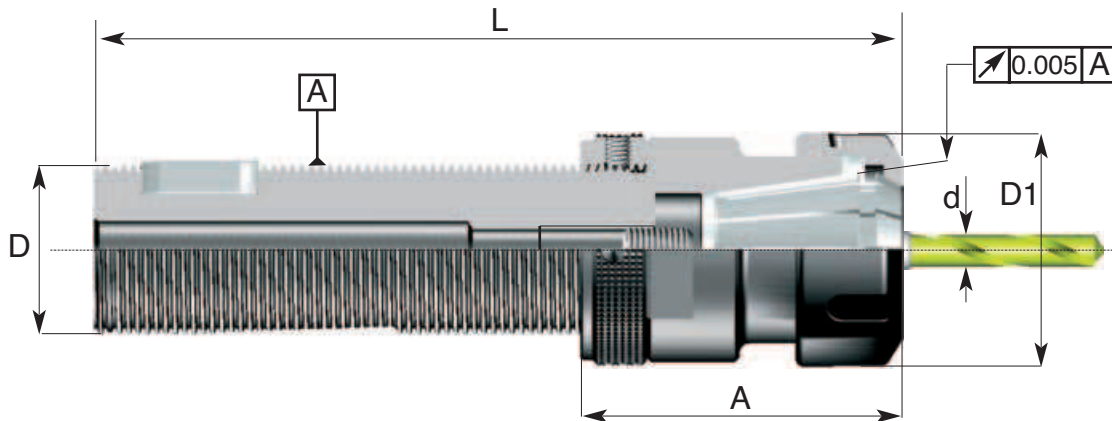
ACCESSORI PER MACCHINE UTENSILI



Astuccio registrabile DIN 6327 portapinze ER
Adjustable adaptors DIN 6327 ER collet chucks
Nachstellbare Werkzeugsfutter DIN 6327 Spannzangenhalter ER
Trousse réglables porte-outils DIN 6327 porte-pinces ER

DIN 6327

ART: 612



8.
5

Codice di ord Code	D h6 X passo	ER	D1	Cap. Pinza "d" Capacity Range "d"	b	L	A	
							min	max
612.16.0160	16 x 1.5 Tr.	ER 16	28	da 0.5 a 10	5	131	58	88
612.20.0160	20 x 2 Tr.	ER 16	28	da 0.5 a 10	5	134	58	88
612.20.0200	20 x 2 Tr.	ER 20	34	da 0.5 a 13	5	136	58	88
612.25.0250	25 x 2 Tr.	ER 25	42	da 1 a 16	6	141	58	90
612.28.0160	28 x 2 Tr.	ER 16	28	da 0.5 a 10	6	138	58	90
612.28.0200	28 x 2 Tr.	ER 20	34	da 0.5 a 13	6	141	58	90
612.28.0250	28 x 2 Tr.	ER 25	42	da 0.5 a 16	6	141	58	90
612.28.0320	28 x 2 Tr.	ER 32	50	da 1 a 20	6	153	70	100
612.36.0250	36 x 2 Tr.	ER 25	42	da 1 a 16	8	174	70	106
612.36.0320	36 x 2 Tr.	ER 32	50	da 1 a 20	8	176	70	106
612.36.0400	36 x 2 Tr.	ER 40	63	da 1 a 26	8	185	80	116
612.48.0320	48 x 2 Tr.	ER 32	50	da 1 a 20	10	195	75	122
612.48.0400	48 x 2 Tr.	ER 40	63	da 2 a 30	10	200	80	127

8. Astucci Registrabili DIN 6327

Adjustable Toolbushes DIN 6327



Astuccio registrabile DIN 6327 maschiatore a cambio rapido con compensazione elastica assiale a trazione e pressione

Adjustable adaptors DIN 6327 tapping chucks with traction and pressure elastic axial compensation

Nachstellbare Werkzeugfutter DIN 6327 Gewindeschneid mit axial elastisch Zug- und Druckausgleich

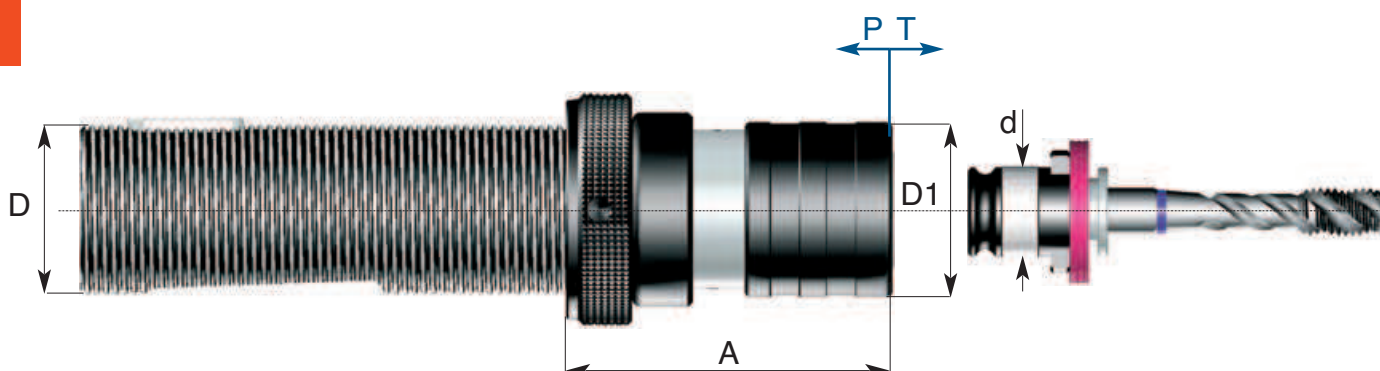
Trousse réglables DIN 6327 mandrins à tarauder avec comp. élastique axiale à traction et pression

ACCESSORI PER MACCHINE UTENSILI



DIN 6327

ART: 640



Codice di ord Code	D h6 X passo	A	D1	d	Capacità maschiatore Tapping capacity	Compensazione assiale T Axial compensation P	
640.20.1205	20 x 2Tr.	68	36	19	M 3 M 14	5	7
640.28.1205	28 x 2 Tr.	68	36	19	M 3 M 14	5	7
640.28.2008	28 x 2 Tr.	90	53	31	M 8 M 24	12	13
640.36.1205	36 x 2 Tr.	70	36	19	M 3 M 14	5	7
640.36.2008	36 x 2 Tr.	90	53	31	M 8 M 24	12	13
640.36.3310	36 x 2 Tr.	120	78	48	M 14 M 36	15	20
640.48.3310	48 x 2 Tr.	128	78	48	M 14 M 36	15	20



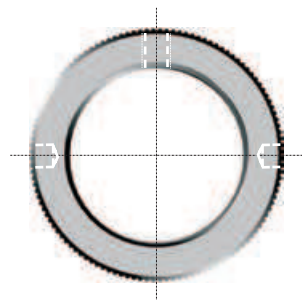
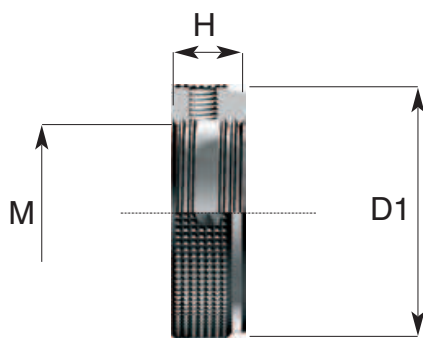
ACCESSORI PER MACCHINE UTENSILI

Ghiera di registrazione per astucci DIN 6327
 Setting ring for adjustable adaptors DIN 6327
 Einstellmutter für Nachstellbare Werkzeugfutter DIN 6327
 Bagues de réglage pour troussees porte-outils DIN 6327

DIN 6327



ART: 695



8.
7

Codice di ord Code	M	D1	H	Per astucci con D1 For adjustable bushes with D1
695.16.2512	16 x 1.5 Tr.	24.6	12	16 x 1.5 Tr.
695.20.3112	20 x 2 Tr.	31.6	12	20 x 2 Tr.
695.25.3712	25 x 2 Tr.	36.6	12	25 x 2 Tr.
695.28.4012	28 x 2 Tr.	39.6	12	28 x 2 Tr.
695.32.4514	32 x 2 Tr.	44.6	14	32 x 2 Tr.
695.36.5014	36 x 2 Tr.	49.6	14	36 x 2 Tr.
695.48.6718	48 x 2 Tr.	66.6	18	48 x 2 Tr.

9.2

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

9.3

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

9.4

- Prolunghe cil. per calettamento
Cylindrical shrink extensions

9.5

- Maschiatori
Tapping chuck

9.6

- Cilindri di collaudo
Test arbors



**CILINDRICI
ATTACCHI CILINDRICI
E WELDON**
*CYLINDRICAL AND
WELDON
ATTACHMENTS*

9

 **delta**

9. ATTACCHI CILINDRICI E WELDON

STRAIGHT SHANK and WELDON attachments



Prolunghe portapinze ER con gambo cilindrico - ghiera standard

Straight shank ER collet chuck - standard nut

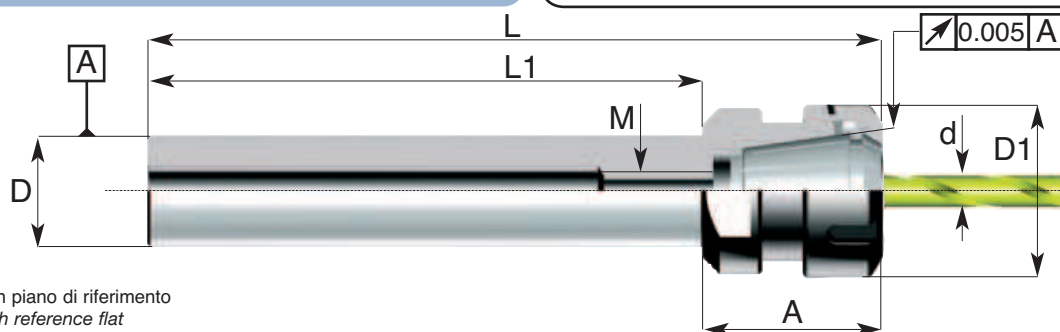
ER Spannfutterverlängerung - standard Spannmutter

Rallonges porte-pinces ER - écrou standard

ACCESSORI PER MACCHINE UTENSILI



ART:613
ghiera standard / standard nut



*Con piano di riferimento
*With reference flat



Codice di ord Code	D h6	ER	L	L1	A	D1	M	Cap. Pinza "d" Capacity range "d"	Ghiera Nut
613.16.0160	16	ER 16	95	50	45	28	M8	da Ø 0,5 a 10	245.22.ER16
613.16.0162	16	ER 16	145	100	45	28	M8	da Ø 0,5 a 10	245.22.ER16
613.16.0164	16	ER 16	205	160	45	28	M8	da Ø 0,5 a 10	245.22.ER16
613.20.0160	20	ER 16	95	50	45	28	M8	da Ø 0,5 a 10	245.22.ER16
613.20.0162	20	ER 16	145	100	45	28	M8	da Ø 0,5 a 10	245.22.ER16
613.20.0164	20	ER 16	205	160	45	28	M8	da Ø 0,5 a 10	245.22.ER16
613.20.0200	20	ER 20	95	50	40	34	M8	da Ø 0,5 a 13	245.25.ER20
613.20.0202	20	ER 20	145	100	45	34	M8	da Ø 0,5 a 13	245.25.ER20
613.20.0204	20	ER 20	205	160	45	34	M8	da Ø 0,5 a 13	245.25.ER20
613.20.0250	20	ER 25	100	50	50	42	M10	da Ø 1 a 16	245.32.ER25
613.20.0252	20	ER 25	150	100	50	42	M10	da Ø 1 a 16	245.32.ER25
613.20.0254	20	ER 25	210	160	50	42	M10	da Ø 1 a 16	245.32.ER25
613.20.0320	20	ER 32	103	50	53	50	M10	da Ø 1 a 20	245.40.ER32
613.20.0322	20	ER 32	153	100	53	50	M10	da Ø 1 a 20	245.40.ER32
613.20.0324	20	ER 32	213	160	53	50	M10	da Ø 1 a 20	245.40.ER32
613.25.0160	25	ER 16	95	50	45	28	M8	da Ø 1 a 10	245.22.ER16
613.25.0162	25	ER 16	145	100	45	28	M8	da Ø 1 a 10	245.22.ER16
613.25.0164	25	ER 16	205	160	45	28	M8	da Ø 1 a 10	245.22.ER16
613.25.0200	25	ER 20	95	50	45	34	M10	da Ø 1 a 13	245.25.ER20
613.25.0202	25	ER 20	145	100	45	34	M10	da Ø 1 a 13	245.25.ER20
613.25.0204	25	ER 20	205	160	45	34	M10	da Ø 1 a 13	245.25.ER20
613.25.0250	25	ER 25	100	50	50	42	M10	da Ø 1 a 16	245.32.ER25
613.25.0252	25	ER 25	150	100	50	42	M10	da Ø 1 a 16	245.32.ER25
613.25.0254	25	ER 25	210	160	50	42	M10	da Ø 1 a 16	245.32.ER25
613.25.0320	25	ER 32	103	50	53	50	M10	da Ø 1 a 20	245.40.ER32
613.25.0322	25	ER 32	153	100	53	50	M10	da Ø 1 a 20	245.40.ER32
613.25.0324	25	ER 32	213	160	53	50	M10	da Ø 1 a 20	245.40.ER32
613.25.0400	25	ER 40	140	80	60	63	M14	da Ø 2 a 30	245.50.ER40
613.32.0160	32	ER 16	95	50	45	28	M8	da Ø 1 a 10	245.22.ER16
613.32.0162	32	ER 16	145	100	45	28	M8	da Ø 1 a 10	245.22.ER16
613.32.0164	32	ER 16	205	160	45	28	M8	da Ø 1 a 10	245.22.ER16
613.32.0250	32	ER 25	100	50	50	42	M10	da Ø 1 a 16	245.32.ER25
613.32.0252	32	ER 25	150	100	50	42	M10	da Ø 1 a 16	245.32.ER25
613.32.0254	32	ER 25	210	160	50	42	M10	da Ø 1 a 16	245.32.ER25
613.32.0320	32	ER 32	100	50	50	50	M10	da Ø 1 a 20	245.40.ER32
613.32.0322	32	ER 32	150	100	50	50	M10	da Ø 1 a 20	245.40.ER32
613.32.0324	32	ER 32	210	160	50	50	M10	da Ø 1 a 20	245.40.ER32
613.32.0400	32	ER 40	140	80	60	63	M14	da Ø 2 a 30	245.50.ER40
613.40.0320	40	ER 32	133	80	53	50	M10	da Ø 1 a 20	245.40.ER32
613.40.0322	40	ER 32	153	100	53	50	M10	da Ø 1 a 20	245.40.ER32
613.40.0324	40	ER 32	213	160	53	50	M10	da Ø 1 a 20	245.40.ER32
613.40.0400	40	ER 40	140	80	60	63	M14	da Ø 2 a 30	245.50.ER40
613.50.0320*	50	ER 32	130	80	50	50	M22X1,5	da Ø 1 a 20	245.40.ER32
613.50.0400*	50	ER 40	140	80	60	63	M28X1,5	da Ø 2 a 30	245.50.ER40

ACCESSORI PER MACCHINE UTENSILI

Prolunghe portapinze ER con gambo cilindrico - ghiera mini

Straight shank ER collet chuck - mini nut

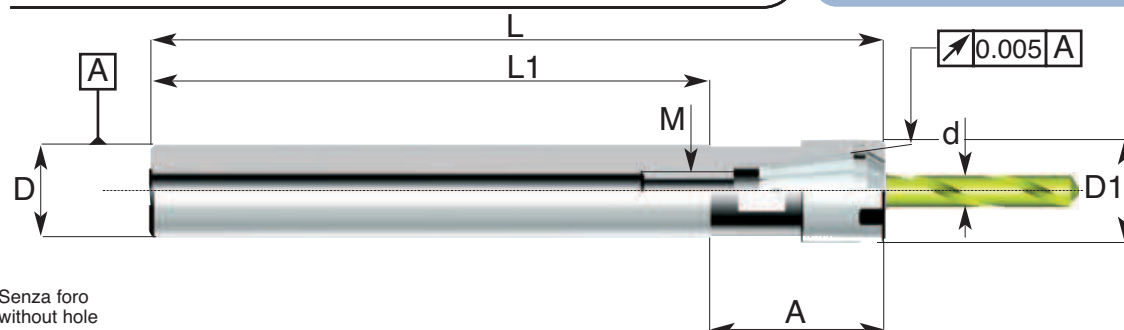
ER Spannfutterverlängerung - mini Spannmutter

Rallonges porte-pinces ER - écrou mini



ART: 613.mini

ghiera mini / nut type mini



*Senza foro
*without hole



9.
3

Codice di ord Code	D h6	ER	L	L1	A	D1	M	Cap. Pinza "d" Capacity range "d"	Ghiera Nut
613.08.0110.M *	8	ER 11 mini	82	55	27	16	-	da Ø 0,5 a 7	245.13.ER11M
613.08.0160.M *	8	ER 16 mini	92	50	42	22	-	da Ø 0,5 a 10	245.19.ER16M
613.10.0110.M *	10	ER 11 mini	87	60	27	16	M5	da Ø 0,5 a 7	245.13.ER11M
613.10.0112.M *	10	ER 11 mini	127	100	27	16	M5	da Ø 0,5 a 7	245.13.ER11M
613.10.0160.M *	10	ER 16 mini	102	60	42	22	M5	da Ø 0,5 a 10	245.19.ER16M
613.10.0162.M *	10	ER 16 mini	142	100	42	22	M5	da Ø 0,5 a 10	245.19.ER16M
613.12.0110.M *	12	ER 11 mini	87	60	27	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.12.0112.M *	12	ER 11 mini	127	100	27	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.12.0114.M *	12	ER 11 mini	187	160	27	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.12.0160.M *	12	ER 16 mini	100	60	40	22	M6	da Ø 0,5 a 10	245.19.ER16M
613.12.0162.M *	12	ER 16 mini	140	100	40	22	M6	da Ø 0,5 a 10	245.19.ER16M
613.12.0164.M *	12	ER 16 mini	200	160	40	22	M6	da Ø 0,5 a 10	245.19.ER16M
613.16.0110.M	16	ER 11 mini	77	55	22	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.16.0112.M	16	ER 11 mini	127	105	22	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.16.0114.M	16	ER 11 mini	187	165	22	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.16.0160.M	16	ER 16 mini	90	50	40	22	M8	da Ø 0,5 a 10	245.19.ER16M
613.16.0162.M	16	ER 16 mini	140	100	40	22	M8	da Ø 0,5 a 10	245.19.ER16M
613.16.0164.M	16	ER 16 mini	200	160	40	22	M8	da Ø 0,5 a 10	245.19.ER16M
613.16.0200.M	16	ER 20 mini	94	50	44	28	M8	da Ø 0,5 a 13	245.24.ER20M
613.16.0202.M	16	ER 20 mini	144	100	44	28	M8	da Ø 0,5 a 13	245.24.ER20M
613.16.0204.M	16	ER 20 mini	204	160	44	28	M8	da Ø 0,5 a 13	245.24.ER20M
613.20.0110.M	20	ER 11 mini	77	55	22	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.20.0112.M	20	ER 11 mini	127	105	22	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.20.0114.M	20	ER 11 mini	187	165	22	16	M6	da Ø 0,5 a 7	245.13.ER11M
613.20.0160.M	20	ER 16 mini	90	50	40	22	M8	da Ø 0,5 a 10	245.19.ER16M
613.20.0162.M	20	ER 16 mini	140	100	40	22	M8	da Ø 0,5 a 10	245.19.ER16M
613.20.0164.M	20	ER 16 mini	200	160	40	22	M8	da Ø 0,5 a 10	245.19.ER16M
613.20.0200.M	20	ER 20 mini	90	50	40	28	M10	da Ø 0,5 a 13	245.24.ER20M
613.20.0202.M	20	ER 20 mini	140	100	40	28	M10	da Ø 0,5 a 13	245.24.ER20M
613.20.0204.M	20	ER 20 mini	200	160	40	28	M10	da Ø 0,5 a 13	245.24.ER20M
613.20.0250.M	20	ER 25 mini	110	60	50	35	M10	da Ø 0,5 a 16	245.30.ER25M
613.20.0252.M	20	ER 25 mini	150	100	50	35	M10	da Ø 0,5 a 16	245.30.ER25M
613.20.0254.M	20	ER 25 mini	210	160	50	35	M10	da Ø 0,5 a 16	245.30.ER25M
613.25.0200.M	25	ER 20 mini	90	50	40	28	M10	da Ø 0,5 a 13	245.24.ER20M
613.25.0202.M	25	ER 20 mini	140	10	40	28	M10	da Ø 0,5 a 13	245.24.ER20M
613.25.0204.M	25	ER 20 mini	200	160	40	28	M10	da Ø 0,5 a 13	245.24.ER20M
613.25.0250.M	25	ER 25 mini	120	70	50	35	M10	da Ø 0,5 a 16	245.30.ER25M
613.25.0252.M	25	ER 25 mini	150	100	50	35	M10	da Ø 0,5 a 16	245.30.ER25M
613.25.0254.M	25	ER 25 mini	210	160	50	35	M10	da Ø 0,5 a 16	245.30.ER25M
613.32.0200.M	32	ER 20 mini	139	95	44	28	M10	da Ø 0,5 a 13	245.24.ER20M

9. ATTACCHI CILINDRICI E WELDON

STRAIGHT SHANK and WELDON attachments



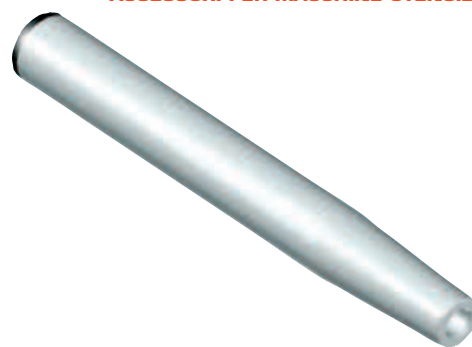
Prolunghe cilindriche per calettamento a caldo

Straight shank shrink-fit extensions

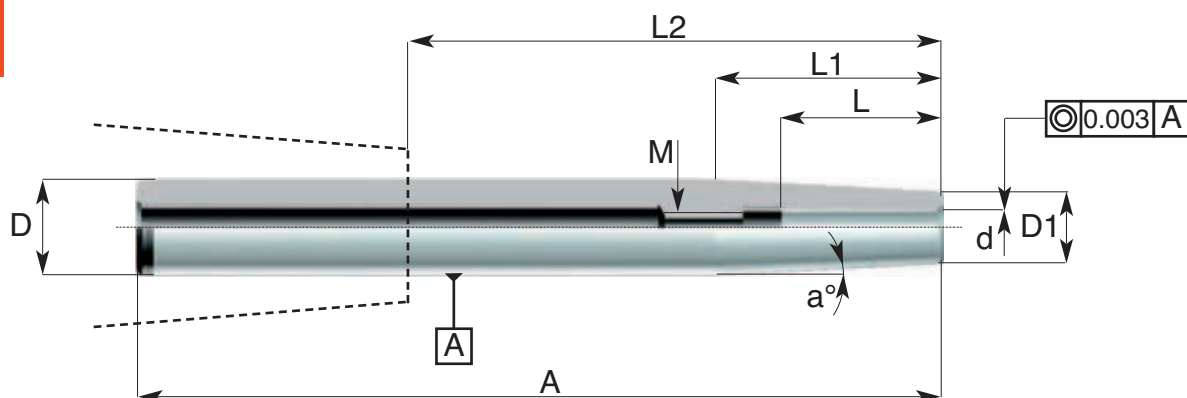
Schrumpfutterverlängerung

Rallonges cylindriques de frettage

ACCESSORI PER MACCHINE UTENSILI



ART: 206



Codice di ord Code	D	d h6	D1	a°	L	L1	L2	A	M
206.20.03.120	20	3	9	3°	15	76	120	170	-
206.20.04.120	20	4	9	3°	15	76	120	170	-
206.20.05.120	20	5	12	3°	20	76	120	170	-
206.20.06.120	20	6	12	3°	27	76	120	170	-
206.20.08.120	20	8	15	3°	27	38	120	170	M6
206.20.10.120	20	10	19	3°	32	19	120	170	M8
206.20.12.120	20	12	19	3°	32	10	120	170	M10
206.32.03.150	32	3	9	4.5°	15	146	150	212	-
206.32.04.150	32	4	12	4.5°	15	127	150	212	-
206.32.05.150	32	5	12	4.5°	20	127	150	212	-
206.32.06.150	32	6	12	4.5°	27	127	150	212	-
206.32.08.150	32	8	15	4.5°	27	108	150	212	M6
206.32.10.150	32	10	19	4.5°	32	82	150	212	M8
206.32.12.150	32	12	24	4.5°	32	51	150	212	M10

ACCESSORI PER MACCHINE UTENSILI

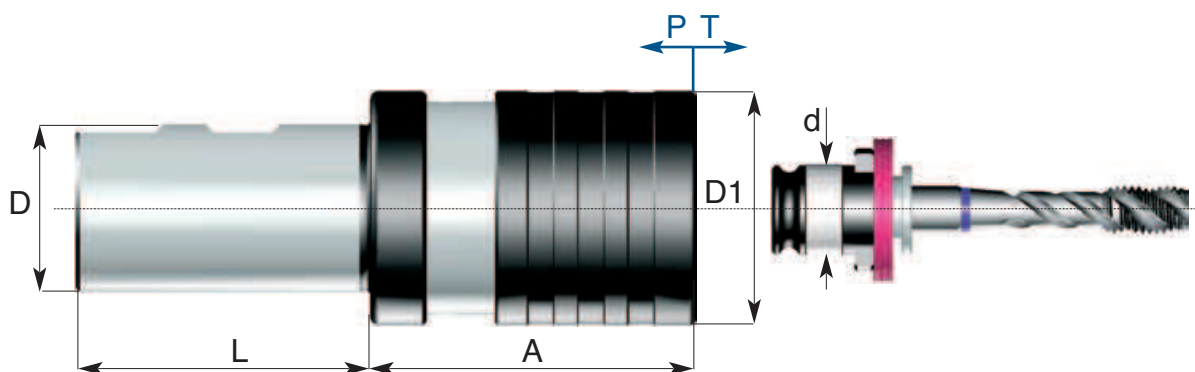
Maschiatore a cambio rapido con compensazione elastica assiale a trazione e pressione
codolo cilindrico DIN 1835 -B/E

Tapping chucks with traction and pressure elastic axial compensation - straight shank DIN 1835 -B/E
Gewindeschneid mit axialem elastischem Zug- und Druckausgleich - Zylinderaufnahme DIN 1835 -B/E
Mandrins pour tarauder avec compensation élastique axiale à traction et pression - Attaque cylindrique DIN 1835 -B/E

DIN 1835



ART: 641



9.
5

Codice di ord Code	D h6	A	d	L	D1	Capacità maschiatore Tapping capacity	Compensazione assiale T Axial compensation P
641.20.1205	20	56	19	50	36	M 3 - M 14	5 7
641.25.1205	25	56	19	56	36	M 3 - M 14	5 7
641.25.2008	25	80	31	56	55	M 8 - M 24	12 13
641.32.1205	32	56	19	60	36	M 3 - M 14	5 7
641.32.2008	32	80	31	60	55	M 8 - M 24	12 13
641.40.1205	40	56	19	70	35	M 3 - M 14	5 7
641.40.2008	40	80	31	70	55	M 8 - M 24	12 13



9. ATTACCHI CILINDRICI E WELDON

STRAIGHT SHANK and WELDON attachments



Cilindro di collaudo certificato per macchine utensili tab. UNI 5871/66 - 5872/66

ACCESSORI PER MACCHINE UTENSILI

Test cylinder for machine tools - UNI 5871/66 - 5872/66 - with test certificate

Prüfzylinder für Werkzeugmaschinen - UNI 5871/66 - 5872/66 - mit Prüfungszeugnis

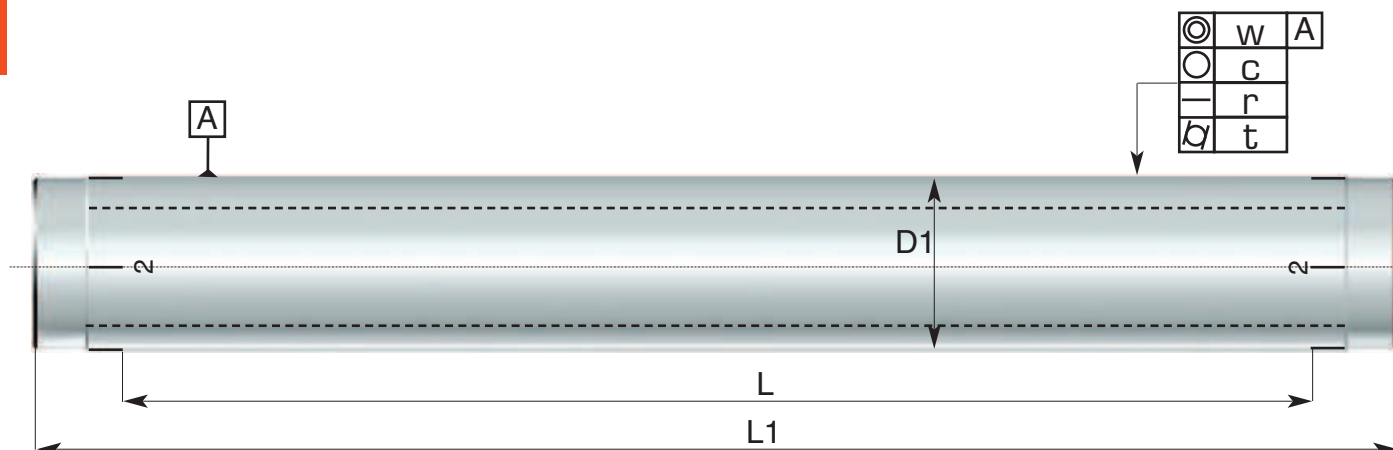
Cylindres d'essai pour machine-outil - UNI 5871/66 - 5872/66 - avec certificat de bon fonctionnement



UNI 5871/66 - 5872/66

ART: 802

6.9



Codice di ord Code	D1 H5	L	L1	w	c	r	t
802.00.0400	40	250	292	0.003	0.003	0.003	0.003
802.00.0630	63	350	400	0.003	0.003	0.003	0.003
802.00.0634	63	500	550	0.004	0.004	0.003	0.003
802.00.0800	80	750	800	0.004	0.004	0.003	0.003
802.00.0802	80	1000	1050	0.004	0.004	0.003	0.003



www.delta-spa.com



DELTA
 001 002 003

COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI 01 02 03 04

COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI 01 02 03 04

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

PORTAUTENSILI A COND ISO DIN 2088 E MORSE PER MACCHINE UTENSILI TRADIZIONALI
 CONTROPUNTE ROTANTI E FISSE - MANDRINI MASCHIATORI A CAMBIO RAPIDO

TOOLHOLDERS FOR MILLING AND BORING MACHINES WITH ISO AND MORSE
 PRECISION RUNNING TAIL CENTERS - QUICK CHANGE TAPPING CHUCKS

PORTAUTENSILI A COND ISO DIN 69871/A-B, CAT E MAS BT 405 PER CENTRI DI LATO
 A CONTROLLO NUMERICO

TOOLHOLDERS FOR CNC MACHINERY WITH ISO DIN 69871/A-B, CAT AND MAS BT 405

PORTAUTENSILI CON ATTACCO HSK DIN 69893 FORMA A -

TOOLHOLDERS WITH HSK TAPER DIN 69893 FORM A

MANDRINO HYDRO DELTA A CHIUSURA IDRAULICA

HYDRO DELTA CHUCKS HYDRAULIC CLAMP

PORTAUTENSILI PER TORNI A CONTROLLO NUMERICO DIN 69880 UDI 3

TOOLHOLDERS FOR NC LATHES DIN 69880 UDI 3

MANDRINI MACCHINA PRINCIPALI - PORTAUTENSILI SPECIALI A DISEGNO CLIENTI

MACHINE MAIN SPINDLES - SPECIAL TOOLHOLDERS ON CUSTOMER'S REQUEST

DELTA
 001 002 003

COMPLETE COMPLETE COMPLETE COMPLETE

VERSIONI 01 02 03 04

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

VERSIONI 001 002
 003 004 005 006

10.2

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

10.3

- Pinze portautensili
Tool collets



**RAMBAUDI
BRIDGAPORT
Attacchi
RAMBAUDI "R8"
*Attachments
RAMBAUDI "R8"***

10



10. MANDRINI attacco R8 RAMBAUDI-BRIDGEPORT TOOL HOLDERS with R8 cone RAMBAUDI-BRIDGEPORT



Mandrini portapinze ER attacco "R8" (RAMBAUDI - BRIDGEPORT)

Collet chucks ER whit "R8" cone (Rambaudi-Bridgeport)

Spannzangenhalter ER "R8" Kegel (Rambaudi-Bridgeport)

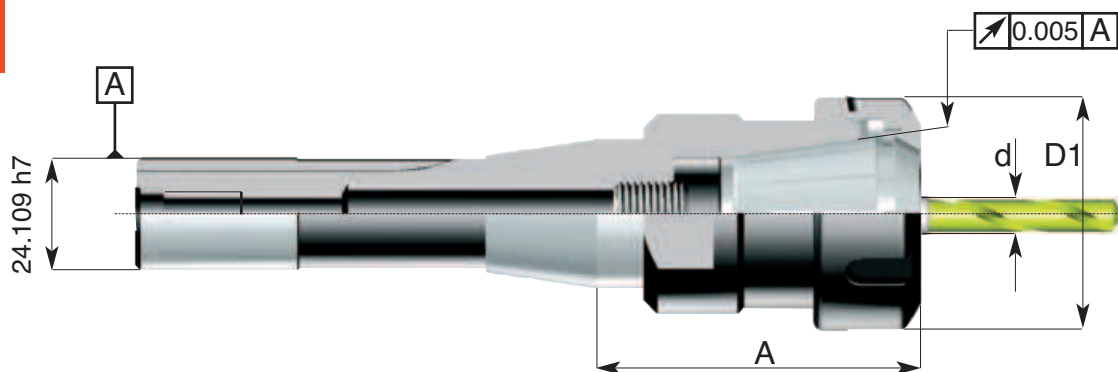
Mandrins porte-pinces ER avec cône d'attaque "R8" (Rambaudi-Bridgeport)



R8 RAMBAUDI-BRIDGEPORT

ART: 507

ghiera standard / standard nut



Codice di ord Code	Attacco	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
507.R8.0320	R8	ER 32	60	50	da Ø 1 a Ø20	245.40.ER32

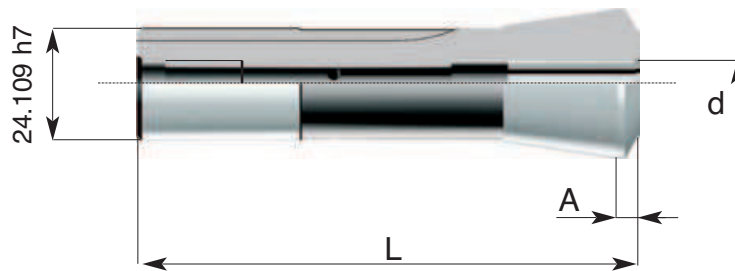
ACCESSORI PER MACCHINE UTENSILI



Pinze con attacco "R8" (RAMBAUDI - BRIDGEPORT) per frese con codolo cilindrico
 Tool collets "R8" cone for shank type cutters
 Klemmhülsen mit "R8" Kegel für Werkzeuge mit Zylinderschaft
 Pincas avec cône "R8" pour fraises à queue cylindrique

R8 RAMBAUDI-BRIDGEPORT

ART:510



10.
3

Codice di ord Code	Attacco	d H7	D1	L	A
510.02	R8	2	31.750	107	5
510.025	R8	2.5	31.750	107	5
510.03	R8	3	31.750	107	5
510.04	R8	4	31.750	107	5
510.05	R8	5	31.750	107	5
510.06	R8	6	31.750	107	5
510.07	R8	7	31.750	107	5
510.08	R8	8	31.750	107	5
510.09	R8	9	31.750	107	5
510.10	R8	10	31.750	107	5
510.11	R8	11	31.750	107	5
510.12	R8	12	31.750	107	5
510.13	R8	13	31.750	107	5
510.14	R8	14	31.750	107	5
510.15	R8	15	31.750	107	5
510.16	R8	16	31.750	107	5
510.17	R8	17	31.750	107	5
510.18	R8	18	31.750	107	5
510.19	R8	19	31.750	107	5
510.20	R8	20	31.750	107	5

11.2

- Prolunghe
Extensions

11.3

- Portafrese weldon
Milling cutter chucks Weldon

11.4

- Portapunte a cono Morse
Drill chucks with Morse cone

11.5

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499



VARILOCK
Attacchi MODULARI
MODULAR attachments

11

 **delta**

11. ATTACCHI VARILOCK



Prolunghe per attacco modulare VARILOCK

Extensions for VARILOCK modular attachment

Verlängerung für Modularsystem VARILOCK

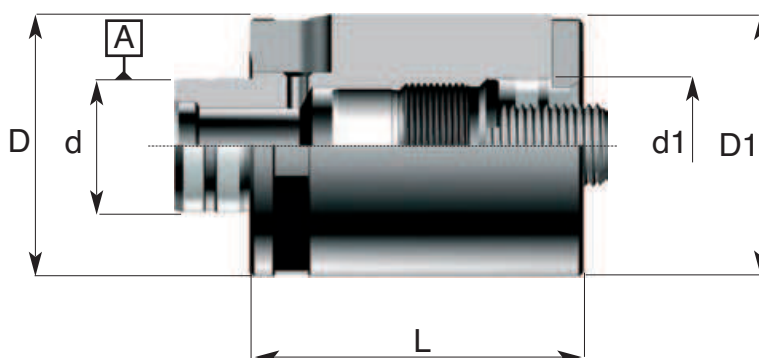
Rallonges pour attachement modulaire VARILOCK

ACCESSORI PER MACCHINE UTENSILI



ART: VAR.00

11.
2



Codice di ord Code	D	d H6	d1 H5	D1	L	Vite Screw	Ghiera Nut
VAR.50.50.60	50	27	27	50	60	VAR.00.0500.20	VAR.00.0500.10
VAR.50.50.100	50	27	27	50	100	VAR.00.0500.20	VAR.00.0500.10
VAR.63.63.80	63	32	32	63	80	VAR.00.0800.20	VAR.00.0800.10
VAR.63.63.120	63	32	32	63	120	VAR.00.0800.20	VAR.00.0800.10
VAR.63.50.60	63	32	27	50	60	VAR.00.0800.20	VAR.00.0800.10



ACCESSORI PER MACCHINE UTENSILI

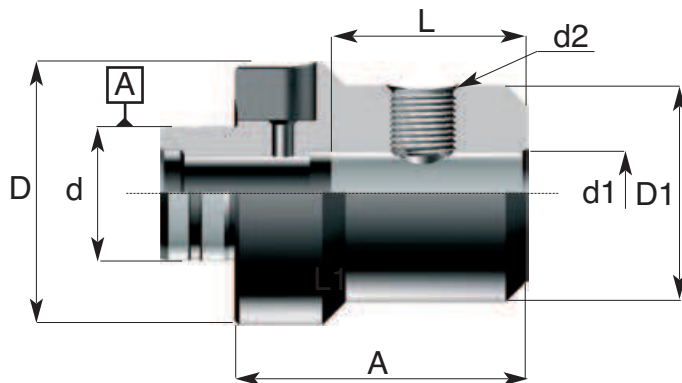


Modulare VARILOCK per attacco portafrese Weldon DIN 6359 B
 Modular VARILOCK milling cutter chucks - Weldon System DIN 6359 B
 Modularesystem VARILOCK Spannfutter Weldon für Zylinderschäfte DIN 6359 B
 Modulaire VARILOCK porte-Weldon pour fraises à queue cylindrique DIN 6359 B

VARILOCK

ART: VAR.208

11.
3



Codice di ord Code	D	d H6	d1 H5	D1	A	d2	Grano di serraggio Clamping screw
VAR.208.50.0060	50	27	6	25	50	M6X10	208.00.0060
VAR.208.50.0080	50	27	8	28	50	M8X10	208.00.0080
VAR.208.50.0100	50	27	10	35	50	M10X12X16	208.00.0100
VAR.208.50.0120	50	27	12	42	60	M12X1.5X16	208.00.0120
VAR.208.50.0140	50	27	14	44	60	M12X1.5X16	208.00.0120
VAR.208.50.0160	50	27	16	48	60	M14X1.5X16	208.00.0140
VAR.208.50.0180	50	27	18	50	60	M14X1.5X16	208.00.0140
VAR.208.50.0200	50	27	20	52	60	M16X1.5X16	208.00.0160
VAR.208.63.0100	63	32	10	35	70	M10X10	208.00.0100
VAR.208.63.0120	63	32	12	42	70	M12X1.5X16	208.00.0120
VAR.208.63.0140	63	32	14	44	70	M12X1.5X16	208.00.0120
VAR.208.63.0160	63	32	16	48	70	M14X1.5X16	208.00.0140
VAR.208.63.0180	63	32	18	50	70	M14X1.5X16	208.00.0140
VAR.208.63.0200	63	32	20	52	70	M16X1.5X16	208.00.0160
VAR.208.63.0250	63	32	25	65	80	M18X1.5X20	208.00.0180
VAR.208.63.0320	63	32	32	72	80	M20X1.5X20	208.00.0200
VAR.208.63.0400	63	32	40	90	80	M20X1.5X20	208.00.0200



11. ATTACCHI VARILOCK



Modulare VARILOCK per attacco cono morse combinato punte e frese

Modular VARILOCK Morse cone adaptors sleeves - combined for cutters and drills

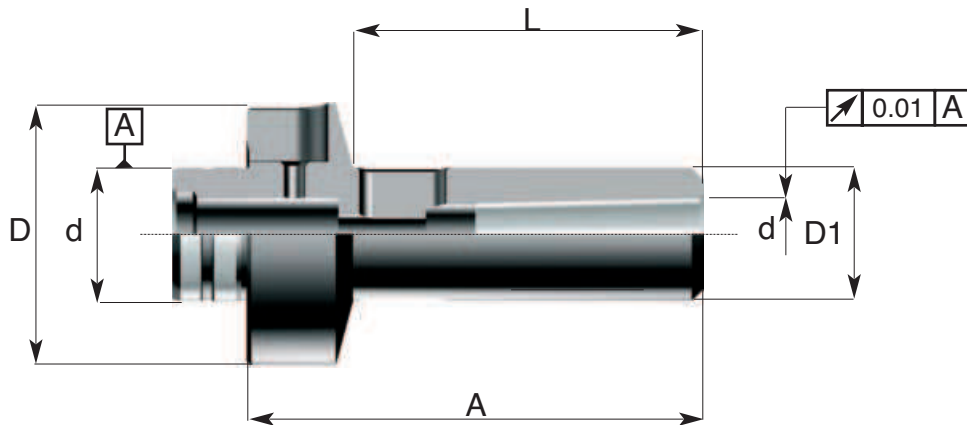
Modularsystem VARILOCK Zwischenhülsen mit Morsekegel Modulaire VARILOCK douilles de réduction à cône Morse - combinés pour forets et fraises

ACCESSORI PER MACCHINE UTENSILI



ART: VAR.262

11.
4



Codice di ord Code	D	d H6	CM	d	D1	A	L
VAR.262.50.0200	50	27	Morse 2	17.780	32	110	85
VAR.262.50.0300	50	27	Morse 3	23.825	40	135	106
VAR.262.63.0200	63	32	Morse 2	17.780	32	110	85
VAR.262.63.0300	63	32	Morse 3	23.825	40	135	106
VAR.262.63.0400	63	32	Morse 4	31.267	50	160	132



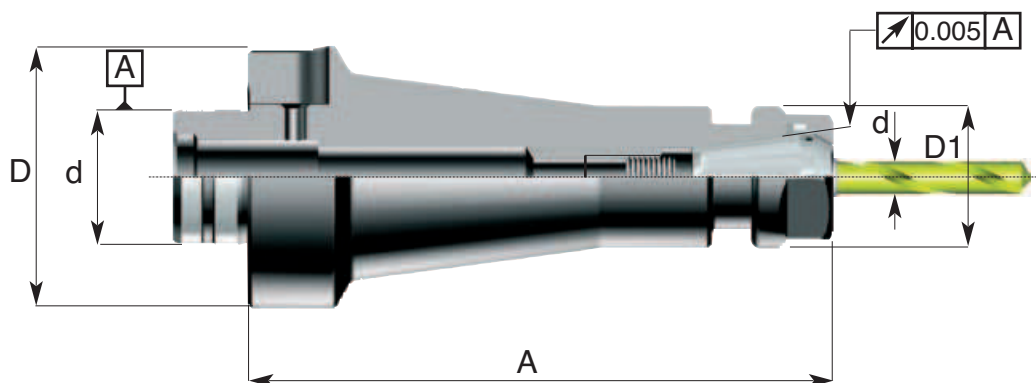
ACCESSORI PER MACCHINE UTENSILI



Modulare VARILOCK per attacco portapinze ER DIN 6499
 Modular VARILOCK collet chucks ER DIN 6499
 Modularesystem VARILOCK Spannzangenhalter ER DIN 6499
 Modulaire VARILOCK mandrins porte-pinces ER DIN 6499

VARILOCK

ART: VAR.607
 ghiera standard / standard nut



11.
5

Codice di ord Code	D	d H6	ER	D1	A	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
VAR.607.50.0320	50	27	ER 32	50	70	da 1 a 20	245.40.ER32
VAR.607.50.0400	50	27	ER 40	63	80	da 2 a 30	245.50.ER40
VAR.607.63.0320	63	32	ER 32	50	77	da 1 a 20	245.40.ER32
VAR.607.63.0400	63	32	ER 40	63	85	da 2 a 30	245.50.ER40
VAR.607.63.0500	63	32	ER 50	78	112	da 2 a 34	245.64.ER50



12.2

- Pinze DELTA
Collets DELTA

12.4

- Pinze EOC
Collets EOC

12.6

- Pinze ER
Collets ER

12.8

- Pinze ER
Collets ER

12.13

- Ghiere per pinze
Collet locking caps

12.18

- Bussole portamaschio
Quick change tap holder bushes

12.19

- Bussole portamaschio
Quick change tap holder bushes

12.21

- Bussole portamaschio
Quick change tap holder bushes

12.22

- Bussole porta filiere
Quick change

12.23

- Bussole portamaschio weldon
Weldon tap holder bushes

12.24

- Anelli di trascinamento
Front catch rings

12.25

- Vite rondella bloccaggio frese
Screw and washer

12.26

- Tasselli di trascinamento
Tappets

12.27

- Tasselli di trascinamento
Tappets

12.28

- Bussole e anelli distanziali
Bushes and rings sheared

12.29

- Bussole e anelli distanziali
Bushes and rings sheared

12.30

- Bussole e anelli distanziali
Bushes and rings sheared

12.31

- Dadi e ghiera di estrazione
Treaded capnuts

12.31

- Dadi e ghiera di estrazione
Treaded capnuts

12.32

- Anelli di trascinamento
Front catch rings

12.33

- Ghiera di estrazione
Treaded capnuts

12.34

- Bussole di riduzione
Reduction bushes

12.35

- Bussole di riduzione
Reduction bushes

12.36

- Bussole di riduzione
Reduction bushes

12.37

- Bussole di riduzione
Reduction bushes

12.38

- Bussole di riduzione
Reduction bushes

12.38

- Bussole di riduzione
Reduction bushes

12.41

- Bussole di riduzione
Reduction bushes

12.42

- Adduttore refrigerante per HSK
Collant pipe for HSK

12.42

- chiavi per tubetto HSK
Key for collant pipe for HSK

12.43

- Spina di controllo mandr. idraulici
Test sheft for hydraulic chucks

12.43

- Codoli per riduzioni art.250
Locking shanks for art.250



ACCESSORI
Accessories

12

 **delta**

Pinze per frese a gambo cilindrico per mandrini portapinze "Delta"

Collets for "Delta" collet chucks

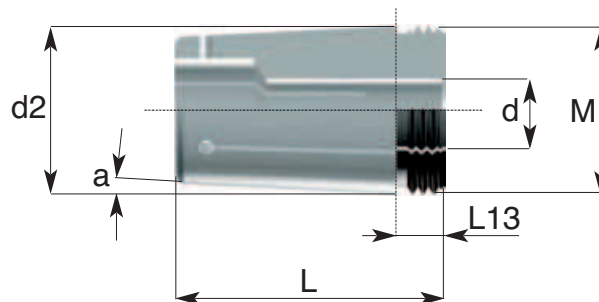
Spannzangen für Spannzangenhalter "Delta"

Pinces de serrage pour mandrins porte-pinces "Delta"

ACCESSORI PER MACCHINE UTENSILI

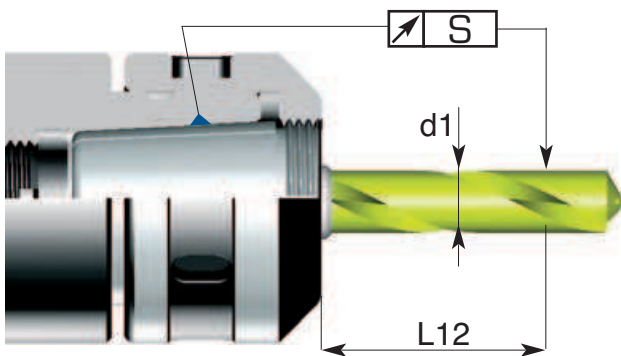


ART:209



Riferimento Item	d1 min	d1 max	capacità Capacity	d2	M	a	L	L13
209.10	3	18	nominale	26	M26X2 Sx	2°51'44"	46	8
209.20	3	22	nominale	32	M32X2 Sx	2°51'44"	51	9
209.30	4	32	nominale	44	M44X2 Sx	2°51'44"	61	11

**PRECISIONE DI ROTAZIONE
RUNOUT CONCENTRICITY**



d1 min	d1 max	L12	Concentricità max "S"
3	7	16	0.015
7	10	25	0.015
10	18	40	0.02
18	24	50	0.02
24	32	60	0.02

CARATTERISTICHE TECNICHE

- Costruiti in acciaio 60 SiCr7
- Temprate • Rinvenute • HRC 46±2
- Rettificati di precisione esternamente ed
- Controllati con strumenti di misura certificati

STANDARD FEATURES

- Manufactured with Silicon Chrome steel similar to SAE 9262
- Quenched • tempered • RC 46±2
- Precision ground on shanks and inside tapers
- Tested with high precision inspection and gaging equipment

ACCESSORI PER MACCHINE UTENSILI

Pinze per frese a gambo cilindrico per mandrini portapinze "Delta"

Collets for "Delta" collet chucks

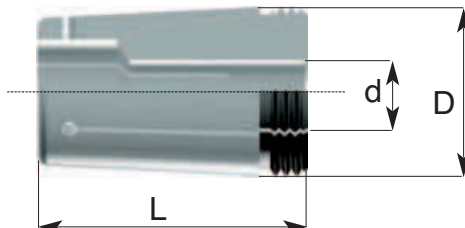
Spannzangen für Spannzangenhalter "Delta"

Pinces de serrage pour mandrins porte-pinces "Delta"



ART:209

Per Art: 200 , 202 , 205 , 001.605 , BT 605



12.
3

Codice di ord Code	d H6	D	L	Cap. Pinza "d" Capacity range "d"
209.10.0030	3	26	46	nominale
209.10.0040	4	26	46	nominale
209.10.0050	5	26	46	nominale
209.10.0060	6	26	46	nominale
209.10.0070	7	26	46	nominale
209.10.0080	8	26	46	nominale
209.10.0090	9	26	46	nominale
209.10.0100	10	26	46	nominale
209.10.0110	11	26	46	nominale
209.10.0120	12	26	46	nominale
209.10.0130	13	26	46	nominale
209.10.0140	14	26	46	nominale
209.10.0150	15	26	46	nominale
209.10.0160	16	26	46	nominale
209.10.0180	18	26	46	nominale
209.20.0030	3	32	51	nominale
209.20.0040	4	32	51	nominale
209.20.0050	5	32	51	nominale
209.20.0060	6	32	51	nominale
209.20.0070	7	32	51	nominale
209.20.0080	8	32	51	nominale
209.20.0090	9	32	51	nominale
209.20.0100	10	32	51	nominale
209.20.0110	11	32	51	nominale
209.20.0120	12	32	51	nominale
209.20.0130	13	32	51	nominale
209.20.0140	14	32	51	nominale
209.20.0150	15	32	51	nominale
209.20.0160	16	32	51	nominale
209.20.0170	17	32	51	nominale
209.20.0180	18	32	51	nominale
209.20.0190	19	32	51	nominale
209.20.0200	20	32	51	nominale
209.20.0220	22	32	51	nominale

Codice di ord Code	d H6	D	L	Cap. Pinza "d" Capacity range "d"
209.30.0040	4	44	61	nominale
209.30.0050	5	44	61	nominale
209.30.0060	6	44	61	nominale
209.30.0070	7	44	61	nominale
209.30.0080	8	44	61	nominale
209.30.0090	9	44	61	nominale
209.30.0100	10	44	61	nominale
209.30.0110	11	44	61	nominale
209.30.0120	12	44	61	nominale
209.30.0130	13	44	61	nominale
209.30.0140	14	44	61	nominale
209.30.0150	15	44	61	nominale
209.30.0160	16	44	61	nominale
209.30.0170	17	44	61	nominale
209.30.0180	18	44	61	nominale
209.30.0190	19	44	61	nominale
209.30.0200	20	44	61	nominale
209.30.0210	21	44	61	nominale
209.30.0220	22	44	61	nominale
209.30.0230	23	44	61	nominale
209.30.0240	24	44	61	nominale
209.30.0250	25	44	61	nominale
209.30.0260	26	44	61	nominale
209.30.0270	27	44	61	nominale
209.30.0280	28	44	61	nominale
209.30.0290	29	44	61	nominale
209.30.0300	30	44	61	nominale
209.30.0320	32	44	61	nominale

12. ACCESSORI ACCESSORIES



Pinze EOC DIN 6388/B

Collets EOC DIN 6388/B

Spannzangen EOC DIN 6388/B

Pinces de serrage EOC DIN 6388/B

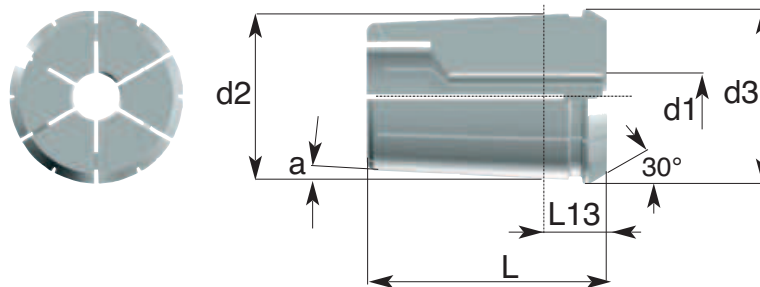
ACCESSORI PER MACCHINE UTENSILI



DIN 6388/B

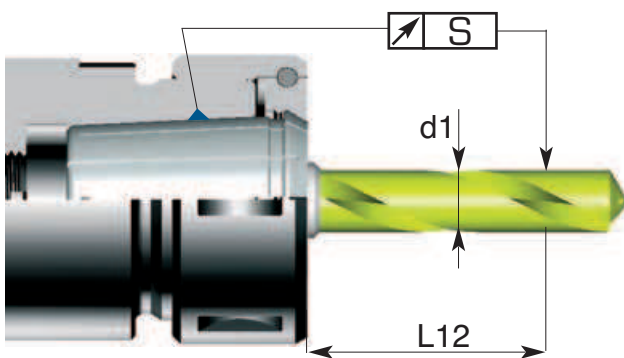
ART: 602

12.
4



Riferimento Item	d1 min	d1 max	capacità Capacity	d2	d3	a	L	L13
EOC 25	2	25	nominale	32.9	35.05	2°51'44"	52	12
EOC 32	4	32	nominale	41.3	43.7	2°51'44"	60	13

PRECISIONE DI ROTAZIONE RUNOUT CONCENTRICITY



d1 min	d1 max	L12	Concentricità max "S" Classe 2
1.6	3	10	0.015
3	6	16	0.015
6	10	25	0.015
10	18	40	0.02
18	24	50	0.02
24	30	60	0.02
30	50	80	0.03

CARATTERISTICHE TECNICHE

- Costruiti in acciaio 60 SiCr7
- Temprate • Rinvenute • HRC 46±2
- Rettificati di precisione esternamente ed
- Controllati con strumenti di misura certificati
- La tolleranza di rotazione delle pinze EOC corrisponde ai valori della classe 2 - DIN 6388

STANDARD FEATURES

- Manufactured with Silicon Chrome steel similar to SAE 9262
- Quenched • tempered • RC 46±2
- Precision ground on shanks and inside tapers
- Tested with high precision inspection and gaging equipment
- The runout accuracy of EOC collets is equivalent to DIN 6388-Class 2

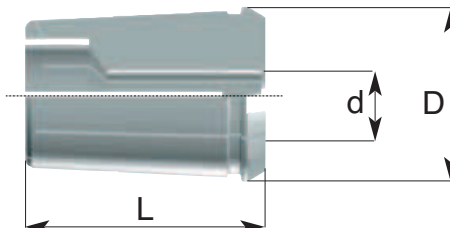
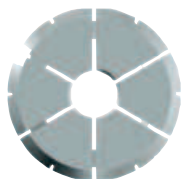
ACCESSORI PER MACCHINE UTENSILI

Pinze EOC DIN 6388/B
 Collets EOC DIN 6388/B
 Spannzangen EOC DIN 6388/B
 Pincas de serrage EOC DIN 6388/B

DIN 6388/B



ART: 602



12.
5

Codice di ord Code	EOC	d	DXL	Cap. Pinza "d" Capacity range "d"
602.25.0040	25	4,0	35,05 X 52	nominale
602.25.0045	25	4,5	35,05 X 52	nominale
602.25.0050	25	5,0	35,05 X 52	nominale
602.25.0055	25	5,5	35,05 X 52	nominale
602.25.0060	25	6,0	35,05 X 52	nominale
602.25.0065	25	6,5	35,05 X 52	nominale
602.25.0070	25	7,0	35,05 X 52	nominale
602.25.0075	25	7,5	35,05 X 52	nominale
602.25.0080	25	8,0	35,05 X 52	nominale
602.25.0085	25	8,5	35,05 X 52	nominale
602.25.0090	25	9,0	35,05 X 52	nominale
602.25.0095	25	9,5	35,05 X 52	nominale
602.25.0100	25	10,0	35,05 X 52	nominale
602.25.0105	25	10,5	35,05 X 52	nominale
602.25.0110	25	11,0	35,05 X 52	nominale
602.25.0115	25	11,5	35,05 X 52	nominale
602.25.0120	25	12,0	35,05 X 52	nominale
602.25.0125	25	12,5	35,05 X 52	nominale
602.25.0130	25	13,0	35,05 X 52	nominale
602.25.0135	25	13,5	35,05 X 52	nominale
602.25.0140	25	14,0	35,05 X 52	nominale
602.25.0145	25	14,5	35,05 X 52	nominale
602.25.0150	25	15,0	35,05 X 52	nominale
602.25.0155	25	15,5	35,05 X 52	nominale
602.25.0160	25	16,0	35,05 X 52	nominale
602.25.0165	25	16,5	35,05 X 52	nominale
602.25.0170	25	17,0	35,05 X 52	nominale
602.25.0175	25	17,5	35,05 X 52	nominale
602.25.0180	25	18,0	35,05 X 52	nominale
602.25.0185	25	18,5	35,05 X 52	nominale
602.25.0190	25	19,0	35,05 X 52	nominale
602.25.0195	25	19,5	35,05 X 52	nominale
602.25.0200	25	20,0	35,05 X 52	nominale
602.25.0205	25	20,5	35,05 X 52	nominale
602.25.0210	25	21,0	35,05 X 52	nominale
602.25.0215	25	21,5	35,05 X 52	nominale
602.25.0220	25	22,0	35,05 X 52	nominale
602.25.0225	25	22,5	35,05 X 52	nominale
602.25.0230	25	23,0	35,05 X 52	nominale
602.25.0235	25	23,5	35,05 X 52	nominale
602.25.0240	25	24,0	35,05 X 52	nominale
602.25.0245	25	24,5	35,05 X 52	nominale
602.25.0250	25	25,0	35,05 X 52	nominale
602.32.0060	32	6,0	43,70 X 60	nominale
602.32.0065	32	6,5	43,70 X 60	nominale
602.32.0070	32	7,0	43,70 X 60	nominale
602.32.0075	32	7,5	43,70 X 60	nominale
602.32.0080	32	8,0	43,70 X 60	nominale

Codice di ord Code	EOC	d	DXL	Cap. Pinza "d" Capacity range "d"
602.32.0085	32	8,5	43,70 X 60	nominale
602.32.0090	32	9,0	43,70 X 60	nominale
602.32.0095	32	9,5	43,70 X 60	nominale
602.32.0100	32	10,0	43,70 X 60	nominale
602.32.0105	32	10,5	43,70 X 60	nominale
602.32.0110	32	11,0	43,70 X 60	nominale
602.32.0115	32	11,5	43,70 X 60	nominale
602.32.0120	32	12,0	43,70 X 60	nominale
602.32.0125	32	12,5	43,70 X 60	nominale
602.32.0130	32	13,0	43,70 X 60	nominale
602.32.0135	32	13,5	43,70 X 60	nominale
602.32.0140	32	14,0	43,70 X 60	nominale
602.32.0145	32	14,5	43,70 X 60	nominale
602.32.0150	32	15,0	43,70 X 60	nominale
602.32.0155	32	15,5	43,70 X 60	nominale
602.32.0160	32	16,0	43,70 X 60	nominale
602.32.0165	32	16,5	43,70 X 60	nominale
602.32.0170	32	17,0	43,70 X 60	nominale
602.32.0175	32	17,5	43,70 X 60	nominale
602.32.0180	32	18,0	43,70 X 60	nominale
602.32.0185	32	18,5	43,70 X 60	nominale
602.32.0190	32	19,0	43,70 X 60	nominale
602.32.0195	32	19,5	43,70 X 60	nominale
602.32.0200	32	20,0	43,70 X 60	nominale
602.32.0205	32	20,5	43,70 X 60	nominale
602.32.0210	32	21,0	43,70 X 60	nominale
602.32.0215	32	21,5	43,70 X 60	nominale
602.32.0220	32	22,0	43,70 X 60	nominale
602.32.0225	32	22,5	43,70 X 60	nominale
602.32.0230	32	23,0	43,70 X 60	nominale
602.32.0235	32	23,5	43,70 X 60	nominale
602.32.0240	32	24,0	43,70 X 60	nominale
602.32.0245	32	24,5	43,70 X 60	nominale
602.32.0250	32	25,0	43,70 X 60	nominale
602.32.0255	32	25,5	43,70 X 60	nominale
602.32.0260	32	26,0	43,70 X 60	nominale
602.32.0265	32	26,5	43,70 X 60	nominale
602.32.0270	32	27,0	43,70 X 60	nominale
602.32.0275	32	27,5	43,70 X 60	nominale
602.32.0280	32	28,0	43,70 X 60	nominale
602.32.0285	32	28,5	43,70 X 60	nominale
602.32.0290	32	29,0	43,70 X 60	nominale
602.32.0295	32	29,5	43,70 X 60	nominale
602.32.0300	32	30,0	43,70 X 60	nominale
602.32.0305	32	30,5	43,70 X 60	nominale
602.32.0310	32	31,0	43,70 X 60	nominale
602.32.0315	32	31,5	43,70 X 60	nominale
602.32.0320	32	32,0	43,70 X 60	nominale

12. ACCESSORI ACCESSORIES



Pinze ER DIN 6499/B

ER Collets DIN 6499/B

Spannzangen ER DIN 6499/B

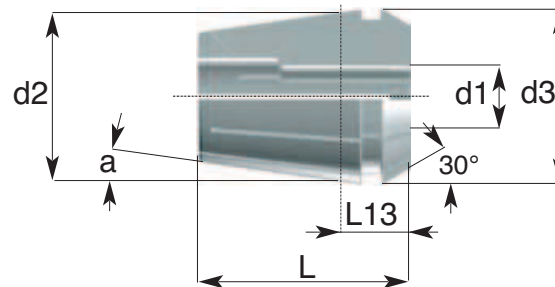
Pinces de serrage ER DIN 6499/B

ACCESSORI PER MACCHINE UTENSILI

DIN 6499/B

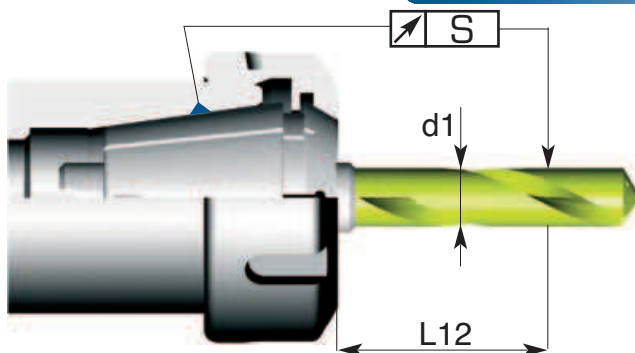


ART: 609



Riferimento Item	d1 min	d1 max	capacità Capacity	d2	d3	a	L	L13
ERC11	1	7	0.5 mm	11	11.3	8°	18	6.6
ERC16	1	10	0.5-1 mm	16	17	8°	27.5	10.5
ERC20	1	13	0.5-1 mm	20	21	8°	31.5	11.5
ERC25	3	16	0.5-1 mm	25	26	8°	34	12
ERC32	3	20	0.5-1 mm	32	33	8°	40	13
ERC40	3	26	1 mm	40	41	8°	46	15

PRECISIONE DI ROTAZIONE RUNOUT CONCENTRICITY



d1 min	d1 max	L12	Concentricità max "S" Classe 2
1	1.5	6	0.015
1.5	3	10	0.015
3	7	16	0.015
7	10	25	0.015
10	18	40	0.02
18	24	50	0.02
24	30	60	0.02
30	40	60	0.025

CARATTERISTICHE TECNICHE

- Costruiti in acciaio 60 SiCr7
- Temprate • Rinvenute • HRC 46±2
- Rettificati di precisione esternamente ed
- Controllati con strumenti di misura certificati
- La tolleranza di rotazione delle pinze ER corrisponde ai valori della classe 2 - DIN 6499

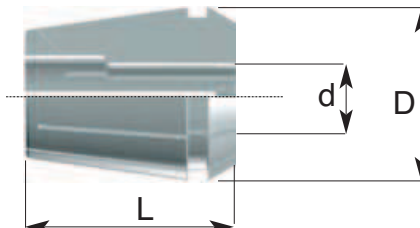
STANDARD FEATURES

- Manufactured with Silicon Chrome steel similar to SAE 9262
- Quenched • tempered • RC 46±2
- Precision ground on shanks and inside tapers
- Tested with high Precision inspection and gaging equipment
- The runout accuracy of ER collets is equivalent to DIN 6499-Class 2



DIN 6499/B

ART: 609



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Codice di ord Code	d	ER	DXL	Cap. Pinza "d" Capacity range "d"
609.11.0010	1.0	ER 11	11.5 x 18	da Ø 1.0 a 0.5
609.11.0015	1.5	ER 11	11.5 x 18	da Ø 1.5 a 1.0
609.11.0020	2.0	ER 11	11.5 x 18	da Ø 2.0 a 1.5
609.11.0025	2.5	ER 11	11.5 x 18	da Ø 2.5 a 2.0
609.11.0030	3.0	ER 11	11.5 x 18	da Ø 3.0 a 2.5
609.11.0035	3.5	ER 11	11.5 x 18	da Ø 3.5 a 3.0
609.11.0040	4.0	ER 11	11.5 x 18	da Ø 4.0 a 3.5
609.11.0045	4.5	ER 11	11.5 x 18	da Ø 4.5 a 4.0
609.11.0050	5.0	ER 11	11.5 x 18	da Ø 5.0 a 4.5
609.11.0055	5.5	ER 11	11.5 x 18	da Ø 5.5 a 5.0
609.11.0060	6.0	ER 11	11.5 x 18	da Ø 6.0 a 5.5
609.11.0065	6.5	ER 11	11.5 x 18	da Ø 6.5 a 6.0
609.11.0070	7.0	ER 11	11.5 x 18	da Ø 7.0 a 6.5
609.16.0010	1.0	ER 16	17 x 27.5	da Ø 1.0 a 0.5
609.16.0020	2.0	ER 16	17 x 27.5	da Ø 2.0 a 1.0
609.16.0030	3.0	ER 16	17 x 27.5	da Ø 3.0 a 2.0
609.16.0040	4.0	ER 16	17 x 27.5	da Ø 4.0 a 3.0
609.16.0050	5.0	ER 16	17 x 27.5	da Ø 5.0 a 4.0
609.16.0060	6.0	ER 16	17 x 27.5	da Ø 6.0 a 5.0
609.16.0070	7.0	ER 16	17 x 27.5	da Ø 7.0 a 6.0
609.16.0080	8.0	ER 16	17 x 27.5	da Ø 8.0 a 7.0
609.16.0090	9.0	ER 16	17 x 27.5	da Ø 9.0 a 8.0
609.16.0100	10.0	ER 16	17 x 27.5	da Ø 10.0 a 9.0
609.20.0010	1.0	ER 20	21 x 31.5	da Ø 1.0 a 0.5
609.20.0020	2.0	ER 20	21 x 31.5	da Ø 2.0 a 1.0
609.20.0030	3.0	ER 20	21 x 31.5	da Ø 3.0 a 2.0
609.20.0040	4.0	ER 20	21 x 31.5	da Ø 4.0 a 3.0
609.20.0050	5.0	ER 20	21 x 31.5	da Ø 5.0 a 4.0
609.20.0060	6.0	ER 20	21 x 31.5	da Ø 6.0 a 5.0
609.20.0070	7.0	ER 20	21 x 31.5	da Ø 7.0 a 6.0
609.20.0080	8.0	ER 20	21 x 31.5	da Ø 8.0 a 7.0
609.20.0090	9.0	ER 20	21 x 31.5	da Ø 9.0 a 8.0
609.20.0100	10.0	ER 20	21 x 31.5	da Ø 10.0 a 9.0
609.20.0110	11.0	ER 20	21 x 31.5	da Ø 11.0 a 10.0
609.20.0120	12.0	ER 20	21 x 31.5	da Ø 12.0 a 11.0
609.20.0130	13.0	ER 20	21 x 31.5	da Ø 13.0 a 12.0
609.25.0020	2.0	ER 25	26 x 35	da Ø 2.0 a 1.0
609.25.0030	3.0	ER 25	26 x 35	da Ø 3.0 a 2.0
609.25.0040	4.0	ER 25	26 x 35	da Ø 4.0 a 3.0
609.25.0050	5.0	ER 25	26 x 35	da Ø 5.0 a 4.0
609.25.0060	6.0	ER 25	26 x 35	da Ø 6.0 a 5.0
609.25.0070	7.0	ER 25	26 x 35	da Ø 7.0 a 6.0
609.25.0080	8.0	ER 25	26 x 35	da Ø 8.0 a 7.0
609.25.0090	9.0	ER 25	26 x 35	da Ø 9.0 a 8.0
609.25.0100	10.0	ER 25	26 x 35	da Ø 10.0 a 9.0
609.25.0110	11.0	ER 25	26 x 35	da Ø 11.0 a 10.0
609.25.0120	12.0	ER 25	26 x 35	da Ø 12.0 a 11.0
609.25.0130	13.0	ER 25	26 x 35	da Ø 13.0 a 12.0
609.25.0140	14.0	ER 25	26 x 35	da Ø 14.0 a 13.0
609.25.0150	15.0	ER 25	26 x 35	da Ø 15.0 a 14.0
609.25.0160	16.0	ER 25	26 x 35	da Ø 16.0 a 15.0

Codice di ord Code	d	ER	DXL	Cap. Pinza "d" Capacity range "d"
609.32.0020	2.0	ER 32	33 x 40	da Ø 2.0 a 1.0
609.32.0030	3.0	ER 32	33 x 40	da Ø 3.0 a 2.0
609.32.0040	4.0	ER 32	33 x 40	da Ø 4.0 a 3.0
609.32.0050	5.0	ER 32	33 x 40	da Ø 5.0 a 4.0
609.32.0060	6.0	ER 32	33 x 40	da Ø 6.0 a 5.0
609.32.0070	7.0	ER 32	33 x 40	da Ø 7.0 a 6.0
609.32.0080	8.0	ER 32	33 x 40	da Ø 8.0 a 7.0
609.32.0090	9.0	ER 32	33 x 40	da Ø 9.0 a 8.0
609.32.0100	10.0	ER 32	33 x 40	da Ø 10.0 a 9.0
609.32.0110	11.0	ER 32	33 x 40	da Ø 11.0 a 10.0
609.32.0120	12.0	ER 32	33 x 40	da Ø 12.0 a 11.0
609.32.0130	13.0	ER 32	33 x 40	da Ø 13.0 a 12.0
609.32.0140	14.0	ER 32	33 x 40	da Ø 14.0 a 13.0
609.32.0150	15.0	ER 32	33 x 40	da Ø 15.0 a 14.0
609.32.0160	16.0	ER 32	33 x 40	da Ø 16.0 a 15.0
609.32.0170	17.0	ER 32	33 x 40	da Ø 17.0 a 16.0
609.32.0180	18.0	ER 32	33 x 40	da Ø 18.0 a 17.0
609.32.0190	19.0	ER 32	33 x 40	da Ø 19.0 a 18.0
609.32.0200	20.0	ER 32	33 x 40	da Ø 20.0 a 19.0
609.40.0030	3.0	ER 40	41 x 46	da Ø 3.0 a 2.0
609.40.0040	4.0	ER 40	41 x 46	da Ø 4.0 a 3.0
609.40.0050	5.0	ER 40	41 x 46	da Ø 5.0 a 4.0
609.40.0060	6.0	ER 40	41 x 46	da Ø 6.0 a 5.0
609.40.0070	7.0	ER 40	41 x 46	da Ø 7.0 a 6.0
609.40.0080	8.0	ER 40	41 x 46	da Ø 8.0 a 7.0
609.40.0090	9.0	ER 40	41 x 46	da Ø 9.0 a 8.0
609.40.0100	10.0	ER 40	41 x 46	da Ø 10.0 a 9.0
609.40.0110	11.0	ER 40	41 x 46	da Ø 11.0 a 10.0
609.40.0120	12.0	ER 40	41 x 46	da Ø 12.0 a 11.0
609.40.0130	13.0	ER 40	41 x 46	da Ø 13.0 a 12.0
609.40.0140	14.0	ER 40	41 x 46	da Ø 14.0 a 13.0
609.40.0150	15.0	ER 40	41 x 46	da Ø 15.0 a 14.0
609.40.0160	16.0	ER 40	41 x 46	da Ø 16.0 a 15.0
609.40.0170	17.0	ER 40	41 x 46	da Ø 17.0 a 16.0
609.40.0180	18.0	ER 40	41 x 46	da Ø 18.0 a 17.0
609.40.0190	19.0	ER 40	41 x 46	da Ø 19.0 a 18.0
609.40.0200	20.0	ER 40	41 x 46	da Ø 20.0 a 19.0
609.40.0210	21.0	ER 40	41 x 46	da Ø 21.0 a 20.0
609.40.0220	22.0	ER 40	41 x 46	da Ø 22.0 a 21.0
609.40.0230	23.0	ER 40	41 x 46	da Ø 23.0 a 22.0
609.40.0240	24.0	ER 40	41 x 46	da Ø 24.0 a 23.0
609.40.0250	25.0	ER 40	41 x 46	da Ø 25.0 a 24.0
609.40.0260	26.0	ER 40	41 x 46	da Ø 26.0 a 25.0
609.40.0270	27.0	ER 40	41 x 46	da Ø 27.0 a 26.0
609.40.0280	28.0	ER 40	41 x 46	da Ø 28.0 a 27.0
609.40.0290	29.0	ER 40	41 x 46	da Ø 29.0 a 28.0
609.40.0300	30.0	ER 40	41 x 46	da Ø 30.0 a 29.0

Pinze ER a tenuta per utensili con fori di lubrificazione DIN 6499/A - Ultra precise

Sealed ER collets DIN 6499/A for coolant through tools - High precision

Spannzangen ER DIN 6499/A für Innenkühlung - Ultra Präzision

Pinces étanches ER DIN 6499/A pour outils avec passage de refroidissement - ultra précises

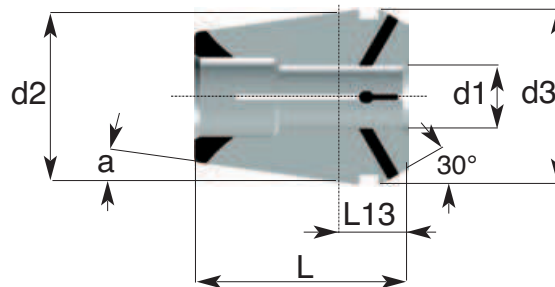
ACCESSORI PER MACCHINE UTENSILI



DIN 6499/A

ART: 609.UPS

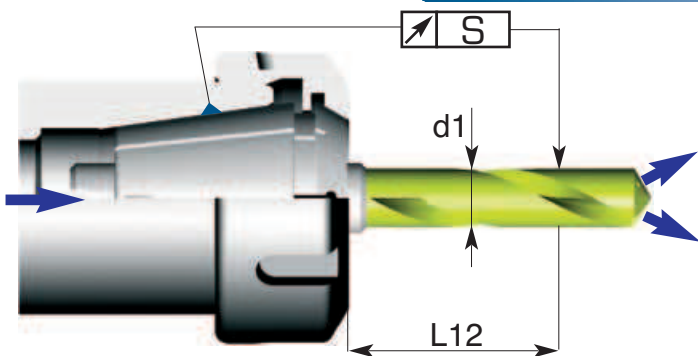
12.
8



**Pressione di esercizio
fino a 70 bar**
High-pressure coolant
supply up to 70 bar

Riferimento Item	d1 min	d1 max	capacità Capacity	d2	d3	a	L	L13
ERC11	1	7	nominale	11	11.3	8°	18	4.5
ERC16	1	10	nominale	16	16.74	8°	27.5	6.3
ERC20	1	13	nominale	20	20.74	8°	31.5	7.2
ERC25	3	16	nominale	25	25.74	8°	34	7.5
ERC32	3	20	nominale	32	32.74	8°	40	8.2
ERC40	3	26	nominale	40	40.74	8°	46	10.5

**PRECISIONE DI ROTAZIONE
RUNOUT CONCENTRICITY**



d1 min	d max	L12	Concentricità max "S" Classe 1 ultra preciso
1	1.6	6	0.005
1.6	3	10	0.008
3	7	16	0.008
7	10	25	0.008
10	18	40	0.010
18	26	80	0.010

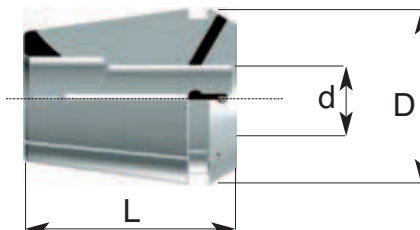
CARATTERISTICHE TECNICHE

- Costruiti in acciaio 60 SiCr7
- Temprate • Rinvenute • HRC 46±2
- Rettificati di precisione esternamente ed
- Controllati con strumenti di misura certificati
- La tolleranza di rotazione delle pinze ER corrisponde ai valori della classe 1 - DIN 6499

STANDARD FEATURES

- Manufactured with Silicon Chrome steel similar to SAE 9262
- Quenched • tempered • RC 46±2
- Precision ground on shanks and inside tapers
- Tested with high Precision inspection and gaging equipment
- The runout accuracy of ER collets is equivalent to DIN 6499-Class 1

ACCESSORI PER MACCHINE UTENSILI
Pinze ER a tenuta per utensili con fori di lubrificazione DIN 6499/A
Sealed ER collets DIN 6499/A for coolant through tools
Spannzangen ER DIN 6499/A für Innenkühlung
Pinces étanches ER DIN 6499/A pour outils avec passage de refroidissement

DIN 6499/A
ART: 609.UPS
Ultra precise class 1/High precision class 1

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Codice di ord Code	d	ER	DXL	Cap. Pinza "d" Capacity range "d"
609.11.0030.UPS	3	ER 11	11.3 x 18	nominale
609.11.0040.UPS	4	ER 11	11.3 x 18	nominale
609.11.0050.UPS	5	ER 11	11.3 x 18	nominale
609.11.0060.UPS	6	ER 11	11.3 x 18	nominale
609.11.0070.UPS	7	ER 11	11.3 x 18	nominale
609.16.0030.UPS	3	ER 16	16.74 x 27.5	nominale
609.16.0040.UPS	4	ER 16	16.74 x 27.5	nominale
609.16.0050.UPS	5	ER 16	16.74 x 27.5	nominale
609.16.0060.UPS	6	ER 16	16.74 x 27.5	nominale
609.16.0070.UPS	7	ER 16	16.74 x 27.5	nominale
609.16.0080.UPS	8	ER 16	16.74 x 27.5	nominale
609.16.0090.UPS	9	ER 16	16.74 x 27.5	nominale
609.16.0100.UPS	10	ER 16	16.74 x 27.5	nominale
609.20.0030.UPS	3	ER 20	20.74 x 31.5	nominale
609.20.0040.UPS	4	ER 20	20.74 x 31.5	nominale
609.20.0050.UPS	5	ER 20	20.74 x 31.5	nominale
609.20.0060.UPS	6	ER 20	20.74 x 31.5	nominale
609.20.0070.UPS	7	ER 20	20.74 x 31.5	nominale
609.20.0080.UPS	8	ER 20	20.74 x 31.5	nominale
609.20.0090.UPS	9	ER 20	20.74 x 31.5	nominale
609.20.0100.UPS	10	ER 20	20.74 x 31.5	nominale
609.20.0110.UPS	11	ER 20	20.74 x 31.5	nominale
609.20.0120.UPS	12	ER 20	20.74 x 31.5	nominale
609.20.0130.UPS	13	ER 20	20.74 x 31.5	nominale
609.25.0030.UPS	3	ER 25	25.74 x 34	nominale
609.25.0040.UPS	4	ER 25	25.74 x 34	nominale
609.25.0050.UPS	5	ER 25	25.74 x 34	nominale
609.25.0060.UPS	6	ER 25	25.74 x 34	nominale
609.25.0070.UPS	7	ER 25	25.74 x 34	nominale
609.25.0080.UPS	8	ER 25	25.74 x 34	nominale
609.25.0090.UPS	9	ER 25	25.74 x 34	nominale
609.25.0100.UPS	10	ER 25	25.74 x 34	nominale
609.25.0110.UPS	11	ER 25	25.74 x 34	nominale
609.25.0120.UPS	12	ER 25	25.74 x 34	nominale
609.25.0130.UPS	13	ER 25	25.74 x 34	nominale
609.25.0140.UPS	14	ER 25	25.74 x 34	nominale
609.25.0150.UPS	15	ER 25	25.74 x 34	nominale
609.25.0160.UPS	16	ER 25	25.74 x 34	nominale

Codice di ord Code	d	ER	DXL	Cap. Pinza "d" Capacity range "d"
609.32.0030.UPS	3	ER 32	32.74 x 40	nominale
609.32.0040.UPS	4	ER 32	32.74 x 40	nominale
609.32.0050.UPS	5	ER 32	32.74 x 40	nominale
609.32.0060.UPS	6	ER 32	32.74 x 40	nominale
609.32.0070.UPS	7	ER 32	32.74 x 40	nominale
609.32.0080.UPS	8	ER 32	32.74 x 40	nominale
609.32.0090.UPS	9	ER 32	32.74 x 40	nominale
609.32.0100.UPS	10	ER 32	32.74 x 40	nominale
609.32.0110.UPS	11	ER 32	32.74 x 40	nominale
609.32.0120.UPS	12	ER 32	32.74 x 40	nominale
609.32.0130.UPS	13	ER 32	32.74 x 40	nominale
609.32.0140.UPS	14	ER 32	32.74 x 40	nominale
609.32.0150.UPS	15	ER 32	32.74 x 40	nominale
609.32.0160.UPS	16	ER 32	32.74 x 40	nominale
609.32.0170.UPS	17	ER 32	32.74 x 40	nominale
609.32.0180.UPS	18	ER 32	32.74 x 40	nominale
609.32.0190.UPS	19	ER 32	32.74 x 40	nominale
609.32.0200.UPS	20	ER 32	32.74 x 40	nominale
609.40.0030.UPS	3	ER 40	40.74 x 46	nominale
609.40.0040.UPS	4	ER 40	40.74 x 46	nominale
609.40.0050.UPS	5	ER 40	40.74 x 46	nominale
609.40.0060.UPS	6	ER 40	40.74 x 46	nominale
609.40.0070.UPS	7	ER 40	40.74 x 46	nominale
609.40.0080.UPS	8	ER 40	40.74 x 46	nominale
609.40.0090.UPS	9	ER 40	40.74 x 46	nominale
609.40.0100.UPS	10	ER 40	40.74 x 46	nominale
609.40.0110.UPS	11	ER 40	40.74 x 46	nominale
609.40.0120.UPS	12	ER 40	40.74 x 46	nominale
609.40.0130.UPS	13	ER 40	40.74 x 46	nominale
609.40.0140.UPS	14	ER 40	40.74 x 46	nominale
609.40.0150.UPS	15	ER 40	40.74 x 46	nominale
609.40.0160.UPS	16	ER 40	40.74 x 46	nominale
609.40.0170.UPS	17	ER 40	40.74 x 46	nominale
609.40.0180.UPS	18	ER 40	40.74 x 46	nominale
609.40.0190.UPS	19	ER 40	40.74 x 46	nominale
609.40.0200.UPS	20	ER 40	40.74 x 46	nominale
609.40.0210.UPS	21	ER 40	40.74 x 46	nominale
609.40.0220.UPS	22	ER 40	40.74 x 46	nominale
609.40.0230.UPS	23	ER 40	40.74 x 46	nominale
609.40.0240.UPS	24	ER 40	40.74 x 46	nominale
609.40.0250.UPS	25	ER 40	40.74 x 46	nominale
609.40.0260.UPS	26	ER 40	40.74 x 46	nominale

12. ACCESSORI

ACCESSORIES



Pinze portamaschi con quadro ER DIN 6499/A

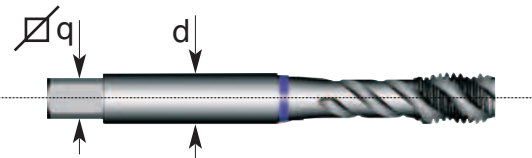
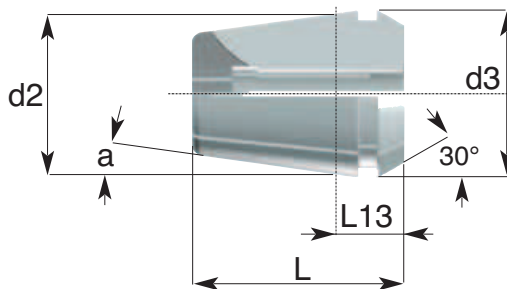
Tapping ER collets DIN 6499/A with internal square
 Gewindebohrzangen ER DIN 6499/A mit Innenvierkant
 Pincas de taradage ER DIN 6499/A avec carré intérieur

ACCESSORI PER MACCHINE UTENSILI



DIN 6499/A

ART: 609M



Riferimento Item	d1 min	d1 max	capacità Capacity	d2	d3	a	L	L13
ERC16	3.5	8	nominale	16	16.74	8°	27.5	6.3
ERC20	3.5	10	nominale	20	20.74	8°	31.5	7.2
ERC25	3.5	12	nominale	25	25.74	8°	34	7.5
ERC32	4	16	nominale	32	32.74	8°	40	8.2
ERC40	4	20	nominale	40	40.74	8°	46	10.5

CARATTERISTICHE TECNICHE

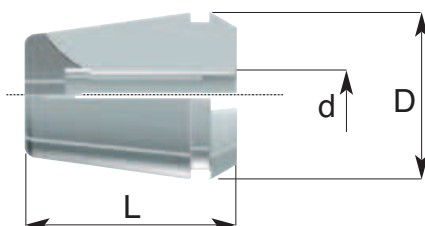
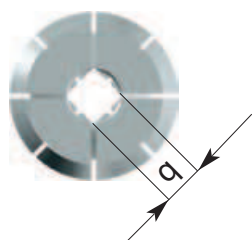
- Costruiti in acciaio 60 SiCr7
- Temprate • Rinvenute • HRC 46±2
- Rettificati di precisione esternamente ed
- Controllati con strumenti di misura certificati
- La tolleranza di rotazione delle pinze ER corrisponde ai valori della classe 2 - DIN 6499

STANDARD FEATURES

- Manufactured with Silicon Chrome steel similar to SAE 9262
- Quenched • tempered • RC 46±2
- Precision ground on shanks and inside tapers
- Tested with high Precision inspection and gaging equipment
- The runout accuracy of ER collets is equivalent to DIN 6499-Class 2

ACCESSORI PER MACCHINE UTENSILI

Pinze portamaschi con quadro ER DIN 6499/A
Tapping ER collets DIN 6499/A with internal square
Gewindebohrzangen ER DIN 6499/A mit Innenvierkant
Pinces de taraudage ER DIN 6499/A avec carré interieur


DIN 6499/B
ART: 609.M

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11

Codice di ord <i>Code</i>	d X q	ER	DXL	Per maschi <i>For tap size</i>
609.16.0035.M	3.5 X 2.7	ER 16	16.74 x 275	M 3
609.16.0040.M	4.0 X 3.0	ER 16	16.74 x 275	M 3,5
609.16.0045.M	4.5 X 3.4	ER 16	16.74 x 275	M 4
609.16.0050.M	5.0 X 4.0	ER 16	16.74 x 275	M 5
609.16.0060.M	6.0 X 4.9	ER 16	16.74 x 275	M 4,5 - 5 - 6 - 7 - 8
609.16.0063.M	6.3 X 5.0	ER 16	16.74 x 275	M 6 - 8
609.16.0070.M	7.0 X 5.5	ER 16	16.74 x 275	M 9 - 10
609.16.0080.M	8.0 X 6.2	ER 16	16.74 x 275	M 11
609.20.0035.M	3.5 X 2.7	ER 20	20.74 x 315	M 3
609.20.0040.M	4.0 X 3.0	ER 20	20.74 x 315	M 3,5
609.20.0045.M	4.5 X 3.4	ER 20	20.74 x 315	M 4
609.20.0060.M	6.0 X 4.9	ER 20	20.74 x 315	M 4,5 - 5 - 6 - 7 - 8
609.20.0080.M	8.0 X 6.2	ER 20	20.74 x 315	M 11
609.20.0090.M	9.0 X 7.0	ER 20	20.74 x 315	M 12
609.20.0100.M	10.0 X 8.0	ER 20	20.74 x 315	M 10
609.25.0035.M	3.5 X 2.7	ER 25	25.74 x 34	M 3
609.25.0040.M	4.0 X 3.0	ER 25	25.74 x 34	M 3,5
609.25.0045.M	4.5 X 3.4	ER 25	25.74 x 34	M 4
609.25.0050.M	5.0 X 4.0	ER 25	25.74 x 34	M 5
609.25.0060.M	6.0 X 4.9	ER 25	25.74 x 34	M 4,5 - 5 - 6 - 7 - 8
609.25.0063.M	6.3 X 5.0	ER 25	25.74 x 34	M 6 - 8
609.25.0070.M	7.0 X 5.5	ER 25	25.74 x 34	M 9 - 10
609.25.0080.M	8.0 X 6.2	ER 25	25.74 x 34	M 11
609.25.0090.M	9.0 X 7.0	ER 25	25.74 x 34	M 12
609.25.0100.M	10.0 X 8.0	ER 25	25.74 x 34	M 10
609.25.0110.M	11.0 X 9.0	ER 25	25.74 x 34	M 14
609.25.0112.M	11.2 X 9.0	ER 25	25.74 x 34	M 14
609.25.0120.M	12.0 X 9.0	ER 25	25.74 x 34	M 16

Codice di ord <i>Code</i>	d X q	ER	DXL	Per maschi <i>For tap size</i>
609.32.0040.M	4.0 X 3.0	ER 32	32.74 x 40	M 3,5
609.32.0045.M	4.5 X 3.4	ER 32	32.74 x 40	M 4
609.32.0050.M	5.0 X 4.0	ER 32	32.74 x 40	M 5
609.32.0060.M	6.0 X 4.9	ER 32	32.74 x 40	M 4,5 - 5 - 6 - 7 - 8
609.32.0063.M	6.3 X 5.0	ER 32	32.74 x 40	M 6 - 8
609.32.0070.M	7.0 X 5.5	ER 32	32.74 x 40	M 9 - 10
609.32.0080.M	8.0 X 6.2	ER 32	32.74 x 40	M 11
609.32.0090.M	9.0 X 7.0	ER 32	32.74 x 40	M 12
609.32.0100.M	10.0 X 8.0	ER 32	32.74 x 40	M 10
609.32.0110.M	11.0 X 9.0	ER 32	32.74 x 40	M 14
609.32.0112.M	11.2 X 9.0	ER 32	32.74 x 40	M 14
609.32.0120.M	12.0 X 9.0	ER 32	32.74 x 40	M 16
609.32.0125.M	12.5 X 10	ER 32	32.74 x 40	M 16
609.32.0140.M	14.0 X 11.0	ER 32	32.74 x 40	M 18
609.32.0160.M	16.0 X 12.0	ER 32	32.74 x 40	M 20
609.40.0060.M	6.0 X 4.9	ER 40	40.74 x 46	M 4,5 - 5 - 6 - 7 - 8
609.40.0063.M	6.3 X 5.0	ER 40	40.74 x 46	M 6 - 8
609.40.0070.M	7.0 X 5.5	ER 40	40.74 x 46	M 9 - 10
609.40.0080.M	8.0 X 6.2	ER 40	40.74 x 46	M 11
609.40.0090.M	9.0 X 7.0	ER 40	40.74 x 46	M 12
609.40.0100.M	10.0 X 8.0	ER 40	40.74 x 46	M 10
609.40.0110.M	11.0 X 9.0	ER 40	40.74 x 46	M 14
609.40.0112.M	11.2 X 9.0	ER 40	40.74 x 46	M 14
609.40.0120.M	12.0 X 9.0	ER 40	40.74 x 46	M 16
609.40.0125.M	12.5 X 10	ER 40	40.74 x 46	M 16
609.40.0140.M	14.0 X 11.0	ER 40	40.74 x 46	M 18
609.40.0160.M	16.0 X 12.0	ER 40	40.74 x 46	M 20
609.40.0180.M	18.0 X 14.5	ER 40	40.74 x 46	M 22 - 24
609.40.0200.M	20.0 X 16.0	ER 40	40.74 x 46	M 27

12. ACCESSORI

ACCESSORIES



Serie pinze ER - Standard

Set of ER Collets

Satz von Spannzangen ER

Série de pinces de serrage ER

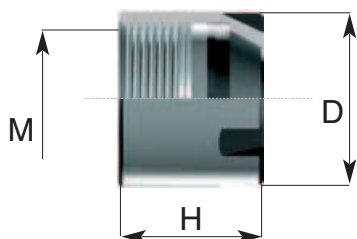
ACCESSORI PER MACCHINE UTENSILI

ART: SERIE PINZE ER
ART: 609 standard

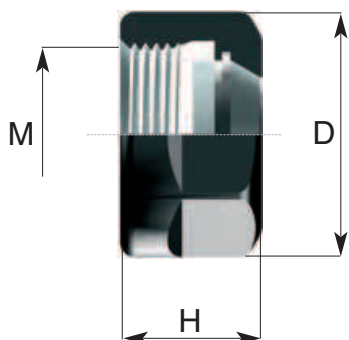
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12



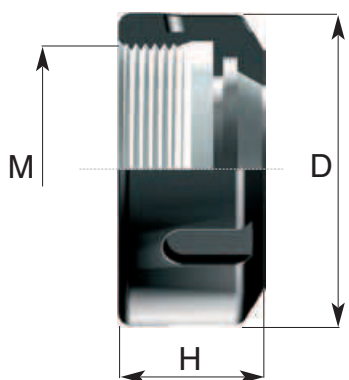
Codice di ord. Code	Tipo pinze Collets type	Quantità pinze Collets Qty.	Ø Pinze Ø Collets
S.13.ER11	ER11	13	da Ø 1.0 a 7.0
S.08.ER16	ER16	8	da Ø 3.0 a 10.0
S.10.ER16	ER16	10	da Ø 1.0 a 10.0
S.11.ER20	ER20	11	da Ø 3.0 a 13.0
S.13.ER20	ER20	13	da Ø 1.0 a 13.0
S.14.ER25	ER25	14	da Ø 3.0 a 16.0
S.15.ER25	ER25	15	da Ø 2.0 a 16.0
S.18.ER32	ER32	18	da Ø 3.0 a 20.0
S.19.ER32	ER32	19	da Ø 2.0 a 20.0
S.23.ER40	ER40	23	da Ø 4.0 a 26.0

ART: GHIERE ER
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Codice di ord. Code	ER	M	D	H
245.13.ER11M	UM.ER11 mini	M13 X 0,75	16	12
245.19.ER16M	UM.ER16 mini	M19 X 1	22	18
245.24.ER20M	UM.ER20 mini	M24 X 1	28	19
245.30.ER25M	UM.ER25 mini	M30 X 1	35	20



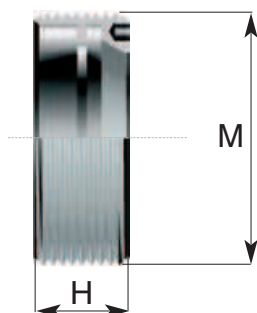
Codice di ord. Code	ER	M	D	H
245.14.ER11	UM.ER11	M14 X 0,75	19	11,3
245.22.ER16	UM.ER16	M22 X 1,5	28	17
245.25.ER20	UM.ER20	M25 X 1,5	34	19



Codice di ord. Code	ER	M	D	H
245.32.ER25	UM.ER25	M32 X 1,5	42	21
245.40.ER32	UM.ER32	M40 X 1,5	50	23
245.50.ER40	UM.ER40	M50 X 1,5	63	26
* 245.32.ER25.AV	UM.ER25	M32 X 1,5	42	21
* 245.40.ER32.AV	UM.ER32	M40 X 1,5	50	23
* 245.50.ER40.AV	UM.ER40	M50 X 1,5	63	26
** 245.32.ER25.B	UM.ER25	M32 X 1,5	42	21
** 245.40.ER32.B	UM.ER32	M40 X 1,5	50	23
** 245.50.ER40.B	UM.ER40	M50 X 1,5	63	26

*Ghiere concentriche
*Concentric nuts

**Ghiere con sfere
**Ball bearing nuts



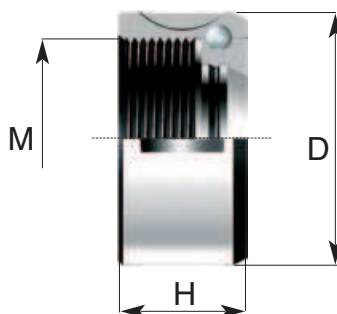
Codice di ord. Code	ER	M	H
245.40.ER32.EC	UM.ER32	M40 X 1,5	14

Ghiera di bloccaggio pinze EOC
EOC clamping nuts
Spannmuttern EOC
Écrous de serrage EOC

Ghiere tipo EOC DIN 6388



ART: GHIERE EOC



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14

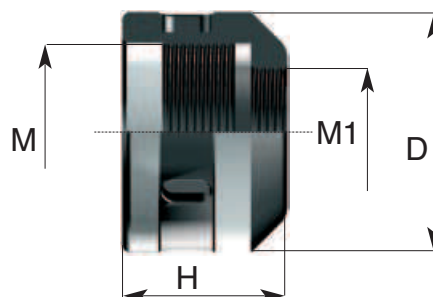
Codice di ord. Code	EOC	M	D	H
245.48.0350	25	M48X2	60	30
245.60.0440	32	M60X2	72	33.5

Ghiera di bloccaggio pinze "Delta"
"Delta" clamping nuts
Spannmuttern "Delta"
Écrous de serrage "Delta"

Ghiere tipo DELTA



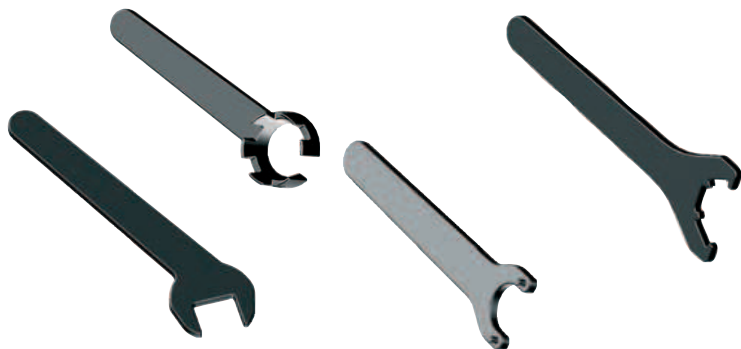
ART: GHIERE DELTA



Codice di ord. Code	M	M 1	D	H
245.01	M38 x 2	M 26 x 2 sin.	50	35
245.02	M44 x 2	M 32 x 2 sin.	58	41
245.03	M58 x 2	M 44 x 2 sin.	74	45

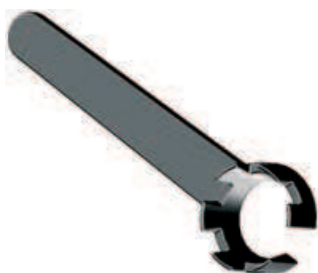
ACCESSORI PER MACCHINE UTENSILI

Chiavi per ghiera ER
ER spanners
Spannschlüssel ER
Clés de serrage ER



ART: CHIAVI

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15



Codice di ord. <i>Code</i>	ER
CH.12.ER8M	ER8 MINI
CH.16.ER11M	ER11 MINI
CH.22.ER16M	ER16 MINI
CH.28.ER20M	ER20 MINI



Codice di ord. <i>Code</i>	ER
CH.17.ER16	ER 11
CH.25.ER16	ER 16
CH.30.ER20	ER 20



Codice di ord. <i>Code</i>	ER
CH.42.ER25	ER 25
CH.50.ER32	ER 32
CH.65.ER40	ER 40



Codice di ord. <i>Code</i>	ER
CH.04.ER32.EC	ER 32

Istruzioni per l'assemblaggio delle ghiera e pinze ER DIN 6499
Instructions for the assembly of ER DIN 6499 nuts and collets
Montageanleitung für Spannzangen und Spannmuttern ER DIN 6499
Instructions d'assemblage pour pinces et écrous ER DIN 6499

DIN 6499

ER

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16

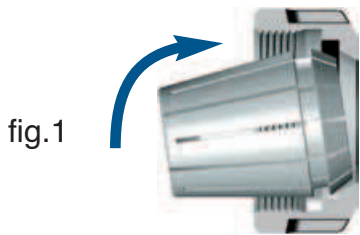


fig.1

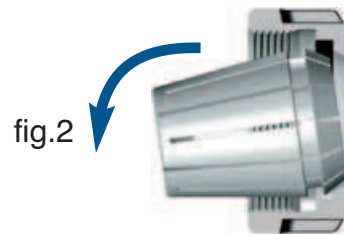


fig.2

ASSEMBLAGGIO DELLA PINZA

Introdurre la pinza inclinata nella ghiera di serraggio per accoppiare la scanalatura della pinza "A" con la sede eccentrica della ghiera "B". In seguito applicare una forza nel verso indicato dalla freccia in (fig.1). Per estrarre la pinza applicare una forza nel verso indicato dalla freccia in (fig. 2).

COLLET INSERTING

Insert the collet inclined into the clamping nut, to couple the collet groove "A" with the eccentric ring extractor "B". Then apply a force in the direction shown by the arrow (fig.1). To remove the collect apply a force in the direction shown by the arrow (fig.2)

SPANNZANGE MONTAGE

Die schräge Spannzange in die Spannmutter einführen, um die Rille der Spannzange "A" mit dem Mutterxzenterring "B" zu verbinden. Dann, in die Pfeilrichtung (fig.1) Kraft anwenden. In die Pfeilrichtung (fig.2) Kraft anwenden die Spannzange herauszuziehen.

MONTAGE DE LA PINCE

Positionner la pince inclinée dans l'écrou pour coupler la rainure de la pince "A" avec la bague excentrique de l'écrou "B". Ensuite appliquer une force dans la direction indiquée par la flèche (fig.1). Pour enlever la pince, appliquer une force dans la direction indiquée par la flèche (fig.2)

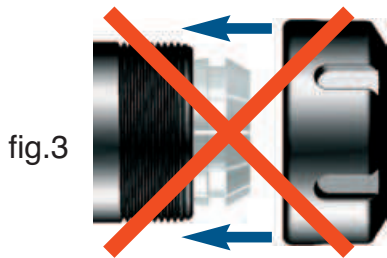


fig.3

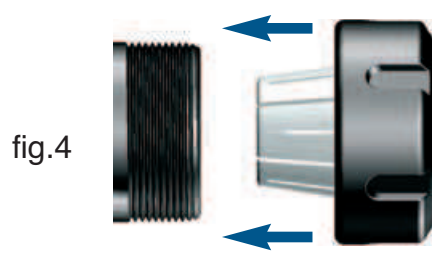


fig.4

GENERALITA'

Le pinze ER devono essere inserite nelle ghiera prima di montarle con l'utensile sul mandrino. La mancata osservanza di questa condizione provoca il danneggiamento definitivo della pinza e della ghiera di serraggio.

FEATURES

ER collets must be connected into the nut before inserting them with the tool into the chuck. A wrong assembly causes the definitive damage of both collet and clamping nut.

KENNZEICHEN

Die Spannzangen ER müssen zuerst in die Spannmutter eingeführt werden, dann mit dem Werkzeug auf den Halter aufgestellt werden. Nichtbeachtung dieser Montageanleitung wird Spannzange und Spannmutter beschädigen.

GÉNÉRALITÉS

Les pinces ER doivent être positionnées dans l'écrou avant de les monter avec l'outils sur le mandrin. Un montage pas conforme cause le dommage irréparable de la pince et de l'écrou.

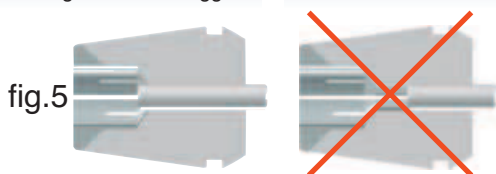


fig.5

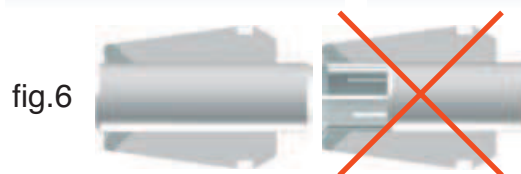


fig.6



GENERALITA'

Per ottenere il miglior bloccaggio il gambo dell'utensile deve occupare la totalità del diametro interno rettificato della pinza.

FEATURES

For a better clamping, the tool shank must occupy the whole internal grinded diameter of the collet.

KENNZEICHEN

Der Werkzeugschaft muss den ganzen Innendurchmesser der Spannzange einnehmen um eine feste Einspannung zu erreichen..

GÉNÉRALITÉS

Pour un meilleur blocage, la queue de l'outil doit occuper la totalité du diamètre intérieur rectifié de la pince.

ACCESSORI PER MACCHINE UTENSILI


Coppie di serraggio consigliate per le ghiera ER
Recommended clamping torque for ER nuts
Spannungskräftepaar für Spannmuttern ER
Couple de serrage conseillé pour écrous ER

COPPIE DI SERRAGGIO GHIERE ER
12.
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ER MINI


Ghiere <i>Nuts</i>	Filetto <i>Thread</i>	Coppia max <i>Max torque</i>	Coppia max <i>Max torque</i>
ER 8 mini	M 10 X 0.75	5 Nm	5 Nm
ER 11 mini	M 13 X 0.75	15 Nm	20 Nm
ER 16 mini	M 19 X 1	25 Nm	30 Nm
ER 20 mini	M 24 X 1	25 Nm	35 Nm
ER 25 mini	M 30 X 1	35 Nm	40 Nm

ER STANDARD


Ghiere <i>Nuts</i>	Filetto <i>Thread</i>	Coppia max <i>Max torque</i>	Coppia max <i>Max torque</i>
ER 11	M 14 X 0.75	18 Nm	22 Nm
ER 16	M 22 X 1.5	50 Nm	70 Nm
ER 20	M 25 X 1.5	50 Nm	80 Nm
ER 25	M 32 X 1.5	90 Nm	130 Nm
ER 32	M 40 X 1.5	130 Nm	160 Nm
ER 40	M 50 X 1.5	190 Nm	220 Nm
ER 50	M 64 X 2	300 Nm	300 Nm

CARATTERISTICHE TECNICHE

- Non superare le coppie di serraggio consigliate per non danneggiare la ghiera, la pinza e deformare la sede del mandrino
- I valori max di coppia sono da adottare per i diametri max delle pinze

STANDARD FEATURES

- Do not exceed the recommended clamping torque value not to damage the nut, the collet and the toolholder's collet cavity.
- The max torque is suitable for the max diameter capacity of the collets.

Bussole portamaschio a cambio rapido

Quick change tap holder bushes

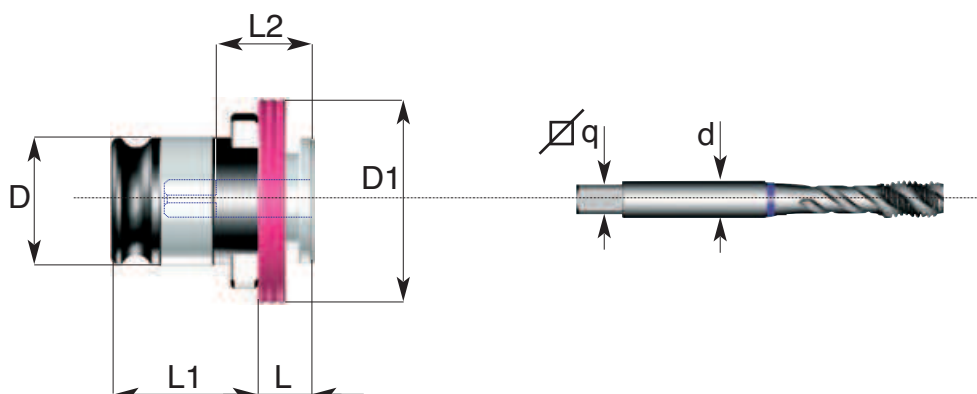
Hülsen für Gewindeschneid-Schnellwechselfutter

Douilles porte-tarauds à changement rapide

ACCESSORI PER MACCHINE UTENSILI



ART: 665

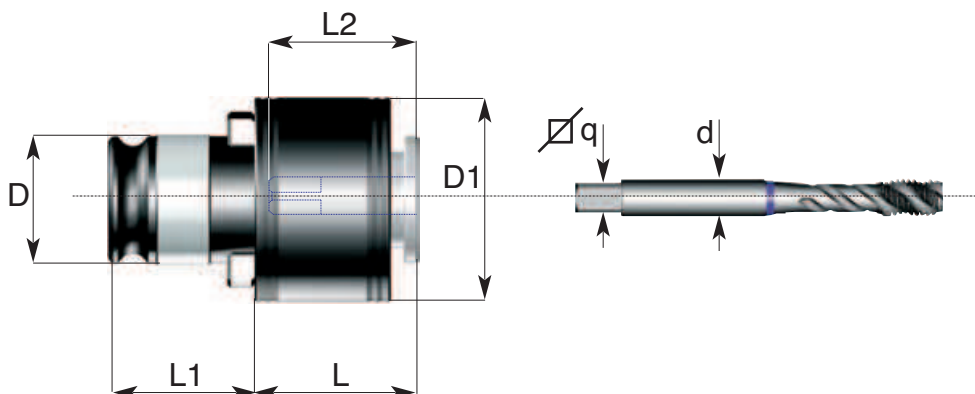


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18

Codice di ord Code	D	D1	d X q	Bussole tipo For collet	L	L1	L2	Per maschi For tap size
665.19.0250	19	30	2.5 x 2.1	1	7	21.5	17	M 1,2-1,4-1,6-1,7-1,8
665.19.0280	19	30	2.8 x 2.1	1	7	21.5	17	M 2-2,2-2,3-2,5-2,6
665.19.0350	19	30	3.5 x 2.7	1	7	21.5	17	M 3
665.19.0400	19	30	4.0 x 3.0	1	7	21.5	17	M 3,5
665.19.0450	19	30	4.5 x 3.4	1	7	21.5	17	M 4
665.19.0500	19	30	5.0 x 4.0	1	7	21.5	17	M 5
665.19.0600	19	30	6.0 x 4.9	1	7	21.5	17	M 4,5-5-6-7-8
665.19.0630	19	30	6.3 x 5	1	7	21.5	17	M 6
665.19.0700	19	30	7.0 x 5.5	1	7	21.5	17	M 9-10
665.19.0800	19	30	8.0 x 6.2	1	7	21.5	17	M 11
665.19.0900	19	30	9.0 x 7.0	1	7	21.5	17	M 12
665.19.1000	19	30	10.0 x 8.0	1	7	21.5	17	M 10
665.19.1100	19	30	11.0 x 9.0	1	7	21.5	17	M 14
665.31.0600	31	46	6.0 x 4.9	2	11	35	30	M 4,5-5-6-7-8
665.31.0630	31	46	6.3 x 5.0	2	11	35	30	M 6-8
665.31.0700	31	46	7.0 x 5.5	2	11	35	30	M 9-10
665.31.0800	31	46	8.0 x 6.2	2	11	35	30	M 11
665.31.0900	31	46	9.0 x 7.0	2	11	35	30	M 12
665.31.1000	31	46	10.0 x 8.0	2	11	35	30	M 10
665.31.1100	31	46	11.0 x 9.0	2	11	35	30	M 14
665.31.1200	31	46	12.0 x 9.0	2	11	35	30	M 16
665.31.1400	31	46	14.0 x 11.0	2	11	35	30	M 18
665.31.1600	31	46	16.0 x 12.0	2	11	35	30	M 20
665.31.1800	31	46	18.0 x 14.5	2	11	35	30	M 22-24
665.48.1100	48	68	11.0 x 9.0	3	16	55.5	44	M 14
665.48.1200	48	68	12.0 x 9.0	3	16	55.5	44	M 16
665.48.1400	48	68	14.0 x 11.0	3	16	55.5	44	M 18
665.48.1600	48	68	16.0 x 12.0	3	16	55.5	44	M 20
665.48.1800	48	68	18.0 x 14.5	3	16	55.5	44	M 22-24
665.48.2000	48	68	20.0 x 16.0	3	16	55.5	44	M 27
665.48.2200	48	68	22.0 x 18.0	3	16	55.5	44	M 30
665.48.2500	48	68	25.0 x 20.0	3	16	55.5	44	M 33
665.48.2800	48	68	28.0 x 22.0	3	16	55.5	44	M 36

ACCESSORI PER MACCHINE UTENSILI

Bussole portamaschio con accoppiamento di sicurezza a frizione registrabile
Quick change tap holder bushes with clutch safety fit
Hülsen für Gewindeschneid-Schnellwechselfutter mit Sicherheitsreibungskupplung
Douilles porte-tarauds à changement rapide avec accouplement de sûreté à friction


ART: 668

12.
19

Codice di ord <i>Code</i>	D	D1	d X q	Bussole tipo <i>For collet</i>	L	L1	L2	Per maschi <i>For tap size</i>
668.19.0250	19	32	2.5 x 2.1	1	25	21.5	17	M 1,2-1,4-1,6-1,7-1,8
668.19.0280	19	32	2.8 x 2.1	1	25	21.5	17	M 2-2,2-2,3-2,5-2,6
668.19.0350	19	32	3.5 x 2.7	1	25	21.5	17	M 3
668.19.0400	19	32	4.0 x 3.0	1	25	21.5	17	M 3,5
668.19.0450	19	32	4.5 x 3.4	1	25	21.5	17	M 4
668.19.0500	19	32	5.0 x 4.0	1	25	21.5	17	M 5
668.19.0600	19	32	6.0 x 4.9	1	25	21.5	17	M 4,5-5-6-7-8
668.19.0630	19	32	6.3 x 5.0	1	25	21.5	17	M 6-8
668.19.0700	19	32	7.0 x 5.5	1	25	21.5	17	M 9-10
668.19.0800	19	32	8.0 x 6.2	1	25	21.5	17	M 11
668.19.0900	19	32	9.0 x 7.0	1	25	21.5	17	M 12
668.19.1000	19	32	10.0 x 8.0	1	25	21.5	17	M 10
668.19.1100	19	32	11.0 x 9.0	1	25	21.5	17	M 14
668.31.0600	31	50	6.0 x 4.9	2	34	35	30	M 4,5-5-6-7-8
668.31.0630	31	50	6.3 x 5.0	2	34	35	30	M 6-8
668.31.0700	31	50	7.0 x 5.5	2	34	35	30	M 9-10
668.31.0800	31	50	8.0 x 6.2	2	34	35	30	M 11
668.31.0900	31	50	9.0 x 7.0	2	34	35	30	M 12
668.31.1000	31	50	10.0 x 8.0	2	34	35	30	M 10
668.31.1100	31	50	11.0 x 9.0	2	34	35	30	M 14
668.31.1200	31	50	12.0 x 9.0	2	34	35	30	M 16
668.31.1400	31	50	14.0 x 11.0	2	34	35	30	M 18
668.31.1600	31	50	16.0 x 12.0	2	34	35	30	M 20
668.31.1800	31	50	18.0 x 14.5	2	34	35	30	M 22-24
668.48.1100	48	72	11.0 x 9.0	3	45	55.5	44	M 14
668.48.1200	48	72	12.0 x 9.0	3	45	55.5	44	M 16
668.48.1400	48	72	14.0 x 11.0	3	45	55.5	44	M 18
668.48.1600	48	72	16.0 x 12.0	3	45	55.5	44	M 20
668.48.1800	48	72	18.0 x 14.5	3	45	55.5	44	M 22-24
668.48.2000	48	72	20.0 x 16.0	3	45	55.5	44	M 27
668.48.2200	48	72	22.0 x 18.0	3	45	55.5	44	M 30
668.48.2500	48	72	25.0 x 20.0	3	45	55.5	44	M 33
668.48.2800	48	72	28.0 x 22.0	3	45	55.5	44	M 36

Dimensionamento gambi per maschi

Taps shank size

Masse des Gewindebohrerschaftes

Dimensions des queues pour tarauds

ACCESSORI PER MACCHINE UTENSILI

GAMBI MASCHI

12.
20

Gambo	Normale DIN 352	Rinforzato DIN 371	Normale DIN 376	Normale ISO	Rinforzato ISO	Tipo bussola
2.50 X 2.10	M 1.0	M 1.0	M 3.5	-	-	1
2.50 X 2.10	M 1.4	M 1.4	-	-	-	1
2.50 X 2.10	M 1.6	M 1.6	-	-	-	1
2.50 X 2.10	M 1.8	M 1.8	-	-	-	1
2.80 X 2.10	M 2.0	M 2.0	M 4	-	-	1
2.80 X 2.10	M 2.2	M 2.2	-	-	-	1
2.80 X 2.10	M 2.5	M 2.5	-	-	-	1
3.15 X 2.50	-	-	-	M 4.0	M 3.0	1
3.50 X 2.70	M 3.0	M 3.0	M 5.0	-	-	1
3.55 X 2.80	-	-	-	M 4.5	M 3.5	1
4.00 X 3.15	M 3.5	M 3.5	-	M 5.0	M 4.0	1
4.50 X 3.40	M 4.0	M 4.0	M 6.0	-	-	1
5.00 X 4.00	-	-	-	-	M 5.0	1
6.00 X 4.90	M 5.0	M 5.0	-	-	-	1-2
6.00 X 4.90	M 6.0	M 6.0	-	-	-	1-2
6.00 X 4.90	M 8.0	-	M 8.0	-	-	1-2
6.30 X 5.00	-	-	-	M 8.0	M 6.0	1-2
7.00 X 5.50	M 10.0	-	M 10.0	-	-	1-2
8.00 X 6.30	-	M 8.0	-	M 10.0	M 8.0	1-2
9.00 X 7.10	M 12.0	-	M 12.0	M 12.0	-	1-2
10.00 X 8.00	-	M 10	-	-	M 10.0	1-2
11.00 X 9.00	M 14.0	-	M 14.0	-	-	1-2-3
11.20 X 9.00	-	-	-	M 14.0	-	1-2-3
12.00 X 9.00	M 16.0	-	M 16.0	-	-	1-2-3
12.50 X 10.00	-	-	-	M 16.0	-	1-2-3
14.00 X 11.00	M 18.0	-	M 18.0	-	-	2-3
14.00 X 11.20	-	-	-	M 18.0	-	2-3
14.00 X 11.20	-	-	-	M 20.0	-	2-3
16.00 X 12.00	M 20.0	-	M 20.0	-	-	2-3
16.00 X 12.50	-	-	-	M 22.0	-	2-3
18.00 X 14.00	-	-	-	M 24.0	-	2-3
18.00 X 14.50	M 22.0	-	M 22.0	-	-	2-3
18.00 X 14.50	M 24.0	-	M 24.0	-	-	2-3
20.00 X 16.00	M 27.0	-	M 27.0	M 27.0	-	2-3
20.00 X 16.00	-	-	-	M 30.0	-	2-3
22.00 X 18.00	M 30.0	-	M 30.0	-	-	2-3
25.00 X 20.00	M 33.0	-	M 33.0	M 36.0	-	3
28.00 X 22.00	M 36.0	-	M 36.0	-	-	3
32.00 X 24.00	M 39.0	-	M 39.0	-	-	3
32.00 X 24.00	M 42.0	-	M 42.0	-	-	3
36.00 X 29.00	M 45.0	-	M 45.0	-	-	3
36.00 X 29.00	M 48.0	-	M 48.0	-	-	3

ACCESSORI PER MACCHINE UTENSILI

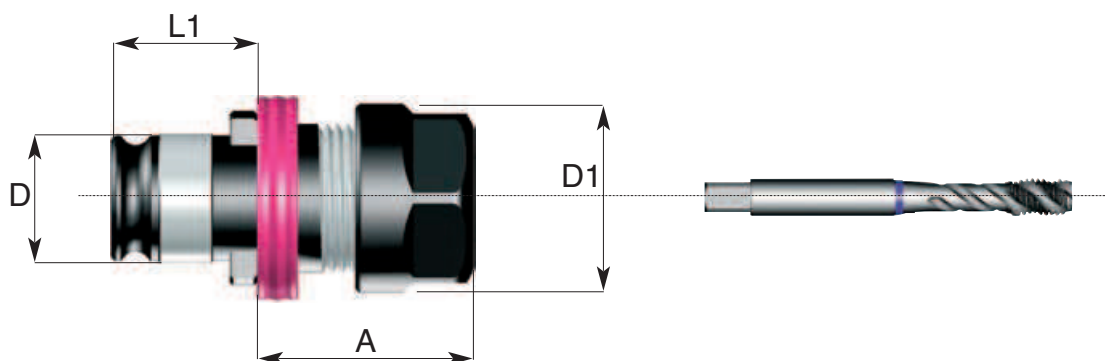


Bussole portamaschio con pinza ER

Quick change tap holder bushes with ER collet
 Hülsen für Gewindeschneid-Schnellwechselfutter mit Spannzange ER
 Douilles porte-tarauts à changement rapide avec pince ER

ART: 667

12.
21



Codice di ord Code	D	ER	D1	Bussole tipo For collet	L1	A	Per maschi Tap capacity
667.19.0160	19	ER 16	28	1	21.5	34	M 3 - M 14
667.31.0320	31	ER 32	50	2	35	63	M 4 - M 27
667.48.0320	48	ER 32	50	3	55.5	53	M 4 - M 27
667.48.0400	48	ER 40	63	3	55.5	55	M 10 - M 33

12. ACCESSORI

ACCESSORIES



ACCESSORI PER MACCHINE UTENSILI

Bussole portafiliera a cambio rapido

Quick change dies holder bushes

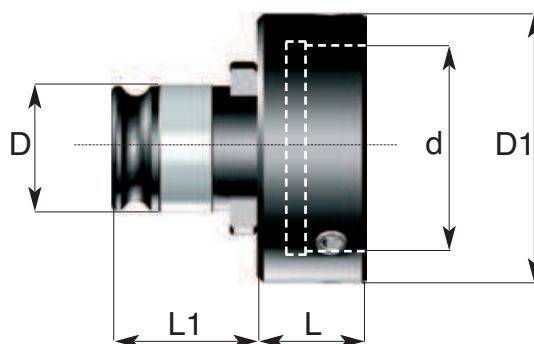
Hülsen für Schneideisen-Schnellwechselfutter

Douilles porte-filières à changement rapide

DIN 223



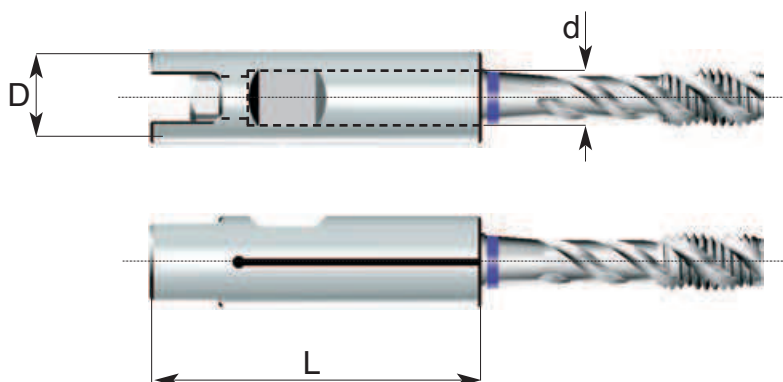
ART: 670



Codice di ord Code	D	D1	D2	Bussole tipo For collet	L	L1	Grandezza Filiera	Per filiere For
670.19.1605	19	25	16	1	21,5	9	16 X 5	M 1 - M 4
670.19.2005	19	30	20	1	21,5	9	20 X 5	M 3 - M 4
670.19.2007	19	30	20	1	21,5	11	20 X 7	M 4,5 - M 6
670.19.2509	19	34	25	1	21,5	14	25 X 9	M 7 - M 9
670.19.3011	19	40	30	1	21,5	16	30 X 11	M 10 - M 11
670.19.3810	19	48	38	1	21,5	15	38 X 10	M 12X1 - M 15X1,5
670.19.3814	19	48	38	1	21,5	19	38 X 14	M 12 - M 14
670.31.2005	31	30	20	3	35	22	20 X 5	M 3 - M 4
670.31.2007	31	30	20	3	35	22	20 X 7	M 4,5 - M 6
670.31.2509	31	38	25	3	35	22	25 X 9	M 7 - M 9
670.31.3011	31	40	30	3	35	22	30 X 11	M 10 - M 11
670.31.3810	31	48	38	3	35	22	38 X 10	M 12X1 - M 15X1,5
670.31.3814	31	48	38	3	35	25	38 X 14	M 12 - M 14
670.31.4514	31	57	45	3	35	29	45 X 14	M 16X1 - M 20X2
670.31.4518	31	57	45	3	35	29	45 X 18	M 16 - M 20

12.
22

ACCESSORI PER MACCHINE UTENSILI
Bussole portamaschi per mandrini attacco Weldon DIN 1835 B
Tap sleeves for Weldon milling cutter chucks DIN 1835 B
Gewindebohrer-Spannfutter für Weldon Zylinderschäfte DIN 1835 B
Douilles de serrage porte-tarands pour porte-fraises Weldon DIN 1835 B

DIN 1835 B
ART: 675

12.
23

Codice di ord Code	D h6	Per Weldon For Weldon	d H7	d X q	L	Per maschi For tap size
675.08.0250	8	8	2.5	2.5 x 2.1	36	M 1,2 - 1,4 - 1,6 - 1,7 - 1,8
675.08.0280	8	8	2.8	2.8 x 2.1	36	M 2 - 2,2 - 2,3 - 2,5 - 2,6
675.10.0350	10	10	3.5	3.5 x 2.7	40	M 3
675.10.0400	10	10	4.0	4.0 x 3.0	40	M 3,5
675.10.0450	10	10	4.5	4.5 x 3.4	40	M 4
675.12.0600	12	12	6.0	6.0 x 4.9	45	M 4,5 - 5 - 6 - 7 - 8
675.14.0700	14	14	7.0	7.0 x 5.5	45	M 9 - 10
675.14.0800	14	14	8.0	8.0 x 6.2	45	M 11
675.16.0900	16	16	9.0	9.0 x 7.0	48	M 12
675.16.1000	16	16	10.0	10.0 x 8.0	48	M 10
675.18.1100	18	18	11.0	11.0 x 9.0	48	M 14
675.20.1200	20	20	12.0	12.0 x 9.0	50	M 16
675.25.1400	25	25	14.0	14.0 x 11.0	56	M 18
675.25.1600	25	25	16.0	16.0 x 12.0	56	M 20
675.32.1800	32	32	18.0	18.0 x 14.5	60	M 22 - 24
675.32.2000	32	32	20.0	20.0 x 16.0	60	M 27
675.32.2200	32	32	22.0	22.0 x 18.0	60	M 30
675.40.2500	40	40	25.0	25.0 x 20.0	70	M 33
675.40.2800	40	40	28.0	28.0 x 22.0	70	M 36

12. ACCESSORI

ACCESSORIES



Anelli di trascinamento frontale DIN 6366 per mandrini portafrese

Front catch rings DIN 6366

Mitnehmerringe DIN 6366

Bagues d'entraînement DIN 6366

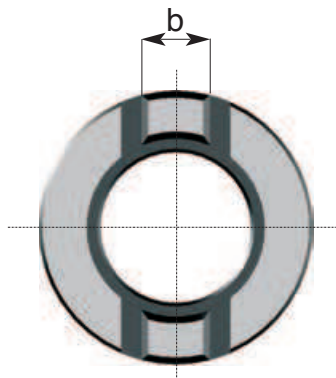
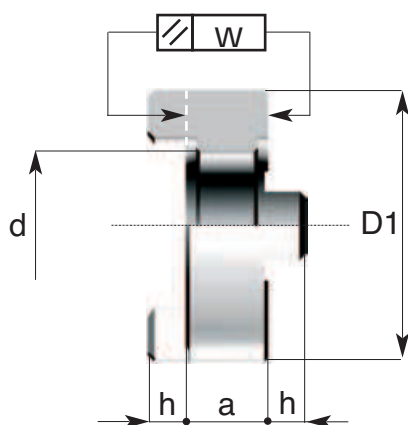
ACCESSORI PER MACCHINE UTENSILI



DIN 6366

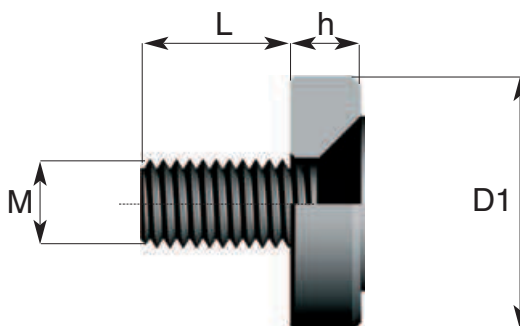
ART: 190

12.
24



Codice di ord Code	a Normali	a Alti	d A11	b h11	h IT11	D1 Normali	D1 Alti	w
190.01	10	-	16	8	5	32	-	0.004
190.02	12	-	22	10	5.6	40	45	0.004
190.03	12	-	27	12	6.3	48	55	0.004
190.04	14	-	32	14	7	58	64	0.005
190.05	14	-	40	16	8	70	79	0.005
190.06	16	-	50	18	9	90	-	0.005
190.07	16	-	60	20	10	110	-	0.006
190.08	-	12	16	8	5	32	-	0.004
190.09	-	18	22	10	5.6	40	45	0.004
190.10	-	16	27	12	6.3	48	55	0.004
190.11	-	39	27	12	6.3	48	55	0.004
190.12	-	16	32	14	7	58	64	0.005
190.13	-	18	40	16	8	70	79	0.005

ACCESSORI PER MACCHINE UTENSILI
Vite-rondella per bloccaggio frese con foro cilindrico
Screw and washer for fastening of cutters
Schraube mit Scheibe zum Festspannen des Fräsers
Rondelles et vis pour blocage des fraises à alésage cylindrique

ART: 191
12.
25


Codice di ord Code	M	Per Ø For Ø	D1	L	h
191.01	M8	16	22	20	7
191.02	M10	22	29	20	8
191.03	M12	27	36	25	9
191.04	M16	32	43	30	10
191.05	M20	40	52	35	11
191.06	M24	50	64	40	13
191.07	M24	60	75	45	14

12. ACCESSORI

ACCESSORIES



Tasselli di trascinamento DIN 2079 - 138

Drive keys DIN 2079 - 138

Mitnehmersteine DIN 2079 - 138

Tasseaux d'entrainement DIN 2079 - 138

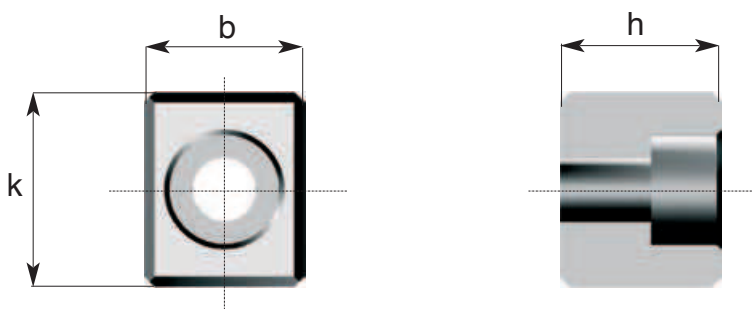
ACCESSORI PER MACCHINE UTENSILI

DIN 2079 - 138

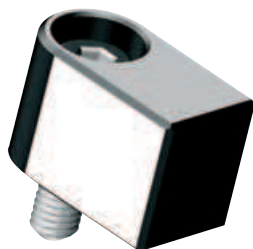
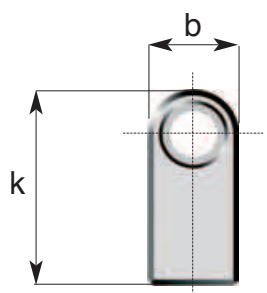


ART: 192

12.
26



Codice di ord Code	Per SK e Ø for SK and Ø	b h11	h	k h11
192.01	SK 30	15.9	16	16.5
192.02	SK 40	15.9	16	19.5
192.45.0190	SK 45	19	19	19.5
192.03	SK 50	25.4	25	26.6
192.04	SK 60	25.4	25	45.5
192.06	16	8	10,5	11
192.07	22	10	11,5	13
192.08	27	12	12,5	15
192.09	32	14	14	17
192.10	40	16	16	19,5
192.11	50	18	18	20
192.12	60	20	20	24

ACCESSORI PER MACCHINE UTENSILI
Tasselli di trascinamento
Drive keys
Mitnehmersteine
Tasseaux d'entrainement

ART: 151
12.
27


Codice di ord <i>Code</i>	Per \varnothing <i>for \varnothing</i>	b h11	h	k
151.101	16	8	10	16.5
151.102	22	10	13	18.5
151.103	27	12	15	22.5
151.104	32	14	15	24.5
151.105	40-50	16	18	26

12. ACCESSORI

ACCESSORIES



Bussole di guida DIN 2083 per alberi porta frese

Guide bushes for cutters arbors DIN 2083

Laufbuchsen für Fräsdorne DIN 2083

Douilles de guidage pour arbres porte-fraises DIN 2083

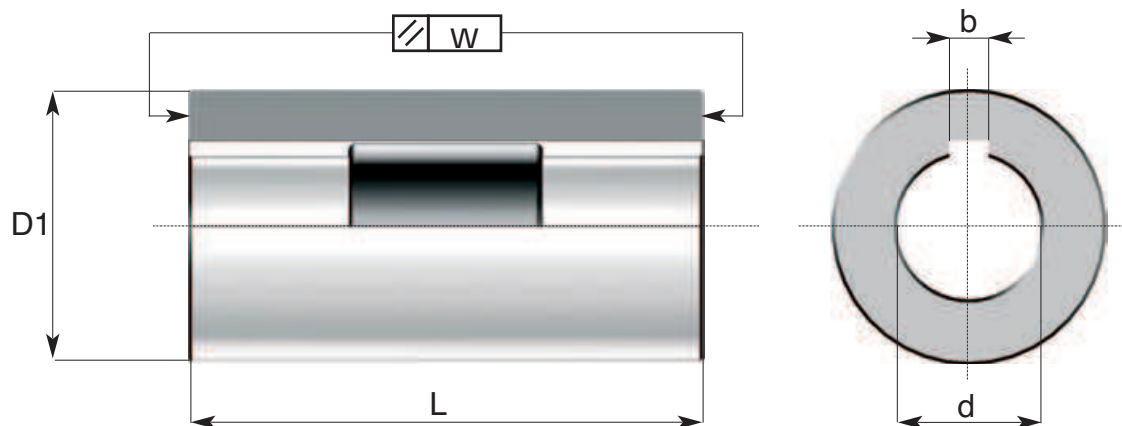
ACCESSORI PER MACCHINE UTENSILI



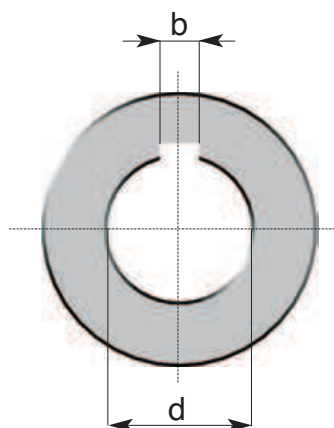
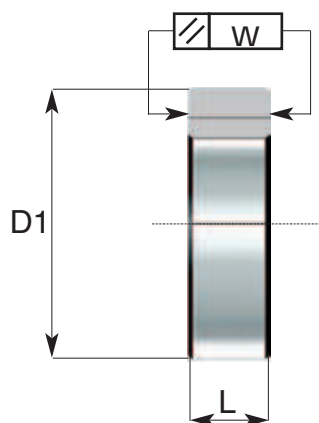
DIN 2083

ART: 193

12.
28



Codice di ord Code	d H7	D1 g6	b c11	L ± 0.1	w
193.03	16	42	4	80	0.006
193.04	16	48	4	70	0.007
193.06	16	56	4	80	0.007
193.07	16	56	4	100	0.007
193.09	22	42	6	80	0.006
193.10	22	48	6	70	0.007
193.12	22	50	6	100	0.007
193.13	22	56	6	80	0.007
193.14	22	56	6	100	0.007
193.15	22	70	6	100	0.008
193.16	22	85	6	120	0.008
193.18	27	42	7	80	0.006
193.19	27	48	7	70	0.007
193.21	27	50	7	100	0.007
193.22	27	56	7	80	0.007
193.23	27	56	7	100	0.007
193.24	27	70	7	100	0.008
193.25	27	85	7	120	0.008
193.26	32	48	8	70	0.007
193.28	32	50	8	100	0.007
193.29	32	56	8	80	0.007
193.30	32	56	8	100	0.007
193.31	32	70	8	100	0.008
193.32	32	85	8	120	0.008
193.33	40	48	10	70	0.007
193.35	40	50	10	100	0.007
193.36	40	56	10	80	0.007
193.37	40	56	10	100	0.007
193.38	40	70	10	100	0.008
193.39	40	85	10	120	0.008
193.40	40	110	10	140	0.008
193.41	50	70	12	100	0.008
193.42	50	85	12	120	0.008
193.44	60	70	14	100	0.011
193.45	60	85	14	120	0.011


ART: 194

12.
29

Codice di ord Code	d C11	D1 g6	b c11	L ± 0.1	w
194.01	16	27	4	2	0.004
194.02	16	27	4	3	0.004
194.03	16	27	4	4	0.004
194.04	16	27	4	5	0.004
194.05	16	27	4	6	0.004
194.06	16	27	4	10	0.004
194.07	16	27	4	20	0.004
194.08	16	27	4	30	0.004
194.09	22	34	6	2	0.004
194.10	22	34	6	3	0.004
194.11	22	34	6	4	0.004
194.12	22	34	6	5	0.004
194.13	22	34	6	6	0.004
194.14	22	34	6	10	0.004
194.15	22	34	6	20	0.004
194.16	22	34	6	30	0.004
194.17	22	34	6	60	0.004
194.18	27	41	7	2	0.004
194.19	27	41	7	3	0.004
194.20	27	41	7	4	0.004
194.21	27	41	7	5	0.004
194.22	27	41	7	6	0.004
194.23	27	41	7	10	0.004
194.24	27	41	7	20	0.004
194.25	27	41	7	30	0.004
194.26	27	41	7	60	0.004
194.27	27	41	7	100	0.004

Codice di ord Code	d C11	D1 g6	b c11	L ± 0.1	w
194.28	32	47	8	2	0.004
194.29	32	47	8	3	0.004
194.30	32	47	8	4	0.004
194.31	32	47	8	5	0.004
194.32	32	47	8	6	0.004
194.33	32	47	8	10	0.004
194.34	32	47	8	20	0.004
194.35	32	47	8	30	0.004
194.36	32	47	8	60	0.004
194.37	32	47	8	100	0.004
194.38	40	55	10	2	0.004
194.39	40	55	10	3	0.004
194.40	40	55	10	4	0.004
194.41	40	55	10	5	0.004
194.42	40	55	10	6	0.004
194.43	40	55	10	10	0.004
194.44	40	55	10	20	0.004
194.45	40	55	10	30	0.004
194.46	40	55	10	60	0.004
194.47	40	55	10	100	0.004
194.48	50	69	12	2	0.005
194.49	50	69	12	3	0.005
194.50	50	69	12	6	0.005
194.51	50	69	12	10	0.005
194.52	50	69	12	20	0.005
194.53	50	69	12	30	0.005
194.54	50	69	12	60	0.005
194.55	50	69	12	100	0.005
194.56	60	84	14	6	0.005
194.57	60	84	14	10	0.005
194.58	60	84	14	20	0.005
194.59	60	84	14	30	0.005
194.60	60	84	14	60	0.005
194.61	60	84	14	100	0.005

Anelli per alberi portafrese forma "A" tranciati DIN 2084
Sheared arbor rings DIN 2084
Fräsdorneringe geschnitten DIN 2084
Bagues decoupées pour arbres porte-fraises DIN 2084

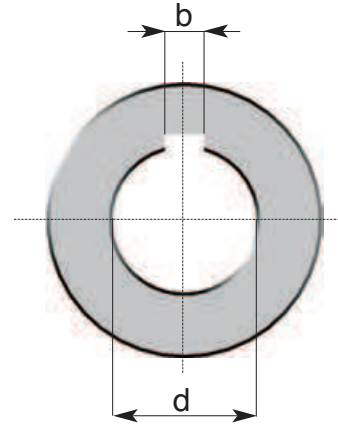
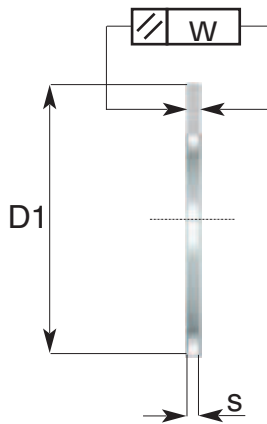
ACCESSORI PER MACCHINE UTENSILI



DIN 2084

ART: 195

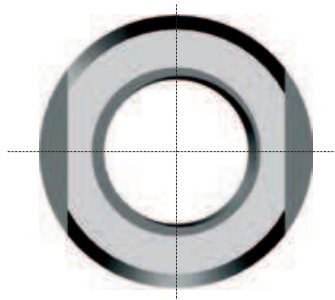
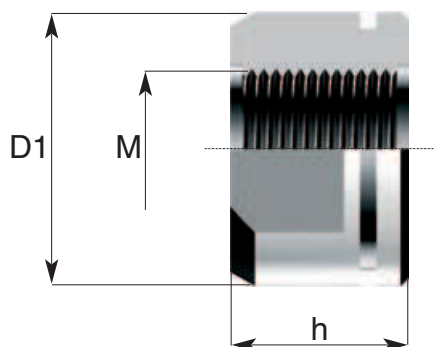
**12.
30**



Codice di ord Code	d C11	D1 g6	b c11	s	w
195.01	16	25	4	0.03	0.004
195.02	16	25	4	0.04	0.004
195.03	16	25	4	0.05	0.004
195.04	16	25	4	0.1	0.004
195.05	16	25	4	0.2	0.004
195.06	16	25	4	0.3	0.004
195.07	16	25	4	0.5	0.004
195.08	16	25	4	0.6	0.004
195.09	16	25	4	1	0.004
195.10	16	25	4	1.5	0.004
195.11	22	33	6	0.03	0.004
195.12	22	33	6	0.04	0.004
195.13	22	33	6	0.05	0.004
195.14	22	33	6	0.1	0.004
195.15	22	33	6	0.2	0.004
195.16	22	33	6	0.3	0.004
195.17	22	33	6	0.5	0.004
195.18	22	33	6	0.6	0.004
195.19	22	33	6	1	0.004
195.20	22	33	6	1.5	0.004
195.21	27	39	7	0.03	0.004
195.22	27	39	7	0.04	0.004
195.23	27	39	7	0.05	0.004
195.24	27	39	7	0.1	0.004
195.25	27	39	7	0.2	0.004
195.26	27	39	7	0.3	0.004
195.27	27	39	7	0.5	0.004
195.28	27	39	7	0.6	0.004
195.29	27	39	7	1	0.004
195.30	27	39	7	1.5	0.004

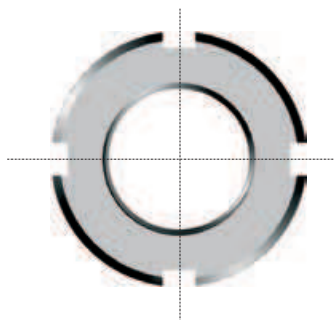
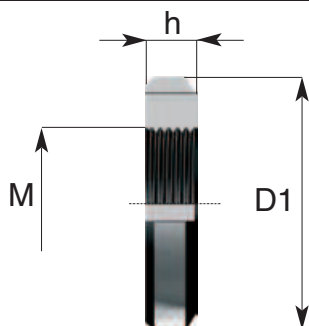
Codice di ord Code	d C11	D1 g6	b c11	s	w
195.31	32	45	8	0.03	0.004
195.32	32	45	8	0.03	0.004
195.33	32	45	8	0.05	0.004
195.34	32	45	8	0.1	0.004
195.35	32	45	8	0.2	0.004
195.36	32	45	8	0.3	0.004
195.37	32	45	8	0.5	0.004
195.38	32	45	8	0.6	0.004
195.39	32	45	8	1	0.004
195.40	32	45	8	1.5	0.004
195.41	40	54	10	0.03	0.004
195.42	40	54	10	0.04	0.004
195.43	40	54	10	0.05	0.004
195.44	40	54	10	0.1	0.004
195.45	40	54	10	0.2	0.004
195.46	40	54	10	0.3	0.004
195.47	40	54	10	0.5	0.004
195.48	40	54	10	0.6	0.004
195.49	40	54	10	1	0.004
195.50	40	54	10	1.5	0.004
195.51	50	67	12	0.05	0.004
195.52	50	67	12	0.1	0.004
195.53	50	67	12	0.2	0.004
195.54	50	67	12	0.3	0.004
195.55	50	67	12	0.5	0.004
195.56	50	67	12	0.6	0.004
195.57	50	67	12	0.1	0.004
195.58	50	67	12	1.5	0.004
195.59	60	83	14	0.05	0.004
195.60	60	83	14	0.1	0.004
195.61	60	83	14	0.2	0.004
195.62	60	83	14	0.3	0.004
195.63	60	83	14	0.5	0.004
195.64	60	83	14	0.6	0.004
195.65	60	83	14	1	0.004
195.66	60	83	14	1.5	0.004

ACCESSORI PER MACCHINE UTENSILI
Dadi filettati terminali DIN 2082
Treaded capnuts DIN 2082
Muttern für Fräserdorne mit Linksgewinde DIN 2082
Écrous d'extrémités filetés DIN 2082
DIN 2082

ART: 197

12.
31

Codice di ord Code	Per Ø For Ø	D1	h	M
197.01	16	26	16	M 14 X 1.5 sin.
197.02	22	34	22	M 20 X 1.5 sin.
197.03	27	40	28	M 24 X 1.5 sin.
197.04	32	46	32	M 30 X 1.5 sin.
197.05	40	55	40	M 36 X 2 sin.
197.06	50	68	46	M 42 X 2 sin.
197.07	60	80	56	M 52 X 2 sin.

Ghiera di estrazione per riduzioni a cono Morse ART. 286
Ejector ring for adaptors sleeves with Morse cone ART. 286
Mutter für Reduzierhülsen mit Morsekegel ART. 286
Manchon d'extraction pour douilles de réduction à cône Morse ART. 286

ART: 297


Codice di ord Code	M	h	D1	per riduzioni a Cono Morse For MT
297.01	M22 X 1.5	8	38	Morse 2
297.02	M27 X 1.5	9	46	Morse 3
297.03	M35 X 1.5	10.5	55	Morse 4
297.04	M48 X 1.5	12	69	Morse 5
297.05	M65 X 1.5	15	90	Morse 6

Anelli di trascinamento per mandrini porta alesatori a manicotto ART. 340

Catch rings for shell reamer chucks ART. 340

Mitnehmerringe für ART. 340

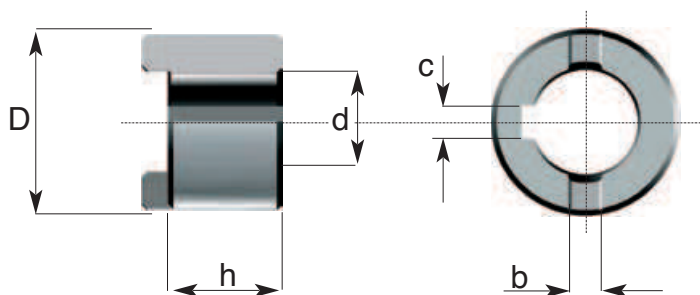
Bagues d'entrainement pour mandrins pour alesoir creux ART.340

ACCESSORI PER MACCHINE UTENSILI



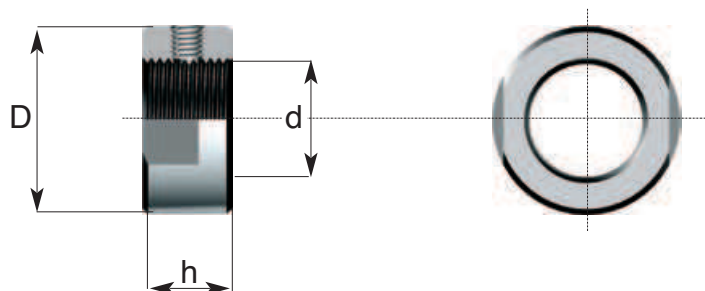
ART: 346

12.
32



Codice di ord Code	d h6	b h11	C	D	h	Per mandrini For chucks
346.01	10	4	3	18	14	340.01
346.02	13	4	4	23	18	340.02
346.03	16	5	4	28	20	340.03
346.04	19	6	5	34	22	340.04
346.05	22	7	6	37.5	24	340.05
346.06	27	8	7	44.5	28	340.06
346.07	32	10	8	51	30	340.07-08
346.08	40	12	10	62	35	340.09-10
346.09	50	14	12	74	35	340.11

ACCESSORI PER MACCHINE UTENSILI
Ghiere di registrazione per mandrini porta alesatori a manicotto ART. 340
Set rings for shell reamer chucks ART. 340
Abdrückmutter für ART. 340
Manchons de réglage pour mandrins pour alesoir creux ART.340

ART: 347
12.
33


Codice di ord <i>Code</i>	dxp	D	h	Per mandrini For chucks
347.01	M 12 x 1,25	18	12	340.01
347.02	M 16 x 1,5	23	14	340.02
347.03	M 20 x 1,5	28	15	340.03
347.04	M 22 x 1,5	34	16	340.04
347.05	M 26 x 1,5	37,5	18	340.05
347.06	M 30 x 1,5	44,5	22	340.06
347.07	M 36 x 1,5	51	24	340.07-08
347.08	M 45 x 1,5	62	25	340.09-10
347.09	M 56 x 1,5	74	25	340.11

12. ACCESSORI

ACCESSORIES



Boccole di riduzione per mandrini a FORTE SERRAGGIO ART. 603

Intermediate sleeves for high clamping chucks ART. 603

Reduzierhulsen für Kraftspannfutter ART. 603

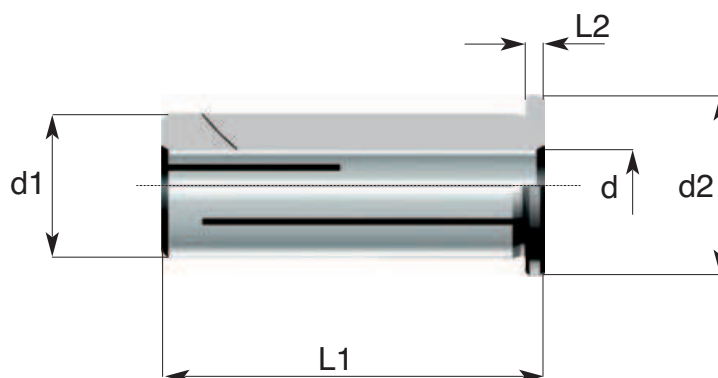
Douilles de réduction pour mandrins à fort serrage ART. 603

ACCESSORI PER MACCHINE UTENSILI



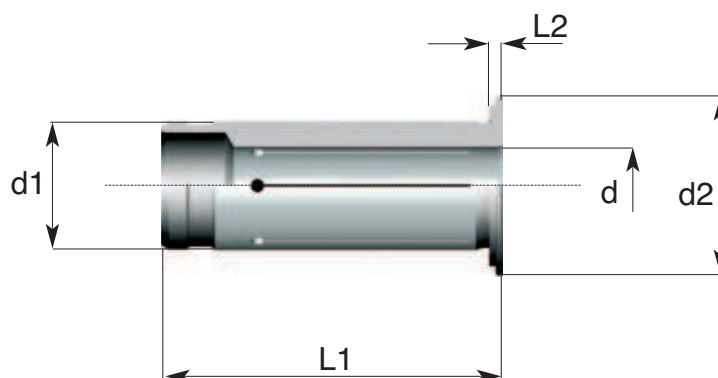
ART: 239

12.
34



Codice di ord Code	d h6	d 1	d2	L1	L2
239.20.0060	6	20	25	53	2.5
239.20.0080	8	20	25	53	2.5
239.20.0100	10	20	25	53	2.5
239.20.0120	12	20	25	53	2.5
239.20.0160	16	20	25	53	2.5
239.32.0060	6	32	38	54	3
239.32.0080	8	32	38	54	3
239.32.0100	10	32	38	54	3
239.32.0120	12	32	38	54	3
239.32.0160	16	32	38	54	3
239.32.0200	20	32	38	54	3
239.32.0250	25	32	38	54	3

ACCESSORI PER MACCHINE UTENSILI

Boccole di riduzione per mandrini a chiusura idraulica HYDRO-DELTA
Intermediate sleeves for hydraulic clamping chucks HYDRO DELTA
Reduzierhulsen für Dehnspannfutter HYDRO DELTA
Douilles de réduction pour mandrins expansibles HYDRO DELTA
ART:207
12.
35


Codice di ord <i>Code</i>	d h6	d 1	d2	L1	L2
207.12.0030	3	12	17	50	2
207.12.0040	4	12	17	50	2
207.12.0050	5	12	17	50	2
207.12.0060	6	12	17	50	2
207.12.0080	8	12	17	50	2
207.20.0030	3	20	28	53	2
207.20.0040	4	20	28	53	2
207.20.0050	5	20	28	53	2
207.20.0060	6	20	28	53	2
207.20.0080	8	20	28	53	2
207.20.0100	10	20	28	53	2
207.20.0120	12	20	28	53	2
207.20.0140	14	20	28	53	2
207.20.0160	16	20	28	53	2
207.32.0030	3	32	40	54	3
207.32.0040	4	32	40	54	3
207.32.0050	5	32	40	54	3
207.32.0060	6	32	40	54	3
207.32.0080	8	32	40	54	3
207.32.0100	10	32	40	54	3
207.32.0120	12	32	40	54	3
207.32.0140	14	32	40	54	3
207.32.0160	16	32	40	54	3

12. ACCESSORI

ACCESSORIES



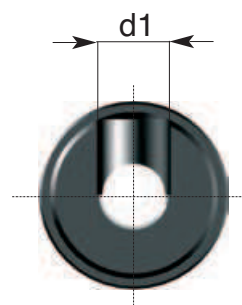
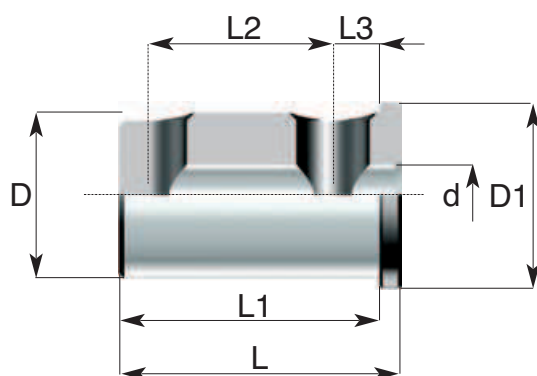
Bussole di riduzione
 Reduction sleeves
 Reduzierhulsen
 Douilles de réduction

ACCESSORI PER MACCHINE UTENSILI

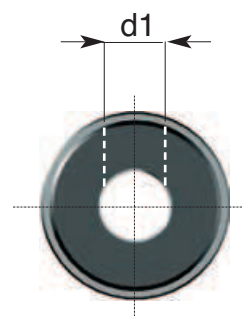
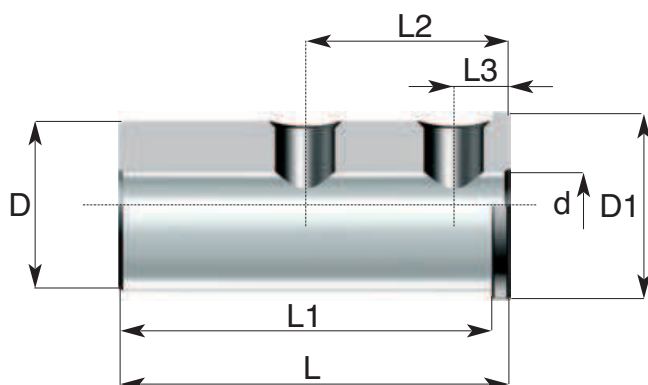


ART: 235

12.
36



Codice di ord Code	D h6	d H6	D1	L	L1	L2	L3	d1
235.32.0080	32	8	36	54	50	35	9	14
235.32.0100	32	10	36	54	50	35	9	14
235.32.0120	32	12	36	54	50	35	9	14
235.32.0160	32	16	36	54	50	35	9	14
235.32.0200	32	20	36	54	50	35	9	14
235.32.0250	32	25	36	54	50	35	9	14
235.40.0080	40	8	44	54	50	35	9	14
235.40.0100	40	10	44	54	50	35	9	14
235.40.0120	40	12	44	54	50	35	9	14
235.40.0160	40	16	44	54	50	35	9	14
235.40.0200	40	20	44	54	50	35	9	14
235.40.0250	40	25	44	54	50	35	9	14
235.40.0320	40	32	44	54	50	35	9	14


ART: 236

12.
37

Codice di ord <i>Code</i>	D h6	d H6	D1	L	L1	L2	L3	d1
236.32.0080	32	8	36	92	88	44	9	14
236.32.0100	32	10	36	92	88	44	9	14
236.32.0120	32	12	36	92	88	44	9	14
236.32.0160	32	16	36	92	88	44	9	14
236.32.0200	32	20	36	92	88	44	9	14
236.32.0250	32	25	36	92	88	44	9	14
236.40.0080	40	8	44	92	88	44	9	14
236.40.0100	40	10	44	92	88	44	9	14
236.40.0120	40	12	44	92	88	44	9	14
236.40.0160	40	16	44	92	88	44	9	14
236.40.0200	40	20	44	92	88	44	9	14
236.40.0250	40	25	44	92	88	44	9	14
236.40.0320	40	32	44	92	88	44	9	14
236.50.0080	50	8	54	111	107	45	9	14
236.50.0100	50	10	54	111	107	45	9	14
236.50.0120	50	12	54	111	107	45	9	14
236.50.0160	50	16	54	111	107	45	9	14
236.50.0200	50	20	54	111	107	45	9	14
236.50.0250	50	25	54	111	107	45	9	14
236.50.0320	50	32	54	111	107	45	9	14
236.50.0400	50	40	54	111	107	45	9	14

12. ACCESSORI

ACCESSORIES



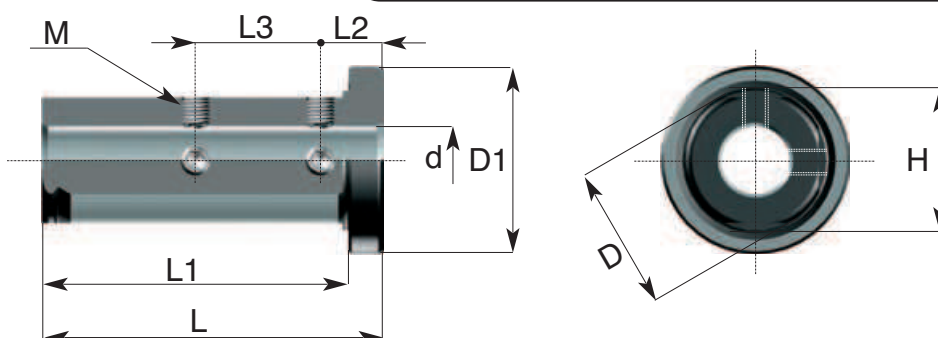
Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction

ACCESSORI PER MACCHINE UTENSILI



ART: 237.25

12.
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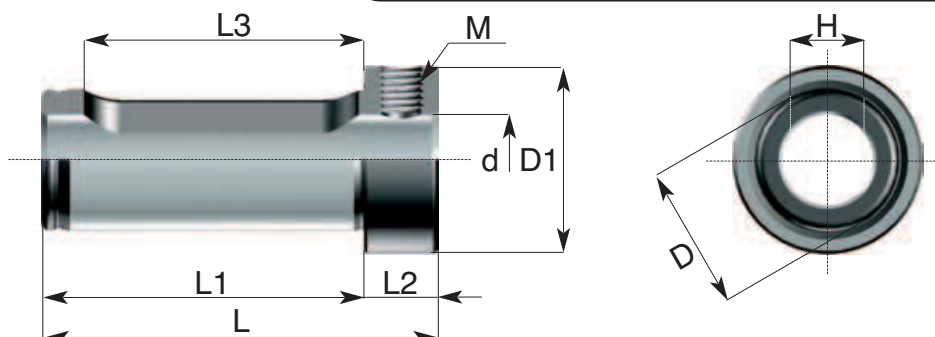


Codice di ord Code	D h6	d H6	D1	L	L1	L2	L3	M	H
237.25.0060	25	6	33	60	57	11	22	M5	22
237.25.0080	25	8	33	60	57	11	22	M5	22
237.25.0100	25	10	33	60	57	11	22	M5	22
237.25.0120	25	12	33	60	57	11	22	M5	22

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



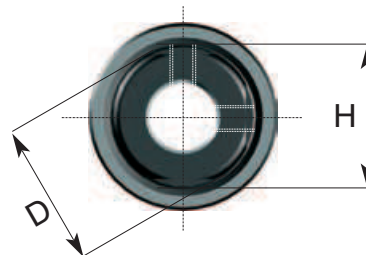
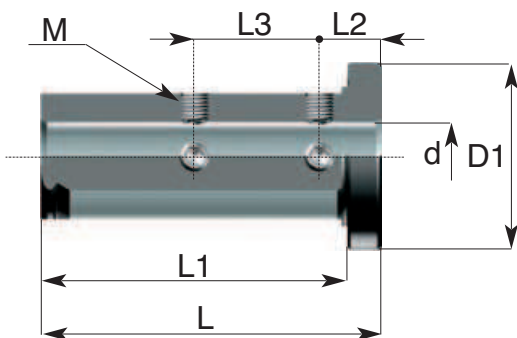
ART: 237.25



Codice di ord Code	D h6	d H6	D1	L	L1	L2	L3	M	H
237.25.0140	25	14	33	70	57	13	48.5	M8	13
237.25.0160	25	16	33	70	57	13	48.5	M8	13
237.25.0180	25	18	33	70	57	13	48.5	M8	13
237.25.0200	25	20	33	70	57	13	48.5	M8	13

ACCESSORI PER MACCHINE UTENSILI

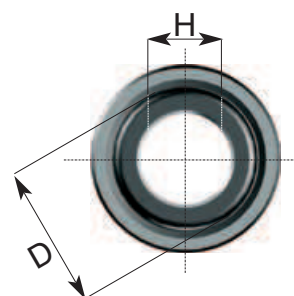
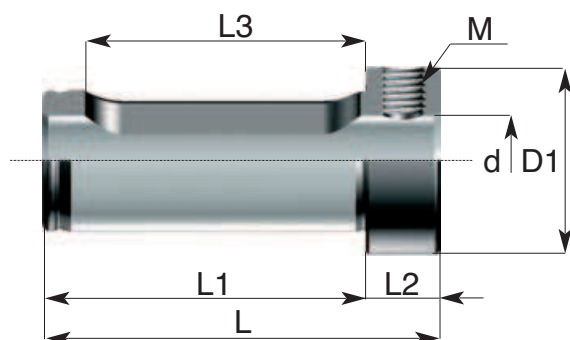
Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction


ART: 237.32

12.
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Codice di ord <i>Code</i>	D h6	d H6	D1	L	L1	L2	L3	M	H
237.32.0060	32	6	39	60	54	11	22	M5	29.5
237.32.0080	32	8	39	70	62	15	32	M6	29.5
237.32.0100	32	10	39	70	62	15	32	M6	29.5
237.32.0120	32	12	39	70	62	15	32	M6	29.5
237.32.0140	32	14	39	70	62	15	32	M6	29.5
237.32.0160	32	16	39	70	62	15	32	M6	29.5
237.32.0180	32	18	39	70	62	15	32	M6	29.5
237.32.0200	32	20	39	70	62	15	32	M6	29.5



Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction

ART:237.32


Codice di ord <i>Code</i>	D h6	d H6	D1	L	L1	L2	L3	M	H
237.32.0250	32	25	39	80	65	15	58	M6	13

12. ACCESSORI

ACCESSORIES



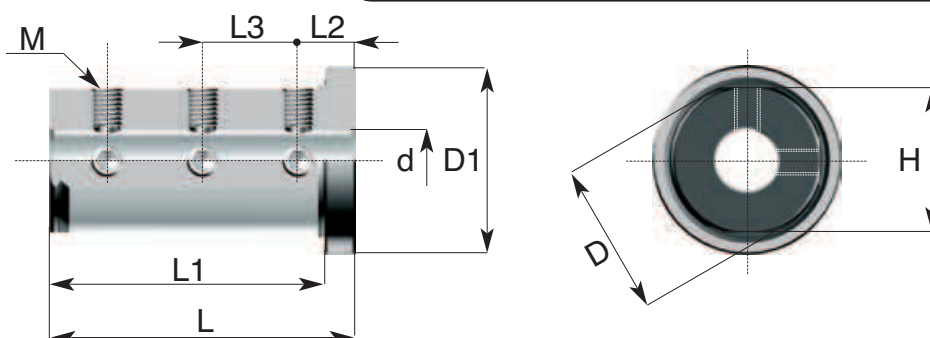
Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction

ACCESSORI PER MACCHINE UTENSILI



ART: 237.40

12.
40



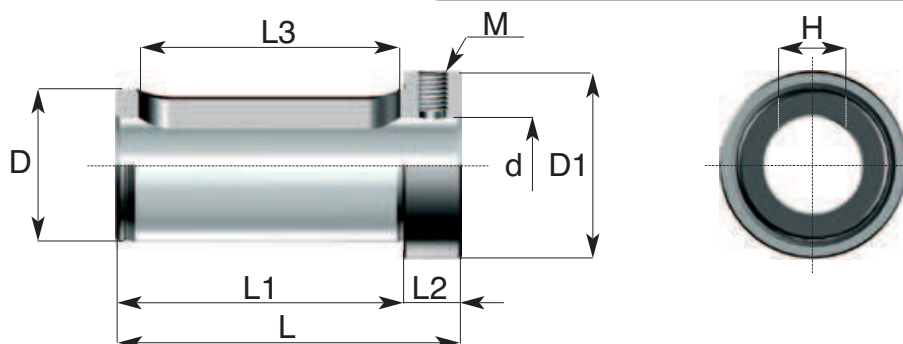
Codice di ord Code	D h6	d H6	D1	L	L1	L2	L3	M	H
237.40.0060	40	6	49	60	54	11	22	M5	37.5
237.40.0080	40	8	49	80	72	15	25	M8	37.5
237.40.0100	40	10	49	80	72	15	25	M8	37.5
237.40.0120	40	12	49	80	72	15	25	M8	37.5
237.40.0140	40	14	49	80	72	15	25	M8	37.5
237.40.0160	40	16	49	80	72	15	25	M8	37.5
237.40.0180	40	18	49	80	72	15	25	M8	37.5
237.40.0200	40	20	49	80	72	15	25	M8	35.7
237.40.0250	40	25	49	80	72	15	25	M8	37.5

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



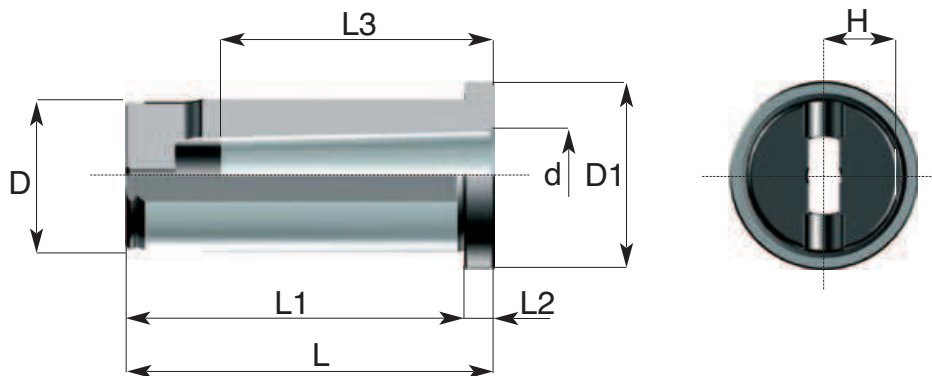
ART: 237.40

s



Codice di ord Code	D h6	d H6	D1	L	L1	L2	L3	M	H
237.40.0320	40	32	49	90	75	15	68	M8	16.5

ACCESSORI PER MACCHINE UTENSILI

Bussole di riduzione a cono Morse interno DIN 2185
Reduction sleeves to Morse cone DIN 2185
Reduzierhulsen mit Morsekegel DIN 2185
Douilles de réduction à cône Morse DIN 2185
ART: 238
12.
41


Codice di ord Code	D h6	CM	d	D1	L	L1	L2	L3	H
238.25.0100	25	Morse 1	12.065	33	65	59	6	47	11
238.25.0200	25	Morse 2	17.780	33	78	70	8	58	11
238.32.0100	32	Morse 1	12.065	39	65	59	6	47	14.75
238.32.0200	32	Morse 2	17.780	39	78	70	8	58	14.75
238.32.0300	32	Morse 3	23.825	39	97	89	8	72	14.75
238.40.0100	40	Morse 1	12.065	49	65	59	6	47	18.75
238.40.0200	40	Morse 2	17.780	49	78	70	8	58	18.75
238.40.0300	40	Morse 3	23.825	49	97	89	8	72	18.75
238.40.0400	40	Morse 4	31.267	49	120	112	8	92	18.75

12. ACCESSORI

ACCESSORIES



Adduttore refrigerante per HSK

Coolant pipe for HSK

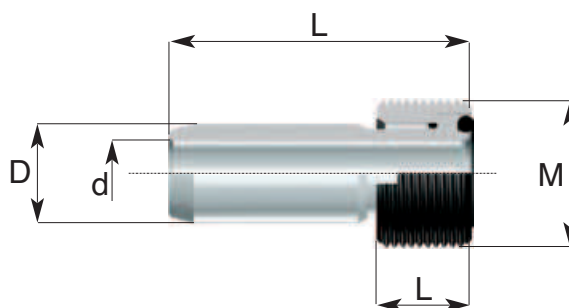
Kühlmittelrohre für HSK

Adducteur réfrigérant pour HSK

ACCESSORI PER MACCHINE UTENSILI



ART: HSKA



Codice di ord Code	D	M	d	L	L1	L2
HSKA.32.0100	6	M10 X 1	3,5	25,7	5,5	HSKA32 - HSKE25 - HSKE32
HSKA.40.0120	8	M12 X 1	5	29	7,5	HSKA40 - HSKE40 - HSKF50
HSKA.50.0160	10	M16 X 1	6,4	33	10	HSKA50 - HSKE50 - HSKF63
HSKA.63.0180	12	M18 X 1	8	36,2	11,5	HSKA63 - HSKE63
HSKA.80.0200	14	M20 X 1,5	10	39,6	13,5	HSKA80
HSKA.100.0240	16	M24 X 1,5	12	43,6	15,5	HSKA100

Chiave per il montaggio del tubetto per l'adduzione del refrigerante

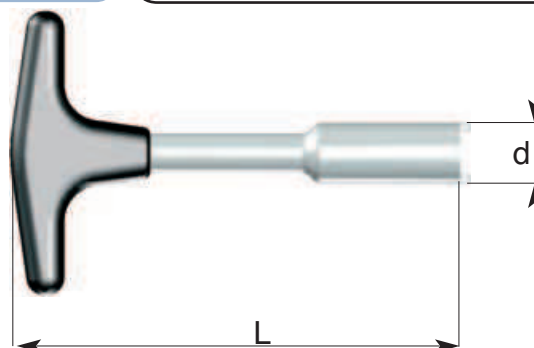
Key for the setting up of the coolant pipe

Schlüssel für Kühlmittelrohre

Clé pour le montage de l'adducteur réfrigérant



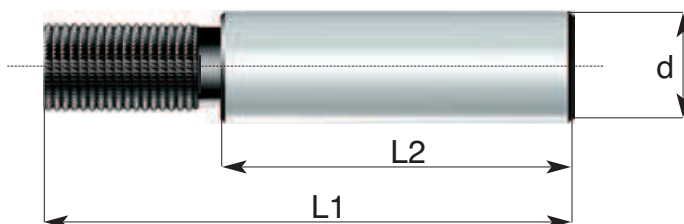
ART: CH.HSK



Codice di ord Code	D	d H6	D1
CH.HSK.0320	32	9	110
CH.HSK.0400	40	11	110
CH.HSK.0500	50	15	120
CH.HSK.0630	63	17	120
CH.HSK.0800	80	18,5	130
CH.HSK.1000	100	22	140

ACCESSORI PER MACCHINE UTENSILI

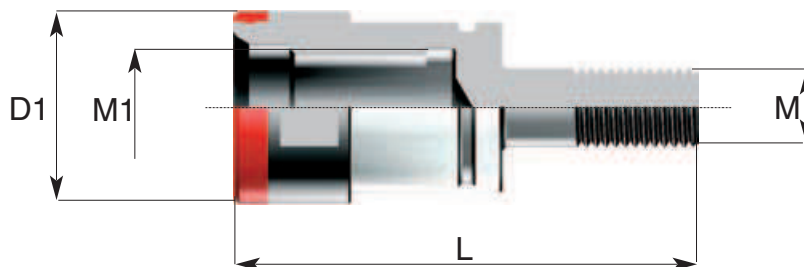

Spina di controllo per mandrini HYDRO DELTA
Test shaft for HYDRO DELTA hydraulic clamping chuck
Kontrollhorn für Dehnspannfutter HYDRO DELTA
Goujon de contrôle pour mandrins expansibles HYDRO DELTA

ART: 207.SP

12.
43

Codice di ord <i>Code</i>	d	L1	L2
207.SP.0060	6	100	60
207.SP.0080	8	100	60
207.SP.0100	10	100	60
207.SP.0120	12	100	60
207.SP.0140	14	100	60
207.SP.0160	16	100	80
207.SP.0200	20	100	80
207.SP.0250	25	100	80
207.SP.0320	32	100	80

Codoli filettati per riduzioni ISO art. 250

Threaded locking shanks for ISO adaptors ART. 250
Gewindeschäfte für Reduzierhülsen ISO ART. 250
Queues filetées de blocage pour réducteurs ISO ART. 250


CODOLI
ART: 296


Codice di ord <i>Code</i>	M	M1	D1	L
296.01	M16	M12	25	70
296.20.0120	M20	M12	32	92
296.20.0160	M20	M16	32	83
296.02	M24	M12	39	107
296.03	M24	M16	39	95
296.24.0200	M24	M20	39	95
296.04	M30	M24	59.5	150

- 13.2**
 - Attrezzi smontaconi
Tightening fixture

- 13.2**
 - Attrezzi smontaconi
Tightening fixture

- 13.3**
 - Attrezzi smontaconi
Tightening fixture

- 13.3**
 - Attrezzi smontaconi
Tightening fixture

- 13.3**
 - Attrezzi smontaconi
Tightening fixture

- 13.4**
 - Boccia portaconi

- 13.4**
 - Unità da banco
Bench unities

- 13.5**
 - Magazzini portaconi
Tools stores



SMONTACONI
Attrezzi smontaconi e
magazzini
Tightening fixture

13

 **delta**

13. ATTREZZI SMONTACONI MOUNTING FIXTURES



ACCESSORI PER MACCHINE UTENSILI

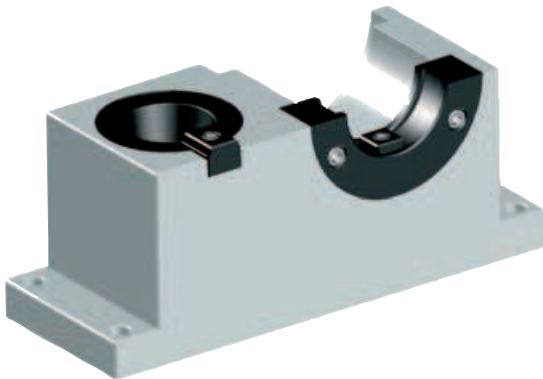
Smontaconi a 2 posizioni

Double position mounting fixture

Doppelstellung Montagevorrichtung

Support d'assemblage à 2 positions

ART: Smontaconi a 2 posizioni



Codice di ord. Code	Tipo Type	L x P x H
SCD.0300	ISO 30 - DIN 2080	350 X 135 X 155
SCD.0400	ISO 40 - DIN 2080	350 X 135 X 155
SCD.0500	ISO 50 - DIN 2080	350 X 135 X 155
SCD.0300	ISO 30 - DIN 69871	350 X 135 X 155
SCD.001.0400	ISO 40 - DIN 69871	350 X 135 X 155
SCD.001.0500	ISO 50 - DIN 69871	350 X 135 X 155
SCD.BT.0300	BT 30 - MAS 403 BT	350 X 135 X 155
SCD.BT.0400	BT 40 - MAS 403 BT	350 X 135 X 155
SCD.BT.0500	BT 50 - MAS 403 BT	350 X 135 X 155
SCD.HSKAC.0320	HSK 32 - DIN 69893 A + C	350 X 135 X 155
SCD.HSKAC.0400	HSK 40 - DIN 69893 A + C	350 X 135 X 155
SCD.HSKAC.0500	HSK 50 - DIN 69893 A + C	350 X 135 X 155
SCD.HSKAC.0630	HSK 63 - DIN 69893 A + C	350 X 135 X 155
SCD.HSKAC.1000	HSK 100 - DIN 69893 A + C	350 X 135 X 155
SCD.HSKE.0400	HSK 40 - DIN 69893 E	350 X 135 X 155
SCD.HSKEF.0500	HSK 50 - DIN 69893 E + F	350 X 135 X 155
SCD.HSKEF.0630	HSK 63 - DIN 69893 E + F	350 X 135 X 155
SCD.VDI.0200	VDI 20 - DIN 69880	350 X 135 X 155
SCD.VDI.0300	VDI 30 - DIN 69880	350 X 135 X 155
SCD.VDI.0400	VDI 40 - DIN 69880	350 X 135 X 155
SCD.VDI.0500	VDI 50 - DIN 69880	350 X 135 X 155

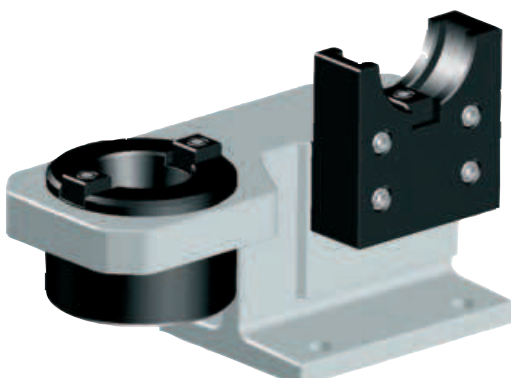
Smontaconi a 2 posizioni

Double position mounting fixture

Doppelstellung Montagevorrichtung

Support d'assemblage à 2 positions

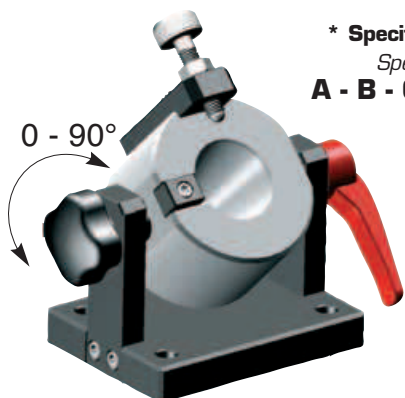
ART: Smontaconi a 2 posizioni tipo alleggerito / relieved type



Codice di ord. Code	Tipo Type	L x P x H
SCDA.ISO.0300	ISO 30 - DIN 69871	180 X 80 X 130
SCDA.BT.0300	BT 30 - MAS 403 BT	180 X 80 X 130
SCDA.ISO.0400	ISO 30 - DIN 69871	180 X 80 X 130
SCDA.BT.0400	BT 40 - MAS 403 BT1	180 X 80 X 130
SCDA.ISO.0500	ISO 50 - DIN 69871	180 X 80 X 130
SCDA.BT.0500	BT 50 - MAS 403 BT	180 X 80 X 130

Smontaconi orientabile universale
Universal indexable mounting fixture
Verstellbare Unversalmontagehilfe
Dispositif d'assemblage universel orientable

ART: Smontaconi universale orientabile / indexable



* Specificare forma:
Specify form:
A - B - C - D - E - F

Codice di ord. Code	Tipo Type	L x P x H
SC.ISO.0300	ISO - 30	135 X 100 X 140
SC.ISO.0400	ISO - 40	135 X 100 X 140
SC.ISO.0450	ISO - 45	135 X 100 X 140
SC.ISO.0500	ISO - 50	135 X 100 X 140
SC.HSK.0250	HSK - 25 *	135 X 100 X 140
SC.HSK.0320	HSK - 32 *	135 X 100 X 140
SC.HSK.0400	HSK - 40 *	135 X 100 X 140
SC.HSK.0500	HSK - 50 *	135 X 100 X 140
SC.HSK.0630	HSK - 63 *	135 X 100 X 140
SC.HSK.0800	HSK - 80 *	135 X 100 X 140
SC.HSK.1000	HSK - 100 *	135 X 100 X 140

13.
3

Boccole di montaggio
Tooling clamber
Montageblock
Douille support d'assemblage

ART: Boccole di montaggio in acciaio / in steel



Codice di ord. Code	Tipo Type	H
BMS.ISO.0300	ISO - 30	70
BMS.ISO.0400	ISO - 40	95
BMS.ISO.0500	ISO - 50	130

Codice di ord. Code	Tipo Type	H
BMA.ISO.0300	ISO - 30	50
BMA.ISO.0400	ISO - 40	72
BMA.ISO.0500	ISO - 50	105

13. ATTREZZI SMONTACONI MOUNTING FIXTURES



Boccola portaconi
Tooling holder
Spannfutterhalter
Douille porte-cônes

ACCESSORI PER MACCHINE UTENSILI

ART: Boccola portaconi

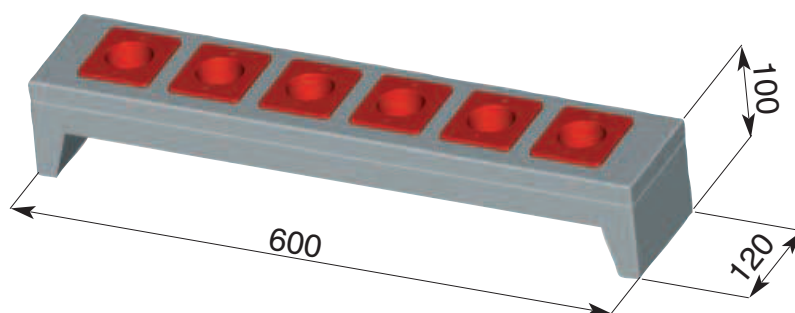
13.
4



Codice di ord. Code	Tipo Type
BP.ISO.0300	ISO - 30
BP.ISO.0400	ISO - 40
BP.ISO.0450	ISO - 45
BP.ISO.0500	ISO - 50
BP.HSK.0500	HSK - 50
BP.HSK.0630	HSK - 63
BP.CL.0320	Ø 32
BP.CL.0400	Ø 40
BP.CL.0500	Ø 50

Unità da banco
Bench units
Werkbankeinheit
Unité pour banc

ART: Unità da banco

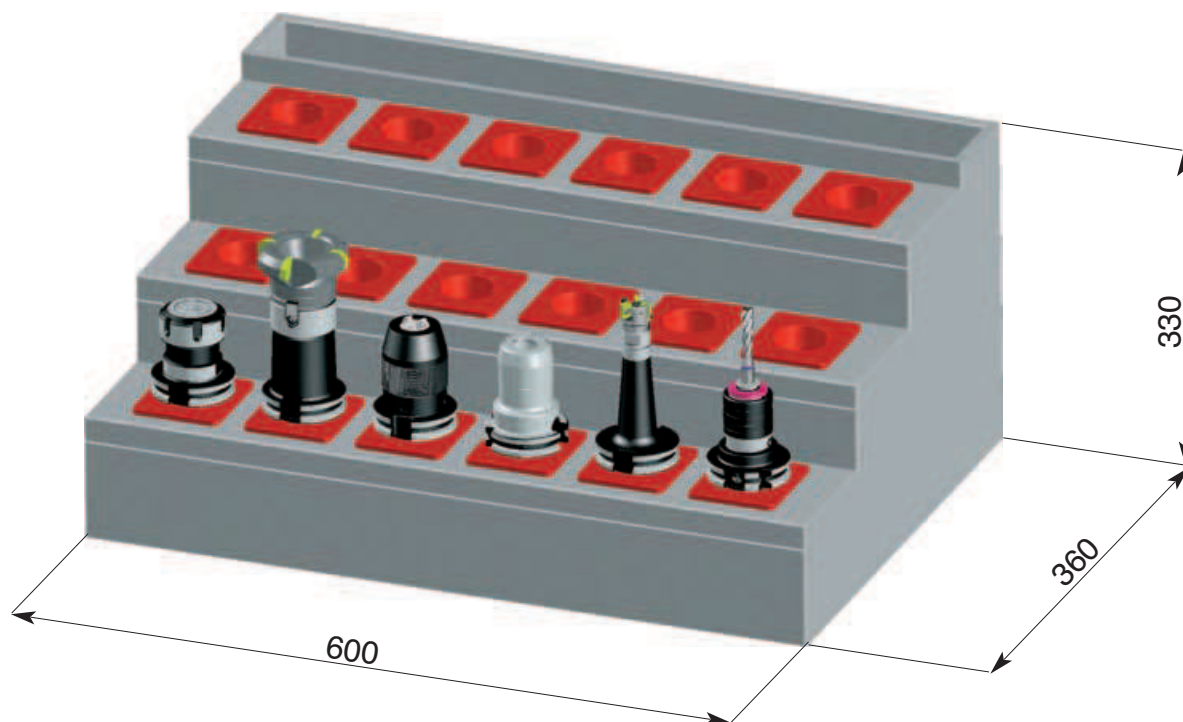


Codice di ord. Code	Tipo Type	N° sedi	boccola art:
UB.ISO.0300	ISO - 30	6	BPISO.0300
UB.ISO.0400	ISO - 40	6	BPISO.0400
UB.ISO.0500	ISO - 50	5	BPISO.0500
UB.HSK.0500	HSK - 50	6	BP.HSK.0500
UB.HSK.0630	HSK - 63	6	BP.HSK.0630
UB.CL.0320	Ø 32	6	BPCL.0320
UB.CL.0400	Ø 40	6	BPCL.0400
UB.CL.0500	Ø 50	5	BPCL.0500

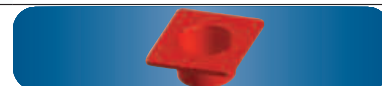


ART: Magazzino portaconi

13.
5



Codice di ord. <i>Code</i>	Tipo <i>Type</i>	N° sedi	boccola art:
MP.ISO.0300	ISO - 30	15	BPISO.0300
MP.ISO.0400	ISO - 40	15	BPISO.0400
MP.ISO.0450	ISO - 45	15	BPISO.0450
MP.ISO.0500	ISO - 50	12	BPISO.0500
MP.HSK.0500	HSK - 50	15	BPHSK.0500
MP.HSK.0630	HSK - 63	15	BPHSK.0630
MP.CL.0320	32	15	BPCL.0320
MP.CL.0400	Ø 40	15	BPCL.0400
MP.CL.0500	Ø 50	12	BPCL.0500



14.6

- Tiranti vari
Pull studs

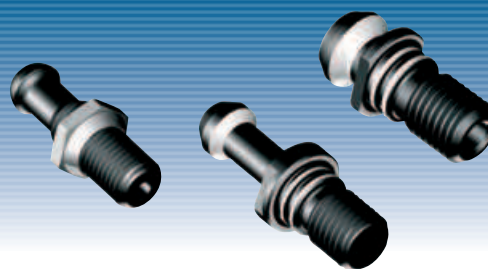


TIRANTI
Pull Studs

14



TIRANTI
Pull Studs



DIN 69872-B non forato / solid / non percée	ISO 30	001.30.0100	Pag. 14.6
	ISO 40	H01.40.0100	
	ISO 45	H01.45.0100	
	ISO 50	H01.50.0100	
	ISO 60	H01.60.0100	
DIN 69872-A forato / with coolant hole / percée	ISO 40	001.40.0100	14.6
	ISO 45	001.45.0100	
	ISO 50	001.50.0100	
	ISO 60	001.60.0100	
DIN 69872-A prolungato / extended / prolongée DELTA	ISO 30	001.30.2100	14.7
	ISO 30	001.30.3100	
	ISO 40	001.40.2100	
	ISO 40	001.40.3100	
	ISO 40	001.40.4100	
	ISO 45	001.45.3100	
	ISO 45	001.45.4100	
	ISO 45	001.45.5100	
	ISO 50	001.50.3100	
	ISO 50	001.50.4100	
DIN 69872-B BALLUF / with ID-HOLE	ISO 40	H01.40.0100.B	14.8
	ISO 45	H01.45.0100.B	
	ISO 50	H01.50.0100.B	
DIN 69872-A prolungato per / extended for / prolongée pour DELTA MAS BT	ISO 40	001.40.U100	14.8
DIN 69872-A forato per / with coolant hole for / percée pour MAS BT	ISO 40	001.40.3100.10	
	ISO 40	001.40.4100.10	
ISO 7388/2-A UNI 8487-A non forato / solid / non percée	ISO 40	H01.40.U100	14.9
	ISO 45	H01.45.U100	
	ISO 50	H01.50.U100	
ISO 7388/2-A UNI 8487-A forato / with coolant hole / percée	ISO 40	001.40.U100	14.9
	ISO 45	001.45.U100	
	ISO 50	001.50.U100	
ISO 7388/2-B UNI 8487-B non forato / solid / non percée	ISO 40	H01.40.0102	14.10
	ISO 45	H01.45.0102	
	ISO 50	H01.50.0102	
ISO 7388/2-B UNI 8487-B forato / with coolant hole / percée	ISO 40	001.40.0102	14.10
	ISO 45	001.45.0102	
	ISO 50	001.50.0102	
ISO 7388/2 UNI 8487-B prolungato / extended / prolongée DELTA	ISO 40	001.40.2102	14.11
	ISO 40	001.40.3102	
	ISO 40	001.40.4102	
	ISO 45	001.45.3102	
	ISO 45	001.45.4102	
	ISO 45	001.45.5102	
	ISO 50	001.50.3102	
	ISO 50	001.50.4102	
ISO 50	001.50.5102		
ISO 7388/2-B non forato per / solid for / non percée pour MAZAK MAS BT	ISO 40	H01.40.0102.10	14.12
ISO 7388/2-B forato per / with coolant hole for / percée pour MAZAK MAS BT	ISO 40	001.40.0102.10	
ISO 7388/2-B prolungato per / extended for / prolongée pour DELTA MAS BT	ISO 40	001.40.3102.10	14.12
	ISO 40	001.40.4102.10	

	ISO 30	060.30.0100	Pag.
	ISO 30	060.30.0102	
	ISO 35	061.35.0100	
	ISO 35	061.35.0102	
MAS BT non forato / solid / non percée	ISO 40	063.40.0100	
	ISO 40	063.40.0102	
	ISO 40	063.40.0104	
	ISO 50	065.50.0100	
	ISO 50	065.50.0102	
	ISO 50	065.50.0104	14.13
	ISO 30	060.30.0100.F	
	ISO 30	060.30.0102.F	
	ISO 40	063.40.0100.F	
	ISO 40	063.40.0102.F	
MAS BT forato / with coolant hole / percée	ISO 40	063.40.0104.F	
	ISO 50	065.50.0100.F	
	ISO 50	065.50.0102.F	
	ISO 50	065.50.0104.F	
	ISO 50	065.50.0100.OR	
	ISO 50	065.50.0102.OR	
	ISO 30	060.30.2100	
	ISO 30	060.30.2102	
	ISO 30	060.30.3100	
	ISO 30	060.30.3102	
	ISO 35	061.35.2100	
	ISO 35	061.35.2102	
	ISO 35	061.35.3100	
	ISO 35	061.35.3102	
	ISO 40	063.40.3100	
	ISO 40	063.40.3102	
	ISO 40	063.40.3104	
MAS BT prolungato / extended / prolongée DELTA	ISO 40	063.40.4100	14.14
	ISO 40	063.40.4102	
	ISO 40	063.40.4104	
	ISO 50	065.50.3100	
	ISO 50	065.50.3102	
	ISO 50	065.50.3104	
	ISO 50	065.50.4100	
	ISO 50	065.50.4102	
	ISO 50	065.50.4104	
	ISO 50	065.50.5100	
	ISO 50	065.50.5102	
	ISO 50	065.50.5104	
	ISO 40	063.40.0100.10	
Adattatore / adapter / adaptateur MAS BT => DIN 69871 - CAT	ISO 40	063.40.0102.10	
	ISO 40	063.40.0104.10	
	ISO 40	063.40.3100.10	
	ISO 40	063.40.3102.10	
Adatt. prolung. / extended adapt. / adapt. prolongée MAS BT => DIN 69871 - CAT	ISO 40	063.40.3104.10	
	ISO 40	063.40.4100.10	
	ISO 40	063.40.4102.10	
	ISO 40	063.40.4104.10	
JIS 6339 non forato / solid / non percée	ISO 40	JIS.40.0100	14.16
	ISO 50	JIS.50.0100	
JIS 6339 forato / with coolant hole / percée	ISO 40	JIS.40.0100.F	
	ISO 50	JIS.50.0100.F	
Adatt. prol. / extended adapt. / adapt. prolongée ISO 40 DIN 69871=>DIN 2080	ISO 40	054.40.4100	14.17
Adattatore / adapter / adaptateur ISO 40 DIN 69871=>DIN 2080	ISO 40	054.40.0100	
Adattatore / adapter / adaptateur ISO 40 MAS BT=>DIN 2080	ISO 40	054.40.0100.10	
Adattatore / adapter / adaptateur ISO 40 MAS BT=>DIN 2080	ISO 40	063.40.2080	
Adattatore / adapter / adaptateur ISO 50 DIN 69871=>DIN 2080	ISO 50	001.50.2080	
Adattatore / adapter / adaptateur ISO 50 MAS BT=>DIN 2080	ISO 50	065.50.2080	
Adattatore / adapter / adaptateur ISO 50 DIN 69871-MAS BT=>DIN 2080	ISO 50	055.50.0100	14.18
ATC	ISO 50	ATC.50.0100	

			Pag.
BERARDI	ISO50	045.50.0100	14.19
SPECIALE ISO 50	ISO50	COL.50.0100	
BRAGONZI	ISO 40	BRG.40.0100	14.20
CASTEL	ISO 50	CAS.50.0100	
CB FERRARI	ISO 40	010.40.0100	14.21
	ISO 50	010.50.0100	
	ISO 45	F01.45.0100	
CB FERRARI prolungato per / extended for / prolongée pour DELTA	ISO 45	F01.45.3100	
	ISO 45	F01.45.4100	
	ISO 45	F01.45.5100	
CB FERRARI	ISO 40	F01.40.0100	14.22
CORREA	ISO 50	COR.50.0100	
CERUTTI	ISO 50	082.50.0100	14.23
CHIRON	ISO 30	CHI.30.0100	
CHIRON prolungato per / extended for / prolongée pour DELTA	ISO 30	CHI.30.2100	
CHIRON prolungato per / extended for / prolongée pour DELTA	ISO 30	CHI.30.3100	
CINCINNATI	ISO 40	CIN.40.0100	14.24
	ISO 40	CIN.40.0100.10	
KITAMURA CNC	ISO 35	CNC.35.0100	
	ISO 35	CNC.35.0104	
KITAMURA CNC prolungato per / extended for / prolongée pour DELTA	ISO 35	CNC.35.2104	14.25
	ISO 35	CNC.35.3104	
COMAU	ISO 50	91900132	
FAMUP	ISO 30	FAM.30.0100	14.26
	ISO 40	FAM.40.0100	
	ISO 40	FAM.40.0100.10	
	ISO 30	FAM.30.2100	
FAMUP prolungato per / extended for / prolongée pour DELTA	ISO 30	FAM.30.3100	
	ISO 40	FAM.40.3100.10	
	ISO 40	FAM.40.4100.10	
FIL	ISO 50	FIL.50.0100	14.27
GIMA	ISO 40	GIMA.40.0100	
GLOBE	ISO50	GLO.50.0100	14.28
GLOBE adattatore / adapter / adaptateur DIN69871 => DIN 2080	ISO50	GLO.50.2080	
GNUTTI	ISO 30	GNU.30.0100	14.29
	ISO 40	GNU.40.0100	
OLIVETTI HORIZON 400	ISO 40	001.40.0105	
OLIVETTI HORIZON 400 prolungato per / extended for / prolongée pour DELTA	ISO 40	001.40.2105	
OLIVETTI HORIZON 400 prolungato per / extended for / prolongée pour DELTA	ISO 40	001.40.3105	
OLIVETTI HORIZON 400 prolungato per / extended for / prolongée pour DELTA	ISO 40	001.40.4105	
OLIVETTI HORIZON 1000	ISO 50	001.50.0105	14.30
JOBS	ISO 40	JOB.40.0100	14.31
	ISO 50	026.50.0100.01	
MANDELLI	ISO 50	026.50.0100.10	
MANDELLI	ISO 45	024.45.0100	14.32
MANDELLI QUASAR	ISO 50	025.50.0100	
MAUT	ISO 50	MAUT.50.0100	14.33
	ISO 40	048.40.0100	
MAZAK	ISO 40	048.40.0100.10	
	ISO 50	050.50.0100	
MAZAK	ISO 30	060.30.0102.20	14.34
	ISO 40	063.40.0104.20	

			Pag.
MCM PROGRESS 1 - CONNECTION	ISO 45	B39.45.0100	14.35
MITSUI-SEIKI	ISO 40	M63.40.0100	
	ISO 40	M63.40.0104	
MITSUI-SEIKI	ISO 50	K65.50.0100	14.36
MIVAL	ISO 40	MIV.016.40.0100	
	ISO 40	MIV.016.40.0100.10	
MODENAMATIC	ISO 50	15.001	14.37
MORISEIKI	ISO 40	063.40.0104.10	
NOVAR	ISO 50	NOV.50.0100	14.38
OKUMA	ISO 40	OK1.40.0100	
OLIVETTI AUCTOR	ISO 40	018.40.0100	14.39
OLIVETTI AUCTOR	ISO 40	019.40.0100	
OLIVETTI VDI 2814/A	ISO 45	021.45.0100	14.40
OLIVETTI HORIZON 12-13-14	ISO 50	022.50.0100	14.41
OMV	ISO 40	OMV.40.0100	
PAMA	ISO 50	031.50.0100	14.42
	ISO 60	031.60.0100	
PBR	ISO 50	PBR.50.0100	14.43
PEAR CAT 30	ISO 30	047.30.0100	14.44
PEAR CAT 30 prolungato per / extended for / prolongée pour DELTA	ISO 30	047.30.2100	
PEAR CAT 30 prolungato per / extended for / prolongée pour DELTA	ISO 30	047.30.3100	
PRISMA CW 500 HECKERT	ISO 50	A01.50.0100	
	ISO 40	073.40.0100	
	ISO 40	073.40.0100.10	14.45
	ISO 40	073.40.0100.20	
	ISO 40	073.40.0110	
	ISO 50	075.50.0100	
RAMBAUDI			
RIELLO	ISO 30	RIE.30.0100	14.46
RIGIVA	ISO 40	RIG.40.0100	
SACHMAN	ISO 50	A15.50.0100	14.47
SECMU	ISO 50	SEC.50.0100	
SECMU	ISO 50	SEC.50.0102	14.48
	ISO 50	SEC.50.0102	
	ISO 30	STA.30.0100	
STAMA	ISO 30	STA.30.2100	14.49
	ISO 30	STA.30.3100	
SAJO	ISO 45	SAJ.45.0100	14.49
TOS	ISO 50	TOS.50.0100	14.50
	ISO 50	TOS.50.0100.10	
TOYOTA	ISO 40	TOY.40.0100	
TRAUB TUC 400 P	ISO 40	TRU.40.0100	14.51
BIESSE	ISO 30	BIS.30.0100	14.52
	ISO 30	BIS.30.0102	
SCM-MORBIDELLI	ISO 30	ALB.30.0100	14.53
ALBERTI	ISO 30	SCM.30.0100	
CMS	ISO 30	CMS.30.0102	14.54
ESSETEAM	ISO 30	ESS.30.0100	

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



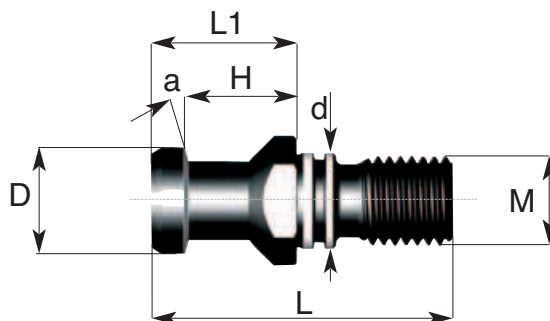
ACCESSORI PER MACCHINE UTENSILI

Tirante DIN 69872/B non forato

Pull stud DIN 69872/B without coolant hole
Anzugsbolzen DIN 69872/B ohne Bohrung
Tirette DIN 69872/B non percée



DIN 69872/B



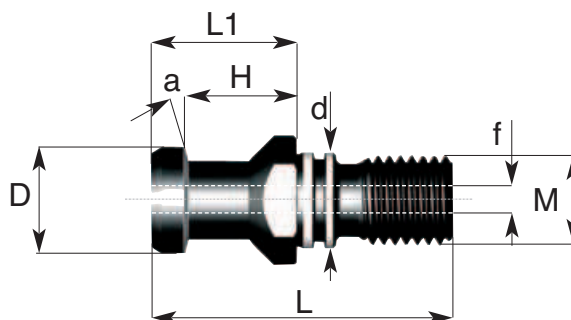
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.30.0100	SK 30	M12	13	19	15°	13	44	24	-	14
H01.40.0100	SK 40	M16	17	20	15°	19	54	26	-	19
H01.45.0100	SK 45	M20	21	23	15°	23	65	30	-	24
H01.50.0100	SK 50	M24	25	25	15°	28	74	34	-	30
H01.60.0100	SK 60	M30	32	30	15°	40	90	40	-	46

Tirante DIN 69872/A forato

Pull stud DIN 69872/A with coolant hole
Anzugsbolzen DIN 69872/A mit Bohrung
Tirette DIN 69872/A percée



DIN 69872/A

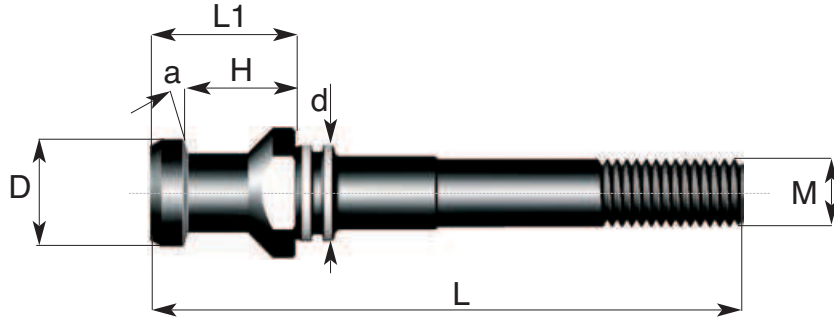


Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.30.0100.F	SK 30	M12	13	19	15°	13	44	24	4	14
001.40.0100	SK 40	M16	17	20	15°	19	54	26	7	19
001.45.0100	SK 45	M20	21	23	15°	23	65	30	9.5	24
001.50.0100	SK 50	M24	25	25	15°	28	74	34	11.5	30
001.60.0100	SK 60	M30	32	30	15°	40	90	40	14	46

ACCESSORI PER MACCHINE UTENSILI

Tirante DIN 69872/A prolungato
Pull stud DIN 69872/A extended size
Anzugsbolzen DIN 69872/A lange Ausführung
Tirette DIN 69872/A prolongée

DIN 69872/A



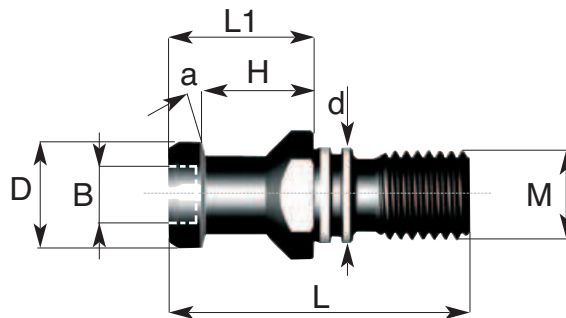
14.
7

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.30.2100	SK 30	M10	13	19	15°	13	87	24	-	14
001.30.3100	SK 30	M12	13	19	15°	13	89	24	-	14
001.40.2100	SK 40	M10	17	20	15°	19	108	26	-	19
001.40.3100	SK 40	M12	17	20	15°	19	101	26	-	19
001.40.4100	SK 40	M16	17	20	15°	19	106	26	-	19
001.45.3100	SK 45	M12	21	23	15°	23	118	30	-	24
001.45.4100	SK 45	M16	21	23	15°	23	120	30	-	24
001.45.5100	SK 45	M20	21	23	15°	23	130	30	-	24
001.50.3100	SK 50	M12	25	25	15°	28	144	34	-	30
001.50.4100	SK 50	M16	25	25	15°	28	144	34	-	30
001.50.5100	SK 50	M20	25	25	15°	28	149	34	-	30

Tirante DIN 69872/B con sede BALLUFF

Pull stud DIN 69872/B with ID-hole
Anzugsbolzen DIN 69872/B mit Sitz BALLUFF
Tirette DIN 69872/B avec siège BALLUFF

DIN 69872/B BALLUFF



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	B	Chiave Key
H01.40.0100.B	SK 40	M16	17	20	15°	19	54	26	10	19
H01.45.0100.B	SK 45	M20	21	23	15°	23	65	30	10	24
H01.50.0100.B	SK 50	M24	25	25	15°	28	74	34	12	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante DIN 69872/A forato per MAS BT

Pull stud DIN 69872/A with coolant hole for MAS BT

Anzugsbolzen DIN 69872/A mit Bohrung für MAS BT

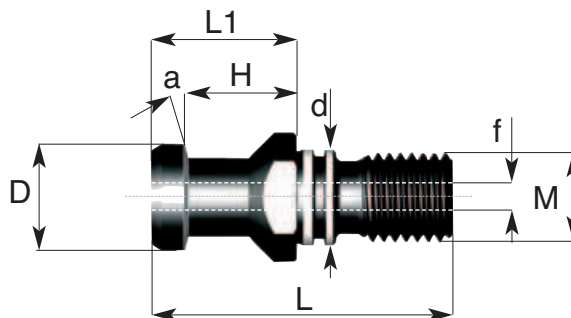
Tirette DIN 69872/B percée pour MAS BT

ACCESSORI PER MACCHINE UTENSILI



DIN 69872/B

14.
8



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.40.0100.10	SK 40	M16	17	23	15°	19	54	29	7	19

Tirante DIN 69872/A prolungato per MAS BT

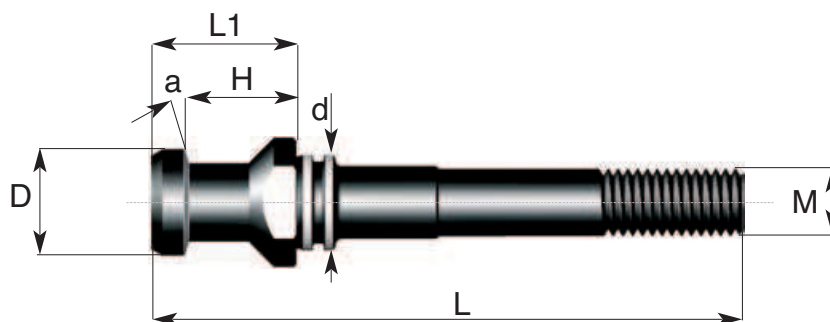
Pull stud DIN 69872/A extended size for MAS BT

Anzugsbolzen DIN 69872/A für MAS BT lange Ausführung

Tirette DIN 69872/B prolongée pour MAS BT



DIN 69872/A



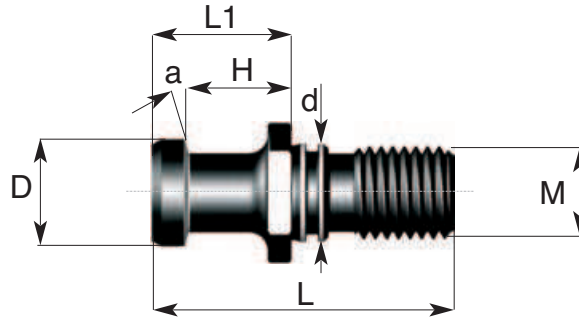
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.40.3100.10	SK 40	M12	17	23	15°	19	109	29	-	19
001.40.4100.10	SK 40	M16	17	23	15°	19	113	29	-	19

ACCESSORI PER MACCHINE UTENSILI



Tirante ISO 7388/2- A UNI 8487/A non forato
Pull stud ISO 7388/2-A UNI 8487/A without coolant hole
Anzugsbolzen ISO 7388/2-A UNI 8487/A ohne Bohrung
Tirette ISO 7388/2-A UNI 8487/A non percée

ISO 7388/2-A UNI 8487/A



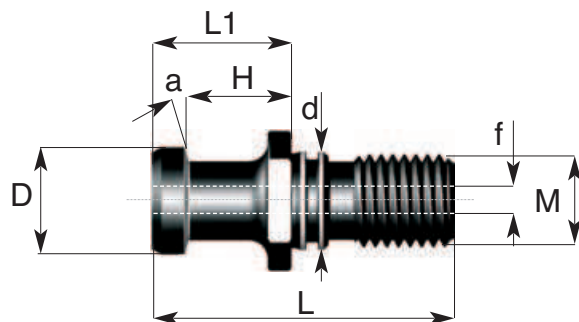
14.
9

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
H01.40.U100	SK 40	M16	17	20	15°	19	54	26	-	19
H01.45.U100	SK 45	M20	21	23	15°	23	65	30	-	24
H01.50.U100	SK 50	M24	25	25	15°	28	74	34	-	30



Tirante ISO 7388/2-A UNI 8487/A forato
Pull stud ISO 7388/2-A UNI 8487/A with coolant hole
Anzugsbolzen ISO 7388/2-A UNI 8487/A mit Bohrung
Tirette ISO 7388/2-A UNI 8487/A percée

ISO 7388/2-A UNI 8487/A



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.40.U100	SK 40	M16	17	20	15°	19	54	26	7	19
001.45.U100	SK 45	M20	21	23	15°	23	65	30	9.5	24
001.50.U100	SK 50	M24	25	25	15°	28	74	34	11.5	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

Tirante ISO 7388/2-B UNI 8487-B non forato

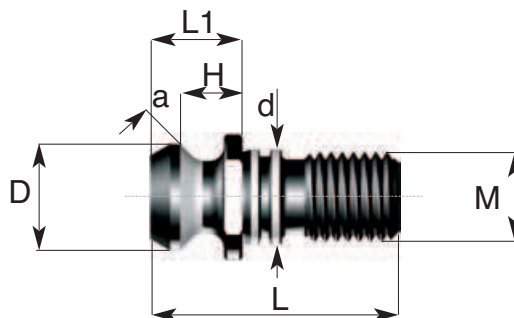
Pull stud ISO 7388/2-B UNI 8487-B without coolant hole

Anzugsbolzen ISO 7388/2-B UNI 8487-B ohne Bohrung

Tirette ISO 7388/2-B UNI 8487-B non percée



ISO 7388/2-B UNI 8487-B



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
H01.40.0102	SK 40	M16	17	11.15	45°	18.95	44.5	16.4	-	19
H01.45.0102	SK 45	M20	21	14.85	45°	24.05	56	20.95	-	24
H01.50.0102	SK 50	M24	25	17.95	45°	29.1	65.5	25.55	-	30

Tirante ISO 7388/2-B UNI 8487-B forato

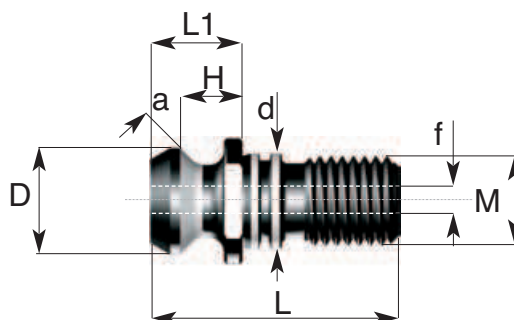
Pull stud ISO 7388/2-B UNI 8487-B with coolant hole

Anzugsbolzen ISO 7388/2-B UNI 8487-B mit Bohrung

Tirette ISO 7388/2-B UNI 8487-B percée



ISO 7388/2-B UNI 8487-B



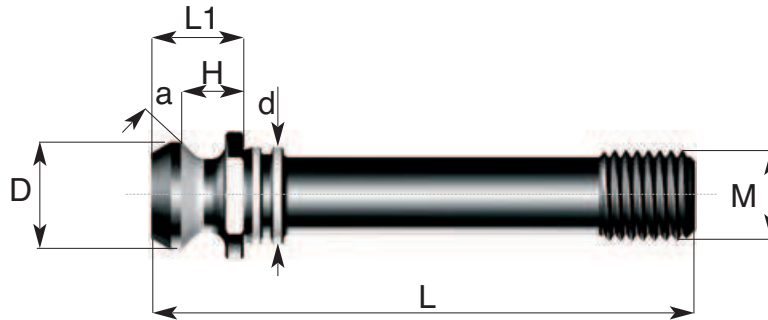
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.30.0102	SK 30	M12	12.5	8.15	45°	13.35	34	11.8	-	14
001.40.0102	SK 40	M16	17	11.15	45°	18.95	44.5	16.4	7.35	19
001.45.0102	SK 45	M20	21	14.85	45°	24.05	56	20.95	9.25	24
001.50.0102	SK 50	M24	25	17.95	45°	29.1	65.5	25.55	11.55	30

ACCESSORI PER MACCHINE UTENSILI



Tirante ISO 7388/2-B UNI 8487-B prolungato
 Pull stud ISO 7388/2-B UNI 8487-B extended size
 Anzugsbolzen ISO 7388/2-B UNI 8487-B lange Ausführung
 Tirette ISO 7388/2-B UNI 8487-B prolongée

ISO 7388/2-B UNI 8487-B



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Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.40.2102	SK 40	M10	17	1115	45°	18.95	91.4	16.4	-	19
001.40.3102	SK 40	M12	17	1115	45°	18.95	91.4	16.4	-	19
001.40.4102	SK 40	M16	17	1115	45°	18.95	96.4	16.4	-	19
001.45.3102	SK 45	M12	21	14.85	45°	24.05	108.95	20.95	-	24
001.45.4102	SK 45	M16	21	14.85	45°	24.05	110.95	20.95	-	24
001.45.5102	SK 45	M20	21	14.85	45°	24.05	120.95	20.95	-	24
001.50.3102	SK 50	M12	25	17.95	45°	29.1	135.55	25.55	-	30
001.50.4102	SK 50	M16	25	17.95	45°	29.1	135.55	25.55	-	30
001.50.5102	SK 50	M20	25	17.95	45°	29.1	140.55	25.55	-	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

Tirante ISO 7388/2-B per MAZAK

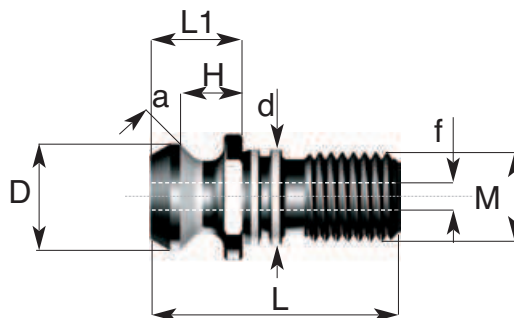
Pull stud ISO 7388/2-B for MAZAK machines

Anzugsbolzen ISO 7388/2-B für Maschinen MAZAK

Tirette ISO 7388/2-B pour machines MAZAK



ISO 7388/2-B MAZAK



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
H01.40.0102.10	SK 40	M16	17	14.1	45°	18.95	44.5	19.1	-	19
001.40.0102.10	SK 40	M16	17	14.1	45°	18.95	44.5	19.1	7.35	19

Tirante ISO 7388/2-B prolungato

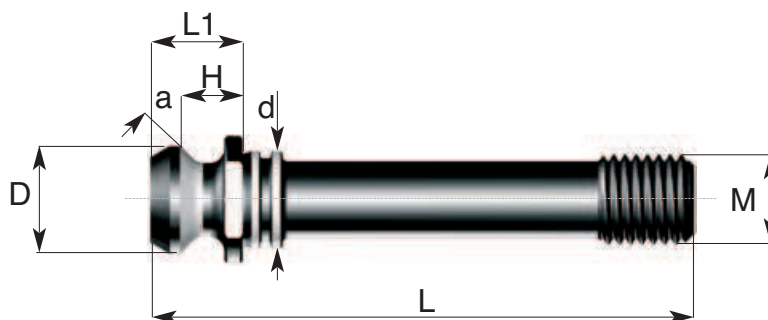
Pull stud ISO 7388/2-B extended size

Anzugsbolzen ISO 7388/2-B lange Ausführung

Tirette ISO 7388/2-B prolongée



ISO 7388/2-B



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.40.3102.10	SK 40	M16	17	14.1	45°	18.95	94.5	19.1	-	19
001.40.4102.10	SK 40	M16	17	14.1	45°	18.95	99.1	19.1	-	19

ACCESSORI PER MACCHINE UTENSILI

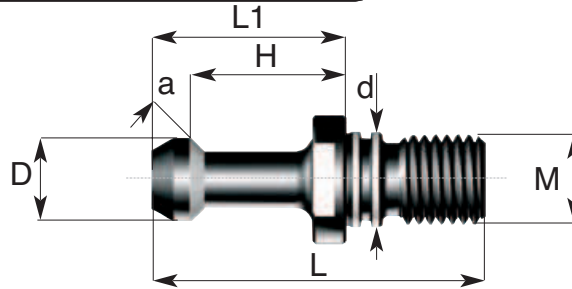
Tirante MAS BT non forato

Pull stud MAS BT without coolant hole

Anzugsbolzen MAS BT ohne Bohrung

Tirette MAS BT non percée

MAS BT



14.
13

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
060.30.0100	SK 30	M12	12.5	18	45°	11	43	23	-	13
060.30.0102	SK 30	M12	12.5	18	30°	11	43	23	-	13
061.35.0100	SK 35	M12	13	22.5	45°	13.7	53	28	-	17
061.35.0102	SK 35	M12	13	22.5	30°	13.7	53	28	-	17
063.40.0100	SK 40	M16	17	28	45°	15	60	35	-	19
063.40.0102	SK 40	M16	17	28	30°	15	60	35	-	19
063.40.0104	SK 40	M16	17	28	90°	15	60	35	-	19
065.50.0100	SK 50	M24	25	35	45°	23	85	45	-	30
065.50.0102	SK 50	M24	25	35	30°	23	85	45	-	30
065.50.0104	SK 50	M24	25	35	90°	23	85	45	-	30

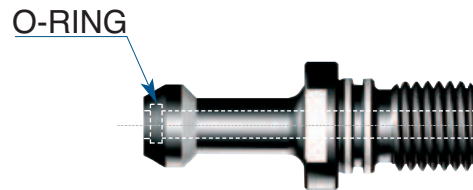
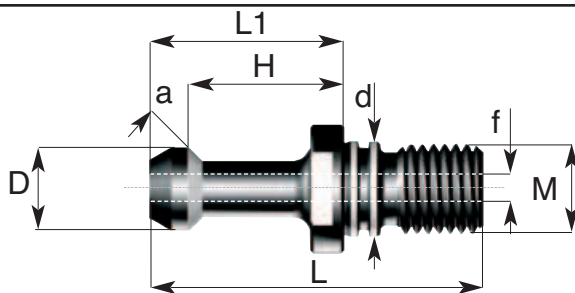
Tirante MAS BT forato

Pull stud MAS BT with coolant hole

Anzugsbolzen MAS BT mit Bohrung

Tirette MAS BT percée

MAS BT



065.50.....OR

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
060.30.0100.F	SK 30	M12	12.5	18	45°	11	43	23	3	13
060.30.0102.F	SK 30	M12	12.5	18	30°	11	43	23	3	13
063.40.0100.F	SK 40	M16	17	28	45°	15	60	35	4	19
063.40.0102.F	SK 40	M16	17	28	30°	15	60	35	4	19
063.40.0104.F	SK 40	M16	17	28	90°	15	60	35	4	19
065.50.0100.F	SK 50	M24	25	35	45°	23	85	45	6	30
065.50.0102.F	SK 50	M24	25	35	30°	23	85	45	6	30
065.50.0104.F	SK 50	M24	25	35	90°	23	85	45	6	30
065.50.0100.OR	SK 50	M24	25	35	45°	23	85	45	6	30
065.50.0102.OR	SK 50	M24	25	35	60°	23	85	45	6	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante MAS BT prolungato

Pull stud MAS BT extended size

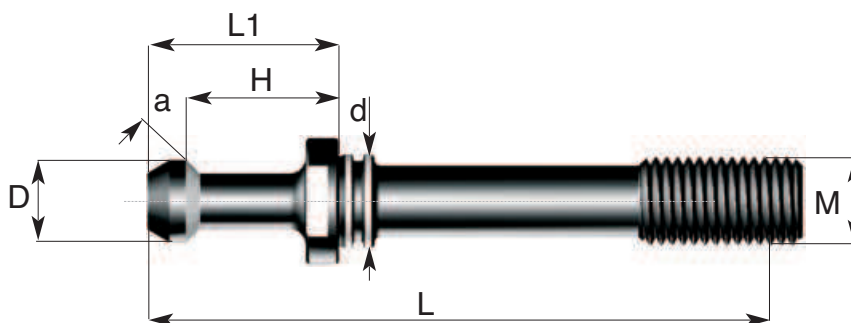
Anzugsbolzen MAS BT lange Ausführung

Tirette MAS BT prolongée

ACCESSORI PER MACCHINE UTENSILI



MAS BT



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
060.30.2100	SK 30	M10	12.5	18	45°	11	86	23	-	13
060.30.2102	SK 30	M10	12.5	18	30°	11	86	23	-	13
060.30.3100	SK 30	M12	12.5	18	45°	11	90	23	-	13
060.30.3102	SK 30	M12	12.5	18	30°	11	90	23	-	13
061.352100	SK 35	M10	13	22.5	45°	13.7	95	28	-	17
061.35.2102	SK 35	M10	13	22.5	30°	13.7	95	28	-	17
061.35.3100	SK 35	M12	13	22.5	45°	13.7	103	28	-	17
061.35.3102	SK 35	M12	16	22.5	30°	13.7	103	28	-	17
063.40.3100	SK 40	M12	17	28	45°	15	120	35	-	19
063.40.3102	SK 40	M12	17	28	30°	15	120	35	-	19
063.40.3104	SK 40	M12	17	28	90°	15	120	35	-	19
063.40.4100	SK 40	M16	17	28	45°	15	120	35	-	19
063.40.4102	SK 40	M16	17	28	30°	15	120	35	-	19
063.40.4104	SK 40	M16	17	28	90°	15	120	35	-	19
065.50.3100	SK 50	M12	25	35	45°	23	155	45	-	30
065.50.3102	SK 50	M12	25	35	30°	23	155	45	-	30
065.50.3104	SK 50	M12	25	35	90°	23	155	45	-	30
065.50.4100	SK 50	M16	25	35	45°	23	153	45	-	30
065.50.4102	SK 50	M16	25	35	30°	23	153	45	-	30
065.50.4104	SK 50	M16	25	35	90°	23	153	45	-	30
065.50.5100	SK 50	M20	25	35	45°	23	158	45	-	30
065.50.5102	SK 50	M20	25	35	30°	23	158	45	-	30
065.50.5104	SK 50	M20	25	35	90°	23	158	45	-	30

ACCESSORI PER MACCHINE UTENSILI

Tirante adattatore da MAS BT a DIN 69871 e CAT

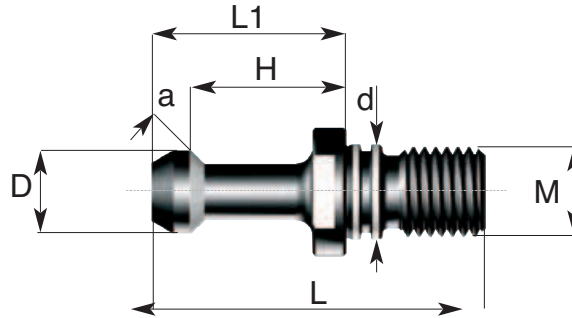
Adapter from MAS BT to DIN 69871 and CAT

Adapter von MAS BT zu DIN 69871 und CAT

Adaptateur de MAS BT à DIN 69871 et CAT



MAS BT



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Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
063.40.0100.10	SK 40	M16	17	25	45°	15	57	32	-	19
063.40.0102.10	SK 40	M16	17	25	30°	15	57	32	-	19
063.40.0104.10	SK 40	M16	17	25	90°	15	57	32	-	19



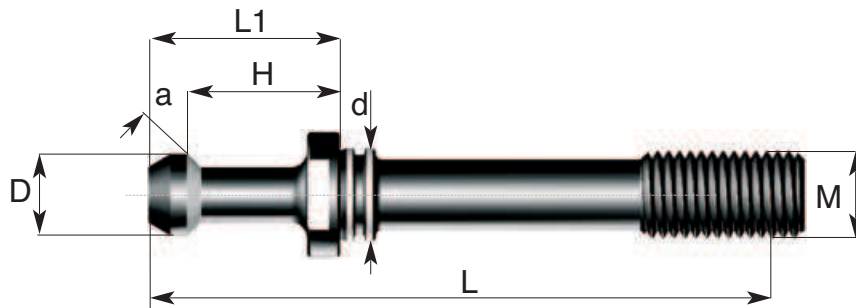
Adattatore prolungato da MAS BT a DIN 69871 e CAT

Adapter from MAS BT to DIN 69871 and CAT extended size

Adapter von MAS BT zu DIN 69871 und CAT lange Ausführung

Adaptateur prolongé de MAS BT à DIN 69871 et CAT

MAS BT



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
063.40.3100.10	SK 40	M16	17	25	45°	15	117	32	-	19
063.40.3102.10	SK 40	M16	17	25	30°	15	117	32	-	19
063.40.3104.10	SK 40	M16	17	25	90°	15	117	32	-	19
063.40.4100.10	SK 40	M16	17	25	45°	15	112	32	-	19
063.40.4102.10	SK 40	M16	17	25	30°	15	112	32	-	19
063.40.4104.10	SK 40	M16	17	25	90°	15	112	32	-	19

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

Tirante JIS 6339 non forato

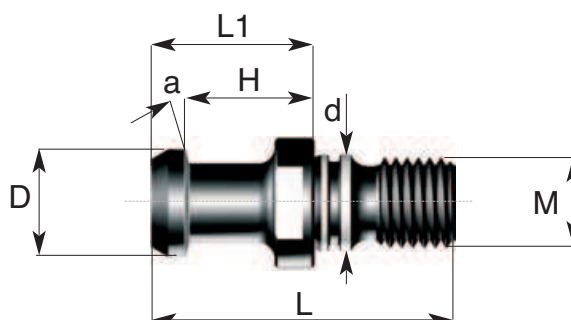
Pull stud JIS 6339 without coolant hole

Anzugsbolzen JIS 6339 ohne Bohrung

Tirette JIS 6339 non percée



JIS 6339



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
JIS.40.0100	SK 40	M16	17	23	15°	19	54	29	-	19
JIS.50.0100	SK 50	M24	25	25	15°	28	74	34	-	30

Tirante JIS 6339 forato

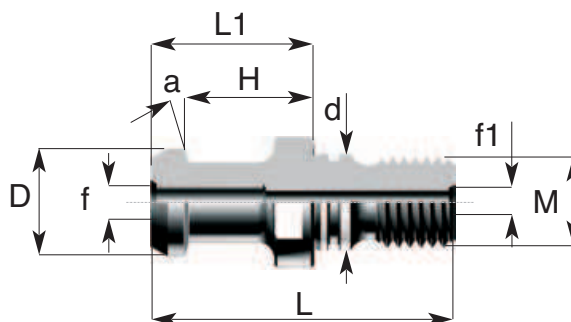
Pull stud JIS 6339 with coolant hole

Anzugsbolzen JIS 6339 mit Bohrung

Tirette JIS 6339 percée



JIS 6339



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	f1	Chiave Key
JIS.40.0100.F	SK 40	M16	17	23	15°	19	54	29	5.5	4	19
JIS.50.0100.F	SK 50	M24	25	25	15°	28	74	34	9.75	-	30

ACCESSORI PER MACCHINE UTENSILI

Tirante adattatore da DIN 69871-MAS BT a DIN 2080

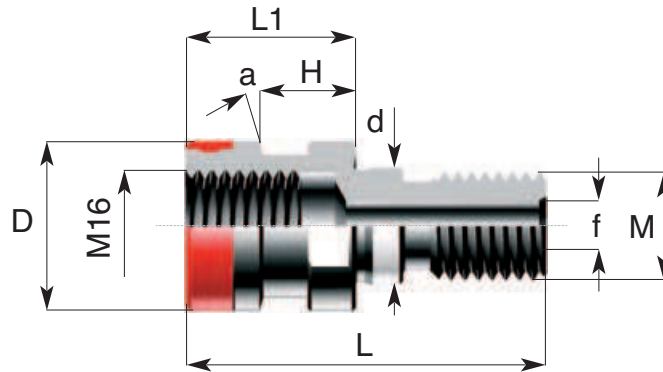
Adapter from DIN 69871-MAS BT to DIN 2080

Adapter von DIN 69871-MAS BT zu DIN 2080

Adaptateur de DIN 69871-MAS BT à DIN 2080



ADATTATORE ISO 40



14.
17

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
054.40.0100	SK 40	M16	17	13.6	15°	25	53	25	7	22
054.40.4100	SK 40	M16	17	16.6	15°	25	105	28	7	22
054.40.0100.10	SK 40	M16	17	16.6	15°	25	56	28	7	22



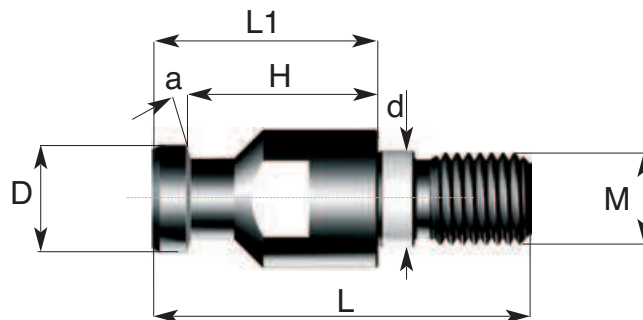
Tirante adattatore da DIN 69871-MAS BT a DIN 2080

Adapter from DIN 69871-MAS BT to DIN 2080

Adapter von DIN 69871-MAS BT zu DIN 2080

Adaptateur de DIN 69871-MAS BT à DIN 2080

ADATTATORE



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.40.2080 (69871)	SK 40	M16	17	45	15°	19	79	51	-	19
063.40.2080 (BT)	SK 40	M16	17	53	45°	15	85	60	-	12
001.50.2080 (69871)	SK 50	M24	25	50	15°	28	99	59	-	30
065.50.2080 (BT)	SK 50	M24	25	60	45°	23	110	70	-	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante adattatore da DIN 69871-MAS BT a DIN 2080

Adapter from DIN 69871-MAS BT to DIN 2080

Adapter von DIN 69871-MAS BT zu DIN 2080

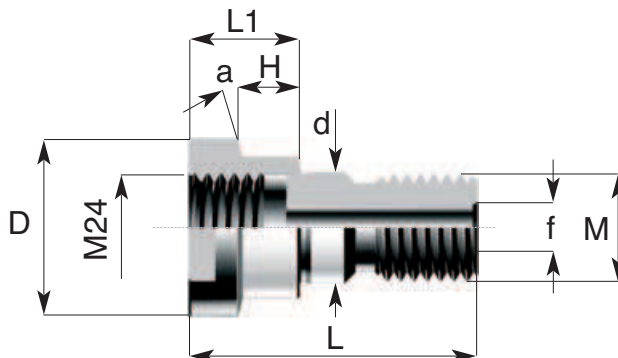
Adaptateur de DIN 69871-MAS BT à DIN 2080

ACCESSORI PER MACCHINE UTENSILI



ADATTATORE ISO 50

14.
18



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
055.50.0100	SK 50	M24	25	14	15°	40	65	25	10.2	32

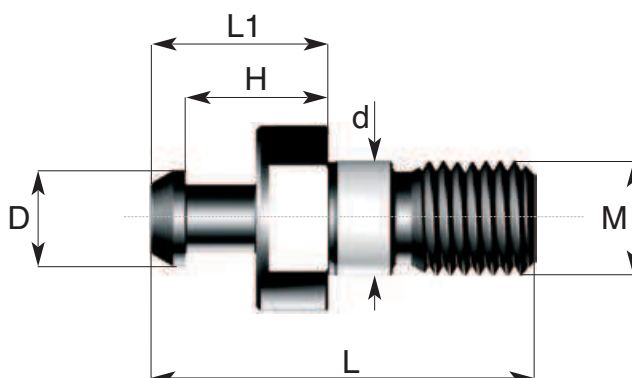
Tirante per macchine ATC ISO 50

Pull stud for ATC ISO 50 machines

Anzugsbolzen für Maschinen ATC ISO 50

Tirette pour machines ATC ISO 50

ATC



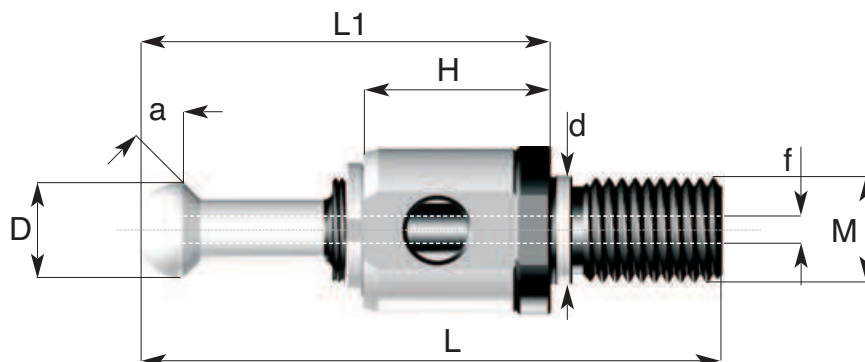
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
ATC.50.0100	SK 50	M24	25	30.2	-	20	81	37.4	-	30

ACCESSORI PER MACCHINE UTENSILI



Tirante per macchine BERARDI MTC 120 / 130
 Pull stud for BERARDI MTC 120 / 130 machines
 Anzugsbolzen für Maschinen BERARDI MTC 120 / 130
 Tirette pour machines BERARDI MTC 120 / 130

BERARDI



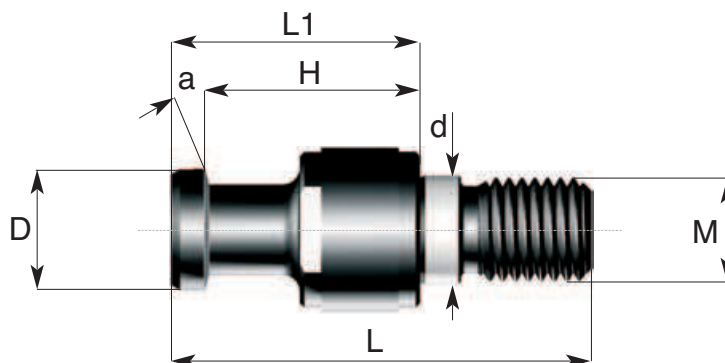
14.
19

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
045.50.0100	SK 50	M24	25	50	45°	22	variabile	variabile	4	a settore



Tirante per macchine ISO 50
 Pull stud for ISO 50 machines
 Anzugsbolzen für Maschinen ISO 50
 Tirette pour machines ISO 50

SPECIALE



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
COL.50.0100	SK 50	M24	25	50.2	15°	28	100	58	-	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

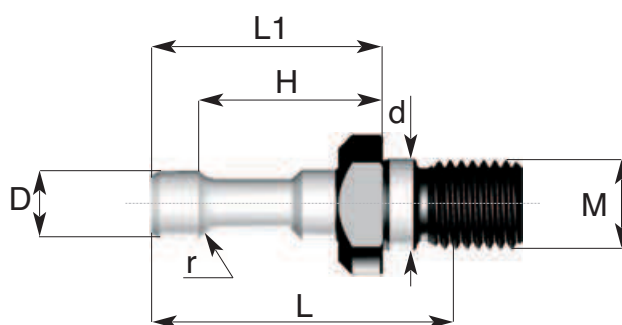
Tirante per alesatrice BRAGONZI

Pull stud for BRAGONZI boring machine
Anzugsbolzen für BRAGONZI Bohrwerk
Tirette pour aléseuse BRAGONZI



BRAGONZI

14.
20



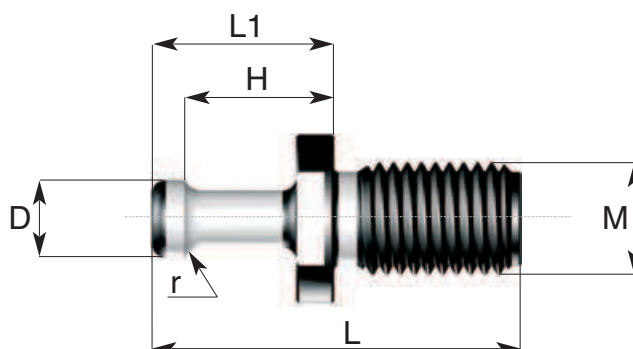
Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
BRG.40.0100	SK 40	M16	16.4	33	4	12	66.5	41.5	-	20

Tirante per macchine CASTEL

Pull stud for CASTEL machines
Anzugsbolzen für Maschinen CASTEL
Tirette pour machines CASTEL



CASTEL



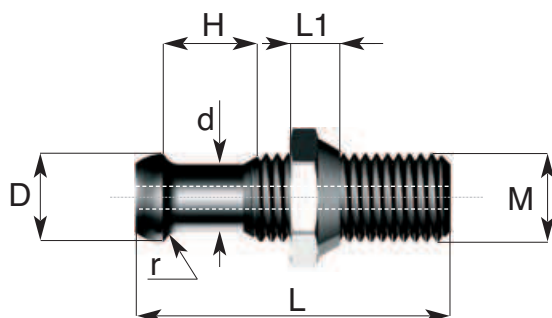
Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
CAS.50.0100	SK 50	M24	-	32	4	16.5	79	39	-	32

ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine CB FERRARI
Pull stud for CB FERRARI machines
Anzugsbolzen für Maschinen CB FERRARI
Tirette pour machines CB FERRARI



CB FERRARI



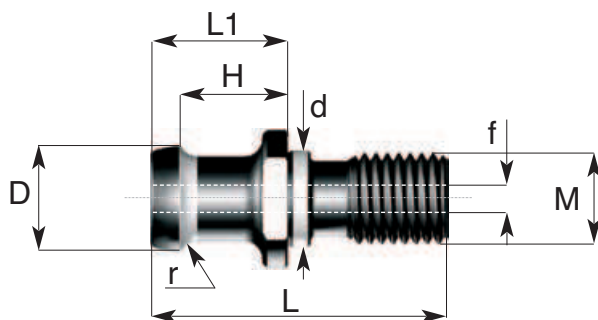
14.
21

Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
010.40.0100	SK 40	M16	12	18	3.2	16	57	9	5	22
010.50.0100	SK 50	M24	18.5	20	4	23	70	9	5	32



Tirante per macchine CB FERRARI
Pull stud for CB FERRARI machines
Anzugsbolzen für Maschinen CB FERRARI
Tirette pour machines CB FERRARI

CB FERRARI



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
F01.45.0100	SK 45	M20	21	23.5	4.25	23	65	30	9.5	24

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine CB FERRARI

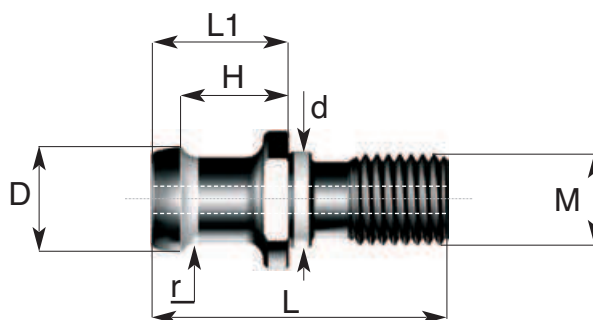
Pull stud for CB FERRARI machines

Anzugsbolzen für Maschinen CB FERRARI

Tirette pour machines CB FERRARI

ACCESSORI PER MACCHINE UTENSILI

CB FERRARI



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
F01.40.0100	SK 40	M16	17	20.31	-	19	54	26	75	19

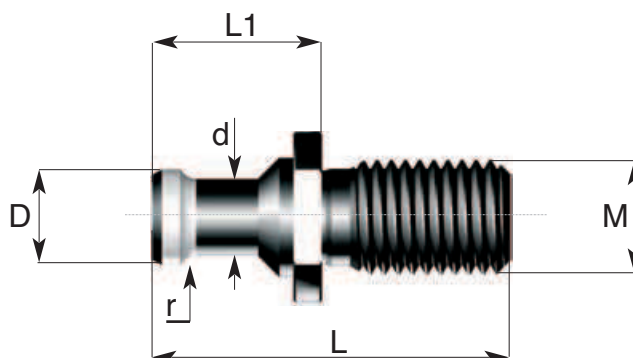
Tirante per macchine CORREA ISO 50

Pull stud for CORREA ISO 50 machines

Anzugsbolzen für Maschinen CORREA ISO 50

Tirette pour machines CORREA ISO 50

CORREA



Codice di ord Code	SK	M	d	H	r	D	L	L1	f	Chiave Key
COR.50.0100	SK 50	M24	16	30	5	20	76	36	-	20

ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine CERUTTI

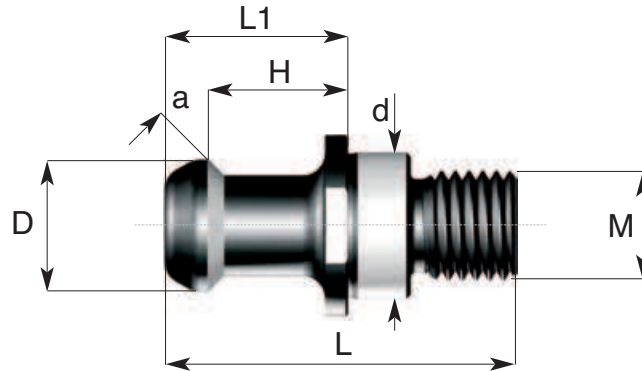
Pull stud for CERUTTI machines

Anzugsbolzen für Maschinen CERUTTI

Tirette pour machines CERUTTI



CERUTTI



14.
23

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
082.50.0100	SK 50	M24	32	32	45°	29	77	40	-	36



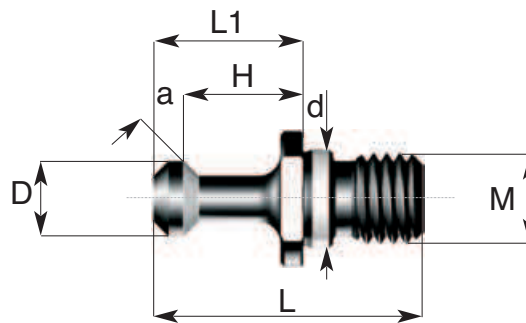
Tirante per macchine CHIRON ISO 30

Pull stud for CHIRON ISO 30 machines

Anzugsbolzen für Maschinen CHIRON ISO 30

Tirette pour machines CHIRON ISO 30

CHIRON



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
CHI.30.0100	SK 30	M12	13	16	45°	10	36	20	-	14
CHI.30.2100	SK 30	M10	13	16	45°	10	85	20	-	14
CHI.30.3100	SK 30	M12	13	16	45°	10	90	20	-	14

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine CINCINNATI ISO 40

Pull stud for CINCINNATI ISO 40 machines

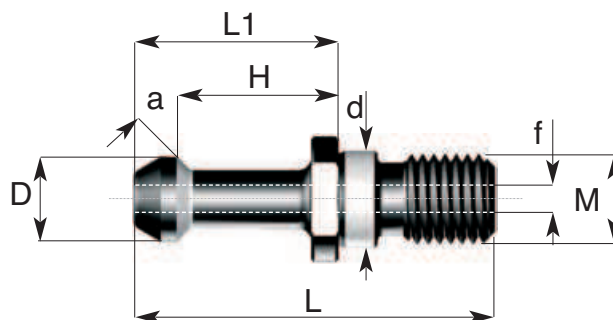
Anzugsbolzen für Maschinen CINCINNATI ISO 40

Tirette pour machines CINCINNATI ISO 40

ACCESSORI PER MACCHINE UTENSILI



CINCINNATI



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
CIN.40.0100	SK 40	M16	17	28.9	45°	15	64.5	36.5	4	18
CIN.40.0100.10	SK 40	M16	17	31.9	45°	15	67.5	39.5	4	18

Tirante per macchine CNC KITAMURA BT 35

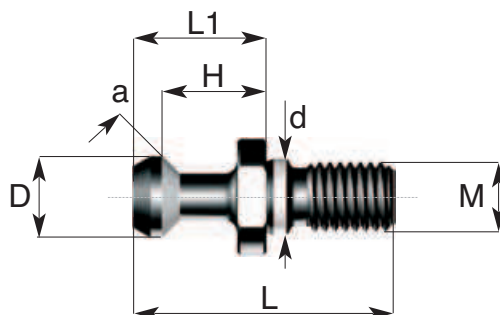
Pull stud for CNC KITAMURA BT 35 machines

Anzugsbolzen für Maschinen CNC KITAMURA BT 35

Tirette pour machines CNC KITAMURA BT 35



CNC KITAMURA BT 35



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
CNC.35.0100	SK 35	M12	13	18	45°	14	45	23	-	17
CNC.35.0104	SK 35	M12	13	18	90°	14	45	23	-	17

14.
24

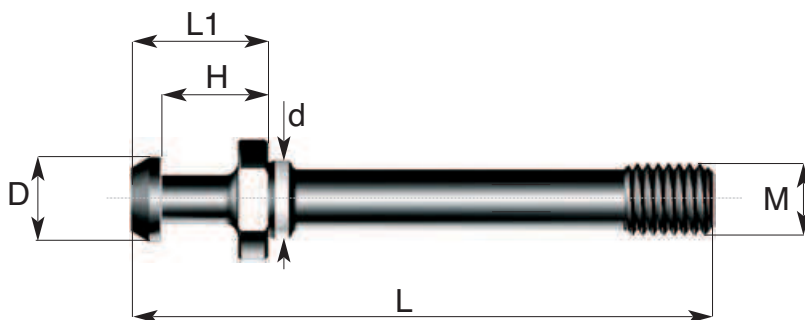
ACCESSORI PER MACCHINE UTENSILI



Tirante per macchine CNC KITAMURA BT 35
Pull stud for CNC KITAMURA BT 35 machines
Anzugsbolzen für Maschinen CNC KITAMURA BT 35
Tirette pour machines CNC KITAMURA BT 35

CNC KITAMURA BT 35

14.
25

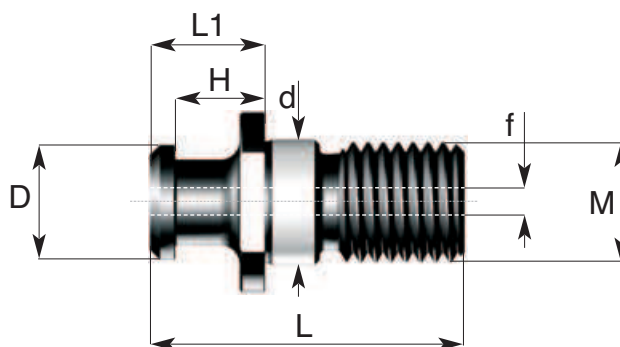


Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
CNC.35.2104	SK 35	M12	13	18	-	14	90	23	-	17
CNC.35.3104	SK 35	M12	13	18	-	14	98	23	-	17



Tirante per macchine COMAU ISO 50
Pull stud for COMAU ISO 50 machines
Anzugsbolzen für Maschinen COMAU ISO 50
Tirette pour machines COMAU ISO 50

COMAU ISO 50



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
91900132	SK 50	M24	25	18	-	23	63	23	3	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

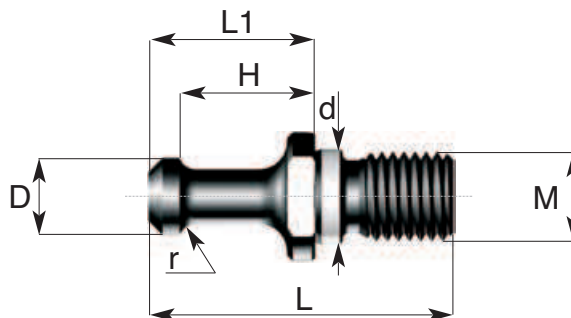
Tirante per macchine FAMUP

Pull stud for FAMUP machines

Anzugsbolzen für Maschinen FAMUP

Tirette pour machines FAMUP

FAMUP



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
FAM.30.0100	SK 30	M12	13	16.649	2.5	9.8	40	20	-	14
FAM.40.0100	SK 40	M16	17	24.43	3	13.8	55	30	-	19
FAM.40.0100.10	SK 40	M16	17	21.43	3	13.8	54	27	-	19

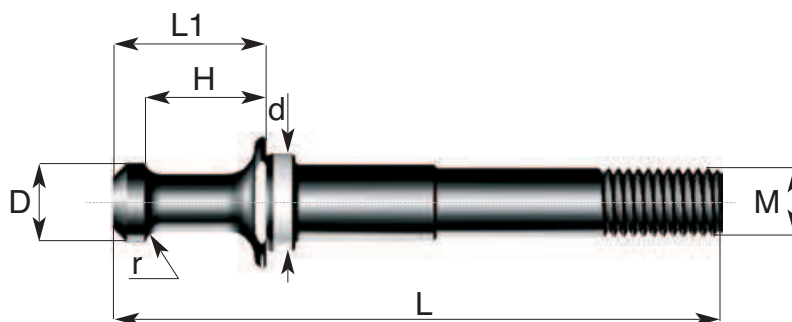
Tirante per macchine FAMUP

Pull stud for FAMUP machines

Anzugsbolzen für Maschinen FAMUP

Tirette pour machines FAMUP

FAMUP



Codice di ord Code	SK	M	d	H	r	D	L	L1	f	Chiave Key
FAM.30.2100	SK 30	M10	13	16.649	2.5	9.8	89	20	-	14
FAM.30.3100	SK 30	M12	13	16.649	2.5	9.8	92	20	-	14
FAM.40.3100.10	SK 40	M12	17	21.43	3	13.8	107	27	-	18
FAM.40.4100.10	SK 40	M16	17	21.43	3	13.8	111	27	-	18

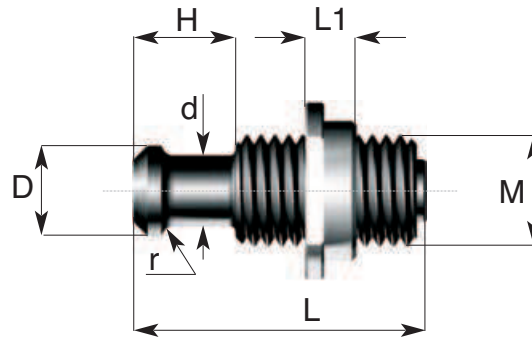
14.
26

ACCESSORI PER MACCHINE UTENSILI



Tirante per macchine FIL ISO 50
Pull stud for FIL ISO 50 machines
Anzugsbolzen für Maschinen FIL ISO 50
Tirette pour machines FIL ISO 50

FIL ISO 50



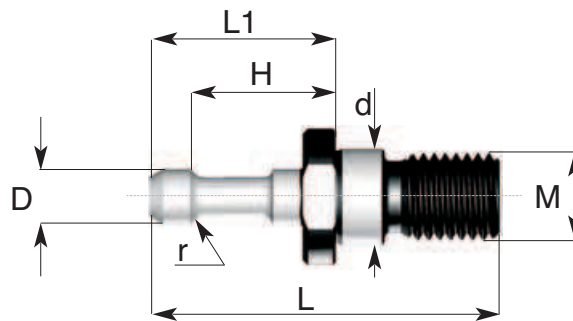
14.
27

Codice di ord Code	SK	M	d	H	r	D	L	L1	f	Chiave Key
FIL.50.0100	SK 50	M24	15	22	3	19.4	63	11	-	30



Tirante per macchine GIMA
Pull stud for GIMA machines
Anzugsbolzen für Maschinen GIMA
Tirette pour machines GIMA

GIMA



Codice di ord Code	SK	M	d	H	r	D	L	L1	f	Chiave Key
GIMA.40.0100	SK 40	M16	17.5	26.5	2.75	10	64	34	-	22

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine GLOBE

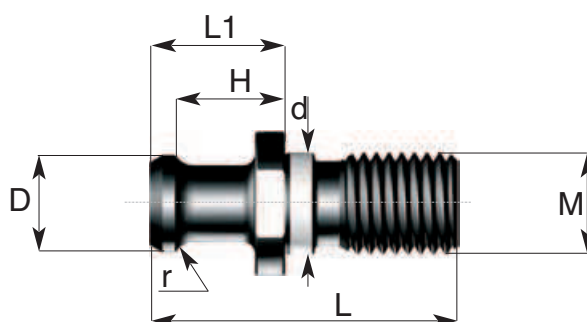
Pull stud for GLOBE machines

Anzugsbolzen für Maschinen GLOBE

Tirette pour machines GLOBE

ACCESSORI PER MACCHINE UTENSILI

GLOBE



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
GLO.50.0100	SK 50	M24	24	26	5.25	22.9	73	32	-	30

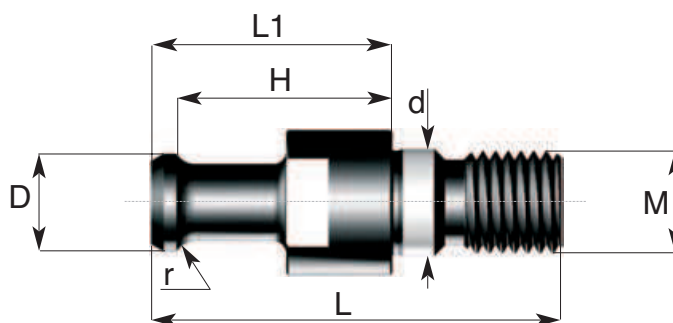
Tirante adattatore da DIN 69871 a DIN 2080 per macchine GLOBE

Adapter from DIN 69871 to DIN 2080 for GLOBE machines

Adapter von DIN 69871 zu DIN 2080 für Maschinen GLOBE

Adaptateur de DIN 69871 à DIN 2080 pour machines GLOBE

GLOBE ADATTATORE



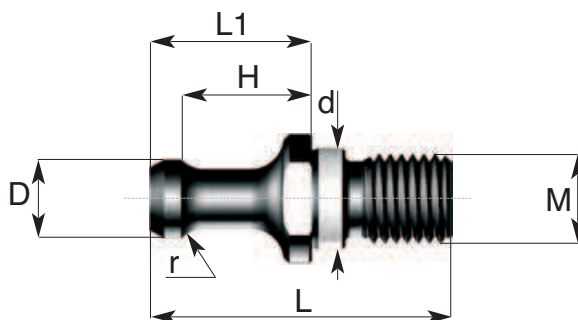
Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
GLO.50.2080	SK 50	M24	24	51	5.25	22.9	97	57	-	27

ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine GNUTTI
Pull stud for GNUTTI machines
Anzugsbolzen für Maschinen GNUTTI
Tirette pour machines GNUTTI



GNUTTI



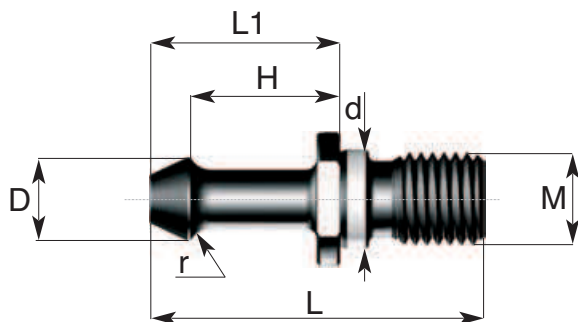
14.
29

Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
GNU.30.0100	SK 30	M12	13	18.846	4	9	45	24	-	14
GNU.40.0100	SK 40	M16	18	23.435	6	14	54	29	-	17



Tirante per macchine HORIZON 400 ISO 40
Pull stud for HORIZON 400 ISO 40 machines
Anzugsbolzen für Maschinen HORIZON 400 ISO 40
Tirette pour machines HORIZON 400 ISO 40

HORIZON 400 ISO 40



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
001.40.0105	SK 40	M16	17	26	4.1	14.3	58	33	-	19
001.40.2105	SK 40	M10	17	26	4.1	14.3	108	33	-	19
001.40.3105	SK 40	M12	17	26	4.1	14.3	108	33	-	19
001.40.4105	SK 40	M26	17	26	4.1	14.3	112	33	-	19

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine HORIZON 1000 ISO 50

Pull stud for HORIZON 1000 ISO 50 machines

Anzugsbolzen für Maschinen HORIZON 1000 ISO 50

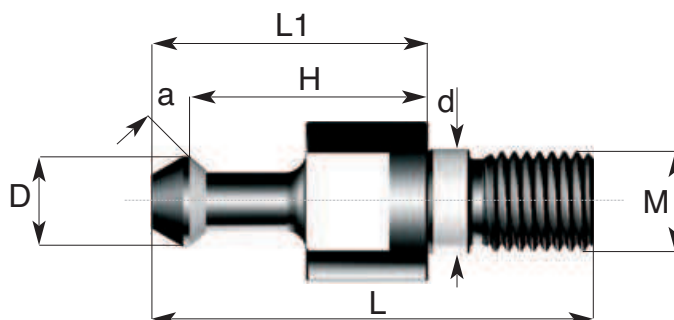
Tirette pour machines HORIZON 1000 ISO 50

ACCESSORI PER MACCHINE UTENSILI



HORIZON 1000 ISO 50

14.
30

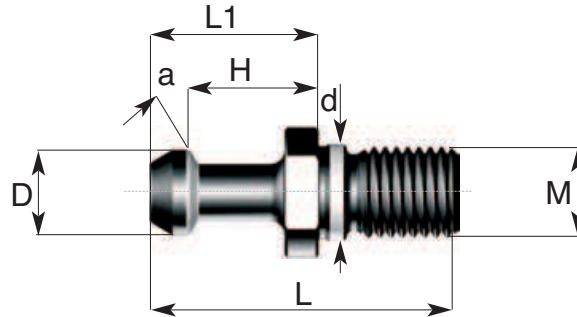


Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
001.50.0105	SK 50	M24	25	57.2	50°	21.5	106.2	66.2	-	30

ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine JOBS ISO 40
Pull stud for JOBS ISO 40 machines
Anzugsbolzen für Maschinen JOBS ISO 40
Tirette pour machines JOBS ISO 40

JOBS ISO 40



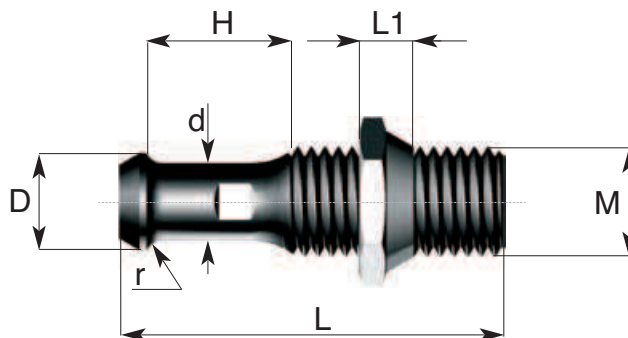
14.
31

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
JOB.40.0100	SK 40	M16	17	23	30°	15	55	30	-	19



Tirante per macchine MANDELLI ISO 50 / 25
Pull stud for MANDELLI ISO 50 / 25 machines
Anzugsbolzen für Maschinen MANDELLI ISO 50 / 25
Tirette pour machines MANDELLI ISO 50 / 25

MANDELLI ISO 50 / 25



Codice di ord Code	SK	M	d	H	r	D	L	L1	f	Chiave Key
026.50.0100.01	SK 50	M24	17	33	4	21.4	85	12	-	32
026.50.0100.10	SK 50	M24	17	25	4	21.4	75	12	-	32

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine MANDELLI ISO 45

Pull stud for MANDELLI ISO 45 machines

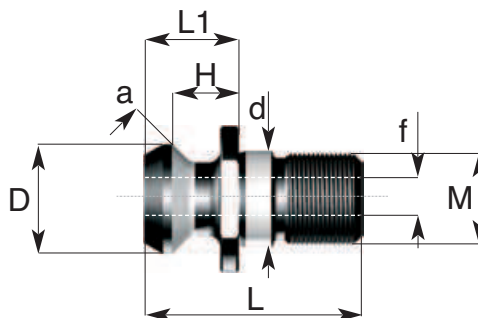
Anzugsbolzen für Maschinen MANDELLI ISO 45

Tirette pour machines MANDELLI ISO 45

ACCESSORI PER MACCHINE UTENSILI



MANDELLI ISO 45



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
024.45.0100	SK 45	M20X1.5	21	14.7	45°	24	48	20.8	9.4	27

Tirante per macchine MANDELLI QUASAR ISO 50

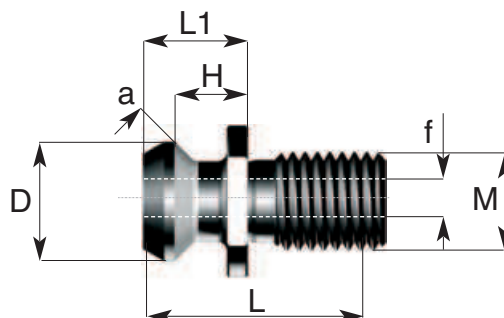
Pull stud for MANDELLI QUASAR ISO 50 machines

Anzugsbolzen für Maschinen MANDELLI QUASAR ISO 50

Tirette pour machines MANDELLI QUASAR ISO 50



MANDELLI QUASAR



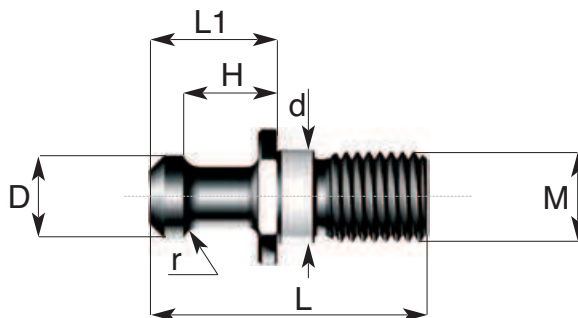
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
025.50.0100	SK 50	M24	-	17.8	45°	29	59	25.4	11.85	30

ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine MAUT
Pull stud for MAUT machines
Anzugsbolzen für Maschinen MAUT
Tirette pour machines MAUT



MAUT



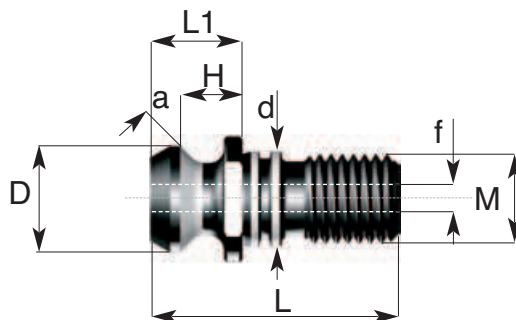
14.
33

Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
MAUT.50.0100	SK 50	M24	25	25	5	22	74	34	-	30



Tirante per macchine MAZAK
Pull stud for MAZAK machines
Anzugsbolzen für Maschinen MAZAK
Tirette pour machines MAZAK

MAZAK



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
048.40.0100	SK 40	M16	17	11.176	45°	18.796	41.256	16.256	7	19
048.40.0100.10	SK 40	M16	17	14.026	45°	18.796	44.106	19.106	7	19
050.50.0100	SK 50	M24	25	17.78	45°	28.965	65.4	25.4	10	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine MAZAK

Pull stud for MAZAK machines

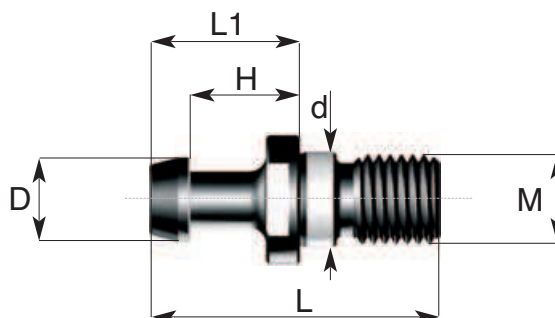
Anzugsbolzen für Maschinen MAZAK

Tirette pour machines MAZAK



MAZAK

14.
34



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
063.40.0104.20	SK 40	M16	17	19.75	-	15	51.75	26.75	-	19

Tirante per macchine MAZAK

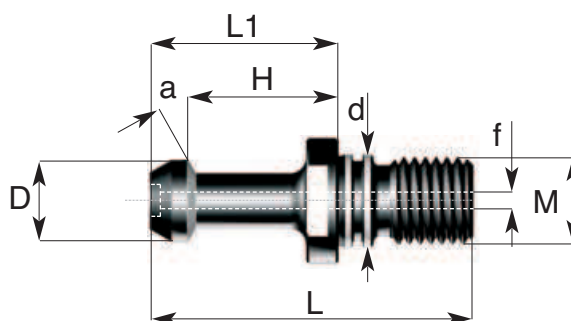
Pull stud for MAZAK machines

Anzugsbolzen für Maschinen MAZAK

Tirette pour machines MAZAK



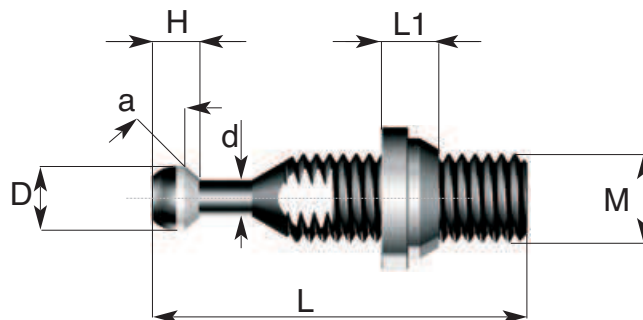
MAZAK



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
060.30.0102.20	SK 30	M12	12.5	18	30°	11	43	23	3	13

ACCESSORI PER MACCHINE UTENSILI

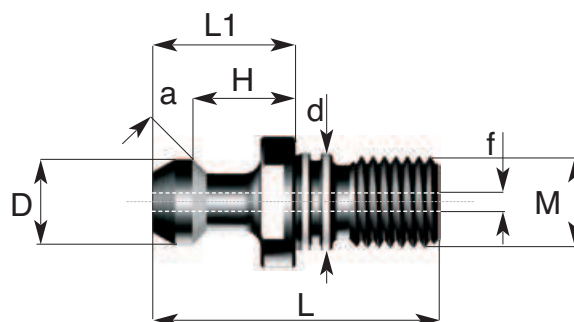

Tirante per macchine MCM PROGRESS 1 e CONNECTION
Pull stud for MCM PROGRESS 1 and CONNECTION machines
Anzugsbolzen für Maschinen MCM PROGRESS 1 und CONNECTION
Tirette pour machines MCM PROGRESS 1 et CONNECTION

MCM

**14.
35**

Codice di ord Code	SK	M	d	H	a	D	L	L1	f	Chiave Key
B39.45.0100	SK 45	M20	8.2	10.6	45°	14.5	85	13	-	15



Tirante per macchine MITSUI-SEIKI
Pull stud for MITSUI-SEIKI machines
Anzugsbolzen für Maschinen MITSUI-SEIKI
Tirette pour machines MITSUI-SEIKI

MITSUI-SEIKI


Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
M63.40.0100	SK 40	M16	17	18	45°	15	50	25	-	19
M63.40.0104	SK 40	M16	17	18	90°	15	50	25	-	19
M65.50.0100	SK 50	M24	25	23	90°	24	71	33	-	30
M65.50.0100.F	SK 50	M24	25	23	90°	24	71	33	8	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine MITSUI-SEIKI

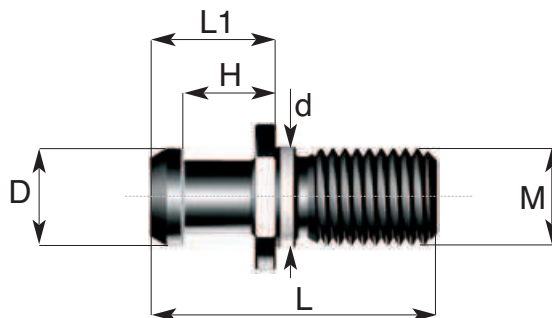
Pull stud for MITSUI-SEIKI machines

Anzugsbolzen für Maschinen MITSUI-SEIKI

Tirette pour machines MITSUI-SEIKI



MITSUI-SEIKI



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
K65.50.0100	SK 50	M24	25	23	-	24	71	31	-	30

Tirante per macchine MIVAL

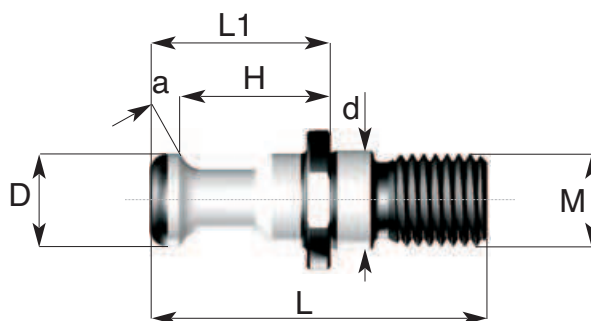
Pull stud for MIVAL machines

Anzugsbolzen für Maschinen MIVAL

Tirette pour machines MIVAL



MIVAL



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
MIV.016.40.0100	SK 40	M16	17	26	35°	16	58	31.1	-	19
MIV.016.40.0100.10	SK 40	M16	18	28	35°	16	58	33	-	22

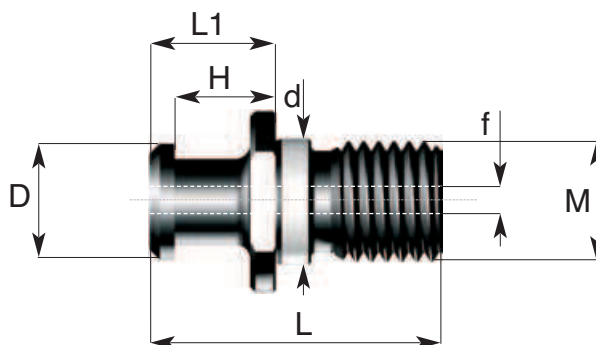
14.
36

ACCESSORI PER MACCHINE UTENSILI



Tirante per macchine MODENAMATIC
Pull stud for MODENAMATIC machines
Anzugsbolzen für Maschinen MODENAMATIC
Tirette pour machines MODENAMATIC

MODENAMATIC



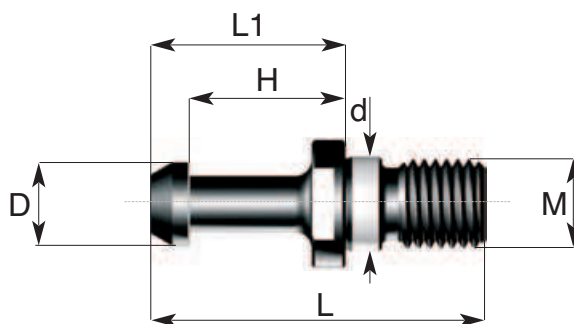
14.
37

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
15.001	SK 50	M24	25	13	-	23	58	25	6	27



Tirante per macchine MORISEIKI CAT 40
Pull stud for MORISEIKI CAT 40 machines
Anzugsbolzen für Maschinen MORISEIKI CAT 40
Tirette pour machines MORISEIKI CAT 40

MORISEIKI CAT 40



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
063.40.0104.10	SK 40	M16	17	25.146	-	15	57	32	-	19

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine NOVAR

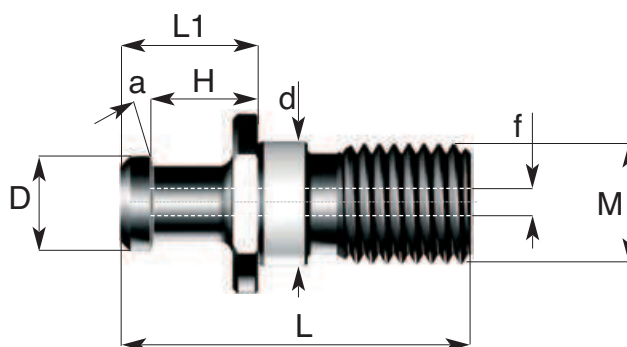
Pull stud for NOVAR machines

Anzugsbolzen für Maschinen NOVAR

Tirette pour machines NOVAR

ACCESSORI PER MACCHINE UTENSILI

NOVAR



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
NOV.50.0100	SK 50	M24	25	21.65	15°	19	67.65	27.65	7	19

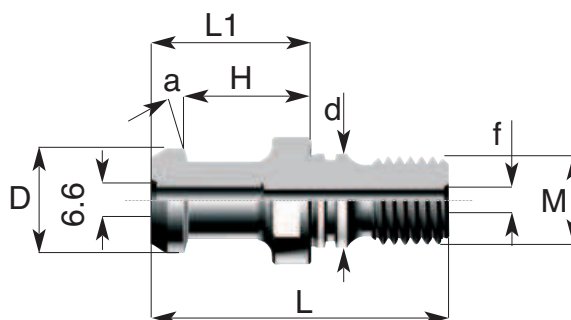
Tirante per macchine OKUMA

Pull stud for OKUMA machines

Anzugsbolzen für Maschinen OKUMA

Tirette pour machines OKUMA

OKUMA



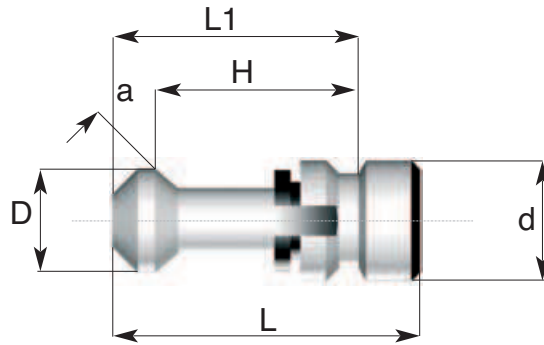
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
OK1.40.0100	SK 40	M16	17	23	15°	19	54	29	5.5	19

ACCESSORI PER MACCHINE UTENSILI



Tirante per macchine OLIVETTI AUCTOR
Pull stud for OLIVETTI AUCTOR machines
Anzugsbolzen für Maschinen OLIVETTI AUCTOR
Tirette pour machines OLIVETTI AUCTOR

OLIVETTI AUCTOR



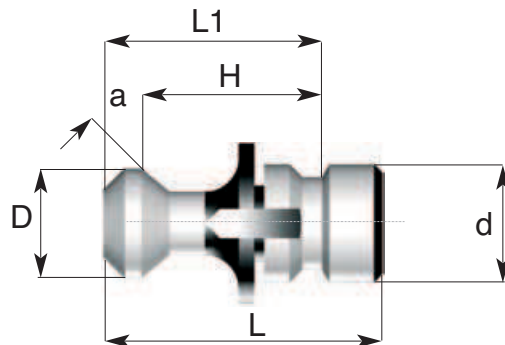
14.
39

Codice di ord <i>Code</i>	SK	d	H	a	D	L	L1	L2	f	Chiave <i>Key</i>
018.40.0100	SK 40	14	23.85	45°	12	36	31.55	715	-	-



Tirante per macchine OLIVETTI AUCTOR
Pull stud for OLIVETTI AUCTOR machines
Anzugsbolzen für Maschinen OLIVETTI AUCTOR
Tirette pour machines OLIVETTI AUCTOR

OLIVETTI AUCTOR



Codice di ord <i>Code</i>	SK	d	H	a	D	L	L1	L2	f	Chiave <i>Key</i>
019.40.0100	SK 40	14	21.35	45°	13	33	25.85	715	-	-

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine OLIVETTI ISO 45 VDI 2814/A

Pull stud for OLIVETTI ISO 45 VDI 2814/A machines

Anzugsbolzen für Maschinen OLIVETTI ISO 45 VDI 2814/A

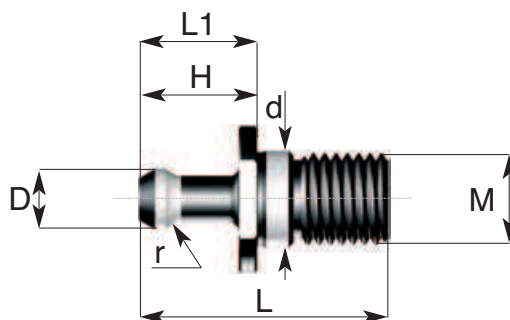
Tirette pour machines OLIVETTI ISO 45 VDI 2814/A

ACCESSORI PER MACCHINE UTENSILI



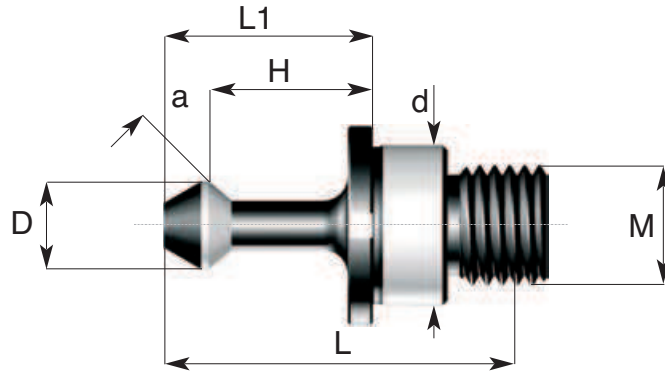
OLIVETTI ISO 45

14.
40

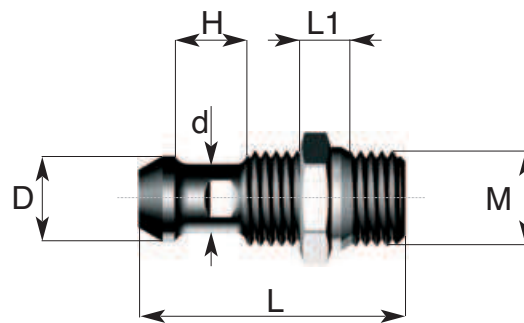


Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
021.45.0100	SK 45	M20	21	20.1	4.5	13	55	26	-	27

ACCESSORI PER MACCHINE UTENSILI
Tirante per macchine OLIVETTI ISO 50 HORIZON 12-13-14
Pull stud for OLIVETTI ISO 50 HORIZON 12-13-14 machines
Anzugsbolzen für Maschinen OLIVETTI ISO 50 HORIZON 12-13-14
Tirette pour machines OLIVETTI ISO 50 HORIZON 12-13-14

OLIVETTI ISO 50 HORIZON

**14.
41**

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
022.50.0100	SK 50	M24	32	33	50°	175	77	72	-	settore


Tirante per macchine OMV ISO 40
Pull stud for OMV ISO 40 machines
Anzugsbolzen für Maschinen OMV ISO 40
Tirette pour machines OMV ISO 40
OMV


Codice di ord Code	SK	M	d	H	r	D	L	L1	f	Chiave Key
OMV.40.0100	SK 40	M16	13	13.7	3.175	16	50.5	10	-	22

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

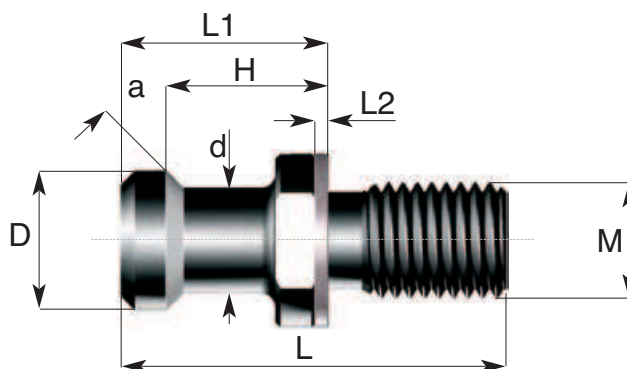
Tirante per macchine PAMA ISO 50

Pull stud for PAMA ISO 50 machines

Anzugsbolzen für Maschinen PAMA ISO 50

Tirette pour machines PAMA ISO 50

PAMA



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	L2	Chiave Key
031.50.0100	SK 50	M24	22	33.7	45°	29	80.2	43.2	3	32

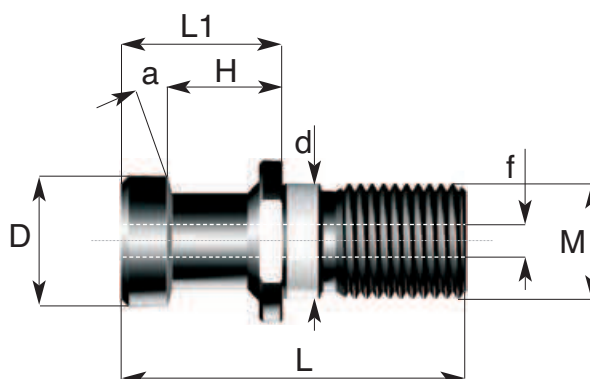
Tirante per macchine PAMA ISO 60

Pull stud for PAMA ISO 60 machines

Anzugsbolzen für Maschinen PAMA ISO 60

Tirette pour machines PAMA ISO 60

PAMA



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
031.60.0100	SK 60	M30	32	30	15°	34	90	42	14	36

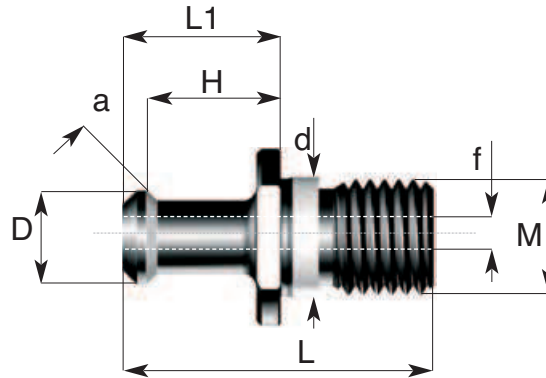
14.
42

ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine PBR ISO 50
 Pull stud for PBR ISO 50 machines
 Anzugsbolzen für Maschinen PBR ISO 50
 Tirette pour machines PBR ISO 50



PBR



14.
43

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
PBR.50.0100	SK 50	M24	25	28	45°	19.5	65	33	6	30

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine PEAR CAT 30

Pull stud for PEAR CAT 30 machines

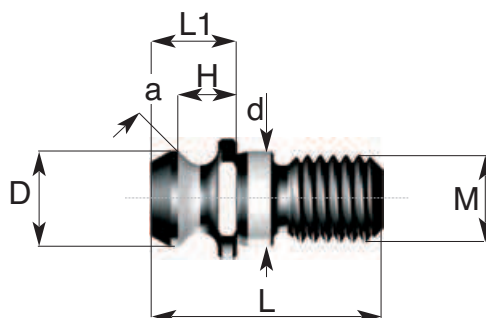
Anzugsbolzen für Maschinen PEAR CAT 30

Tirette pour machines PEAR CAT 30

ACCESSORI PER MACCHINE UTENSILI



PEAR CAT 30



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
047.30.0100	SK 30	M12	13	8	45°	13.2	31.7	11.7	-	13
047.30.2100	SK 30	M10	13	8	45°	13.2	76.7	11.7	-	13
047.30.3100	SK 30	M12	13	8	45°	13.2	76.7	11.7	-	13

Tirante per macchine PRISMA CW 500 HECKERT

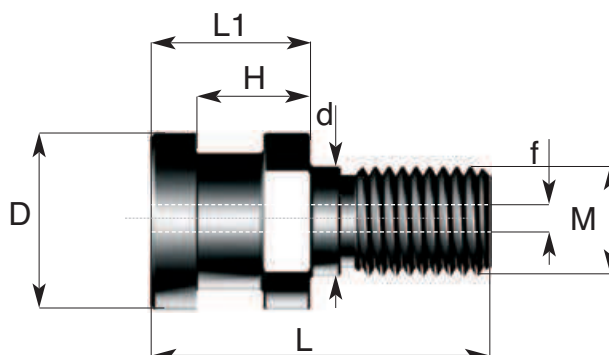
Pull stud for PRISMA CW 500 HECKERT machines

Anzugsbolzen für Maschinen PRISMA CW 500 HECKERT

Tirette pour machines PRISMA CW 500 HECKERT



PRISMA CW 500 HECKERT



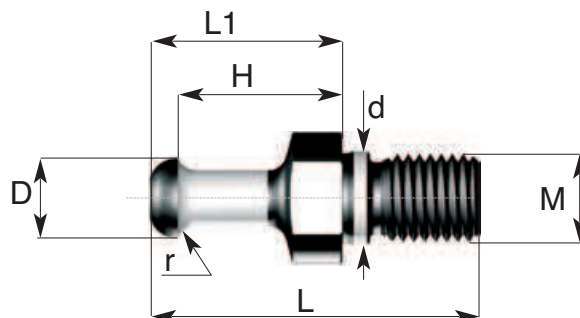
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
A01.50.0100	SK 50	M24	24.1	25.2	-	39	75	35.3	11.5	32

ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine RAMBAUDI
Pull stud for RAMBAUDI machines
Anzugsbolzen für Maschinen RAMBAUDI
Tirette pour machines RAMBAUDI



RAMBAUDI



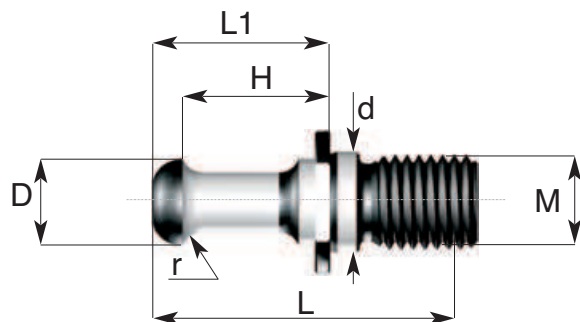
14.
45

Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
073.40.0110	SK 40	M16	16.8	30	3.57	14.6	60	35	-	20
075.50.0100	SK 50	M24	25	32	3.57	20	79.5	39.5	-	30



Tirante per macchine RAMBAUDI
Pull stud for RAMBAUDI machines
Anzugsbolzen für Maschinen RAMBAUDI
Tirette pour machines RAMBAUDI

RAMBAUDI



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
073.40.0100	SK 40	M16	17	25	3.57	14.6	55	30	-	20
073.40.0100.10	SK 40	M16	17	25	3.57	14.6	52	30	-	20
073.40.0100.20	SK 40	M16	17	22	3.57	14.6	52	27	-	20

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine RIELLO ISO 30

Pull stud for RIELLO ISO 30 machines

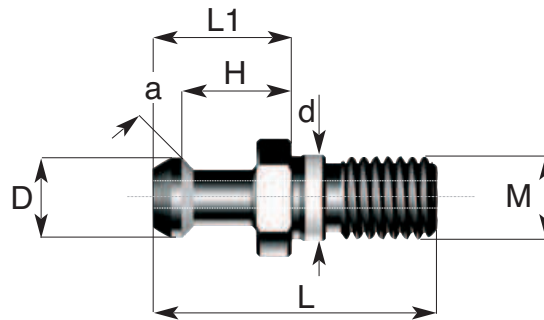
Anzugsbolzen für Maschinen RIELLO ISO 30

Tirette pour machines RIELLO ISO 30

ACCESSORI PER MACCHINE UTENSILI



RIELLO



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
RIE.30.0100	SK 30	M12	12.5	15.8	45°	11.5	40	20	-	14

Tirante per macchine RIGIVA ISO 40

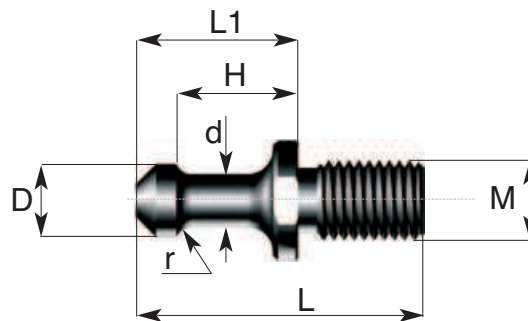
Pull stud for RIGIVA ISO 40 machines

Anzugsbolzen für Maschinen RIGIVA ISO 40

Tirette pour machines RIGIVA ISO 40



RIGIVA



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
RIG.40.0100	SK 40	M16	10.51	24.2	3.175	14.53	57.2	32.2	-	22

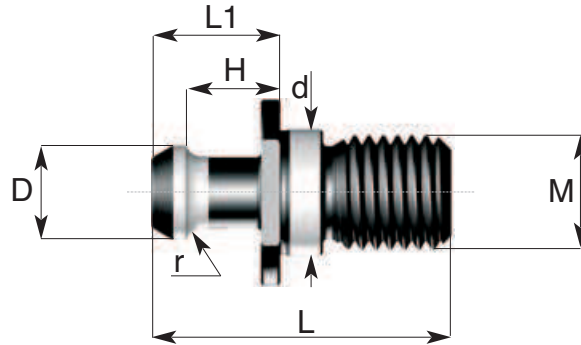
ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine SACHMAN

Pull stud for SACHMAN machines
Anzugsbolzen für Maschinen SACHMAN
Tirette pour machines SACHMAN



SACHMAN



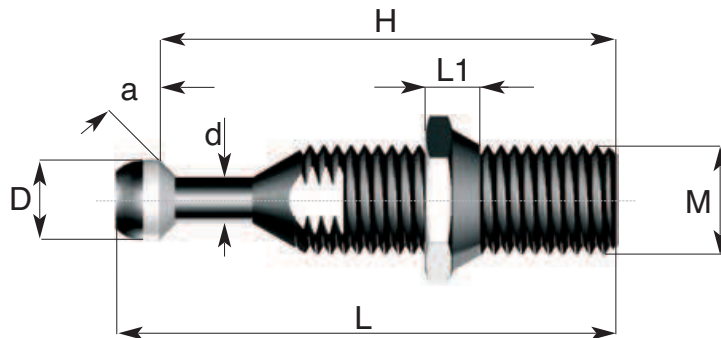
14.
47

Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
A15.50.0100	SK 50	M24	26.5	19.9	3.57	19.8	63	27	-	32



Tirante per macchine SECMU ISO 50
Pull stud for SECMU ISO 50 machines
Anzugsbolzen für Maschinen SECMU ISO 50
Tirette pour machines SECMU ISO 50

SECMU



Codice di ord Code	SK	M	d	H	a	D	L	L1	f	Chiave Key
SEC.50.0100	SK 50	M24	9.8	100.5	45°	17.5	110	12	-	32

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine SECMU ISO 50

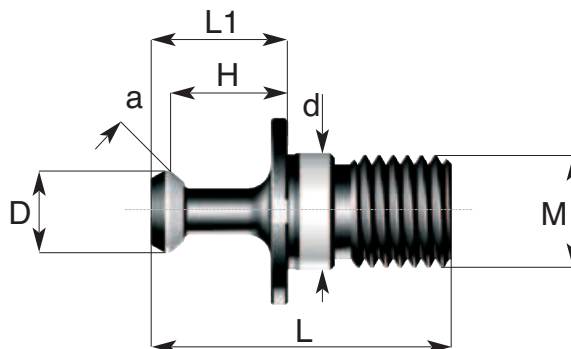
Pull stud for SECMU ISO 50 machines

Anzugsbolzen für Maschinen SECMU ISO 50

Tirette pour machines SECMU ISO 50



SECMU



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
SEC.50.0102	SK 50	M24	25	25	50°	17.5	64	29	-	setto
SEC.50.0104	SK 50	M24	25	31.7	50°	17.5	77	35	-	32

Tirante per macchine STAMA ISO 30

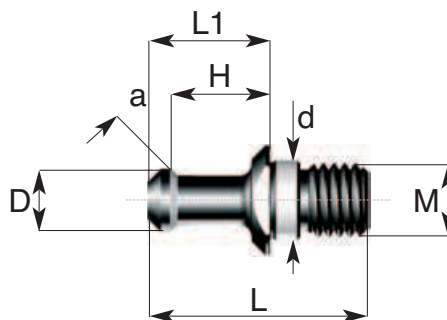
Pull stud for STAMA ISO 30 machines

Anzugsbolzen für Maschinen STAMA ISO 30

Tirette pour machines STAMA ISO 30



STAMA



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
STA.30.0100	SK 30	M12	13	16.4	45°	10.2	36.5	20.2	-	14
STA.30.2100	SK 30	M10	13	16.4	45°	10.2	87.2	20.2	-	14
STA.30.3100	SK 30	M12	13	16.4	45°	10.2	95	20.2	-	14

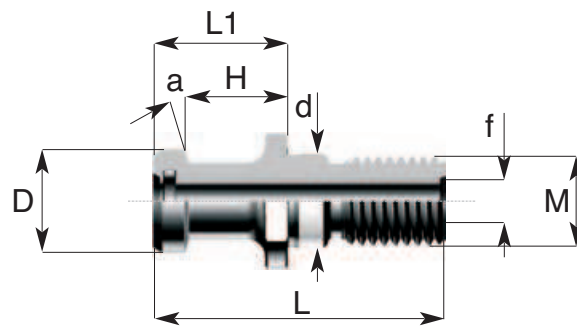
14.
48

ACCESSORI PER MACCHINE UTENSILI



Tirante per macchine SAJO ISO 45
Pull stud for SAJO ISO 45 machines
Anzugsbolzen für Maschinen SAJO ISO 45
Tirette pour machines SAJO ISO 45

SAJO ISO 45



14.
49

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
SAJ.45.0100	SK 45	M20	21	23	15°	23	65	30	10.6	24

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine TOS ISO 50

Pull stud for TOS ISO 50 machines

Anzugsbolzen für Maschinen TOS ISO 50

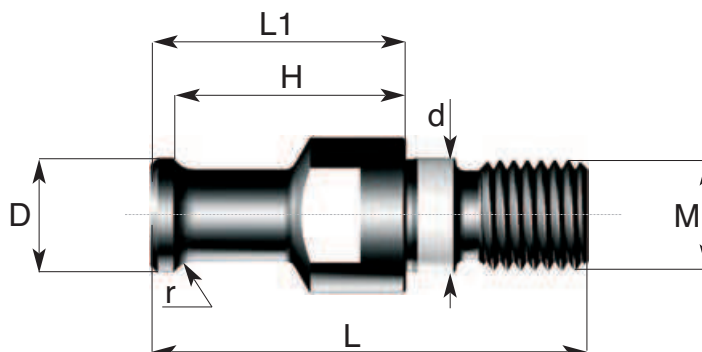
Tirette pour machines TOS ISO 50

ACCESSORI PER MACCHINE UTENSILI



TOS ISO 50

14.
50



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
TOS.50.0100	SK 50	M24	25	51	5	25	96	56	-	27
TOS.50.0100.10	SK 50	M24	25	29.5	5.5	25.5	77	34.2	-	24

Tirante per macchine TOYOTA

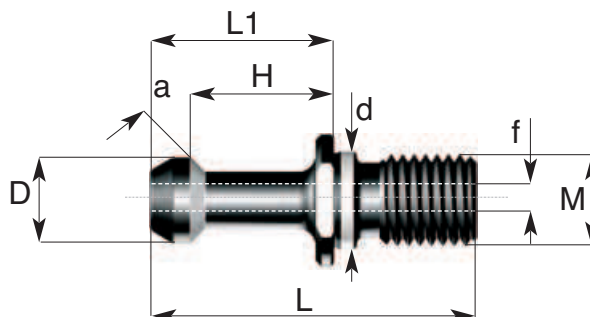
Pull stud for TOYOTA machines

Anzugsbolzen für Maschinen TOYOTA

Tirette pour machines TOYOTA



TOYOTA



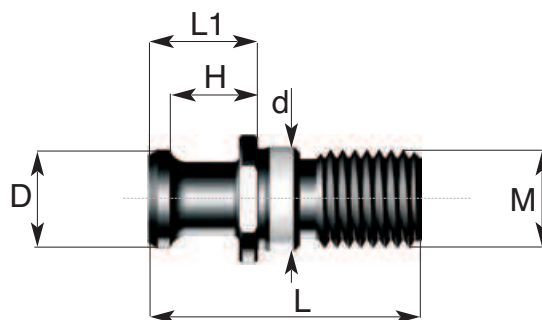
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
TOY.40.0100	SK 40	M16	17	25.15	45°	15	57.15	32.15	4	19

ACCESSORI PER MACCHINE UTENSILI



Tirante per macchine TRAUB TUC 400P
Pull stud for TRAUB TUC 400P machines
Anzugsbolzen für Maschinen TRAUB TUC 400P
Tirette pour machines TRAUB TUC 400P

TRAUB TUC 400P



14.
51

Codice di ord <i>Code</i>	SK	M	d g6	H	r	D	L	L1	f	Chiave <i>Key</i>
TRU.40.0100	SK 40	M16	17	14.5	3	16	45	18	-	18

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine BIESSE ISO 30

Pull stud for BIESSE ISO 30 machines

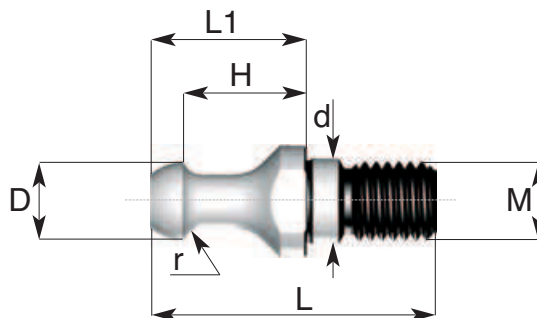
Anzugsbolzen für Maschinen BIESSE ISO 30

Tirette pour machines BIESSE ISO 30

ACCESSORI PER MACCHINE UTENSILI



BIESSE ISO 30



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
BIS.30.0100	SK 30	M12	13	19	3.175	12	44	24	-	14

Tirante per macchine BIESSE ISO 30

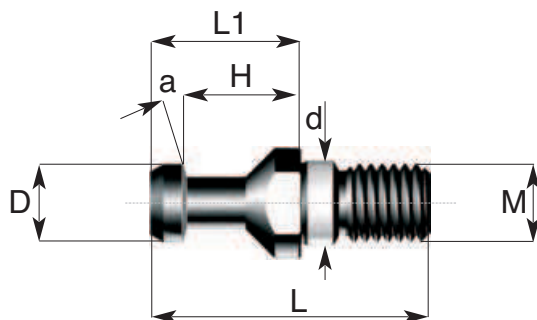
Pull stud for BIESSE ISO 30 machines

Anzugsbolzen für Maschinen BIESSE ISO 30

Tirette pour machines BIESSE ISO 30



BIESSE ISO 30



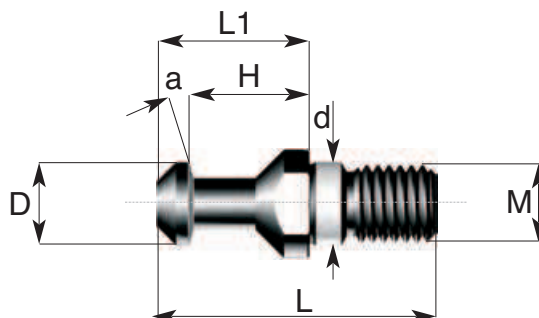
Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
BIS.30.0102	SK 30	M12	13	19	15°	12	44	24	-	14

ACCESSORI PER MACCHINE UTENSILI

Tirante per macchine ALBERTI ISO 30
Pull stud for ALBERTI ISO 30 machines
Anzugsbolzen für Maschinen ALBERTI ISO 30
Tirette pour machines ALBERTI ISO 30



ALBERTI



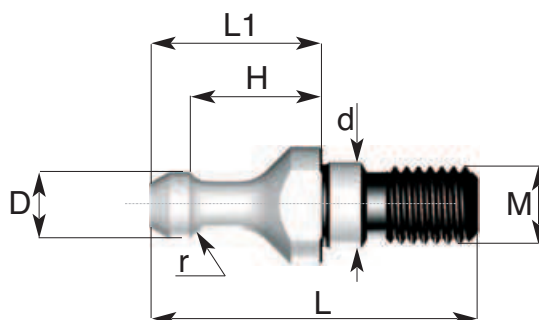
14.
53

Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
ALB.30.0100	SK 30	M12	13		45°	13	44	24	-	14



Tirante per macchine SCM MORBIDELLI ISO 30
Pull stud for SCM MORBIDELLI ISO 30 machines
Anzugsbolzen für Maschinen SCM MORBIDELLI ISO 30
Tirette pour machines SCM MORBIDELLI ISO 30

SCM MORBIDELLI



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
SCM.30.0100	SK 30	M10	11	18.3	2.3	8.5	42.5	22	-	

14. TIRANTI

PULL STUDS - ANZUGSBOLZEN - TIRETTES



Tirante per macchine CMS ISO 30

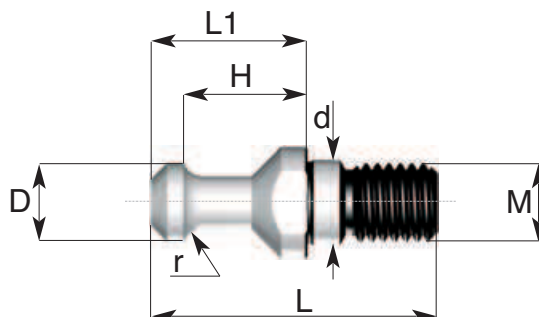
Pull stud for CMS ISO 30 machines

Anzugsbolzen für Maschinen CMS ISO 30

Tirette pour machines CMS ISO 30

ACCESSORI PER MACCHINE UTENSILI

CMS ISO 30



Codice di ord Code	SK	M	d g6	H	r	D	L	L1	f	Chiave Key
CMS.30.0100	SK 30	M12	13	19	2,4	12,8	44	19	-	14

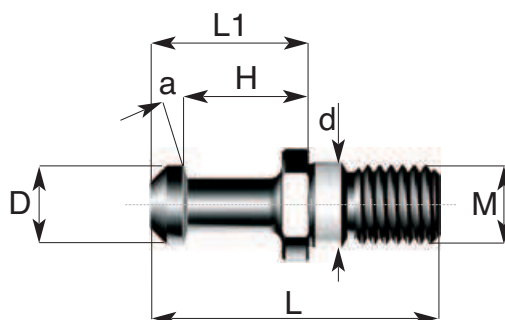
Tirante per macchine ESSETEAM ISO 30

Pull stud for ESSETEAM ISO 30 machines

Anzugsbolzen für Maschinen ESSETEAM ISO 30

Tirette pour machines ESSETEAM ISO 30

ESSETEAM ISO 30



Codice di ord Code	SK	M	d g6	H	a	D	L	L1	f	Chiave Key
ESS.30.0100	SK 30	M12	13	19	15	12	44	24	-	14

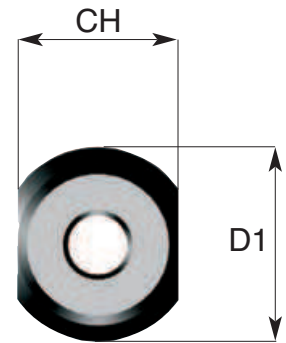
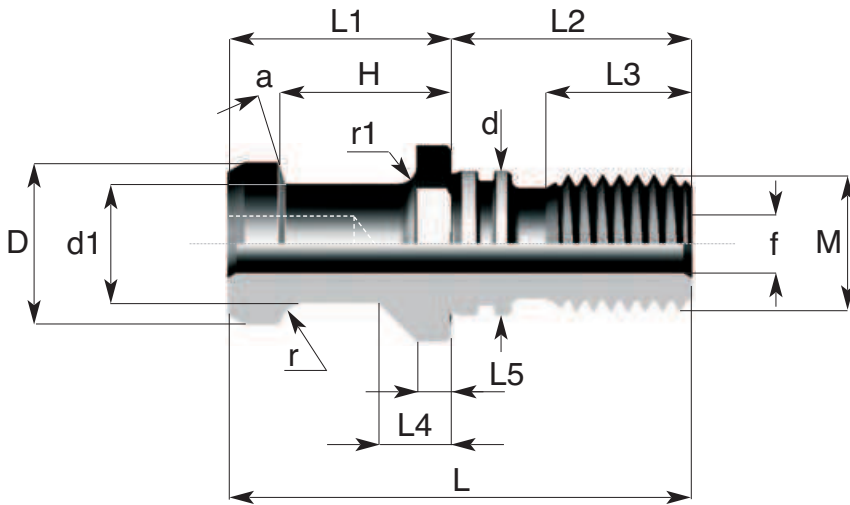
ACCESSORI PER MACCHINE UTENSILI



Schema di richiesta per tiranti speciali
 Request form for special pull studs
 Anfrageform für spezielle Anzugsbolzen
 Plan pour demande de tirettes spéciales

SCHEMA SPECIALI

14.
55



SK	M	d	H	a	r	D	L	L1	L2	L3	L4
L5	D1	d1	r1	f	CH	con OR					

15.3

- Portautensile destro corto
Turning tool right hand short

15.4

- Portautensile sinistro corto
Turning tool left hand short

15.5

- Portautensile rovesciato destro corto
Turning tool overhead right hand short

15.6

- Portautensile rovesciato sinistro corto
Turning tool overhead left hand short

15.7

- Portautensile per utensili cilindrici
Toolholder with cylindrical shaft

15.8

- Portautensile per utensili cilindrici
Toolholder with cylindrical shaft

15.9

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

15.10

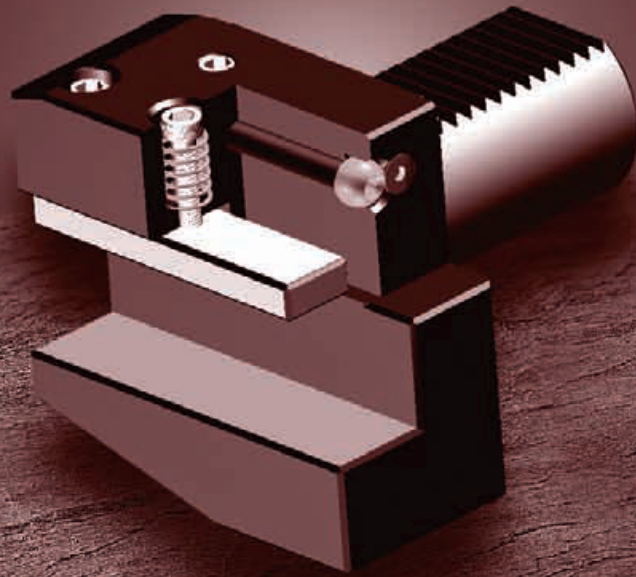
- Portautensile per utensili cono Morse
Morse taper adaptor for shanks with tang

15.11

- Maschiatori
Tapping chuck

15.12

- Puntalino arresto barra
Bar stop



DIN 69880/VDI 3425
Portautensili VDI
per torni CN
Tool holders for
CNC lather

15

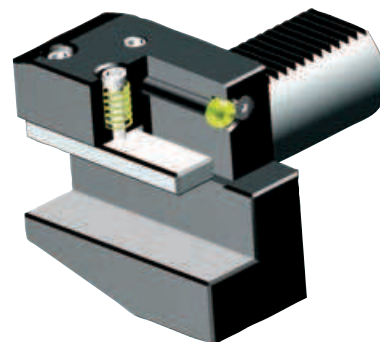
 **delta**

15. PORTAUTENSILI per torni a CN DIN 69880 VDI 3425

TOOL HOLDERS for CNC lathes DIN 69880 VDI 3425



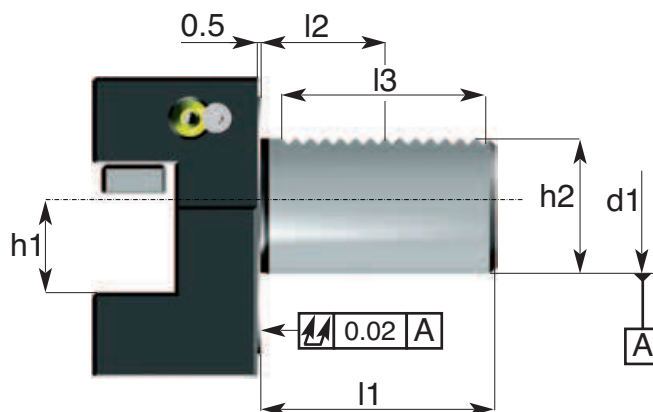
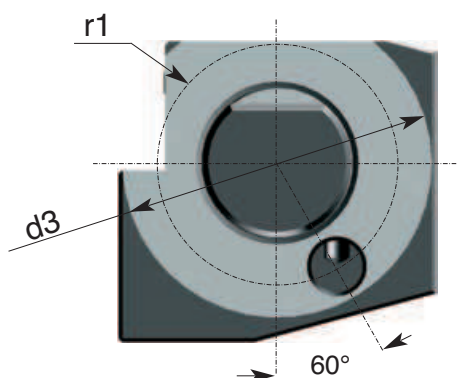
ACCESSORI PER MACCHINE UTENSILI



DIN 69880 - VDI 3425

Attacchi DIN 69880 / VDI 3425

15.
2



Riferimento Item	d1 h6	d2 H8	d3	l1	l2 ±0.05	l3	h1 max	h2 ±0.1	r1 ±0.02
VDI 20	20	10	50	40	21.7	32	16	18	18
VDI 30	30	14	68	55	29.7	48	20	27	25
VDI 40	40	14	83	63	29.7	48	25	36	32
VDI 50	50	16	98	78	35.7	56	32	45	37

CARATTERISTICHE TECNICHE DEI MANDRINI TC

- Costruiti in acciaio da cementazione legato al NiCrMo
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati

STANDARD FEATURES OF TC TOOLING

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment

ACCESSORI PER MACCHINE UTENSILI

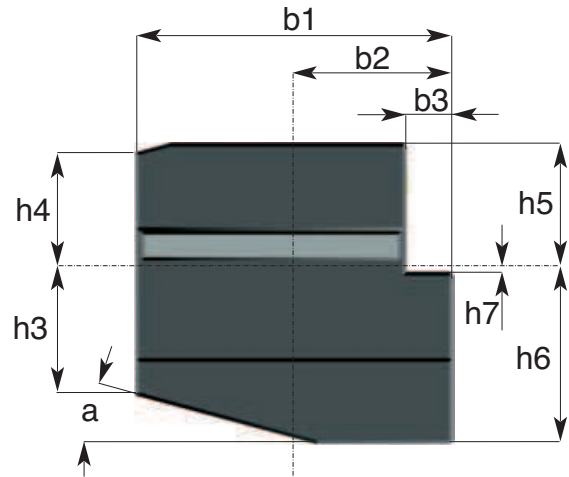
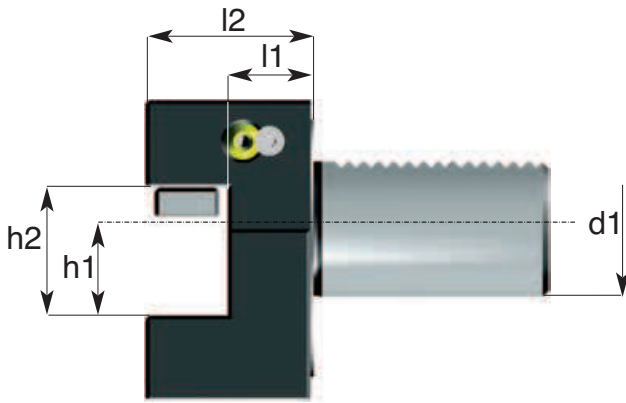


Portautensile destro corto con sede trasversale rettangolare
Radial right short turning tool holder
Vierkant-Queraufnahme rechts kurz
Porte-outil radial carré droite court

DIN 69880/3 B1

ART: 904

15.
3



Codice di ord <i>Code</i>	d1	b1	b2	b3	h1	h2	h3	h4	h5	h6	h7	l1	l2	a
904.20.1630	20	55	30	7	16	22	19	19	25	30	2	16	30	15°
904.30.2040	30	70	35	10	20	29	26	22	28	38	2	22	40	15°
904.40.2544	40	85	42,5	12,5	25	34	35	30	32,5	48	2	22	44	15°
904.50.3255	50	100	50	16	32	41	42	35	35	60	2	30	55	15°

15. PORTAUTENSILI per torni a CN DIN 69880 VDI 3425

TOOL HOLDERS for CNC lathes DIN 69880 VDI 3425



Portautensile sinistro corto con sede trasversale rettangolare

Radial left short turning tool holder

Vierkant-Queraufnahme links kurz

Porte-outil radial carré gauche court

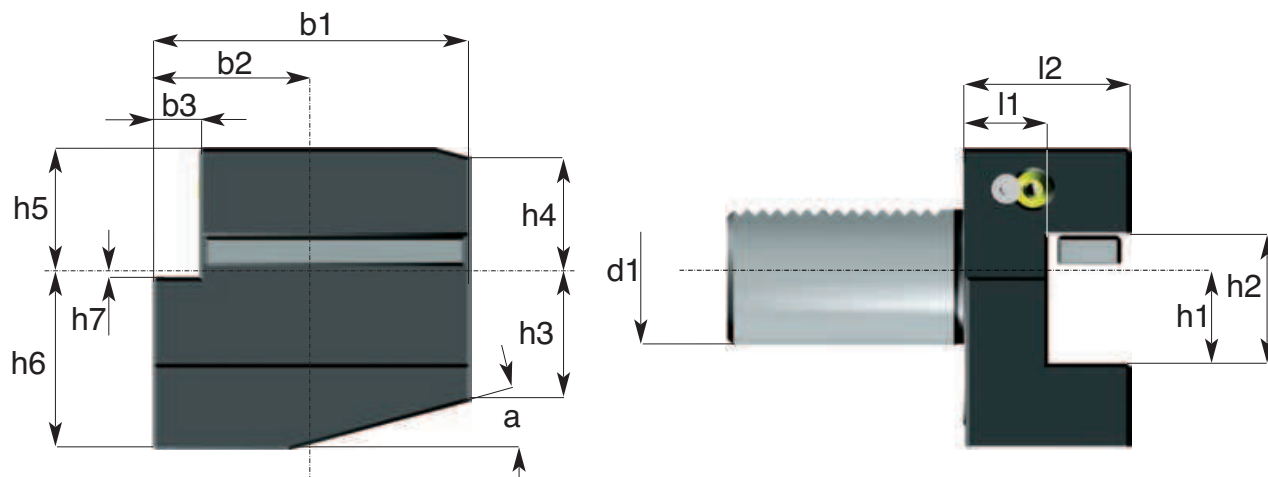
ACCESSORI PER MACCHINE UTENSILI



DIN 69880/3 B2

ART: 906

15.
4



Codice di ord Code	d1	b1	b2	b3	h1	h2	h3	h4	h5	h6	h7	l1	l2	a
906.20.1630	20	55	30	7	16	22	19	19	25	30	2	16	30	15°
906.30.2040	30	70	35	10	20	29	26	22	28	38	2	22	40	15°
906.40.2544	40	85	42,5	12,5	25	34	35	30	32,5	48	2	22	44	15°
906.50.3255	50	100	50	16	32	41	42	35	35	60	2	30	55	15°

ACCESSORI PER MACCHINE UTENSILI

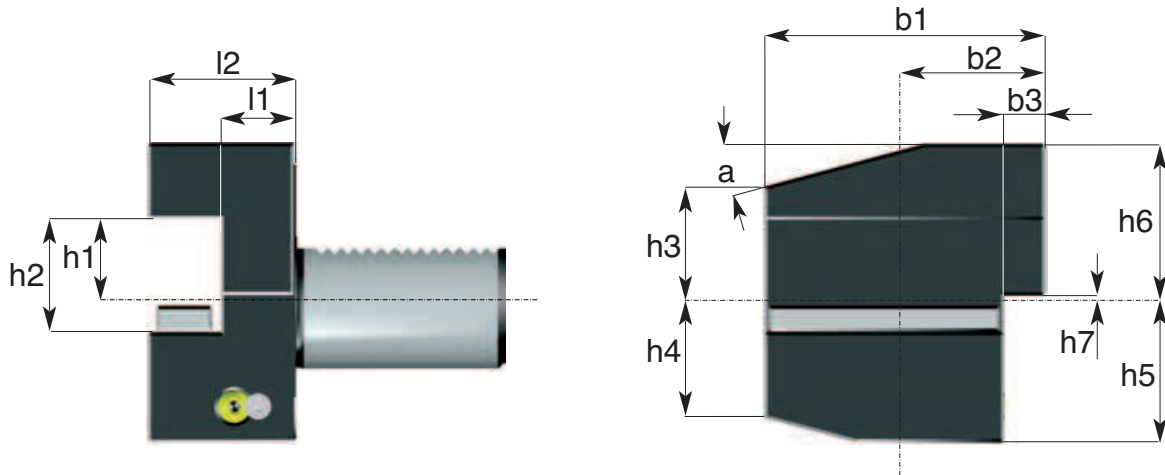
Portautensile rovesciato destro corto con sede trasversale rettangolare
Overhead right short turning tool holder
Vierkant-Queraufnahme Überkopf rechts kurz
Porte-outil radial inversé carré droite court



DIN 69880/3 B3

ART: 908

15.
5



Codice di ord <i>Code</i>	d1	b1	b2	b3	h1	h2	h3	h4	h5	h6	h7	l1	l2	a
908.20.1630	20	55	30	7	16	22	19	19	25	30	2	16	30	15°
908.30.2040	30	70	35	10	20	29	26	22	35	38	2	22	40	15°
908.40.2544	40	85	42,5	12,5	25	34	35	30	42,5	48	2	22	44	15°
908.50.3255	50	100	50	16	32	41	42	35	50	60	2	30	55	15°

15. PORTAUTENSILI per torni a CN DIN 69880 VDI 3425

TOOL HOLDERS for CNC lathes DIN 69880 VDI 3425



Portautensile rovesciato sinistro corto con sede trasversale rettangolare

Overhead left short turning tool holder

Vierkant-Queraufnahme Überkopf links kurz

Porte-outil radial inversé carré gauche court

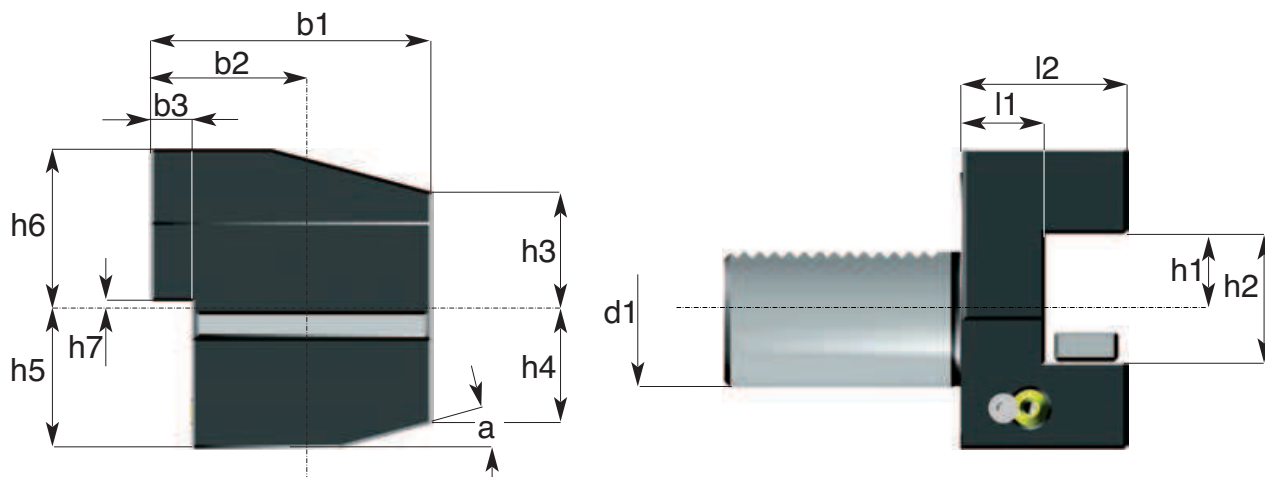
ACCESSORI PER MACCHINE UTENSILI



DIN 69880/3 B4

ART: 910

15.
6



Codice di ord Code	d1	b1	b2	b3	h1	h2	h3	h4	h5	h6	h7	l1	l2	a
910.20.1630	20	55	30	7	16	22	19	19	25	30	2	16	30	15°
910.30.2040	30	70	35	10	20	29	26	22	35	38	2	22	40	15°
910.40.2544	40	85	42,5	12,5	25	34	35	30	42,5	48	2	22	44	15°
910.50.3255	50	100	50	16	32	41	42	35	50	60	2	30	55	15°

ACCESSORI PER MACCHINE UTENSILI

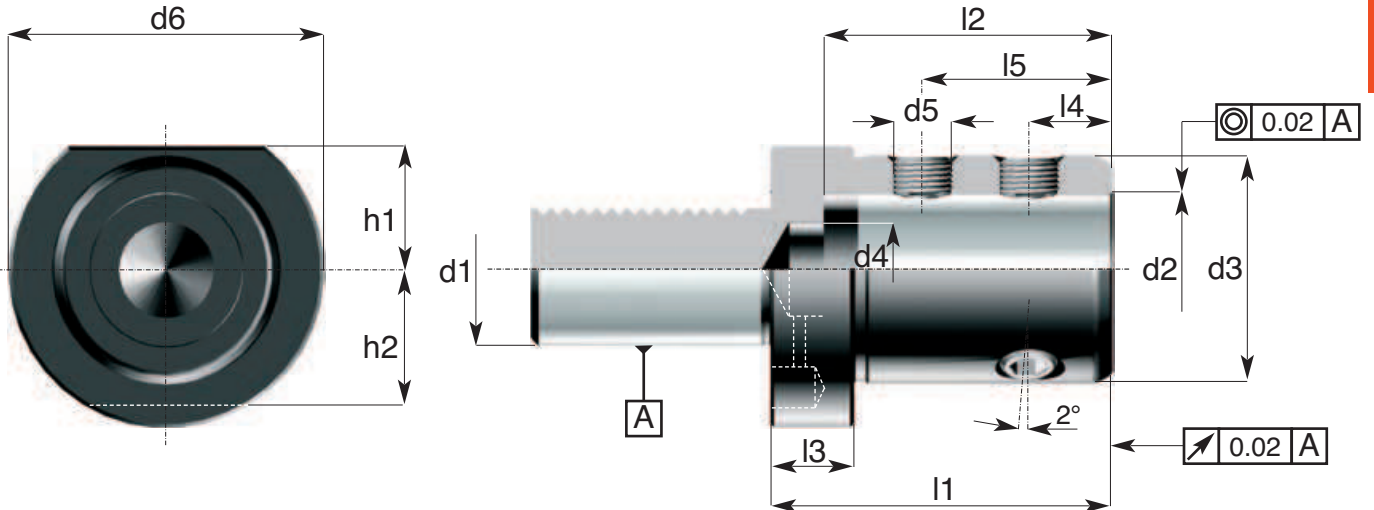


Portautensile per utensili cilindrici con lubrificazione interna
 Tool holder for tools with cylindrical shaft with inner cooling system
 Werkzeughalter mit Zylinderschaft für Werkzeuge mit Kühlrohr
 Porte-outil pour outils cylindriques avec lubrification interne

DIN 69880/3 E1

ART: 940

15.
7



Codice di ord Code	d1	d2 H6	d3	d4	d5	d6	h1	h2	l1	l2	l3	l4	l5
940.20.0160	20	16	36	12	M 10 X 1	50	23	23	67	54	18	15	35
940.20.0200	20	20	40	12	M 10 X 1	50	23	23	67	54	18	15	35
940.20.0250	20	25	45	17	M 12 X 1	50	23	23	71	59	18	17	40
940.30.0160	30	16	36	12	M 10 X 1	68	28	30	67	54	22	15	35
940.30.0200	30	20	40	12	M 10 X 1	68	28	30	67	54	22	15	35
940.30.0250	30	25	45	17	M 12 X 1	68	28	30	71	59	22	17	40
940.30.0320	30	32	52	24	M 12 X 1	68	28	30	75	63	22	20	44
940.30.0400	30	40	60	32	M 16 X 1	68	28	30	90	73	22	22	50
940.40.0160	40	16	36	12	M 10 X 1	83	32,5	-	67	54	22	15	35
940.40.0200	40	20	40	12	M 10 X 1	83	32,5	-	67	54	22	15	35
940.40.0250	40	25	45	17	M 12 X 1	83	32,5	-	75	59	22	17	40
940.40.0320	40	32	52	24	M 12 X 1	83	32,5	-	75	63	22	20	44
940.40.0400	40	40	60	32	M 16 X 1	83	32,5	-	90	73	22	22	54
940.40.0500	40	50	70	32	M 16 X 1	83	32,5	-	100	83	22	24	60
940.50.0200	50	20	40	12	M 10 X 1	98	35	-	67	54	30	15	35
940.50.0250	50	25	45	17	M 12 X 1	98	35	-	80	59	30	17	40
940.50.0320	50	32	52	24	M 12 X 1	98	35	-	80	63	30	20	44
940.50.0400	50	40	60	32	M 16 X 1	98	35	-	100	73	30	22	54
940.50.0500	50	50	70	42	M 16 X 1	98	35	-	100	83	30	24	60

15. PORTAUTENSILI per torni a CN DIN 69880 VDI 3425

TOOL HOLDERS for CNC lathes DIN 69880 VDI 3425



Portautensile per utensili cilindrici

Tool holder for tools with cylindrical shaft

Zylinderaufnahme für Drehwerkzeuge mit Zylinderschaft

Porte-outil pour outils cylindriques de tour

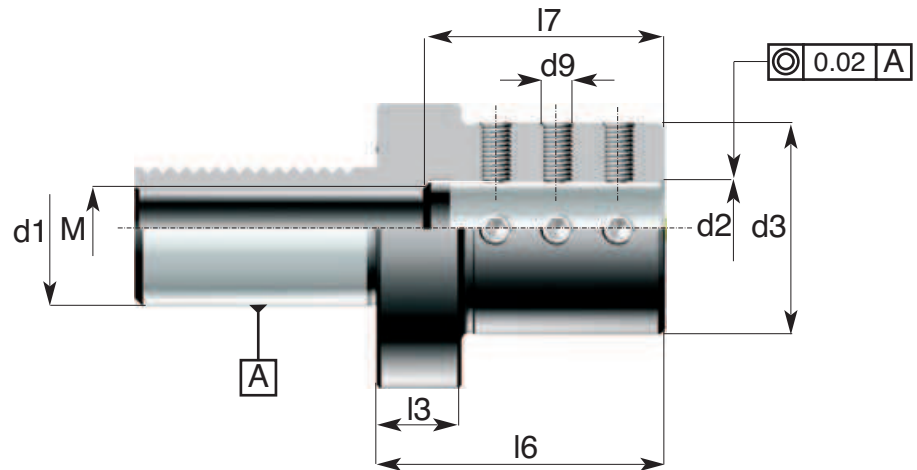
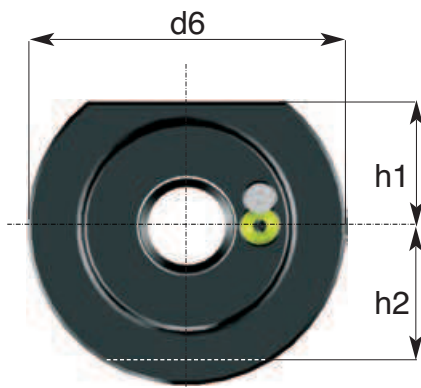
ACCESSORI PER MACCHINE UTENSILI



DIN 69880/3 E2

ART: 942

15.
8

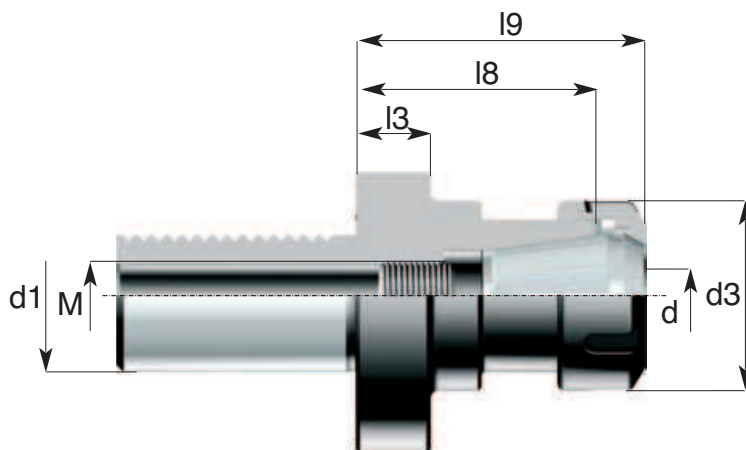
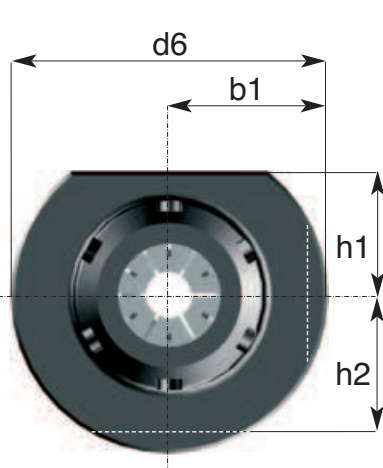


Codice di ord Code	d1	d2 H7	d3	d6	d7	d9	h1	h2	l3	l6	l7	M
942.20.0080	20	8	40	50	9	M 6	23	123	18	50	41	M 10 X 1
942.20.0100	20	10	40	50	9	M 6	23	23	18	50	41	M 10 X 1
942.20.0120	20	12	40	50	9	M 8	23	23	18	50	41	M 10 X 1
942.20.0160	20	16	40	50	9	M 8	23	23	18	50	41	M 10 X 1
942.20.0200	20	20	50	50	9	M 8	23	23	-	50	41	M 10 X 1
942.20.0250	20	25	50	50	9	M 8	-	23	-	60	51	M 10 X 1
942.30.0080	30	8	55	68	16,5	M 6	28	30	22	60	51	M 18 X 1,5
942.30.0100	30	10	55	68	16,5	M 6	28	30	22	60	51	M 18 X 1,5
942.30.0120	30	12	55	68	16,5	M 8	28	30	22	60	51	M 18 X 1,5
942.30.0160	30	16	55	68	16,5	M 8	28	30	22	60	51	M 18 X 1,5
942.30.0200	30	20	55	68	16,5	M 8	28	30	22	60	51	M 18 X 1,5
942.30.0250	30	25	55	68	16,5	M 8	28	30	22	60	51	M 18 X 1,5
942.30.0320	30	32	68	68	16,5	M 8	28	30	-	75	61	M 18 X 1,5
942.40.0080	40	8	55	83	20,5	M 8	32,5	-	22	75	61	M 22 X 1,5
942.40.0100	40	10	55	83	20,5	M 8	32,5	-	22	75	61	M 22 X 1,5
942.40.0120	40	12	55	83	20,5	M 8	32,5	-	22	75	61	M 22 X 1,5
942.40.0160	40	16	55	83	20,5	M 10	32,5	-	22	75	61	M 22 X 1,5
942.40.0200	40	20	55	83	20,5	M 10	32,5	-	22	75	61	M 22 X 1,5
942.40.0250	40	25	55	83	20,5	M 10	32,5	-	22	75	61	M 22 X 1,5
942.40.0320	40	32	83	83	20,5	M 10	32,5	-	-	75	61	M 22 X 1,5
942.40.0400	40	40	83	83	20,5	M 10	32,5	-	-	90	76	M 22 X 1,5
942.50.0120	50	12	68	98	26,5	M 10	35	-	30	90	76	M 28 X 1,5
942.50.0160	50	16	68	98	26,5	M 10	35	-	30	90	76	M 28 X 1,5
942.50.0200	50	20	68	98	26,5	M 12	35	-	30	90	76	M 28 X 1,5
942.50.0250	50	25	68	98	26,5	M 12	35	-	30	90	76	M 28 X 1,5
942.50.0320	50	32	68	98	26,5	M 12	35	-	30	90	76	M 28 X 1,5
942.50.0400	50	40	98	98	26,5	M 12	35	-	-	90	76	M 28 X 1,5
942.50.0500	50	50	98	98	26,5	M 12	35	-	-	100	86	M 28 X 1,5



ART: 944
 ghiera standard / standard nut

15.
9



Codice di ord Code	d1	ER	Capacità Pinza "d"	d3	d6	b1	l3	l8	l9	h1	h2	M
944.20.0160	20	ER 16	0,5 - 10	28	50	-	18	30	40	23	23	M 10 X 1
944.20.0250	20	ER 25	1 - 16	42	50	-	18	38	50	23	23	M 10 X 1
944.20.0320	20	ER 32	1 - 20	50	50	-	18	48	60	23	23	M 10 X 1
944.20.0400	20	ER 40	2 - 30	63	50	-	22	52	66	23	23	M 10 X 1
944.30.0250	30	ER 25	1 - 16	42	68	30	22	63	75	28	30	M 18 X 1,5
944.30.0320	30	ER 32	1 - 20	50	68	30	22	63	75	28	30	M 18 X 1,5
944.30.0400	30	ER 40	2 - 30	63	68	30	22	61	75	28	30	M 18 X 1,5
944.40.0250	40	ER 25	1 - 16	42	83	-	22	63	75	32,5	-	M 22 X 1,5
944.40.0320	40	ER 32	1 - 20	50	83	-	22	63	75	32,5	-	M 22 X 1,5
944.40.0400	40	ER 40	2 - 30	63	83	-	22	61	75	32,5	-	M 22 X 1,5
944.50.0400	50	RE 40	2 - 30	63	98	-	30	61	75	35	-	M 28 X 1,5

15. PORTAUTENSILI per torni a CN DIN 69880 VDI 3425

TOOL HOLDERS for CNC lathes DIN 69880 VDI 3425



ACCESSORI PER MACCHINE UTENSILI

Portautensile per utensili a cono Morse con tenone

Tool holder for Morse shank tools with tang

Werkzeughalter für Kegelschäfte mit Austreibblappen

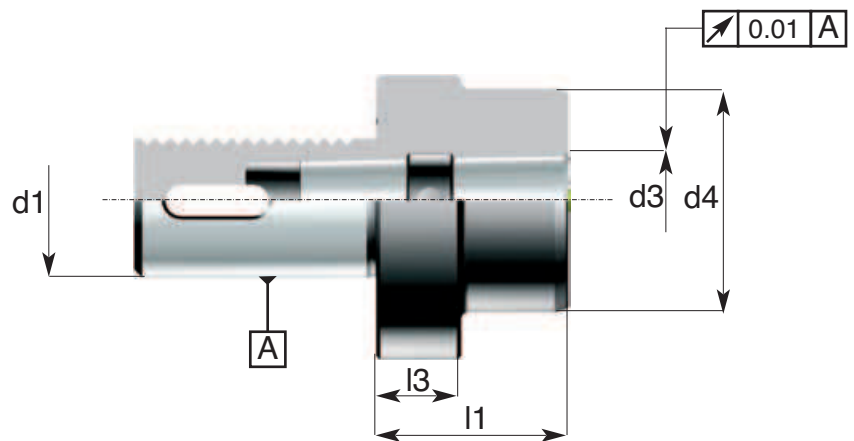
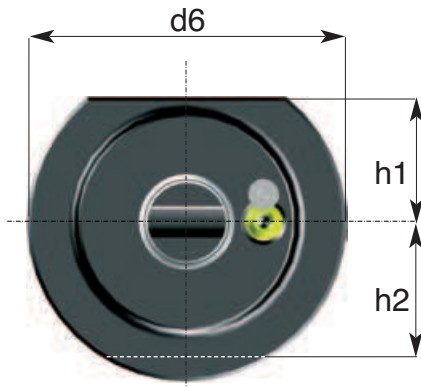
Porte-outil pour outils à cône Morse à tenon

DIN 69880/3 F



ART: 946

15.
10



Codice di ord Code	d1	MK	d2	d3	d4	h1	h2	l1	l3
946.20.0100	20	1	50	12,065	-	23	23	23	-
946.30.0100	30	1	68	12,065	-	28	30	27	-
946.30.0200	30	2	68	17,780	-	28	30	27	-
946.30.0300	30	3	68	23,825	-	28	30	45	-
946.40.0100	40	1	83	31,267	55	32,5	-	36	22
946.40.0200	40	2	83	17,780	55	32,5	-	36	22
946.40.0300	40	3	83	23,825	58	32,5	-	36	22
946.40.0400	40	4	83	31,267	68	32,5	-	80	22
946.50.0200	50	2	98	17,780	55	35	-	36	30
946.50.0300	50	3	98	23,825	58	35	-	36	30
946.50.0400	50	4	98	31,267	68	35	-	50	30

ACCESSORI PER MACCHINE UTENSILI

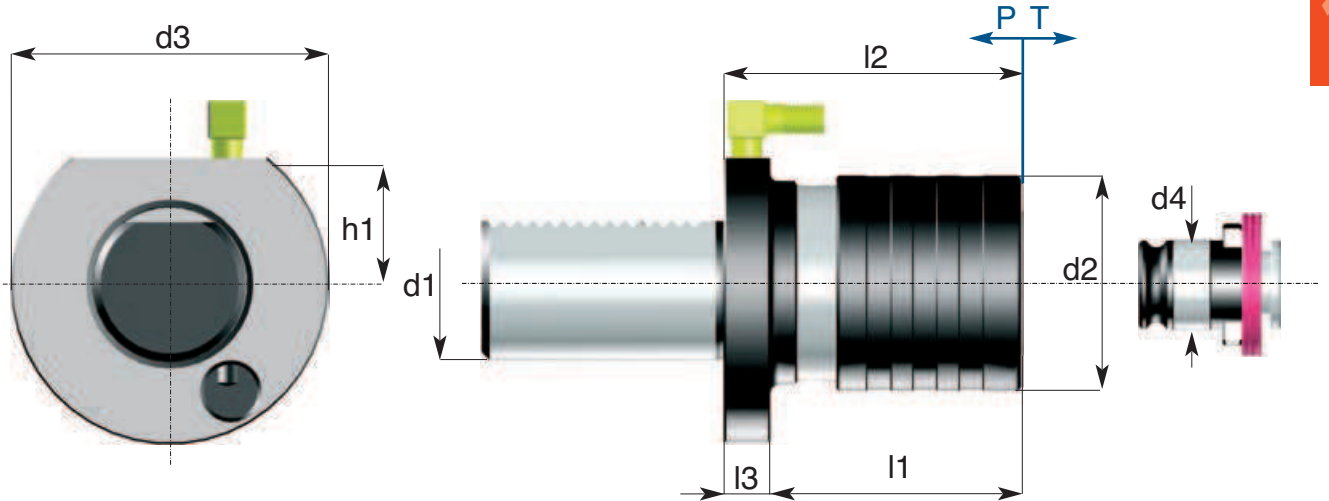
Portautensile con lubrificazione interna portamaschio ad attacco rapido
 Quick change tapping tool holder with inner cooling system
 Gewindeschneidfutter - Klemmering mit Kühlrohr
 Porte-outil pour tarauder à changement rapide avec lubrification interne



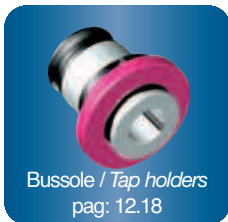
DIN 69880/3

ART: 948

15.
11



Codice di ord Code	d1	d2	d3	d4	h1	l1	l2	l3	Capacità maschiatore Tapping capacity	Compensazione assiale Axial compensator P
948.30.1205	30	36	68	19	28	43	55	12	M 3 - 12	5 7
948.30.2008	30	53	68	31	28	64	76	12	M 8 - 20	12 13
948.40.1205	40	36	83	19	32,5	47	55	12	M 3 - 12	5 7
948.40.2008	40	53	83	31	32,5	64	76	12	M 8 - 20	12 13
948.50.2008	50	53	98	31	35	67	79	12	M 8 - 20	12 13
948.50.3310	50	78	98	48	35	96	108	12	M 14 - 33	15 20



15. PORTAUTENSILI per torni a CN DIN 69880 VDI 3425

TOOL HOLDERS for CNC lathes DIN 69880 VDI 3425



Puntalino arrestobarra regolabile ed ammortizzato

Adjustable bar-stop shock-absorber

Einstellbare Drückstück- Stangesperre

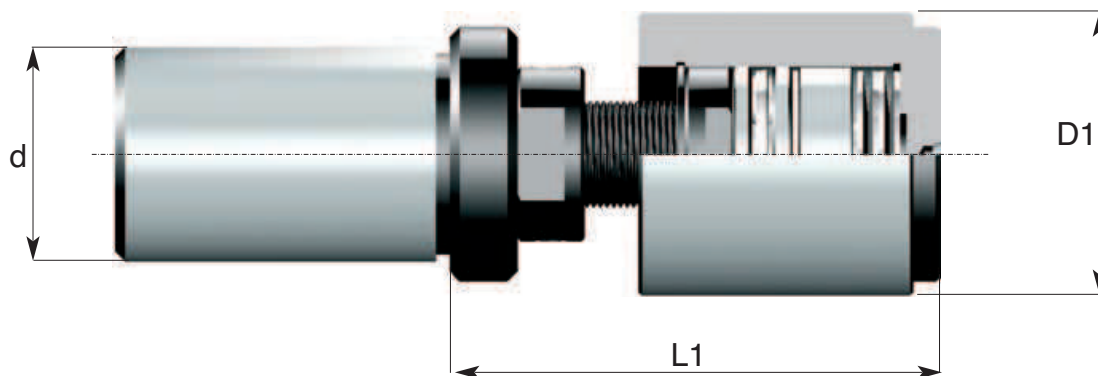
Butée de barre réglable amortie

ACCESSORI PER MACCHINE UTENSILI



ART: 234

15.
12



Codice di ord Code	d	D1	Min	L1	Max
234.25.0420	25	42	67		80
234.32.0420	32	42	67		80



www.delta-spa.com



DELTA
1981
801 992 882

COMPLETE COMPLETE COMPLETE COMPLETE
COMPLETE COMPLETE COMPLETE COMPLETE

DELTA 81 82 83 84
DELTA 81 82 83 84

DELTA 81 82

COMPLETE COMPLETE COMPLETE COMPLETE

DELTA 81 82 83 84
DELTA 81 82 83 84

DELTA 81 82
DELTA 81 82 83 84

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DELTA 81 82

COMPLETE COMPLETE COMPLETE COMPLETE

DELTA 81 82
DELTA 81 82 83 84

PORTAUTENSILI A CONO ISO DIN 2088 E MORSE PER MACCHINE UTENSILI TRADIZIONALI
CONTROPUNTE ROTANTI E FISSE - MANDRINI MASCHIATORI A CAMBIO RAPIDO

TOOLHOLDERS FOR MILLING AND DRILLING MACHINES WITH ISO AND MORSE
PRECISION RUNNING TOOL CENTERS - QUICK CHANGE TAPPING CHUCKS

PORTAUTENSILI A CONO ISO DIN 69871/A-B, CAT E MRS BT 403 PER CENTRI DI LATO
A CONTROLLO NUMERICO

TOOLHOLDERS FOR CNC MACHINERY WITH ISO DIN 69871/A-B, CAT AND MRS BT 403

PORTAUTENSILI CON ATTACCO HSK DIN 69893 FORMA A -

TOOLHOLDERS WITH HSK TAPER DIN 69893 FORM A

MANDRINO HYDRO DELTA A CHIUSURA IDRAULICA

HYDRO DELTA CHUCKS HYDRAULIC CLAMP

PORTAUTENSILI PER TORNI A CONTROLLO NUMERICO DIN 69888 UDI 3

TOOLHOLDERS FOR NC LATHES DIN 69888 UDI 3

MANDRINI MACCHINA PRINCIPALI - PORTAUTENSILI SPECIALI A DISEGNO CLIENTI

MACHINE MAIN SPINDLES - SPECIAL TOOLHOLDERS ON CUSTOMER'S REQUEST

DELTA 81 82
DELTA 81 82 83 84

COMPLETE COMPLETE COMPLETE COMPLETE

DELTA 81 82
DELTA 81 82 83 84

COMPLETE COMPLETE COMPLETE COMPLETE

DELTA 81 82
DELTA 81 82 83 84

DELTA 81 82
DELTA 81 82 83 84

16.4

- Portautensile a 45°
45° toolholder

16.4

- Portautensile assiale
Axial toolholder

16.5

- Portautensile per punte ad inserti
Toolholder indexable insertdrills

16.5

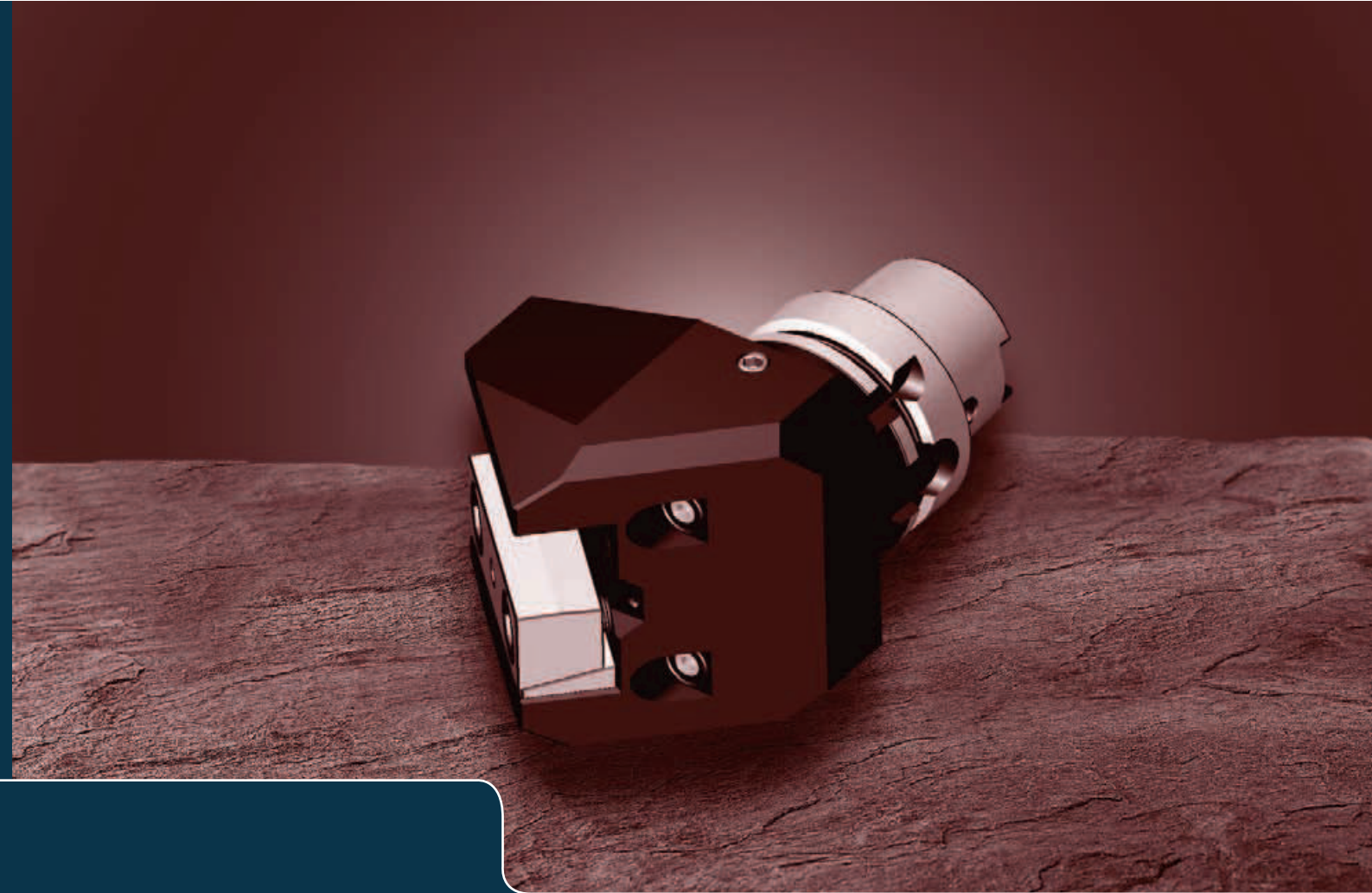
- Portautensile per utensili cilindrici
Toolholder ifor cylindrical

16.6

- Portapinze ER DIN 6499
Collet chucks ER DIN 6499

16.7

- Barre semifinite
Unfinished taper-shank blanks



**DIN 69893/1-A-ICTM
STANDARD**
Attacchi
con cono HSK-A
Attachments
with HSK-A cone

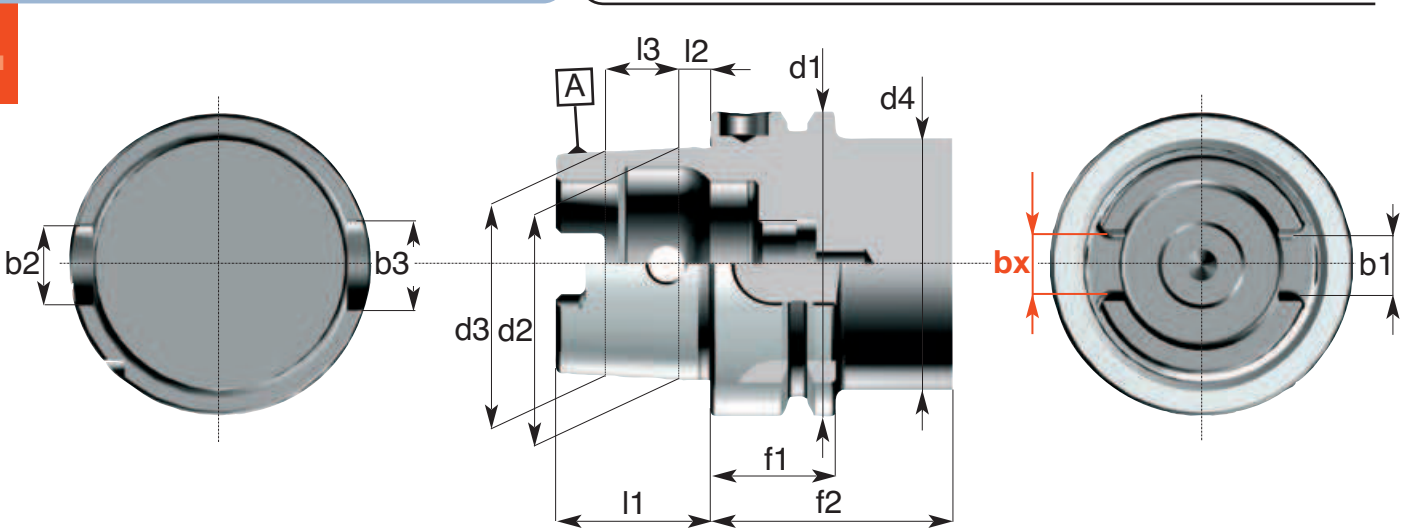
16

 **delta**

ICTM Standard



Attacchi HSK-A ICTM Standard



Riferimento Item	d1	d2	d3	d4 max	l1	l2	l3	f1	f2 min	bx +0.02 0	b1	b2	b3
HSKA 63	63	48	46.53	53	32	6.3	14.7	26	42	12.425	12.5	16	18

**CARATTERISTICHE TECNICHE
 DEI MANDRINI HSK**

- Costruiti in acciaio da cementazione legato
- Cementati con profondità 0,8-1mm
Temprati • Rinvenuti • Sabbati e bruniti
- Durezza HRC 58±2 • Resistenza al nucleo 800-1000 N/mm²
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni HSK è AT2

**STANDARD FEATURES
 OF HSK TOOLING**

- Manufactured with Nickel Chrome Molybdenum steel
- Carburized with depth of case 0,8-1 mm
• Hardened and tempered • Black oxidized
- Surface Hardness RC 58±2 • Tensile strenght of core 800-1000 N/mm²
- Precision ground on shanks, inside tapers and collet nut threads
- Tested with high precision inspection and gaging equipment
- Taper accuracy of HSK SHANKS is AT2



Adduttore Refrigerante per HSK da ordinare a parte Pag. 12.42
 Coolant pipe for HSK to be ordered separately Pag. 12.42

Attacchi HSK-A ICTM Standard

CARATTERISTICHE TECNICHE DEI MANDRINI HSK-A ICTM

Lo standard ISO mostrato sulla sinistra, risente del gioco tra la chiave e il trascinatori. Di conseguenza, al cambio dell'utensile (ATC), avviene una variazione nell'altezza dell'orlo di taglio dell'utensile. Ciò provoca variazioni dei diametri di taglio ed un uso non corretto dell'inserto, che utilizzato con angoli di taglio non ottimali non ne permette la massima resa.

Lo standard ICTM riduce al minimo il gioco tra la chiave ed il trascinatori evitando queste variazioni.

STANDARD FEATURES OF HSK-A ICTM TOOLING

The ISO standard HSK as shown on the left, suffers from gap between the key and key way. Thus when tool changing (ATC), a variation in cutting edge tool heights occurs. This can result in variations of cutting diameters.

ICTM standard set up the gap between the key and key way as small as possible and avoid these variations.

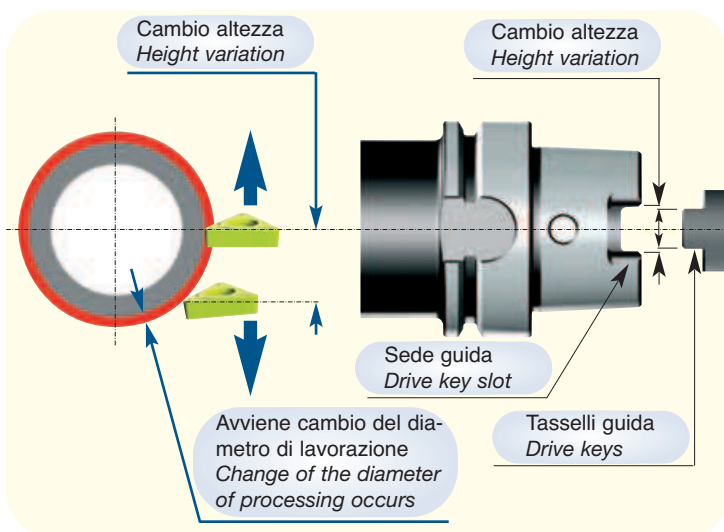


Fig 1 - Variazione dovuta al gioco
Fig 1 - Variation by the gap

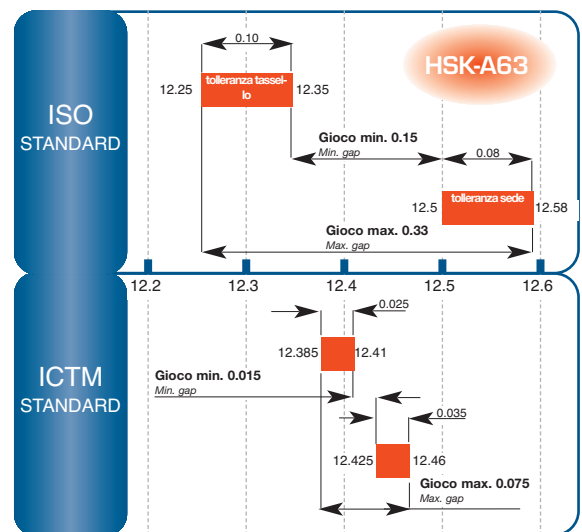


Grafico 1 - Comparazione del gioco tassello e sede (mm)
Graph 1 - Comparison of the gap of a key and key slot (mm)

16. PORTAUTENSILI HSK-A-63 SMART TOOL HOLDERS HSK-A-63 SMART

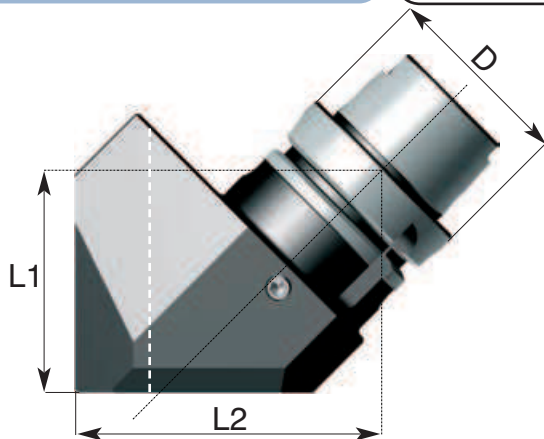
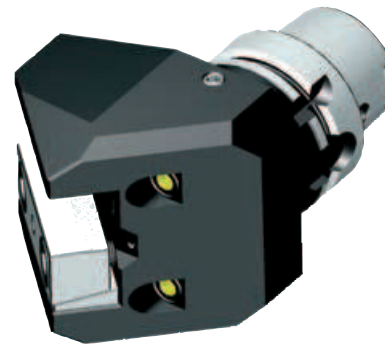


Portautensile a 45°
45° tool holder
Werkzeughalter 45°
Porte-outil à 45°

ACCESSORI PER MACCHINE UTENSILI

DIN 69893/1-A ICTM Standard

ART: HSKA.904
standard / standard lenght

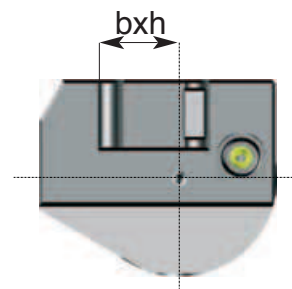
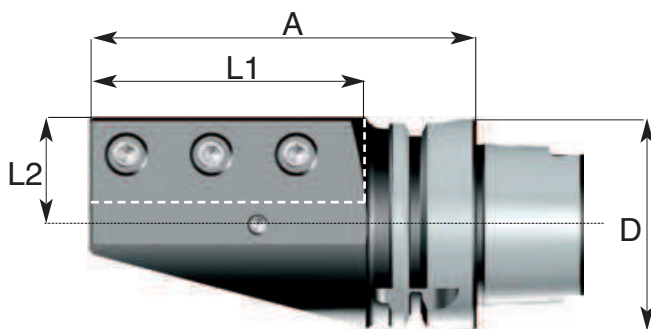


Codice di ord Code	HSK-A	D	L1	L2	A	bXh
HSKA.904.63.2573	HSK 63	63	73	101	44	25X25

Portautensile assiale
Axial tool holder
Axial werkzeughalter
Porte-outil axial

DIN 69893/1-A ICTM Standard

ART: HSKA.906/908
standard / standard lenght



Codice di ord Code	HSK-A	D	L1	L2	A	bXh
HSKA.906.63.2576 (Sinistro-Left)	HSK 63	63	76	32	115	25X25
HSKA.908.63.2576	HSK 63	63	76	32	115	25X25

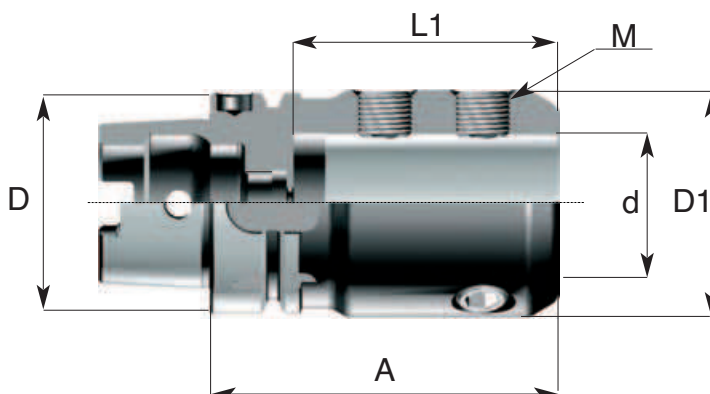
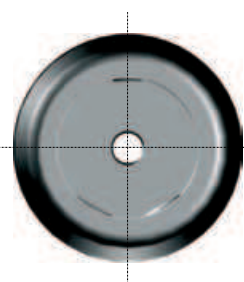
ACCESSORI PER MACCHINE UTENSILI



Portautensile per punte ad inserti
 Tool holder for indexable insertdrills
 Werkzeughalter für Wendelplattenbohrer
 Porte-outil pour forets à plaquettes

DIN 69893/1-A ICTM Standard

ART: HSKA.940
 standard / standard length



16.
5

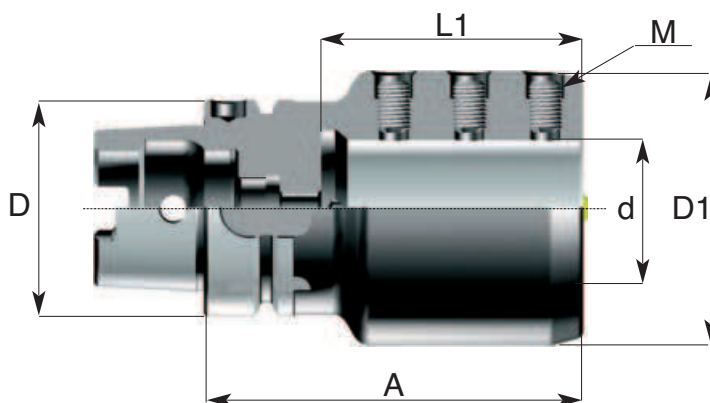
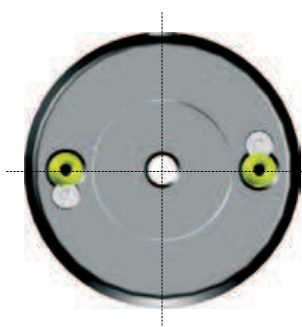
Codice di ord Code	HSK-A	D	d H5	D1	A	L1	M
HSKA.940.63.0200	HSK 63	63	20	40	80	54	M10X1
HSKA.940.63.0250	HSK 63	63	25	45	90	64	M12X1
HSKA.940.63.0320	HSK 63	63	32	52	90	64	M12X1
HSKA.940.63.0400	HSK 63	63	40	65	100	76	M16X1



Portautensile per utensili cilindrici
 Tool holder for tools with cylindrical shaft
 Zylinderaufnahme für Drehwerkzeuge mit Zylinderschaft
 Porte-outil pour outils cylindriques de tour

DIN 69893/1-A ICTM Standard

ART: HSKA.942
 standard / standard length



Codice di ord Code	HSK-A	D	d H5	D1	A	L1	M
HSKA.942.63.0400	HSK 63	63	40	80	110	76	M10

16. PORTAUTENSILI HSK-A-63 SMART TOOL HOLDERS HSK-A-63 SMART



Mandrini portapinze ER DIN 6499

Collet chucks ER DIN 6499

Spannzangenhalter ER DIN 6499

Mandrins porte-pinces ER DIN 6499

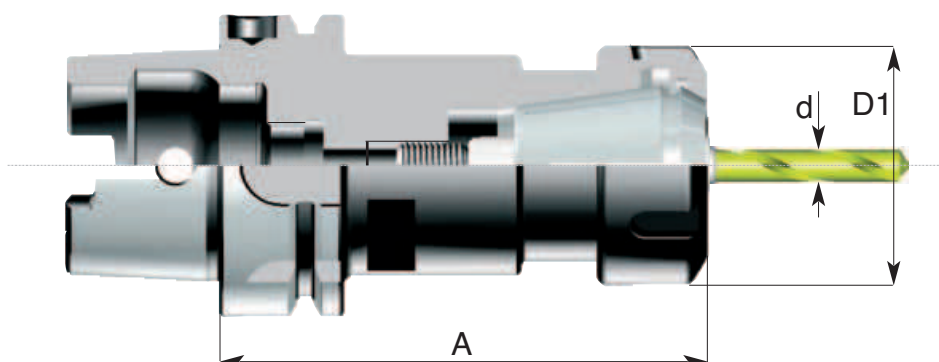
ACCESSORI PER MACCHINE UTENSILI



DIN 69893/1-A

ART: HSKA.607
standard / standard length

16.
6



Pinze / Collets
pag: 12.6



Ghiera / Nuts
pag: 12.13

Codice di ord Code	HSK-A	ER	A	D1	Cap. di chiusura Pinza "d" Capacity range "d"	Ghiera Nut
HSKA.607.63.0160	HSK 63	ER 16	100	28	0,5-10	245.22.ER16
HSKA.607.63.0162M	HSK 63	ER 16	160	22	0,5-10	245.19.ER16M
HSKA.607.63.0250	HSK 63	ER 25	100	42	1-16	245.32.ER25
HSKA.607.63.0320	HSK 63	ER 32	100	50	1-20	245.40.ER32
HSKA.607.63.0322	HSK 63	ER 32	150	50	1-20	245.40.ER32
HSKA.607.63.0400	HSK 63	ER 40	100	63	2-30	245.50.ER40

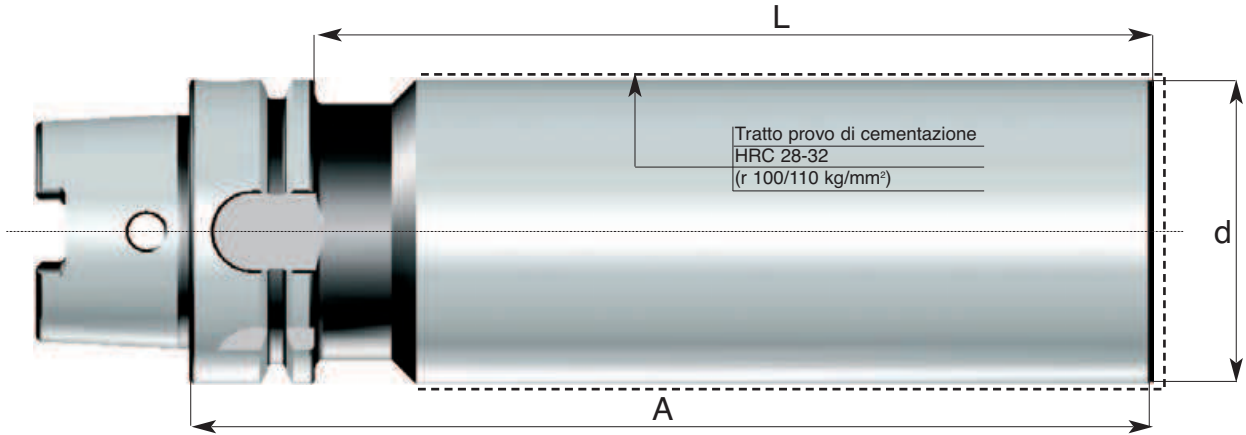
ACCESSORI PER MACCHINE UTENSILI

Barre semifinite con tratto cilindrico privo di cementazione per esecuzioni speciali
Unfinished taper-shank blanks for special applications
Rohlinge für spezielle Anwendungen
Ebauches pour applications spéciales



DIN 69893/1-A ICTM Standard

ART: HSKA.424...I
standard / standard lenght



16.
7

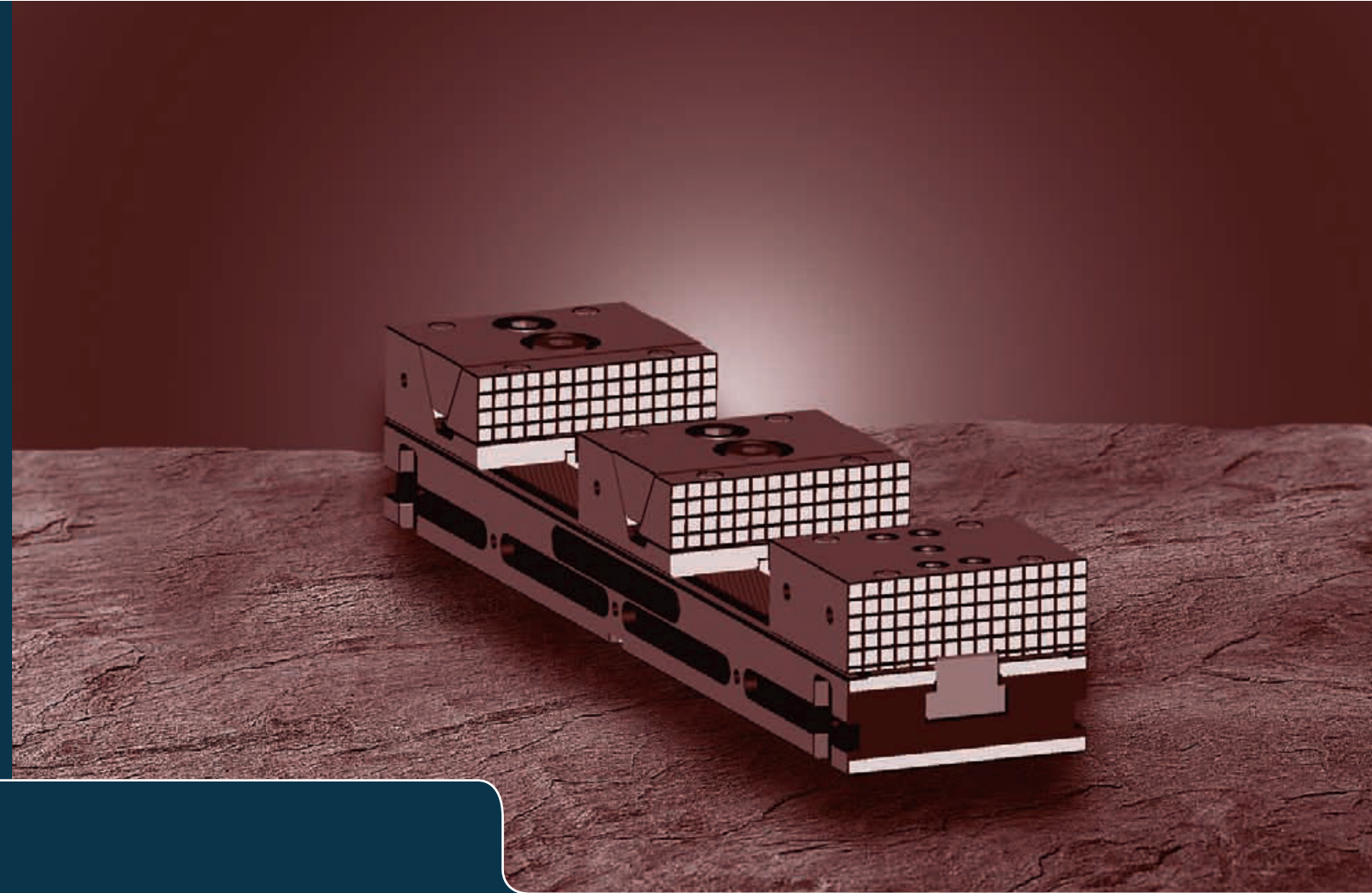
Codice di ord <i>Code</i>	SK	d	A	L
HSKA.424.63.0634I	HSK 63	63	326	300
HSKA.424.63.1002I	HSK 63	98	226	200

17.2

- Morse Modulari MULTI-BLOCK
MULTI-BLOCK modular vice

17.12

- Morse Modulari MAGNUM
MAGNUM modular vice

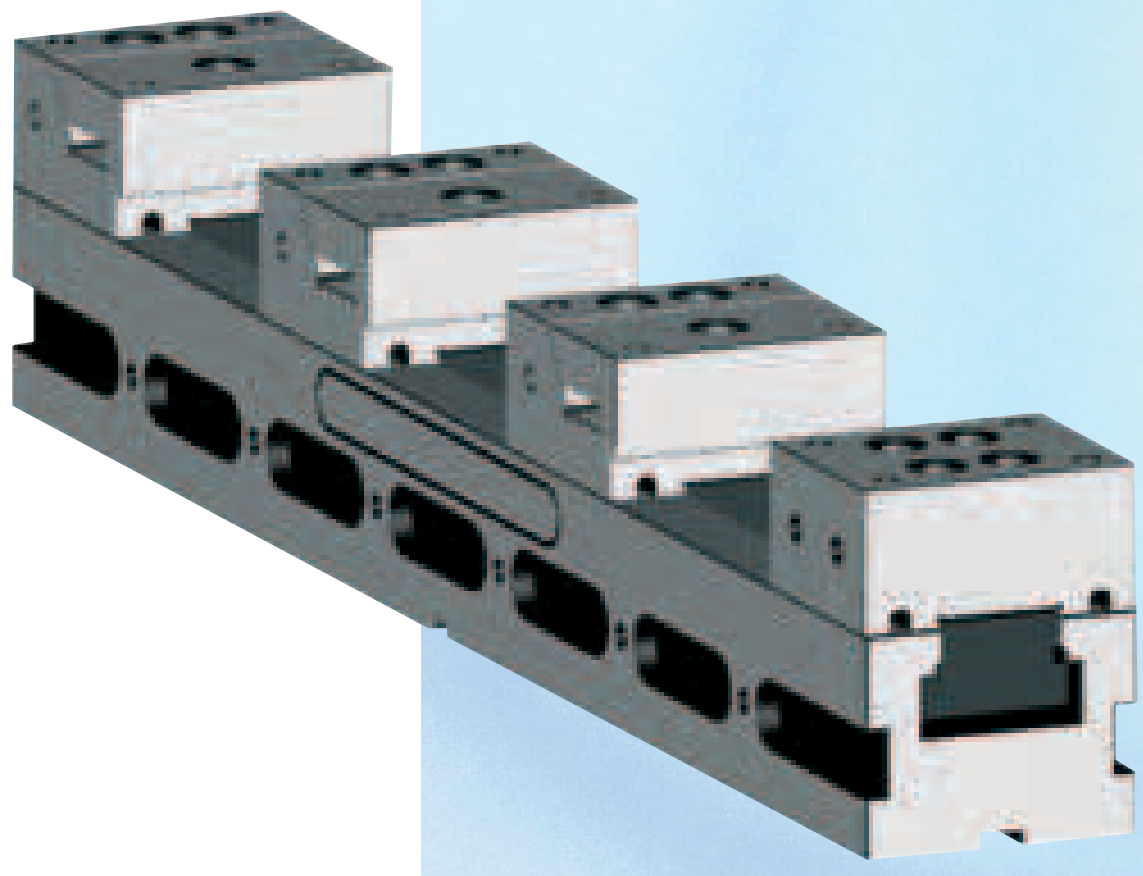


**MULTI-BLOCK
MAGNUM**
Morse modulari
Modular vice

17

 **delta**

 delta **MULTI-BLOCK**  delta



17. MORSE MODULARI "MULTI-BLOCK"

"MULTI-BLOCK" VICE

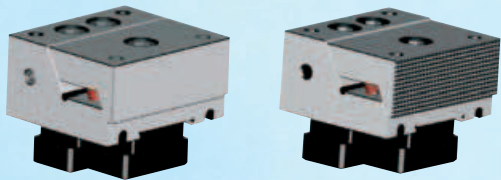
17.4

- Caratteristiche tecniche / *Technical features*



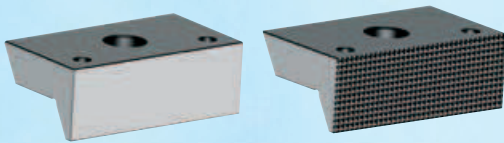
17.7

- Corpo morsa modulare / *Modular vice*



17.8

- Morsetti standard / *Standard supports*



17.9

- Ganasce mobili / *Mobile jaws*

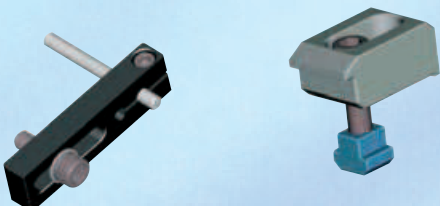
16. ACCESSORI ACCESSORIES

per Morse "MULTI-BLOCK"
for "MULTI-BLOCK" Vice



17.10

- Tasselli di allineamento / *Positioning key-nuts*



17.11

- Riferimenti regolabili e staffe / *Adjustable side-stop and clamping blocks*

tipo morsa **MULTI-BLOCK MB.50**

Materiale:	18NiCrMo5
Durezza superficiale HRC:	58-60
Peso slittone 400 + fermo:	6.5 Kg
Peso slittone 500 + fermo:	9.3 Kg
Peso slittone 630 + fermo:	11.5 Kg
Peso morsetto:	1.4 Kg
forza di serraggio Max N:	20000
Coppia di serraggio Nm:	60

tipo morsa **MULTI-BLOCK MB.90**

Materiale:	18NiCrMo5
Durezza superficiale HRC:	58-60
Peso slittone 400 + fermo:	17 Kg
Peso slittone 500 + fermo:	20.5 Kg
Peso slittone 630 + fermo:	25 Kg
Peso morsetto:	3 Kg
forza di serraggio Max N:	20000
Coppia di serraggio Nm:	60

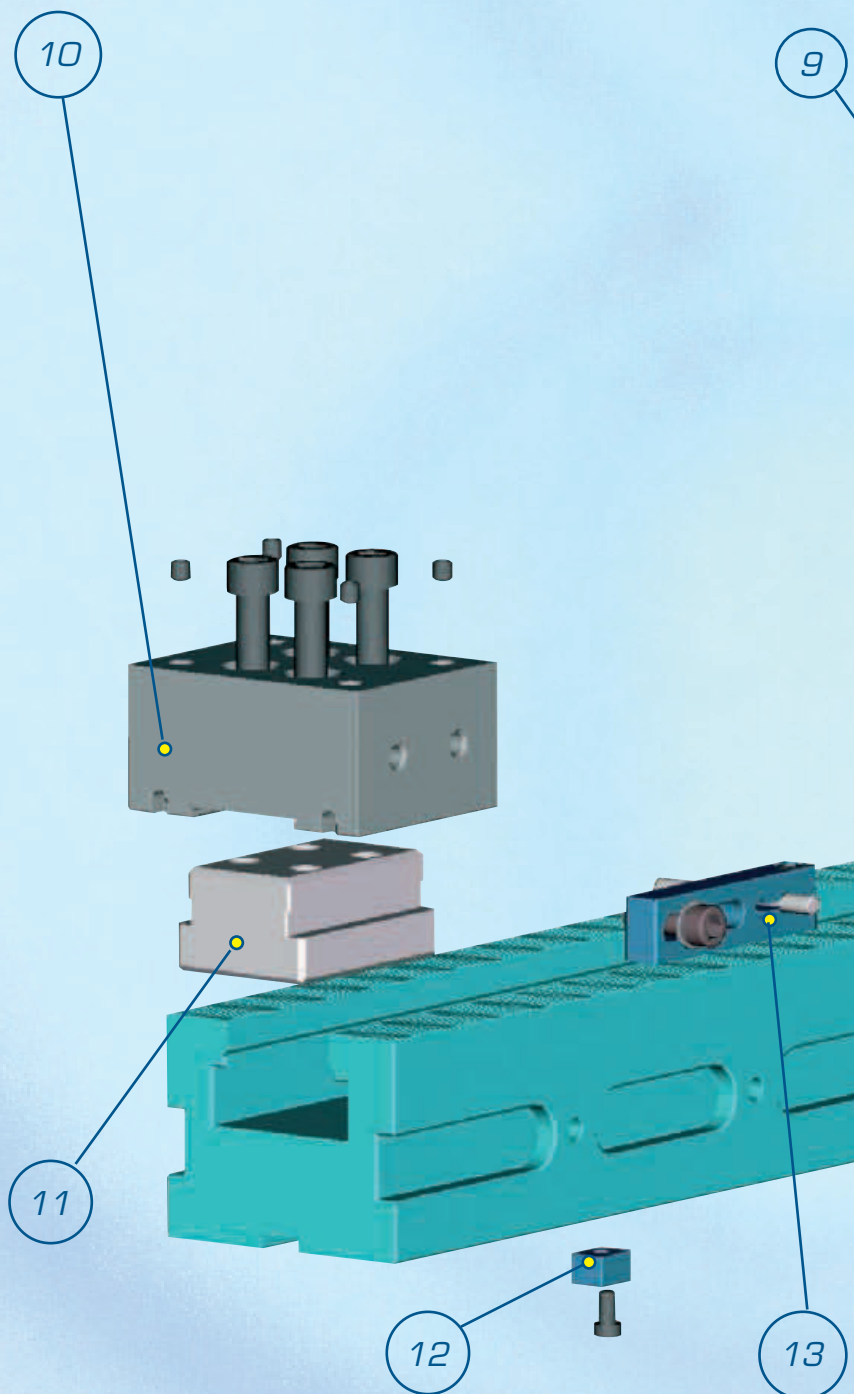
CARATTERISTICHE:

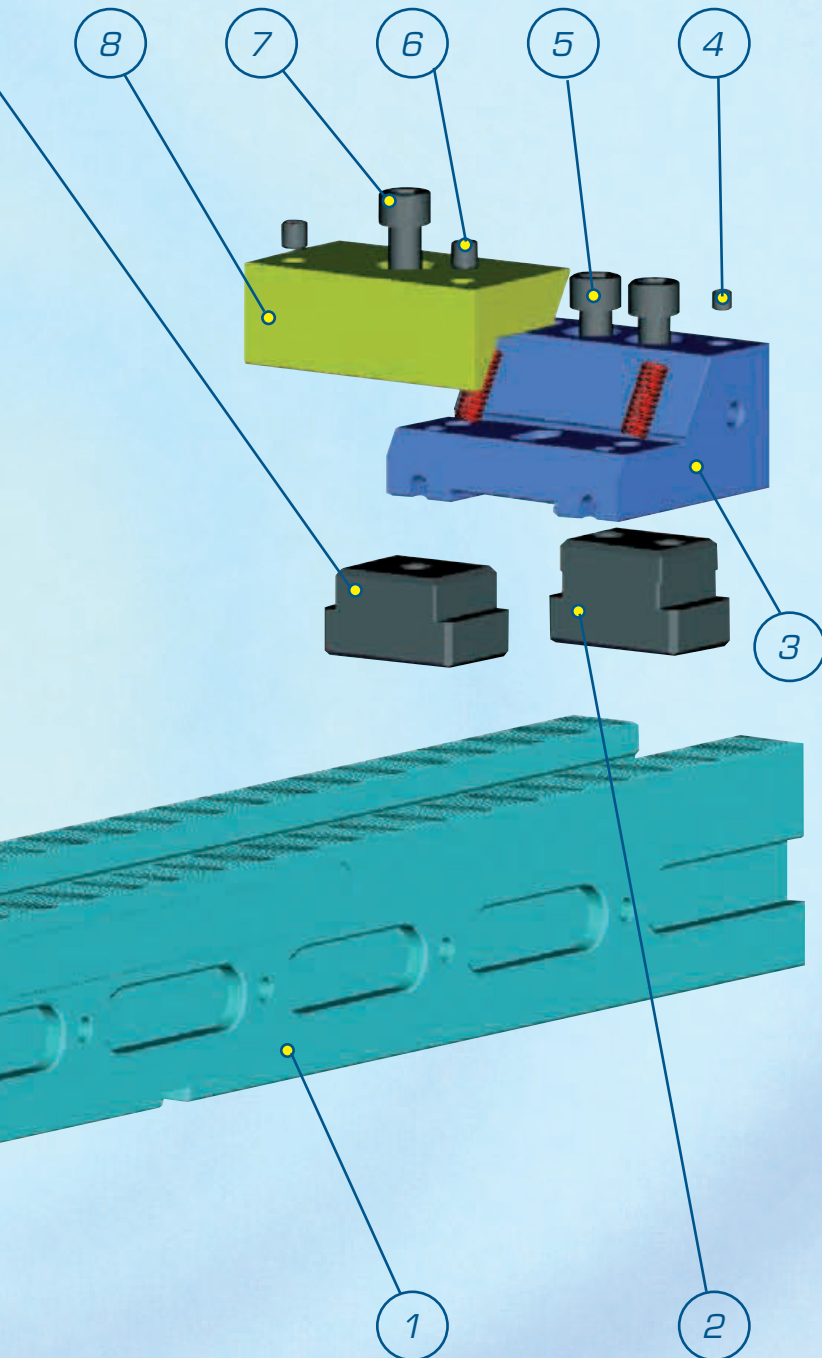
- Elevata forza di serraggio
- Elevato grado di precisione che permette posizionamenti precisi e rapidi nonché la possibilità di lavorare accoppiate;
- **Intercambiabilità dei componenti**
- Ottimo assorbimento delle vibrazioni con conseguente aumento della velocità di taglio, durata dell'inserto e della finiture superficiali;
- **possibilità di bloccaggi multipli**

CHARACTERISTICS:

- High clamping power
- High precision that allows precise and fast positioning and the possibility to work in couple
- Interchangeability of the components
- Excellent vibrations absorption whit consequent increase of the cutting speed , of the life of the insert and of the surface finishing quality.
- Possibility of multiple clamping

COMPONENTI
COMPONENTS





Vice type	MULTI-BLOCK MB.50
Material:	18NiCrMo5
Surface hardness HRC:	58-60
Saddle 400 + support weight:	6.5 Kg
Saddle 500 + support weight:	9.3 Kg
Saddle 630 + support weight:	11.5 Kg
Movable support weight:	1.4 Kg
Clamping power Max N:	20000
Clamping couple Nm:	60

**17.
5**

Vice type	MULTI-BLOCK MB.90
Material:	18NiCrMo5
Surface hardness HRC:	58-60
Saddle 400+support weight:	17 Kg
Saddle 500+support weight:	20.5 Kg
Saddle 630+support weight:	25 Kg
Movable support weight:	3 Kg
Clamping power Max N:	20000
Clamping couple Nm:	60

posizione position	denominazione name
01	Slittone base / Base saddle
02	Tassello di bloccaggio / Locking key-nut
03	Molla / Spring
04	Grano / Headless screw
05	Supporto mobile / Mobile support
06	Grano / Headless screw
07	Vite / Screw
08	Ganascia mobile / Mobile jaw
09	Tassello mobile / Flowing key-nut
10	Ganascia fissa / Fixed jaw
11	Tassello di bloccaggio / Locking key-nut
12	Tassello di allineamento / Position key-nut
13	Arresto pezzo / Adjustable side-stop

17. MORSE modulari MULTI-BLOCK

Modular VICE MULTI-BLOCK



ACCESSORI PER MACCHINE UTENSILI

Dati tecnici

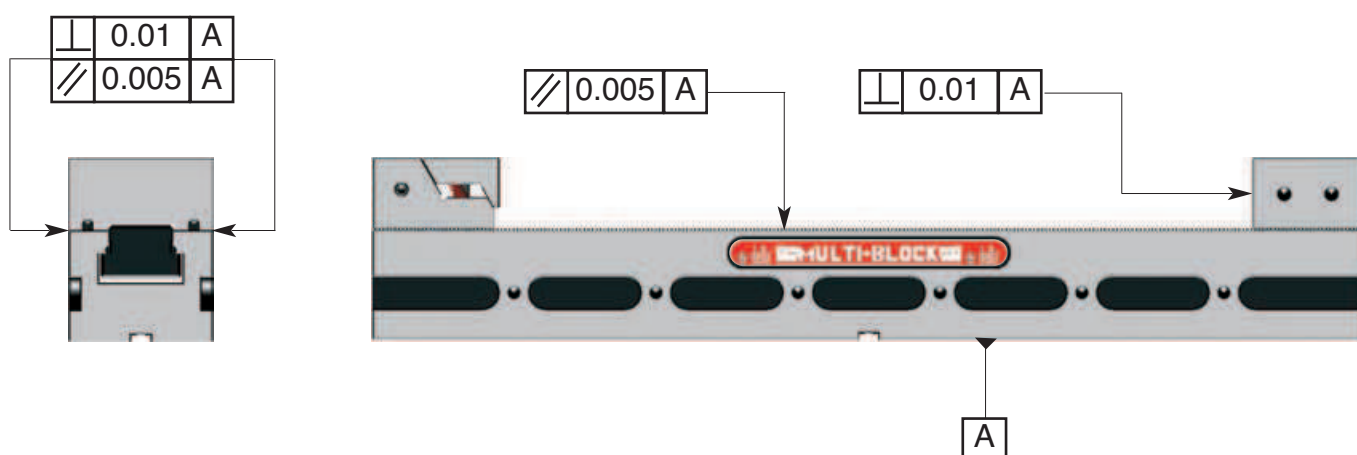
Technical data
Technische Angaben
Données techniques

MULTI-BLOCK



ART. MB.....

17.
6



Capacità di chiusura per pezzi montati
Closing capacity for number of pcs.

n° Pz MB.50..... MB.90.....

	n° Pz	MB.50.....			MB.90.....		
		400	500	630	400	500	630
	1	278	378	508	250	350	480
	2	103	153	218	85	135	200
	3	45	78	121	30	62	105
	4	15	40	73	-	27	60

ACCESSORI PER MACCHINE UTENSILI

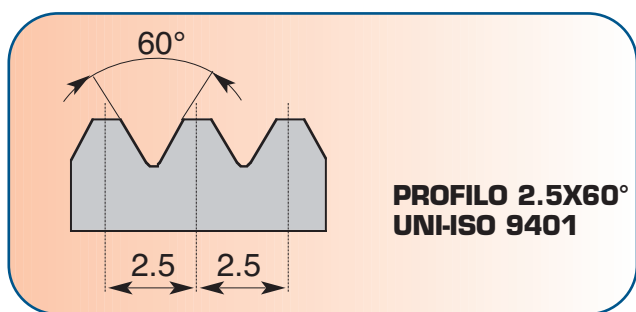
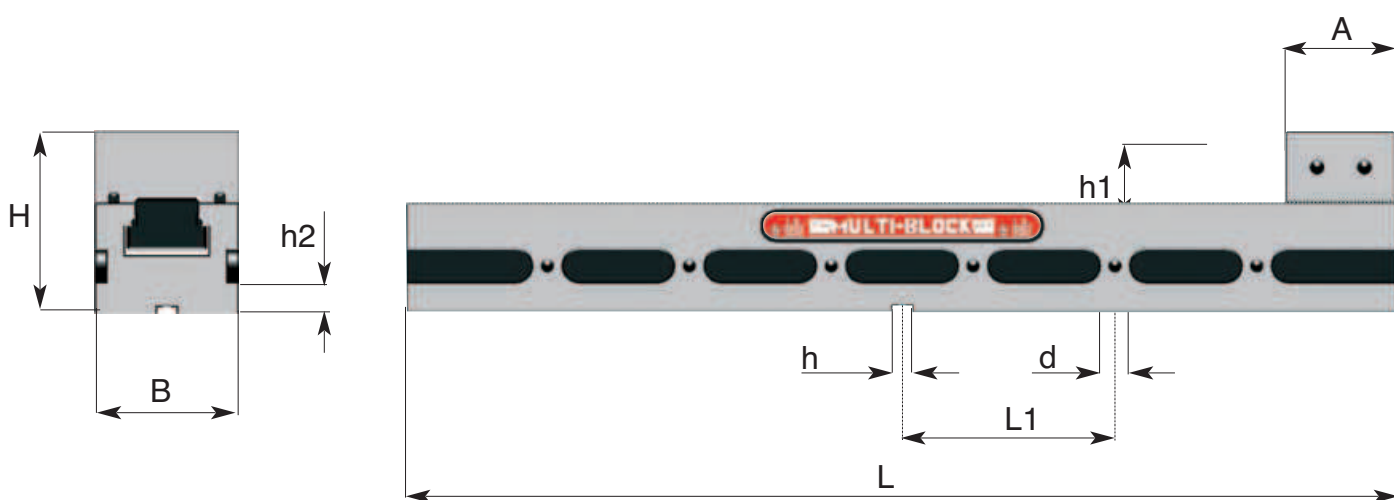
Slittone base
Base saddle
Basischlitten
Coulisseau de base



MULTI-BLOCK

ART. MB.....

17.
7



Codice di ord Code	B	L	L1	H	h	h1	h2	A	d
MB.50.0400	50	400	100	101	12	40	12	60	13
MB.50.0500	50	500	150	101	12	40	12	60	13
MB.50.0630	50	630	200	101	12	40	12	60	13
MB.90.0400	90	400	100	116	12	45	20	70	13
MB.90.0500	90	500	150	116	12	45	20	70	13
MB.90.0630	90	630	200	116	12	45	20	70	13

17. MORSE modulari MULTI-BLOCK

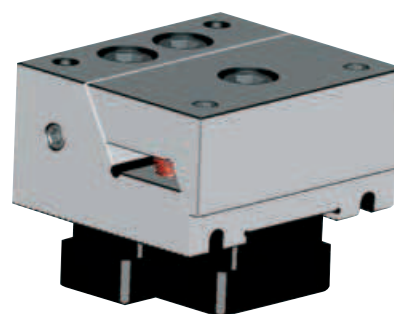
Modular VICE MULTI-BLOCK



Morsetto mobile

Movable support
Verstellbare Klemme
Etau mobile

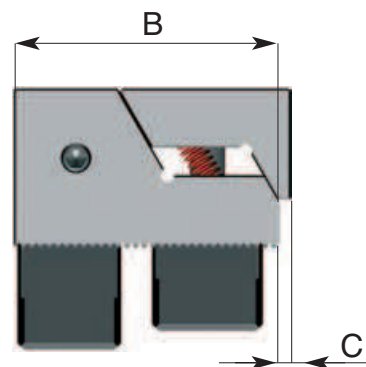
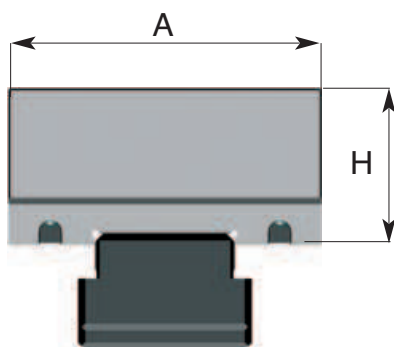
ACCESSORI PER MACCHINE UTENSILI



MULTI-BLOCK

ART. MM.....

17.
8



Codice di ord Code	A	B	H	C
MM.50.70.40	50	70	40	7
MM.90.80.45	90	80	45	8

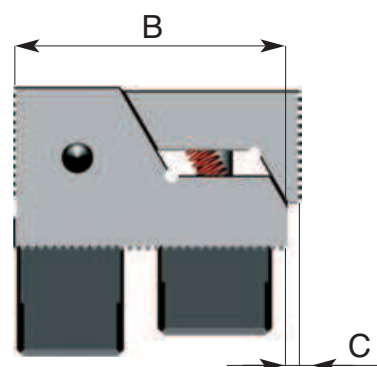
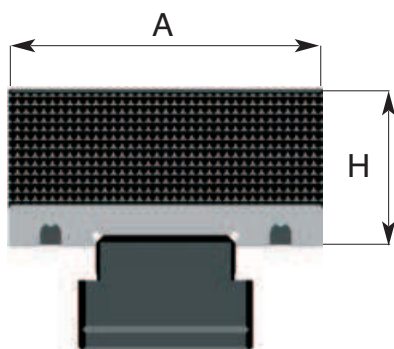
Morsetto mobile zigrinato

Grooved movable support
Verstellbare Rändelklemme
Etau mobile moleté



MULTI-BLOCK

ART. MM.....Z



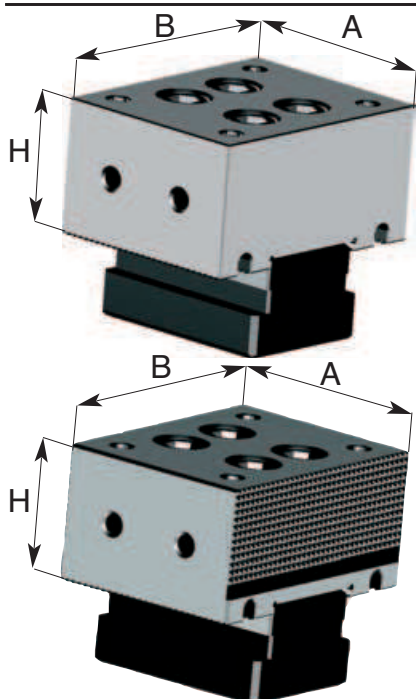
Codice di ord Code	A	B	H	C
MM.50.70.40.Z	50	70	40	7
MM.90.80.45.Z	90	80	45	8

Blocchetto fisso
Fixed standard support
Feste Klemme
Blochet fixe

MULTI-BLOCK

ART. MB.....

17.
9



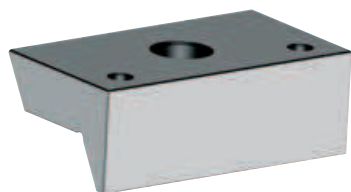
Codice di ord Code	Per morsa modulare	A	B	H
MB.50.0000.01	MB.50.0400 / 500 / 630	50	60	40
MB.90.0000.01	MB.90.0400 / 500 / 630	90	70	45

Codice di ord Code	Per morsa modulare	A	B	H
MB.50.0000.01.Z	MB.50.0400 / 500 / 630	50	60	40
MB.90.0000.01.Z	MB.90.0400 / 500 / 630	90	70	45

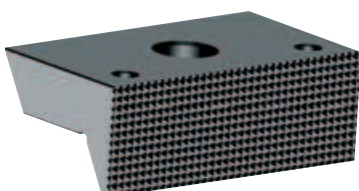
Ganascia mobile
Mobile jaw
Verstellbar Spannbacken
Mâchoire mobile

MULTI-BLOCK

MM.....



Codice di ord Code	Per morsa modulare tipo: For modular vice tipe:
MM.50.70.40.02	MB.50.0400 / 500 / 630
MM.90.80.45.02	MB.90.0400 / 500 / 630



Codice di ord Code	Per morsa modulare tipo: For modular vice tipe:
MM.50.70.40.02.Z	MB.50.0400 / 500 / 630
MM.90.80.45.02.Z	MB.90.0400 / 500 / 630

17. MORSE modulari MULTI-BLOCK

Modular VICE MULTI-BLOCK



Tasselli di allineamento morsa

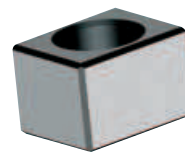
Position key-nuts

Ausrichten-Einsatzstück

Chevilles d'alignement

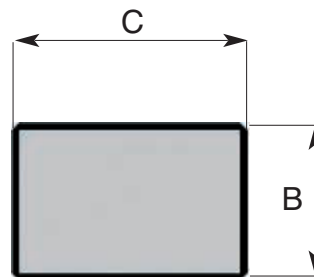
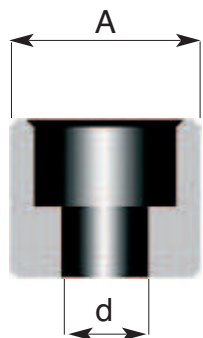
ACCESSORI PER MACCHINE UTENSILI

MULTI-BLOCK



ART. MA.0002.1212

17.
10



Codice di ord Code	A h7	B	C	d
MA.0002.1212	12	10	15	5.5

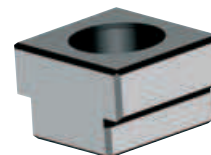
Tasselli adattatori di allineamento morsa

Adapter key-nuts

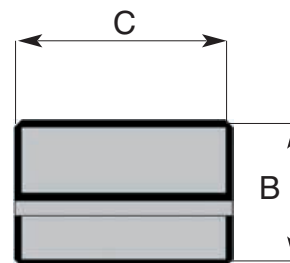
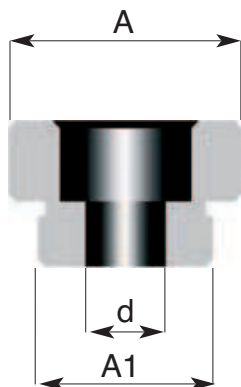
Adapter-Einsatzstück

Chevilles d'adaptation

MULTI-BLOCK



ART. MA.0002.12XX



Codice di ord Code	A h7	A1 h7	B	C	d
MA.0002.1214	14	12	12	15	5.5
MA.0002.1216	16	12	12	15	5.5



MULTI-BLOCK

ART. MA.0001

Codice di ord
Code

MA.0001

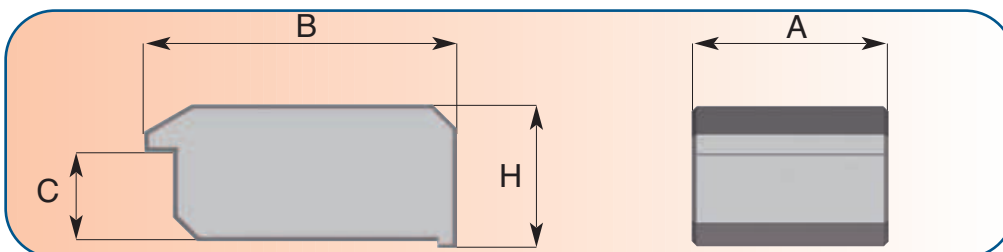
17.
11



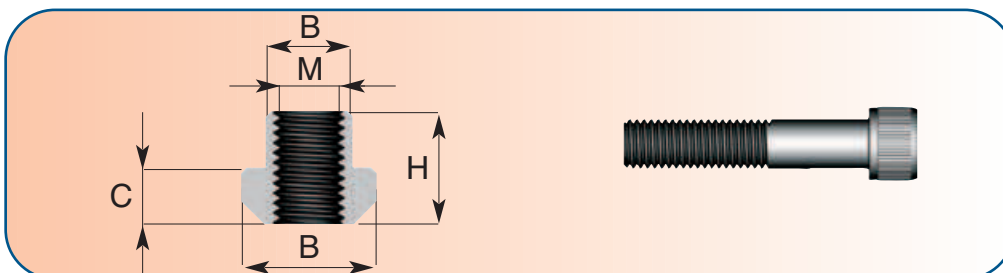
Staffe per il fissaggio della morsa
Clamping blocks
Spannbügel
Brides de fixation

MULTI-BLOCK

ART. MA.0003.00



MA.0003.....



MA.0004.....

STAFFE / clamping blocks

Codice di ord Code	Per morsa:	A	B	H	C
MA.0003.12	MA50....	40	65	24	12
MA.0003.20	MA90....	40	65	30	20

VITI E TASSELLI PER CAVE A "T" / screws and key-nuts for "T" slots

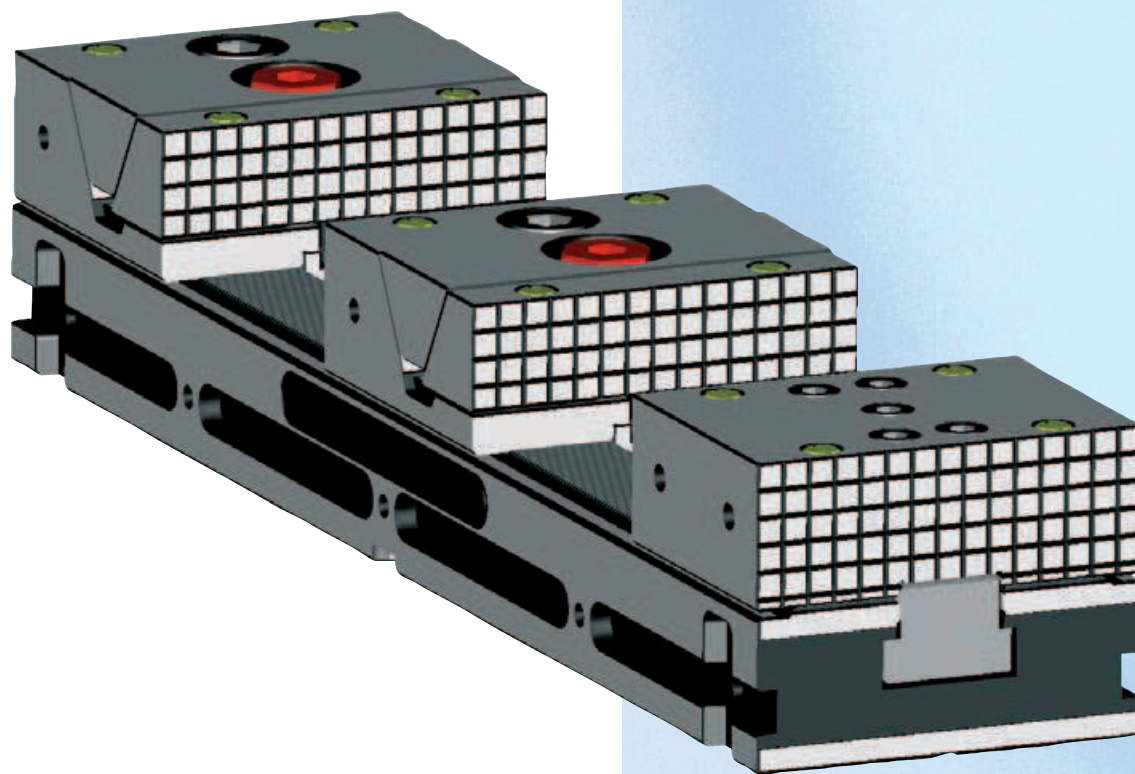
Codice di ord Code	Per guide da:	M	D	B	C	H	Vite
MA.0004.14	14	M12	13.7	22	8	16	M12 UNI 5931
MA.004.16	16	M12	15.7	25	9	18	M12 UNI 5931



ACCESSORI PER MACCHINE UTENSILI

17.
12

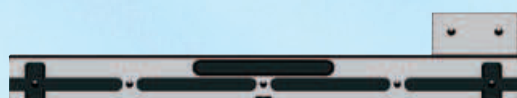
MAGNUM



17. MORSE MODULARI "MAGNUM" "MAGNUM" VICE

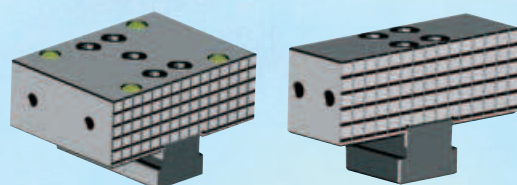
17.14

Caratteristiche tecniche / *Technical features*



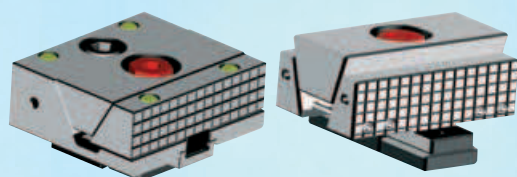
17.17

• Corpo morsa modulare / *Modular vice*



17.18

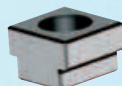
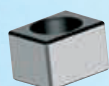
• Blocchetti fissi standard e ribassati / *Standard and lowered fixed supports*



17.19

• Morsetti standard e doppi / *Standard and double supports*

17. ACCESSORI ACCESSORIES per Morse "MAGNUM" for "MAGNUM" Vice



17.20

• Tasselli di allineamento / *Positioning key-nuts*



17.21

• Riferimenti regolabili e staffe / *Adjustable side-stop and clamping blocks*

• Programma di produzione / *Production program*

COMPONENTI
COMPONENTS

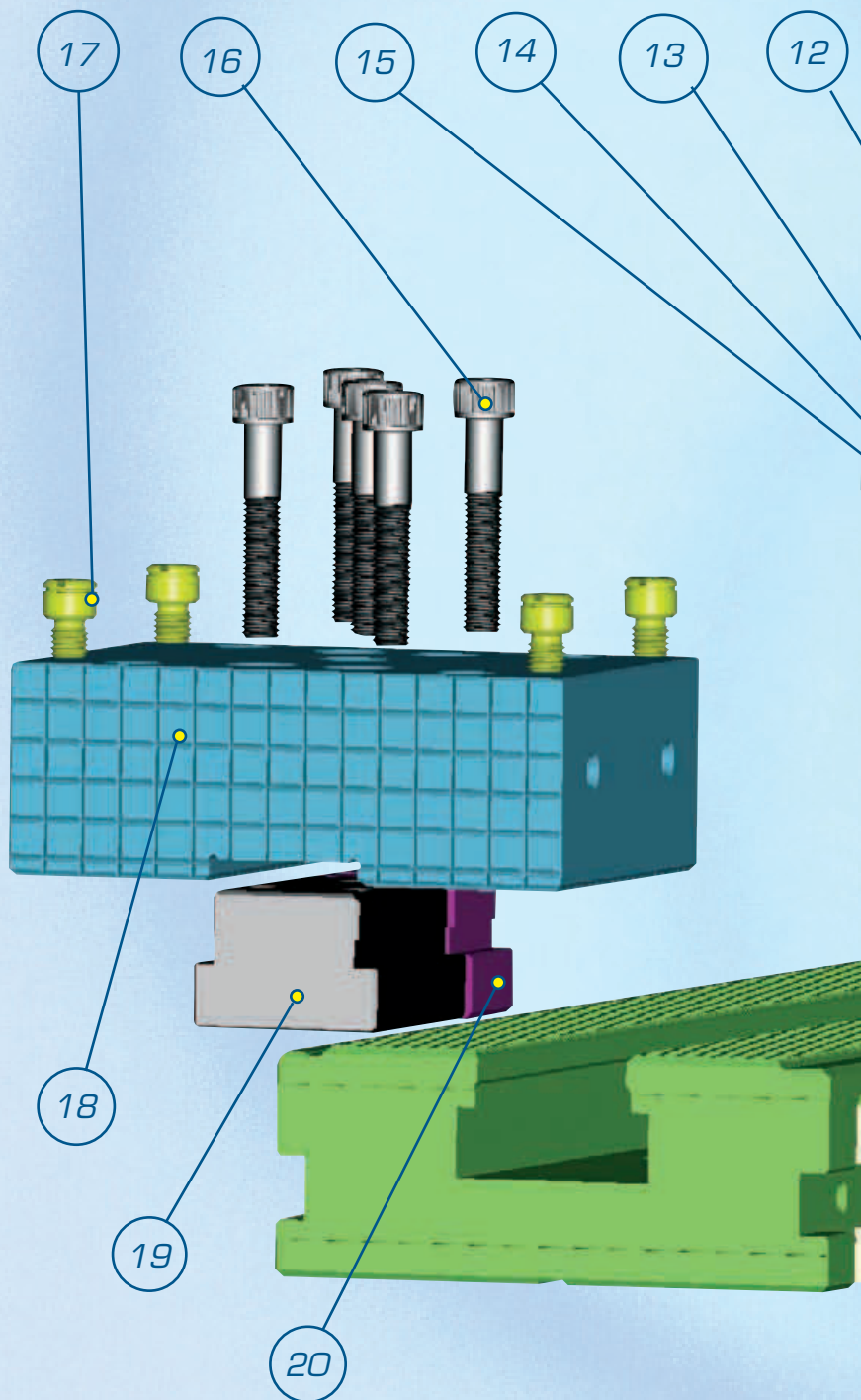
17.
14

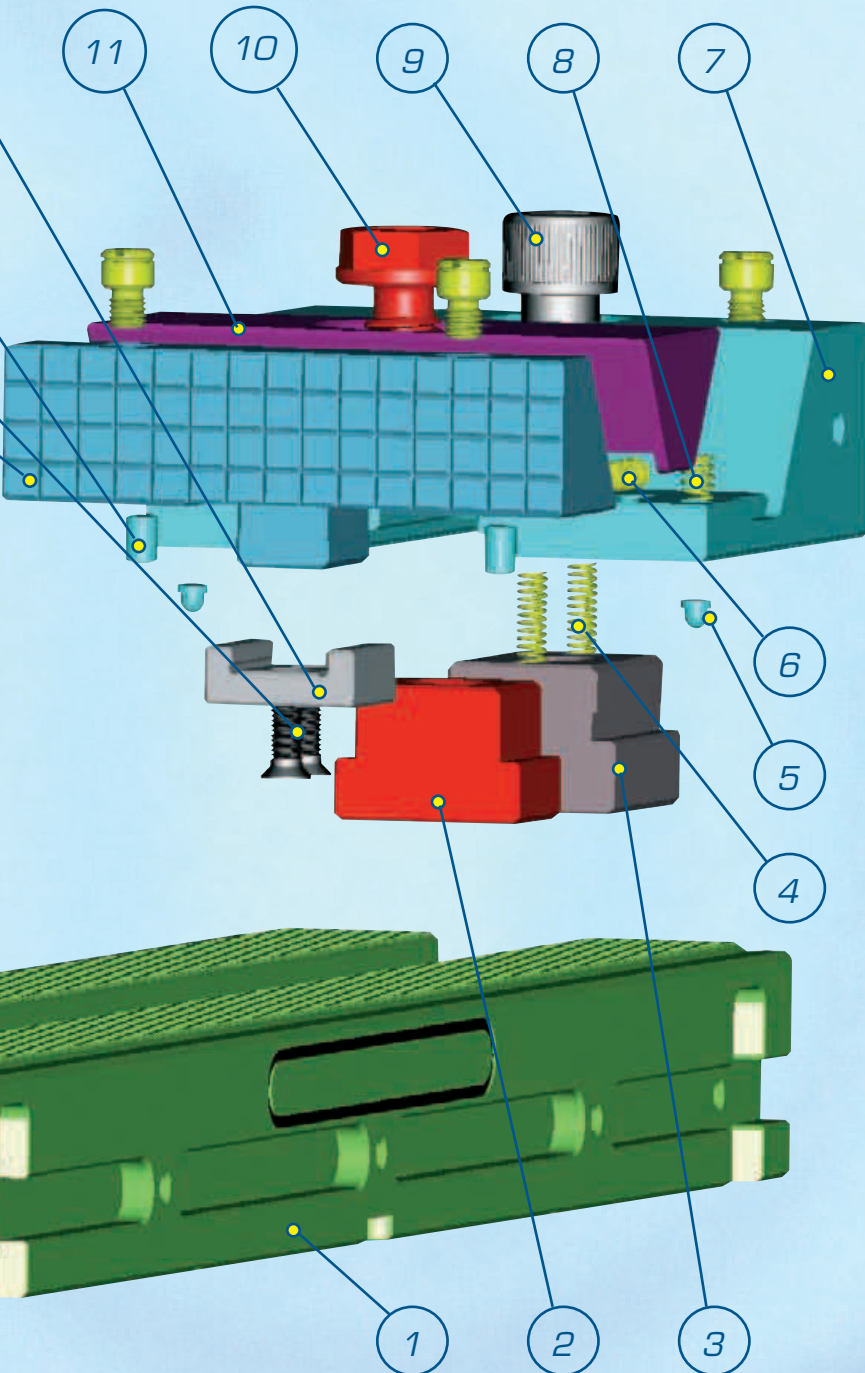
CARATTERISTICHE:

- Elevata forza di serraggio
- Elevato grado di precisione che permette posizionamenti precisi e rapidi nonché la possibilità di lavorare accoppiate;
- **Intercambiabilità dei componenti**
- Ottimo assorbimento delle vibrazioni con conseguente aumento della velocità di taglio, durata dell'inserto e della finiture superficiali;
- **possibilità di bloccaggi multipli**

CHARACTERISTICS:

- *High clamping power*
- *High precision that allows precise and fast positioning and the possibility to work in couple*
- *Interchangeability of the components*
- *Excellent vibrations absorption whit consequent increase of the cutting speed , of the life of the insert and of the surface finishing quality.*
- *Possibility of multiple clamping*





tipo morsa	MAGNUM SERIES
Materiale:	18NiCrMo5
Durezza superficiale HRC:	58-60
Peso slittone / fermo:	40 Kg
Peso morsetto:	6 Kg
forza di serraggio Max N:	50.000
Coppia di serraggio Nm:	120

Vice type	MAGNUM SERIES
Material:	18NiCrMo5
Surface hardness HRC:	58-60
Saddle / support weight:	40 Kg
Movable support weight:	6 Kg
Clamping power Max N:	50.000
Clamping couple Nm:	120

denominazione name	
01	Slittone base / Base saddle
02	Tassello scorrevole / Flowing key-nut
03	tassello di fissaggio / Holding key-nut
04	Molla sollevamento / Lifting spring
05	Puntalino sollevamento / Lifting runner
06	Molla sollevamento / Lifting spring
07	Supporto mobile / Mobile support
08	Molla di ritorno / Return spring
09	Vite di bloccaggio / Locking screw
10	Vite per chiusura / Sealing screw
11	Cuneo mobile / Mobile wedge
12	Guida sottosquadra / Slide
13	Fincorsa / End-stroke
14	Vite bloccaggio guida / Slide locking screw
15	Ganascia / Jaw
16	Vite bloccaggio / Locking screw
17	Tappo / Plug
18	Ganascia fissa / Fixed jaw
19	Tassello di fissaggio / Holding key-nut
20	Tassello di fissaggio / Holding key-nut

17. MORSE modulari MAGNUM SERIES

Modular VICE MAGNUM SERIES



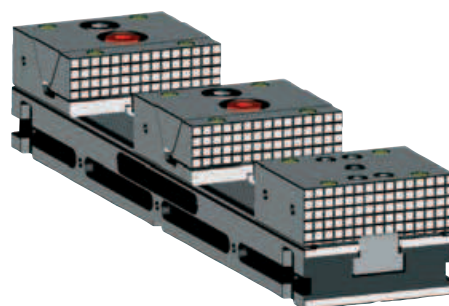
Dati tecnici

Technical data

Technische Angaben

Données techniques

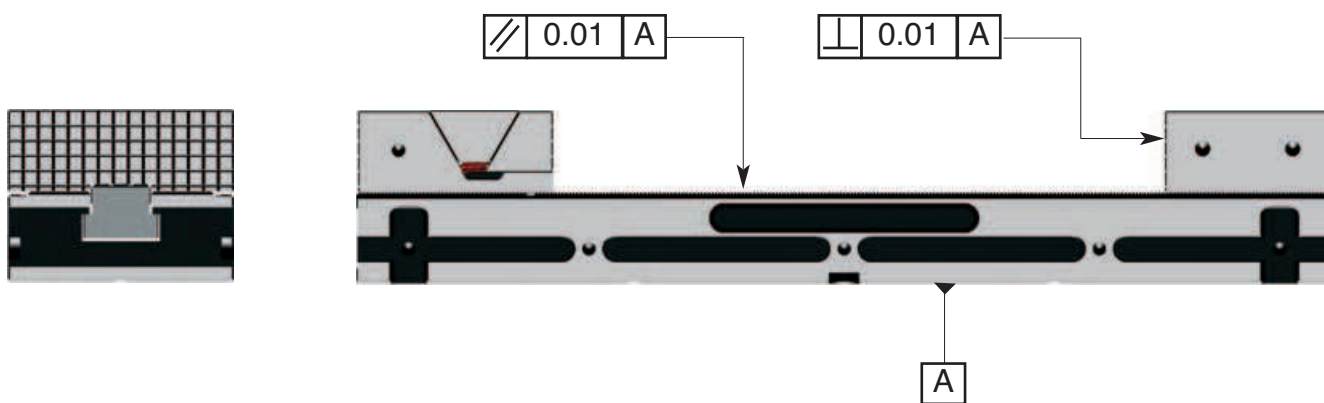
ACCESSORI PER MACCHINE UTENSILI



MAGNUM SERIES

ART. MX.150.650

17.
16



Capacità di chiusura per pezzi montati

Closing capacity for number of pcs.

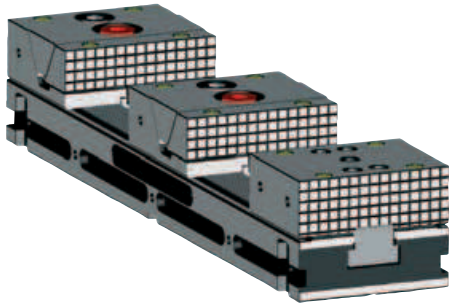
n° pezzi

MX.150.650

	1	410
	2	140
	2	170
	3	100
	4	70

ACCESSORI PER MACCHINE UTENSILI

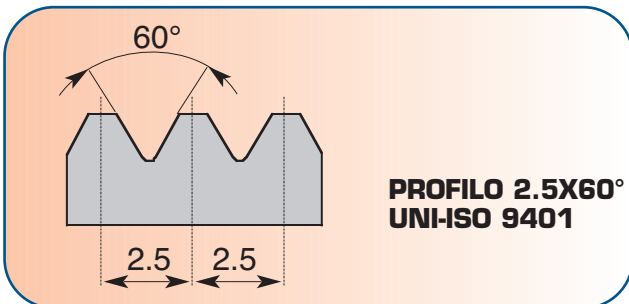
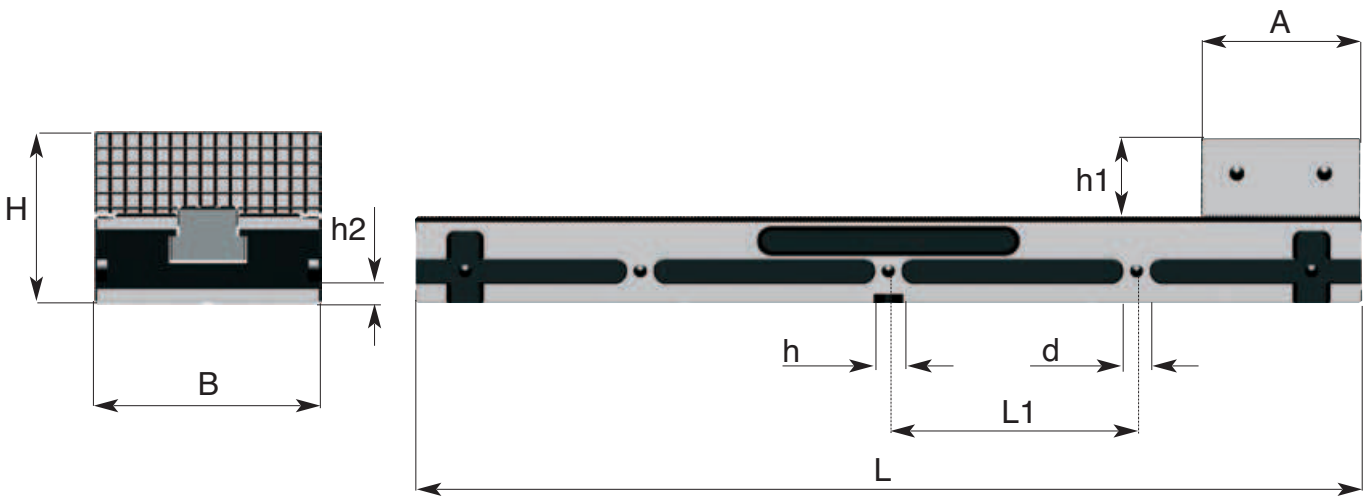
Slittone base
Base saddle
Basisschlitten
Coulisseau de base



MAGNUM SERIES

ART. MX.150.650

17.
17



Codice di ord Code	B	L	L1	H	h	h1	h2	A	d
MX.150.650	150	650	200	114	16	54	15	110	17

17. MORSE modulari MAGNUM SERIES

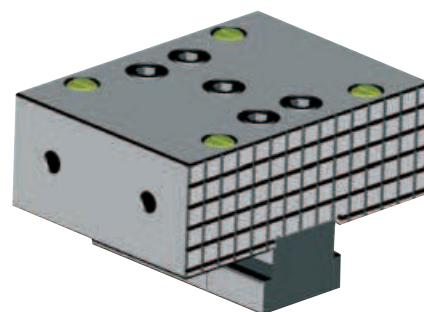
Modular VICE MAGNUM SERIES



Blocchetto standard fisso

Fixed standard support
Feste Standardklemme
Blochet fixe standard

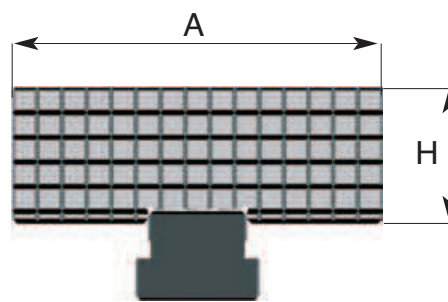
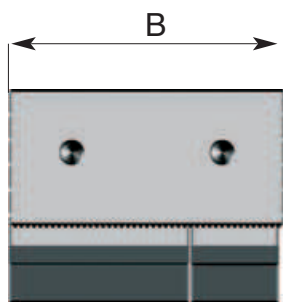
ACCESSORI PER MACCHINE UTENSILI



MAGNUM SERIES

ART. MX.150.110.FS

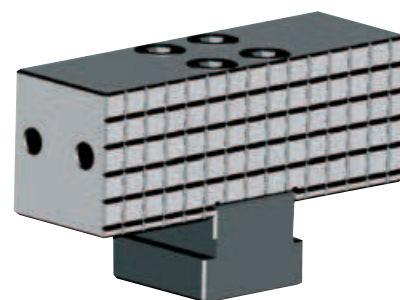
17.
18



Codice di ord Code	Per morsa modulare	A	B	H
MX.150.110.FS	MX150.650	150	110	55

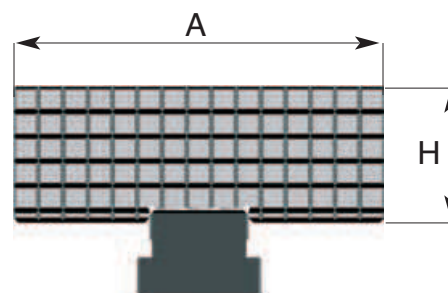
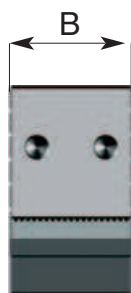
Blocchetto ribassato fisso

Lowered fixed support
Feste Verringertklemme
Blochet fixe surbaissé



MAGNUM SERIES

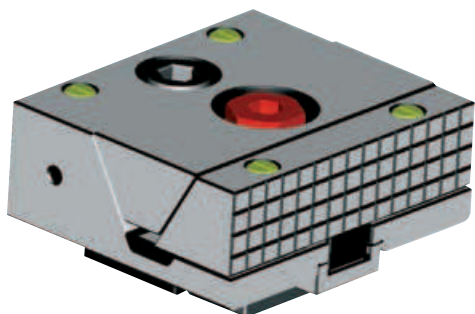
ART. MX.150.050.FR



Codice di ord Code	Per morsa modulare	A	B	H
MX.150.100.FR	MX150.650	150	50	55

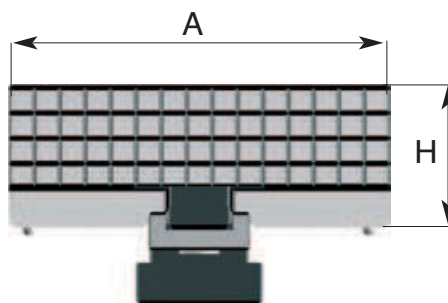
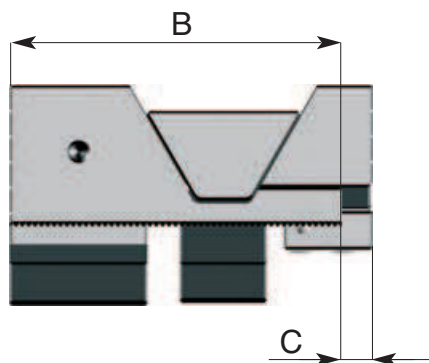
ACCESSORI PER MACCHINE UTENSILI

Morsetti mobili standard
 Movable standard supports
 Verstellbare Standardklemme
 Etai mobile standard



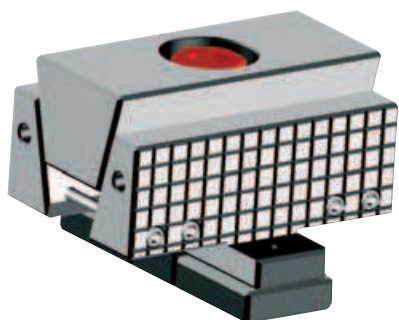
MAGNUM SERIES

ART. MX.150.130.SC



17.
19

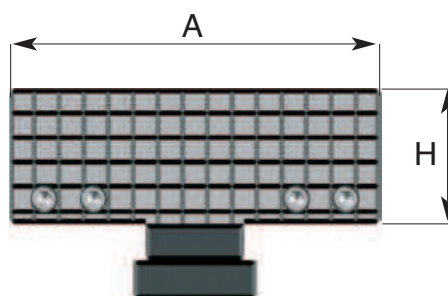
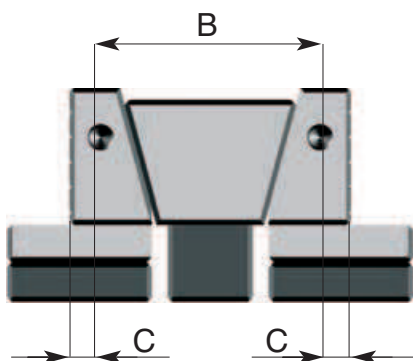
Codice di ord Code	A	B	H	C
MX.150.130.SC	150	130	55	10



Morsetti mobili a doppia chiusura
 Double movable supports
 Verstellbare Doppelklemme
 Etai mobile double

MAGNUM SERIES

ART. MX.150.100.DC



Codice di ord Code	A	B	H	C
MX.150.100.DC	150	100	55	10

17. MORSE modulari MAGNUM SERIES

Modular VICE MAGNUM SERIES



Tasselli di allineamento morsa

Position key-nuts

Ausrichten-Einsatzstück

Chevilles d'alignement

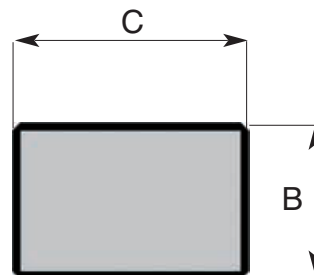
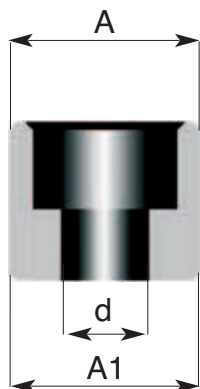
ACCESSORI PER MACCHINE UTENSILI

MAGNUM SERIES



ART. MX.0002.1616

17.
20



Codice di ord Code	A h7	B	C	d
MX.0002.1616	16	12	20	6.5

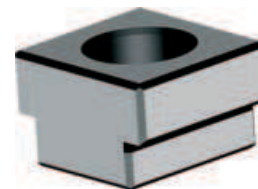
Tasselli adattatori di allineamento morsa

Adapter key-nuts

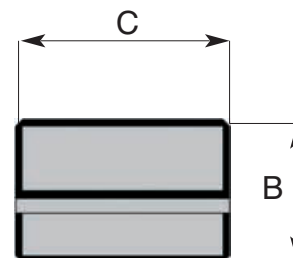
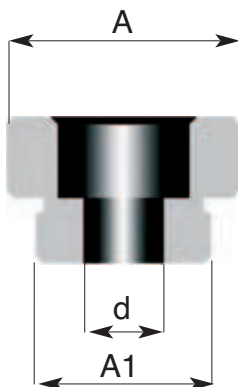
Adapter-Einsatzstück

Chevilles d'adaptation

MAGNUM SERIES



ART. MX.0002.0000



Codice di ord Code	A h7	A1 h7	B	C	d
MX.0002.1612	16	12	14	20	6.5
MX.0002.1614	16	14	14	20	6.5

ACCESSORI PER MACCHINE UTENSILI

Riferimenti di arresto pezzo
Side-stops
Stückspernung
Butée de pièce



MAGNUM SERIES

ART. MA.0001

Codice di ord
 Code
 MA.0001

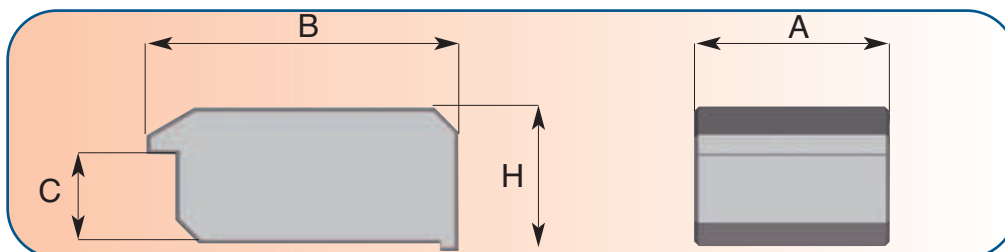
17.
21



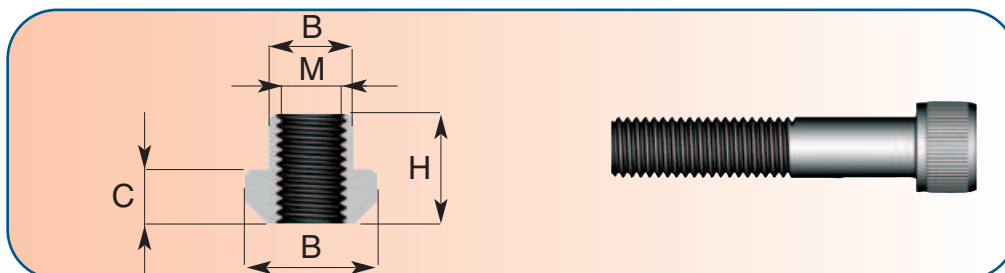
Staffe per il fissaggio della morsa
Clamping blocks
Spannbügel
Brides de fixation

MAGNUM SERIES

ART. MX.0003.00



MX.0003.....



MX.0004.....

STAFFE / clamping blocks

Codice di ord Code	Per morsa:	A	B	H	C
MX.0003.15	MX150.650	40	65	30	15

VITI E TASSELLI PER CAVE A "T" / screws and key-nuts for "T" slots

Codice di ord Code	Per guide da:	M	D	B	C	H	Vite
MA.0004.14	14	M12	13.7	22	8	16	M12 UNI 5931
MA.004.16	16	M12	15.7	25	9	18	M12 UNI 5931

CATALOGO GENERALE Febbraio 2008

La presente pubblicazione annulla e sostituisce le precedenti

Nell'ottica di un continuo miglioramento del prodotto, le caratteristiche tecniche riportate nel presente catalogo non sono da ritenersi impegnative e possono essere modificate in qualsiasi momento senza obbligo di preavviso.

GENERAL CATALOGUE 2008.02.28

This catalogue cancels and replaces all the previous editions

With the intention of a continuous improvement of our products, the technical specifications mentioned in this catalogue have to be considered as not binding, and we reserve the right to change them at any moment without notice.