


serinex

CNC TOOLHOLDER SYSTEM 

MANDRINI
TOOLHOLDERS
MANDRIN
SPANNFUTTER



WWW.SERINEX.IT

MANDRINI COLLET CHUCKS



MANDRINI - INTRODUZIONE

Serinx produce mandrini TC-SK DIN69871, BT-MAS403, ISO DIN2080, CILINDRICI, HSK-DIN69893, CAPTO POLIGONALE ISO26623-1, ADATTATORI VARILOCK, PORTA ALESATORI OSCILLANTI, MANDRINI TCL PER LEGNO E ALLUMINIO E MANDRINI SPECIALI SU RICHIESTA.

Tutti i mandrini sono prodotti con un elevato standard qualitativo per una massima sicurezza operativa.

Abbiamo un'unità produttiva dedicata alla produzione di mandrini nei più diffusi standard internazionali, dotata di macchinari CNC di ultima generazione, con i più severi controlli di produzione in ottemperanza alle procedure dettate dalla certificazione ISO 9001: 2008. Per la nostra produzione utilizziamo soltanto barre di acciai legati di altissima qualità provenienti da acciaierie qualificate, fornite con certificati di qualità e controllate singolarmente con unità di controllo ad "ultrasuoni" per scongiurare difetti interni del materiale come cricche o microlesioni. Tutte le lavorazioni meccaniche sono eseguite nella nostra moderna unità produttiva di Annone Brianza, situata a breve distanza da Lecco, in un comparto di oltre 7000 mq. dotato di un ampio parco macchine con una produzione giornaliera elevata. Il nostro ufficio tecnico è in grado di fornire una consulenza specifica per la messa in produzione di "mandrini speciali" dalle particolari forme e caratteristiche per soddisfare tutte le esigenze dei nostri clienti.

PORTAUTENSILI BILANCIATI

I portautensili bilanciati 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 nel catalogo possono essere bilanciati. A tale scopo abbiamo a disposizione bilanciatrici qualificate che ci permettono 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

CLASSIFICAZIONE DEI ROTORI, GRADI DI EQUILIBRATURA - GRADO G mm/s

G 0.4: 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 generali. 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 motore per vetture, autocarri, locomotori a benzina o diesel. Cerchi di ruote per autovetture e motocicli.

ATTENZIONE / ATTENTION

DATI TECNICI ED IMMAGINI SONO INDICATIVI. SERINEX SI RISERVA DI APPORTARE AGGIORNAMENTI IN QUALSIASI MOMENTO E SENZA OBBLIGO DI PREAVVISO.

TECHNICAL DATA AND DRAWINGS ARE FOR INFORMATION PURPOSES ONLY. SERINEX RESERVES THE RIGHT TO UPDATE SPECS AT ANYTIME AND WITHOUT NOTICE.

MANDRINI COLLET CHUCKS



COLLET CHUCKS - INTRODUCTION

Serinx produces adapters TC-SK DIN69871, BT-MAS403, ISO DIN2080, STRAIGHT SHANK, HSK-DIN69893, CAPTO MODULARS TOOLS, TOOL HOLDERS FOR VARILOCK SYSTEM, FLOATING REAMER HOLDERS, TOOLHOLDERS TCL SUITABLE FOR WOOD AND ALUWORKING MACHINES E SPECIAL TOOLHOLDERS.

Every adapter is produced following a high-qualitative standard to pursue maximum operative safety. We have a productive unit dedicated to adapters production supplied with last generation CNC machines, with all the most severe production controls, following the norm of the certification ISO 9001: 2008. For our production we only use high-quality steel bar, produced in qualified steel plant, provided with quality certifications and individually controlled with ultrasounds in order to avoid internal deficiency of the material. Furthermore all our production of tool holders undergoes a specific heat-treatment to obtain superior quality of RESISTANCE and RESILIENCE.. All the mechanical workings are performed in our modern division in Annone Brianza, not far from Lecco, in a place of more than 7000 mq. , supplied with a wide rolling stock with a high daily production. Our technical office can provide expert advice for the production of "special toolholders" with specific characteristics, in order to satisfy the desires of our clients.

BALANCED BROACH HOLDER

Balanced tool holders are the best way to equip the latest generation of high speed machines tools and to obtain better results and superficial finishings.

Every BALANCED BROACH HOLDER in the catalogue can be balances. For this purpose there are a machines which allows us to satisfy balancing necessities.

We provide for two different classes of balancing:

* degree G 2,5 with tight tolerance

* degree G 6,3 with different and higher tolerance

Classes of speed rotation:

10.000 RPM

15.000 RPM

20.000 RPM

30.000 RPM

ROTORS CLASSIFICATION, BALANCING DEGREE – DEGREE G mm/s

G 0.4: adapters disks and adjustment high precision rotor

G1.0: rotors of small motors with balancing needs, high precision adjtument. Turbine high speed rotors.

G2.5: Turbine rotors, both steam and gas, turbo-pomp, turbo-blowing,propulsion turbines for mercantile ships. Medium motor rotors with high balancing needs. Activation of tools machines, high speeds gears of adapters.

G6.3: Small electric motors rotors, produced in applications non perceptible to vibrations, tools machines and in general parts of tools machines.

High speed part of operatives machines, spin cycles. Hydraulic machines rotors, fly-wheels, fans, pomps, adaptors gears

G16: Transmission shafts, cardan shafts with strong balancing needs, parts of farming machines. Parts of enigine for vehicles, lorries, petrol and diesel locomotives. Wheels for cars and motorcycles.

AVERTISSEMENT / WARNUNG

DONNÉES TECHNIQUES ET PHOTOS SONT À TITRE INDICATIF. SERINEX SE RÉSERVE LE DROIT DE METTRE À JOUR À TOUT MOMENT ET SANS PRÉAVIS.

TECHNISCHE DATEN UND BILDER SIND RICHTWERTE. SERINEX BEHÄLT SICH DAS RECHT VOR, JEDERZEIT UND OHNE VORHERIGE ANKÜNDIGUNG ZU AKTUALISIEREN.

MANDRINI MANDRIN



MANDRIN - INTRODUCTION

Serinex produit des mandrins TC-SK DIN69871, BT-MAS403, ISO DIN2080, MANDRIN CYLINDRIQUE, HSK-DIN69893, PORTE-OUTILS POUR SYSTEME MODULAIRE CAPOT, ADAPTATEUR FOR VARILOCK SYSTEM, MANDRIN FLOTTANT, MANDRIN TCL POUR BOIS ET ALUMINIUM ET MANDRIN SPECIAL. Tous les mandrins sont produits avec un standard de qualité très élevé pour une sécurité opérationnelle maximale.

Nous avons une unité de production dédiée à la production de mandrins (mandrin porte pinces, mandrin pour fraises, mandrins pour fraiseuses) selon les standards internationaux les plus utilisés et dotée de machines à CN de dernière génération, avec les contrôles les plus sévères, respectant les procédures dictées par la certification ISO 9001: 2008. Nous utilisons pour la production des barres d'alliage d'acier de très haute qualité provenant d'aciéries qualifiées, fournies avec certificat de qualité et soumises à une unité de contrôle à "ultrasons" pour éviter les défauts internes du matériel telles les fissures les micro lésions. En outre, toute notre production de subit un traitement thermique spécifique pour obtenir une meilleure qualité de résistance et résilience du produit fini. Toutes les fabrications mécaniques de mandrin pour fraises, mandrins porte pinces, mandrin porte-fraises et mandrins pour fraiseuses, sont effectuées au sein de notre unité moderne de production d'Annone Brianza, sise à une brève distance de Lecco, dans un compartiment de plus de 7000 m2, doté d'un ample parc de machines avec une production journalière élevée. Notre bureau technique est en mesure de fournir des conseils spécifiques pour la mise en production de « mandrins spéciaux » à caractéristiques ou formes particulières pour satisfaire toutes les exigences de nos clients.

PORTE-OUTILS EQUILIBRES

Les porte-outils équilibrés sont l'idéal pour équiper la dernière génération de machines-outils à grande vitesse et pour l'obtention de meilleures prestations et finitions de surfaces. Tous les porte-outils présents sur le catalogue peuvent être équilibrés. Nous possédons pour cela une équilibreuse qui nous permet de satisfaire toutes exigences d'équilibrage.

On prévoit deux classes diverses d'équilibrage:

- Degrés G2,5 avec tolérance étroite
- Degrés G6,3 avec tolérance majeure et différente.

Classes de vitesse de rotation :

10.000 RPM
15.000 RPM
20.000 RPM
30.000 RPM

CLASSIFICATION DES ROTORS, DEGRES D'EQUILIBRAGE - DEGRES G mm/s

G 0.4: Gyroscopes, mandrins disques et inducteurs de rectifieuses à haute précision;

G1.0: Inducteurs de petit moteur rapide avec des exigences d'équilibrage élevées, entraînements de rectifieuses à haute précision. Rotor de turbines de moteurs très rapide.

G2.5: Rotors de turbines à vapeur et à gaz, turbopompes, turbo-alternateurs, turbo-souffleurs, turbine de propulsion de navires marchands. Inducteurs de moteur moyen et grand avec des exigences d'équilibrage élevées. Entraînements de machines-outils, engrenages rapide de réducteurs.

G6.3: Inducteurs de petits moteurs électriques produits en série en applications non sensibles aux vibrations, machines-outils et pièces de machines-outils en général. Pièces rapides d'engins d'exploitations, récipients pour centrifugeuse, rotors de machines hydrauliques, volants d'inertie, ventilateurs, pompes, engrenages de réducteurs.

G16: Arbres de transmission, arbres de cardans avec des exigences d'équilibrage élevées, pièces pour machines agricoles. Pièces de moteur pour véhicules, camions, locomotives a essence ou gasoil. Jantes de roues pour véhicules et motocycle.

ATTENZIONE / ATTENTION

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MANDRINI SPANNFUTTER



SPANNFUTTER - EINFÜHRUNG

Serinx produziert alle Sorten Spannfutter: TC-TCB, BT-BTB, ISO, ZYLINDRISCHE, HSK (Spannfutter für Fräser, Spannanzenghalter, zylindrische Spannanzenghalter, Spannanzengfutter, Spannfutter für Fräsmaschinen, Hülsen für Morsekonus). Alle Spannfutter sind mit einem Qualitätsstandard für die höchste Betriebssicherheit hergestellt. Wir verfügen über eine Abteilung für die Herstellung von Spannfuttern (Spannfutter für Fräser, Spannanzenghalter, Spannfutter für Fräsmaschinen) in den verbreitetsten internationalen Standards; diese Abteilung ist mit den modernsten CNC Maschinen und den sorgfältigsten Produktionskontrollen unter Beachtung der Vorgänge der ISO 9001:2000 Zertifizierung ausgestattet. Für unsere Produktion verwenden wir nur legierte Stähle höher Qualität (16NiCr4), die aus qualifizierten Stahlwerken kommen, mit Qualitätszertifikaten geliefert und mit Ultraschall-Prüfeinheiten einzeln kontrolliert werden, um innere Fehler wie Risse oder Mikrobeschädigungen abzuwenden. Zudem erfährt unsere ganze Produktion von Spannfuttern TC-TCB, BT-BTB, ISO, ZYLINDRISCHE, HSK (Spannfutter für Fräser, Spannanzenghalter, Spannfutter für Fräsmaschinen, Hülsen für Morsekonus) eine spezifische Wärmebehandlung, um die beste Eigenschaften von FESTIGKEIT und KERBSCHLAGZÄHIGKEIT des Endprodukts zu erzielen. Unser Büro für Betriebstechnik kann eine individuelle Beratung für die Produktion von speziellen Spannfuttern mit besonderen Eigenschaften oder Gestalten bieten, um alle Anforderungen unserer Kunden zu befriedigen.

AUSWUCHTETE WERKZEUGSPANNER

Die auswuchteten Werkzeugspanner sind die beste Lösung, um die modernsten Hochgeschwindigkeitswerkzeugmaschinen auszurüsten, und um die besten Leistungen und oberflächliche Feinbearbeitungen zu erzielen. Alle Werkzeugspanner des Katalogs können auswuchtet werden. Dazu verfügen wir über eine CEMB – Auswuchtmaschine, durch die wir alle Bedürfnisse nachdem Auswuchten befriedigen können.

Wir bieten zwei verschiedene Auswuchtensklassen an:

* Grad G 2,5 mit engerer Toleranz

* Grad G 6.3 mit verschiedener und höher Toleranz

Drehgeschwindigkeitsklassen:

* 10.000 RPM

* 15.000 RPM

* 20.000 RPM

* 30.000 RPM

KLASSIFIZIERUNG DER ROTOREN, AUSWUCHTSGRADE – GRAD G mm/s

G 0.4: Gyroskope, Disk-Futter und Rotoren von Schleifmaschinen hoher Genauigkeit;

G 1.0: Rotoren von kleinen geschwinden Motoren mit hohen Auswuchtbedürfnissen, Antriebe von hochgenauen Schleifmaschinen, Turbinenrotoren von Hochgeschwindigkeitsmotoren.

G 2.5: Rotoren von Gas- Dampfturbinen, Turbopumpen, Turbo-Wechselstromgeneratoren, Turbo-Verdichtern, Antriebsturbinen für Handelsschiffen. Rotoren von mittleren und großen Motoren mit hohen Auswuchtbedürfnissen. Antriebe von Werkzeugmaschinen, schnelle Getriebe von Untersetzungsgetrieben.

G 6.3: Rotoren von kleinen elektrischen Motoren, die in Serien mit vibrationsbeständigem Einbau erzeugt werden, Werkzeugmaschinen und Komponenten für Werkzeugmaschinen. Hochgeschwindigkeitskomponente von Baumaschinen, Zentrifugenkörbe, Rotoren von hydraulischen Maschinen, Schwungrädern, Lüftern, Pumpen, Getriebe von Untersetzungsgetrieben.


G 16: Antriebswellen, Gelenkwellen mit hohen Auswuchtbedürfnissen, Komponenten von Landmaschinen. Komponenten von Motoren für Diesel- bzw. Benzintriebswagen, Fahrzeuge, Lastwagen. Radfelgen für Fahrzeuge und Krafträder.


AVERTISSEMENT / WARNUNG


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TECHNISCHE DATEN UND BILDER SIND RICHTWERTE. SERINEX BEHÄLT SICH DAS RECHT VOR, JEDERZEIT UND OHNE VORHERIGE ANKÜNDIGUNG ZU AKTUALISIEREN.




	<p>SK-DIN69871</p>	<p>PORTAUTENSILE CON ATTACCO DIN69871 <i>TOOLHOLDER DIN69871</i> PORTE-OUTILS DIN69871 <i>WERKZEUGAUFNAHMEN DIN69871</i></p>	<p>166</p>
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	<p>MAS 403 BT/JIS 6339</p>	<p>PORTAUTENSILE CON ATTACCO MAS403-BT/JIS6339 <i>TOOLHOLDER MAS403-BT/JIS6339</i> PORTE-OUTILS MAS403-BT/JIS6339 <i>WERKZEUGAUFNAHMEN JIS6339 (MAS 403-BT)</i></p>	<p>216</p>
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	<p>HSK DIN 69893 ISO 12164-1</p>	<p>PORTAUTENSILE CON ATTACCO HSK-DIN69893 - ISO12164-1 <i>TOOLHOLDER HSK-DIN69893 - ISO12164-1</i> PORTE-OUTILS HSK-DIN69893 - ISO12164-1 <i>WERKZEUGAUFNAHMEN HSK-DIN69893 - ISO12164-1</i></p>	<p>264</p>
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	<p>CAPTO POLIGONALE ISO 26623-1</p>	<p>PORTAUTENSILE CON ATTACCO CAPTO - POLIGONALE ISO26623-1 <i>TOOL HOLDERS CAPTO</i> PORTE-OUTILS CAPTO <i>WERKZEUGHALTER MIT VIELECKIGEM CAPTO ANSCHLUSS ISO 26623-1</i></p>	<p>348</p>
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	<p>DIN 2080</p>	<p>PORTAUTENSILE CON ATTACCO DIN2080 <i>TOOLHOLDER DIN2080</i> PORTE-OUTILS DIN2080 <i>WERKZEUGAUFNAHMEN DIN2080</i></p>	<p>356</p>
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VARILOCK

PORTAUTENSILI MODULARI SISTEMA VARILOCK
TOOL HOLDERS FOR VARILOCK SYSTEM
ADAPTATEUR MODULAIRE POUR OUTILS VARILOCK
WERKZEUGHALTER MASSEINHEITLICH SYSTEM VARILOCK

376



CILINDRICI

MANDRINI CILINDRICI
STRAIGHT SHANK
MANDRIN CYLINDRIQUE
ZYLINDERSCHÄFTE

391



**PORTA
ALESATORI
OSCILLANTI**

PORTA ALESATORI OSCILLANTI
FLOATING REAMER HOLDERS
MANDRIN FLOTTANT
SCHWINGENDE REIBAHLEHALTER

413



TCL

MANDRINI TCL PER LEGNO E ALLUMINIO
TOOLHOLDER TCL SUITABLE FOR WOOD AND ALUWORKING MACHINES
MANDRIN TCL POUR BOIS ET ALUMINIUM
SPANNFUTTER TCL FÜR HOLZ UND ALLUMINIUM

417



SPECIALI

SPECIALI
SPECIALS
SPECIAL
SPECIALS

427

SK - DIN69871

SK - DIN69871



**CALETTAMENTO A CALDO
STANDARD**

SHRINK FIT HOLDERS STANDARD



**CALETTAMENTO A CALDO SLIM
TYPE**

SHRINK FIT HOLDERS SLIM TYPE



PORTAPINZA PER SKS

COLLET CHUCK FOR SKS



**PORTA TESTINE FILETTATE
(TIPO CPY)**

FOR SCREWED MILLING CUTTERS



FORTE SERRAGGIO

POWER MILLING CHUCKS



IDRAULICO

HYDRAULIC EXPANSIONS CHUCK



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388



PER FRESE WELDON

END MILL HOLDERS



PORTAFRESE FISSI

SHELL END MILL HOLDERS



PORTAFRESE COMBINATI

COMBI SHELL END MILL HOLDERS



PORTA PUNTE AUTOSERRANTI CON CHIAVE A SETTORE

DRILL CHUCKS WITH HOOK WRENCH



PORTA PUNTE CON CHIAVE ESAGONALE

HEX KEY LOCK DRILL CHUCKS



CONO MORSE PUNTE/ FRESE

MORSE TAPER FOR DRILLS/MILLS



STELO TENERO LAVORABILE

BLANK ARBORS



BARRA DI CONTROLLO

TEST ARBORS

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre.
- Eseguiti trattamenti termici da fornitori certificati ISO 9001.
- 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 AT2.
- L'errore di concentricità massimo tra il cono e la sede utensile è di 0.003mm.

CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié .
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes ISO est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.

TECHNICAL FEATURES

- Manufactured with certificate steel.
- Heat treatments are performed by certified suppliers ISO 9001.
- 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 AT2.
- The maximum error of concentricity between the cone and the seat of tool is 0.003mm.

MERKMALE

- Gebaut aus zertifiziertem Stabstahl
- Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001
- Genauigkeitgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss
- Geprüft mit zertifizierten Messinstrumente
- Die Präzisionstoleranz der Konen ISO ist AT2
- Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm

ISTRUZIONI / INSTRUCTIONS / INSTRUCTIONS ET QUOTES / ANWEISUNGEN

ISTRUZIONI

- I mandrini vengono forniti in forma ad o ad/b. nel caso dell'ad/b, il lubrificante passa dai fori presenti sulla flangia. L'operatore dovrà togliere le viti di chiusura che troverà già montate sul mandrino.

INSTRUCTIONS:

- Les mandrins doivent être fournis en forme AD ou AD/B. pour l'AD/B, le lubrifiant passe par les trous présents sur La flange. L'opérateur doit enlever les vis de fermeture qu'il trouvera déjà monté sur le mandrin.

INSTRUCTIONS

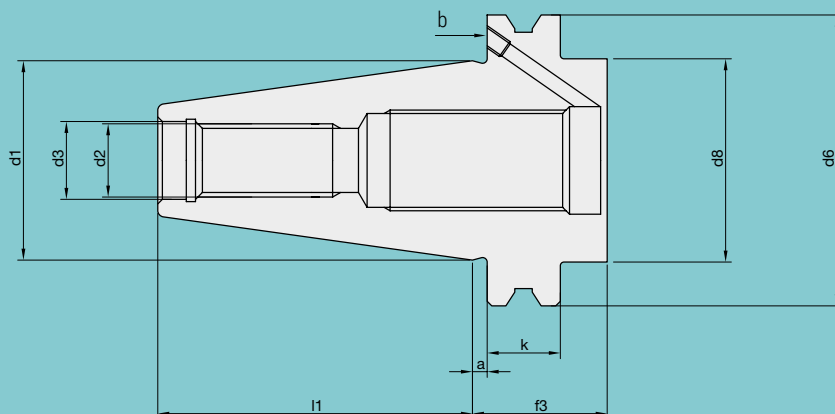
- The tool holders are provided to form ad or ad/b. in case of ad/b, the lubricant pass from holes on the flange. The operator will have to remove screw closure that he will find on the flange.

TECHNISCHE DATEN

- Die Spannfutter werden in der form AD oder AD/B geliefert. Im falle von AD/B, fließt der Schmierstoff durch die vorhandenen Bohrungen auf der Flansche

QUOTE DEI CONI DI ATTACCO / QUOTE / QUOTES / ABMESSUNGEN

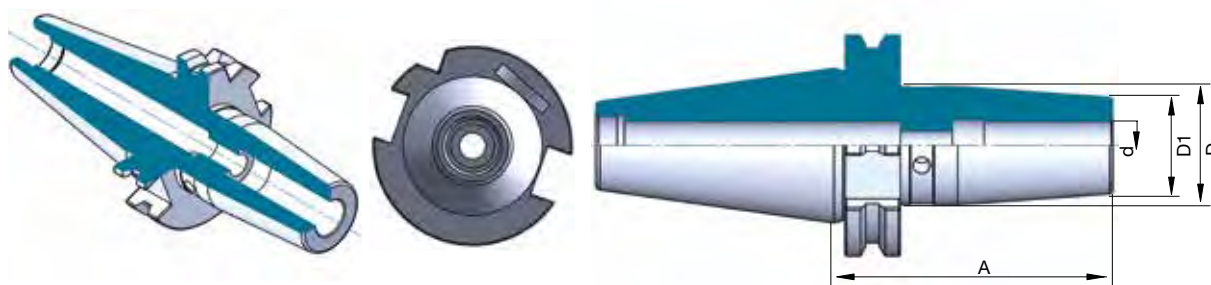
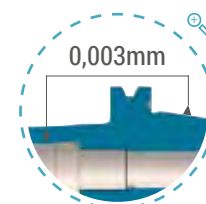
CONO/TAPER	d1	d2	d3	d6	d8 MAX	L1	a	k	f3
TC30	31,75	M12	13	50	45	47,8	3,2	15,9	35
TCB40	44,45	M16	17	63,55	50	68,4	3,2	15,9	35
TCB45	57,15	M20	21	82,55	63	82,7	3,2	15,9	35
TCB50	69,85	M24	25	97,5	80	101,8	3,2	15,9	35



CALETTAMENTO A CALDO STANDARD

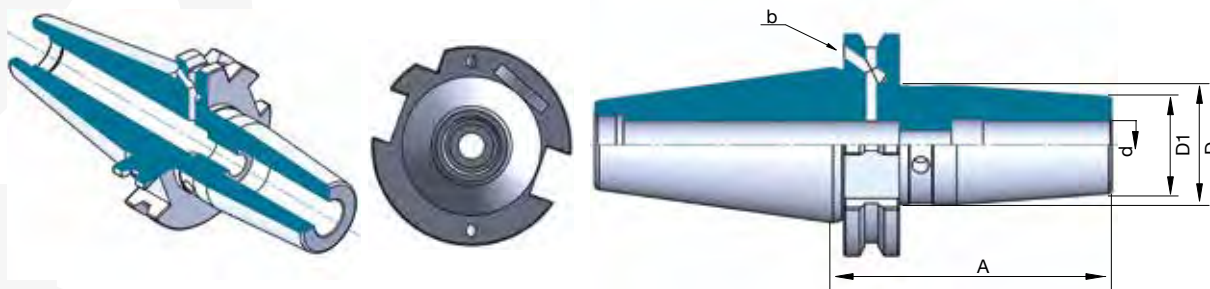
SHRINK FIT HOLDERS STANDARD

SK-DIN69871



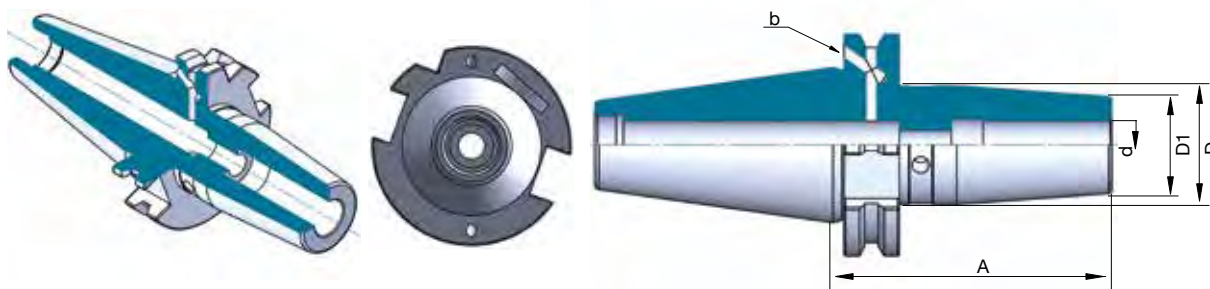
CALETTAMENTO STANDARD - SHRINK FIT HOLDERS STANDARD - SK30

Cod.	TYPE	d	A	AT2	G2.5/25000	AD
				D1	D	
SK.30.80.CL3	TC30 H80 CL3	3	80	10	20	
SK.30.80.CL4	TC30 H80 CL4	4	80	15	24	
SK.30.80.CL5	TC30 H80 CL5	5	80	15	24	
SK.30.80.CL6	TC30 H80 CL6	6	80	20	27	
SK.30.80.CL8	TC30 H80 CL8	8	80	20	27	
SK.30.80.CL10	TC30 H80 CL10	10	80	24	31	
SK.30.80.CL12	TC30 H80 CL12	12	80	24	31	
SK.30.80.CL14	TC30 H80 CL14	14	80	27	34	
SK.30.80.CL16	TC30 H80 CL16	16	80	27	34	
SK.30.80.CL18	TC30 H80 CL18	18	80	33	40	
SK.30.80.CL20	TC30 H80 CL20	20	80	33	40	



CALETTAMENTO STANDARD - SHRINK FIT HOLDERS STANDARD - SKB40

Cod.	TYPE	d	A	AT2	G2.5/25000	AD/B
				D1	D	
SKB.40.80.CL3	TCB40 H80 CL3	3	80	10	20	
SKB.40.120.CL3	TCB40 H120 CL3	3	120	10	20	
SKB.40.160.CL3	TCB40 H160 CL3	3	160	10	20	
SKB.40.80.CL4	TCB40 H80 CL4	4	80	15	25	
SKB.40.120.CL4	TCB40 H120 CL4	4	120	15	25	
SKB.40.160.CL4	TCB40 H160 CL4	4	160	15	25	
SKB.40.80.CL5	TCB40 H80 CL5	5	80	15	25	
SKB.40.120.CL5	TCB40 H120 CL5	5	120	15	25	
SKB.40.160.CL5	TCB40 H160 CL5	5	160	15	25	
SKB.40.80.CL6	TCB40 H80 CL6	6	80	21	27	
SKB.40.130.CL6	TCB40 H130 CL6	6	130	21	27	
SKB.40.160.CL6	TCB40 H160 CL6	6	160	21	27	
SKB.40.80.CL8	TCB40 H80 CL8	8	80	21	27	
SKB.40.130.CL8	TCB40 H130 CL8	8	130	21	27	
SKB.40.160.CL8	TCB40 H160 CL8	8	160	21	27	
SKB.40.80.CL10	TCB40 H80 CL10	10	80	24	32	
SKB.40.130.CL10	TCB40 H130 CL10	10	130	24	32	
SKB.40.160.CL10	TCB40 H160 CL10	10	160	24	32	
SKB.40.80.CL12	TCB40 H80 CL12	12	80	24	32	
SKB.40.130.CL12	TCB40 H130 CL12	12	130	24	32	
SKB.40.160.CL12	TCB40 H160 CL12	12	160	24	32	
SKB.40.80.CL14	TCB40 H80 CL14	14	80	27	34	
SKB.40.130.CL14	TCB40 H130 CL14	14	130	27	34	
SKB.40.160.CL14	TCB40 H160 CL14	14	160	27	34	
SKB.40.80.CL16	TCB40 H80 CL16	16	80	27	34	
SKB.40.130.CL16	TCB40 H130 CL16	16	130	27	34	
SKB.40.160.CL16	TCB40 H160 CL16	16	160	27	34	
SKB.40.80.CL18	TCB40 H80 CL18	18	80	33	42	
SKB.40.130.CL18	TCB40 H130 CL18	18	130	33	42	
SKB.40.160.CL18	TCB40 H160 CL18	18	160	33	42	
SKB.40.80.CL20	TCB40 H80 CL20	20	80	33	42	
SKB.40.130.CL20	TCB40 H130 CL20	20	130	33	42	
SKB.40.160.CL20	TCB40 H160 CL20	20	160	33	42	
SKB.40.100.CL25	TCB40 H100 CL25	25	100	44	53	
SKB.40.130.CL25	TCB40 H130 CL25	25	130	44	53	
SKB.40.160.CL25	TCB40 H160 CL25	25	160	44	53	
SKB.40.100.CL32	TCB40 H100 CL32	32	100	44	53	
SKB.40.130.CL32	TCB40 H130 CL32	32	130	44	53	
SKB.40.160.CL32	TCB40 H160 CL32	32	160	44	53	

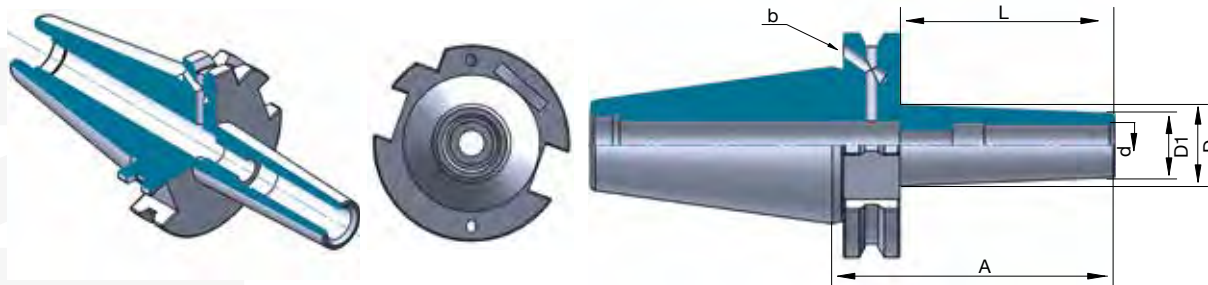
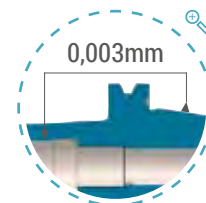


CALETTAMENTO STANDARD - SHRINK FIT HOLDERS STANDARD - SKB50

Cod.	TYPE	d	A	AT2	G2.5/25000	AD/B
				D1	D	
SKB.50.80.CL3	TCB50 H80 CL3	3	80	10	20	
SKB.50.120.CL3	TCB50 H120 CL3	3	120	10	20	
SKB.50.160.CL3	TCB50 H160 CL3	3	160	10	20	
SKB.50.80.CL4	TCB50 H80 CL4	4	80	15	25	
SKB.50.120.CL4	TCB50 H120 CL4	4	120	15	22	
SKB.50.160.CL4	TCB50 H160 CL4	4	160	15	22	
SKB.50.80.CL5	TCB50 H80 CL5	5	80	15	25	
SKB.50.120.CL5	TCB50 H120 CL5	5	120	15	22	
SKB.50.160.CL5	TCB50 H160 CL5	5	160	15	22	
SKB.50.80.CL6	TCB50 H80 CL6	6	80	20	27	
SKB.50.120.CL6	TCB50 H120 CL6	6	120	20	27	
SKB.50.160.CL6	TCB50 H160 CL6	6	160	20	27	
SKB.50.80.CL8	TCB50 H80 CL8	8	80	20	27	
SKB.50.120.CL8	TCB50 H120 CL8	8	120	20	27	
SKB.50.160.CL8	TCB50 H160 CL8	8	160	20	27	
SKB.50.80.CL10	TCB50 H80 CL10	10	80	24	31	
SKB.50.120.CL10	TCB50 H120 CL10	10	120	24	31	
SKB.50.160.CL10	TCB50 H160 CL10	10	160	24	31	
SKB.50.80.CL12	TCB50 H80 CL12	12	80	24	31	
SKB.50.120.CL12	TCB50 H120 CL12	12	120	24	31	
SKB.50.160.CL12	TCB50 H160 CL12	12	160	24	31	
SKB.50.80.CL14	TCB50 H80 CL14	14	80	27	34	
SKB.50.120.CL14	TCB50 H120 CL14	14	120	27	34	
SKB.50.160.CL14	TCB50 H160 CL14	14	160	27	34	
SKB.50.80.CL16	TCB50 H80 CL16	16	80	27	34	
SKB.50.120.CL16	TCB50 H120 CL16	16	120	27	34	
SKB.50.160.CL16	TCB50 H160 CL16	16	160	27	34	
SKB.50.80.CL18	TCB50 H80 CL18	18	80	33	40	
SKB.50.120.CL18	TCB50 H120 CL18	18	120	33	40	
SKB.50.160.CL18	TCB50 H160 CL18	18	160	33	40	
SKB.50.80.CL20	TCB50 H80 CL20	20	80	33	40	
SKB.50.120.CL20	TCB50 H120 CL20	20	120	33	40	
SKB.50.160.CL20	TCB50 H160 CL20	20	160	33	40	
SKB.50.100.CL25	TCB50 H100 CL25	25	100	44	53	
SKB.50.120.CL25	TCB50 H120 CL25	25	120	44	53	
SKB.50.160.CL25	TCB50 H160 CL25	25	160	44	53	
SKB.50.100.CL32	TCB50 H100 CL32	32	100	44	53	
SKB.50.120.CL32	TCB50 H120 CL32	32	120	44	53	
SKB.50.160.CL32	TCB50 H160 CL32	32	160	44	53	

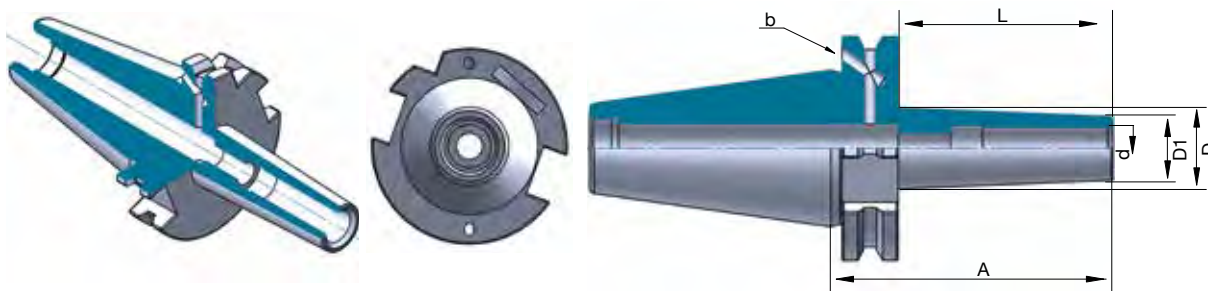
CALETTAMENTO A CALDO SLIM TYPE

SHRINK FIT HOLDERS SLIM TYPE



CALETTAMENTO TIPO SLIM - SHRINK FIT HOLDERS SLIM TYPE - SKB40

Cod.	TYPE	d	A	AT2		G2.5/25000		AD/B
				D1	D	D1	D	
SKB.40.80.CL3.SL	SLIM TYPE TCB40 H80 CL3	3	80	9	13	9	13	52
SKB.40.120.CL3.SL	SLIM TYPE TCB40 H120 CL3	3	120	9	16	9	16	92
SKB.40.80.CL4.SL	SLIM TYPE TCB40 H80 CL4	4	80	10	15	10	15	52
SKB.40.120.CL4.SL	SLIM TYPE TCB40 H120 CL4	4	120	10	20	10	20	92
SKB.40.80.CL5.SL	SLIM TYPE TCB40 H80 CL5	5	80	11	16	11	16	52
SKB.40.120.CL5.SL	SLIM TYPE TCB40 H120 CL5	5	120	11	20	11	20	92
SKB.40.80.CL6.SL	SLIM TYPE TCB40 H80 CL6	6	80	12	17	12	17	60,9
SKB.40.130.CL6.SL	SLIM TYPE TCB40 H130 CL6	6	130	12	19	12	19	110,9
SKB.40.160.CL6.SL	SLIM TYPE TCB40 H160 CL6	6	160	12	19	12	19	140,9
SKB.40.80.CL8.SL	SLIM TYPE TCB40 H80 CL8	8	80	14	19	14	19	60,9
SKB.40.130.CL8.SL	SLIM TYPE TCB40 H130 CL8	8	130	14	21	14	21	110,9

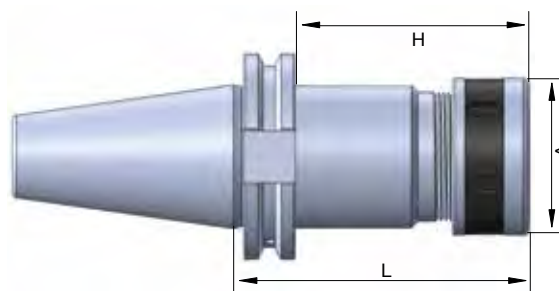
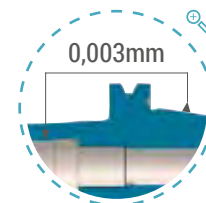


CALETTAMENTO TIPO SLIM - SHRINK FIT HOLDERS SLIM TYPE - SKB40

Cod.	TYPE	d	A	AT2	G2.5/25000	AD/B
				D1	D	L
SKB.40.160.CL8.SL	SLIM TYPE TCB40 H160 CL8	8	160	14	21	140,9
SKB.40.80.CL10.SL	SLIM TYPE TCB40 H80 CL10	10	80	16	21	60,9
SKB.40.130.CL10.SL	SLIM TYPE TCB40 H130 CL10	10	130	16	23	110,9
SKB.40.160.CL10.SL	SLIM TYPE TCB40 H160 CL10	10	160	16	23	140,9
SKB.40.80.CL12.SL	SLIM TYPE TCB40 H80 CL12	12	80	18	23	60,9
SKB.40.130.CL12.SL	SLIM TYPE TCB40 H130 CL12	12	130	18	25	110,9
SKB.40.160.CL12.SL	SLIM TYPE TCB40 H160 CL12	12	160	18	25	140,9
SKB.40.80.CL14.SL	SLIM TYPE TCB40 H80 CL14	14	80	22	25	60,9
SKB.40.130.CL14.SL	SLIM TYPE TCB40 H130 CL14	14	130	22	27	110,9
SKB.40.160.CL14.SL	SLIM TYPE TCB40 H160 CL14	14	160	22	27	140,9
SKB.40.80.CL16.SL	SLIM TYPE TCB40 H80 CL16	16	80	24	29	60,9
SKB.40.130.CL16.SL	SLIM TYPE TCB40 H130 CL16	16	130	24	31	110,9
SKB.40.160.CL16.SL	SLIM TYPE TCB40 H160 CL16	16	160	24	31	140,9
SKB.40.80.CL20.SL	SLIM TYPE TCB40 H80 CL20	20	80	32	39	60,9
SKB.40.130.CL20.SL	SLIM TYPE TCB40 H130 CL20	20	130	32	39	110,9
SKB.40.160.CL20.SL	SLIM TYPE TCB40 H160 CL20	20	160	32	39	140,9

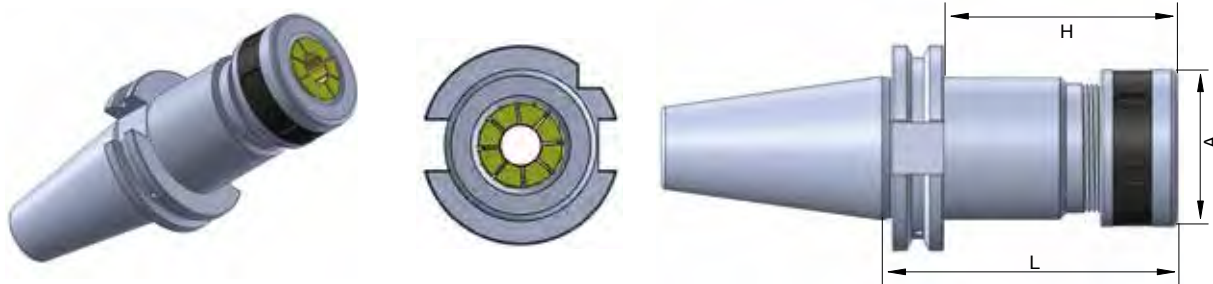
PORTAPINZA PER SKS

COLLET CHUCK FOR SKS



PORTAPINZA PER SKS - COLLET CHUCKS FOR SKS - SK40

Cod.	TYPE	H	AT2	G2.5/25000	AD
			L	A	
SK.40.90.SKS10	TC40 H90 SKS10	52	90	30	
SK.40.120.SKS10	TC40 H120 SKS10	82	120	30	
SK.40.90.SKS20	TC40 H90 SKS20	70	90	48.5	
SK.40.120.SKS20	TC40 H120 SKS20	100	100	48.50	

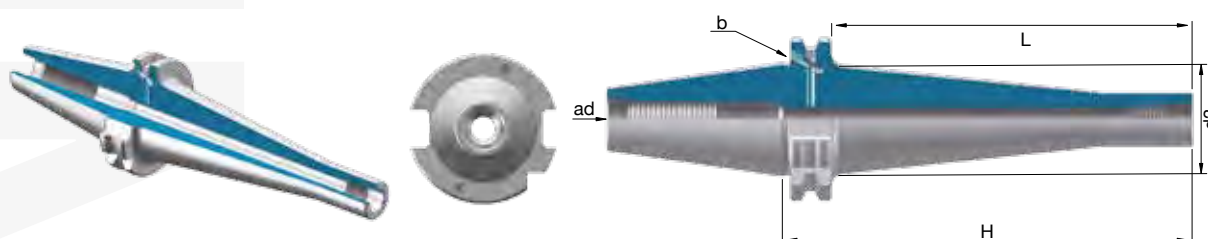
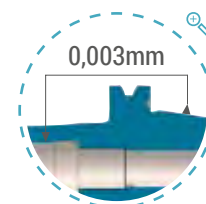


PORTAPINZA PER SKS - COLLET CHUCKS FOR SKS - SK50

Cod.	TYPE	H	AD		
			AT2	G2.5/25000	A
SK.50.105.SKS10	TC50 H105 SKS10	70	L		30
SK.50.165.SKS10	TC50 H165 SKS10	130	L		30
SK.50.105.SKS20	TC50 H105 SKS20	80	L		48.5
SK.50.165.SKS20	TC50 H165 SKS20	140	L		48.5

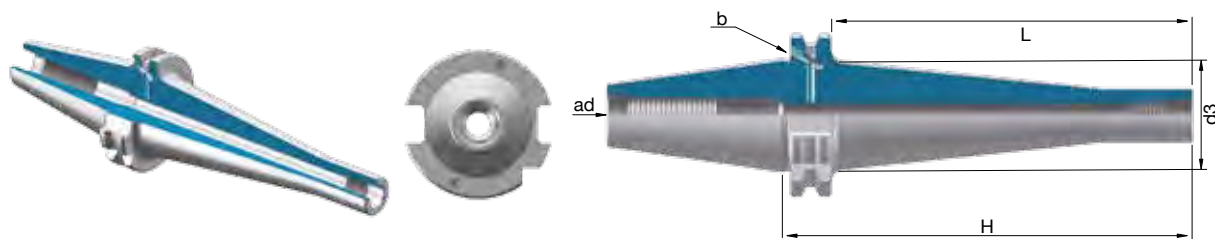
PORTA TESTINE FILETTATE (TIPO CPY)

TOOLHOLDERS FOR SCREWED MILLING CUTTERS



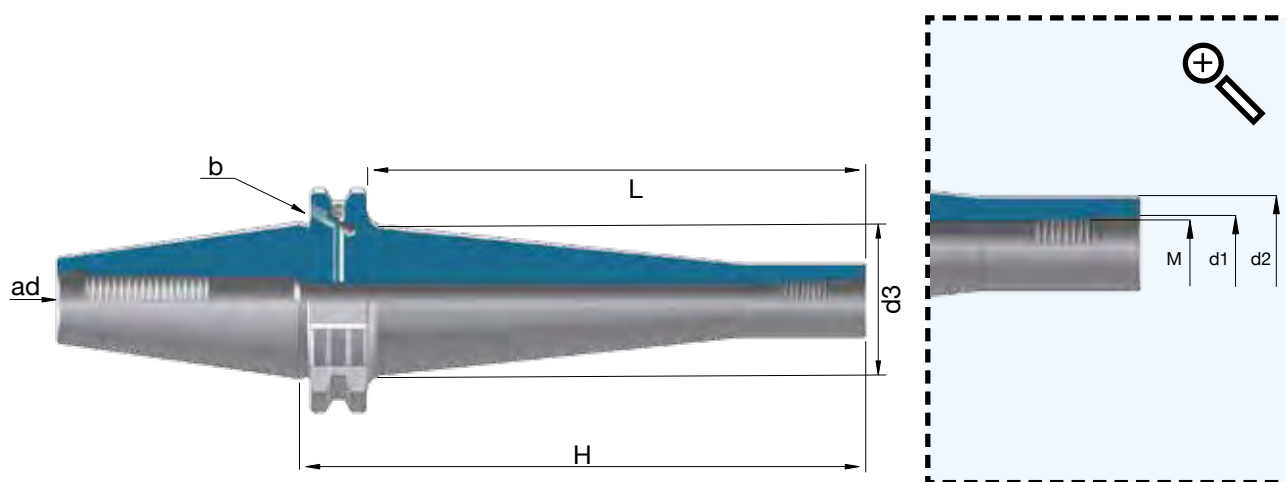
PORTA TESTINE FILETTATE - FOR SCREWED MILLING CUTTER - SKB40

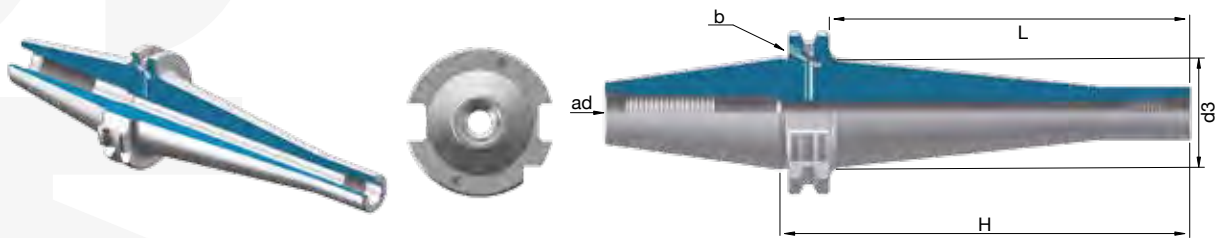
Cod.	TYPE	M	d1	d2	AT2		G2.5/25000		AD/B	
					d3	L	H			
SKB.40.44.M6CPY	TCB40 H 44 M 6 CPY	M6	6.5	10	13	25	44			
SKB.40.69.M6CPY	TCB40 H 69 M 6 CPY	M6	6.5	10	20	50	69			
SKB.40.94.M6CPY	TCB40 H 94 M 6 CPY	M6	6.5	10	23	75	94			
SKB.40.55.M8CPY	TCB40 H 55 M 8 CPY	M8	8,5	13	15	36	55			
SKB.40.75.M8CPY	TCB40 H 75 M 8 CPY	M8	8,5	13	23	56	75			
SKB.40.95.M8CPY	TCB40 H 95 M 8 CPY	M8	8,5	13	23	76	95			
SKB.40.115.M8CPY	TCB40 H115 M 8 CPY	M8	8,5	13	25	96	115			
SKB.40.55.M10CPY	TCB40 H 55 M10 CPY	M10	10,5	18	20	36	55			
SKB.40.75.M10CPY	TCB40 H 75 M10 CPY	M10	10,5	18	25	56	75			
SKB.40.95.M10CPY	TCB40 H 95 M10 CPY	M10	10,5	18	28	76	95			
SKB.40.105.M10CPY	TCB40 H115 M10 CPY	M10	10,5	18	28	96	115			
SKB.40.145.M10CPY	TCB40 H145 M10 CPY	M10	10,5	18	34	126	145			
SKB.40.55.M12CPY	TCB40 H 55 M12 CPY	M12	12,5	21	24	36	55			



PORTA TESTINE FILETTATE - FOR SCREWED MILLING CUTTER - SKB40

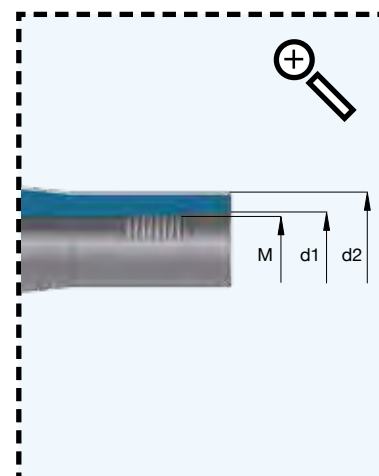
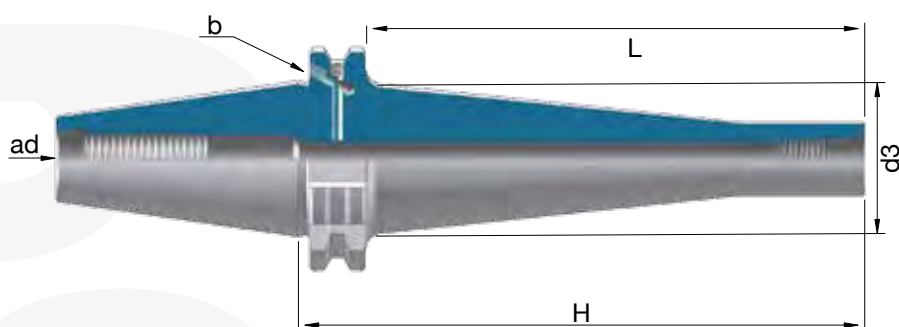
Cod.	TYPE	M	d1	d2	AT2		G2.5/25000		AD/B	
					d3	L	H			
SKB.40.75.M12CPY	TCB40 H 75 M12 CPY	M12	12,5	21	24	56	75			
SKB.40.95.M12CPY	TCB40 H 95 M12 CPY	M12	12,5	21	31	76	95			
SKB.40.115.M12CPY	TCB40 H115 M12 CPY	M12	12,5	21	31	96	115			
SKB.40.145.M12CPY	TCB40 H145 M12 CPY	M12	12,5	21	38	126	145			
SKB.40.175.M12CPY	TCB40 H175 M12 CPY	M12	12,5	21	42	156	175			
SKB.40.55.M16CPY	TCB40 H 55 M16 CPY	M16	17	29	34	36	55			
SKB.40.75.M16CPY	TCB40 H 75 M16 CPY	M16	17	29	34	56	75			
SKB.40.95.M16CPY	TCB40 H 95 M16 CPY	M16	17	29	34	76	95			
SKB.40.115.M16CPY	TCB40 H115 M16 CPY	M16	17	29	39	96	115			
SKB.40.145.M16CPY	TCB40 H145 M16 CPY	M16	17	29	39	126	145			
SKB.40.175.M16CPY	TCB40 H175 M16 CPY	M16	17	29	39	156	175			





PORTA TESTINE FILETTATE - FOR SCREWED MILLIN CUTTER - SKB50

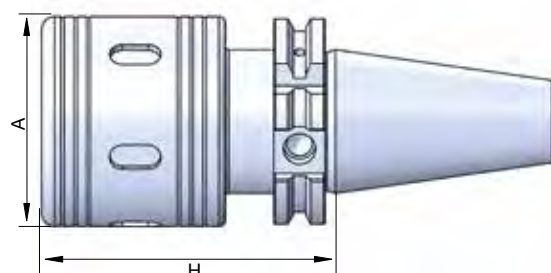
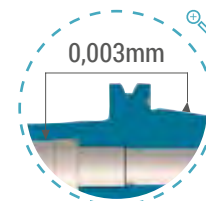
Cod.	TYPE	M	d1	d2	AT2		G2.5/25000		AD/B	
					d3	L	H			
SKB.50.69.M8CPY	TCB50 H 69 M8 CPY	M8	8,5	13	23	50	69			
SKB.50.119.M8CPY	TCB50 H 119 M8 CPY	M8	8,5	13	25	100	119			
SKB.50.169.M8CPY	TCB50 H 169 M8 CPY	M8	8,5	13	30	150	169			
SKB.50.85.M10CPY	TCB50 H 85 M10 CPY	M10	10,5	18	23	50	85			
SKB.50.135.M10CPY	TCB50 H 135 M10 CPY	M10	10,5	18	32	100	135			
SKB.50.185.M10CPY	TCB50 H 185 M10 CPY	M10	10,5	18	36.5	150	185			
SKB.50.85.M12CPY	TCB50 H 85 M12 CPY	M12	12,5	21	24	50	85			
SKB.50.135.M12CPY	TCB50 H 135 M12 CPY	M12	12,5	21	33	100	125			
SKB.50.185.M12CPY	TCB50 H 185 M12 CPY	M12	12,5	21	40	150	185			
SKB.50.85.M16CPY	TCB50 H 85 M16 CPY	M16	17	29	34	50	85			
SKB.50.135.M16CPY	TCB50 H 135 M16 CPY	M16	17	29	36	100	135			
SKB.50.185.M16CPY	TCB50 H 185 M16 CPY	M16	17	29	42.5	150	185			



FORTE SERRAGGIO

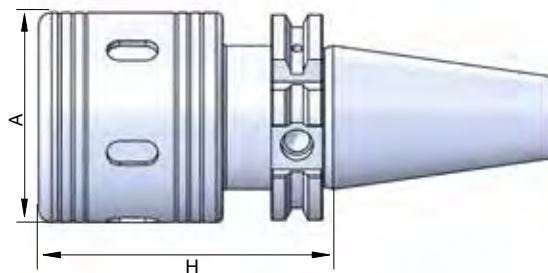
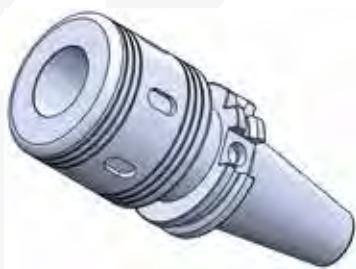
POWER MILLING CHUCKS

SK-DIN69871



FORTE SERRAGGIO - POWER MILLING CHUCK - SKB40

Cod.	TYPE	A	H	AT2	G6.3/15000	AD/B
				PINZE		
SKB.40.75.FP20	TCB40 H75 D20	46	75	4SR20 - Ø 3 al Ø18		
SKB.40.95.FP32	TCB40 H95 D32	62	95	4SR32 - Ø 6 al Ø25		



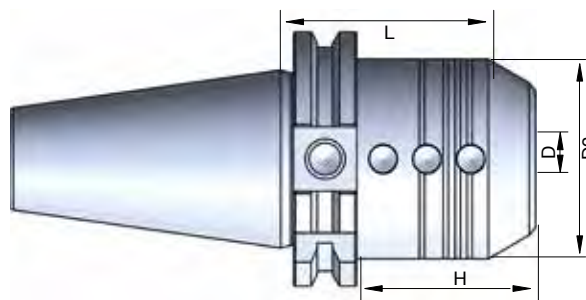
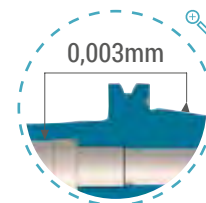
FORTE SERRAGGIO - POWER MILLING CHUCK - SKB50

Cod.	TYPE	A	H	AT2		G6.3/15000		AD/B	
				PINZE					
SKB.50.85.FP20	TCB50 H85 D20	46	85	4SR20 - Ø 3 al Ø18					
SKB.50.85.FP32	TCB50 H85 D32	62	85	4SR32 - Ø 6 al Ø25					

IDRAULICO

HYDRAULIC EXPANSIONS CHUCK

SK-DIN69871

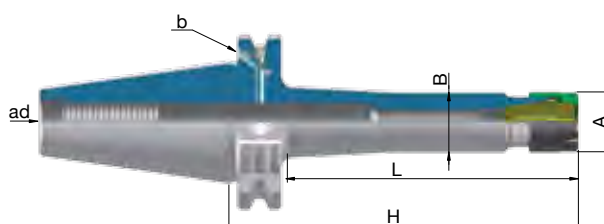
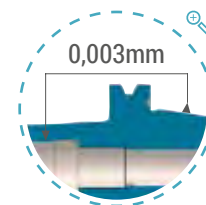


IDRAULICO - HYDRAULIC EXPANSIONS CHUCK - SKB40 - SKB50

Cod.	TYPE	L	H	AT2	G6.3/15000	AD/B
				D2	D	
SKB.40.77.HY12	TCB40 H77 D12	77	58	32	12	
SKB.40.82.HY20	TCB40 H82 D20	82	63	42	20	
SKB.40.117.HY25	TCB40 H117 D25	117	98	50	25	
SKB.40.117.HY32	TCB40 H117 D32	117	98	60	32	
SKB.50.82.HY20	TCB50 H82 D20	82	63	42	20	
SKB.50.91.HY32	TCB50 H91 D32	91	72	60	32	

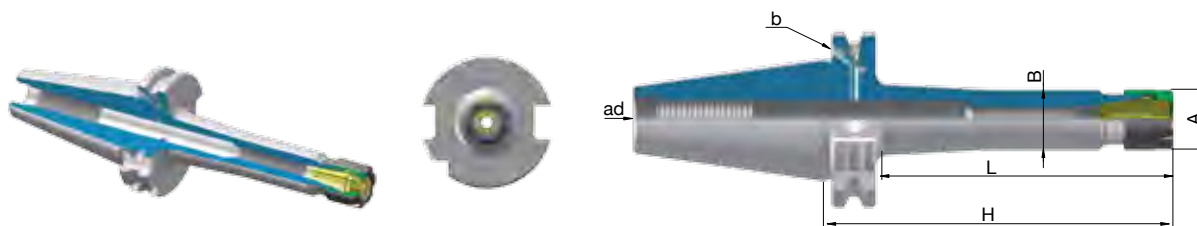
PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PORTAPINZA ER MINI - COLLET CHUCK ER MINI - SKB40

Cod.	TYPE	CAPACITÀ RANGE	AT2		G6.3/15000		AD/B
			A	B	L	H	
SKB.40.130.ER8M	TCB40 H130 ERX8M	1 ÷ 5 mm	12	12	110,9	130	
SKB.40.100.ER11M	TCB40 H100 ERX11M	1 ÷ 7 mm	16	16	80,9	100	
SKB.40.125.ER11M	TCB40 H125 ERX11M	1 ÷ 7 mm	16	16	105,9	125	
SKB.40.150.ER11M	TCB40 H150 ERX11M	1 ÷ 7 mm	16	16	130,9	150	
SKB.40.70.ER16M	TCB40 H 70 ERX16M	1 ÷ 10 mm	22	22	50,9	70	
SKB.40.100.ER16M	TCB40 H100 ERX16M	1 ÷ 10 mm	22	22	80,9	100	
SKB.40.125.ER16M	TCB40 H125 ERX16M	1 ÷ 10 mm	22	22	105,9	125	
SKB.40.150.ER16M	TCB40 H150 ERX16M	1 ÷ 10 mm	22	22	130,9	150	
SKB.40.100.ER20M	TCB40 H100 ERX20M	1 ÷ 13 mm	28	28	80,9	100	
SKB.40.135.ER20M	TCB40 H135 ERX20M	1 ÷ 13 mm	28	28	115,9	135	
SKB.40.150.ER20M	TCB40 H150 ERX20M	1 ÷ 13 mm	28	28	130,9	150	
SKB.40.100.ER25M	TCB40 H100 ERX25M	1 ÷ 16 mm	35	30	80,9	100	
SKB.40.150.ER25M	TCB40 H150 ERX25M	1 ÷ 16 mm	35	30	130,9	150	
SKB.40.200.ER25M	TCB40 H200 ERX25M	1 ÷ 16 mm	35	30	180,9	200	



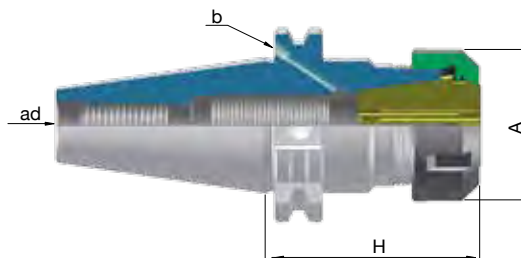
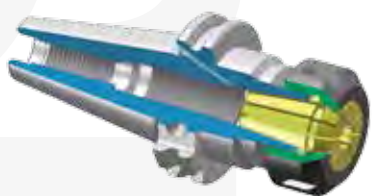
PORTAPINZA ER MINI - COLLET CHUCK ER MINI - SKB50

Cod.	TYPE	CAPACITÀ RANGE	AT2		G6.3/15000		AD/B
			A	B	L	H	
SKB.50.130.ER16M	TCB50 H130 ERX16M	1 ÷ 10 mm	22	22	110,9	130	
SKB.50.160.ER16M	TCB50 H160 ERX16M	1 ÷ 10 mm	22	22	140,9	160	
SKB.50.200.ER16M	TCB50 H200 ERX16M	1 ÷ 10 mm	22	22	180,9	200	
SKB.50.130.ER20M	TCB50 H130 ERX20M	1 ÷ 13 mm	28	28	110,9	130	
SKB.50.130.ER25M	TCB50 H130 ERX25M	1 ÷ 16 mm	35	35	110,9	130	
SKB.50.160.ER25M	TCB50 H160 ERX25M	1 ÷ 16 mm	35	35	140,9	160	



PORTAPINZA ER - COLLET CHUCK ER - SK30

Cod.	TYPE	CAPACITÀ RANGE	AT2		G6.3/15000		AD
			A	H			
SK.30.63.ER16	TC30 H 63 ERX16	1 ÷ 10 mm	32	63			
SK.30.100.ER16	TC30 H100 ERX16	1 ÷ 10 mm	32	100			
SK.30.63.ER20	TC30 H 63 ERX20	1 ÷ 13 mm	35	63			
SK.30.63.ER25	TC30 H 63 ERX25	1 ÷ 16 mm	42	63			
SK.30.90.ER25	TC30 H 90 ERX25	1 ÷ 16 mm	42	90			
SK.30.63.ER32	TC30 H 63 ERX32	2 ÷ 20 mm	50	63			
SK.30.100.ER32	TC30 H100 ERX32	2 ÷ 20 mm	50	100			



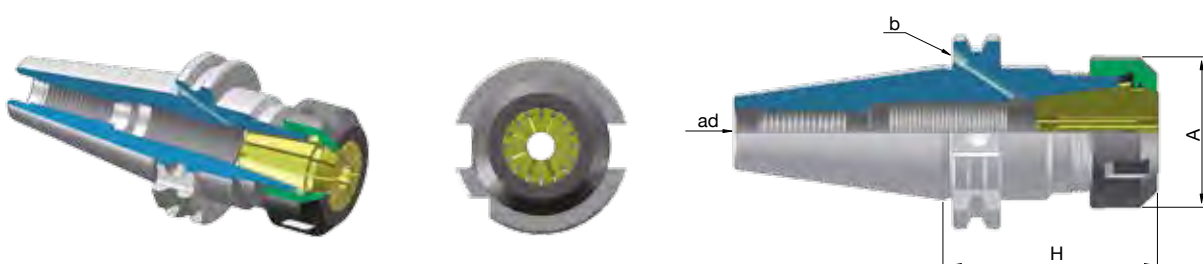
PORTAPINZA ER - COLLET CHUCK ER - SKB40

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD/B
			A	H	
SKB.40.70.ER16	TCB40 H 70 ERX16	1 ÷ 10 mm	32	70	
SKB.40.100.ER16	TCB40 H100 ERX16	1 ÷ 10 mm	32	100	
SKB.40.120.ER16	TCB40 H120 ERX16	1 ÷ 10 mm	32	120	
SKB.40.130.ER16	TCB40 H130 ERX16	1 ÷ 10 mm	32	130	
SKB.40.150.ER16	TCB40 H150 ERX16	1 ÷ 10 mm	32	150	
SKB.40.160.ER16	TCB40 H160 ERX16	1 ÷ 10 mm	32	160	
SKB.40.200.ER16	TCB40 H200 ERX16	1 ÷ 10 mm	32	200	
SKB.40.70.ER20	TCB40 H 70 ERX20	1 ÷ 13 mm	35	70	
SKB.40.100.ER20	TCB40 H100 ERX20	1 ÷ 13 mm	35	100	
SKB.40.130.ER20	TCB40 H130 ERX20	1 ÷ 13 mm	35	130	
SKB.40.160.ER20	TCB40 H160 ERX20	1 ÷ 13 mm	35	160	
SKB.40.70.ER25	TCB40 H 70 ERX25	1 ÷ 16 mm	42	70	
SKB.40.100.ER25	TCB40 H100 ERX25	1 ÷ 16 mm	42	100	
SKB.40.130.ER25	TCB40 H130 ERX25	1 ÷ 16 mm	42	130	
SKB.40.160.ER25	TCB40 H160 ERX25	1 ÷ 16 mm	42	160	
SKB.40.200.ER25	TCB40 H200 ERX25	1 ÷ 16 mm	42	200	
SKB.40.47.ER32	TCB40 H 47 ERX32	2 ÷ 20 mm	50	47	
SKB.40.70.ER32	TCB40 H 70 ERX32	2 ÷ 20 mm	50	70	
SKB.40.100.ER32	TCB40 H100 ERX32	2 ÷ 20 mm	50	100	
SKB.40.130.ER32	TCB40 H130 ERX32	2 ÷ 20 mm	50	130	
SKB.40.160.ER32	TCB40 H160 ERX32	2 ÷ 20 mm	50	160	
SKB.40.200.ER32	TCB40 H200 ERX32	2 ÷ 20 mm	50	200	
SKB.40.70.ER40	TCB40 H 70 ERX40	3 ÷ 26 mm	63	70	
SKB.40.100.ER40	TCB40 H100 ERX40	3 ÷ 26 mm	63	100	
SKB.40.130.ER40	TCB40 H130 ERX40	3 ÷ 26 mm	63	130	
SKB.40.160.ER40	TCB40 H160 ERX40	3 ÷ 26 mm	63	160	
SKB.40.200.ER40	TCB40 H200 ERX40	3 ÷ 26 mm	63	200	



PORTAPINZA ER - COLLET CHUCK ER - SKB45

Cod.	TYPE	CAPACITÀ RANGE	AD/B	
			A	H
SKB.45.80.ER32	TCB45 H80 ERX32	2 ÷ 20 mm	50	80
SKB.45.100.ER32	TCB45 H100 ERX32	2 ÷ 20 mm	50	100
SKB.45.80.ER40	TCB45 H80 ERX40	3 ÷ 26 mm	63	80



PORTAPINZA ER - COLLET CHUCK ER - SKB50

Cod.	TYPE	CAPACITÀ RANGE	AD/B	
			A	H
SKB.50.100.ER16	TCB50 H100 ERX16	1 ÷ 10 mm	32	100
SKB.50.160.ER16	TCB50 H160 ERX16	1 ÷ 10 mm	32	160
SKB.50.200.ER16	TCB50 H200 ERX16	1 ÷ 10 mm	32	200
SKB.50.100.ER20	TCB50 H100 ERX20	1 ÷ 13 mm	35	100
SKB.50.160.ER20	TCB50 H160 ERX20	1 ÷ 13 mm	35	160
SKB.50.80.ER25	TCB50 H 80 ERX25	1 ÷ 16 mm	42	80
SKB.50.100.ER25	TCB50 H100 ERX25	1 ÷ 16 mm	42	100
SKB.50.130.ER25	TCB50 H130 ERX25	1 ÷ 16 mm	42	130
SKB.50.160.ER25	TCB50 H160 ERX25	1 ÷ 16 mm	42	160
SKB.50.200.ER25	TCB50 H200 ERX25	1 ÷ 16 mm	42	200
SKB.50.80.ER32	TCB50 H 80 ERX32	2 ÷ 20 mm	50	80
SKB.50.100.ER32	TCB50 H100 ERX32	2 ÷ 20 mm	50	100
SKB.50.130.ER32	TCB50 H130 ERX32	2 ÷ 20 mm	50	130
SKB.50.160.ER32	TCB50 H160 ERX32	2 ÷ 20 mm	50	160
SKB.50.200.ER32	TCB50 H200 ERX32	2 ÷ 20 mm	50	200
SKB.50.250.ER32	TCB50 H250 ERX32	2 ÷ 20 mm	50	250
SKB.50.80.ER40	TCB50 H 80 ERX40	3 ÷ 30 mm	63	80
SKB.50.100.ER40	TCB50 H100 ERX40	3 ÷ 30 mm	63	100
SKB.50.130.ER40	TCB50 H130 ERX40	3 ÷ 30 mm	63	130
SKB.50.160.ER40	TCB50 H160 ERX40	3 ÷ 30 mm	63	160
SKB.50.200.ER40	TCB50 H200 ERX40	3 ÷ 30 mm	63	200
SKB.50.100.ER50	TCB50 H100 ERX50	6 ÷ 34 mm	78	100
SKB.50.130.ER50	TCB50 H130 ERX50	6 ÷ 34 mm	78	130
SKB.50.160.ER50	TCB50 H160 ERX50	6 ÷ 34 mm	78	160

Fig.1

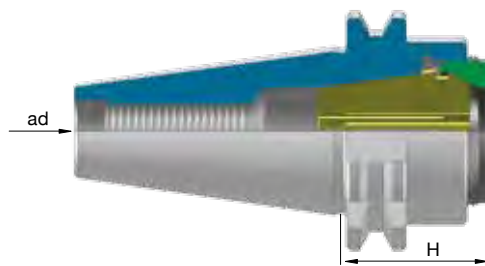
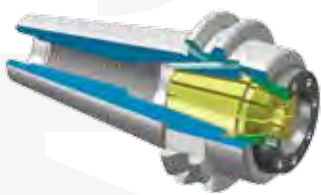
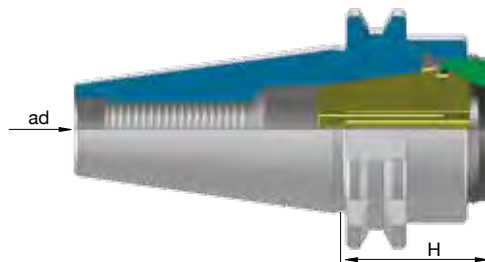


Fig.2



PORTAPINZA ER EXTRACORTO - SHORTS COLLET CHUCK ER - SK40 - SK50

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD
			H		
SK.40.21.ER25	TC40 H21 ERX25	1 ÷ 16 mm			21
SK.40.21.ER32	TC40 H21 ERX32	2 ÷ 20 mm			21
SK.50.21.ER32	TC50 H21 ERX32	2 ÷ 20 mm			21

FORNIBILI CON GHIERA CON FILETTO ESTERNO FORMA A CON FORI (Fig.1) E CON ESAGONO (Fig.2)
 AVAILABLE WITH EXTERNALLY THREADED NUTS (Fig.1) AND EXTERNALLY THREADEXAGONAL NUTS (Fig.2)

Fig.1

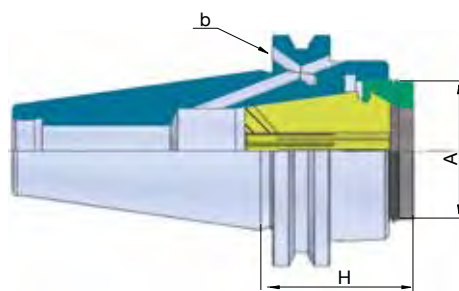
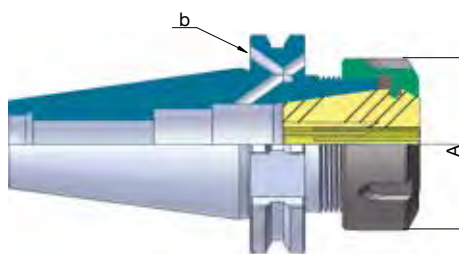


Fig.2



PORTAPINZA ER EXTRACORTO - SHORTS COLLET CHUCK ER - SKB40 - SKB50

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD/B
			A	H	
SKB.40.40.ER32	TCB40 H40 ERX32	2 ÷ 20 mm	Hex 32	40	
SKB.40.47.ER32	TCB40 H47 ERX32	2 ÷ 20 mm	40	47	
SKB.50.40.ER32	TCB50 H40 ERX32	2 ÷ 20 mm	Hex 32	40	
SKB.50.47.ER32	TCB50 H47 ERX32	2 ÷ 20 mm	40	47	

FORNIBILI CON GHIERA CON FILETTO ESTERNO FORMA A CON FORI (Fig.1), CON ESAGONO E CON GHIERA STANDARD (Fig.2)
 AVAILABLE WITH EXTERNALLY THREADED NUTS (Fig.1), EXTERNALLY THREADED HEXAGONAL NUTS AND STANDARD CLAMPING NUT (Fig.2)

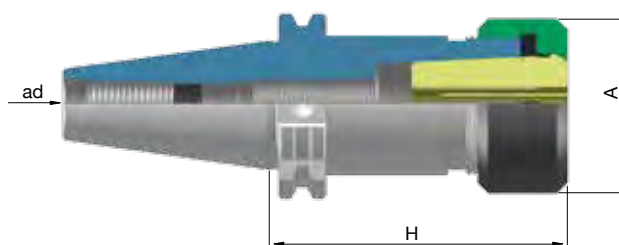
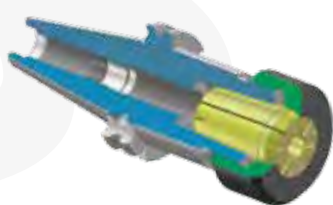
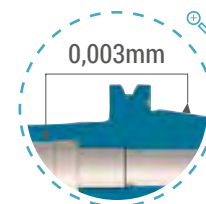


CASSETTA MANDRINO PORTAPINZE - COLLET CHUCKSKIT

Cod.	Portapinze	Pinze nella serie	Chiave
KIT578	TCB40 H70 ERX32	ERX32: Ø 3 ÷ 20 progress. 1,0 mm - 18 pinze	ERX32 STAND
KIT579	TCB40 H70 ERX40	ERX40: Ø 4 ÷ 26 progress. 1,0 mm - 23 pinze	ERX40 STAND
KIT580	TCB50 H80 ERX32	ERX32: Ø 3 ÷ 20 progress. 1,0 mm - 18 pinze	ERX32 STAND
KIT581	TCB50 H80 ERX40	ERX40: Ø 4 ÷ 26 progress. 1,0 mm - 23 pinze	ERX40 STAND

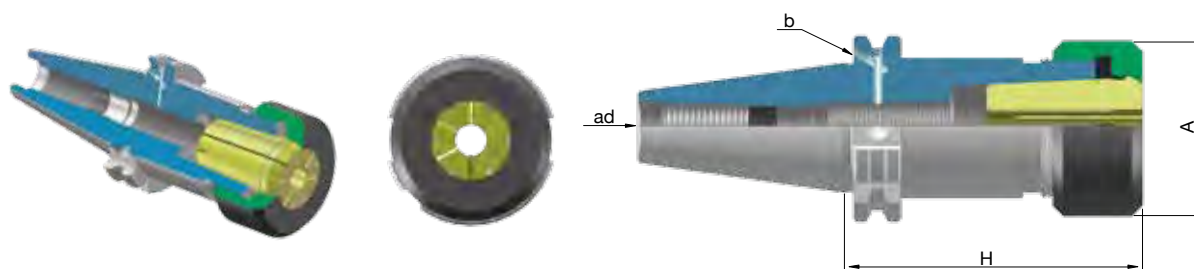
PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388



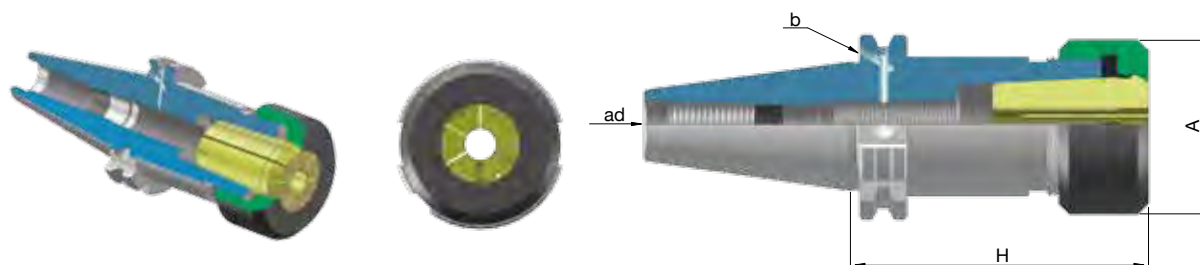
PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - SK30

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD
			A	H	
SK.30.60.EOC16	TC30 H60 EOC16	2 ÷ 16 mm	43	60	
SK.30.80.EOC25	TC30 H80 EOC25	2 ÷ 25 mm	60	80	



PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - SKB40

Cod.	TYPE	CAPACITÀ RANGE	AD/B	
			A	H
SKB.40.70.EOC16	TCB40 H 70 EOC16	2 ÷ 16 mm	43	70
SKB.40.100.EOC16	TCB40 H100 EOC16	2 ÷ 16 mm	43	100
SKB.40.70.EOC25	TCB40 H 70 EOC25	2 ÷ 25 mm	60	70
SKB.40.100.EOC25	TCB40 H100 EOC25	2 ÷ 25 mm	60	100
SKB.40.90.EOC32	TCB40 H 90 EOC32	4 ÷ 32 mm	72	90

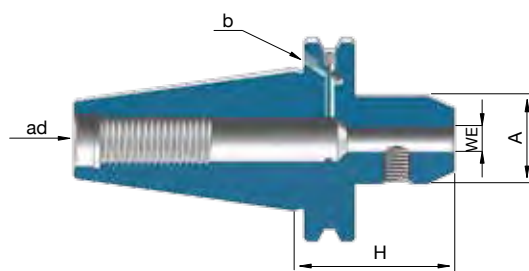
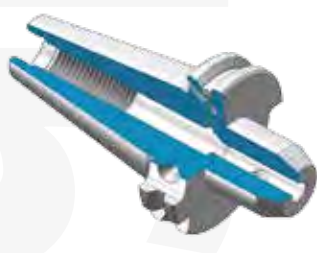
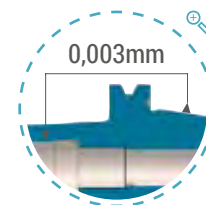


PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - SKB50

Cod.	TYPE	CAPACITÀ RANGE	AD/B	
			A	H
SKB.50.70.EOC16	TCB50 H 70 EOC16	2 ÷ 16 mm	43	70
SKB.50.70.EOC25	TCB50 H 70 EOC25	2 ÷ 25 mm	60	70
SKB.50.80.EOC32	TCB50 H 80 EOC32	4 ÷ 32 mm	72	80
SKB.50.100.EOC32	TCB50 H100 EOC32	4 ÷ 32 mm	72	100

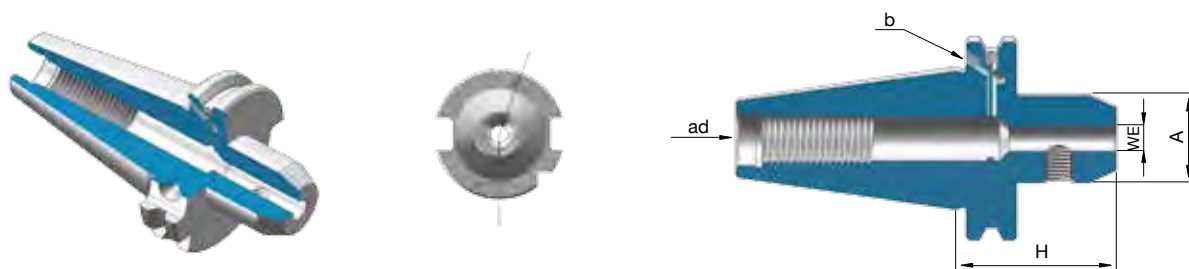
PER FRESE WELDON

END MILL HOLDERS



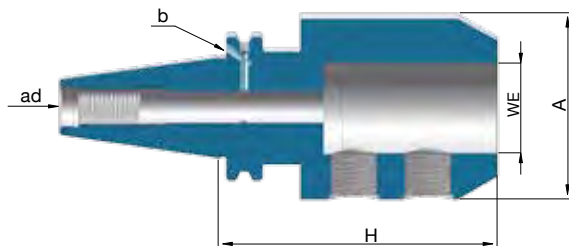
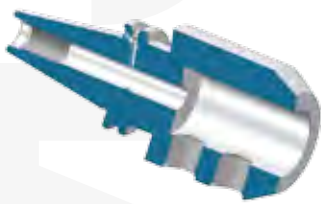
PER FRESE WELDON - END MILL HOLDERS - SKB40

Cod.	TYPE	Material		
		AT2	G6.3/15000	AD/B
		A	H	WE
SKB.40.50.WE6	TCB40 H 50 WE6	25	50	6
SKB.40.100.WE6	TCB40 H100 WE6	25	100	6
SKB.40.130.WE6	TCB40 H130 WE6	25	130	6
SKB.40.160.WE6	TCB40 H160 WE6	25	160	6



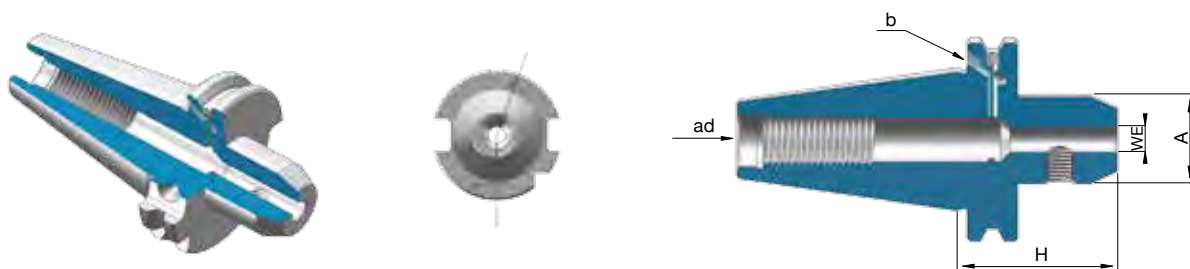
PER FRESE WELDON - END MILL HOLDERS - SKB40

Cod.	TYPE	SKB40		
		A	H	WE
SKB.40.200.WE6	TCB40 H200 WE6	25	200	6
SKB.40.50.WE8	TCB40 H 50 WE8	28	50	8
SKB.40.100.WE8	TCB40 H100 WE8	28	100	8
SKB.40.130.WE8	TCB40 H130 WE8	28	130	8
SKB.40.160.WE8	TCB40 H160 WE8	28	160	8
SKB.40.200.WE8	TCB40 H200 WE8	28	200	8
SKB.40.50.WE10	TCB40 H 50 WE10	35	50	10
SKB.40.100.WE10	TCB40 H100 WE10	35	100	10
SKB.40.130.WE10	TCB40 H130 WE10	35	130	10
SKB.40.160.WE10	TCB40 H160 WE10	35	160	10
SKB.40.200.WE10	TCB40 H200 WE10	35	200	10
SKB.40.50.WE12	TCB40 H 50 WE12	42	50	12
SKB.40.100.WE12	TCB40 H100 WE12	42	100	12
SKB.40.130.WE12	TCB40 H130 WE12	42	130	12
SKB.40.160.WE12	TCB40 H160 WE12	42	160	12
SKB.40.200.WE12	TCB40 H200 WE12	42	200	12
SKB.40.50.WE14	TCB40 H 50 WE14	44	50	14
SKB.40.100.WE14	TCB40 H100 WE14	44	100	14
SKB.40.130.WE14	TCB40 H130 WE14	44	130	14
SKB.40.160.WE14	TCB40 H160 WE14	44	160	14
SKB.40.200.WE14	TCB40 H200 WE14	44	200	14
SKB.40.63.WE16	TCB40 H 63 WE16	48	63	16
SKB.40.100.WE16	TCB40 H100 WE16	48	100	16
SKB.40.130.WE16	TCB40 H130 WE16	48	130	16
SKB.40.160.WE16	TCB40 H160 WE16	48	160	16
SKB.40.200.WE16	TCB40 H200 WE16	48	200	16



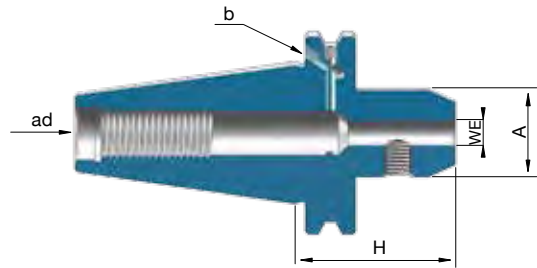
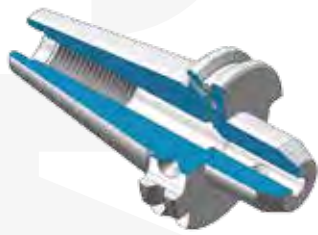
PER FRESE WELDON - END MILL HOLDERS - SKB40

Cod.	TYPE	AT2		
		A	H	WE
SKB.40.63.WE18	TCB40 H 63 WE18	50	63	18
SKB.40.100.WE18	TCB40 H100 WE18	50	100	18
SKB.40.130.WE18	TCB40 H130 WE18	50	130	18
SKB.40.160.WE18	TCB40 H160 WE18	50	160	18
SKB.40.200.WE18	TCB40 H200 WE18	50	200	18
SKB.40.63.WE20	TCB40 H 63 WE20	52	63	20
SKB.40.100.WE20	TCB40 H100 WE20	52	100	20
SKB.40.130.WE20	TCB40 H130 WE20	52	130	20
SKB.40.160.WE20	TCB40 H160 WE20	52	160	20
SKB.40.200.WE20	TCB40 H200 WE20	52	200	20
SKB.40.100.WE25	TCB40 H100 WE25	65	100	25
SKB.40.130.WE25	TCB40 H130 WE25	65	130	25
SKB.40.160.WE25	TCB40 H160 WE25	65	160	25
SKB.40.100.WE32	TCB40 H100 WE32	72	100	32
SKB.40.130.WE32	TCB40 H130 WE32	72	130	32
SKB.40.160.WE32	TCB40 H160 WE32	72	160	32
SKB.40.120.WE40	TCB40 H120 WE40	80	120	40



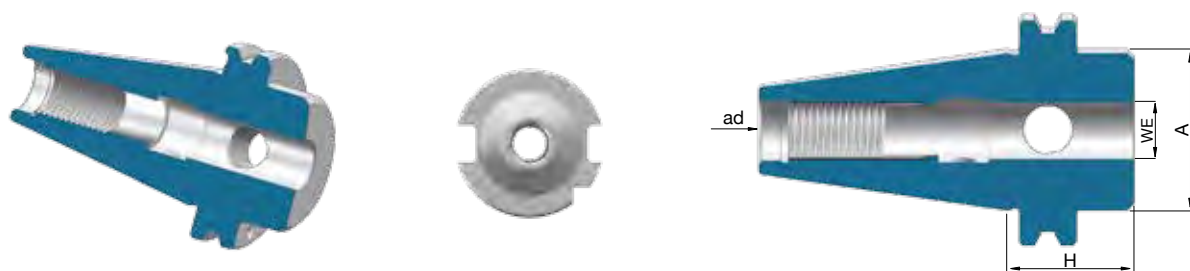
PER FRESE WELDON - END MILL HOLDERS - SKB50

Cod.	TYPE	AT2	G6.3/15000	AD/B
		A	H	WE
SKB.50.63.WE6	TCB50 H 63 WE 6	25	63	6
SKB.50.100.WE6	TCB50 H100 WE 6	25	100	6
SKB.50.130.WE6	TCB50 H130 WE 6	25	130	6
SKB.50.160.WE6	TCB50 H160 WE 6	25	160	6
SKB.50.200.WE6	TCB50 H200 WE 6	25	200	6
SKB.50.63.WE8	TCB50 H 63 WE 8	28	63	8
SKB.50.100.WE8	TCB50 H100 WE 8	28	100	8
SKB.50.130.WE8	TCB50 H130 WE 8	28	130	8
SKB.50.160.WE8	TCB50 H160 WE 8	28	160	8
SKB.50.200.WE8	TCB50 H200 WE 8	28	200	8
SKB.50.63.WE10	TCB50 H 63 WE10	35	63	10
SKB.50.100.WE10	TCB50 H100 WE10	35	100	10
SKB.50.130.WE10	TCB50 H130 WE10	35	130	10
SKB.50.160.WE10	TCB50 H160 WE10	35	160	10
SKB.50.200.WE10	TCB50 H200 WE10	35	200	10
SKB.50.63.WE12	TCB50 H 63 WE12	42	63	12
SKB.50.100.WE12	TCB50 H100 WE12	42	100	12
SKB.50.130.WE12	TCB50 H130 WE12	42	130	12
SKB.50.160.WE12	TCB50 H160 WE12	42	160	12
SKB.50.200.WE12	TCB50 H200 WE12	42	200	12
SKB.50.63.WE14	TCB50 H 63 WE14	44	63	14
SKB.50.100.WE14	TCB50 H100 WE14	44	100	14
SKB.50.130.WE14	TCB50 H130 WE14	44	130	14
SKB.50.160.WE14	TCB50 H160 WE14	44	160	14
SKB.50.200.WE14	TCB50 H200 WE14	44	200	14
SKB.50.63.WE16	TCB50 H 63 WE16	48	63	16
SKB.50.100.WE16	TCB50 H100 WE16	48	100	16
SKB.50.130.WE16	TCB50 H130 WE16	48	130	16
SKB.50.160.WE16	TCB50 H160 WE16	48	160	16
SKB.50.200.WE16	TCB50 H200 WE16	48	200	16
SKB.50.63.WE18	TCB50 H 63 WE18	50	63	18
SKB.50.100.WE18	TCB50 H100 WE18	50	100	18
SKB.50.130.WE18	TCB50 H130 WE18	50	130	18
SKB.50.160.WE18	TCB50 H160 WE18	50	160	18
SKB.50.200.WE18	TCB50 H200 WE18	50	200	18



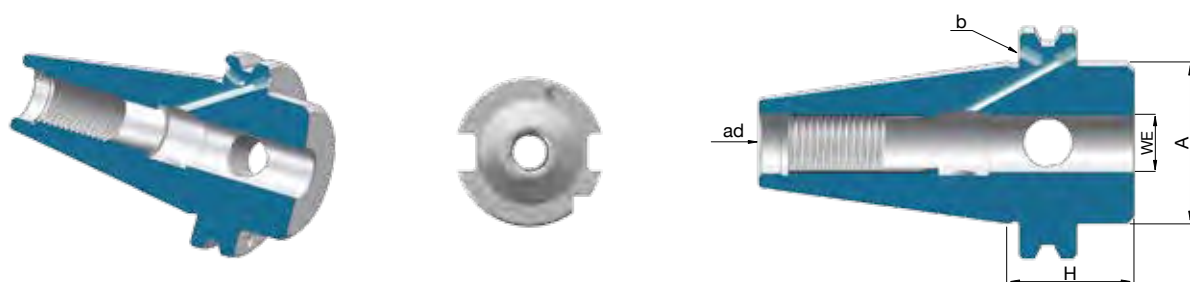
PER FRESE WELDON - END MILL HOLDERS - SKB50

Cod.	TYPE	AT2	G6.3/15000	AD/B
		A	H	WE
SKB.50.63.WE20	TCB50 H 63 WE20	52	63	20
SKB.50.100.WE20	TCB50 H100 WE20	52	100	20
SKB.50.130.WE20	TCB50 H130 WE20	52	130	20
SKB.50.160.WE20	TCB50 H160 WE20	52	160	20
SKB.50.200.WE20	TCB50 H200 WE20	52	200	20
SKB.50.250.WE20	TCB50 H250 WE20	52	250	20
SKB.50.80.WE25	TCB50 H 80 WE25	65	80	25
SKB.50.100.WE25	TCB50 H100 WE25	65	100	25
SKB.50.130.WE25	TCB50 H130 WE25	65	130	25
SKB.50.160.WE25	TCB50 H160 WE25	65	160	25
SKB.50.200.WE25	TCB50 H200 WE25	65	200	25
SKB.50.250.WE25	TCB50 H250 WE25	65	250	25
SKB.50.100.WE32	TCB50 H100 WE32	72	100	32
SKB.50.130.WE32	TCB50 H130 WE32	72	130	32
SKB.50.160.WE32	TCB50 H160 WE32	72	160	32
SKB.50.200.WE32	TCB50 H200 WE32	72	200	32
SKB.50.250.WE32	TCB50 H250 WE32	72	250	32
SKB.50.112.WE40	TCB50 H112 WE40	80	112	40
SKB.50.130.WE40	TCB50 H130 WE40	80	130	40
SKB.50.160.WE40	TCB50 H160 WE40	80	160	40
SKB.50.200.WE40	TCB50 H200 WE40	80	200	40
SKB.50.130.WE50	TCB50 H130 WE50	90	130	50



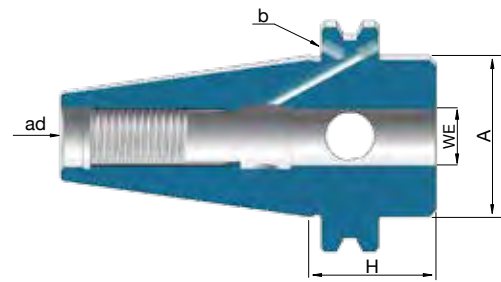
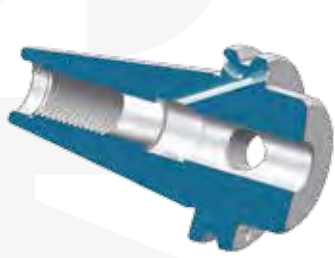
EXTRACORTI PER FRESE WELDON - SHORTS END MILL HOLDERS - SK30

Cod.	TYPE	A	SCREWS	AT2	G6.3/15000	AD
				H	WE	
SK.30.35.WE16	TC 30 H 35 WE 16	32	M14 x 10	35	16	
SK.30.35.WE20	TC 30 H 35 WE 20	36	M16 x 10	35	20	



EXTRACORTI PER FRESE WELDON - SHORTS END MILL HOLDERS - SKB40

Cod.	TYPE	A	SCREWS	AT2	G6.3/15000	AD/B
				H	WE	
SKB.40.35.WE16	TCB40 H 35 WE16	44,4	M14x16	35	16	
SKB.40.35.WE20	TCB40 H 35 WE20	44,4	M16x16	35	20	
SKB.40.35.WE25	TCB40 H 35 WE25	44,4	M16x10	35	25	
SKB.40.60.WE25	TCB40 H 60 WE25	50	M18x2x12 + M16x1x8	60	25	
SKB.40.40.WE32	TCB40 H 40 WE32	72	M20x2x20 + M16x1x8	40	32	
SKB.40.70.WE32	TCB40 H 70 WE32	72	M20x2x20 + M16x1x8	70	32	



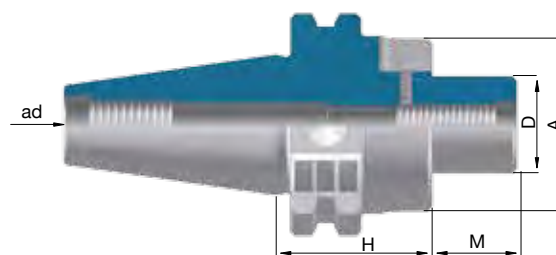
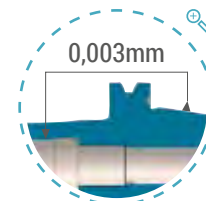
EXTRACORTI PER FRESE WELDON - SHORTS END MILL HOLDERS - SKB50

Cod.	TYPE	A	AD/B		
			AT2	G6.3/15000	WE
SKB.50.35.WE16	TCB50 H 35 WE16	70	M14x16	35	16
SKB.50.35.WE20	TCB50 H 35 WE20	70	M16x16	35	20
SKB.50.35.WE25	TCB50 H 35 WE25	70	M8x2x20	35	25
SKB.50.35.WE32	TCB50 H 35 WE32	70	M20x2x20	35	32
SKB.50.35.WE40	TCB50 H 35 WE40	80	M20x2x20	35	40

PORTAFRESE FISSI

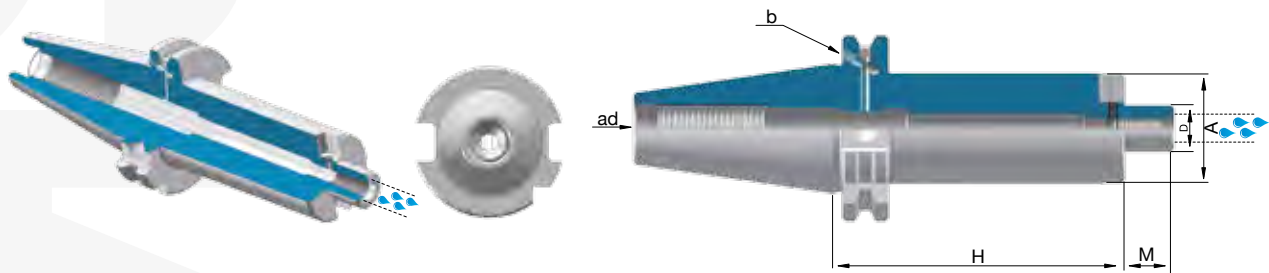
SHELL END MILL HOLDERS

SK-DIN69871



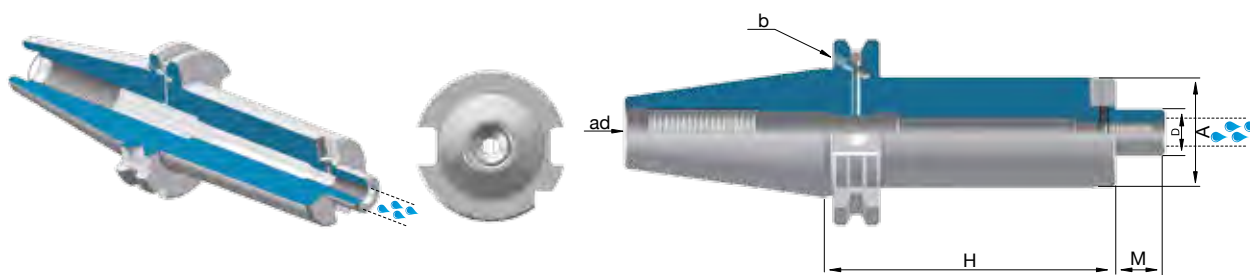
PORTAFRESE FISSI - SHELL END MILL HOLDERS - SK30

Cod.	TYPE	A	D	AT2	G6.3/15000	AD
SK.30.35.D16S	TC30 H35 D16S	32	16			35
SK.30.35.D22S	TC30 H35 D22S	40	22			35
SK.30.60.D27S	TC30 H60 D27S	50	27			60
SK.30.60.D32S	TC30 H60 D32S	58	32			60



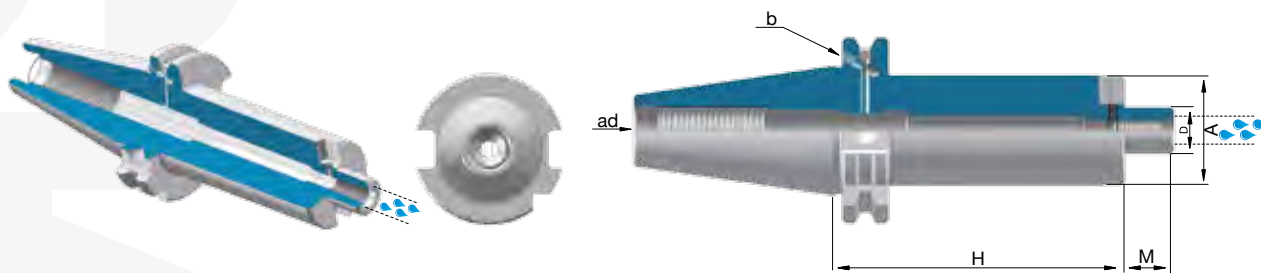
PORTAFRESE FISSI - SHELL END MILL HOLDERS - SKB40

Cod.	TYPE	A	D	AT2	G6.3/15000	AD/B
				M	H	
SKB.40.35.D16S	TCB40 H 35 D16S	38	16	17	35	
SKB.40.50.D16S	TCB40 H 50 D16S	38	16	17	50	
SKB.40.100.D16S	TCB40 H100 D16S	38	16	17	100	
SKB.40.130.D16S	TCB40 H130 D16S	38	16	17	130	
SKB.40.160.D16S	TCB40 H160 D16S	38	16	17	160	
SKB.40.200.D16S	TCB40 H200 D16S	38	16	17	200	
SKB.40.35.D22S	TCB40 H 35 D22S	48	22	19	35	
SKB.40.45.D22S	TCB40 H 45 D22S	48	22	19	45	
SKB.40.100.D22S	TCB40 H100 D22S	48	22	19	100	
SKB.40.130.D22S	TCB40 H130 D22S	48	22	19	130	
SKB.40.160.D22S	TCB40 H160 D22S	48	22	19	160	
SKB.40.200.D22S	TCB40 H200 D22S	48	22	19	200	
SKB.40.35.D27S	TCB40 H 35 D27S	58	27	21	35	
SKB.40.50.D27S	TCB40 H 50 D27S	58	27	21	50	
SKB.40.100.D27S	TCB40 H100 D27S	58	27	21	100	
SKB.40.130.D27S	TCB40 H130 D27S	58	27	21	130	
SKB.40.160.D27S	TCB40 H160 D27S	58	27	21	160	
SKB.40.200.D27S	TCB40 H200 D27S	58	27	21	200	
SKB.40.50.D32S	TCB40 H 50 D32S	78	32	24	50	
SKB.40.55.D32S	TCB40 H 55 D32S	78	32	24	55	
SKB.40.100.D32S	TCB40 H100 D32S	78	32	24	100	
SKB.40.130.D32S	TCB40 H130 D32S	78	32	24	130	
SKB.40.160.D32S	TCB40 H160 D32S	78	32	24	160	
SKB.40.200.D32S	TCB40 H200 D32S	78	32	24	200	
SKB.40.50.D40S	TCB40 H 50 D40S	88	40	27	50	
SKB.40.60.D40S	TCB40 H 60 D40S	88	40	27	60	
SKB.40.100.D40S	TCB40 H100 D40S	88	40	27	100	
SKB.40.130.D40S	TCB40 H130 D40S	88	40	27	130	
SKB.40.160.D40S	TCB40 H160 D40S	88	40	27	160	
SKB.40.200.D40S	TCB40 H200 D40S	88	40	27	200	



PORTAFRESE FISSI - SHELL END MILL HOLDERS - SKB50

D32SCod.	TYPE	A	D	AT2	G6.3/15000	AD/B
				M	H	
SKB.50.35.D16S	TCB50 H 35 D16S	38	16	17	35	
SKB.50.45.D16S	TCB50 H 45 D16S	38	16	17	45	
SKB.50.100.D16S	TCB50 H100 D16S	38	16	17	100	
SKB.50.130.D16S	TCB50 H130 D16S	38	16	17	130	
SKB.50.160.D16S	TCB50 H160 D16S	38	16	17	160	
SKB.50.200.D16S	TCB50 H200 D16S	38	16	17	200	
SKB.50.250.D16S	TCB50 H250 D16S	38	16	17	250	
SKB.50.300.D16S	TCB50 H300 D16S	38	16	17	300	
SKB.50.350.D16S	TCB50 H350 D16S	38	16	17	350	
SKB.50.35.D22S	TCB50 H 35 D22S	48	22	19	35	
SKB.50.45.D22S	TCB50 H 45 D22S	48	22	19	45	
SKB.50.100.D22S	TCB50 H100 D22S	48	22	19	100	
SKB.50.130.D22S	TCB50 H130 D22S	48	22	19	130	
SKB.50.160.D22S	TCB50 H160 D22S	48	22	19	160	
SKB.50.200.D22S	TCB50 H200 D22S	48	22	19	200	
SKB.50.250.D22S	TCB50 H250 D22S	48	22	19	250	
SKB.50.300.D22S	TCB50 H300 D22S	48	22	19	300	
SKB.50.350.D22S	TCB50 H350 D22S	48	22	19	350	
SKB.50.400.D22S	TCB50 H400 D22S	48	22	19	400	
SKB.50.35.D27S	TCB50 H 35 D27S	58	27	21	35	
SKB.50.45.D27S	TCB50 H 45 D27S	58	27	21	45	
SKB.50.100.D27S	TCB50 H100 D27S	58	27	21	100	
SKB.50.130.D27S	TCB50 H130 D27S	58	27	21	130	
SKB.50.160.D27S	TCB50 H160 D27S	58	27	21	160	
SKB.50.200.D27S	TCB50 H200 D27S	58	27	21	200	
SKB.50.250.D27S	TCB50 H250 D27S	58	27	21	250	
SKB.50.300.D27S	TCB50 H300 D27S	58	27	21	300	
SKB.50.350.D27S	TCB50 H350 D27S	58	27	21	350	
SKB.50.400.D27S	TCB50 H400 D27S	58	27	21	400	
SKB.50.35.D32S	TCB50 H 35 D32S	78	32	24	35	
SKB.50.50.D32S	TCB50 H 50 D32S	78	32	24	50	
SKB.50.100.D32S	TCB50 H100 D32S	78	32	24	100	
SKB.50.130.D32S	TCB50 H130 D32S	78	32	24	130	
SKB.50.160.D32S	TCB50 H160 D32S	78	32	24	160	
SKB.50.200.D32S	TCB50 H200 D32S	78	32	24	200	
SKB.50.250.D32S	TCB50 H250 D32S	78	32	24	250	
SKB.50.300.D32S	TCB50 H300 D32S	78	32	24	300	
SKB.50.350.D32S	TCB50 H350 D32S	78	32	24	350	



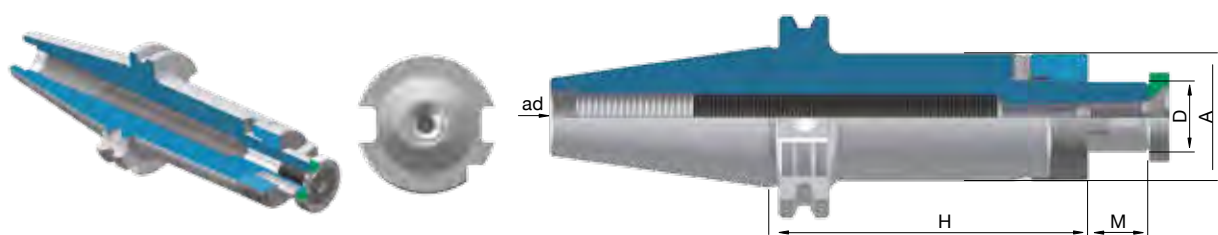
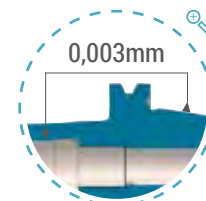
PORTAFRESE FISSI - SHELL END MILL HOLDERS - SKB50

Cod.	TYPE	A	D	AT2	G6.3/15000	AD/B
SKB.50.35.D40S	TCB50 H 35 D40S	88	40		27	35
SKB.50.50.D40S	TCB50 H 50 D40S	88	40		27	50
SKB.50.100.D40S	TCB50 H100 D40S	88	40		27	100
SKB.50.130.D40S	TCB50 H130 D40S	88	40		27	130
SKB.50.160.D40S	TCB50 H160 D40S	88	40		27	160
SKB.50.200.D40S	TCB50 H200 D40S	88	40		27	200

PORTAFRESE COMBINATI

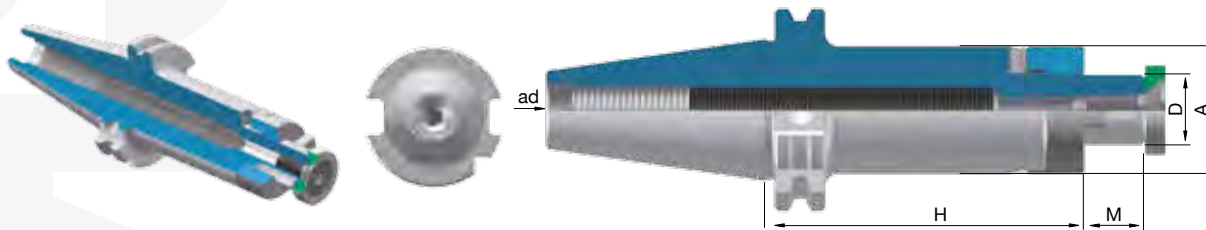
COMBI SHELL END MILL HOLDERS

SK-DIN69871



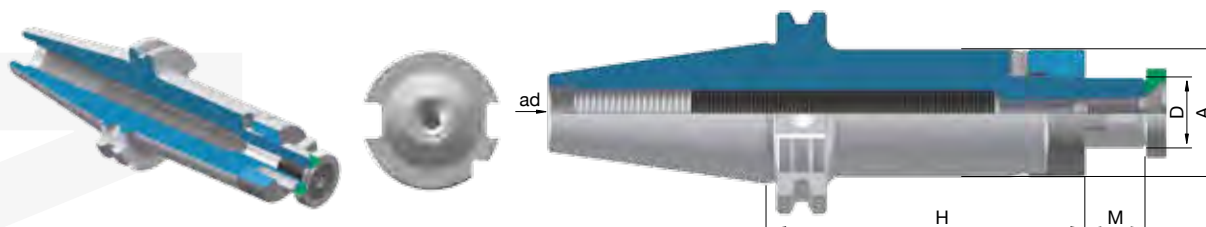
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - SK30

Cod.	TYPE	A	D	AT2	G6.3/15000	AD
SK.30.50.D16C	TC30 H 50 D16C	32	16			50
SK.30.50.D22C	TC30 H 50 D22C	40	22			50
SK.30.55.D27C	TC30 H 55 D27C	48	27			55
SK.30.60.D32C	TC30 H 60 D32C	58	32			60



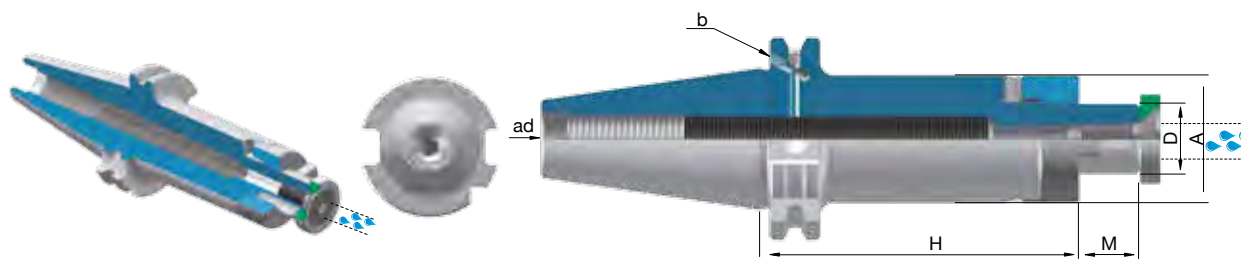
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - SK40

Cod.	TYPE	A	D	AT2	G6.3/15000	AD
SK.40.55.D16C	TC40 H 55 D16C	32	16			
SK.40.100.D16C	TC40 H100 D16C	32	16			
SK.40.55.D22C	TC40 H 55 D22C	40	22			
SK.40.100.D22C	TC40 H100 D22C	40	22			
SK.40.55.D27C	TC40 H 55 D27C	48	27			
SK.40.100.D27C	TC40 H100 D27C	48	27			
SKB.40.60.D32C	TC40 H60 D32C	58	34			
SK.40.100.D32C	TC40 H100 D32C	58	32			
SKB.40.60.D40C	TC40 H60 D40C	70	40			
SK.40.100.D40C	TC40 H100 D40C	70	40			



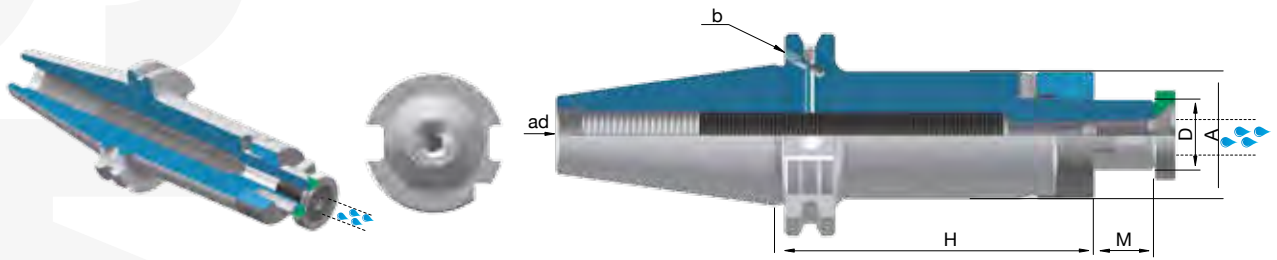
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - SK50

Cod.	TYPE	A	D	AT2	G6.3/15000	AD
SK.50.55.D16C	TC50 H 55 D16C	32	16			
SK.50.100.D16C	TC50 H100 D16C	32	16			
SK.50.55.D22C	TC50 H 55 D22C	40	22			
SK.50.100.D22C	TC50 H100 D22C	40	22			
SK.50.55.D27C	TC50 H 55 D27C	48	27			
SK.50.100.D27C	TC50 H100 D27C	48	27			
SK.50.55.D32C	TC50 H 55 D32C	58	32			
SK.50.100.D32C	TC50 H100 D32C	58	32			
SK.50.55.D40C	TC50 H 55 D40C	70	40			
SK.50.100.D40C	TC50 H100 D40C	70	40			
SK.50.70.D50C	TC50 H 70 D50C	90	50			



PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - SKB40

Cod.	TYPE	A	D	AT2	G6.3/15000	AD/B
SKB.40.55.D16C	TCB40 H 55 D16C	32	16			55
SKB.40.100.D16C	TCB40 H100 D16C	32	16			100
SKB.40.130.D16C	TCB40 H130 D16C	32	16			130
SKB.40.160.D16C	TCB40 H160 D16C	32	16			160
SKB.40.200.D16C	TCB40 H200 D16C	32	16			200
SKB.40.55.D22C	TCB40 H 55 D22C	40	22			55
SKB.40.100.D22C	TCB40 H100 D22C	40	22			100
SKB.40.130.D22C	TCB40 H130 D22C	40	22			130
SKB.40.160.D22C	TCB40 H160 D22C	40	22			160
SKB.40.200.D22C	TCB40 H200 D22C	40	22			200
SKB.40.55.D27C	TCB40 H 55 D27C	48	27			55
SKB.40.100.D27C	TCB40 H100 D27C	48	27			100
SKB.40.130.D27C	TCB40 H130 D27C	48	27			130
SKB.40.160.D27C	TCB40 H160 D27C	48	27			160
SKB.40.200.D27C	TCB40 H200 D27C	48	27			200
SKB.40.60.D32C	TCB40 H 60 D32C	58	32			60
SKB.40.100.D32C	TCB40 H100 D32C	58	32			100
SKB.40.130.D32C	TCB40 H130 D32C	58	32			130
SKB.40.160.D32C	TCB40 H160 D32C	58	32			160
SKB.40.200.D32C	TCB40 H200 D32C	58	32			200
SKB.40.60.D40C	TCB40 H 60 D40C	70	40			60
SKB.40.100.D40C	TCB40 H100 D40C	70	40			100
SKB.40.130.D40C	TCB40 H130 D40C	70	40			130
SKB.40.160.D40C	TCB40 H160 D40C	70	40			160
SKB.40.200.D40C	TCB40 H200 D40C	70	40			200



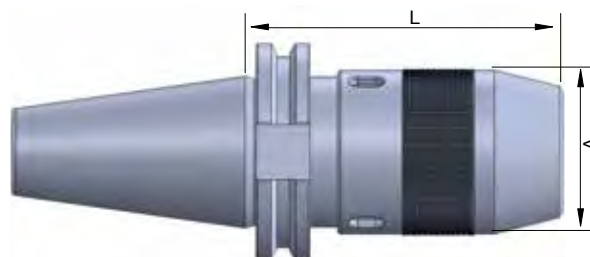
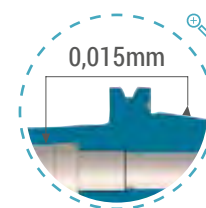
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - SKB50

Cod.	TYPE	A	D	AT2	G6.3/15000	AD/B
SKB.50.55.D16C	TCB50 H 55 D16C	32	16	17	55	
SKB.50.100.D16C	TCB50 H100 D16C	32	16	17	100	
SKB.50.130.D16C	TCB50 H130 D16C	32	16	17	130	
SKB.50.160.D16C	TCB50 H160 D16C	32	16	17	160	
SKB.50.200.D16C	TCB50 H200 D16C	32	16	17	200	
SKB.50.55.D22C	TCB50 H 55 D22C	40	22	19	55	
SKB.50.100.D22C	TCB50 H100 D22C	40	22	19	100	
SKB.50.130.D22C	TCB50 H130 D22C	40	22	19	130	
SKB.50.160.D22C	TCB50 H160 D22C	40	22	19	160	
SKB.50.200.D22C	TCB50 H200 D22C	40	22	19	200	
SKB.50.55.D27C	TCB50 H 55 D27C	48	27	21	55	
SKB.50.100.D27C	TCB50 H100 D27C	48	27	21	100	
SKB.50.130.D27C	TCB50 H130 D27C	48	27	21	130	
SKB.50.160.D27C	TCB50 H160 D27C	48	27	21	160	
SKB.50.200.D27C	TCB50 H200 D27C	48	27	21	200	
SKB.50.55.D32C	TCB50 H 55 D32C	58	32	24	55	
SKB.50.100.D32C	TCB50 H100 D32C	58	32	24	100	
SKB.50.130.D32C	TCB50 H130 D32C	58	32	24	130	
SKB.50.160.D32C	TCB50 H160 D32C	58	32	24	160	
SKB.50.200.D32C	TCB50 H200 D32C	58	32	24	200	
SKB.50.55.D40C	TCB50 H 55 D40C	70	40	27	55	
SKB.50.100.D40C	TCB50 H100 D40C	70	40	27	100	
SKB.50.130.D40C	TCB50 H130 D40C	70	40	27	130	
SKB.50.160.D40C	TCB50 H160 D40C	70	40	27	160	
SKB.50.200.D40C	TCB50 H200 D40C	70	40	27	200	

PORTA PUNTE AUTOSERRANTI CON CHIAVE A SETTORE

DRILL CHUCKS WITH HOOK WRENCH

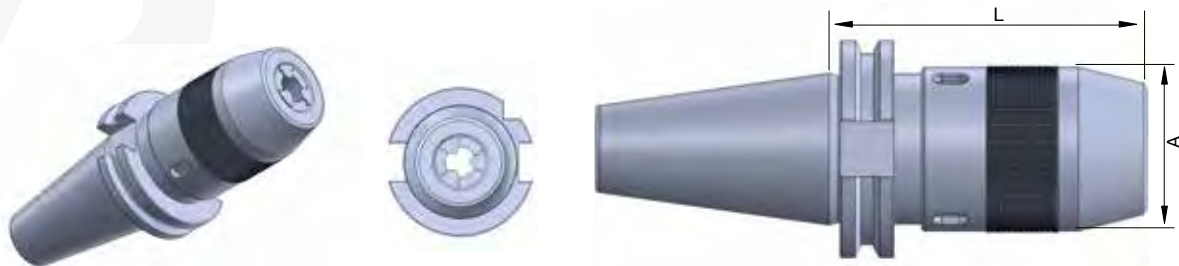
SK-DIN69871



AUTOSERRANTI CON CHIAVE A SETTORE - DRILL CHUCK - SK30

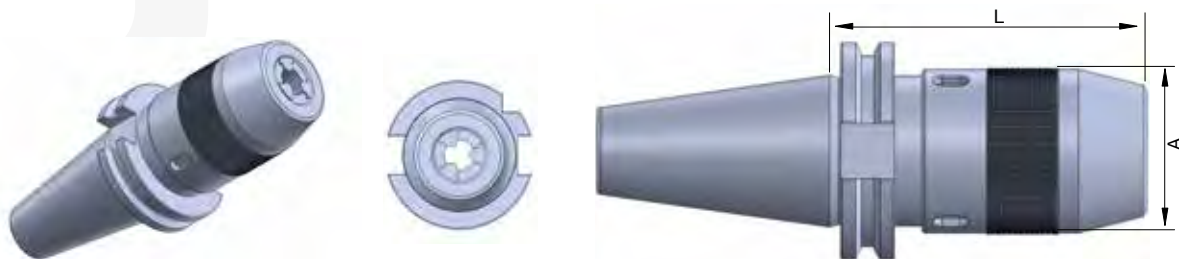
Cod.	TYPE	CAPACITÀ RANGE	A	L
SK.30.80.DCK8	TC30 H 80 DCK8	1 ÷ 8 mm	37	80

AT2 G6.3/12000 AD



AUTOSERRANTI CON CHIAVE A SETTORE - DRILL CHUCK - SK40

Cod.	TYPE	CAPACITÀ RANGE	AD	
			A	L
SK.40.75.DCK8	TC40 H 75 DCK8	1 ÷ 8 mm	37	75
SK.40.100.DCK13	TC40 H100 DCK13	1 ÷ 13 mm	50	100
SK.40.115.DCK16	TC40 H115 DCK16	3 ÷ 16 mm	58	115



AUTOSERRANTI CON CHIAVE A SETTORE - DRILL CHUCK - SK50

Cod.	TYPE	CAPACITÀ RANGE	AD	
			A	L
SK.50.88.DCK13	TC50 H88 DCK13	1 ÷ 13 mm	88	88
SK.50.90.DCK16	TC50 H90 DCK16	3 ÷ 16 mm	90	90

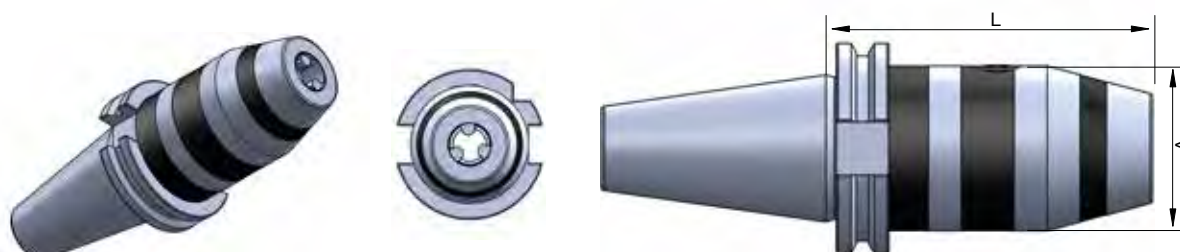
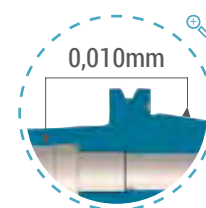
RICAMBI AUTOSERRANTI CHIAVE A SETTORE - SPARE PARTS FOR DRILL CHUCK

Cod.	TYPE
RIC.DCK8	RICAMBI PER / SPARE PARTS FOR DCK8
RIC.DCK13	RICAMBI PER / SPARE PARTS FOR DCK13
RIC.DCK16	RICAMBI PER / SPARE PARTS FOR DCK16

PORTA PUNTE AUTOSERRANTI CON CHIAVE ESAGONALE

HEX KEY LOCK DRILL CHUCK

SK-DIN69871



PORTAPUNTE CON CHIAVE ESAGONALE - DRILL CHUCK WITH HEX KEY - SK40

Cod.	TYPE	AT2 G6.3/12000 AD		
		CAPACITÀ RANGE	A	L
SK.40.90.HD13	TC40 H90 HD13	1 ÷ 13 mm	50	90
SK.40.95.HD16	TC40 H95 HD16	3 ÷ 16 mm	58	95



PORTAPUNTE CON CHIAVE ESAGONALE - DRILL CHUCK WITH HEX KEY - SK50

Cod.	TYPE	AD		
		AT2	G6.3/12000	A
SK.50.90.HD13	TC50 H90 HD13	1 ÷ 13 mm	90	90
SK.50.95.HD16	TC50 H95 HD16	3 ÷ 16 mm	95	95

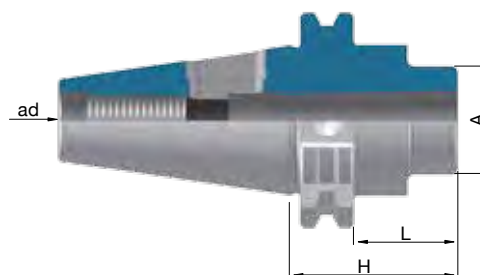
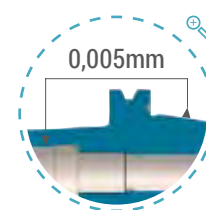
RICAMBI PORTAPUNTE - SPARE PARTS FOR DRILL CHUCK HEX KEY

Cod.	TYPE
RIC.HD13	RICAMBI PER/SPARE PARTS FOR HD13
RIC.HD16	RICAMBI PER/SPARE PARTS FOR HD16

CONO MORSE PUNTE / FRESE

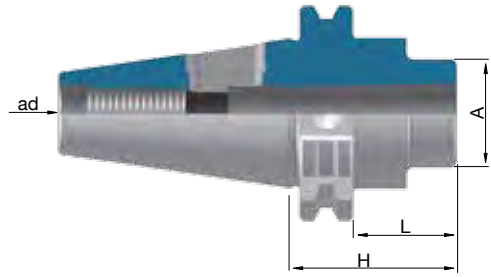
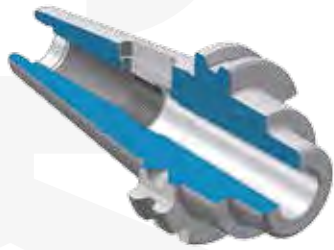
MORSE TAPER ADAPTERS FOR DRILLS / FOR MILLS

SK-DIN69871



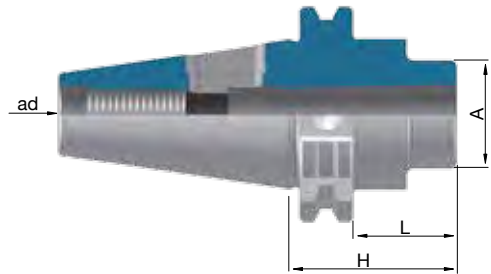
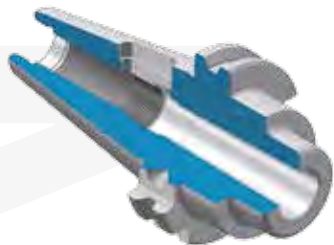
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - SK30

Cod.	TYPE	AT2	G6.3/15000	AD
		A	L	H
SK.30.50.CM1P	TC 30 H 50 CM1 P	25	31	50
SK.30.65.CM2P	TC 30 H 65 CM2 P	32	46	65
SK.30.80.CM3P	TC 30 H 80 CM3 P	40	61	80



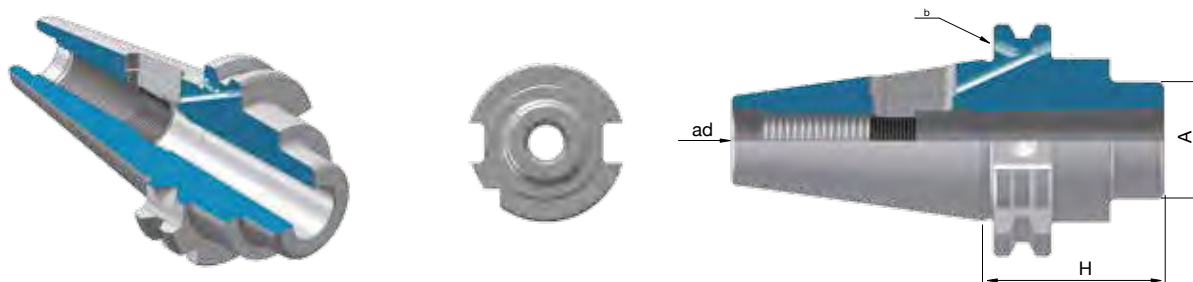
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - SK40

Cod.	TYPE	AT2	G6.3/15000	AD
		A	L	H
SK.40.50.CM1P	TC 40 H 50 CM1 P	25	31	50
SK.40.50.CM2P	TC 40 H 50 CM2 P	32	31	50
SK.40.117.CM2P	TC 40 H 117 CM2 P	32	98	117
SK.40.70.CM3P	TC 40 H 70 CM3 P	40	51	70
SK.40.133.CM3P	TC 40 H 133 CM3 P	40	114	133
SK.40.95.CM4P	TC 40 H 95 CM4 P	48	76	95
SK.40.156.CM4P	TC 40 H 156 CM4 P	48	137	156



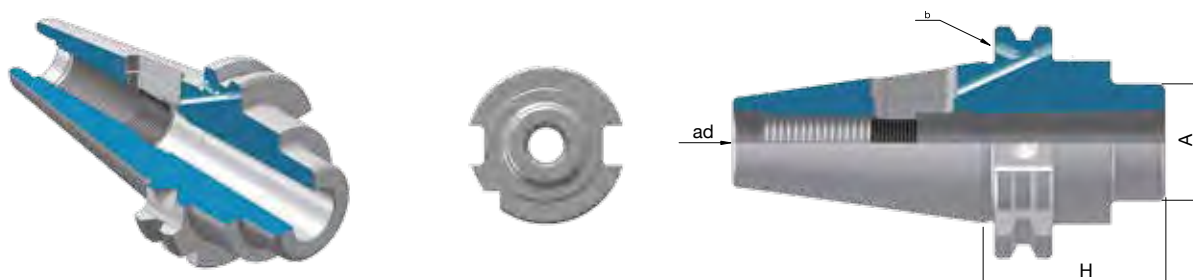
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - SK50

Cod.	TYPE	AT2	G6.3/15000	AD
		A	L	H
SK.50.45.CM1P	TC 50 H 45 CM1 P	25	26	45
SK.50.120.CM1P	TC 50 H120 CM1 P	25	101	120
SK.50.60.CM2P	TC 50 H 60 CM2 P	32	41	60
SK.50.135.CM2P	TC 50 H135 CM2 P	32	116	135
SK.50.65.CM3P	TC 50 H 65 CM3 P	40	46	65
SK.50.155.CM3P	TC 50 H155 CM3 P	40	136	155
SK.50.95.CM4P	TC 50 H 95 CM4 P	48	76	95
SK.50.180.CM4P	TC 50 H 180 CM4 P	48	161	180
SK.50.105.CM5P	TC 50 H105 CM5 P	63	86	105
SK.50.215.CM5P	TC 50 H 215 CM5 P	63	196	215



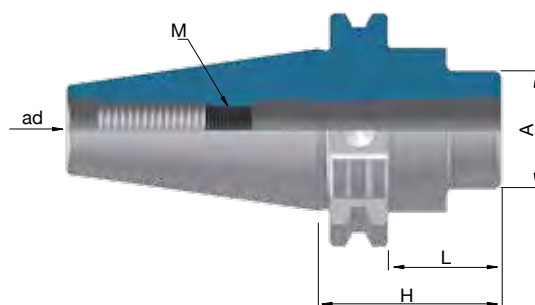
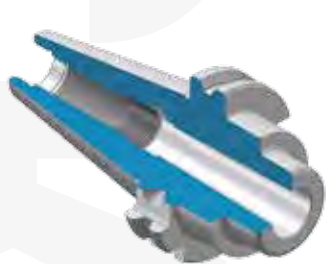
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - SKB40

Cod.	TYPE	AT2	G6.3/15000	AD/B
		A	H	
SKB.40.50.CM1P	TCB40 H 50 CM1 P	25	50	
SKB.40.50.CM2P	TCB40 H 50 CM2 P	32	50	
SKB.40.70.CM3P	TCB40 H 70 CM3 P	40	70	
SKB.40.95.CM4P	TCB40 H 95 CM4 P	48	95	



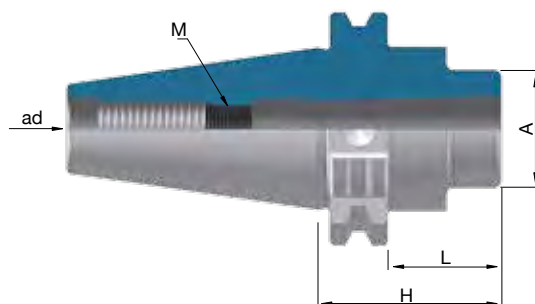
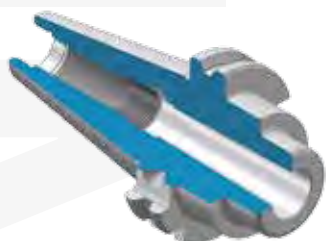
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - SKB50

Cod.	TYPE	AT2	G6.3/15000	AD/B
		A	H	
SKB.50.45.CM1P	TCB50 H 45 CM1 P	25	45	
SKB.50.60.CM2P	TCB50 H 60 CM2 P	32	60	
SKB.50.65.CM3P	TCB50 H 65 CM3 P	40	65	
SKB.50.95.CM4P	TCB50 H 95 CM4 P	48	95	
SKB.50.105.CM5P	TCB50 H105 CM5 P	63	105	



CONO MORSE PER FRESE - MORSE TAPER FOR MILLS - SK40

Cod.	TYPE	A	M	AT2	G6.3/15000	AD
				L	H	
SK.40.50.CM1F	TC40 H 50 CM1 FV	25	M6	31	50	
SK.40.50.CM2F	TC40 H 50 CM2 FV	32	M10	31	50	
SK.40.70.CM3F	TC40 H 70 CM3 FV	40	M12	51	70	
SK.40.95.CM4F	TC40 H 95 CM4 FV	48	M16	76	95	
SK.40.110.CM4F	TC40 H110 CM4 FV	48	M16	146	110	



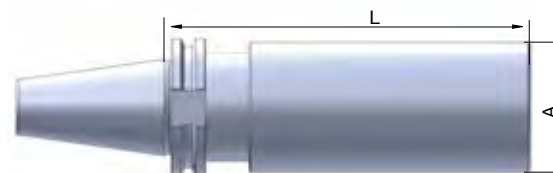
CONO MORSE PER FRESE - MORSE TAPER FOR MILLS - SK50

Cod.	TYPE	A	M	AT2	G6.3/15000	AD
				L	H	
SK.50.45.CM1F	TC50 H 45 CM1 FV	25	M6	26	45	
SK.50.60.CM2F	TC50 H 60 CM2 FV	32	M10	41	60	
SK.50.65.CM3F	TC50 H 65 CM3 FV	40	M12	46	65	
SK.50.70.CM4F	TC50 H 70 CM4 FV	48	M16	51	70	
SK.50.85.CM4F	TC50 H 85 CM4 FV	48	M16	66	85	
SK.50.100.CM5F	TC50 H 100 CM5 FV	63	M20	81	100	
SK.50.118.CM5F	TC50 H 118 CM5 FV	63	M20	99	118	

STELO TENERO LAVORABILE

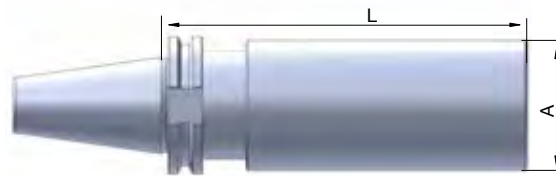
BLANK ARBORS

SK-DIN69871



STELO TENERO LAVORABILE - BLANK ARBORS - SK40

Cod.	TYPE	AT2 AD 42HRC	
		A	L
SK.40.250.D40BL	TC40 H 250 D40	40	250
SK.40.250.D63BL	TC40 H 250 D63	63	250



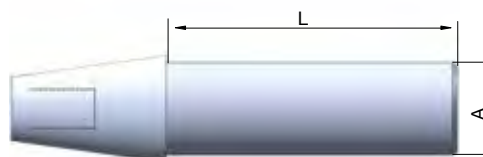
STELO TENERO LAVORABILE - *BLANK ARBORS* - SK50

Cod.	TYPE	AT2 AD 42HRC	
		A	L
SK.50.315.D63BL	TC50 H 315 D63	63	315
SK.50.315.D97BL	TC50 H 315 D97	97	315

BARRA DI CONTROLLO

TEST ARBORS

SK-DIN69871



BARRA DI CONTROLLO - TEST ARBORS - SK30 - SK40 - SK50

Cod.	TYPE	L	AT2	AD
			A	
SK.30.200.D32	TC30 H 200 D 32	200	32	
SK.40.300.D40	TC40 H 300 D 40	300	40	
SK.50.300.D50	TC50 H 300 D 50	300	50	

FORNITE COMPLETE DI CERTIFICATO E COFANETTO DI LEGNO
PROVIDED WITH WOODEN BOX AND SPECIFIC CERTIFICATE

MAS 403 - BT / JIS6339

MAS 403 - BT / JIS6339



**CALETTAMENTO A CALDO
STANDARD**

SHRINK FIT HOLDERS STANDARD



**CALETTAMENTO A CALDO SLIM
TYPE**

SHRINK FIT HOLDERS SLIM TYPE



PORTAPINZA PER SKS

COLLET CHUCK FOR SKS



**PORTA TESTINE FILETTATE
(TIPO CPY)**

FOR SCREWED MILLING CUTTERS



FORTE SERRAGGIO

POWER MILLING CHUCKS



IDRAULICO

HYDRAULIC EXPANSIONS CHUCK



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388



PER FRESE WELDON

END MILL HOLDERS



PORTAFRESE FISSI

SHELL END MILL HOLDERS



PORTAFRESE COMBINATI

COMBI SHELL END MILL HOLDERS



PORTA PUNTE AUTOSERRANTI CON CHIAVE A SETTORE

DRILL CHUCKS WITH HOOK WRENCH



PORTA PUNTE CON CHIAVE ESAGONALE

HEX KEY LOCK DRILL CHUCKS



CONO MORSE PUNTE/ FRESE

MORSE TAPER FOR DRILLS/MILLS



STELO TENERO LAVORABILE

BLANK ARBORS



BARRA DI CONTROLLO

TEST ARBORS

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre.
- Eseguiti trattamenti termici da fornitori certificati ISO 9001.
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza.
- Controllati con strumenti di misura certificati.
- La tolleranza di precisione dei cono ISO è AT2.
- L'errore di concentricità massimo tra il cono e la sede utensile è di 0.003mm.

TECHNICAL FEATURES

- *Manufactured with certificate steel.*
- *Heat treatments are performed by certified suppliers ISO 9001.*
- *Precision ground on shanks, inside tapers and collet nut threads.*
- *Tested with high precision inspection and ganging equipment.*
- *Taper accuracy of ISO SHANKS lower than AT2.*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003mm.*

CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes ISO est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.

MERKMALE

- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitsgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die Präzisionstoleranz der Konen ISO ist AT2*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm*

ISTRUZIONI / INSTRUCTIONS / INSTRUCTIONS ET QUOTES / ANWEISUNGEN

ISTRUZIONI

- I mandrini vengono forniti in forma ad o ad/b. nel caso dell'ad/b, il lubrificante passa dai fori presenti sulla flangia. L'operatore dovrà togliere le viti di chiusura che troverà già montate sul mandrino.

INSTRUCTIONS

- *The tool holders are provided to form ad or ad/b. in case of ad/b, the lubricant pass from holes on the flange. The operator will have to remove screw closure that he will find on the flange.*

INSTRUCTIONS

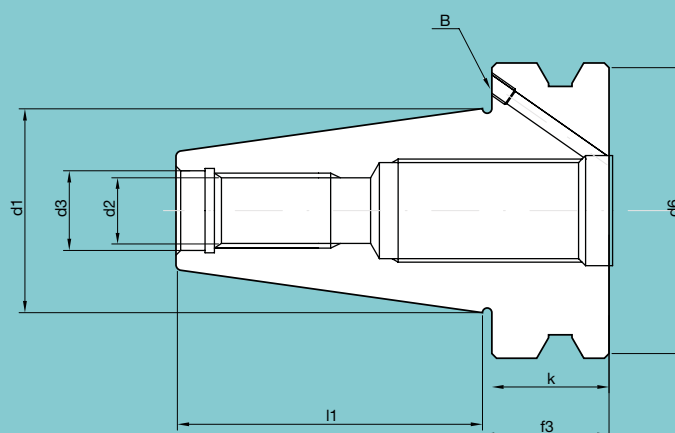
- Les mandrins doivent être fournis en forme AD ou AD/B. Le lubrifiant passe par les trous présents sur la flange. L'opérateur doit enlever les vis de fermeture qu'il trouvera déjà monté sur le mandrin.

ANWEISUNGEN UND ABMESSUNGEN

- *Die Spannfutter werden in der form AD oder AD/B geliefert. Im falle von AD/B, fließt der Schmierstoff durch die vorhandenen Bohrungen auf der Flansche.*

QUOTE DEI CONI DI ATTACCO / QUOTE / QUOTES / ABMESSUNGEN

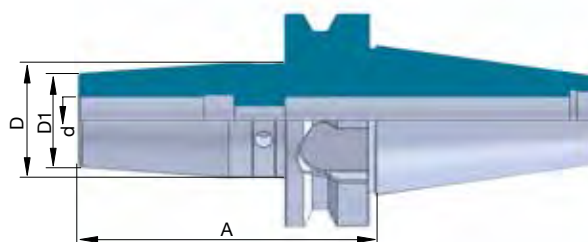
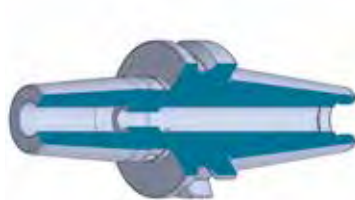
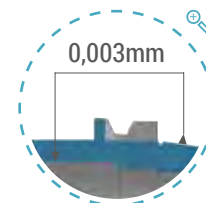
CONO/TAPER	d1	d2	d3	d6	L1	a	k	f3
BT30	31,75	M12	12,5	46	48,4	2	20	22
BTB40	44,45	M16	17	63	65,4	2	25	27
BTB50	69,85	M24	25	100	101,8	3	35	38



CALETTAMENTO A CALDO STANDARD

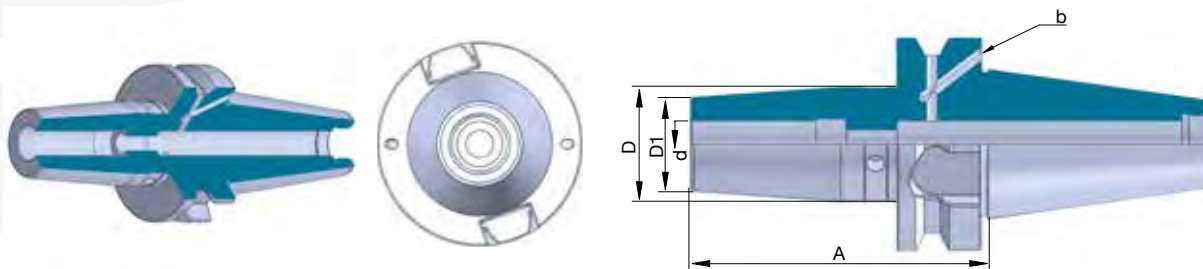
SHRINK FIT HOLDERS STANDARD

MAS 403 - BT / JIS6339



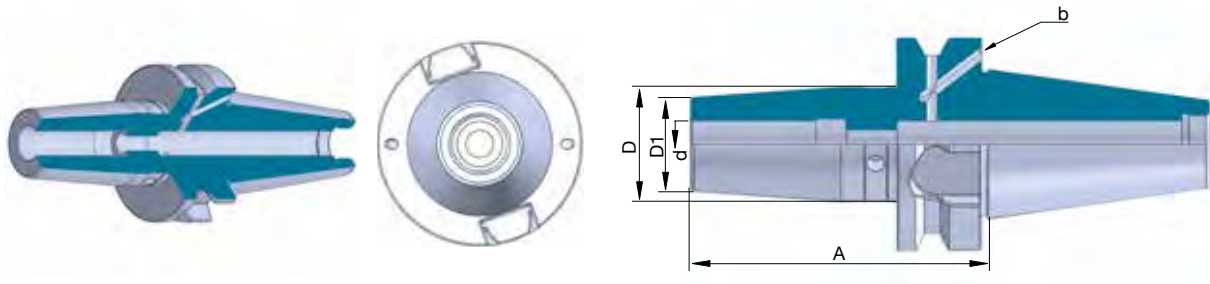
CALETTAMENTO STANDARD - SHRINK FIT HOLDERS - BT30

Cod.	TYPE	d	A	AT2	G2.5/25000	AD
				D1	D	
BT.30.80.CL3	BT30 H80 CL3	3	80	10	20	
BT.30.80.CL4	BT30 H80 CL4	4	80	15	24	
BT.30.80.CL5	BT30 H80 CL5	5	80	15	24	
BT.30.80.CL6	BT30 H80 CL6	6	80	20	27	
BT.30.80.CL8	BT30 H80 CL8	8	80	20	27	
BT.30.80.CL10	BT30 H80 CL10	10	80	24	31	
BT.30.80.CL12	BT30 H80 CL12	12	80	24	31	
BT.30.80.CL14	BT30 H80 CL14	14	80	27	34	
BT.30.80.CL16	BT30 H80 CL16	16	80	27	34	
BT.30.90.CL18	BT30 H90 CL18	18	90	33	40	
BT.30.90.CL20	BT30 H90 CL20	20	90	33	40	



CALETTAMENTO STANDARD - SHRINK FIT HOLDERS - BTB40

Cod.	TYPE	d	AT2		G2.5/25000		AD/B	
			A	D1	D	D		
BTB.40.90.CL3	BTB40 H90 CL3	3	90	10	20			
BTB.40.120.CL3	BTB40 H120 CL3	3	120	10	20			
BTB.40.160.CL3	BTB40 H160 CL3	3	160	10	20			
BTB.40.90.CL4	BTB40 H90 CL4	4	90	15	22			
BTB.40.120.CL4	BTB40 H120 CL4	4	120	15	22			
BTB.40.160.CL4	BTB40 H160 CL4	4	160	15	22			
BTB.40.90.CL5	BTB40 H90 CL5	5	90	15	22			
BTB.40.120.CL5	BTB40 H120 CL5	5	120	15	22			
BTB.40.160.CL5	BTB40 H160 CL5	5	160	15	22			
BTB.40.90.CL6	BTB40 H90 CL6	6	90	21	27			
BTB.40.130.CL6	BTB40 H130 CL6	6	130	21	27			
BTB.40.160.CL6	BTB40 H160 CL6	6	160	21	27			
BTB.40.90.CL8	BTB40 H90 CL8	8	90	21	27			
BTB.40.130.CL8	BTB40 H130 CL8	8	130	21	27			
BTB.40.160.CL8	BTB40 H160 CL8	8	160	21	27			
BTB.40.90.CL10	BTB40 H90 CL10	10	90	24	32			
BTB.40.130.CL10	BTB40 H130 CL10	10	130	24	32			
BTB.40.160.CL10	BTB40 H160 CL10	10	160	24	32			
BTB.40.90.CL12	BTB40 H90 CL12	12	90	24	32			
BTB.40.130.CL12	BTB40 H130 CL12	12	130	24	32			
BTB.40.160.CL12	BTB40 H160 CL12	12	160	24	32			
BTB.40.90.CL14	BTB40 H90 CL14	14	90	27	34			
BTB.40.130.CL14	BTB40 H130 CL14	14	130	27	34			
BTB.40.160.CL14	BTB40 H160 CL14	14	160	27	34			
BTB.40.90.CL16	BTB40 H90 CL16	16	90	27	34			
BTB.40.130.CL16	BTB40 H130 CL16	16	130	27	34			
BTB.40.160.CL16	BTB40 H160 CL16	16	160	27	34			
BTB.40.90.CL18	BTB40 H90 CL18	18	90	33	42			
BTB.40.130.CL18	BTB40 H130 CL18	18	130	33	42			
BTB.40.160.CL18	BTB40 H160 CL18	18	160	33	42			
BTB.40.90.CL20	BTB40 H90 CL20	20	90	33	42			
BTB.40.130.CL20	BTB40 H130 CL20	20	130	33	42			
BTB.40.160.CL20	BTB40 H160 CL20	20	160	33	42			
BTB.40.100.CL25	BTB40 H100 CL25	25	100	44	53			
BTB.40.130.CL25	BTB40 H130 CL25	25	130	44	53			
BTB.40.160.CL25	BTB40 H160 CL25	25	160	44	53			
BTB.40.100.CL32	BTB40 H100 CL32	32	100	44	53			
BTB.40.130.CL32	BTB40 H130 CL32	32	130	44	53			
BTB.40.160.CL32	BTB40 H160 CL32	32	160	44	53			

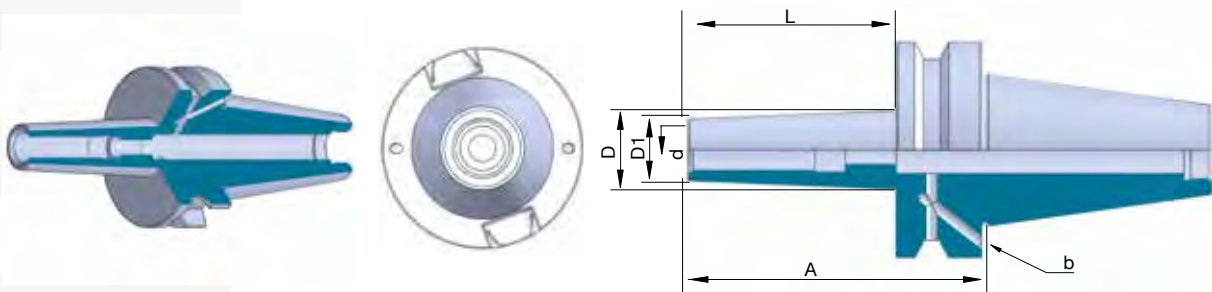
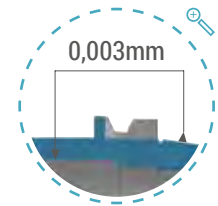


CALETTAMENTO STANDARD - SHRINK FIT HOLDERS - BTB50

Cod.	TYPE	d	A	AT2	G2.5/25000	AD/B
				D1	D	
BTB.50.100.CL3	BTB50 H100 CL3	3	100	10	20	
BTB.50.120.CL3	BTB50 H120 CL3	3	120	10	20	
BTB.50.160.CL3	BTB50 H160 CL3	3	160	10	20	
BTB.50.100.CL4	BTB50 H100 CL4	4	100	15	25	
BTB.50.120.CL4	BTB50 H120 CL4	4	120	15	22	
BTB.50.160.CL4	BTB50 H160 CL4	4	160	15	22	
BTB.50.100.CL5	BTB50 H100 CL5	5	100	15	25	
BTB.50.120.CL5	BTB50 H120 CL5	5	120	15	22	
BTB.50.160.CL5	BTB50 H160 CL5	5	160	15	22	
BTB.50.100.CL6	BTB50 H100 CL6	6	100	20	27	
BTB.50.120.CL6	BTB50 H120 CL6	6	120	20	27	
BTB.50.160.CL6	BTB50 H160 CL6	6	160	20	27	
BTB.50.100.CL8	BTB50 H100 CL8	8	100	20	27	
BTB.50.120.CL8	BTB50 H120 CL8	8	120	20	27	
BTB.50.160.CL8	BTB50 H160 CL8	8	160	20	27	
BTB.50.100.CL10	BTB50 H100 CL10	10	100	24	31	
BTB.50.120.CL10	BTB50 H120 CL10	10	120	24	31	
BTB.50.160.CL10	BTB50 H160 CL10	10	160	24	31	
BTB.50.100.CL12	BTB50 H100 CL12	12	100	24	31	
BTB.50.120.CL12	BTB50 H120 CL12	12	120	24	31	
BTB.50.160.CL12	BTB50 H160 CL12	12	160	24	31	
BTB.50.100.CL14	BTB50 H100 CL14	14	100	27	34	
BTB.50.120.CL14	BTB50 H120 CL14	14	120	27	34	
BTB.50.160.CL14	BTB50 H160 CL14	14	160	27	34	
BTB.50.100.CL16	BTB50 H100 CL16	16	100	27	34	
BTB.50.120.CL16	BTB50 H120 CL16	16	120	27	34	
BTB.50.160.CL16	BTB50 H160 CL16	16	160	27	34	
BTB.50.100.CL18	BTB50 H100 CL18	18	100	33	40	
BTB.50.120.CL18	BTB50 H120 CL18	18	120	33	40	
BTB.50.160.CL18	BTB50 H160 CL18	18	160	33	40	
BTB.50.90.CL20	BTB50 H100 CL20	20	100	33	40	
BTB.50.120.CL20	BTB50 H120 CL20	20	120	33	40	
BTB.50.160.CL20	BTB50 H160 CL20	20	160	33	40	
BTB.50.110.CL25	BTB50 H110 CL25	25	110	44	53	
BTB.50.120.CL25	BTB50 H120 CL25	25	120	44	53	
BTB.50.160.CL25	BTB50 H160 CL25	25	160	44	53	
BTB.50.110.CL32	BTB50 H110 CL32	32	110	44	53	
BTB.50.120.CL32	BTB50 H120 CL32	32	120	44	53	
BTB.50.160.CL32	BTB50 H160 CL32	32	160	44	53	

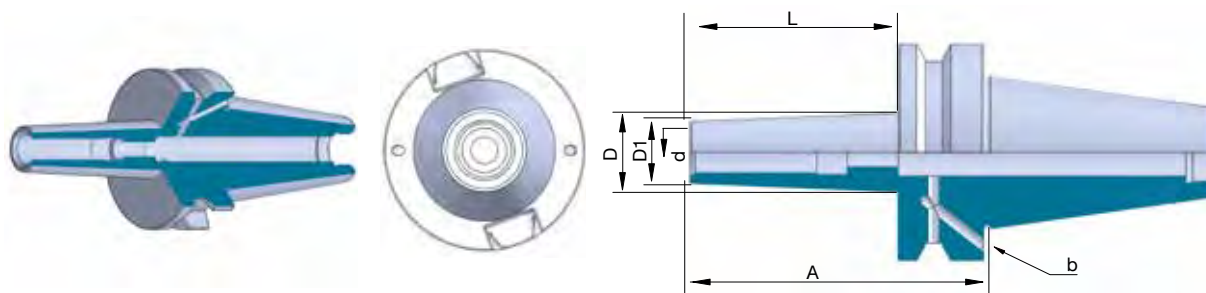
CALETTAMENTO A CALDO SLIM TYPE

SHRINK FIT HOLDERS SLIM TYPE



CALETTAMENTO TIPO SLIM - SHRINK FIT HOLDERS SLIM TYPE - BTB40

Cod.	TYPE	d	A	AT2	G2.5/25000	AD/B
				D1	D	L
BTB.40.90.CL3.SL	SLIM TYPE BTB40 H90 CL3	3	90	9	13	63
BTB.40.120.CL3.SL	SLIM TYPE BTB40 H120 CL3	3	120	9	16	93
BTB.40.90.CL4.SL	SLIM TYPE BTB40 H90 CL4	4	90	10	15	63
BTB.40.120.CL4.SL	SLIM TYPE BTB40 H120 CL4	4	120	10	15	93
BTB.40.90.CL5.SL	SLIM TYPE BTB40 H90 CL5	5	90	11	16	63
BTB.40.120.CL5.SL	SLIM TYPE BTB40 H130 CL5	5	120	11	20	93
BTB.40.90.CL6.SL	SLIM TYPE BTB40 H90 CL6	6	90	12	17	63
BTB.40.130.CL6.SL	SLIM TYPE BTB40 H130 CL6	6	130	12	19	103
BTB.40.160.CL6.SL	SLIM TYPE BTB40 H160 CL6	6	160	12	19	133
BTB.40.90.CL8.SL	SLIM TYPE BTB40 H90 CL8	8	90	14	19	63
BTB.40.130.CL8.SL	SLIM TYPE BTB40 H130 CL8	8	130	14	21	103

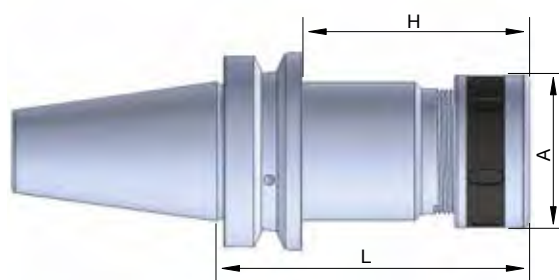
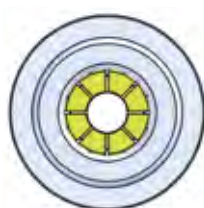
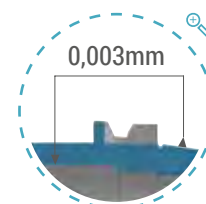


CALETTAMENTO TIPO SLIM - SHRINK FIT HOLDERS SLIM TYPE - BTB40

Cod.	TYPE	d	A	AT2		G2.5/25000		AD/B
				D1	D	D	L	
BTB.40.160.CL8.SL	SLIM TYPE BTB40 H160 CL8	8	160	14	21	133		
BTB.40.90.CL10.SL	SLIM TYPE BTB40 H90 CL10	10	90	16	21	63		
BTB.40.130.CL10.SL	SLIM TYPE BTB40 H130 CL10	10	130	16	23	103		
BTB.40.160.CL10.SL	SLIM TYPE BTB40 H160 CL10	10	160	16	23	133		
BTB.40.90.CL12.SL	SLIM TYPE BTB40 H90 CL12	12	90	18	23	63		
BTB.40.130.CL12.SL	SLIM TYPE BTB40 H130 CL12	12	130	18	25	103		
BTB.40.160.CL12.SL	SLIM TYPE BTB40 H160 CL12	12	160	18	25	133		
BTB.40.90.CL14.SL	SLIM TYPE BTB40 H90 CL14	14	90	22	25	63		
BTB.40.130.CL14.SL	SLIM TYPE BTB40 H130 CL14	14	130	22	27	103		
BTB.40.160.CL14.SL	SLIM TYPE BTB40 H160 CL14	14	160	22	27	133		
BTB.40.90.CL16.SL	SLIM TYPE BTB40 H90 CL16	16	90	24	29	63		
BTB.40.130.CL16.SL	SLIM TYPE BTB40 H130 CL16	16	130	21	31	103		
BTB.40.160.CL16.SL	SLIM TYPE BTB40 H160 CL16	16	160	24	31	133		
BTB.40.90.CL20.SL	SLIM TYPE BTB40 H90 CL20	20	90	28	33	63		
BTB.40.130.CL20.SL	SLIM TYPE BTB40 H130 CL20	20	130	28	35	103		
BTB.40.160.CL20.SL	SLIM TYPE BTB40 H160 CL20	20	160	28	35	133		

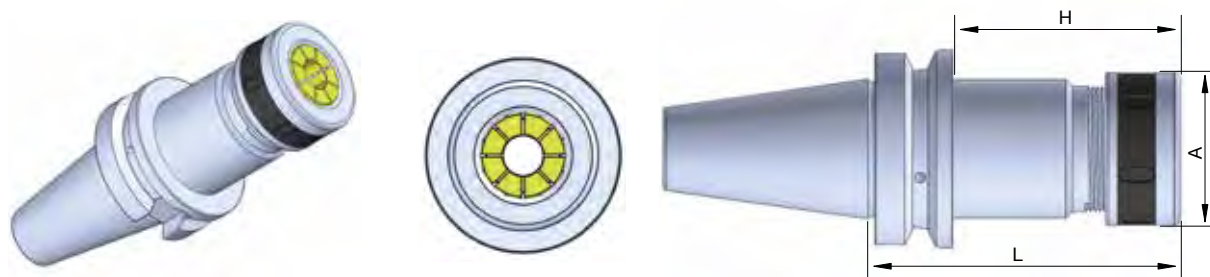
PORTAPINZA PER SKS

COLLET CHUCK FOR SKS



PORTAPINZA PER SKS - COLLET CHUCK FOR SKS - BT40

Cod.	TYPE	H	AT2	G2.5/25000	AD
			L	A	
BT.40.90.SKS10	BT40 H90 SKS10	45	90	30	
BT.40.120.SKS10	BT40 H120 SKS10	74	120	30	
BT.40.90.SKS20	BT40 H90 SKS20	60	90	48.5	
BT.40.120.SKS20	BT40 H120 SKS20	88	120	48.5	

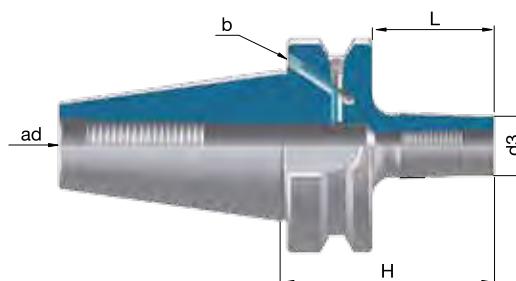
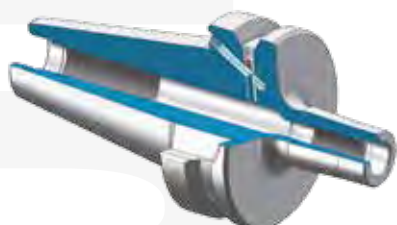
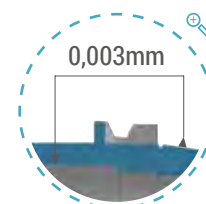


PORTAPINZA PER SKS - COLLET CHUCK FOR SKS - BT50

Cod.	TYPE	H	AD	
			AT2	G2.5/25000
BT.50.105.SKS10	BT50 H105 SKS10	57	L	A
BT.50.165.SKS10	BT50 H165 SKS10	108	L	A
BT.50.105.SKS20	BT50 H105 SKS20	62	L	48.5
BT.50.165.SKS20	BT50 H165 SKS20	122	L	48.5

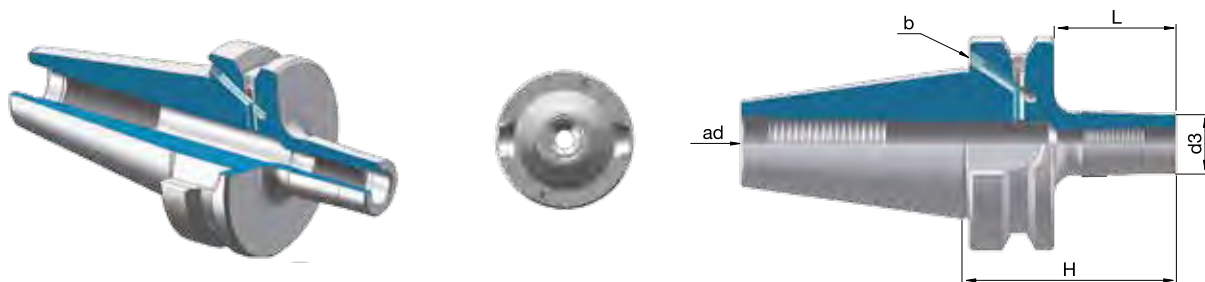
PORTA TESTINE FILETTATE (TIPO CPY)

TOOLHOLDERS FOR SCREWED MILLING CUTTERS



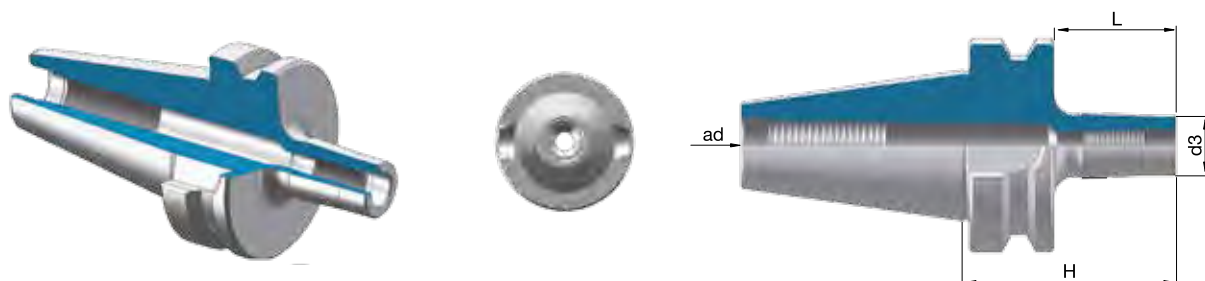
PORTA TESTINE FILETTATE - FOR SCREWED MILLING CUTTERS - BTB40

Cod.	TYPE	M	d1	AT2		G2.5/25000		AD/B	
				d2	d3	L	H		
BTB.40.52.M6CPY	BTB40 H52 M6CPY	M6	6,5	10	13	25	52		
BTB.40.77.M6CPY	BTB40 H77 M6CPY	M6	6,5	10	20	50	77		
BTB.40.102.M6CPY	BTB40 H102 M6CPY	M6	6,5	10	23	75	102		
BTB.40.63.M8CPY	BTB40 H 63 M 8 CPY	M8	8,5	13	15	36	63		
BTB.40.83.M8CPY	BTB40 H 83 M 8 CPY	M8	8,5	13	23	56	83		
BTB.40.103.M8CPY	BTB40 H103 M 8 CPY	M8	8,5	13	23	76	103		
BTB.40.123.M8CPY	BTB40 H123 M 8 CPY	M8	8,5	13	25	96	123		
BTB.40.63.M10CPY	BTB40 H 63 M10 CPY	M10	10,5	18	20	36	63		
BTB.40.83.M10CPY	BTB40 H 83 M10 CPY	M10	10,5	18	25	56	83		
BTB.40.103.M10CPY	BTB40 H103 M10 CPY	M10	10,5	18	28	76	103		
BTB.40.123.M10CPY	BTB40 H123 M10 CPY	M10	10,5	18	28	96	123		
BTB.40.63.M12CPY	BTB40 H 63 M12 CPY	M12	12,5	21	24	36	63		



PORTA TESTINE FILETTATE - FOR SCREWED MILLING CUTTERS - BTB40

Cod.	TYPE	M	d1	AT2	G2.5/25000	AD/B	
				d2	d3	L	H
BTB.40.83.M12CPY	BTB40 H 83 M12 CPY	M12	12,5	21	24	56	83
BTB.40.103.M12CPY	BTB40 H103 M12 CPY	M12	12,5	21	31	76	103
BTB.40.123.M12CPY	BTB40 H123 M12 CPY	M12	12,5	21	31	96	123
BTB.40.63.M16CPY	BTB40 H 63 M16 CPY	M16	17	29	34	36	63
BTB.40.83.M16CPY	BTB40 H 83 M16 CPY	M16	17	29	34	56	83
BTB.40.103.M16CPY	BTB40 H103 M16 CPY	M16	17	29	34	76	103
BTB.40.123.M16CPY	BTB40 H123 M16 CPY	M16	17	29	39	96	123
BTB.40.153.M16CPY	BTB40 H153 M16 CPY	M16	17	29	39	126	153

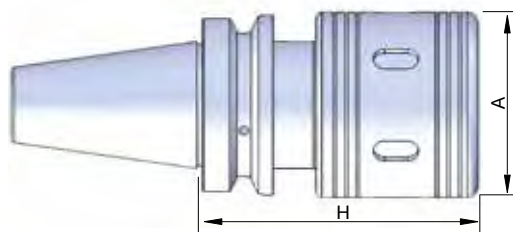
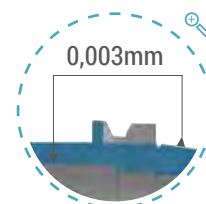


PORTA TESTINE FILETTATE - FOR SCREWED MILLING CUTTERS - BT50

Cod.	TYPE	M	d1	AT2	G2.5/25000	AD	
				d2	d3	L	H
BT.50.88.M8CPY	BT50 H88 M8 CPY	M8	8,5	13	23	50	88
BT.50.138.M8CPY	BT50 H138 M8 CPY	M8	8,5	13	25	100	138
BT.50.188.M8CPY	BT50 H188 M8 CPY	M8	8,5	13	30	150	188
BT.50.88.M10CPY	BT50 H88 M10 CPY	M10	10,5	18	23	50	88
BT.50.138.M10CPY	BT50 H138 M10 CPY	M10	10,5	18	32	100	138
BT.50.188.M10CPY	BT50 H188 M10 CPY	M10	10,5	18	36,5	150	188
BT.50.88.M12CPY	BT50 H88 M12 CPY	M12	12,5	21	24	50	88
BT.50.138.M12CPY	BT50 H138 M12 CPY	M12	12,5	21	33	100	138
BT.50.188.M12CPY	BT50 H188 M12 CPY	M12	12,5	21	40	150	188
BT.50.88.M16CPY	BT50 H88 M16 CPY	M16	17	29	34	50	88
BT.50.138.M16CPY	BT50 H138 M16 CPY	M16	17	29	36	100	138
BT.50.188.M16CPY	BT50 H188 M16 CPY	M16	17	29	42,5	150	188

FORTE SERRAGGIO

POWER MILLING CHUCKS



A FORTE SERRAGGIO - POWER MILLING CHUCKS - BTB40

Cod.	TYPE	A	H	AT2	G6.3/15000	AD/B
						PINZE
BTB.40.80.FP20	BTB40 H80 D20	46	80			4SR20- Ø3 al Ø18
BTB.40.85.FP32	BTB40 H85 D32	62	85			4SR32 - Ø6 al Ø25

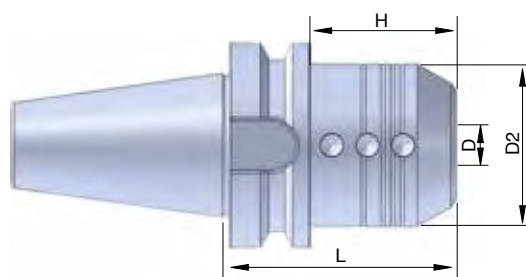
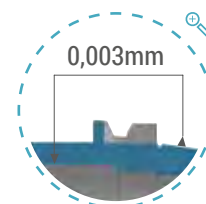


A FORTE SERRAGGIO - POWER MILLING CHUCKS - BTB50

Cod.	TYPE	A	H	AD/B	
				PINZE	
BTB.50.100.FP20	BTB50 H100 D20	46	100	4SR20- Ø3 al Ø18	AT2 G6.3/15000
BTB.50.100.FP32	BTB50 H100 D32	62	100	4SR32- Ø6 al Ø25	

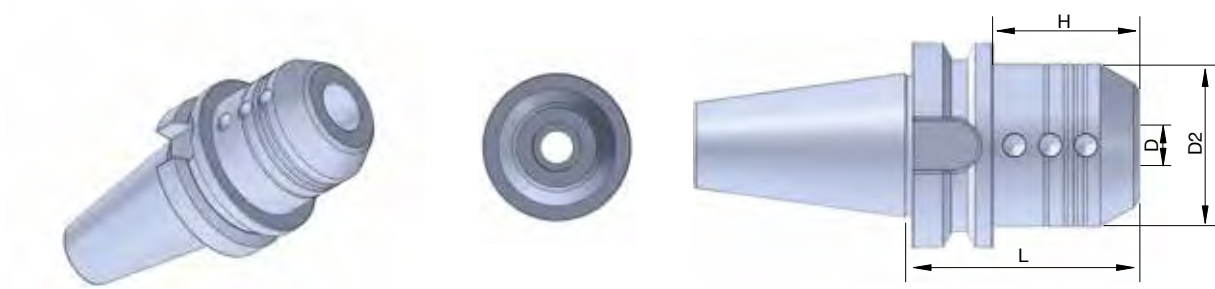
IDRAULICO

HYDRAULIC EXPANSIONS CHUCK



IDRAULICO - HYDRAULIC EXPANSIONS CHUCK - BTB40

Cod.	TYPE	L	H	AT2	G2.5/20000	AD/B
				D2	D	
BTB.40.90.HY12	BTB40 H90 D12	90	63	32	12	
BTB.40.90.HY20	BTB40 H90 D20	90	63	42	20	
BTB.40.90.HY25	BTB40 H90 D25	90	63	50	25	
BTB.40.110.HY32	BTB40 H110 D32	110	81.5	60	32	

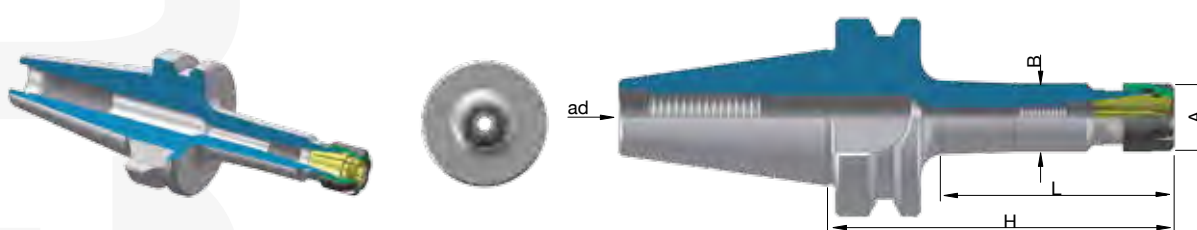


IDRAULICO - HYDRAULIC EXPANSIONS CHUCK - BTB50

Cod.	TYPE	L	H	AT2	G2.5/20000	AD/B
				D	D2	
BTB.50.110.HY12	BTB50 H110 D12	110	72	32	12	
BTB.50.110.HY20	BTB50 H110 D20	110	72	42	20	
BTB.50.110.HY25	BTB50 H110 D25	110	72	50	25	
BTB.50.110.HY32	BTB50 H110 D32	110	72	60	32	

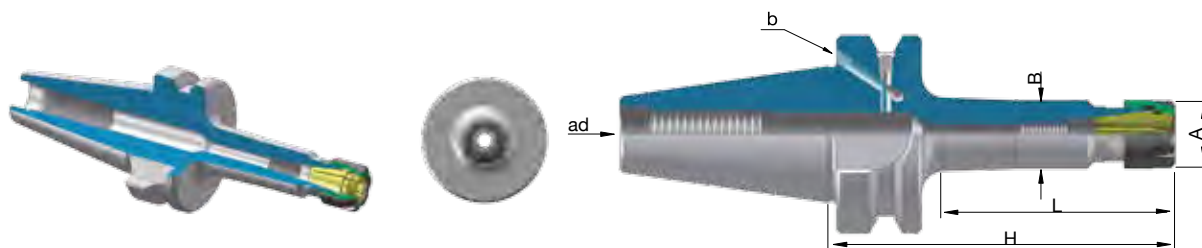
PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



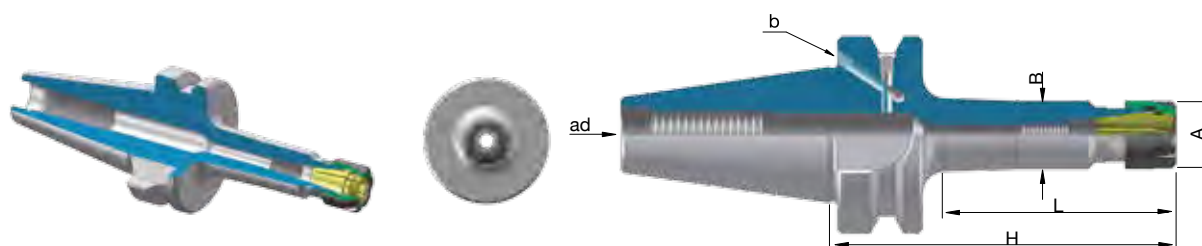
PORTAPINZA ER MINI - COLLET CHUCK ER MINI - BT30

Cod.	TYPE	CAPACITÀ RANGE	BT30			
			AT2	G6.3/15000		AD
			A	B	L	H
BT.30.55.ER11M	BT 30 H 55 ERX11M	1 ÷ 7 mm	16	16	33	55
BT.30.60.ER11M	BT 30 H 60 ERX11M	1 ÷ 7 mm	16	16	38	60
BT.30.80.ER11M	BT 30 H 80 ERX11M	1 ÷ 7 mm	16	16	58	80
BT.30.100.ER11M	BT 30 H100 ERX11M	1 ÷ 7 mm	16	16	78	100
BT.30.130.ER11M	BT 30 H130 ERX11M	1 ÷ 7 mm	16	16	108	130
BT.30.60.ER16M	BT 30 H60 ERX16M	1 ÷ 10 mm	22	22	38	60
BT.30.120.ER16M	BT 30 H120 ERX16M	1 ÷ 10 mm	22	22	98	120



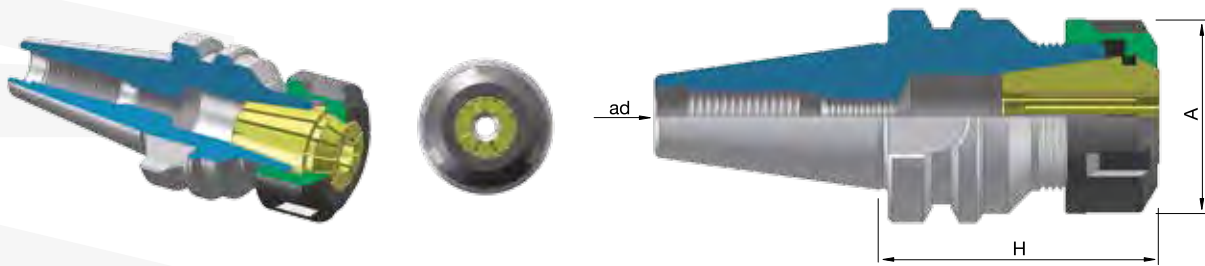
PORTAPINZA ER MINI - COLLET CHUCK ER MINI - BTB40

Cod.	TYPE	CAPACITÀ RANGE	AT2		G6.3/15000		AD/B
			A	B	L	H	
BTB.40.100.ER11M	BTB40 H100 ERX11M	1 ÷ 7 mm	16	16	73	100	
BTB.40.125.ER11M	BTB40 H125 ERX11M	1 ÷ 7 mm	16	16	98	125	
BTB.40.150.ER11M	BTB40 H150 ERX11M	1 ÷ 7 mm	16	16	123	150	
BTB.40.100.ER16M	BTB40 H100 ERX16M	1 ÷ 10 mm	22	22	73	100	
BTB.40.125.ER16M	BTB40 H125 ERX16M	1 ÷ 10 mm	22	22	98	125	
BTB.40.150.ER16M	BTB40 H150 ERX16M	1 ÷ 10 mm	22	22	123	150	
BTB.40.100.ER20M	BTB40 H100 ERX20M	1 ÷ 13 mm	28	28	73	100	
BTB.40.135.ER20M	BTB40 H135 ERX20M	1 ÷ 13 mm	28	28	108	135	
BTB.40.150.ER20M	BTB40 H150 ERX20M	1 ÷ 13 mm	28	28	123	150	
BTB.40.100.ER25M	BTB40 H100 ERX25M	1 ÷ 16 mm	35	35	73	100	
BTB.40.150.ER25M	BTB40 H150 ERX25M	1 ÷ 16 mm	35	35	123	150	
BTB.40.200.ER25M	BTB40 H200 ERX25M	1 ÷ 16 mm	35	35	173	200	



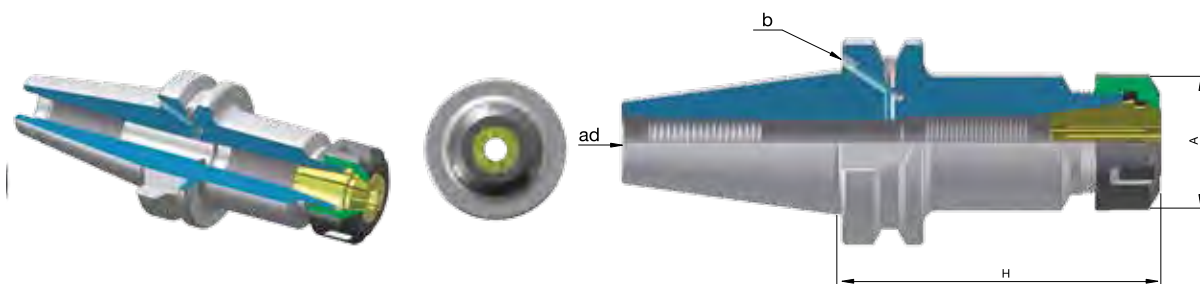
PORTAPINZA ER MINI - COLLET CHUCK ER MINI - BTB50

Cod.	TYPE	CAPACITÀ RANGE	AT2		G6.3/15000		AD/B
			A	B	L	H	
BTB.50.135.ER16M	BTB50 H135 ERX16M	1 ÷ 10 mm	22	22	97	135	
BTB.50.160.ER16M	BTB50 H160 ERX16M	1 ÷ 10 mm	22	22	122	160	
BTB.50.200.ER16M	BTB50 H200 ERX16M	1 ÷ 10 mm	22	22	162	200	
BTB.50.135.ER20M	BTB50 H135 ERX20M	1 ÷ 13 mm	28	28	97	135	



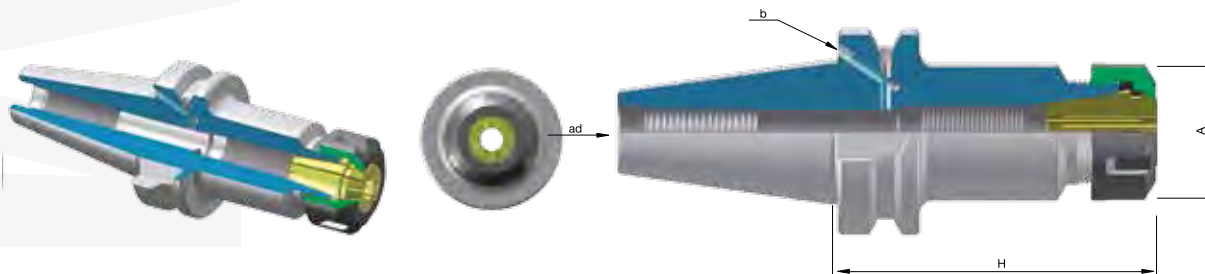
PORTAPINZA ER - COLLET CHUCK ER - BT30

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD
			A	H	
BT.30.55.ER16	BT 30 H 55 ERX16	1 ÷ 10 mm	32	55	
BT.30.70.ER16	BT 30 H 70 ERX16	1 ÷ 10 mm	32	70	
BT.30.100.ER16	BT 30 H100 ERX16	1 ÷ 10 mm	32	100	
BT.30.70.ER20	BT 30 H 70 ERX20	1 ÷ 13 mm	35	70	
BT.30.60.ER25	BT 30 H 60 ERX25	1 ÷ 16 mm	42	60	
BT.30.90.ER25	BT 30 H 90 ERX25	1 ÷ 16 mm	42	90	
BT.30.60.ER32	BT 30 H 60 ERX32	2 ÷ 20 mm	50	60	
BT.30.70.ER32	BT 30 H 70 ERX32	2 ÷ 20 mm	50	70	
BT.30.100.ER32	BT 30 H100 ERX32	2 ÷ 20 mm	50	100	
BT.30.60.ER40	BT 30 H 80 ERX40	3 ÷ 20 mm	63	80	



PORTAPINZA ER - COLLET CHUCK ER - BTB40

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD/B
			A	H	
BTB.40.70.ER16	BTB40 H 70 ERX16	1 ÷ 10 mm	32	70	
BTB.40.100.ER16	BTB40 H100 ERX16	1 ÷ 10 mm	32	100	
BTB.40.120.ER16	BTB40 H120 ERX16	1 ÷ 10 mm	32	120	
BTB.40.150.ER16	BTB40 H150 ERX16	1 ÷ 10 mm	32	150	
BTB.40.200.ER16	BTB40 H200 ERX16	1 ÷ 10 mm	32	200	
BTB.40.70.ER20	BTB40 H 70 ERX20	1 ÷ 13 mm	35	70	
BTB.40.100.ER20	BTB40 H100 ERX20	1 ÷ 13 mm	35	100	
BTB.40.160.ER20	BTB40 H160 ERX20	1 ÷ 13 mm	35	160	
BTB.40.70.ER25	BTB40 H 70 ERX25	1 ÷ 16 mm	42	70	
BTB.40.100.ER25	BTB40 H100 ERX25	1 ÷ 16 mm	42	100	
BTB.40.130.ER25	BTB40 H130 ERX25	1 ÷ 16 mm	42	130	
BTB.40.160.ER25	BTB40 H160 ERX25	1 ÷ 16 mm	42	160	
BTB.40.200.ER25	BTB40 H200 ERX25	1 ÷ 16 mm	42	200	
BTB.40.70.ER32	BTB40 H 70 ERX32	2 ÷ 20 mm	50	70	
BTB.40.100.ER32	BTB40 H100 ERX32	2 ÷ 20 mm	50	100	
BTB.40.130.ER32	BTB40 H130 ERX32	2 ÷ 20 mm	50	130	
BTB.40.150.ER32	BTB40 H150 ERX32	2 ÷ 20 mm	50	150	
BTB.40.200.ER32	BTB40 H200 ERX32	2 ÷ 20 mm	50	200	
BTB.40.70.ER40	BTB40 H 70 ERX40	3 ÷ 26 mm	63	70	
BTB.40.100.ER40	BTB40 H100 ERX40	3 ÷ 26 mm	63	100	
BTB.40.130.ER40	BTB40 H130 ERX40	3 ÷ 26 mm	63	130	
BTB.40.150.ER40	BTB40 H150 ERX40	3 ÷ 26 mm	63	150	
BTB.40.200.ER40	BTB40 H200 ERX40	3 ÷ 26 mm	63	200	
BTB.40.85.ER50	BTB40 H 85 ERX50	6 ÷ 34 mm	78	85	



PORTAPINZA ER - COLLET CHUCK ER - BTB50

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD/B
			A	H	
BTB.50.100.ER16	BTB50 H100 ERX16	2 ÷ 20 mm	32	100	
BTB.50.160.ER16	BTB50 H160 ERX16	2 ÷ 20 mm	32	160	
BTB.50.200.ER16	BTB50 H200 ERX16	2 ÷ 20 mm	32	200	
BTB.50.100.ER20	BTB50 H100 ERX20	1 ÷ 13 mm	35	100	
BTB.50.160.ER20	BTB50 H160 ERX20	1 ÷ 13 mm	35	160	
BTB.50.80.ER25	BTB50 H 80 ERX25	1 ÷ 16 mm	42	80	
BTB.50.100.ER25	BTB50 H100 ERX25	1 ÷ 16 mm	42	100	
BTB.50.130.ER25	BTB50 H130 ERX25	1 ÷ 16 mm	42	130	
BTB.50.160.ER25	BTB50 H160 ERX25	1 ÷ 16 mm	42	160	
BTB.50.200.ER25	BTB50 H200 ERX25	1 ÷ 16 mm	42	200	
BTB.50.80.ER32	BTB50 H 80 ERX32	2 ÷ 20 mm	50	80	
BTB.50.100.ER32	BTB50 H100 ERX32	2 ÷ 20 mm	50	100	
BTB.50.120.ER32	BTB50 H120 ERX32	2 ÷ 20 mm	50	120	
BTB.50.160.ER32	BTB50 H160 ERX32	2 ÷ 20 mm	50	160	
BTB.50.200.ER32	BTB50 H200 ERX32	2 ÷ 20 mm	50	200	
BTB.50.250.ER32	BTB50 H250 ERX32	2 ÷ 20 mm	50	250	
BTB.50.80.ER40	BTB50 H 80 ERX40	3 ÷ 30 mm	63	80	
BTB.50.100.ER40	BTB50 H100 ERX40	3 ÷ 30 mm	63	100	
BTB.50.130.ER40	BTB50 H130 ERX40	3 ÷ 30 mm	63	130	
BTB.50.160.ER40	BTB50 H160 ERX40	3 ÷ 30 mm	63	160	
BTB.50.200.ER40	BTB50 H200 ERX40	3 ÷ 30 mm	63	200	
BTB.50.300.ER40	BTB50 H300 ERX40	3 ÷ 30 mm	63	300	
BTB.50.100.ER50	BTB50 H100 ERX50	6 ÷ 34 mm	78	100	
BTB.50.120.ER50	BTB50 H120 ERX50	6 ÷ 34 mm	78	120	
BTB.50.160.ER50	BTB50 H160 ERX50	6 ÷ 34 mm	78	160	



CASSETTA CON MANDRINO PORTAPINZE - KIT

Cod.	Portapinze	Pinze nella serie	AT2	G6.3/15000	AD/B
			Chiave		
KIT577	BTB40 H70 ERX32	ERX32: Ø 3 ÷ 20 progress. 1,0 mm - 18 pinze	ERX32 STAND		
KIT582	BTB40 H70 ERX40	ERX40: Ø 4 ÷ 26 progress. 1,0 mm - 23 pinze	ERX40 STAND		
KIT583	BTB50 H80 ERX32	ERX32: Ø 3 ÷ 20 progress. 1,0 mm - 18 pinze	ERX32 STAND		
KIT584	BTB50 H80 ERX40	ERX40: Ø 4 ÷ 26 progress. 1,0 mm - 23 pinze	ERX40 STAND		

Fig.1

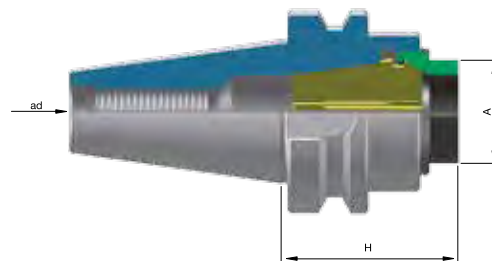
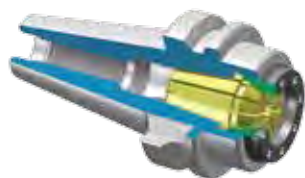
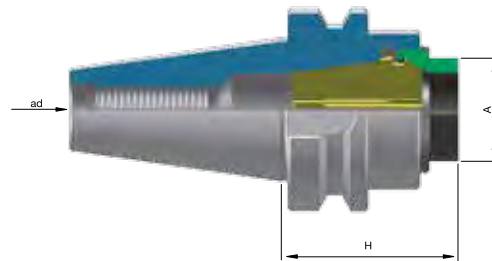
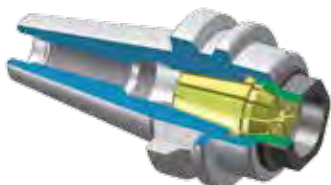


Fig.2



PORTAPINZA EXTRACORTO - SHORTS COLLET CHUCK - BT40

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD
			H		
BT.40.29.ER32	BT 40 H 29 ERX32	2 ÷ 20 mm			29

FORNIBILI CON GHIERA CON FILETTO ESTERNO FORMA A CON FORI (Fig.1) E CON ESAGONO (Fig.2)
 AVAILABLE WITH EXTERNALLY THREADED NUTS (Fig.1) AND EXTERNALLY THREADED HEXAGONAL NUTS (Fig.2)

Fig.1

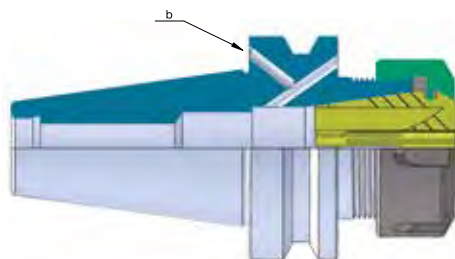
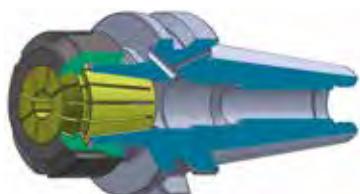
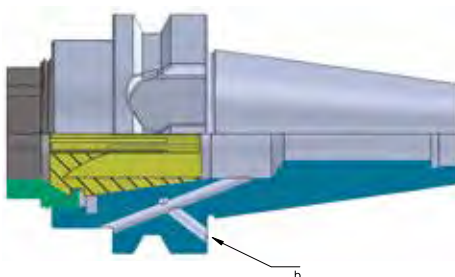
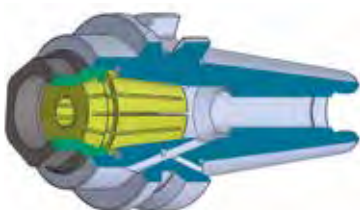


Fig.2



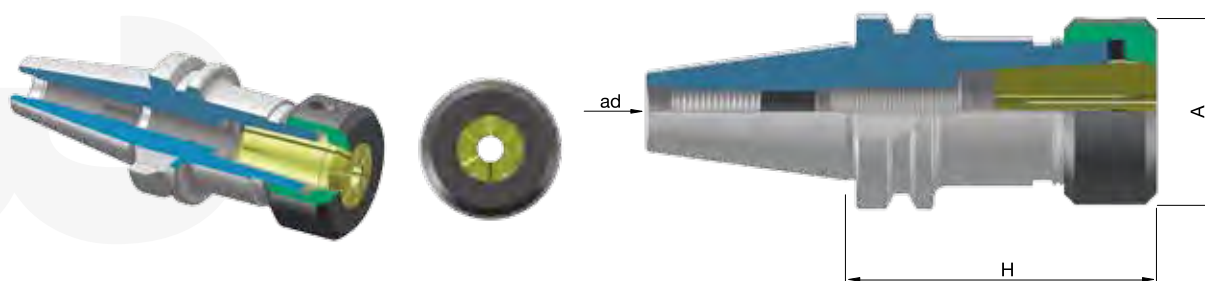
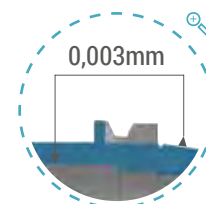
PORTAPINZA EXTRACORTO - SHORTS COLLET CHUCK - BTB40 - BTB50

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000	AD/B
			A	H	
BTB.40.50.ER32	BTB40 H 50 ERX32	2 ÷ 20 mm	Hex 32		50
BTB.40.55.ER32	BTB40 H 55 ERX32	2 ÷ 20 mm	40		55
BTB.50.40.ER32	BTB50 H 40 ERX32	2 ÷ 20 mm	Hex 32		40

FORNIBILI CON GHIERA CON FILETTO ESTERNO FORMA A CON FORI, CON ESAGONO (Fig.2) E STANDARD (Fig.1)
 AVAILABLE WITH EXTERNALLY THREADED NUTS, EXTERNALLY THREADED HEXAGONAL NUTS (Fig.2) AND STANDARD CLAMPING NUT (Fig.1)

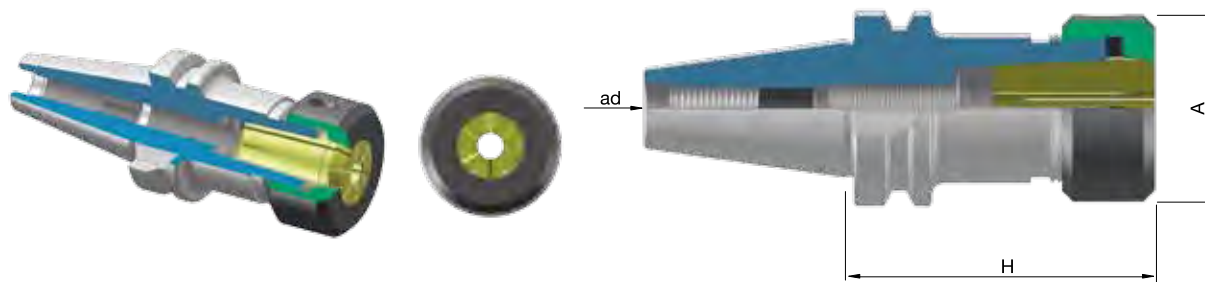
PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388



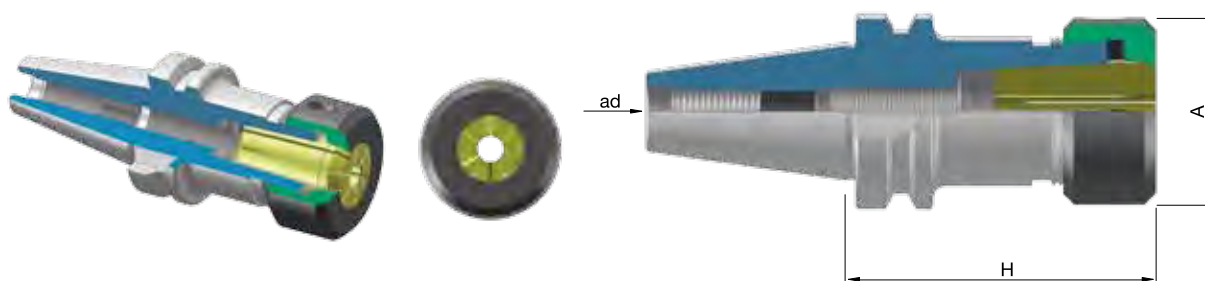
PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - BT30

Cod.	TYPE	CAPACITÀ RANGE	BT30	
			AT2	AD
BT.30.60.EOC16	BT30 H60 EOC16	2 ÷ 16 mm	A	H
BT.30.80.EOC25	BT30 H80 EOC25	2 ÷ 25 mm	60	80



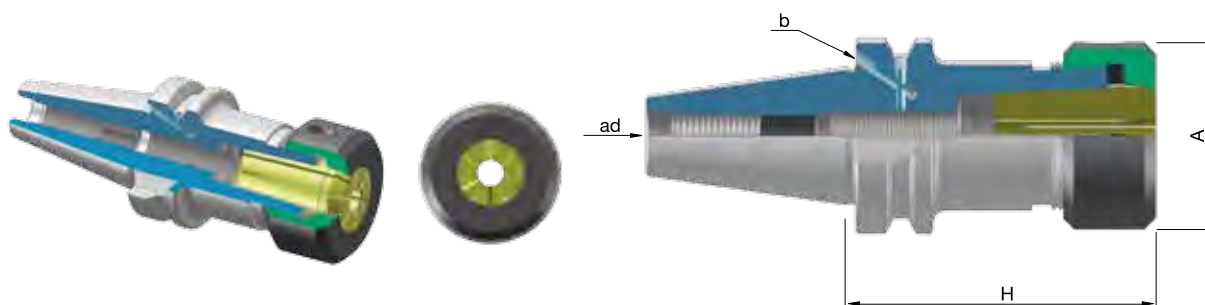
PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - BT40

Cod.	TYPE	CAPACITÀ RANGE	AD	
			A	H
BT.40.70.EOC16	BT40 H 70 EOC16	2 ÷ 16 mm	43	70
BT.40.70.EOC25	BT40 H70 EOC25	2 ÷ 25 mm	60	70
BT.40.90.EOC32	BT40 H90 EOC32	4 ÷ 32 mm	72	90



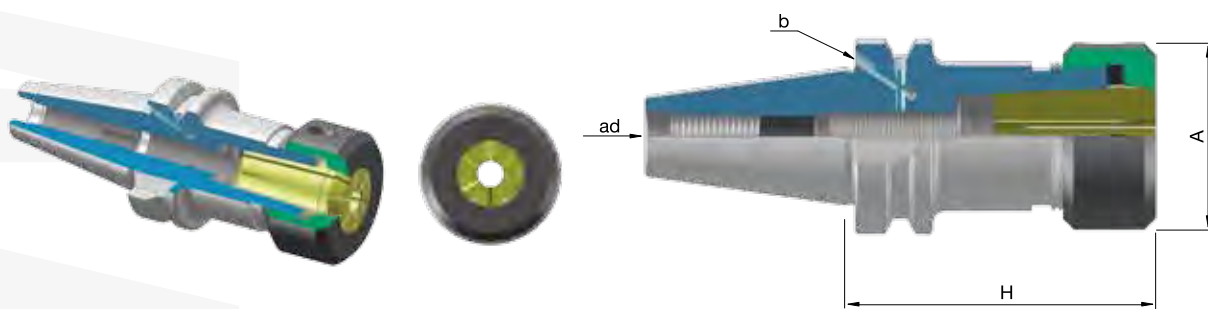
PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - BT50

Cod.	TYPE	CAPACITÀ RANGE	AD	
			A	H
BT.50.85.EOC25	BT50 H85 EOC25	2 ÷ 25 mm	60	85
BT.50.90.EOC32	BT50 H90 EOC32	4 ÷ 32 mm	72	90



PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - BTB40

Cod.	TYPE	CAPACITÀ RANGE	AD/B	
			A	H
BTB.40.70.EOC16	BTB40 H 70 EOC16	2 ÷ 16 mm	43	70
BTB.40.70.EOC25	BTB40 H 70 EOC25	2 ÷ 25 mm	60	70
BTB.40.90.EOC32	BTB40 H 90 EOC32	4 ÷ 32 mm	72	90



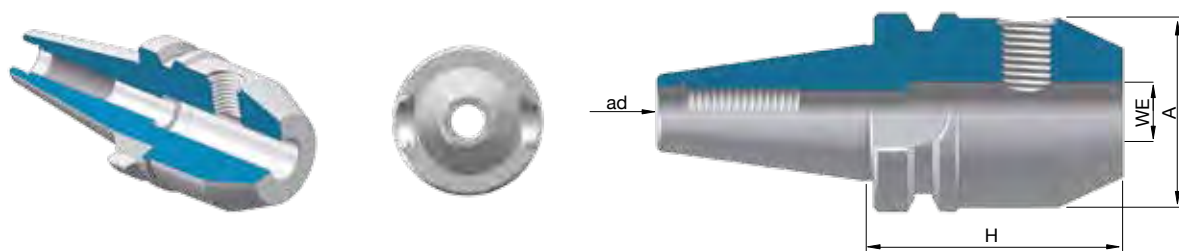
PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - BTB50

Cod.	TYPE	CAPACITÀ RANGE	AD/B	
			A	H
BTB.50.85.EOC25	BTB50 H 85 EOC25	2 ÷ 25 mm	60	85

PER FRESE WELDON

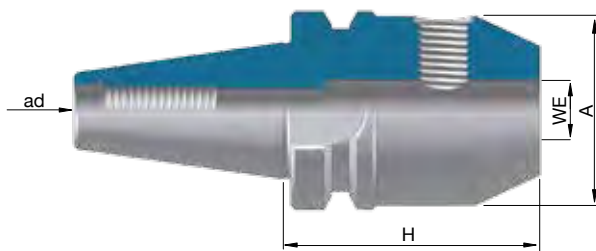
END MILL HOLDERS

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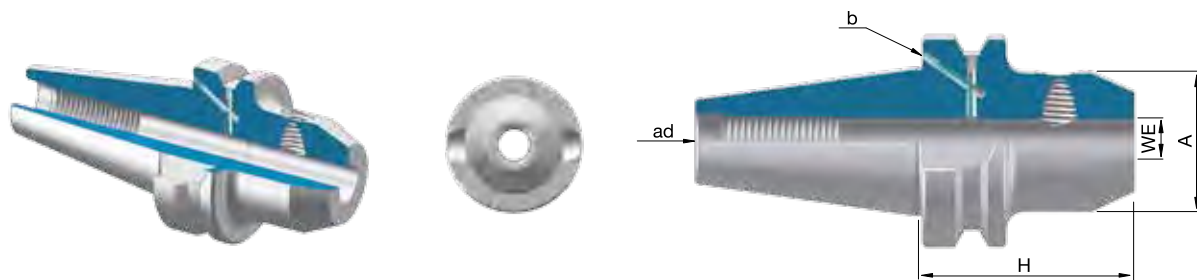
PER FRESE WELDON - END MILL HOLDER - BT30

Cod.	TYPE	BT30		
		AT2	G6.3/15000	AD
		A	H	WE
BT.30.50.WE6	BT 30 H50 WE 6	25	50	6
BT.30.100.WE6	BT 30 H100 WE 6	25	100	6
BT.30.50.WE8	BT 30 H 50 WE 8	28	50	8
BT.30.100.WE8	BT 30 H100 WE 8	28	100	8



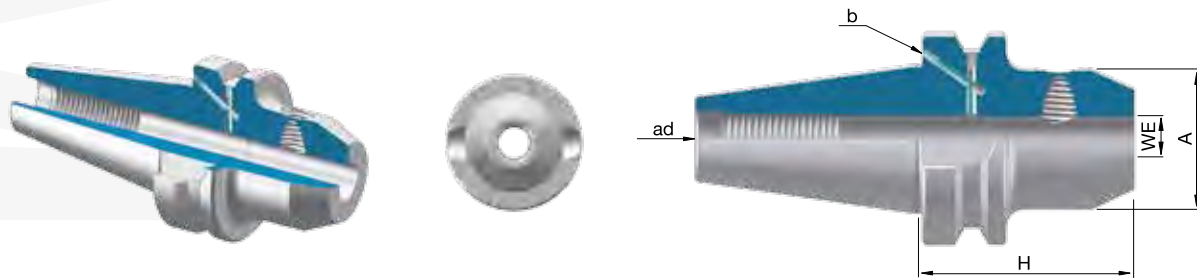
PER FRESE WELDON - END MILL HOLDER - BT30

Cod.	TYPE	AD		
		AT2	G6.3/15000	AD
		A	H	WE
BT.30.50.WE10	BT 30 H 50 WE10	35	50	10
BT.30.100.WE10	BT 30 H100 WE10	35	100	10
BT.30.50.WE12	BT 30 H 50 WE12	42	50	12
BT.30.100.WE12	BT 30 H100 WE12	42	100	12
BT.30.50.WE14	BT 30 H 50 WE14	44	50	14
BT.30.100.WE14	BT 30 H100 WE14	44	100	14
BT.30.63.WE16	BT 30 H 63 WE16	48	63	16
BT.30.100.WE16	BT 30 H100 WE16	48	100	16
BT.30.63.WE18	BT 30 H 63 WE18	50	63	18
BT.30.100.WE18	BT 30 H100 WE18	50	100	18
BT.30.63.WE20	BT 30 H 63 WE20	52	63	20
BT.30.100.WE20	BT 30 H100 WE20	52	100	20



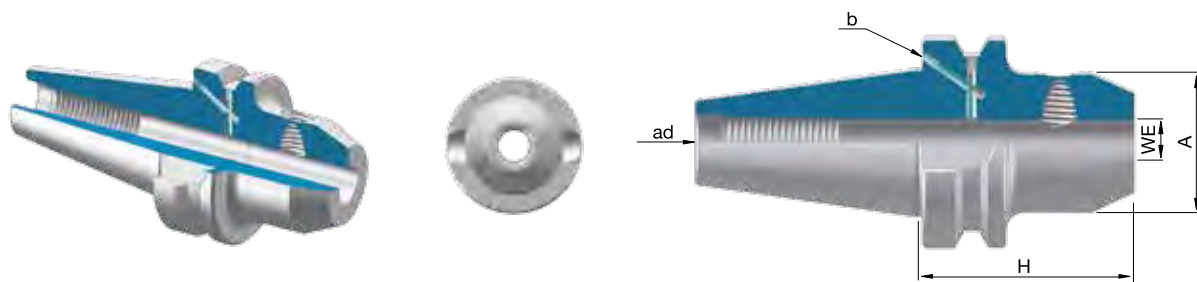
PER FRESE WELDON - END MILL HOLDER - BTB40

Cod.	TYPE	AT2		
		A	H	WE
BTB.40.50.WE6	BTB40 H 50 WE 6	25	50	6
BTB.40.100.WE6	BTB40 H100 WE 6	25	100	6
BTB.40.130.WE6	BTB40 H130 WE 6	25	130	6
BTB.40.160.WE6	BTB40 H160 WE 6	25	160	6
BTB.40.50.WE8	BTB40 H 50 WE 8	28	50	8
BTB.40.100.WE8	BTB40 H100 WE 8	28	100	8
BTB.40.130.WE8	BTB40 H130 WE 8	28	130	8
BTB.40.160.WE8	BTB40 H160 WE 8	28	160	8
BTB.40.63.WE10	BTB40 H 63 WE10	35	63	10
BTB.40.100.WE10	BTB40 H100 WE10	35	100	10
BTB.40.130.WE10	BTB40 H130 WE10	35	130	10
BTB.40.160.WE10	BTB40 H160 WE10	35	160	10
BTB.40.63.WE12	BTB40 H 63 WE12	42	63	12
BTB.40.100.WE12	BTB40 H100 WE12	42	100	12
BTB.40.130.WE12	BTB40 H130 WE12	42	130	12
BTB.40.160.WE12	BTB40 H160 WE12	42	160	12
BTB.40.63.WE14	BTB40 H 63 WE14	44	63	14
BTB.40.100.WE14	BTB40 H100 WE14	44	100	14
BTB.40.130.WE14	BTB40 H130 WE14	44	130	14
BTB.40.160.WE14	BTB40 H160 WE14	44	160	14
BTB.40.63.WE16	BTB40 H 63 WE16	48	63	16
BTB.40.100.WE16	BTB40 H100 WE16	48	100	16
BTB.40.130.WE16	BTB40 H130 WE16	48	130	16
BTB.40.160.WE16	BTB40 H160 WE16	48	160	16
BTB.40.63.WE18	BTB40 H 63 WE18	50	63	18
BTB.40.100.WE18	BTB40 H100 WE18	50	100	18
BTB.40.130.WE18	BTB40 H130 WE18	50	130	18
BTB.40.160.WE18	BTB40 H160 WE18	50	160	18
BTB.40.63.WE20	BTB40 H 63 WE20	52	63	20
BTB.40.100.WE20	BTB40 H100 WE20	52	100	20
BTB.40.130.WE20	BTB40 H130 WE20	52	130	20
BTB.40.160.WE20	BTB40 H160 WE20	52	160	20
BTB.40.90.WE25	BTB40 H90 WE25	65	90	25
BTB.40.130.WE25	BTB40 H130 WE25	65	130	25
BTB.40.160.WE25	BTB40 H160 WE25	65	160	25
BTB.40.100.WE32	BTB40 H100 WE32	72	100	32
BTB.40.130.WE32	BTB40 H130 WE32	72	130	32
BTB.40.160.WE32	BTB40 H160 WE32	72	160	32
BTB.40.120.WE40	BTB40 H120 WE40	80	120	40



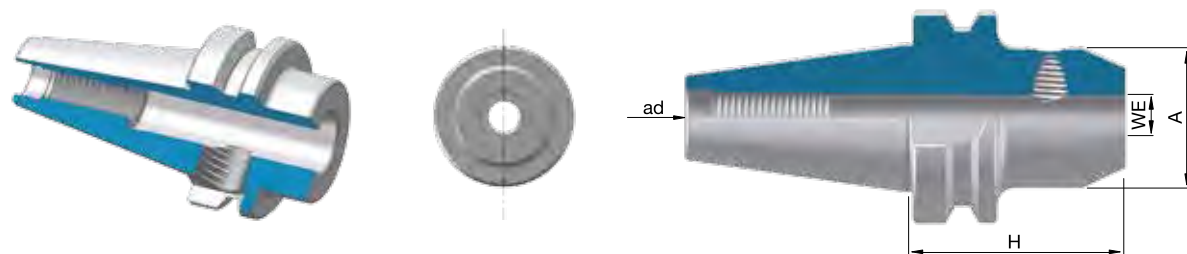
PER FRESE WELDON - END MILL HOLDER - BTB50

Cod.	TYPE	AT2	G6.3/15000	AD/B
		A	H	WE
BTB.50.63.WE6	BTB50 H 63 WE 6	25	63	6
BTB.50.100.WE6	BTB50 H100 WE 6	25	100	6
BTB.50.130.WE6	BTB50 H130 WE 6	25	130	6
BTB.50.160.WE6	BTB50 H160 WE 6	25	160	6
BTB.50.200.WE6	BTB50 H200 WE 6	25	200	6
BTB.50.63.WE8	BTB50 H 63 WE 8	28	63	8
BTB.50.100.WE8	BTB50 H100 WE 8	28	100	8
BTB.50.130.WE8	BTB50 H130 WE 8	28	130	8
BTB.50.160.WE8	BTB50 H160 WE 8	28	160	8
BTB.50.200.WE8	BTB50 H200 WE 8	28	200	8
BTB.50.63.WE10	BTB50 H 63 WE10	35	63	10
BTB.50.100.WE10	BTB50 H100 WE10	35	100	10
BTB.50.130.WE10	BTB50 H130 WE10	35	130	10
BTB.50.160.WE10	BTB50 H160 WE10	35	160	10
BTB.50.200.WE10	BTB50 H200 WE10	35	200	10
BTB.50.80.WE12	BTB50 H 80 WE12	42	80	12
BTB.50.100.WE12	BTB50 H100 WE12	42	100	12
BTB.50.130.WE12	BTB50 H130 WE12	42	130	12
BTB.50.160.WE12	BTB50 H160 WE12	42	160	12
BTB.50.200.WE12	BTB50 H200 WE12	42	200	12
BTB.50.80.WE14	BTB50 H 80 WE14	44	80	14
BTB.50.100.WE14	BTB50 H100 WE14	44	100	14
BTB.50.130.WE14	BTB50 H130 WE14	44	130	14
BTB.50.160.WE14	BTB50 H160 WE14	44	160	14
BTB.50.200.WE14	BTB50 H200 WE14	44	200	14
BTB.50.80.WE16	BTB50 H 80 WE16	48	80	16
BTB.50.100.WE16	BTB50 H100 WE16	48	100	16
BTB.50.130.WE16	BTB50 H130 WE16	48	130	16
BTB.50.160.WE16	BTB50 H160 WE16	48	160	16
BTB.50.200.WE16	BTB50 H200 WE16	48	200	16
BTB.50.80.WE18	BTB50 H 80 WE18	50	80	18
BTB.50.100.WE18	BTB50 H100 WE18	50	100	18
BTB.50.130.WE18	BTB50 H130 WE18	50	130	18
BTB.50.160.WE18	BTB50 H160 WE18	50	160	18
BTB.50.200.WE18	BTB50 H200 WE18	50	200	18
BTB.50.80.WE20	BTB50 H 80 WE20	52	80	20
BTB.50.100.WE20	BTB50 H100 WE20	52	100	20
BTB.50.130.WE20	BTB50 H130 WE20	52	130	20
BTB.50.160.WE20	BTB50 H160 WE20	52	160	20



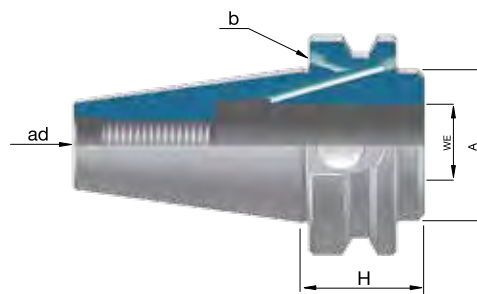
PER FRESE WELDON - END MILL HOLDER - BT50

Cod.	TYPE	AD/B		
		A	H	WE
BTB.50.200.WE20	BTB50 H200 WE20	52	200	20
BTB.50.100.WE25	BTB50 H100 WE25	65	100	25
BTB.50.130.WE25	BTB50 H130 WE25	65	130	25
BTB.50.160.WE25	BTB50 H160 WE25	65	160	25
BTB.50.200.WE25	BTB50 H200 WE25	65	200	25
BTB.50.105.WE32	BTB50 H105 WE32	72	105	32
BTB.50.130.WE32	BTB50 H130 WE32	72	130	32
BTB.50.160.WE32	BTB50 H160 WE32	72	160	32
BTB.50.200.WE32	BTB50 H200 WE32	72	200	32
BTB.50.120.WE40	BTB50 H120 WE40	80	120	40
BTB.50.160.WE40	BTB50 H160 WE40	80	160	40
BTB.50.200.WE40	BTB50 H200 WE40	80	200	40
BTB.50.125.WE50	BTB50 H125 WE50	90	125	50



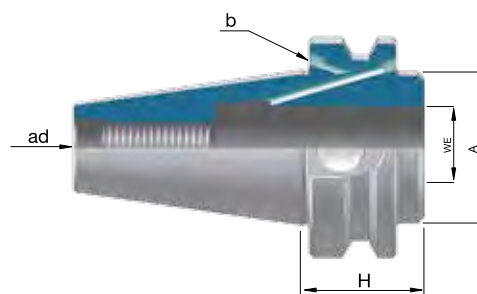
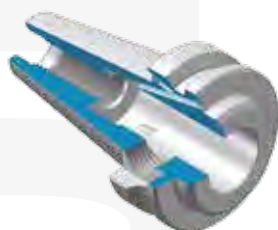
EXTRACORTI PER FRESE WELDON - SHORTS END MILL HOLDER - BT30

Cod.	TYPE	A	AD		
			SCREWS	H	WE
BT.30.32.WE6	BT30 H32 WE6	25	M6x10	32	6
BT.30.32.WE8	BT30 H32 WE8	28	M8x10	32	8
BT.30.32.WE10	BT30 H32 WE10	32	M10x12	32	10
BT.30.32.WE12	BT30 H32 WE12	32	M12x16	32	12
BT.30.35.WE16	BT30 H35 WE16	32	M14x10	35	16
BT.30.35.WE20	BT30 H35 WE20	36	M16x10	35	20



EXTRACORTI PER FRESE WELDON - SHORTS END MILL HOLDER - BTB40

Cod.	TYPE	A	AT2	G6.3/15000	AD/B
			SCREWS	H	WE
BTB.40.35.WE16	BTB40 H 35 WE16	43,5	M14x16	35	16
BTB.40.35.WE20	BTB40 H 35 WE20	43,5	M16x16	35	20
BTB.40.35.WE25	BTB40 H 35 WE25	43,5	M16x10	35	25
BTB.40.60.WE25	BTB40 H 60 WE25	50	M18x2x12+ M16x1x8	60	25
BTB.40.40.WE32	BTB40 H40 WE32	50	M20X2X20+M16X1X8	40	32
BTB.40.70.WE32	BTB40 H 70 WE32	72	M20x2x20+ M16x1x8	70	32



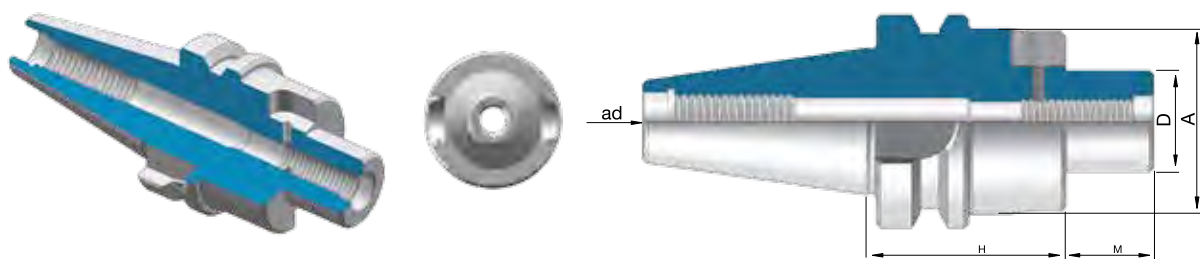
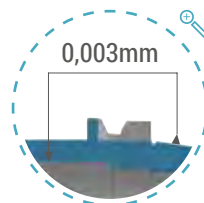
EXTRACORTI PER FRESE WELDON - SHORTS END MILL HOLDER - BTB50

Cod.	TYPE	A	AT2	G6.3/15000	AD/B
			SCREWS	H	WE
BTB.50.44.WE16	BTB50 H 44 WE16	70	M14x16	44	16
BTB.50.44.WE20	BTB50 H 44 WE20	70	M16x16	44	20
BTB.50.44.WE25	BTB50 H 44 WE25	70	M18x2x20	44	25
BTB.50.44.WE32	BTB50 H 44 WE32	70	M20x2x20	44	32
BTB.50.44.WE40	BTB50 H 44 WE40	80	M20x2x20	44	40

PORTAFRESE FISSI

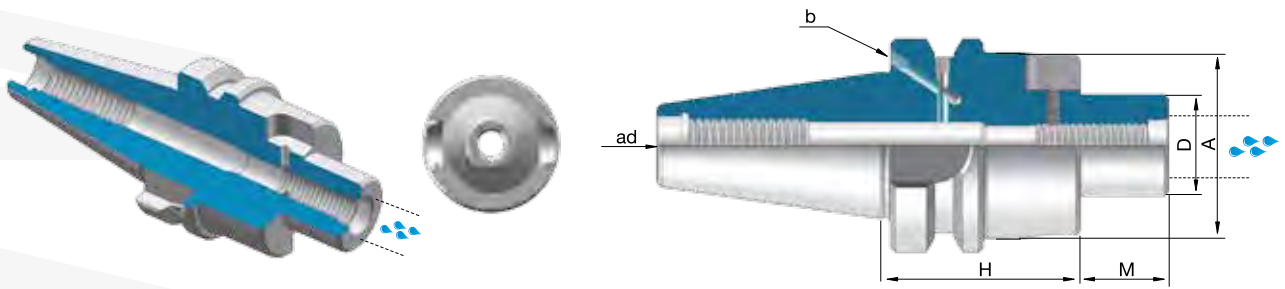
SHELL END MILL HOLDERS

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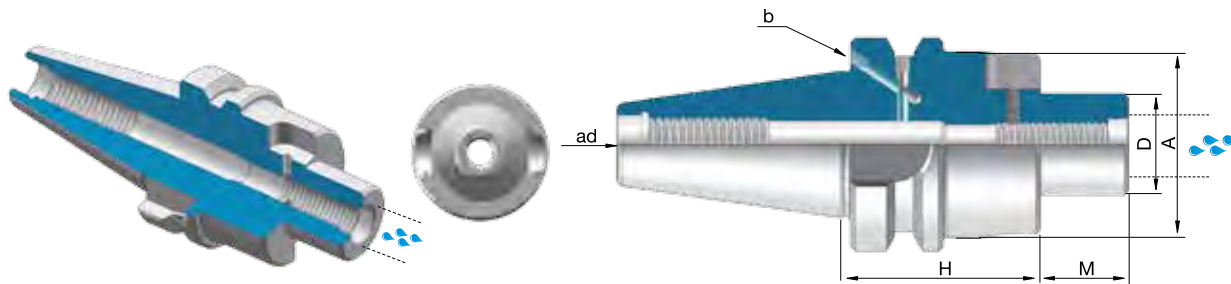
PORTAFRESE FISSI - SHELL END MILL HOLDERS - BT30

Cod.	TYPE	AT2		G6.3/15000		AD
		A	D	M	H	
BT.30.43.D16S	BT30 H43 D16S	32	16	17	43	
BT.30.43.D22S	BT30 H43 D22S	40	22	19	43	
BT.30.50.D27S	BT30 H50 D27S	50	27	21	50	
BT.30.45.D32S	BT30 H45 D32S	58	32	24	45	



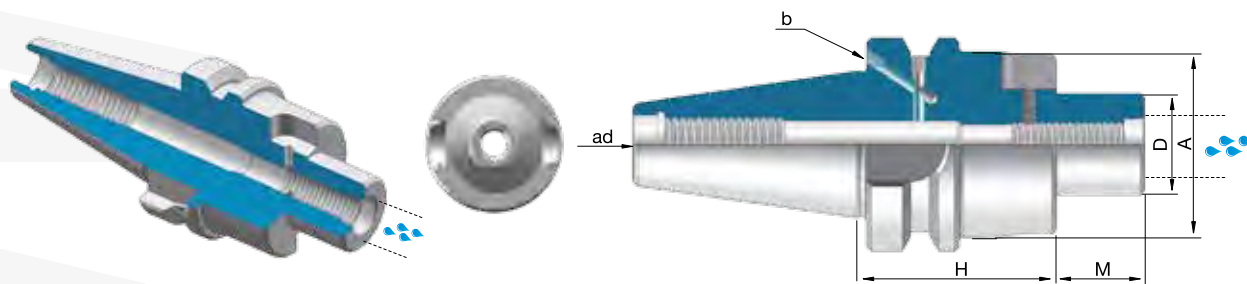
PORTAFRESE FISSI - SHELL END MILL HOLDERS - BTB40

Cod.	TYPE	BTB40			
		A	D	M	H
BTB.40.35.D16S	BTB40 H 35 D16S	38	16	17	35
BTB.40.45.D16S	BTB40 H 45 D16S	38	16	17	45
BTB.40.100.D16S	BTB40 H100 D16S	38	16	17	100
BTB.40.130.D16S	BTB40 H130 D16S	38	16	17	130
BTB.40.160.D16S	BTB40 H160 D16S	38	16	17	160
BTB.40.200.D16S	BTB40 H200 D16S	38	16	17	200
BTB.40.35.D22S	BTB40 H 35 D22S	48	22	19	35
BTB.40.45.D22S	BTB40 H 45 D22S	48	22	19	45
BTB.40.100.D22S	BTB40 H100 D22S	48	22	19	100
BTB.40.130.D22S	BTB40 H130 D22S	48	22	19	130
BTB.40.160.D22S	BTB40 H160 D22S	48	22	19	160
BTB.40.200.D22S	BTB40 H200 D22S	48	22	19	200
BTB.40.35.D27S	BTB40 H 35 D27S	58	27	21	35
BTB.40.45.D27S	BTB40 H 45 D27S	58	27	21	45
BTB.40.100.D27S	BTB40 H100 D27S	58	27	21	100
BTB.40.130.D27S	BTB40 H130 D27S	58	27	21	130
BTB.40.160.D27S	BTB40 H160 D27S	58	27	21	160
BTB.40.200.D27S	BTB40 H200 D27S	58	27	21	200
BTB.40.50.D32S	BTB40 H 50 D32S	78	32	24	50
BTB.40.56.D32S	BTB40 H 56 D32S	63	32	24	56
BTB.40.100.D32S	BTB40 H100 D32S	63	32	24	100
BTB.40.130.D32S	BTB40 H130 D32S	63	32	24	130
BTB.40.160.D32S	BTB40 H160 D32S	63	32	24	160
BTB.40.200.D32S	BTB40 H200 D32S	63	32	24	200
BTB.40.50.D40S	BTB40 H 50 D40S	88	40	27	50
BTB.40.60.D40S	BTB40 H 60 D40S	80	40	27	60
BTB.40.100.D40S	BTB40 H100 D40S	80	40	27	100
BTB.40.130.D40S	BTB40 H130 D40S	80	40	27	130
BTB.40.160.D40S	BTB40 H160 D40S	80	40	27	160
BTB.40.200.D40S	BTB40 H200 D40S	80	40	27	200



PORTAFRESE FISSI - SHELL END MILL HOLDERS - BTB50

Cod.	TYPE	AT2		G6.3/15000		AD/B
		A	D	M	H	
BTB.50.50.D16S	BTB50 H 50 D16S	38	16	17	50	
BTB.50.75.D16S	BTB50 H 75 D16S	38	16	17	75	
BTB.50.100.D16S	BTB50 H100 D16S	38	16	17	100	
BTB.50.130.D16S	BTB50 H130 D16S	38	16	17	130	
BTB.50.160.D16S	BTB50 H160 D16S	38	16	17	160	
BTB.50.200.D16S	BTB50 H200 D16S	38	16	17	200	
BTB.50.250.D16S	BTB50 H250 D16S	38	16	17	250	
BTB.50.300.D16S	BTB50 H300 D16S	38	16	17	300	
BTB.50.350.D16S	BTB50 H350 D16S	38	16	17	350	
BTB.50.55.D22S	BTB50 H 55 D22S	48	22	19	55	
BTB.50.75.D22S	BTB50 H 75 D22S	48	22	19	75	
BTB.50.100.D22S	BTB50 H100 D22S	48	22	19	100	
BTB.50.130.D22S	BTB50 H130 D22S	48	22	19	130	
BTB.50.160.D22S	BTB50 H160 D22S	48	22	19	160	
BTB.50.200.D22S	BTB50 H200 D22S	48	22	19	200	
BTB.50.250.D22S	BTB50 H250 D22S	48	22	19	250	
BTB.50.300.D22S	BTB50 H300 D22S	48	22	19	300	
BTB.50.350.D22S	BTB50 H350 D22S	48	22	19	350	
BTB.50.55.D27S	BTB50 H 55 D27S	58	27	21	55	
BTB.50.75.D27S	BTB50 H 75 D27S	58	27	21	75	
BTB.50.100.D27S	BTB50 H100 D27S	58	27	21	100	
BTB.50.130.D27S	BTB50 H130 D27S	58	27	21	130	
BTB.50.160.D27S	BTB50 H160 D27S	58	27	21	160	
BTB.50.200.D27S	BTB50 H200 D27S	58	27	21	200	
BTB.50.250.D27S	BTB50 H250 D27S	58	27	21	250	
BTB.50.300.D27S	BTB50 H300 D27S	58	27	21	300	
BTB.50.350.D27S	BTB50 H350 D27S	58	27	21	350	
BTB.50.55.D32S	BTB50 H 55 D32S	78	32	24	55	
BTB.50.75.D32S	BTB50 H 75 D32S	78	32	24	75	
BTB.50.100.D32S	BTB50 H100 D32S	78	32	24	100	
BTB.50.130.D32S	BTB50 H130 D32S	78	32	24	130	
BTB.50.160.D32S	BTB50 H160 D32S	78	32	24	160	
BTB.50.200.D32S	BTB50 H200 D32S	78	32	24	200	
BTB.50.250.D32S	BTB50 H250 D32S	78	32	24	250	
BTB.50.300.D32S	BTB50 H300 D32S	78	32	24	300	
BTB.50.350.D32S	BTB50 H350 D32S	78	32	24	350	
BTB.50.55.D40S	BTB50 H 55 D40S	88	40	27	55	
BTB.50.75.D40S	BTB50 H 75 D40S	88	40	27	75	
BTB.50.100.D40S	BTB50 H100 D40S	88	40	27	100	



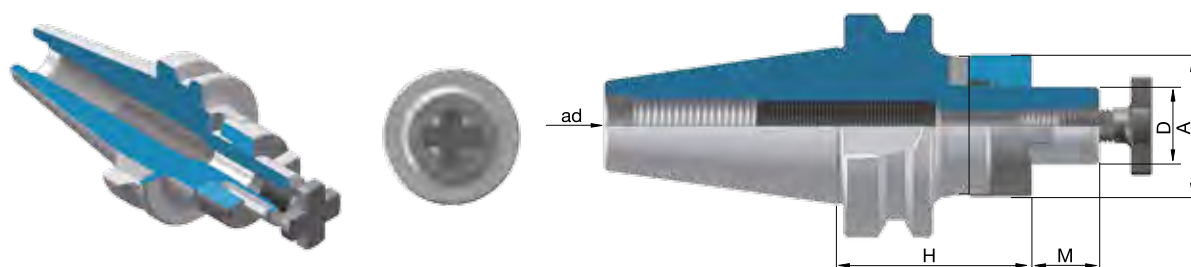
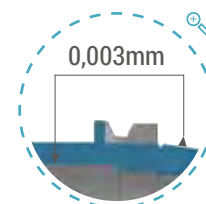
PORTAFRESE FISSI - SHELL END MILL HOLDERS - BTB50

Cod.	TYPE	AT2		G6.3/15000		AD/B	
		A	D	M	H	A	B
BTB.50.130.D40S	BTB50 H130 D40S	88	40	27	130		
BTB.50.160.D40S	BTB50 H160 D40S	88	40	27	160		
BTB.50.200.D40S	BTB50 H200 D40S	88	40	27	200		

PORTAFRESE COMBINATI

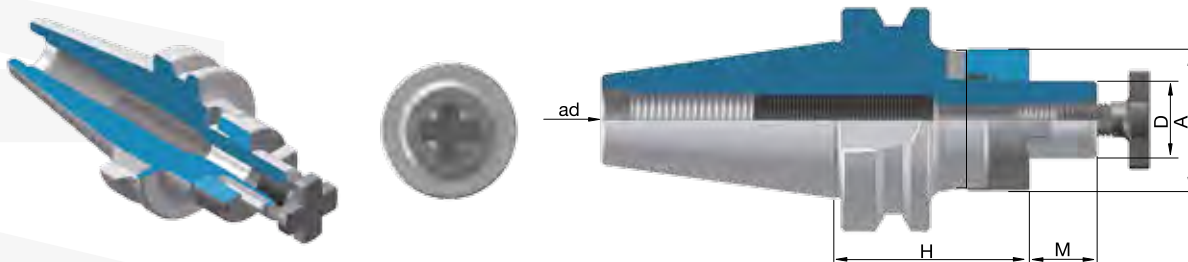
COMBI SHELL END MILL HOLDERS

MAS 403 - BT / JIS6339



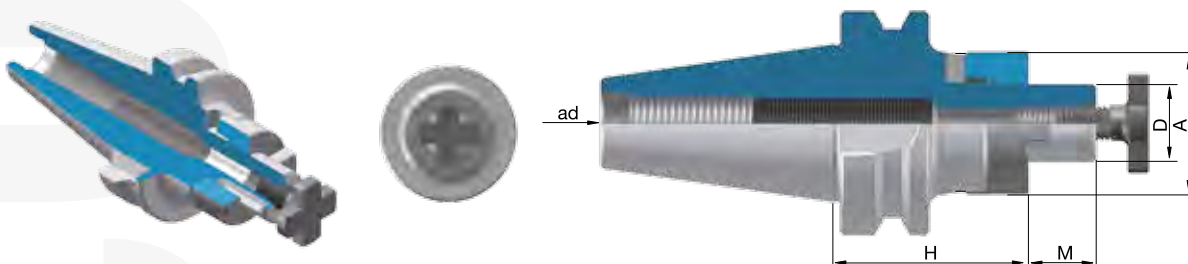
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDER - BT30

Cod.	TYPE	BT30			
		AT2	G6.3/15000	AD	
		A	D	M	H
BT.30.50.D13C	BT30 H 50 D13C	28	13	12	50
BT.30.43.D16C	BT30 H 43 D16C	32	16	17	43
BT.30.50.D22C	BT30 H 50 D22C	40	22	19	50
BT.30.50.D27C	BT30 H 50 D27C	48	27	21	50
BT.30.57.D32C	BT30 H 57 D32C	58	32	24	57



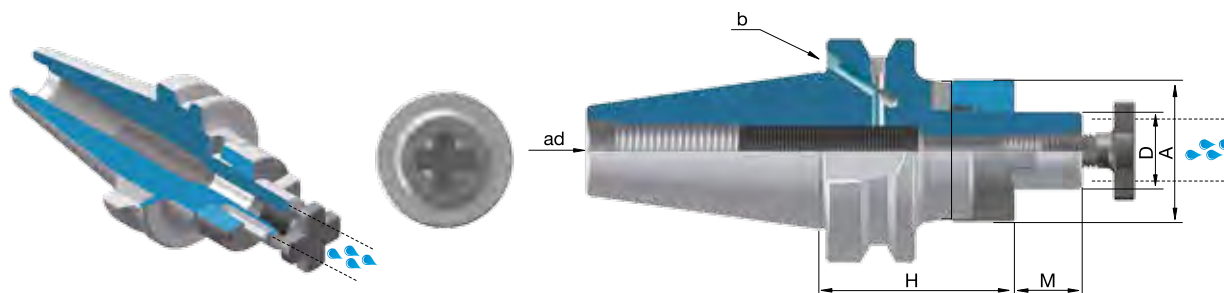
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDER - BT40

Cod.	TYPE	AT2		G6.3/15000		AD	
		A	D	M	H	A	H
BT.40.100.D13C	BT40 H100 D13C	28	13	12	100		
BT.40.55.D16C	BT40 H55 D16C	32	16	17	55		
BT.40.100.D16C	BT40 H100 D16C	32	16	17	100		
BT.40.55.D22C	BT40 H55 D22C	40	22	19	55		
BT.40.100.D22C	BT40 H100 D22C	40	22	19	100		
BT.40.55.D27C	BT40 H55 D27C	48	27	21	55		
BT.40.100.D27C	BT40 H100 D27C	48	27	21	100		
BT.40.60.D32C	BT40 H60 D32C	58	32	24	60		
BT.40.100.D32C	BT40 H100 D32C	58	32	24	100		
BT.40.60.D40C	BT40 H60 D40C	70	40	27	60		
BT.40.100.D40C	BT40 H100 D40C	70	40	27	100		



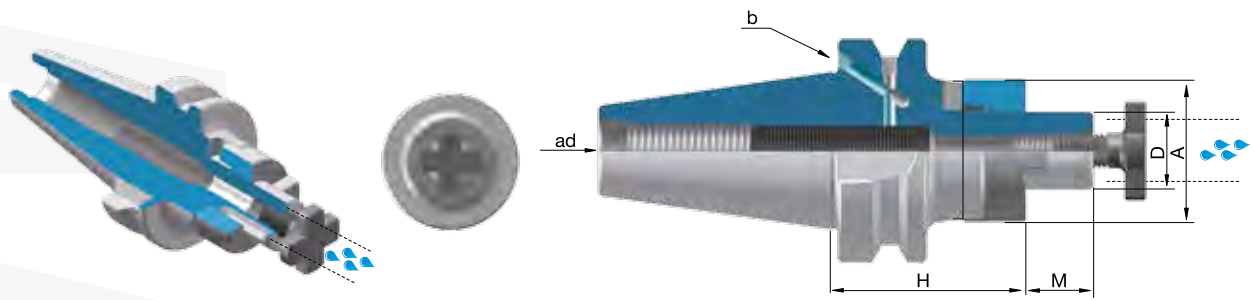
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDER - BT50

Cod.	TYPE	AT2		G6.3/15000		AD	
		A	D	M	H	A	H
BT.50.70.D16C	BT50 H70 D16C	32	16	17	70		
BT.50.70.D22C	BT50 H70 D22C	40	22	19	70		
BT.50.70.D27C	BT50 H70 D27C	48	27	21	70		
BT.50.70.D32C	BT50 H70 D32C	58	32	24	70		
BT.50.70.D40C	BT50 H70 D40C	70	40	27	70		



PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDER - BTB40

Cod.	TYPE	AT2		G6.3/15000		AD/B	
		A	D	M	H		
BTB.40.55.D16C	BTB40 H55 D16C	32	16	17	55		
BTB.40.100.D16C	BTB40 H100 D16C	32	16	17	100		
BTB.40.130.D16C	BTB40 H130 D16C	32	16	17	130		
BTB.40.160.D16C	BTB40 H160 D16C	32	16	17	160		
BTB.40.200.D16C	BTB40 H200 D16C	32	16	17	200		
BTB.40.55.D22C	BTB40 H55 D22C	40	22	19	55		
BTB.40.100.D22C	BTB40 H100 D22C	40	22	19	100		
BTB.40.130.D22C	BTB40 H130 D22C	40	22	19	130		
BTB.40.160.D22C	BTB40 H160 D22C	40	22	19	160		
BTB.40.200.D22C	BTB40 H200 D22C	40	22	19	200		
BTB.40.55.D27C	BTB40 H55 D27C	48	27	21	55		
BTB.40.100.D27C	BTB40 H100 D27C	48	27	21	100		
BTB.40.130.D27C	BTB40 H130 D27C	48	27	21	130		
BTB.40.160.D27C	BTB40 H160 D27C	48	27	21	160		
BTB.40.200.D27C	BTB40 H200 D27C	48	27	21	200		
BTB.40.60.D32C	BTB40 H60 D32C	58	32	24	60		
BTB.40.100.D32C	BTB40 H100 D32C	58	32	24	100		
BTB.40.130.D32C	BTB40 H130 D32C	58	32	24	130		
BTB.40.160.D32C	BTB40 H160 D32C	58	32	24	160		
BTB.40.200.D32C	BTB40 H200 D32C	58	32	24	200		
BTB.40.60.D40C	BTB40 H60 D40C	70	40	27	60		
BTB.40.100.D40C	BTB40 H100 D40C	70	40	27	100		
BTB.40.130.D40C	BTB40 H130 D40C	70	40	27	130		
BTB.40.160.D40C	BTB40 H160 D40C	70	40	27	160		
BTB.40.200.D40C	BTB40 H200 D40C	70	40	27	200		



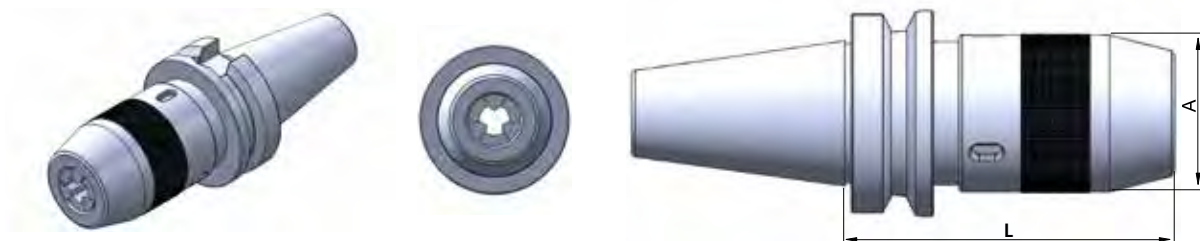
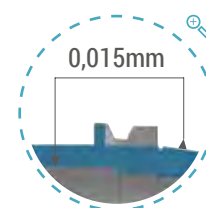
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDER - BTB50

Cod.	TYPE	AT2		G6.3/15000		AD/B	
		A	D	M	H	A	B
BTB.50.70.D16C	BTB50 H70 D16C	32	16	17	70		
BTB.50.100.D16C	BTB50 H100 D16C	32	16	17	100		
BTB.50.130.D16C	BTB50 H130 D16C	32	16	17	130		
BTB.50.160.D16C	BTB50 H160 D16C	32	16	17	160		
BTB.50.200.D16C	BTB50 H200 D16C	32	16	17	200		
BTB.50.70.D22C	BTB50 H70 D22C	40	22	19	70		
BTB.50.100.D22C	BTB50 H100 D22C	40	22	19	100		
BTB.50.130.D22C	BTB50 H130 D22C	40	22	19	130		
BTB.50.160.D22C	BTB50 H160 D22C	40	22	19	160		
BTB.50.200.D22C	BTB50 H200 D22C	40	22	19	200		
BTB.50.70.D27C	BTB50 H70 D27C	48	27	21	70		
BTB.50.100.D27C	BTB50 H100 D27C	48	27	21	100		
BTB.50.130.D27C	BTB50 H130 D27C	48	27	21	130		
BTB.50.160.D27C	BTB50 H160 D27C	48	27	21	160		
BTB.50.200.D27C	BTB50 H200 D27C	48	27	21	200		
BTB.50.70.D32C	BTB50 H70 D32C	58	32	24	70		
BTB.50.100.D32C	BTB50 H100 D32C	58	32	24	100		
BTB.50.130.D32C	BTB50 H130 D32C	58	32	24	130		
BTB.50.160.D32C	BTB50 H160 D32C	58	32	24	160		
BTB.50.200.D32C	BTB50 H200 D32C	58	32	24	200		
BTB.50.70.D40C	BTB50 H70 D40C	70	40	27	70		
BTB.50.100.D40C	BTB50 H100 D40C	70	40	27	100		
BTB.50.130.D40C	BTB50 H130 D40C	70	40	27	130		
BTB.50.160.D40C	BTB50 H160 D40C	70	40	27	160		
BTB.50.200.D40C	BTB50 H200 D40C	70	40	27	200		

PORTA PUNTE AUTOSERRANTI CON CHIAVE A SETTORE

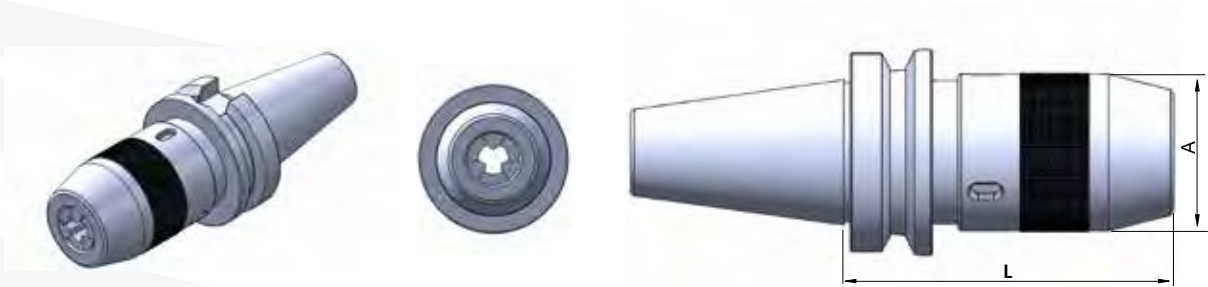
DRILL CHUCKS WITH HOOK WRENCH

MAS 403 - BT / JIS6339



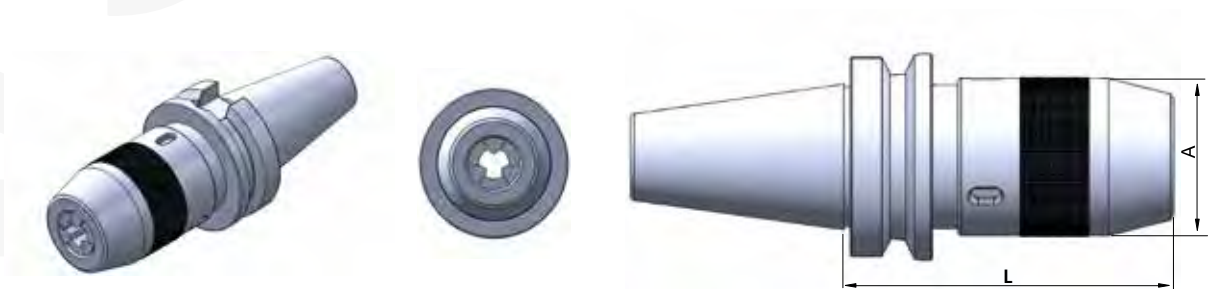
AUTOSERRANTI CON CHIAVE A SETTORE - DRILL CHUCK- BT30

Cod.	TYPE	BT30		
		AT2	G6.3/12000	AD
		CAPACITÀ RANGE	A	L
BT.30.80.DCK8	BT30 H80 DCK 8	1 ÷ 8 mm	37	80
BT.30.110.DCK13	BT30 H110 DCK13	1 ÷ 13 mm	50	110



AUTOSERRANTI CON CHIAVE A SETTORE - DRILL CHUCK- BT40

Cod.	TYPE	AT2	G6.3/12000	AD
		CAPACITÀ RANGE	A	L
BT.40.85.DCK8	BT40 H85 DCK 8	1 ÷ 8 mm	37	85
BT.40.98.DCK13	BT40 H98 DCK13	1 ÷ 13 mm	50	98
BT.40.105.DCK16	BT40 H105 DCK16	3 ÷ 16 mm	58	105



AUTOSERRANTI CON CHIAVE A SETTORE - DRILL CHUCK- BT50

Cod.	TYPE	AT2	G6.3/12000	AD
		CAPACITÀ RANGE	A	L
BT.50.105.DCK13	BT50 H105 DCK13	1 ÷ 13 mm	50	105
BT.50.115.DCK16	BT50 H115 DCK16	3 ÷ 16 mm	58	115

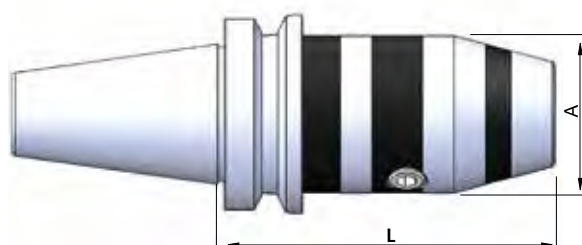
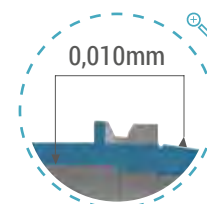
RICAMBI AUTOSERRANTI CHIAVE A SETTORE - SPARE PARTS FOR DRILL CHUCK

Cod.	TYPE
RIC.DCK8	RICAMBI PER / SPARE PARTS FOR DCK8
RIC.DCK13	RICAMBI PER / SPARE PARTS FOR DCK13
RIC.DCK16	RICAMBI PER / SPARE PARTS FOR DCK16

PORTA PUNTE AUTOSERRANTI CON CHIAVE ESAGONALE

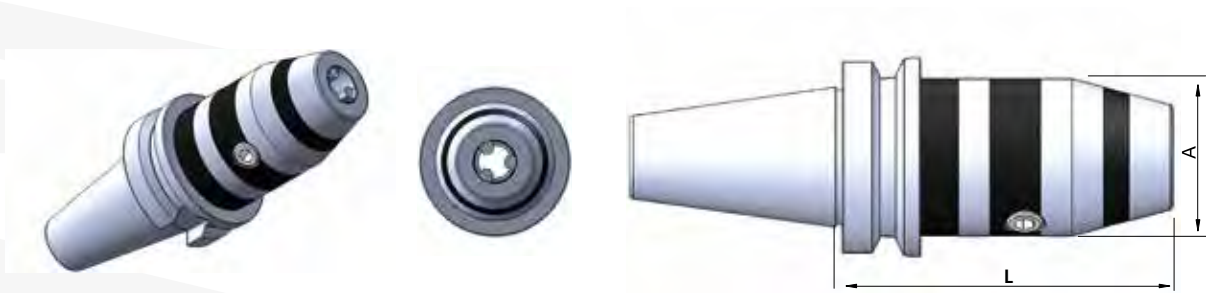
DRILL CHUCKS WITH HEX KEY

MAS 403 - BT / JIS6339



PORTAPUNTE CON CHIAVE ESAGONALE - DRILL CHUCK FOR HEX KEY - BT40

Cod.	TYPE	AT2	G6.3/12000	AD
		CAPACITÀ RANGE	L	A
BT.40.98.HD13	BT40 H98 HD13	1 ÷ 13 mm	98	50
BT.40.103.HD16	BT40 H103 HD16	3 ÷ 16 mm	103	58



PORTAPUNTE CON CHIAVE ESAGONALE - DRILL CHUCK FOR HEX KEY - BT50

Cod.	TYPE	AT2	G6.3/12000	AD
		CAPACITÀ RANGE	L	A
BT50.109.HD13	BT50 H109 HD13	1 ÷ 13 mm	109	50
BT50.114.HD16	BT50 H114 HD16	3 ÷ 16 mm	114	58

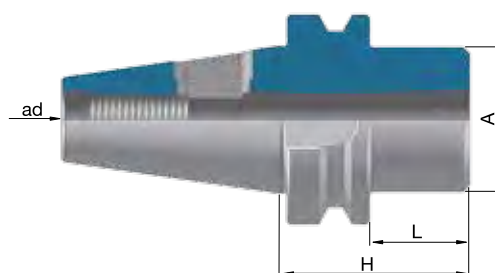
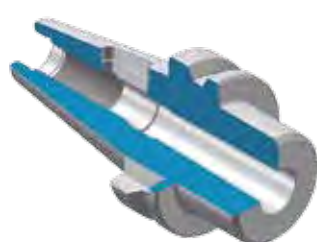
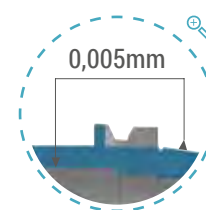
RICAMBI PORTAPUNTE - SPARE PARTS FOR DRILL CHUCK HEX KEY

Cod.	TYPE
RIC.HD13	RICAMBI PER/SPARE PARTS FOR HD13
RIC.HD16	RICAMBI PER/SPARE PARTS FOR HD16

CONO MORSE PUNTE / FRESE

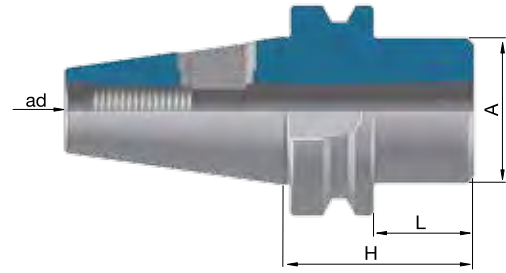
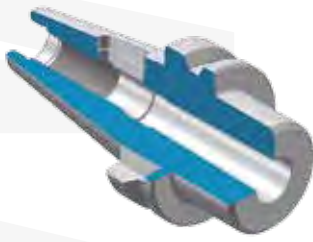
MORSE TAPER ADAPTERS FOR DRILLS / FOR MILLS

MAS 403 - BT / JIS6339



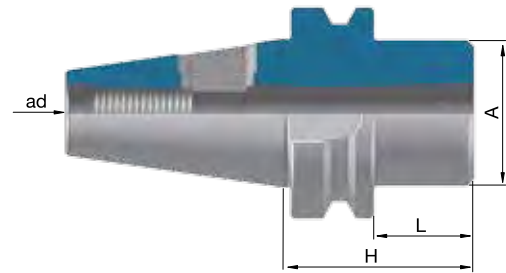
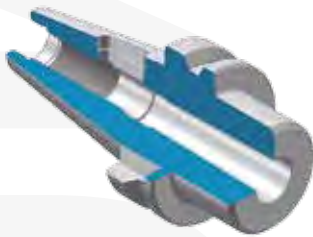
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - BT30

Cod.	TYPE	AT2	G6.3/15000	AD
		A	L	H
BT.30.45.CM1P	BT30 H45 CM1 P	25	23	45
BT.30.60.CM2P	BT30 H60 CM2 P	32	38	60
BT.30.75.CM3P	BT30 H75 CM3 P	40	53	75



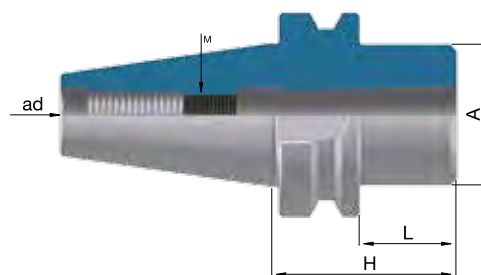
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - BT40

Cod.	TYPE	AT2	G6.3/15000	AD
		A	L	H
BT.40.50.CM1P	BT40 H50 CM1 P	25	23	50
BT.40.50.CM2P	BT40 H50 CM2 P	32	23	50
BT.40.70.CM3P	BT40 H70 CM3 P	40	43	70
BT.40.95.CM4P	BT40 H95 CM4 P	48	68	95



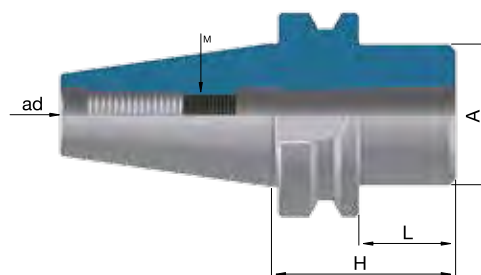
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - BT50

Cod.	TYPE	AT2	G6.3/15000	AD
		A	L	H
BT.50.45.CM1P	BT50 H45 CM1 P	25	7	45
BT.50.120.CM1P	BT50 H120 CM1 P	25	82	120
BT.50.60.CM2P	BT50 H60 CM2 P	32	22	60
BT.50.135.CM2P	BT50 H135 CM2 P	32	97	135
BT.50.65.CM3P	BT50 H65 CM3 P	40	27	65
BT.50.155.CM3P	BT50 H155 CM3 P	40	117	155
BT.50.95.CM4P	BT50 H95 CM4 P	40	57	95
BT.50.180.CM4P	BT50 H180 CM4 P	48	142	180
BT.50.105.CM5P	BT50 H105 CM5 P	48	67	105
BT.50.215.CM5P	BT50 H215 CM5 P	48	177	215



CONO MORSE PER FRESE - MORSE TAPER FOR MILLS - BT40

Cod.	TYPE	AT2		G6.3/15000		AD
		A	M	L	H	
BT.40.50.CM1F	BT40 H50 CM1 FV	25	M6	23	50	
BT.40.50.CM2F	BT40 H50 CM2 FV	32	M10	23	50	
BT.40.70.CM3F	BT40 H70 CM3 FV	40	M12	43	70	
BT.40.95.CM4F	BT40 H95 CM4 FV	48	M16	68	95	
BT.40.110.CM4F	BT40 H110 CM4 FV	48	M16	83	110	

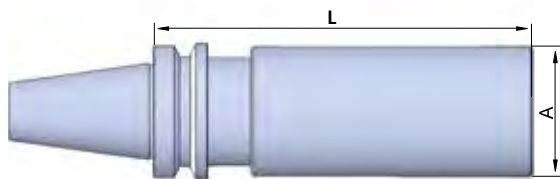


CONO MORSE PER FRESE - MORSE TAPER FOR MILLS - BT50

Cod.	TYPE	AT2		G6.3/15000		AD
		A	M	L	H	
BT.50.45.CM1F	BT50 H45 CM1 FV	25	M6	7	45	
BT.50.60.CM2F	BT50 H60 CM2 FV	32	M10	22	60	
BT.50.65.CM3F	BT50 H65 CM3 FV	40	M12	27	65	
BT.50.70.CM4F	BT50 H70 CM4 FV	48	M16	32	70	
BT.50.85.CM4F	BT50 H85 CM4 FV	48	M16	47	85	
BT.50.100.CM5F	BT50 H100 CM5 FV	63	M20	62	100	
BT.50.118.CM5F	BT50 H118 CM5 FV	63	M20	80	118	

STELO TENERO LAVORABILE

BLANK ARBORS



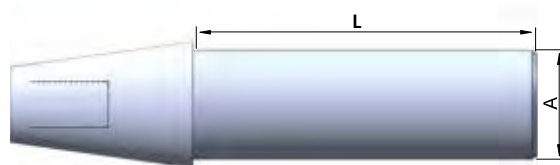
STELO TENERO LAVORABILE - BLANK ARBORS - BT40-BT50

Cod.	TYPE	AT2 AD 42HRC	
		A	L
BT.40.250.D40BL	BT40 H250 D40	40	250
BT.40.250.D63BL	BT40 H250 D63	63	250
BT.50.315.D97BL	BT50 H315 D97	97	315

BARRA DI CONTROLLO

TEST ARBORS

MAS 403 - BT / JIS6339



BARRE DI CONTROLLO - TEST ARBORS - BT30- BT40 - BT50

Cod.	TYPE	A	L		
				AT2	AD
BT.30.200.D32	BT30 H200 D32	32	200		
BT.40.300.D40	BT40 H300 D40	40	300		
BT.50.300.D50	BT50 H300 D50	50	300		

FORNITO COMPLETO DI CERTIFICATO E COFANETTO IN LEGNO
PROVIDED WITH WOODEN BOX AND SPECIFIC CERTIFICATE

HSK - DIN69893 FORMA A

HSK - DIN69893 FORMA A



CALETTAMENTO A CALDO STANDARD

SHRINK FIT HOLDERS STANDARD



CALETTAMENTO A CALDO SLIM TYPE

SHRINK FIT HOLDERS SLIM TYPE



PORTAPINZE PER SKS

COLLET CHUCK FOR SKS



PORTA TESTINE FILETTATE (TIPO CPY)

FOR SCREWED MILLING CUTTERS



FORTE SERRAGGIO

POWER MILLING CHUCKS



IDRAULICO

HYDRAULIC EXPANSIONS CHUCK



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388



PER FRESE WELDON

END MILL HOLDERS



PORTAFRESE FISSI

SHELL END MILL HOLDERS



PORTAFRESE COMBINATI

COMBI SHELL END MILL HOLDERS



PORTA PUNTE CON CHIAVE ESAGONALE

HEX KEY LOCK DRILL CHUCKS



STELO TENERO LAVORABILE

BLANK ARBORS



BARRA DI CONTROLLO

TEST ARBORS

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre.
- Eseguiti trattamenti termici da fornitori certificati ISO 9001.
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza.
- Controllati con strumenti di misura certificati.
- La tolleranza di precisione dei coni HSK-A è AT2.
- L'errore di concentricità massimo tra il cono e la sede utensile è 0.003 mm.

CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes HSK-A est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.

TECHNICAL FEATURES

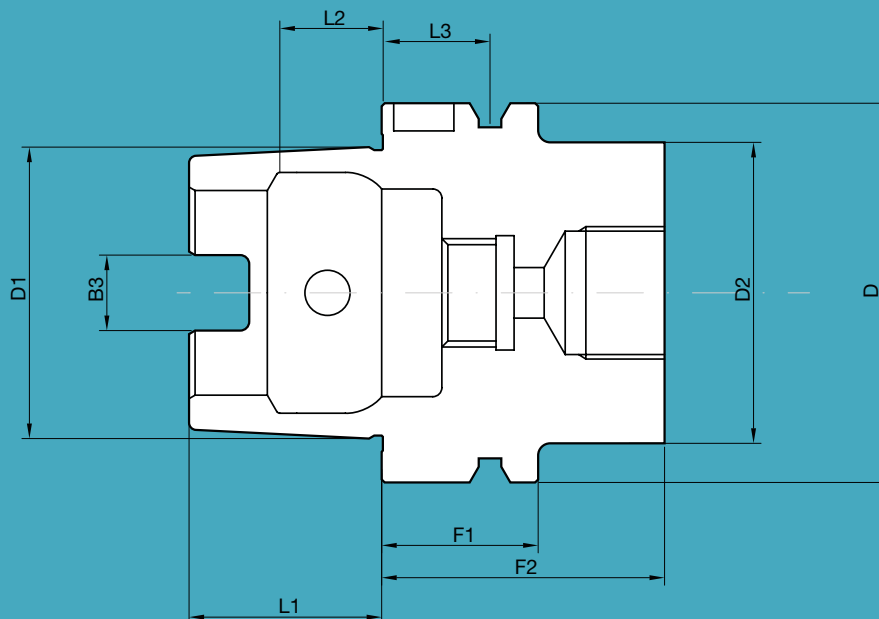
- Manufactured with certificate steel.
- Heat treatments are performed by certified suppliers ISO 9001.
- Precision ground on shank, inside tapers and collet nut threads.
- Tested with high precision inspection and ganging equipment.
- Taper accuracy of HSK-A shanks lower than AT2.
- The maximum error of concentricity between the cone and the seat of tool is 0.003 mm.

MERKMALE

- Gebaut aus zertifiziertem Stabstahl
- Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001
- Genauigkeitgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss
- Geprüft mit zertifizierten Messinstrumente
- Die Präzisionstoleranz der Konen HSK-A ist AT2
- Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm

QUOTE / QUOTE / QUOTTES / ABMESSUNGEN

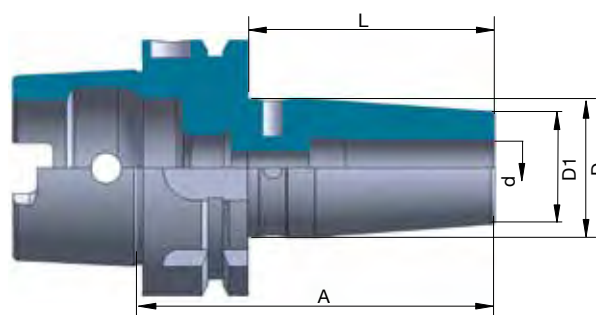
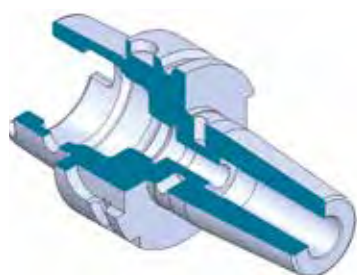
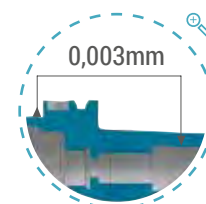
HSK	D	D1	D2	B3	L1	L2	L3	F1	F2	COOLANT TUBE
32	32	24	26	7	16	8,92	16	20	35	M10X1
40	40	30	34	8	20	11,42	16	20	35	M12X1
50	50	38	42	10,54	25	14,13	18	26	42	M16X1
63	63	48	53	12,54	32	18,13	18	26	42	M18X1
80	80	60	68	16,04	40	22,85	18	26	42	M20X1,5
100	100	75	85	20,02	50	28,56	20	29	45	M24X1,5



CALETTAMENTO A CALDO STANDARD

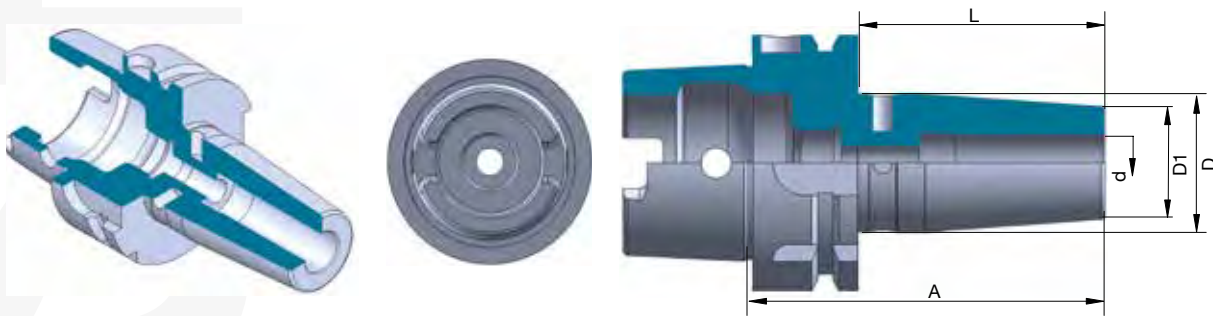
SHRINK FIT HOLDERS STANDARD - FORM A

HSK - DIN69893 FORMA A



CALETTAMENTO STANDARD - SHRINK FIT HOLDER - HSK32A

Cod.	TYPE	d	A	D1	AT2		G2.5/25000	
					D	L	D	L
HSK.A.32.60.CL3	HSK32A H60 CL3	3	60	10	16	40		
HSK.A.32.60.CL4	HSK32A H60 CL4	4	60	10	21	40		
HSK.A.32.60.CL5	HSK32A H60 CL5	5	60	10	21	40		
HSK.A.32.70.CL6	HSK32A H70 CL6	6	70	20	25	50		
HSK.A.32.70.CL8	HSK32A H70 CL8	8	70	20	25	50		
HSK.A.32.70.CL10	HSK32A H70 CL10	10	70	24	29	50		
HSK.A.32.80.CL12	HSK32A H80 CL12	12	80	24	29	60		
HSK.A.32.90.CL14	HSK32A H90 CL14	14	90	27	34	70		
HSK.A.32.90.CL16	HSK32A H90 CL16	16	90	27	34	70		
HSK.A.32.100.CL20	HSK32A H100 CL20	20	100	33	40	80		

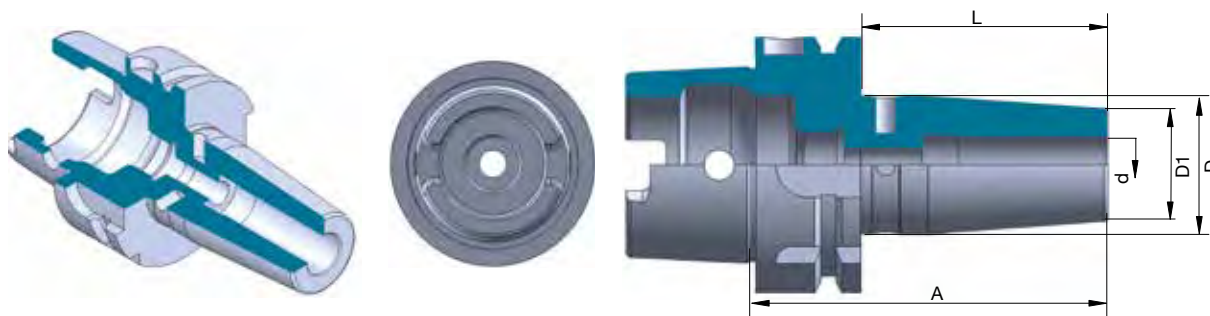


CALETTAMENTO STANDARD - SHRINK FIT HOLDER - HSK40A

AT2

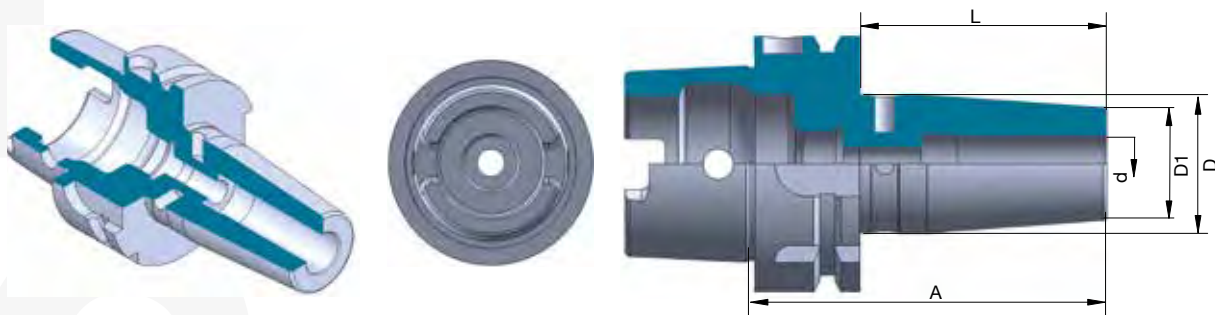
G2.5/25000

Cod.	TYPE	d	A	D1	D	L
HSK.A.40.60.CL3	HSK40A H60 CL3	3	60	10	16	40
HSK.A.40.120.CL3	HSK40A H120 CL3	3	120	10	20	100
HSK.A.40.160.CL3	HSK40A H160 CL3	3	160	10	20	140
HSK.A.40.60.CL4	HSK40A H60 CL4	4	60	10	16	40
HSK.A.40.120.CL4	HSK40A H120 CL4	4	120	15	22	100
HSK.A.40.160.CL4	HSK40A H160 CL4	4	160	15	22	140
HSK.A.40.60.CL5	HSK40A H60 CL5	5	60	10	16	40
HSK.A.40.120.CL5	HSK40A H120 CL5	5	120	15	22	100
HSK.A.40.160.CL5	HSK40A H160 CL5	5	160	15	22	140
HSK.A.40.80.CL6	HSK40A H80 CL6	6	80	20	27	60
HSK.A.40.120.CL6	HSK40A H120 CL6	6	120	20	27	100
HSK.A.40.160.CL6	HSK40A H160 CL6	6	160	20	27	140
HSK.A.40.80.CL8	HSK40A H80 CL8	8	80	20	27	60
HSK.A.40.120.CL8	HSK40A H120 CL8	8	120	20	27	100
HSK.A.40.160.CL8	HSK40A H160 CL8	8	160	20	27	140
HSK.A.40.80.CL10	HSK40A H80 CL10	10	80	24	31	60
HSK.A.40.120.CL10	HSK40A H120 CL10	10	120	24	31	100
HSK.A.40.160.CL10	HSK40A H160 CL10	10	160	24	31	140
HSK.A.40.90.CL12	HSK40A H90 CL12	12	90	24	31	70
HSK.A.40.120.CL12	HSK40A H120 CL12	12	120	24	31	100
HSK.A.40.160.CL12	HSK40A H160 CL12	12	160	24	31	140
HSK.A.40.90.CL14	HSK40A H90 CL14	14	90	27	34	70
HSK.A.40.120.CL14	HSK40A H120 CL14	14	120	27	34	100
HSK.A.40.160.CL14	HSK40A H160 CL14	14	160	27	34	140
HSK.A.40.90.CL16	HSK40A H90 CL16	16	90	27	34	70
HSK.A.40.120.CL16	HSK40A H120 CL16	16	120	27	34	100
HSK.A.40.160.CL16	HSK40A H160 CL16	16	160	27	34	140



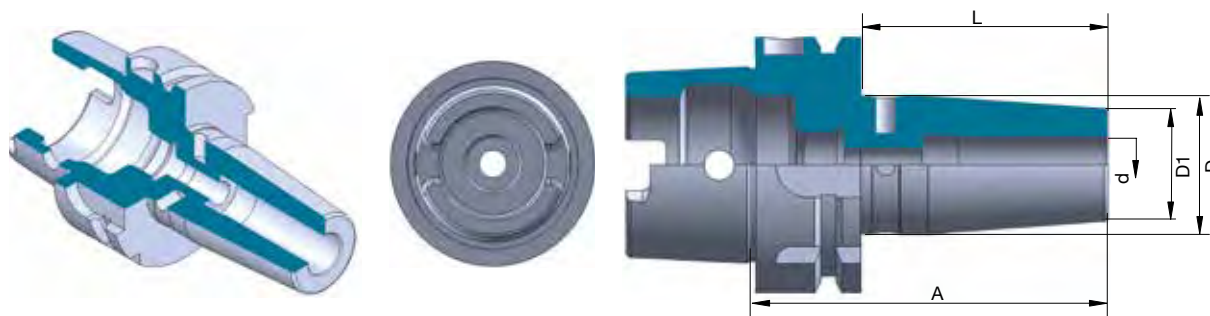
CALETTAMENTO STANDARD - SHRINK FIT HOLDER - HSK50A

Cod.	TYPE	d	A	D1	AT2		G2.5/25000	
					D	L	D	L
HSK.A.50.80.CL3	HSK50A H80 CL3	3	80	10	15	54		
HSK.A.50.120.CL3	HSK50A H120 CL3	3	120	10	20	94		
HSK.A.50.160.CL3	HSK50A H160 CL3	3	160	10	20	134		
HSK.A.50.80.CL4	HSK50A H80 CL4	4	80	15	22	54		
HSK.A.50.120.CL4	HSK50A H120 CL4	4	120	15	22	94		
HSK.A.50.160.CL4	HSK50A H160 CL4	4	160	15	22	134		
HSK.A.50.80.CL5	HSK50A H80 CL5	5	80	15	22	54		
HSK.A.50.120.CL5	HSK50A H120 CL5	5	120	15	22	94		
HSK.A.50.160.CL5	HSK50A H160 CL5	5	160	15	22	134		
HSK.A.50.80.CL6	HSK50A H80 CL6	6	80	20	27	54		
HSK.A.50.120.CL6	HSK50A H120 CL6	6	120	20	27	94		
HSK.A.50.160.CL6	HSK50A H160 CL6	6	160	20	27	134		
HSK.A.50.80.CL8	HSK50A H80 CL8	8	80	20	27	54		
HSK.A.50.120.CL8	HSK50A H120 CL8	8	120	20	27	94		
HSK.A.50.160.CL8	HSK50A H160 CL8	8	160	20	27	134		
HSK.A.50.85.CL10	HSK50A H85 CL10	10	85	24	31	59		
HSK.A.50.120.CL10	HSK50A H120 CL10	10	120	24	31	94		
HSK.A.50.160.CL10	HSK50A H160 CL10	10	160	24	31	134		
HSK.A.50.90.CL12	HSK50A H90 CL12	12	90	24	31	64		
HSK.A.50.120.CL12	HSK50A H120 CL12	12	120	24	31	94		
HSK.A.50.160.CL12	HSK50A H160 CL12	12	160	24	31	134		
HSK.A.50.90.CL14	HSK50A H90 CL14	14	90	27	34	64		
HSK.A.50.120.CL14	HSK50A H120 CL14	14	120	27	34	94		
HSK.A.50.160.CL14	HSK50A H160 CL14	14	160	27	34	134		
HSK.A.50.95.CL16	HSK50A H95 CL16	16	95	27	34	69		
HSK.A.50.120.CL16	HSK50A H120 CL16	16	120	27	34	94		
HSK.A.50.160.CL16	HSK50A H160 CL16	16	160	27	34	134		
HSK.A.50.95.CL18	HSK50A H95 CL18	18	95	33	40	69		
HSK.A.50.120.CL18	HSK50A H120 CL18	18	120	33	40	94		
HSK.A.50.160.CL18	HSK50A H160 CL18	18	160	33	40	134		
HSK.A.50.100.CL20	HSK50A H100 CL20	20	100	33	40	74		
HSK.A.50.120.CL20	HSK50A H120 CL20	20	120	33	40	94		
HSK.A.50.160.CL20	HSK50A H160 CL20	20	160	33	40	134		



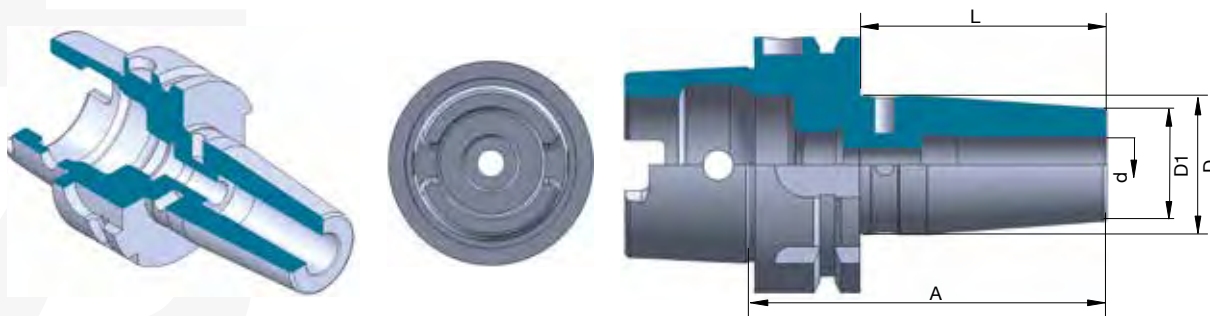
CALETTAMENTO STANDARD - SHRINK FIT HOLDER - HSK63A

Cod.	TYPE	d	A	AT2		G2.5/25000	
				D1	D	L	
HSK.A.63.80.CL3	HSK63A H80 CL3	3	80	10	15	54	
HSK.A.63.120.CL3	HSK63A H120 CL3	3	120	10	20	94	
HSK.A.63.160.CL3	HSK63A H160 CL3	3	160	10	20	134	
HSK.A.63.80.CL4	HSK63A H80 CL4	4	80	15	22	54	
HSK.A.63.120.CL4	HSK63A H120 CL4	4	120	15	22	94	
HSK.A.63.160.CL4	HSK63A H160 CL4	4	160	15	22	134	
HSK.A.63.80.CL5	HSK63A H80 CL5	5	80	15	22	54	
HSK.A.63.120.CL5	HSK63A H120 CL5	5	120	15	22	94	
HSK.A.63.160.CL5	HSK63A H160 CL5	5	160	15	22	134	
HSK.A.63.90.CL6	HSK63A H90 CL6	6	90	21	27	64	
HSK.A.63.130.CL6	HSK63A H130 CL6	6	130	21	27	104	
HSK.A.63.160.CL6	HSK63A H160 CL6	6	160	21	27	134	
HSK.A.63.90.CL8	HSK63A H90 CL8	8	90	21	27	64	
HSK.A.63.130.CL8	HSK63A H130 CL8	8	130	21	27	104	
HSK.A.63.160.CL8	HSK63A H160 CL8	8	160	21	27	134	
HSK.A.63.90.CL10	HSK63A H90 CL10	10	90	24	32	64	
HSK.A.63.130.CL10	HSK63A H130 CL10	10	130	24	32	104	
HSK.A.63.160.CL10	HSK63A H160 CL10	10	160	24	32	134	
HSK.A.63.90.CL12	HSK63A H90 CL12	12	90	24	32	64	
HSK.A.63.130.CL12	HSK63A H130 CL12	12	130	24	32	104	
HSK.A.63.160.CL12	HSK63A H160 CL12	12	160	24	32	134	
HSK.A.63.90.CL14	HSK63A H90 CL14	14	90	27	34	64	
HSK.A.63.130.CL14	HSK63A H130 CL14	14	130	27	34	104	
HSK.A.63.160.CL14	HSK63A H160 CL14	14	160	27	34	134	
HSK.A.63.90.CL16	HSK63A H90 CL16	16	90	27	34	64	
HSK.A.63.130.CL16	HSK63A H130 CL16	16	130	27	34	104	
HSK.A.63.160.CL16	HSK63A H160 CL16	16	160	27	34	134	
HSK.A.63.95.CL18	HSK63A H95 CL18	18	95	33	42	69	
HSK.A.63.130.CL18	HSK63A H130 CL18	18	130	33	42	104	
HSK.A.63.160.CL18	HSK63A H160 CL18	18	160	33	42	134	
HSK.A.63.100.CL20	HSK63A H100 CL20	20	100	32	42	74	
HSK.A.63.130.CL20	HSK63A H130 CL20	20	130	32	42	104	
HSK.A.63.160.CL20	HSK63A H160 CL20	20	160	32	42	134	
HSK.A.63.115.CL25	HSK63A H115 CL25	25	115	44	53	89	
HSK.A.63.130.CL25	HSK63A H130 CL25	25	130	44	53	104	
HSK.A.63.160.CL25	HSK63A H160 CL25	25	160	44	53	134	
HSK.A.63.120.CL32	HSK63A H120 CL32	32	120	44	53	94	
HSK.A.63.160.CL32	HSK63A H160 CL32	32	160	44	53	134	



CALETTAMENTO STANDARD - SHRINK FIT HOLDER - HSK80A

Cod.	TYPE	d	A	AT2		G2.5/25000	
				D1	D	L	
HSK.A.80.85.CL6	HSK80A H85 CL6	6	85	20	27	59	
HSK.A.80.120.CL6	HSK80A H120 CL6	6	120	20	27	94	
HSK.A.80.160.CL6	HSK80A H160 CL6	6	160	20	27	134	
HSK.A.80.85.CL8	HSK80A H85 CL8	8	85	20	27	59	
HSK.A.80.120.CL8	HSK80A H120 CL8	8	120	20	27	94	
HSK.A.80.160.CL8	HSK80A H160 CL8	8	160	20	27	134	
HSK.A.80.90.CL10	HSK80A H90 CL10	10	90	24	31	64	
HSK.A.80.120.CL10	HSK80A H120 CL10	10	120	24	31	94	
HSK.A.80.160.CL10	HSK80A H160 CL10	10	160	24	31	134	
HSK.A.80.95.CL12	HSK80A H95 CL12	12	95	24	31	69	
HSK.A.80.120.CL12	HSK80A H120 CL12	12	120	24	31	94	
HSK.A.80.160.CL12	HSK80A H160 CL12	12	160	24	31	134	
HSK.A.80.95.CL14	HSK80A H95 CL14	14	95	27	34	69	
HSK.A.80.120.CL14	HSK80A H120 CL14	14	120	27	34	94	
HSK.A.80.160.CL14	HSK80A H160 CL14	14	160	27	34	134	
HSK.A.80.100.CL16	HSK80A H100 CL16	16	100	27	34	74	
HSK.A.80.120.CL16	HSK80A H120 CL16	16	120	27	34	94	
HSK.A.80.160.CL16	HSK80A H160 CL16	16	160	27	34	134	
HSK.A.80.100.CL18	HSK80A H100 CL18	18	100	33	40	74	
HSK.A.80.120.CL18	HSK80A H120 CL18	18	120	33	40	94	
HSK.A.80.160.CL18	HSK80A H160 CL18	18	160	33	40	134	
HSK.A.80.105.CL20	HSK80A H105 CL20	20	105	33	40	79	
HSK.A.80.120.CL20	HSK80A H120 CL20	20	120	33	40	94	
HSK.A.80.160.CL20	HSK80A H160 CL20	20	160	33	40	134	
HSK.A.80.115.CL25	HSK80A H115 CL25	25	115	44	53	89	
HSK.A.80.120.CL25	HSK80A H120 CL25	25	120	44	53	94	
HSK.A.80.160.CL25	HSK80A H160 CL25	25	160	44	53	134	
HSK.A.80.120.CL32	HSK80A H120 CL32	32	120	44	53	94	
HSK.A.80.160.CL32	HSK80A H160 CL32	32	160	44	53	134	



CALETTAMENTO STANDARD - SHRINK FIT HOLDER - HSK100A

AT2

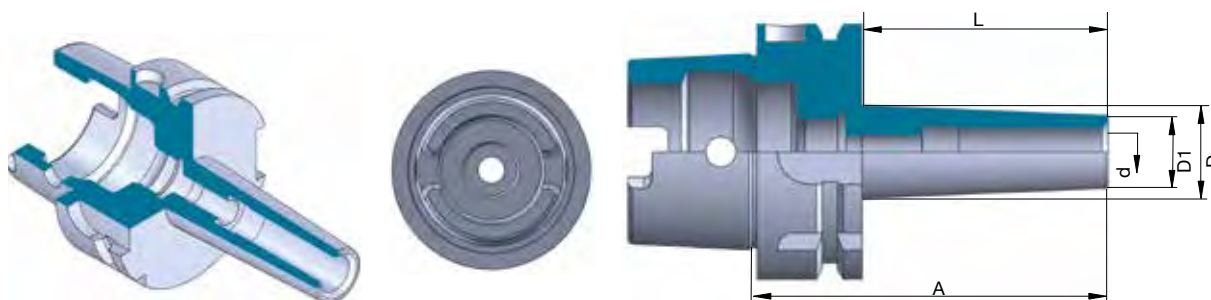
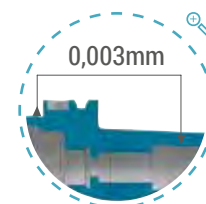
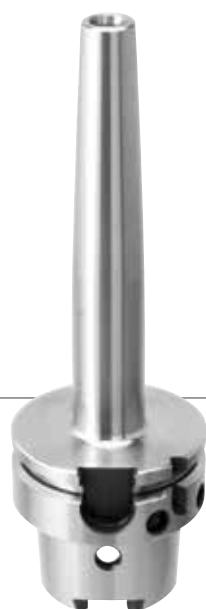
G2.5/25000

Cod.	TYPE	d	A	D1	D	L
HSK.A.100.85.CL6	HSK100A H85 CL6	6	85	20	27	56
HSK.A.100.120.CL6	HSK100A H120 CL6	6	120	20	27	91
HSK.A.100.160.CL6	HSK100A H160 CL6	6	160	20	27	131
HSK.A.100.85.CL8	HSK100A H85 CL8	8	85	20	27	56
HSK.A.100.120.CL8	HSK100A H120 CL8	8	120	20	27	91
HSK.A.100.160.CL8	HSK100A H160 CL8	8	160	20	27	131
HSK.A.100.90.CL10	HSK100A H90 CL10	10	90	24	31	61
HSK.A.100.120.CL10	HSK100A H120 CL10	10	120	24	31	91
HSK.A.100.160.CL10	HSK100A H160 CL10	10	160	24	31	131
HSK.A.100.95.CL12	HSK100A H95 CL12	12	95	24	31	66
HSK.A.100.120.CL12	HSK100A H120 CL12	12	120	24	31	91
HSK.A.100.160.CL12	HSK100A H160 CL12	12	160	24	31	131
HSK.A.100.95.CL14	HSK100A H95 CL14	14	95	27	34	66
HSK.A.100.120.CL14	HSK100A H120 CL14	14	120	27	34	91
HSK.A.100.160.CL14	HSK100A H160 CL14	14	160	27	34	131
HSK.A.100.100.CL16	HSK100A H100 CL16	16	100	27	34	71
HSK.A.100.120.CL16	HSK100A H120 CL16	16	120	27	34	91
HSK.A.100.160.CL16	HSK100A H160 CL16	16	160	27	34	131
HSK.A.100.100.CL18	HSK100A H100 CL18	18	100	33	40	71
HSK.A.100.120.CL18	HSK100A H120 CL18	18	120	33	40	91
HSK.A.100.160.CL18	HSK100A H160 CL18	18	160	33	40	131
HSK.A.100.105.CL20	HSK100A H105 CL20	20	105	33	40	76
HSK.A.100.120.CL20	HSK100A H120 CL20	20	120	33	40	91
HSK.A.100.160.CL20	HSK100A H160 CL20	20	160	33	40	131
HSK.A.100.115.CL25	HSK100A H115 CL25	25	115	44	53	86
HSK.A.100.120.CL25	HSK100A H120 CL25	25	120	44	53	91
HSK.A.100.160.CL25	HSK100A H160 CL25	25	160	44	53	131
HSK.A.100.120.CL32	HSK100A H120 CL32	32	120	44	53	91
HSK.A.100.160.CL32	HSK100A H160 CL32	32	160	44	53	131

CALETTAMENTO A CALDO SLIM TYPE

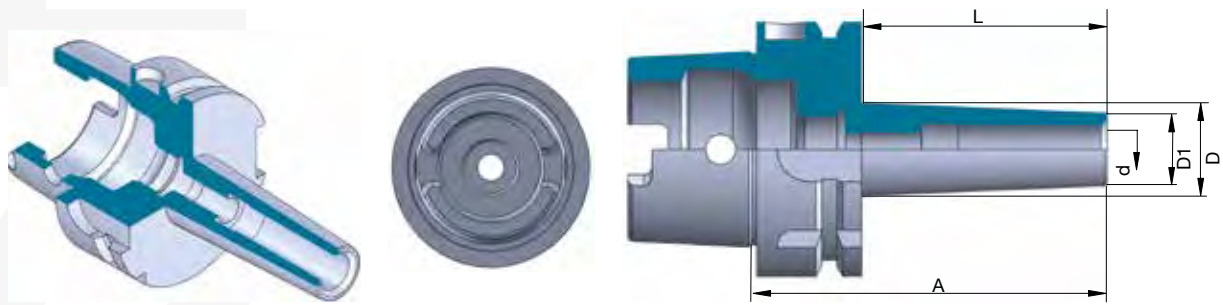
SHRINK FIT HOLDERS SLIM TYPE - FORM A

HSK - DIN69893 FORMA A



CALETTAMENTO TIPO SLIM - SHRINK FIT HOLDER SLIM TYPE - HSK63A

Cod.	TYPE	d	A	AT2		G2.5/25000	
				D1	D	L	
HSK.A.63.80.CL3.SL	SLIM TYPE HSK63A H80 CL3	3	80	9	13	54	
HSK.A.63.120.CL3.SL	SLIM TYPE HSK63A H120 CL3	3	120	9	16	94	
HSK.A.63.80.CL4.SL	SLIM TYPE HSK63A H80 CL4	4	80	10	15	54	
HSK.A.63.120.CL4.SL	SLIM TYPE HSK63A H120 CL4	4	120	10	20	94	
HSK.A.63.80.CL5.SL	SLIM TYPE HSK63A H80 CL5	5	80	11	16	54	
HSK.A.63.120.CL5.SL	SLIM TYPE HSK63A H120 CL5	5	120	11	16	94	
HSK.A.63.90.CL6.SL	SLIM TYPE HSK63A H90 CL6	6	90	12	17	64	
HSK.A.63.130.CL6.SL	SLIM TYPE HSK63A H130 CL6	6	130	12	19	104	
HSK.A.63.160.CL6.SL	SLIM TYPE HSK63A H160 CL6	6	160	12	19	134	



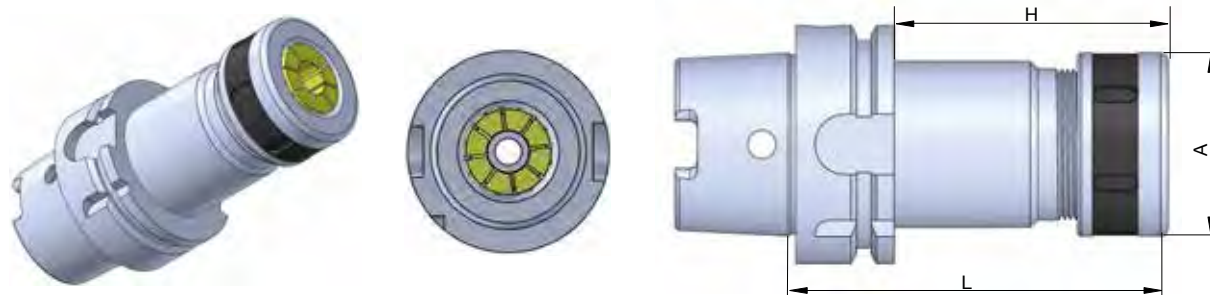
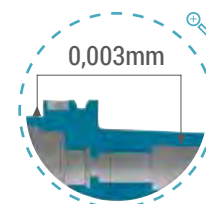
CALETTAMENTO TIPO SLIM - SHRINK FIT HOLDER SLIM TYPE - HSK63A

Cod.	TYPE	d	A	AT2		G2.5/25000	
				D1	D	L	
HSK.A.63.90.CL8.SL	SLIM TYPE HSK63A H90 CL8	8	90	14	19	64	
HSK.A.63.130.CL8.SL	SLIM TYPE HSK63A H130 CL8	8	130	14	21	104	
HSK.A.63.160.CL8.SL	SLIM TYPE HSK63A H160 CL8	8	160	14	21	134	
HSK.A.63.90.CL10.SL	SLIM TYPE HSK63A H90 CL10	10	90	16	21	64	
HSK.A.63.130.CL10.SL	SLIM TYPE HSK63A H130 CL10	10	130	16	23	104	
HSK.A.63.160.CL10.SL	SLIM TYPE HSK63A H160 CL10	10	160	16	23	134	
HSK.A.63.90.CL12.SL	SLIM TYPE HSK63A H90 CL12	12	90	18	23	64	
HSK.A.63.130.CL12.SL	SLIM TYPE HSK63A H130 CL12	12	130	18	25	104	
HSK.A.63.160.CL12.SL	SLIM TYPE HSK63A H160 CL12	12	160	18	25	134	
HSK.A.63.90.CL14.SL	SLIM TYPE HSK63A H90 CL14	14	90	18	23	64	
HSK.A.63.130.CL14.SL	SLIM TYPE HSK63A H130 CL14	14	130	18	25	104	
HSK.A.63.160.CL14.SL	SLIM TYPE HSK63A H160 CL14	14	160	18	25	134	
HSK.A.63.90.CL16.SL	SLIM TYPE HSK63A H90 CL16	16	90	24	29	64	
HSK.A.63.130.CL16.SL	SLIM TYPE HSK63A H130 CL16	16	130	24	31	104	
HSK.A.63.160.CL16.SL	SLIM TYPE HSK63A H160 CL16	16	160	24	31	134	
HSK.A.63.95.CL18.SL	SLIM TYPE HSK63A H95 CL18	18	95	24	29	69	
HSK.A.63.130.CL18.SL	SLIM TYPE HSK63A H130 CL18	18	130	24	31	104	
HSK.A.63.160.CL18.SL	SLIM TYPE HSK63A H160 CL18	18	160	24	31	134	
HSK.A.63.100.CL20.SL	SLIM TYPE HSK63A H100 CL20	20	100	32	39	74	
HSK.A.63.130.CL20.SL	SLIM TYPE HSK63A H130 CL20	20	130	32	39	104	
HSK.A.63.160.CL20.SL	SLIM TYPE HSK63A H160 CL20	20	160	32	39	134	

PORTAPINZE PER SKS

COLLET CHUCK FOR SKS - FORM A

HSK - DIN69893 FORMA A

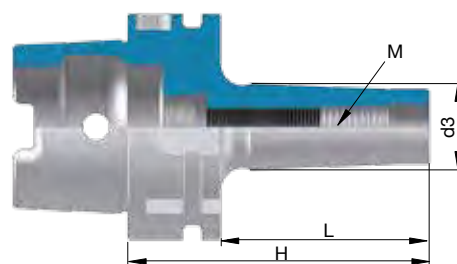
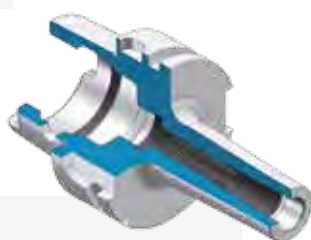
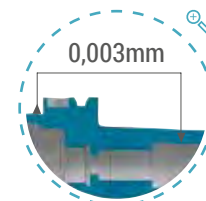


PORTAPINZA PER SKS - COLLET CHUCK FOR SKS - HSK63A

Cod.	TYPE	L	AT2		G2.5/25000	
			H	A	H	A
HSK.A.63.90.SKS10	HSK63A H90 SKS10	90	64	30		
HSK.A.63.120.SKS10	HSK63A H120 SKS10	120	94	30		
HSK.A.63.90.SKS20	HSK63A H90 SKS20	90	64	48,5		
HSK.A.63.135.SKS20	HSK63A H135 SKS20	135	109	48,5		

PORTA TESTINE FILETTATE (TIPO CPY)

TOOLHOLDERS FOR SCREWED MILLING CUTTERS - FORM A



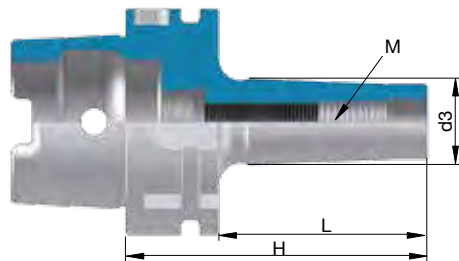
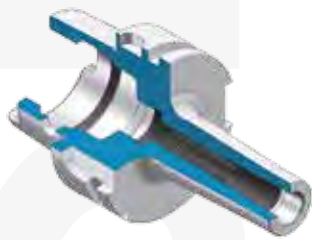
PORTA TESTINE FILETTATE - FOR SCREWED MILLING CHUCK - HSK50A

Cod.	TYPE	H	M	d1	AT2	G2.5/25000		
					d2	d3	L	
HSK.A.50.59.M6CPY	HSK50A H59 M6 CPY	59	M6	6,5	9,7	13	33	
HSK.A.50.84.M6CPY	HSK50A H84 M6 CPY	84	M6	6,5	9,7	20	58	
HSK.A.50.109.M6CPY	HSK50A H109 M6 CPY	109	M6	6,5	9,7	23	83	
HSK.A.50.59.M8CPY	HSK50A H59 M8 CPY	59	M8	8,5	13	15	33	
HSK.A.50.84.M8CPY	HSK50A H84 M8 CPY	84	M8	8,5	13	23	58	
HSK.A.50.109.M8CPY	HSK50A H109 M8 CPY	109	M8	8,5	13	23	83	
HSK.A.50.134.M8CPY	HSK50A H134 M8 CPY	134	M8	8,5	13	25	108	
HSK.A.50.59.M10CPY	HSK50A H59 M10 CPY	59	M10	10,5	18	20	33	
HSK.A.50.84.M10CPY	HSK50A H84 M10 CPY	84	M10	10,5	18	25	58	
HSK.A.50.109.M10CPY	HSK50A H109 M10 CPY	109	M10	10,5	18	28	83	
HSK.A.50.134.M10CPY	HSK50A H134 M10 CPY	134	M10	10,5	18	30	108	
HSK.A.50.59.M12CPY	HSK50A H59 M12 CPY	59	M12	12,5	21	24	33	
HSK.A.50.84.M12CPY	HSK50A H84 M12 CPY	84	M12	12,5	21	24	58	
HSK.A.50.109.M12CPY	HSK50A H109 M12 CPY	109	M12	12,5	21	31	83	
HSK.A.50.134.M12CPY	HSK50A H134 M12 CPY	134	M12	12,5	21	31	108	



PORTA TESTINE FILETTATE - FOR SCREWED MILLING CHUCK - HSK63A

Cod.	TYPE	H	M	d1	AT2		G2.5/25000	
					d2	d3	L	
HSK.A.63.59.M8CPY	HSK63A H59 M8 CPY	59	M8	8,5	13	15	33	
HSK.A.63.84.M8CPY	HSK63A H84 M8 CPY	84	M8	8,5	13	23	58	
HSK.A.63.109.M8CPY	HSK63A H109 M8 CPY	109	M8	8,5	13	23	83	
HSK.A.63.134.M8CPY	HSK63A H134 M8 CPY	134	M8	8,5	13	25	108	
HSK.A.63.59.M10CPY	HSK63A H59 M10 CPY	59	M10	10,5	18	19,5	33	
HSK.A.63.84.M10CPY	HSK63A H84 M10 CPY	84	M10	10,5	18	25	58	
HSK.A.63.109.M10CPY	HSK63A H109 M10 CPY	109	M10	10,5	18	28	83	
HSK.A.63.134.M10CPY	HSK63A H134 M10 CPY	134	M10	10,5	18	28	108	
HSK.A.63.159.M10CPY	HSK63A H159 M10 CPY	159	M10	10,5	18	34	133	
HSK.A.63.176.M10CPY	HSK63A H176 M10 CPY	176	M10	10,5	18	36,5	150	
HSK.A.63.59.M12CPY	HSK63A H59 M12 CPY	59	M12	12,5	21	24	33	
HSK.A.63.84.M12CPY	HSK63A H84 M12 CPY	84	M12	12,5	21	24	58	
HSK.A.63.109.M12CPY	HSK63A H109 M12 CPY	109	M12	12,5	21	31	83	
HSK.A.63.134.M12CPY	HSK63A H134 M12 CPY	134	M12	12,5	21	31	108	
HSK.A.63.159.M12CPY	HSK63A H159 M12 CPY	159	M12	12,5	21	31	133	
HSK.A.63.176.M12CPY	HSK63A H176 M12 CPY	176	M12	12,5	21	40	150	
HSK.A.63.59.M16CPY	HSK63A H59 M16 CPY	59	M16	17	29	34	33	
HSK.A.63.84.M16CPY	HSK63A H84 M16 CPY	84	M16	17	29	34	58	
HSK.A.63.109.M16CPY	HSK63A H109 M16 CPY	109	M16	17	29	34	83	
HSK.A.63.134.M16CPY	HSK63A H134 M16 CPY	134	M16	17	29	39	108	
HSK.A.63.159.M16CPY	HSK63A H159 M16 CPY	159	M16	17	29	39	133	
HSK.A.63.176.M16CPY	HSK63A H176 M16 CPY	176	M16	17	29	42,5	150	



PORTA TESTINE FILETTATE - FOR SCREWED MILLING CHUCK - HSK80A

Cod.184	TYPE	H	M	d1	AT2		G2.5/25000	
					d2	d3	L	
HSK.A.80.84.M6CPY	HSK80A H84 M6 CPY	84	M6	6,5	9,7	20	58	
HSK.A.80.109.M6CPY	HSK80A H109 M6 CPY	109	M6	6,5	9,7	23	83	
HSK.A.80.84.M8CPY	HSK80A H84 M8 CPY	84	M8	8,5	13	23	58	
HSK.A.80.109.M8CPY	HSK80A H109 M8 CPY	109	M8	8,5	13	23	83	
HSK.A.80.134.M8CPY	HSK80A H134 M8 CPY	134	M8	8,5	13	25	108	
HSK.A.80.84.M10CPY	HSK80A H84 M10 CPY	84	M10	10,5	18	25	58	
HSK.A.80.109.M10CPY	HSK80A H109 M10 CPY	109	M10	10,5	18	28	83	
HSK.A.80.134.M10CPY	HSK80A H134 M10 CPY	134	M10	10,5	18	30	108	
HSK.A.80.84.M12CPY	HSK80A H84 M12 CPY	84	M12	12,5	21	24	58	
HSK.A.80.109.M12CPY	HSK80A H109 M12 CPY	109	M12	12,5	21	31	83	
HSK.A.80.134.M12CPY	HSK80A H134 M12 CPY	134	M12	12,5	21	31	108	
HSK.A.80.84.M16CPY	HSK80A H84 M16 CPY	84	M16	17	29	34	58	
HSK.A.80.109.M16CPY	HSK80A H109 M16 CPY	109	M16	17	29	34	83	
HSK.A.80.134.M16CPY	HSK80A H134 M16 CPY	134	M16	17	29	39	108	
HSK.A.80.159.M16CPY	HSK80A H159 M16 CPY	159	M16	17	29	55	133	
HSK.A.80.184.M16CPY	HSK80A H184 M16 CPY	184	M16	17	29	55	158	



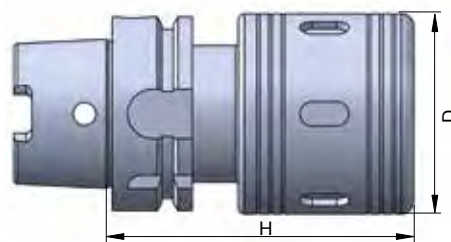
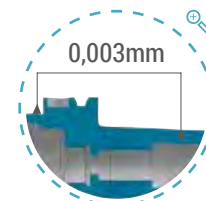
PORTA TESTINE FILETTATE - FOR SCREWED MILLING CHUCK - HSK100A

Cod.	TYPE	H	M	d1	AT2		G2.5/25000	
					d2	d3	L	
HSK.A.100.79.M8CPY	HSK100A H79 M8 CPY	79	M8	8,5	13	23	50	
HSK.A.100.79.M10CPY	HSK100A H79 M10 CPY	79	M10	10,5	18	23	50	
HSK.A.100.129.M10CPY	HSK100A H129 M10 CPY	129	M10	10,5	18	32	100	
HSK.A.100.179.M10CPY	HSK100A H179 M10 CPY	179	M10	10,5	18	36,5	150	
HSK.A.100.79.M12CPY	HSK100A H79 M12 CPY	79	M12	12,5	21	24	50	
HSK.A.100.87.M12CPY	HSK100A H87 M12 CPY	87	M12	12,5	21	24	58	
HSK.A.100.129.M12CPY	HSK100A H129 M12 CPY	129	M12	12,5	21	33	100	
HSK.A.100.137.M12CPY	HSK100A H137 M12 CPY	137	M12	12,5	21	47	108	
HSK.A.100.179.M12CPY	HSK100A H179 M12 CPY	179	M12	12,5	21	40	150	
HSK.A.100.187.M12CPY	HSK100A H187 M12 CPY	187	M12	12,5	21	55	158	
HSK.A.100.79.M16CPY	HSK100A H79 M16 CPY	79	M16	17	29	34	50	
HSK.A.100.87.M16CPY	HSK100A H87 M16 CPY	87	M16	17	29	31,5	58	
HSK.A.100.129.M16CPY	HSK100A H129 M16 CPY	129	M16	17	29	36	100	
HSK.A.100.137.M16CPY	HSK100A H137 M16 CPY	137	M16	17	29	47	108	
HSK.A.100.179.M16CPY	HSK100A H179 M16 CPY	179	M16	17	29	42,5	150	
HSK.A.100.187.M16CPY	HSK100A H187 M16 CPY	187	M16	17	29	55	158	
HSK.A.100.208.M16CPY	HSK100A H208 M16 CPY	208	M16	17	29	55	179	

SU RICHIESTA: HSK.A.32.59.M6CPY - HSK.A.32.84.M6CPY - HSK.A.32.109.M6CPY - HSK.A.40.59.M6CPY - HSK.A.40.84.M6CPY - HSK.A.40.109.M6CPY
 ON REQUEST: HSK.A.32.59.M6CPY - HSK.A.32.84.M6CPY - HSK.A.32.109.M6CPY - HSK.A.40.59.M6CPY - HSK.A.40.84.M6CPY - HSK.A.40.109.M6CPY

FORTE SERRAGGIO

POWER MILLING CHUCKS - FORM A



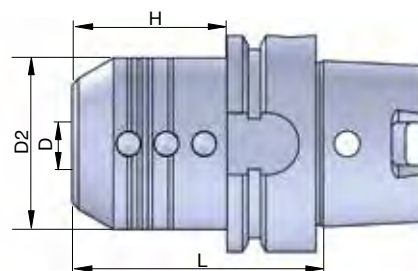
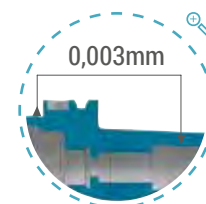
FORTE SERRAGGIO - POWER MILLING CHUCKS - HSK63A

Cod.	TYPE	D	H	AT2	G6.3/15000
				PINZE	
HSK.A.63.85.FP20	HSK63A H85 D20	20	85	4SR20 / 3 ÷ 16	
HSK.A.63.110.FP32	HSK63A H110 D32	32	110	4SR32 / 6 ÷ 25	

IDRAULICO

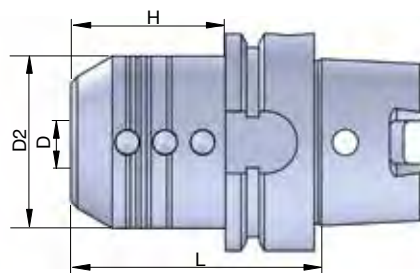
HYDRAULIC EXPANSION CHUCK - FORM A

HSK - DIN69893 FORMA A



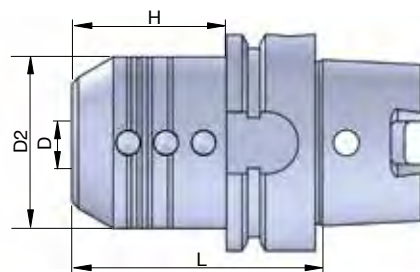
IDRAULICO - HYDRAULIC EXPANSION CHUCK - HSK32A

Cod.	TYPE	L	H	AT2	
				G6.3/25000	
				D2	D
HSK.A.32.90.HY12	HSK32A H90 D12	90	70	32	12
HSK.A.32.100.HY20	HSK32A H100 D20	100	80	42	20



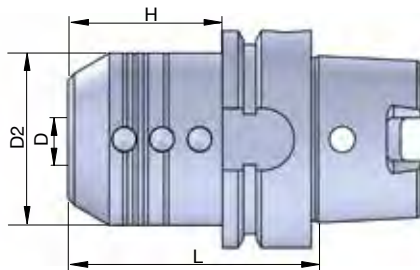
IDRAULICO - HYDRAULIC EXPANSION CHUCK - HSK40A

Cod.	TYPE	L	H	G6.3/25000	
				AT2	D
HSK.A.40.90.HY12	HSK40A H90 D12	90	70	32	12
HSK.A.40.90.HY20	HSK40A H90 D20	90	70	42	20



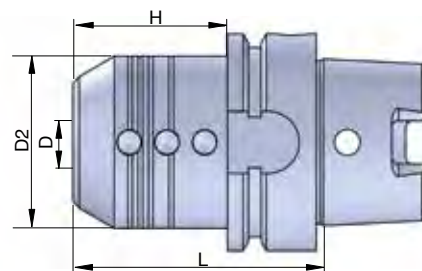
IDRAULICO - HYDRAULIC EXPANSION CHUCK - HSK50A

Cod.	TYPE	L	H	G6.3/25000	
				AT2	D
HSK.A.50.90.HY12	HSK50A H90 D12	90	64	32	12
HSK.A.50.100.HY20	HSK50A H100 D20	100	74	42	20
HSK.A.50.120.HY25	HSK50A H120 D25	120	94	50	25



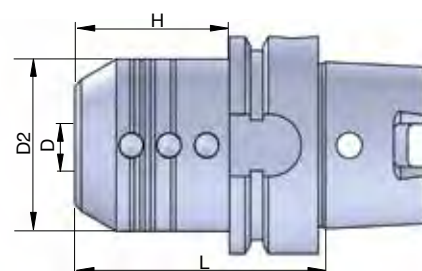
IDRAULICO - HYDRAULIC EXPANSION CHUCK - HSK63A

Cod.	TYPE	L	H	G6.3/25000	
				AT2	D
HSK.A.63.90.HY12	HSK63A H90 D12	90	64	32	12
HSK.A.63.100.HY20	HSK63A H100 D20	100	74	42	20
HSK.A.63.120.HY25	HSK63A H120 D25	120	94	50	25
HSK.A.63.125.HY32	HSK63A H125 D32	125	99	60	32



IDRAULICO - HYDRAULIC EXPANSION CHUCK - HSK80A

Cod.	TYPE	L	AT2		G6.3/25000	
			H	D2	D	
HSK.A.80.95.HY12	HSK80A H95 D12	95	69	32	12	
HSK.A.80.105.HY20	HSK80A H105 D20	105	79	42	20	
HSK.A.80.115.HY25	HSK80 H115 D25	115	89	50	25	
HSK.A.80.120.HY32	HSK80A H120 D32	120	94	60	32	

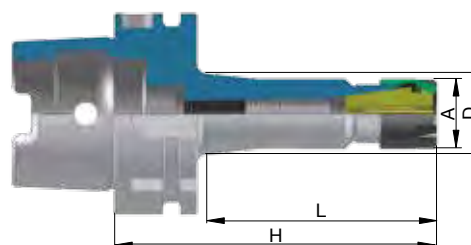
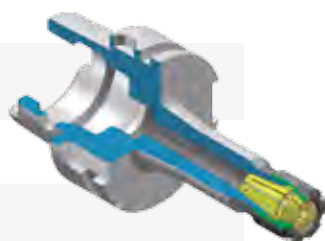
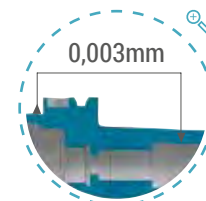


IDRAULICO - HYDRAULIC EXPANSION CHUCK - HSK100A

Cod.	TYPE	L	AT2		G6.3/25000	
			H	D2	D	
HSK.A.100.95.HY12	HSK100A H95 D12	95	66	32	12	
HSK.A.100.105.HY20	HSK100A H105 D20	105	76	42	20	
HSK.A.100.115.HY25	HSK100A H115 D25	115	86	50	25	
HSK.A.100.120.HY32	HSK100A H120 D32	120	91	60	32	

PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499 - FORM A



PORTAPINZE ER MINI - COLLET CHUCKS ER MINI - HSK32A

Cod.	TYPE	CAPACITÀ RANGE	AT2		G6.3/18000	
			A	D	L	H
HSK.A.32.80.ER11M	HSK32A H80 ERX11M	1 ÷ 7 mm	16	16	60	80
HSK.A.32.80.ER16M	HSK32A H80 ERX16M	1 ÷ 10 mm	22	22	60	80



PORTAPINZE ER MINI - COLLET CHUCKS ER MINI - HSK40A

Cod.	TYPE	CAPACITÀ RANGE	AT2		G6.3/18000	
			A	D	L	H
HSK.A.40.80.ER11M	HSK40A H80 ERX11M	1 ÷ 7 mm	16	16	60	80
HSK.A.40.80.ER16M	HSK40A H80 ERX16M	1 ÷ 10 mm	22	22	60	80
HSK.A.40.80.ER25M	HSK40A H80 ERX25M	1 ÷ 16 mm	35	35	60	80



PORTAPINZE ER MINI - COLLET CHUCKS ER MINI - HSK50A

Cod.	TYPE	CAPACITÀ RANGE	AT2		G6.3/18000	
			A	D	L	H
HSK.A.50.100.ER11M	HSK50A H100 ERX11M	1 ÷ 7 mm	16	16	74	100
HSK.A.50.100.ER16M	HSK50A H100 ERX16M	1 ÷ 10 mm	22	22	74	100



PORTAPINZE ER MINI - COLLET CHUCKS ER MINI - HSK63A

Cod.	TYPE	CAPACITĂ RANGE	AT2		G6.3/18000	
			A	D	L	H
HSK.A.63.100.ER11M	HSK63A H100 ERX11M	1 ÷ 7 mm	16	16	74	100
HSK.A.63.160.ER11M	HSK63A H160 ERX11M	1 ÷ 7 mm	16	16	134	160
HSK.A.63.100.ER16M	HSK63A H100 ERX16M	1 ÷ 10 mm	22	22	74	100
HSK.A.63.160.ER16M	HSK63A H160 ERX16M	1 ÷ 10 mm	22	22	134	160
HSK.A.63.110.ER20M	HSK63A H110 ERX20M	1 ÷ 13 mm	28	28	84	110
HSK.A.63.100.ER25M	HSK63A H100 ERX25M	1 ÷ 16 mm	35	35	74	100
HSK.A.63.160.ER25M	HSK63A H160 ERX25M	1 ÷ 16 mm	35	35	134	160



PORTAPINZE ER MINI - COLLET CHUCKS ER MINI - HSK100A

Cod.	TYPE	CAPACITĂ RANGE	AT2		G6.3/18000	
			A	D	L	H
HSK.A.100.160.ER16M	HSK100A H160 ERX16M	1 ÷ 10 mm	22	22	131	160



PORTAPINZE ER - COLLET CHUCKS ER - HSK32A

Cod.	TYPE	CAPACITĂ RANGE	AT2		G6.3/18000	
			A	H		
HSK.A.32.80.ER16	HSK32A H80 ERX16	1 ÷ 10 mm	32	80		
HSK.A.32.80.ER25	HSK32A H80 ERX25	1 ÷ 16 mm	42	80		



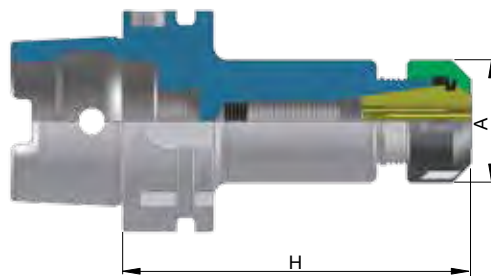
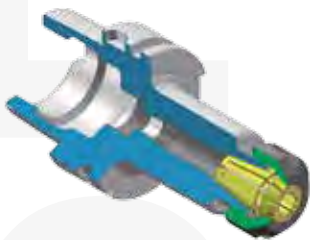
PORTAPINZE ER - COLLET CHUCKS ER - HSK40A

Cod.	TYPE	CAPACITÀ RANGE	G6.3/18000	
			AT2	H
HSK.A.40.80.ER16	HSK40A H80 ERX16	1 ÷ 10 mm	A	80
HSK.A.40.80.ER25	HSK40A H80 ERX25	1 ÷ 16 mm	42	80
HSK.A.40.100.ER32	HSK40A H100 ERX32	2 ÷ 20 mm	50	100



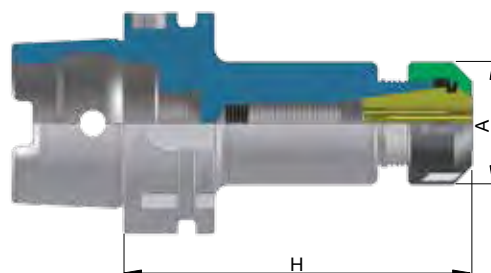
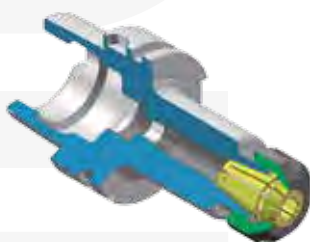
PORTAPINZE ER - COLLET CHUCKS ER - HSK50A

Cod.	TYPE	CAPACITÀ RANGE	G6.3/18000	
			AT2	H
HSK.A.50.100.ER16	HSK50A H100 ERX16	1 ÷ 10 mm	A	100
HSK.A.50.100.ER25	HSK50A H100 ERX25	1 ÷ 16 mm	42	100
HSK.A.50.100.ER32	HSK50A H100 ERX32	2 ÷ 20 mm	50	100



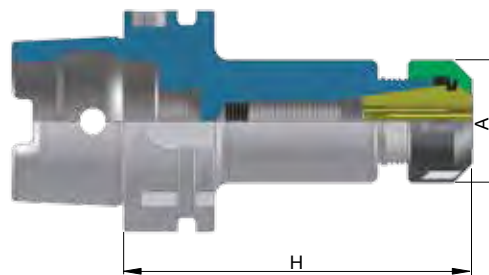
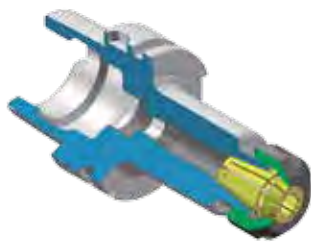
PORTAPINZE ER - COLLET CHUCKS ER - HSK63A

Cod.	TYPE	CAPACITÀ RANGE	G6.3/18000	
			AT2	H
HSK.A.63.100.ER16	HSK63A H100 ERX16	1 ÷ 10 mm	A	H
HSK.A.63.160.ER16	HSK63A H160 ERX16	1 ÷ 10 mm	32	160
HSK.A.63.200.ER16	HSK63A H200 ERX16	1 ÷ 10 mm	32	200
HSK.A.63.100.ER20	HSK63A H100 ERX20	1 ÷ 13 mm	35	100
HSK.A.63.100.ER25	HSK63A H100 ERX25	1 ÷ 16 mm	42	100
HSK.A.63.160.ER25	HSK63A H160 ERX25	1 ÷ 16 mm	42	160
HSK.A.63.200.ER25	HSK63A H200 ERX25	1 ÷ 16 mm	42	200
HSK.A.63.70.ER32	HSK63A H70 ERX32	2 ÷ 20 mm	50	70
HSK.A.63.80.ER32	HSK63A H80 ERX32	2 ÷ 20 mm	50	80
HSK.A.63.100.ER32	HSK63A H100 ERX32	2 ÷ 20 mm	50	100
HSK.A.63.120.ER32	HSK63A H120 ERX32	2 ÷ 20 mm	50	120
HSK.A.63.130.ER32	HSK63A H130 ERX32	2 ÷ 20 mm	50	130
HSK.A.63.160.ER32	HSK63A H160 ERX32	2 ÷ 20 mm	50	160
HSK.A.63.200.ER32	HSK63A H200 ERX32	2 ÷ 20 mm	50	200
HSK.A.63.65.ER40	HSK63A H65 ERX40	3 ÷ 30 mm	63	65
HSK.A.63.120.ER40	HSK63A H120 ERX40	3 ÷ 30 mm	63	120
HSK.A.63.160.ER40	HSK63A H160 ERX40	3 ÷ 30 mm	63	160



PORTAPINZE ER - COLLET CHUCKS ER - HSK80A

Cod.	TYPE	CAPACITÀ RANGE	G6.3/18000	
			AT2	H
HSK.A.80.100.ER32	HSK80A H100 ERX32	2 ÷ 20 mm	A	H
HSK.A.80.120.ER40	HSK80A H120 ERX40	3 ÷ 30 mm	63	120

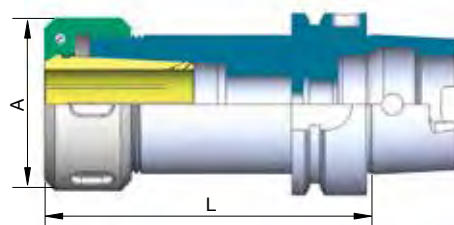
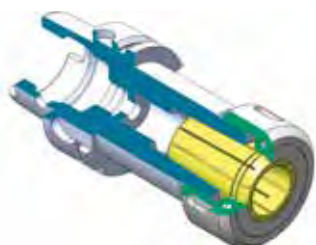
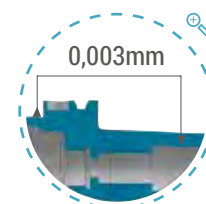


PORTAPINZE ER - COLLET CHUCKS ER - HSK100A

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/18000
			A	H
HSK.A.100.100.ER16	HSK100A H100 ERX16	1 ÷ 10	32	100
HSK.A.100.160.ER16	HSK100A H160 ERX16	1 ÷ 10	32	160
HSK.A.100.100.ER20	HSK100A H100 ERX20	1 ÷ 13	35	100
HSK.A.100.100.ER25	HSK100A H100 ERX25	1 ÷ 16	42	100
HSK.A.100.160.ER25	HSK100A H160 ERX25	1 ÷ 16	42	160
HSK.A.100.200.ER25	HSK100A H200 ERX25	1 ÷ 16	42	200
HSK.A.100.80.ER32	HSK100A H80 ERX32	2 ÷ 20	50	80
HSK.A.100.100.ER32	HSK100A H100 ERX32	2 ÷ 20	50	100
HSK.A.100.160.ER32	HSK100A H160 ERX32	2 ÷ 20	50	160
HSK.A.100.200.ER32	HSK100A H200 ERX32	2 ÷ 20	50	200
HSK.A.100.100.ER40	HSK100A H100 ERX40	3 ÷ 30	63	100
HSK.A.100.160.ER40	HSK100A H160 ERX40	3 ÷ 30	63	160
HSK.A.100.200.ER40	HSK100A H200 ERX40	3 ÷ 30	63	200

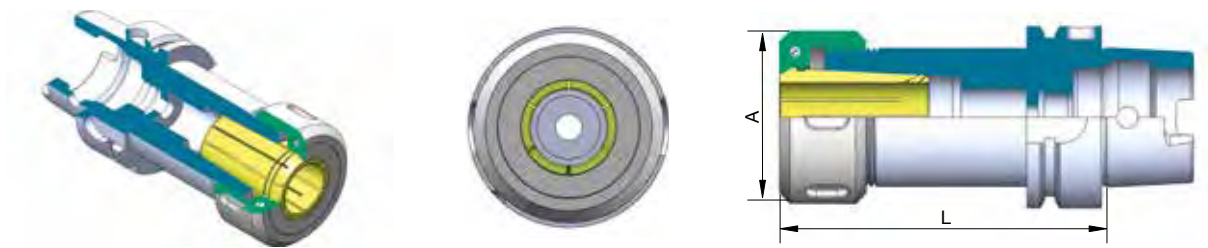
PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388 - FORM A



PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - HSK50A

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/15000
			A	L
HSK.A.50.100.EOC16	HSK50A H100 EOC16	2 ÷ 16	43	100
HSK.A.50.100.EOC25	HSK50A H100 EOC25	2 ÷ 25	60	100



PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - HSK63A

Cod.	TYPE	CAPACITÀ RANGE	G6.3/15000	
			AT2	L
HSK.A.63.100.EOC16	HSK63A H100 EOC16	2 ÷ 16	A	100
HSK.A.63.100.EOC25	HSK63A H100 EOC25	2 ÷ 25	60	100
HSK.A.63.120.EOC32	HSK63A H120 EOC32	3 ÷ 32	72	100

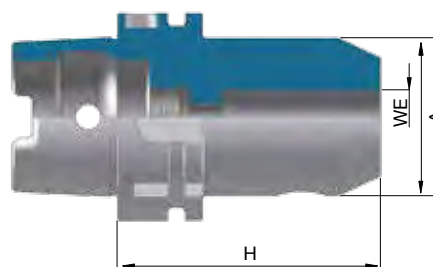
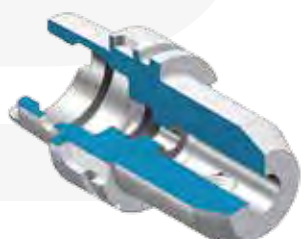
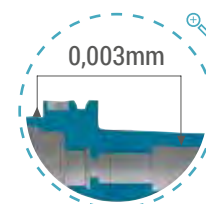


PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - HSK100A

Cod.	TYPE	CAPACITÀ RANGE	G6.3/15000	
			AT2	L
HSK.A.100.110.EOC16	HSK100A H110 EOC16	2 ÷ 16	A	110
HSK.A.100.120.EOC25	HSK100A H120 EOC25	2 ÷ 25	60	120
HSK.A.100.130.EOC32	HSK100A H130 EOC32	3 ÷ 32	72	130

PER FRESE WELDON

END MILL HOLDERS - FORM A



PER FRESE WELDON - END MILL HOLDERS - HSK32A

Cod.	TYPE	H	AT2	G6.3/15000
			A	WE
HSK.A.32.60.WE6	HSK32A H60 WE6	60	25	6
HSK.A.32.60.WE8	HSK32A H60 WE8	60	28	8
HSK.A.32.65.WE10	HSK32A H65 WE10	65	35	10
HSK.A.32.65.WE12	HSK32A H65 WE12	65	42	12



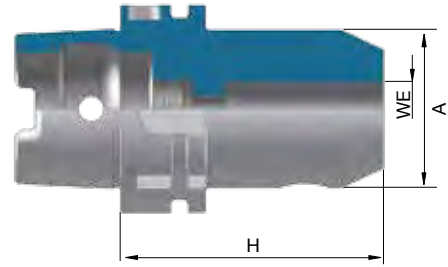
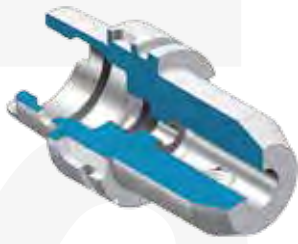
PER FRESE WELDON - END MILL HOLDERS - HSK40A

Cod.	TYPE	H	G6.3/15000	
			AT2	WE
HSK.A.40.60.WE6	HSK40A H60 WE6	60	25	6
HSK.A.40.60.WE8	HSK40A H60 WE8	60	28	8
HSK.A.40.60.WE10	HSK40A H60 WE10	60	35	10
HSK.A.40.70.WE12	HSK40A H70 WE12	70	42	12
HSK.A.40.75.WE16	HSK40A H75 WE16	75	48	16



PER FRESE WELDON - END MILL HOLDERS - HSK50A

Cod.	TYPE	H	G6.3/15000	
			AT2	WE
HSK.A.50.65.WE6	HSK50A H65 WE6	65	25	6
HSK.A.50.65.WE8	HSK50A H65 WE8	65	28	8
HSK.A.50.65.WE10	HSK50A H65 WE10	65	35	10
HSK.A.50.80.WE12	HSK50A H80 WE12	80	42	12
HSK.A.50.80.WE14	HSK50A H80 WE14	80	44	14
HSK.A.50.80.WE16	HSK50A H80 WE16	80	48	16
HSK.A.50.80.WE18	HSK50A H80 WE18	80	50	18
HSK.A.50.80.WE20	HSK50A H80 WE20	80	52	20



PER FRESE WELDON - END MILL HOLDERS - HSK63A

Cod.	TYPE	H	AT2		G6.3/15000	
			A	WE	A	WE
HSK.A.63.65.WE6	HSK63A H65 WE6	65	25	6		
HSK.A.63.100.WE6	HSK63A H100 WE6	100	25	6		
HSK.A.63.160.WE6	HSK63A H160 WE6	160	25	6		
HSK.A.63.65.WE8	HSK63A H65 WE8	65	28	8		
HSK.A.63.100.WE8	HSK63A H100 WE8	100	28	8		
HSK.A.63.160.WE8	HSK63A H160 WE8	160	28	8		
HSK.A.63.65.WE10	HSK63A H65 WE10	65	35	10		
HSK.A.63.100.WE10	HSK63A H100 WE10	100	35	10		
HSK.A.63.160.WE10	HSK63A H160 WE10	160	35	10		
HSK.A.63.80.WE12	HSK63A H80 WE12	80	42	12		
HSK.A.63.100.WE12	HSK63A H100 WE12	100	42	12		
HSK.A.63.160.WE12	HSK63A H160 WE12	160	42	12		
HSK.A.63.80.WE14	HSK63A H80 WE14	80	44	14		
HSK.A.63.100.WE14	HSK63A H100 WE14	100	44	14		
HSK.A.63.160.WE14	HSK63A H160 WE14	160	44	14		
HSK.A.63.80.WE16	HSK63A H80 WE16	80	48	16		
HSK.A.63.100.WE16	HSK63A H100 WE16	100	48	16		
HSK.A.63.160.WE16	HSK63A H160 WE16	160	48	16		
HSK.A.63.80.WE18	HSK63A H80 WE18	80	48	18		
HSK.A.63.100.WE18	HSK63A H100 WE18	100	48	18		
HSK.A.63.160.WE18	HSK63A H160 WE18	160	48	18		
HSK.A.63.80.WE20	HSK63A H80 WE20	80	52	20		
HSK.A.63.100.WE20	HSK63A H100 WE20	100	52	20		
HSK.A.63.160.WE20	HSK63A H160 WE20	160	52	20		
HSK.A.63.110.WE25	HSK63A H110 WE25	110	65	25		
HSK.A.63.160.WE25	HSK63A H160 WE25	160	65	25		
HSK.A.63.110.WE32	HSK63A H110 WE32	110	72	32		
HSK.A.63.160.WE32	HSK63A H160 WE32	160	72	32		



PER FRESE WELDON - END MILL HOLDERS - HSK80A

Cod.	TYPE	H	AT2	G6.3/15000
			A	WE
HSK.A.80.80.WE6	HSK80A H80 WE6	80	25	6
HSK.A.80.80.WE8	HSK80A H80 WE8	80	28	8
HSK.A.80.80.WE10	HSK80A H80 WE10	80	35	10
HSK.A.80.80.WE12	HSK80A H80 WE12	80	42	12
HSK.A.80.80.WE14	HSK80A H80 WE14	80	44	14
HSK.A.80.100.WE16	HSK80A H100 WE16	100	48	16
HSK.A.80.100.WE18	HSK80A H100 WE18	100	50	18
HSK.A.80.100.WE20	HSK80A H100 WE20	100	52	20
HSK.A.80.100.WE25	HSK80A H100 WE25	100	65	25
HSK.A.80.110.WE32	HSK80A H110 WE32	110	72	32

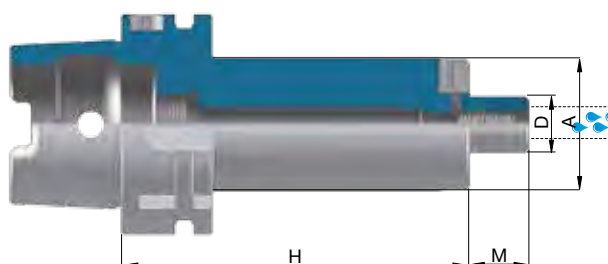
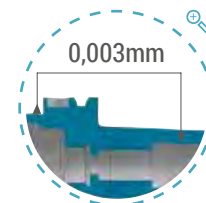


PER FRESE WELDON - END MILL HOLDERS - HSK100A

Cod.	TYPE	H	AT2	G6.3/15000
			A	WE
HSK.A.100.80.WE6	HSK100A H80 WE6	80	25	6
HSK.A.100.80.WE8	HSK100A H80 WE8	80	28	8
HSK.A.100.80.WE10	HSK100A H80 WE10	80	35	10
HSK.A.100.100.WE12	HSK100A H100 WE12	100	42	12
HSK.A.100.100.WE14	HSK100A H100 WE14	100	44	14
HSK.A.100.100.WE16	HSK100A H100 WE16	100	48	16
HSK.A.100.100.WE18	HSK100A H100 WE18	100	50	18
HSK.A.100.100.WE20	HSK100A H100 WE20	100	52	20
HSK.A.100.100.WE25	HSK100A H100 WE25	100	65	25
HSK.A.100.100.WE32	HSK100A H100 WE32	100	72	32
HSK.A.100.105.WE40	HSK100A H105 WE40	100	80	40

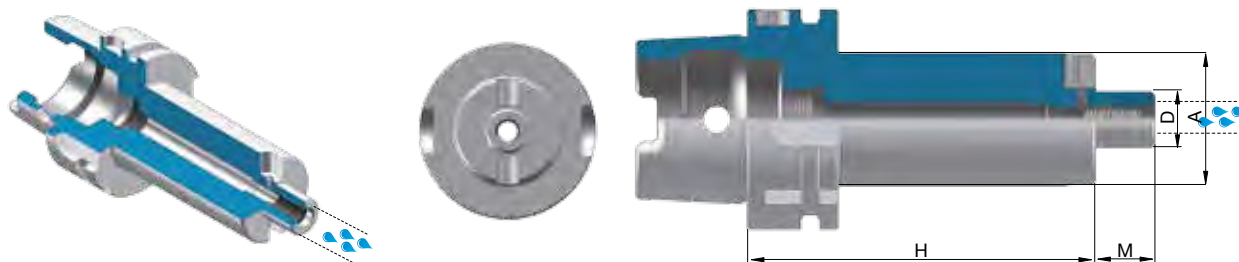
PORTAFRESE FISSI

SHELL END MILL HOLDERS - FORM A



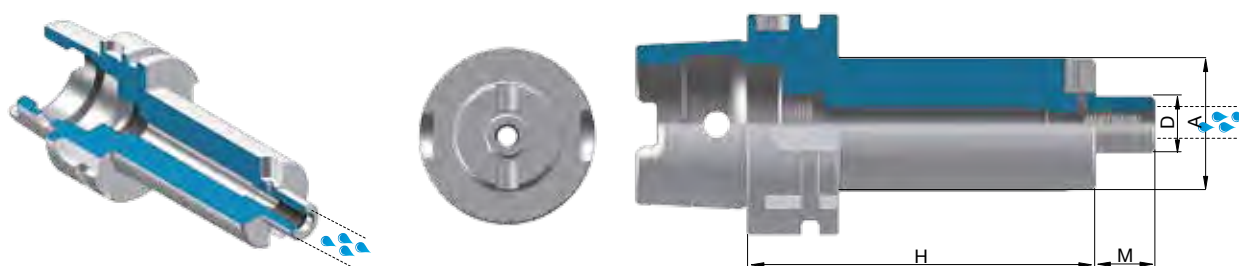
PORTAFRESE FISSI - SHELL END MILL HOLDERS - HSK50A

Cod.	TYPE	H	D	AT2		G6.3/18000	
				M	A	M	A
HSK.A.50.50.D16S	HSK50A H50 D16S	50	16	17	38		
HSK.A.50.60.D22S	HSK50A H60 D22S	60	22	19	48		
HSK.A.50.60.D27S	HSK50A H60 D27S	60	27	21	58		
HSK.A.50.60.D32S	HSK50A H60 D32S	60	32	24	78		



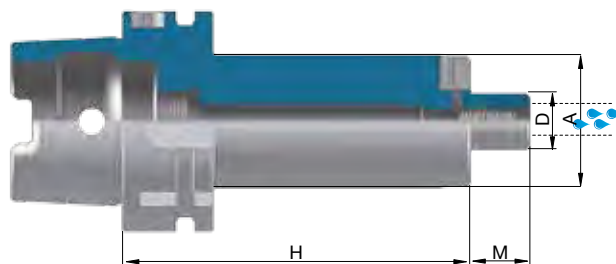
PORTAFRESE FISSI - SHELL END MILL HOLDERS - HSK63A

Cod.	TYPE	AT2		G6.3/18000	
		H	D	M	A
HSK.A.63.50.D16S	HSK63A H50 D16S	50	16	17	38
HSK.A.63.100.D16S	HSK63A H100 D16S	100	16	17	38
HSK.A.63.160.D16S	HSK63A H160 D16S	160	16	17	38
HSK.A.63.50.D22S	HSK63A H50 D22S	50	22	19	48
HSK.A.63.100.D22S	HSK63A H100 D22S	100	22	19	48
HSK.A.63.160.D22S	HSK63A H160 D22S	160	22	19	48
HSK.A.63.60.D27S	HSK63A H60 D27S	60	27	21	58
HSK.A.63.100.D27S	HSK63A H100 D27S	100	27	21	58
HSK.A.63.160.D27S	HSK63A H160 D27S	160	27	21	58
HSK.A.63.60.D32S	HSK63A H60 D32S	60	32	24	78
HSK.A.63.100.D32S	HSK63A H100 D32S	100	32	24	78
HSK.A.63.60.D40S	HSK63A H60 D40S	60	40	27	88



PORTAFRESE FISSI - SHELL END MILL HOLDERS - HSK80A

Cod.	TYPE	AT2		G6.3/18000	
		H	D	M	A
HSK.A.80.50.D22S	HSK80A H50 D22S	50	22	19	48
HSK.A.80.50.D27S	HSK80A H50 D27S	50	27	21	58
HSK.A.80.60.D32S	HSK80A H60 D32S	60	32	24	78
HSK.A.80.60.D40S	HSK80A H60 D40S	60	40	27	88



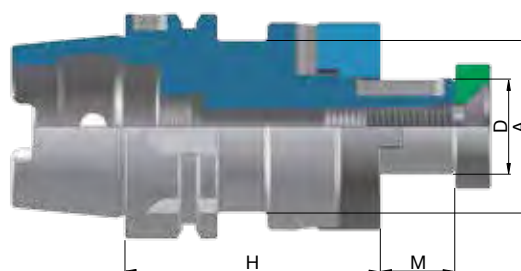
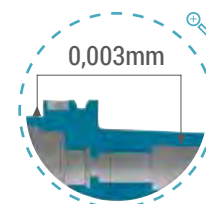
PORTAFRESE FISSI - SHELL END MILL HOLDERS - HSK100A

Cod.	TYPE	H	AT2		G6.3/18000	
			D	M	A	
HSK.A.100.50.D16S	HSK100A H50 D16S	50	16	17	38	
HSK.A.100.100.D16S	HSK100A H100 D16S	100	16	17	38	
HSK.A.100.160.D16S	HSK100A H160 D16S	160	16	17	38	
HSK.A.100.55.D22S	HSK100A H50 D22S	50	22	19	48	
HSK.A.100.100.D22S	HSK100A H100 D22S	100	22	19	48	
HSK.A.100.160.D22S	HSK100A H160 D22S	160	22	19	48	
HSK.A.100.50.D27S	HSK100A H50 D27S	50	27	21	58	
HSK.A.100.100.D27S	HSK100A H100 D27S	100	27	21	58	
HSK.A.100.160.D27S	HSK100A H160 D27S	160	27	21	58	
HSK.A.100.50.D32S	HSK100A H50 D32S	50	32	24	66	
HSK.A.100.100.D32S	HSK100A H100 D32S	100	32	24	66	
HSK.A.100.160.D32S	HSK100A H160 D32S	160	32	24	66	
HSK.A.100.60.D40S	HSK100A H60 D40S	60	40	27	80	
HSK.A.100.100.D40S	HSK100A H100 D40S	100	40	27	80	
HSK.A.100.160.D40S	HSK100A H160 D40S	160	40	27	80	

PORTAFRESE COMBINATI

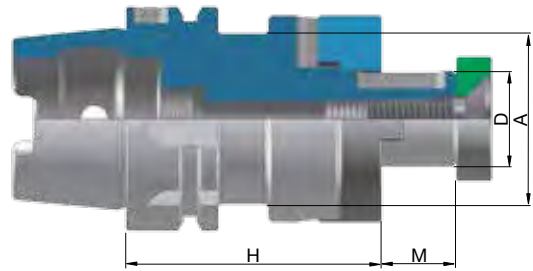
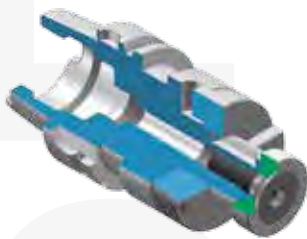
COMBI SHELL END MILL HOLDERS - FORM A

HSK - DIN69893 FORMA A



PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - HSK32A

Cod.	TYPE	AT2		G6.3/18000	
		H	D	M	A
HSK.A.32.55.D16C	HSK32A H55 D16C	55	16	17	32
HSK.A.32.55.D22C	HSK32A H55 D22C	55	22	19	40
HSK.A.32.65.D27C	HSK32A H65 D27C	65	27	21	48

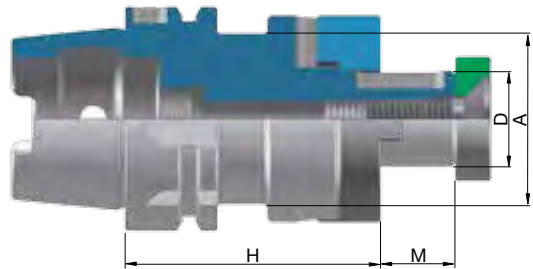
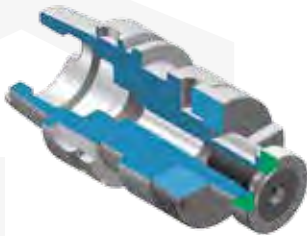


PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - HSK40A

AT2

G6.3/18000

Cod.	TYPE	H	D	M	A
HSK.A.40.50.D16C	HSK40A H50 D16C	50	16	17	32
HSK.A.40.50.D22C	HSK40A H50 D22C	50	22	19	40
HSK.A.40.65.D27C	HSK40A H65 D27C	65	27	21	48

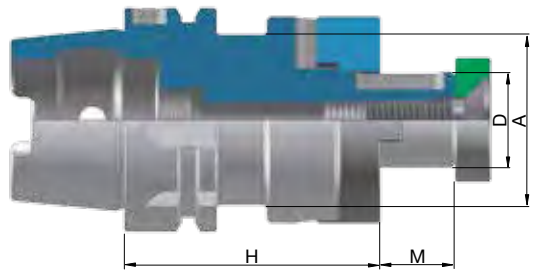
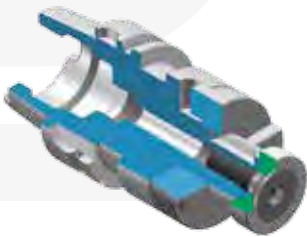


PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - HSK50A

AT2

G6.3/18000

Cod.	TYPE	H	D	M	A
HSK.A.50.50.D16C	HSK50A H50 D16C	50	16	17	32
HSK.A.50.50.D22C	HSK50A H50 D22C	50	22	19	40
HSK.A.50.65.D27C	HSK50A H65 D27C	65	27	21	48
HSK.A.50.65.D32C	HSK50A H65 D32C	65	32	24	58

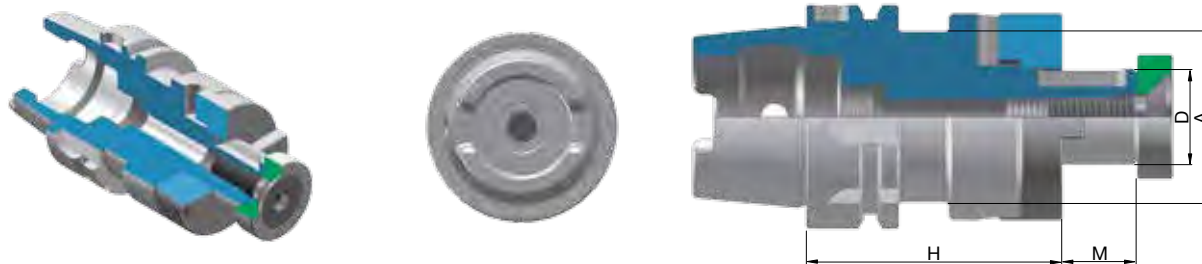


PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - HSK80A

AT2

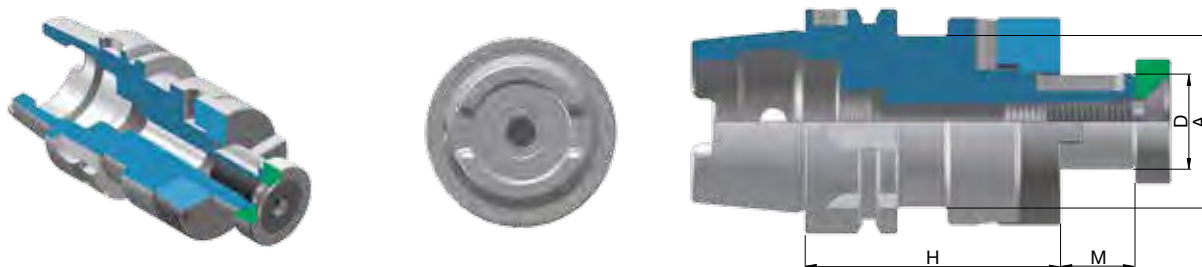
G6.3/18000

Cod.	TYPE	H	D	M	A
HSK.A.80.60.D16C	HSK80A H60 D16C	60	16	17	32
HSK.A.80.60.D22C	HSK80A H60 D22C	60	22	19	40
HSK.A.80.60.D27C	HSK80A H60 D27C	60	27	21	48
HSK.A.80.60.D32C	HSK80A H60 D32C	60	32	24	58
HSK.A.80.70.D40C	HSK80A H70 D40C	70	40	27	70



PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - HSK63A

Cod.	TYPE	AT2		G6.3/18000	
		H	D	M	A
HSK.A.63.60.D16C	HSK63A H60 D16C	60	16	17	32
HSK.A.63.100.D16C	HSK63A H100 D16C	100	16	17	32
HSK.A.63.160.D16C	HSK63A H160 D16C	160	16	17	32
HSK.A.63.60.D22C	HSK63A H60 D22C	60	22	19	40
HSK.A.63.100.D22C	HSK63A H100 D22C	100	22	19	40
HSK.A.63.160.D22C	HSK63A H160 D22C	160	22	19	40
HSK.A.63.60.D27C	HSK63A H60 D27C	60	27	21	48
HSK.A.63.100.D27C	HSK63A H100 D27C	100	27	21	48
HSK.A.63.160.D27C	HSK63A H160 D27C	160	27	21	48
HSK.A.63.60.D32C	HSK63A H60 D32C	60	32	24	58
HSK.A.63.100.D32C	HSK63A H100 D32C	100	32	24	58
HSK.A.63.160.D32C	HSK63A H160 D32C	160	32	24	58
HSK.A.63.70.D40C	HSK63A H70 D40C	70	40	27	70
HSK.A.63.100.D40C	HSK63A H100 D40C	100	40	27	70
HSK.A.63.160.D40C	HSK63A H160 D40C	160	40	27	70

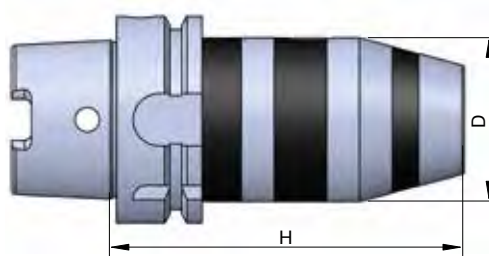
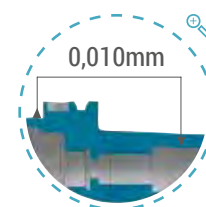


PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - HSK100A

Cod.	TYPE	AT2		G6.3/18000	
		H	D	M	A
HSK.A.100.60.D16C	HSK100A H60 D16C	60	16	17	32
HSK.A.100.60.D22C	HSK100A H60 D22C	60	22	19	40
HSK.A.100.60.D27C	HSK100A H60 D27C	60	27	21	48
HSK.A.100.60.D32C	HSK100A H60 D32C	60	32	24	58
HSK.A.100.70.D40C	HSK100A H70 D40C	70	40	27	70

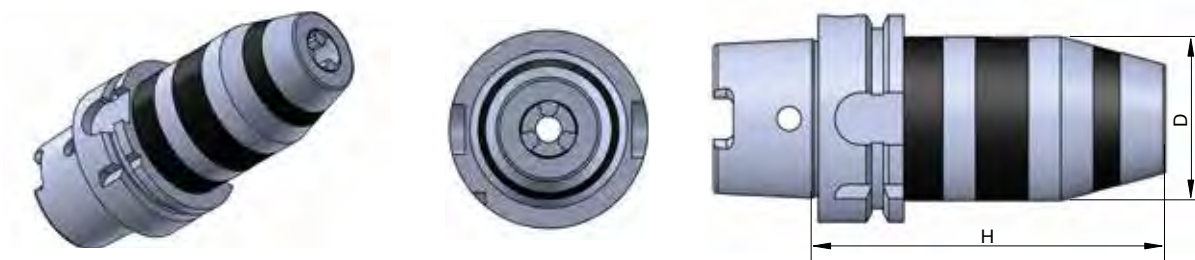
PORTA PUNTE CON CHIAVE ESAGONALE

HEX KEY LOCK DRILL CHUCKS WITH COOLANT THROUGH - FORM A



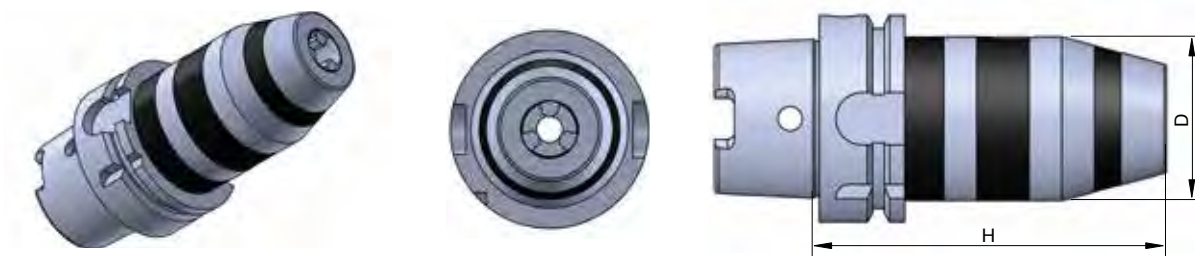
PORTAPUNTE CON CHIAVE ESAGONALE - DRILL CHUCKS WITH HEX KEY - HSK50A

Cod.	TYPE	H	D	AT2	G6.3/12000
				CAPACITA' RANGE	
HSK.A.50.116.HD13	HSK50A H116 HD13	116	50		1 ÷ 13
HSK.A.50.121.HD16	HSK50A H121 HD16	121	57		3 ÷ 16



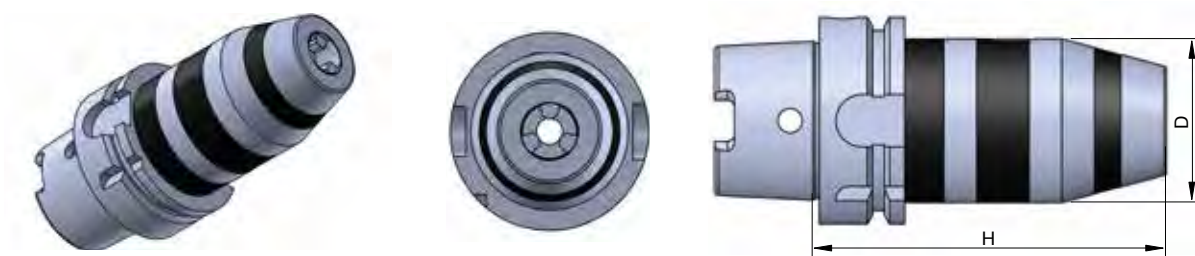
PORTAPUNTE CON CHIAVE ESAGONALE - DRILL CHUCKS WITH HEX KEY - HSK63A

Cod.	TYPE	H	D	AT2	G6.3/12000
				CAPACITA' RANGE	
HSK.A.63.101.HD13	HSK63A H101 HD13	101	50	1 ÷ 13	
HSK.A.63.106.HD16	HSK63A H106 HD16	106	57	3 ÷ 16	



PORTAPUNTE CON CHIAVE ESAGONALE - DRILL CHUCKS WITH HEX KEY - HSK80A

Cod.	TYPE	H	D	AT2	G6.3/12000
				CAPACITA' RANGE	
HSK.A.80.109.HD13	HSK80A H109 HD13	109	50	1 ÷ 13	
HSK.A.80.114.HD16	HSK80A H114 HD16	114	57	3 ÷ 16	



PORTAPUNTE CON CHIAVE ESAGONALE - DRILL CHUCKS WITH HEX KEY - HSK100A

Cod.	TYPE	H	D	AT2	G6.3/12000
				CAPACITA' RANGE	
HSK.A.100.110.HD13	HSK100A H110 HD13	110	50	1 ÷ 13	
HSK.A.100.115.HD16	HSK100A H115 HD16	115	57	3 ÷ 16	

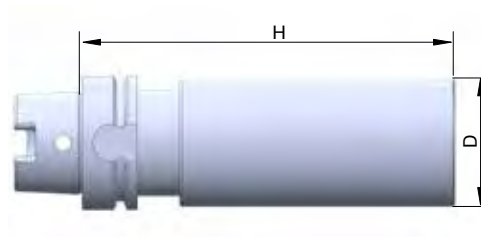
RICAMBI PORTAPUNTE - SPARE PARTS FOR DRILL CHUCK HEX KEY

Cod.	TYPE
RIC.HD13	RICAMBI PER/SPARE PARTS FOR HD13
RIC.HD16	RICAMBI PER/SPARE PARTS FOR HD16

STELO TENERO LAVORABILE

BLANK ARBORS - FORM A

HSK - DIN69893 FORMA A



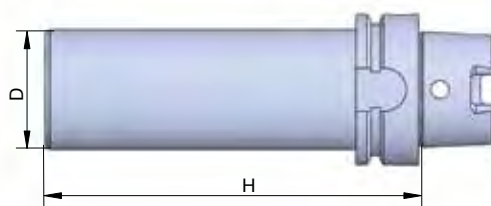
STELO TENERO LAVORABILE - BLANK ARBORS

Cod.	TYPE	D	A
HSK.A.32.150.D25BL	HSK32A H150 D25	25	150
HSK.A.40.150.D40BL	HSK40A H150 D40	40	150
HSK.A.50.150.D50BL	HSK50A H150 D50	50	150
HSK.A.63.160.D63BL	HSK63A H160 D63	63	160
HSK.A.63.250.D63BL	HSK63A H250 D63	63	250
HSK.A.80.250.D80BL	HSK80A H250 D80	80	250
HSK.A.100.250.D97BL	HSK100A H250 D97	97	250

AT2 42HRC

BARRA DI CONTROLLO

TEST ARBORS



BARRA DI CONTROLLO - TEST ARBORS

AT2

Cod.	TYPE	H	D
HSK.A.32.150.D25	HSK32A H150 D25	150	25
HSK.A.40.150.D25	HSK40A H150 D25	150	25
HSK.A.50.200.D32	HSK50A H200 D32	200	32
HSK.A.63.300.D40	HSK63A H300 D40	300	40
HSK.A.80.300.D40	HSK80A H300 D40	300	40
HSK.A.100.300.D50	HSK100A H300 D50	300	50

HSK - DIN69893 FORMA C

HSK - DIN 69893 FORM C



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PER FRESE WELDON

END MILL HOLDERS



STELO TENERO LAVORABILE

BLANK ARBORS

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre.
- Eseguiti trattamenti termici da fornitori certificati ISO 9001.
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza.
- Controllati con strumenti di misura certificati.
- La tolleranza di precisione dei coni HSK-C è AT2.
- L'errore di concentricità massimo tra il cono e la sede utensile è 0.003 mm.

TECHNICAL FEATURES

- *Manufactured with certificate steel.*
- *Heat treatments are performed by certified suppliers ISO 9001.*
- *Precision ground on shank, inside tapers and collet nut threads.*
- *Tested with high precision inspection and ganging equipment.*
- *Taper accuracy of HSK-C shanks lower than AT2.*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003 mm.*

CARACTÉRISTIQUES

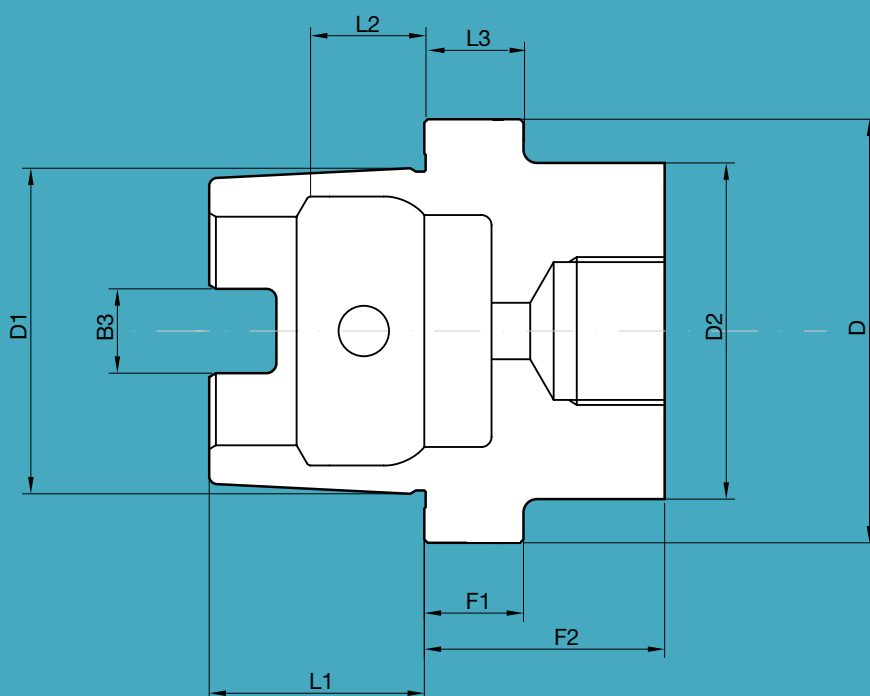
- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes HSK-C est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.

MERKMALE

- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitsgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die Präzisionstoleranz der Konen HSK-C ist AT2*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm*

QUOTE / QUOTE / QUOTTES / ABMESSUNGEN

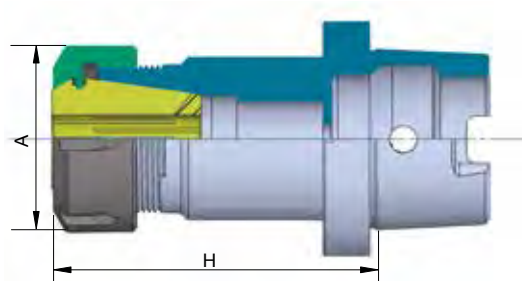
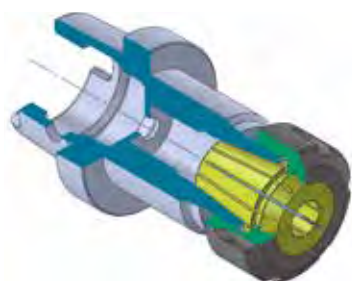
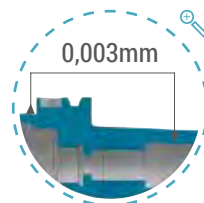
HSK	D	D1	D2	B3	L1	L2	L3	F1	F2	COOLANT TUBE
32	32	24	26	7	16	8,92	16	20	35	M10X1
40	40	30	34	8	20	11,42	16	20	35	M12X1
50	50	38	42	10,54	25	14,13	18	26	42	M16X1
63	63	48	53	12,54	32	18,13	18	26	42	M18X1
80	80	60	68	16,04	40	22,85	18	26	42	M20X1,5
100	100	75	88	20,02	50	28,56	20	29	45	M24X1,5



PORTAPINZA ER DIN6499

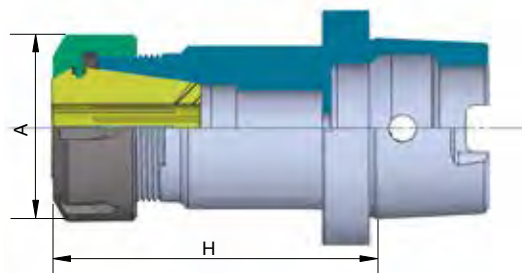
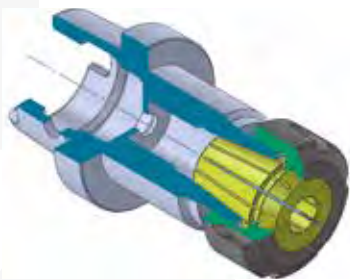
COLLET CHUCK ER DIN6499 - FORM C

HSK - DIN69893 FORMA C



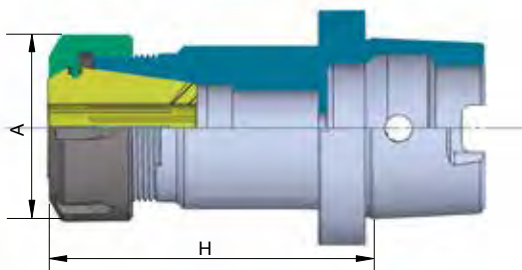
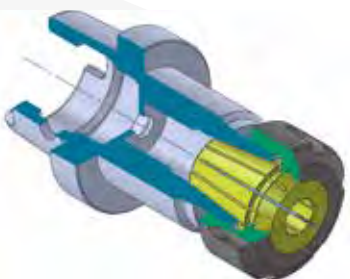
PORTAPINZA ER DIN6499 - COLLET CHUCK ER DIN6499 - HSK32C

Cod.	TYPE	CAPACITA' RANGE	AT2	G6.3/18000
			A	H
HSK.C.32.60.ER16	HSK32C H60 ERX16	1 ÷ 10	32	60



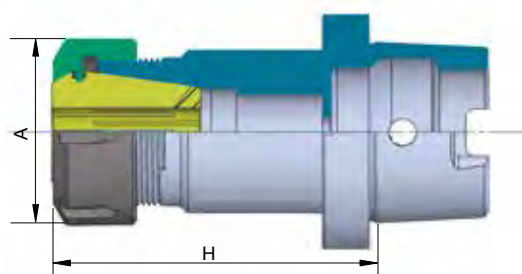
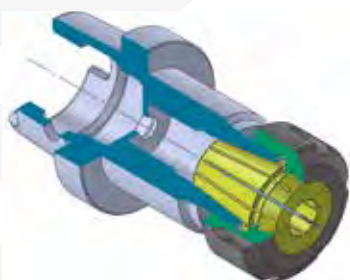
PORTAPINZA ER - COLLET CHUCK ER - HSK40C

Cod.	TYPE	CAPACITA' RANGE	AT2	G6.3/18000
			A	H
HSK.C.40.60.ER16	HSK40C H60 ERX16	1 ÷ 10	32	60
HSK.C.40.70.ER25	HSK40C H70 ERX25	2 ÷ 16	42	70
HSK.C.40.75.ER32	HSK40C H75 ERX32	2 ÷ 20	50	75



PORTAPINZA ER - COLLET CHUCK ER - HSK50C

Cod.	TYPE	CAPACITA' RANGE	AT2	G6.3/18000
			A	H
HSK.C.50.60.ER16	HSK50C H60 ERX16	1 ÷ 10	32	60
HSK.C.50.70.ER25	HSK50C H70 ERX25	2 ÷ 16	42	70
HSK.C.50.75.ER32	HSK50C H75 ERX32	2 ÷ 20	50	75
HSK.C.50.80.ER40	HSK50C H80 ERX40	3 ÷ 26	63	80



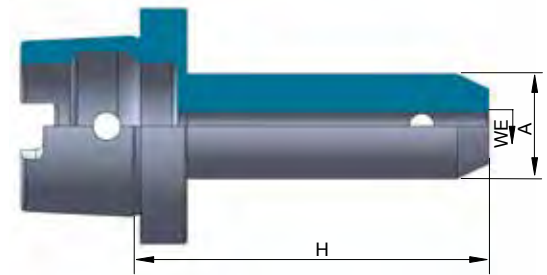
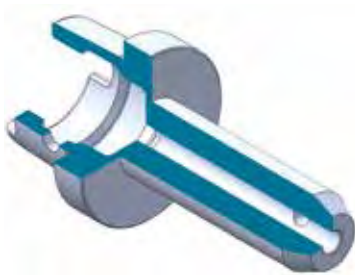
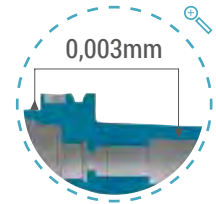
PORTAPINZA ER - COLLET CHUCK ER - HSK63C

Cod.	TYPE	CAPACITA' RANGE	AT2	G6.3/18000
			A	H
HSK.C.63.70.ER25	HSK63C H70 ERX25	2 ÷ 16	42	70
HSK.C.63.75.ER32	HSK63C H75 ERX32	2 ÷ 20	50	75
HSK.C.63.80.ER40	HSK63C H80 ERX40	3 ÷ 26	63	80

PER FRESE WELDON WHISTLE NOTCH

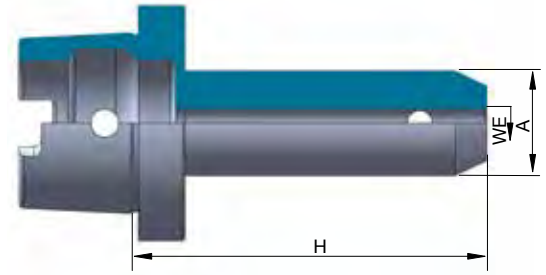
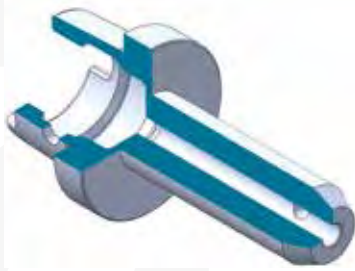
END MILL HOLDERS WHISTLE NOTCH - FORM C

HSK - DIN69893 FORMA C



PER FRESE WELDON WHISTLE NOTCH - END MILL HOLDER WHISTLE NOTCH - HSK32C

Cod.	TYPE	WE	AT2		G6.3/18000	
			H	A	H	A
HSK.C.32.60.WE6	HSK32C H60 WE6	6	60	25	60	25
HSK.C.32.60.WE8	HSK32C H60 WE8	8	60	28	60	28
HSK.C.32.65.WE10	HSK32C H65 WE10	10	65	35	65	35

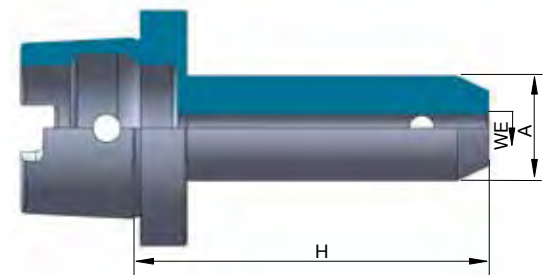
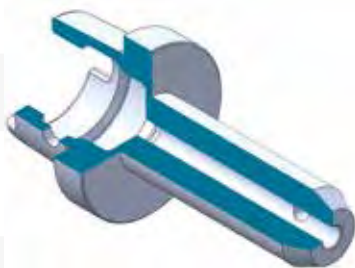


PER FRESE WELDON WHISTLE NOTCH - END MILL HOLDER WHISTLE NOTCH - HSK40C

AT2

G6.3/18000

Cod.	TYPE	d	A	D
HSK.C.40.60.WE6	HSK40C H60 WE6	6	60	25
HSK.C.40.60.WE8	HSK40C H60 WE8	8	60	28
HSK.C.40.65.WE10	HSK40C H65 WE10	10	65	35
HSK.C.40.70.WE12	HSK40C H70 WE12	12	70	42
HSK.C.40.70.WE14	HSK40C H70 WE14	14	70	44
HSK.C.40.75.WE16	HSK40C H75 WE16	16	75	48



PER FRESE WELDON WHISTLE NOTCH - END MILL HOLDER WHISTLE NOTCH - HSK50C

AT2

G6.3/18000

Cod.	TYPE	d	A	D
HSK.C.50.60.WE6	HSK50C H60 WE6	6	60	25
HSK.C.50.60.WE8	HSK50C H60 WE8	8	60	28
HSK.C.50.65.WE10	HSK50C H65 WE10	10	65	35
HSK.C.50.75.WE12	HSK50C H75 WE12	12	75	42
HSK.C.50.75.WE14	HSK50C H75 WE14	14	75	44
HSK.C.50.80.WE16	HSK50C H80 WE16	16	80	48
HSK.C.50.80.WE18	HSK50C H80 WE18	18	80	50
HSK.C.50.80.WE20	HSK50C H80 WE20	20	80	52

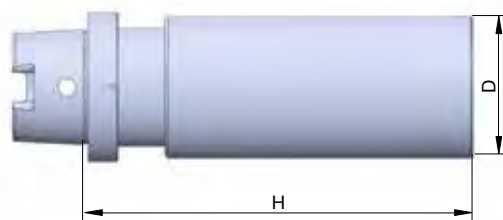


PER FRESE WELDON WHISTLE NOTCH - END MILL HOLDER WHISTLE NOTCH - HSK63C

Cod.	TYPE	WE	G6.3/18000	
			AT2	A
HSK.C.63.60.WE6	HSK63C H60 WE6	6	60	25
HSK.C.63.60.WE8	HSK63C H60 WE8	8	60	28
HSK.C.63.65.WE10	HSK63C H65 WE10	10	65	35
HSK.C.63.75.WE12	HSK63C H75 WE12	12	75	42
HSK.C.63.75.WE14	HSK63C H75 WE14	14	75	44
HSK.C.63.80.WE16	HSK63C H80 WE16	16	80	48
HSK.C.63.80.WE18	HSK63C H80 WE18	18	80	50
HSK.C.63.80.WE20	HSK63C H80 WE20	20	80	52
HSK.C.63.95.WE25	HSK63C H95 WE25	25	95	63
HSK.C.63.100.WE32	HSK63C H100 WE32	32	100	72

STELO TENERO LAVORABILE

BLANK ARBORS - FORM C



STELO TENERO LAVORABILE - BLANK ARBORS

Cod.	TYPE	MATERIAL	
		AT2	42HRC
HSK.C.32.160.D40BL	HSK32C H160 BLANKS D40	160	40
HSK.C.40.160.D50BL	HSK40C H160 BLANKS D50	160	50
HSK.C.50.200.D63BL	HSK50C H200 BLANKS D63	200	63
HSK.C.63.200.D80BL	HSK63C H200 BLANKS D80	200	80



HSK - DIN69893 FORMA E

HSK - DIN69893 FORM E



**CALETTAMENTO A CALDO
STANDARD**

SHRINK FIT HOLDERS STANDARD



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388



PER FRESE WELDON
END MILL HOLDERS



PORTAFRESE FISSI
SHELL END MILL HOLDERS



ALBERATI
CUTTER ARBORS - FORM E

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre.
- Eseguiti trattamenti termici da fornitori certificati ISO 9001.
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza.
- Controllati con strumenti di misura certificati.
- La tolleranza di precisione dei coni HSK-E è AT2.
- L'errore di concentricità massimo tra il cono e la sede utensile è 0.003 mm.

🇬🇧 TECHNICAL FEATURES

- *Manufactured with certificate steel.*
- *Heat treatments are performed by certified suppliers ISO 9001.*
- *Precision ground on shank, inside tapers and collet nut threads.*
- *Tested with high precision inspection and ganging equipment.*
- *Taper accuracy of HSK-E shanks lower than AT2.*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003 mm.*

🇫🇷 CARACTÉRISTIQUES

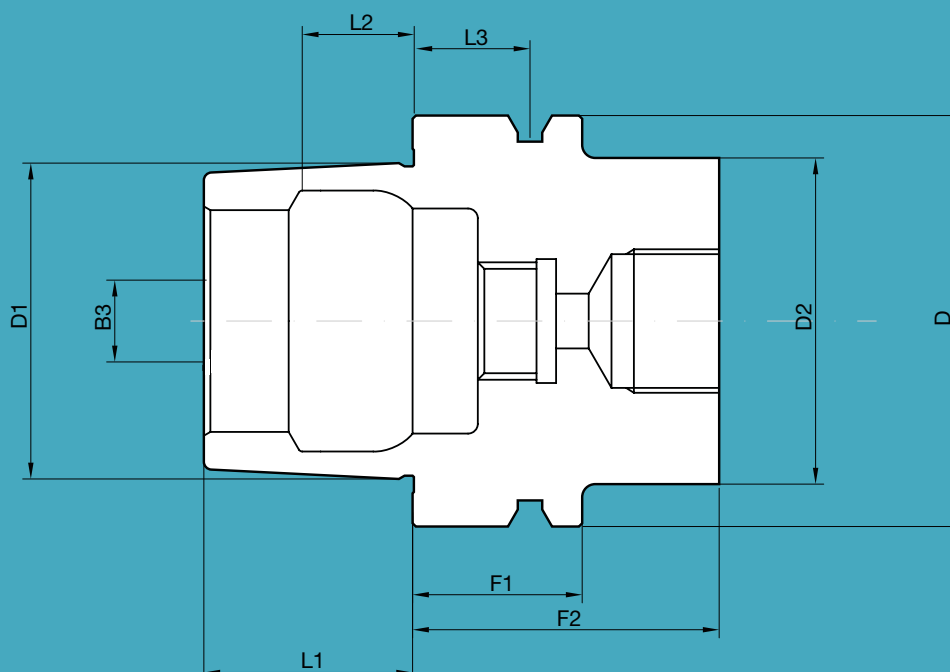
- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes HSK-E est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.

🇩🇪 MERKMALE

- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die Präzisionstoleranz der Konen HSK-E ist AT2*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm*

QUOTE / QUOTE / QUOTTES / ABMESSUNGEN

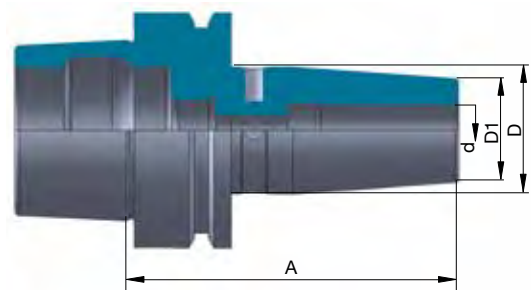
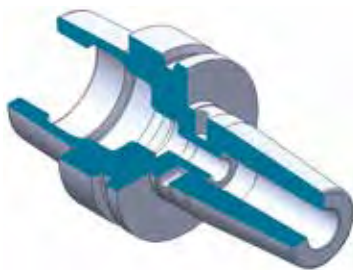
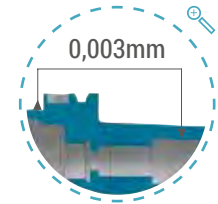
HSK	D	D1	D2	L1	L2	L3	F1	F2	COOLANT TUBE
25	32	19	20	13	10,5	-	10	20	M5X10
32	32	24	26	16	8,92	16	20	35	M10X1
40	40	30	34	20	11,42	16	20	35	M12X1
50	50	38	42	25	14,13	18	26	42	M16X1
63	63	48	53	32	18,13	18	26	42	M18X1
80	80	60	68	40	22,85	18	26	42	M20X1,5
100	100	75	85	50	28,56	20	29	45	M24X1,5



CALETTAMENTO A CALDO STANDARD

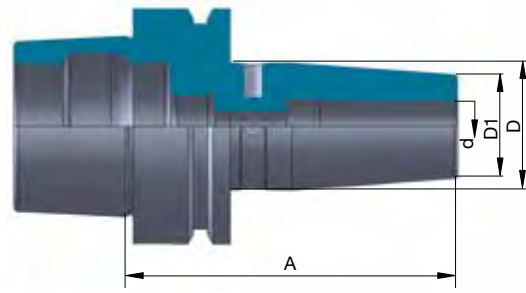
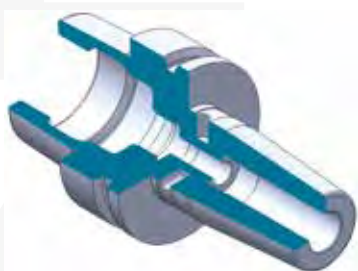
SHRINK FIT HOLDERS STANDARD - FORM E

HSK - DIN69893 FORM E



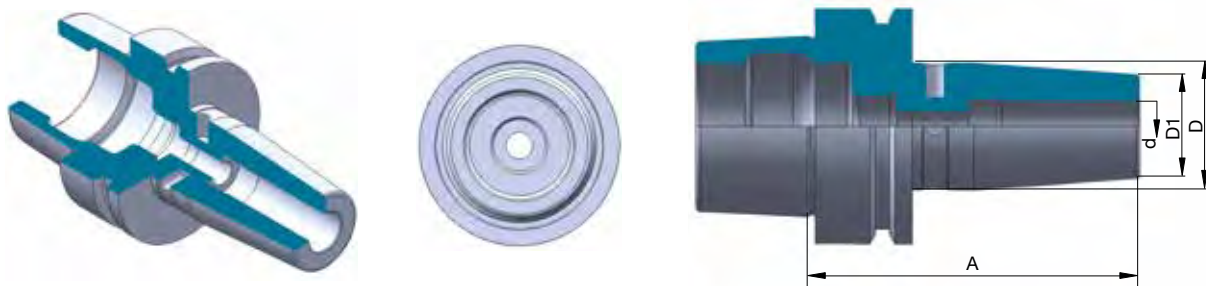
CALETTAMENTO STANDARD - SHRINK FIT HOLDERS - HSK32E

Cod.	TYPE	d	A	G2.5/25000	
				AT2	D
HSK.E.32.60.CL3	HSK32E H60 CL3	3	60	10	16
HSK.E.32.60.CL4	HSK32E H60 CL4	4	60	10	16
HSK.E.32.60.CL5	HSK32E H60 CL5	5	60	10	16
HSK.E.32.70.CL6	HSK32E H70 CL6	6	70	20	25
HSK.E.32.70.CL8	HSK32E H70 CL8	8	70	20	25
HSK.E.32.70.CL10	HSK32E H70 CL10	10	70	24	29
HSK.E.32.80.CL12	HSK32E H80 CL12	12	80	24	29
HSK.E.32.90.CL14	HSK32E H90 CL14	14	90	27	34
HSK.E.32.90.CL16	HSK32E H90 CL16	16	90	27	34
HSK.E.32.100.CL20	HSK32E H100 CL20	20	100	33	40



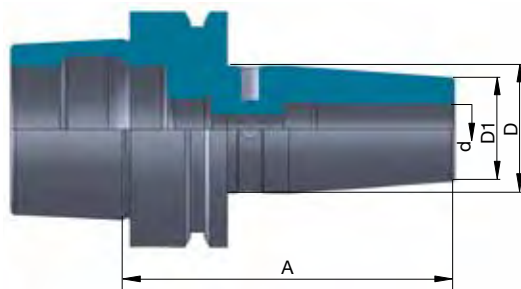
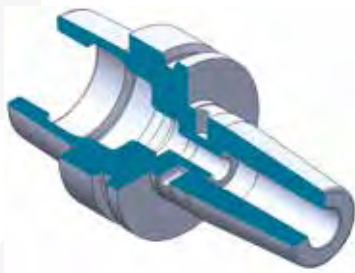
CALETTAMENTO STANDARD - SHRINK FIT HOLDERS - HSK40E

Cod.	TYPE	d	A	G2.5/25000	
				AT2	D
HSK.E.40.60.CL3	HSK40E H60 CL3	3	60	10	16
HSK.E.40.120.CL3	HSK40E H120 CL3	3	120	10	20
HSK.E.40.160.CL3	HSK40E H160 CL3	3	160	10	20
HSK.E.40.60.CL4	HSK40E H60 CL4	4	60	10	16
HSK.E.40.120.CL4	HSK40E H120 CL4	4	120	15	22
HSK.E.40.160.CL4	HSK40E H160 CL4	4	160	15	22
HSK.E.40.60.CL5	HSK40E H60 CL5	5	60	10	16
HSK.E.40.120.CL5	HSK40E H120 CL5	5	120	15	22
HSK.E.40.160.CL5	HSK40E H160 CL5	5	160	15	22
HSK.E.40.80.CL6	HSK40E H80 CL6	6	80	20	27
HSK.E.40.120.CL6	HSK40E H120 CL6	6	120	20	27
HSK.E.40.160.CL6	HSK40E H160 CL6	6	160	20	27
HSK.E.40.80.CL8	HSK40E H80 CL8	8	80	20	27
HSK.E.40.120.CL8	HSK40E H120 CL8	8	120	20	27
HSK.E.40.160.CL8	HSK40E H160 CL8	8	160	20	27
HSK.E.40.80.CL10	HSK40E H80 CL10	10	80	24	31
HSK.E.40.120.CL10	HSK40E H120 CL10	10	120	24	31
HSK.E.40.160.CL10	HSK40E H160 CL10	10	160	24	31
HSK.E.40.90.CL12	HSK40E H90 CL12	12	90	24	31
HSK.E.40.120.CL12	HSK40E H120 CL12	12	120	24	31
HSK.E.40.160.CL12	HSK40E H160 CL12	12	160	24	31
HSK.E.40.90.CL14	HSK40E H90 CL14	14	90	27	34
HSK.E.40.120.CL14	HSK40E H120 CL14	14	120	27	34
HSK.E.40.160.CL14	HSK40E H160 CL14	14	160	27	34
HSK.E.40.90.CL16	HSK40E H90 CL16	16	90	27	34
HSK.E.40.120.CL16	HSK40E H120 CL16	16	120	27	34
HSK.E.40.160.CL16	HSK40E H160 CL16	16	160	27	34



CALETTAMENTO STANDARD - SHRINK FIT HOLDERS - HSK50E

Cod.	TYPE	d	A	G2.5/25000	
				AT2	D
HSK.E.50.80.CL3	HSK50E H80 CL3	3	80	10	15
HSK.E.50.120.CL3	HSK50E H120 CL3	3	120	10	20
HSK.E.50.160.CL3	HSK50E H160 CL3	3	160	10	20
HSK.E.50.80.CL4	HSK50E H80 CL4	4	80	15	22
HSK.E.50.120.CL4	HSK50E H120 CL4	4	120	15	22
HSK.E.50.160.CL4	HSK50E H160 CL4	4	160	15	22
HSK.E.50.80.CL5	HSK50E H80 CL5	5	80	15	22
HSK.E.50.120.CL5	HSK50E H120 CL5	5	120	15	22
HSK.E.50.160.CL5	HSK50E H160 CL5	5	160	15	22
HSK.E.50.80.CL6	HSK50E H80 CL6	6	80	20	27
HSK.E.50.120.CL6	HSK50E H120 CL6	6	120	20	27
HSK.E.50.160.CL6	HSK50E H160 CL6	6	160	20	27
HSK.E.50.80.CL8	HSK50E H80 CL8	8	80	20	27
HSK.E.50.120.CL8	HSK50E H120 CL8	8	120	20	27
HSK.E.50.160.CL8	HSK50E H160 CL8	8	160	20	27
HSK.E.50.85.CL10	HSK50E H85 CL10	10	85	24	31
HSK.E.50.120.CL10	HSK50E H120 CL10	10	120	24	31
HSK.E.50.160.CL10	HSK50E H160 CL10	10	160	24	31
HSK.E.50.90.CL12	HSK50E H90 CL12	12	90	24	31
HSK.E.50.120.CL12	HSK50E H120 CL12	12	120	24	31
HSK.E.50.160.CL12	HSK50E H160 CL12	12	160	24	31
HSK.E.50.90.CL14	HSK50E H90 CL14	14	90	27	34
HSK.E.50.120.CL14	HSK50E H120 CL14	14	120	27	34
HSK.E.50.160.CL14	HSK50E H160 CL14	14	160	27	34
HSK.E.50.95.CL16	HSK50E H95 CL16	16	95	27	34
HSK.E.50.120.CL16	HSK50E H120 CL16	16	120	27	34
HSK.E.50.160.CL16	HSK50E H160 CL16	16	160	27	34
HSK.E.50.95.CL18	HSK50E H95 CL18	18	95	33	40
HSK.E.50.120.CL18	HSK50E H120 CL18	18	120	33	40
HSK.E.50.160.CL18	HSK50E H160 CL18	18	160	33	40
HSK.E.50.100.CL20	HSK50- H100 CL20	20	100	33	40
HSK.E.50.120.CL20	HSK50- H120 CL20	20	120	33	40
HSK.E.50.160.CL20	HSK50E H160 CL20	20	160	33	40



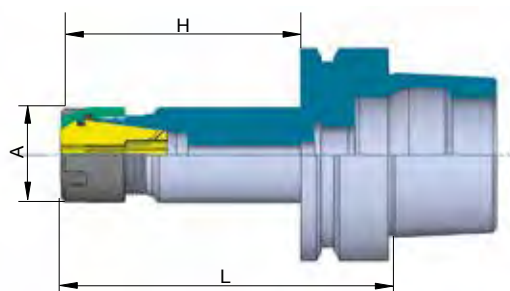
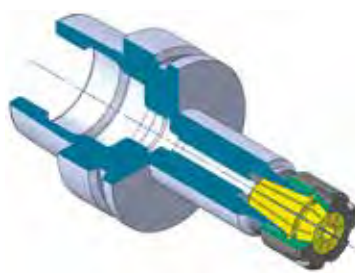
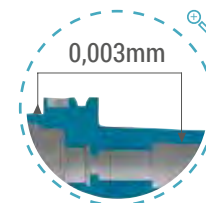
CALETTAMENTO STANDARD - SHRINK FIT HOLDERS - HSK63E

Cod.	TYPE	d	A	AT2	G2.5/25000
				D1	D
HSK.E.63.80.CL3	HSK63E H80 CL3	3	80	10	15
HSK.E.63.120.CL3	HSK63E H120 CL3	3	120	10	20
HSK.E.63.160.CL3	HSK63E H160 CL3	3	160	10	20
HSK.E.63.80.CL4	HSK63E H80 CL4	4	80	15	22
HSK.E.63.120.CL4	HSK63E H120 CL4	4	120	15	22
HSK.E.63.160.CL4	HSK63E H160 CL4	4	160	15	22
HSK.E.63.80.CL5	HSK63E H80 CL5	5	80	15	22
HSK.E.63.120.CL5	HSK63E H120 CL5	5	120	15	22
HSK.E.63.160.CL5	HSK63E H160 CL5	5	160	15	22
HSK.E.63.80.CL6	HSK63E H80 CL6	6	80	20	27
HSK.E.63.120.CL6	HSK63E H120 CL6	6	120	20	27
HSK.E.63.160.CL6	HSK63E H160 CL6	6	160	20	27
HSK.E.63.80.CL8	HSK63E H80 CL8	8	80	20	27
HSK.E.63.120.CL8	HSK63E H120 CL8	8	120	20	27
HSK.E.63.160.CL8	HSK63E H160 CL8	8	160	20	27
HSK.E.63.85.CL10	HSK63E H85 CL10	10	85	24	31
HSK.E.63.120.CL10	HSK63E H120 CL10	10	120	24	31
HSK.E.63.160.CL10	HSK63E H160 CL10	10	160	24	31
HSK.E.63.90.CL12	HSK63E H90 CL12	12	90	24	31
HSK.E.63.120.CL12	HSK63E H120 CL12	12	120	24	31
HSK.E.63.160.CL12	HSK63E H160 CL12	12	160	24	31
HSK.E.63.90.CL14	HSK63E H90 CL14	14	90	27	34
HSK.E.63.120.CL14	HSK63E H120 CL14	14	120	27	34
HSK.E.63.160.CL14	HSK63E H160 CL14	14	160	27	34
HSK.E.63.95.CL16	HSK63E H95 CL16	16	95	27	34
HSK.E.63.120.CL16	HSK63E H120 CL16	16	120	27	34
HSK.E.63.160.CL16	HSK63E H160 CL16	16	160	27	34
HSK.E.63.95.CL18	HSK63E H95 CL18	18	95	33	40
HSK.E.63.120.CL18	HSK63E H120 CL18	18	120	33	40
HSK.E.63.160.CL18	HSK63E H160 CL18	18	160	33	40
HSK.E.63.100.CL20	HSK63E H100 CL20	20	100	33	40
HSK.E.63.120.CL20	HSK63E H120 CL20	20	120	33	40
HSK.E.63.160.CL20	HSK63E H160 CL20	20	160	33	40
HSK.E.63.115.CL25	HSK63E H115 CL25	25	115	44	53
HSK.E.63.120.CL25	HSK63E H120 CL25	25	120	44	53
HSK.E.63.160.CL25	HSK63E H160 CL25	25	160	44	53
HSK.E.63.120.CL32	HSK63E H120 CL32	32	120	44	53
HSK.E.63.160.CL32	HSK63E H160 CL32	32	160	44	53

PORTAPINZA ER DIN6499

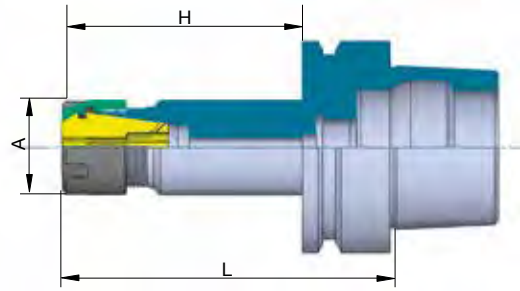
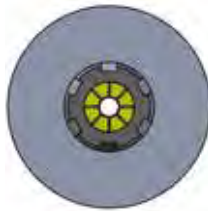
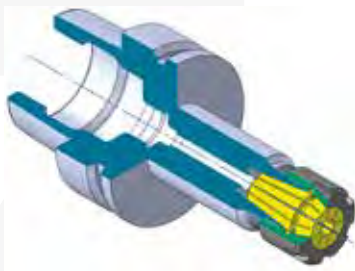
COLLET CHUCK ER DIN 6499 - FORM E

HSK - DIN69893 FORMA E



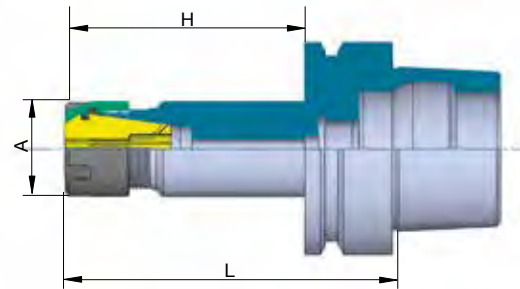
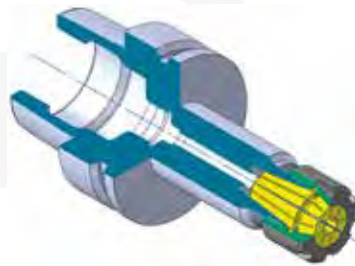
PORTAPINZA ER MINI - COLLET CHUCK ER MINI - HSK25E

Cod.	TYPE	CAPACITA' RANGE	A	AT2	G6.3/24000
				L	H
HSK.E.25.55.ER11M	HSK25E H55 ERX11M	1 ÷ 7	16	45	55
HSK.E.25.55.ER16M	HSK25E H55 ERX16M	1 ÷ 10	22	45	55



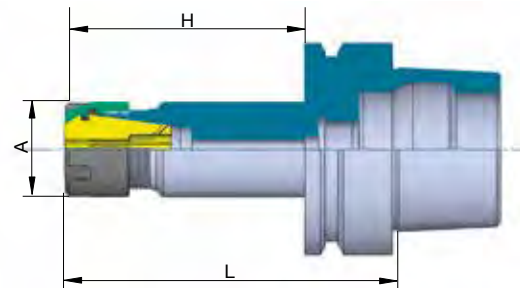
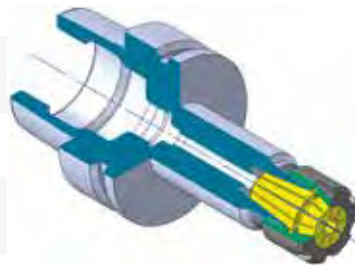
PORTAPINZA ER MINI - COLLET CHUCK ER MINI - HSK32E

Cod.	TYPE	CAPACITA' RANGE	AT2 G6.3/24000		
			A	L	H
HSK.E.32.80.ER11M	HSK32E H80 ERX11M	1 ÷ 7	16	60	80
HSK.E.32.80.ER16M	HSK32E H80 ERX16M	1 ÷ 10	22	60	80



PORTAPINZA ER MINI - COLLET CHUCK ER MINI - HSK40E

Cod.	TYPE	CAPACITA' RANGE	AT2 G6.3/24000		
			A	L	H
HSK.E.40.80.ER11M	HSK40E H80 ERX11M	1 ÷ 7	16	60	80
HSK.E.40.80.ER16M	HSK40E H80 ERX16M	1 ÷ 10	22	60	80



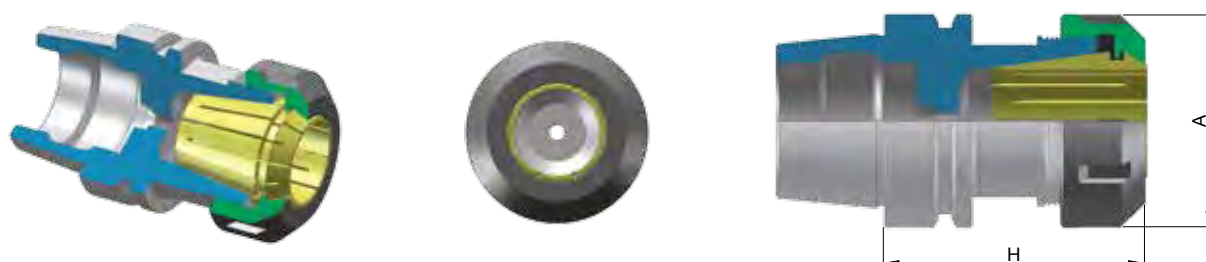
PORTAPINZA ER MINI - COLLET CHUCK ER MINI - HSK50E

Cod.	TYPE	CAPACITA' RANGE	AT2 G6.3/24000		
			A	L	H
HSK.E.50.100.ER11M	HSK50E H100 ERX11M	1 ÷ 7	16	74	100



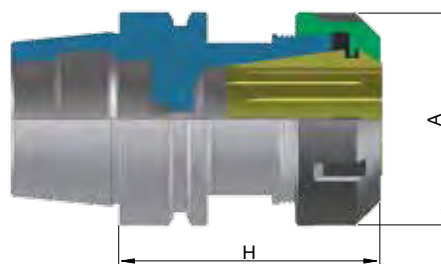
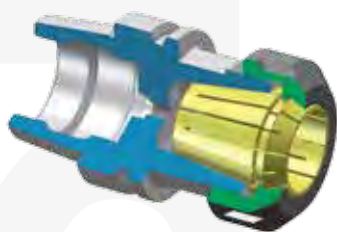
PORTAPINZA ER - COLLET CHUCK ER - HSK32E

Cod.	TYPE	CAPACITA' RANGE	G6.3/24000	
			AT2	H
HSK.E.32.60.ER16	HSK32E H60 ERX16	1 ÷ 10	A	60
HSK.E.32.80.ER25	HSK32E H80 ERX25	2 ÷ 16	42	80



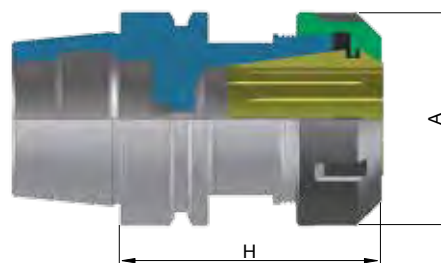
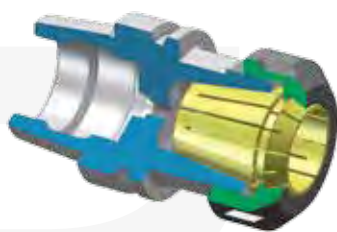
PORTAPINZA ER - COLLET CHUCK ER - HSK40E

Cod.	TYPE	CAPACITA' RANGE	G6.3/24000	
			AT2	H
HSK.E.40.60.ER16	HSK40E H60 ERX16	1 ÷ 10	A	60
HSK.E.40.70.ER25	HSK40E H70 ERX25	2 ÷ 16	42	70



PORTAPINZA ER - COLLET CHUCK ER - HSK50E

Cod.	TYPE	CAPACITA' RANGE	G6.3/24000	
			AT2	H
HSK.E.50.100.ER16	HSK50E H100 ERX16	1 ÷ 10	A	100
HSK.E.50.70.ER25	HSK50E H50 ERX25	2 ÷ 16	42	70
HSK.E.50.73.ER32.DX	HSK50E H73 ERX32 DX	3 ÷ 20	50	73
HSK.E.50.73.ER32.SX	HSK50E H73 ERX32 SX	3 ÷ 20	50	73
HSK.E.50.75.ER40.DX	HSK50E H75 ERX40 DX	4 ÷ 30	63	75
HSK.E.50.75.ER40.SX	HSK50E H75 ERX40 SX	4 ÷ 30	63	75



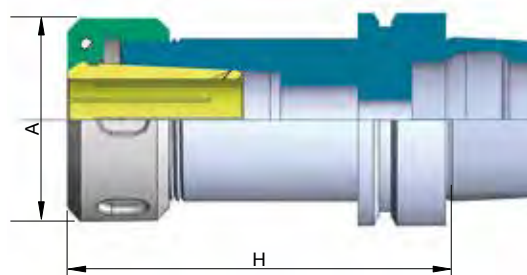
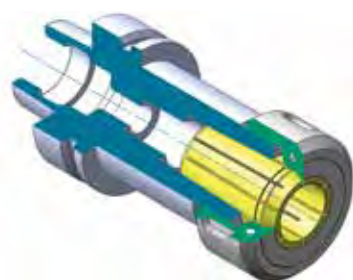
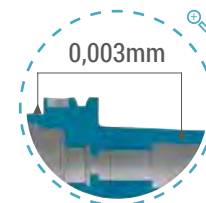
PORTAPINZA ER - COLLET CHUCK ER - HSK63E

Cod.	TYPE	CAPACITA' RANGE	G6.3/24000	
			AT2	H
HSK.E.63.73.ER32.DX	HSK63E H73 ERX32 DX	3 ÷ 20	50	73
HSK.E.63.73.ER32.SX	HSK63E H73 ERX32 SX	3 ÷ 20	50	73
HSK.E.63.78.ER40.DX	HSK63E H78 ERX40 DX	4 ÷ 30	63	78
HSK.E.63.78.ER40.SX	HSK63E H78 ERX40 SX	4 ÷ 30	63	78

PORTAPINZA EOC DIN 6388

COLLET CHUCK FOR EOC DIN6388 - FORM E

HSK - DIN69893 FORM E

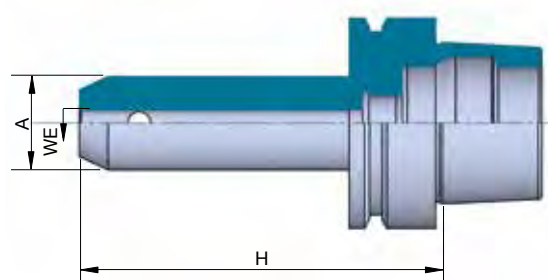
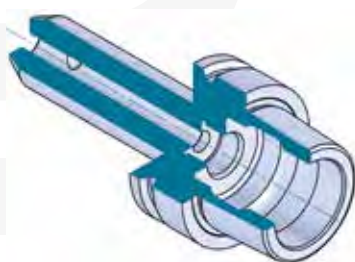
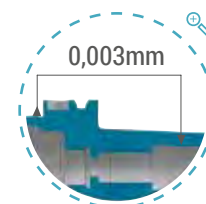


PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - HSK63E

Cod.	TYPE	CAPACITA' RANGE	AT2	G6.3/24000
			H	A
HSK.E.63.80.EOC25.DX	HSK63E H80 EOC25 DX	2 ÷ 25	80	60
HSK.E.63.80.EOC25.SX	HSK63E H80 EOC25 SX	2 ÷ 25	80	60

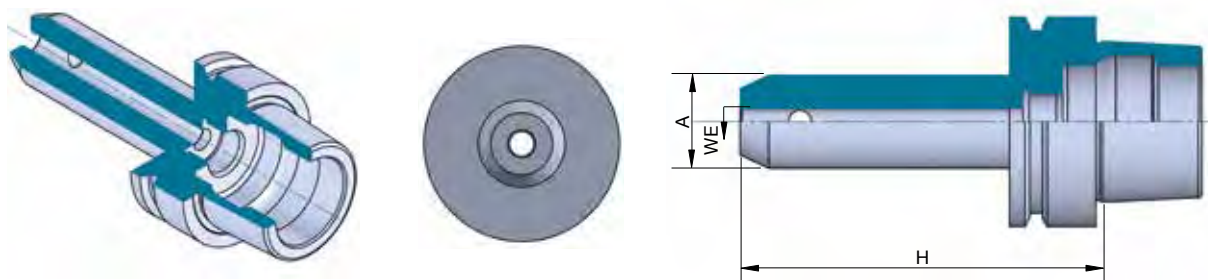
PER FRESE WELDON

END MILL HOLDERS - FORM E



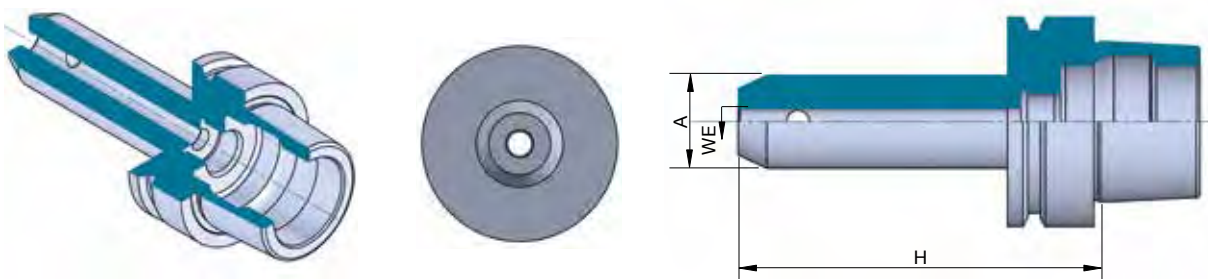
PER FRESE WELDON - END MILL HOLDER - HSK32E

Cod.	TYPE	WE	AT2		G6.3/24000	
			H	A	H	A
HSK.E.32.55.WE6	HSK32E H55 WE6	6	55	25	55	25
HSK.E.32.55.WE8	HSK32E H55 WE8	8	55	28	55	28
HSK.E.32.60.WE10	HSK32E H60 WE10	10	60	35	60	35
HSK.E.32.65.WE12	HSK32E H65 WE12	12	65	42	65	42



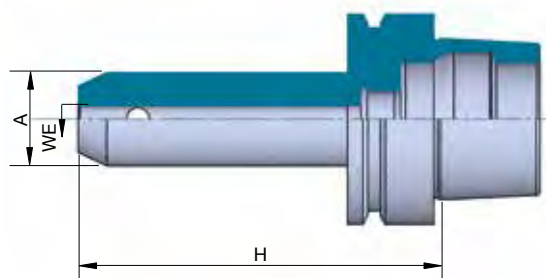
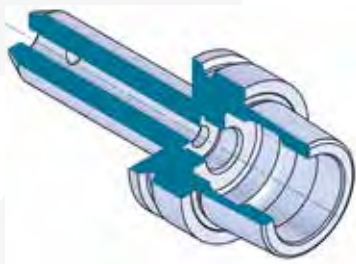
PER FRESE WELDON - END MILL HOLDER - HSK40E

Cod.	TYPE	WE	AT2		G6.3/24000	
			H	A	H	A
HSK.E.40.60.WE6	HSK40E H60 WE6	6	60	25	60	25
HSK.E.40.60.WE8	HSK40E H60 WE8	8	60	28	60	28
HSK.E.40.60.WE10	HSK40E H60 WE10	10	60	35	60	35
HSK.E.40.70.WE12	HSK40E H70 WE12	12	70	42	70	42
HSK.E.40.70.WE14	HSK40E H70 WE14	14	70	44	70	44
HSK.E.40.75.WE16	HSK40E H75 WE16	16	75	48	75	48



PER FRESE WELDON - END MILL HOLDER - HSK50E

Cod.	TYPE	WE	AT2		G6.3/24000	
			H	A	H	A
HSK.E.50.65.WE6	HSK50E H65 WE6	6	65	25	65	25
HSK.E.50.65.WE8	HSK50E H65 WE8	8	65	28	65	28
HSK.E.50.65.WE10	HSK50E H65 WE10	10	65	35	65	35
HSK.E.50.80.WE12	HSK50E H80 WE12	12	80	42	80	42
HSK.E.50.80.WE14	HSK50E H80 WE14	14	80	44	80	44
HSK.E.50.80.WE16	HSK50E H80 WE16	16	80	48	80	48



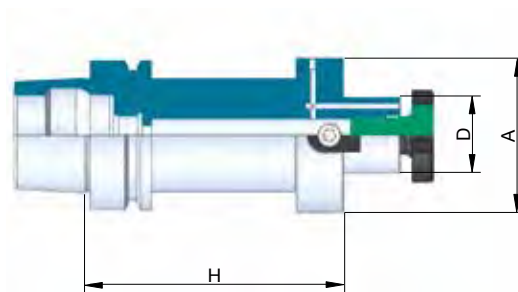
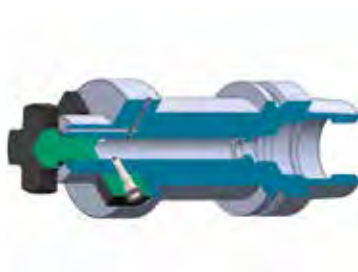
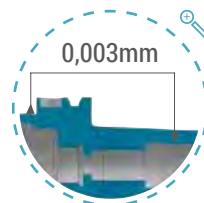
PER FRESE WELDON - END MILL HOLDER - HSK63E

Cod.	TYPE	WE	AT2 G6.3/24000	
			H	A
HSK.E.63.65.WE6	HSK63E H65 WE6	6	65	25
HSK.E.63.65.WE8	HSK63E H65 WE8	8	65	28
HSK.E.63.65.WE10	HSK63E H65 WE10	10	65	35
HSK.E.63.80.WE12	HSK63E H80 WE12	12	80	42
HSK.E.63.80.WE14	HSK63E H80 WE14	14	80	44
HSK.E.63.80.WE16	HSK63E H80 WE16	16	80	48
HSK.E.63.80.WE18	HSK63E H80 WE18	18	80	50
HSK.E.63.80.WE20	HSK63E H80 WE20	20	80	52

PORTA FRESE FISSO

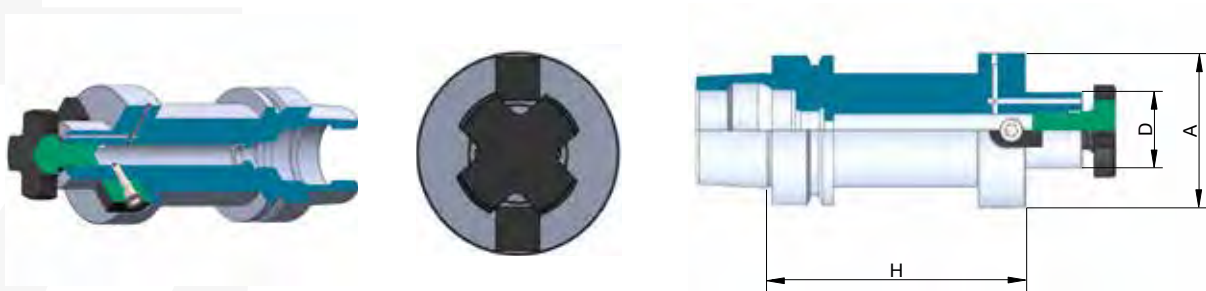
END MILL HOLDERS - FORM E

HSK - DIN69893 FORMA E



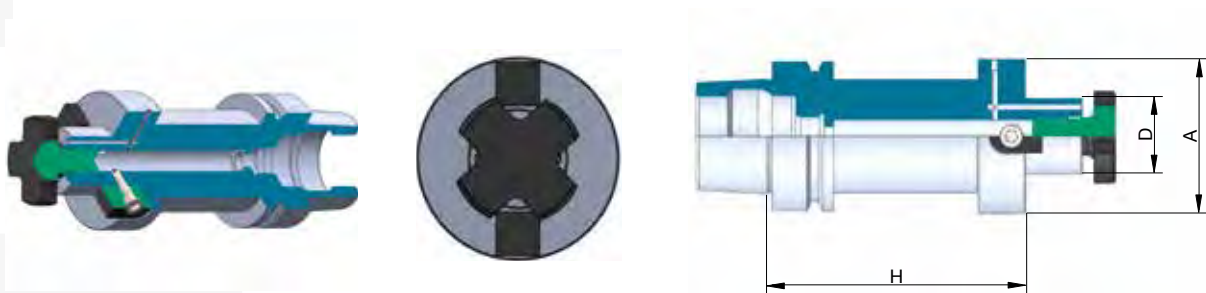
PORTAFRESE FISSO - SHELL END MILL HOLDER - HSK40E

Cod.	TYPE	D	AT2		G6.3/24000	
			H	A	H	A
HSK.E.40.50.D16S	HSK40E H50 D16 FISSO	16	50	38		



PORTAFRESE FISSO - SHELL END MILL HOLDER - HSK50E

Cod.	TYPE	D	AT2		G6.3/24000	
			H	A	H	A
HSK.E.50.50.D16S	HSK50E H50 D16 FISSO	16	50	38		
HSK.E.50.60.D22S	HSK50E H60 D22 FISSO	22	60	48		



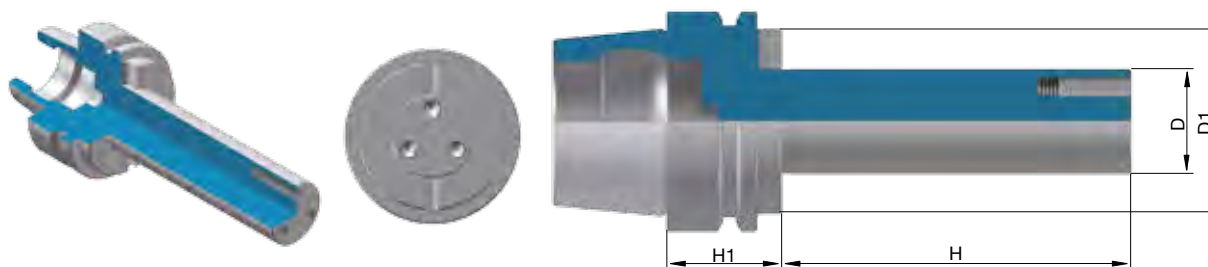
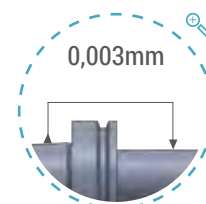
PORTAFRESE FISSO - SHELL END MILL HOLDER - HSK63E

Cod.	TYPE	D	AT2		G6.3/24000	
			H	A	H	A
HSK.E.63.50.D16S	HSK63E H50 D16 FISSO	16	50	38		
HSK.E.63.50.D22S	HSK63E H50 D22 FISSO	22	50	48		

ALBERATI

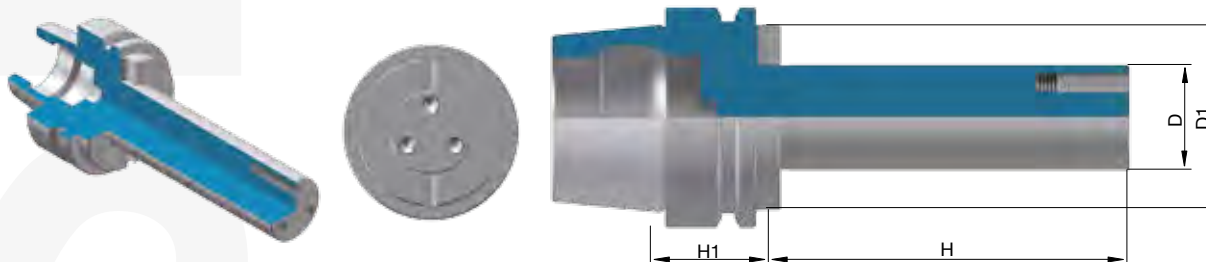
CUTTER ARBORS - FORM E

HSK - DIN69893 FORMA E



ALBERO PORTA FRESE - CUTTER ARBORS - HSK50E

Cod.	TYPE	H1	D	AT2		G6.3/24000	
				H	D1		
HSK.E.50.30X100.42	HSK50E D30x100 A=42	42	30	100	45		
HSK.E.50.30X150.42	HSK50E D30x150 A=42	42	30	150	45		
HSK.E.50.30X200.42	HSK50E D30x200 A=42	42	30	200	45		
HSK.E.50.35X100.42	HSK50E D35x100 A=42	42	35	100	49		
HSK.E.50.35X150.42	HSK50E D35x150 A=42	42	35	150	49		
HSK.E.50.35X200.42	HSK50E D35x200 A=42	42	35	200	49		



ALBERO PORTA FRESE - CUTTER ARBORS - HSK63E - A=33

Cod.	TYPE	H1	D	AT2		G6.3/24000	
				H	D1	H	D1
HSK.E.63.30X100.33	HSK63E D30X100 A=33	33	30	100	45		
HSK.E.63.30X150.33	HSK63E D30X150 A=33	33	30	150	45		
HSK.E.63.30X200.33	HSK63E D30X200 A=33	33	30	200	45		
HSK.E.63.35X100.33	HSK63E D35X100 A=33	33	35	100	50		
HSK.E.63.35X150.33	HSK63E D35X150 A=33	33	35	150	50		
HSK.E.63.35X200.33	HSK63E D35X200 A=33	33	35	200	50		
HSK.E.63.40X100.33	HSK63E D40X100 A=33	33	40	100	53		
HSK.E.63.40X150.33	HSK63E D40X150 A=33	33	40	150	53		
HSK.E.63.40X200.33	HSK63E D40X200 A=33	33	40	200	53		

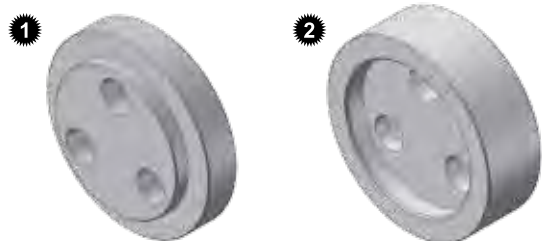


ALBERO PORTA FRESE - CUTTER ARBORS - HSK63E - A=42

Cod.	TYPE	H1	D	AT2		G6.3/24000	
				H	D1	H	D1
HSK.E.63.30X100.42	HSK63E D30x100 A=42	42	30	100	45		
HSK.E.63.30X150.42	HSK63E D30x150 A=42	42	30	150	45		
HSK.E.63.30X200.42	HSK63E D30X200 A=42	42	30	200	45		
HSK.E.63.35X100.42	HSK63E D35x100 A=42	42	35	100	50		
HSK.E.63.35X150.42	HSK63E D35x150 A=42	42	35	150	50		
HSK.E.63.35X200.42	HSK63E D35X200 A=42	42	35	200	50		
HSK.E.63.40X100.42	HSK63E D40x100 A=42	42	40	100	53		
HSK.E.63.40X150.42	HSK63E D40x150 A=42	42	40	150	53		
HSK.E.63.40X200.42	HSK63E D40x200 A=42	42	40	200	53T		

FLANGIA DI RICAMBIO

Cod.	TYPE	Fig.
FLM.30	FLANGIA DI RICAMBIO MASCHIO D.30	1
FLM.35	FLANGIA DI RICAMBIO MASCHIO D.35	1
FLM.40	FLANGIA DI RICAMBIO MASCHIO D.40	1
FLF.30	FLANGIA DI RICAMBIO FEMMINA D.30	2
FLF.35	FLANGIA DI RICAMBIO FEMMINA D.35	2
FLF.40	FLANGIA DI RICAMBIO FEMMINA D.40	2



HSK - DIN69893 FORMA F

HSK - DIN69893 FORMA F



CALETTAMENTO A CALDO STANDARD

SHRINK FIT HOLDERS STANDARD



IDRAULICO

HYDRAULIC EXPANSIONS CHUCK



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388



ALBERATI

CUTTER ARBORS - FORMA F

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre.
- Eseguiti trattamenti termici da fornitori certificati ISO 9001.
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiere chiudipinza.
- Controllati con strumenti di misura certificati.
- La tolleranza di precisione dei coni HSK-F è AT2.
- L'errore di concentricità massimo tra il cono e la sede utensile è 0.003 mm.

🇫🇷 CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes HSK-F est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.

🇬🇧 TECHNICAL FEATURES

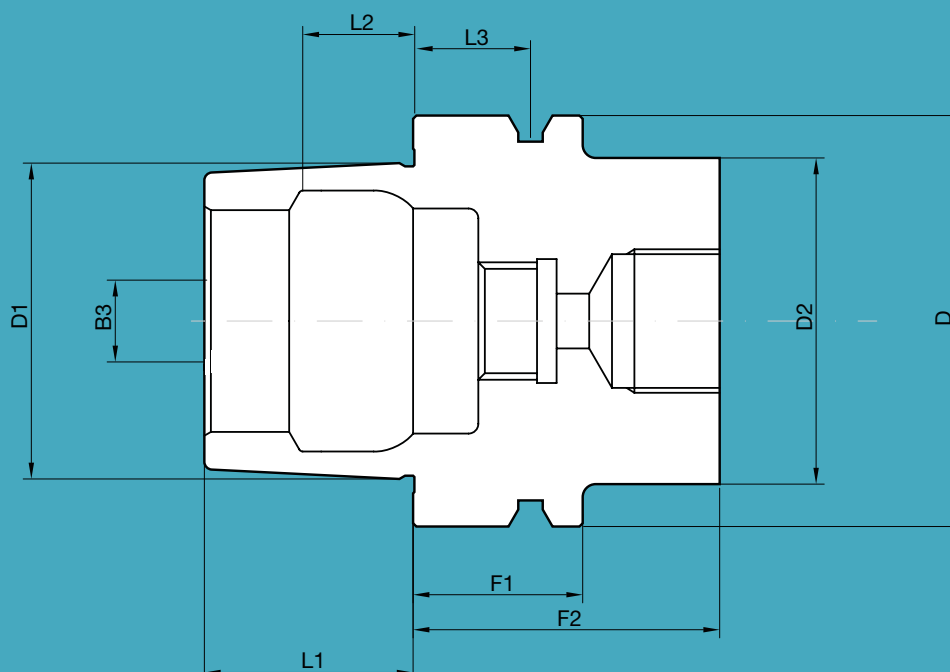
- Manufactured with certificate steel.
- Heat treatments are performed by certified suppliers ISO 9001.
- Precision ground on shank, inside tapers and collet nut threads.
- Tested with high precision inspection and gaging equipment.
- Taper accuracy of HSK-F shanks lower than AT2.
- The maximum error of concentricity between the cone and the seat of tool is 0.003 mm.

🇩🇪 MERKMALE

- Gebaut aus zertifiziertem Stabstahl
- Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001
- Genauigkeitsgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss
- Geprüft mit zertifizierten Messinstrumente
- Die Präzisionstoleranz der Kone HSK-F ist AT2
- Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm

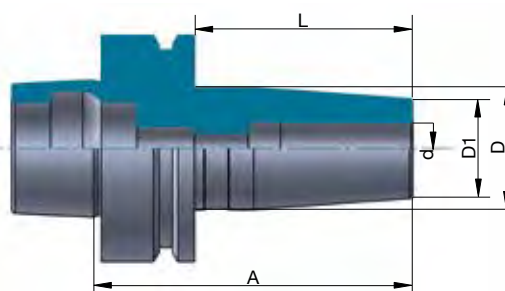
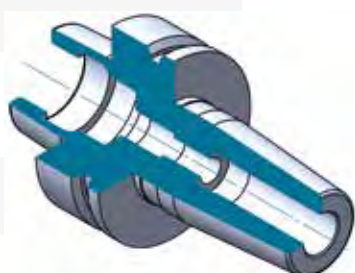
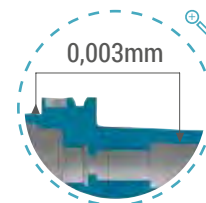
QUOTE / QUOTE / QUOTTES / ABMESSUNGEN

HSK	D	D1	D2	L1	L2	L3	F1	F2	COOLANT TUBE
50	50	30	42	20	11,42	18	26	42	M16X1
63	63	38	53	25	14,13	18	26	42	M18X1



CALETTAMENTO A CALDO STANDARD

SHRINK FIT HOLDERS STANDARD - FORM F



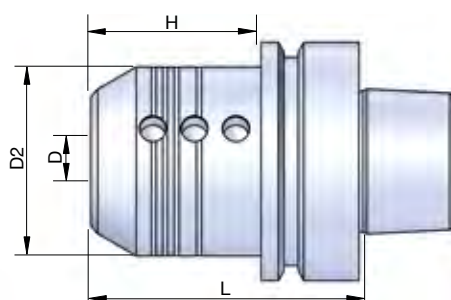
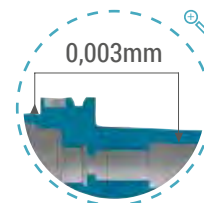
CALETTAMENTO STANDARD - SHRINK FIT HOLDER - HSK63F

Cod.	TYPE	d	A	AT2		G2.5/25000	
				D1	D	L	
HSK.F.63.76.CL6	HSK63F H76 CL6	6	76	21	29	50	
HSK.F.63.76.CL8	HSK63F H76 CL8	8	76	21	29	50	
HSK.F.63.76.CL10	HSK63F H76 CL10	10	76	24	32	50	
HSK.F.63.76.CL12	HSK63F H76 CL12	12	76	24	32	50	
HSK.F.63.76.CL16	HSK63F H76 CL16	16	76	27	34	50	
HSK.F.63.76.CL20	HSK63F H76 CL20	20	76	33	42	50	
HSK.F.63.76.CL25	HSK63F H76 CL25	25	76	44	53	50	
HSK.F.63.76.CL30	HSK63F H76 CL30	30	76	44	53	50	

IDRAULICO

HYDRAULIC EXPANSIONS CHUCK - FORM F

HSK - DIN69893 FORMA F

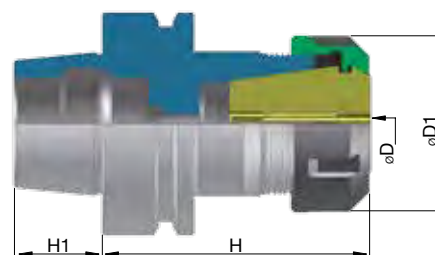
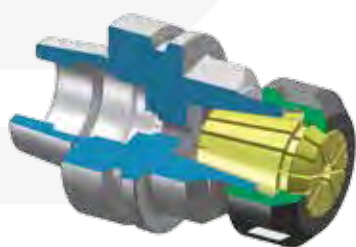
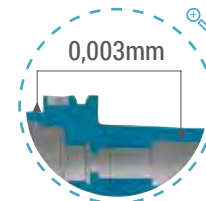


IDRAULICO - HYDRAULIC EXPANSIONS CHUCK - HSK63F

Cod.	TYPE	L	H	D2	AT2		G6.3/24000	
					L2	D		
HSK.F.63.100.HY20	HSK63F H100 D20	100	74	42	58	20		
HSK.F.63.125.HY32	HSK63F H125 D32	125	99	60	99	32		

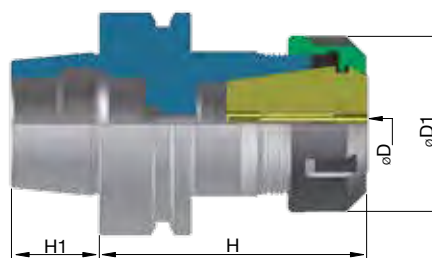
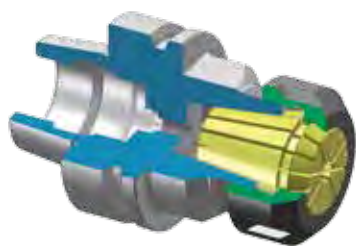
PORTAPINZA ER DIN6499

COLLET CHUCK ER DIN6499 - FORM F



PORTAPINZA ER - COLLET CHUCK ER - HSK50F

Cod.	TYPE	H	AT2 G6.3/24000	
			CAPACITÀ RANGE	A
HSK.F.50.73.ER32.DX	HSK50F H73 ERX32 SX	73	3 ÷ 20	50
HSK.F.50.73.ER32.SX	HSK50F H73 ERX32 SX	73	3 ÷ 20	50
HSK.F.50.75.ER40.DX	HSK50F H75 ERX40 SX	75	4 ÷ 30	63
HSK.F.50.75.ER40.SX	HSK50F H75 ERX40 SX	75	4 ÷ 30	63

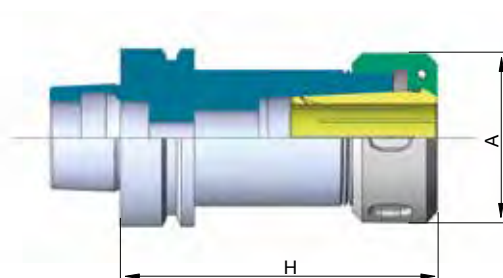
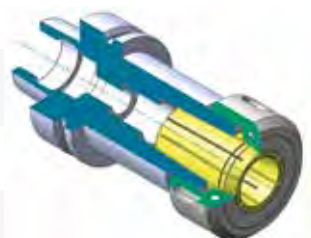
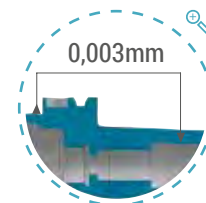


PORTAPINZA ER - COLLET CHUCK ER - HSK63F

Cod.	TYPE	H	AT2 G6.3/24000	
			CAPACITÀ RANGE	A
HSK.F.63.73.ER32.DX	HSK63F H73 ERX32 DX	73	3 ÷ 20	50
HSK.F.63.73.ER32.SX	HSK63F H73 ERX32 SX	73	3 ÷ 20	50
HSK.F.63.78.ER40.DX	HSK63F H78 ERX40 DX	78	4 ÷ 30	63
HSK.F.63.78.ER40.SX	HSK63F H78 ERX40 SX	78	4 ÷ 30	63

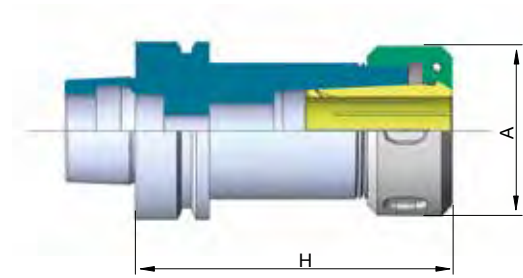
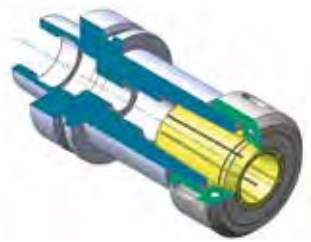
PORTAPINZA EOC DIN6388

COLLET CHUCK EOC DIN6388 - FORM F



PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - HSK50F

Cod.	TYPE	H	AT2		G6.3/24000	
			CAPACITÀ RANGE	A		
HSK.F.50.80.EOC25.DX	HSK50F H80 EOC25 DX	80	2 ÷ 25	60		
HSK.F.50.80.EOC25.SX	HSK50F H80 EOC25 SX	80	2 ÷ 25	60		

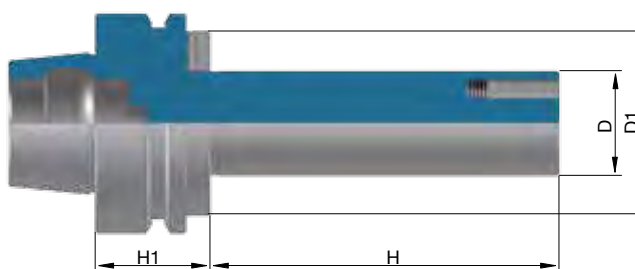
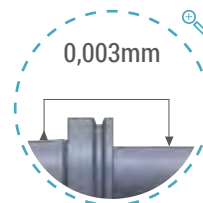


PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - HSK63F

Cod.	TYPE	H	AT2 G6.3/24000	
			CAPACITÀ RANGE	A
HSK.F.63.78.EOC25.DX	HSK63F H78 EOC25 DX	78	2 ÷ 25	60
HSK.F.63.78.EOC25.SX	HSK63F H78 EOC25 SX	78	2 ÷ 25	60

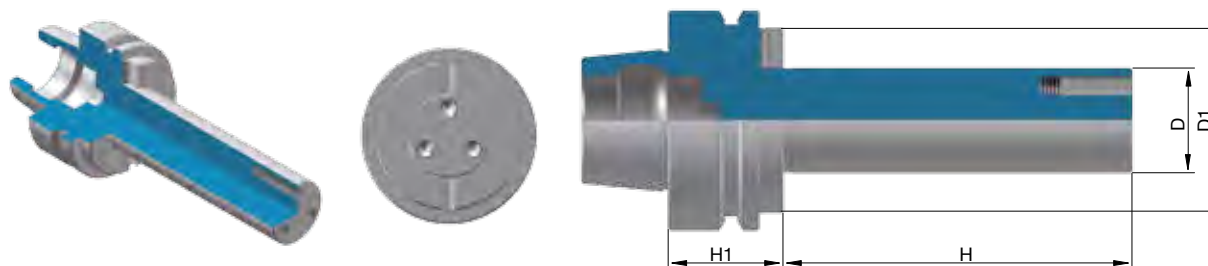
ALBERATI

CUTTER ARBORS - FORM F



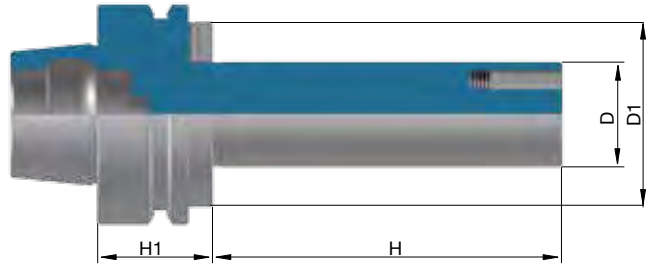
ALBERO PORTA FRESE - CUTTER ARBORS - HSK50F - A=42

Cod.	TYPE	H1	D	AT2		G6.3/24000	
				H	D1		
HSK.F.50.30X100.42	HSK50F D30x100 A=42	42	30	100	45		
HSK.F.50.30X150.42	HSK50F D30x150 A=42	42	30	150	45		
HSK.F.50.30X200.42	HSK50F D30x200 A=42	42	30	200	45		
HSK.F.50.35X100.42	HSK50F D35x100 A=42	42	35	100	49		
HSK.F.50.35X150.42	HSK50F D35x150 A=42	42	35	150	49		
HSK.F.50.35X200.42	HSK50F D35x200 A=42	42	35	200	49		



ALBERO PORTA FRESE - CUTTER ARBORS - HSK63F - A=33

Cod.	TYPE	H1	D	AT2		G6.3/24000	
				H	D1		
HSK.F.63.30X80.33	HSK63F D30x80 A=33	33	30	80	45		
HSK.F.63.30X100.33	HSK63F D30x100 A=33	33	30	100	45		
HSK.F.63.30X110.33	HSK63F D30x110 A=33	33	30	110	45		
HSK.F.63.30X120.33	HSK63F D30x120 A=33	33	30	120	45		
HSK.F.63.30X130.33	HSK63F D30x130 A=33	33	30	130	45		
HSK.F.63.30X160.33	HSK63F D30x160 A=33	33	30	160	45		
HSK.F.63.30X200.33	HSK63F D30x200 A=33	33	30	200	45		
HSK.F.63.35X80.33	HSK63F D35x80 A=33	33	35	80	50		
HSK.F.63.35X100.33	HSK63F D35x100 A=33	33	35	100	50		
HSK.F.63.35X110.33	HSK63F D35x110 A=33	33	35	110	50		
HSK.F.63.35X120.33	HSK63F D35x120 A=33	33	35	120	50		
HSK.F.63.35X130.33	HSK63F D35x130 A=33	33	35	130	50		
HSK.F.63.35X160.33	HSK63F D35x160 A=33	33	35	160	50		
HSK.F.63.35X200.33	HSK63F D35x200 A=33	33	35	200	50		
HSK.F.63.40X80.33	HSK63F D40x80 A=33	33	40	80	53		
HSK.F.63.40X100.33	HSK63F D40x100 A=33	33	40	100	53		
HSK.F.63.40X110.33	HSK63F D40x110 A=33	33	40	110	53		
HSK.F.63.40X120.33	HSK63F D40x120 A=33	33	40	120	53		
HSK.F.63.40X130.33	HSK63F D40x130 A=33	33	40	130	53		
HSK.F.63.40X160.33	HSK63F D40x160 A=33	33	40	160	53		
HSK.F.63.40X200.33	HSK63F D40x200 A=33	33	40	200	53		

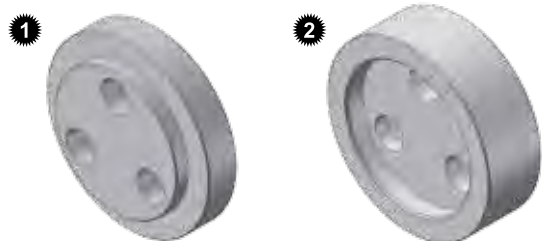


ALBERO PORTA FRESE - CUTTER ARBORS - HSK63F - A=42

Cod.	TYPE	H1	D	AT2		G6.3/24000	
				H	D1		
HSK.F.63.30X80.42	HSK63F D30x80 A=42	42	30	80	45		
HSK.F.63.30X100.42	HSK63F D30x100 A=42	42	30	100	45		
HSK.F.63.30X110.42	HSK63F D30x110 A=42	42	30	110	45		
HSK.F.63.30X120.42	HSK63F D30x120 A=42	42	30	120	45		
HSK.F.63.30X130.42	HSK63F D30x130 A=42	42	30	130	45		
HSK.F.63.30X160.42	HSK63F D30x160 A=42	42	30	160	45		
HSK.F.63.30X200.42	HSK63F D30x200 A=42	42	30	200	45		
HSK.F.63.35X80.42	HSK63F D35x80 A=42	42	35	80	50		
HSK.F.63.35X100.42	HSK63F D35x100 A=42	42	35	100	50		
HSK.F.63.35X110.42	HSK63F D35x110 A=42	42	35	110	50		
HSK.F.63.35X120.42	HSK63F D35x120 A=42	42	35	120	50		
HSK.F.63.35X130.42	HSK63F D35x130 A=42	42	35	130	50		
HSK.F.63.35X160.42	HSK63F D35x160 A=42	42	35	160	50		
HSK.F.63.35X200.42	HSK63F D35x200 A=42	42	35	200	50		
HSK.F.63.40X80.42	HSK63F D40x80 A=42	42	40	80	53		
HSK.F.63.40X100.42	HSK63F D40x100 A=42	42	40	100	53		
HSK.F.63.40X110.42	HSK63F D40x110 A=42	42	40	110	53		
HSK.F.63.40X120.42	HSK63F D40x120 A=42	42	40	120	53		
HSK.F.63.40X130.42	HSK63F D40x130 A=42	42	40	130	53		
HSK.F.63.40X160.42	HSK63F D40x160 A=42	43	40	160	53		
HSK.F.63.40X200.42	HSK63F D40x200 A=42	43	40	200	53		

FLANGIA DI RICAMBIO

Cod.	TYPE	Fig.
FLM.30	FLANGIA DI RICAMBIO MASCHIO D.30	1
FLM.35	FLANGIA DI RICAMBIO MASCHIO D.35	1
FLM.40	FLANGIA DI RICAMBIO MASCHIO D.40T	1
FLF.30	FLANGIA DI RICAMBIO FEMMINA D.30	2
FLF.35	FLANGIA DI RICAMBIO FEMMINA D.35	2
FLF.40	FLANGIA DI RICAMBIO FEMMINA D.40	2



CAPTO TRILOBATO EPS ISO 26623-1

TOOL HOLDERS CAPTO EPS ISO 26623-1



**CALETTAMENTO A CALDO
STANDARD**

SHRINK FIT HOLDERS STANDARD



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PER FRESE WELDON

END MILL HOLDERS



PORTAFRESE FISSI

SHELL END MILL HOLDERS



STELO TENERO LAVORABILE

BLANK ARBORS

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre
- Eseguiti trattamenti termici da fornitori certificati ISO 9001
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiere chiudipinza
- Controllati con strumenti di misura certificati
- L'errore di concentricità massimo tra il cono e la sede utensile è 0.003 mm

CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.

TECHNICAL FEATURES

- *Manufactured with certificate steel*
- *Heat treatments are performed by certified suppliers ISO 9001*
- *Precision ground on shank, inside tapers and collet nut threads*
- *Tested with high precision inspection and ganging equipment*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003 mm.*

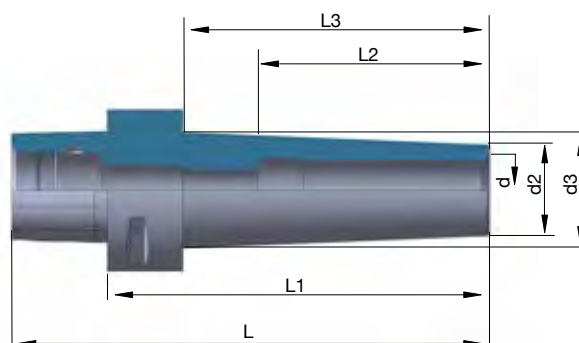
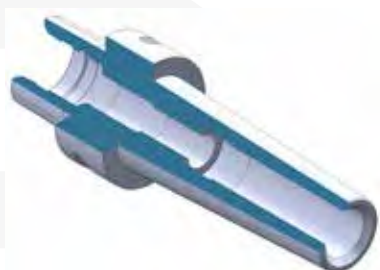
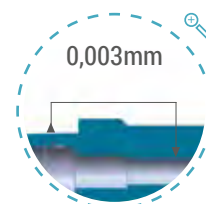
MERKMALE

- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitsgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm*



CALETTAMENTO A CALDO

SHRINK FIT HOLDERS

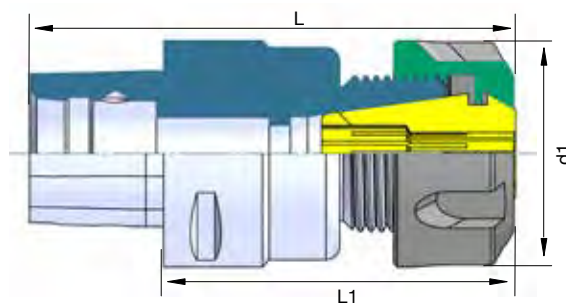
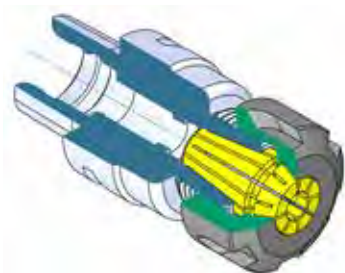
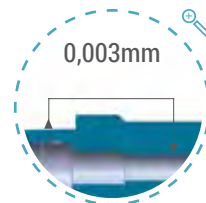


CALETTAMENTO STANDARD - SHRINK FIT HOLDERS

Cod.	TYPE	L	l1	l2	l3	AT2		G2.5/25000	
						d1	d2	d3	
CPT.63.80.CL6	CAPT063 H80 CL6	118	80	36	53	6	20	26	
CPT.63.80.CL8	CAPT063 H80 CL8	118	80	36	53	8	20	26	
CPT.63.80.CL10	CAPT063 H80 CL10	118	80	42	53	10	24	32	
CPT.63.80.CL12	CAPT063 H80 CL12	118	80	47	56	12	24	32	
CPT.63.85.CL14	CAPT063 H85 CL14	123	85	47	58	14	27	34	
CPT.63.85.CL16	CAPT063 H85 CL16	123	85	50	58	16	27	34	
CPT.63.85.CL18	CAPT063 H85 CL18	123	85	52	58	18	33	42	
CPT.63.85.CL20	CAPT063 H85 CL20	123	85	52	58	20	33	42	
CPT.63.90.CL25	CAPT063 H90 CL25	128	90	58	66	25	44	53	
CPT.63.95.CL32	CAPT063 H95 CL32	133	95	58	71	32	44	53	

PORTAPINZA ER DIN6499

COLLET CHUCK ER DIN6499

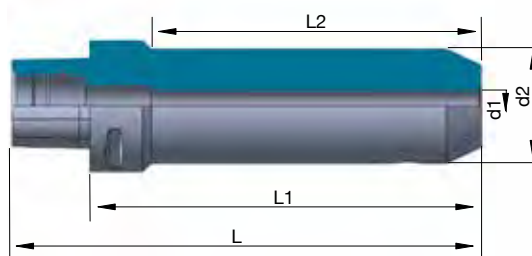
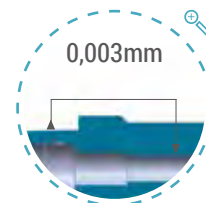


PORTAPINZA ER - COLLET CHUCK ER

Cod.	TYPE	L	l1	AT2		G2.5/25000	
				d1	CAPACITÀ RANGE		
CPT.63.100.ER16	CAPTO63 H100 ER16	138	100	28	1 ÷ 10 mm		
CPT.63.60.ER20	CAPTO63 H60 ER20	98	60	34	2 ÷ 13 mm		
CPT.63.60.ER25	CAPTO63 H60 ER25	98	60	42	2 ÷ 16 mm		
CPT.63.100.ER25	CAPTO63 H100 ER25	138	100	42	2 ÷ 16 mm		
CPT.63.70.ER32	CAPTO63 H70 ER32	108	70	50	3 ÷ 20 mm		
CPT.63.100.ER32	CAPTO63 H100 ER32	138	100	50	3 ÷ 20 mm		
CPT.63.65.ER40	CAPTO63 H65 ER40	103	65	63	3 ÷ 26 mm		

PER FRESE WELDON

END MILL HOLDERS

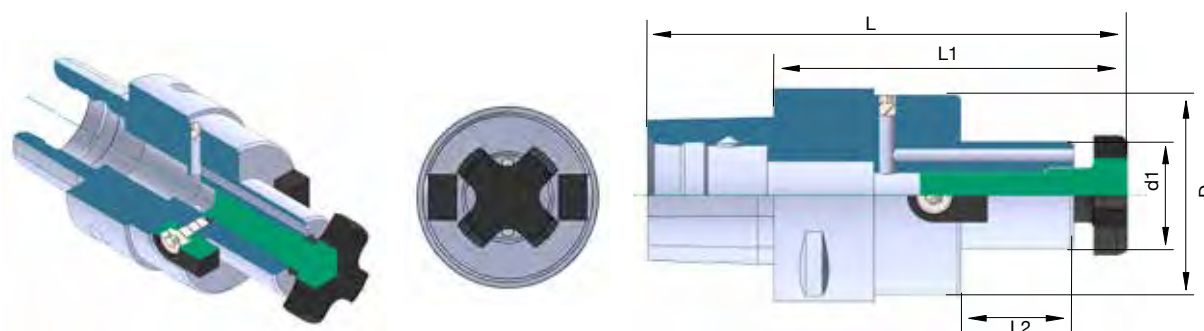
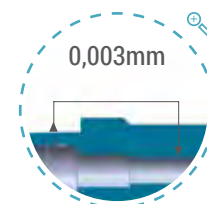


PER FRESE WELDON - END MILL HOLDERS

Cod.	TYPE	L	l1	L2	AT2	G6.3/10000	T
					d1	d2	
CPT.63.55.WE6	CAPTO63 H55 WE6	93	55	25	6	25	M6
CPT.63.55.WE8	CAPTO63 H55 WE8	93	55	26	8	28	M8
CPT.63.60.WE10	CAPTO63 H60 WE10	98	60	30	10	35	M10
CPT.63.60.WE12	CAPTO63 H60 WE12	98	60	33	12	42	M12
CPT.63.60.WE14	CAPTO63 H60 WE14	98	60	33,5	14	44	M12
CPT.63.65.WE16	CAPTO63 H65 WE16	103	65	35,5	16	48	M14
CPT.63.65.WE18	CAPTO63 H65 WE18	103	65	39	18	50	M14
CPT.63.65.WE20	CAPTO63 H65 WE20	103	65	37,5	20	52	M16
CPT.63.80.WE25	CAPTO63 H80 WE25	118	80	58	25	65	M18
CPT.63.90.WE32	CAPTO63 H90 WE32	128	90	68	32	72	M20
CPT.63.100.WE40	CAPTO63 H100 WE40	138	100	77	40	90	M20

PORTAFRESE FISSI

SHELL END MILL HOLDERS

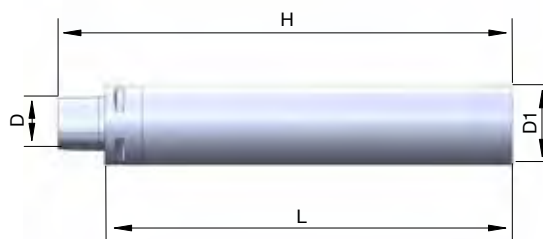


PORTAFRESE FISSI - SHELL END MILL HOLDERS

Cod.	TYPE	L	l1	l2	AT2	G6.3/10000	D	d1
CPT.63.35.D16S	CAPTO63 H35 D16S	90	35	17			38	16
CPT.63.40.D22S	CAPTO63 H40 D22S	92	40	19			48	22
CPT.63.40.D27S	CAPTO63 H40 D27S	99	40	21			60	27
CPT.63.40.D32S	CAPTO63 H40 D32S	102	40	24			78	32
CPT.63.45.D40S	CAPTO63 H45 D40S	110	45	27			80	40

STELO TENERO LAVORABILE

BLANK ARBORS



STELO TENERO LAVORABILE - BLANK ARBORS

Cod.	TYPE	D	D1	AT2	G6.3/10000
				H	L
CPT.63.180.BL63	CAPTO63 H180 D63BL	63	63	180	158
CPT.63.180.BL120	CAPTO63 H180 D120BL	63	120	180	158



DIN 2080

DIN 2080



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



PORTAPINZA EOC DIN6388

COLLET CHUCK FOR EOC DIN6388



PER FRESE WELDON

END MILL HOLDERS



PORTAFRESE FISSI

SHELL END MILL HOLDERS



PORTAFRESE COMBINATI

COMBI SHELL END MILL HOLDERS



CONO MORSE PUNTE/ FRESE

MORSE TAPER FOR DRILLS/MILLS



PORTA PUNTE AUTOSERRANTI CON CHIAVE A SETTORE

DRILL CHUCKS WITH HOOK WRENCH



STELO TENERO LAVORABILE

BLANK ARBORS



BARRA DI CONTROLLO

TEST ARBORS

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN



CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre.
- Eseguiti trattamenti termici da fornitori certificati ISO 9001.
- 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 AT2.
- L'errore di concentricità massimo tra il cono e la sede utensile è di 0.003mm.



TECHNICAL FEATURES

- *Manufactured with certificate steel.*
- *Heat treatments are performed by certified suppliers ISO 9001.*
- *Precision ground on shanks, inside tapers and collet nut threads.*
- *Tested with high precision inspection and ganging equipment.*
- *Taper accuracy of ISO SHANKS lower than AT2.*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003mm.*



CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes ISO est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.



MERKMALE

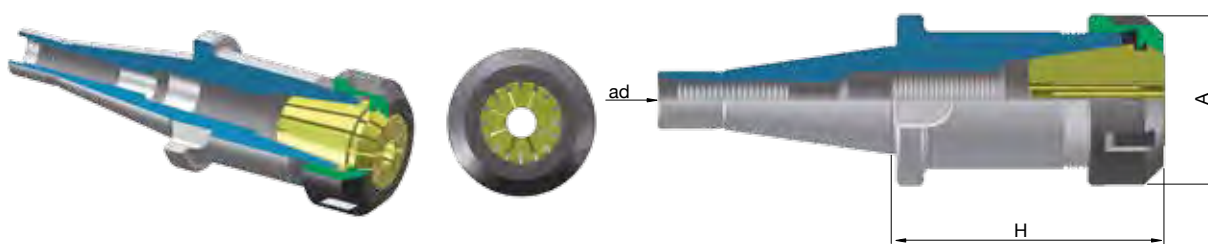
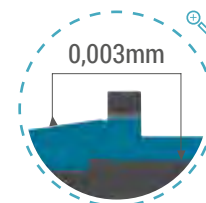
- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die Präzisionstoleranz der Kone ISO ist AT2*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm*



PORTAPINZA ER DIN6499

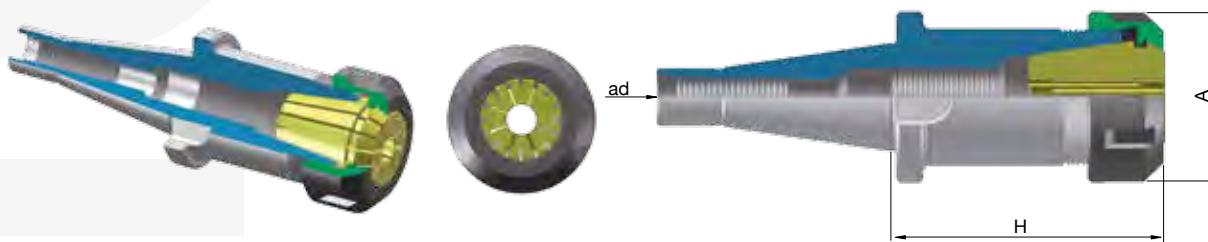
COLLET CHUCK FOR ER DIN6499

DIN 2080



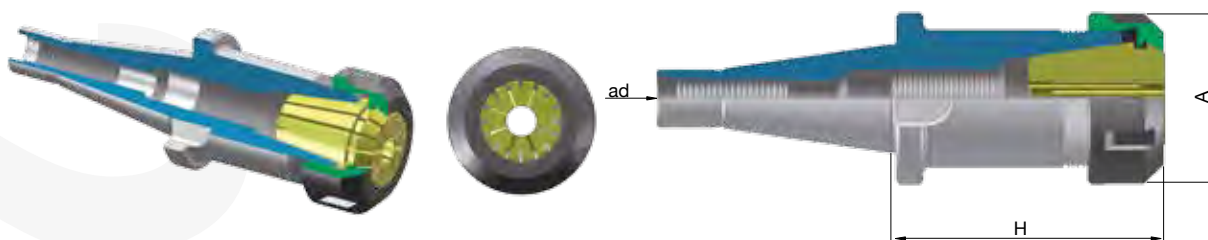
PORTAPINZA ER - COLLET CHUCK ER - ISO30

Cod.	TYPE	A	AT2 G6.3/12000	
			CAPACITÀ RANGE	H
ISO.30.50.ER25	ISO30 H50 ERX25	42	1 ÷ 16 mm	50
ISO.30.50.ER32	ISO30 H50 ERX32	50	2 ÷ 20 mm	50
ISO.30.70.ER40	ISO30 H70 ERX40	63	3 ÷ 30 mm	70



PORTAPINZA ER - COLLET CHUCK - ISO40

Cod.	TYPE	A	G6.3/12000		
			AT2	CAPACITĂ RANGĂ	
ISO.40.47.ER16	ISO40 H47 ERX16	32		1 ÷ 10 mm	47
ISO.40.47.ER25	ISO40 H47 ERX25	42		1 ÷ 16 mm	47
ISO.40.49.ER32	ISO40 H49 ERX32	50		2 ÷ 20 mm	49
ISO.40.70.ER40	ISO40 H70 ERX40	63		3 ÷ 30 mm	80



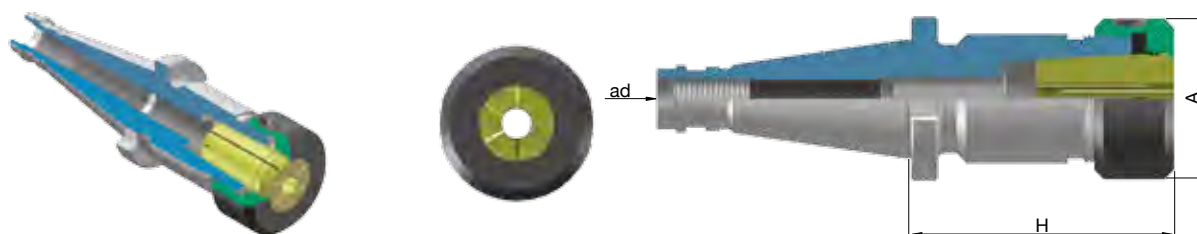
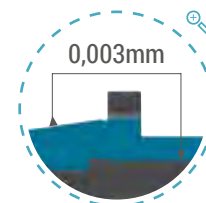
PORTAPINZA ER - COLLET CHUCK - ISO50

Cod.	TYPE	A	G6.3/12000		
			AT2	CAPACITĂ RANGĂ	
ISO.50.80.ER25	ISO50 H80 ERX25	42		1 ÷ 16 mm	80
ISO.50.69.ER32	ISO50 H69 ERX32	50		2 ÷ 20 mm	69
ISO.50.63.ER40	ISO50 H63 ERX40	63		3 ÷ 30 mm	63

PORTAPINZA EOC DIN6388

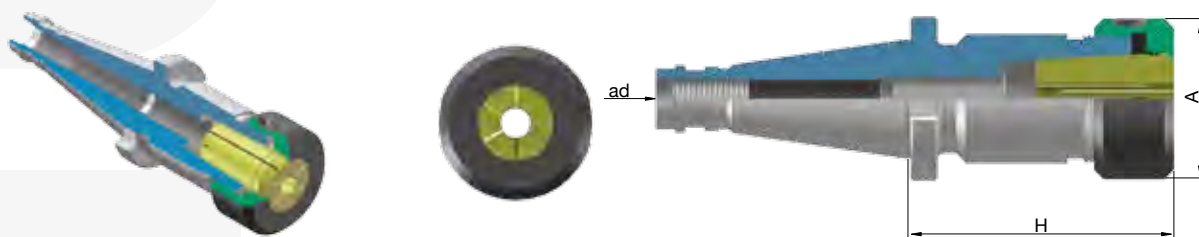
COLLET CHUCK FOR EOC DIN6388

DIN 2080



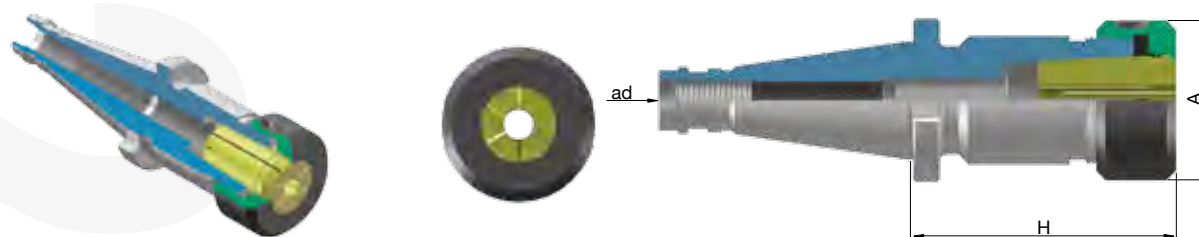
PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - ISO30

Cod.	TYPE	CAPACITÀ RANGE	AT2	G6.3/12000
			A	H
ISO.30.50.EOC16	ISO30 H50 EOC16	2 - 16 mm	43	50
ISO.30.80.EOC25	ISO30 H80 EOC25	2 - 25 mm	60	80



PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - ISO40

Cod.	TYPE	CAPACITÀ RANGE	G6.3/12000	
			AT2	H
ISO.40.55.EOC16	ISO40 H55 EOC16	2 - 16 mm	A	H
ISO.40.66.EOC25	ISO40 H66 EOC25	2 - 25 mm	43	55
ISO.40.95.EOC32	ISO40 H95 EOC32	4 - 32 mm	60	66



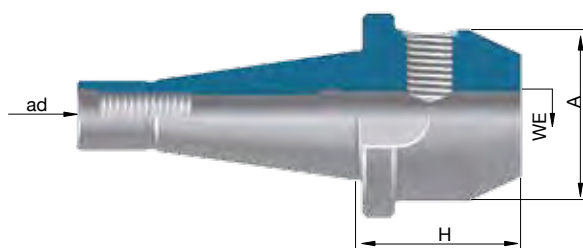
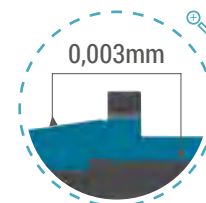
PORTAPINZA PER EOC - COLLET CHUCK FOR EOC - ISO50

Cod.	TYPE	CAPACITÀ RANGE	G6.3/12000	
			AT2	H
ISO.50.71.EOC25	ISO50 H71 EOC25	2 - 25 mm	A	H
ISO.50.73.EOC32	ISO50 H73 EOC32	4 - 32 mm	60	71

PER FRESE WELDON

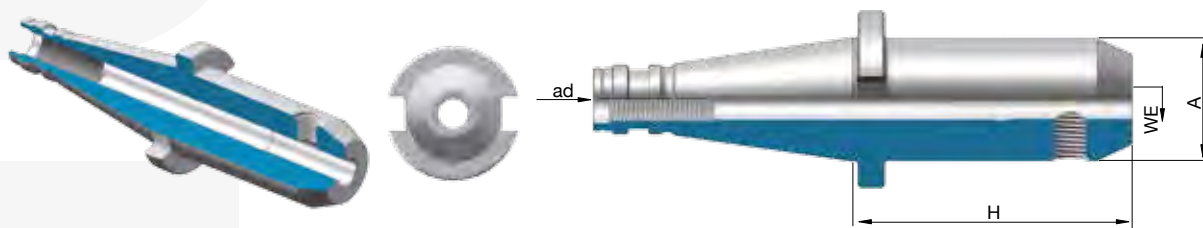
END MILL HOLDERS

DIN 2080



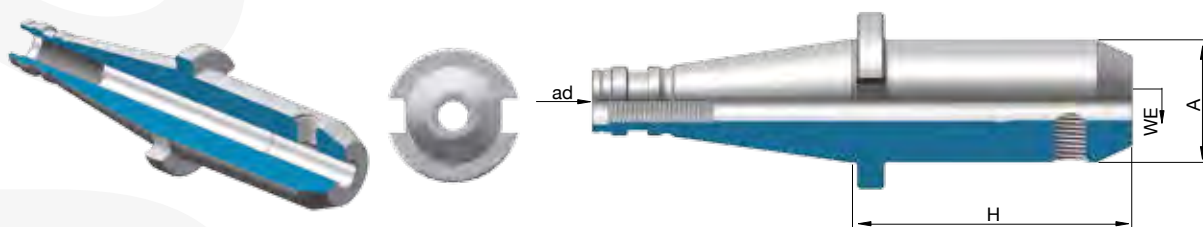
PER FRESE WELDON -END MILL HOLDERS - ISO30

Cod.	TYPE	A	AT2	G6.3/12000
			H	WE
ISO.30.40.WE6	ISO30 H40 WE6	25	40	6
ISO.30.40.WE8	ISO30 H40 WE8	28	40	8
ISO.30.40.WE10	ISO30 H40 WE10	35	40	10
ISO.30.40.WE12	ISO30 H40 WE12	42	40	12
ISO.30.50.WE14	ISO30 H50 WE14	44	50	14
ISO.30.50.WE16	ISO30 H50 WE16	48	50	16
ISO.30.50.WE18	ISO30 H50 WE18	50	50	18
ISO.30.63.WE20	ISO30 H63 WE20	52	63	20



PER FRESE WELDON -END MILL HOLDERS - ISO40

Cod.	TYPE	G6.3/12000		
		A	H	WE
ISO.40.50.WE6	ISO40 H50 WE6	25	50	6
ISO.40.50.WE8	ISO40 H50 WE8	28	50	8
ISO.40.50.WE10	ISO40 H50 WE10	35	50	10
ISO.40.50.WE12	ISO40 H50 WE12	42	50	12
ISO.40.50.WE14	ISO40 H50 WE14	44	50	14
ISO.40.63.WE16	ISO40 H63 WE16	48	63	16
ISO.40.63.WE18	ISO40 H63 WE18	50	63	18
ISO.40.63.WE20	ISO40 H63 WE20	52	63	20
ISO.40.80.WE25	ISO40 H80 WE25	63	80	25
ISO.40.80.WE32	ISO40 H80 WE32	72	80	32
ISO.40.90.WE40	ISO40 H90 WE40	90	90	40



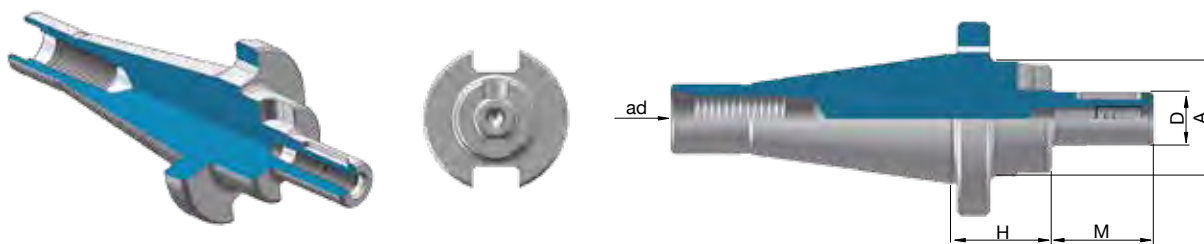
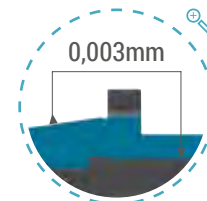
PER FRESE WELDON -END MILL HOLDERS - ISO50

Cod.	TYPE	G6.3/12000		
		A	H	WE
ISO.50.63.WE6	ISO50 H63 WE6	25	63	6
ISO.50.63.WE8	ISO50 H63 WE8	28	63	8
ISO.50.63.WE10	ISO50 H63 WE10	35	63	10
ISO.50.63.WE12	ISO50 H63 WE12	42	63	12
ISO.50.63.WE14	ISO50 H63 WE14	44	63	14
ISO.50.63.WE16	ISO50 H63 WE16	48	63	16
ISO.50.63.WE18	ISO50 H63 WE18	50	63	18
ISO.50.63.WE20	ISO50 H63 WE20	52	63	20
ISO.50.80.WE25	ISO50 H80 WE25	65	80	25
ISO.50.80.WE32	ISO50 H80 WE32	72	80	32
ISO.50.90.WE40	ISO50 H90 WE40	90	90	40

PORTAFRESE FISSI

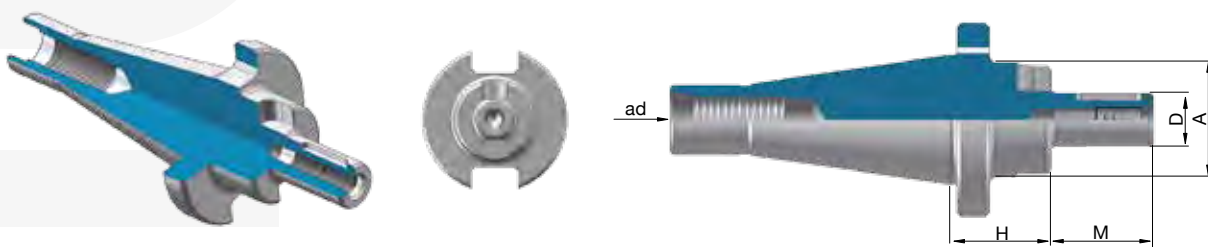
SHELL END MILL HOLDERS

DIN 2080



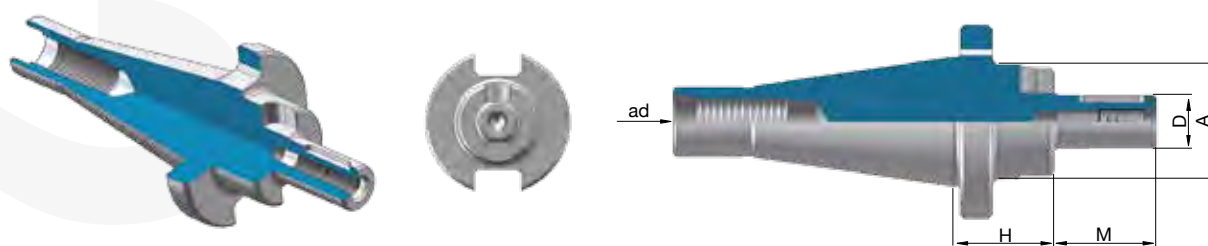
PORTAFRESE FISSO - SHELL END MILL HOLDERS - ISO30

Cod.	TYPE	A	M	AT2		G6.3/12000	
				H	D	H	D
ISO.30.35.D16S	ISO30 H35 D16S	32	17	35	16		
ISO.30.35.D22S	ISO30 H35 D22S	40	19	35	22		
ISO.30.35.D27S	ISO30 H35 D27S	48	21	35	27		
ISO.30.35.D32S	ISO30 H35 D32S	58	24	35	32		



PORTAFRESE FISSO - SHELL END MILL HOLDERS - ISO40

Cod.	TYPE	A	M	AT2		G6.3/12000	
				H	D	H	D
ISO.40.30.D16S	ISO40 H30 D16S	38	17	30	16		
ISO.40.35.D22S	ISO40 H35 D22S	48	19	35	22		
ISO.40.35.D27S	ISO40 H35 D27S	58	21	35	27		
ISO.40.35.D32S	ISO40 H35 D32S	63	24	35	32		
ISO.40.35.D40S	ISO40 H35 D40S	79	27	35	40		



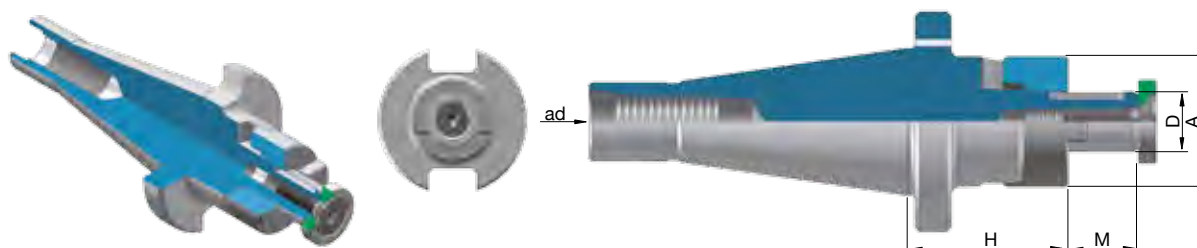
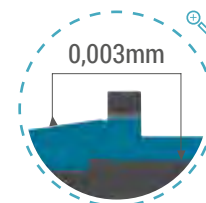
PORTAFRESE FISSO - SHELL END MILL HOLDERS - ISO50

Cod.	TYPE	A	M	AT2		G6.3/12000	
				H	D	H	D
ISO.50.45.D16S	ISO50 H45 D16S	38	17	45	16		
ISO.50.45.D22S	ISO50 H45 D22S	48	19	45	22		
ISO.50.45.D27S	ISO50 H45 D27S	58	21	45	27		
ISO.50.45.D32S	ISO50 H45 D32S	65	24	45	32		
ISO.50.45.D40S	ISO50 H45 D40S	80	27	45	40		

PORTAFRESE COMBINATI

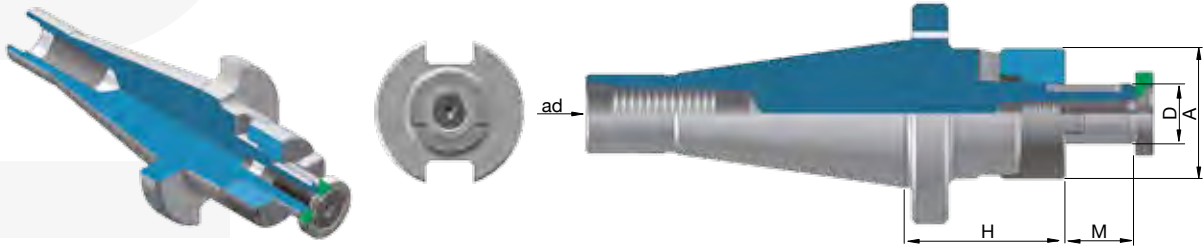
COMBI SHELL END MILL HOLDERS

DIN 2080



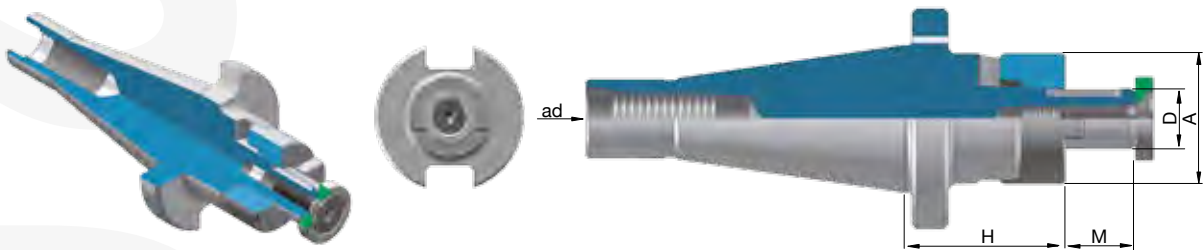
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - ISO30

Cod.	TYPE	A	M	AT2		G6.3/12000	
				H	D	H	D
ISO.30.35.D16C	ISO30 H35 D16C	32	17	35	16		
ISO.30.35.D22C	ISO30 H35 D22C	40	19	35	22		
ISO.30.35.D27C	ISO30 H35 D27C	48	21	35	27		
ISO.30.50.D32C	ISO30 H50 D32C	58	24	50	32		



PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - ISO40

Cod.	TYPE	A	M	AT2		G6.3/12000	
				H	D	H	D
ISO.40.52.D16C	ISO40 H52 D16C	32	17	52	16		
ISO.40.52.D22C	ISO40 H52 D22C	40	19	52	22		
ISO.40.52.D27C	ISO40 H52 D27C	48	21	52	27		
ISO.40.52.D32C	ISO40 H52 D32C	58	24	52	32		
ISO.40.52.D40C	ISO40 H52 D40C	70	27	52	40		



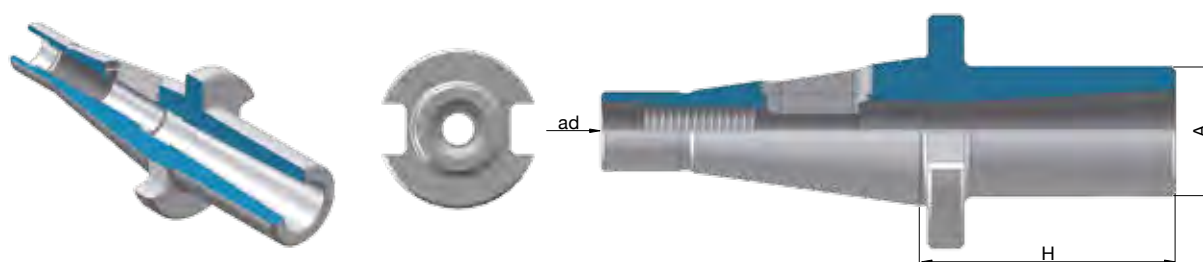
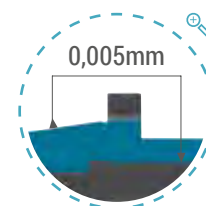
PORTAFRESE COMBINATO - COMBI SHELL END MILL HOLDERS - ISO50

Cod.	TYPE	A	M	AT2		G6.3/12000	
				H	D	H	D
ISO.50.55.D16C	ISO50 H55 D16C	32	17	55	16		
ISO.50.55.D22C	ISO50 H55 D22C	40	19	55	22		
ISO.50.55.D27C	ISO50 H55 D27C	48	21	55	27		
ISO.50.55.D32C	ISO50 H55 D32C	58	24	55	32		
ISO.50.55.D40C	ISO50 H55 D40C	70	27	55	40		

CONO MORSE PUNTE / FRESE

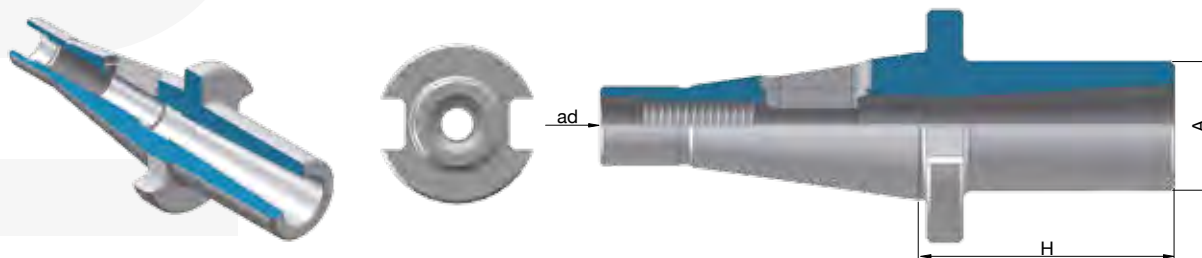
MORSE TAPER ADAPTERS FOR DRILLS / FOR MILLS

DIN 2080



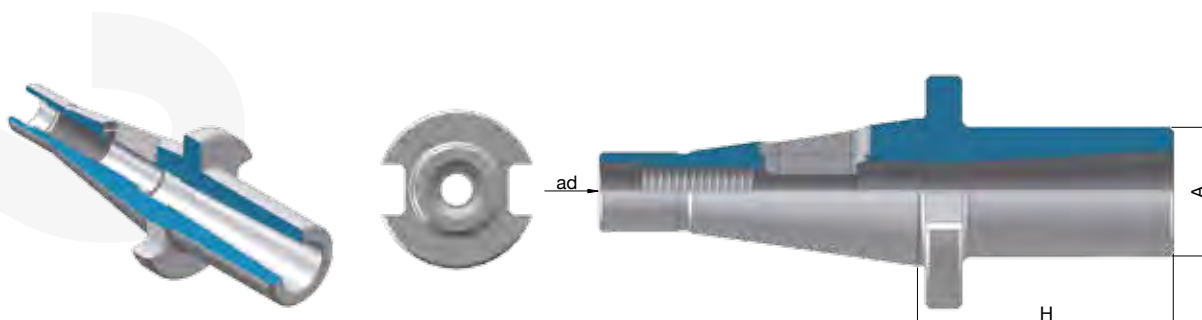
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - ISO30

Cod.	TYPE	AT2	
		G6.3/12000	
		A	H
ISO.30.50.CM1P	ISO30 H50 CM1 P	25	50
ISO.30.50.CM2P	ISO30 H50 CM2 P	32	50
ISO.30.75.CM3P	ISO30 H75 CM3 P	40	75



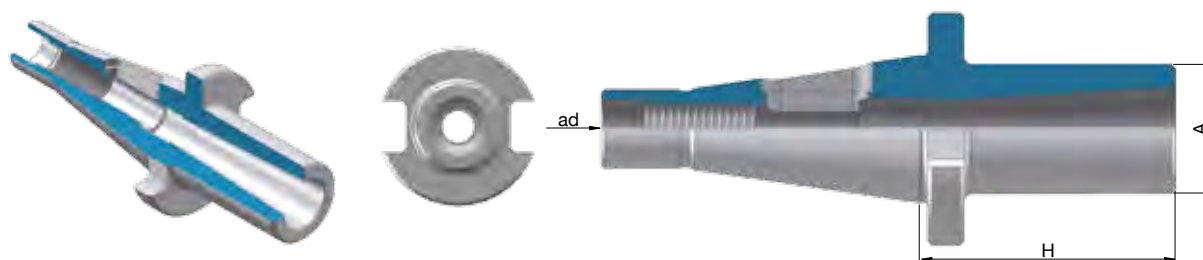
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - ISO40

Cod.	TYPE	G6.3/12000	
		AT2	H
ISO.40.50.CM1P	ISO40 H50 CM1 P	25	50
ISO.40.50.CM2P	ISO40 H50 CM2 P	32	50
ISO.40.65.CM3P	ISO40 H65 CM3 P	40	65
ISO.40.95.CM4P	ISO40 H95 CM4 P	48	95



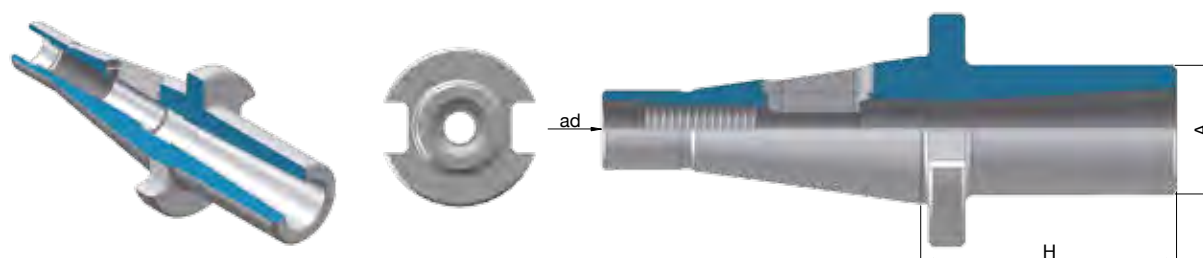
CONO MORSE PER PUNTE - MORSE TAPER FOR DRILLS - ISO50

Cod.	TYPE	G6.3/12000	
		AT2	H
ISO.50.45.CM1P	ISO50 H45 CM1 P	25	45
ISO.50.60.CM2P	ISO50 H60 CM2 P	32	60
ISO.50.65.CM3P	ISO50 H65 CM3 P	40	65
ISO.50.70.CM4P	ISO50 H70 CM4 P	48	70
ISO.50.105.CM5P	ISO50 H105 CM5 P	63	105



CONO MORSE PER FRESE - MORSE TAPER FOR MILLS - ISO40

Cod.	TYPE	G6.3/12000	
		AT2	H
ISO.40.50.CM1F	ISO40 H50 CM1 FV	25	50
ISO.40.50.CM2F	ISO40 H50 CM2 FV	32	50
ISO.40.65.CM3F	ISO40 H65 CM3 FV	40	65
ISO.40.95.CM4F	ISO40 H95 CM4 FV	48	95
ISO.40.110.CM4F	ISO40 H110 CM4 FV	63	110

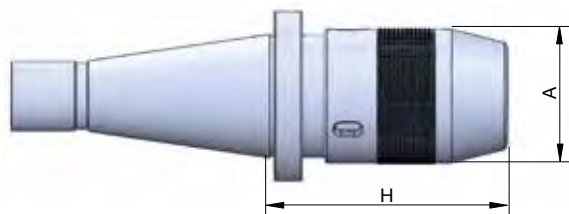
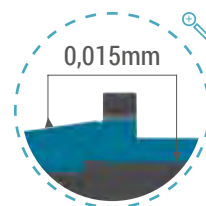


CONO MORSE PER FRESE - MORSE TAPER FOR MILLS - ISO50

Cod.	TYPE	G6.3/12000	
		AT2	H
ISO.50.60.CM1F	ISO50 H60 CM1 FV	25	60
ISO.50.60.CM2F	ISO50 H60 CM2 FV	32	60
ISO.50.65.CM3F	ISO50 H65 CM3 FV	40	65
ISO.50.65.CM4F	ISO50 H65 CM4 FV	48	65
ISO.50.80.CM4F	ISO50 H80 CM4 FV	63	80
ISO.50.120.CM5F	ISO50 H120 CM5 FV	63	120
ISO.50.138.CM5F	ISO50 H138 CM5 FV	78	138

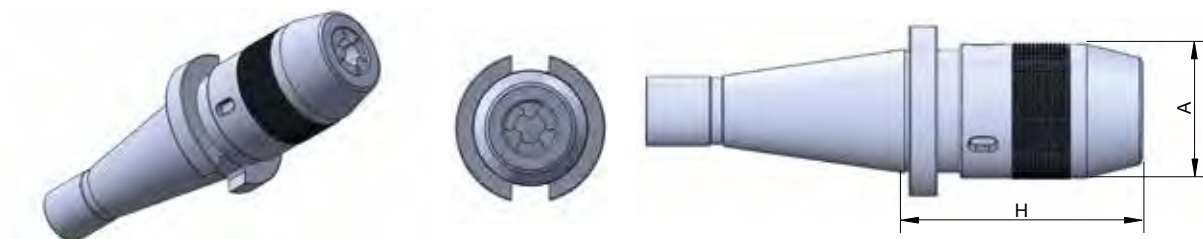
PORTAPUNTE AUTOSERRANTE

DRILL CHUCK



AUTOSERRANTE CON CHIAVE A SETTORE - DRILL CHUCK - ISO40

Cod.	TYPE	A	AT2	G6.3/12000
			CAPACITÀ RANGE	H
ISO.40.88.DCK13	ISO40 H88 DCK13	50	1 ÷ 13 mm	88
ISO.40.100.DCK16	ISO40 H100 DCK16	58	3 ÷ 16 mm	100

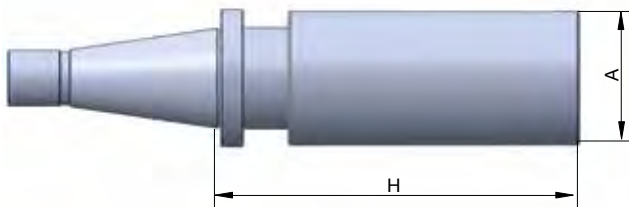


AUTOSERRANTE CON CHIAVE A SETTORE - DRILL CHUCK - ISO50

Cod.	TYPE	A	AT2	G6.3/12000
			CAPACITÀ RANGE	H
ISO.50.80.DCK13	ISO50 H80 DCK13	50	1 ÷ 13 mm	80
ISO.50.90.DCK16	ISO50 H90 DCK16	58	3 ÷ 16 mm	90

STELO TENERO LAVORABILE

BLANKS ARBORS



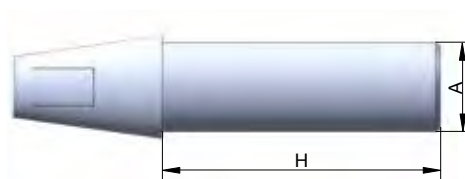
STELO TENERO LAVORABILE - BLANKS ARBORS - ISO40

Cod.	TYPE	A	H
ISO.40.250.D63BL	ISO40 H250 D63	63	250
ISO.50.315.D97BL	ISO40 H315 D97	97	315

BARRA DI CONTROLLO

TEST ARBORS

DIN 2080



BARRA DI CONTROLLO - TEST ARBORS

Cod.	TYPE	A	H
ISO.30.200.D32	ISO30 H200 D32	32	200
ISO.40.300.D40	ISO40 H300 D40	40	300
ISO.50.300.D50	ISO50 H300 D50	50	300

ADATTATORI VARILOCK

TOOL HOLDER FOR VARILOCK SYSTEM



ATTACCO BASE TC-SK DIN69871

*MODULAR BASIC MOUNTING FOR
TC-SK DIN69871*



ATTACCO BASE BT MAS 403 / JIS6399

*MODULAR BASIC MOUNTING FOR BT
MAS 403 / JIS6399*



ATTACCO BASE PER HSK DIN 63893

*MODULAR BASIC MOUNTING FOR
HSK DIN 63893*



PROLUNGHE MODULARI
MODULAR EXTENSIONS ADAPTERS



ADATTATORI MODULARI PER WELDON
MODULAR END MILL ADAPTERS



ADATTATORI MODULARI PER FRESE
MODULAR SHELL END MILL HOLDERS

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre
- Eseguiti trattamenti termici da fornitori certificati ISO 9001
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- La tolleranza di precisione dei coni VARILOCK è AT2
- L'errore di concentricità massimo tra il cono e la sede utensile è 0.003 mm.

TECHNICAL FEATURES

- *Manufactured with certificate steel*
- *Heat treatments are performed by certified suppliers ISO 9001*
- *Precision ground on shank, inside tapers and collet nut threads*
- *Tested with high precision inspection and gaging equipment*
- *Taper accuracy of TOOLHOLDER FOR VARILOCK SYSTEM lower than AT2*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003 mm.*

CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes VARILOCK est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.

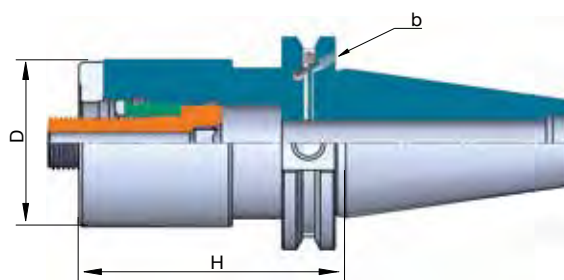
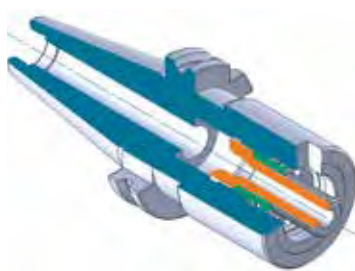
MERKMALE

- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die Präzisionstoleranz der VARILOCK ist AT2*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm.*



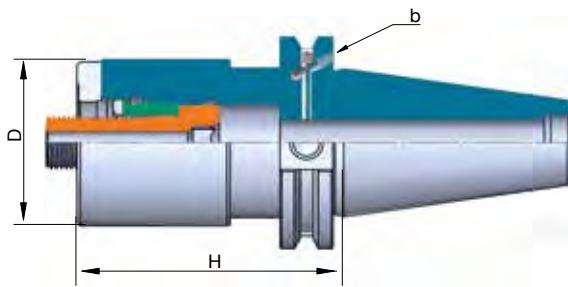
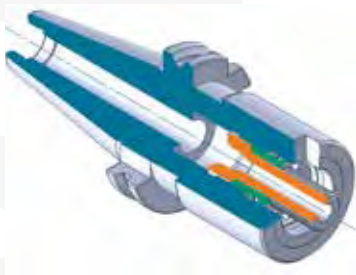
ATTACCO BASE TC-SK DIN69871

MODULAR BASIC MOUNTING FOR TC-SK
DIN69871



ATTACCO BASE TCB40 - MODULAR BASIC COUNTING FOR SKB40

Cod.	TYPE	AT2	G6.3/12000	AD/B
		H	D	
SKB.40.27.VAR50	TC40-SK40 DIN69871 H27 VARILOCK50	27	50	
SKB.40.50.VAR50	TC40-SK40 DIN69871 H50 VARILOCK50	50	50	
SKB.40.27.VAR63	TC40-SK40 DIN69871 H27 VARILOCK63	27	63	
SKB.40.50.VAR63	TC40-SK40 DIN69871 H50 VARILOCK63	50	63	

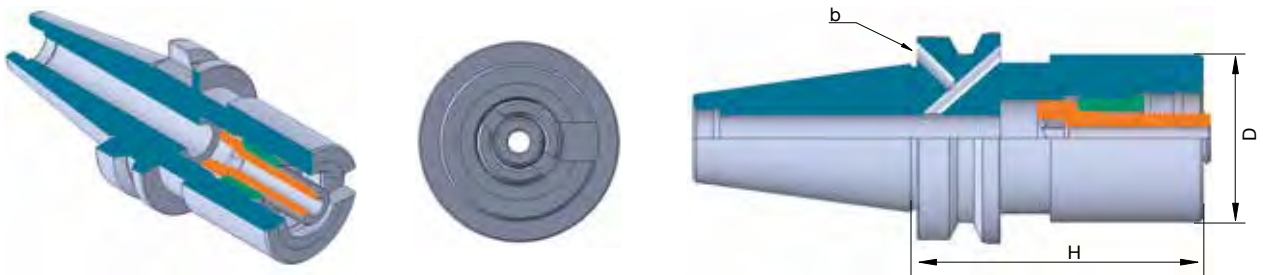


ATTACCO BASE TCB50 - MODULAR BASIC COUNTING FOR SKB50

Cod.	TYPE	AT2	G6.3/12000	AD/B
		H	D	
SKB.50.27.VAR50	TC50-SK50 DIN69871 H27 VARILOCK50	27	50	
SKB.50.50.VAR50	TC50-SK50 DIN69871 H50 VARILOCK50	50	50	
SKB.50.27.VAR63	TC50-SK50 DIN69871 H27 VARILOCK63	27	63	
SKB.50.50.VAR63	TC50-SK50 DIN69871 H50 VARILOCK63	50	63	
SKB.50.27.VAR80	TC50-SK50 DIN69871 H27 VARILOCK80	27	80	
SKB.50.50.VAR80	TC50-SK50 DIN69871 H50 VARILOCK80	50	80	

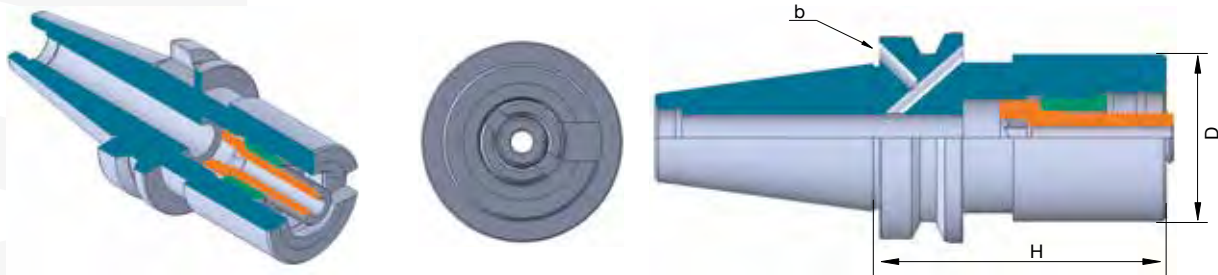
ATTACCO BASE BT MAS 403 / JIS6399

*MODULAR BASIC MOUNTING FOR
BT MAS 403 / JIS6399*



ATTACCO BASE BTB40 - MODULAR BASIC COUNTING FOR BTB40

Cod.	TYPE	AT2	G6.3/12000	AD/B
		H	D	
BTB.40.27.VAR50	BTB40 MAS403 H27 VARILOCK50	27	50	
BTB.40.50.VAR50	BTB40 MAS403 H50 VARILOCK50	50	50	
BTB.40.27.VAR63	BTB40 MAS403 H27 VARILOCK63	27	63	
BTB.40.50.VAR63	BTB40 MAS403 H50 VARILOCK63	50	63	



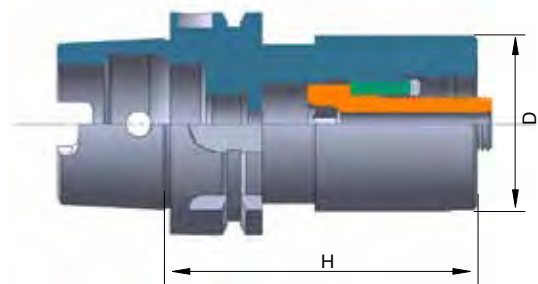
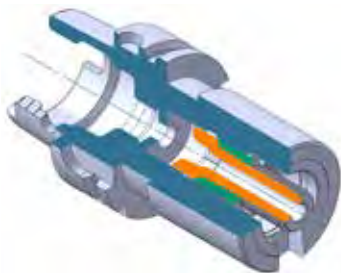
ATTACCO BASE BTB50 - MODULAR BASIC COUNTING FOR BTB50

Cod.	TYPE	AT2	G6.3/12000	AD/B
		H	D	
BTB.50.50.VAR50	BTB50 MAS403 H50 VARILOCK50	50	50	
BTB.50.50.VAR63	BTB50 MAS403 H50 VARILOCK63	50	63	
BTB.50.50.VAR80	BTB50 MAS403 H50 VARILOCK80	50	80	

ATTACCO BASE PER HSK DIN 63893

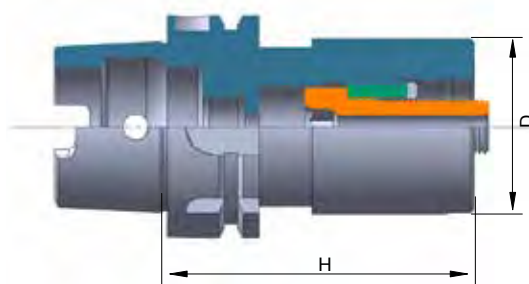
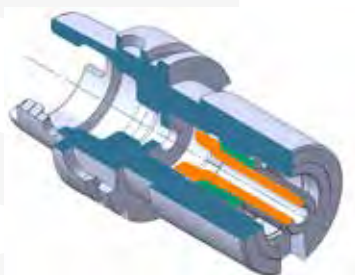
MODULAR TOOL HOLDERS VARILOCK SYSTEM
SUPPLIED WITH COOLING TUBE

VARILOCK



ATTACCO BASE PER HSK63A - MODULAR BASIC MOUNTING FOR HSK63A

Cod.	TYPE	AT2	G6.3/12000
		H	D
HSK.A.63.80.VAR50	HSK63A H80 VARILOCK 50	80	50
HSK.A.63.90.VAR63	HSK63A H90 VARILOCK 63	90	63



ATTACCO BASE PER HSK63A - MODULAR BASIC MOUNTING FOR HSK100A

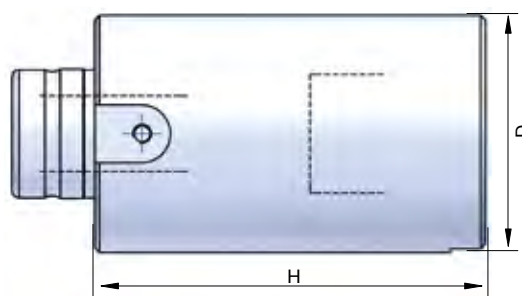
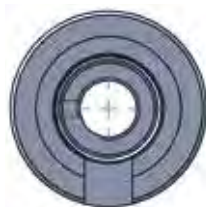
AT2

G6.3/12000

Cod.	TYPE		
HSK.A.100.85.VAR50	HSK100A H85 VARILOCK 50	85	50
HSK.A.100.95.VAR63	HSK100A H95 VARILOCK 63	95	63
HSK.A.100.95.VAR80	HSK100A H95 VARILOCK 80	95	80

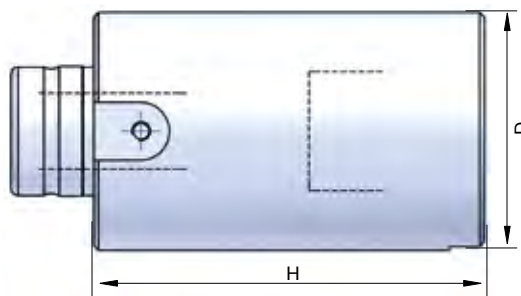
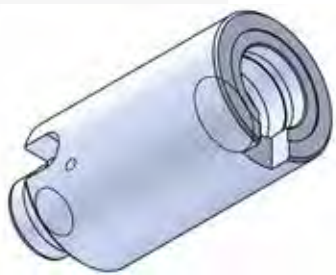
PROLUNGHE MODULARI

MODULAR EXTENSIONS ADAPTERS



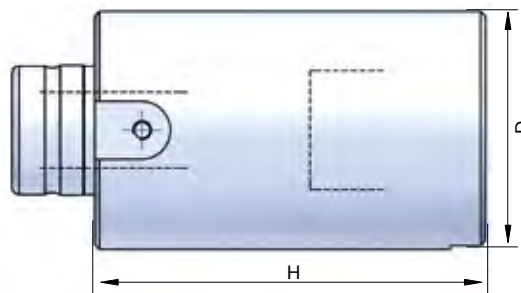
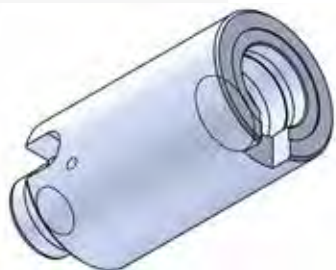
PROLUNGHE MODULARI - MODULAR EXTENSIONS ADAPTERS - VARILOCK 50

Cod.	TYPE	H	D
VAR50.60.VAR50	VARILOCK50 H60 VARILOCK 50	60	50
VAR50.100.VAR50	VARILOCK50 H100 VARILOCK 50	100	50



PROLUNGHE MODULARI - MODULAR EXTESIONS ADAPTERS - VARILOCK 63

Cod.	TYPE	H	D
VAR63.80.VAR63	VARILOCK63 H80 VARILOCK 63	80	63
VAR63.120.VAR63	VARILOCK63 H120 VARILOCK 63	120	63



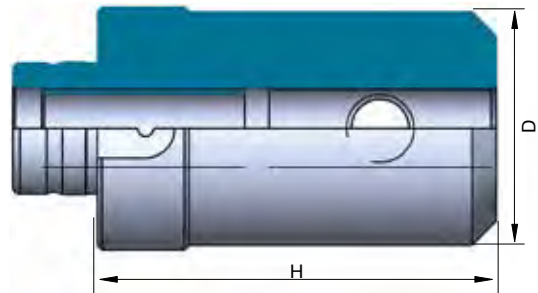
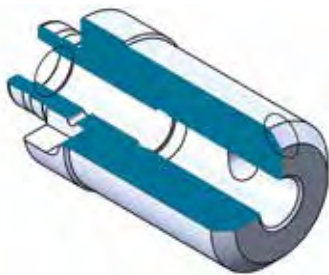
PROLUNGHE MODULARI - MODULAR EXTESIONS ADAPTERS - VARILOCK 80

Cod.	TYPE	H	D
VAR80.80.VAR80	VARILOCK63 H80 VARILOCK 80	80	80

ADATTATORI MODULARI PER WELDON

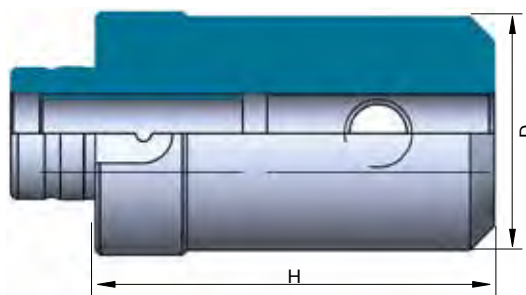
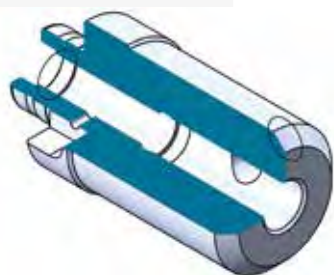
MODULAR END MILL ADAPTERS

VARILOCK



ADATTATORI MODULARI WELDON - MODULAR END MILL ADAPTERS - VAR50

Cod.	TYPE	H	D
VAR50.50.WE6	VARILOCK50 H50 WELDON6	50	6
VAR50.50.WE8	VARILOCK50 H50 WELDON8	50	8
VAR50.50.WE10	VARILOCK50 H50 WELDON10	50	10
VAR50.60.WE12	VARILOCK50 H60 WELDON12	60	12
VAR50.60.WE14	VARILOCK50 H60 WELDON14	60	14
VAR50.60.WE16	VARILOCK50 H60 WELDON16	60	16
VAR50.60.WE18	VARILOCK50 H60 WELDON18	60	18
VAR50.60.WE20	VARILOCK50 H60 WELDON20	60	20



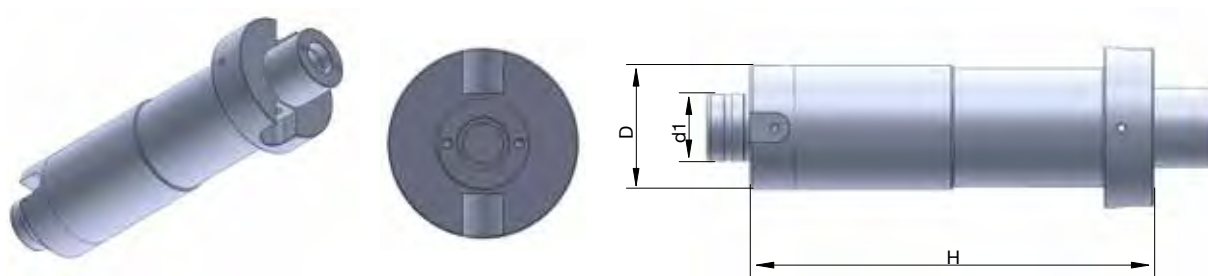
ADATTATORI MODULARI WELDON - MODULAR END MILL ADAPTERS - VAR63

Cod.	TYPE	H	D
VAR63.70.WE6	VARILOCK63 H70 WELDON6	70	6
VAR63.70.WE8	VARILOCK63 H70 WELDON8	70	8
VAR63.70.WE10	VARILOCK63 H70 WELDON10	70	10
VAR63.70.WE12	VARILOCK63 H70 WELDON12	70	12
VAR63.70.WE14	VARILOCK63 H70 WELDON14	70	14
VAR63.70.WE16	VARILOCK63 H70 WELDON16	70	16
VAR63.70.WE18	VARILOCK63 H70 WELDON18	70	18
VAR63.70.WE20	VARILOCK63 H70 WELDON20	70	20
VAR63.80.WE25	VARILOCK63 H80 WELDON25	80	25
VAR63.80.WE32	VARILOCK63 H80 WELDON32	80	32

ADATTATORI MODULARI PER FRESE

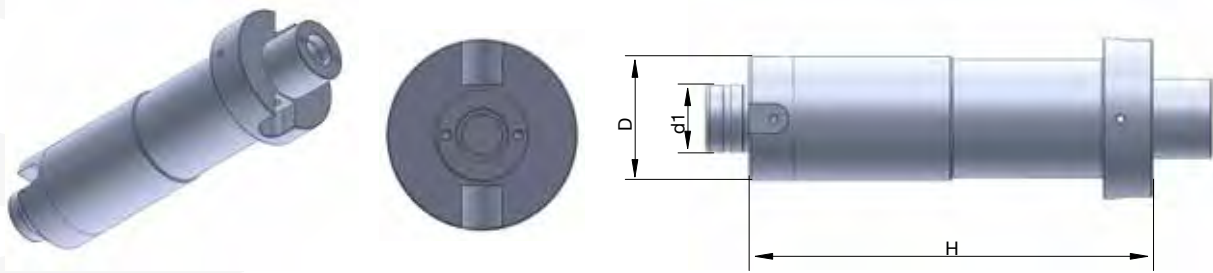
MODULAR SHELL END MILL HOLDERS

VARILOCK



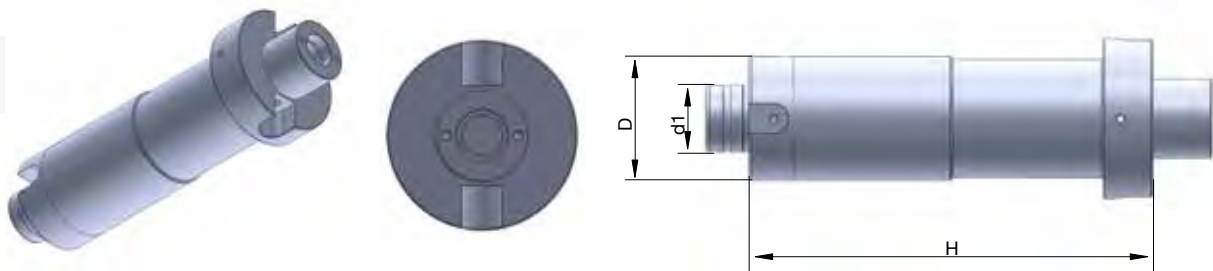
ADATTATORI MODULARI PORTA FRESE - MODULAR SHELL END MILL HOLDERS - VAR50

Cod.	TYPE	D	H	d1
VAR50.30.D16S	VARILOCK50 H30 D16S	50	30	16
VAR50.20.D22S	VARILOCK50 H20 D22S	50	20	22
VAR50.20.D27S	VARILOCK50 H20 D27S	50	20	27
VAR50.25.D32S	VARILOCK50 H25 D32S	50	25	32
VAR50.25.D40S	VARILOCK50 H25 D40S	50	25	40



ADATTATORI MODULARI PORTA FRESE - MODULAR SHELL END MILL HOLDERS - VAR63

Cod.	TYPE	D	H	d1
VAR63.40.D16S	VARILOCK63 H40 D16S	63	40	16
VAR63.30.D22S	VARILOCK63 H30 D22S	63	30	22
VAR63.30.D27S	VARILOCK63 H30 D27S	63	30	27
VAR63.30.D32S	VARILOCK63 H30 D32S	63	30	32
VAR63.30.D40S	VARILOCK63 H30 D40S	63	30	40



ADATTATORI MODULARI PORTA FRESE - MODULAR SHELL END MILL HOLDERS - VAR80

Cod.	TYPE	D	H	d1
VAR80.30.D22S	VARILOCK80 H30 D22S	80	30	22
VAR80.30.D27S	VARILOCK80 H30 D27S	80	30	27
VAR80.30.D32S	VARILOCK80 H30 D32S	80	30	32
VAR80.30.D40S	VARILOCK80 H30 D40S	80	30	40

CILINDRICI

CYLINDRICAL



**CALETTAMENTO A CALDO
STANDARD**

SHRINK FIT HOLDERS STANDARD



**PORTA TESTINE FILETTATE
(CPY)**

FOR SCREWED MILLING CUTTERS



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN



CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre
- Eseguiti trattamenti termici da fornitori certificati ISO 9001
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- L'errore di concentricità massimo tra il cono e la sede utensile è 0.003 mm
- Fornibili con o senza piano.



CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.
- Peuvent être fournis avec ou sans meplat.



TECHNICAL FEATURES

- *Manufactured with certificate steel*
- *Heat treatments are performed by certified suppliers ISO 9001*
- *Precision ground on shank, inside tapers and collet nut threads*
- *Tested with high precision inspection and gaging equipment*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003 mm*
- *Available with or without plan.*



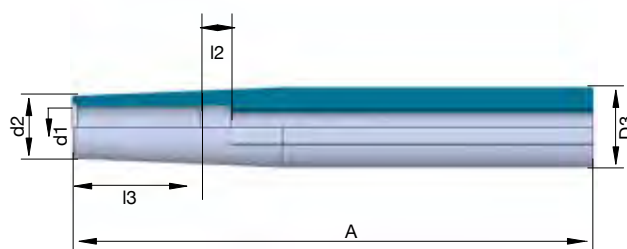
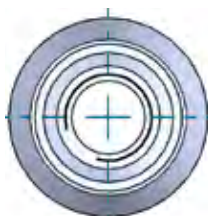
MERKMALE

- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitsgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm*
- *Erhältlich mit oder ohne top.*



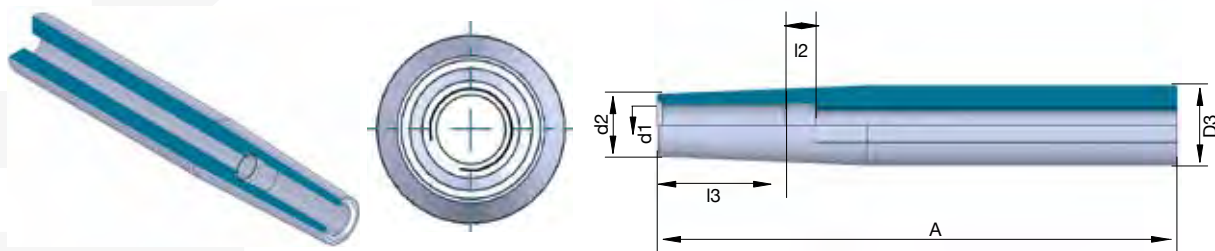
CALETTAMENTO A CALDO

CYLINDRICAL SHRINK FIT HOLDERS



CALETTAMENTO A CALDO - CYLINDRICAL SHRINK FIT HOLDERS

Cod.	TYPE	d1	d2	D3	A	l2	l3	M
D12.150.CL3	D12 L150 CL3	3	8	12	150	-	12	M5
D12.150.CL4	D12 L150 CL4	4	8	12	150	-	16	M5
D16.150.CL3	D16 L150 CL3	3	10	16	150	-	12	M5
D16.150.CL4	D16 L150 CL4	4	10	16	150	-	16	M5
D16.150.CL5	D16 L150 CL5	5	10	16	150	-	20	M6
D16.150.CL6	D16 L150 CL6	6	10	16	150	10	26	M5
D20.150.CL3	D20 L150 CL3	3	10	20	150	-	12	M5
D20.150.CL4	D20 L150 CL4	4	10	20	150	-	16	M5
D20.150.CL5	D20 L150 CL5	5	10	20	150	-	20	M6
D20.150.CL6	D20 L150 CL6	6	10	20	150	10	26	M5
D20.150.CL8	D20 L150 CL8	8	12	20	150	10	26	M6



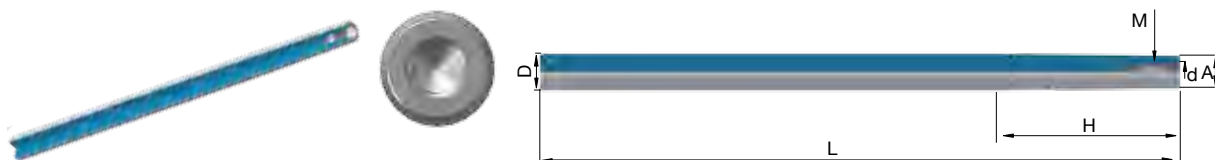
CALETTAMENTO A CALDO - CYLINDRICAL SHRINK FIT HOLDERS

Cod.	TYPE	d1	d2	D3	A	l2	l3	M
D20.150.CL10	D20 L150 CL10	10	14	20	150	10	32	M6
D20.150.CL12	D20 L150 CL12	12	16	20	150	10	37	M10
D25.150.CL8	D25 L150 CL8	8	20	25	150	10	26	M6
D25.150.CL10	D25 L150 CL10	10	20	25	150	10	32	M6
D25.150.CL12	D25 L150 CL12	12	20	25	150	10	37	M10
D25.150.CL14	D25 L150 CL14	14	20	25	150	10	37	M10
D25.150.CL16	D25 L150 CL16	16	22	25	150	10	40	M10
D32.150.CL10	D32 L150 CL10	10	24	32	150	10	32	M6
D32.150.CL12	D32 L150 CL12	12	24	32	150	10	37	M10
D32.150.CL14	D32 L150 CL14	14	27	32	150	10	37	M10
D32.150.CL16	D32 L150 CL16	16	27	32	150	10	40	M10
D32.150.CL18	D32 L150 CL18	18	27	32	150	10	40	M10
D32.150.CL20	D32 L150 CL20	20	27	32	150	10	42	M10

SU RICHIESTA: POSSIBILE FORNIRE LUNGHEZZA FINO A 500 MM
ON REQUEST: AVAILABLE UP TO LENGTH 500 MM

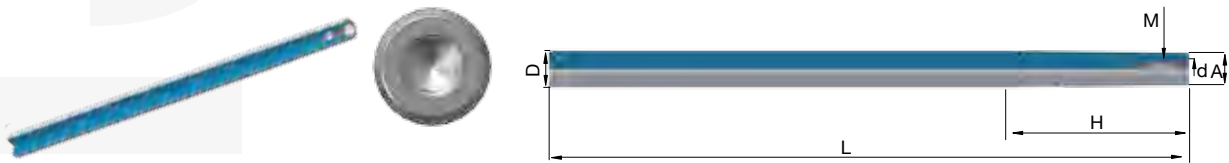
PORTA TESTINE FILETTATE (CPY)

EXTENTIONS FOR SCREWED MILLING CUTTERS



PORTA TESTINE FILETTATE - EXTENSIONS FOR SCREWED MILLING CUTTERS

Cod.	TYPE	H	M	d	A	D	L
D12.65.M5CPY	D.12 L65 M5 CPY	20	M5	5,5	10	12	65
D20.75.M6CPY	D.20 L75 M6 CPY	25	M6	6,5	10	20	75
D20.100.M6CPY	D.20 L100 M6 CPY	50	M6	6,5	10	20	100
D20.125.M6CPY	D.20 L125 M6 CPY	75	M6	6,5	10	20	125
D16.88.M8CPY	D.16 L88 M8 CPY	40	M8	8,5	12,8	16	88
D20.75.M8CPY	D.20 L75 M8 CPY	25	M8	8,5	12,8	20	75
D20.100.M8CPY	D.20 L100 M8 CPY	50	M8	8,5	12,8	20	100
D20.125.M8CPY	D.20 L125 M8 CPY	75	M8	8,5	12,8	20	125
D20.150.M8CPY	D.20 L150 M8 CPY	100	M8	8,5	12,8	20	150
D20.75.M10CPY	D.20 L75 M10 CPY	25	M10	10,5	17,8	20	75

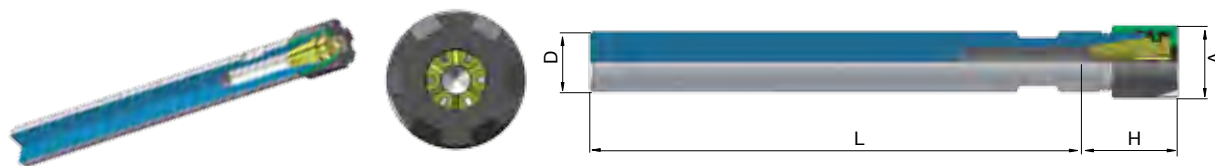


PORTA TESTINE FILETTATE - EXTENSIONS FOR SCREWED MILLING CUTTERS

Cod.	TYPE	H	M	d	A	D	L
D20.80.M10CPY	D.20 L80 M10 CPY	25	M10	10,5	17,8	20	80
D20.100.M10CPY	D.20 L100 M10 CPY	50	M10	10,5	17,8	20	100
D20.125.M10CPY	D.20 L125 M10 CPY	75	M10	10,5	17,8	20	125
D20.150.M10CPY	D.20 L150 M10 CPY	100	M10	10,5	17,8	20	150
D25.81.M12CPY	D.25 L81 M12 CPY	25	M12	12,5	20,8	25	81
D25.101.M12CPY	D.25 L101 M12 CPY	50	M12	12,5	20,8	25	101
D25.131.M12CPY	D.25 L131 M12 CPY	75	M12	12,5	20,8	25	131
D25.170.M12CPY	D.25 L170 M12 CPY	100	M12	12,5	20,8	25	170
D25.181.M12CPY	D.25 L181 M12 CPY	125	M12	12,5	20,8	25	181
D32.170.M12CPY	D.32 L170 M12 CPY	100	M12	17	28,8	32	170
D32.85.M16CPY	D.32 L85 M16 CPY	25	M16	17	28,8	32	85
D32.105.M16CPY	D.32 L105 M16 CPY	50	M16	17	28,8	32	105
D32.135.M16CPY	D.32 L135 M16 CPY	75	M16	17	28,8	32	135
D32.185.M16CPY	D.32 L185 M16 CPY	125	M16	17	28,8	32	185

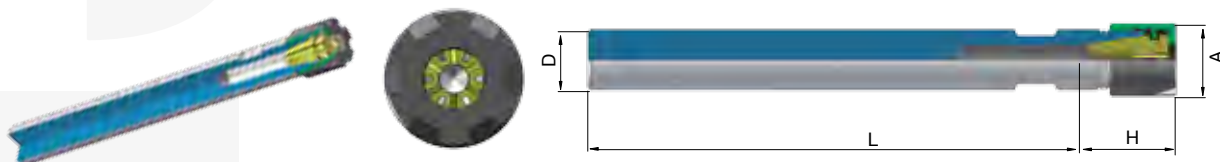
PORTA PINZA ER DIN6499

CYLINDRICAL COLLET CHUCKS FOR ER DIN6499



PORTAPINZE CILINDRICI PER ER MINI - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
D5.30.ER8M	D. 5 L30 ERX8M	1 ÷ 5 mm	25	12	5	30
D5.45.ER8M	D. 5 L45 ERX8M	1 ÷ 5 mm	25	12	5	45
D6.30.ER8M	D. 6 L30 ERX8M	1 ÷ 5 mm	25	12	6	30
D6.45.ER8M	D. 6 L45 ERX8M	1 ÷ 5 mm	25	12	6	45
D7.45.ER8M	D. 7 L45 ERX8M	1 ÷ 5 mm	25	12	7	45
D8.55.ER8M	D. 8 L55 ERX8M	1 ÷ 5 mm	25	12	8	55
D8.80.ER8M	D. 8 L80 ERX8M	1 ÷ 5 mm	25	12	8	80
D8.100.ER8M	D. 8 L100 ERX8M	1 ÷ 5 mm	25	12	8	100



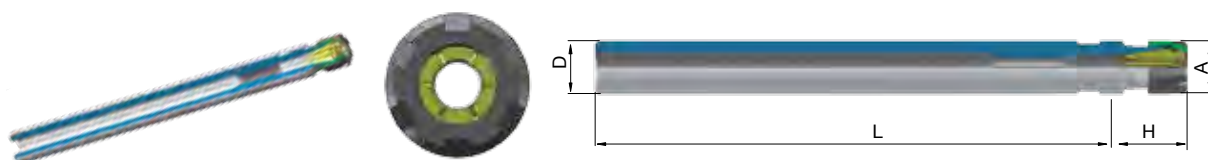
PORTAPINZE CILINDRICI PER ER MINI - *CYLINDRICAL COLLETS CHUCK ER MINI*

Cod.	TYPE	TOOL DIA.	H	A	D	L
D8.130.ER8M	D. 8 L130 ERX8M	1 ÷ 5 mm	25	12	8	130
D10.80.ER8M	D.10 L80 ERX8M	1 ÷ 5 mm	25	12	10	80
D10.100.ER8M	D.10 L100 ERX8M	1 ÷ 5 mm	19	12	10	100
D12.80.ER8M	D.12 L80 ERX8M	1 ÷ 5 mm	19	12	12	80
D12.100.ER8M	D.12 L100 ERX8M	1 ÷ 5 mm	19	12	12	100
D12.130.ER8M	D.12 L130 ERX8M	1 ÷ 5 mm	19	12	12	130
D12.160.ER8M	D.12 L160 ERX8M	1 ÷ 5 mm	19	12	12	160
D12.200.ER8M	D.12 L200 ERX8M	1 ÷ 5 mm	19	12	12	200



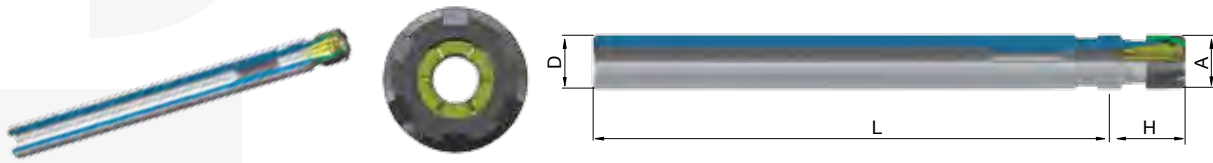
CASSETTA CON MANDRINO CILINDRICO - KIT

Cod.	Type Mandr.	Collets in Kit - 9 Pcs
B-MND0108-9	D.12 L100 ERX8M	1 ÷ 5 x 0,5 mm
B-MND0271-9	D.12 L130 ERX8M	1 ÷ 5 x 0,5 mm
B-MND0272-9	D.12 L160 ERX8M	1 ÷ 5 x 0,5 mm
B-MND0273-9	D.12 L200 ERX8M	1 ÷ 5 x 0,5 mm


PORTAPINZE CILINDRICI PER ER MINI - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
D6.45.ER11M	D. 6 L45 ERX11M	1 ÷ 7 mm	37	16	6	45
D7.45.ER11M	D. 7 L45 ERX11M	1 ÷ 7 mm	37	16	7	45
D8.55.ER11M	D. 8 L55 ERX11M	1 ÷ 7 mm	26	16	8	55
D10.60.ER11M	D.10 L60 ERX11M	1 ÷ 7 mm	26	16	10	60
D10.100.ER11M	D.10 L100 ERX11M	1 ÷ 7 mm	26	16	10	100
D12.70.ER11M	D.12 L70 ERX11M	1 ÷ 7 mm	26	16	12	70
D12.100.ER11M	D.12 L100 ERX11M	1 ÷ 7 mm	26	16	12	100
D12.140.ER11M	D.12 L140 ERX11M	1 ÷ 7 mm	26	16	12	140
D16.40.ER11M	D.16 L40 ERX11M	1 ÷ 7 mm	19	16	16	40
D16.60.ER11M	D.16 L60 ERX11M	1 ÷ 7 mm	19	16	16	60
D16.100.ER11M	D.16 L100 ERX11M	1 ÷ 7 mm	19	16	16	100
D16.130.ER11M	D.16 L130 ERX11M	1 ÷ 7 mm	19	16	16	130
D16.160.ER11M	D.16 L160 ERX11M	1 ÷ 7 mm	19	16	16	160
D.16.200.ER11M	D.16 L200 ERX11M	1 ÷ 7 mm	19	16	16	200
D.16.250.ER11M	D.16 L250 ERX11M	1 ÷ 7 mm	19	16	16	250
D16.300.ER11M	D.16 L300 ERX11M	1 ÷ 7 mm	19	16	16	300
D20.70.ER11M	D.20 L70 ERX11M	1 ÷ 7 mm	19	16	20	70
D20.100.ER11M	D.20 L100 ERX11M	1 ÷ 7 mm	19	16	20	100
D20.130.ER11M	D.20 L130 ERX11M	1 ÷ 7 mm	19	16	20	130
D20.160.ER11M	D.20 L160 ERX11M	1 ÷ 7 mm	19	16	20	160
D25.100.ER11M	D.25 L100 ERX11M	1 ÷ 7 mm	19	16	25	100
D25.160.ER11M	D.25 L160 ERX11M	1 ÷ 7 mm	19	16	25	160

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER MINI - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
MND1911	D.5/8" L2.5 ERX11M	1 ÷ 7 mm	.75	.629	5/8"	2.5
MND1448	D.5/8" L4.00 ERX11M	1 ÷ 7 mm	.75	.629	5/8"	4.00
MND0151	D.5/8" L5.11 ERX11M	1 ÷ 7 mm	.75	.629	5/8"	5.11
MND1463	D.3/4" L2.50 ERX11M	1 ÷ 7 mm	.75	.629	3/4"	2.50
MND1464	D.3/4" L3.93 ERX11M	1 ÷ 7 mm	.75	.629	3/4"	3.93
MND1465	D.3/4" L5.11 ERX11M	1 ÷ 7 mm	.75	.629	3/4"	5.11
MND1466	D.3/4" L6.30 ERX11M	1 ÷ 7 mm	.75	.629	3/4"	6.30

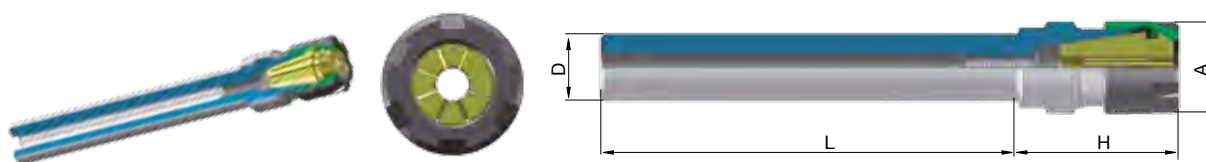
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



CASSETTA CON MANDRINO CILINDRICO - KIT

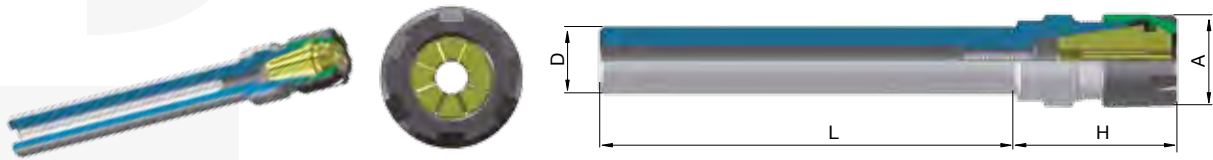
Cod.	Type Mandr.	Collets in Kit - 13 Pcs
B-MND0056-13	D.12 L100 ERX11M	D1 ÷ 7 x 0,5 mm
B-MND0012-13	D.16 L100 ERX11M	D1 ÷ 7 x 0,5 mm
B-MND0060-13	D.16 L130 ERX11M	D1 ÷ 7 x 0,5 mm
B-MND0005-13	D.16 L160 ERX11M	D1 ÷ 7 x 0,5 mm
B-MND0004-13	D.20 L100 ERX11M	D1 ÷ 7 x 0,5 mm
B-MND1209-13	D.25 L100 ERX11M	D1 ÷ 7 x 0,5 mm
B-MND0156-13	D.1/2" L4.00 ERX11M	D1 ÷ 7 x 0,5 mm
B-MND1448-13	D.5/8" L4.00 ERX11M	D1 ÷ 7 x 0,5 mm
B-MND1253-13	D.5/8" L6.00 ERX11M	D1 ÷ 7 x 0,5 mm

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT


PORTAPINZE CILINDRICI PER ER MINI - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
D10.80.ER16M	D.10 L80 ERX16M	1 ÷ 10 mm	38	22	10	80
D12.80.ER16M	D.12 L80 ERX16M	1 ÷ 10 mm	38	22	12	80
D16.35.ER16M	D.16 L35 ERX16M	1 ÷ 10 mm	38	22	16	35
D16.80.ER16M	D.16 L80 ERX16M	1 ÷ 10 mm	38	22	16	80
D16.100.ER16M	D.16 L100 ERX16M	1 ÷ 10 mm	38	22	16	100
D16.130.ER16M	D.16 L130 ERX16M	1 ÷ 10 mm	38	22	16	130
D16.160.ER16M	D.16 L160 ERX16M	1 ÷ 10 mm	38	22	16	160
D16.200.ER16M	D.16 L200 ERX16M	1 ÷ 10 mm	38	22	16	200
D20.60.ER16M	D.20 L60 ERX16M	1 ÷ 10 mm	31	22	20	60
D20.100.ER16M	D.20 L100 ERX16M	1 ÷ 10 mm	31	22	20	100
D20.130.ER16M	D.20 L130 ERX16M	1 ÷ 10 mm	31	22	20	130
D20.160.ER16M	D.20 L160 ERX16M	1 ÷ 10 mm	31	22	20	160
D20.200.ER16M	D.20 L200 ERX16M	1 ÷ 10 mm	31	22	20	200
D20.270.ER16M	D.20 L270 ERX16M	1 ÷ 10 mm	31	22	20	270
D20.300.ER16M	D.20 L300 ERX16M	1-10 mm	31	22	20	300
D22.80.ER16M	D.22 L80 ERX16M	1 ÷ 10 mm	28	22	22	80
D25.60.ER16M	D.25 L60 ERX16M	1 ÷ 10 mm	28	22	25	60
D25.100.ER16M	D.25 L100 ERX16M	1 ÷ 10 mm	28	22	25	100
D25.130.ER16M	D.25 L130 ERX16M	1 ÷ 10 mm	28	22	25	130
D25.160.ER16M	D.25 L160 ERX16M	1 ÷ 10 mm	28	22	25	160
D32.90.ER16M	D.32 L90 ERX16M	1 ÷ 10 mm	28	22	32	90

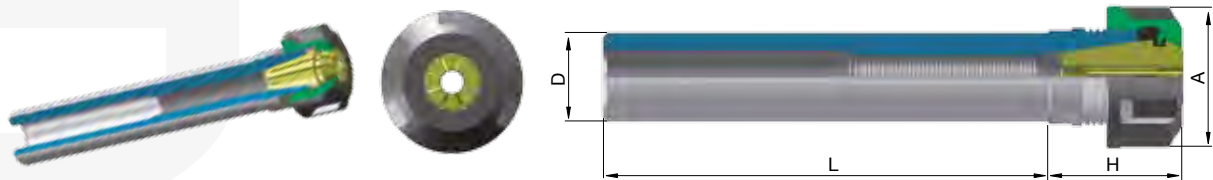
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER MINI - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
MND0013	D1/2" L4.00 ERX16M	1 ÷ 10 mm	1.5	.866	1/2"	4.00
MND1251	D5/8" L3.93 ERX16M	1 ÷ 10 mm	1.5	.866	5/8"	3.93
MND1250	D5/8" L4.84 ERX16M	1 ÷ 10 mm	1.5	.866	5/8"	4.84
MND0031	D5/8" L5.11 ERX16M	1 ÷ 10 mm	1.5	.866	5/8"	5.11
MND1249	D5/8" L7.87 ERX16M	1 ÷ 10 mm	1.5	.866	5/8"	6.29
MND1445	D3/4" L2.50 ERX16M	1 ÷ 10 mm	1.1	.866	3/4"	2.50
MND1443	D3/4" L4.00 ERX16M	1 ÷ 10 mm	1.1	.866	3/4"	4.00
MND4829	D3/4" L5.11 ERX16M	1 ÷ 10 mm	1.1	.866	3/4"	5.11
MND0155	D3/4" L6.29 ERX16M	1 ÷ 10 mm	1.1	.866	3/4"	6.29
MND0084	D1" L2.36 ERX16M	1 ÷ 10 mm	1.1	.866	1"	2.36
MND0087	D1" L6.29 ERX16M	1 ÷ 10 mm	1.1	.866	1"	6.29

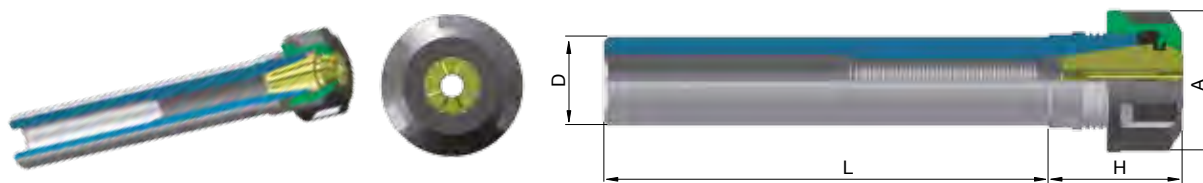
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER MINI - CYLINDRICAL COLLETS CHUCK ER

Cod.	TYPE	TOOL DIA.	H	A	D	L
D16.35.ER16	D.16 L35 ERX16	1 ÷ 10 mm	38	32	16	35
D16.60.ER16	D.16 L60 ERX16	1 ÷ 10 mm	38	32	16	60
D16.160.ER16	D.16 L160 ERX16	1 ÷ 10 mm	38	32	16	160
D20.50.ER16	D.20 L50 ERX16	1 ÷ 10 mm	31	32	20	50
D20.60.ER16	D.20 L60 ERX16	1 ÷ 10 mm	31	32	20	60
D20.100.ER16	D.20 L100 ERX16	1 ÷ 10 mm	31	32	20	100
D20.160.ER16	D.20 L160 ERX16	1 ÷ 10 mm	31	32	20	160
D20.200.ER16	D.20 L200 ERX16	1 ÷ 10 mm	31	32	20	200

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER MINI - *CYLINDRICAL COLLETS CHUCK ER*

Cod.	TYPE	TOOL DIA.	H	A	D	L
MND4830	D1/2" L2.36 ERX16	1 ÷ 10 mm	1.1	1.10	3/4"	2.36
MND4831	D3/4" L1.80 ERX16	1 ÷ 10 mm	1.1	1.10	3/4"	1.80
MND1445	D3/4" L2.50 ERX16	1 ÷ 10 mm	1.1	1.10	3/4"	2.50
MND1247	D3/4" L4.00 ERX16	1 ÷ 10 mm	1.1	1.10	3/4"	4.00
MND1203	D3/4" L6.00 ERX16	1 ÷ 10 mm	1.1	1.10	3/4"	6.00
MND0084	D1" L2.36 ERX16	1 ÷ 10 mm	1.1	1.10	1"	2.36
MND0086	D1" L5.11 ERX16	1 ÷ 10 mm	1.1	1.10	1"	5.11

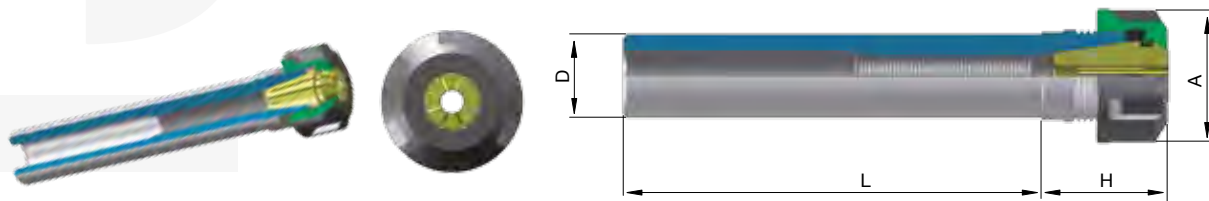
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



CASSETTA CON MANDRINO CILINDRICO - KIT

Cod.	Type Mandr.	Collets in Kit - 10 Pcs
B-MND0007-10	D.12 L80 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0077-10	D.16 L100 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0078-10	D.16 L130 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0079-10	D.16 L160 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0080-10	D.16 L200 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0017-10	D.20 L100 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0082-10	D.20 L130 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0115-10	D.20 L160 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0083-10	D.20 L200 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0632-10	D.25 L100 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0633-10	D.25 L130 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0318-10	D.25 L160 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0031-10	D5/8" L5.11 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND1443-10	D3/4" L4.00 ERX16M	D1 ÷ 10 x 1,0 mm
B-MND0155-10	D3/4" L6.29 ERX16M	D1 ÷ 10 x 1,0 mm

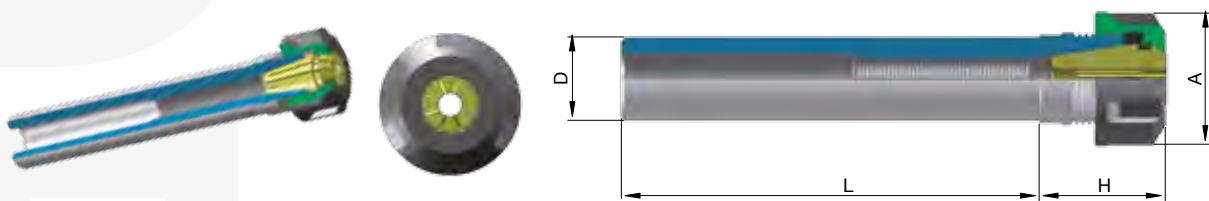
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
D16.100.ER20M	D.16 L100 ERX20M	1 ÷ 13 mm	42	28	16	100
D16.130.ER20M	D.16 L130 ERX20M	1 ÷ 13 mm	42	28	16	130
D16.160.ER20M	D.16 L160 ERX20M	1 ÷ 13 mm	42	28	16	160
D20.46.ER20M	D.20 L46 ERX20M	1 ÷ 13 mm	36	28	20	46
D20.60.ER20M	D.20 L60 ERX20M	1 ÷ 13 mm	36	28	20	60
D20.100.ER20M	D.20 L100 ERX20M	1 ÷ 13 mm	36	28	20	100
D20.130.ER20M	D.20 L130 ERX20M	1 ÷ 13 mm	36	28	20	130
D20.160.ER20M	D.20 L160 ERX20M	1 ÷ 13 mm	36	28	20	160
D20.200.ER20M	D.20 L200 ERX20M	1 ÷ 13 mm	36	28	20	200
D25.60.ER20M	D.25 L60 ERX20M	1 ÷ 13 mm	28	28	25	60
D25.130.ER20M	D.25 L130 ERX20M	1 ÷ 13 mm	28	28	25	130
D25.160.ER20M	D.25 L160 ERX20M	1 ÷ 13 mm	28	28	25	160
D25.240.ER20M	D.25 L240 ERX20M	1 ÷ 13 mm	28	28	25	240
D25.300.ER20M	D.25 L300 ERX20M	1 ÷ 13 mm	28	28	25	300
D32.95.ER20M	D.32 L95 ERX20M	1 ÷ 13 mm	28	28	32	95

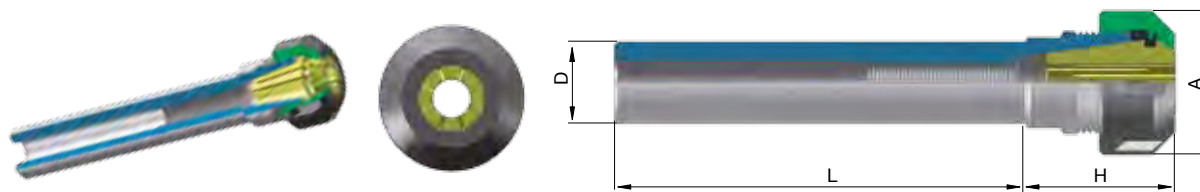
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
MND0152	D3/4" L2.50 ERX20M	1 ÷ 13 mm	1.41	1.10	3/4"	2.50
MND1446	D3/4" L4.00 ERX20M	1 ÷ 13 mm	1.41	1.10	3/4"	4.00
MND0319	D1" L3.93 ERX20M	1 ÷ 13 mm	1.41	1.10	1"	3.39
MND0963	D1" L5.50 ERX20M	1 ÷ 13 mm	1.41	1.10	1"	5.50

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - *CYLINDRICAL COLLETS CHUCK ER*

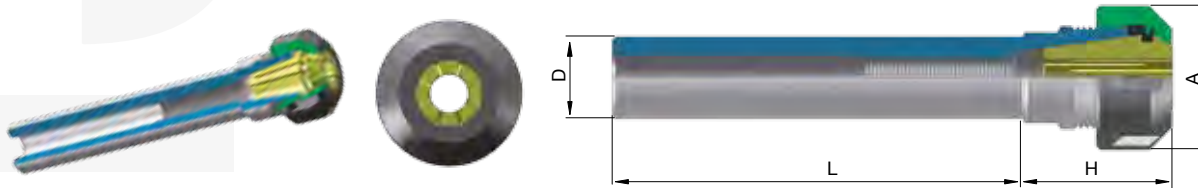
Cod.	TYPE	TOOL DIA.	H	A	D	L
D20.50.ER20	D.20 L50 ERX20	1 ÷ 13 mm	36	35	20	50
D20.60.ER20	D.20 L60 ERX20	1 ÷ 13 mm	36	35	20	60
D20.100.ER20	D.20 L100 ERX20	1 ÷ 13 mm	36	35	20	100
D20.130.ER20	D.20 L130 ERX20	1 ÷ 13 mm	36	35	20	130
D20.160.ER20	D.20 L160 ERX20	1 ÷ 13 mm	36	35	20	160
D20.200.ER20	D.20 L200 ERX20	1 ÷ 13 mm	36	35	20	200
D25.100.ER20	D.25 L100 ERX20	1 ÷ 13 mm	28	35	25	100

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT

CASSETTA CON MANDRINO CILINDRICO - KIT



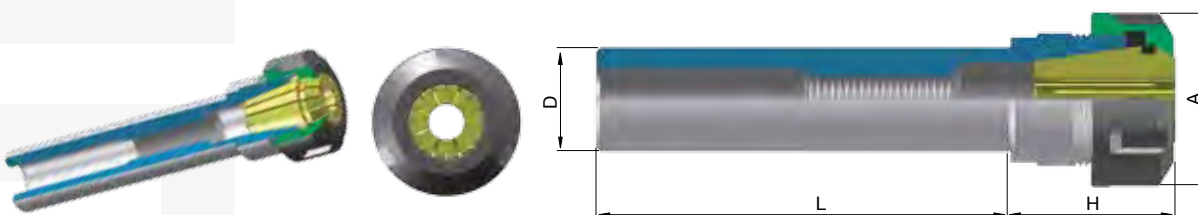
Cod.	Type Mandr.	Collets in Kit - 12 Pcs
B-MND0089-12	D.20 L100 ERX20M	D2 ÷ 13 x 1,0 mm
B-MND0090-12	D.20 L130 ERX20M	D2 ÷ 13 x 1,0 mm
B-MND0091-12	D.20 L160 ERX20M	D2 ÷ 13 x 1,0 mm
B-MND0092-12	D.20 L200 ERX20M	D2 ÷ 13 x 1,0 mm
B-MND0152-12	D3/4 L2.50 ERX20M	D2 ÷ 13 x 1,0 mm
B-MND1446-12	D3/4 L4.00 ERX20M	D2 ÷ 13 x 1,0 mm
B-MND0849-12	D3/4 L6.00 ERX20M	D2 ÷ 13 x 1,0 mm



PORTAPINZE CILINDRICI PER ER - CYLINDRICAL COLLETS CHUCK ER

Cod.	TYPE	TOOL DIA.	H	A	D	L
MND1469	D3/4" L2.50 ERX20	1 ÷ 13 mm	1.41	1.33	3/4"	2.50
MND1470	D3/4" L3.93 ERX20	1 ÷ 13 mm	1.41	1.33	3/4"	3.93
MND1471	D3/4" L4.00 ERX20	1 ÷ 13 mm	1.41	1.33	3/4"	6.00
MND4832	D1" L1.96 ERX20	1 ÷ 13 mm	1.41	1.33	1"	1.96
MND4833	D1" L4.00 ERX20	1 ÷ 13 mm	1.41	1.33	1"	4.00
MND4834	D1" L5.11 ERX20	1 ÷ 13 mm	1.41	1.33	1"	5.11

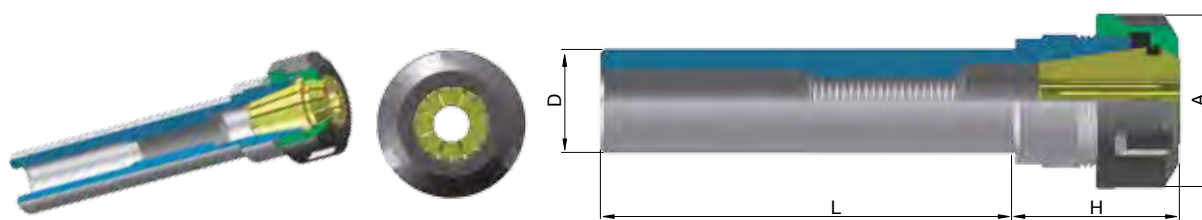
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
D20.46.ER25M	D.20 L46 ERX25M	1 ÷ 16 mm	46	35	20	46
D20.60.ER25M	D.20 L60 ERX25M	1 ÷ 16 mm	46	35	20	60
D20.100.ER25M	D.20 L100 ERX25M	1 ÷ 16 mm	46	35	20	100
D20.130.ER25M	D.20 L130 ERX25M	1 ÷ 16 mm	46	35	20	130
D20.160.ER25M	D.20 L160 ERX25M	1 ÷ 16 mm	46	35	20	160
D20.200.ER25M	D.20 L200 ERX25M	1 ÷ 16 mm	46	35	20	200
D25.70.ER25M	D.25 L70 ERX25M	1 ÷ 16 mm	40	35	25	70
D25.100.ER25M	D.25 L100 ERX25M	1 ÷ 16 mm	40	35	25	100
D25.130.ER25M	D.25 L130 ERX25M	1 ÷ 16 mm	40	35	25	130
D25.160.ER25M	D.25 L160 ERX25M	1 ÷ 16 mm	40	35	25	160
D25.260.ER25M	D.25 L260 ERX25M	1 ÷ 16 mm	40	35	25	260

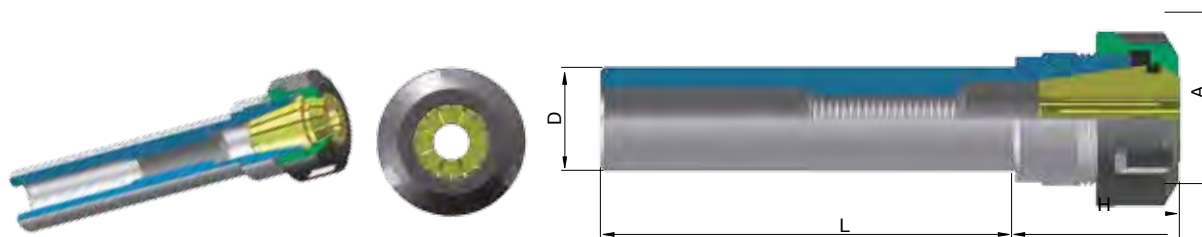
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - CYLINDRICAL COLLETS CHUCK ER MINI

Cod.	TYPE	TOOL DIA.	H	A	D	L
MND0126	D 1" L5.11 ERX25M	1 ÷ 16 mm	1.57	1.37	1"	5.11
MND1254	D 1" L6.30 ERX25M	1 ÷ 16 mm	1.57	1.37	1"	6.30

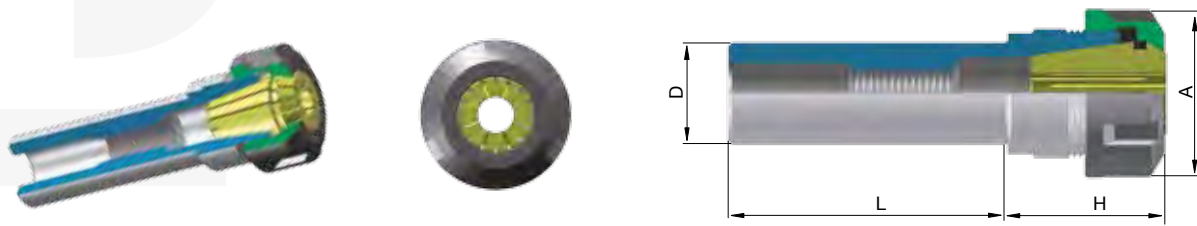
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - CYLINDRICAL COLLETS CHUCK ER

Cod.	TYPE	TOOL DIA.	H	A	D	L
D20.50.ER25	D.20 L50 ERX25	1 ÷ 16 mm	46	42	20	50
D20.60.ER25	D.20 L60 ERX25	1 ÷ 16 mm	46	42	20	60
D20.100.ER25	D.20 L100 ERX25	1 ÷ 16 mm	46	42	20	100
D20.130.ER25	D.20 L130 ERX25	1 ÷ 16 mm	46	42	20	130
D20.160.ER25	D.20 L160 ERX25	1 ÷ 16 mm	46	42	20	160
D25.50.ER25	D.25 L50 ERX25	1 ÷ 16 mm	40	42	25	50
D25.70.ER25	D.25 L70 ERX25	1 ÷ 16 mm	40	42	25	70
D25.100.ER25	D.25 L100 ERX25	1 ÷ 16 mm	40	42	25	100
D25.130.ER25	D.25 L130 ERX25	1 ÷ 16 mm	40	42	25	130
D25.160.ER25	D.25 L160 ERX25	1 ÷ 16 mm	40	42	25	160
D32.80.ER25	D.32 L80 ERX25	1 ÷ 16 mm	27	42	32	80
D32.100.ER25	D.32 L100 ERX25	1 ÷ 16 mm	27	42	32	100
D40.80.ER25	D.40 L80 ERX25	1 ÷ 16 mm	27	42	40	80

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - *CYLINDRICAL COLLETS CHUCK ER*

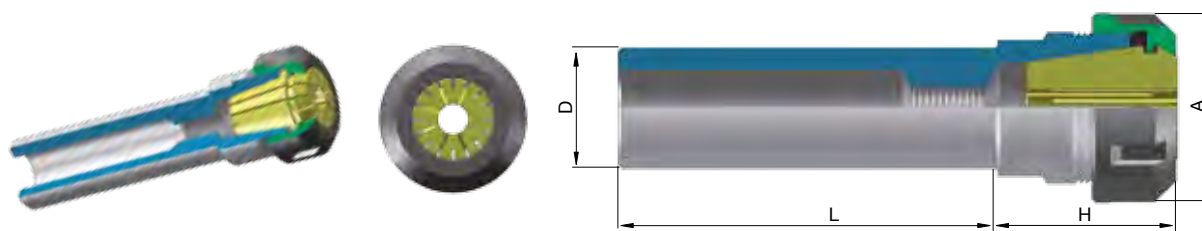
Cod.	TYPE	TOOL DIA.	H	A	D	L
MND1916	D3/4" L2.50 ERX25	1 ÷ 16 mm	1.81	1.65	3/4"	2.50
MND1457	D3/4" L4.00 ERX25	1 ÷ 16 mm	1.81	1.65	3/4"	4.00
MND1245	D1" L2.00 ERX25	1 ÷ 16 mm	1.57	1.65	1"	2.00
MND0359	D1" L3.93 ERX25	1 ÷ 16 mm	1.57	1.65	1"	3.93
MND1244	D1" L5.11 ERX25	1 ÷ 16 mm	1.57	1.65	1"	5.11
MND1917	D1"1/4" L2.00 ERX25	1 ÷ 16 mm	1.06	1.65	1" 1/4"	2.00
MND1918	D1"1/2" L3.14 ERX25	1 ÷ 16 mm	1.06	1.65	1" 1/2"	3.14
MND1424	D1"3/4" L5.11 ERX25	1 ÷ 16 mm	1.06	1.65	1" 3/4"	5.11

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



CASSETTA CON MANDRINO CILINDRICO - KIT

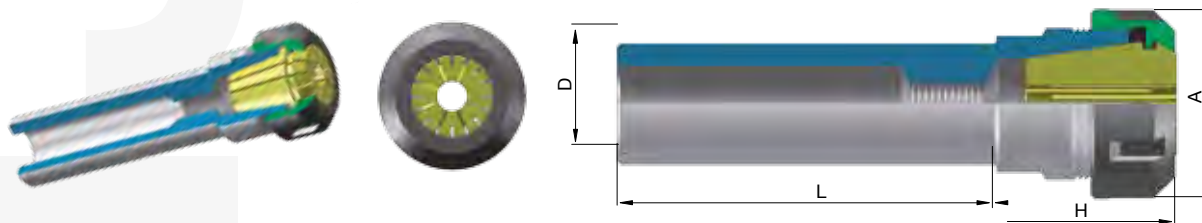
Cod.	Type Mandr.	Collets in Kit - 15 Pcs
B-MND0114-15	D.20 L100 ERX25M	D2 ÷ 16 x 1,0 mm
B-MND0838-15	D.20 L130 ERX25M	D2 ÷ 16 x 1,0 mm
B-MND0358-15	D.20 L160 ERX25M	D2 ÷ 16 x 1,0 mm
B-MND0328-15	D.20 L200 ERX25M	D2 ÷ 16 x 1,0 mm
B-MND0556-15	D.25 L100 ERX25M	D2 ÷ 16 x 1,0 mm
B-MND0125-15	D.25 L160 ERX25M	D2 ÷ 16 x 1,0 mm
B-MND0159-15	D.20 L50 ERX25	D2 ÷ 16 x 1,0 mm
B-MND0634-15	D.25 L100 ERX25	D2 ÷ 16 x 1,0 mm
B-MND0164-15	D.32 L80 ERX25	D2 ÷ 16 x 1,0 mm
B-MND1455-15	D3/4" L2.00 ERX25	D2 ÷ 16 x 1,0 mm
B-MND1457-15	D3/4" L4.00 ERX25	D2 ÷ 16 x 1,0 mm
B-MND1245-15	D1" L2.00 ERX25	D2 ÷ 16 x 1,0 mm



PORTAPINZE CILINDRICI PER ER - *CYLINDRICAL COLLETS CHUCK ER*

Cod.	TYPE	TOOL DIA.	H	A	D	L
D20.50.ER32	D.20 L50 ERX32	2 ÷ 20 mm	53	50	20	50
D20.100.ER32	D.20 L100 ERX32	2 ÷ 20 mm	53	50	20	100
D20.130.ER32	D.20 L130 ERX32	2 ÷ 20 mm	53	50	20	130
D20.160.ER32	D.20 L160 ERX32	2 ÷ 20 mm	53	50	20	160
D25.50.ER32	D.25 L50 ERX32	2 ÷ 20 mm	53	50	25	50
D25.70.ER32	D.25 L70 ERX32	2 ÷ 20 mm	53	50	25	70
D25.100.ER32	D.25 L100 ERX32	2 ÷ 20 mm	53	50	25	100
D25.130.ER32	D.25 L130 ERX32	2 ÷ 20 mm	53	50	25	130
D25.160.ER32	D.25 L160 ERX32	2 ÷ 20 mm	53	50	25	160
D32.50.ER32	D.32 L50 ERX32	2 ÷ 20 mm	48	50	32	50
D32.70.ER32	D.32 L70 ERX32	2 ÷ 20 mm	48	50	32	70
D32.100.ER32	D.32 L100 ERX32	2 ÷ 20 mm	48	50	32	100
D32.130.ER32	D.32 L130 ERX32	2 ÷ 20 mm	48	50	32	130
D32.160.ER32	D.32 L160 ERX32	2 ÷ 20 mm	48	50	32	160
D40.80.ER32	D.40 L80 ERX32	2 ÷ 20 mm	33	50	40	80
D40.130.ER32	D.40 L130 ERX32	2 ÷ 20 mm	33	50	40	130
D40.160.ER32	D.40 L160 ERX32	2 ÷ 20 mm	33	50	40	160
D50.160.ER32	D.50 L160 ERX32	2 ÷ 20 mm	33	50	50	160
D60.160.ER32	D.60 L160 ERX32	2 ÷ 20 mm	33	50	60	160

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - CYLINDRICAL COLLETS CHUCK ER

Cod.	TYPE	TOOL DIA.	H	A	D	L
MND0786	D3/4 L2.12 ERX32	2 ÷ 20 mm	2.08	1.96	3/4	2.12
MND0787	D1" L2.00 ERX32	2 ÷ 20 mm	2.08	1.96	1"	2.00
MND1240	D1" L3.93 ERX32	2 ÷ 20 mm	2.08	1.96	1"	3.93
MND1241	D1" L5.11 ERX32	2 ÷ 20 mm	2.08	1.96	1"	5.11
MND1242	D1" L6.30 ERX32	2 ÷ 20 mm	2.08	1.96	1"	6.30
MND1472	D1" 1/4" L2.35 ERX32	2 ÷ 20 mm	1.85	1.96	1" 1/4"	2.35
MND1919	D1" 1/2" L3.14 ERX32	2 ÷ 20 mm	1.30	1.96	1" 1/2"	3.14
MND1921	D1" 3/4" L3.14 ERX32	2 ÷ 20 mm	1.30	1.96	1" 3/4"	3.14
MND1922	D1" 3/4" L5.11 ERX32	2 ÷ 20 mm	1.30	1.96	1" 3/4"	5.11
MND1450	D2" L3.14 ERX32	2 ÷ 20 mm	1.30	1.96	2"	3.14
MND1425	D2" L6.30 ERX32	2 ÷ 20 mm	1.30	1.96	2"	6.30
MND1923	D2" 1/2 L6.30 ERX32	2 ÷ 20 mm	1.30	1.96	2" 1/2"	6.30

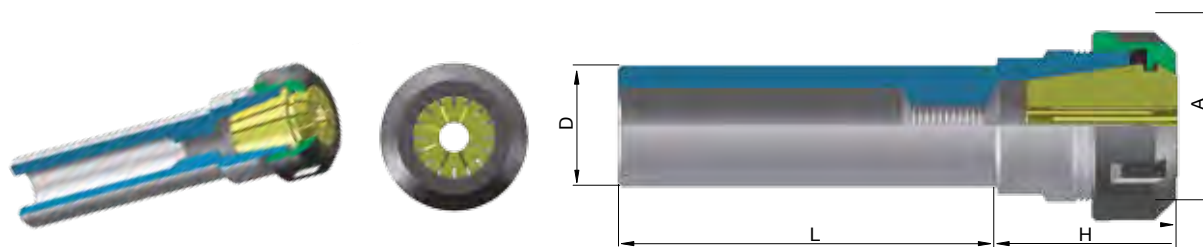
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



CASSETTA CON MANDRINO CILINDRICO - KIT

Cod.	Type Mandr.	Collets in Kit - ERX32
B-MND0593-6	D.20 L50 ERX32	6 pcs.
B-MND0195-6	D.25 L50 ERX32	6 pcs.
B-MND0071-6	D.32 L70 ERX32	6 pcs.
B-MND0593-9	D.20 L50 ERX32	9 pcs.
B-MND0195-9	D.25 L50 ERX32	9 pcs.
B-MND0071-9	D.32 L70 ERX32	9 pcs.
B-MND0593-18	D.20 L50 ERX32	18 pcs.
B-MND0195-18	D.25 L50 ERX32	18 pcs.
B-MND0071-18	D.32 L70 ERX32	18 pcs.
B-MND0786-11	D.3/4" L2.12 ERX32	11 pcs.
B-MND0787-11	D1" L2.00 ERX32	11 pcs.
B-MND1240-11	D1" L3.93 ERX32	11 pcs.
B-MND1472-11	D1" 1/4" L2.35 ERX32	11 pcs.

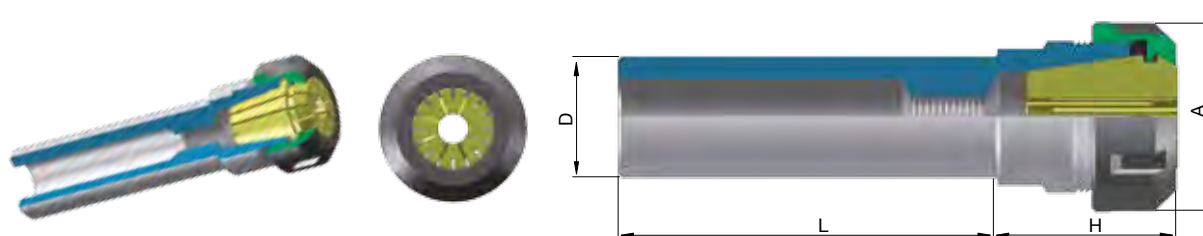
FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - *CYLINDRICAL COLLETS CHUCK ER*

Cod.	TYPE	TOOL DIA.	H	A	D	L
D25.60.ER40	D.25 L60 ERX40	3 ÷ 30 mm	60	63	25	60
D25.100.ER40	D.25 L100 ERX40	3 ÷ 30 mm	60	63	25	100
D32.70.ER40	D.32 L70 ERX40	3 ÷ 30 mm	60	63	32	70
D32.100.ER40	D.32 L100 ERX40	3 ÷ 30 mm	60	63	32	100
D32.130.ER40	D.32 L130 ERX40	3 ÷ 30 mm	60	63	32	130
D40.80.ER40	D.40 L80 ERX40	3 ÷ 30 mm	50	63	40	80
D40.130.ER40	D.40 L130 ERX40	3 ÷ 30 mm	50	63	40	130
D40.160.ER40	D.40 L160 ERX40	3 ÷ 30 mm	50	63	40	160
D50.120.ER40	D.50 L120 ERX40	3 ÷ 30 mm	35	63	50	120
D50.160.ER40	D.50 L160 ERX40	3 ÷ 30 mm	35	63	50	160
D60.160.ER40	D.60 L160 ERX40	3 ÷ 30 mm	35	63	60	160

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



PORTAPINZE CILINDRICI PER ER - *CYLINDRICAL COLLETS CHUCK ER*

Cod.	TYPE	TOOL DIA.	H	A	D	L
MND0825	D.1" L2.36 ERX40	3 ÷ 30 mm	2.36	2.48	1"	2.36
MND1243	D.1" L3.93 ERX40	3 ÷ 30 mm	2.36	2.48	1"	3.93
MND1255	D.1"1/4" L2.00 ERX40	3 ÷ 30 mm	2.36	2.48	1" 1/4"	2.00
MND0568	D.1"1/4" L2.36 ERX40	3 ÷ 30 mm	2.36	2.48	1" 1/4"	2.36
MND1252	D.2" L6.30 ERX40	3 ÷ 30 mm	1.37	2.48	2"	6.30
MND1925	D.2"1/4" L6.30 ERX40	3 ÷ 30 mm	1.37	2.48	2" 1/4"	6.30
MND1926	D.2"1/2" L6.30 ERX40	3 ÷ 30 mm	1.37	2.48	2" 1/2"	6.30

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT



CASSETTA CON MANDRINO CILINDRICO - KIT

Cod.	Type Mandr.	Collets in Kit - ERX40
B-MND0822-7	D.25 L60 ERX40	7 pcs.
B-MND0601-7	D.32 L70 ERX40	7 pcs.
B-MND0247-7	D.40 L80 ERX40	7 pcs.
B-MND0822-13	D.25 L60 ERX40	13 pcs.
B-MND0601-13	D.32 L70 ERX40	13 pcs.
B-MND0247-13	D.40 L80 ERX40	13 pcs.
B-MND0822-23	D.25 L60 ERX40	23 pcs.
B-MND0601-23	D.32 L70 ERX40	23 pcs.
B-MND0247-23	D.40 L80 ERX40	23 pcs.
B-MND0825-15	D.1"L2.36 ERX40	15 pcs.

FORNIBILI ANCHE CON PIANO
ALSO AVAILABLE WITH FLAT

PORTA ALESATORI OSCILLANTI

FLOATING REAMER HOLDERS



PORTA ALESATORI OSCILLANTI

FLOATING REAMER HOLDERS

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN



CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre
- Eseguiti trattamenti termici da fornitori certificati ISO 9001
- Rettificati di precisione esternamente, internamente e nelle filettature delle ghiera chiudipinza
- Controllati con strumenti di misura certificati
- L'errore di concentricità massimo tra il cono e la sede utensile è 0.003 mm
- Oscillazione radiale 3 mm



CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.
- Oscillation 3mm.



TECHNICAL FEATURES

- *Manufactured with certificate steel*
- *Heat treatments are performed by certified suppliers ISO 9001*
- *Precision ground on shank, inside tapers and collet nut threads*
- *Tested with high precision inspection and gaging equipment*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003 mm*
- *Radial oscillation 3 mm*



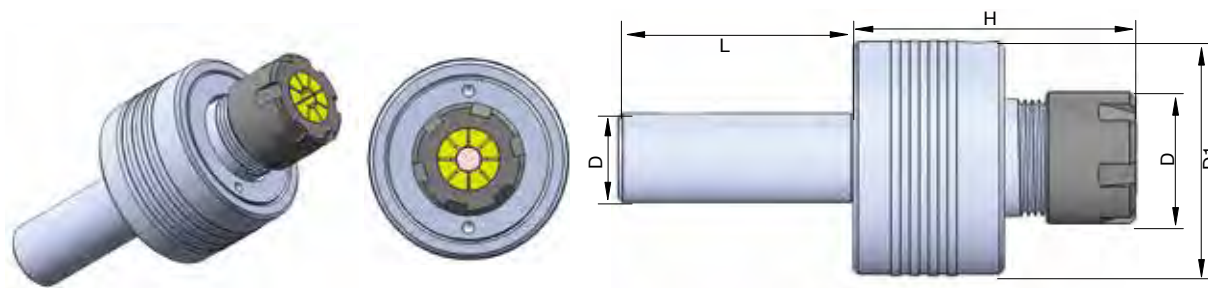
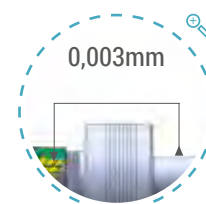
MERKMALE

- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitsgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm*
- *Fluktuation 3mm*



PORTA ALESATORI OSCILLANTI

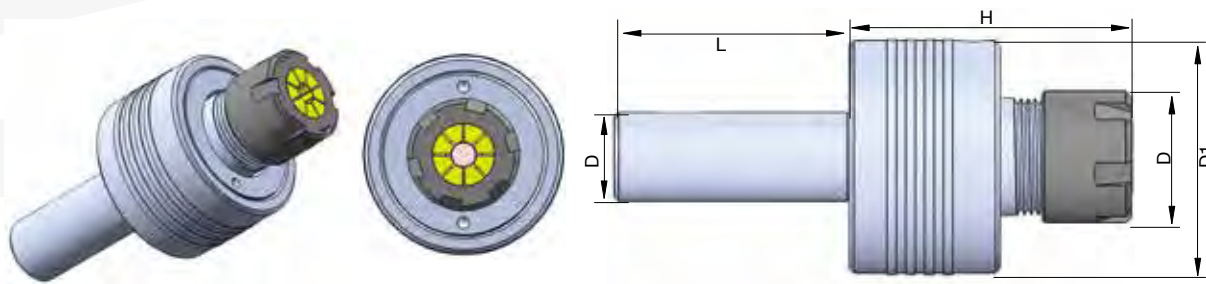
FLOATING REAMER HOLDERS



PORTA ALESATORI OSCILLANTI - FLOATING REAMER HOLDERS

Cod.	TYPE	D	A	H	D1	L
D16.L46.RM11	D16 L46 ER11	16	22	40	42	46
D20.L46.RM11	D20 L46 ER11	20	22	40	42	46
D16.L46.RM16	D16 L46 ER16	16	28	44	42	46
D20.L46.RM16	D20 L46 ER16	20	28	44	42	46
D25.L46.RM16	D25 L46 ER16	25	28	44	42	46
D16.L46.RM20	D16 L46 ER20	16	34	50	50	46
D20.L46.RM20	D20 L46 ER20	20	34	50	50	46
D25.L46.RM20	D25 L46 ER20	25	34	50	50	46
D16.L46.RM25	D16 L46 ER25	16	42	53	57	46

SU RICHIESTA FORNIBILI ANCHE CON LUNGHEZZA 100 MM
ON REQUEST ALSO AVAILABLE WITH L. 100 MM



PORTA ALESATORI OSCILLANTI - *FLOATING REAMER HOLDERS*

Cod.	TYPE	D	A	H	D1	L
D20.L46.RM25	D20 L46 ER25	20	42	53	57	46
D25.L46.RM25	D25 L46 ER25	25	42	53	57	46
D25.L50.RM32	D25 L50 ER32	25	50	58	69	50
D32.L50.RM32	D32 L50 ER32	32	50	58	69	50
D25.L50.RM40	D25 L50 ER40	25	63	64	79	50
D32.L50.RM40	D32 L50 ER40	32	63	64	79	50

SU RICHIESTA FORNIBILI ANCHE CON LUNGHEZZA 100 MM
ON REQUEST ALSO AVAILABLE WITH L. 100 MM

TCL-IS030 PER LEGNO E ALLUMINIO

TCL-IS030 FOR WOOD AND ALUWORKING



PORTAPINZA ER DIN6499

COLLET CHUCK FOR ER DIN6499



ALBERATI

CUTTER ARBORS TCL



FLANGIA DENTATA (SCM)

WITH TOOTHED FLANGE

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN



CARATTERISTICHE TECNICHE

- Costruiti in acciaio certificato in barre.
- Eseguiti trattamenti termici da fornitori certificati ISO 9001.
- 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 AT2.
- L'errore di concentricità massimo tra il cono e la sede utensile è di 0.003mm.



CARACTÉRISTIQUES

- Fabriqués en bar d'acier certifié.
- Réalisation du traitement thermique par des fournisseurs certifiés ISO 9001.
- Rectification de précision extérieurement, intérieurement et dans les filetages des écrous serre-pince.
- Contrôlés par des instruments de mesure certifiés.
- La tolérance de précision des cônes ISO est AT2.
- L'erreur de concentricité maximum entre le cône et le siège de l'outil est de 0.003 mm.



TECHNICAL FEATURES

- *Manufactured with certificate steel.*
- *Heat treatments are performed by certified suppliers ISO 9001.*
- *Precision ground on shanks, inside tapers and collet nut threads.*
- *Tested with high precision inspection and ganging equipment.*
- *Taper accuracy of ISO SHANKS lower than AT2.*
- *The maximum error of concentricity between the cone and the seat of tool is 0.003mm.*



MERKMALE

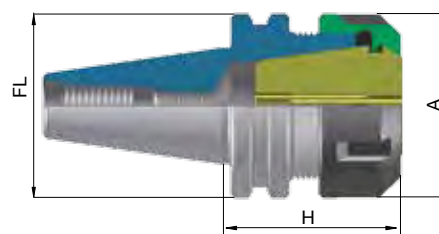
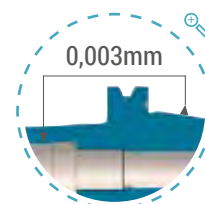
- *Gebaut aus zertifiziertem Stabstahl*
- *Warmbehandlungen von Lieferanten mit Zeugnis ISO 9001*
- *Genauigkeitgeschliffen aussen, innen und in den Gewinden der Spannmutter für den Zangenverschluss*
- *Geprüft mit zertifizierten Messinstrumente*
- *Die Präzisionstolleranz der Kones ISO ist AT2*
- *Die max konzentrische Abweichung zwischen Konus und Werkzeugsitz ist 0.003 mm*



PORTA PINZA ER DIN6499

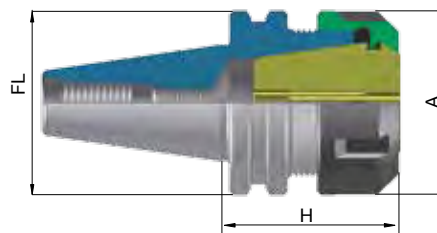
COLLET CHUCK ISO30 FOR ER DIN6499

TCL ISO30 PER LEGNO E ALLUMINIO



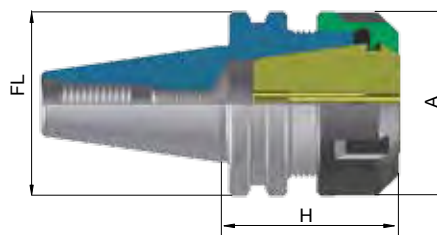
PORTAPINZA TCL30 FL50 - COLLET CHUCKS TCL30 FL50

Cod.	TYPE	H	AT2		G6.3/24000	
			FL	A	FL	A
TCL.30.50.FL50.ER16	TCL30 H50 FL50 ERX16 DX	50	50	32		
TCL.30.50.FL50.ER32.DX	TCL30 H50 FL50 ERX32 DX	50	50	50		
TCL.30.50.FL50.ER32.SX	TCL30 H50 FL50 ERX32 SX	50	50	50		
TCL.30.67.FL50.ER32.DX	TCL30 H67 FL50 ERX32 DX	67	50	50		
TCL.30.67.FL50.ER32.SX	TCL30 H67 FL50 ERX32 SX	67	50	50		
TCL.30.57.FL50.ER40.DX	TCL30 H57 FL50 ERX40 DX	57	50	63		
TCL.30.57.FL50.ER40.SX	TCL30 H57 FL50 ERX40 SX	57	50	63		
TCL.30.65.FL50.ER40.DX	TCL30 H65 FL50 ERX40 DX	65	50	63		
TCL.30.65.FL50.ER40.SX	TCL30 H65 FL50 ERX40 SX	65	50	63		
TCL.30.70.FL50.EOC25.DX	TCL30 H70 FL50 EOC25 DX	70	50	60		
TCL.30.80.FL50.EOC25.DX	TCL30 H80 FL50 EOC25 DX	80	50	60		
TCL.30.80.FL50.EOC25.SX	TCL30 H80 FL50 EOC25 SX	80	50	60		



PORTAPINZA TCL30 FL58 - COLLET CHUCKS TCL30 FL58

Cod.	TYPE	H	AT2		G6.3/24000	
			FL	A	FL	A
TCL.30.50.FL58.ER32.DX	TCL30 H50 FL58 ERX32 DX	50	58	50	58	50
TCL.30.50.FL58.ER32.SX	TCL30 H50 FL58 ERX32 SX	50	58	50	58	50
TCL.30.57.FL58.ER40.DX	TCL30 H57 FL58 ERX40 DX	57	58	63	58	63
TCL.30.57.FL58.ER40.SX	TCL30 H57 FL58 ERX40 SX	57	58	63	58	63



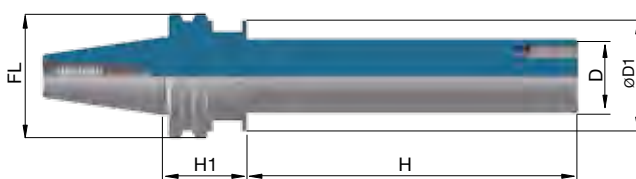
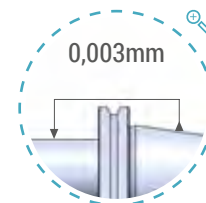
PORTAPINZA TCL30 FL46 - COLLET CHUCKS TCL30 FL46

Cod.	TYPE	H	AT2		G6.3/24000	
			FL	A	FL	A
TCL.30.60.FL46.ER32.DX	TCL30 H60 FL46 ERX32 DX	60	46	50	46	50
TCL.30.60.FL46.ER32.SX	TCL30 H60 FL46 ERX32 SX	60	46	50	46	50
TCL.30.65.FL46.ER40.DX	TCL30 H65 FL46 ERX40 DX	65	46	63	46	63
TCL.30.65.FL46.ER40.SX	TCL30 H65 FL46 ERX40 SX	65	46	63	46	63
TCL.30.80.FL46.EOC25.DX	TCL30 H80 FL46 EOC 25 DX	80	46	60	46	60
TCL.30.80.FL46.EOC25.SX	TCL30 H80 FL46 EOC 25 SX	80	46	60	46	60

ALBERATI

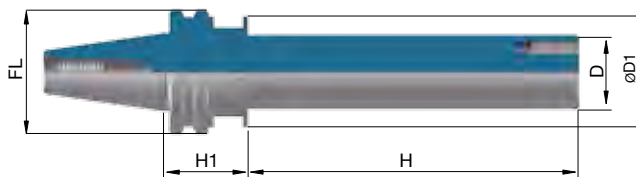
CUTTER ARBORS TCL

TCL ISO30 PER LEGNO E ALLUMINIO



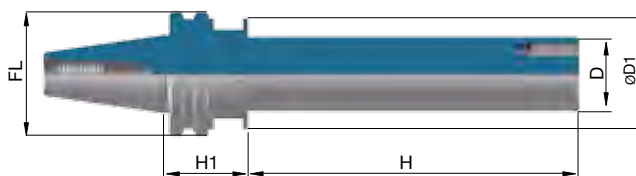
ALBERO PORTAFRESE TCL30 FL50 - CUTTER ARBORS TCL30 FL50

Cod.	TYPE	FL	H1	D	AT2 G6.3/24000		
					H	D1	
TCL.30.30X80.FL50.35	TCL30 D30x 80 FL.50 A=35	50	35	30	80	45	
TCL.30.30X100.FL50.35	TCL30 D30x 100 FL.50 A=35	50	35	30	100	45	
TCL.30.30X150.FL50.35	TCL30 D30x 150 FL.50 A=35	50	35	30	150	45	
TCL.30.30X200.FL50.35	TCL30 D30x 200 FL.50 A=35	50	35	30	200	45	
TCL.30.35X80.FL50.35	TCL30 D35x 80 FL.50 A=35	50	35	35	80	48	
TCL.30.35X100.FL50.35	TCL30 D35x 100 FL.50 A=35	50	35	35	100	48	
TCL.30.35X150.FL50.35	TCL30 D35x 150 FL.50 A=35	50	35	35	150	48	
TCL.30.35X200.FL50.35	TCL30 D35x 200 FL.50 A=35	50	35	35	200	48	



ALBERO PORTAFRESE TCL30 FL46 - CUTTER ARBORS TCL30 FL46

Cod.	TYPE	FL	H1	AT2		G6.3/24000	
				D	H	D1	
TCL.30.30X80.FL46.35	TCL30 D30x 80 FL.46 A=35	46	35	30	80	45	
TCL.30.30X100.FL46.35	TCL30 D30x 100 FL.46 A=35	46	35	30	100	45	
TCL.30.30X150.FL46.35	TCL30 D30x 150 FL.46 A=35	46	35	30	150	45	
TCL.30.30X200.FL46.35	TCL30 D30x 200 FL.46 A=35	46	35	30	200	45	
TCL.30.35X80.FL46.35	TCL30 D35x 80 FL.46 A=35	46	35	35	80	50	
TCL.30.35X100.FL46.35	TCL30 D35x 100 FL.46 A=35	46	35	35	100	50	
TCL.30.35X150.FL46.35	TCL30 D35x 150 FL.46 A=35	46	35	35	150	50	
TCL.30.35X200.FL46.35	TCL30 D35x 200 FL.46 A=35	46	35	35	200	50	



ALBERO PORTAFRESE TCL30 FL58 - CUTTER ARBORS TCL30 FL58

Cod.	TYPE	FL	H1	AT2		G6.3/24000	
				D	H	D1	
TCL.30.30X80.FL58.35	TCL30 D30x 80 FL.58 A=35	58	35	30	80	45	
TCL.30.30X100.FL58.35	TCL30 D30x 100 FL.58 A=35	58	35	30	100	45	
TCL.30.30X150.FL58.35	TCL30 D30x 150 FL.58 A=35	58	35	30	150	45	
TCL.30.30X200.FL58.35	TCL30 D30x 200 FL.58 A=35	58	35	30	200	45	
TCL.30.35X80.FL58.35	TCL30 D35x 80 FL.58 A=35	58	35	35	80	50	
TCL.30.35X100.FL58.35	TCL30 D35x 100 FL.58 A=35	58	35	35	100	50	
TCL.30.35X150.FL58.35	TCL30 D35x 150 FL.58 A=35	58	35	35	150	50	
TCL.30.35X200.FL58.35	TCL30 D35x 200 FL.58 A=35	58	35	35	200	50	

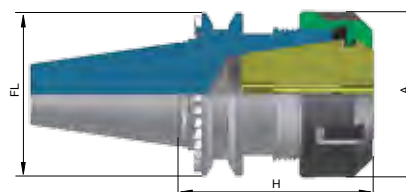
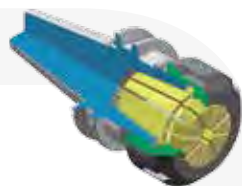
FLANGIA DI RICAMBIO

Cod.	TYPE	Fig.
FLM.30	FLANGIA DI RICAMBIO MASCHIO D.30	1
FLM.35	FLANGIA DI RICAMBIO MASCHIO D.35	1
FLM.40	FLANGIA DI RICAMBIO MASCHIO D.40T	1
FLF.30	FLANGIA DI RICAMBIO FEMMINA D.30	2
FLF.35	FLANGIA DI RICAMBIO FEMMINA D.35	2
FLF.40	FLANGIA DI RICAMBIO FEMMINA D.40	2



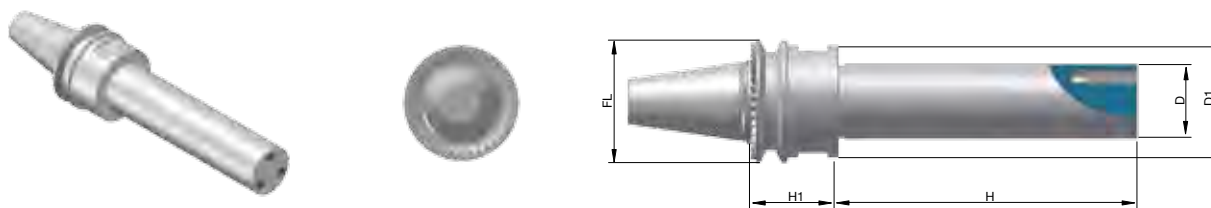
FLANGIA DENTATA (SCM)

WITH TOOTHED FLANGE



PORTAPINZA TCL30 FL50 SCM - COLLET CHUCK TCL30 FL50 SCM

Cod.	TYPE	H	AT2		G6.3/20000	
			FL	A	FL	A
TCL.30.55.ER32.SCM.DX	TCL30 H55 ERX32 FL.DENTATA DX	55	49	50		
TCL.30.55.ER32.SCM.SX	TCL30 H55 ERX32 FL.DENTATA SX	55	49	50		
TCL.30.74.ER40.SCM.DX	TCL30 H74 ERX40 FL.DENTATA DX	74	49	63		
TCL.30.74.ER40.SCM.SX	TCL30 H74 ERX40 FL.DENTATA SX	74	49	63		
TCL.30.70.EOC25.SCM.DX	TCL30 H70 EOC25 FL.DENTATA DX	70	49	60		
TCL.30.70.EOC25.SCM.SX	TCL30 H70 EOC25 FL.DENTATA SX	70	49	60		



ALBERO PORTAFRESE TCL30 A=41 SCM - CUTTER ARBORS TCL30 A=41 SCM

AT2

G6.3/20000

Cod.	TYPE	FL	H1	D	H	D1
TCL.30.30X80.41.SCM	TCL30 D30x 80 A=41 SCM	49	41	30	80	45
TCL.30.30X100.41.SCM	TCL30 D30x100 A=41 SCM	49	41	30	100	45
TCL.30.30X150.41.SCM	TCL30 D30x150 A=41 SCM	49	41	30	150	45
TCL.30.30X200.41.SCM	TCL30 D30x200 A=41 SCM	49	41	30	200	45
TCL.30.35X80.41.SCM	TCL30 D35x 80 A=41 SCM	49	41	35	80	50
TCL.30.35X100.41.SCM	TCL30 D35x100 A=41 SCM	49	41	35	100	50
TCL.30.35X150.41.SCM	TCL30 D35x150 A=41 SCM	49	41	35	150	50
TCL.30.35X200.41.SCM	TCL30 D35x200 A=41 SCM	49	41	35	200	50
TCL.30.40X80.41.SCM	TCL30 D40x 80 A=41 SCM	49	41	40	80	53
TCL.30.40X100.41.SCM	TCL30 D40x100 A=41 SCM	49	41	40	100	53
TCL.30.40X150.41.SCM	TCL30 D40x150 A=41 SCM	49	41	40	150	53
TCL.30.40X200.41.SCM	TCL30 D40x200 A=41 SCM	49	41	40	200	53

FLANGIA DI RICAMBIO

AT2

G6.3/20000

Cod.	TYPE	Fig.
FLM.30	FLANGIA DI RICAMBIO MASCHIO D.30	1
FLM.35	FLANGIA DI RICAMBIO MASCHIO D.35	1
FLM.40	FLANGIA DI RICAMBIO MASCHIO D.40	1
FLF.30	FLANGIA DI RICAMBIO FEMMINA D.30	2
FLF.35	FLANGIA DI RICAMBIO FEMMINA D.35	2
FLF.40	FLANGIA DI RICAMBIO FEMMINA D.40	2

1





2




SPECIALI

SPECIAL

 Infine SERINEX ha ampliato la produzione dei suoi mandrini, inserendo nella sua gamma produttiva anche i mandrini specifici per il marmo.

 SERINEX a agrandi la production de ses mandrins en insérant aussi dans sa gamme productive les mandrins spécifiques pour le marbre.

 Finally, SERINEX has expanded its production of collet chucks, inserting in its products line also specific chucks for marble.

 Schließlich SERINEX hat die Produktion erweitert sein Spannfutter, Einsetzen in der Produktkatalog Spannfutter auch für Marmor



serinex

CNC TOOLHOLDER SYSTEM 

PINZE

COLLETS

PINCES

SPANNZANGEN



WWW.SERINEX.IT

PINZE COLLETS



PINZE - INTRODUZIONE

Serinx è specializzata nella produzione di pinze di serraggio per utensili di tutte le tipologie. La nostra produzione spazia dalle pinze per macchine utensili (per lavorazione di acciaio, alluminio ed anche legno e materie plastiche), alle pinze elastiche per mandrini fino a quelle per elettroutensili, in tutte le dimensioni richieste. Per le nostre pinze utilizziamo soltanto acciai speciali legati di alta qualità provenienti da acciaierie qualificate; inoltre tutti i lotti di materiali vengono forniti con certificati di collaudo che ne attestano la qualità e le caratteristiche peculiari. Tutte le lavorazioni meccaniche sono eseguite nella nostra moderna unità produttiva di Annone di Brianza, a breve distanza da Lecco. Per la produzione di pinze elastiche per mandrini, utilizziamo solo macchine CNC di ultima generazione; inoltre tutte le fasi della lavorazione delle pinze per macchine utensili vengono accuratamente controllate dai nostri tecnici, in ottemperanza alle procedure dettate dalla certificazione ISO 9001: 2008, oltre che verificate dalla nostra trentennale esperienza. Tutte le pinze elastiche per mandrini di nostra produzione possono essere fornite in tre classi di precisione: Standard, Ultraprecise e Megaprecise. Tutta la nostra produzione di pinze di serraggio, subisce dopo rettifica una finitura superficiale che mira ad eliminare tutte le creste di lavorazione, ottenendo così una "superfinitura" superficiale. Siamo in grado di realizzare pinze speciali su indicazioni specifiche del cliente e, grazie al nostro ufficio tecnico, possiamo fornire una consulenza specifica per la messa in produzione di pinze con particolari caratteristiche. Nei nostri magazzini automatici sono sempre disponibili tutte le tipologie di pinze a catalogo in tutte le misure in commercio.

COLLETS - INTRODUCTION



Serinx is specialized in the production of clamping collets for every kind of tool. Our production stretches from collets for tools machines (for steel working, aluminium working and even wood and plastic working), to elastic collets for adaptors and collets for electric tools, in every size. For our clamping collets we only use high qualified steel, coming from qualified steelworks; furthermore every lot of material is provided with a quality certificate which guarantees its goodness and its peculiar characteristics. Every working is performed in our modern productive department in Annone di Brianza, not far from Lecco. We only use the latest generation CNC machines to produce elastic collets for adaptors; Furthermore, every phase in the production of tools machines collets is carefully controlled by our technicians, following the legislative procedures contained in the certification ISO 9001: 2008, and verified by our thirty-years experience. All the elastic collets for adaptors can be provided in three classes of precision: Standard, Ultraprecise, Megaprecise. The entire production of clamping collets undergoes a finishing touch called "Extra-fine", which allows to obtain a superficial "super-finishing touch". We are able to realize special collets or collets constructed on specific indications of the customer, and thanks to our technical office we can give professional advice for the production of special collets. In our automatic warehouse every kind of collet is always available in every size on the market.

ATTENZIONE / ATTENTION

DATI TECNICI ED IMMAGINI SONO INDICATIVI. SERINEX SI RISERVA DI APPORTARE AGGIORNAMENTI IN QUALSIASI MOMENTO E SENZA OBBLIGO DI PREAVVISO.

TECHNICAL DATA AND DRAWINGS ARE FOR INFORMATION PURPOSES ONLY. SERINEX RESERVES THE RIGHT TO UPDATE SPECS AT ANYTIME AND WITHOUT NOTICE.

PINCES SPANNZANGEN



PINCES - INTRODUCTION

Serinx est spécialisée dans la production de pinces de serrage de toutes les typologies. Notre production va des pinces pour machines-outils (pour l'usinage de l'acier, aluminium et aussi pour le bois et les matières plastiques), aux pinces de serrage pour mandrins jusqu'à celles des électro-outils, de toutes les dimensions demandées. Pour les pinces de serrage nous n'utilisons que des alliages d'aciers de haute qualité, provenant d'aciéries qualifiées; en outre, tous les lots de matériaux sont fournis avec certificat de qualité qui en atteste leur bonne consistance et les caractéristiques essentielles. Toutes les fabrications mécaniques sont effectuées au sein de notre unité moderne de production d'Annone di Brianza, à proximité de Lecco. Pour la production de pinces de serrage pour mandrins nous n'utilisons que des machines-outils à CNC de dernière génération; en outre, toutes les phases de fabrication des pinces pour machine-outils sont soigneusement contrôlées par nos techniciens, en respectant les procédures dictées par la certification ISO 9001: 2008, en plus des vérifications justifiées par nos trente ans d'expérience. Toutes les pinces de serrage pour mandrins de notre production peuvent être fournies en trois niveaux de précision: Standard, Ultra-précis et Mega-précis. Toute notre production de pinces de serrage, subit une finition de surface dite "Extra-fine" qui élimine tous les défauts de fabrication pour obtenir une "Superbe finition" de surface. Nous sommes en mesure de réaliser des pinces spéciales ou sur indication spécifiques du client et grâce à notre bureau technique, nous pouvons fournir des conseils spécifiques pour la mise en production de pinces à caractéristiques particulières. Dans notre magasin automatique sont toujours disponibles tous les types de pinces dans toutes les dimensions commercialisées.

SPANNZANGEN - EINFÜHRUNG



Serinx ist in der Produktion von Spannzangen für Werkzeuge aller Sorten spezialisiert. Unsere Produktpalette betrifft Zangen aller geforderten Abmessungen für Werkzeugmaschinen (für Aluminium-, Kunststoff- und Metallverarbeitung und Holzbearbeitung), Spannzangen für Futter und Spannzangen für Elektrowerkzeuge. Für die Herstellung unserer Spannzangen verwenden wir nur spezielle legierte Stähle höher Qualität, die aus qualifizierten Stahlwerken kommen; Zudem werden alle Posten von Materialien mit Qualitätszertifikaten geliefert, die ihre Güte und eigentümlichen Eigenschaften bescheinigen. Alle mechanischen Verarbeitungen werden in unserem modernen Produktionsbetrieb von Annone di Brianza, in der Nähe von Lecco, durchgeführt. Für die Produktion elastischer Spannzangen für Spannfutter, benutzen wir die modernsten CNC Maschinen; Außerdem werden alle Verarbeitungsphasen der Spannzangen für Werkzeugmaschinen ebenso von unseren Technischen Fachleuten sorgfältig kontrolliert, indem sie die Vorgänge der ISO 9001:2008 Zertifizierung beachten, wie von unserer dreißigjährigen Erfahrung garantiert. Alle Spannzangen für Spannfutter werden in drei Präzisionsklassen geliefert: Standard, Ultrapräzision und Megapräzision. Unsere ganze Produktion von Spannzangen erfährt die sogenannte „Extra-feine“ oberflächliche Feinbearbeitung, die alle Verarbeitungsgussnähte entfernt, um eine spezielle „Superfeinbearbeitung“ zu erzielen. Wir sind in der Lage, spezielle oder maßgemachte Spannzangen zu erzeugen, und dank unserem Büro für Betriebstechnik können wir eine individuelle Beratung für die Produktion von besonderen Zangen bieten. In unseren automatischen Warenlagern sind immer alle Sorten Spannzangen in allen auf dem Markt existierenden Abmessungen verfügbar.

AVERTISSEMENT / WARNUNG

DONNÉES TECHNIQUES ET PHOTOS SONT À TITRE INDICATIF. SERINEX SE RÉSERVE LE DROIT DE METTRE À JOUR À TOUT MOMENT ET SANS PRÉAVIS.

TECHNISCHE DATEN UND BILDER SIND RICHTWERTE. SERINEX BEHÄLT SICH DAS RECHT VOR, JEDERZEIT UND OHNE VORHERIGE ANKÜNDIGUNG ZU AKTUALISIEREN.



DIN 6499 ER

METRICHE / POLLICI
METRIC / INCH
MÉTRIQUE / POUCES
METRISCHE / ZÖLLIGE

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DIN 6499 ERG

VULCANIZZATE A TENUTA REFRIGERANTE
RUBBER SEALED COLLETS
ETANCHES
SPANNZANGEN MIT ABDICHTUNG



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DIN 6499 ERBAR

A TENUTA MECCANICA DEL REFRIGERANTE
MECHANICAL SEALED COLLETS
ETANCHE MECANIQUE
ER BAR SPANNZANGEN MIT ABDICHTUNG



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DIN 6499 ERJET

A TENUTA CON FORI DI LUBRIFICAZIONE
EXTERNALLY COOLED COLLETS
PINCE ÉTANCHE AVEC TROU POUR REFROIDISSEMENT
SPANNZANGEN MIT ABDICHTUNG FÜR INNENKÜHLUNG UND SPRITZDÜSE



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DIN 6499 ERM

PORTAMASCHI CON QUADRO
TAP COLLETS WITH INTERNAL SQUARE
DE TARAUDAGES AVEC CARRE INTERIEUR
GEWINDEBOHRSPANNZANGEN MIT VIERECK

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DIN 6499 ERGM

PORTAMASCHI CON QUADRO A TENUTA DEL REFRIGERANTE
SEALED TAPPING COLLET WITH INTERNAL SQUARE
DE TARAUDAGES AVEC CARRE INTERIEUR ET ETANCHE POUR REFRIGERANT
GEWINDEBOHRSPANNZANGEN MIT VIERECK MIT ABDICHTUNF FUR DAS KUHLMITTEL



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DIN 6499 ERCOM

PORTAMASCHI A COMPENSAZIONE ASSIALE
TAPPING COLLETS WITH AXIAL COMPENSATION
DE TARAUDAGES AVEC COMPENSATION AXIALE
GEWINDEBOHRZANGEN MIT EINGEBAUTER AXIALKOMPENSATION

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DIN 9499 ERD

ETS SYSTEM
ETS SYSTEM
SYSTÈME ETS
ETS SYSTEM

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4SR / 6SR

CILINDRICHE PER MANDRINI IDRAULICI E A FORTE SERRAGGIO
STRAIGHT COLLETS FOR HYDRAULIC AND POWER MILLING CHUCKS
CYLINDRIQUES POUR MANDRINS A GRAND PUISSANCE ET HYDRAULIQUES
ZYLINDRISCHE SPANNZANGEN FÜR KLEMMFUTTER UND HYDRODEHNSPANNFUTTER



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DIN 6388 EOC

SISTEMA OZ DIN 6388
OZ SYSTEM DIN 6388
SYSTÈME OZ DIN 6388
SPANNZANGEN OZ DIN 6388

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SKS

SISTEMA DI PRECISIONE SKS
SKS PRECISION SYSTEM
SYSTÈME DE PRÉCISION SKS
PRÄZISION SPANNZANGEN SKS

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PINZE DIN 6499

COLLETS DIN 6499



MP

NEW

MEGA PRECISION

Precisione di rotazione
Concentricity specifications

0.002 



UP

ULTRA PRECISION

Precisione di rotazione
Concentricity specifications

0.005 



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.015 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Sono costruite in acciaio per molle;
- Vengono rettificate sia esternamente che internamente;
- Viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5;
- Temprate, rinvenute, HRC 45+2
- Fornibili in 3 classi di precisione: 0.002/0.005/0.015

CARACTÉRISTIQUES

- Elles sont fabriquées en acier pour ressorts.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur.
- après cela une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- Trempe et le revenu, HRC 45+2
- Fournis en trois niveaux de précision: 0.002/0.005/0.015

TECHNICAL FEATURES

- Built in spring steel
- Grounded both externally and internally;
- After this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5.
- Quenched and tempered, HRC 45+2
- Can be provided in three classes of precision: 0.002/0.005/0.015

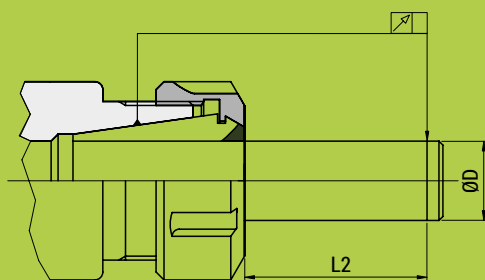
TECHNISCHE DATEN

- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen;
- Nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Abschreck- und Temperofen, HRC 45+2
- Sie werden in drei Präzisionsklassen geliefert: 0.002/0.005/0.015



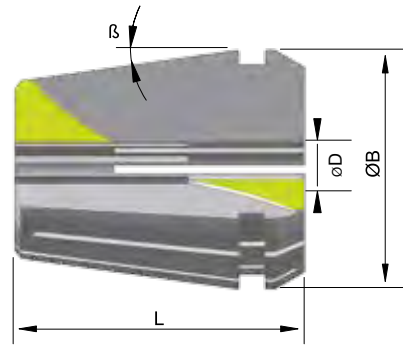
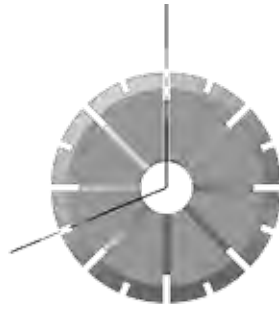
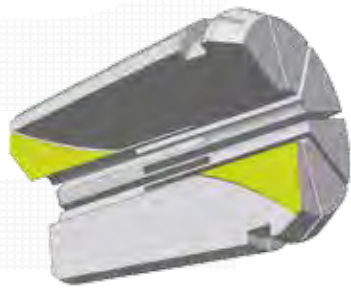
TIPO/TYPE	ØD	CLAMPING RANGE	ØA	ØB	L	L1
ER8	1 ÷ 5	0.5	8	8,5	13,5	3,4
ER11	1 ÷ 7	0.5	11	11,5	18	3.8
ER16	1 ÷ 10	0.5 ÷ 1	16	17	27.5	6.26
ER20	1 ÷ 14	0.5 ÷ 1	20	21	31.5	6.36
ER25	1 ÷ 20	0.5 ÷ 1	25	26	34	6.66
ER32	2 ÷ 22	0.5 ÷ 1	32	33	40	7.16
ER40	3 ÷ 30	0.5 ÷ 1	40	41	46	7.66
ER50	6 ÷ 34	1 ÷ 2	50	52	60	12.6
ER60	10 ÷ 40	1 ÷ 2	60	61	60	7.64

PRECISIONE DI ROTAZIONE / CONCENTRICITY SPECIFICATIONS



ØD		L2	S Max		
ØD Min	ØD Max		Standard	UP ULTRA PRECISION	MP MEGA PRECISION
1	1.6	6	0.015	0.005	0.002
1.6	3	10	0.015	0.005	0.002
3	7	16	0.015	0.005	0.002
7	10	25	0.015	0.005	0.002
10	18	40	0.020	0.005	0.002
18	26	50	0.020	0.005	0.002
26	40	60	0.020	0.005	0.002

I valori di concentricità si intendono riferiti ai campioni primari Serinex certificati da laboratori accreditati SIT.
Concentricity values refer to the Serinex primary samples certified by SIT accredited laboratories.



ER 8 - METRIC - 4004 E

0.015 STANDARD PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.8.1	1	1 ÷ 0.5	8,5	13,5	8°
ERX.8.1.5	1,5	1.5 ÷ 1	8,5	13,5	8°
ERX.8.2	2	2 ÷ 1.5	8,5	13,5	8°
ERX.8.2.5	2,5	2.5 ÷ 2	8,5	13,5	8°
ERX.8.3	3	3 ÷ 2.5	8,5	13,5	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.8.3.5	3,5	3.5 ÷ 3	8,5	13,5	8°
ERX.8.4	4	4 ÷ 3.5	8,5	13,5	8°
ERX.8.4.5	4,5	4.5 ÷ 4	8,5	13,5	8°
ERX.8.5	5	5 ÷ 4.5	8,5	13,5	8°



ER 8 - METRIC - 4004 E KIT

0.015 STANDARD PRECISION

Cod.	Nr. pieces	ØD
R-ERX08 - 9	9	1 - 1,5 - 2 - 2,5 - 3 - 3,5 - 4 - 4,5 - 5

ER 11 - METRIC - 4008 E

0.015 STANDARD PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.11.1	1	1 ÷ 0.5	11,5	18	8°
ERX.11.1.5	1,5	1.5 ÷ 1	11,5	18	8°
ERX.11.2	2	2 ÷ 1.5	11,5	18	8°
ERX.11.2.5	2,5	2.5 ÷ 2	11,5	18	8°
ERX.11.3	3	3 ÷ 2.5	11,5	18	8°
ERX.11.3.5	3,5	3.5 ÷ 3	11,5	18	8°
ERX.11.4	4	4 ÷ 3.5	11,5	18	8°

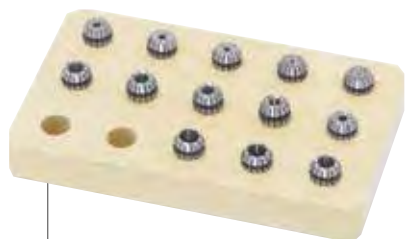
Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.11.4.5	4,5	4.5 ÷ 4	11,5	18	8°
ERX.11.5	5	5 ÷ 4.5	11,5	18	8°
ERX.11.5.5	5,5	5.5 ÷ 5	11,5	18	8°
ERX.11.6	6	6 ÷ 5.5	11,5	18	8°
ERX.11.6.5	6,5	6.5 ÷ 6	11,5	18	8°
ERX.11.7	7	7 ÷ 6.5	11,5	18	8°

0.005 **UP** ULTRA PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.11.UP.1	1	1 ÷ 0.5	11,5	18	8°
ERX.11.UP.1.5	1,5	1.5 ÷ 1	11,5	18	8°
ERX.11.UP.2	2	2 ÷ 1.5	11,5	18	8°
ERX.11.UP.2.5	2,5	2.5 ÷ 2	11,5	18	8°
ERX.11.UP.3	3	3 ÷ 2.5	11,5	18	8°
ERX.11.UP.3.5	3,5	3.5 ÷ 3	11,5	18	8°
ERX.11.UP.4	4	4 ÷ 3.5	11,5	18	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.11.UP.4.5	4,5	4.5 ÷ 4	11,5	18	8°
ERX.11.UP.5	5	5 ÷ 4.5	11,5	18	8°
ERX.11.UP.5.5	5,5	5.5 ÷ 5	11,5	18	8°
ERX.11.UP.6	6	6 ÷ 5.5	11,5	18	8°
ERX.11.UP.6.5	6,5	6.5 ÷ 6	11,5	18	8°
ERX.11.UP.7	7	7 ÷ 6.5	11,5	18	8°

ER 11 - METRIC - 4008 E KIT

0.015  STANDARD PRECISION

Cod.	Nr. pieces	ØD
R-ERX11-13	13	1 - 1,5 - 2 - 2,5 - 3 - 3,5 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7

0.005  **UP** ULTRA PRECISION

Cod.	Nr. pieces	ØD
R-ERX11UP-13	13	1 - 1,5 - 2 - 2,5 - 3 - 3,5 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7

ER 16 - METRIC - 426 E

0.015  STANDARD PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.16.1	1	1 ÷ 0,5	17	27,5	8°
ERX.16.1.5	1,5	1,5 ÷ 1	17	27,5	8°
ERX.16.2	2	2 ÷ 1	17	27,5	8°
ERX.16.2.5	2,5	2,5 ÷ 2	17	27,5	8°
ERX.16.3	3	3 ÷ 2	17	27,5	8°
ERX.16.3.5	3,5	3,5 ÷ 2,5	17	27,5	8°
ERX.16.4	4	4 ÷ 3	17	27,5	8°
ERX.16.4.5	4,5	4,5 ÷ 3,5	17	27,5	8°
ERX.16.5	5	5 ÷ 4	17	27,5	8°
ERX.16.5.5	5,5	5,5 ÷ 4,5	17	27,5	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.16.6	6	6 ÷ 5	17	27,5	8°
ERX.16.6.5	6,5	6,5 ÷ 5,5	17	27,5	8°
ERX.16.7	7	7 ÷ 6	17	27,5	8°
ERX.16.7.5	7,5	7,5 ÷ 6,5	17	27,5	8°
ERX.16.8	8	8 ÷ 7	17	27,5	8°
ERX.16.8.5	8,5	8,5 ÷ 7,5	17	27,5	8°
ERX.16.9	9	9 ÷ 8	17	27,5	8°
ERX.16.9.5	9,5	9,5 ÷ 8,5	17	27,5	8°
ERX.16.10	10	10 ÷ 9	17	27,5	8°
ERX.16.12	12	12 ÷ 11	17	27,5	8°

0.005  **UP** ULTRA PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.16.UP.1	1	1 ÷ 0,5	17	27,5	8°
ERX.16.UP.1.5	1,5	1,5 ÷ 1	17	27,5	8°
ERX.16.UP.2	2	2 ÷ 1	17	27,5	8°
ERX.16.UP.2.5	2,5	2,5 ÷ 2	17	27,5	8°
ERX.16.UP.3	3	3 ÷ 2	17	27,5	8°
ERX.16.UP.3.5	3,5	3,5 ÷ 2,5	17	27,5	8°
ERX.16.UP.4	4	4 ÷ 3	17	27,5	8°
ERX.16.UP.4.5	4,5	4,5 ÷ 3,5	17	27,5	8°
ERX.16.UP.5	5	5 ÷ 4	17	27,5	8°
ERX.16.UP.5.5	5,5	5,5 ÷ 4,5	17	27,5	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.16.UP.6	6	6 ÷ 5	17	27,5	8°
ERX.16.UP.6.5	6,5	6,5 ÷ 5,5	17	27,5	8°
ERX.16.UP.7	7	7 ÷ 6	17	27,5	8°
ERX.16.UP.7.5	7,5	7,5 ÷ 6,5	17	27,5	8°
ERX.16.UP.8	8	8 ÷ 7	17	27,5	8°
ERX.16.UP.8.5	8,5	8,5 ÷ 7,5	17	27,5	8°
ERX.16.UP.9	9	9 ÷ 8	17	27,5	8°
ERX.16.UP.9.5	9,5	9,5 ÷ 8,5	17	27,5	8°
ERX.16.UP.10	10	10 ÷ 9	17	27,5	8°

ER 16 - METRIC - 426 E KIT

0.015  STANDARD PRECISION

Fig.1

Fig.2

Cod.	Nr. pieces	ØD	Note
R-ERX16-8	8	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.1
B-ERX16-8	8	3 - 4 - 6 - 7 - 8 - 9 - 10	Fig.2
R-ERX16-10	10	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.1
B-ERX16-10	10	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.2
R-ERX16-12	12	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.1
B-ERX16-12	12	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.2



Fig.1



Fig.2

ER 16 - METRIC - 426 E KIT

0.005 **UP ULTRA PRECISION**

Cod.	Nr. pieces	ØD	Note
R-ERX16UP-8	8	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.1
B-ERX16UP-8	8	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.2
R-ERX16UP-10	10	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.1
B-ERX16UP-10	10	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.2
R-ERX16UP-12	12	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.1
B-ERX16UP-12	12	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig.2

ER 20 - METRIC - 428 E

0.015 **STANDARD PRECISION**

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.20.1	1	1 ÷ 0,5	21	31,5	8°
ERX.20.1.5	1,5	1,5 ÷ 1	21	31,5	8°
ERX.20.2	2	2 ÷ 1,5	21	31,5	8°
ERX.20.2.5	2,5	2,5 ÷ 2	21	31,5	8°
ERX.20.3	3	3 ÷ 2	21	31,5	8°
ERX.20.3.5	3,5	3,5 ÷ 2,5	21	31,5	8°
ERX.20.4	4	4 ÷ 3	21	31,5	8°
ERX.20.4.5	4,5	4,5 ÷ 3,5	21	31,5	8°
ERX.20.5	5	5 ÷ 4	21	31,5	8°
ERX.20.5.5	5,5	5,5 ÷ 4,5	21	31,5	8°
ERX.20.6	6	6 ÷ 5	21	31,5	8°
ERX.20.6.5	6,5	6,5 ÷ 5,5	21	31,5	8°
ERX.20.7	7	7 ÷ 6	21	31,5	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.20.7.5	7,5	7,5 ÷ 6,5	21	31,5	8°
ERX.20.8	8	8 ÷ 7	21	31,5	8°
ERX.20.8.5	8,5	8,5 ÷ 7,5	21	31,5	8°
ERX.20.9	9	9 ÷ 8	21	31,5	8°
ERX.20.9.5	9,5	9,5 ÷ 8,5	21	31,5	8°
ERX.20.10	10	10 ÷ 9	21	31,5	8°
ERX.20.10.5	10,5	10,5 ÷ 9,5	21	31,5	8°
ERX.20.11	11	11 ÷ 10	21	31,5	8°
ERX.20.11.5	11,5	11,5 ÷ 10,5	21	31,5	8°
ERX.20.12	12	12 ÷ 11	21	31,5	8°
ERX.20.12.5	12,5	12,5 ÷ 11,5	21	31,5	8°
ERX.20.13	13	13 ÷ 12	21	31,5	8°
ERX.20.14	14	14 ÷ 13,5	21	31,5	8°

0.005 **UP ULTRA PRECISION**

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.20.UP.1	1	1 ÷ 0,5	21	31,5	8°
ERX.20.UP.1.5	1,5	1,5 ÷ 1	21	31,5	8°
ERX.20.UP.2	2	2 ÷ 1,5	21	31,5	8°
ERX.20.UP.2.5	2,5	2,5 ÷ 2	21	31,5	8°
ERX.20.UP.3	3	3 ÷ 2	21	31,5	8°
ERX.20.UP.3.5	3,5	3,5 ÷ 2,5	21	31,5	8°
ERX.20.UP.4	4	4 ÷ 3	21	31,5	8°
ERX.20.UP.4.5	4,5	4,5 ÷ 3,5	21	31,5	8°
ERX.20.UP.5	5	5 ÷ 4	21	31,5	8°
ERX.20.UP.5.5	5,5	5,5 ÷ 4,5	21	31,5	8°
ERX.20.UP.6	6	6 ÷ 5	21	31,5	8°
ERX.20.UP.6.5	6,5	6,5 ÷ 5,5	21	31,5	8°
ERX.20.UP.7	7	7 ÷ 6	21	31,5	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.20.UP.7.5	7,5	7,5 ÷ 6,5	21	31,5	8°
ERX.20.UP.8	8	8 ÷ 7	21	31,5	8°
ERX.20.UP.8.5	8,5	8,5 ÷ 7,5	21	31,5	8°
ERX.20.UP.9	9	9 ÷ 8	21	31,5	8°
ERX.20.UP.9.5	9,5	9,5 ÷ 8,5	21	31,5	8°
ERX.20.UP.10	10	10 ÷ 9	21	31,5	8°
ERX.20.UP.10.5	10,5	10,5 ÷ 9,5	21	31,5	8°
ERX.20.UP.11	11	11 ÷ 10	21	31,5	8°
ERX.20.UP.11.5	11,5	11,5 ÷ 10,5	21	31,5	8°
ERX.20.UP.12	12	12 ÷ 11	21	31,5	8°
ERX.20.UP.12.5	12,5	12,5 ÷ 11,5	21	31,5	8°
ERX.20.UP.13	13	13 ÷ 12	21	31,5	8°

ER 20 - METRIC - 428 E KIT

0.015  STANDARD PRECISION

Fig.1

Cod.	Nr. pieces	ØD	Note
R-ERX20-11	11	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.1
B-ERX20-11	11	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.2
R-ERX20-12	12	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.1
B-ERX20-12	12	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.2
R-ERX20-13	13	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.1
B-ERX20-13	13	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.2
R-ERX20-15	15	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.1
B-ERX20-15	15	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.2

0.005  UP ULTRA PRECISION

Fig.2

Cod.	Nr. pieces	ØD	Note
R-ERX20UP-11	11	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.1
B-ERX20UP-11	11	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.2
R-ERX20UP-12	12	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.1
B-ERX20UP-12	12	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.2
R-ERX20UP-13	13	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.1
B-ERX20UP-13	13	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.2
R-ERX20UP-15	15	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.1
B-ERX20UP-15	15	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig.2

ER 25 - METRIC - 430 E

0.015  STANDARD PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.25.1	1	1 ÷ 0,5	26	34	8°
ERX.25.1.5	1,5	1,5 ÷ 1	26	34	8°
ERX.25.2	2	2 ÷ 1,5	26	34	8°
ERX.25.2.5	2,5	2,5 ÷ 2	26	34	8°
ERX.25.3	3	3 ÷ 2	26	34	8°
ERX.25.3.5	3,5	3,5 ÷ 2,5	26	34	8°
ERX.25.4	4	4 ÷ 3	26	34	8°
ERX.25.4.5	4,5	4,5 ÷ 3,5	26	34	8°
ERX.25.5	5	5 ÷ 4	26	34	8°
ERX.25.5.5	5,5	5,5 ÷ 4,5	26	34	8°
ERX.25.6	6	6 ÷ 5	26	34	8°
ERX.25.6.5	6,5	6,5 ÷ 5,5	26	34	8°
ERX.25.7	7	7 ÷ 6	26	34	8°
ERX.25.7.5	7,5	7,5 ÷ 6,5	26	34	8°
ERX.25.8	8	8 ÷ 7	26	34	8°
ERX.25.8.5	8,5	8,5 ÷ 7,5	26	34	8°
ERX.25.9	9	9 ÷ 8	26	34	8°
ERX.25.9.5	9,5	9,5 ÷ 8,5	26	34	8°
ERX.25.10	10	10 ÷ 9	26	34	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.25.10.5	10,5	10,5 ÷ 9,5	26	34	8°
ERX.25.11	11	11 ÷ 10	26	34	8°
ERX.25.11.5	11,5	11,5 ÷ 10,5	26	34	8°
ERX.25.12	12	12 ÷ 11	26	34	8°
ERX.25.12.5	12,5	12,5 ÷ 11,5	26	34	8°
ERX.25.13	13	13 ÷ 12	26	34	8°
ERX.25.13.5	13,5	13,5 ÷ 12,5	26	34	8°
ERX.25.14	14	14 ÷ 13	26	34	8°
ERX.25.14.5	14,5	14,5 ÷ 13,5	26	34	8°
ERX.25.15	15	15 ÷ 14	26	34	8°
ERX.25.15.5	15,5	15,5 ÷ 14,5	26	34	8°
ERX.25.16	16	16 ÷ 15	26	34	8°
ERX.25.16.5	16,5	16,5 ÷ 15,5	26	34	8°
ERX.25.17	17	17 ÷ 16	26	34	8°
ERX.25.17.5	17,5	17,5 ÷ 16,5	26	34	8°
ERX.25.18	18	18 ÷ 17	26	34	8°
ERX.25.19	19	19 ÷ 18,5	26	34	8°
ERX.25.20	20	20 ÷ 19,5	26	34	8°

ER 25 - METRIC - 430 E

0.005  **UP ULTRA PRECISION**

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.25.UP.1	1	1 ÷ 0.5	26	34	8°
ERX.25.UP.1.5	1,5	1,5 ÷ 1	26	34	8°
ERX.25.UP.2	2	2 ÷ 1.5	26	34	8°
ERX.25.UP.2.5	2,5	2,5 ÷ 2	26	34	8°
ERX.25.UP.3	3	3 ÷ 2	26	34	8°
ERX.25.UP.3.5	3,5	3,5 ÷ 2,5	26	34	8°
ERX.25.UP.4	4	4 ÷ 3	26	34	8°
ERX.25.UP.4.5	4,5	4,5 ÷ 3,5	26	34	8°
ERX.25.UP.5	5	5 ÷ 4	26	34	8°
ERX.25.UP.5.5	5,5	5,5 ÷ 4,5	26	34	8°
ERX.25.UP.6	6	6 ÷ 5	26	34	8°
ERX.25.UP.6.5	6,5	6,5 ÷ 5,5	26	34	8°
ERX.25.UP.7	7	7 ÷ 6	26	34	8°
ERX.25.UP.7.5	7,5	7,5 ÷ 6,5	26	34	8°
ERX.25.UP.8	8	8 ÷ 7	26	34	8°
ERX.25.UP.8.5	8,5	8,5 ÷ 7,5	26	34	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.25.UP.9	9	9 ÷ 8	26	34	8°
ERX.25.UP.9.5	9,5	9,5 ÷ 8,5	26	34	8°
ERX.25.UP.10	10	10 ÷ 9	26	34	8°
ERX.25.UP.10.5	10,5	10,5 ÷ 9,5	26	34	8°
ERX.25.UP.11	11	11 ÷ 10	26	34	8°
ERX.25.UP.11.5	11,5	11,5 ÷ 10,5	26	34	8°
ERX.25.UP.12	12	12 ÷ 11	26	34	8°
ERX.25.UP.12.5	12,5	12,5 ÷ 11,5	26	34	8°
ERX.25.UP.13	13	13 ÷ 12	26	34	8°
ERX.25.UP.13.5	13,5	13,5 ÷ 12,5	26	34	8°
ERX.25.UP.14	14	14 ÷ 13	26	34	8°
ERX.25.UP.14.5	14,5	14,5 ÷ 13,5	26	34	8°
ERX.25.UP.15	15	15 ÷ 14	26	34	8°
ERX.25.UP.15.5	15,5	15,5 ÷ 14,5	26	34	8°
ERX.25.UP.16	16	16 ÷ 15	26	34	8°

NEW

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.25.MP.3	3	3 ÷ 2	26	34	8°
ERX.25.MP.4	4	4 ÷ 3	26	34	8°
ERX.25.MP.5	5	5 ÷ 4	26	34	8°
ERX.25.MP.6	6	6 ÷ 5	26	34	8°
ERX.25.MP.7	7	7 ÷ 6	26	34	8°
ERX.25.MP.8	8	8 ÷ 7	26	34	8°
ERX.25.MP.9	9	9 ÷ 8	26	34	8°

0.002  **MP MEGA PRECISION**

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.25.MP.10	10	10 ÷ 9	26	34	8°
ERX.25.MP.11	11	11 ÷ 10	26	34	8°
ERX.25.MP.12	12	12 ÷ 11	26	34	8°
ERX.25.MP.13	13	13 ÷ 12	26	34	8°
ERX.25.MP.14	14	14 ÷ 13	26	34	8°
ERX.25.MP.15	15	15 ÷ 14	26	34	8°
ERX.25.MP.16	16	16 ÷ 15	26	34	8°

ER 25 - METRIC - 430 E KIT

0.015  **STANDARD PRECISION**



Cod.	Nr. pieces	ØD	Note
R-ERX25-14	14	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25-14	14	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2
R-ERX25-15	15	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25-15	15	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2
R-ERX25-16	16	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25-16	16	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2
R-ERX25-18	18	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25-18	18	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2

ER 25 - METRIC - 430 E KIT

0.005  UP ULTRA PRECISION

Fig.1



Cod.	Nr. pieces	ØD	Note
R-ERX25UP-14	14	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25UP-14	14	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2
R-ERX25UP-15	15	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25UP-15	15	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2
R-ERX25UP-16	16	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25UP-16	16	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2
R-ERX25UP-18	18	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25UP-18	18	1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2

NEW

0.002  MP MEGA PRECISION

Fig.2



Cod.	Nr. pieces	ØD	Note
R-ERX25MP-14	14	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.1
B-ERX25MP-14	14	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig.2

ER 32 - METRIC - 470 E

0.015  STANDARD PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.32.2	2	2 ÷ 1,5	33	40	8°
ERX.32.2.5	2,5	2,5 ÷ 2	33	40	8°
ERX.32.3	3	3 ÷ 2	33	40	8°
ERX.32.3.5	3,5	3,5 ÷ 3	33	40	8°
ERX.32.4	4	4 ÷ 3	33	40	8°
ERX.32.4.5	4,5	4,5 ÷ 3,5	33	40	8°
ERX.32.5	5	5 ÷ 4	33	40	8°
ERX.32.5.5	5,5	5,5 ÷ 4,5	33	40	8°
ERX.32.6	6	6 ÷ 5	33	40	8°
ERX.32.6.5	6,5	6,5 ÷ 5,5	33	40	8°
ERX.32.7	7	7 ÷ 6	33	40	8°
ERX.32.7.5	7,5	7,5 ÷ 6,5	33	40	8°
ERX.32.8	8	8 ÷ 7	33	40	8°
ERX.32.8.5	8,5	8,5 ÷ 7,5	33	40	8°
ERX.32.9	9	9 ÷ 8	33	40	8°
ERX.32.9.5	9,5	9,5 ÷ 8,5	33	40	8°
ERX.32.10	10	10 ÷ 9	33	40	8°
ERX.32.10.5	10,5	10,5 ÷ 9,5	33	40	8°
ERX.32.11	11	11 ÷ 10	33	40	8°
ERX.32.11.5	11,5	11,5 ÷ 10,5	33	40	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.32.12	12	12 ÷ 11	33	40	8°
ERX.32.12.5	12,5	12,5 ÷ 11,5	33	40	8°
ERX.32.13	13	13 ÷ 12	33	40	8°
ERX.32.13.5	13,5	13,5 ÷ 12,5	33	40	8°
ERX.32.14	14	14 ÷ 13	33	40	8°
ERX.32.14.5	14,5	14,5 ÷ 13,5	33	40	8°
ERX.32.15	15	15 ÷ 14	33	40	8°
ERX.32.15.5	15,5	15,5 ÷ 14,5	33	40	8°
ERX.32.16	16	16 ÷ 15	33	40	8°
ERX.32.16.5	16,5	16,5 ÷ 15,5	33	40	8°
ERX.32.17	17	17 ÷ 16	33	40	8°
ERX.32.17.5	17,5	17,5 ÷ 16,5	33	40	8°
ERX.32.18	18	18 ÷ 17	33	40	8°
ERX.32.18.5	18,5	18,5 ÷ 17,5	33	40	8°
ERX.32.19	19	19 ÷ 18	33	40	8°
ERX.32.19.5	19,5	19,5 ÷ 18,5	33	40	8°
ERX.32.20	20	20 ÷ 19	33	40	8°
ERX.32.21	21	21 ÷ 20	33	40	8°
ERX.32.22	22	22 ÷ 21	33	40	8°

ER 32 - METRIC - 470 E

0.005  **UP** ULTRA PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.32.UP.2	2	2 ÷ 1,5	33	40	8°
ERX.32.UP.2.5	2,5	2,5 ÷ 2	33	40	8°
ERX.32.UP.3	3	3 ÷ 2	33	40	8°
ERX.32.UP.3.5	3,5	3,5 ÷ 3	33	40	8°
ERX.32.UP.4	4	4 ÷ 3	33	40	8°
ERX.32.UP.4.5	4,5	4,5 ÷ 3,5	33	40	8°
ERX.32.UP.5	5	5 ÷ 4	33	40	8°
ERX.32.UP.5.5	5,5	5,5 ÷ 4,5	33	40	8°
ERX.32.UP.6	6	6 ÷ 5	33	40	8°
ERX.32.UP.6.5	6,5	6,5 ÷ 5,5	33	40	8°
ERX.32.UP.7	7	7 ÷ 6	33	40	8°
ERX.32.UP.7.5	7,5	7,5 ÷ 6,5	33	40	8°
ERX.32.UP.8	8	8 ÷ 7	33	40	8°
ERX.32.UP.8.5	8,5	8,5 ÷ 7,5	33	40	8°
ERX.32.UP.9	9	9 ÷ 8	33	40	8°
ERX.32.UP.9.5	9,5	9,5 ÷ 8,5	33	40	8°
ERX.32.UP.10	10	10 ÷ 9	33	40	8°
ERX.32.UP.10.5	10,5	10,5 ÷ 9,5	33	40	8°
ERX.32.UP.11	11	11 ÷ 10	33	40	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.32.UP.11.5	11,5	11,5 ÷ 10,5	33	40	8°
ERX.32.UP.12	12	12 ÷ 11	33	40	8°
ERX.32.UP.12.5	12,5	12,5 ÷ 11,5	33	40	8°
ERX.32.UP.13	13	13 ÷ 12	33	40	8°
ERX.32.UP.13.5	13,5	13,5 ÷ 12,5	33	40	8°
ERX.32.UP.14	14	14 ÷ 13	33	40	8°
ERX.32.UP.14.5	14,5	14,5 ÷ 13,5	33	40	8°
ERX.32.UP.15	15	15 ÷ 14	33	40	8°
ERX.32.UP.15.5	15,5	15,5 ÷ 14,5	33	40	8°
ERX.32.UP.16	16	16 ÷ 15	33	40	8°
ERX.32.UP.16.5	16,5	16,5 ÷ 15,5	33	40	8°
ERX.32.UP.17	17	17 ÷ 16	33	40	8°
ERX.32.UP.17.5	17,5	17,5 ÷ 16,5	33	40	8°
ERX.32.UP.18	18	18 ÷ 17	33	40	8°
ERX.32.UP.18.5	18,5	18,5 ÷ 17,5	33	40	8°
ERX.32.UP.19	19	19 ÷ 18	33	40	8°
ERX.32.UP.19.5	19,5	19,5 ÷ 18,5	33	40	8°
ERX.32.UP.20	20	20 ÷ 19	33	40	8°

NEW

0.002  **MP** MEGA PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.32.MP.3	3	3 ÷ 2	33	40	8°
ERX.32.MP.4	4	4 ÷ 3	33	40	8°
ERX.32.MP.5	5	5 ÷ 4	33	40	8°
ERX.32.MP.6	6	6 ÷ 5	33	40	8°
ERX.32.MP.7	7	7 ÷ 6	33	40	8°
ERX.32.MP.8	8	8 ÷ 7	33	40	8°
ERX.32.MP.9	9	9 ÷ 8	33	40	8°
ERX.32.MP.10	10	10 ÷ 9	33	40	8°
ERX.32.MP.11	11	11 ÷ 10	33	40	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.32.MP.12	12	12 ÷ 11	33	40	8°
ERX.32.MP.13	13	13 ÷ 12	33	40	8°
ERX.32.MP.14	14	14 ÷ 13	33	40	8°
ERX.32.MP.15	15	15 ÷ 14	33	40	8°
ERX.32.MP.16	16	16 ÷ 15	33	40	8°
ERX.32.MP.17	17	17 ÷ 16	33	40	8°
ERX.32.MP.18	18	18 ÷ 17	33	40	8°
ERX.32.MP.19	19	19 ÷ 18	33	40	8°
ERX.32.MP.20	20	20 ÷ 19	33	40	8°

ER 32 - METRIC - 470 E KIT

0.015  **STANDARD PRECISION**

Fig.2



Fig.1

Cod.	Nr. pieces	ØD	Note
R-ERX32-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.1
B-ERX32-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.2
R-ERX32-20	20	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.1
B-ERX32-20	20	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.2

ER 32 - METRIC - 470 E KIT

0.005  **UP** ULTRA PRECISION

Fig.1



Fig.2

Cod.	Nr. pieces	ØD	Note
R-ERX32UP-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.1
B-ERX32UP-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.2
R-ERX32UP-20	20	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.1
B-ERX32UP-20	20	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.2

NEW0.002  **MP** MEGA PRECISION

Cod.	Nr. pieces	ØD	Note
R-ERX32MP-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.1
B-ERX32MP-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig.2

ER 40 - METRIC - 472 E

0.015  STANDARD PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.40.3	3	3 ÷ 2	41	46	8°
ERX40.3.5	3,5	3,5 ÷ 3	41	46	8°
ERX.40.4	4	4 ÷ 3	41	46	8°
ERX40.4.5	4,5	4,5 ÷ 3,5	41	46	8°
ERX.40.5	5	5 ÷ 4	41	46	8°
ERX.40.5.5	5,5	5,5 ÷ 4,5	41	46	8°
ERX.40.6	6	6 ÷ 5	41	46	8°
ERX.40.6.5	6,5	6,5 ÷ 5,5	41	46	8°
ERX.40.7	7	7 ÷ 6	41	46	8°
ERX.40.7,5	7,5	7,5 ÷ 6,5	41	46	8°
ERX.40.8	8	8 ÷ 7	41	46	8°
ERX.40.8.5	8,5	8,5 ÷ 7,5	41	46	8°
ERX.40.9	9	9 ÷ 8	41	46	8°
ERX.40.9.5	9,5	9,5 ÷ 8,5	41	46	8°
ERX.40.10	10	10 ÷ 9	41	46	8°
ERX.40.10.5	10,5	10,5 ÷ 9,5	41	46	8°
ERX.40.11	11	11 ÷ 10	41	46	8°
ERX.40.11.5	11,5	11,5 ÷ 10,5	41	46	8°
ERX.40.12	12	12 ÷ 11	41	46	8°
ERX.40.12.5	12,5	12,5 ÷ 11,5	41	46	8°
ERX.40.13	13	13 ÷ 12	41	46	8°
ERX.40.13.5	13,5	13,5 ÷ 12,5	41	46	8°
ERX.40.14	14	14 ÷ 13	41	46	8°
ERX.40.14.5	14,5	14,5 ÷ 13,5	41	46	8°
ERX.40.15	15	15 ÷ 14	41	46	8°
ERX.40.15.5	15,5	15,5 - 14,5	41	46	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.40.16	16	16 ÷ 15	41	46	8°
ERX.40.16.5	16,5	16,5 ÷ 15,5	41	46	8°
ERX.40.17	17	17 ÷ 16	41	46	8°
ERX.40.17.5	17,5	17,5 ÷ 16,5	41	46	8°
ERX.40.18	18	18 ÷ 17	41	46	8°
ERX.40.18.5	18,5	18,5 ÷ 17,5	41	46	8°
ERX.40.19	19	19 ÷ 18	41	46	8°
ERX.40.19.5	19,5	19,5 ÷ 18,5	41	46	8°
ERX.40.20	20	20 ÷ 19	41	46	8°
ERX.40.20.5	20,5	20,5 ÷ 19,5	41	46	8°
ERX.40.21	21	21 ÷ 20	41	46	8°
ERX.40.21.5	21,5	21,5 ÷ 20,5	41	46	8°
ERX.40.22	22	22 ÷ 21	41	46	8°
ERX.40.22.5	22,5	22,5 ÷ 21,5	41	46	8°
ERX.40.23	23	23 ÷ 22	41	46	8°
ERX.40.23.5	23,5	23,5 ÷ 22,5	41	46	8°
ERX.40.24	24	24 ÷ 23	41	46	8°
ERX.40.24.5	24,5	24,5 ÷ 23,5	41	46	8°
ERX.40.25	25	25 ÷ 24	41	46	8°
ERX.40.25.5	25,5	25,5 ÷ 24,5	41	46	8°
ERX.40.26	26	26 ÷ 25	41	46	8°
ERX.40.27	27	27 ÷ 26	41	46	8°
ERX.40.28	28	28 ÷ 27	41	46	8°
ERX.40.29	29	29 ÷ 28	41	46	8°
ERX.40.30	30	30 ÷ 29	41	46	8°

ER 40 - METRIC - 472 E

0.005  **UP** ULTRA PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.40.UP.3	3	3 ÷ 2	41	46	8°
ERX.40.UP.3.5	3,5	3,5 ÷ 3	41	46	8°
ERX.40.UP.4	4	4 ÷ 3	41	46	8°
ERX.40.UP.4.5	4,5	4,5 ÷ 3,5	41	46	8°
ERX.40.UP.5	5	5 ÷ 4	41	46	8°
ERX.40.UP.5.5	5,5	5,5 ÷ 4,5	41	46	8°
ERX.40.UP.6	6	6 ÷ 5	41	46	8°
ERX.40.UP.6.5	6,5	6,5 ÷ 5,5	41	46	8°
ERX.40.UP.7	7	7 ÷ 6	41	46	8°
ERX.40.UP.7.5	7,5	7,5 ÷ 6,5	41	46	8°
ERX.40.UP.8	8	8 ÷ 7	41	46	8°
ERX.40.UP.8.5	8,5	8,5 ÷ 7,5	41	46	8°
ERX.40.UP.9	9	9 ÷ 8	41	46	8°
ERX.40.UP.9.5	9,5	9,5 ÷ 8,5	41	46	8°
ERX.40.UP.10	10	10 ÷ 9	41	46	8°
ERX.40.UP.10.5	10,5	10,5 ÷ 9,5	41	46	8°
ERX.40.UP.11	11	11 ÷ 10	41	46	8°
ERX.40.UP.11.5	11,5	11,5 ÷ 10,5	41	46	8°
ERX.40.UP.12	12	12 ÷ 11	41	46	8°
ERX.40.UP.12.5	12,5	12,5 ÷ 11,5	41	46	8°
ERX.40.UP.13	13	13 ÷ 12	41	46	8°
ERX.40.UP.13.5	13,5	13,5 ÷ 12,5	41	46	8°
ERX.40.UP.14	14	14 ÷ 13	41	46	8°
ERX.40.UP.14.5	14,5	14,5 ÷ 13,5	41	46	8°
ERX.40.UP.15	15	15 ÷ 14	41	46	8°
ERX.40.UP.15.5	15,5	15,5 - 14,5	41	46	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.40.UP.16	16	16 ÷ 15	41	46	8°
ERX.40.UP.16.5	16,5	16,5 ÷ 15,5	41	46	8°
ERX.40.UP.17	17	17 ÷ 16	41	46	8°
ERX.40.UP.17.5	17,5	17,5 ÷ 16,5	41	46	8°
ERX.40.UP.18	18	18 ÷ 17	41	46	8°
ERX.40.UP.18.5	18,5	18,5 ÷ 17,5	41	46	8°
ERX.40.UP.19	19	19 ÷ 18	41	46	8°
ERX.40.UP.19.5	19,5	19,5 ÷ 18,5	41	46	8°
ERX.40.UP.20	20	20 ÷ 19	41	46	8°
ERX.40.UP.20.5	20,5	20,5 ÷ 19,5	41	46	8°
ERX.40.UP.21	21	21 ÷ 20	41	46	8°
ERX.40.UP.21.5	21,5	21,5 ÷ 20,5	41	46	8°
ERX.40.UP.22	22	22 ÷ 21	41	46	8°
ERX.40.UP.22.5	22,5	22,5 ÷ 21,5	41	46	8°
ERX.40.UP.23	23	23 ÷ 22	41	46	8°
ERX.40.UP.23.5	23,5	23,5 ÷ 22,5	41	46	8°
ERX.40.UP.24	24	24 ÷ 23	41	46	8°
ERX.40.UP.24.5	24,5	24,5 ÷ 23,5	41	46	8°
ERX.40.UP.25	25	25 ÷ 24	41	46	8°
ERX.40.UP.25.5	25,5	25,5 ÷ 24,5	41	46	8°
ERX.40.UP.26	26	26 ÷ 25	41	46	8°
ERX.40.UP.27	27	27 ÷ 26	41	46	8°
ERX.40.UP.28	28	28 ÷ 27	41	46	8°
ERX.40.UP.29	29	29 ÷ 28	41	46	8°
ERX.40.UP.30	30	30 ÷ 29	41	46	8°

NEW

0.002  **MP** MEGA PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.40.MP.3	3	3 ÷ 2	41	46	8°
ERX.40.MP.4	4	4 ÷ 3	41	46	8°
ERX.40.MP.5	5	5 ÷ 4	41	46	8°
ERX.40.MP.6	6	6 ÷ 5	41	46	8°
ERX.40.MP.7	7	7 ÷ 6	41	46	8°
ERX.40.MP.8	8	8 ÷ 7	41	46	8°
ERX.40.MP.9	9	9 ÷ 8	41	46	8°
ERX.40.MP.10	10	10 ÷ 9	41	46	8°
ERX.40.MP.11	11	11 ÷ 10	41	46	8°
ERX.40.MP.12	12	12 ÷ 11	41	46	8°
ERX.40.MP.13	13	13 ÷ 12	41	46	8°
ERX.40.MP.14	14	14 ÷ 13	41	46	8°

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.40.MP.15	15	15 ÷ 14	41	46	8°
ERX.40.MP.16	16	16 ÷ 15	41	46	8°
ERX.40.MP.17	17	17 ÷ 16	41	46	8°
ERX.40.MP.18	18	18 ÷ 17	41	46	8°
ERX.40.MP.19	19	19 ÷ 18	41	46	8°
ERX.40.MP.20	20	20 ÷ 19	41	46	8°
ERX.40.MP.21	21	21 ÷ 20	41	46	8°
ERX.40.MP.22	22	22 ÷ 21	41	46	8°
ERX.40.MP.23	23	23 ÷ 22	41	46	8°
ERX.40.MP.24	24	24 ÷ 23	41	46	8°
ERX.40.MP.25	25	25 ÷ 24	41	46	8°
ERX.40.MP.26	26	26 ÷ 25	41	46	8°

ER 40 - METRIC - 472 E KIT

0.015  STANDARD PRECISION

Cod.	Nr. pieces	ØD	Note
R-ERX40-23	23	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 1
B-ERX40-23	23	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 2
R-ERX40-24	24	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 1
B-ERX40-24	24	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 2
R-ERX40-28	28	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30	Fig. 1
B-ERX40-28	28	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30	Fig. 2

Fig.1

0.005   ULTRA PRECISION

Cod.	Nr. pieces	ØD	Note
R-ERX40UP-23	23	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 1
B-ERX40UP-23	23	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 2
R-ERX40UP-24	24	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 1
B-ERX40UP-24	24	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 2
R-ERX40UP-28	28	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30	Fig. 1
B-ERX40UP-28	28	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30	Fig. 2

Fig.2

 NEW0.002   MEGA PRECISION

Cod.	Nr. pieces	ØD	Note
R-ERX40MP-23	23	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 1
B-ERX40MP-23	23	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 2

ER 50 - METRIC - 477 E

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.50.6	6	6 ÷ 5	52	60	8°
ERX.50.7	7	7 ÷ 6	52	60	8°
ERX.50.8	8	8 ÷ 7	52	60	8°
ERX.50.9	9	9 ÷ 8	52	60	8°
ERX.50.10	10	10 ÷ 9	52	60	8°
ERX.50.11	11	11 ÷ 10	52	60	8°
ERX.50.12	12	12 ÷ 10	52	60	8°
ERX.50.13	13	13 ÷ 11	52	60	8°
ERX.50.14	14	14 ÷ 12	52	60	8°
ERX.50.15	15	15 ÷ 13	52	60	8°
ERX.50.16	16	16 ÷ 14	52	60	8°
ERX.50.17	17	17 ÷ 15	52	60	8°
ERX.50.18	18	18 ÷ 16	52	60	8°
ERX.50.19	19	19 ÷ 17	52	60	8°
ERX.50.20	20	20 ÷ 18	52	60	8°

0.015 STANDARD PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.50.21	21	21 ÷ 19	52	60	8°
ERX.50.22	22	22 ÷ 20	52	60	8°
ERX.50.23	23	23 ÷ 21	52	60	8°
ERX.50.24	24	24 ÷ 22	52	60	8°
ERX.50.25	25	25 ÷ 23	52	60	8°
ERX.50.26	26	26 ÷ 24	52	60	8°
ERX.50.27	27	27 ÷ 25	52	60	8°
ERX.50.28	28	28 ÷ 26	52	60	8°
ERX.50.29	29	29 ÷ 27	52	60	8°
ERX.50.30	30	30 ÷ 28	52	60	8°
ERX.50.31	31	31 ÷ 29	52	60	8°
ERX.50.32	32	32 ÷ 30	52	60	8°
ERX.50.33	33	33 ÷ 31	52	60	8°
ERX.50.34	34	34 ÷ 32	52	60	8°

ER 60 - METRIC - 494 E

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.60.10	10	10 ÷ 9	61	60	10°
ERX.60.11	11	11 ÷ 10	61	60	10°
ERX.60.12	12	12 ÷ 10	61	60	10°
ERX.60.13	13	13 ÷ 11	61	60	10°
ERX.60.14	14	14 ÷ 12	61	60	10°
ERX.60.15	15	15 ÷ 13	61	60	10°
ERX.60.16	16	16 ÷ 14	61	60	10°
ERX.60.17	17	17 ÷ 15	61	60	10°
ERX.60.18	18	18 ÷ 16	61	60	10°
ERX.60.19	19	19 ÷ 17	61	60	10°
ERX.60.20	20	20 ÷ 18	61	60	10°
ERX.60.21	21	21 ÷ 19	61	60	10°
ERX.60.22	22	22 ÷ 20	61	60	10°
ERX.60.23	23	23 ÷ 21	61	60	10°
ERX.60.24	24	24 ÷ 22	61	60	10°
ERX.60.25	25	25 ÷ 23	61	60	10°

0.015 STANDARD PRECISION

Cod.	ØD	CLAMPING RANGE	ØB	L	β
ERX.60.26	26	26 ÷ 24	61	60	10°
ERX.60.27	27	27 ÷ 25	61	60	10°
ERX.60.28	28	28 ÷ 26	61	60	10°
ERX.60.29	29	29 ÷ 27	61	60	10°
ERX.60.30	30	30 ÷ 28	61	60	10°
ERX.60.31	31	31 ÷ 29	61	60	10°
ERX.60.32	32	32 ÷ 30	61	60	10°
ERX.60.33	33	33 ÷ 31	61	60	10°
ERX.60.34	34	34 ÷ 32	61	60	10°
ERX.60.35	35	35 ÷ 33	61	60	10°
ERX.60.36	36	36 ÷ 34	61	60	10°
ERX.60.37	37	37 ÷ 35	61	60	10°
ERX.60.38	38	38 ÷ 36	61	60	10°
ERX.60.39	39	39 ÷ 37	61	60	10°
ERX.60.40	40	40 ÷ 38	61	60	10°

ER 16 - INCH

Cod.	Ø D	Ø B	L	β
ERX.16.3/64	3/64-1,19	17	27,5	8°
ERX.16.1/16	1/16-1,58	17	27,5	8°
ERX.16.5/64	5/64-1,98	17	27,5	8°
ERX.16.3/32	3/32-2,38	17	27,5	8°
ERX.16.7/64	7/64-2,77	17	27,5	8°
ERX.16.1/8	1/8-3,17	17	27,5	8°
ERX.16.9/64	9/64-3,57	17	27,5	8°
ERX.16.5/32	5/32-3,96	17	27,5	8°
ERX.16.11/64	11/64-4,36	17	27,5	8°
ERX.16.3/16	3/16-4,76	17	27,5	8°
ERX.16.13/64	13/64-5,15	17	27,5	8°
ERX.16.7/32	7/32-5,55	17	27,5	8°

0.015 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.16.15/64	15/64-5,95	17	27,5	8°
ERX.16.1/4	1/4-6,35	17	27,5	8°
ERX.16.17/64	17/64-6,74	17	27,5	8°
ERX.16.9/32	9/32-7,14	17	27,5	8°
ERX.16.19/64	19/64-7,54	17	27,5	8°
ERX.16.5/16	5/16-7,93	17	27,5	8°
ERX.16.21/64	21/64-8,33	17	27,5	8°
ERX.16.11/32	11/32-8,73	17	27,5	8°
ERX.16.23/64	23/64-9,12	17	27,5	8°
ERX.16.3/8	3/8-9,52	17	27,5	8°
ERX.16.13/32	13/32-10,31	17	27,5	8°

ER 20 - INCH

Cod.	Ø D	Ø B	L	β
ERX.20.3/64	3/64-1,19	21	31,5	8°
ERX.20.1/16	1/16-1,58	21	31,5	8°
ERX.20.5/64	5/64-1,98	21	31,5	8°
ERX.20.3/32	3/32-2,38	21	31,5	8°
ERX.20.7/64	7/64-2,77	21	31,5	8°
ERX.20.1/8	1/8-3,17	21	31,5	8°
ERX.20.9/64	9/64-3,57	21	31,5	8°
ERX.20.5/32	5/32-3,96	21	31,5	8°
ERX.20.11/64	11/64-4,36	21	31,5	8°
ERX.20.3/16	3/16-4,76	21	31,5	8°
ERX.20.13/64	13/64-5,15	21	31,5	8°
ERX.20.7/32	7/32-5,55	21	31,5	8°
ERX.20.15/64	15/64-5,95	21	31,5	8°
ERX.20.1/4	1/4-6,35	21	31,5	8°
ERX.20.17/64	17/64-6,74	21	31,5	8°

0.015 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.20.9/32	9/32-7,14	21	31,5	8°
ERX.20.19/64	19/64-7,54	21	31,5	8°
ERX.20.5/16	5/16-7,93	21	31,5	8°
ERX.20.21/64	21/64-8,33	21	31,5	8°
ERX.20.11/32	11/32-8,73	21	31,5	8°
ERX.20.23/64	23/64-9,12	21	31,5	8°
ERX.20.3/8	3/8-9,52	21	31,5	8°
ERX.20.25/64	25/64-9,92	21	31,5	8°
ERX.20.13/32	13/32-10,31	21	31,5	8°
ERX.20.27/64	27/64-10,71	21	31,5	8°
ERX.20.7/16	7/16-11,11	21	31,5	8°
ERX.20.29/64	29/64-11,5	21	31,5	8°
ERX.20.15/32	15/32-11,90	21	31,5	8°
ERX.20.31/64	31/64-12,3	21	31,5	8°
ERX.20.1/2	1/2-12,7	21	31,5	8°

ER 25 - INCH



Cod.	Ø D	Ø B	L	β
ERX.25.3/64	3/64-1,19	26	34	8°
ERX.25.1/16	1/16-1,58	26	34	8°
ERX.25.5/64	5/64-1,98	26	34	8°
ERX.25.3/32	3/32-2,38	26	34	8°
ERX.25.7/64	7/64-2,77	26	34	8°
ERX.25.1/8	1/8-3,17	26	34	8°
ERX.25.9/64	9/64-3,57	26	34	8°
ERX.25.5/32	5/32-3,96	26	34	8°
ERX.25.11/64	11/64-4,36	26	34	8°
ERX.25.3/16	3/16-4,76	26	34	8°
ERX.25.13/64	13/64-5,15	26	34	8°
ERX.25.7/32	7/32-5,55	26	34	8°
ERX.25.15/64	15/64-5,95	26	34	8°
ERX.25.1/4	1/4-6,35	26	34	8°
ERX.25.17/64	17/64-6,74	26	34	8°
ERX.25.9/32	9/32-7,14	26	34	8°
ERX.25.19/64	19/64-7,54	26	34	8°
ERX.25.5/16	5/16-7,93	26	34	8°
ERX.25.21/64	21/64-8,33	26	34	8°

0.015 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.25.11/32	11/32-8,73	26	34	8°
ERX.25.23/64	23/64-9,12	26	34	8°
ERX.25.3/8	3/8-9,52	26	34	8°
ERX.25.25/64	25/64-9,92	26	34	8°
ERX.25.13/32	13/32-10,31	26	34	8°
ERX.25.27/64	27/64-10,71	26	34	8°
ERX.25.7/16	7/16-11,11	26	34	8°
ERX.25.29/64	29/64-11,5	26	34	8°
ERX.25.15/32	15/32-11,90	26	34	8°
ERX.25.31/64	31/64-12,3	26	34	8°
ERX.25.1/2	1/2-12,7	26	34	8°
ERX.25.33/64	33/64-13,09	26	34	8°
ERX.25.17/32	17/32-13,49	26	34	8°
ERX.25.35/64	35/64-13,89	26	34	8°
ERX.25.9/16	9/16-14,28	26	34	8°
ERX.25.37/64	37/64-14,68	26	34	8°
ERX.25.19/32	19/32-15,08	26	34	8°
ERX.25.39/64	39/64-15,47	26	34	8°
ERX.25.5/8	5/8-15,87	26	34	8°

ER 32 - INCH



Cod.	Ø D	Ø B	L	β
ERX.32.3/32	3/32-2,38	33	40	8°
ERX.32.7/64	7/64-2,77	33	40	8°
ERX.32.1/8	1/8-3,17	33	40	8°
ERX.32.9/64	9/64-3,57	33	40	8°
ERX.32.5/32	5/32-3,96	33	40	8°
ERX.32.11/64	11/64-4,36	33	40	8°
ERX.32.3/16	3/16-4,76	33	40	8°
ERX.32.13/64	13/64-5,15	33	40	8°
ERX.32.7/32	7/32-5,55	33	40	8°
ERX.32.15/64	15/64-5,95	33	40	8°
ERX.32.1/4	1/4-6,35	33	40	8°
ERX.32.17/64	17/64-6,74	33	40	8°
ERX.32.9/32	9/32-7,14	33	40	8°
ERX.32.19/64	19/64-7,54	33	40	8°
ERX.32.5/16	5/16-7,93	33	40	8°
ERX.32.21/64	21/64-8,33	33	40	8°
ERX.32.11/32	11/32-8,73	33	40	8°
ERX.32.23/64	23/64-9,12	33	40	8°
ERX.32.3/8	3/8-9,52	33	40	8°
ERX.32.25/64	25/64-9,92	33	40	8°
ERX.32.13/32	13/32-10,31	33	40	8°
ERX.32.27/64	27/64-10,71	33	40	8°

0.015 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.32.7/16	7/16-11,11	33	40	8°
ERX.32.29/64	29/64-11,5	33	40	8°
ERX.32.15/32	15/32-11,90	33	40	8°
ERX.32.31/64	31/64-12,3	33	40	8°
ERX.32.1/2	1/2-12,7	33	40	8°
ERX.32.33/64	33/64-13,09	33	40	8°
ERX.32.17/32	17/32-13,49	33	40	8°
ERX.32.35/64	35/64-13,89	33	40	8°
ERX.32.9/16	9/16-14,28	33	40	8°
ERX.32.37/64	37/64-14,68	33	40	8°
ERX.32.19/32	19/32-15,08	33	40	8°
ERX.32.39/64	39/64-15,47	33	40	8°
ERX.32.5/8	5/8-15,87	33	40	8°
ERX.32.41/64	41/64-16,27	33	40	8°
ERX.32.21/32	21/32-16,66	33	40	8°
ERX.32.43/64	43/64-17,06	33	40	8°
ERX.32.11/16	11/16-17,46	33	40	8°
ERX.32.45/64	45/64-17,85	33	40	8°
ERX.32.23/32	23/32-18,25	33	40	8°
ERX.32.47/64	47/64-18,65	33	40	8°
ERX.32.3/4	3/4-19,05	33	40	8°

Cod.	Ø D	Ø B	L	β
ERX.40.1/8	1/8-3,17	41	46	8°
ERX.40.5/32	5/32-3,96	41	46	8°
ERX.40.3/16	3/16-4,76	41	46	8°
ERX.40.7/32	7/32-5,55	41	46	8°
ERX.40.1/4	1/4-6,35	41	46	8°
ERX.40.9/32	9/32-7,14	41	46	8°
ERX.40.5/16	5/16-7,93	41	46	8°
ERX.40.11/32	11/32-8,73	41	46	8°
ERX.40.3/8	3/8-9,52	41	46	8°
ERX.40.13/32	13/32-10,31	41	46	8°
ERX.40.7/16	7/16-11,11	41	46	8°
ERX.40.15/32	15/32-11,90	41	46	8°
ERX.40.1/2	1/2-12,7	41	46	8°
ERX.40.17/32	17/32-13,49	41	46	8°
ERX.40.9/16	9/16-14,28	41	46	8°

Cod.	Ø D	Ø B	L	β
ERX.40.19/32	19/32-15,08	41	46	8°
ERX.40.5/8	5/8-15,87	41	46	8°
ERX.40.21/32	21/32-16,66	41	46	8°
ERX.40.11/16	11/16-17,46	41	46	8°
ERX.40.23/32	23/32-18,25	41	46	8°
ERX.40.3/4	3/4-19,05	41	46	8°
ERX.40.25/32	25/32-19,84	41	46	8°
ERX.40.13/16	13/16-20,63	41	46	8°
ERX.40.27/32	27/32-21,43	41	46	8°
ERX.40.7/8	7/8-22,22	41	46	8°
ERX.40.29/32	29/32-23,01	41	46	8°
ERX.40.15/16	15/16-23,81	41	46	8°
ERX.40.31/32	31/32-24,60	41	46	8°
ERX.40.1"	1"-25,4	41	46	8°

PINZE DIN 6499

VULCANIZZATE A TENUTA DEL REFRIGERANTE

COLLETS DIN 6499

RUBBER SEALED COLLETS



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.008 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Il grado di concentricità delle pinze ERG A TENUTA DEL REFRIGERANTE è contenuto in 0,008 mm.
- Sono costruite in acciaio per molle.
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- La vulcanizzazione del taglio canalizza il refrigerante all'interno dell'utensile.
- Massima pressione 40 Bar

🇫🇷 CARACTÉRISTIQUES

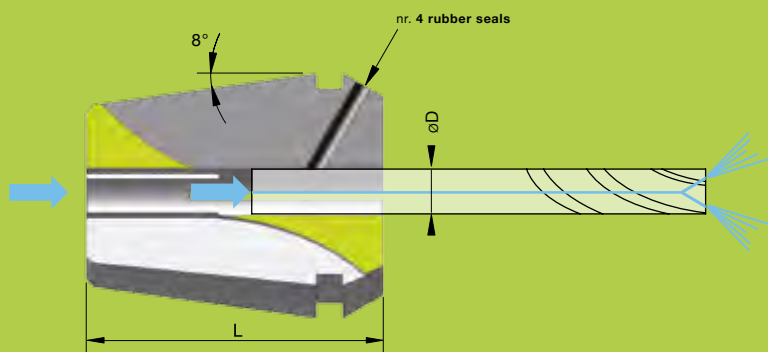
- Le degré de concentration des ERG PINCES ETANCHE est contenu en 0,008 mm.
- Elles sont fabriquées en acier pour ressorts.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur, après cela, une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- La vulcanisation du passage canalise le réfrigérant a l'intérieur de l'outil.
- Pression maximale 40 bar

🇬🇧 TECHNICAL FEATURES

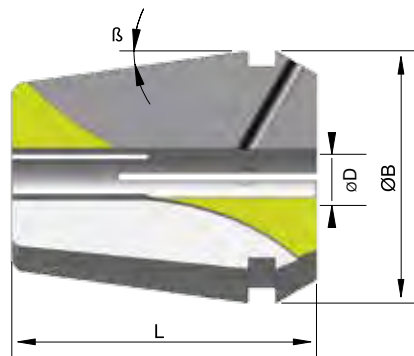
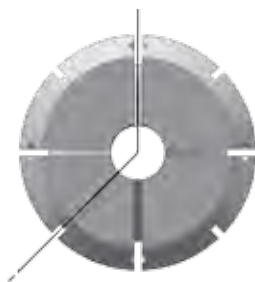
- Concentricity of ERG RUBBER SEALED COLLETS is contained in 0,008 mm.
- Built in spring steel
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5.
- Vulcanization canalizes the cooling system inside the tool.
- Max pressure 40 Bar

🇩🇪 TECHNISCHE DATEN

- Die Rundlaufgenauigkeit der ERG SPANNZANGEN MIT ABDICHTUNG ist in 0,008 mm eingeschränkt
- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Die Vulkanisation kanalisiert das Kühlmittel in dem Werkzeug.
- Maximaler Druck 40 bar



TIPO/TYPE	ØD	STEP	L
ER 11G	3 ÷ 7	0.5	18
ER 16G	3 ÷ 10	0.5	27.5
ER 20G	3 ÷ 13	0.5	31.5
ER 25G	3 ÷ 16	0.5	34
ER 32G	3 ÷ 20	0.5	40
ER 40G	3 ÷ 26	0.5 ÷ 1	46
ER 50G	10 ÷ 34	0.5 ÷ 1	60



ER 11G - RUBBER SEALED COLLETS

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.G.11.3	3	11,5	18	8°
ERX.G.11.3.5	3,5	11,5	18	8°
ERX.G.11.4	4	11,5	18	8°
ERX.G.11.4.5	4,5	11,5	18	8°
ERX.G.11.5	5	11,5	18	8°

Cod.	Ø D	Ø B	L	β
ERX.G.11.5.5	5,5	11,5	18	8°
ERX.G.11.6	6	11,5	18	8°
ERX.G.11.6.5	6,5	11,5	18	8°
ERX.G.11.7	7	11,5	18	8°

ER 16G - RUBBER SEALED COLLETS

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.G.16.3	3	17	27,5	8°
ERX.G.16.4	4	17	27,5	8°
ERX.G.16.5	5	17	27,5	8°
ERX.G.16.6	6	17	27,5	8°

Cod.	Ø D	Ø B	L	β
ERX.G.16.7	7	17	27,5	8°
ERX.G.16.8	8	17	27,5	8°
ERX.G.16.9	9	17	27,5	8°
ERX.G.16.10	10	17	27,5	8°



ER 16G - RUBBER SEALED COLLETS - KIT

0.008 STANDARD PRECISION

Cod.	Nr. pieces	ØD
B-ERXG16-8	8	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

ER 20G - RUBBER SEALED COLLETS

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.G.20.3	3	21	31,5	8°
ERX.G.20.4	4	21	31,5	8°
ERX.G.20.5	5	21	31,5	8°
ERX.G.20.6	6	21	31,5	8°
ERX.G.20.7	7	21	31,5	8°
ERX.G.20.8	8	21	31,5	8°

Cod.	Ø D	Ø B	L	β
ERX.G.20.9	9	21	31,5	8°
ERX.G.20.10	10	21	31,5	8°
ERX.G.20.11	11	21	31,5	8°
ERX.G.20.12	12	21	31,5	8°
ERX.G.20.13	13	21	31,5	8°



ER 20G - RUBBER SEALED COLLETS - KIT

0.008 STANDARD PRECISION

Cod.	Nr. pieces	ØD
B-ERXG20-11	11	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13

ER 25G - RUBBER SEALED COLLETS

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.G.25.3	3	26	34	8°
ERX.G.25.4	4	26	34	8°
ERX.G.25.5	5	26	34	8°
ERX.G.25.6	6	26	34	8°
ERX.G.25.7	7	26	34	8°
ERX.G.25.8	8	26	34	8°
ERX.G.25.9	9	26	34	8°

Cod.	Ø D	Ø B	L	β
ERX.G.25.10	10	26	34	8°
ERX.G.25.11	11	26	34	8°
ERX.G.25.12	12	26	34	8°
ERX.G.25.13	13	26	34	8°
ERX.G.25.14	14	26	34	8°
ERX.G.25.15	15	26	34	8°
ERX.G.25.16	16	26	34	8°



ER 25G - RUBBER SEALED COLLETS - KIT

0.008 STANDARD PRECISION

Cod.	Nr. pieces	ØD
R-ERXG25-14	14	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16

ER 32G - RUBBER SEALED COLLETS

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.G.32.3	3	33	40	8°
ERX.G.32.4	4	33	40	8°
ERX.G.32.5	5	33	40	8°
ERX.G.32.6	6	33	40	8°
ERX.G.32.7	7	33	40	8°
ERX.G.32.8	8	33	40	8°
ERX.G.32.9	9	33	40	8°
ERX.G.32.10	10	33	40	8°
ERX.G.32.11	11	33	40	8°

Cod.	Ø D	Ø B	L	β
ERX.G.32.12	12	33	40	8°
ERX.G.32.13	13	33	40	8°
ERX.G.32.14	14	33	40	8°
ERX.G.32.15	15	33	40	8°
ERX.G.32.16	16	33	40	8°
ERX.G.32.17	17	33	40	8°
ERX.G.32.18	18	33	40	8°
ERX.G.32.19	19	33	40	8°
ERX.G.32.20	20	33	40	8°



ER 32G - RUBBER SEALED COLLETS - KIT

0.008 STANDARD PRECISION

Cod.	Nr. pieces	Ø D
R-ERXG32-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20

ER 40G - RUBBER SEALED COLLETS

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.G.40.3	3	41	46	8°
ERX.G.40.4	4	41	46	8°
ERX.G.40.5	5	41	46	8°
ERX.G.40.6	6	41	46	8°
ERX.G.40.7	7	41	46	8°
ERX.G.40.8	8	41	46	8°
ERX.G.40.9	9	41	46	8°
ERX.G.40.10	10	41	46	8°
ERX.G.40.11	11	41	46	8°
ERX.G.40.12	12	41	46	8°
ERX.G.40.13	13	41	46	8°
ERX.G.40.14	14	41	46	8°

Cod.	Ø D	Ø B	L	β
ERX.G.40.15	15	41	46	8°
ERX.G.40.16	16	41	46	8°
ERX.G.40.17	17	41	46	8°
ERX.G.40.18	18	41	46	8°
ERX.G.40.19	19	41	46	8°
ERX.G.40.20	20	41	46	8°
ERX.G.40.21	21	41	46	8°
ERX.G.40.22	22	41	46	8°
ERX.G.40.23	23	41	46	8°
ERX.G.40.24	24	41	46	8°
ERX.G.40.25	25	41	46	8°
ERX.G.40.26	26	41	46	8°



ER 40G - RUBBER SEALED COLLETS - KIT

0.008 STANDARD PRECISION

Cod.	Nr. pieces	ØD
R-ERXG40-23	23	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26

ER 50G - RUBBER SEALED COLLETS

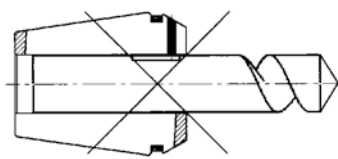
0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.G.50.10	10	52	60	8°
ERX.G.50.12	12	52	60	8°
ERX.G.50.14	14	52	60	8°
ERX.G.50.16	16	52	60	8°
ERX.G.50.18	18	52	60	8°
ERX.G.50.20	20	52	60	8°
ERX.G.50.22	22	52	60	8°

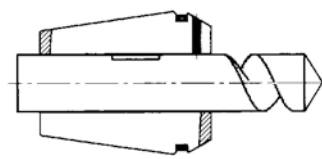
Cod.	Ø D	Ø B	L	β
ERX.G.50.24	24	52	60	8°
ERX.G.50.26	26	52	60	8°
ERX.G.50.28	28	52	60	8°
ERX.G.50.30	30	52	60	8°
ERX.G.50.32	32	52	60	8°
ERX.G.50.34	34	52	60	8°

ISTRUZIONI PER IL CORRETTO UTILIZZO

INSTRUCTION FOR AN CORRECT USE



Incorrect position!



Correct position!

ER 16G - INCH

0.008  STANDARD PRECISION

Cod.	Ø D	L	β
ERX.G.16.1/8	1/8-3,17	27,5	8°
ERX.G.16.9/64	9/64-3,57	27,5	8°
ERX.G.16.5/32	5/32-3,96	27,5	8°
ERX.G.16.11/64	11/64-4,35	27,5	8°
ERX.G.16.3/16	3/16-4,76	27,5	8°
ERX.G.16.13/64	13/64-5,15	27,5	8°
ERX.G.16.7/32	7/32-5,55	27,5	8°

Cod.	Ø D	L	β
ERX.G.16.15/64	15/64-5,95	27,5	8°
ERX.G.16.1/4	1/4-6,35	27,5	8°
ERX.G.16.9/32	9/32-7,14	27,5	8°
ERX.G.16.5/16	5/16-7,93	27,5	8°
ERX.G.16.11/32	11/32-8,73	27,5	8°
ERX.G.16.3/8	3/8-9,52	27,5	8°
ERX.G.16.13/32	13/32-10,31	27,5	8°

ER 20G - INCH

0.008  STANDARD PRECISION

Cod.	Ø D	L	β
ERX.G.20.1/8	1/8-3,17	31,5	8°
ERX.G.20.5/32	5/32-3,96	31,5	8°
ERX.G.20.11/64	11/64-4,36	31,5	8°
ERX.G.20.3/16	3/16-4,76	31,5	8°
ERX.G.20.13/64	13/64-5,15	31,5	8°
ERX.G.20.7/32	7/32-5,55	31,5	8°
ERX.G.20.15/64	15/64-5,95	31,5	8°
ERX.G.20.1/4	1/4-6,35	31,5	8°

Cod.	Ø D	L	β
ERX.G.20.9/32	9/32-7,14	31,5	8°
ERX.G.20.5/16	5/16-7,93	31,5	8°
ERX.G.20.11/32	11/32-8,73	31,5	8°
ERX.G.20.3/8	3/8-9,52	31,5	8°
ERX.G.20.13/32	13/32-10,31	31,5	8°
ERX.G.20.7/16	7/16-11,11	31,5	8°
ERX.G.20.15/32	15/32-11,90	31,5	8°
ERX.G.20.1/2	1/2-12,7	31,5	8°

ER 25G - INCH

0.008  STANDARD PRECISION

Cod.	Ø D	L	β
ERX.G.25.1/4	1/4-5,35	34	8°
ERX.G.25.9/32	9/32-7,14	34	8°
ERX.G.25.5/16	5/16-7,93	34	8°
ERX.G.25.11/32	11/32-8,73	34	8°
ERX.G.25.3/8	3/8-9,52	34	8°
ERX.G.25.13/32	13/32-10,31	34	8°
ERX.G.25.7/16	7/16-11,11	34	8°

Cod.	Ø D	L	β
ERX.G.25.15/32	15/32-11,90	34	8°
ERX.G.25.1/2	1/2-12,7	34	8°
ERX.G.25.17/32	17/32-13,49	34	8°
ERX.G.25.9/16	9/16-14,28	34	8°
ERX.G.25.19/32	19/32-15,08	34	8°
ERX.G.25.5/8	5/8-15,87	34	8°

ER 32G - INCH

0.008  STANDARD PRECISION

Cod.	Ø D	L	β
ERX.G.32.1/4	1/4-6,35	40	8°
ERX.G.32.9/32	9/32-7,14	40	8°
ERX.G.32.5/16	5/16-7,93	40	8°
ERX.G.32.11/32	11/32-8,73	40	8°
ERX.G.32.3/8	3/8-9,52	40	8°
ERX.G.32.13/32	13/32-10,31	40	8°
ERX.G.32.7/16	7/16-11,11	40	8°
ERX.G.32.15/32	15/32-11,90	40	8°
ERX.G.32.1/2	1/2-12,7	40	8°

Cod.	Ø D	L	β
ERX.G.32.17/32	17/32-13,49	40	8°
ERX.G.32.9/16	9/16-14,28	40	8°
ERX.G.32.19/32	19/32-15,08	40	8°
ERX.G.32.5/8	5/8-15,87	40	8°
ERX.G.32.21/32	21/32-16,66	40	8°
ERX.G.32.11/16	11/16-17,45	40	8°
ERX.G.32.23/32	23/32-18,25	40	8°
ERX.G.32.3/4	3/4-19,05	40	8°

ER 40G - INCH

0.008  STANDARD PRECISION

Cod.	Ø D	L	β
ERX.G.40.1/8	1/8-3,17	46	8°
ERX.G.40.5/32	5/32-3,96	46	8°
ERX.G.40.3/16	3/16-4,76	46	8°
ERX.G.40.7/32	7/32-5,55	46	8°
ERX.G.40.1/4	1/4-6,35	46	8°
ERX.G.40.9/32	9/32-7,14	46	8°
ERX.G.40.5/16	5/16-7,93	46	8°
ERX.G.40.11/32	11/32-8,73	46	8°
ERX.G.40.3/8	3/8-9,52	46	8°
ERX.G.40.13/32	13/32-10,31	46	8°
ERX.G.40.7/16	7/16-11,11	46	8°
ERX.G.40.15/32	15/32-11,90	46	8°
ERX.G.40.1/2	1/2-12,7	46	8°
ERX.G.40.17/32	17/32-13,49	46	8°
ERX.G.40.9/16	9/16-14,28	46	8°

Cod.	Ø D	L	β
ERX.G.40.19/32	19/32-15,08	46	8°
ERX.G.40.5/8	5/8-15,87	46	8°
ERX.G.40.21/32	21/32-16,66	46	8°
ERX.G.40.11/16	11/16-17,46	46	8°
ERX.G.40.23/32	23/32-18,25	46	8°
ERX.G.40.3/4	3/4-19,05	46	8°
ERX.G.40.25/32	25/32-19,84	46	8°
ERX.G.40.13/16	13/16-20,63	46	8°
ERX.G.40.27/32	27/32-21,43	46	8°
ERX.G.40.7/8	7/8-22,22	46	8°
ERX.G.40.29/32	29/32-23,01	46	8°
ERX.G.40.15/16	15/16-23,81	46	8°
ERX.G.40.31/32	31/32-24,60	46	8°
ERX.G.40.1"	1"-25,4	46	8°

PINZE DIN 6499

A TENUTA MECCANICA DEL REFRIGERANTE

COLLETS DIN 6499

MECHANICAL SEALED COLLETS



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.008 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Il grado di concentricità delle pinze ER BAR A TENUTA MECCANICA DEL REFRIGERANTE è contenuto in 0,008 mm.
- Sono costruite in acciaio per molle.
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- La conformazione dei tagli non consente al refrigerante di passare attraverso essi e lo canalizza all'interno dell'utensile
- Massima pressione 120 Bar.

🇫🇷 CARACTÉRISTIQUES

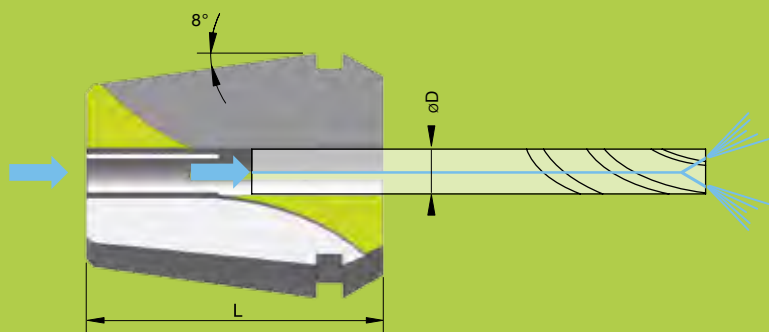
- Le degré de concentration des ER BAR- PINCES ETANCHE MECANIQUE est contenu en 0,008 mm.
- Elles sont fabriquées en acier pour ressorts.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur, après cela, une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- La conformation des coupures ne permet pas au réfrigérant de passer par eux et canalisée dans l'outil.
- Pression maximale 120 bar.

🇬🇧 TECHNICAL FEATURES

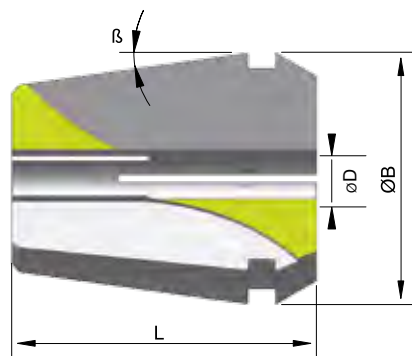
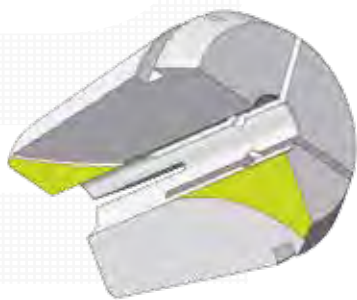
- Concentricity of ER BAR - MECHANICAL SEALED COLLETS is contained in 0,008 mm.
- Built in spring steel
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5.
- The conformation of the cuts does not allow the refrigerant to go through them and channelling it into the tool
- Max pressure 120 Bar.

🇩🇪 TECHNISCHE DATEN

- Die Rundlaufgenauigkeit der ER BAR SPANNZANGEN MIT ABDICHTUNG ist in 0,008 mm eingeschränkt
- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Die Gestalt der Schnitte lässt das Kühlmittel durch sie nicht fließen und kanalisiert es in dem Inneren des Werkzeugs.
- Maximaler Druck 120 bar.



TIPO/TYPE	ØD	STEP	L
ER 16BAR	3 ÷ 12	0.5	27,5
ER 20BAR	3 ÷ 14	0.5	31,5
ER 25BAR	3 ÷ 18	0.5	34
ER 32BAR	3 ÷ 22	0.5	40
ER 40BAR	3 ÷ 30	0.5 ÷ 1	46



ER 16BAR - MECHANICAL SEALED COLLET

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.BAR.16.1	1	17	27,5	8°
ERX.BAR.16.2	2	17	27,5	8°
ERX.BAR.16.3	3	17	27,5	8°
ERX.BAR.16.4	4	17	27,5	8°
ERX.BAR.16.5	5	17	27,5	8°
ERX.BAR.16.6	6	17	27,5	8°

Cod.	Ø D	Ø B	L	β
ERX.BAR.16.7	7	17	27,5	8°
ERX.BAR.16.8	8	17	27,5	8°
ERX.BAR.16.9	9	17	27,5	8°
ERX.BAR.16.10	10	17	27,5	8°
ERX.BAR.16.12	12	17	27,5	8°

ER 20BAR - MECHANICAL SEALED COLLET

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.BAR.20.3	3	21	31,5	8°
ERX.BAR.20.4	4	21	31,5	8°
ERX.BAR.20.5	5	21	31,5	8°
ERX.BAR.20.6	6	21	31,5	8°
ERX.BAR.20.7	7	21	31,5	8°
ERX.BAR.20.8	8	21	31,5	8°

Cod.	Ø D	Ø B	L	β
ERX.BAR.20.9	9	21	31,5	8°
ERX.BAR.20.10	10	21	31,5	8°
ERX.BAR.20.11	11	21	31,5	8°
ERX.BAR.20.12	12	21	31,5	8°
ERX.BAR.20.13	13	21	31,5	8°
ERX.BAR.20.14	14	21	31,5	8°

ER 25BAR - MECHANICAL SEALED COLLET

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.BAR.25.3	3	26	34	8°
ERX.BAR.25.4	4	26	34	8°
ERX.BAR.25.5	5	26	34	8°
ERX.BAR.25.6	6	26	34	8°
ERX.BAR.25.7	7	26	34	8°
ERX.BAR.25.8	8	26	34	8°
ERX.BAR.25.9	9	26	34	8°
ERX.BAR.25.10	10	26	34	8°

Cod.	Ø D	Ø B	L	β
ERX.BAR.25.11	11	26	34	8°
ERX.BAR.25.12	12	26	34	8°
ERX.BAR.25.13	13	26	34	8°
ERX.BAR.25.14	14	26	34	8°
ERX.BAR.25.15	15	26	34	8°
ERX.BAR.25.16	16	26	34	8°
ERX.BAR.25.18	18	26	34	8°

ER 32BAR - MECHANICAL SEALED COLLET

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.BAR.32.3	3	33	40	8°
ERX.BAR.32.4	4	33	40	8°
ERX.BAR.32.5	5	33	40	8°
ERX.BAR.32.6	6	33	40	8°
ERX.BAR.32.7	7	33	40	8°
ERX.BAR.32.8	8	33	40	8°
ERX.BAR.32.9	9	33	40	8°
ERX.BAR.32.10	10	33	40	8°
ERX.BAR.32.11	11	33	40	8°
ERX.BAR.32.12	12	33	40	8°

Cod.	Ø D	Ø B	L	β
ERX.BAR.32.13	13	33	40	8°
ERX.BAR.32.14	14	33	40	8°
ERX.BAR.32.15	15	33	40	8°
ERX.BAR.32.16	16	33	40	8°
ERX.BAR.32.17	17	33	40	8°
ERX.BAR.32.18	18	33	40	8°
ERX.BAR.32.19	19	33	40	8°
ERX.BAR.32.20	20	33	40	8°
ERX.BAR.32.22	22	33	40	8°

ER 40BAR - MECHANICAL SEALED COLLET

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.BAR.40.6	6	41	46	8°
ERX.BAR.40.8	8	41	46	8°
ERX.BAR.40.10	10	41	46	8°
ERX.BAR.40.12	12	41	46	8°
ERX.BAR.40.14	14	41	46	8°
ERX.BAR.40.16	16	41	46	8°

Cod.	Ø D	Ø B	L	β
ERX.BAR.40.18	18	41	46	8°
ERX.BAR.40.20	20	41	46	8°
ERX.BAR.40.25	25	41	46	8°
ERX.BAR.40.26	26	41	46	8°
ERX.BAR.40.30	30	41	46	8°

PINZE DIN 6499

TENUTA CON FORI PER REFRIGERANTE

COLLETS DIN 6499

EXTERNALLY COOLED COLLETS



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.008 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Il grado di concentricità delle pinze ER JET CON FORI DI LUBRIFICAZIONE è contenuto in 0,008 mm.
- Sono costruite in acciaio per molle.
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- La vulcanizzazione del taglio canalizza il refrigerante all'interno degli appositi fori della pinza permettendogli di raggiungere l'utensile.
- Massima pressione 40 Bar.

CARACTÉRISTIQUES

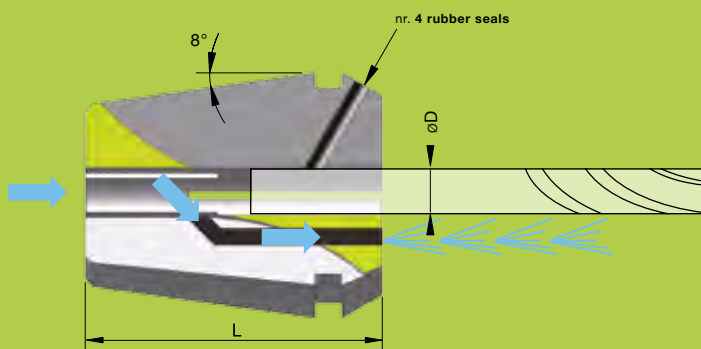
- Le degré de concentration des ER JET PINCES ETANCHE AVEC TROU POUR REFROIDISSEMENT est contenu en 0,008 mm.
- Elles sont fabriquées en acier pour ressorts.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur, après cela, une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- La vulcanisation de la coupe, les canaux du fluide de refroidissement à l'intérieur des trous de la pince, ce qui permet d'atteindre l'outil.
- Pression maximale 40 bar.

TECHNICAL FEATURES

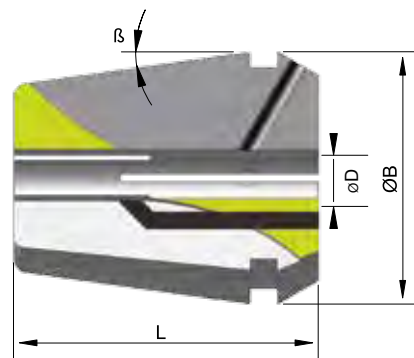
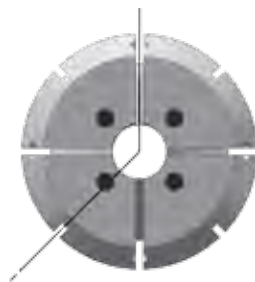
- Concentricity of ER JET EXTERNALLY COOLED COLLETS is contained in 0,008 mm.
- Built in spring steel
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5.
- The vulcanization of the cut, channels the coolant inside the holes of the collet, allowing it to reach the tool.
- Max pressure 40 Bar.

TECHNISCHE DATEN

- Die Rundlaufgenauigkeit der ER JET SPANNZANGEN MIT ABDICHTUNG FÜR INNENKÜHLUNG UND SPRITZDÜSE ist in 0,008 mm eingeschränkt
- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Die Vulkanisation des Schnitts kanalisiert das Kühlmittel in die Löcher der Klammer, so dass es das Werkzeug erreichen kann.
- Maximaler Druck 40 bar.



TIPO/TYPER	ØD	STEP	L
ER 16JET	3 ÷ 7	0.5	27.5
ER 20JET	4 ÷ 10	0.5	31.5
ER 25JET	3 ÷ 14	0.5	34
ER 32JET	3 ÷ 20	0.5	40
ER 40JET	4 ÷ 25	0.5	46



ER 16JET - EXTERNALLY COOLED COLLETS

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.JET.16.3	3	17	27,5	8°
ERX.JET.16.4	4	17	27,5	8°
ERX.JET.16.5	5	17	27,5	8°

Cod.	Ø D	Ø B	L	β
ERX.JET.16.6	6	17	27,5	8°
ERX.JET.16.7	7	17	27,5	8°

ER 20JET - EXTERNALLY COOLED COLLETS

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.JET.20.4	4	21	31,5	8°
ERX.JET.20.5	5	21	31,5	8°
ERX.JET.20.6	6	21	31,5	8°
ERX.JET.20.7	7	21	31,5	8°

Cod.	Ø D	Ø B	L	β
ERX.JET.20.8	8	21	31,5	8°
ERX.JET.20.9	9	21	31,5	8°
ERX.JET.20.10	10	21	31,5	8°

ER 25JET - EXTERNALLY COOLED COLLETS

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.JET.25.3	3	26	34	8°
ERX.JET.25.4	4	26	34	8°
ERX.JET.25.5	5	26	34	8°
ERX.JET.25.6	6	26	34	8°
ERX.JET.25.7	7	26	34	8°
ERX.JET.25.8	8	26	34	8°

Cod.	Ø D	Ø B	L	β
ERX.JET.25.9	9	26	34	8°
ERX.JET.25.10	10	26	34	8°
ERX.JET.25.11	11	26	34	8°
ERX.JET.25.12	12	26	34	8°
ERX.JET.25.13	13	26	34	8°
ERX.JET.25.14	14	26	34	8°

ER 32JET - EXTERNALLY COOLED COLLETS

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.JET.32.3	3	33	40	8°
ERX.JET.32.4	4	33	40	8°
ERX.JET.32.5	5	33	40	8°
ERX.JET.32.6	6	33	40	8°
ERX.JET.32.7	7	33	40	8°
ERX.JET.32.8	8	33	40	8°
ERX.JET.32.9	9	33	40	8°
ERX.JET.32.10	10	33	40	8°
ERX.JET.32.11	11	33	40	8°

Cod.	Ø D	Ø B	L	β
ERX.JET.32.12	12	33	40	8°
ERX.JET.32.13	13	33	40	8°
ERX.JET.32.14	14	33	40	8°
ERX.JET.32.15	15	33	40	8°
ERX.JET.32.16	16	33	40	8°
ERX.JET.32.17	17	33	40	8°
ERX.JET.32.18	18	33	40	8°
ERX.JET.32.19	19	33	40	8°
ERX.JET.32.20	20	33	40	8°

ER 40JET - EXTERNALLY COOLED COLLETS

NEW

0.008 STANDARD PRECISION

Cod.	Ø D	Ø B	L	β
ERX.JET.40.4	4	41	46	8°
ERX.JET.40.5	5	41	46	8°
ERX.JET.40.6	6	41	46	8°
ERX.JET.40.7	7	41	46	8°
ERX.JET.40.8	8	41	46	8°
ERX.JET.40.9	9	41	46	8°
ERX.JET.40.10	10	41	46	8°
ERX.JET.40.11	11	41	46	8°
ERX.JET.40.12	12	41	46	8°
ERX.JET.40.13	13	41	46	8°
ERX.JET.40.14	14	41	46	8°

Cod.	Ø D	Ø B	L	β
ERX.JET.40.15	15	41	46	8°
ERX.JET.40.16	16	41	46	8°
ERX.JET.40.17	17	41	46	8°
ERX.JET.40.18	18	41	46	8°
ERX.JET.40.19	19	41	46	8°
ERX.JET.40.20	20	41	46	8°
ERX.JET.40.21	21	41	46	8°
ERX.JET.40.22	22	41	46	8°
ERX.JET.40.23	23	41	46	8°
ERX.JET.40.24	24	41	46	8°
ERX.JET.40.25	25	41	46	8°

PINZE DIN 6499

PORTAMASCHI CON QUADRO

COLLETS DIN 6499

TAP COLLETS WITH INTERNAL SQUARE



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.015 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Il grado di concentricità delle pinze ERM PORTAMASCHI CON QUADRO è contenuto in 0,015 mm.
- Sono costruite in acciaio per molle
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- Queste pinze sono dotate di un quadro porta maschi.
- I gambi dei maschi si riferiscono allo standard DIN 352-371-376/ISO 529.

🇫🇷 CARACTÉRISTIQUES

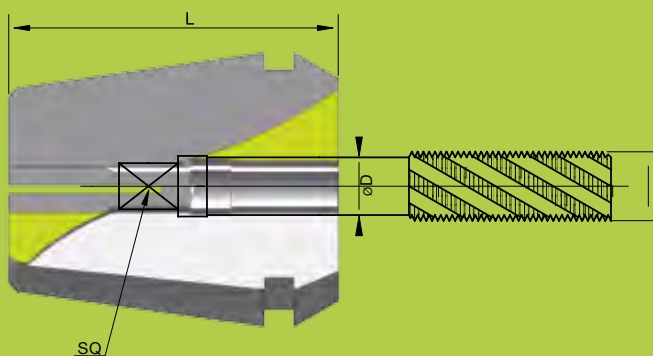
- Le degré de concentration des pince DE TARAUDAGES AVEC CARRE INTERIEUR ERM standard est contenu en 0,015 mm.
- Elles sont fabriquées en acier pour ressorts.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur, après cela, une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- Ces pinces sont dotées d'un carré de taraudage.
- Standard DIN 352-371-376/ISO 529.

🇬🇧 TECHNICAL FEATURES

- Concentricity of ERM - TAPPING COLLET WITH INTERNAL SQUARE is contained in 0,015 mm.
- Built in spring steel
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5.
- Tapping collets with internal square
- Standard DIN 352-371-376/ISO 529.

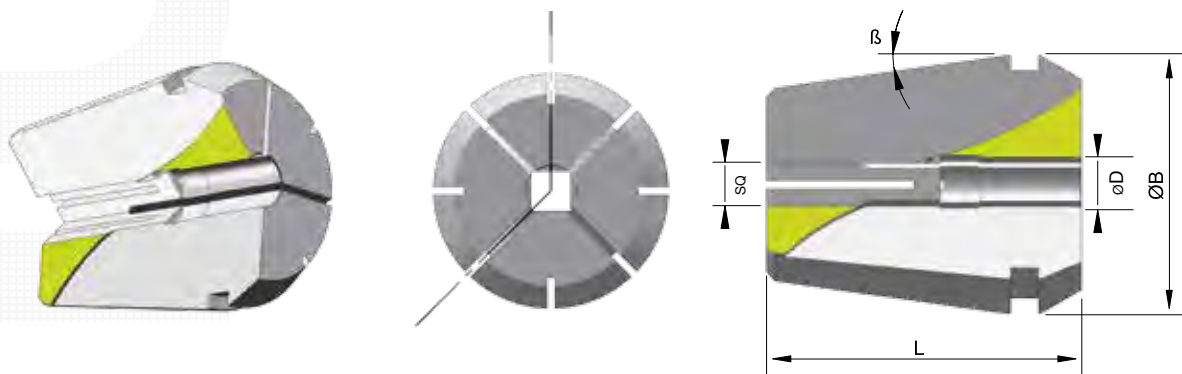
🇩🇪 TECHNISCHE DATEN

- Die Rundlaufgenauigkeit der GEWINDEBOHRSPANNZANGEN MIT VIERECK ist in 0,015 mm eingeschränkt.
- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Diese Spannangen sind mit einem Gewindebohrviereck ausgestattet.
- Standard DIN 352-371-376/ISO 529.



TIPO/TYPE	ØD	L	CAPACITY - M
ER16M	3.5 ÷ 8	27.5	M 3 ÷ M 8
ER20M	3.5 ÷ 10	31.5	M 3 ÷ M 10
ER25M	3.5 ÷ 12	34	M 3 ÷ M 16
ER32M	3.5 ÷ 16	40	M 3 ÷ M 20
ER40M	6 ÷ 20	46	M 5 ÷ M 27
ER50M	8 ÷ 32	60	M 8 ÷ M 42

MASCHIO M	GAMBO		MASCHIO M	GAMBO		MASCHIO M	GAMBO	
	ØD	SQ		ØD	SQ		ØD	SQ
M 3	3.5	2.7	M 8	6.3	5	M 16	12.5	10
M 3.5	4	3	M 7	7	5.5	M 18	14	11
M 4	4.5	3.4	M 10	7	5.5	M 20	16	12
M 4	5	4	M 8	8	6.2	M 24	18	14.5
M 5	5.5	4.3	M 9	9	7	M 27	20	16
M 5	6	4.9	M 12	9	7	M 30	22	18
M 6	6	4.9	M 10	10	8	M 33	25	20
M 6	6.3	5	M 14	11	9	M 36	28	22
M 8	6	4.9	M 14	11.2	9	M 39 - 42	32	24



ER 16M - TAP COLLET WITH INTERNAL SQUARE M3 ÷ M8

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.16.3.5	3,5	2,7	11,5	27,5
ERX.M.16.4	4	3	11,5	27,5
ERX.M.16.4.5	4,5	3,4	11,5	27,5
ERX.M.16.5	5	4	11,5	27,5
ERX.M.16.5.5	5,5	4,3	11,5	27,5

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.16.6	6	4,9	11,5	27,5
ERX.M.16.6.3	6,3	5	11,5	27,5
ERX.M.16.7	7	5,5	11,5	27,5
ERX.M.16.8	8	6,2	11,5	27,5

ER 20M - TAP COLLET WITH INTERNAL SQUARE M3 ÷ M10

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.20.3.5	3,5	2,7	21	31,5
ERX.M.20.4	4	3	21	31,5
ERX.M.20.4.5	4,5	3,4	21	31,5
ERX.M.20.5	5	4	21	31,5
ERX.M.20.5.5	5,5	4,3	21	31,5
ERX.M.20.6	6	4,9	21	31,5

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.20.6.5	6,3	5	21	31,5
ERX.M.20.7	7	5,5	21	31,5
ERX.M.20.8	8	6,2	21	31,5
ERX.M.20.9	9	7	21	31,5
ERX.M.20.10	10	8	21	31,5

ER 25M - TAP COLLET WITH INTERNAL SQUARE M3 ÷ M16

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.25.3.5	3,5	2,7	26	34
ERX.M.25.4	4	3	26	34
ERX.M.25.4.5	4,5	3,4	26	34
ERX.M.25.5	5	4	26	34
ERX.M.25.5.5	5,5	4,3	26	34
ERX.M.25.6	6	4,9	26	34
ERX.M.25.6.3	6,3	5	26	34

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.25.7	7	5,5	26	34
ERX.M.25.8	8	6,2	26	34
ERX.M.25.9	9	7	26	34
ERX.M.25.10	10	8	26	34
ERX.M.25.11	11	9	26	34
ERX.M.25.11.2	11,2	9	26	34
ERX.M.25.12	12	9	26	34

ER 32M - TAP COLLET WITH INTERNAL SQUARE M3 ÷ M22

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.32.3.5	3,5	2,7	33	40
ERX.M.32.4	4	3	33	40
ERX.M.32.4.5	4,5	3,4	33	40
ERX.M.32.5	5	4	33	40
ERX.M.32.5.5	5,5	4,3	33	40
ERX.M.32.6	6	4,9	33	40
ERX.M.32.6.3	6,3	5	33	40
ERX.M.32.7	7	5,5	33	40
ERX.M.32.8	8	6,2	33	40

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.32.9	9	7	33	40
ERX.M.32.10	10	8	33	40
ERX.M.32.11	11	9	33	40
ERX.M.32.11.2	11.2	9	33	40
ERX.M.32.12	12	9	33	40
ERX.M.32.12.5	12.5	10	33	40
ERX.M.32.14	14	11	33	40
ERX.M.32.16	16	12	33	40

ER 40M - TAP COLLET WITH INTERNAL SQUARE M5 ÷ M27

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.40.6	6	4,9	41	46
ERX.M.40.7	7	5,5	41	46
ERX.M.40.8	8	6,2	41	46
ERX.M.40.9	9	7	41	46
ERX.M.40.10	10	8	41	46
ERX.M.40.11	11	9	41	46

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.40.12	12	9	41	46
ERX.M.40.14	14	11	41	46
ERX.M.40.16	16	12	41	46
ERX.M.40.18	18	14,5	41	46
ERX.M.40.20	20	16	41	46

ER 50M - TAP COLLET WITH INTERNAL SQUARE M8 ÷ M42

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.50.8	8	6,2	52	60
ERX.M.50.9	9	7	52	60
ERX.M.50.10	10	8	52	60
ERX.M.50.11	11	9	52	60
ERX.M.50.12	12	9	52	60
ERX.M.50.14	14	11	52	60
ERX.M.50.16	16	12	52	60

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.M.50.18	18	14,5	52	60
ERX.M.50.20	20	16	52	60
ERX.M.50.22	22	18	52	60
ERX.M.50.25	25	20	52	60
ERX.M.50.28	28	22	52	60
ERX.M.50.32	32	24	52	60

ER 16M - TAP COLLET WITH INTERNAL SQUARE M3 ÷ M8 - INCH



0.015 STANDARD PRECISION

Cod.	Ø D	SQ	TAP SIZE
ERX.M.16-141	.141"	.110"	0-#6 (M3)
ERX.M.16-168	.168"	.131"	#8,5/32 (M4)
ERX.M.16-194	.194"	.152"	#10,3/16 (M5)

Cod.	Ø D	SQ	TAP SIZE
ERX.M.16-220	.220"	.165"	#12,7/32
ERX.M.16-255	.255"	.191"	#14,1/4 (M6)
ERX.M.16-318	.318"	.238"	5/16 (M7, M8)

ER 20M - TAP COLLET WITH INTERNAL SQUARE M3 ÷ M10 - INCH



0.015 STANDARD PRECISION

Cod.	Ø D	SQ	TAP SIZE
ERX.M.20-141	.141"	.110"	0-#6 (M3)
ERX.M.20-168	.168"	.131"	#8,5/32 (M4)
ERX.M.20-194	.194"	.152"	#10,3/16 (M5)
ERX.M.20-220	.220"	.165"	#12,7/32
ERX.M.20-255	.255"	.191"	#14,1/4 (M6)

Cod.	Ø D	SQ	TAP SIZE
ERX.M.20-318	.318"	.238"	5/16 (M7, M8)
ERX.M.20-323	.323"	.242"	7/16
ERX.M.20-367	.367"	.275"	1/2 (M12)
ERX.M.20-381	.381"	.286"	3/8 (M10)

ER 25M - TAP COLLET WITH INTERNAL SQUARE M3 ÷ M16 - INCH



0.015 STANDARD PRECISION

Cod.	Ø D	SQ	TAP SIZE
ERX.M.25-141	.141"	.110"	0-#6 (M3)
ERX.M.25-168	.168"	.131"	#8,5/32 (M4)
ERX.M.25-194	.194"	.152"	#10,3/16 (M5)
ERX.M.25-220	.220"	.165"	#12,7/32
ERX.M.25-255	.255"	.191"	#14,1/4 (M6)
ERX.M.25-318	.318"	.238"	5/16 (M7, M8)

Cod.	Ø D	SQ	TAP SIZE
ERX.M.25-323	.323"	.242"	7/16
ERX.M.25-367	.367"	.275"	1/2 (M12)
ERX.M.25-381	.381"	.286"	3/8 (M10)
ERX.M.25-429	.429"	.322"	9/16 (M14)
ERX.M.25-437	.437"	.328"	1/8 LS
ERX.M.25-480	.480"	.360"	5/8 (M16)

ER 32M - TAP COLLET WITH INTERNAL SQUARE M3 ÷ M20 - INCH



0.015 STANDARD PRECISION

Cod.	Ø D	SQ	TAP SIZE
ERX.M.32-141	.141"	.110"	0-#6 (M3)
ERX.M.32-168	.168"	.131"	#8,5/32 (M4)
ERX.M.32-194	.194"	.152"	#10,3/16 (M5)
ERX.M.32-220	.220"	.165"	#12,7/32
ERX.M.32-255	.255"	.191"	#14,1/4 (M6)
ERX.M.32-318	.318"	.238"	5/16 (M7, M8)
ERX.M.32-323	.323"	.242"	7/16
ERX.M.32-367	.367"	.275"	1/2 (M12)

Cod.	Ø D	SQ	TAP SIZE
ERX.M.32-381	.381"	.286"	3/8 (M10)
ERX.M.32-429	.429"	.322"	9/16 (M14)
ERX.M.32-437	.437"	.328"	1/8 LS
ERX.M.32-480	.480"	.360"	5/8 (M16)
ERX.M.32-542	.542"	.406"	11/16 (M18)
ERX.M.32-562	.562"	.421"	1/4 NPT
ERX.M.32-590	.590"	.440"	3/4
ERX.M.32-652	.652"	.489"	13/16 (M20)

ER 40M - TAP COLLET WITH INTERNAL SQUARE M5 ÷ M27 - INCH

0.015  STANDARD PRECISION

Cod.	Ø D	SQ	TAP SIZE
ERX.M.40-255	.255"	.191"	#14,1/4 (M6)
ERX.M.40-318	.318"	.238"	5/16 (M7, M8)
ERX.M.40-323	.323"	.242"	7/16
ERX.M.40-367	.367"	.275"	1/2 (M12)
ERX.M.40-381	.381"	.286"	3/8 (M10)
ERX.M.40-429	.429"	.322"	9/16 (M14)
ERX.M.40-437	.437"	.328"	1/8 LS
ERX.M.40-480	.480"	.360"	5/8 (M16)
ERX.M.40-542	.542"	.406"	11/16 (M18)

Cod.	Ø D	SQ	TAP SIZE
ERX.M.40-562	.562"	.421"	1/4 NPT
ERX.M.40-590	.590"	.440"	3/4
ERX.M.40-652	.652"	.489"	13/16 (M20)
ERX.M.40-687	.687"	.515"	1/2 NPT
ERX.M.40-697	.697"	.523"	7/8 (M22)
ERX.M.40-700	.700"	.531"	3/8 NPT
ERX.M.40-760	.760"	.570"	15/16 (M24)
ERX.M.40-800	.800"	.600"	1"

DIN 6499

PINZE DIN 6499

PORTAMASCHI CON QUADRO A TENUTA DEL REFRIGERANTE

COLLETS DIN 6499

SEALED TAP COLLETS WITH INTERNAL SQUARE



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.015

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Il grado di concentricità delle pinze ERGM - PORTAMASCHI CON QUADRO A TENUTA DEL REFRIGERANTE è contenuto in 0,015 mm.
- Sono costruite in acciaio per molle.
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- Queste pinze sono dotate di un quadro porta maschi.
- La vulcanizzazione del taglio canalizza il refrigerante all'interno dell'utensile.

🇫🇷 CARACTÉRISTIQUES

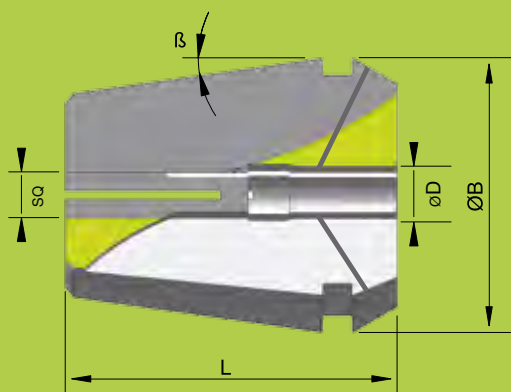
- Le degré de concentration des pinces ERGM - DE TARAUDAGES AVEC CARRE INTERIEUR ET ETANCHE POUR REFRIGERANT est contenu en 0,015mm
- Elles sont fabriquées en acier pour ressort.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur, après cela, une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- Ces pinces sont dotées d'un carré de taraudage.
- La vulcanisation du passage canalise le réfrigérant a l'intérieur de l'outil.

🇬🇧 TECHNICAL FEATURES

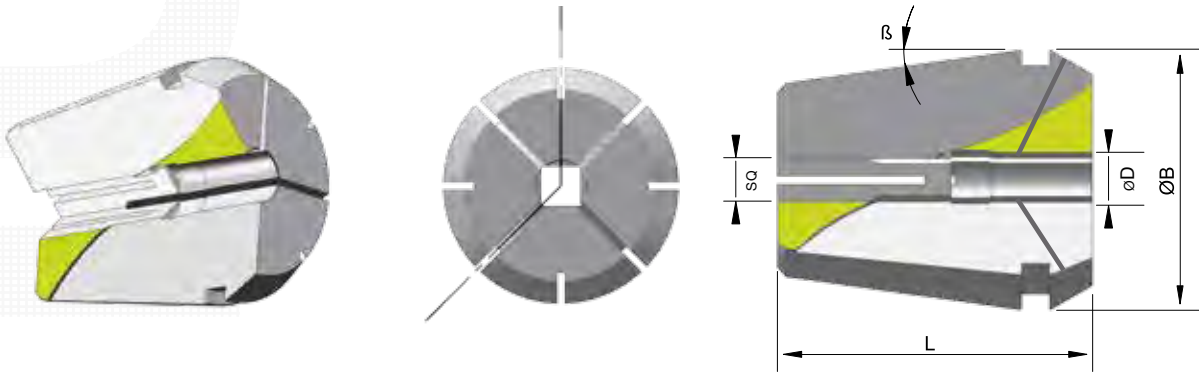
- Concentricity of ERGM - SEALED TAPPING SEALED COLLET WITH INTERNAL SQUARE is contained in 0,015 mm.
- Built in spring steel
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5.
- Tapping collets with internal square
- Vulcanization canalizes the cooling system inside the tool.

🇩🇪 TECHNISCHE DATEN

- Die Rundlaufgenauigkeit der ERGM - GEWINDEBOHRSPANNZANGEN MIT VIERECK MIT ABDICHTUNG FÜR DAS KÜHLMITTEL ist in 0,015 mm eingeschränkt.
- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Diese Spannangen sind mit einem Gewindebohrviereck ausgestattet.
- Die Vulkanisation kanalisiert das Kühlmittel in das Werkzeug.



TIPO/TYPE	ØD	ØB	L
ERG16M	4 ÷ 7	17	27.5
ERG20M	4 ÷ 10	21	31.5
ERG25M	4 ÷ 12	26	34
ERG32M	4.5 ÷ 16	33	40
ERG40M	6 ÷ 20	41	46



ER G16M - SEALED TAP COLLETS WITH INTERNAL SQUARE M3 ÷ M8

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.G.16.M.4	4	3	17	27,5
ERX.G.16.M.4.5	4,5	3,4	17	27,5
ERX.G.16.M.5	5	4	17	27,5

Cod.	GAMBO - SHANK			
	Ø D	Ø B	Ø B	L
ERX.G.16.M.5.5	5,5	4,3	17	27,5
ERX.G.16.M.6	6	4,9	17	27,5
ERX.G.16.M.7	7	5,5	17	27,5

ER G20M - SEALED TAP COLLETS WITH INTERNAL SQUARE M3 ÷ M10

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.G.20.M.4	4	3	21	31,5
ERX.G.20.M.4.5	4,5	3,4	21	31,5
ERX.G.20.M.5	5	4	21	31,5
ERX.G.20.M.5.5	5,5	4,3	21	31,5
ERX.G.20.M.6	6	4,9	21	31,5

Cod.	GAMBO - SHANK			
	Ø D	Ø B	Ø B	L
ERX.G.20.M.7	7	5,5	21	31,5
ERX.G.20.M.8	8	6,2	21	31,5
ERX.G.20.M.9	9	7	21	31,5
ERX.G.20.M.10	10	8	21	31,5

ER G25M - SEALED TAP COLLETS WITH INTERNAL SQUARE M3 ÷ M16

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.G.25.M.4	4	3	26	34
ERX.G.25.M.4.5	4,5	3,4	26	34
ERX.G.25.M.5	5	4	26	34
ERX.G.25.M.5.5	5,5	4,3	26	34
ERX.G.25.M.6	6	4,9	26	34
ERX.G.25.M.7	7	5,5	26	34

Cod.	GAMBO - SHANK			
	Ø D	Ø B	Ø B	L
ERX.G.25.M.8	8	6,2	26	34
ERX.G.25.M.9	9	7	26	34
ERX.G.25.M.10	10	8	26	34
ERX.G.25.M.11	11	9	26	34
ERX.G.25.M.12	12	9	26	34

ER G32M - SEALED TAP COLLETS WITH INTERNAL SQUARE M3 ÷ M20

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.G.32.M.4.5	4,5	3,4	33	40
ERX.G.32.M.5	5	4	33	40
ERX.G.32.M.5.5	5,5	4,3	33	40
ERX.G.32.M.6	6	4,9	33	40
ERX.G.32.M.7	7	5,5	33	40
ERX.G.32.M.8	8	6,2	33	40

Cod.	GAMBO - SHANK			
	Ø D	Ø B	Ø B	L
ERX.G.32.M.9	9	7	33	40
ERX.G.32.M.10	10	8	33	40
ERX.G.32.M.11	11	9	33	40
ERX.G.32.M.12	12	9	33	40
ERX.G.32.M.14	14	11	33	40
ERX.G.32.M.16	16	12	33	40

ER G40M - SEALED TAP COLLETS WITH INTERNAL SQUARE M5 ÷ M27

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK			
	Ø D	SQ	Ø B	L
ERX.G.40.M.6	6	4,9	41	46
ERX.G.40.M.7	7	5,5	41	46
ERX.G.40.M.8	8	6,2	41	46
ERX.G.40.M.9	9	7	41	46
ERX.G.40.M.10	10	8	41	46
ERX.G.40.M.11	11	9	41	46

Cod.	GAMBO - SHANK			
	Ø D	Ø B	Ø B	L
ERX.G.40.M.12	12	9	41	46
ERX.G.40.M.14	14	11	41	46
ERX.G.40.M.16	16	12	41	46
ERX.G.40.M.18	18	14,5	41	46
ERX.G.40.M.20	20	16	41	46

PINZE DIN 6499

PORTAMASCHI A COMPENSAZIONE ASSIALE

COLLETS DIN 6499

TAPPING COLLETS WITH AXIAL COMPENSATION



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.015 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Compatibili su mandrini con porta pinza ER – DIN 6499
- Compatibili su ghiera standard
- Molla interna regolata per ogni dimensione del maschio
- Compensazione assiale costruita all'interno della pinza
- Garantisce una maggior vita all'utensile.

🇬🇧 TECHNICAL FEATURES

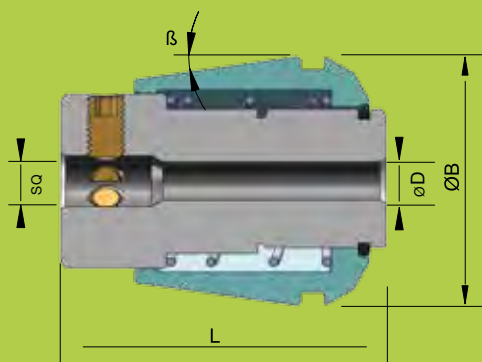
- Compatible with chucks of calliper ER - DIN 6499
- Compatible on standard nuts
- Internal spring adjusted for each dimension of the male
- Compensation axial built inside the collet
- Ensures more durability to the tool.

🇫🇷 CARACTÉRISTIQUES

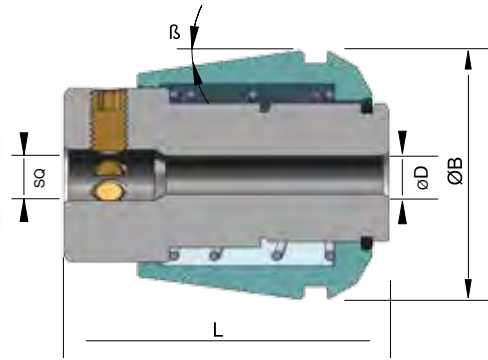
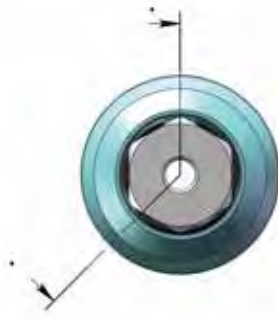
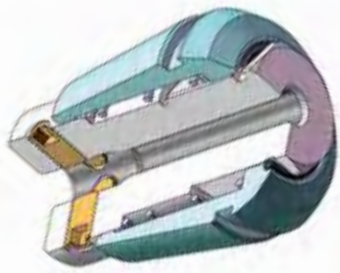
- Compatible avec les mandrins de étrier ER - DIN 6499
- Compatible sur les noix standards
- Ressort interne ajusté pour chaque dimension de l'homme
- Axiale de compensation construit à l'intérieur du pince
- Assure une plus grande durée de vie.

🇩🇪 TECHNISCHE DATEN

- Kompatibel mit Spannzangenfutter ER - DIN 6499
- Kompatibel mit Standard- Spannmuttern
- Für jede Dimension des Außengewinde angepasste Innenfeder
- In der Spannzange eingebauter axialer Ausgleich
- Sorgt für eine längere Werkzeugstandzeit.



TIPO/TYPE	ØD	STEP	L
ER 16COM	1,4 ÷ 6	0.2	28,5
ER 20COM	2,5 ÷ 7	0.2	32
ER 25COM	2,5 ÷ 10	0.2	34
ER 32COM	4 ÷ 12,5	0.5	43
ER 40COM	6 ÷ 16	1	54



ER 16COM - TAPPING COLLETS WITH AXIAL COMPENSATION

NEW

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.16.1.4	1,4	17	28,5
ERX.COM.16.1.6	1,6	17	28,5
ERX.COM.16.1.8	1,8	17	28,5
ERX.COM.16.2	2	17	28,5
ERX.COM.16.2.2	2,2	17	28,5
ERX.COM.16.2.24	2,24	17	28,5
ERX.COM.16.2.5	2,5	17	28,5
ERX.COM.16.2.8	2,8	17	28,5

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.16.3	3	17	28,5
ERX.COM.16.3.15	3,15	17	28,5
ERX.COM.16.3.5	3,5	17	28,5
ERX.COM.16.4	4	17	28,5
ERX.COM.16.4.5	4,5	17	28,5
ERX.COM.16.5	5	17	28,5
ERX.COM.16.5.5	5,5	17	28,5
ERX.COM.16.6	6	17	28,5

ER 20COM - TAPPING COLLETS WITH AXIAL COMPENSATION

NEW

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.20.2.5	2,5	21	32
ERX.COM.20.2.8	2,8	21	32
ERX.COM.20.3	3	21	32
ERX.COM.20.3.5	3,5	21	32
ERX.COM.20.4	4	21	32

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.20.4.5	4,5	21	32
ERX.COM.20.5	5	21	32
ERX.COM.20.5.5	5,5	21	32
ERX.COM.20.6	6	21	32
ERX.COM.20.7	7	21	32

ER 25COM - TAPPING COLLETS WITH AXIAL COMPENSATION

NEW

0.015 STANDARD PRECISION

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.25.2.5	2,5	26	34
ERX.COM.25.2.8	2,8	26	34
ERX.COM.25.3	3	26	34
ERX.COM.25.3.5	3,5	26	34
ERX.COM.25.4	4	26	34
ERX.COM.25.4.5	4,5	26	34
ERX.COM.25.5	5	26	34

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.25.5.5	5,5	26	34
ERX.COM.25.6	6	26	34
ERX.COM.25.7	7	26	34
ERX.COM.25.8	8	26	34
ERX.COM.25.9	9	26	34
ERX.COM.25.10	10	26	34

ER 32COM - TAPPING COLLETS WITH AXIAL COMPENSATION

NEW

0.015  STANDARD PRECISION

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.32.4	4	33	43
ERX.COM.32.4.5	4,5	33	43
ERX.COM.32.5	5	33	43
ERX.COM.32.5.5	5,5	33	43
ERX.COM.32.6	6	33	43
ERX.COM.32.7	7	33	43

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.32.8	8	33	43
ERX.COM.32.9	9	33	43
ERX.COM.32.10	10	33	43
ERX.COM.32.11	11	33	43
ERX.COM.32.12	12	33	43
ERX.COM.32.12.5	12,5	33	43

ER 40COM - TAPPING COLLETS WITH AXIAL COMPENSATION

NEW

0.015  STANDARD PRECISION

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.40.6	6	41	54
ERX.COM.40.7	7	41	54
ERX.COM.40.8	8	41	54
ERX.COM.40.9	9	41	54
ERX.COM.40.10	10	41	54

Cod.	GAMBO - SHANK		
	Ø D	Ø B	L
ERX.COM.40.11	11	41	54
ERX.COM.40.12	12	41	54
ERX.COM.40.12.5	12,5	41	54
ERX.COM.40.14	14	41	54
ERX.COM.40.16	16	41	54

PINZE DIN 9499

COLLETS DIN 9499



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.008 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Il grado di concentricità delle pinze ERD – DIN9499B è contenuto in 0,008 mm.
- Sono costruite in acciaio per molle.
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- Compatibili su mandrini con porta pinza ER – DIN 6499.

🇫🇷 CARACTÉRISTIQUES

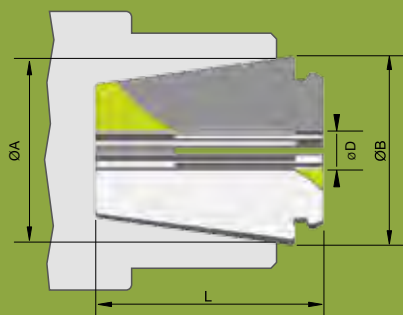
- Le degré de concentration des pinces SYSTEME ETS - DIN 9499B est contenu en 0,008 mm.
- Elles sont fabriquées en acier pour ressorts.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur, après cela une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- Compatible avec mandrins pour ER - DIN 6499.

🇬🇧 TECHNICAL FEATURES

- Concentricity of COLLETS ETS SYSTEM – DIN 9499B is contained in 0,008 mm.
- Built in spring steel.
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5
- Compatible with chucks of collets ER - DIN 6499.

🇩🇪 TECHNISCHE DATEN

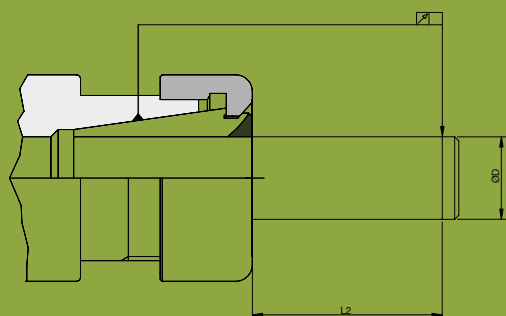
- Die Rundlaufgenauigkeit der SPANNZANGEN ERD SYSTEM – DIN 9499B ist in 0,008 mm eingeschränkt.
- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Kompatibel mit Spannfutter ER - DIN 6499
- Empfohlen für Anwendung, in der Sie eine größere Spannkraft als DIN 6499 erforderlich.

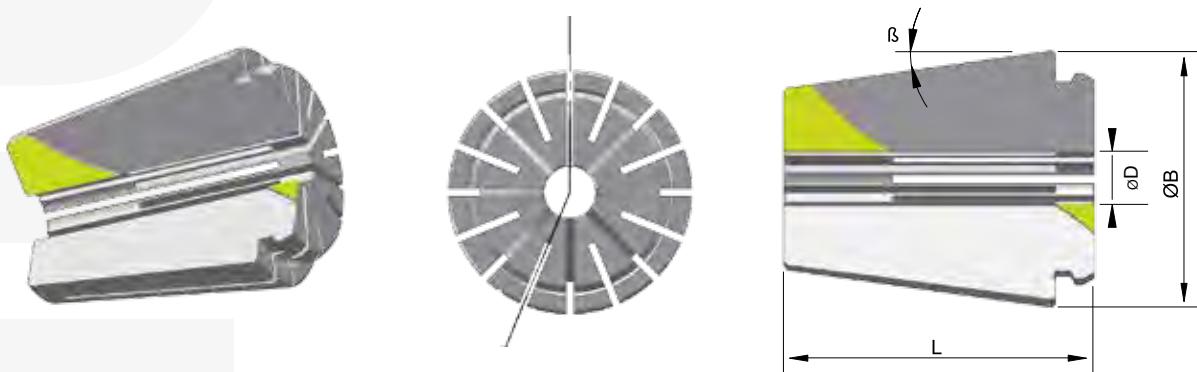


TIPO/TYPE	ØD	ØA	ØB	L
ER 16D	1 ÷ 10	16	17	24
ER 20D	2 ÷ 13	20	21	31
ER 25D	2 ÷ 16	25	26	34
ER 32D	3 ÷ 20	32	33	40
ER 40D	3 ÷ 26	40	41	45

PRECISIONE DI ROTAZIONE / CONCENTRICITY SPECIFICATION

Ø D		L2	S max	Ø D		L2	S max
MIN	MAX			MIN	MAX		
1	1.6	6	0.010	10	18	40	0.015
1.6	3	10	0.010	18	26	50	0.015
3	7	16	0.010	26	40	60	0.015
7	10	25	0.010				





ER 16D

0.008 STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.16.1	1	0,25 mm	17	24	8°
ERX.D.16.2	2	0,25 mm	17	24	8°
ERX.D.16.3	3	0,5 mm	17	24	8°
ERX.D.16.4	4	0,5 mm	17	24	8°
ERX.D.16.5	5	1,00 mm	17	24	8°

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.16.6	6	1,00 mm	17	24	8°
ERX.D.16.7	7	1,00 mm	17	24	8°
ERX.D.16.8	8	1,00 mm	17	24	8°
ERX.D.16.9	9	1,00 mm	17	24	8°
ERX.D.16.10	10	1,00 mm	17	24	8°

ER 16D - KIT

0.008 STANDARD PRECISION



Cod.	Nr. pieces	ØD	Note
R-ERXD16-10	10	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig. 1
B-ERXD16-10	10	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10	Fig. 2

ER 20D

0.008 STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.20.2	2	0,25 mm	21	31	8°
ERX.D.20.3	3	0,5 mm	21	31	8°
ERX.D.20.4	4	1,00 mm	21	31	8°
ERX.D.20.5	5	1,00 mm	21	31	8°
ERX.D.20.6	6	1,00 mm	21	31	8°
ERX.D.20.7	7	1,00 mm	21	31	8°

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.20.8	8	1,00 mm	21	31	8°
ERX.D.20.9	9	1,00 mm	21	31	8°
ERX.D.20.10	10	1,00 mm	21	31	8°
ERX.D.20.11	11	1,00 mm	21	31	8°
ERX.D.20.12	12	1,00 mm	21	31	8°
ERX.D.20.13	13	1,00 mm	21	31	8°



ER 20D - KIT

0.008 STANDARD PRECISION

Cod.	Nr. pieces	ØD	Note
R-ERXD25-15	12	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig. 1
B-ERXD25-15	12	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	Fig. 2

ER 25D

0.008 STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.25.2	2	0,25 mm	26	34	8°
ERX.D.25.3	3	0,5 mm	26	34	8°
ERX.D.25.4	4	1,00 mm	26	34	8°
ERX.D.25.5	5	1,00 mm	26	34	8°
ERX.D.25.6	6	1,00 mm	26	34	8°
ERX.D.25.7	7	1,00 mm	26	34	8°
ERX.D.25.8	8	1,00 mm	26	34	8°
ERX.D.25.9	9	1,00 mm	26	34	8°

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.25.10	10	1,00 mm	26	34	8°
ERX.D.25.11	11	1,00 mm	26	34	8°
ERX.D.25.12	12	1,00 mm	26	34	8°
ERX.D.25.13	13	1,00 mm	26	34	8°
ERX.D.25.14	14	1,00 mm	26	34	8°
ERX.D.25.15	15	1,00 mm	26	34	8°
ERX.D.25.16	16	1,00 mm	26	34	8°



ER 25D - KIT

0.008 STANDARD PRECISION

Cod.	Nr. pieces	ØD	Note
R-ERXD25-15	15	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig. 1
B-ERXD25-15	15	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16	Fig. 2

ER 32D

0.008 STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.32.3	3	0,5 mm	33	40	8°
ERX.D.32.4	4	1,00 mm	33	40	8°
ERX.D.32.5	5	1,00 mm	33	40	8°
ERX.D.32.6	6	1,00 mm	33	40	8°
ERX.D.32.7	7	1,00 mm	33	40	8°
ERX.D.32.8	8	1,00 mm	33	40	8°
ERX.D.32.9	9	1,00 mm	33	40	8°
ERX.D.32.10	10	1,00 mm	33	40	8°
ERX.D.32.11	11	1,00 mm	33	40	8°

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.32.12	12	1,00 mm	33	40	8°
ERX.D.32.13	13	1,00 mm	33	40	8°
ERX.D.32.14	14	1,00 mm	33	40	8°
ERX.D.32.15	15	1,00 mm	33	40	8°
ERX.D.32.16	16	1,00 mm	33	40	8°
ERX.D.32.17	17	1,00 mm	33	40	8°
ERX.D.32.18	18	1,00 mm	33	40	8°
ERX.D.32.19	19	1,00 mm	33	40	8°
ERX.D.32.20	20	1,00 mm	33	40	8°

ER 32D - KIT

0.008 STANDARD PRECISION



Cod.	Nr. pieces	Ø D	Note
R-ERXD32-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig. 1
B-ERXD32-18	18	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	Fig. 2

ER 40D

0.008 STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.40.3	3	1,00 mm	41	45	8°
ERX.D.40.4	4	1,00 mm	41	45	8°
ERX.D.40.5	5	1,00 mm	41	45	8°
ERX.D.40.6	6	1,00 mm	41	45	8°
ERX.D.40.7	7	1,00 mm	41	45	8°
ERX.D.40.8	8	1,00 mm	41	45	8°
ERX.D.40.9	9	1,00 mm	41	45	8°
ERX.D.40.10	10	1,00 mm	41	45	8°
ERX.D.40.11	11	1,00 mm	41	45	8°
ERX.D.40.12	12	1,00 mm	41	45	8°
ERX.D.40.13	13	1,00 mm	41	45	8°
ERX.D.40.14	14	1,00 mm	41	45	8°

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
ERX.D.40.15	15	1,00 mm	41	45	8°
ERX.D.40.16	16	1,00 mm	41	45	8°
ERX.D.40.17	17	1,00 mm	41	45	8°
ERX.D.40.18	18	1,00 mm	41	45	8°
ERX.D.40.19	19	1,00 mm	41	45	8°
ERX.D.40.20	20	1,00 mm	41	45	8°
ERX.D.40.21	21	1,00 mm	41	45	8°
ERX.D.40.22	22	1,00 mm	41	45	8°
ERX.D.40.23	23	1,00 mm	41	45	8°
ERX.D.40.24	24	1,00 mm	41	45	8°
ERX.D.40.25	25	1,00 mm	41	45	8°
ERX.D.40.26	26	1,00 mm	41	45	8°

ER 40D - KIT

0.008 STANDARD PRECISION



Cod.	Nr. pieces	ØD	Note
R-ERXD40-24	24	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 1
B-ERXD40-24	24	3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26	Fig. 2

PINZE CILINDRICHE

PER MANDRINI IDRAULICI E A FORTE SERRAGGIO

STRAIGHT COLLETS

FOR HYDRAULIC AND POWER MILLING CHUCKS



ULTRA PRECISION

Precisione di rotazione
Concentricity specifications

0.005 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Il grado di concentricità delle pinze CILINDRICHE PER MANDRINI IDRAULICI E A FORTE SERRAGGIO è contenuto in 0,005 mm.
- Sono costruite in acciaio per molle.
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- Pinze a 4 tagli a tenuta del refrigerante per mandrini a forte serraggio.
- Pinze a 6 tagli a tenuta del refrigerante per mandrini idraulici.

🇫🇷 CARACTÉRISTIQUES

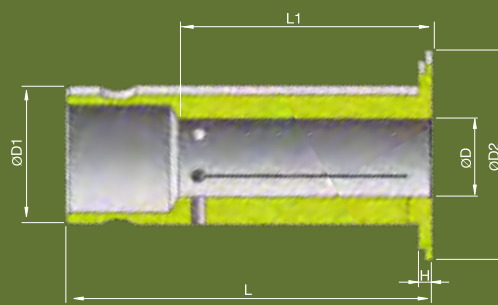
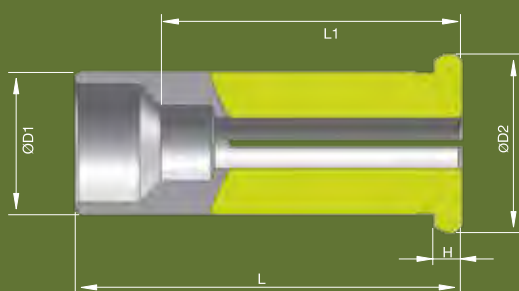
- Le degré de concentration des pinces CYLINDRIQUES POUR MANDRINS A GRAND PUISSANCE DE SERRAGE ET HYDRAULIQUES est contenu en 0,005 mm.
- Elles sont fabriquées en acier pour ressorts.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur, après cela une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- Pincés à 4 coupes étanches pour mandrins à fort serrage.
- Pincés à 6 coupes étanches pour mandrins hydrauliques.

🇬🇧 TECHNICAL FEATURES

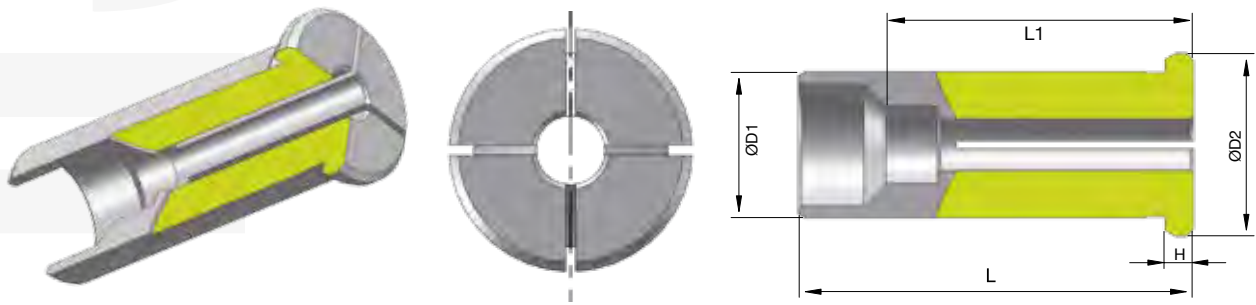
- Concentricity of STRAIGHT COLLETS FOR HYDRAULIC AND POWER MILLING CHUCKS is contained in 0,005 mm.
- Built in spring steel
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5
- Sealed fourth-cuts collet for power milling chucks
- Sealed sixth-cut collet for hydraulic adaptors.

🇩🇪 TECHNISCHE DATEN

- Die Rundlaufgenauigkeit der ZYLINDRISCHE SPANNZANGEN FÜR KLEMMFUTTER UND HYDRODEHNSPANNFUTTER ist in 0,005 mm eingeschränkt.
- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Vier-Schnitte Spannzangen mit Abdichtung für das Kühlmittel für Klemmfutter.
- Vier-Schnitte Spannzangen mit Abdichtung für das Kühlmittel für Hydrodehnspannfutter.



TIPO/TYPER	ØD	ØD1	L
4 SR 20	3 ÷ 18	20	54
4 SR 32	6 ÷ 25	32	63
6 SR 12	3 ÷ 10	12	47
6 SR 20	3 ÷ 18	20	52,5
6 SR 32	6 ÷ 25	32	63



4 SR 20 - STRAIGHT COLLETS FOR POWER MILLING CHUCKS

0.005 ULTRA PRECISION

Cod.	Ø D	Ø D1	Ø D2	L	L1	H
4SR20.3	3	20	25	54	15	4
4SR20.4	4	20	25	54	23	4
4SR20.5	5	20	25	54	23	4
4SR20.6	6	20	25	54	35	4
4SR20.7	7	20	25	54	35	4
4SR20.8	8	20	25	54	40	4
4SR20.9	9	20	25	54	40	4
4SR20.10	10	20	25	54	40	4

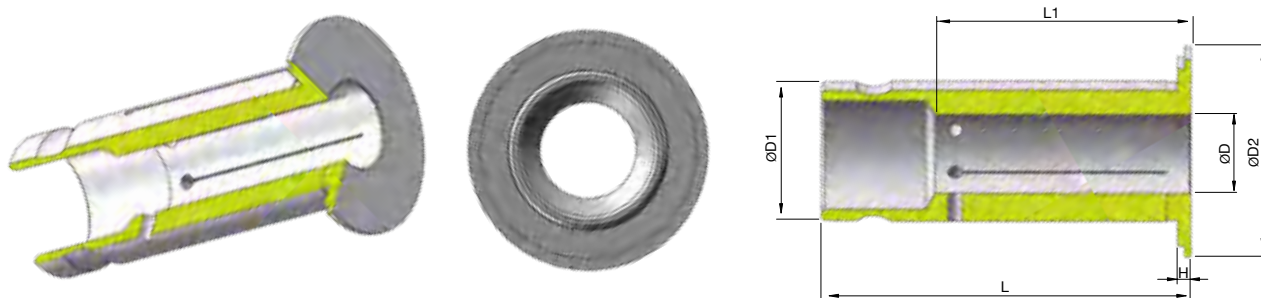
Cod.	Ø D	Ø D1	Ø D2	L	L1	H
4SR20.11	11	20	25	54	40	4
4SR20.12	12	20	25	54	40	4
4SR20.13	13	20	25	54	45	4
4SR20.14	14	20	25	54	45	4
4SR20.15	15	20	25	54	45	4
4SR20.16	16	20	25	54	45	4
4SR20.17	17	20	25	54	45	4
4SR20.18	18	20	25	54	45	4

4 SR 32 - STRAIGHT COLLETS FOR POWER MILLING CHUCKS

0.005 ULTRA PRECISION

Cod.	Ø D	Ø D1	Ø D2	L	L1	H
4SR32.6	6	32	36	63	36	3
4SR32.7	7	32	36	63	36	3
4SR32.8	8	32	36	63	36	3
4SR32.9	9	32	36	63	40	3
4SR32.10	10	32	36	63	40	3
4SR32.11	11	32	36	63	40	3
4SR32.12	12	32	36	63	45	3
4SR32.13	13	32	36	63	45	3
4SR32.14	14	32	36	63	45	3
4SR32.15	15	32	36	63	48	3

Cod.	Ø D	Ø D1	Ø D2	L	L1	H
4SR32.16	16	32	36	63	48	3
4SR32.17	17	32	36	63	48	3
4SR32.18	18	32	36	63	48	3
4SR32.19	19	32	36	63	50	3
4SR32.20	20	32	36	63	50	3
4SR32.21	21	32	36	63	50	3
4SR32.22	22	32	36	63	50	3
4SR32.23	23	32	36	56	56	3
4SR32.24	24	32	36	63	56	3
4SR32.25	25	32	36	63	56	3



6 SR 12 - STRAIGHT COLLETS FOR HYDRAULIC CHUCKS

NEW

0.005 UP ULTRA PRECISION

Cod.	Ø D	Ø D1	Ø D2	L	L1	H
6SR12.3	3	12	20	47	16	2
6SR12.4	4	12	20	47	16	2
6SR12.5	5	12	20	47	16	2
6SR12.6	6	12	20	47	24	2

Cod.	Ø D	Ø D1	Ø D2	L	L1	H
6SR12.7	7	12	20	47	24	2
6SR12.8	8	12	20	47	24	2
6SR12.10	10	12	20	47	24	2

6 SR 20 - STRAIGHT COLLETS FOR HYDRAULIC CHUCKS

0.005 UP ULTRA PRECISION

Cod.	Ø D	Ø D1	Ø D2	L	L1	H
6SR20.3	3	20	30	52,5	15	2
6SR20.4	4	20	30	52,5	22	2
6SR20.5	5	20	30	52,5	22	2
6SR20.6	6	20	30	52,5	27	2
6SR20.7	7	20	30	52,5	27	2
6SR20.8	8	20	30	52,5	37,5	2
6SR20.9	9	20	30	52,5	37,5	2
6SR20.10	10	20	30	52,5	37,5	2

Cod.	Ø D	Ø D1	Ø D2	L	L1	H
6SR20.11	11	20	30	52,5	37,5	2
6SR20.12	12	20	30	52,5	37,5	2
6SR20.13	13	20	30	52,5	37,5	2
6SR20.14	14	20	30	52,5	37,5	2
6SR20.15	15	20	30	52,5	37,5	2
6SR20.16	16	20	30	52,5	37,5	2
6SR20.17	17	20	30	52,5	37,5	2
6SR20.18	18	20	30	52,5	37,5	2

6 SR 32 - STRAIGHT COLLETS FOR HYDRAULIC CHUCKS

0.005 UP ULTRA PRECISION

Cod.	Ø D	Ø D1	Ø D2	L
6SR32.6	6	32	36	63
6SR32.8	8	32	36	63
6SR32.10	10	32	36	63
6SR32.12	12	32	36	63

Cod.	Ø D	Ø D1	Ø D2	L
6SR32.14	14	32	36	63
6SR32.16	16	32	36	63
6SR32.20	20	32	36	63
6SR32.25	25	32	36	63

PINZE DIN 6388

OZ SYSTEM COLLETS DIN 6388



STANDARD PRECISION

Precisione di rotazione
Concentricity specifications

0.015 

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

🇮🇹 CARATTERISTICHE TECNICHE

- Il grado di concentricità delle pinze EOC – DIN6388 B di precisione standard è contenuto in 0,010-0,015 mm.
- Sono costruite in acciaio per molle.
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- Adatte per lavorazioni in cui si richiede una maggior forza di chiusura rispetto alle DIN 6499.

🇫🇷 CARACTÉRISTIQUES

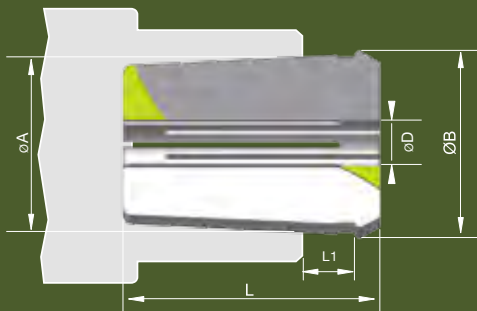
- Le degré de concentration des pinces SYSTEME OZ - DIN6388 B est contenu en 0,010-0,015mm.
- Elles sont fabriquées en acier pour ressorts.
- Elles sont rectifiées aussi bien extérieurement qu'à l'intérieur, après cela, une phase de superfinition est effectuée, garantissant un degré de rugosité inférieur à Rz 2,5.
- Recommandé pour l'application dans laquelle vous désirez une plus grande force de serrage à la norme ER pince DIN 6499

🇬🇧 TECHNICAL FEATURES

- Concentricity of COLLETS OZ SYSTEM – DIN6388 B is contained in 0,010-0,015 mm.
- Built in spring steel.
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5
- Recommended for application in which you require a greater clamping force than ER collet DIN 6499.

🇩🇪 TECHNISCHE DATEN

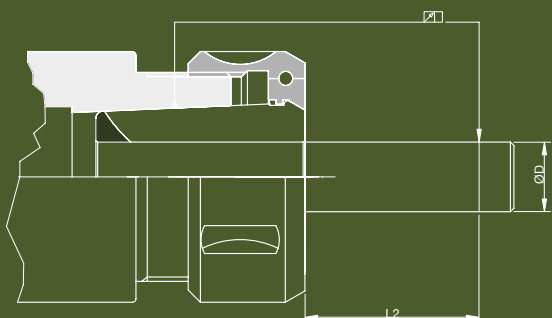
- Die Rundlaufgenauigkeit der SPANNZANGEN OZ – DIN 6388B ist in 0,010-0,015 mm eingeschränkt.
- Sie sind aus Federstahl gemacht.
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Sie sind für Anwendungen empfohlen, in denen eine größere Spannkraft als DIN 6499 erforderlich ist.

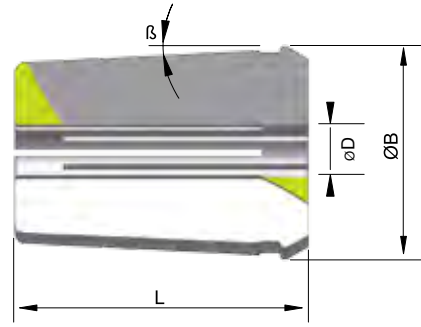


TIPO/TYPE	ØD	CLAMPING	ØA	ØB	L	L1
EOC 16	2 ÷ 16	0.5	22.65	25.5	40	9.5
EOC 25	2 ÷ 25	0.5	32.9	35.05	52	10
EOC 32	3 ÷ 32	0.5	41.3	43.7	60	11

PRECISIONE DI ROTAZIONE / CONCENTRICITY SPECIFICATION

Ø D		L2	S max	Ø D		L2	S max
MIN	MAX			MIN	MAX		
2	3	10	0.015	18	24	50	0.020
3	6	16	0.015	24	30	60	0.020
6	10	25	0.015	30	50	80	0.030
10	18	40	0.020				





EOC 16 - DIN 6388

0.015 STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
EOC.16.2	2	2 ÷ 1,5	25,5	40	2°52'
EOC.16.2.5	2,5	2,5 ÷ 2	25,5	40	2°52'
EOC.16.3	3	3 ÷ 2,5	25,5	40	2°52'
EOC.16.3.5	3,5	3,5 ÷ 3	25,5	40	2°52'
EOC.16.4	4	4 ÷ 3,5	25,5	40	2°52'
EOC.16.4.5	4,5	4,5 ÷ 4	25,5	40	2°52'
EOC.16.5	5	5 ÷ 4,5	25,5	40	2°52'
EOC.16.5.5	5,5	5,5 ÷ 5	25,5	40	2°52'
EOC.16.6	6	6 ÷ 5,5	25,5	40	2°52'
EOC.16.6.5	6,5	6,5 ÷ 6	25,5	40	2°52'
EOC.16.7	7	7 ÷ 6,5	25,5	40	2°52'
EOC.16.7.5	7,5	7,5 ÷ 7	25,5	40	2°52'
EOC.16.8	8	8 ÷ 7,5	25,5	40	2°52'
EOC.16.8.5	8,5	8,5 ÷ 8	25,5	40	2°52'
EOC.16.9	9	9 ÷ 8,5	25,5	40	2°52'

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
EOC.16.9.5	9,5	9,5 ÷ 9	25,5	40	2°52'
EOC.16.10	10	10 ÷ 9,5	25,5	40	2°52'
EOC.16.10.5	10,5	10,5 ÷ 10	25,5	40	2°52'
EOC.16.11	11	11 ÷ 10,5	25,5	40	2°52'
EOC.16.11.5	11,5	11,5 ÷ 11	25,5	40	2°52'
EOC.16.12	12	12 ÷ 11,5	25,5	40	2°52'
EOC.16.12.5	12,5	12,5 ÷ 12	25,5	40	2°52'
EOC.16.13	13	13 ÷ 12,5	25,5	40	2°52'
EOC.16.13.5	13,5	13,5 ÷ 13	25,5	40	2°52'
EOC.16.14	14	14 ÷ 13,5	25,5	40	2°52'
EOC.16.14.5	14,5	14,5 ÷ 14	25,5	40	2°52'
EOC.16.15	15	15 ÷ 14,5	25,5	40	2°52'
EOC.16.15.5	15,5	15,5 ÷ 15	25,5	40	2°52'
EOC.16.16	16	16 ÷ 15,5	25,5	40	2°52'

EOC 25 - DIN 6388

0.015 STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
EOC.25.2	2	2 ÷ 1,5	35,05	52	2°52'
EOC.25.2.5	2,5	2,5 ÷ 2	35,05	52	2°52'
EOC.25.3	3	3 ÷ 2,5	35,05	52	2°52'
EOC.25.3.5	3,5	3,5 ÷ 3	35,05	52	2°52'
EOC.25.4	4	4 ÷ 3,5	35,05	52	2°52'
EOC.25.4.5	4,5	4,5 ÷ 4	35,05	52	2°52'
EOC.25.5	5	5 ÷ 4,5	35,05	52	2°52'
EOC.25.5.5	5,5	5,5 ÷ 5	35,05	52	2°52'
EOC.25.6	6	6 ÷ 5,5	35,05	52	2°52'
EOC.25.6.5	6,5	6,5 ÷ 6	35,05	52	2°52'
EOC.25.7	7	7 ÷ 6,5	35,05	52	2°52'
EOC.25.7.5	7,5	7,5 ÷ 7	35,05	52	2°52'

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
EOC.25.8	8	8 ÷ 7,5	35,05	52	2°52'
EOC.25.8.5	8,5	8,5 ÷ 8	35,05	52	2°52'
EOC.25.9	9	9 ÷ 8,5	35,05	52	2°52'
EOC.25.9.5	9,5	9,5 ÷ 9	35,05	52	2°52'
EOC.25.10	10	10 ÷ 9,5	35,05	52	2°52'
EOC.25.10.5	10,5	10,5 ÷ 10	35,05	52	2°52'
EOC.25.11	11	11 ÷ 10,5	35,05	52	2°52'
EOC.25.11.5	11,5	11,5 ÷ 11	35,05	52	2°52'
EOC.25.12	12	12 ÷ 11,5	35,05	52	2°52'
EOC.25.12.5	12,5	12,5 ÷ 12	35,05	52	2°52'
EOC.25.13	13	13 ÷ 12,5	35,05	52	2°52'
EOC.25.13.5	13,5	13,5 ÷ 13	35,05	52	2°52'

EOC 25 - DIN 6388

0.015  STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
EOC.25.14	14	14 ÷ 13,5	35,05	52	2°52'
EOC.25.14.5	14,5	14,5 ÷ 14	35,05	52	2°52'
EOC.25.15	15	15 ÷ 14,5	35,05	52	2°52'
EOC.25.15.5	15,5	15,5 ÷ 15	35,05	52	2°52'
EOC.25.16	16	16 ÷ 15,5	35,05	52	2°52'
EOC.25.16.5	16,5	16,5 ÷ 16	35,05	52	2°52'
EOC.25.17	17	17 ÷ 16,5	35,05	52	2°52'
EOC.25.17.5	17,5	17,5 ÷ 17	35,05	52	2°52'
EOC.25.18	18	18 ÷ 17,5	35,05	52	2°52'
EOC.25.18.5	18,5	18,5 ÷ 18	35,05	52	2°52'
EOC.25.19	19	19 ÷ 18,5	35,05	52	2°52'
EOC.25.19.5	19,5	19,5 ÷ 19	35,05	52	2°52'

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
EOC.25.20	20	20 ÷ 19,5	35,05	52	2°52'
EOC.25.20.5	20,5	20,5 ÷ 20	35,05	52	2°52'
EOC.25.21	21	21 ÷ 20,5	35,05	52	2°52'
EOC.25.21.5	21,5	21,5 ÷ 21	35,05	52	2°52'
EOC.25.22	22	22 ÷ 21,5	35,05	52	2°52'
EOC.25.22.5	22,5	22,5 ÷ 22	35,05	52	2°52'
EOC.25.23	23	23 ÷ 22,5	35,05	52	2°52'
EOC.25.23.5	23,5	23,5 ÷ 23	35,05	52	2°52'
EOC.25.24	24	24 ÷ 23,5	35,05	52	2°52'
EOC.25.24.5	24,5	24,5 ÷ 24	35,05	52	2°52'
EOC.25.25	25	25 ÷ 24,5	35,05	52	2°52'

EOC 32 - DIN 6388

0.015  STANDARD PRECISION

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
EOC.32.3	3	3 ÷ 2,5	43,7	60	2°52'
EOC.32.3.5	3,5	3,5 ÷ 3	43,7	60	2°52'
EOC.32.4	4	4 ÷ 3,5	43,7	60	2°52'
EOC.32.4.5	4,5	4,5 ÷ 4	43,7	60	2°52'
EOC.32.5	5	5 ÷ 4,5	43,7	60	2°52'
EOC.32.5.5	5,5	5,5 ÷ 5	43,7	60	2°52'
EOC.32.6	6	6 ÷ 5,5	43,7	60	2°52'
EOC.32.6.5	6,5	6,5 ÷ 6	43,7	60	2°52'
EOC.32.7	7	7 ÷ 6,5	43,7	60	2°52'
EOC.32.7.5	7,5	7,5 ÷ 7	43,7	60	2°52'
EOC.32.8	8	8 ÷ 7,5	43,7	60	2°52'
EOC.32.8.5	8,5	8,5 ÷ 8	43,7	60	2°52'
EOC.32.9	9	9 ÷ 8,5	43,7	60	2°52'
EOC.32.9.5	9,5	9,5 ÷ 9	43,7	60	2°52'
EOC.32.10	10	10 ÷ 9,5	43,7	60	2°52'
EOC.32.10.5	10,5	10,5 ÷ 10	43,7	60	2°52'
EOC.32.11	11	11 ÷ 10,5	43,7	60	2°52'
EOC.32.11.5	11,5	11,5 ÷ 11	43,7	60	2°52'
EOC.32.12	12	12 ÷ 11,5	43,7	60	2°52'
EOC.32.12.5	12,5	12,5 ÷ 12	43,7	60	2°52'
EOC.32.13	13	13 ÷ 12,5	43,7	60	2°52'
EOC.32.13.5	13,5	13,5 ÷ 13	43,7	60	2°52'
EOC.32.14	14	14 ÷ 13,5	43,7	60	2°52'
EOC.32.14.5	14,5	14,5 ÷ 14	43,7	60	2°52'
EOC.32.15	15	15 ÷ 14,5	43,7	60	2°52'
EOC.32.15.5	15,5	15,5 ÷ 15	43,7	60	2°52'
EOC.32.16	16	16 ÷ 15,5	43,7	60	2°52'
EOC.32.16.5	16,5	16,5 ÷ 16	43,7	60	2°52'
EOC.32.17	17	17 ÷ 16,5	43,7	60	2°52'
EOC.32.3.19	17,5	17,5 ÷ 17	43,7	60	2°52'

Cod.	Ø D	CLAMPING RANGE	Ø B	L	β
EOC.32.18	18	18 ÷ 17,5	43,7	60	2°52'
EOC.32.18.5	18,5	18,5 ÷ 18	43,7	60	2°52'
EOC.32.19	19	19 ÷ 18,5	43,7	60	2°52'
EOC.32.19.5	19,5	19,5 ÷ 19	43,7	60	2°52'
EOC.32.20	20	20 ÷ 19,5	43,7	60	2°52'
EOC.32.20.5	20,5	20,5 ÷ 20	43,7	60	2°52'
EOC.32.21	21	21 ÷ 20,5	43,7	60	2°52'
EOC.32.21.5	21,5	21,5 ÷ 21	43,7	60	2°52'
EOC.32.22	22	22 ÷ 21,5	43,7	60	2°52'
EOC.32.22.5	22,5	22,5 ÷ 22	43,7	60	2°52'
EOC.32.23	23	23 ÷ 22,5	43,7	60	2°52'
EOC.32.23.5	23,5	23,5 ÷ 23	43,7	60	2°52'
EOC.32.24	24	24 ÷ 23,5	43,7	60	2°52'
EOC.32.24.5	24,5	24,5 ÷ 24	43,7	60	2°52'
EOC.32.25	25	25 ÷ 24,5	43,7	60	2°52'
EOC.32.25.5	25,5	25,5 ÷ 25	43,7	60	2°52'
EOC.32.26	26	26 ÷ 25,5	43,7	60	2°52'
EOC.32.26.5	26,5	26,5 ÷ 26	43,7	60	2°52'
EOC.32.27	27	27 ÷ 26,5	43,7	60	2°52'
EOC.32.27.5	27,5	27,5 ÷ 27	43,7	60	2°52'
EOC.32.28	28	28 ÷ 27,5	43,7	60	2°52'
EOC.32.28.5	28,5	28,5 ÷ 28	43,7	60	2°52'
EOC.32.29	29	29 ÷ 28,5	43,7	60	2°52'
EOC.32.29.5	29,5	29,5 ÷ 29	43,7	60	2°52'
EOC.32.30	30	30 ÷ 29,5	43,7	60	2°52'
EOC.32.30.5	30,5	30,5 ÷ 30	43,7	60	2°52'
EOC.32.31	31	31 ÷ 30,5	43,7	60	2°52'
EOC.32.31.5	31,5	31,5 ÷ 31	43,7	60	2°52'
EOC.32.32	32	32 ÷ 31,5	43,7	60	2°52'

PINZE SKS

COLLETS SKS



ULTRA PRECISION

Precisione di rotazione
Concentricity specifications

0.005

CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Sono costruite in acciaio per molle.
- Vengono rettificate sia esternamente che internamente; dopo questa lavorazione, viene eseguita una fase di superfinitura che garantisce un grado di rugosità inferiore a Rz 2,5.
- Adatte per lavorazioni in cui è richiesta è precisione e una rigidità maggiore rispetto alla pinza ER DIN 6499
- Sono utilizzabili solo sul mandrino con sede pinza SKS e apposita ghiera.

CARACTÉRISTIQUES

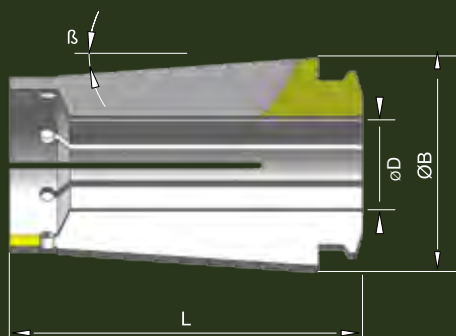
- Sont construites en acier pour ressorts;
- Sont rectifiées soit extérieurement soit intérieurement; après ce travail, une phase de super-finition est exécutée pour garantir un degré de rugosité inférieure au Rz 2,5;
- Sont aptes pour travaux pour lesquels est demandée une précision et une grande rigidité par rapport à la pince ER DIN 6499;
- Sont utilisables sur le mandrin avec siège de la pince SKS et écrou spécial.

TECHNICAL FEATURES

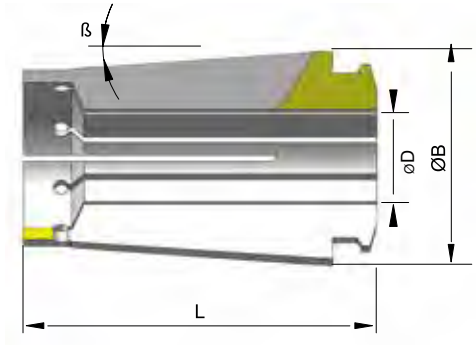
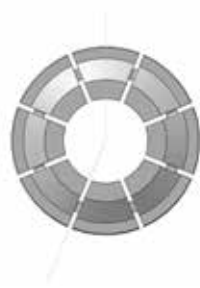
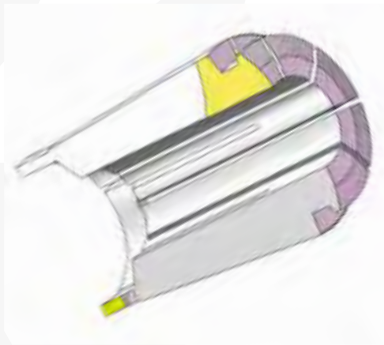
- Built in spring steel
- Grounded both externally and internally; after this operation there is an additional phase of finishing, which guarantees a grade of roughness lower than Rz 2,5
- Suitable for workings of high precision and where it is requested more rigidity than in ER DIN 6499 collet
- Can be used on toolholder with SKS collet seat and provided nut.

TECHNISCHE DATEN

- Sie sind aus Federstahl gemacht
- Sie werden sowohl innen als auch außen geschliffen; nach dieser Verarbeitung wird eine Superfeinbearbeitung durchgeführt, die einen Rauheitsgrad versichert, der niedriger als Rz 2,5 ist.
- Sie sind für Anwendungen empfohlen, in denen eine größere Präzision und Starrheit als die Spannzange ER DIN 6499 erforderlich ist
- Sie können sie auf dem Spannfutter mit Sitz für Spannzange SKS und geeigneter Mutter anwenden.



TIPO/TYPE	D	B	L	L1
SKS 10	2 ÷ 10	13.7	32	26.8
SKS 20	3 ÷ 20	17	54.3	49



SKS 10

NEW

0.005 UP ULTRA PRECISION

Cod.	Ø D	B	L	L1
SKS.10.2	2	13,7	32	26,8
SKS.10.3	3	13,7	32	26,8
SKS.10.4	4	13,7	32	26,8
SKS.10.5	5	13,7	32	26,8
SKS.10.6	6	13,7	32	26,8

Cod.	Ø D	B	L	L1
SKS.10.7	7	13,7	32	26,8
SKS.10.8	8	13,7	32	26,8
SKS.10.9	9	13,7	32	26,8
SKS.10.10	10	13,7	32	26,8

SKS 20

NEW


0.005 UP ULTRA PRECISION

Cod.	Ø D	B	L	L1
SKS.20.3	3	17	54,3	49
SKS.20.4	4	17	54,3	49
SKS.20.5	5	17	54,3	49
SKS.20.6	6	17	54,3	49
SKS.20.7	7	17	54,3	49
SKS.20.8	8	17	54,3	49
SKS.20.9	9	17	54,3	49
SKS.20.10	10	17	54,3	49
SKS.20.11	11	17	54,3	49

Cod.	Ø D	B	L	L1
SKS.20.12	12	17	54,3	49
SKS.20.13	13	17	54,3	49
SKS.20.14	14	17	54,3	49
SKS.20.15	15	17	54,3	49
SKS.20.16	16	17	54,3	49
SKS.20.17	17	17	54,3	49
SKS.20.18	18	17	54,3	49
SKS.20.19	19	17	54,3	49
SKS.20.20	20	17	54,3	49

WWW.SERINEX.IT

serinex

CNC TOOLHOLDER SYSTEM 

GHIERE

CLAMPING NUTS

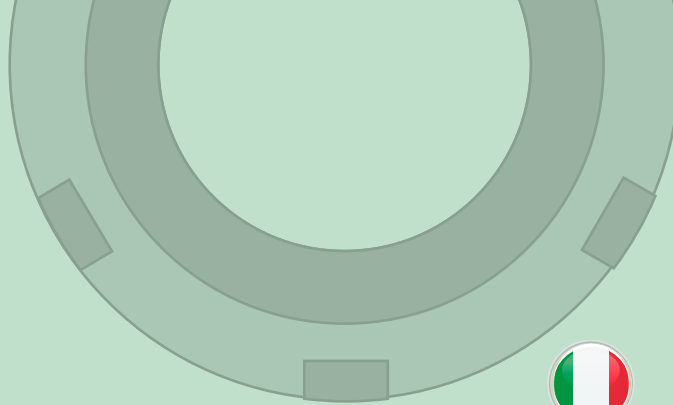
ECROUS

SPANNMUTTERN



WWW.SERINEX.IT

GHIERE CLAMPING NUTS



GHIERE - INTRODUZIONE

Serinx produce ghiera di serraggio ERX DIN6499 standard, mini, esagonali, a sfere con tacche e senza tacche, EOC DIN6388 con sfere e senza sfere, ERXD-ETS, FORMA A con fori e con esagono, ghiera a tenuta del refrigerante standard, ghiera con canali di lubrificazione e chiavi per ghiera, chiavi a settore e chiavi dinamometriche. Tutti i particolari sono prodotti con un elevato standard qualitativo per una massima sicurezza operativa.

Utilizziamo per la nostra produzione di ghiera soltanto barre di acciai legati di altissima qualità provenienti da acciaierie qualificate, fornite con certificati di qualità e controllate singolarmente con unità di controllo ad "ultrasuoni" per scongiurare difetti interni del materiale come cricche o microlesioni. Inoltre tutta la nostra produzione subisce un trattamento termico specifico per ottenere le maggiori doti di resistenza e resilienza a prodotto finito.

CLAMPING NUTS - INTRODUCTION



Serinx produces nuts ERX DIN6499 standard, small-size, hexagonal, ball-bearing, EOC DIN6388 with or without sphere, ERXD-ETS, externally threaded nuts, externally threaded exagonal nuts, sealed nuts, nuts with coolant channel, nuts with seal disks, wrenches for nuts and dynamometric wrenches with an high qualitative standard for a maximum operative safety.

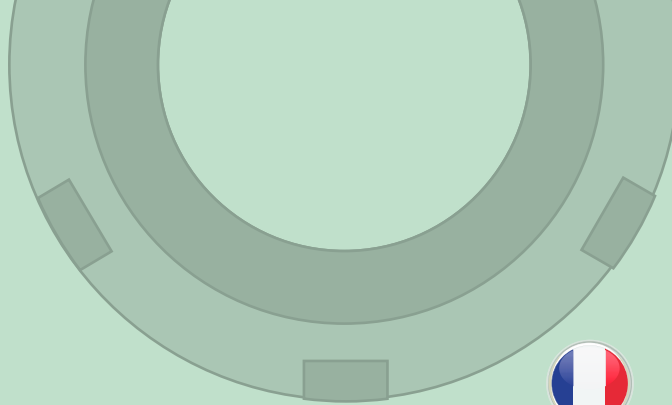
We only use high quality steel for our nuts production, produced in qualified steel plant, provided with quality certifications and individually controlled with ultrasounds in order to avoid internal deficiency of the material. Furthermore, our pull studs production undergoes a specific heat-treatment to obtain superior quality of resistance and resilience

ATTENZIONE / ATTENTION

DATI TECNICI ED IMMAGINI SONO INDICATIVI. SERINEX SI RISERVA DI APPORTARE AGGIORNAMENTI IN QUALSIASI MOMENTO E SENZA OBBLIGO DI PREAVVISO.

TECHNICAL DATA AND DRAWINGS ARE FOR INFORMATION PURPOSES ONLY. SERINEX RESERVES THE RIGHT TO UPDATE SPECS AT ANYTIME AND WITHOUT NOTICE.

ECROUS SPANNMUTTERN



ECROUS - INTRODUCTION

Serinx produit des écrous ERX DIN 4699 standard, mini, hexagonaux, à billes avec ou sans encoches, EOC DIN 6388 avec ou sans billes, ERD ETS, écrous avec filetage externe, écrous avec filetage externe hexagonaux écrous étanche, écrous avec passages de lubrification, clés à écrous, clés à crochet et clés dynamométriques avec un standard de qualité très élevé pour une sécurité opérationnelle maximale.

Pour la production d'écrous nous utilisons des barres d'alliage d'acier de très haute qualité provenant d'aciéries qualifiées, fournies avec certificat de qualité et contrôlées singulièrement avec une unité de contrôle a "ultrasons" pour éviter les défauts internes du matériel telles les fissures et les micro lésions.

En outre, notre production des écrous subit un traitement thermique spécifique pour obtenir une meilleure qualité de résistance et résilience du produit fini.

SPANNMUTTERN- EINFÜHRUNG



Serinx erzeugt ERX Standard-, Mini-, Sechskantmuttern, ERX Kugelnutmuttern mit oder ohne Rasten, EOC mit oder ohne Kugeln, ERXD, A-GESTALT (Muttern mit Außengewinde), mit Löchern bzw. mit Sechskant, Muttern für Inneren, Dichtmuttern für das Kühlmedium, sechskantige Dichtmuttern für das Kühlmedium, Muttern mit Rinnen für die Schmierung, Mutternschlüssel und Hakenschlüssel.

Alle unsere Produkte bieten einen hohen Qualitätsstandard für die höchste Betriebssicherheit. Für unsere Produktion von Spannmuttern verwenden wir nur legierte Stähle höher Qualität, die aus qualifizierten Stahlwerken kommen, mit Qualitätszertifikaten geliefert und mit Ultraschall-Prüfeinheiten einzeln kontrolliert werden, um innere Fehler wie Risse oder Mikrobeschädigungen abzuwenden. Zudem erfährt unsere ganze Produktion von Spannmuttern eine spezifische Wärmebehandlung, um die beste Eigenschaften von FESTIGKEIT und KERBSCHLAGZÄHIGKEIT des Endprodukts zu erzielen.

AVERTISSEMENT / WARNUNG

DONNÉES TECHNIQUES ET PHOTOS SONT À TITRE INDICATIF. SERINEX SE RÉSERVE LE DROIT DE METTRE À JOUR À TOUT MOMENT ET SANS PRÉAVIS.

TECHNISCHE DATEN UND BILDER SIND RICHTWERTE. SERINEX BEHÄLT SICH DAS RECHT VOR, JEDERZEIT UND OHNE VORHERIGE ANKÜNDIGUNG ZU AKTUALISIEREN.



PER PINZE SKS

STANDARD
FOR COLLET SKS
POUR PINCES SKS
SPANNMUTTERN FÜR ZANGEN SKS

124



ECCENTRICHE

STANDARD - MINI
STANDARD ECCENTRIC - MINI ECCENTRIC
EXCENTRIQUES STANDARD - EXCENTRIQUES MINI
EXZENTRISCHE STANDARD - EXZENTRISCHE MINI

126



ECCENTRICHE ESAGONALI

STANDARD - MINI
ECCENTRIC HEXAGONAL STANDARD - ECCENTRIC HEXAGONAL MINI
EXCENTRIQUES HEX STANDARD - EXCENTRIQUES HEX MINI
SECHSKANTIGE EXZENTRISCHE STANDARD - SECHSKANTIGE EXZENTRISCHE MINI

129



PER ALTA VELOCITÀ CONCENTRICHE

STANDARD - MINI
STANDARD CONCENTRIC - MINI CONCENTRIC
CONCENTRIQUES STANDARD - CONCENTRIQUES MINI
FÜR HOHE GLEICHMITTIGE GESCHWINDIGKEIT STANDARD - MINI

131



CONCENTRICHE ESAGONALI

STANDARD - MINI
CONCENTRIC HEXAGONAL STANDARD - CONCENTRIC HEXAGONAL MINI
CONCENTRIQUES HEX STANDARD - CONCENTRIQUES HEX MINI
SECHSKANTIG GLEICHMITTIG STANDARD - SECHSKANTIG GLEICHMITTIG MINI

133



CON CUSCINETTO A SFERA

ECCENTRICHE - CONCENTRICHE
BALL-BEARING CLAMPING NUT ECCENTRIC- CONCENTRIC (WITH AND WITHOUT NOTCH)
EXCENTRIQUES - CONCENTRIQUES (AVEC ET SANS ENCOCHES)
MIT KUGELLAGER EXZENTRISCH - MIT KUGELLAGER GLEICHMITTIG

135



**PER EOC
DIN 6388**

CONCENTRICHE - A SFERA
FOR COLLETS EOC DIN 6388 - CONCENTRIC - BALL BEARING
POUR PINCES EOC DIN6388 - CONCENTRIQUES - AVEC BILLES
FÜR EOC DIN6388

138



PER ERD - ETS

STANDARD - MINI
FOR COLLETS ETS STANDARD - FOR COLLETS ETS MINI
POUR PINCES ETS STANDARD - POUR PINCES ETS MINI
FÜR ERD-ETS

140



**CON
FILETTO
ESTERNO**

FORMA A CON FORI - CON ESAGONO
EXTERNALLY THREADED NUTS - EXTERNALLY THREADED EXAGONAL NUTS
AVEC FIL EXTÉRIEUR AVEC TROUS - AVEC FIL EXTÉRIEUR HEXAGONAL
MIT AUSSENGENWINDE FORM (A) MIT BOHRUNGEN - MIT SECHSKANT

142



**A TENUTA
DEL
REFRIGERANTE**

STANDARD - CON DISCHETTI A TENUTA
STANDARD SEALED NUTS - NUTS WITH SEAL DISKS
ECROU ETANCHE STANDARD
DICHTMUTTERN FÜR KÜHLMITTEL STANDARD - MIT DICHTSCHEIBEN

145



**CON CANALI DI
LUBRIFICAZIONE**

STANDARD
NUTS WITH COOLANT CHANNELS
AVEC CANAL DE LUBRIFICATION
MIT SCHMIERUNGSINNEN STANDARD

148



SENZA TACCHE

ECCENTRICHE - CONCENTRICHE
ECCENTRIC - CONCENTRIC
EXCENTRIQUES - CONCENTRIQUES
OHNE RASTEN EXZENTRISCHE - OHNE RASTEN GLEICHMITTIG

150



**CHIAVI PER
GHIERE**

STANDARD - DIGITALE DINAMOMETRICA
WRENCHES FOR NUT DIN6499 - DYNAMOMETRIC WRENCHES
CLE POUR ECROU DIN6499 - CLE DINAMOMETRIQUES
SCHLÜSSEL FÜR SPANNMUTTERN- SEGMENTSCHLÜSSEL - DYNAMOMETRISCHE

152

ISTRUZIONI / INSTRUCTIONS / INSTRUCTIONS / MONTAGE

ASSEMBLAGGIO DELLA PINZA - FIG.1

- 1- Introdurre la pinza inclinata nella ghiera di serraggio per accoppiare la scanalatura della pinza (A) con la sede eccentrica della ghiera (B).
- 2- Avvitare la ghiera con la pinza sul mandrino.
- 3- Mai chiudere la ghiera senza un utensile nella pinza.
- 4- Montare l'utensile e bloccare la ghiera con l'apposita chiave.

ESTRAZIONE DELLA PINZA

- 5- Spingere sulla parte posteriore della pinza fino a disinnestarla dalla ghiera.

ATTENZIONE - FIG.2

LE PINZE DEVONO ESSERE INSERITE NELLE GHIERE PRIMA DI MONTARLE CON L'UTENSILE SUL MANDRINO.

La mancata osservanza di questa condizione causa il danneggiamento definitivo della pinza e della ghiera di serraggio.

ASSEMBLAGE DE LA PINCE - FIG. 1

- 1- Introduire la pince inclinée dans l'écrou de serrage pour accoupler la cannelure de la pince A, avec le siège excentrique de l'embout (B).
- 2- Visser l'écrou avec la pince sur le mandrin.
- 3- Jamais fermer l'écrou sans un outil dans la pince.
- 4- Moter l'outil et bloquer l'écrou avec la spéciale clé.

EXTRACTION DE LA PINCE

- 5- Pousser sur la partie postérieure de la pince jusqu'à la débrancher de écrou.

ATTENTION - FIG.2

LES PINCES DOIVENT ÊTRE INSÉRÉES DANS LES ÉCROUS AVANT DE LEUR ASSEMBLAGE AVEC L'OUTIL SUR LE MANDRIN.

Cette non-observance aboutit à l'endommagement définitif de la pince et de l'écrou de serrage.

COLLET INSERTING - FIG.1

- 1- Insert the collet into the collet nut, making sure that the collet groove (A) is engaged with the eccentric ring extractor (B).
- 2- Only then mount collet and collet nut into the holder
- 3- Never lock the nut without a tool in the collet.
- 4- Mount tool and lock with appropriate spanner.

COLLET REMOVING

- 5- Push on the back of the collet until it disengages from the clamping nut.

WARNING - FIG.2

ERC COLLETS MUST BE CONNECTED INTO COLLET NUT BEFORE INSERTING TOOL OR ASSEMBLING ONTO CHUCK.

A wrong assembly may severely damage the collet and the clamping nut.

ANWEISUNGEN DER ZANGE – BILD 1

- 1- Die Zange schief in die Spannmutter einsetzen, um die Nut der Zange (A) mit dem exzentrischen Sitz der Spannmutter (B) zu kuppeln.
- 2- Die Spannmutter mit der Zange auf dem Spannfutter anschrauben
- 3- Die Spannmutter nie ohne ein Werkzeug in der Zange schliessen.
- 4- Das Werkzeug montieren und die Spannmutter mit dem Schlüssel blockieren

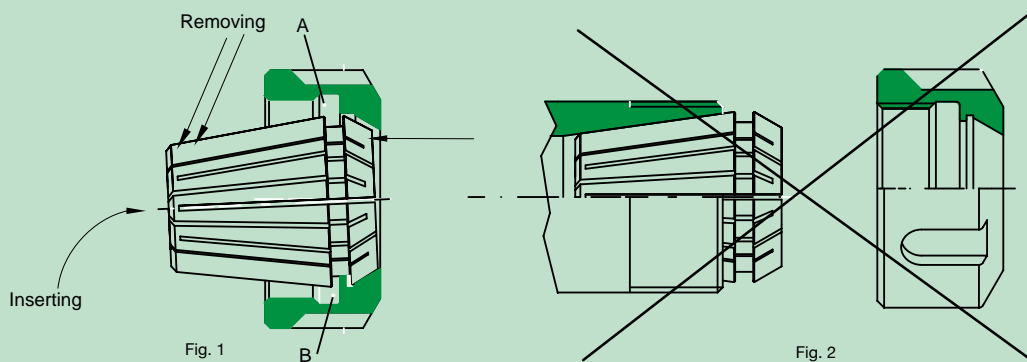
AUSZIEHUNG DER ZANGE

- 5- Auf dem Hinterteil der Zange drücken bis sie von der Spannmutter entfernt ist.

ACHTUNG – BILD 2

DIE ZANGEN MÜSSEN IN DIE SPANNMUTTERN GESETZT WERDEN, BEVOR SIE MIT DEM WERKZEUG AUF DEM SPANNMUTTER MONTIERT WERDEN.

Wenn man diese Bedingung nicht beachtet, wird die Zange und die Spannmutter definitiv beschädigt.



COPPIE DI SERRAGGIO CONSIGLIATE / RECOMMENDED CLAMPING TORQUE COUPLES DE SERRAGE CONSEILLES / RATSAME ANZIEHMOMENTE

ERX STANDARD

GHIERE/NUTS	FILETTO/THREAD	COPPIA MIN./MIN TORQUE	COPPIA MAX./MAX TORQUE
ERX11	M14X0,75	15 Nm	22 Nm
ERX16	M22 x 1,5	50 Nm	70 Nm
ERX20	M25 x1,5	50 Nm	80 Nm
ERX25	M32 x 1,5	90 Nm	130 Nm
ERX32	M40 x 1,5	130 Nm	160 Nm
ERX40	M50 x 1,5	190 Nm	220 Nm
ERX50	M64 x 2	250 Nm	300 Nm



CARATTERISTICHE

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

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.

CARACTÉRISTIQUES

- Ne pas dépasser les couples de serrage conseillés pour ne pas endommager l'écrou, la pince et déformer le siège du mandrin;
- Les maximums valeurs de couple sont à adopter pour maximums diamètres des pinces.

MERKMALE

- Die angegebenen Anziehmomente nicht überschreiten, um die Spannmutter und die Zange nicht zu beschädigen und den Spannfuttersitz nicht zu verformen.
- Die max Anzugsmomente verstehen sich für die max Durchmesser der Zangen.

ERX MINI

GHIERE/NUTS	FILETTO/THREAD	COPPIA MIN./MIN TORQUE	COPPIA MAX./MAX TORQUE
ERX 8 MINI	M10 x 0,75	5 Nm	7 Nm
ERX 11 MINI	M13 x 0,75	15 Nm	20 Nm
ERX 16 MINI	M19 x 1	25 Nm	30 Nm
ERX 20 MINI	M24 x 1	25 Nm	35 Nm
ERX 25 MINI	M30 x 1	35 Nm	40 Nm



EOC

GHIERE/NUTS	FILETTO/THREAD	COPPIA MAX./MAX TORQUE
EOC16	M 33x1,5	85
EOC20	M 42x2	100
EOC25	M 48x2	140
EOC32	M 60x2,5	170



ATTENZIONE

- Non superare le coppie di serraggio consigliate per non danneggiare la ghiera, la pinza e deformare la sede pinza del mandrino.

ATTENTION

- Do not exceed the recommended clamping torque. Excessive tightening torque will damage the chuck, the nut and the collet.

ATTENTION

- Ne pas dépasser les couples de serrage conseillés pour ne pas endommager l'écrou, la pince et déformer le siège du mandrin;

ACHTUNG

- Die angegebenen Anziehmomente nicht überschreiten, um die Spannmutter und die Zange nicht zu beschädigen und den Spannfuttersitz nicht zu verformen.

PER PINZE SKS

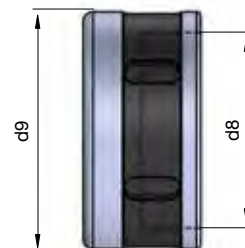
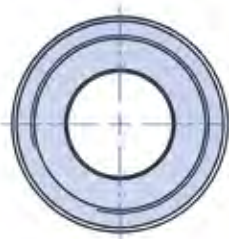
FOR COLLET SKS



STANDARD

STANDARD

NEW



PER PINZA SKS - FOR COLLETS SKS

Cod.	TYPE	d 9	d 8	Cod.	TYPE	d 9	d 8
NUT.10.SKS	SKS10	30	M21,5X1	NUT.20.SKS	SKS20	48,5	M40X1

ECCENTRICHE

ECCENTRIC



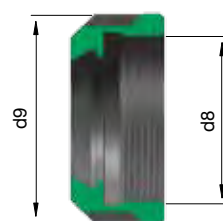
STANDARD

STANDARD



MINI

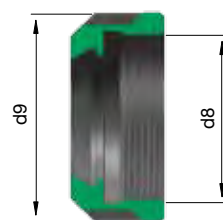
MINI



ECCENTRICA STANDARD - DX - ECCENTRIC STANDARD - RIGHT

Cod.	TYPE	d 9	d 8
NUT.16.ST	ERX16	32	M22x1,5
NUT.20.ST	ERX20	35	M25x1,5
NUT.25.ST	ERX25	42	M32x1,5
NUT.32.ST	ERX32	50	M40x1,5

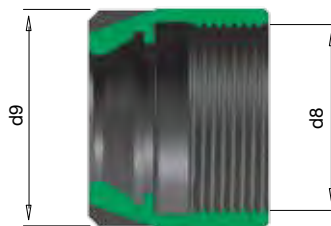
Cod.	TYPE	d 9	d 8
NUT.40.ST	ERX40	63	M50x1,5
NUT.50.ST	ERX50	78	M64x2
NUT.60.ST	ERX60	84	M70x1,5



ECCENTRICA STANDARD - SX - ECCENTRIC STANDARD - LEFT

Cod.	TYPE	d 9	d 8
NUT.16.ST.L	ERX16	32	M22x1,5 sin
NUT.20.ST.L	ERX20	35	M25x1,5 sin
NUT.25.ST.L	ERX25	42	M32x1,5 sin

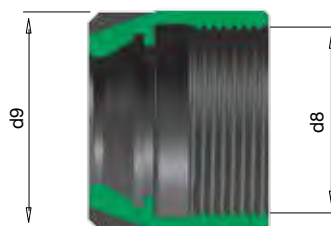
Cod.	TYPE	d 9	d 8
NUT.32.ST.L	ERX32	50	M40x1,5 sin
NUT.40.ST.L	ERX40	63	M50x1,5 sin



ECCENTRICA MINI - DX - ECCENTRIC STANDARD - RIGHT

Cod.	TYPE	d 9	d 8
NUT.8.MINI	ERX8M	12	M10x0,75
NUT.11.MINI	ERX11M	16	M13x0,75
NUT.16.MINI	ERX16M	22	M19x1

Cod.	TYPE	d 9	d 8
NUT.20.MINI	ERX20M	28	M24x1
NUT.25.MINI	ERX25M	35	M30x1



ECCENTRICA MINI - SX - ECCENTRIC STANDARD - LEFT

Cod.	TYPE	d 9	d 8
NUT.11.MINI.L	ERX11M	16	M13x0,75 sin
NUT.16.MINI.L	ERX16M	22	M19x1 sin

Cod.	TYPE	d 9	d 8
NUT.20.MINI.L	ERX20M	28	M24x1 sin
NUT.25.MINI.L	ERX25M	35	M30x1 sin

ECCESTRICHE ESAGONALI

ECCESTRIC HEXAGONAL



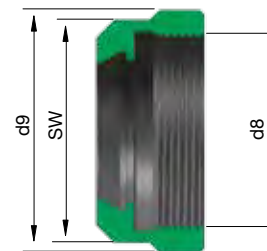
STANDARD

STANDARD



MINI

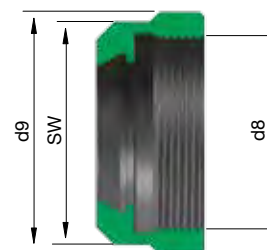
MINI



ECCENTRICA ESAGONALE STANDARD - DX - *ECCENTRIC HEXAGONAL*

Cod.	TYPE	d 9	d 8	SW
NUT.11.EX	ERX11SE	19	M14x0,75	17
NUT.16.EX	ERX16SE	28	M22x1,5	25

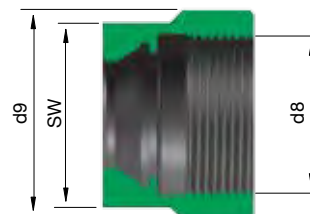
Cod.	TYPE	d 9	d 8	SW
NUT.20.EX	ERX20SE	34	M25x1,5	30



ECCENTRICA ESAGONALE STANDARD -SX - *ECCENTRIC HEXAGONAL*

Cod.	TYPE	d 9	d 8	SW
NUT.11.EX.L	ERX11SEL	19	M14x0,75 sin	17
NUT.16.EX.L	ERX16SEL	28	M22x1,5 sin	25

Cod.	TYPE	d 9	d 8	SW
NUT.20.EX.L	ERX20SEL	34	M25x1,5 sin	30



ECCENTRICA ESAGONALE MINI - DX - *ECCENTRIC HEXAGONAL MINI*

Cod.	TYPE	d 9	d 8	SW
NUT.11.MINI.EX	ERX11MSE	16	M13x0,75	14
NUT.16.MINI.EX	ERX16MSE	25	M19x1	22

Cod.	TYPE	d 9	d 8	SW
NUT.20.MINI.EX	ERX20MSE	30	M24x1	27

PER ALTA VELOCITÀ CONCENTRICHE

CONCENTRIC



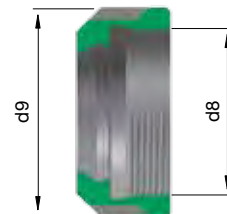
STANDARD

STANDARD



MINI

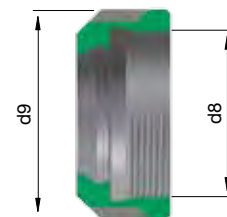
MINI



CONCENTRICA STANDARD - DX - CONCENTRIC STANDARD

Cod.	TYPE	d 9	d 8
NUT.16.C	ERX16	32	M22x1,5
NUT.20.C	ERX20	35	M25x1,5
NUT.25.C	ERX25	42	M32x1,5

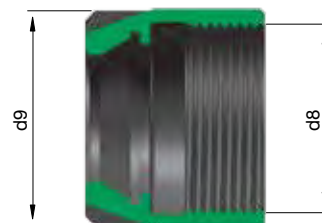
Cod.	TYPE	d 9	d 8
NUT.32.C	ERX32	50	M40x1,5
NUT.40.C	ERX40	63	M50x1,5



CONCENTRICA STANDARD - SX - CONCENTRIC STANDARD

Cod.	TYPE	d 9	d 8
NUT.16.C.L	ERX16	32	M22x1,5 sin
NUT.20.C.L	ERX20	35	M25x1,5 sin
NUT.25.C.L	ERX25	42	M32x1,5 sin

Cod.	TYPE	d 9	d 8
NUT.32.C.L	ERX32	50	M40x1,5 sin
NUT.40.C.L	ERX40	63	M50x1,5 sin



CONCENTRICA MINI - DX - CONCENTRIC MINI - RIGHT

Cod.	TYPE	d 9	d 8
NUT.16.MINI.C	ERX16M	22	M19x1
NUT.20.MINI.C	ERX20M	28	M24x1

Cod.	TYPE	d 9	d 8
NUT.25.MINI.C	ERX25M	35	M30x1

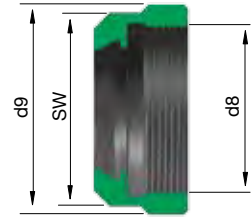
CONCENTRICHE ESAGONALI

CONCENTRIC HEXAGONAL



STANDARD

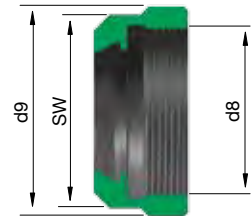
STANDARD



CONCENTRICA ESAGONALE STANDARD - DX - CONCENTRIC HEXAGONAL

Cod.	TYPE	d 9	d 8	SW
NUT.16.EX.C	ERX16	28	M22x1,5	25
NUT.20.EX.C	ERX20	34	M25x1,5	30

Cod.	TYPE	d 9	d 8	SW
NUT.25.EX.C	ERX25	42	M32x1,5	38



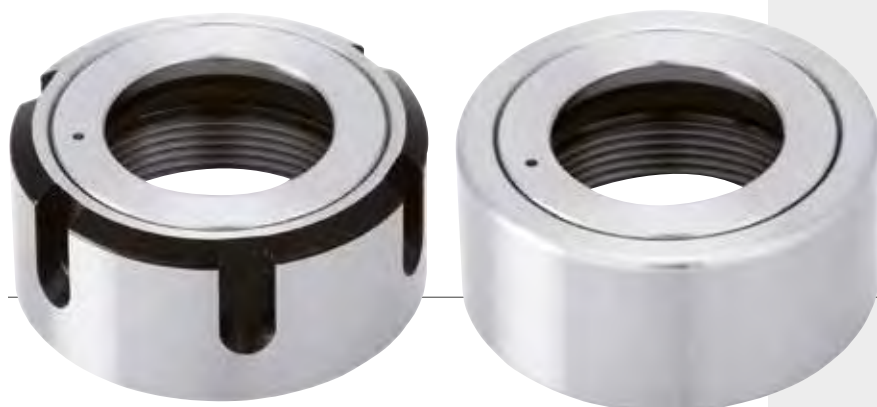
CONCENTRICA ESAGONALE STANDARD -SX - CONCENTRIC HEXAGONAL

Cod.	TYPE	d 9	d 8	SW
NUT.16.EX.C.L	ERX16 sx	28	M22x1,5 sin	25

Cod.	TYPE	d 9	d 8	SW
NUT.20.EX.C.L	ERX20 sx	34	M25x1,5 sin	30

CUSCINETTO A SFERA

BALL-BEARING NUTS



ECCENTRICHE CON TACCHE

ECCENTRIC WITH NOTCHES



CONCENTRICHE CON TACCHE

CONCENTRIC WITH NOTCHES



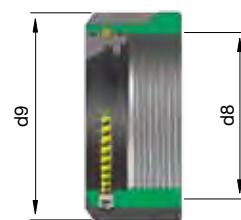
**ECCENTRICHE SENZA
TACCHE**

ECCENTRIC WITHOUT NOTCHES



**CONCENTRICHE SENZA
TACCHE**

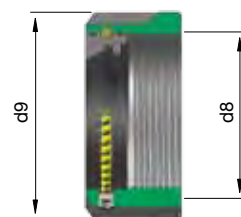
CONCENTRIC WITHOUT NOTCHES



A SFERA STANDARD ECCENTRICHE - DX - BALL-BEARING NUTS ECCENTRIC

Cod.	TYPE	d 9	d 8
NUT.16.BB.ST	ERX16	32	M22x1,5
NUT.20.BB.ST	ERX20	35	M25x1,5
NUT.25.BB.ST	ERX25	42	M32x1,5
NUT.32.BB.ST	ERX32	50	M40x1,5

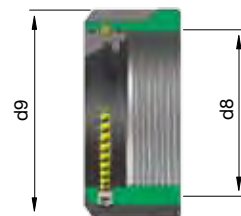
Cod.	TYPE	d 9	d 8
NUT.40.BB.ST	ERX40	63	M50x1,5
NUT.50.BB.ST	ERX50	78	M64x2
NUT.60.BB.ST	ERX60	83	M70x1,5
NUT.90.BB.ST	ERX90	132	M110x1,5



A SFERA STANDARD ECCENTRICHE - SX - BALL-BEARING NUTS ECCENTRIC

Cod.	TYPE	d 9	d 8
NUT.32.BB.ST.L	ERX32	50	M40x1,5 sin

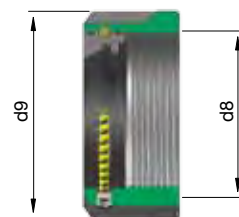
Cod.	TYPE	d 9	d 8
NUT.40.BB.ST.L	ERX40	63	M50x1,5 sin



A SFERA STANDARD CONCENTRICA - DX - BALL-BEARING NUTS CONCENTRIC

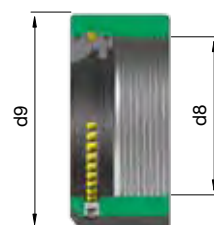
Cod.	TYPE	d 9	d 8
NUT.20.BB.C	ERX20	35	M25x1,5
NUT.25.BB.C	ERX25	42	M32x1,5

Cod.	TYPE	d 9	d 8
NUT.32.BB.C	ERX32	50	M40x1,5
NUT.40.BB.C	ERX40	63	M50x1,5



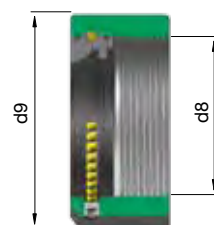
A SFERA STANDARD CONCENTRICA -SX - BALL-BEARING NUTS CONCENTRIC

Cod.	TYPE	d 9	d 8	Cod.	TYPE	d 9	d 8
NUT.32.BB.C.L	ERX32	50	M40x1,5 sin	NUT.40.BB.C.L	ERX40	63	M50x1,5 sin



A SFERA SENZA TACCHE ECCENTRICHE - DX - ECCENTRIC WITHOUT NOTCHES

Cod.	TYPE	d 9	d 8	Cod.	TYPE	d 9	d 8
NUT.16.BB.NF.ST	ERX16	32	M22x1,5	NUT.32.BB.NF.ST	ERX32	50	M40x1,5
NUT.20.BB.NF.ST	ERX20	35	M25x1,5	NUT.40.BB.NF.ST	ERX40	63	M50x1,5
NUT.25.BB.NF.ST	ERX25	42	M32x1,5				



A SFERA SENZA TACCHE CONCENTRICHE - DX - CONCENTRIC WITHOUT NOTCHES

Cod.	TYPE	d 9	d 8	Cod.	TYPE	d 9	d 8
NUT.16.BB.NF.C	ERX16	32	M22x1,5	NUT.32.BB.NF.C	ERX32	50	M40x1,5
NUT.20.BB.NF.C	ERX20	35	M25x1,5	NUT.40.BB.NF.C	ERX40	63	M50x1,5
NUT.25.BB.NF.C	ERX25	42	M32x1,5				

PER EOC DIN 6388

FOR EOC DIN 6388



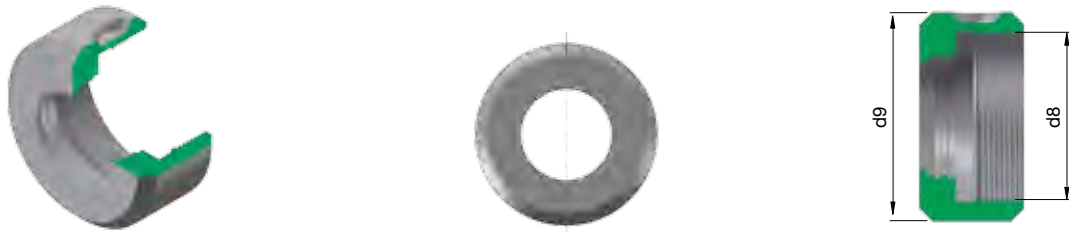
CONCENTRICHE

CONCENTRIC



A SFERA

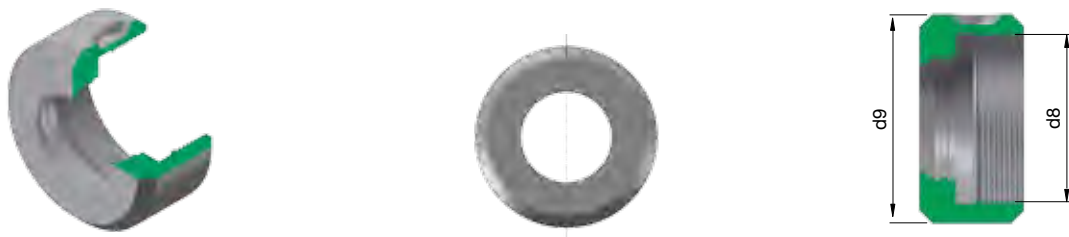
BALL-BEARING



PER EOC DIN 6388 CONCENTRICA -DX - FOR EOC DIN 6388 CONCENTRIC

Cod.	TYPE	d 9	d 8
NUT.16.EOC.ST	EOC16	43	M33x1,5
NUT.25.EOC.ST	EOC25	60	M48x2

Cod.	TYPE	d 9	d 8
NUT.32.EOC.ST	EOC32	72	M60x2,5



PER EOC DIN 6388 CONCENTRICA -SX - FOR EOC DIN 6388 CONCENTRIC

Cod.	TYPE	d 9	d 8
NUT.25.EOC.ST.L	EOC25	60	M48x2 sin



PER EOC DIN 6388 CON SFERE - DX - FOR EOC DIN 6388 BALL-BEARING

Cod.	TYPE	d 9	d 8
NUT.16.EOC.BB	EOC16	43	M33x1,5
NUT.25.EOC.BB	EOC25	60	M48x2

Cod.	TYPE	d 9	d 8
NUT.32.EOC.BB	EOC32	72	M60x2,5

PER ERD - ETS

FOR ERD - ETS



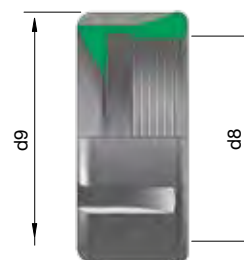
STANDARD

STANDARD



MINI

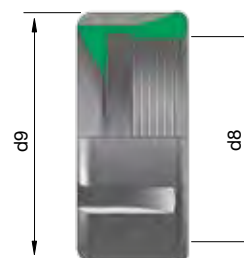
MINI



PER ERD-ETS STANDARD - DX - FOR ETS STANDARD - RIGHT

Cod.	TYPE	d 9	d 8
NUT.16.ERD	ERXD16	32	M22x1,5
NUT.20.ERD	ERXD20	35	M25x1,5
NUT.25.ERD	ERXD25	42	M32x1,5

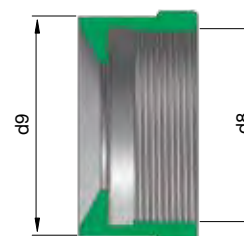
Cod.	TYPE	d 9	d 8
NUT.32.ERD	ERXD32	50	M40x1,5
NUT.40.ERD	ERXD40	63	M50x1,5



PER ERD-ETS STANDARD - SX - FOR ETS STANDARD - LEFT

Cod.	TYPE	d 9	d 8
NUT.32.ERD.L	ERXD32	50	M40x1,5 sin

Cod.	TYPE	d 9	d 8
NUT.40.ERD.L	ERXD40	63	M50x1,5 sin



PER ERD-ETS MINI - FOR ETS MINI

Cod.	TYPE	d 9	d 8
NUT.16.ERD.MINI	ERXD16M	24	M19x1
NUT.20.ERD.MINI	ERXD20M	30,5	M24x1

Cod.	TYPE	d 9	d 8
NUT.25.ERD.MINI	ERXD25M	36	M30x1

CON FILETTO ESTERNO

EXTERNALLY THREADED NUTS



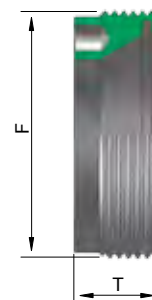
FORMA A CON FORI

EXTERNALLY THREADED NUTS



CON ESAGONO

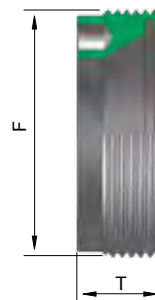
*EXTERNALLY THREADED
EXAGONAL NUTS*



CON FORI ECCENTRICA -DX - EXTERNALLY THREADED ECCENTRIC - RIGHT

Cod.	TYPE	F	T
NUT.11.A	ERX11A	M18x1	6
NUT.16.A	ERX16A	M24x1	8
NUT.20.A	ERX20A	M28x1,5	11

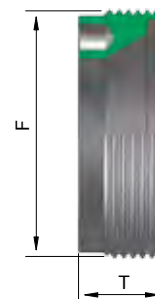
Cod.	TYPE	F	T
NUT.25.A	ERX25A	M32x1,5	12
NUT.32.A	ERX32A	M40x1,5	14
NUT.40.A	ERX40A	M50x1,5	18



CON FORI CONCENTRICA -DX - EXTERNALLY THREADED CONCENTRIC - RIGHT

Cod.	TYPE	F	T
NUT.16.A.C	ERX16A	M24x1	8
NUT.20.A.C	ERX20A	M28x1,5	11

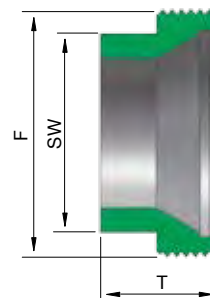
Cod.	TYPE	F	T
NUT.25.A.C	ERX25A	M32x1,5	12
NUT.32.A.C	ERX32A	M40x1,5	14



CON FORI CONCENTRICA - SX - EXTERNALLY THREADED CONCENTRIC - LEFT

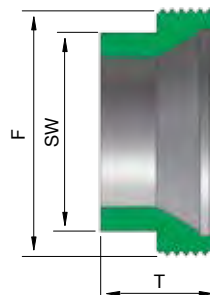
Cod.	TYPE	F	T
NUT.16.A.C.L	ERX16A	M24x1 sin	8
NUT.20.A.C.L	ERX20A	M28x1,5 sin	11

Cod.	TYPE	F	T
NUT.25.A.C.L	ERX25A	M32x1,5 sin	12
NUT.32.A.C.L	ERX32A	M40x1,5 sin	14



FORMA A CON ESAGONO ECCENTRICA - *EXTERNALLY THREADED EXAGONAL ECCENTRIC*

Cod.	TYPE	F	T	SW	Cod.	TYPE	F	T	SW
NUT.11.A.EX	ERX11AEX	M18x1	9	15	NUT.25.A.EX	ERX25AEX	M32x1,5	16,5	27
NUT.16.A.EX	ERX16AEX	M24x1	12	19	NUT.32.A.EX	ERX32AEX	M40x1,5	19	32
NUT.20.A.EX	ERX20AEX	M28x1,5	13	22	NUT.40.A.EX	ERX40AEX	M50x1,5	17	42



FORMA A CON ESAGONO CONCENTRICA - *EXTERNALLY THREADED EXAGONAL CONCENTRIC*

Cod.	TYPE	F	T	SW
NUT.16.A.C.EX	ERX16AEX	M24X1	12	19

A TENUTA DEL REFRIGERANTE

SEALED NUTS



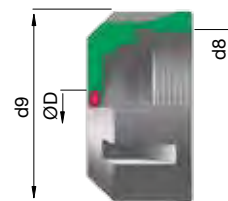
STANDARD

STANDARD SEALED NUTS



A TENUTA DISCHI DI TENUTA DEL REFRIGERANTE

NUTS WITH SEAL DISKS

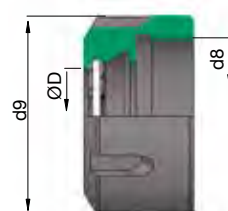


A TENUTA DEL REFRIGERANTE - SEALED NUTS

Cod.	TYPE	d 9	d 8	ØD
NUT.32.RF.4	ERX32	50	M40x1,5	4
NUT.32.RF.5	ERX32	50	M40x1,5	5
NUT.32.RF.6	ERX32	50	M40x1,5	6
NUT.32.RF.7	ERX32	50	M40x1,5	7
NUT.32.RF.8	ERX32	50	M40x1,5	8
NUT.32.RF.9	ERX32	50	M40x1,5	9
NUT.32.RF.10	ERX32	50	M40x1,5	10
NUT.32.RF.11	ERX32	50	M40x1,5	11
NUT.32.RF.12	ERX32	50	M40x1,5	12

Cod.	TYPE	d 9	d 8	ØD
NUT.32.RF.13	ERX32	50	M40x1,5	13
NUT.32.RF.14	ERX32	50	M40x1,5	14
NUT.32.RF.15	ERX32	50	M40x1,5	15
NUT.32.RF.16	ERX32	50	M40x1,5	16
NUT.32.RF.17	ERX32	50	M40x1,5	17
NUT.32.RF.18	ERX32	50	M40x1,5	18
NUT.32.RF.19	ERX32	50	M40x1,5	19
NUT.32.RF.20	ERX32	50	M40x1,5	20

NEW

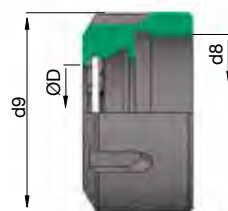


MINI CON DISCHI DI TENUTA - NUTS MINI WITH SEAL DISKS

Cod.	TYPE	d 9	d 8	DISCO ASSOCIABILE
NUT.16.M.DT	ER16M	22	M19x1	DS16
NUT.20.M.DT	ER20M	28	M24x1	DS20

Cod.	TYPE	d 9	d 8	DISCO ASSOCIABILE
NUT.25.M.DT	ER25M	35	M30x1	DS25

NEW



STANDARD CON DISCHI DI TENUTA - NUTS STANDARD WITH SEAL DISKS

Cod.	TYPE	d 9	d 8	DISCO ASSOCIABILE
NUT.25.DT	ER25	42	M32x1,5	DS25
NUT.32.DT	ER32	50	M40x1,5	DS32

Cod.	TYPE	d 9	d 8	DISCO ASSOCIABILE
NUT.40.DT	ER40	63	M50x1,5	DS40

NEW



DISCHI A TENUTA - SEALING DISK

Cod.	TYPE	RANGE D	d
DS16	ER16	D4 ÷ D10	13
DS20	ER20	D4 ÷ D13	16
DS25	ER25	D4 ÷ D16	21

Cod.	TYPE	RANGE D	d
DS32	ER32	D4 ÷ D20	27
DS40	ER40	D4 ÷ D26	33

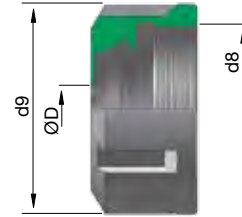
CON CANALI DI LUBRIFICAZIONE

NUTS WITH COOLANT CHANNELS



STANDARD

STANDARD



CANALI DI LUBRIFICAZIONE - COOLANT GROVES

Cod.	TYPE	d 9	d 8	ØD
NUT.32.CC.4	ERX32	50	M40x1,5	4
NUT.32.CC.5	ERX32	50	M40x1,5	5
NUT.32.CC.6	ERX32	50	M40x1,5	6
NUT.32.CC.7	ERX32	50	M40x1,5	7
NUT.32.CC.8	ERX32	50	M40x1,5	8
NUT.32.CC.9	ERX32	50	M40x1,5	9
NUT.32.CC.10	ERX32	50	M40x1,5	10
NUT.32.CC.11	ERX32	50	M40x1,5	11
NUT.32.CC.12	ERX32	50	M40x1,5	12

Cod.	TYPE	d 9	d 8	ØD
NUT.32.CC.13	ERX32	50	M40x1,5	13
NUT.32.CC.14	ERX32	50	M40x1,5	14
NUT.32.CC.15	ERX32	50	M40x1,5	15
NUT.32.CC.16	ERX32	50	M40x1,5	16
NUT.32.CC.17	ERX32	50	M40x1,5	17
NUT.32.CC.18	ERX32	50	M40x1,5	18
NUT.32.CC.19	ERX32	50	M40x1,5	19
NUT.32.CC.20	ERX32	50	M40x1,5	20

PER ALTA VELOCITÀ SENZA TACCHE

NUTS WITHOUT NOTCHES



ECCENTRICHE

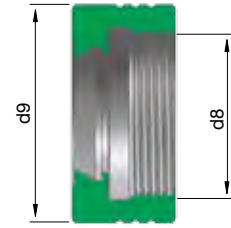
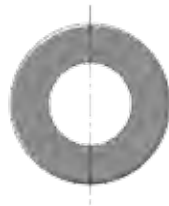
ECCENTRIC



CONCENTRICHE

CONCENTRIC

NEW

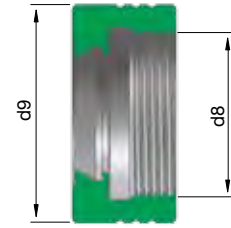


SENZA TACCHE ECCENTRICA - DX - ECCENTRIC WITHOUT NOTCHES - RIGHT

Cod.	TYPE	d 9	d 8
NUT.16.NF.ST	ERX16	32	M22x1,5
NUT.20.NF.ST	ERX20	35	M25x1,5
NUT.25.NF.ST	ERX25	42	M32x1,5

Cod.	TYPE	d 9	d 8
NUT.32.NF.ST	ERX32	50	M40x1,5
NUT.40.NF.ST	ERX40	63	M50x1,5

NEW

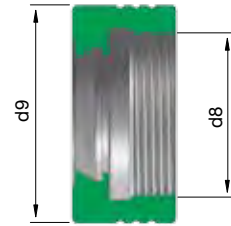
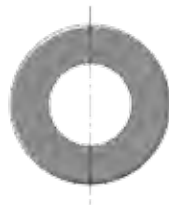


SENZA TACCHE CONCENTRICHE - DX - CONCENTRIC WITHOUT NOTCHES - RIGHT

Cod.	TYPE	d 9	d 8
NUT.25.NF.C	ERX25	42	M32x1,5
NUT.32.NF.C	ERX32	50	M40x1,5

Cod.	TYPE	d 9	d 8
NUT.40.NF.C	ERX40	63	M50x1,5

NEW



SENZA TACCHE CONCENTRICHE - SX - CONCENTRIC WITHOUT NOTCHES - LEFT

Cod.	TYPE	d 9	d 8
NUT.16.NF.C.L	ERX16	32	M22X1,5sin

Cod.	TYPE	d 9	d 8
NUT.32.NF.C.L	ERX32	50	M40X1,5sin

CHIAVI PER GHIERE

WRENCHES FOR NUTS



PER GHIERA ER DIN6499
FOR CLAMPING NUT DIN6499



GHIERA ESAGONALE
FOR HEXAGONAL NUT



A SETTORE
FOR CLAMPING NUT EOC DIN6388



DINAMOMETRICA
DYNAMOMETRIC



PER GHIERA ER DIN 6499 MINI - FOR MINI CLAMPING NUT DIN 6499

Cod.	TYPE	Cod.	TYPE
WR.8.M	ERX8M	WR.20.M	ERX20M
WR.11.M	ERX11M	WR.25.M	ERX25M
WR.16.M	ERX16M		



PER GHIERA ER DIN6499 STANDARD - FOR STANDARD CLAMPING NUT DIN 6499

Cod.	TYPE	Cod.	TYPE
WR.16.ST	ERX16	WR.32.ST	ERX32
WR.20.ST	ERX20	WR.40.ST	ERX40
WR.25.ST	ERX25	WR.50.ST	ERX50



PER GHIERA ESAGONALE - FOR HEXAGONAL CLAMPING NUT

Cod.	TYPE	Cod.	TYPE
WR.11.EX	ER11EX	WR.20.EX	ER20EX
WR.16.EX	ER16EX	WR.25.EX	ER25EX

Fig. 1



Fig. 2

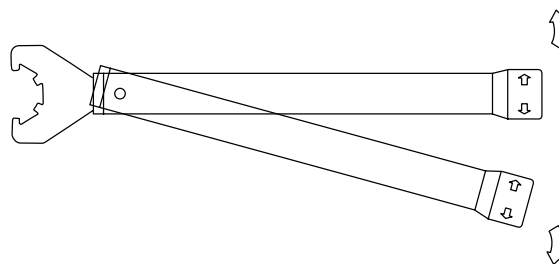


A SETTORE PER PINZA EOC DIN 6388 - FOR CLAMPING NUT EOC DIN6388

Cod.	TYPE	FIGURA
WR.16.EOC	CHIAVE PER GHIERA EOC 16	1

Cod.	TYPE	FIGURA
WR.25.EOC	CHIAVE PER GHIERA EOC 25	2

NEW

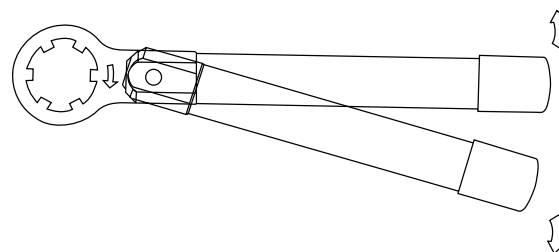


DINAMOMETRICHE STANDARD - STANDARD DYNAMOMETRIC

Cod.	TYPE	COPPIA SERRAGGIO
WR.DIN.16	CHIAVE DINAMOMETRICA PER ER16	23-35 45-55
WR.DIN.20	CHIAVE DINAMOMETRICA PER ER20	30-40 60-70
WR.DIN.25	CHIAVE DINAMOMETRICA PER ER25	45-55 80-90

Cod.	TYPE	COPPIA SERRAGGIO
WR.DIN.32	CHIAVE DINAMOMETRICA PER ER32	65-70 120-130
WR.DIN.40	CHIAVE DINAMOMETRICA PER ER40	110-120 190-200

NEW



DINAMOMETRICHE MINI - MINI DYNAMOMETRIC

Cod.	TYPE
WR.DIN.8.MINI	CHIAVE DINAMOMETRICA PER ER8MINI
WR.DIN.11.MINI	CHIAVE DINAMOMETRICA PER ER11MINI
WR.DIN.16.MINI	CHIAVE DINAMOMETRICA PER ER16MINI

Cod.	TYPE
WR.DIN.20.MINI	CHIAVE DINAMOMETRICA PER ER20MINI
WR.DIN.25.MINI	CHIAVE DINAMOMETRICA PER ER25MINI

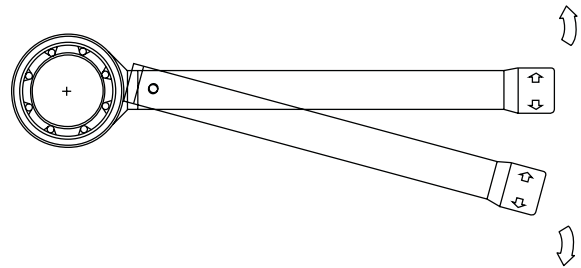
NEW



CHIAVI A RULLI STANDARD - ROLLER BEARING STANDARD WRENCH

Cod.	TYPE	H MIN	H MAX
WR.RUL.16	PER GHIERE ER16 CON E SENZA TACCHE	210	300
WR.RUL.20	PER GHIERE ER20 CON E SENZA TACCHE	210	300
WR.RUL.25	PER GHIERE ER25 CON E SENZA TACCHE	285	400
WR.RUL.32	PER GHIERE ER32 CON E SENZA TACCHE	285	413
WR.RUL.40	PER GHIERE ER40 CON E SENZA TACCHE	310	440

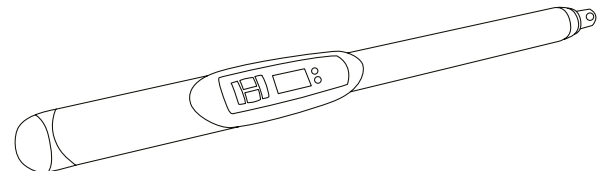
NEW



CHIAVI A RULLI DINAMOMETRICHE - ROLLER BEARING DYNAMOMETRIC WRENCH

Cod.	TYPE	Cod.	TYPE
WR.RUL.DIN.16	PER GHIERE ER16 CON E SENZA TACCHE	WR.RUL.DIN.32	PER GHIERE ER32 CON E SENZA TACCHE
WR.RUL.DIN.20	PER GHIERE ER20 CON E SENZA TACCHE	WR.RUL.DIN.40	PER GHIERE ER40 CON E SENZA TACCHE
WR.RUL.DIN.25	PER GHIERE ER25 CON E SENZA TACCHE		

NEW



CHIAVE DIGITALE DINAMOMETRICA - DIGITAL DYNAMOMETRIC WRENCH

Cod.	TYPE	CAPACITÀ
WR.DIG	CHIAVE DIGITALE DINAMOMETRICA	20-200 NM

NEW



Fig.1



Fig.2



Fig.3




Fig.4

INSERTI PER CHIAVE DINAMOMETRICA - INTERCHANGEABLE HEADS

Cod.	TYPE	FIG.
INS.DIG.ER16M	PER GHIERA ER16 MINI	1
INS.DIG.ER20M	PER GHIERA ER20 MINI	1
INS.DIG.ER25M	PER GHIERA ER25 MINI	1
INS.DIG.ER16.EX	PER GHIERA ER16 ESAGONALE	2
INS.DIG.ER20.EX	PER GHIERA ER20 ESAGONALE	2
INS.DIG.ER25	PER GHIERA ER25 STANDARD	3
INS.DIG.ER32	PER GHIERA ER32 STANDARD	3
INS.DIG.ER40	PER GHIERA ER40 STANDARD	3
INS.DIG.ER32NF	PER GHIERA ER32 SENZA TACCHE	4

serinex

CNC TOOLHOLDER SYSTEM 

CODOLI

PULL STUDS

TIRETTES

ANZUGSBOLZEN



WWW.SERINEX.IT

CODOLI PULL STUDS

CODOLI - INTRODUZIONE



Serinx produce codoli di aggancio di tutte le tipologie: BT, DIN, ISO, CAT-METRIC, HURCO, JIS 6339, OTT, CHIRON, C.B.FERRARI, KITAMURA, MITSUI, codoli di aggancio per macchine per la lavorazione del legno e della plastica, oltre che speciali a disegno. È possibile, inoltre, fornire i codoli di aggancio con uno specifico trattamento antiruggine.

Tutti i codoli sono prodotti con un elevato standard qualitativo per una massima sicurezza operativa.

Utilizziamo per la nostra produzione di codoli per mandrini soltanto barre di acciai legati di altissima qualità, provenienti da acciaierie qualificate, fornite con certificati di qualità e controllate singolarmente con unità di controllo ad "ultrasuoni" per scongiurare difetti interni del materiale come cricche o microlesioni.

Inoltre tutta la nostra produzione subisce un trattamento termico specifico per ottenere le maggiori doti di resistenza e resilienza a prodotto finito.

Tutte le lavorazioni meccaniche sono eseguite nella nostra moderna unità produttiva di Annone Brianza, situato a breve distanza da Lecco, in un comparto di oltre 7000 mq. dotato di un ampio parco macchine con una produzione giornaliera elevata.

Nella nostra unità produttiva, utilizziamo solo macchine CNC di ultima generazione;

inoltre tutte le fasi della lavorazione vengono accuratamente controllate dai nostri tecnici, in ottemperanza alle procedure dettate dalla certificazione ISO 9001: 2008, oltre che verificate dalla nostra più che ventennale esperienza.

Nel nostro magazzino automatico sono sempre disponibili tutte le tipologie di codoli più usati in tutte le tipologie in commercio.

PULL STUDS - INTRODUCTION



Serinx produces every kind of pull studs: BT, DIN, ISO, CAT-METRIC, HURCO, JIS 6339, OTT, CHIRON, C.B.FERRARI, KITAMURA, MITSUI, wood-working machines pull stud and pull stud for adaptors). Is also possible to supply the pull studs with a specific anti rusting treatment.

Every pull stud follows a high-quality standard to pursue the maximum operative safety.

For our production we only use high-quality steel bar, produced in qualified steel plant, provided with quality certifications and individually controlled with ultrasounds in order to avoid internal deficiency of the material.

Furthermore, our pull studs production undergoes a specific heat-treatment to obtain superior quality of resistance and resilience.

All the mechanical workings are performed in our modern division in Annone Brianza, not far from Lecco, in a place of more than 7000 mq., supplied with a wide rolling stock with a high daily production.

In our productive unit, we only use latest generation CNC machines; furthermore every working phase is carefully controlled by our technicians, following the procedures of the certification ISO 9001: 2008, and verified by our twenty-years experience.

In our automatic storehouse every kind of pull studs is always available, in every typology on the market.

ATTENZIONE / ATTENTION

DATI TECNICI ED IMMAGINI SONO INDICATIVI. SERINEX SI RISERVA DI APPORTARE AGGIORNAMENTI IN QUALSIASI MOMENTO E SENZA OBBLIGO DI PREAVVISO.

TECHNICAL DATA AND DRAWINGS ARE FOR INFORMATION PURPOSES ONLY. SERINEX RESERVES THE RIGHT TO UPDATE SPECS AT ANYTIME AND WITHOUT NOTICE.

TIRETTES ANZUGSBOLZEN



TIRETTES - INTRODUCTION

Serinx produit des tirettes de toute typologie: BT, DIN, ISO, CAT-METRIC, HURCO, JIS6339, OTT, CHIRON, C.B.FERRARI, KITAMURA, MITSUI, tirettes pour machines de travail du bois et tirettes pour mandrins). En outre, il est possible de fournir les tirettes avec un traitement spécifique anti-rouille.

Toutes les tirettes sont produites avec un standard qualitatif très élevé pour une sécurité opérationnelle maximale.

Pour la production de tirettes pour mandrins nous n'utilisons que des barres d'alliages d'aciers de très haute qualité, provenant d'aciéries qualifiées, fournies avec certificat de qualité et soumises à une unité de contrôle à "ultrasons" pour éviter les défauts internes du matériel telles les fissures et les micro lésions.

En outre, toute notre production de tirettes subit un traitement thermique spécifique pour obtenir une qualité élevée de résistance et résilience du produit fini.

Toutes les fabrications mécaniques sont effectuées au sein de notre unité moderne de production d'Annone Brianza, sise a une courte distance de Lecco, dans un compartiment de plus de 7000 mq, doté d'un ample parc de machines avec une production journalière élevée.

Dans l'unité de production "tirettes", nous n'utilisons que des machines-outils à CNC de dernière génération;

en outre, toutes les phases de fabrications sont soigneusement contrôlées par nos techniciens, en respectant les procédures dictées par la certification ISO 9001: 2008, en plus des vérifications soutenues par nos 20 années d'expérience.

Notre magasin automatique dispose toujours de tous les types de tirettes les plus utilisées de tous les types en commerce.



ANZUGSBOLZEN - EINFÜHRUNG

Serinx produziert Anzugsbolzen aller Sorten: BT, DIN, ISO, CAT-METRIC, HURCO, JIS 6339, OTT, CHIRON, C.B.FERRARI, KITAMURA, MITSUI, Anzugsbolzen für Werkzeugmaschinen für die Holzbearbeitung und Anzugsbolzen für Futter).

Alle Anzugsbolzen sind mit einem Qualitätsstandard für die höchste Betriebssicherheit hergestellt.

In der Produktion von Anzugsbolzen für Futter verwenden wir nur legierte Stähle höher Qualität, die aus qualifizierten Stahlwerken kommen, mit Qualitätszertifikaten geliefert und mit Ultraschall-Prüfeinheiten einzeln kontrolliert werden, um innere Fehler wie Risse oder Mikrobeschädigungen abzuwenden.

Zudem erfährt unsere ganze Produktion von Anzugsbolzen eine spezifische Wärmebehandlung, um die beste Eigenschaften von Festigkeit und Kerbschlagzähigkeit des Endprodukts zu erzielen.

Alle mechanische Verarbeitungen werden bei unserem modernen Produktionsbetrieb von Annone Brianza durchgeführt, der sich in einer Abteilung von mehr als 7000 Quadratmetern in der Umgebung von Lecco befindet und über einen breiten Maschinenpark mit einer hohen täglichen Produktion ausgestattet ist.

In der Abteilung für die Anzugsbolzen, benutzen wir die modernsten CNC Maschinen; außerdem werden alle Verarbeitungsphasen ebenso von unseren Technischen sorgfältig kontrolliert, indem sie die Vorgänge der ISO 9001:2008 Zertifizierung beachten, wie von unserer zwanzigjährigen Erfahrung garantiert.

In unserem automatischen Warenlager sind immer alle auf dem Markt existierenden Sorten Anzugsbolzen verfügbar.

AVERTISSEMENT / WARNUNG

DONNÉES TECHNIQUES ET PHOTOS SONT À TITRE INDICATIF. SERINEX SE RÉSERVE LE DROIT DE METTRE À JOUR À TOUT MOMENT ET SANS PRÉAVIS.

TECHNISCHE DATEN UND BILDER SIND RICHTWERTE. SERINEX BEHÄLT SICH DAS RECHT VOR, JEDERZEIT UND OHNE VORHERIGE ANKÜNDIGUNG ZU AKTUALISIEREN.

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CARATTERISTICHE / SPECIFICATION / CARACTÉRISTIQUES/ TECHNISCHE DATEN

CARATTERISTICHE TECNICHE

- Costruiti in acciaio speciale con elevata resistenza;
- Sono cementati, temprati, rinvenuti, sabbiati e bruniti;
- Vengono rettificati su tutto il profilo di aggancio e sede del mandrino con rettifiche a CNC provviste di posizionatore e misuratore in process.

TECHNICAL FEATURES

- Built with special steel;
- Carburized, hardened, tempered, sandblasted and burnished;
- Grinding on the adaptor profile, with rebore CNC supplied with positioning device and indicator in process.

CARACTÉRISTIQUES

- Fabriquées en acier de cémentation et d'alliage;
- Cémentées, Trempées, revenues, décapées et bruniées;
- Elles sont rectifiées sur tout le profil de fixation et l'emplacement du mandrin avec des rectifications à CNC pourvues de positionneur e mesureur in process.

TECHNISCHE DATEN

- Sie werden aus Einsatzstahl gemacht mit legiert.
- Sie werden gestählt, angelassen, sandgestrahlt und brüniert;
- Sie werden auf dem ganzen Anzugsprofil und Spannfuttersitz mit CNC Schleifmaschinen geschliffen, die mit Stell- und Messgerät versehen sind.

ISTRUZIONI E PRECAUZIONI / INSTRUCTIONS AND PRECAUTIONS INSTRUCTIONS ET PRÉCAUTIONS / ANLEITUNGEN UND VORSICHTSMASSNAHMEN

ISTRUZIONI E PRECAUZIONI

- Per il corretto montaggio si consiglia di utilizzare colla frena filetti.
- È pericoloso usare codoli di aggancio che non garantiscano la qualità del materiale e del trattamento termico; la rottura di un codolo rovina il cono della macchina ed è pericoloso per gli operatori.
- Gli sforzi di chiusura dei codoli sono i seguenti:
M12: 2 ÷ 2,4 Kgm - M16: 6 ÷ 7,8 Kgm - M24: 20 ÷ 24 Kgm

INSTRUCTIONS AND PRECAUTIONS

- For correct fitting we recommend the use of a thread locking adhesive.
- It is dangerous to use pull studs where the quality of the materials and heat treatment are not guaranteed. The breaking of a pull stud ruins the cone of the machine and is dangerous for the operator.
- Pull studs should be torqued as follows:
M12: 2 ÷ 2,4 Kgm - M16: 6 ÷ 7,8 Kgm - M24: 20 ÷ 24 Kgm

INSTRUCTIONS ET PRÉCAUTIONS D'UTILISATION

- Pour un correct assemblage il est conseillé d'utiliser de la colle freine-filets.
- Il est dangereux d'utiliser des tirettes qu'ils ne garantissent pas la qualité du matériel et du traitement thermique; l'endommagement d'un tirette abîme le cône de la machine et devient dangereux pour les opérateurs.
- Les efforts de fermeture des tirettes sont les suivants:
M12: 2 ÷ 2,4 Kgm - M16: 6 ÷ 7,8 Kgm - M24: 20 ÷ 24 Kgm

ANLEITUNGEN UND VORSICHTSMASSNAHMEN

- Für eine korrekte Montage empfiehlt man ein Gewindbremser Klebstoff.
- Es ist gefährlich Anzugsbolzen zu verwenden, die eine Materialqualität und eine thermische Behandlung nicht garantieren; der Bruch eines Anzugsbolzen beschädigt den Maschinenkonus und ist gefährlich für die Arbeiter.
- Die Verschlusskräfte der Anzugsbolzen sind folgende:
M12: 2 ÷ 2,4 Kgm - M16: 6 ÷ 7,8 Kgm - M24: 20 ÷ 24 Kgm

CARATTERISTICHE COSTRUTTIVE / MANUFACTURING SPECIFICATIONS / CARACTÉRISTIQUES CONSTRUCTIVES / BAULICHE DATEN

CARATTERISTICHE COSTRUTTIVE

- Costruiti con acciaio speciale con elevata resistenza agli urti.
- Cementati, temprati, rinvenuti con durezza HRC 56÷60; filettatura protetta dalla cementazione, durezza HRC 45.
- Superfici funzionali rettificate.
- Forniti con O-ring di tenuta sulla guida.

MANUFACTURING SPECIFICATIONS

- Manufactured with special steel with maximum impact strength.
- Casehardened and tempered to HRC 56 ÷ 60; the thread is soft HRC 45.
- Functional surfaces completely ground.
- Supplied with O-ring on the guide.

CARACTÉRISTIQUES CONSTRUCTIVES

- Les tirettes sont construits avec acier spécial avec résistance élevée aux chocs.
- Cimentés, trempés, revenu avec dureté HRC 56÷60; filetage protégé par la cimentation, dureté HRC45.
- Les Surfaces fonctionnelles sont rectifiées.
- Les tirettes sont fournis avec joint-torique de tenue sur le guide.

BAULICHE DATEN

- Sie werden aus Sonderstahl gebaut mit hoher Stossfestigkeit;
- Einsatzgehärtet, gehärtet, angelassen mit Härte HRC56÷60; Gewinde geschützt vom Einsatzhärten, Härte HRC45
- Funktionelle Oberflächen geschliffen;
- Die O-ringe auf der Führung werden mitgeliefert

CODOLI MAS 403 BT

PULL STUDS MAS 403 BT



SENZA FORO

WITHOUT BORE



FORATO

WITH BORE



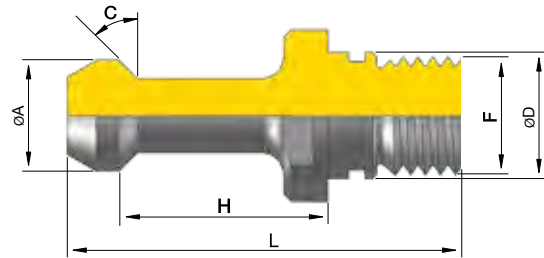
CON DOPPIO OR

WITH DOUBLE O-RING



PROLUNGATO

EXTENDED FOR MT SLEEVES

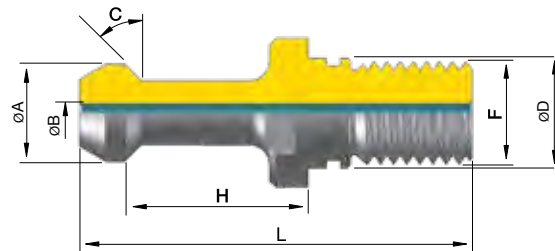
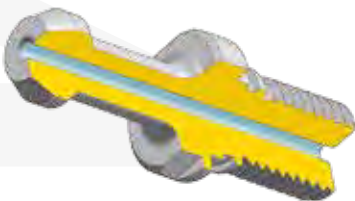


MAS 403 - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	NOTE
PS.BT30.1	M12	45°	12,5	11	18	43	BT30	Without oring
PS.BT30.2	M12	60°	12,5	11	18	43	BT30	Without oring
PS.BT30.3	M12	90°	12,5	11	18	43	BT 30	Without oring
PS.BT40.1	M16	45°	17	15	28	60	BT 40	-

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	NOTE
PS.BT40.2	M16	60°	17	15	28	60	BT 40	-
PS.BT40.3	M16	90°	17	15	28	60	BT 40	-
PS.BT50.1	M24	45°	25	23	35	85	BT 50	-
PS.BT50.2	M24	60°	25	23	35	85	BT 50	-
PS.BT50.3	M24	90°	25	23	35	85	BT 50	-

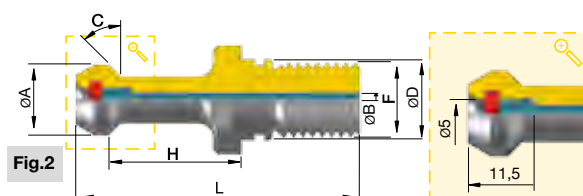
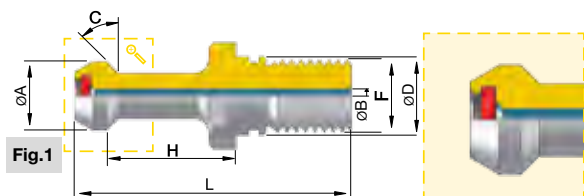


MAS 403 - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.BT30.1F	M12	45°	12,5	11	18	43	2,5	BT30	Without oring
PS.BT30.2F	M12	60°	12,5	11	18	43	2,5	BT30	Without oring
PS.BT30.3F	M12	90°	12,5	11	18	43	2,5	BT30	Without oring
PS.BT40.1F	M16	45°	17	15	28	60	3	BT 40	-

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.BT40.2F	M16	60°	17	15	28	60	3	BT 40	-
PS.BT40.3F	M16	90°	17	15	28	60	3	BT 40	-
PS.BT50.1F	M24	45°	25	23	35	85	6	BT 50	-
PS.BT50.2F	M24	60°	25	23	35	85	6	BT 50	-
PS.BT50.3F	M24	90°	25	23	35	85	6	BT 50	-

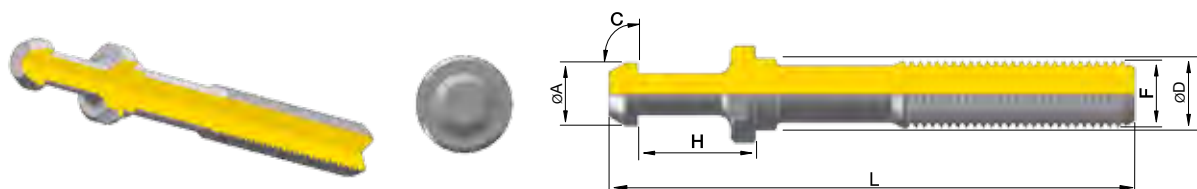


CODOLI CON DOPPIO O-RING PER REFRIGERANTE AD ALTA PRESSIONE
SEALED PULL STUDS WITH DOUBLE O-RING FOR HIGH PRESSURE COOLANT

CON DOPPIO OR

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.BT40.1F20R	M16	45°	17	15	28	60	3	BT 40	Fig. 1
PS.BT40.1F20R5	M16	45°	17	15	28	60	3	BT 40	Fig. 2
PS.BT40.2F20R	M16	60°	17	15	28	60	3	BT 40	Fig. 1

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.BT50.1F20R	M24	45°	25	23	35	85	6	BT 50	Fig. 1
PS.BT50.2F20R	M24	60°	25	23	35	85	6	BT 50	Fig. 1
PS.BT50.3F20R	M24	90°	25	23	35	85	6	BT 50	Fig. 1



MAS 403 BT - PROLUNGATI - EXTENDED FOR MT SLEEVES

PROLUNGATO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.BT.PR.M10.1	M10	45°	17	15	28	120	BT 40	2
PS.BT.PR.M12.1	M12	45°	17	15	28	120	BT 40	3
PS.BT.PR.M16.1	M16	45°	17	15	28	125	BT 40	4
PS.BT.PR.M10.2	M10	60°	17	15	28	120	BT 40	2
PS.BT.PR.M12.2	M12	60°	17	15	28	120	BT 40	3

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.BT.PR.M16.2	M16	60°	17	15	28	125	BT 40	4
PS.BT.PR.M10.3	M10	90°	17	15	28	120	BT 40	2
PS.BT.PR.M12.3	M12	90°	17	15	28	120	BT 40	3
PS.BT.PR.M16.3	M16	90°	17	15	28	125	BT 40	4

CODOLI DIN 69872

PULL STUDS DIN 69872



SENZA FORO

WITHOUT BORE



FORATO

WITH BORE



SEMIFORATO

WITH HALF BORE



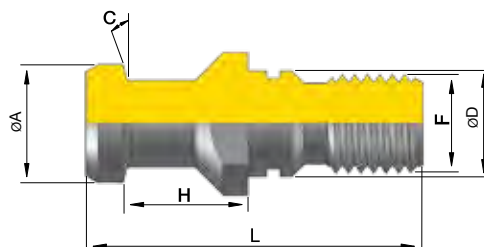
CON DOPPIO OR

WITH DOUBLE O-RING



PROLUNGATO

EXTENDED FOR MT SLEEVES

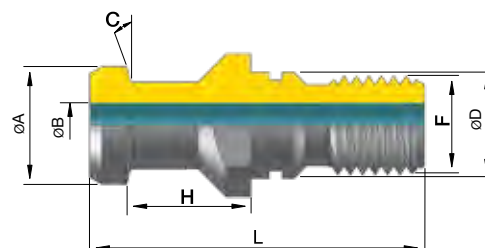
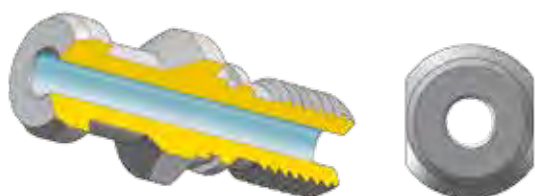


DIN 69872 A - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	NOTE
PS.DIN30SF	M12	15°	13	13	19	44	DIN 30	Without oring
PS.DIN40SF	M16	15°	17	19	20	54	DIN 40	With oring

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	NOTE
PS.DIN45SF	M20	15°	21	23	23	65	DIN 45	With oring
PS.DIN50SF	M24	15°	25	28	25	74	DIN 50	With oring

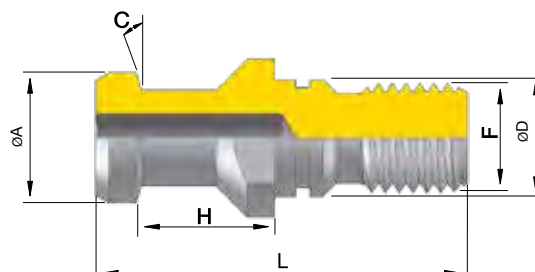


DIN 69872 A - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.DIN30A	M12	15°	13	13	19	44	2,5	DIN 30	Without oring
PS.DIN30.F4	M12	15°	13	13	19	44	4	DIN 30	Without oring
PS.DIN40A	M16	15°	17	19	20	54	7	DIN 40	With oring

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.DIN45A	M20	15°	21	23	23	65	9,5	DIN 45	With oring
PS.DIN50A	M24	15°	25	28	25	74	11,5	DIN 50	With oring
PS.DIN50A.F6	M24	15°	25	28	25	74	6	DIN 50	Without oring

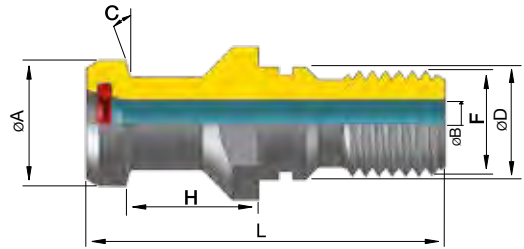
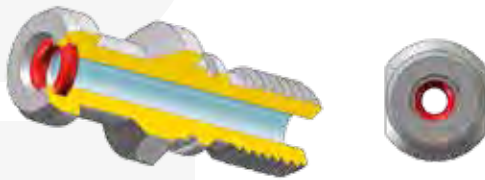


DIN 69872 B - SEMIFORATI - WITH HALF BORE

SEMIFORATO

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.DIN40B	M16	15°	17	19	20	54	7	DIN 40	With oring

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.DIN50B	M24	15°	25	28	25	74	11,5	DIN 50	With oring

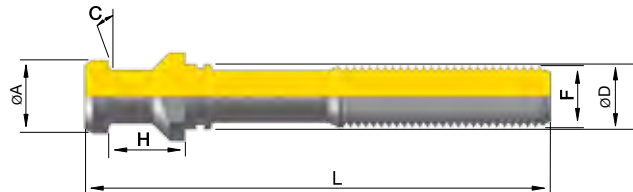
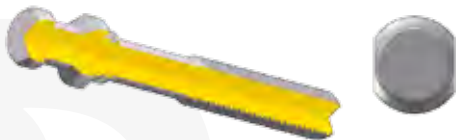


CODOLI CON DOPPIO O-RING PER REFRIGERANTE AD ALTA PRESSIONE SEALED PULL STUDS WITH DOUBLE O-RING FOR HIGH PRESSURE COOLANT

CON DOPPIO OR

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK
PS.DIN40.20R	M16	15°	17	19	20	54	7	DIN 40
PS.DIN40.20R-BT	M16	15°	17	19	23	54	7	DIN 40

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK
PS.DIN50.20R	M24	15°	25	28	25	74	11,5	DIN 50



DIN 69872 - PROLUNGATI - EXTENDED FOR MT SLEEVES

PROLUNGATO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.DIN.PR.M10.1	M10	15°	17	19	20	111	DIN 40	2
PS.DIN.PR.M12.1	M12	15°	17	19	20	116	DIN 40	3

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.DIN.PR.M16.1	M16	15°	17	19	20	121	DIN 40	4

CODOLI ISO 7388/2A - 7388/2B

PULL STUDS ISO 7388/2A - 7388/2B



SENZA FORO

WITHOUT BORE



FORATO

WITH BORE



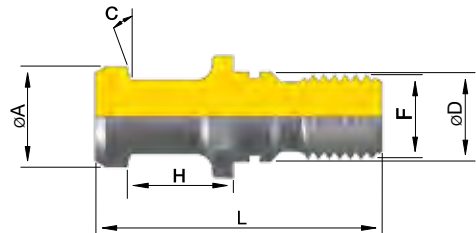
PROLUNGATO

EXTENDED FOR MT SLEEVES



CON SEDE CHIP

WITH ID-HOLE

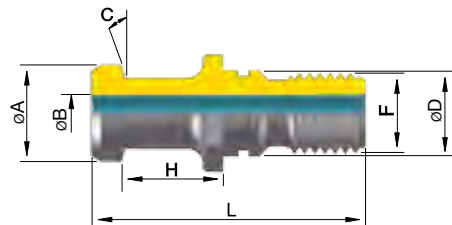


ISO 7388/2 A - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	NOTE
PS.TC30A.SF	M12	15°	13	12	19	44	DIN 30	Without oring
PS.TC40A.SF	M16	15°	17	19	20	54	DIN 40	With oring

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	NOTE
PS.TC50A.SF	M24	15°	25	28	25	74	DIN 50	With oring

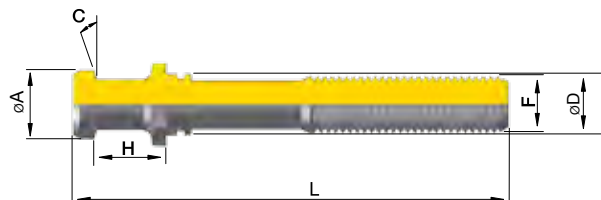
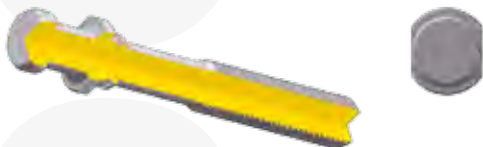


ISO 7388/2 A - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.TC30A	M12	15°	13	12	19	44	4	DIN 30	Without oring
PS.TC40A	M16	15°	17	19	20	54	7	DIN 40	With oring

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	NOTE
PS.TC50A	M24	15°	25	28	25	74	11,5	DIN 50	With oring

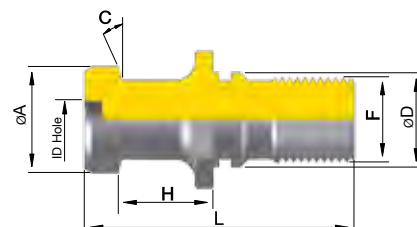


ISO 7388/2 A - PROLUNGATI - EXTENDED FOR MT SLEEVES

PROLUNGATO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.TC.PR.M10.1	M10	15°	17	19	20	111	DIN 40	2
PS.TC.PR.M12.1	M12	15°	17	19	20	116	DIN 40	3

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.TC.PR.M16.1	M16	15°	17	19	20	121	DIN 40	4

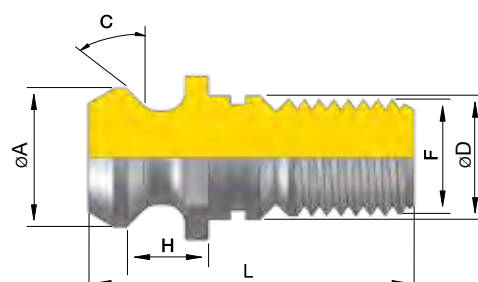


ISO 7388/2 A - CON SEDE CHIP - WITH ID HOLE

CON SEDE CHIP

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	ID HOLE	TOOL SHANK
PS.TC40BF	M16	15°	17	19	20	54	10x4,7	DIN 40
PS.TC50BF1	M24	15°	25	28	25	74	12x8,4	DIN 50

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	ID HOLE	TOOL SHANK
PS.TC50.BF	M24	15°	25	28	25	74	10x4,7	DIN 50

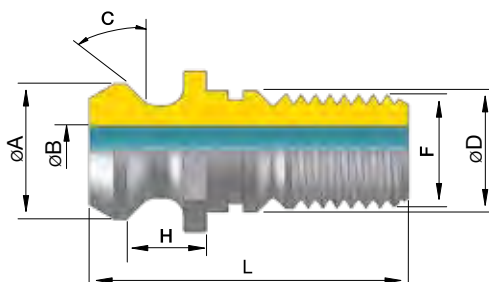
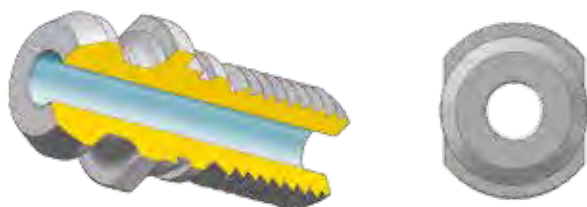


ISO 7388/2 B - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	TOOL SHANK	NOTE
PS.CAT30A.SF	M12	45°	12,5	13,35	8,15	34	DIN 30	Without oring
PS.CAT40A.SF	M16	45°	17	18,95	11,15	44,5	DIN 40	With oring

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	TOOL SHANK	NOTE
PS.CAT50A.SF	M24	45°	25	29,1	17,95	65,5	DIN 50	With oring

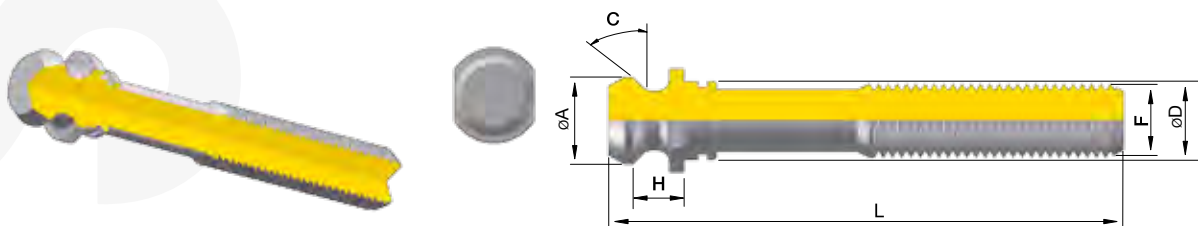


ISO 7388/2 B - FORATO - WITH COOLANT BORE

FORATO

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	$\varnothing B$	TOOL SHANK	NOTE
PS.CAT30A	M12	45°	13	13,35	8,15	34	4	DIN 30	Without oring
PS.CAT40A	M16	45°	17	18,95	11,15	44,5	7	DIN 40	With oring

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	$\varnothing B$	TOOL SHANK	NOTE
PS.CAT50A	M24	45°	25	29,1	17,95	65,5	11,5	DIN 50	With oring



ISO 7388/2 B - PROLUNGATI - EXTENDED FOR MT SLEEVES

PROLUNGATO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.CAT.PR.M10.1	M10	45°	17	18,95	11,15	101,4	DIN 40	2
PS.CAT.PR.M12.1	M12	45°	17	18,95	11,15	106,4	DIN 40	3

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.CAT.PR.M16.1	M16	45°	17	18,95	11,15	111,4	DIN 40	4

CODOLI MAZAK

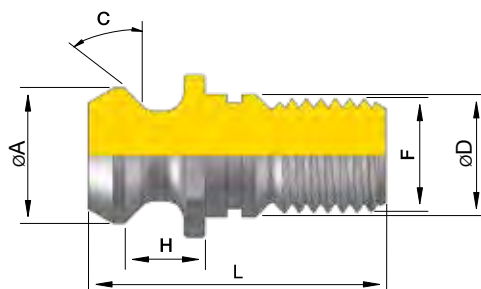
PULL STUDS MAZAK



SENZA FORO
WITHOUT BORE



FORATO
WITH BORE

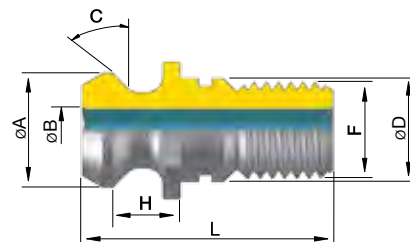
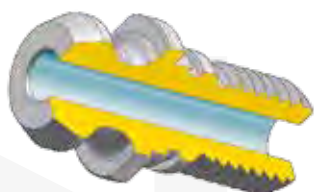


MAZAK - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	TAPER
PS.CAT40.MZ1SF	M16	45°	17	18,8	11,17	41,25	DIN 40	Cat Metric

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	TAPER
PS.CAT40.MZ2SF	M16	45°	17	18,8	14,02	44,1	BT 40	BT



MAZAK - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	TAPER
PS.CAT40.MZ1	M16	45°	17	18,8	11,17	41,25	7	DIN 40	Cat Metric
PS.CAT40.MZ2	M16	45°	17	18,8	14,02	44,1	7	BT 40	BT

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK	TAPER
PS.CAT50.MZ3	M24	45°	25	28,95	17,58	65,2	10	BT 50	BT
PS.CAT50.MZ4	M24	45°	25	28,95	17,78	65,4	10	DIN 50	Cat Metric

CODOLI HURCO

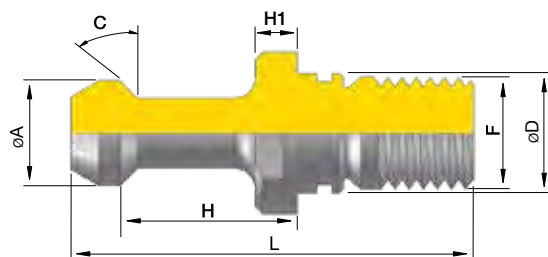
PULL STUDS HURCO



SENZA FORO
WITHOUT BORE



FORATO
WITH BORE

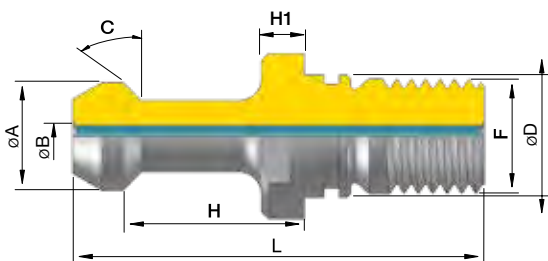
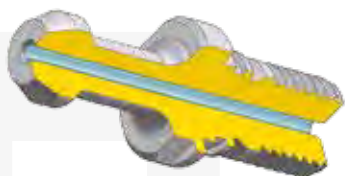


HURCO - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	H1	TOOL SHANK
PS.BT40-HC1.SF	M16 45°	17	15	25,15	57,15	6	BT 40	
PS.BT40-HC1.1.SF	M16 45°	17	15	25,15	57,15	3	BT 40	
PS.BT40-HC2.SF	M16 60°	17	15	25,15	57,15	6	BT 40	

Cod.	F	C	ØD	ØA	H	L	H1	TOOL SHANK
PS.BT40-HC2.1.SF	M16 60°	17	15	25,15	57,15	3	BT 40	
PS.BT40-HC3.SF	M16 90°	17	15	25,15	57,15	6	BT 40	
PS.BT40-HC3.1.SF	M16 90°	17	15	25,15	57,15	3	BT 40	



HURCO - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	C	ØD	ØA	H	L	H1	ØB	TOOL SHANK
PS.BT40-HC1	M16 45°	17	15	25,15	57,15	6	3	BT 40	
PS.BT40-HC1.1	M16 45°	17	15	25,15	57,15	6	4,5	BT 40	
PS.BT40-HC1.2	M16 45°	17	15	25,15	57,15	3	3	BT 40	
PS.BT40-HC1.F4	M16 45°	17	15	25,15	57,15	6	4	BT 40	
PS.BT40-HC2	M16 60°	17	15	25,15	57,15	6	3	BT 40	

Cod.	F	C	ØD	ØA	H	L	H1	ØB	TOOL SHANK
PS.BT40-HC2.2	M16 60°	17	15	25,15	57,15	3	3	BT 40	
PS.BT40-HC2.F4	M16 60°	17	15	25,15	57,15	6	4	BT 40	
PS.BT40-HC3	M16 90°	17	15	25,15	57,15	6	3	BT 40	
PS.BT40-HC3.2	M16 90°	17	15	25,15	57,15	3	3	BT 40	

CODOLI JIS-B 6339

PULL STUDS JIS-B 6339



SENZA FORO

WITHOUT BORE



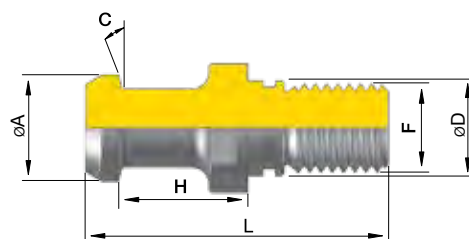
FORATO

WITH BORE



PROLUNGATO

EXTENDED FOR MT SLEEVES

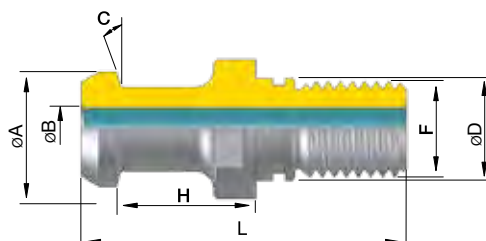
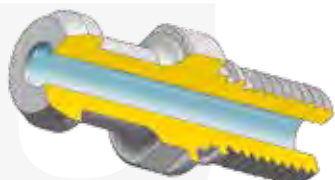


JIS-B 6339 - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	NOTE
PS.JS30SF	M12	15°	12,5	12	18,4	43	BT 30	Without oring
PS.JS40SF	M16	15°	17	19	23	54	BT40	-

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	NOTE
PS.JS50SF	M24	15°	25	28	25	74	BT 50	-

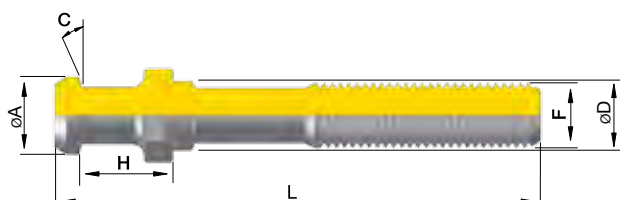


JIS-B 6339 - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK
PS.JS30-3	M12	15°	12,5	12	18,4	43	3	BT 30
PS.JS40-3	M16	15°	17	19	23	54	3	BT 40
PS.JS40-4	M16	15°	17	19	23	54	4	BT 40
PS.JS40-5	M16	15°	17	19	23	54	5	BT 40

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK
PS.JS40-554	M16	15°	17	19	23	54	5,5-4	BT 40
PS.JS40-6	M16	15°	17	19	23	54	6	BT 40
PS.JS40-7	M16	15°	17	19	23	54	7	BT 40
PS.JS50-10	M24	15°	25	28	25	74	10	BT 50



JIS-B 6339 - PROLUNGATI - EXTENDED FOR MT SLEEVES

PROLUNGATO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.JS.PR.M10.1	M10	15°	17	19	23	114	BT 40	2
PS.JS.PR.M12.1	M12	15°	17	19	23	114	BT40	3

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK	MORSE TAPER
PS.JS.PR.M16.1	M16	15°	17	19	23	119	BT 40	4

CODOLI DIN 69871 OTT/TC

PULL STUDS DIN 69871 OTT/TC



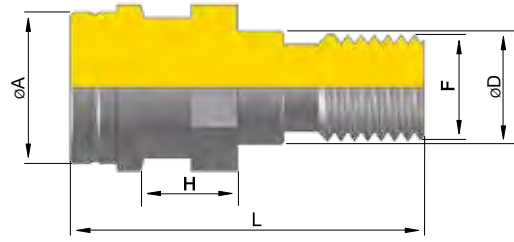
SENZA FORO

WITHOUT BORE



FORATO

WITH BORE

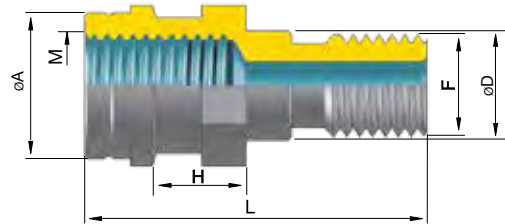
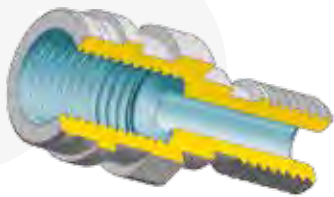


OTT/TC FOR DIN69871 TOOHOLDERS - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	$\varnothing D$	$\varnothing A$	H	L	TOOL SHANK
PS.OTT40TC.SF	M16	17	25	14,52	53,1	DIN 40

Cod.	F	$\varnothing D$	$\varnothing A$	H	L	TOOL SHANK
PS.OTT50TC.SF	M24	25	39,6	14	65	DIN 50



OTT/TC FOR DIN69871 TOOHOLDERS - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	$\varnothing D$	$\varnothing A$	H	L	M	TOOL SHANK
PS.OTT40TC	M16	17	25	14,52	53,1	M16	DIN 40

Cod.	F	$\varnothing D$	$\varnothing A$	H	L	M	TOOL SHANK
PS.OTT50TC	M24	25	39,6	14	65	-	DIN 50

CODOLI MAS 403 OTT/BT

PULL STUDS MAS 403 OTT/BT



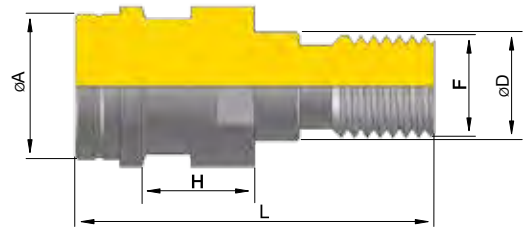
SENZA FORO

WITHOUT BORE



FORATO

WITH BORE

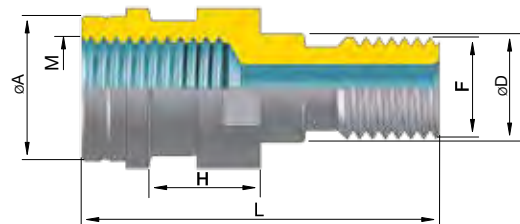
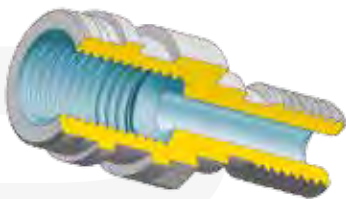


OTT/BT FOR MAS 403 TOOLHOLDERS - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	$\varnothing D$	$\varnothing A$	H	L	M	TOOL SHANK
PS.OTT40BT.SF	M16	17	25	17,54	56	-	DIN 40

Cod.	F	$\varnothing D$	$\varnothing A$	H	L	M	TOOL SHANK
PS.OTT50BT.SF	M24	25	39,6	14	65	-	DIN 50



OTT/BT FOR MAS 403 TOOLHOLDERS - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	$\varnothing D$	$\varnothing A$	H	L	M	TOOL SHANK
PS.OTT40BT	M16	17	25	17,54	56	M16	DIN 40

Cod.	F	$\varnothing D$	$\varnothing A$	H	L	M	TOOL SHANK
PS.OTT50BT	M24	25	39,6	14	65	M24	DIN 50

CODOLI KITAMURA

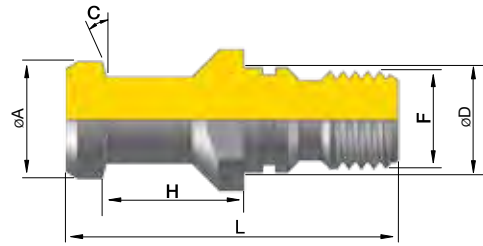
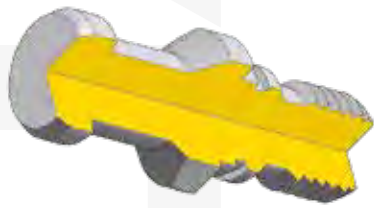
PULL STUDS KITAMURA



SENZA FORO
WITHOUT BORE



FORATO
WITH BORE

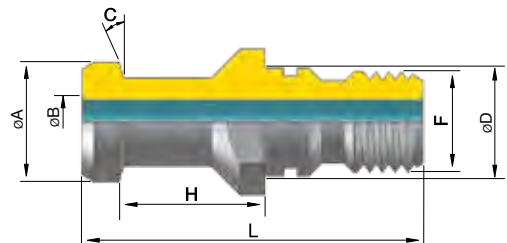
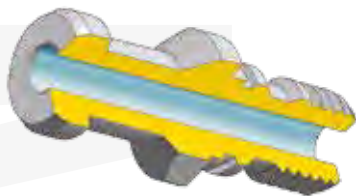


KITAMURA - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	$\varnothing B$	TOOL SHANK
PS.KITAMURA-M16/SF	M16	15°	17	19	23,2	57,2	-	BT40

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	$\varnothing B$	TOOL SHANK
PS.KITAMURA-M12/SF	M12	45°	21,5	13	22,5	48	-	BT30



KITAMURA - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	C	$\varnothing D$	$\varnothing A$	H	L	$\varnothing B$	TOOL SHANK
PS.KITAMURA-M16/F7	M16	15°	17	19	23	54	7	BT40

CODOLI MITSUI

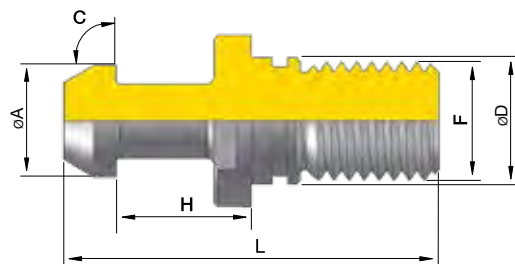
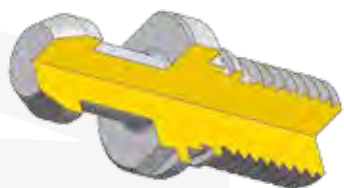
PULL STUDS MITSUI



SENZA FORO
WITHOUT BORE



FORATO
WITH BORE

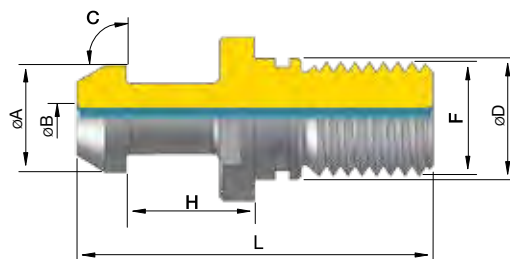
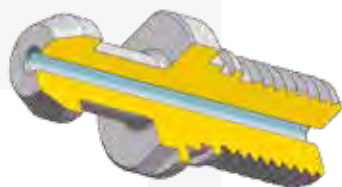


MITSUI SEIKI - SENZA FORO - WITHOUT COOLANT BORE

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK
PS.BT40.31	M16	90°	17	15	18	50	BT 40

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK
PS.BT50.31	M24	90°	25	24	23	71	BT 50



MITSUI SEIKI - FORATI - WITH COOLANT BORE

FORATO

Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK
PS.BT40.31F	M16	90°	17	15	18	50	3	BT 40

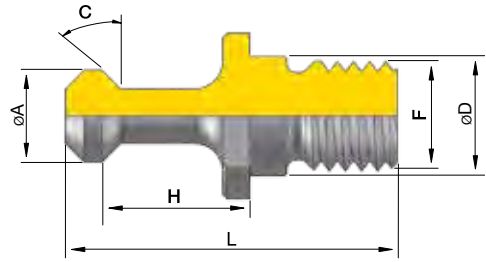
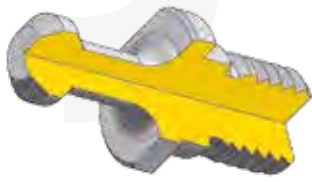
Cod.	F	C	ØD	ØA	H	L	ØB	TOOL SHANK
PS.BT50.31F	M24	90°	25	24	23	71	8	BT 50

CODOLI CHIRON

PULL STUDS CHIRON



SENZA FORO
WITHOUT BORE



CHIRON

SENZA FORO

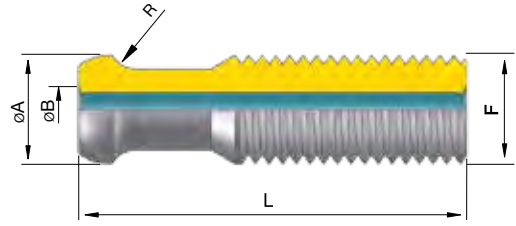
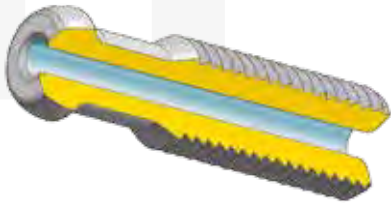
Cod.	F	C	ØD	ØA	H	L	TOOL SHANK
PS.CH30	M12	45°	13	10	16	36	BT30

CODOLI C.B. FERRARI

PULL STUDS C.B. FERRARI



FORATO
WITH BORE

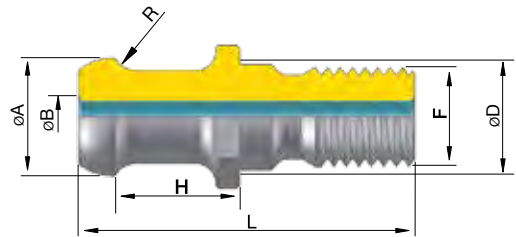
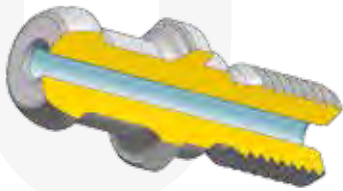


C.B. FERRARI

FORATO

Cod.	F	R	$\varnothing A$	L	$\varnothing B$	TOOL SHANK	DIS.C.B. FERRARI
PS.050185-C.B.F.-M16	M16	3,7	16	57	5	BT40	050185

Fornito completo di dado
Supplied complete with nut



C.B. FERRARI

FORATO

Cod.	F	R	$\varnothing D$	$\varnothing A$	H	L	$\varnothing B$	TOOL SHANK
PS-051385.C.B.F.-M12	M12	3,4	13	12	19,5	44	3	BT30
PS-051185.C.B.F.-M16.1	M16	3,7	17	19	20,31	54	5	BT40

Cod.	F	R	$\varnothing D$	$\varnothing A$	H	L	$\varnothing B$	TOOL SHANK
PS.C.B.F.-M24	M24	4,3	25	28	25,5	74	6	BT50

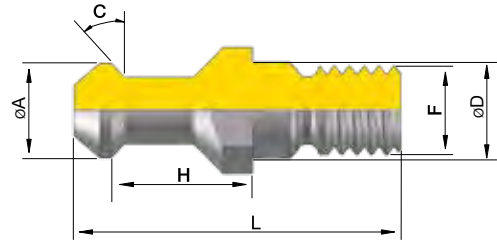
Su richiesta è possibile fornire anche i codoli di aggancio cb ferrari con il modello oscillante.
On request we can also provide shanks hooking cb ferrari with the oscillating pattern.

CODOLI DI AGGANCIAMENTO PER LA LAVORAZIONE DEL LEGNO

PULL STUDS FOR WOODWORKING MACHINE CHUCKS



SENZA FORO
WITHOUT BORE

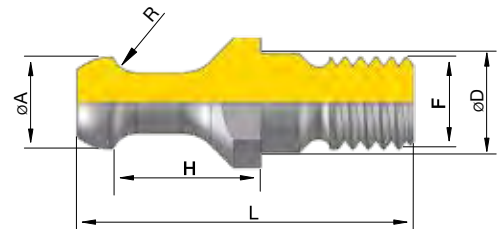


ALBERTI

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK
CD06002	M6	45°	6,5	7	9,5	23	BT20
PS.WD25-ALB	M8	45°	9	10	13,5	31	BT25

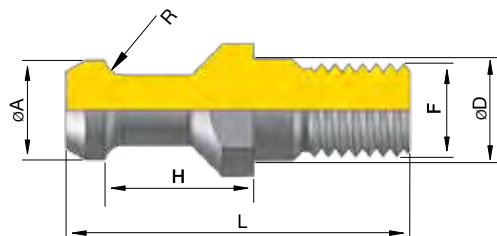
Cod.	F	C	ØD	ØA	H	L	TOOL SHANK
PS.WD30-ALB	M12	45°	13	12,8	19	44	BT30



BIESSE

SENZA FORO

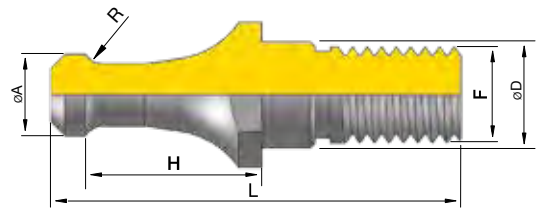
Cod.	F	R	ØD	ØA	H	L	TOOL SHANK
PS.WD30-BS2	M12	3,2	13	12	24	44	BT30



CMS

SENZA FORO

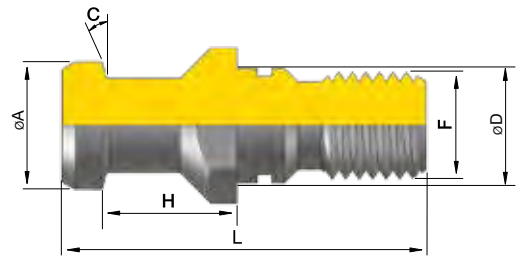
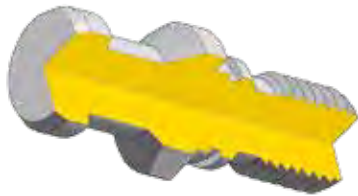
Cod.	F	R	ØD	ØA	H	L	TOOL SHANK
PS.WD30-CMS	M12	2,4	13	12,8	19	44	BT30



SCM

SENZA FORO

Cod.	F	R	ØD	ØA	H	L	TOOL SHANK
PS.WD30-SCM	M10	2,3	11	8,5	18,3	42,5	BT30



DIN 69872

SENZA FORO

Cod.	F	C	ØD	ØA	H	L	TOOL SHANK
PS.DIN30SF	M12	15°	13	13	19	44	BT30

CODOLI SPECIALI

SPECIAL PULL STUDS



SENZA FORO
WITHOUT BORE



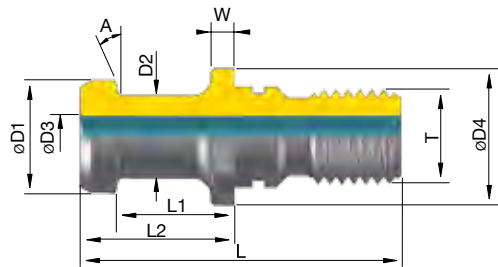
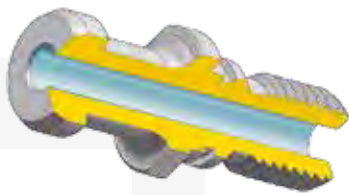
FORATO
WITH BORE



CON FILETTO IN POLLICI - RETENTION STUDS

SENZA FORO

Cod.	A	L	Ø D1	L1	Ø D2	L2	Ø D4	W	T
CD24288	45°	3.35"	.905"	1.386"	.669"	1.779"	1.031"	.389"	1"-8
CD24297	45°	3.35"	.905"	1.386"	.669"	1.779"	1.031"	.389"	1"-8
CD24298	60°	3.35"	.905"	1.386"	.669"	1.779"	1.031"	.389"	1"-8
CD24289	60°	3.35"	.905"	1.386"	.669"	1.779"	1.031"	.389"	1"-8
CD24290	90°	3.35"	.905"	1.386"	.669"	1.779"	1.031"	.389"	1"-8
CD24299	90°	3.35"	.905"	1.386"	.669"	1.779"	1.031"	.389"	1"-8
CD24302	75°	2.91"	1.101"	.984"	.825"	1.338"	1.031"	.197"	1"-8
CD24303	75°	2.91"	1.101"	.984"	.825"	1.338"	1.031"	.197"	1"-8
CD24300	45°	2.91"	1.140"	.700"	.820"	1.000"	1.031"	.197"	1"-8
CD24301	45°	2.91"	1.140"	.700"	.820"	1.000"	1.031"	.197"	1"-8



CON FILETTO IN POLLICI - RETENTION STUDS

FORATO


Cod.	A	L	Ø D1	L1	Ø D2	L2	Ø D3	Ø D4	W	T
CD16214	45°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.118"	5/8-11
CD16218	45°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.118"	5/8-11
CD16217	45°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.236"	5/8-11
CD16225	60°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.118"	5/8-11
CD16226	60°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.118"	5/8-11
CD16227	60°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.236"	5/8-11
CD16228	90°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.118"	5/8-11
CD16223	90°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.118"	5/8-11
CD16219	90°	2,25"	.588"	.988"	.393"	1.265"	.157"	.640"	.236"	5/8-11
CD16229	75°	2.00"	.748"	.790"	.551"	1.019"	.268"	.640"	.275"	5/8-11
CD16230	75°	2.00"	.748"	.790"	.551"	1.019"	.268"	.640"	.275"	5/8-11
CD16231	75°	2.00"	.748"	.790"	.551"	1.019"	.268"	.640"	.157"	5/8-11
CD16232	75°	2.00"	.748"	.790"	.551"	1.019"	.268"	.640"	.157"	5/8-11
CD16220	45°	1.62"	.740"	.440"	.490"	.640"	.268"	.640"	.118"	5/8-11
CD16221	45°	1.62"	.740"	.440"	.490"	.640"	.268"	.640"	.118"	5/8-11
CD16233	90°	2.03"	.588"	.777"	.393"	1.049"	.268"	.625"	.200"	5/8-11


CODOLI DI AGGANCIO SPECIALI A RICHIESTA


SPECIAL PULL STUDS AVAILABLE ON REQUEST

LES TIRANTS SPÉCIAUX, SUR DEMANDE SPÉCIFIQUE

SONDERTEILE GEMÄSS ZEICHNUNG

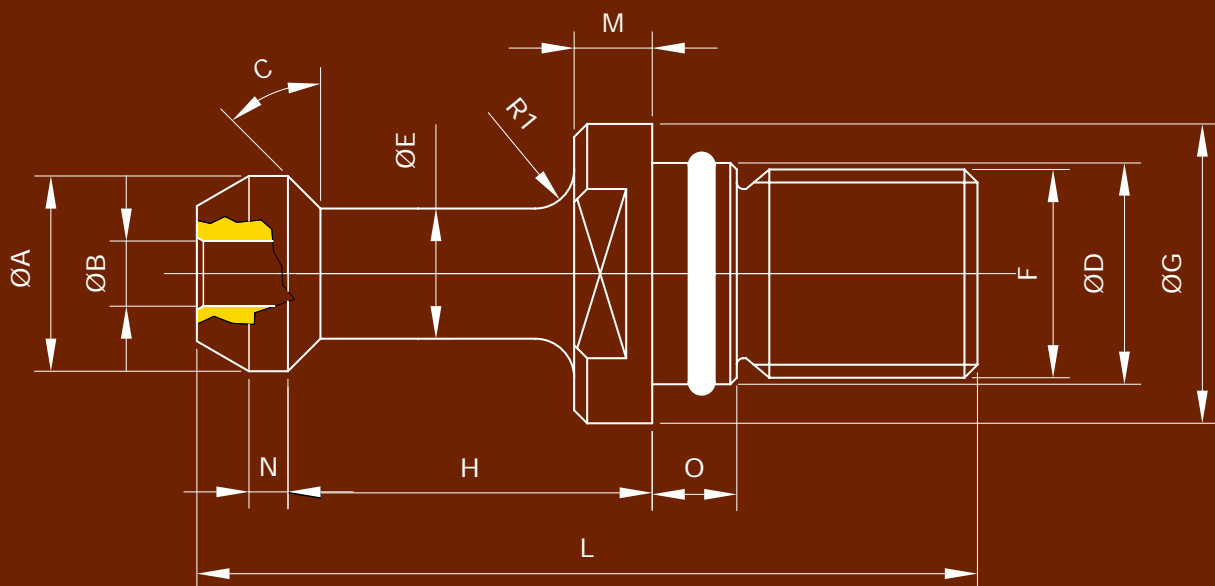
 Per codoli di aggancio speciali, non standard, utilizzare la seguente tabella per specificare le quote mancanti.

 Souligner, si possible, aussi les dimensions du siège de la clé sur la flange. Dans la demande reporter, si possible, le type de machine où le tirette est assemblé.


 For a non standard pull stud, add the dimensions required to the sketch and forward to Serinex


 Für die speziellen Anzugsbolzen, also nicht standard, bitte folgende Tabelle für fehlende Masse benutzen.


F	ØD	ØG	ØE	ØA	ØB	H	L	N	O	M	C	R1





NOTE / NOTE / NOTE / NOTE

 La quota angolare C, in alcuni casi, è sostituita da una raggiatura R, da indicare nella richiesta. Evidenziare, se possibile, anche le dimensioni della sede chiave sulla flangia. Nella richiesta riportare, se possibile, il tipo di macchina sulla quale il tirante viene montato

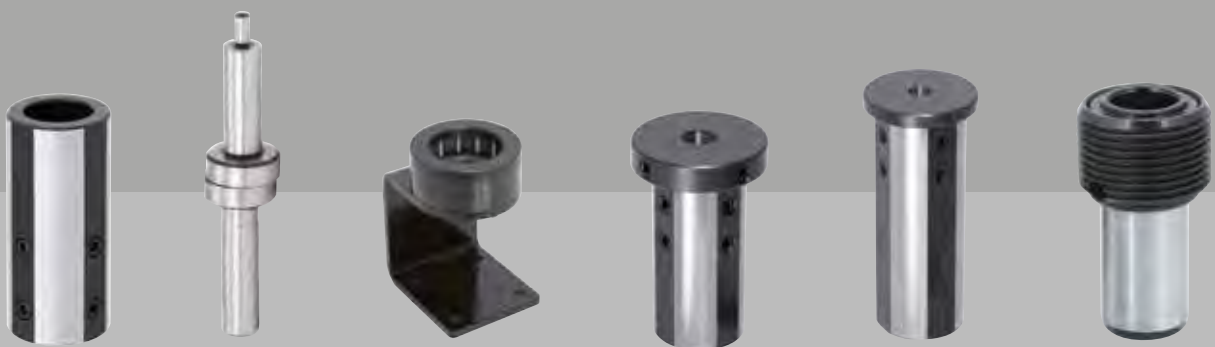
 Souligner, si possible, aussi les dimensions du siège de la clé sur la flange. Dans la demande reporter, si possible, le type de machine où le tirette est assemblé.

 The angle "C", in some cases, is replaced by radius "R". Please specify with your request. If possible highlight the dimension of the tool seat on the flange. Please include, if possible, the machine type where the pull stud will be used.

 Das Winkelmaß C in einigen Fällen, besteht aus einem Radius R; dies muss man bei Anfrage angeben. Wenn möglich, auch die Abmessung des Schlüsselsitzes auf der Flansche angeben. Bei anfrage, wenn möglich auch den Maschinentyp angeben auf welcher der Anzugsbolzen montiert wird

serinex
CNC TOOLHOLDER SYSTEM 

ACCESSORI
ACCESSORIES
ACCESSOIRES
ZUBEHÖR



WWW.SERINEX.IT

ACCESSORI ACCESSORIES



ACCESSORI - INTRODUZIONE

In completamento alla produzione di pinze, ghiera, mandrini e codoli, SERINEX produce una serie di accessori:

- SMONTACONI
- BUSSOLE DI RIDUZIONE (boccole di riduzione)
- TASTATORE MECCANICO
- RACCORDI HSK e CHIAVI PER RACCORDI
- ANELLI e TASSELLI DI TRASCINAMENTO
- CHIAVI PER GHIERE
- CHIAVI A SETTORE
- CHIAVI DINAMOMETRICHE
- RIDUZIONI A CONO MORSE

Tutti garantiti dallo standard di qualità Serinex.

Questi particolari sono interamente eseguiti nella nostra moderna unità produttiva di Oggiono, situato a breve distanza da Lecco, in un comparto di oltre 7000 mq. dotato di un ampio parco macchine di ultima generazione

ACCESSORIES - INTRODUCTION



To complete the production of collets, nuts, toolholders and pull studs, SERINEX produces a series of accessories:

- INDEXABLE ASSEMBLY UNIVERSAL SUPPORT AND CLAMPING DEVICE ROLLING BEARING
- TOOLHOLDERS BUSHING
- FLOATING PRECISION CENTERING DEVICE
- HSK- COOLING TUBE AND HSK-COOLING TUBE WRENCHES
- RINGS AND DRIVING KEY
- WRENCHES FOR NUTS
- HOOK SPANNER WRENCHES
- DYNAMOMETRIC WRENCHES
- MORSE TAPER SLEEVES

All guaranteed by Serinex quality standard

These items are entirely performed in our modern division in Oggiono, not far from Lecco, in a place of more than 7000 mq. , supplied with a wide rolling stock with a high daily production.

ATTENZIONE / ATTENTION

DATI TECNICI ED IMMAGINI SONO INDICATIVI. SERINEX SI RISERVA DI APPORTARE AGGIORNAMENTI IN QUALSIASI MOMENTO E SENZA OBBLIGO DI PREAVVISO.

TECHNICAL DATA AND DRAWINGS ARE FOR INFORMATION PURPOSES ONLY. SERINEX RESERVES THE RIGHT TO UPDATE SPECS AT ANYTIME AND WITHOUT NOTICE.

ACCESSOIRES ZUBEHÖR

ACCESSOIRES - INTRODUCTION



En complément à la production des pinces, d'écrous, des mandrins et des tirettes, nous produisons une série d'accessoires:

- DEMONTE-CONES
- DOUILLES DE REDUCTIONS
- PINNULES MECANIKES
- RACCORDES DE ARROSAGE - HSK
- CLÉS POUR ÉCROUS
- CLÉS À CROCHET
- CLÉS DINAMOMETRIQUES
- RÉDUCTIONS À CÔNE MORSE

tous garantis par le standard de qualité Serinex.

Tous ces articles sont entièrement produits au sein de notre unité moderne de production d'Annone Brianza, sise à proximité de Lecco, dans un

compartiment de plus de 7000 m², doté d'un large parc de machines avec une production journalière élevée.

ZUBEHÖR - EINFÜHRUNG



Neben unserer Produktion von Spannzangen, Muttern, Spannfütern und Anzugsbolzen, stellen wir eine Vielfalt von zusätzlichem Zubehör her, die von dem Serinex Qualitätsstandard garantiert werden:

- MONTAGEUNTERSTÜTZUNGEN
- REDUZIERHÜLSEN - REDUZIERUNGEN
- MECHANISCHE MESSTASTER
- HSK ANSCHLÜSSE UND ANSCHLUSS – SCHLÜSSEL
- MITNEHMERRINGE UND –DÜBEL
- MUTTERNSCHLÜSSEL
- HAKENSCHLÜSSEL
- ZWISCHENHULSEN

Diese Zubehörsind alle völlig bei unserem modernen Produktionsbetrieb in Oggiono hergestellt, der sich in einer Zubehöre Abteilung von mehr als 7000 Quadratmetern in der Umgebung von Lecco befindet und über einen breiten Maschinenpark mit einer hohen täglichen Produktion ausgestattet ist

AVERTISSEMENT / WARNUNG

DONNÉES TECHNIQUES ET PHOTOS SONT À TITRE INDICATIF. SERINEX SE RÉSERVE LE DROIT DE METTRE À JOUR À TOUT MOMENT ET SANS PRÉAVIS.

TECHNISCHE DATEN UND BILDER SIND RICHTWERTE. SERINEX BEHÄLT SICH DAS RECHT VOR, JEDERZEIT UND OHNE VORHERIGE ANKÜNDIGUNG ZU AKTUALISIEREN.



SUPPORTO DI MONTAGGIO

ORIENTABILE UNIVERSALE - A RULLI - PER CILINDRICI

UNIVERSAL ASSEMBLY DEVICE - WITH ROLLING BEARING - FOR CYLINDRICAL TOOL

SUPPORT DE MONTAGE UNIVERSAL - A ROULEAUX - POUR CYLINDRICAL MANDRIN

MONTAGE-AUFLAGE UNIVERSAL - AUF ROLLEN - FÜR ZYLINDRISCHE SPANNFUTTER

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BUSSOLE DI RIDUZIONE

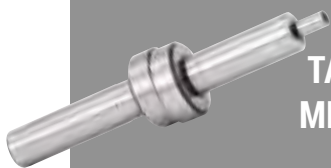
CON BATTUTA - SENZA BATTUTA

TOOLHOLDER BUSHINGS

DOUILLE AVEC COLLERETTE - DOUILLE SANS COLLERETTE

REDUZIERHÜLSEN MIT ANSCHLAG - OHNE ANSCHLAG

440



TASTATORE MECCANICO

TASTATORE MECCANICO UNIVERSALE - MOLLE DI RICAMBIO

FLOATING PRECISION CENTERING DEVICE - REPLACEMENT SPRINGS

PINNULE DE CENTRAGE UNIVERSEL

MECHANISCHER TASTER - ERSATZFEDERN

445



RACCORDI PER HSK

RACCORDI PER REFRIGERANTE HSK - CHIAVE PER RACCORDI

HSK COOLING TUBE - HSK-COOLING TUBE WRENCHES

RACCORDS POUR HSK - CLE POUR RACCORDS

ANSCHLÜSSE FÜR KÜHLMITTEL HSK - ANSCHLUSS SCHLÜSSEL

447



CHIAVI

CHIAVI PER GHIERA DIN6499 - CHIAVI A SETTORE - CHIAVI DINAMOMETRICHE

WRENCHES FOR NUTS DIN6499 - DYNAMOMETRIC WRENCHES

CLE POUR ECROU DIN6499 - CLE DINAMOMETRIQUES

SCHLÜSSEL FÜR SPANNMUTTERN - SEGMENTSCHLÜSSEL - DYNAMOMETRISCHE

449



RIDUZIONI A CONO MORSE

RIDUZIONE A CONO MORSE - BUSSOLE DI RIDUZIONE A CONO MORSE

MORSE TAPER ADAPTERS - MORSE TAPER SLEEVES

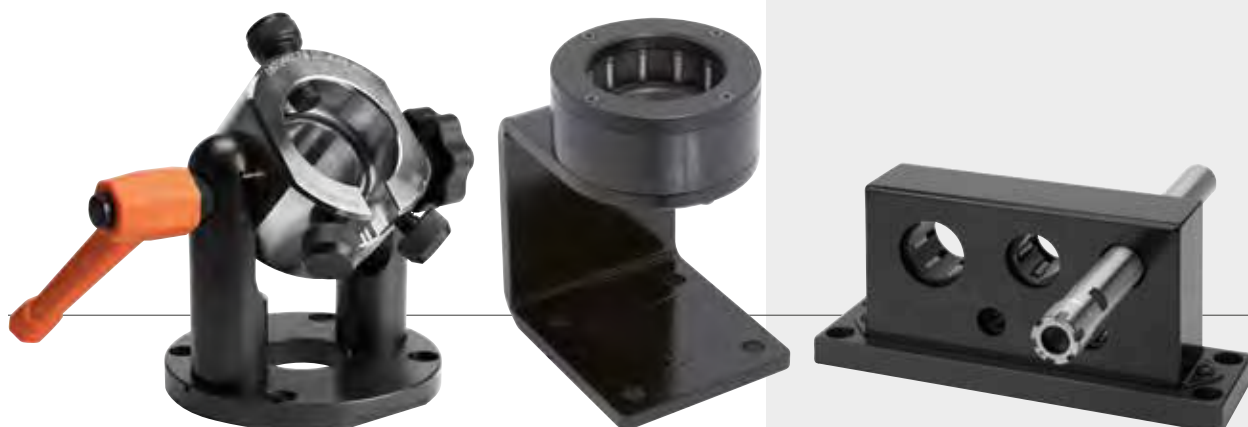
RÉDUCTIONS À CÔNE MORSE - DOUILLE DE RÉDUCTIONS À CÔNE MORSE

KONISCHE REDUZIERUNG DES SCHRAUBSTOCKES

455

SUPPORTO DI MONTAGGIO

TOOL ASSEMBLY DEVICE



SUPPORTO DI MONTAGGIO ORIENTABILE UNIVERSALE

*INDEXABLE ASSEMBLY
UNIVERSAL SUPPORT*



SUPPORTO DI MONTAGGIO A RULLI

*CLAMPING DEVICE WITH ROLLING
BEARING*



SUPPORTO DI MONTAGGIO PER MANDRINI CILINDRICI

*INDEXABLE SUPPORT FOR A
CYLINDRICAL TOOL HOLDERS*

CARATTERISTICHE DEI SUPPORTI DI MONTAGGIO

FEATURES OF INDEXABLE SUPPORT

CARACTERISTIQUES TECHNIQUES DES DEMONTE CONE

MERKMALE DER MONTAGEHALTERUNGEN



SUPPORTO DI MONTAGGIO ORIENTABILE UNIVERSALE

Consentono l'orientamento dei portautensili sugli assi verticali ed orizzontali per facilitare il montaggio degli utensili. Il cono dei portautensili è protetto da due anelli O-ring in NBR opportunamente posizionati.

Corpo in acciaio, leve di manovra in materiale termoplastico.

Sono fissati con 4 viti al banco di lavoro.

I supporti di montaggio devono essere fissati al banco di lavoro o al carrello portautensili.

La testa portautensile è orientabile in verticale e orizzontale.

1. vite d'arresto per mandrini HSK63A / HSK100A / BT40 / BT50 / SK40 / SK50 DIN69871 / ISO40 DIN2080
2. vite di sicurezza per la flangia BT40 / BT50 / SK40 / ISO50 DIN 2080
3. vite di sicurezza per la flangia SK40 / SK50 DIN 69871



SUPPORT DE MONTAGE ORIENTABLE UNIVERSEL

Ils permettent l'orientation des porte-outils sur les axes verticales et horizontales pour faciliter le montage des outils.

Le cône des porte-outils est protégé par deux joints toriques en NBR convenablement positionnés. Le corps en Acier, les leviers de manœuvre en matériel thermoplastique. Il sont

fixés par 4 vis à la table de montage Les supports de montage

doivent être fixés à la table de montage ou au chariot porte-outil.

La tête du porte-outil est orientable en verticale et horizontale.

1. Vis d'arrêt pour les mandrins HSK63A / HSK100A / BT40 / BT50 / SK40 DIN69871 / SK50 DIN69871 / ISO40 DIN2080
2. Vis de sécurité pour la flange BT40 / BT50 / SK40 DIN69871 / ISO50 DIN 2080
3. Vis de sécurité pour la flange SK40 DIN69871 / SK50 DIN 69871



INDEXABLE ASSEMBLY UNIVERSAL SUPPORT

Head fixture can be set in two position, vertical and horizontal, for easy access to the cutting tool. The tapers protection is granted by two special NBR O-ring.

Body in steel, operating levers in thermoplastic material.

Can be mounted on work table with four screws.

The mounting fixtures must be fixed to a bench or to a tool cart.

Head fixture can be set in vertical and horizontal position.

1. set screw for tools-shank HSK63A / HSK100A / BT40 / BT50 / SK40 / SK50 DIN69871 / ISO40 DIN2080
2. safety screw for "V" flange BT40 / BT50 / SK40 / ISO50 DIN2080
3. safety screw for "V" flange SK40 / SK50 DIN 69871



UNIVERSAL SCHWANKENDE MONTAGEHALTER

Diese ermöglichen die Schwankung der Werkzeughalter auf den senkrechten und waagrechten Achsen und erleichtern die Montage der Werkzeuge.

Der Konus der Werkzeughalter ist mit zwei O-Ringe aus NBR geschützt.

Stahlkörper, Schaltunghebel aus thermoplastik, und sind mit

4 Schrauben an der Werkbank befestigt. Die Montagehalter müssen an der Werkbank oder am Werkzeugwagen befestigt werden.

Der Kopf des Werkzeughalters ist schwenkbar senkrecht und waagrecht.

1. Klemmschraube für Spannfutter HSK63A / 100A / BT40 / BT50 / SK40 / SK50 DIN69871 / ISO40 DIN2080
2. Sicherheitsschraube für die Flansche BT40 / BT50 / ISO 40 DIN 2080 / ISO50 DIN 2080
3. Sicherheitsschraube für die Flansche SK40 / SK50 DIN 69871





MECCANICO UNIVERSALE - INDEXABLE ASSEMBLY UNIVERSAL

Cod.	TYPE	D	BASE	H	ADATTO PER / SUITABLE FOR
PV00141	SMONTACONO 30 meccanico universale <i>Indexable Assembly Univ. support 30</i>	50	150	160	SK30 DIN69871 - ISO 30 DIN2080 - BT30 - CAT30 - HSK50A - CAPTO C5
PV00069	SMONTACONO 40 meccanico universale <i>Indexable Assembly Univ. support 40</i>	63	150	160	SK40 DIN69871 - ISO 40 DIN2080 - BT40 - CAT40 - HSK63A - CAPTO C6
PV00080	SMONTACONO 50 meccanico universale <i>Indexable Assembly Univ. support 50</i>	100	200	210	SK50 DIN69871 - ISO 50 DIN2080 - BT50 - CAT50 - HSK100A - CAPTO C10



CARATTERISTICHE DEI SUPPORTI DI MONTAGGIO

FEATURES OF INDEXABLE SUPPPORT

CARACTERISTIQUES TECHNIQUES DES DEMONTE CONE

MERKMALE DER MONTAGEHALTERUNGEN



SUPPORTO DI MONTAGGIO A RULLI

Una speciale gabbia a rullini bidirezionale blocca il portautensile sulla flangia per consentire il montaggio e lo smontaggio degli utensili e degli accessori sul corpo mandrino. È garantita la massima protezione (per mancanza di contatto) del cono mandrino.



SUPPORT DE MONTAGE A ROULEAUX

Une cage spéciale à rouleaux bidirectionnelle bloque le porte-outil sur la flange pour permettre le montage et le démontage des outils et des accessoires sur le bloc mandrin. Il est garanti la protection maximale (pour éviter le contact) du cône mandrin.



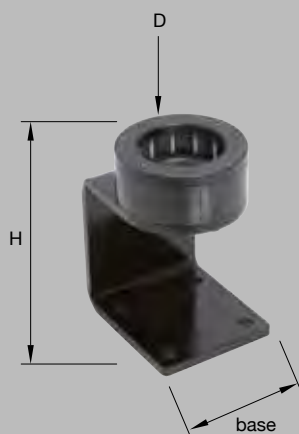
CLAMPING DEVICE WITH ROLLING BEARING

A special bidirectional roller bearing locks the toolholder on the flange to allow the assembly and the disassembly of tools and accessories from the toolholder. It's guarantee the maximum protection of the toolholder cone (because the contact surface of the toolholder is only the flange)



MONTAGEHALTER AUF ROLLEN

Ein spezieller Rollenkäfig, zweiseitig gerichtet, blockiert den Werkzeughalter auf die Flansche. Er ermöglicht die Montage und die Abmontage der Werkzeuge und der Zubehöre auf dem Spannfutterkörper. Da kein kontakt besteht, hat man einen max. Schutz des Spannfutterkonus.





**BREVETTATO
PATENT**

MONTAGGIO A RULLI - CLAMPING DEVICE WITH ROLLING BEARING

Cod.	TYPE	D	BASE	H	ADATTO PER / SUITABLE FOR
PV00148	SMONTACONO A RULLI HSK25 <i>Clamping device with roller bearing HSK 25</i>	25	100	130	HSK25
PV00149	SMONTACONO A RULLI HSK32 <i>Clamping device with roller bearing HSK 32</i>	32	100	130	HSK32 - CAPTO C4
PV00071	SMONTACONO A RULLI HSK40 DIAM.40 <i>Clamping device with roller bearing HSK 40</i>	40	100	160	HSK40 - CAPTO C4
PV00106	SMONTACONO RULLI UNIV.90° SK30 FL. 46 <i>Clamping device with roller bearing ISO30 FL. 46</i>	46	100	160	BT30 MAS403 - TCL30 FL46
PV00103	SMONTACONO RULLI UNIV.90° SK30 FL 49 <i>Clamping device with roller bearing SK30 FLANGE 49</i>	49	100	160	TCL30 FL49
PV00083	SMONTACONO RULLI UNIV. 90 SK30 <i>Clamping device with roller bearing SK30 FL. 50</i>	50	100	160	ISO30 DIN2080 - SK30 DIN 69871 - HSK50 CAPTO C5
PV00107	SMONTACONO RULLI UNIV. 90° BT35 FL. 53 <i>Clamping device with roller bearing BT35 FL. 53</i>	53	100	160	DIN 69871 FL. 53
PV00099	SMONTACONO RULLI UNIV.90° SK30 Clamping device with roller bearing SK30 FL.58	58	100	160	TCL30 FL58
PV00077	SMONTACONO RULLI UNIV. 90 SK40 <i>Clamping device with roller bearing SK40 FL. 63</i>	63	100	160	BT40 - HSK63 - ISO40 DIN 2080 - SK40 DIN 69871 CAPTO C6
PV00150	SMONTACONO A RULLI HSK80 <i>Clamping device with roller bearing HSK 80</i>	80	150	240	HSK40 - CAPTO C8
PV00108	SMONTACONO RULLI UNIV. 90° HSK63WE FL. 85 <i>Clamping device with roller bearing HSK63WE FL. 85</i>	85	150	230	HSK85
PV00078	SMONTACONO RULLI UNIV. 90° SK50 <i>Clamping device with roller bearing SK50 FL. 100</i>	100	150	220	BT50 - ISO50 DIN2080 - SK50 DIN 69871 - HSK100 - CAPTO C10

CARATTERISTICHE DEI SUPPORTI DI MONTAGGIO

FEATURES OF INDEXABLE SUPPPORT

CARACTERISTIQUES TECHNIQUES DES DEMONTE CONE

MERKMALE DER MONTAGEHALTERUNGEN



SUPPORTO MONTAGGIO PER MANDRINI CILINDRICI

- Permettono il montaggio e lo smontaggio dei mandrini cilindrici di diversi diametri e lunghezze.
- Può essere fissato al banco di lavoro grazie a quattro fori sulla base orizzontale.
- Per una corretta introduzione del mandrino cilindrico, si consiglia una piccola rotazione: oraria o antioraria.



DEMONTE POUR CYLINDRICAL MANDRIN

- Ces demonte-cones permettent l'assemblage et le démontage des mandrins cylindriques, de différents diamètres et longueurs.
- Cet article peut être fixé au banc de travail grâce à quatre trous sur la base horizontale.
- Pour une correcte introduction du mandrin cylindrique, il est conseillé une petite rotation: horaire ou anti-horaire.



INDEXABLE SUPPORT FOR A CYLINDRICAL TOOL HOLDERS

- These items allow the assembly and disassembly of cylindrical tool holders, of different diameters and lengths.
- It can be fixed to the workbench with four holes on the horizontal base
- For a proper introduction of the tool holder, we recommended a small rotation: clockwise or counterclockwise



MONTAGEHALTER FUER ZYLINDRISCHE SPANNFUTTER

- Diese montagehalter ermöglichen die Montage und Demontage des zylindrischen spannfutter.
- Diese Montagehalterung kann an der Werkbank durch die vier Löcher im Boden befestigt werden.
- Fuer eine korrekte einfuehrung des zylindrische spannfutter, ist es ratsam eine kleine links-und rechtsdrehung zu machen.





PER MANDRINI CILINDRICI - FOR CYLINDRICAL COLLET CHUCKS

Cod.	TYPE	ADATTO PER / SUITABLE FOR
PV00145	SMONTACONO PER CILINDRICI DIAM. 12-16-20 <i>Indexable support for a cylindrical tool holders diam. 12-16-20</i>	MANDRINI CILINDRICI DIAMETRO ESTERNO 12-16-20 <i>Cylindrical tool holders from the outer diameter 12-16-20</i>
PV00146	SMONTACONO PER CILINDRICI DIAM. 20-25-32 <i>Indexable support for a cylindrical tool holders diam. 20-25-32</i>	MANDRINI CILINDRICI DIAMETRO ESTERNO 20-25-32 <i>Cylindrical tool holders from the outer diameter 20-25-32</i>
PV00147	SMONTACONO PER CILINDRICI DIAM. 12-16-20-25-32 <i>Indexable support for a cylindrical tool holders diam. 12-16-20-25-32</i>	MANDRINI CILINDRICI DIAMETRO ESTERNO 12-16-20-25-32 <i>Cylindrical tool holders from the outer diameter 12-16-20-25-32</i>

BUSSOLE DI RIDUZIONE

TOOLHOLDER BUSHING



CON BATTUTA

HEADED REDUCTION SLEEVES



SENZA BATTUTA

UNIVERSAL REDUCTION SLEEVES



MAZAK

MAZAK TYPE



CON BATTUTA - HEADED REDUCTION SLEEVES - DIAM. 20 L55

Cod.	TYPE	ØD	L	ØD1	L1	Cod.	TYPE	ØD	L	ØD1	L1
TB.20-6.55	BUSSOLA RIDUZIONE STD 20 D.6	20	55	6	5	TB.20-12.55	BUSSOLA RIDUZIONE STD 20 D.12	20	55	12	5
TB.20-8.55	BUSSOLA RIDUZIONE STD 20 D.8	20	55	8	5	TB.20-16.55	BUSSOLA RIDUZIONE STD 20 D.16	20	55	16	5
TB.20-10.55	BUSSOLA RIDUZIONE STD 20 D.10	20	55	10	5						



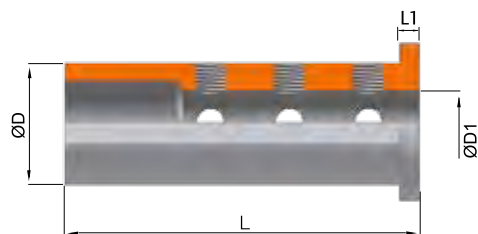
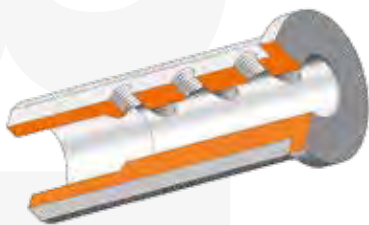
CON BATTUTA - HEADED REDUCTION SLEEVES - DIAM. 25 L65

Cod.	TYPE	ØD	L	ØD1	L1	Cod.	TYPE	ØD	L	ØD1	L1
TB.25-6.65	BUSSOLA RIDUZIONE STD 25 D.6	25	65	6	5	TB.25-12.65	BUSSOLA RIDUZIONE STD 25 D.12	25	65	12	5
TB.25-8.65	BUSSOLA RIDUZIONE STD 25 D.8	25	65	8	5	TB.25-16.65	BUSSOLA RIDUZIONE STD 25 D.16	25	65	16	5
TB.25-10.65	BUSSOLA RIDUZIONE STD 25 D.10	25	65	10	5	TB.25-20.65	BUSSOLA RIDUZIONE STD 25 D.20	25	65	20	5



CON BATTUTA - HEADED REDUCTION SLEEVES - DIAM. 32 L70

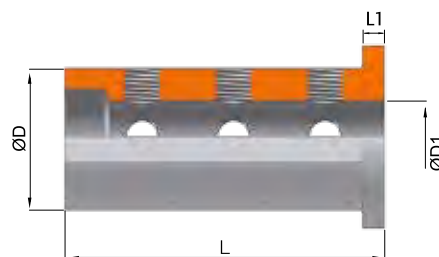
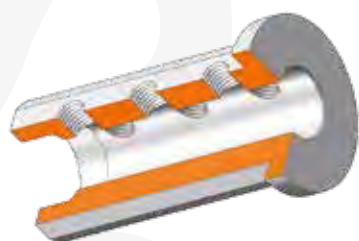
Cod.	TYPE	ØD	L	ØD1	L1	Cod.	TYPE	ØD	L	ØD1	L1
TB.32-6.70	BUSSOLA DI RIDUZIONE D.32-6	32	70	6	5	TB.32-16.70	BUSSOLA DI RIDUZIONE D.32-16	32	70	16	5
TB.32-8.70	BUSSOLA DI RIDUZIONE D.32-8	32	70	8	5	TB.32-20.70	BUSSOLA DI RIDUZIONE D.32-20	32	70	20	5
TB.32-10.70	BUSSOLA DI RIDUZIONE D.32-10	32	70	10	5	TB.32-25.70	BUSSOLA DI RIDUZIONE D.32-25	32	70	25	5
TB.32-12.70	BUSSOLA DI RIDUZIONE D.32-12	32	70	12	5						



CON BATTUTA - HEADED REDUCTION SLEEVES - DIAM. 32 L90

Cod.	TYPE	ØD	L	ØD1	L1
TB.32-6.90	BUSSOLA RIDUZIONE STD 32 D.6	32	90	6	5
TB.32-8.90	BUSSOLA RIDUZIONE STD 32 D.8	32	90	8	5
TB.32-10.90	BUSSOLA RIDUZIONE STD 32 D.10	32	90	10	5
TB.32-12.90	BUSSOLA RIDUZIONE STD 32 D.12	32	90	12	5

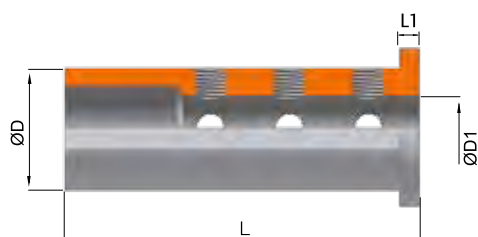
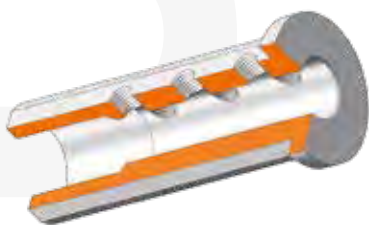
Cod.	TYPE	ØD	L	ØD1	L1
TB.32-16.90	BUSSOLA RIDUZIONE STD 32 D.16	32	90	16	5
TB.32-20.90	BUSSOLA RIDUZIONE STD 32 D.20	32	90	20	5
TB.32-25.90	BUSSOLA RIDUZIONE STD 32 D.25	32	90	25	5



CON BATTUTA - HEADED REDUCTION SLEEVES - DIAM. 40 L80

Cod.	TYPE	ØD	L	ØD1	L1
TB.40-8.80	BUSSOLA DI RIDUZIONE D.40-8	40	80	8	5
TB.40-10.80	BUSSOLA DI RIDUZIONE D.40-10	40	80	10	5
TB.40-12.80	BUSSOLA DI RIDUZIONE D.40-12	40	80	12	5
TB.40-16.80	BUSSOLA DI RIDUZIONE D.40-16	40	80	16	5

Cod.	TYPE	ØD	L	ØD1	L1
TB.40-20.80	BUSSOLA DI RIDUZIONE D.40-20	40	80	20	5
TB.40-25.80	BUSSOLA DI RIDUZIONE D.40-25	40	80	25	5
TB.40-32.80	BUSSOLA DI RIDUZIONE D.40-32	40	89	32	5



CON BATTUTA - HEADED REDUCTION SLEEVES - DIAM. 40 L110

Cod.	TYPE	ØD	L	ØD1	L1
TB.40-8.110	BUSSOLA RIDUZIONE STD 40 D. 8	40	110	8	5
TB.40-10.110	BUSSOLA RIDUZIONE STD 40 D.10	40	110	10	5
TB.40-12.110	BUSSOLA RIDUZIONE STD 40 D.12	40	110	12	5
TB.40-16.110	BUSSOLA RIDUZIONE STD 40 D.16	40	110	16	5

Cod.	TYPE	ØD	L	ØD1	L1
TB.40-20.110	BUSSOLA RIDUZIONE STD 40 D.20	40	110	20	5
TB.40-25.110	BUSSOLA RIDUZIONE STD 40 D.25	40	110	25	5
TB.40-32.110	BUSSOLA RIDUZIONE STD 40 D.32	40	110	32	5



CON BATTUTA - HEADED REDUCTION SLEEVES - DIAM. 50 L90

Cod.	TYPE	ØD	L	ØD1	L1	Cod.	TYPE	ØD	L	ØD1	L1
TB.50-16.90	BUSSOLA DI RIDUZIONE D.50-16	50	90	16	5	TB.50-32.90	BUSSOLA DI RIDUZIONE D.50-32	50	90	32	5
TB.50-20.90	BUSSOLA DI RIDUZIONE D.50-20	50	90	20	5	TB.50-40.90	BUSSOLA DI RIDUZIONE D.50-40	50	90	40	5
TB.50-25.90	BUSSOLA DI RIDUZIONE D.50-25	50	90	25	5						



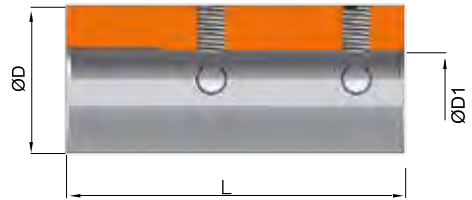
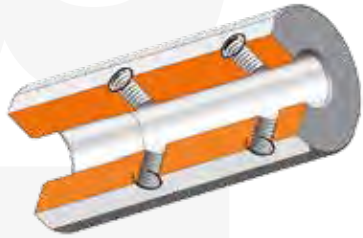
CON BATTUTA - HEADED REDUCTION SLEEVES - DIAM. 50 L130

Cod.	TYPE	ØD	L	ØD1	L1	Cod.	TYPE	ØD	L	ØD1	L1
TB.50-16.130	BUSSOLA RIDUZIONE STD 50 D.16	50	130	16	5	TB.50-32.130	BUSSOLA RIDUZIONE STD 50 D.32	50	130	32	5
TB.50-20.130	BUSSOLA RIDUZIONE STD 50 D.20	50	130	20	5	TB.50-40.130	BUSSOLA RIDUZIONE STD 50 D.40	50	130	40	5
TB.50-25.130	BUSSOLA RIDUZIONE STD 50 D.25	50	130	25	5						



SENZA BATTUTA - UNIVERSAL REDUCTION SLEEVES - DIAM. 32 L70

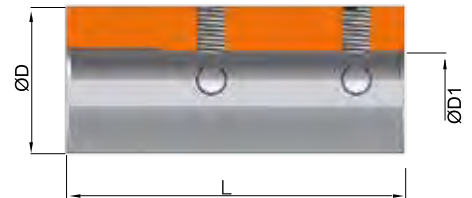
Cod.	TYPE	ØD	L	ØD1	Cod.	TYPE	ØD	L	ØD1
TB.32-8.70.SB	BUSSOLA DI RID. E2-1 D32X8	32	70	8	TB.32-16.70.SB	BUSSOLA DI RID. E2-1 D32X16	32	70	16
TB.32-10.70.SB	BUSSOLA DI RID. E2-1 D32X10	32	70	10	TB.32-20.70.SB	BUSSOLA DI RID. E2-1 D32X20	32	70	20
TB.32-12.70.SB	BUSSOLA DI RID. E2-1 D32X12	32	70	12					



SENZA BATTUTA - UNIVERSAL REDUCTION SLEEVES - DIAM. 40 L80

Cod.	TYPE	ØD	L	ØD1
TB.40-8.80.SB	BUSSOLA DI RID. E2-1 D40X8	40	80	8
TB.40-10.80.SB	BUSSOLA DI RID. E2-1 D40X10	40	80	10
TB.40-12.80.SB	BUSSOLA DI RID. E2-1 D40X12	40	80	12

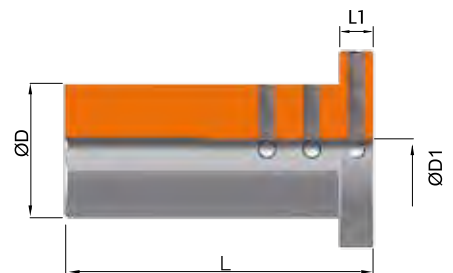
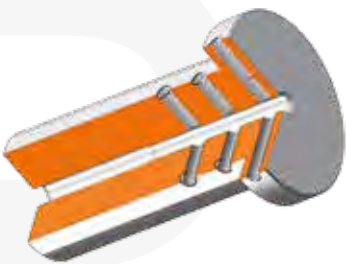
Cod.	TYPE	ØD	L	ØD1
TB.40-16.80.SB	BUSSOLA DI RID. E2-1 D40X16	40	80	16
TB.40-20.80.SB	BUSSOLA DI RID. E2-1 D40X20	40	80	20
TB.40-25.80.SB	BUSSOLA DI RID. E2-1 D40X25	40	80	25



SENZA BATTUTA - UNIVERSAL REDUCTION SLEEVES - DIAM. 60 L160

Cod.	TYPE	ØD	L	ØD1
TB.60-16.160.SB	BUSSOLA DI RID. E2-1 D60X16	60	160	16
TB.60-20.160.SB	BUSSOLA DI RID. E2-1 D60X20	60	160	20
TB.60-25.160.SB	BUSSOLA DI RID. E2-1 D60X25	60	160	25

Cod.	TYPE	ØD	L	ØD1
TB.60-32.160.SB	BUSSOLA DI RID. E2-1 D60X32	60	160	32
TB.60-40.160.SB	BUSSOLA DI RID. E2-1 D60X40	60	160	40



TIPO MAZAK - MAZAK TYPE HEADED REDUCTION SLEEVES - DIAM. 40 L80

Cod.	TYPE	ØD	L	ØD1	L1
TB.40-6.80.MAZAK	BUSSOLA TIPO MAZAK D.40-6	40	80	6	5
TB.40-8.80.MAZAK	BUSSOLA TIPO MAZAK D.40-8	40	80	8	5
TB.40-10.80.MAZAK	BUSSOLA TIPO MAZAK D.40-10	40	80	10	5
TB.40-12.80.MAZAK	BUSSOLA TIPO MAZAK D.40-12	40	80	12	5
TB.40-14.80.MAZAK	BUSSOLA TIPO MAZAK D.40-14	40	80	14	5

Cod.	TYPE	ØD	L	ØD1	L1
TB.40-16.80.MAZAK	BUSSOLA TIPO MAZAK D.40-16	40	80	16	5
TB.40-18.80.MAZAK	BUSSOLA TIPO MAZAK D.40-18	40	80	18	5
TB.40-20.80.MAZAK	BUSSOLA TIPO MAZAK D.40-20	40	80	20	5
TB.40-25.80.MAZAK	BUSSOLA TIPO MAZAK D.40-25	40	80	25	5
TB.40-32.80.MAZAK	BUSSOLA TIPO MAZAK D.40-32	40	80	32	5

TASTATORE MECCANICO

FLOATING PRECISION CENTERING DEVICE



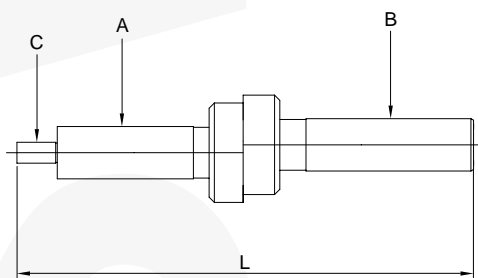
TASTATORE

*FLOATING PRECISION CENTERING
DEVICE*



MOLLE DI RICAMBIO

REPLACEMENT SPRINGS



TASTATORE MECCANICO FLOTTANTE - *FLOATING PRECISION CENTERING DEVICE*

Cod.	TYPE	A	B	L	C
TAS020	TASTATORE MECCANICO UNIVERSALE	10	10	87,2	4

MOLLE DI RICAMBIO - *REPLACEMENT SPRINGS*

Cod.	TYPE
TAS005	MOLLA DIAM.0,6 PER TASTATORE MECCANICO

RACCORDI PER HSK

HSK COOLING TUBE

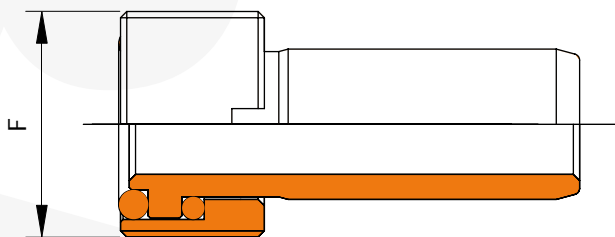


RACCORDO

HSK COOLING TUBE

CHIAVE PER RACCORDO

HSK-COOLING TUBE WRENCHES



RACCORDI PER REFRIGERANTE HSK - HSK COOLING TUBE

Cod.	TYPE	ØD1	Cod.	TYPE	ØD1
RACHSK6	RACCORDO HSK32/M10	M10x1	RACHSK3	RACCORDO HSK63/M18	M18x1
RACHSK1	RACCORDO HSK40/M12	M12x1	RACHSK4	RACCORDO HSK80/M20	M20x1,5
RACHSK2	RACCORDO HSK50/M16	M16x1	RACHSK5	RACCORDO HSK100/M24	M24x1,5

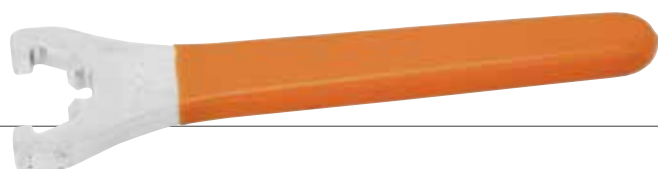


CHIAVI PER RACCORDI - HSK-COOLING TUBE WRENCHES

Cod.	TYPE	M	Cod.	TYPE	M
WR.HSK.40	CHIAVE PER RACCODO HSK40	12	WR.HSK.80	CHIAVE PER RACCODO HSK80	20
WR.HSK.50	CHIAVE PER RACCODO HSK50	16	WR.HSK.100	CHIAVE PER RACCODO HSK100	24
WR.HSK.63	CHIAVE PER RACCODO HSK63	18			

CHIAVI PER GHIERE

WRENCHES FOR NUTS



PER GHIERA ER DIN6499
FOR CLAMPING NUT DIN6499



PER GHIERA ESAGONALE
FOR HEXAGONAL NUT



A SETTORE
FOR CLAMPING NUT EOC DIN6388



DINAMOMETRICA
DYNAMOMETRIC



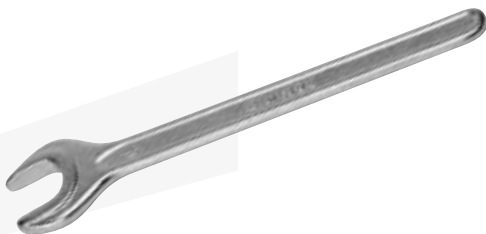
PER GHIERA ER DIN 6499 MINI - FOR MINI CLAMPING NUT DIN 6499

Cod.	TYPE	Cod.	TYPE
WR.8.M	ERX8M	WR.20.M	ERX20M
WR.11.M	ERX11M	WR.25.M	ERX25M
WR.16.M	ERX16M		



PER GHIERA ER DIN 6499 STANDARD - FOR STANDARD CLAMPING NUT DIN 6499

Cod.	TYPE	Cod.	TYPE
WR.16.ST	ERX16	WR.32.ST	ERX32
WR.20.ST	ERX20	WR.40.ST	ERX40
WR.25.ST	ERX25	WR.50.ST	ERX50



PER GHIERA ESAGONALE - FOR HEXAGONAL CLAMPING NUT

Cod.	TYPE	Cod.	TYPE
WR.11.EX	ER11EX	WR.20.EX	ER20EX
WR.16.EX	ER16EX	WR.25.EX	ER25EX

Fig. 1



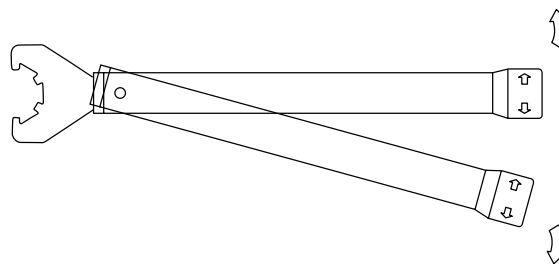
Fig. 2



A SETTORE PER PINZA EOC DIN 6388 - FOR CLAMPING NUT EOC DIN 6388

Cod.	TYPE	FIGURA	Cod.	TYPE	FIGURA
WR.16.EOC	CHIAVE PER GHIERA EOC 16	1	WR.25.EOC	CHIAVE PER GHIERA EOC 25	2

NEW

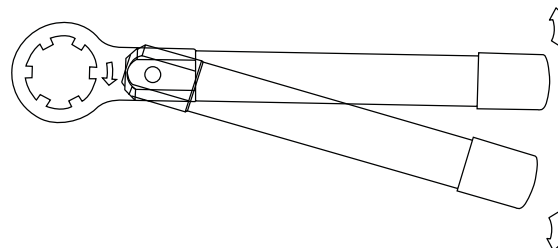


DINAMOMETRICHE STANDARD - STANDARD DYNAMOMETRIC

Cod.	TYPE	COPPIA SERRAGGIO
WR.DIN.16	CHIAVE DINAMOMETRICA PER ER16	23-35 45-55
WR.DIN.20	CHIAVE DINAMOMETRICA PER ER20	30-40 60-70
WR.DIN.25	CHIAVE DINAMOMETRICA PER ER25	45-55 80-90

Cod.	TYPE	COPPIA SERRAGGIO
WR.DIN.32	CHIAVE DINAMOMETRICA PER ER32	65-70 120-130
WR.DIN.40	CHIAVE DINAMOMETRICA PER ER40	110-120 190-200

NEW



DINAMOMETRICHE MINI - MINI DYNAMOMETRIC

Cod.	TYPE
WR.DIN.8.MINI	CHIAVE DINAMOMETRICA PER ER8MINI
WR.DIN.11.MINI	CHIAVE DINAMOMETRICA PER ER11MINI
WR.DIN.16.MINI	CHIAVE DINAMOMETRICA PER ER16MINI

Cod.	TYPE
WR.DIN.20.MINI	CHIAVE DINAMOMETRICA PER ER20MINI
WR.DIN.25.MINI	CHIAVE DINAMOMETRICA PER ER25MINI

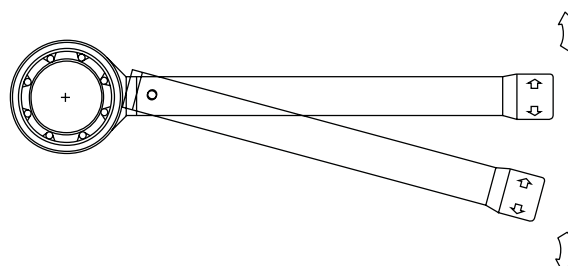
NEW



CHIAVI A RULLI STANDARD - ROLLER BEARING STANDARD WRENCH

Cod.	TYPE	H MIN	H MAX
WR.RUL.16	PER GHIERE ER16 CON E SENZA TACCHE	210	300
WR.RUL.20	PER GHIERE ER20 CON E SENZA TACCHE	210	300
WR.RUL.25	PER GHIERE ER25 CON E SENZA TACCHE	285	400
WR.RUL.32	PER GHIERE ER32 CON E SENZA TACCHE	285	413
WR.RUL.40	PER GHIERE ER40 CON E SENZA TACCHE	310	440

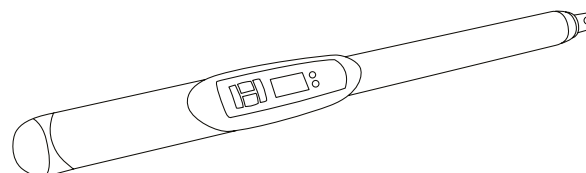
NEW



CHIAVI A RULLI DINAMOMETRICHE - ROLLER BEARING DYNAMOMETRIC WRENCH

Cod.	TYPE	Cod.	TYPE
WR.RUL.DIN.16	PER GHIERE ER16 CON E SENZA TACCHE	WR.RUL.DIN.32	PER GHIERE ER32 CON E SENZA TACCHE
WR.RUL.DIN.20	PER GHIERE ER20 CON E SENZA TACCHE	WR.RUL.DIN.40	PER GHIERE ER40 CON E SENZA TACCHE
WR.RUL.DIN.25	PER GHIERE ER25 CON E SENZA TACCHE		

NEW



CHIAVE DIGITALE DINAMOMETRICA - DIGITAL DYNAMOMETRIC WRENCH

Cod.	TYPE	CAPACITÀ
WR.DIG	CHIAVE DIGITALE DINAMOMETRICA	20-200 NM

NEW



Fig.1



Fig.2



Fig.3



Fig.4

INSERTI PER CHIAVE DINAMOMETRICA - *INTERCHANGEABLE HEADS*

Cod.	TYPE	FIG.
INS.DIG.ER16M	PER GHIERA ER16 MINI	1
INS.DIG.ER20M	PER GHIERA ER20 MINI	1
INS.DIG.ER25M	PER GHIERA ER25 MINI	1
INS.DIG.ER16.EX	PER GHIERA ER16 ESAGONALE	2
INS.DIG.ER20.EX	PER GHIERA ER20 ESAGONALE	2
INS.DIG.ER25	PER GHIERA ER25 STANDARD	3
INS.DIG.ER32	PER GHIERA ER32 STANDARD	3
INS.DIG.ER40	PER GHIERA ER40 STANDARD	3
INS.DIG.ER32NF	PER GHIERA ER32 SENZA TACCHE	4

RIDUZIONE CONO MORSE

CONO MORSE ADAPTERS



RIDUZIONI A CONO MORSE
CONO MORSE ADAPTERS



BUSSOLE DI RIDUZIONI A
CONO MORSE
MORSE TAPER SLEEVES



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM1

.Cod	TYPE	H	Ø D1
CM1.25.ER11M	CM1 H25 ERX11M	25	16
CM1.40.ER16M	CM1 H40 ERX16M	40	22



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM1

.Cod	TYPE	H	Ø D1
CM1.25.ER11	CM1 H25 ERX11	25	19
CM1.40.ER16	CM1 H40 ERX16	40	28



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM2

.Cod	TYPE	H	Ø D1
CM2.42.ER16M	CM2 H42 ERX16M	42	22
CM2.50.ER20M	CM2 H50 ERX20M	50	28
CM2.54.ER25M	CM2 H54 ERX25M	54	35



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM2

.Cod	TYPE	H	Ø D1
CM2.62.ER32.DX	CM2 H62 ERX32 DX M30x1,5	62	50
CM2.62.ER32.SX	CM2 H62 ERX32 SX M30x1,5	62	50
CM2.85.ER32.DX	CM2 H85 ERX32 DX M20x14	85	50
CM2.85.ER32.SX	CM2 H85 ERX32 SX M20x14	85	50
CM2.93.ER40.1.DX	CM2 H93 ERX40 DX M30x1,5	93	63
CM2.93.ER40.1.SX	CM2 H93 ERX40 SX M30x1,5	93	63
CM2.93.ER40.2.DX	CM2 H93 ERX40 DX M20x14	93	63
CM2.93.ER40.2.SX	CM2 H93 ERX40 SX M20x14	93	63Z



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM2

.Cod	TYPE	H	Ø D1
CM2.42.ER16	CM2 H42 ERX16	42	28
CM2.50.ER20	CM2 H50 ERX20	50	34
CM2.54.ER25	CM2 H54 ERX25	54	42



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM3

.Cod	TYPE	H	Ø D1
CM3.43.ER16M	CM3 H43 ERX16M	43	22
CM3.47.ER20M	CM3 H47 ERX20M	47	28
CM3.58.ER25M	CM3 H58 ERX25M	58	35



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM3

.Cod	TYPE	H	Ø D1
CM3.70.ER32.DX	CM3 H70 ERX32 DX M30x1,5	70	50
CM3.70.ER32.SX	CM3 H70 ERX32 SX M30x1,5	70	50
CM3.80.ER40.DX	CM3 H80 ERX40 DX M30x1,5	80	63
CM3.80.ER40.SX	CM3 H80 ERX40 SX M30x1,5	80	63



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM4

.Cod	TYPE	H	Ø D1
CM3.53.ER25	CM3 H53 ERX25	53	42
CM3.70.ER32	CM3 H70 ERX32	70	50
CM3.80.ER40	CM3 H80 ERX40	80	63



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM4

.Cod	TYPE	H	Ø D1
CM4.56.ER25	CM4 H56 ERX25	56	42
CM4.60.ER32	CM4 H60 ERX32	60	50
CM4.81.ER40	CM4 H81 ERX40	81	63
CM4.96.ER50	CM4 H96 ERX50	96	78



PORTA PINZE CON ATTACCO CONO MORSE - MORSE TAPER COLLET CHUCK - CM5

.Cod	TYPE	H	Ø D1
CM5.50.ER32	CM5 H50 ERX32	50	50
CM5.82.ER40	CM5 H82 ERX40	82	63
CM5.91.ER50	CM5 H91 ERX50	91	78



BUSSOLA DI RIDUZIONE A CONO MORSE - MORSE TAPER SLEEVES- CM2

.Cod	TYPE	L
CM2-1	CM2 - CM1	92



BUSSOLA DI RIDUZIONE A CONO MORSE - MORSE TAPER SLEEVES- CM3

.Cod	TYPE	L
CM3-1	CM3 - CM1	99
CM3-2	CM3 - CM2	112



BUSSOLA DI RIDUZIONE A CONO MORSE - MORSE TAPER SLEEVES- CM4

.Cod	TYPE	L
CM4-1	CM4 - CM1	124
CM4-2	CM4 - CM2	124
CM4-3	CM4 - CM3	140



BUSSOLA DI RIDUZIONE A CONO MORSE - MORSE TAPER SLEEVES- CM5

.Cod	TYPE	L
CM5-1	CM5 - CM1	156
CM5-2	CM5 - CM2	156
CM5-3	CM5 - CM3	156
CM5-4	CM5 - CM4	174



BUSSOLA DI RIDUZIONE A CONO MORSE - MORSE TAPER SLEEVES- CM6

.Cod	TYPE	L
CM6-4	CM6 - CM4	218
CM6-5	CM6 - CM5	218

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STAZIONI DI CALETTAMENTO



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SOM MA RIO

La Tecnologia Del Calettamento A Caldo / p. 3

Modelli Macchine A Calettamento / p. 4

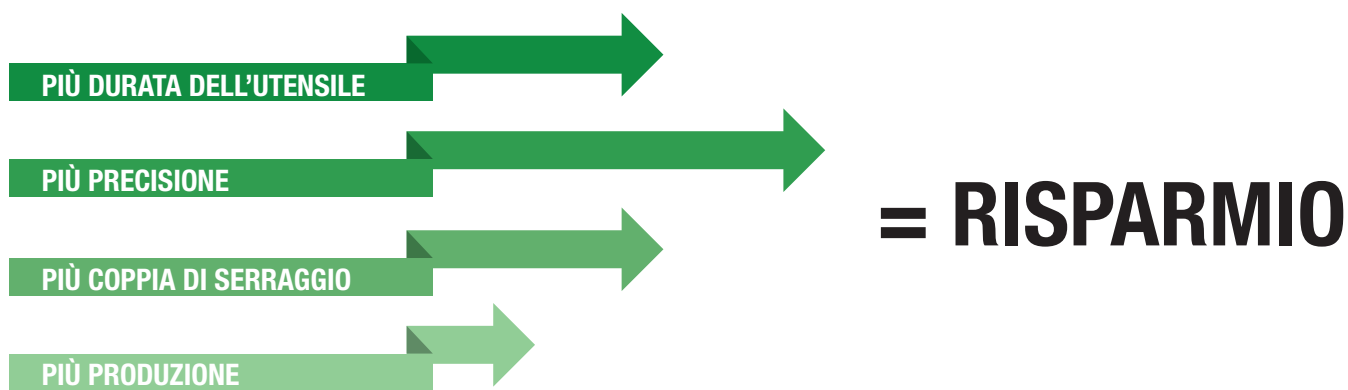
Accessori / p. 6

Bilanciatura - Performance Utensile / p. 7

LA TECNOLOGIA DEL CALETTAMENTO A CALDO

Il calettamento termico è un sistema di serraggio che sfrutta la dilatazione termica del portautensile, permettendo così l'inserimento dell'utensile in metallo duro o in HSS nel foro dello stesso. Attraverso la macchina a calettamento, viene riscaldato il portautensile, permettendo così una dilatazione del foro del mandrino. Una volta inserito l'utensile, attraverso l'apposita unità di refrigerazione, il mandrino viene raffreddato e riportato alle sue dimensioni originarie, bloccando così in modo stabile e sicuro l'utensile.

I mandrini a calettamento termico permettono di risolvere quelle che sono le problematiche legate alla mancanza di precisione nelle lavorazioni ad alta velocità; questo avviene grazie al particolare tipo di serraggio che si viene a creare attraverso il sistema di riscaldamento e raffreddamento del portautensile. Il serraggio tramite calettamento, infatti, garantisce una maggior precisione sulla concentricità dell'utensile, oltre che una maggior forza di chiusura dello stesso. Altra importante peculiarità di questa tipologia di mandrini è la possibilità, rispetto ad altre varietà di portautensili, di poter lavorare in spazi ridotti, grazie a ingombri minimi, riuscendo comunque a mantenere una forza di serraggio notevole. Caratteristiche indispensabili che nessun altro sistema di serraggio riesce a garantire.



MODELLI MACCHINA A CALETTAMENTO

START.2

**Dotata di bobina intelligente:**

riconosce il diametro dell'utensile che sta calettando e ne auto-tara il tempo di riscaldamento.

**Alimentazione elettrica:**

3x380 / 480 V - 16 A

**Potenza:**

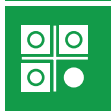
14 kW

**Dimensioni:**

255 mm x 490mm x 755mm

**Peso:**

19 Kg (senza accessori aggiuntivi)

**Equipaggiamento standard:**

- Anello induttore dal Ø 6 al Ø 12
- Anello induttore dal Ø 14 al Ø 20
- Paio di guanti in kevlar
- Pulsantiera di comando



*Permette di calettare utensili dal diametro 2 al diametro 40 in pochi secondi.
E' possibile calettare utensili con i taglienti posti ad una distanza maggiore tra di loro rispetto al diametro dell'utensile, grazie agli anelli induttori aperti.
Può essere collocata in un banco di lavoro fisso oppure su un carrello.*



UNITA' DI RAFFREDDAMENTO FG500.1150

*Unità di raffreddamento ad aria, con alimentazione pneumatica e completa di filtro e regolatore di pressione.
Riesce a raffreddare il mandrino in breve tempo, creando una notevole forza di chiusura.*

**Dimensioni:**

250 mm x 190 mm x 615 mm

**Peso:**

5 Kg

**Aria compressa supportata:**

4-6 bars

**Equipaggiamento standard:**

- Supporto di raffreddamento dal Ø 6 al Ø 12
- Supporto di raffreddamento dal Ø 14 al Ø 20



MODELLI MACCHINA A CALETTAMENTO

FI-6

Dotata di bobina intelligente:
riconosce il diametro dell'utensile che sta calettando e ne auto-tara il tempo di riscaldamento.



Alimentazione elettrica:
3x380 / 480 V - 16 A

Potenza:
14 kW

Dimensioni:
785 mm x 490mm x 855mm

Peso:
65 Kg (senza accessori aggiuntivi)

Equipaggiamento standard:

- Anello induttore dal \varnothing 2 al \varnothing 5
- Anello induttore dal \varnothing 6 al \varnothing 12
- Anello induttore dal \varnothing 14 al \varnothing 20
- Anello induttore dal \varnothing 25 al \varnothing 32
 - Paio di guanti in kevlar
 - Pulsantiera di comando
- Due unità di raffreddamento incorporate
 - Due supporti di raffreddamento dal \varnothing 2 al \varnothing 5
 - Due supporti di raffreddamento dal \varnothing 6 al \varnothing 12
 - Due supporti di raffreddamento dal \varnothing 14 al \varnothing 20
 - Due supporti di raffreddamento dal \varnothing 25 al \varnothing 32



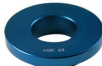






Completa di due unità di raffreddamento incorporate che permettono di raffreddare, in pochi minuti, utensili dal diametro 2 al diametro 40 - anche se dello stesso diametro. Gestione del ciclo di calettamento e di raffreddamento senza toccare il portautensile

Può essere collocata su un banco di lavoro

SCEGLI IL TUO EQUIPAGGIAMENTO PERSONALIZZATO

ACCESSORI



			Start.2	FI-6	FG500.1150
Supporti per mandrino - base mandrino					
	Per mandrino HSK 25 A-C-E / HSK 32 B-D-F	FP100.1025	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino HSK 32 A-C-E / HSK 40 B-D-F	FP100.1032	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino HSK 40 A-C-E / HSK 50 B-D-F	FP100.1040	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino HSK 50 A-C-E / HSK 63 B-D-F	FP100.1050	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino HSK 63 A-C-E / HSK 80 B-D-F	FP100.1063	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino HSK 80 A-C-E / HSK 100 B-D-F	FP100.1080	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino HSK 100 A-C-E / HSK 125 B-D-F	FP100.1100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino ISO / BT 30	FP100.2030	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino ISO / BT 40	FP100.2040	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino ISO / BT 45	FP100.2045	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino ISO / BT 50	FP100.2050	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino ISO / BT 50 - senza codolo	FP100.4050		<input type="checkbox"/>	<input type="checkbox"/>
	Per mandrino CPT63	FP100.5063	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Anelli induttori chiusi				
	Dal Ø 2 al Ø 5	FE100.020.050	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Dal Ø 6 al Ø 12	FE100.060.120	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Dal Ø 14 al Ø 20	FE100.140.200	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Dal Ø 25 al Ø 32	FE100.250.320	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Diam. Ø 40	FE100.400.400	<input type="checkbox"/>	<input type="checkbox"/>	
Anelli induttori aperti					
	Dal Ø 2 al Ø 5	FE200.020.050	<input type="checkbox"/>	<input type="checkbox"/>	
	Dal Ø 6 al Ø 12	FE200.060.120	<input type="checkbox"/>	<input type="checkbox"/>	
	Dal Ø 14 al Ø 20	FE200.140.200	<input type="checkbox"/>	<input type="checkbox"/>	
	Dal Ø 25 al Ø 32	FE200.250.320	<input type="checkbox"/>	<input type="checkbox"/>	
	Diam. Ø 40	FE200.400.400	<input type="checkbox"/>	<input type="checkbox"/>	
Supporti di raffreddamento					
	Dal Ø 2 al Ø 5	FR500.050		<input checked="" type="checkbox"/> x2	<input type="checkbox"/>
	Dal Ø 6 al Ø 12	FR500.120		<input checked="" type="checkbox"/> x2	<input checked="" type="checkbox"/> x1
	Dal Ø 14 al Ø 20	FR500.200		<input checked="" type="checkbox"/> x2	<input checked="" type="checkbox"/> x1
	Dal Ø 25 al Ø 32	FR500.320		<input checked="" type="checkbox"/> x2	<input type="checkbox"/>
	Diam. Ø 40	FR500.400		<input type="checkbox"/>	<input type="checkbox"/>
Riduzione per calettamento					
	Supporto per riduzione	FL100.0800	<input type="checkbox"/>	<input type="checkbox"/>	
Accessori vari					
	Supporto per portautensili	FT150.0100		<input type="checkbox"/>	
	Supporto per basi mandrino	FT250.0100	<input type="checkbox"/>	<input type="checkbox"/>	
	Supporto per anelli induttori e di raffreddamento	FT350.0100	<input type="checkbox"/>	<input type="checkbox"/>	
	Supporto per anelli di raffreddamento	FT450.0100	<input type="checkbox"/>		<input type="checkbox"/>
	Paio di guanti in kevlar	FX100.0100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Speciale pinza per piccoli utensili	FX200.0100	<input type="checkbox"/>	<input type="checkbox"/>		
Ricambi elettronici					
	Induttore v.5 - Ø 64 (con gambo dell'utensile Ø ≤ 40)	FA100.0564	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Scheda madre 380 / 480 V	FC100.0500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Scheda madre 200 / 240 V	FC100.0501	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Pulsantiera di comando	FY100.050	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

PERFORMANCE UTENSILE BILANCIATURA

PRINCIPI DI BILANCIATURA

Lo squilibrio statico (U , [g.mm]) determina una differenza di posizione (e , [mm]) tra il centro di gravità e l'asse di rotazione del portautensile. Questo squilibrio genera una forza centrifuga che ha effetti negativi, sia sulla macchina utensile, sia sugli utensili stessi.

$$U = e \times M \text{ portautensile}$$

Dove : U = squilibrio statico in gr/mm
 e = sbilanciamento specifico residuo ammissibile [g.mm/kg]
 M = massa portautensile in Kg

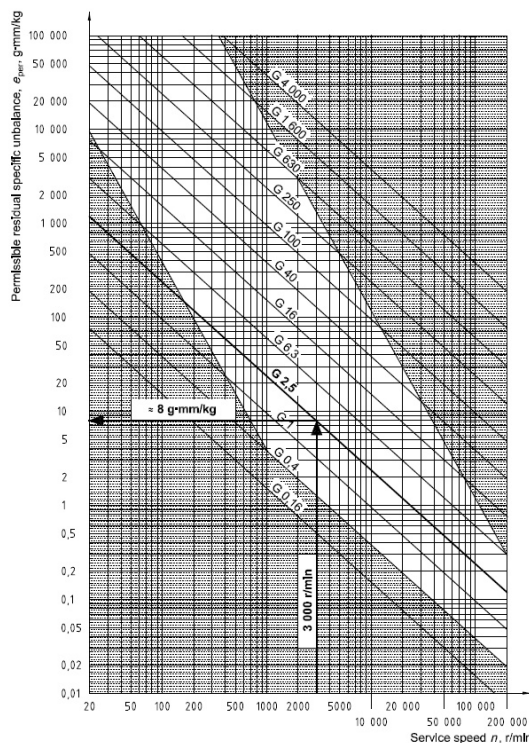
$$F = U \times \omega^2 \times 10^{-6}$$

Dove : F = forza [N]
 U = squilibrio [g.mm]
 ω = velocità di rotazione in rad/s

Lo squilibrio viene compensato mediante l'aggiunta o la rimozione della massa. Lo squilibrio dinamico comporta una differenza di posizione tra l'asse principale e l'asse di rotazione che genera vibrazioni dannose. La normativa ISO1940 (relativa alla bilanciatura) determina lo squilibrio ammissibile (U , [g.mm]) calcolabile come:

$$U_{amm} = \frac{1000 \times G \times M}{N}$$

Dove : G = grado di equilibratura [mm/s]
 M = massa [Kg]
 N = velocità di rotazione [rad/s] = $\frac{\pi \times n}{30}$
 n = velocità di rotazione [giri/min]



VANTAGGI DELLA BILANCIATURA


- Vibrazioni ridotte durante le lavorazioni.
- Migliore rugosità del pezzo lavorato.
- Aumento della vita dell'inserto, punta o fresa


Bilanciando il portautensile si avrà una maggior stabilità durante la lavorazione, grazie alla corretta distribuzione del peso. Questa è la motivazione per la quale preferiamo bilanciare i nostri portautensili.

Nel grafico riportato, viene indicata la modalità di rilevamento del valore e . Sull'asse X è espressa la velocità di rotazione del mandrino, indicata con n . Sull'asse Y è indicato lo sbilanciamento specifico residuo ammissibile, e per g.mm/kg.

Il grafico si utilizza nella seguente modalità:

1. Selezionare, sull'asse X, il numero di giri che il vostro mandrino dovrà utilizzare durante la lavorazione. Esempio: 3000 r/min
2. Con una linea retta, salire in verticale nel grafico, fino ad intersecare una delle rette oblique indicanti il grado di tolleranza desiderato. Solitamente le tolleranze più utilizzate sono G6,3 e G2,5 (nell'esempio riportato è stata selezionata la tolleranza G2,5)
3. Dal punto di intersezione tra la retta verticale e quella obliqua, tracciare una retta orizzontale e rilevare il valore riportato sull'asse Y.
4. Moltiplicare il valore riscontrato sull'asse Y per il peso del mandrino in Kg.
5. Il risultato è lo squilibrio ammissibile per il vostro mandrino e per la vostra lavorazione.



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