

pagnoni
tools



MECCANICA 2020-2021

MANDRINI PORTAUTENSILI PER MACCHINE CNC
SPINDLE TOOLING FOR CNC MACHINES
MANDRINS PORTE-OUTILS POUR MACHINES CNC
WERKZEUGAUFNAHMEN FÜR CNC MASCHINEN

MADE IN ITALY



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MECCANICA
2020-2021





ATTACCO | CONNECTION | ATTACKE | CONNEXION

BILANCIATURA | BALANCING | AUSGLEICH | ÉQUILIBRAGE

BOCCOLA | BUSH | BUCHSE | BAGUE

CONO | CONE | KEGEL | CÔNE

DESCRIZIONE | DESCRIPTION | DESCRIPTION | BESCHREIBUNG

GHIERA | CLAMPING NUT | SPANNMURRERN | ECROUS DE SERRAGE

GIUNTO DIN 6366 | CLUTCH DRIVE RING DIN 6366 | MITNEHMERRINGE DIN 6366 | BAGUES D'ENTRAÎNEMENT DIN 6366

GRANO | CLAMPING SCREW | SPANNSCHRAUBEN | VIS DE SERRAGE

GRANO INTERNO | ADJUSTING SCREW | VERSTELLSCHRAUBEN | VIS DE RÉGLAGE

LINGUETTA | FEATHER KEYS | PASSFEDER | CLAVETTE

OGIVA | OGIVE | OGIVE | OGIVE2Q

PINZE | COLLETS | SPANNZANGEN | PINCES

RIDUZIONE | REDUCTION | REDUKTION | REDUCTION

TASSELLO | DRIVING KEY FOR MILL HOLDER | NUTENSTEIN FÜR QUERNUTDORN | TASSEaux POUR PORTE-FRAISE A TROU LISSE

TIPOLOGIA | TYPOLOGY | TYPOLOGIE | TYPOLOGIE

VITE | SCREW | SCHRAUBEN | VIS

VITE A CROCE DIN 6367 | RETAINING SCREW DIN 6367 | FRÄSERANZUGSHRAUBEN DIN 6367 | VIS DE SERRAGE DIN 6367

MANDRINI A DOPPIO CONTATTO
TOOLHOLDERS DUAL CONTACT
DOPPEL KONTAKT WERKZEUGAUFNAHMEN
PORTE-OUTILS DOUBLE FACE

New

11

DOPPIO
CONTATTO

MANDRINI A CALETTAMENTO TERMICO
SHRINK FIT TOOLHOLDERS
SCHRUMPFUTTER
MANDRINS DE FRETTAGE

New

41

CALETTAMENTO
TERMICO

MANDRINI CON ATTACCO POLIGONALE ISO 26623-1
TOOLHOLDERS POLYGONAL SHANK ISO 26623-1
WERKZEUGAUFNAHMEN MIT POLYGONALSCHAFT ISO 26623-1
PORTE-OUTILS À QUEUE POLYGONALE ISO 26623-1

New

57

ISO 26623-1

MANDRINI CON ATTACCO DIN 69871
TOOLHOLDERS DIN 69871
WERKZEUGAUFNAHMEN DIN 69871
PORTE-OUTILS DIN 69871

85

DIN 69871

MANDRINI CON ATTACCO MAS 403 BT
TOOLHOLDERS MAS 403 BT
WERKZEUGAUFNAHMEN MAS 403 BT
PORTE-OUTILS MAS 403 BT

119

MAS 403 BT

MANDRINI CON ATTACCO DIN 2080
TOOLHOLDERS DIN 2080
WERKZEUGAUFNAHMEN DIN 2080
PORTE-OUTILS DIN 2080

155

DIN 2080

MANDRINI CON ATTACCO DIN 69893 HSK
TOOLHOLDERS DIN 69893 HSK
WERKZEUGAUFNAHMEN DIN 69892 HSK
PORTE-OUTILS DIN 69893 HSK

185

DIN 69893 HSK

ADATTATORI MODULARI
MODULAR ADAPTOR
MODULARER ADAPTER
ADAPTATEUR MODULAIRE

241

ADATTATORI
MODULARI

MANDRINI CON ATTACCO CILINDRICO
COLLET CHUCKS WITH STRAIGHT SHANK
SPANNFUTTER MIT ZYLINDERSCHAFT
MANDRINS A PINCES A QUEUE CYLINDRIQUE

249

ATTACCO
CILINDRICO

ACCESSORI
ACCESSORIES
ZUBEHÖR
ACCESSOIRES

255

ACCESSORI

Pagnoni Tools

Pagnoni Valter & C. S.N.C.



Accessori per macchine utensili



pagnoni

Innovazione e Passione in Meccanica

Innovation and Passion in Mechanics

**pagnoni
tools**

Innovation and Passion
in Mechanics

Pagnoni Tools srl - azienda Italiana leader nella produzione di accessori per macchine utensili (Standard e Custom).

Attualmente è tra i primi 10 produttori del settore in Europa. Negli ultimi anni ha consolidato la propria presenza anche sui mercati internazionali.

Fondata nel 1982 da Valter Pagnoni l'azienda inizialmente è specializzata nelle lavorazioni conto terzi per l'industria meccanica.

Dal 1994 al 1999 l'azienda compie una svolta: da terzista a costruttore di mandrini per macchine utensili, grazie a una serie di investimenti mirati all'ammodernamento e allo sviluppo del parco macchine.

Il decennio 1999 - 2009 segna l'ascesa dell'azienda che si afferma nel mercato nazionale come uno dei principali produttori del settore, grazie agli standard qualitativamente elevati e alla possibilità di realizzazione di prodotti custom. Dal 2009 Pagnoni srl è impegnata nell'attività di internazionalizzazione dell'azienda e nel processo di ampliamento della gamma prodotti, confrontandosi con i principali produttori di settore e dando il via all'esportazione nei mercati europei e asiatici.

Nel 2017 si sono celebrati i 35 anni di attività con la messa online del nuovo sito internet e del nuovo portale dedicato all'e-commerce accompagnati da un rebranding guidato dalla volontà di mantenere la propria identità, ma con uno sguardo volto al futuro.

Nel 2020 Pagnoni srl diventa Pagnoni Tools srl con lo scopo di proseguire il percorso intrapreso e soddisfare le esigenze di un mercato in continua evoluzione.

Pagnoni Tools srl punta a soddisfare le richieste di componenti sia standard sia su misura basate su specifiche dei clienti.

Il costante sviluppo tecnologico e la ricerca continua orientata all'eccellenza che hanno permesso alla Pagnoni srl di affermarsi come leader e punto di riferimento sul mercato, sono le basi su cui si fonda la filosofia della Pagnoni Tools srl.

Pagnoni Tools srl - a leading Italian Company in the production of accessories for CNC machines (Standard and Custom).

It is currently among the Top 10 producers of toolholders in Europe. In the last years has strengthened its presence also on international markets.

Founded in 1982 by Valter Pagnoni, the company was initially specialized in third party turning and machining for the mechanical industry.

Years from 1994 to 1999 were the years of the breakthrough: from subcontractor to manufacturer of toolholders, thanks to many investments for the modernization of machineries and development of production technologies.

The decade 1999 - 2009 marks the rise of the company which establishes in the national market as one of the main producers, thanks to the high quality standards and the possibility of manufacturing custom products. Since 2009 Pagnoni srl has been committed in the internationalization of the company and in the process of increasing the range of manufactured products, competing with the main worldwide manufacturers and starting the export to the European and Asian markets.

In 2017, 35 years of activity were celebrated with the new website and the new portal dedicated to e-commerce accompanied by a rebranding guided by the desire to maintain one's identity with a look toward the future.

In 2020 Pagnoni srl becomes Pagnoni Tools srl with the aim of continuing the path taken and meeting the needs of a constantly evolving market.

Currently Pagnoni Tools srl is focused to satisfy the demands of both standard and customized components based on customer specifications.

The constant technological development and the continuous research oriented towards excellence have allowed the Pagnoni srl to become a leader and a point of reference point in the market are the foundations on which the philosophy of the Pagnoni Tools srl is based.

Materiali e Trattamenti

MATERIALI E TRATTAMENTI

Pagnoni Tools srl utilizza per i propri prodotti Materiali di Alta Qualità e Trattamenti Certificati.

Tutte le realizzazioni rispettano standard elevati che garantiscono sicurezza e durabilità d'uso nel tempo. In particolare, tutti i mandrini Pagnoni Tools srl sono cementati e bruniti. Filettature e smussi vengono eseguiti dopo il trattamento termico, per conferire ai prodotti caratteristiche meccaniche e tecnologiche superiori.

Materie prime utilizzate per la produzione:

Vengono impiegati esclusivamente acciai di alta qualità, che uniscono un'elevata durezza dello strato superficiale ad un'eccellente tenacità del nucleo.

Tutti i materiali sono forniti da acciaierie italiane certificate che garantiscono la costanza del processo produttivo e uno standard qualitativo elevato in fornitura.

Trattamenti termici:

- Carbo cementazione con durezza 58-62 HRC
- Carbonitrurazione
- Tempra
- Tempra ad induzione

Rivestimenti superficiali:

- Brunitura: trattamento superficiale che fornisce una valida protezione contro l'ossidazione ed un gradevole aspetto estetico al prodotto.
- Nichelatura chimica.
- Niploy (Nichelatura ad alto tenore di Fosforo): tale trattamento garantisce, grazie alla struttura del riporto e alla presenza del fosforo, una elevata resistenza alla corrosione.
- Rivestimenti speciali Anti-attrito (metallo-metallo).

MATERIALS AND TREATMENTS

Pagnoni Tools srl uses high quality Materials and certified Treatments for its products.

All of our products comply with high quality standards that guarantee safety and durability of use over time.

In particular, all Pagnoni Tools srl toolholders are hardened and burnished. Threads and chamfers are performed after the heat treatment, to achieve superior mechanical and technological properties.

Raw materials used in production:

Only high quality steels are used, which combine a high hardness of the surface layer with an excellent core toughness.

All the materials are supplied by certified Italian steel mills that guarantee the reliability of the production process and a high quality standard in supply.

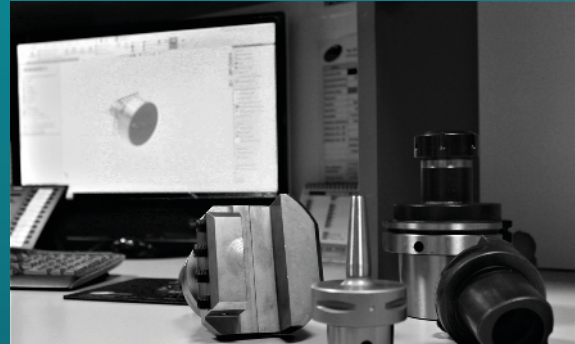
Heat treatments:

- Hardening (Carburizing) up to 58-62 HRC
- Carbonitriding
- Quench hardening
- Induction hardening

Surface treatments:

- Burnishing: surface treatment that provides a valid protection against oxidation and a pleasant appearance to the product.
- Chemical nickel plating.
- Niploy (Nickel-plating with high phosphorus content): this treatment guarantees a high resistance to corrosion, thanks to the structure of the coating and the presence of phosphorus.
- Special anti-friction coatings (metal to metal).

Engineering

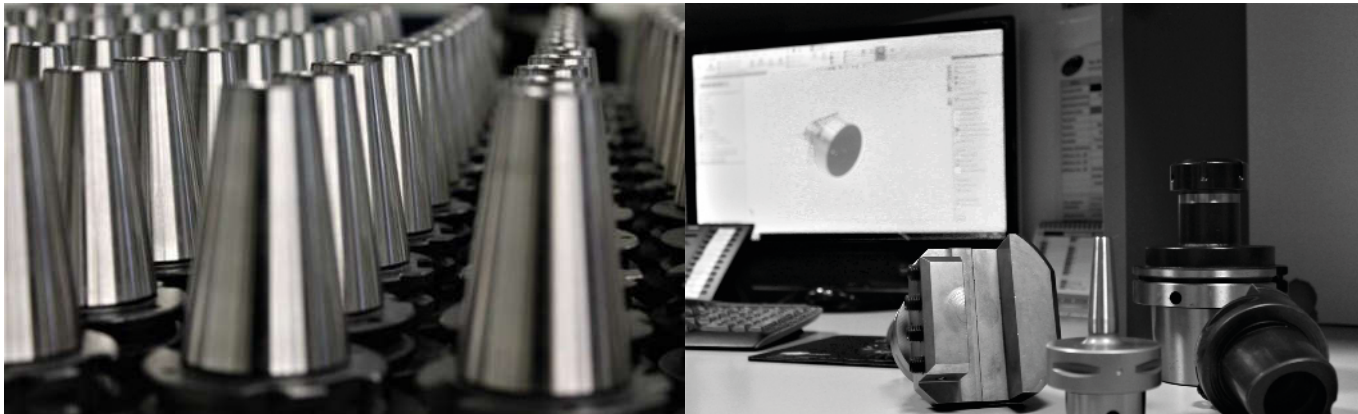


Un team altamente qualificato lavora ogni giorno nel segno della ricerca tecnologica facendo evolvere prodotti e processi produttivi, incrementando così qualità ed efficienza.

A highly qualified team works every day in the name of technological research, evolving products and production processes, and constantly increasing quality and efficiency.



Prodotti Customizzati



PRODOTTI CUSTOMIZZATI

Una Meccanica Sartoriale per prodotti su misura realizzati su disegno del cliente. Componenti che rispondono ad ogni esigenza nel settore delle lavorazioni meccaniche.

Pagnoni Tools srl si pone come Atelier della Meccanica, come laboratorio ingegneristico in cui si realizzano Progetti su Misura, peculiarità cruciale dell'azienda che produce prodotti meccanici sulla base di studi propri o su richiesta del cliente.

Gli sviluppi in questo settore sono stati molteplici e hanno contribuito alla creazione di una gamma di prodotti ampia e versatile per ogni necessità produttiva e settore tecnologico.

Un team di professionisti garantisce flessibilità progettuale e garanzia di realizzazione in termini di tempistiche e qualità.

CUSTOM PRODUCTS

A Tailor-made Mechanics for Custom products designed and manufactured according to customer's requirements. Components that meet every need in the mechanical machining sector.

Pagnoni Tools srl stands as a "Mechanics Studio", as an engineering laboratory in which Custom projects are realized, a main feature for a company that produces mechanical products based on its own studies or on customers' request.

Every developments in this sector has contributed to the creation of a wide and versatile range of products for every production need and technological sector.

A team of professionals guarantees design flexibility and ensures timing and quality.

Controlli di Qualità



CONTROLLI DI QUALITÀ

Per garantire prodotti in linea con la filosofia aziendale votata all'eccellenza e all'assoluta affidabilità di ogni singolo elemento meccanico, Pagnoni Tools srl effettua Controlli standard di Qualità sul 100% dei particolari prodotti, per garantire una elevata qualità e durabilità nel tempo.

- Controllo certificato della conicità AT3 tramite Tamponi pneumatici STOTZ (1,5 µm tolleranza del cono).
- Controllo filettature e sedi cono Morse / portapinzina tramite tamponi MG Calibri per verificare la qualità della filettatura.
- Controllo continuo Qualità fornitori.

Controlli aggiuntivi:

- Controllo Spettrometrico: controllo fondamentale atto a rilevare la presenza di eventuali cricche o fenditure all'interno del materiale lavorato.
- Controllo Magnetoscopico: processo eseguito per individuare discontinuità superficiali sul Mandrino portautensili.
- Bilanciatura: eseguita su bilanciatrici Haimer Tool Dynamic 2002 per ridurre al massimo le possibili vibrazioni durante l'utilizzo. Attraverso questo processo, si riduce l'usura dell'utensile, si riducono i tempi di fermo macchina e si aumentano la qualità e la sicurezza del processo di fresatura.

QUALITY CONTROLS

To guarantee products in line with the company mission focused on the excellence and absolute reliability of every single mechanical element, Pagnoni Tools srl carries out Standard Quality Control on 100% of its products, to ensure high quality and durability over time.

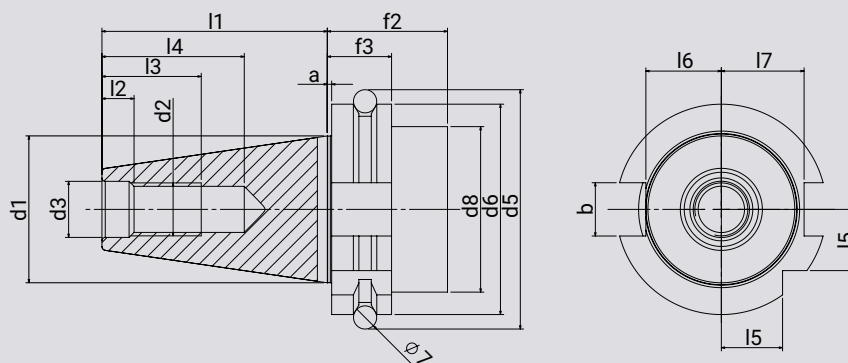
- Certified AT3 taper tolerance inspection, by STOTZ pneumatic pads (1.5 µm of cone tolerance).
- Inspection of the quality of the threads on Morse taper and Collet holder with MG pads Gauges.
- Suppliers Quality Control.

Additional controls:

- Spectrometric control: to detect the presence of any cracks or fissures inside the material.
- Magnetoscopic control: process performed to identify surface discontinuities on the parts.
- Balancing: performed on Haimer Tool Dynamic 2002 machines, to minimize possible vibrations during use. This process reduces tool wear and machine downtime, and increases the quality and safety of the milling process.

DIN 69871 DOPPIO CONTATTO
DIN 69871 DUAL CONTACT
DIN 69871 DOPPEL KONTAKT
DIN 69871 DOUBLE FACE





CONO	a ±0,1	b H12	d1	d2	d3 H7	d5 ±0,5	d6 0/-0,1	d8 max	f2 min
30	1,0	16,1	31,75	M12	13	59,30	50,00	45	35
40	1,0	16,1	44,45	M16	17	72,30	63,55	50	35
50	1,5	25,7	69,85	M24	25	107,25	97,50	80	35

CONO	f3 0/-0,1	l1	l2	l3 min	l4 min	l5 0/-0,3	l6 0/-0,4	l7 0/-0,4
30	19,1	47,80	5,5	24	33,5	15,0	16,4	19,0
40	19,1	68,40	8,2	32	42,5	18,5	22,8	25,0
50	19,1	101,75	11,5	47	61,5	30,0	35,5	37,7

VANTAGGI DEL SISTEMA A DOPPIO CONTATTO:

- Maggiore rigidità grazie al contatto simultaneo del cono e della flangia
- Miglioramento della durata dell'utensile
- Maggiore stabilità grazie alla riduzione delle vibrazioni

DOUBLE CONTACT SYSTEM ADVANTAGES:

- Enhanced rigidity thanks to simultaneous fit of taper and flange
- Improvement of the cutting tool life
- Improved stability leads to minimized vibrations

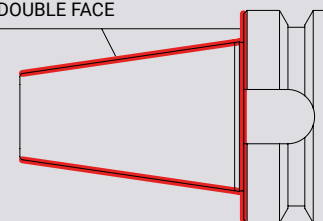
DIE ZAHLREICHEN VORTEILE DES DOPPELKONTAKT AUFNAHME:

- Verbesserte Steifigkeit durch die Simultanwirkung des Kontakts des Kegels und del Flansches
- Verbesserung der Lebensdauer des Schneidwerkzeugs
- Höhere Stabilität durch Vibrationsreduzierung

LES NOMBREUX AVANTAGES DES DOUBLE FACE PORTE-OUTILS

- Rigidité accrue grâce à l'ajustement simultané du cône et de la bride
- Amélioration de la durée de vie de l'outil de coupe
- Une stabilité améliorée conduit à des vibrations minimisées

DOPPIO CONTATTO
 DOUBLE CONTACT
 DOPPEL KONTAKT
 DOUBLE FACE



Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN

All PAGNONI TOOLS toolholders are manufactured according to DIN norms

Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert

Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

TOLLERANZA DEL CONO:

- < AT3 secondo DIN 7187 e DIN 2080

PRE-BILANCIATI:

- Grado di equilibratura aggiuntiva indicato a fianco della tabella dimensionale
- Mandrini alte velocità: a richiesta classe massima di equilibratura G 2,5 30000

FORMA AD

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 ± 2 – profondità si indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

AUFNAHME GENAUIGKEIT:

- < AT3 nach DIN 7187 und DIN 2080

VORGEWUCHTET:

- Neben der Übersichtstabelle der Produkte wird die Wuchtgüte angegeben
- Hochgeschwindigkeits Werkzeughalter: Aus Wuchtgüte G2,5 30000 auf Anfrage

FORM AD

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 ± 2, Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außenschleifen

TECHNICAL FEATURES

TAPER'S TOLLERANCE::

- < AT3 according to DIN 7187 and DIN 2080

PRE-BALANCED:

- Additional balancing grade beside dimensional table
- High-speed toolholders: balancing grade G 2,5 30000 on request

FORM AD

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 ± 2 - hardening depth 0,4-0,5 mm
- Strenght 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRECISION:

- Precision du cône <AT3 selon DIN 7187 et DIN 2080

PRÉ-ÉQUILBRÉ:

- À côté du tableau de description et dimensions des produits il y a l'indication de la valeur d'équilibrage attentionnel
- Mandrins haute vitesse : sont équilibrés en calsse G 2,5 à 30000 Tr/min-1 classe d'équilibrage maximale G 2,5 à 30000 Tr/min sur demande

FORME AD

MATÉRIAUX ET TRAITEMENTS:

- Acier de cémentation allié
- Temprés – Revenus
- Cémentation à HRC 58 ± 2, profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe

DOPPIO CONTATTO DIN 69871
DUAL CONTACT DIN 69871
DOPPELKONTAKT DIN 69871
DOUBLE CONTACT DIN 69871



> PAG. 15



> PAG. 16



> PAG. 16



> PAG. 17



> PAG. 18



> PAG. 18



> PAG. 19



> PAG. 20



> PAG. 21



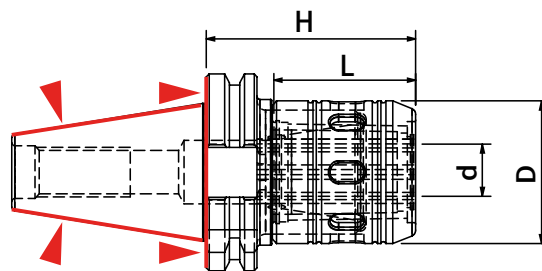
> PAG. 22



> PAG. 23



> PAG. 24



COD	CONO	d	H	L	D	BILANCIATURA
131FS112	ISO30	12	65	60	34	G6.3 12000
131FS116	ISO30	16	65	60	42	G6,3 12000
131FS120	ISO30	20	75	60	46	G6,3 12000
131FS312	ISO30	12	120	60	34	G6.3 12000
131FS316	ISO30	16	120	60	42	G6,3 12000
131FS320	ISO30	20	120	60	46	G6,3 12000
141FS112	ISO40	12	65	60	34	G6.3 12000
141FS116	ISO40	16	65	60	42	G6.3 12000
141FS120	ISO40	20	90	80	46	G6.3 12000
141FS132	ISO40	32	95	82	62	G6.3 12000
141FS312	ISO40	12	120	60	34	G6.3 12000
141FS316	ISO40	16	120	60	42	G6.3 12000
141FS320	ISO40	20	120	80	46	G6.3 12000
141FS332	ISO40	32	120	82	62	G6,3 12000
151FS112	ISO50	12	65	60	34	G6.3 12000
151FS116	ISO50	16	65	60	42	G6.3 12000
151FS120	ISO50	20	90	60	46	G6.3 12000
151FS132	ISO50	32	95	82	62	G6.3 12000
151FS312	ISO50	12	120	60	34	G6.3 12000
151FS316	ISO50	16	120	60	42	G6.3 12000
151FS320	ISO50	20	120	80	46	G6.3 12000
151FS332	ISO50	32	125	82	62	G6,3 12000

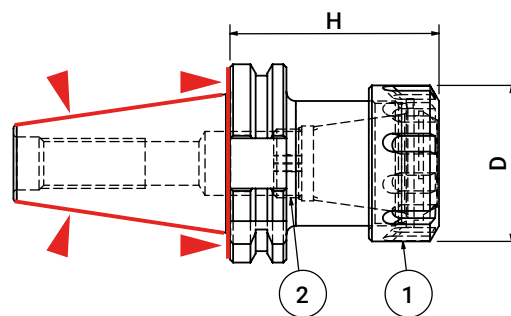
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



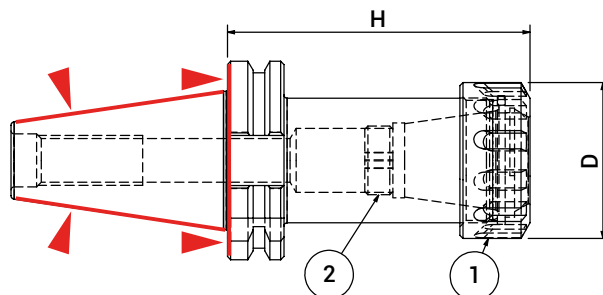
> PAG. 259

MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCK
ER SPANNZÄNGERFUTTER
MANDRINS À PINCES TYPE ER

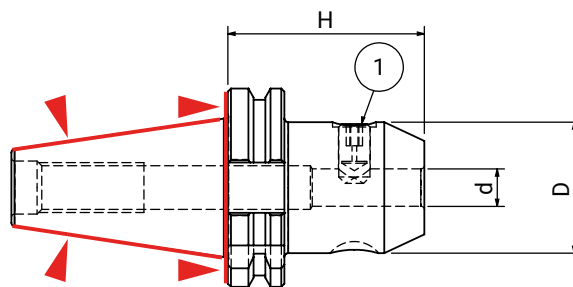
DOPPIO CONTATTO
DIN 69871 AD
DIN 6499



COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
141PP110	ISO40	ER16	70	32	G2.5 30000	916GHREQ	101001601
141PP116	ISO40	ER25	70	42	G2.5 30000	925GHREQ	101815801
141PP120	ISO40	ER32	70	50	G2.5 30000	932GHREQ	102215901
141PP126	ISO40	ER40	70	63	G2.5 30000	940GHREQ	103015901
151PP110	ISO50	ER16	70	32	G2.5 30000	916GHREQ	101001601
151PP116	ISO50	ER25	70	42	G2.5 30000	925GHREQ	101815801
151PP120	ISO50	ER32	70	50	G2.5 30000	932GHREQ	102215901
151PP126	ISO50	ER40	80	63	G2.5 30000	940GHREQ	103015901



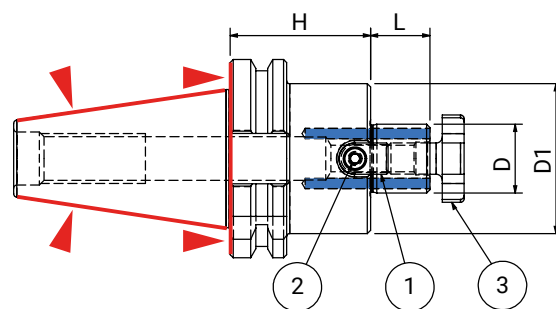
COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
141PP210	ISO40	ER16	100	32	G2.5 30000	916GHREQ	101001601
141PP216	ISO40	ER25	100	42	G2.5 30000	925GHREQ	101815801
141PP220	ISO40	ER32	100	50	G2.5 30000	932GHREQ	102215901
141PP226	ISO40	ER40	100	63	G2.5 30000	940GHREQ	103015901
151PP216	ISO50	ER25	100	42	G2.5 30000	925GHREQ	101815801
151PP220	ISO50	ER32	100	50	G2.5 30000	932GHREQ	102215901
151PP420	ISO50	ER32	160	50		932GHREQ	102215901
151PP520	ISO50	ER32	200	50		932GHREQ	102215901



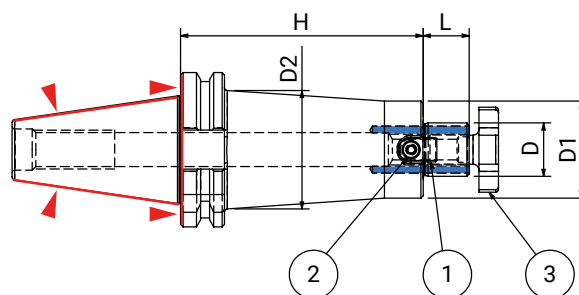
COD	CONO	d	H	D	1 - GRANO
141WLC16	ISO40	16	35	44	1 X 101401602
141WLC20	ISO40	20	35	44	1 X 101601602
141WLC25	ISO40	25	35	50	1 X 101601202
141WLC32	ISO40	32	70	72	1 x 102002002 1 x 101401004
141WLD06	ISO40	6	50	25	1 X 100601002
141WLD08	ISO40	8	50	28	1 X 100801002
141WLD10	ISO40	10	63	35	1 X 101001202
141WLD12	ISO40	12	63	42	1 X 101201602
141WLD14	ISO40	14	63	44	1 X 101201602
141WLD16	ISO40	16	63	48	1 X 101401602
141WLD20	ISO40	20	63	52	1 X 101601602
141WLD25	ISO40	25	100	63	2 X 101802002
141WLD32	ISO40	32	100	72	2 X 102002002
151WLD06	ISO50	6	63	25	1 X 100601002
151WLD08	ISO50	8	63	28	1 X 100801002
151WLD10	ISO50	10	63	35	1 X 101001202
151WLD12	ISO50	12	63	42	1 X 101201602
151WLD14	ISO50	14	63	44	1 X 101201602
151WLD16	ISO50	16	63	48	1 X 101401602
151WLD20	ISO50	20	63	52	1 X 101601602
151WLD25	ISO50	25	80	65	2 X 101802002
151WLD32	ISO50	32	100	72	2 X 102002002
151WLD40	ISO50	40	100	80	2 X 102002002

MANDRINI PORTAFRESE FISSI CON CANALI DI LUBRIFICAZIONE
SHELL MILL HOLDERS WITH INTERNAL COOLANT SUPPLY
AUFSTECKFRAESDORNE MIT QUERNUT UND KÜHLMITTELZUFUHR
MANDRINS PORTE-FRAISES ENTRAINEMENT AVEC ARROSSAGE INTERNE

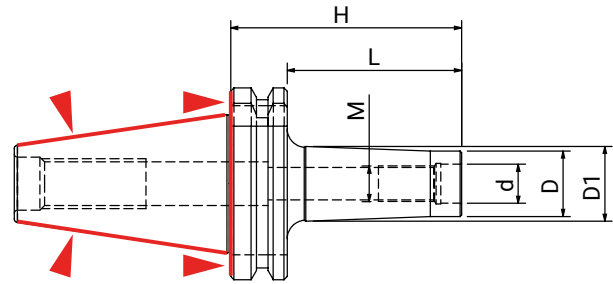
DOPPIO CONTATTO
DIN 69871 AD
ISO 3937



COD	CONO	D	H	L	D1	BILANCIATURA	1 - TASSELLO	2 - VITE	VITE CROCE
141PF016	ISO40	16	35	17	38	G2.5 25000	2 x 916TSL11	2 x 110301201	916VTC02
141PF116	ISO40	16	45	17	38	G2.5 25000	2 x 916TSL11	2 x 110301201	916VTC02
141PF022	ISO40	22	35	19	48	G2.5 25000	2 x 922TSL11	2 x 110401201	922VTC02
141PF122	ISO40	22	45	19	48	G2.5 25000	2 x 922TSL11	2 x 110401201	922VTC02
141PF027	ISO40	27	45	21	58	G2.5 25000	2 x 927TSL11	2 x 110501601	927VTC02
141PF127	ISO40	27	60	21	58	G2.5 25000	2 x 927TSL11	2 x 110501601	927VTC02
141PF132	ISO40	32	55	24	78	G2.5 25000	2 x 932TSL12	2 x 110602001	932VTC02
141PF140	ISO40	40	55	27	88	G2,5 25000	2 x 940TSL11	2 x 110602001	940VTC02
151PF116	ISO50	16	45	17	38	G2.5 25000	2 x 916TSL11	2 x 110301201	916VTC02
151PF122	ISO50	22	45	19	48	G2.5 25000	2 x 922TSL11	2 x 110401201	922VTC02
151PF127	ISO50	27	45	21	58	G2.5 25000	2 x 927TSL11	2 x 110501601	927VTC02
151PF132	ISO50	32	55	24	78	G2,5 25000	2 x 932TSL12	2 x 110602001	932VTC02
151PF140	ISO50	40	55	27	88	G2,5 25000	2 x 940TSL11	2 x 110602001	940VTC02



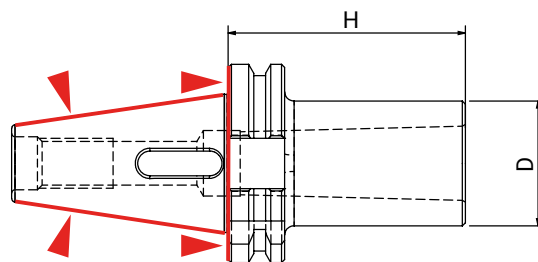
COD	CONO	D	H	L	D1	D2	BILANCIATURA	1 - TASSELLO	2 - VITE	VITE A CROCE
141PF216	ISO40	16	100	17	32	42	G2.5 25000	2 x 916TSL10	2 x 110300801	916VTC02
141PF222	ISO40	22	100	19	40	49	G2.5 25000	2 x 922TSL10	2 x 110401001	922VTC02
141PF227	ISO40	27	100	21	48	48	G2.5 25000	2 x 927TSL10	2 x 110501201	927VTC02



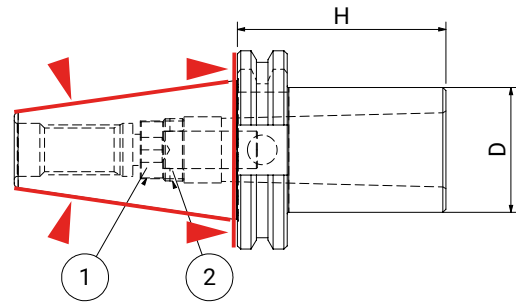
COD	CONO	M	H	L	d	D	D1	BILANCIATURA
131AF108	ISO30	8	55	34	8,5	13	15	G6,3 12000
131AF110	ISO30	10	55	34	10,5	18	20	G6,3 12000
131AF112	ISO30	12	55	34	12,5	21	24	G6,3 12000
131AF308	ISO30	8	102	81	8,5	13	23	G6,3 12000
131AF310	ISO30	10	102	81	10,5	18	30	G6,3 12000
131AF312	ISO30	12	102	81	12,5	21	31	G6,3 12000
141AF108	ISO40	8	55	29	8,5	13	15	G6,3 12000
141AF110	ISO40	10	55	29	10,5	18	20	G6,3 12000
141AF112	ISO40	12	55	29	12,5	21	24	G6,3 12000
141AF116	ISO40	16	55	29	17	29	32	G6,3 12000
141AF210	ISO40	10	77	51	10,5	18	23	G6,3 12000
141AF212	ISO40	12	77	51	12,5	21	24	G6,3 12000
141AF216	ISO40	16	77	51	17	29	34	G6,3 12000
141AF308	ISO40	8	102	76	8,5	13	23	G6,3 12000
141AF312	ISO40	12	102	76	12,5	21	31	G6,3 12000
141AF316	ISO40	16	102	76	17	29	34	G6,3 12000
141AF410	ISO40	10	127	101	10,5	18	30	G6,3 12000
141AF412	ISO40	12	127	101	12,5	21	31	G6,3 12000
141AF416	ISO40	16	127	101	17	29	36	G6,3 12000
151AF216	ISO50	16	138	101,5	17	29	36	G6,3 12000
151AF316	ISO50	16	188	151,5	17	29	36	G6,3 12000

MANDRINI ATTACCO CONO MORSE PUNTE
MORSE TAPER ADAPTORS FOR DRILLS
ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT AUSTREIBLAPPEN
DOUILLES POUR CONE MORSE A TENON

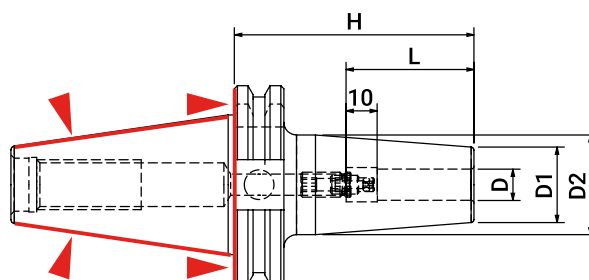
DOPPIO CONTATTO
DIN 69871 AD
DIN 228-2



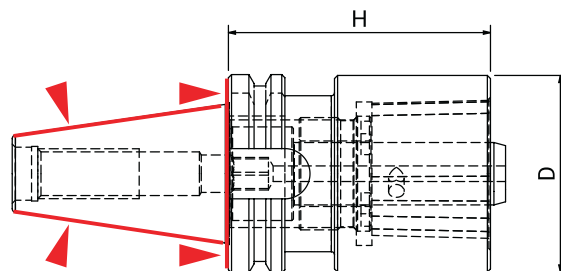
COD	CONO	MORSE	H	D
131MP101	ISO30	1	55	25
131MP102	ISO30	2	60	32
131MP103	ISO30	3	90	40
141MP101	ISO40	1	50	25
141MP102	ISO40	2	50	32
141MP103	ISO40	3	76	40
141MP104	ISO40	4	95	48
151MP101	ISO50	1	45	25
151MP102	ISO50	2	60	32
151MP103	ISO50	3	65	40
151MP104	ISO50	4	95	48
151MP105	ISO50	5	105	63



COD	CONO	MORSE	D	H	1 - VITE	2 - GHIERA
131MF101	ISO30	1	25	50	110603501	121206502
131MF102	ISO30	2	32	60	111003014	121500802
131MF103	ISO30	3	40	80	111204003	122000603
141MF101	ISO40	1	25	50	110603501	121206502
141MF102	ISO40	2	32	50	111003014	121500802
141MF103	ISO40	3	40	70	111204003	122000603
141MF104	ISO40	4	48	95	111604514	122400903
151MF101	ISO50	1	25	50	110603501	121206502
151MF102	ISO50	2	32	50	111003014	121500802
151MF103	ISO50	3	40	65	111204003	122000603
151MF104	ISO50	4	48	95	111604514	122400903
151MF105	ISO50	5	63	120	112005003	123601104



COD	CONO	D	H	L	D1	D2	BILANCIATURA
141CT103	ISO40	3	80	22	10	20	G2,5 25000
141CT104	ISO40	4	80	26	15	22	G2,5 25000
141CT105	ISO40	5	80	30	15	22	G2,5 25000
141CT106	ISO40	6	80	36	21	27	G2,5 25000
141CT108	ISO40	8	80	36	21	27	G2,5 25000
141CT110	ISO40	10	80	41	24	31	G2,5 25000
141CT112	ISO40	12	80	47	24	31	G2,5 25000
141CT114	ISO40	14	80	47	27	34	G2,5 25000
141CT116	ISO40	16	80	50	27	34	G2,5 25000
141CT118	ISO40	18	80	50	33	40	G2,5 25000
141CT120	ISO40	20	80	52	33	40	G2,5 25000
141CT125	ISO40	25	100	58	44	53	G2,5 25000
141CT132	ISO40	32	100	62	44	53	G2,5 25000
141CT203	ISO40	3	120	22	10	20	G2,5 25000
141CT204	ISO40	4	120	26	15	22	G2,5 25000
141CT205	ISO40	5	120	30	15	22	G2,5 25000
141CT206	ISO40	6	120	36	21	27	G2,5 25000
141CT208	ISO40	8	120	36	21	27	G2,5 25000
141CT210	ISO40	10	120	41	24	31	G2,5 25000
141CT212	ISO40	12	120	47	24	31	G2,5 25000
141CT216	ISO40	16	120	50	27	34	G2,5 25000
141CT220	ISO40	20	120	52	33	40	G2,5 25000
141CT225	ISO40	25	120	58	44	53	G2,5 25000
141CT303	ISO40	3	160	22	10	20	G2,5 25000
141CT304	ISO40	4	160	26	15	22	G2,5 25000
141CT305	ISO40	5	160	30	15	22	G2,5 25000
141CT306	ISO40	6	160	36	21	27	G2,5 25000
141CT308	ISO40	8	160	36	21	27	G2,5 25000
141CT310	ISO40	10	160	41	24	31	G2,5 25000
141CT312	ISO40	12	160	47	24	31	G2,5 25000
141CT316	ISO40	16	160	50	27	34	G2,5 25000
141CT320	ISO40	20	160	52	33	40	G2,5 25000
141CT325	ISO40	25	160	58	44	53	G2,5 25000



COD	CONO	RIDUZIONE	D	H
141XP0C3	ISO40	C32	32	30
141XP0C4	ISO40	C40	40	30
141XP0C5	ISO40	C50	50	40
141XP0C6	ISO40	C63	63	85
151XP0C3	ISO50	C32	32	30
151XP0C4	ISO50	C40	40	30
151XP0C5	ISO50	C50	50	30
151XP0C6	ISO50	C63	63	30
151XP0C8	ISO50	C80	80	70
151XP1C3	ISO50	C32	32	60
151XP1C4	ISO50	C40	40	60
151XP1C5	ISO50	C50	50	70
151XP1C6	ISO50	C63	63	50
151XP1C8	ISO50	C80	80	120
151XP2C6	ISO50	C63	63	100

MANDRINI SEMILAVORATI A STELO TENERO
 BLANK TOOLHOLDER WITH SOFT SHANK
 ROHLINGE MIT WEICHEM SCHAFT
 EBAUCHES

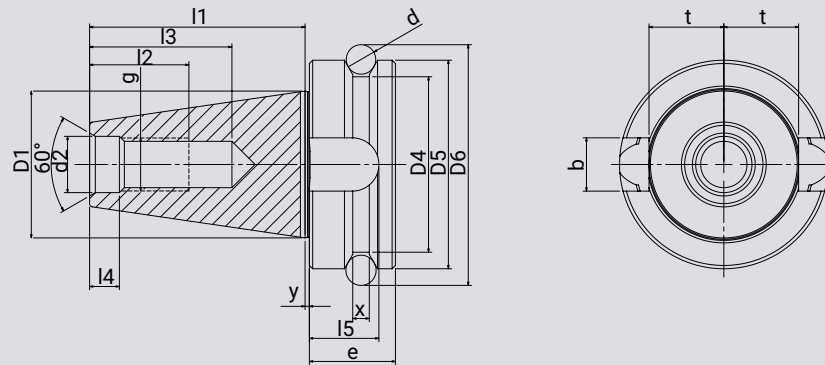
DOPPIO CONTATTO
 DIN 69871



COD	CONO	H	D
141ST240	ISO40	250	40
141ST263	ISO40	250	63
151ST397	ISO50	315	97

MAS 403 BT DOPPIO CONTATTO
MAS 403 BT DUAL CONTACT
MAS 403 BT DOPPEL KONTAKT
MAS 403 BT DOUBLE FACE





CONO	D1	l1 ±0,2	d2 H8	g 6H	l2 min	l3 min	l4 +0,5/0	b H12	l5 min
30	31,75	48,4	12,5	M12	24	34	7	16,1	17
40	44,45	65,4	17,0	M16	30	43	9	16,1	21
50	69,85	101,8	25,0	M24	45	62	13	25,7	31

CONO	t 0/-0,2	D4	D5 h8	D6	e	X	y ±0,4	d
30	16,3	38	46	56,14	21,0	4	1	8
40	22,6	53	63	75,679	26,0	5	1	10
50	35,4	85	100	119,02	36,5	7	1,5	12

VANTAGGI DEL SISTEMA A DOPPIO CONTATTO:

- Maggiore rigidità grazie al contatto simultaneo del cono e della flangia
- Miglioramento della durata dell'utensile
- Maggiore stabilità grazie alla riduzione delle vibrazioni

DOUBLE CONTACT SYSTEM ADVANTAGES:

- Enhanced rigidity thanks to simultaneous fit of taper and flange
- Improvement of the cutting tool life
- Improved stability leads to minimized vibrations

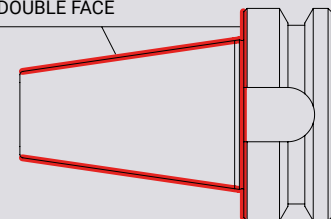
DIE ZAHLREICHEN VORTEILE DES DOPPELKONTAKT AUFNAHME:

- Verbesserte Steifigkeit durch die Simultanwirkung des Kontakts des Kegels und del Flansches
- Verbesserung der Lebensdauer des Schneidwerkzeugs
- Höhere Stabilität durch Vibrationsreduzierung

LES NOMBREUX AVANTAGES DES DOUBLE FACE PORTE-OUTILS

- Rigidité accrue grâce à l'ajustement simultané du cône et de la bride
- Amélioration de la durée de vie de l'outil de coupe
- Une stabilité améliorée conduit à des vibrations minimisées

DOPPIO CONTATTO
 DOUBLE CONTACT
 DOPPEL KONTAKT
 DOUBLE FACE



Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN

All PAGNONI TOOLS toolholders are manufactured according to DIN norms

Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert

Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

TOLLERANZA DEL CONO:

- < AT3 secondo DIN 7187 e DIN 2080

PRE-BILANCIATI:

- Grado di equilibratura aggiuntiva indicato a fianco della tabella dimensionale
- Mandrini alte velocità: a richiesta classe massima di equilibratura G 2,5 30000

FORMA AD

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 ±2 – profondità si indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

AUFNAHME GENAUIGKEIT:

- < AT3 nach DIN 7187 und DIN 2080

VORGEWUCHTET:

- Neben der Übersichtstabelle der Produkte wird die Wuchtgüte angegeben
- Hochgeschwindigkeits Werkzeughalter: Aus Wuchtgüte G2,5 30000 auf Anfrage

FORM AD

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 ± 2, Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außengeschliffen

TECHNICAL FEATURES

TAPER'S TOLLERANCE:

- < AT3 according to DIN 7187 and DIN 2080

PRE-BALANCED:

- Additional balancing grade beside dimensional table
- High-speed toolholders: balancing grade G 2,5 30000 on request

FORM AD

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 ± 2 - hardening depth 0,4-0,5 mm
- Strenght 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRECISION:

Precision du cône < AT3 selon DIN 7187 et DIN 2080

PRÉ-ÉQUILIBRÉ:

- À côté du tableau de description et dimensions des produits il y a l'indication de la valeur d'équilibrage additionnel
- Mandrins haute vitesse : sont équilibrés en classe G 2,5 à 30000 Tr/min-1 classe d'équilibrage maximale G 2,5 à 30000 Tr/min sur demande

FORME AD

MATÉRIAUX ET TRAITEMENTS:

- Acier de cémentation allié
- Temprés – Revenus
- Cémentation à HRC 58 ± 2, profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe

DOPPIO CONTATTO MAS 403 BT
DUAL CONTACT MAS 403 BT
DOPPELKONTAKT MAS 403 BT
DOUBLE CONTACT MAS 403 BT



> PAG. 29



> PAG. 30



> PAG. 31



> PAG. 32



> PAG. 33



> PAG. 34



> PAG. 35



> PAG. 36



> PAG. 37



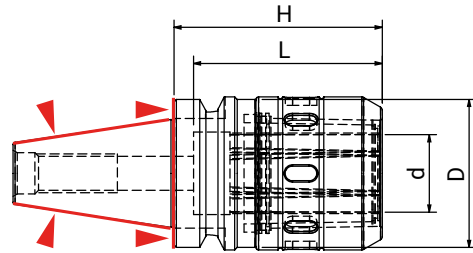
> PAG. 38



> PAG. 39



> PAG. 40



COD	CONO	d	H	L	D	BILANCIATURA
331FS112	ISO30	12	65	60	34	G6.3 12000
331FS116	ISO30	16	65	60	42	G6,3 12000
331FS120	ISO30	20	75	60	46	G6,3 12000
331FS312	ISO30	12	120	60	34	G6.3 12000
331FS316	ISO30	16	120	60	42	G6,3 12000
331FS320	ISO30	20	120	60	46	G6,3 12000
341FS112	ISO40	12	65	60	34	G6.3 12000
341FS116	ISO40	16	65	60	42	G6.3 12000
341FS120	ISO40	20	80	80	46	G6.3 12000
341FS132	ISO40	32	85	77	72	G6.3 12000
341FS312	ISO40	12	120	60	34	G6.3 12000
341FS316	ISO40	16	120	60	42	G6.3 12000
341FS320	ISO40	20	120	80	46	G6.3 12000
341FS332	ISO40	32	135	77	61	G6.3 12000
351FS112	ISO50	12	65	60	34	G6.3 12000
351FS116	ISO50	16	65	60	42	G6.3 12000
351FS120	ISO50	20	80	80	46	G6.3 12000
351FS132	ISO50	32	85	77	72	G6.3 12000
351FS312	ISO50	12	120	60	34	G6.3 12000
351FS316	ISO50	16	120	60	42	G6.3 12000
351FS320	ISO50	20	120	80	46	G6.3 12000
351FS332	ISO50	32	135	77	61	G6.3 12000

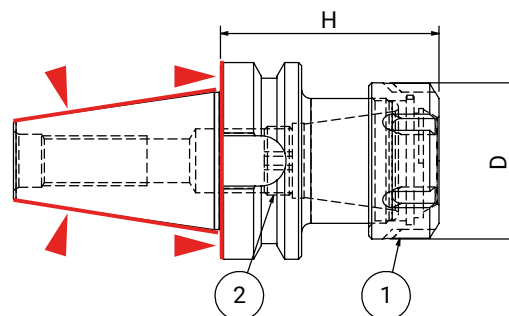
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



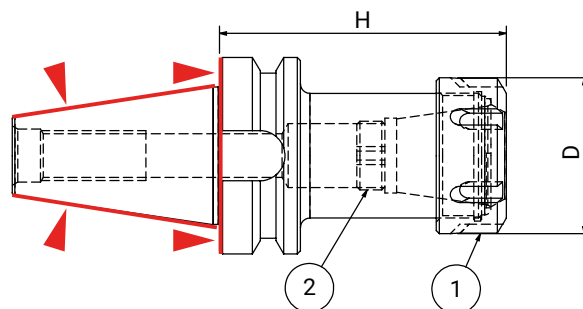
> PAG. 259

MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCK
ER SPANNZÄNGERFUTTER
MANDRINS À PINCES TYPE ER

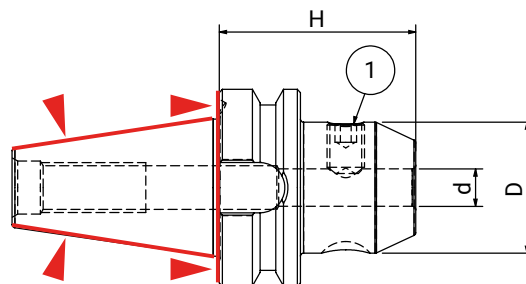
DOPPIO CONTATTO
MAS 403 BT AD
DIN 6499



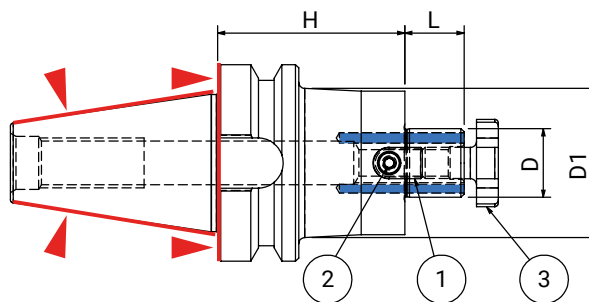
COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
331PP110	ISO30	ER16	70	32	G2.5 30000	916GHREQ	101001601
331PP113	ISO30	ER20	70	35	G2.5 30000	920GHREQ	101001601
331PP116	ISO30	ER25	70	42	G2.5 30000	925GHREQ	101815801
331PP120	ISO30	ER32	70	50	G2.5 30000	932GHREQ	102215901
341PP110	ISO40	ER16	70	32	G2.5 30000	916GHREQ	101001601
341PP113	ISO40	ER20	70	35	G2.5 30000	920GHREQ	101001601
341PP116	ISO40	ER25	70	42	G2.5 30000	925GHREQ	101815801
341PP120	ISO40	ER32	70	50	G2.5 30000	932GHREQ	102215901
341PP126	ISO40	ER40	70	63	G2.5 30000	940GHREQ	103015901
351PP116	ISO50	ER25	80	42	G2.5 30000	925GHREQ	101815801
351PP120	ISO50	ER32	80	50	G2.5 30000	932GHREQ	102215901
351PP126	ISO50	ER40	80	63	G2.5 30000	940GHREQ	103015901



COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
331PP210	ISO30	ER16	100	32	G2.5 30000	916GHREQ	101001601
331PP216	ISO30	ER25	100	42	G2.5 30000	925GHREQ	101815801
341PP210	ISO40	ER16	100	32	G2.5 30000	916GHREQ	101001601
341PP213	ISO40	ER20	100	35	G2.5 30000	920GHREQ	101001601
341PP216	ISO40	ER25	100	42	G2.5 30000	925GHREQ	101815801
341PP220	ISO40	ER32	100	50	G2.5 30000	932GHREQ	102215901
341PP226	ISO40	ER40	100	63	G2.5 30000	940GHREQ	103015901
351PP216	ISO50	ER25	100	42	G2.5 30000	925GHREQ	101815801
351PP220	ISO50	ER32	100	50	G2.5 30000	932GHREQ	102215901
351PP226	ISO50	ER40	100	63	G2.5 30000	940GHREQ	103015901
351PP420	ISO50	ER32	160	50	G2.5 30000	932GHREQ	102215901
351PP520	ISO50	ER32	200	50	G2.5 30000	932GHREQ	102215901



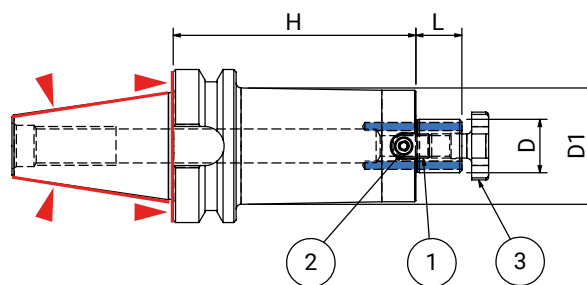
COD	CONO	d	H	D	1 - GRANO
331WLD06	ISO30	6	60	25	1 X 100601002
331WLD08	ISO30	8	60	28	1 X 100801002
331WLD10	ISO30	10	60	35	1 X 101001202
331WLD12	ISO30	12	60	42	1 X 101201602
331WLD16	ISO30	16	75	48	1 X 101401602
331WLD20	ISO30	20	75	52	1 X 101601602
331WLD25	ISO30	25	90	63	2 X 101802002
341WLD06	ISO40	6	50	25	1 X 100601002
341WLD08	ISO40	8	50	28	1 X 100801002
341WLD10	ISO40	10	63	35	1 X 101001202
341WLD12	ISO40	12	63	42	1 X 101201602
341WLD16	ISO40	16	63	48	1 X 101401602
341WLD18	ISO40	18	63	50	1 X 101401602
341WLD20	ISO40	20	63	52	1 X 101601602
341WLD25	ISO40	25	100	63	2 X 101802002
341WLD32	ISO40	32	100	72	2 X 102002002
351WLD06	ISO50	6	63	25	1 X 100601002
351WLD08	ISO50	8	63	28	1 X 100801002
351WLD10	ISO50	10	70	35	1 X 101001202
351WLD12	ISO50	12	80	42	1 X 101201602
351WLD16	ISO50	16	80	48	1 X 101401602
351WLD18	ISO50	18	80	50	1 X 101401602
351WLD20	ISO50	20	80	52	1 X 101601602
351WLD25	ISO50	25	100	65	2 X 101802002
351WLD32	ISO50	32	105	72	2 X 102002002
351WLD40	ISO50	40	120	80	2 X 102002002



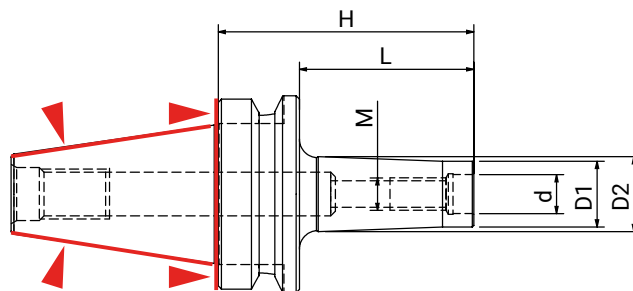
COD	CONO	D	H	L	D1	BILANCIATURA	1 - TASSELLO	2 - VITE	VITE CROCE
331PF116	ISO30	16	35	17	38	G2.5 25000	2 x 916TSL11	2 x 110301201	916VTC02
331PF122	ISO30	22	45	19	48	G2.5 25000	2 x 922TSL11	2 x 110401201	922VTC02
331PF127	ISO30	27	45	21	58	G2.5 25000	2 x 927TSL11	2 x 110501601	927VTC02
341PF116	ISO40	16	45	17	38	G2.5 25000	2 x 916TSL11	2 x 110301201	916VTC02
341PF022	ISO40	22	45	19	48	G2.5 25000	2 x 922TSL11	2 x 110401201	922VTC02
341PF027	ISO40	27	45	21	58	G2.5 25000	2 x 927TSL10	2 x 110501601	927VTC02
341PF122	ISO40	22	60	19	48	G2.5 25000	2 x 922TSL11	2 x 110401201	922VTC02
341PF127	ISO40	27	60	21	58	G2.5 25000	2 x 927TSL11	2 x 110501601	927VTC02
341PF132	ISO40	32	50	24	78	G2.5 25000	2 x 932TSL12	2 x 110602001	932VTC02
351PF116	ISO50	16	60	17	38	G2.5 25000	2 x 916TSL11	2 x 110301201	916VTC02
351PF122	ISO50	22	60	19	48	G2.5 25000	2 x 922TSL11	2 x 110401201	922VTC02
351PF127	ISO50	27	60	21	58	G2.5 25000	2 x 927TSL11	2 x 110501601	927VTC02
351PF132	ISO50	32	60	24	78	G2.5 25000	2 x 932TSL12	2 x 110602001	932VTC02
351PF140	ISO50	40	60	27	88	G2.5 25000	2 x 940TSL11	2 x 110602001	940VTC02

MANDRINI PORTAFRESE FISSI CON CANALI DI LUBRIFICAZIONE
SHELL MILL HOLDERS WITH INTERNAL COOLANT SUPPLY
AUFSTECKFRAESDORNE MIT QUERNUT UND KUHLMITTELZUFUHR
MANDRINS PORTE-FRAISES ENTRAINEMENT AVEC ARROSSAGE INTERNE

DOPPIO CONTATTO
MAS 403 BT AD
ISO 3937



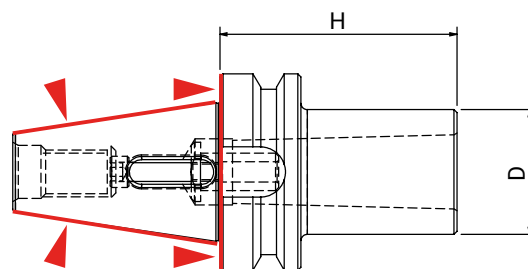
COD	CONO	D	H	L	D1	BILANCIATURA	1 - TASSELLO	2 - VITE	VITE CROCE
341PF216	ISO40	16	100	17	38	G2.5 25000	2 x 916TSL11	2 x 110301201	916VTC02
341PF222	ISO40	22	100	19	48	G2.5 25000	2 x 922TSL11	2 x 110401201	922VTC02
341PF227	ISO40	27	100	21	55	G2.5 25000	2 x 927TSL10	2 x 110501601	927VTC02
341PF232	ISO40	32	100	24	58	G2.5 25000	2 x 932TSL10	2 x 110602001	932VTC02
341PF240	ISO40	40	100	27	70	G2.5 25000	2 x 940TSL10	2 x 110602001	940VTC02



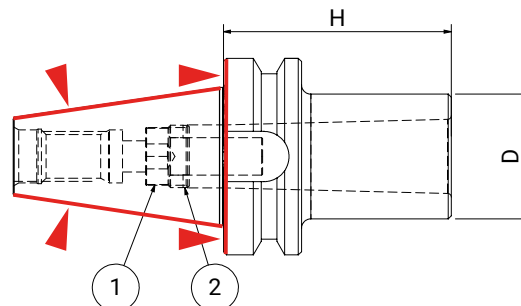
COD	CONO	M	H	L	d	D	D1	BILANCIATURA
331AF108	ISO30	8	55	34	8,5	13	15	G6,3 12000
331AF110	ISO30	10	55	34	10,5	18	20	G6,3 12000
331AF112	ISO30	12	55	34	12,5	21	24	G6,3 12000
331AF308	ISO30	8	102	81	8,5	13	23	G6,3 12000
331AF310	ISO30	10	102	81	10,5	18	30	G6,3 12000
331AF312	ISO30	12	102	81	12,5	21	31	G6,3 12000
341AF108	ISO40	8	55	29	8,5	13	15	G6,3 12000
341AF110	ISO40	10	55	29	10,5	18	20	G6,3 12000
341AF112	ISO40	12	55	29	12,5	21	24	G6,3 12000
341AF116	ISO40	16	55	29	17	29	32	G6,3 12000
341AF210	ISO40	10	77	51	10,5	18	23	G6,3 12000
341AF212	ISO40	12	77	51	12,5	21	24	G6,3 12000
341AF216	ISO40	16	77	51	17	29	34	G6,3 12000
341AF308	ISO40	8	102	76	8,5	13	23	G6,3 12000
341AF312	ISO40	12	102	76	12,5	21	31	G6,3 12000
341AF316	ISO40	16	102	76	17	29	34	G6,3 12000
341AF410	ISO40	10	127	101	10,5	18	30	G6,3 12000
341AF412	ISO40	12	127	101	12,5	21	31	G6,3 12000
341AF416	ISO40	16	127	101	17	29	36	G6,3 12000
351AF216	ISO50	16	138	101,5	17	29	36	G6,3 12000
351AF316	ISO50	16	188	151,5	17	29	36	G6,3 12000

MANDRINI ATTACCO CONO MORSE PUNTE
MORSE TAPER ADAPTORS FOR DRILLS
ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT AUSTREIBLAPPEN
DOUILLES PUOR CONE MORSE A TENON

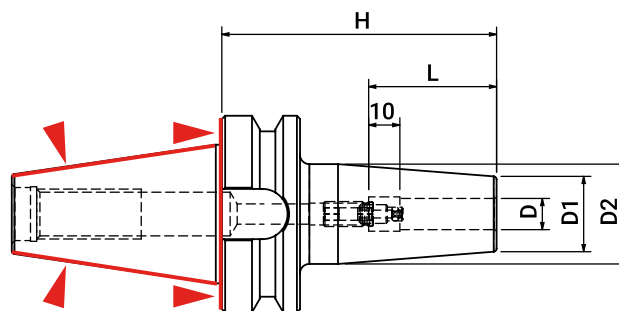
DOPPIO CONTATTO
MAS 403 BT AD
DIN 228-2



COD	CONO	MORSE	H	D
331MP101	ISO30	1	50	25
331MP102	ISO30	2	60	32
331MP103	ISO30	3	79	40
341MP101	ISO40	1	50	25
341MP102	ISO40	2	60	32
341MP103	ISO40	3	76	40
341MP104	ISO40	4	94,5	48
351MP101	ISO50	1	45	25
351MP102	ISO50	2	60	32
351MP103	ISO50	3	65	40
351MP104	ISO50	4	95	48
351MP105	ISO50	5	105	63



COD	CONO	MORSE	D	H	1 - VITE	2 - GHIERA
331MF101	ISO30	1	25	50	110603501	121206502
331MF102	ISO30	2	32	60	111003014	121500802
331MF103	ISO30	3	40	75	111204003	122000903
341MF101	ISO40	1	25	50	110603501	121206502
341MF102	ISO40	2	32	50	111003014	121500802
341MF103	ISO40	3	40	75	111204003	122000903
341MF104	ISO40	4	48	95	111604514	122000903
351MF101	ISO50	1	25	50	110603501	121206502
351MF102	ISO50	2	32	50	111003014	121500802
351MF103	ISO50	3	40	65	111203003	122000903
351MF104	ISO50	4	48	95	111604514	122000903
351MF105	ISO50	5	63	120	112005003	123601104

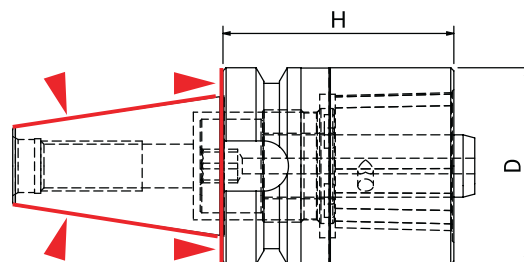


COD	CONO	D	H	L	D1	D2	BILANCIATURA
341CT103	ISO40	3	90	22	10	20	G2,5 25000
341CT104	ISO40	4	90	26	15	22	G2,5 25000
341CT105	ISO40	5	90	30	15	22	G2,5 25000
341CT106	ISO40	6	90	36	21	27	G2,5 25000
341CT108	ISO40	8	90	36	21	27	G2,5 25000
341CT110	ISO40	10	90	41	24	31	G2,5 25000
341CT112	ISO40	12	90	47	24	31	G2,5 25000
341CT114	ISO40	14	90	47	27	34	G2,5 25000
341CT116	ISO40	16	90	50	27	34	G2,5 25000
341CT118	ISO40	18	90	50	33	40	G2,5 25000
341CT120	ISO40	20	90	52	33	42	G2,5 25000
341CT125	ISO40	25	100	58	44	53	G2,5 25000
341CT303	ISO40	3	120	22	10	20	G2,5 25000
341CT304	ISO40	4	120	26	15	22	G2,5 25000
341CT305	ISO40	5	120	30	15	22	G2,5 25000
341CT306	ISO40	6	120	36	21	27	G2,5 25000
341CT308	ISO40	8	120	36	21	27	G2,5 25000
341CT310	ISO40	10	120	41	24	31	G2,5 25000
341CT312	ISO40	12	120	47	24	31	G2,5 25000
341CT316	ISO40	16	120	50	27	34	G2,5 25000
341CT320	ISO40	20	120	52	33	40	G2,5 25000
341CT325	ISO40	25	120	58	44	53	G2,5 25000
341CT403	ISO40	3	160	22	10	20	G2,5 25000
341CT404	ISO40	4	160	26	15	22	G2,5 25000
341CT406	ISO40	6	160	36	21	27	G2,5 25000
341CT408	ISO40	8	160	36	21	27	G2,5 25000
341CT410	ISO40	10	160	41	24	31	G2,5 25000
341CT412	ISO40	12	160	47	24	31	G2,5 25000
341CT416	ISO40	16	160	50	27	34	G2,5 25000
341CT420	ISO40	20	160	52	33	40	G2,5 25000
341CT425	ISO40	25	160	58	44	53	G2,5 25000

RIDUZIONI MAS 403 BT A DOPPIO CONTATTO PER ATTACCO POLIGONALE
 REDUCTION DUAL CONTACT MAS 403 BT WITH POLYGONAL SHANK
 REDUKTION DOPPELKONTAKT MAS 403 BT MIT POLYGONALSHAFT
 REDUCTION CONTACT DIRECT MAS 403 BT AVEC ATTACHEMENT POLYGONALE

DOPPIO CONTATTO
 MAS 403 BT

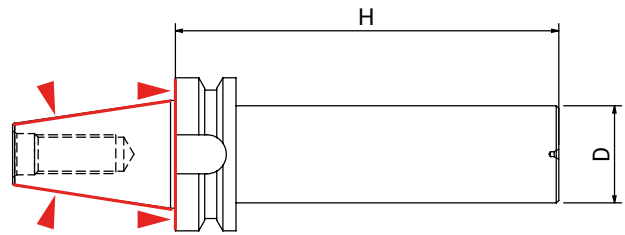
DOPPIO
 CONTATTO



COD	CONO	RIDUZIONE	D	H
341XP0C3	ISO40	C32	32	30
341XP0C4	ISO40	C40	40	30
341XP0C5	ISO40	C50	50	40
341XP0C6	ISO40	C63	63	75
351XP0C3	ISO50	C32	32	40
351XP0C4	ISO50	C40	40	40
351XP0C5	ISO50	C50	50	40
351XP0C6	ISO50	C63	63	50
351XP0C8	ISO50	C80	80	70
351XP1C3	ISO50	C32	32	70
351XP1C4	ISO50	C40	40	70
351XP1C5	ISO50	C50	50	70
351XP1C6	ISO50	C63	63	90
351XP1C8	ISO50	C80	80	120

MANDRINI SEMILAVORATI A STELO TENERO
 BLANK TOOLHOLDER WITH SOFT SHANK
 ROHLINGE MIT WEICHEM SCHAFT
 EBAUCHES

DOPPIO CONTATTO
 MAS 403 BT



COD	CONO	H	D
341ST140	ISO40	250	40
341ST163	ISO40	250	63
351ST397	ISO50	315	97

MANDRINI A CALETTAMENTO TERMICO
SHRINK FIT TOOLHOLDERS
SCHRUMPFUTTER
MANDRINS DE FRETTAGE



CALETTAMENTO TERMICO
SHRINK FIT
SCHRUMPFUTTER
MANDRINS DE FRETTAGE



> PAG. 43



> PAG. 46



> PAG. 49



> PAG. 51



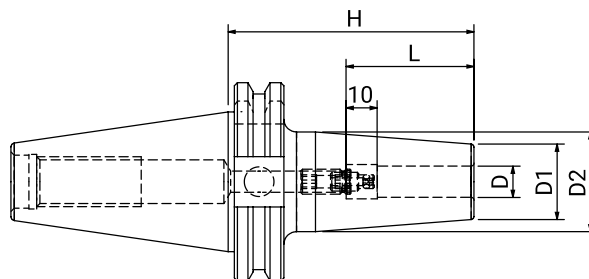
> PAG. 53



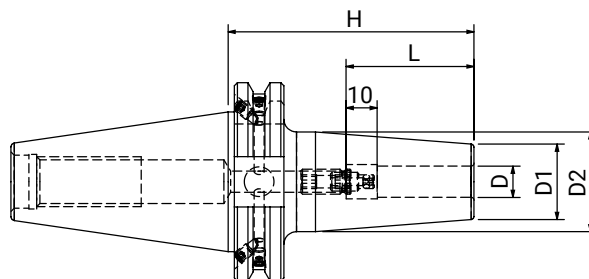
> PAG. 54



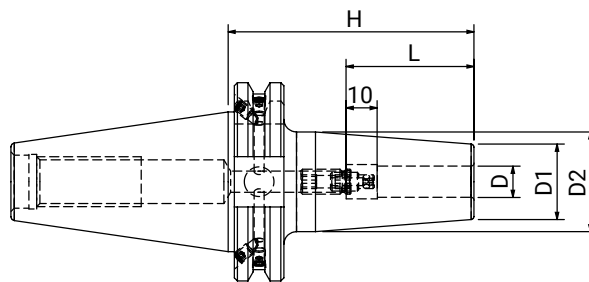
> PAG. 55



COD	CONO	D	H	L	D1	D2	BILANCIATURA
130CT103	ISO30	3	85	22	10	20	G2,5 25000
130CT104	ISO30	4	85	26	15	25	G2,5 25000
130CT105	ISO30	5	85	30	15	25	G2,5 25000
130CT106	ISO30	6	85	36	21	27	G2,5 25000
130CT108	ISO30	8	85	36	21	27	G2,5 25000
130CT110	ISO30	10	85	41	24	31	G2,5 25000
130CT112	ISO30	12	85	47	24	31	G2,5 25000
130CT114	ISO30	14	85	47	27	34	G2,5 25000
130CT116	ISO30	16	85	50	27	34	G2,5 25000
130CT118	ISO30	18	85	50	33	40	G2,5 25000
130CT120	ISO30	20	85	52	33	40	G2,5 25000



COD	CONO	D	H	L	D1	D2	BILANCIATURA
140CT103	ISO40	3	80	22	10	20	G2,5 25000
140CT104	ISO40	4	80	26	15	22	G2,5 25000
140CT105	ISO40	5	80	30	15	22	G2,5 25000
140CT106	ISO40	6	80	36	21	27	G2,5 25000
140CT108	ISO40	8	80	36	21	27	G2,5 25000
140CT110	ISO40	10	80	41	24	31	G2,5 25000
140CT112	ISO40	12	80	47	24	31	G2,5 25000
140CT114	ISO40	14	80	47	27	34	G2,5 25000
140CT116	ISO40	16	80	50	27	34	G2,5 25000
140CT118	ISO40	18	80	50	33	40	G2,5 25000
140CT120	ISO40	20	80	52	33	40	G2,5 25000
140CT125	ISO40	25	100	58	44	53	G2,5 25000
140CT132	ISO40	32	100	62	44	53	G2,5 25000
140CT203	ISO40	3	120	22	10	20	G2,5 25000
140CT204	ISO40	4	120	26	15	22	G2,5 25000
140CT205	ISO40	5	120	30	15	22	G2,5 25000
140CT206	ISO40	6	120	36	21	27	G2,5 25000
140CT208	ISO40	8	120	36	21	27	G2,5 25000
140CT210	ISO40	10	120	41	24	31	G2,5 25000
140CT212	ISO40	12	120	47	24	31	G2,5 25000
140CT216	ISO40	16	120	50	27	34	G2,5 25000
140CT220	ISO40	20	120	52	33	40	G2,5 25000
140CT225	ISO40	25	120	58	44	53	G2,5 25000
140CT303	ISO40	3	160	22	10	20	G2,5 25000
140CT304	ISO40	4	160	26	15	22	G2,5 25000
140CT305	ISO40	5	160	30	15	22	G2,5 25000
140CT306	ISO40	6	160	36	21	27	G2,5 25000
140CT308	ISO40	8	160	36	21	27	G2,5 25000
140CT310	ISO40	10	160	41	24	31	G2,5 25000
140CT312	ISO40	12	160	47	24	31	G2,5 25000
140CT316	ISO40	16	160	50	27	34	G2,5 25000
140CT320	ISO40	20	160	52	33	40	G2,5 25000
140CT325	ISO40	25	160	58	44	53	G2,5 25000

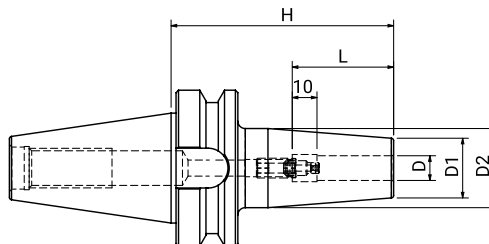


COD	CONO	D	H	L	D1	D2	BILANCIATURA
150CT103	ISO50	3	80		10	20	G2,5 25000
150CT104	ISO50	4	80		15	22	G2,5 25000
150CT105	ISO50	5	80		15	22	G2,5 25000
150CT106	ISO50	6	80	36	21	27	G2,5 25000
150CT108	ISO50	8	80	36	21	27	G2,5 25000
150CT110	ISO50	10	80	41	24	31	G2,5 25000
150CT112	ISO50	12	80	47	24	31	G2,5 25000
150CT114	ISO50	14	80	47	27	34	G2,5 25000
150CT116	ISO50	16	80	50	27	34	G2,5 25000
150CT118	ISO50	18	80	50	33	40	G2,5 25000
150CT120	ISO50	20	80	52	33	40	G2,5 25000
150CT125	ISO50	25	100	58	44	53	G2,5 25000
150CT132	ISO50	32	100	62	44	53	G2,5 25000
150CT203	ISO50	3	120	22	10	20	G2,5 25000
150CT204	ISO50	4	120	26	15	22	G2,5 25000
150CT205	ISO50	5	120	30	15	22	G2,5 25000
150CT206	ISO50	6	120	36	21	27	G2,5 25000
150CT208	ISO50	8	120	36	21	27	G2,5 25000
150CT210	ISO50	10	120	41	24	31	G2,5 25000
150CT212	ISO50	12	120	47	24	31	G2,5 25000
150CT216	ISO50	16	120	50	27	34	G2,5 25000
150CT220	ISO50	20	120	52	33	40	G2,5 25000
150CT225	ISO50	25	120	58	44	53	G2,5 25000
150CT232	ISO50	32	120	58	44	53	G2,5 25000
150CT303	ISO50	3	160	22	10	20	G2,5 25000
150CT304	ISO50	4	160	26	15	22	G2,5 25000
150CT305	ISO50	5	160	30	15	22	G2,5 25000
150CT306	ISO50	6	160	36	21	27	G2,5 25000
150CT308	ISO50	8	160	36	21	27	G2,5 25000
150CT310	ISO50	10	160	41	24	31	G2,5 25000
150CT312	ISO50	12	160	47	24	31	G2,5 25000
150CT316	ISO50	16	160	50	27	34	G2,5 25000
150CT320	ISO50	20	160	52	33	40	G2,5 25000
150CT325	ISO50	25	160	58	44	53	G2,5 25000
150CT332	ISO50	32	160	58	44	53	G2,5 25000

MANDRINI A CALETTAMENTO TERMICO MAS 403 BT
 SHRINK FIT TOOLHOLDERS MAS 403 BT
 SCHRUMPFUTTER MAS 403 BT
 MANDRINS DE FRETTAGE MAS 403 BT

CALETTAMENTO TERMICO
 MAS 403 BT

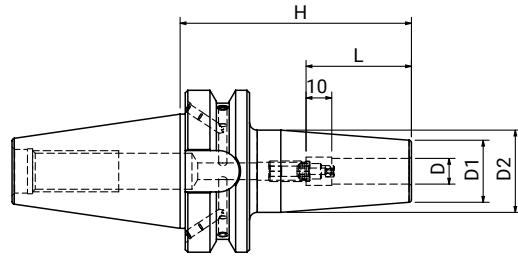
CALETTAMENTO
 TERMICO



COD	CONO	D	H	L	D1	D2	BILANCIATURA
330CT103	ISO30	3	85	22	10	20	G2,5 25000
330CT104	ISO30	4	85	26	15	22	G2,5 25000
330CT105	ISO30	5	85	30	15	22	G2,5 25000
330CT106	ISO30	6	85	36	21	27	G2,5 25000
330CT108	ISO30	8	85	36	21	27	G2,5 25000
330CT110	ISO30	10	85	41	24	31	G2,5 25000
330CT112	ISO30	12	85	47	24	31	G2,5 25000
330CT114	ISO30	14	85	47	27	34	G2,5 25000
330CT116	ISO30	16	85	50	27	34	G2,5 25000
330CT118	ISO30	18	85	50	33	40	G2,5 25000
330CT120	ISO30	20	85	50	33	40	G2,5 25000

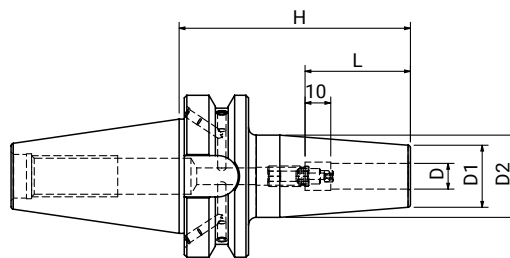
MANDRINI A CALETTAMENTO TERMICO MAS 403 BT
 SHRINK FIT TOOLHOLDERS MAS 403 BT
 SCHRUMPFUTTER MAS 403 BT
 MANDRINS DE FRETTAGE MAS 403 BT

CALETTAMENTO TERMICO
 MAS 403 BT

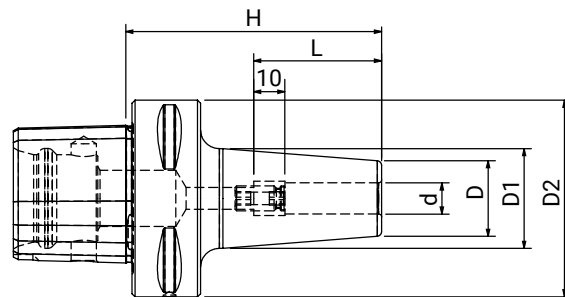


CALETTAMENTO
 TERMICO

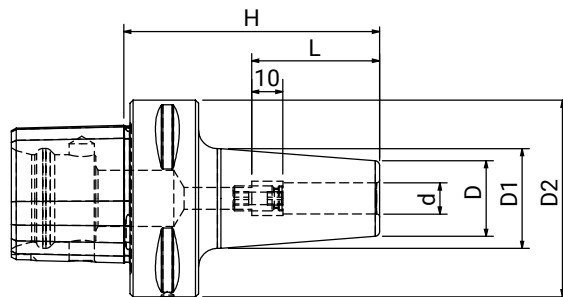
COD	CONO	D	H	L	D1	D2	BILANCIATURA
340CT103	ISO40	3	90	22	10	20	G2,5 25000
340CT104	ISO40	4	90	26	15	22	G2,5 25000
340CT105	ISO40	5	90	30	15	22	G2,5 25000
340CT106	ISO40	6	90	36	21	27	G2,5 25000
340CT108	ISO40	8	90	36	21	27	G2,5 25000
340CT110	ISO40	10	90	41	24	31	G2,5 25000
340CT112	ISO40	12	90	47	24	31	G2,5 25000
340CT114	ISO40	14	90	47	27	34	G2,5 25000
340CT116	ISO40	16	90	50	27	34	G2,5 25000
340CT118	ISO40	18	90	50	33	40	G2,5 25000
340CT120	ISO40	20	90	52	33	42	G2,5 25000
340CT125	ISO40	25	100	58	44	53	G2,5 25000
340CT132	ISO40	32	100	62	44	53	G2,5 25000
340CT203	ISO40	3	120	22	10	20	G2,5 25000
340CT204	ISO40	4	120	26	15	22	G2,5 25000
340CT205	ISO40	5	120	30	15	22	G2,5 25000
340CT206	ISO40	6	120	36	21	27	G2,5 25000
340CT208	ISO40	8	120	36	21	27	G2,5 25000
340CT210	ISO40	10	120	41	24	31	G2,5 25000
340CT212	ISO40	12	120	47	24	31	G2,5 25000
340CT216	ISO40	16	120	50	27	34	G2,5 25000
340CT220	ISO40	20	120	52	33	40	G2,5 25000
340CT225	ISO40	25	120	58	44	53	G2,5 25000
340CT232	ISO40	25	120	58	44	53	G2,5 25000
340CT303	ISO40	3	160	22	10	20	G2,5 25000
340CT304	ISO40	4	160	26	15	22	G2,5 25000
340CT306	ISO40	6	160	36	21	27	G2,5 25000
340CT308	ISO40	8	160	36	21	27	G2,5 25000
340CT310	ISO40	10	160	41	24	31	G2,5 25000
340CT312	ISO40	12	160	47	24	31	G2,5 25000
340CT316	ISO40	16	160	50	27	34	G2,5 25000
340CT320	ISO40	20	160	52	33	40	G2,5 25000
340CT325	ISO40	25	160	58	44	53	G2,5 25000
340CT332	ISO40	32	160	62	44	53	G2,5 25000



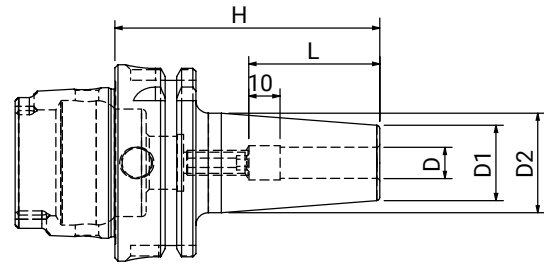
COD	CONO	D	H	L	D1	D2	BILANCIATURA
350CT103	ISO50	3	100		10	20	G2,5 25000
350CT104	ISO50	4	100		15	22	G2,5 25000
350CT105	ISO50	5	100		15	22	G2,5 25000
350CT106	ISO50	6	100	36	21	27	G2,5 25000
350CT108	ISO50	8	100	36	21	27	G2,5 25000
350CT110	ISO50	10	100	41	24	31	G2,5 25000
350CT112	ISO50	12	100	47	24	31	G2,5 25000
350CT114	ISO50	14	100	47	27	34	G2,5 25000
350CT116	ISO50	16	100	50	27	34	G2,5 25000
350CT118	ISO50	18	100	50	33	40	G2,5 25000
350CT120	ISO50	20	100	52	33	40	G2,5 25000
350CT125	ISO50	25	110	58	44	53	G2,5 25000
350CT132	ISO50	32	110	62	44	53	G2,5 25000
350CT203	ISO50	3	120		10	20	G2,5 25000
350CT204	ISO50	4	120		15	22	G2,5 25000
350CT205	ISO50	5	120		15	22	G2,5 25000
350CT206	ISO50	6	120	36	21	27	G2,5 25000
350CT208	ISO50	8	120	36	21	27	G2,5 25000
350CT210	ISO50	10	120	41	24	31	G2,5 25000
350CT212	ISO50	12	120	47	24	31	G2,5 25000
350CT214	ISO50	14	120	47	27	34	G2,5 25000
350CT216	ISO50	16	120	50	27	34	G2,5 25000
350CT218	ISO50	18	120	50	33	40	G2,5 25000
350CT220	ISO50	20	120	52	33	40	G2,5 25000
350CT225	ISO50	25	120	58	44	53	G2,5 25000
350CT232	ISO50	32	120	62	44	53	G2,5 25000
350CT303	ISO50	3	160		10	21	G2,5 25000
350CT304	ISO50	4	160		15	22	G2,5 25000
350CT305	ISO50	5	160		15	22	G2,5 25000
350CT306	ISO50	6	160	36	21	27	G2,5 25000
350CT308	ISO50	8	160	36	21	27	G2,5 25000
350CT310	ISO50	10	160	41	24	31	G2,5 25000
350CT312	ISO50	12	160	47	24	31	G2,5 25000
350CT316	ISO50	16	160	50	27	34	G2,5 25000
350CT318	ISO50	18	160	50	33	40	G2,5 25000
350CT320	ISO50	20	160	52	33	40	G2,5 25000
350CT325	ISO50	25	160	58	44	53	G2,5 25000
350CT332	ISO50	32	160	58	44	53	G2,5 25000



COD	CONO	d	H	D	D1	D2	L
XP4CT103	C40	3	75	10	17	40	17
XP4CT104	C40	4	75	10	17	40	21
XP4CT105	C40	5	75	10	17	40	23
XP4CT106	C40	6	75	21	27	40	36
XP4CT108	C40	8	75	21	27	40	36
XP4CT110	C40	10	75	24	32	40	41
XP4CT112	C40	12	75	24	32	40	47
XP4CT114	C40	14	80	27	34	40	47
XP4CT116	C40	16	80	27	34	40	50
XP4CT118	C40	18	80	33	42	40	50
XP4CT120	C40	20	85	33	42	40	52
XP5CT103	C50	3	75	10	17	50	17
XP5CT104	C50	4	75	10	17	50	21
XP5CT105	C50	5	75	10	17	50	23
XP5CT106	C50	6	75	21	27	50	36
XP5CT108	C50	8	75	21	27	50	36
XP5CT110	C50	10	75	24	32	50	41
XP5CT112	C50	12	75	24	32	50	47
XP5CT114	C50	14	80	27	34	50	47
XP5CT116	C50	16	80	27	34	50	50
XP5CT118	C50	18	80	33	42	50	50
XP5CT120	C50	20	85	33	42	50	52
XP5CT125	C50	25	90	44	53	50	58



COD	CONO	d	H	D	D1	D2	L
XP6CT103	C63	3	80	10	17	63	17
XP6CT104	C63	4	80	10	17	63	21
XP6CT105	C63	5	80	10	17	63	23
XP6CT106	C63	6	80	21	27	63	36
XP6CT108	C63	8	80	21	27	63	36
XP6CT110	C63	10	80	24	32	63	41
XP6CT112	C63	12	80	24	32	63	47
XP6CT114	C63	14	85	27	34	63	47
XP6CT116	C63	16	85	27	34	63	50
XP6CT118	C63	18	85	33	42	63	50
XP6CT120	C63	20	85	33	42	63	52
XP6CT125	C63	25	90	44	53	63	58
XP6CT132	C63	32	95	44	53	63	62
XP6CT206	C63	6	100	21	27	63	36
XP6CT208	C63	8	100	21	27	63	36
XP6CT210	C63	10	100	24	32	63	41
XP6CT212	C63	12	100	24	32	63	47
XP6CT214	C63	14	100	27	34	63	47
XP6CT216	C63	16	100	27	34	63	50
XP6CT218	C63	18	100	33	42	63	50
XP6CT220	C63	20	100	33	42	63	52

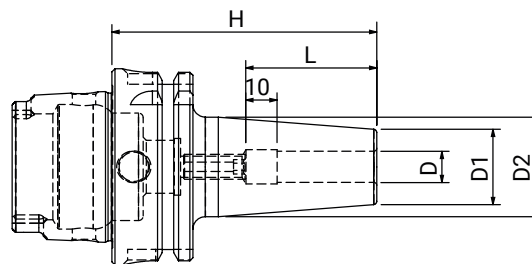


COD	CONO	D	H	L	D1	D2	BILANCIATURA
66ACT103	HSK63/A	3	80	14	10	20	G2,5 25000
66ACT104	HSK63/A	4	80	18	15	22	G2,5 25000
66ACT105	HSK63/A	5	80	22	15	22	G2,5 25000
66ACT106	HSK63/A	6	80	36	21	27	G2,5 25000
66ACT108	HSK63/A	8	80	36	21	27	G2,5 25000
66ACT110	HSK63/A	10	85	42	24	31	G2,5 25000
66ACT112	HSK63/A	12	90	47	24	31	G2,5 25000
66ACT114	HSK63/A	14	90	47	27	34	G2,5 25000
66ACT116	HSK63/A	16	95	50	27	34	G2,5 25000
66ACT118	HSK63/A	18	95	50	33	40	G2,5 25000
66ACT120	HSK63/A	20	100	52	33	40	G2,5 25000
66ACT125	HSK63/A	25	115	58	44	53	G2,5 25000
66ACT132	HSK63/A	32	120	62	44	53	G2,5 25000
66ACT203	HSK63/A	3	120	22	10	20	G2,5 25000
66ACT204	HSK63/A	4	120	26	15	22	G2,5 25000
66ACT205	HSK63/A	5	120	30	15	22	G2,5 25000
66ACT206	HSK63/A	6	120	36	21	27	G2,5 25000
66ACT208	HSK63/A	8	120	36	21	27	G2,5 25000
66ACT210	HSK63/A	10	120	41	24	31	G2,5 25000
66ACT212	HSK63/A	12	120	47	24	31	G2,5 25000
66ACT214	HSK63/A	14	120	47	27	34	G2,5 25000
66ACT216	HSK63/A	16	120	50	27	34	G2,5 25000
66ACT218	HSK63/A	18	120	50	33	40	G2,5 25000
66ACT220	HSK63/A	20	120	52	33	40	G2,5 25000
66ACT225	HSK63/A	25	120	58	44	53	G2,5 25000
66ACT232	HSK63/A	32	120	58	44	53	G2,5 25000
66ACT303	HSK63/A	3	160	22	10	20	G2,5 25000
66ACT304	HSK63/A	4	160	26	15	22	G2,5 25000
66ACT305	HSK63/A	5	160	30	15	22	G2,5 25000
66ACT306	HSK63/A	6	160	36	21	27	G2,5 25000
66ACT308	HSK63/A	8	160	36	21	27	G2,5 25000
66ACT310	HSK63/A	10	160	41	24	31	G2,5 25000
66ACT312	HSK63/A	12	160	47	24	31	G2,5 25000
66ACT314	HSK63/A	14	160	47	27	34	G2,5 25000
66ACT316	HSK63/A	16	160	50	27	34	G2,5 25000
66ACT318	HSK63/A	18	160	50	33	40	G2,5 25000
66ACT320	HSK63/A	20	160	52	33	40	G2,5 25000
66ACT325	HSK63/A	25	160	62	44	53	G2,5 25000
66ACT332	HSK63/A	32	160	62	44	53	G2,5 25000

MANDRINI A CALETTAMENTO TERMICO DIN 69893 HSK A
 SHRINK FIT TOOLHOLDERS DIN 69893 HSK A
 SCHRUMPFUTTER DIN 69893 HSK A
 MANDRINS DE FRETTAGE DIN 69893 HSK A

CALETTAMENTO TERMICO
 DIN 69893 HSK A

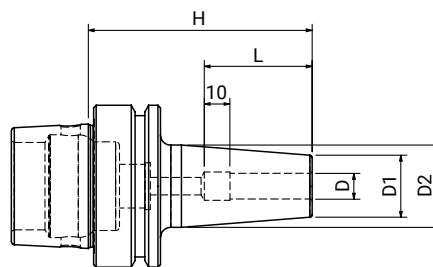
CALETTAMENTO
 TERMICO



COD	CONO	D	H	L	D1	D2	BILANCIATURA
61ACT106	HSK100/A	6	85	36	21	27	G2,5 25000
61ACT108	HSK100/A	8	85	36	21	27	G2,5 25000
61ACT110	HSK100/A	10	90	41	24	31	G2,5 25000
61ACT112	HSK100/A	12	95	47	24	31	G2,5 25000
61ACT114	HSK100/A	14	95	47	27	34	G2,5 25000
61ACT116	HSK100/A	16	100	50	27	34	G2,5 25000
61ACT120	HSK100/A	20	105	52	33	40	G2,5 25000
61ACT125	HSK100/A	25	115	58	44	53	G2,5 25000
61ACT132	HSK100/A	32	120	62	44	53	G2,5 25000
61ACT206	HSK100/A	6	120	36	21	27	G2,5 25000
61ACT208	HSK100/A	8	120	36	21	27	G2,5 25000
61ACT210	HSK100/A	10	120	41	24	31	G2,5 25000
61ACT212	HSK100/A	12	120	47	24	31	G2,5 25000
61ACT214	HSK100/A	14	120	47	27	34	G2,5 25000
61ACT216	HSK100/A	16	120	50	27	34	G2,5 25000
61ACT220	HSK100/A	20	120	52	33	40	G2,5 25000
61ACT225	HSK100/A	25	160	58	44	53	G2,5 25000
61ACT232	HSK100/A	32	160	62	44	53	G2,5 25000

MANDRINI A CALETTAMENTO TERMICO DIN 69893 HSK E
 SHRINK FIT TOOLHOLDERS DIN 69893 HSK E
 SCHRUMPFUTTER DIN 69893 HSK E
 MANDRINS DE FRETTAGE DIN 69893 HSK E

CALETTAMENTO TERMICO
 DIN 69893 HSK E



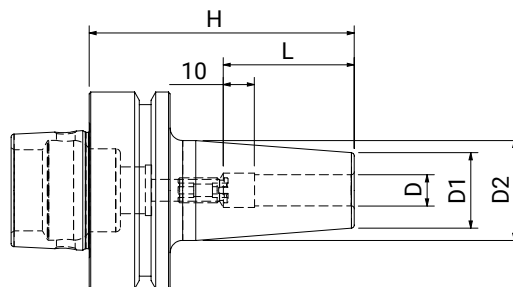
CALETTAMENTO
 TERMICO

COD	CONO	D	H	L	D1	D2	BILANCIATURA
66ECT103	HSK63/E	3	80	22	10	20	G2,5 25000
66ECT104	HSK63/E	4	80	26	15	22	G2,5 25000
66ECT105	HSK63/E	5	80	30	15	22	G2,5 25000
66ECT106	HSK63/E	6	80	36	21	27	G2,5 25000
66ECT108	HSK63/E	8	80	36	21	27	G2,5 25000
66ECT110	HSK63/E	10	85	41	24	31	G2,5 25000
66ECT112	HSK63/E	12	90	47	24	31	G2,5 25000
66ECT114	HSK63/E	14	90	47	27	34	G2,5 25000
66ECT116	HSK63/E	16	95	50	27	34	G2,5 25000
66ECT118	HSK63/E	18	95	50	33	40	G2,5 25000
66ECT120	HSK63/E	20	100	52	33	40	G2,5 25000
66ECT125	HSK63/E	25	115	58	44	53	G2,5 25000
66ECT132	HSK63/E	32	120	62	44	53	G2,5 25000

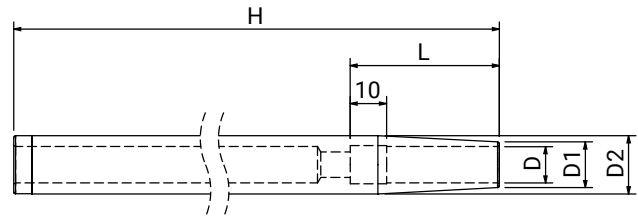
MANDRINI A CALETTAMENTO TERMICO DIN 69893 HSK F
 SHRINK FIT TOOLHOLDERS DIN 69893 HSK F
 SCHRUMPFUTTER DIN 69893 HSK F
 MANDRINS DE FRETTAGE DIN 69893 HSK F

CALETTAMENTO TERMICO
 DIN 69893 HSK F

CALETTAMENTO
 TERMICO



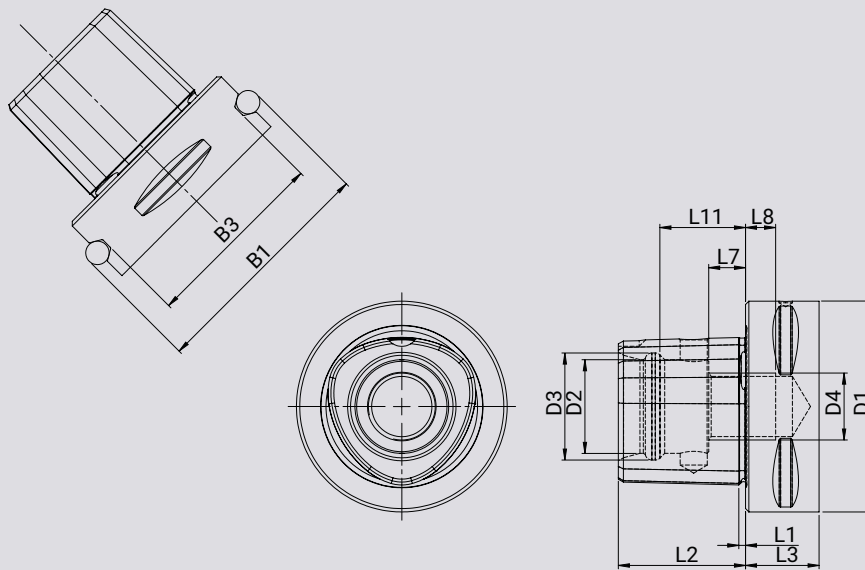
COD	CONO	D	H	L	D1	D2	BILANCIATURA
66FCT103	HSK63/F	3	80	22	10	20	G2,5 25000
66FCT104	HSK63/F	4	80	26	15	22	G2,5 25000
66FCT105	HSK63/F	5	80	30	15	22	G2,5 25000
66FCT106	HSK63/F	6	80	36	21	27	G2,5 25000
66FCT108	HSK63/F	8	80	36	21	27	G2,5 25000
66FCT110	HSK63/F	10	85	41	24	31	G2,5 25000
66FCT112	HSK63/F	12	90	47	24	31	G2,5 25000
66FCT114	HSK63/F	14	90	47	27	34	G2,5 25000
66FCT116	HSK63/F	16	95	50	27	34	G2,5 25000
66FCT118	HSK63/F	18	95	50	33	40	G2,5 25000
66FCT120	HSK63/F	20	100	52	33	40	G2,5 25000
66FCT125	HSK63/F	25	115	58	44	53	G2,5 25000
66FCT132	HSK63/F	32	120	62	44	53	G2,5 25000



COD	D	H	L	D1	D2
PR12C203	3	150		8	12
PR12C204	4	150		8	12
PR16C203	3	150		10	16
PR16C204	4	150		10	16
PR16C205	5	150		10	16
PR16C206	6	150		10	16
PR16C208	8	150	36	10	16
PR16C210	10	150	36	12	16
PR20C203	3	150		10	20
PR20C204	4	150		10	20
PR20C205	5	150		10	20
PR20C206	6	150	36	10	20
PR20C208	8	150	36	12	20
PR20C210	10	150	41	14	20
PR20C212	12	150	47	16	20
PR25C208	8	150	36	20	25
PR25C210	10	150	36	20	25
PR25C212	12	150	47	20	25
PR25C214	14	150	47	20	25
PR25C216	16	150	50	22	25
PR32C210	10	150	36	24	32
PR32C212	12	150	36	24	32
PR32C214	14	150	47	27	32
PR32C216	16	150	47	27	32
PR32C218	18	150	50	27	32
PR32C220	20	150	52	27	32

ISO 26623-1





ATTACCO SIZE	B1	B3	D1	D2	D3	D4	L1	L2	L3	L7	L8	L11
32	39	27,9	32	15	16,5	M12 X 1,5P	2,5	19	15	6	6	13,5
40	46	34,9	40	18	20	M14 X 1,5P	2,5	24	20	9	6	17,5
50	59,3	44	50	21	24	M16 X 1,5P	3	30	20	10	7	22
63	70,7	55,4	63	28	32	M20 X 2,0P	3	38	22	11	9	26
80	86	70,7	80	32	38	M20 X 2,0P	3	48	30	20	0	34

Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN
 All PAGNONI TOOLS toolholders are manufactured according to DIN norms
 Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert
 Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

PRE-BILANCIATI:

- Grado di equilibratura aggiuntiva G 6,3 8000

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 \pm 2 – profondità si indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

VORGEWUCHTET:

- Wuchtgüte angegeben G 6,3 8000

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 \pm 2, Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außengeschliffen

TECHNICAL FEATURES

PRE-BALANCED:

- Additional balancing grade G 6,3 8000

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 \pm 2 - hardening depth 0,4-0,5 mm
- Strength 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRÉ-ÉQUILIBRÉ:

- Équilibrage attitionnel G 6,3 8000

MATÉRIAUX ET TRAITEMENTS:

- Acier de cémentation allié
- Temprés – Revenus
- Cémentation à HRC 58 \pm 2, profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe



> PAG. 61



> PAG. 62



> PAG. 63



> PAG. 64



> PAG. 65



> PAG. 66



> PAG. 67



> PAG. 68



> PAG. 69



> PAG. 70



> PAG. 71



> PAG. 72



> PAG. 73



> PAG. 74



> PAG. 75



> PAG. 76



> PAG. 77



> PAG. 78



> PAG. 79



> PAG. 80



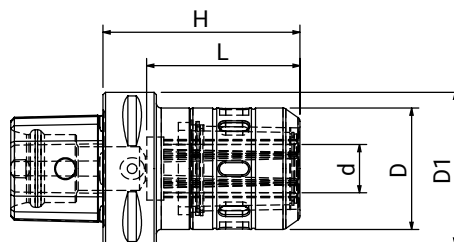
> PAG. 81



> PAG. 82



> PAG. 83



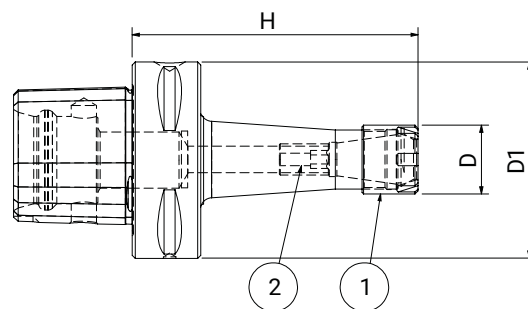
COD	CONO	d	H	L	D	D1
XP3FS112	C30	12	65	47	34	30
XP3FS116	C30	16	60	51	42	30
XP4FS112	C40	12	65	47	34	40
XP4FS116	C40	16	65	51	42	40
XP4FS120	C40	20	90	62	54	40
XP5FS112	C50	12	80	47	34	50
XP5FS116	C50	16	70	51	42	50
XP5FS120	C50	20	70	60	54	50
XP5FS132	C50	32	95	80	63	50
XP6FS112	C63	12	100	80	34	63
XP6FS116	C63	16	100	80	42	63
XP6FS120	C63	20	100	80	54	63
XP6FS132	C63	32	100	80	72	63
XP8FS020	C80	20	75	80	54	80
XP8FS032	C80	32	95	80	72	80

ISO 26623-1

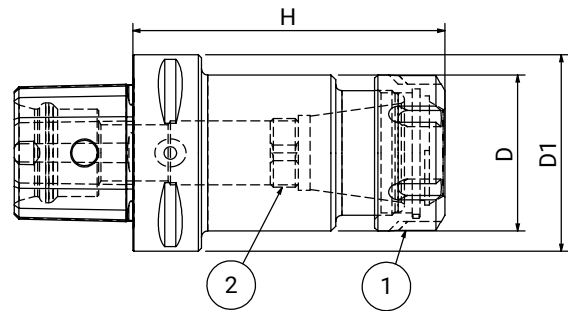
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



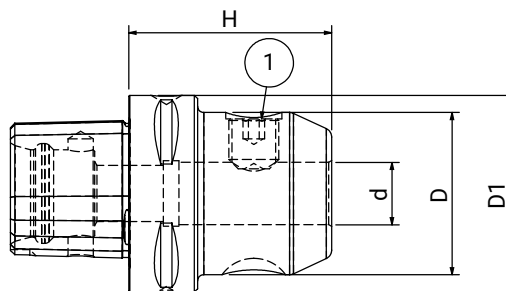
> PAG. 259



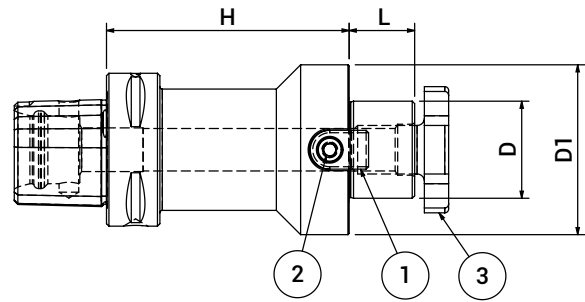
COD	CONO	TIPOLOGIA	H	D	D1	1 - GHIERA	2 - GRANO INTERNO
XP3PM107	C32	ER11MINI	50	16	32	911GHRMN	-
XP3PM110	C32	ER16MINI	50	22	32	916GHRMN	-
XP3PM113	C32	ER20MINI	50	28	32	920GHRMN	-
XP3PM116	C32	ER25MINI	50	35	32	925GHRMN	-
XP4PM107	C40	ER11MINI	60	16	40	911GHRMN	-
XP4PM110	C40	ER16MINI	60	22	40	916GHRMN	-
XP4PM113	C40	ER20MINI	60	28	40	920GHRMN	-
XP4PM116	C40	ER25MINI	60	35	40	925GHRMN	-
XP5PM107	C50	ER11MINI	60	16	50	911GHRMN	100601001
XP5PM110	C50	ER16MINI	60	22	50	916GHRMN	101001601
XP5PM113	C50	ER20MINI	60	28	50	920GHRMN	101001601
XP5PM116	C50	ER25MINI	60	35	50	925GHRMN	101815801
XP5PM207	C50	ER11MINI	100	16	50	911GHRMN	100601001
XP5PM210	C50	ER16MINI	100	22	50	916GHRMN	101001601
XP5PM213	C50	ER20MINI	100	28	50	920GHRMN	101001601
XP5PM216	C50	ER25MINI	100	35	50	925GHRMN	101815801
XP5PM407	C50	ER11MINI	160	16	50	911GHRMN	100601001
XP5PM410	C50	ER16MINI	160	22	50	916GHRMN	101001601
XP5PM413	C50	ER20MINI	160	28	50	920GHRMN	101001601
XP5PM416	C50	ER25MINI	160	35	50	925GHRMN	101815801
XP6PM107	C63	ER11MINI	60	16	63	911GHRMN	100601001
XP6PM110	C63	ER16MINI	60	22	63	916GHRMN	101001601
XP6PM113	C63	ER20MINI	60	28	63	920GHRMN	101001601
XP6PM116	C63	ER25MINI	60	35	63	925GHRMN	101815801
XP6PM207	C63	ER11MINI	100	16	63	911GHRMN	100601001
XP6PM210	C63	ER16MINI	100	22	63	916GHRMN	101001601
XP6PM213	C63	ER20MINI	100	28	63	920GHRMN	101001601
XP6PM216	C63	ER25MINI	100	35	63	925GHRMN	101815801
XP6PM407	C63	ER11MINI	160	16	63	911GHRMN	100601001
XP6PM410	C63	ER16MINI	160	22	63	916GHRMN	101001601
XP6PM413	C63	ER20MINI	160	28	63	920GHRMN	101001601
XP6PM416	C63	ER25MINI	160	35	63	925GHRMN	101815801



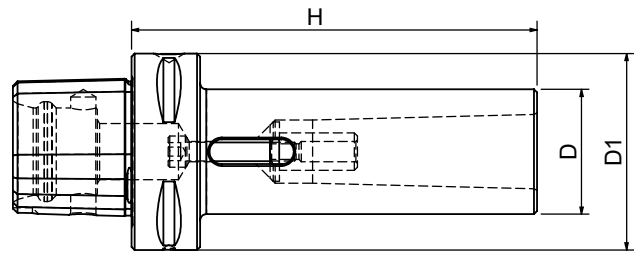
COD	CONO	TIPOLOGIA	H	D	D1	1 - GHIERA	2 - GRANO INTERNO
XP3PP110	C32	ER16	45	32	32	916GHREQ	101001601
XP3PP113	C32	ER20	45	34	32	920GHREQ	101001601
XP3PP116	C32	ER25	52	42	32	925GHREQ	101815801
XP4PP110	C40	ER16	70	32	40	916GHREQ	101001601
XP4PP113	C40	ER20	52	35	40	920GHREQ	101001601
XP4PP116	C40	ER25	52	42	40	925GHREQ	101815801
XP4PP120	C40	ER32	54	50	40	932GHREQ	102215901
XP5PP110	C50	ER16	60	32	50	916GHREQ	101001601
XP5PP113	C50	ER20	60	35	50	920GHREQ	101001601
XP5PP116	C50	ER25	60	42	50	925GHREQ	101815801
XP5PP120	C50	ER32	60	50	50	932GHREQ	102215901
XP5PP126	C50	ER40	65	63	50	940GHREQ	103015901
XP5PP210	C50	ER16	100	32	50	916GHREQ	101001601
XP5PP213	C50	ER20	100	34	50	920GHREQ	101001601
XP5PP216	C50	ER25	100	42	50	925GHREQ	101815801
XP5PP220	C50	ER32	100	50	50	932GHREQ	102215901
XP5PP226	C50	ER40	100	63	50	940GHREQ	103015901
XP6PP110	C63	ER16	60	32	63	916GHREQ	101001601
XP6PP113	C63	ER20	60	35	63	920GHREQ	101001601
XP6PP116	C63	ER25	60	42	63	925GHREQ	101815801
XP6PP120	C63	ER32	60	50	63	932GHREQ	102215901
XP6PP126	C63	ER40	70	63	63	940GHREQ	103015901
XP6PP210	C63	ER16	100	32	63	916GHREQ	101001601
XP6PP213	C63	ER20	100	35	63	920GHREQ	101001601
XP6PP216	C63	ER25	100	42	63	925GHREQ	101815801
XP6PP220	C63	ER32	100	50	63	932GHREQ	102215901
XP6PP226	C63	ER40	100	63	63	940GHREQ	103015901
XP6PP410	C63	ER16	160	32	63	916GHREQ	101001601
XP6PP416	C63	ER25	160	42	63	925GHREQ	101815801
XP6PP420	C63	ER32	160	50	63	932GHREQ	102215901
XP6PP426	C63	ER40	160	63	63	940GHREQ	103015901
XP8PP116	C80	ER25	70	42	80	925GHREQ	101815801
XP8PP120	C80	ER32	70	50	80	932GHREQ	102215901
XP8PP126	C80	ER40	70	63	80	940GHREQ	103015901



COD	CONO	d	H	D	D1	1 - GRANO
XP3WLD06	C32	6	46	25	32	1 x 100601002
XP3WLD08	C32	8	46	28	32	1 x 100801002
XP3WLD10	C32	10	50	35	32	1 x 101001202
XP3WLD12	C32	12	55	42	32	1 x 101201602
XP4WLD06	C40	6	50	25	40	1 x 100601002
XP4WLD08	C40	8	50	28	40	1 x 100801002
XP4WLD10	C40	10	50	35	40	1 x 101001202
XP4WLD12	C40	12	55	42	40	1 x 101201602
XP4WLD14	C40	14	55	44	40	1 x 101201602
XP4WLD16	C40	16	55	48	40	1 x 101401602
XP5WLD06	C50	6	55	25	50	1 x 100601002
XP5WLD08	C50	8	55	28	50	1 x 100801002
XP5WLD10	C50	10	65	35	50	1 x 101001202
XP5WLD12	C50	12	65	42	50	1 x 101201602
XP5WLD14	C50	14	65	44	50	1 x 101201602
XP5WLD16	C50	16	65	48	50	1 x 101401602
XP5WLD18	C50	18	65	50	50	1 x 101401602
XP5WLD20	C50	20	65	52	50	1 x 101601602
XP5WLD25	C50	25	80	63	50	2 x 101802002
XP6WLD06	C63	6	55	25	63	1 x 100601002
XP6WLD08	C63	8	55	28	63	1 x 100801002
XP6WLD10	C63	10	60	35	63	1 x 101001202
XP6WLD12	C63	12	60	42	63	1 x 101201602
XP6WLD14	C63	14	60	44	63	1 x 101201602
XP6WLD16	C63	16	65	48	63	1 x 101401602
XP6WLD20	C63	20	65	52	63	1 x 101601602
XP6WLD25	C63	25	80	63	63	2 x 101802002
XP6WLD32	C63	32	90	72	63	2 x 102002002
XP8WLD06	C80	6	70	25	80	1 x 100601002
XP8WLD08	C80	8	70	28	80	1 x 100801002
XP8WLD10	C80	10	70	35	80	1 x 101001202
XP8WLD12	C80	12	70	42	80	1 x 101201602
XP8WLD14	C80	14	70	44	80	1 x 101201602
XP8WLD16	C80	16	70	48	80	1 x 101401602
XP8WLD20	C80	20	70	50	80	1 x 101601602
XP8WLD25	C80	25	80	52	80	1 x 101801202
XP8WLD32	C80	32	80	72	80	1 x 102002002
XP8WLD40	C80	40	110	80	80	1 x 101801202

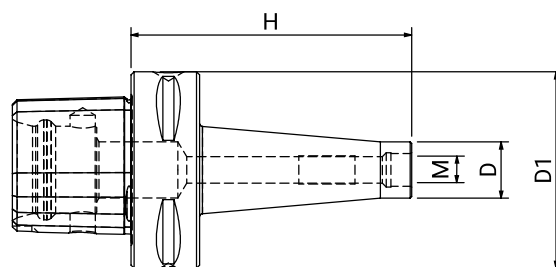


COD	CONO	D	H	D1	L	1 - TASSELLO	2 - VITE	1 - VITE A CROCE
XP3PF016	C32	16	32	32	17	2 x 916TSL03	2 x 110300801	916VTC02
XP4PF016	C40	16	32	32	17	2 x 916TSL03	2 x 110300801	916VTC02
XP4PF116	C40	16	55	38	17	2 x 916TSL03	2 x 110300801	916VTC02
XP4PF022	C40	22	25	40	19	2 x 922TSL10	2 x 110401201	922VTC02
XP4PF122	C40	22	55	48	19	2 x 922TSL10	2 x 110401201	922VTC02
XP5PF116	C50	16	60	38	17	2 x 916TSL11	2 x 110301201	916VTC02
XP5PF016	C50	16	35	38	17	2 x 916TSL11	2 x 110301201	916VTC02
XP5PF122	C50	22	60	48	19	2 x 922TSL11	2 x 110401201	922VTC02
XP5PF022	C50	22	25	48	19	2 x 922TSL11	2 x 110401201	922VTC02
XP5PF127	C50	27	60	58	21	2 x 927TSL11	2 x 110501601	927VTC02
XP5PF132	C50	32	60	63	24	2 x 932TSL10	2 x 110601201	932VTC02
XP6PF016	C63	16	40	32	17	2 x 916TSL10	2 x 110300801	916VTC02
XP6PF116	C63	16	63	38	17	2 x 916TSL11	2 x 110301201	916VTC02
XP6PF022	C63	22	25	55	19	2 x 922TSL11	2 x 110401201	922VTC02
XP6PF222	C63	22	100	48	19	2 x 922TSL11	2 x 110401201	922VTC02
XP6PF027	C63	27	25	63	21	2 x 927TSL02	2 x 110401201	927VTC02
XP6PF227	C63	27	100	58	21	2 x 927TSL11	2 x 110501601	927VTC02
XP6PF032	C63	32	25	63	24	2 x 932TSL20	2 x 110601601	932VTC02
XP6PF232	C63	32	100	63	24	2 x 932TSL11	2 x 110601601	932VTC02
XP6PF040	C63	40	40	89	27	2 x 940TSL10	2 x 110601601	940VTC02
XP6PF240	C63	40	100	70	27	2 x 940TSL10	2 x 110602001	940VTC02
XP8PF116	C80	16	50	32	17	2 x 916TSL10	2 x 110301001	916VTC02
XP8PF022	C80	22	30	55	19	2 x 922TSL13	2 x 110401601	922VTC02
XP8PF027	C80	27	30	65	21	2 x 927TSL11	2 x 110501601	927VTC02
XP8PF032	C80	32	30	79	24	2 x 932TSL12	2 x 110602001	932VTC02
XP8PF040	C80	40	30	80	27	2 x 940TSL05	2 x 110601601	940VTC02

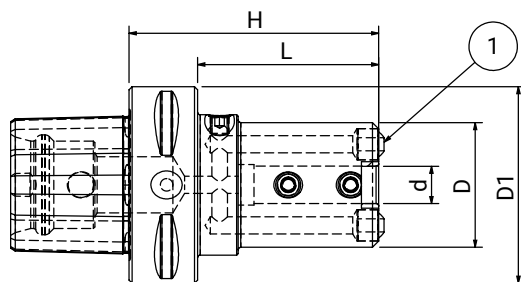


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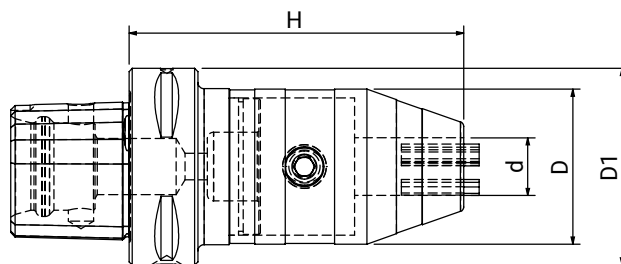
COD	CONO	MORSE	D	H	D1
XP4MP102	C40	2	32	110	40
XP4MP103	C40	3	40	130	40
XP5MP102	C50	2	32	110	50
XP5MP103	C50	3	40	130	50
XP6MP102	C63	2	32	110	63
XP6MP103	C63	3	40	130	63
XP6MP104	C63	4	52	155	63
XP8MP103	C80	3	40	140	80
XP8MP104	C80	4	52	170	80
XP8MP105	C80	5	63	200	80



COD	CONO	M	H	D	D1
XP5AF108	C50	M8	70	13	50
XP5AF110	C50	M10	80	18	50
XP5AF112	C50	M12	80	21	50
XP5AF116	C50	M16	80	29	50
XP6AF108	C63	M8	70	13	63
XP6AF110	C63	M10	90	18	63
XP6AF112	C63	M12	100	21	63
XP6AF116	C63	M16	100	29	63



COD	CONO	d	D	H	L	D1	1 - OGIVA
XP3BR006	C32	06	36	35	20	32	2 x OGIVA08
XP3BR008	C32	08	36	35	20	32	2 x OGIVA08
XP3BR010	C32	10	36	35	20	32	2 x OGIVA08
XP3BR012	C32	12	36	40	24	32	2 x OGIVA08
XP3BR016	C32	16	40	50	42	32	2 x OGIVA08
XP4BR108	C40	08	36	40	19	40	2 x OGIVA08
XP4BR110	C40	10	36	40	19	40	2 x OGIVA08
XP4BR112	C40	12	36	45	24	40	2 x OGIVA08
XP4BR116	C40	16	40	50	29	40	2 x OGIVA08
XP4BR120	C40	20	45	70	42	40	2 x OGIVA08
XP4BR125	C40	25	54	70	42	40	2 x OGIVA08
XP5BR108	C50	08	40	50	25	50	2 x OGIVA10
XP5BR110	C50	10	45	50	25	50	2 x OGIVA10
XP5BR112	C50	12	36	70	45	50	2 x OGIVA10
XP5BR116	C50	16	40	80	48	50	2 x OGIVA10
XP5BR120	C50	20	45	80	48	50	2 x OGIVA10
XP5BR125	C50	25	54	80	50	50	2 x OGIVA10
XP6BR108	C63	08	36	60	35	63	2 x OGIVA10
XP6BR110	C63	10	36	60	35	63	2 x OGIVA10
XP6BR112	C63	12	36	60	35	63	2 x OGIVA10
XP6BR116	C63	16	40	80	48	63	2 x OGIVA10
XP6BR120	C63	20	45	80	48	63	2 x OGIVA10
XP6BR125	C63	25	63	85	52	63	2 x OGIVA10
XP6BR132	C63	32	72	95	58	63	2 x OGIVA12
XP6BR140	C63	40	80	105	72	63	2 x OGIVA12
XP8BR116	C80	16	45	85	48	80	2 x OGIVA10
XP8BR120	C80	20	50	85	48	80	2 x OGIVA10
XP8BR125	C80	25	55	85	48	80	2 x OGIVA10
XP8BR132	C80	32	72	95	58	80	2 x OGIVA12
XP8BR140	C80	40	80	110	73	80	2 x OGIVA12
XP8BR150	C80	50	85	100	73	80	2 x OGIVA12



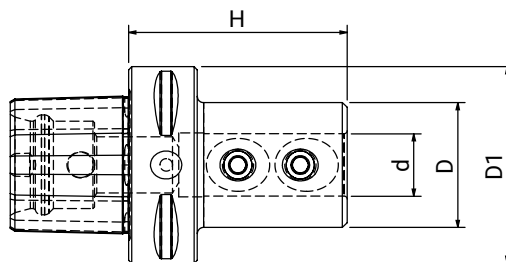
COD	CONO	d	D	H	D1
XP3MAZ13	C30	1-13	50	99	32
XP4MAZ13	C40	1-13	50	115	40
XP5MAZ13	C50	1-13	50	98	50
XP6MAZ13	C63	1-13	50	105	63
XP6MAZ16	C63	3-16	50	110	63
XP8MAZ13	C80	1-13	50	109	80
XP8MAZ16	C63	3-16	50	114	80

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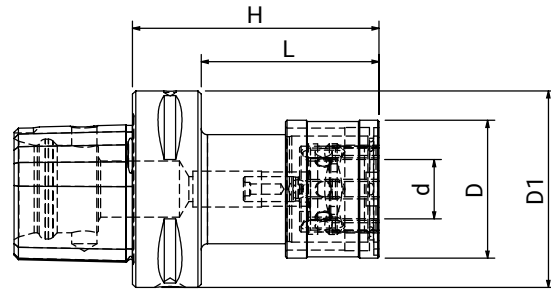


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COD	CONO	d	H	D	D1
XP3PB116	C32	16	56	36	32
XP3PB120	C32	20	60	40	32
XP4PB108	C40	8	50	28	40
XP4PB110	C40	10	50	35	40
XP4PB112	C40	12	50	42	40
XP4PB116	C40	16	56	36	40
XP4PB120	C40	20	60	40	40
XP4PB125	C40	25	77	45	40
XP5PB108	C50	8	52	28	50
XP5PB110	C50	10	52	38	50
XP5PB112	C50	12	52	42	50
XP5PB116	C50	16	65	36	50
XP5PB120	C50	20	60	40	50
XP5PB125	C50	25	70	45	50
XP5PB132	C50	32	75	52	50
XP6PB108	C63	8	60	28	63
XP6PB110	C63	10	60	35	63
XP6PB112	C63	12	60	42	63
XP6PB116	C63	16	70	36	63
XP6PB120	C63	20	70	40	63
XP6PB125	C63	25	72	45	63
XP6PB132	C63	32	75	52	63
XP6PB140	C63	40	85	63	63
XP8PB116	C80	16	80	36	80
XP8PB120	C80	20	80	40	80
XP8PB125	C80	25	85	45	80
XP8PB132	C80	32	90	52	80
XP8PB140	C80	40	95	63	80



COD	CONO	RANGE	SIZE	d	D	H	L	D1
XP4PCRM1	C40	M3-M12	GR.1	19	39,2	73	53	40
XP4PCRM2	C40	M6-M20	GR.2	31	54,5	116,5	96,5	40
XP5PCRM1	C50	M3-M12	GR.1	19	39,2	91	71	50
XP5PCRM2	C50	M6-M20	GR.2	31	54,5	122	144	50
XP6PCRM1	C63	M3-M12	GR.1	19	39,2	90	68	63
XP6PCRM2	C63	M6-M20	GR.2	31	54,5	143	121	63
XP8PCRM1	C80	M3-M12	GR.1	19	39,2	80	50	80
XP8PCRM2	C80	M6-M20	GR.2	31	54,5	118,5	88,5	80

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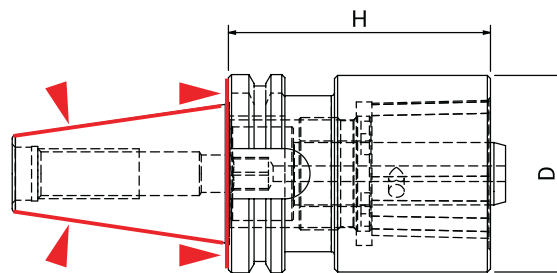
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> PAG. 258



> PAG. 257

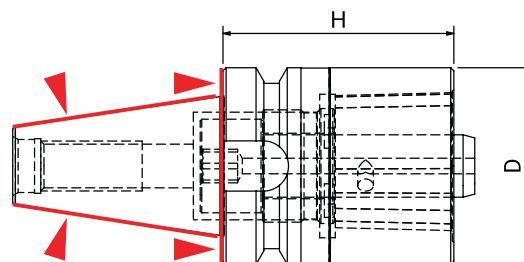


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COD	CONO	RIDUZIONE	D	H
141XP0C3	ISO40	C32	32	30
141XP0C4	ISO40	C40	40	30
141XP0C5	ISO40	C50	50	40
141XP0C6	ISO40	C63	63	85
151XP0C3	ISO50	C32	32	30
151XP0C4	ISO50	C40	40	30
151XP0C5	ISO50	C50	50	30
151XP0C6	ISO50	C63	63	30
151XP0C8	ISO50	C80	80	70
151XP1C3	ISO50	C32	32	60
151XP1C4	ISO50	C40	40	60
151XP1C5	ISO50	C50	50	70
151XP1C6	ISO50	C63	63	50
151XP1C8	ISO50	C80	80	120
151XP2C6	ISO50	C63	63	100

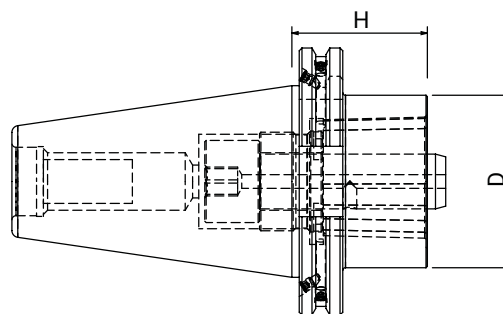
RIDUZIONI MAS 403 BT A DOPPIO CONTATTO PER ATTACCO POLIGONALE
 REDUCTION DUAL CONTACT MAS 403 BT WITH POLYGONAL SHANK
 REDUKTION DOPPELKONTAKT MAS 403 BT MIT POLYGONALSHAFT
 REDUCTION CONTACT DIRECT MAS 403 BT AVEC ATTACHEMENT POLYGONALE

DOPPIO CONTATTO
 MAS 403 BT



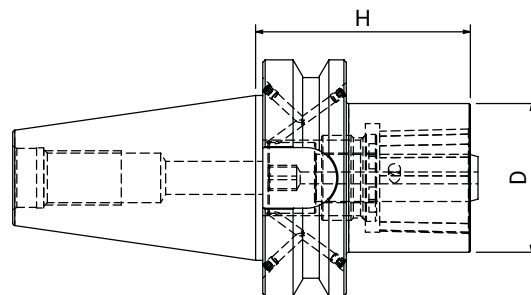
COD	CONO	RIDUZIONE	D	H
341XP0C3	ISO40	C32	32	30
341XP0C4	ISO40	C40	40	30
341XP0C5	ISO40	C50	50	40
341XP0C6	ISO40	C63	63	75
351XP0C3	ISO50	C32	32	40
351XP0C4	ISO50	C40	40	40
351XP0C5	ISO50	C50	50	40
351XP0C6	ISO50	C63	63	50
351XP0C8	ISO50	C80	80	70
351XP1C3	ISO50	C32	32	70
351XP1C4	ISO50	C40	40	70
351XP1C5	ISO50	C50	50	70
351XP1C6	ISO50	C63	63	90
351XP1C8	ISO50	C80	80	120

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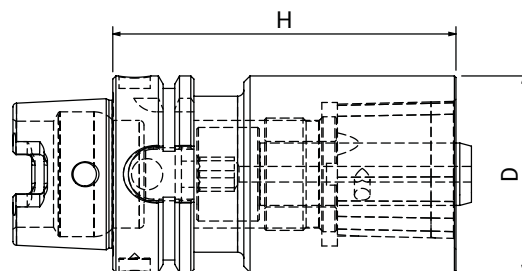
ISO 26623-1

COD	CONO	RIDUZIONE	D	H
140XP0C3	ISO40	C32	32	30
140XP0C4	ISO40	C40	40	30
140XP0C5	ISO40	C50	50	40
140XP0C6	ISO40	C63	63	85
140XP1C3	ISO40	C32	32	60
140XP1C4	ISO40	C40	40	60
150XP0C3	ISO50	C32	32	30
150XP0C4	ISO50	C40	40	30
150XP0C5	ISO50	C50	50	30
150XP0C6	ISO50	C63	63	30
150XP0C8	ISO50	C80	80	70
150XP1C3	ISO50	C32	32	60
150XP1C4	ISO50	C40	40	60
150XP1C5	ISO50	C50	50	70
150XP1C6	ISO50	C63	63	50
150XP1C8	ISO50	C80	80	120
150XP2C5	ISO50	C50	50	110
150XP2C6	ISO50	C63	63	80



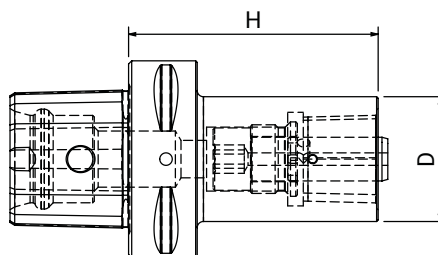
COD	CONO	RIDUZIONE	D	H
340XP0C3	ISO40	C32	32	30
340XP0C4	ISO40	C40	40	30
340XP0C5	ISO40	C50	50	50
340XP0C6	ISO40	C63	63	75
340XP1C3	ISO40	C32	32	60
340XP1C4	ISO40	C40	40	60
340XP1C5	ISO40	C50	50	90
350XP0C3	ISO50	C32	32	40
350XP0C4	ISO50	C40	40	40
350XP0C5	ISO50	C50	50	40
350XP0C6	ISO50	C63	63	50
350XP0C8	ISO50	C80	80	70
350XP1C3	ISO50	C32	32	70
350XP1C4	ISO50	C40	40	70
350XP1C5	ISO50	C50	50	80
350XP1C6	ISO50	C63	63	90
350XP1C8	ISO50	C80	80	120

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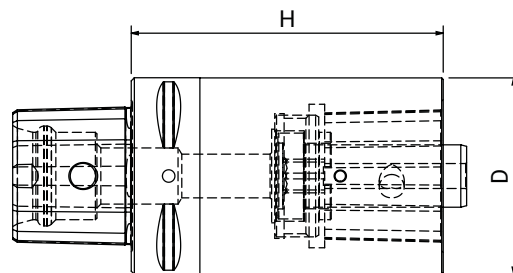


ISO 26623-1

COD	CONO	RIDUZIONE	D	D1	H
66AXP0C3	HSK63/A	C32	32	63	80
66AXP0C4	HSK63/A	C40	40	63	80
66AXP0C5	HSK63/A	C50	50	63	90
66AXP0C6	HSK63/A	C63	63	63	110
61AXP0C3	HSK100/A	C32	32	100	80
61AXP0C4	HSK100/A	C40	40	100	90
61AXP0C5	HSK100/A	C50	50	100	100
61AXP0C6	HSK100/A	C63	63	100	90
61AXP0C8	HSK100/A	C80	80	100	130
61AXP1C6	HSK100/A	C63	63	100	150

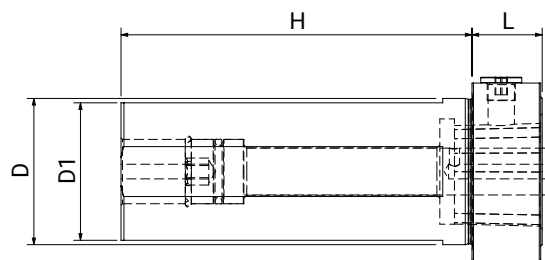
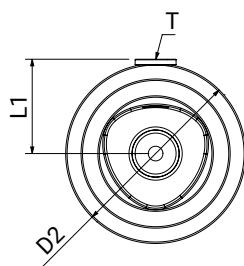


COD	CONO	RIDUZIONE	D	D1	H
XP4XP0C3	C40	C32	32	40	55
XP5XP0C4	C50	C40	40	50	65
XP5XP1C4	C50	C40	40	50	85
XP6XP0C4	C63	C40	40	63	80
XP6XP0C5	C63	C50	50	63	80
XP8XP0C5	C80	C50	50	80	120
XP8XP0C6	C80	C63	63	80	110

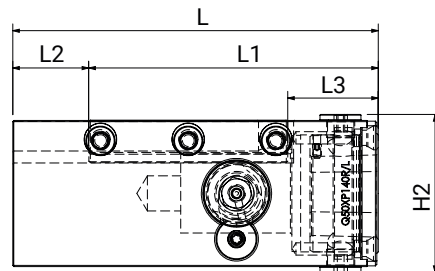
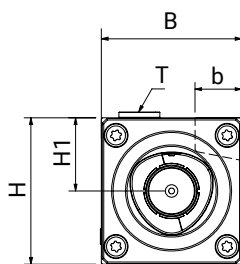


ISO 26623-1

COD	CONO	ATTACCO	D	H
XP3XP0C3	C32	C32	32	60
XP3XP1C3	C32	C32	32	80
XP4XP0C4	C40	C40	40	40
XP4XP1C4	C40	C40	40	60
XP4XP2C4	C40	C40	40	80
XP5XP0C5	C50	C50	50	50
XP5XP1C5	C50	C50	50	80
XP5XP2C5	C50	C50	50	100
XP6XP0C6	C63	C63	63	60
XP6XP1C6	C63	C63	63	100
XP6XP2C6	C63	C63	63	140
XP8XP0C8	C80	C80	80	65
XP8XP1C8	C80	C80	80	100
XP8XP2C8	C80	C80	80	125

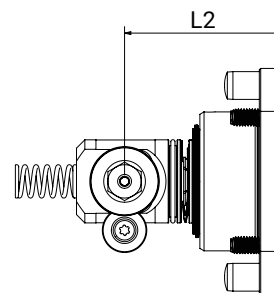
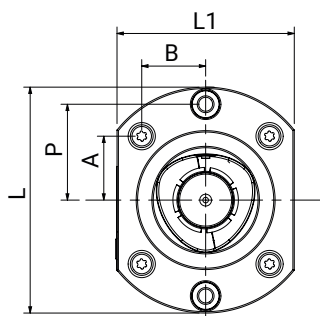


COD	ATTACCO	H	L	D2	D	D1	L1	T
D40XP132	C32	100	18	45,5	32	30	23	1/8 G
D40XP140	C40	100	20	51,5	40	37	26	1/8 G
D50XP150	C50	120	24	61,5	50	47	33	1/8 G
D50XP050	C50	80	24	61,5	50	47	33	1/8 G



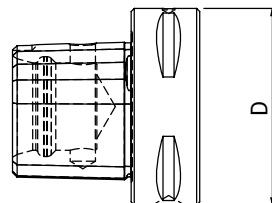
COD	ATTACCO	L	L1	L2	L3	B	b	H	H1	H2	T
Q40XP132R/L	C32	95	78,5	16,5	25	38	19	40	20	62	1/8 G
Q50XP140R/L	C40	125	100	25	31	42	24	50	25	57,5	1/8 G
Q63XP150R/L	C50	145	118	27	36	64	32	64	32	68	1/8 G

ISO 26623-1



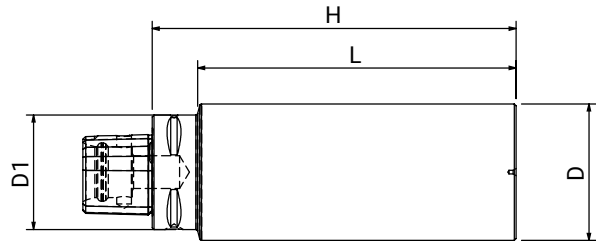
COD	ATTACCO	L	L1	L2	A	B	P
KITXP32D	C32	53,5	37,5	40,5	14,5	14,5	22,5
KITXP40D	C40	66,5	47,5	48,5	19,0	19,0	28,0
KITXP50D	C50	81,5	64,0	56,5	23,0	23,0	34,5
KITXP63D	C63	104,5	84,0	74,0	30,0	30,0	44,0
KITXP80D	C80	132,5	99,5	89,5	37,4	37,4	55,0

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COD	CONO	DESCRIZIONE	D
XP3TAPPO	C32	TAPPO DI PROTEZIONE POLIGONALE	32
XP4TAPPO	C40	TAPPO DI PROTEZIONE POLIGONALE	40
XP5TAPPO	C50	TAPPO DI PROTEZIONE POLIGONALE	50
XP6TAPPO	C63	TAPPO DI PROTEZIONE POLIGONALE	63
XP8TAPPO	C80	TAPPO DI PROTEZIONE POLIGONALE	80

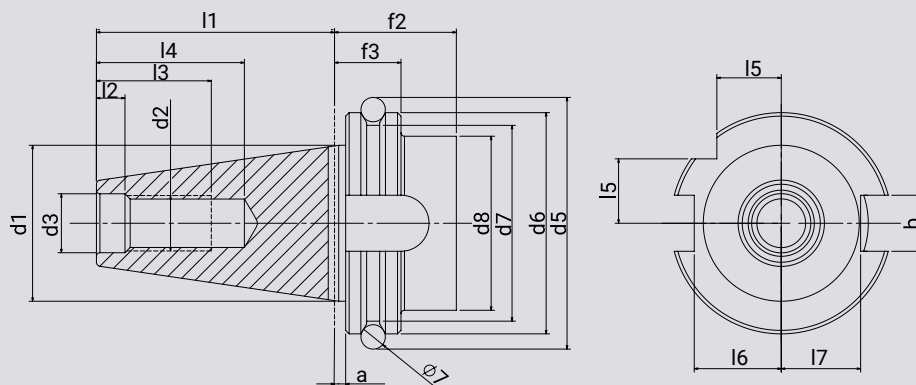


COD	CONO	D	H	L	D1
XP3ST3290	C32	32	90	75	32
XP3ST40110	C32	40	110	95	32
XP3ST50125	C32	50	125	110	32
XP3ST6090	C32	60	90	75	32
XP3ST7060	C32	70	60	45	32
XP3ST9070	C32	90	70	55	32
XP4ST4095	C40	40	95	75	40
XP4ST40120	C40	40	120	100	40
XP4ST60165	C40	60	165	145	40
XP4ST8075	C40	80	75	55	40
XP4ST80120	C40	80	120	100	40
XP4ST10085	C40	100	85	65	40
XP5ST50125	C50	50	125	105	50
XP5ST50150	C50	50	150	130	50
XP5ST63180	C50	63	180	160	50
XP5ST75175	C50	75	175	155	50
XP5ST9080	C50	90	80	60	50
XP5ST95150	C50	95	150	130	50
XP5ST11090	C50	110	90	70	50
XP6ST63180	C63	63	180	158	63
XP6ST75195	C63	75	195	173	63
XP6ST100300	C63	100	300	278	63
XP6ST11085	C63	110	85	63	63
XP6ST110120	C63	110	120	98	63
XP6ST120180	C63	120	180	158	63
XP6ST13095	C63	130	95	73	63
XP8ST80200	C80	80	200	170	80
XP8ST100200	C80	100	200	170	80
XP8ST100300	C80	100	300	270	80
XP8ST120160	C80	120	160	130	80
XP8ST90120	C80	90	120	100	80
XP8ST150200	C80	150	200	170	80
XP8ST160120	C80	160	120	90	80

DIN 69871



DIN 69871

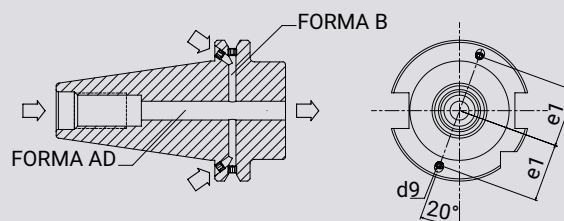
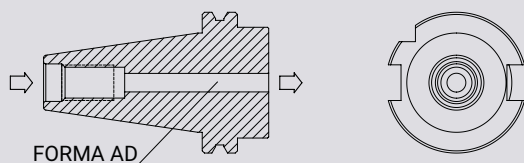


CONO	a ±0,1	b H12	d1	d2	d3 H7	d5 ±0,5	d6 0/-0,1	d7 0/-0,5	d8 max	f2 min
30	3,2	16,1	31,75	M12	13	59,30	50,00	44,30	45	35
40	3,2	16,1	44,45	M16	17	72,30	63,55	56,25	50	35
50	3,2	25,7	69,85	M24	25	107,25	97,50	91,25	80	35

CONO	f3 0/-0,1	l1	l2	l3 min	l4 min	l5 0/-0,3	l6 0/-0,4	l7 0/-0,4	d9	e1 ±0,1
30	19,1	47,80	5,5	24	33,5	15,0	16,4	19,0	4	21
40	19,1	68,40	8,2	32	42,5	18,5	22,8	25,0	4	27
50	19,1	101,75	11,5	47	61,5	30,0	35,5	37,7	5	42

DIN 69871 AD

DIN 69871 AD/B



Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN
 All PAGNONI TOOLS toolholders are manufactured according to DIN norms
 Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert
 Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

TOLLERANZA DEL CONO:

- < AT3 secondo DIN 7187 e DIN 2080

PRE-BILANCIATI:

- Grado di equilibratura aggiuntiva indicato a fianco della tabella dimensionale
- Mandrini alte velocità: a richiesta classe massima di equilibratura G 2,5 30000

FORMA AD - AD/B

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 ±2 - profondità si indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

AUFNAHME GENAUIGKEIT:

- < AT3 nach DIN 7187 und DIN 2080

VORGEWUCHTET:

- Neben der Übersichtstabelle der Produkte wird die Wuchtgüte angegeben
- Hochgeschwindigkeits Werkzeughalter: Aus Wuchtgüte G2,5 30000 auf Anfrage

FORM AD - AD/B

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 ± 2, Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außenschleifen

TECHNICAL FEATURES

TAPER'S TOLLERANCE:

- < AT3 according to DIN 7187 and DIN 2080

PRE-BALANCED:

- Additional balancing grade beside dimensional table
- High-speed toolholders: balancing grade G 2,5 30000 on request

FORM AD - AD/B

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 ± 2 - hardening depth 0,4-0,5 mm
- Strenght 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRECISION:

- Precision du cône < AT3 selon DIN 7187 et DIN 2080

PRÉ-ÉQUILBRÉ:

- À côté du tableau de description et dimensions des produits il y a l'indication de la valeur d'équilibrage additionnel
- Mandrins haute vitesse : sont équilibrés en classe G 2,5 à 30000 Tr/min-1 classe d'équilibrage maximale G 2,5 à 30000 Tr/min sur demande

FORME AD - AD/B

MATÉRIAUX ET TRAITEMENTS:

- Acier de cémentation allié
- Temprés – Revenus
- Cémentation à HRC 58 ± 2, profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe



> PAG. 89



> PAG. 90



> PAG. 91



> PAG. 92



> PAG. 94



> PAG. 94



> PAG. 95



> PAG. 96



> PAG. 97



> PAG. 100



> PAG. 101



> PAG. 102



> PAG. 103



> PAG. 104



> PAG. 106



> PAG. 108



> PAG. 109



> PAG. 110



> PAG. 111



> PAG. 112



> PAG. 113



> PAG. 114



> PAG. 115



> PAG. 115



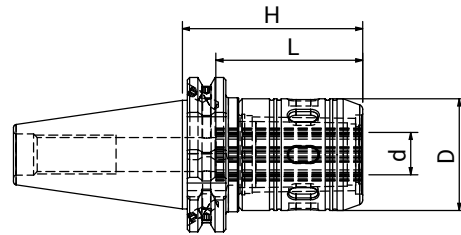
> PAG. 116



> PAG. 117



> PAG. 118

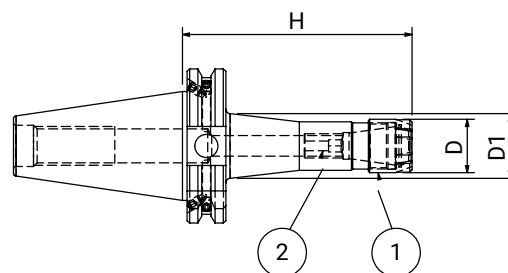


COD	CONO	d	H	L	D	BILANCIATURA
130FS112	ISO30	12	65	60	34	G6.3 12000
130FS116	ISO30	16	65	60	42	G6.3 12000
130FS120	ISO30	20	75	60	46	G6.3 12000
130FS312	ISO30	12	120	60	34	G6.3 12000
130FS316	ISO30	16	120	60	42	G6.3 12000
130FS320	ISO30	20	120	60	46	G6.3 12000
140FS112	ISO40	12	65	60	34	G6.3 12000
140FS116	ISO40	16	60	65	42	G6.3 12000
140FS120	ISO40	20	90	80	46	G6.3 12000
140FS132	ISO40	32	95	82	62	G6.3 12000
140FS312	ISO40	12	120	60	34	G6.3 12000
140FS316	ISO40	16	120	65	42	G6.3 12000
140FS320	ISO40	20	120	80	46	G6.3 12000
140FS332	ISO40	32	135	82	62	G6.3 12000
150FS112	ISO50	12	85	60	34	G6.3 12000
150FS116	ISO50	16	85	60	42	G6.3 12000
150FS120	ISO50	20	85	62	46	G6.3 12000
150FS132	ISO50	32	85	105	62	G6.3 12000
150FS212	ISO50	12	105	60	34	G6.3 12000
150FS216	ISO50	16	105	60	42	G6.3 12000
150FS220	ISO50	20	105	62	46	G6.3 12000
150FS232	ISO50	32	105	105	62	G6.3 12000
150FS312	ISO50	12	135	60	34	G6.3 12000
150FS316	ISO50	16	135	60	42	G6.3 12000
150FS320	ISO50	20	135	62	46	G6.3 12000
150FS332	ISO50	32	135	105	62	G6.3 12000

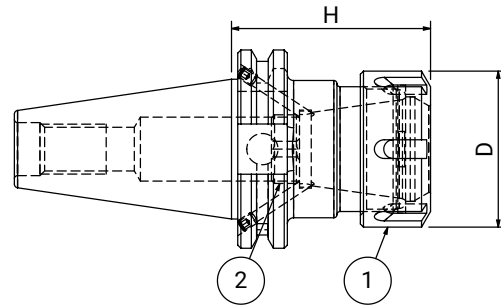
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



> PAG. 259



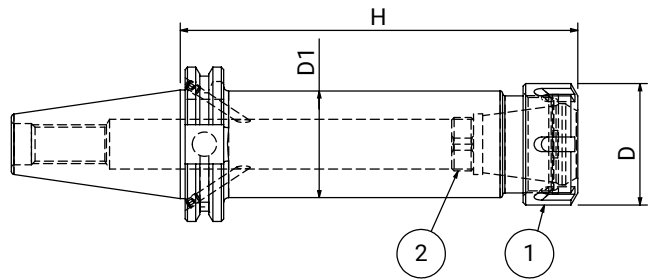
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
140PM107	ISO40	ER11MINI	70	16	20	G6.3 12000	911GHRMN	100601001
140PM110	ISO40	ER16MINI	70	22	26	G6.3 12000	916GHRMN	101001601
140PM207	ISO40	ER11MINI	100	16	21	G6.3 12000	911GHRMN	100601001
140PM210	ISO40	ER16MINI	100	22	27	G6.3 12000	916GHRMN	101001601
140PM213	ISO40	ER20MINI	100	28	32	G6.3 12000	920GHRMN	101001601
140PM216	ISO40	ER25MINI	100	35	33	G6.3 12000	925GHRMN	101815801
140PM307	ISO40	ER11MINI	130	16	27		911GHRMN	100601001
140PM310	ISO40	ER16MINI	130	22	27		916GHRMN	101001601
140PM313	ISO40	ER20MINI	130	28	32		920GHRMN	101001601
140PM316	ISO40	ER25MINI	130	35	33		925GHRMN	101815801
140PM410	ISO40	ER16MINI	160	22	27	G6.3 12000	916GHRMN	101001601
140PM413	ISO40	ER20MINI	160	28	32	G6.3 12000	920GHRMN	101001601
140PM416	ISO40	ER25MINI	160	35	33	G6.3 12000	925GHRMN	101815801
140PM510	ISO40	ER16MINI	200	22	35		916GHRMN	101001601
140PM513	ISO40	ER20MINI	200	28	38		920GHRMN	101001601
140PM516	ISO50	ER25MINI	200	35	42		925GHRMN	101815801
150PM210	ISO50	ER16MINI	100	22	28	G6.3 12000	916GHRMN	101001601
150PM213	ISO50	ER20MINI	100	28	32	G6.3 12000	920GHRMN	101001601
150PM216	ISO50	ER25MINI	100	35	35	G6.3 12000	925GHRMN	101815801
150PM310	ISO50	ER16MINI	130	22	28		916GHRMN	101001601
150PM313	ISO50	ER20MINI	130	28	33		920GHRMN	101001601
150PM316	ISO50	ER25MINI	130	35	42		925GHRMN	101815801
150PM407	ISO50	ER11MINI	160	16	29	G6.3 12000	911GHRMN	100601001
150PM410	ISO50	ER16MINI	160	22	28	G6.3 12000	916GHRMN	101001601
150PM413	ISO50	ER20MINI	160	28	32	G6.3 12000	920GHRMN	101001601
150PM416	ISO50	ER25MINI	160	35	42	G6.3 12000	925GHRMN	101815801
150PM510	ISO50	ER16MINI	200	22	29		916GHRMN	101001601
150PM513	ISO50	ER20MINI	200	28	32		920GHRMN	101001601
150PM516	ISO50	ER25MINI	200	35	42		925GHRMN	101815801



COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
130PP110 *	ISO30	ER16	55	32	G6.3 15000	916GHREQ	101001601
130PP116 *	ISO30	ER25	55	35	G6.3 15000	925GHREQ	101815801
130PP120 *	ISO30	ER32	65	42	G6.3 15000	932GHREQ	102215901
140PP110	ISO40	ER16	70	32	G6.3 15000	916GHREQ	101001601
140PP113	ISO40	ER20	70	35	G6.3 15000	920GHREQ	101001601
140PP116	ISO40	ER25	70	42	G6.3 15000	925GHREQ	101815801
140PP120	ISO40	ER32	70	50	G6.3 15000	932GHREQ	102215901
140PP126	ISO40	ER40	70	63	G6.3 15000	940GHREQ	103015901
150PP110	ISO50	ER16	70	32	G6.3 15000	916GHREQ	101001601
150PP113	ISO50	ER20	70	35	G6.3 15000	920GHREQ	101001601
150PP116	ISO50	ER25	70	42	G6.3 15000	925GHREQ	101815801
150PP120	ISO50	ER32	70	50	G6.3 15000	932GHREQ	102215901
150PP126	ISO50	ER40	80	63	G6.3 15000	940GHREQ	103015901

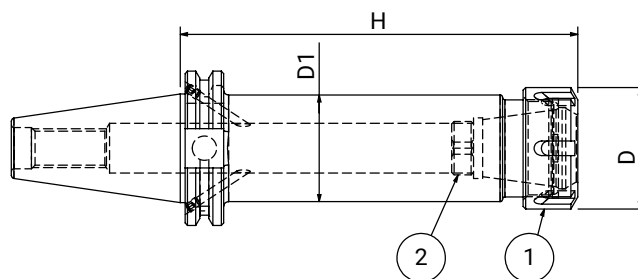
* NOTE

Mandrini portapinza con attacco ISO30 fornibili solo con forma AD
ISO30 collet chucks available only with AD form
ISO30 spannfuttern nur mit AD form lieferbar
Mandrins porte pince ISO30 livrables seulement avec la forme AD

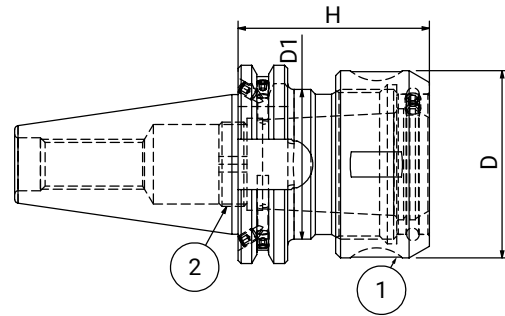


COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
140PP210	ISO40	ER16	100	32	31,5	G6.3 15000	916GHREQ	101001601
140PP213	ISO40	ER20	100	35	34,5	G6.3 15000	920GHREQ	101001601
140PP216	ISO40	ER25	100	42	41,5	G6.3 15000	925GHREQ	101815801
140PP220	ISO40	ER32	100	50	49,5	G6.3 15000	932GHREQ	102215901
140PP226	ISO40	ER40	100	63	50,0	G6.3 15000	940GHREQ	103015901
140PP310	ISO40	ER16	130	32	32,5		916GHREQ	101001601
140PP313	ISO40	ER20	130	35	34,5		920GHREQ	101001601
140PP316	ISO40	ER25	130	42	41,5		925GHREQ	101815801
140PP320	ISO40	ER32	130	50	49,5		932GHREQ	102215901
140PP326	ISO40	ER40	130	63	50,0		940GHREQ	103015901
140PP410	ISO40	ER16	160	32	31,5		916GHREQ	101001601
140PP413	ISO40	ER20	160	35	34,5		920GHREQ	101001601
140PP416	ISO40	ER25	160	42	41,5		925GHREQ	101815801
140PP420	ISO40	ER32	160	50	49,5		932GHREQ	102215901
140PP426	ISO40	ER40	160	63	50,0		940GHREQ	103015901
140PP510	ISO40	ER16	200	32	31,5		916GHREQ	101001601
140PP513	ISO40	ER20	200	35	34,5		920GHREQ	101001601
140PP516	ISO40	ER25	200	42	41,5		925GHREQ	101815801
140PP520	ISO40	ER32	200	50	49,5		932GHREQ	102215901
140PP526	ISO40	ER40	200	63	50,0		940GHREQ	103015901

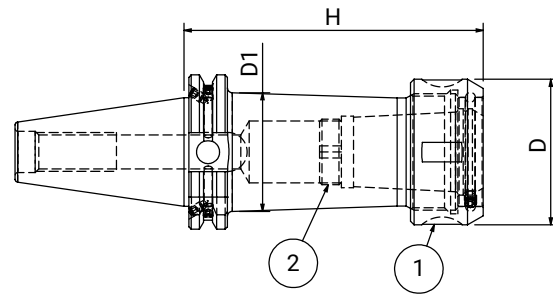
DIN 69871



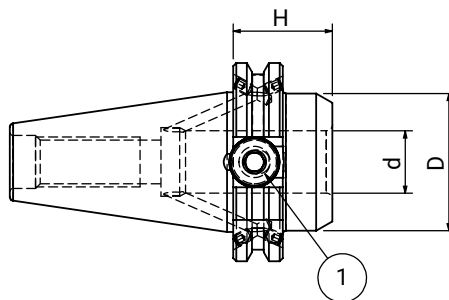
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
150PP210	ISO50	ER16	100	32	31,5	G6.3 15000	916GHREQ	101001601
150PP213	ISO50	ER20	100	35	34,5	G6.3 15000	920GHREQ	101001601
150PP216	ISO50	ER25	100	42	41,5	G6.3 15000	925GHREQ	101815801
150PP220	ISO50	ER32	100	50	49,5	G6.3 15000	932GHREQ	102215901
150PP226	ISO50	ER40	100	63	62,5	G6.3 15000	940GHREQ	103015901
150PP234	ISO50	ER50	100	78	75,0	G6.3 15000	950GHREQ	103015901
150PP310	ISO50	ER16	130	32	31,5		916GHREQ	101001601
150PP313	ISO50	ER20	130	35	34,5		920GHREQ	101001601
150PP316	ISO50	ER25	130	42	41,5		925GHREQ	101815801
150PP320	ISO50	ER32	130	50	49,5		932GHREQ	102215901
150PP326	ISO50	ER40	130	63	62,5		940GHREQ	103015901
150PP334	ISO50	ER50	130	78	75,0		950GHREQ	103015901
150PP410	ISO50	ER16	160	32	31,5		916GHREQ	101001601
150PP413	ISO50	ER20	160	35	34,5		920GHREQ	101001601
150PP416	ISO50	ER25	160	42	41,5		925GHREQ	101815801
150PP420	ISO50	ER32	160	50	49,5		932GHREQ	102215901
150PP426	ISO50	ER40	160	63	62,5		940GHREQ	103015901
150PP434	ISO50	ER50	160	78	75,0		950GHREQ	103015901
150PP510	ISO50	ER16	200	32	31,5		916GHREQ	101001601
150PP513	ISO50	ER20	200	35	34,5		920GHREQ	101001601
150PP516	ISO50	ER25	200	42	41,5		925GHREQ	101815801
150PP520	ISO50	ER32	200	50	49,5		932GHREQ	102215901
150PP526	ISO50	ER40	200	63	62,5		940GHREQ	103015901



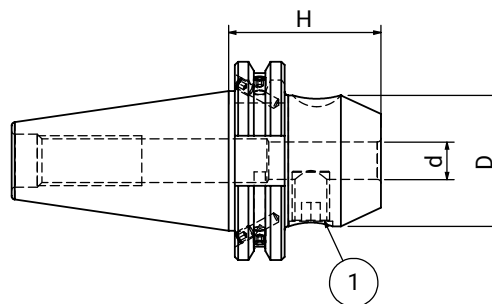
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
140PO116	ISO40	EOC16	70	43	33	G6.3 12000	916GHROS	101815801
140PO125	ISO40	EOC25	70	60	48	G6.3 12000	925GHROS	102715901
140PO132	ISO40	EOC32	80	72	50	G6.3 12000	932GHROS	102715901
140PO216	ISO40	EOC16	100	43	40		916GHROS	101815801
140PO225	ISO40	EOC25	100	60	49		925GHROS	102715901
140PO232	ISO40	EOC32	100	72	50		932GHROS	102715901
150PO116	ISO50	EOC16	70	43	33	G6.3 12000	916GHROS	101815801
150PO125	ISO50	EOC25	70	60	48	G6.3 12000	925GHROS	102715901
150PO132	ISO50	EOC32	80	72	60	G6.3 12000	932GHROS	102715901
150PO216	ISO50	EOC16	100	43	40		916GHROS	101815801
150PO225	ISO50	EOC25	100	60	49		925GHROS	102715901
150PO232	ISO50	EOC32	100	72	56		932GHROS	102715901



COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
140PO316	ISO40	EOC16	130	43	40		916GHROS	101815801
140PO325	ISO40	EOC25	130	60	49		925GHROS	102715901
150PO316	ISO50	EOC16	130	43	40		916GHROS	101815801
150PO325	ISO50	EOC25	130	60	49		925GHROS	102715901
150PO332	ISO50	EOC32	130	72	56		932GHROS	102715901



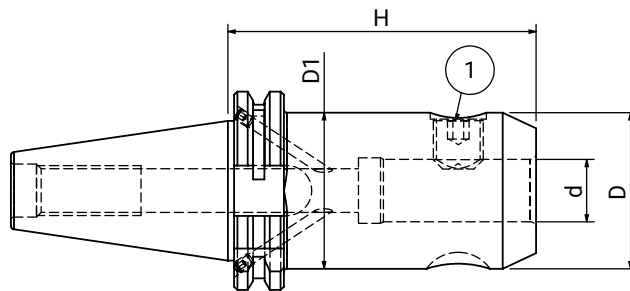
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
140WLC16	ISO40	16	35	44	G6.3 12000	1 x 101401602
140WLC20	ISO40	20	35	44	G6.3 12000	1 x 101401602
140WLC25	ISO40	25	35	50	G6.3 12000	1 x 101801202
140WLS25	ISO40	25	60	49	G6.3 12000	2 x 101801202
140WLC32	ISO40	32	70	72	G6.3 12000	1 x 102002002 1 x 101401004
150WLC16	ISO40	16	35	70	G6.3 12000	1 x 101401602
150WLC20	ISO40	20	35	70	G6.3 12000	1 x 101401602
150WLC25	ISO40	25	35	70	G6.3 12000	1 x 101801202
150WLC32	ISO40	32	35	80	G6.3 12000	1 x 102002002
150WLC40	ISO40	40	35	80	G6.3 12000	1 x 102001204



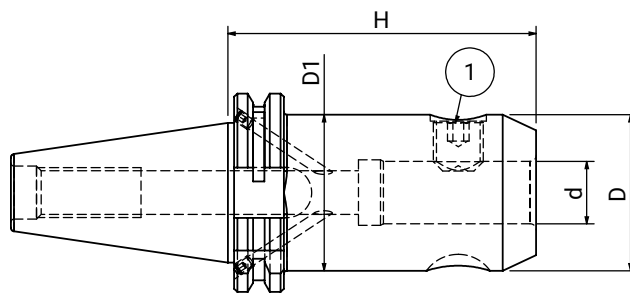
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
130WLD06 *	ISO30	6	45	25	G6.3 12000	1 x 100601004
130WLD08 *	ISO30	8	45	28	G6.3 12000	1 x 100801004
130WLD10 *	ISO30	10	50	35	G6.3 12000	1 x 101001204
130WLD12 *	ISO30	12	50	42	G6.3 12000	1 x 101201604
130WLD16 *	ISO30	16	70	48	G6.3 12000	1 x 101401604
130WLD20 *	ISO30	20	70	52	G6.3 12000	1 x 101601604
140WLD06	ISO40	6	50	25	G6.3 12000	1 x 100601002
140WLD08	ISO40	8	50	28	G6.3 12000	1 x 100801002
140WLD10	ISO40	10	50	35	G6.3 12000	1 x 101001202
140WLD12	ISO40	12	50	42	G6.3 12000	1 x 101201602
140WLD14	ISO40	14	50	44	G6.3 12000	1 x 101201602
140WLD16	ISO40	16	63	48	G6.3 12000	1 x 101401602
140WLD18	ISO40	18	63	50	G6.3 12000	1 x 101401602
140WLD20	ISO40	20	63	52	G6.3 12000	1 x 101601602
140WLD25	ISO40	25	100	65	G6.3 12000	2 x 101802002
140WLD32	ISO40	32	100	72	G6.3 12000	2 x 102002002
140WLD40	ISO40	40	115	80	G6.3 12000	2 x 102002002
150WLD06	ISO50	6	63	25	G6.3 12000	1 x 100601002
150WLD08	ISO50	8	63	28	G6.3 12000	1 x 100801002
150WLD10	ISO50	10	63	35	G6.3 12000	1 x 101001202
150WLD12	ISO50	12	63	42	G6.3 12000	1 x 101201602
150WLD14	ISO50	14	63	44	G6.3 12000	1 x 101201602
150WLD16	ISO50	16	63	48	G6.3 12000	1 x 101401602
150WLD18	ISO50	18	63	50	G6.3 12000	1 x 101401602
150WLD20	ISO50	20	63	52	G6.3 12000	1 x 101601602
150WLD25	ISO50	25	80	65	G6.3 12000	2 x 101802002
150WLD32	ISO50	32	100	72	G6.3 12000	2 x 102002002
150WLD40	ISO50	40	120	80	G6.3 12000	2 x 102002002
150WLD50	ISO50	50	120	100	G6.3 12000	2 x 102422504

* NOTE

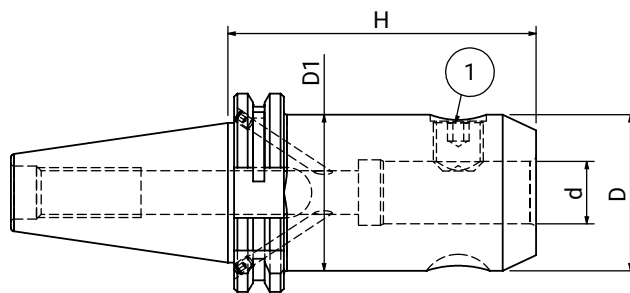
Mandrini portapinza con attacco ISO30 fornibili solo con forma AD
ISO30 collet chucks available only with AD form
ISO30 spannfuttern nur mit AD form lieferbar
Mandrins porte pince ISO30 livrables seulement avec la forme AD



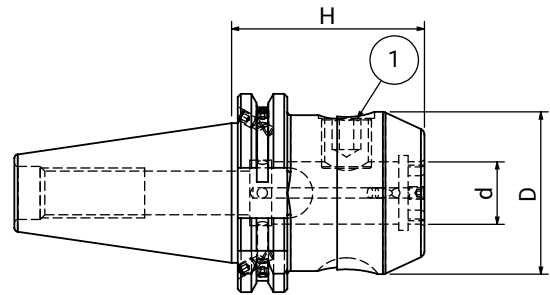
COD	CONO	d	H	D	D1	BILANCIATURA	1 - GRANO
140WE206	ISO40	6	100	25	35	G6.3 12000	1 x 100601002
140WE208	ISO40	8	100	28	38	G6.3 12000	1 x 100801002
140WE210	ISO40	10	100	35	40	G6.3 12000	1 x 101001202
140WE212	ISO40	12	100	42		G6.3 12000	1 x 101201602
140WE214	ISO40	14	100	44		G6.3 12000	1 x 101201602
140WE216	ISO40	16	100	48		G6.3 12000	1 x 101401602
140WE218	ISO40	18	100	50		G6.3 12000	1 x 101401602
140WE220	ISO40	20	100	50		G6.3 12000	1 x 101601602
140WE306	ISO40	6	130	25	35		1 x 100601002
140WE308	ISO40	8	130	28	38		1 x 100801002
140WE310	ISO40	10	130	35	40		1 x 101001202
140WE312	ISO40	12	130	42			1 x 101201602
140WE314	ISO40	14	130	44			1 x 101201602
140WE316	ISO40	16	130	48			1 x 101401602
140WE318	ISO40	18	130	50			1 x 101401602
140WE320	ISO40	20	130	50			1 x 101601602
140WE325	ISO40	25	130	65			2 x 101802002
140WE406	ISO40	6	160	25	25	G6.3 12000	1 x 100601002
140WE408	ISO40	8	160	27,5	38	G6.3 12000	1 x 100801002
140WE410	ISO40	10	160	34,5	40	G6.3 12000	1 x 101001202
140WE412	ISO40	12	160	41,5		G6.3 12000	1 x 101201602
140WE414	ISO40	14	160	44		G6.3 12000	1 x 101201602
140WE416	ISO40	16	160	48		G6.3 12000	1 x 101401602
140WE418	ISO40	18	160	50		G6.3 12000	1 x 101401602
140WE420	ISO40	20	160	50		G6.3 12000	1 x 101601602
140WE425	ISO40	25	160	65		G6.3 12000	2 x 101802002
140WE432	ISO40	32	160	72		G6.3 12000	2 x 102002002
140WE506	ISO40	6	200	25	38		1 x 100601002
140WE508	ISO40	8	200	28	41		1 x 100801002
140WE510	ISO40	10	200	35	43		1 x 101001202
140WE512	ISO40	12	200	42	48		1 x 101201602
140WE514	ISO40	14	200	44	48		1 x 101201602
140WE516	ISO40	16	200	48			1 x 101401602
140WE518	ISO40	18	200	50			1 x 101401602
140WE520	ISO40	20	200	50			1 x 101601602
140WE525	ISO40	25	200	65			2 x 101802002
140WE532	ISO40	32	200	72			2 x 102002002



COD	CONO	d	H	D	D1	1 - GRANO
150WE206	ISO50	6	100	25	35	1 X 100601002
150WE208	ISO50	8	100	28	38	1 X 100801002
150WE210	ISO50	10	100	35	42	1 X 101001202
150WE212	ISO50	12	100	42	48	1 X 101201602
150WE214	ISO50	14	100	44	50	1 X 101201602
150WE216	ISO50	16	100	48	54	1 X 101401602
150WE218	ISO50	18	100	50	56	1 X 101401602
150WE220	ISO50	20	100	52	59	1 X 101601602
150WE225	ISO50	25	100	65		2 X 101802002
150WE306	ISO50	6	130	25	35	1 X 100601002
150WE308	ISO50	8	130	28	38	1 X 100801002
150WE310	ISO50	10	130	35	42	1 X 101001202
150WE312	ISO50	12	130	42	48	1 X 101201602
150WE314	ISO50	14	130	44	50	1 X 101201602
150WE316	ISO50	16	130	48	54	1 X 101401602
150WE318	ISO50	18	130	50	56	1 X 101401602
150WE320	ISO50	20	130	52	59	1 X 101601602
150WE325	ISO50	25	130	65		2 X 101802002
150WE332	ISO50	32	130	72		2 X 102002002
150WE406	ISO50	6	160	25	35	1 X 100601002
150WE408	ISO50	8	160	28	38	1 X 100801002
150WE410	ISO50	10	160	34,5	42	1 X 101001202
150WE412	ISO50	12	160	42	48	1 X 101201602
150WE414	ISO50	14	160	44	50	1 X 101201602
150WE416	ISO50	16	160	47,5	54	1 X 101401602
150WE418	ISO50	18	160	50	56	1 X 101401602
150WE420	ISO50	20	160	51,5	59	1 X 101601602
150WE425	ISO50	25	160	65	70	2 X 101802002
150WE432	ISO50	32	160	65		2 X 102002002
150WE440	ISO50	40	160	80		2 X 102002002

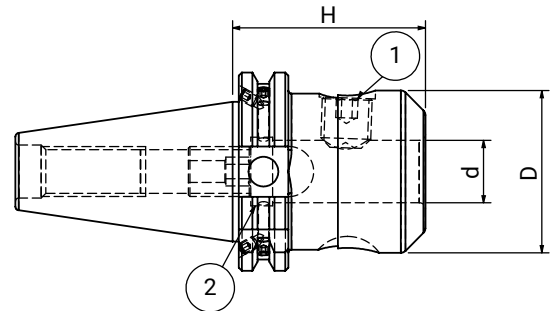


COD	CONO	d	H	D	D1	1 - GRANO
150WE506	ISO50	6	200	25	38	1 X 100601002
150WE508	ISO50	8	200	28	41	1 X 100801002
150WE510	ISO50	10	200	35	45	1 X 101001202
150WE512	ISO50	12	200	42	51	1 X 101201602
150WE514	ISO50	14	200	44	53	1 X 101201602
150WE516	ISO50	16	200	48	57	1 X 101401602
150WE518	ISO50	18	200	50	59	1 X 101401602
150WE520	ISO50	20	200	52	61	1 X 101601602
150WE525	ISO50	25	200	65	72	2 X 101802002
150WE532	ISO50	32	200	72		2 X 102002002
150WE540	ISO50	40	200	80		2 X 102002002

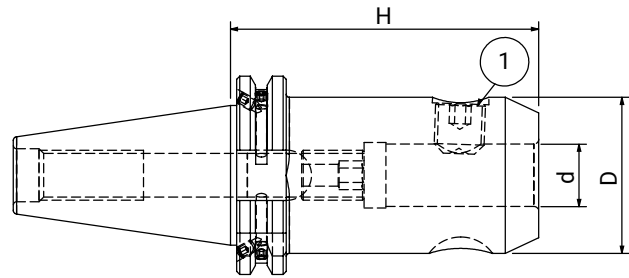


COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
140WLK06	ISO40	6	50	25	G6.3 12000	1 x 100601002
140WLK08	ISO40	8	50	28	G6.3 12000	1 x 100801002
140WLK10	ISO40	10	50	35	G6.3 12000	1 x 101001202
140WLK12	ISO40	12	50	42	G6.3 12000	1 x 101201602
140WLK14	ISO40	14	50	44	G6.3 12000	1 x 101201602
140WLK16	ISO40	16	63	48	G6.3 12000	1 x 101401602
140WLK18	ISO40	18	63	50	G6.3 12000	1 x 101401602
140WLK20	ISO40	20	63	52	G6.3 12000	1 x 101601602
140WLK25	ISO40	25	100	65	G6.3 12000	2 x 101802002
140WLK32	ISO40	32	100	72	G6.3 12000	2 x 102002002
140WLK40	ISO40	32	100	72	G6.3 12000	2 x 102002002
150WLK06	ISO50	6	63	25	G6.3 12000	1 x 100601002
150WLK08	ISO50	8	63	28	G6.3 12000	1 x 100801002
150WLK10	ISO50	10	63	35	G6.3 12000	1 x 101001202
150WLK12	ISO50	12	63	42	G6.3 12000	1 x 101201602
150WLK14	ISO50	14	63	44	G6.3 12000	1 x 101201602
150WLK16	ISO50	16	63	48	G6.3 12000	1 x 101401602
150WLK18	ISO50	18	63	50	G6.3 12000	1 x 101401602
150WLK20	ISO50	20	63	52	G6.3 12000	1 x 101601602
150WLK25	ISO50	25	80	65	G6.3 12000	2 x 101802002
150WLK32	ISO50	32	100	72	G6.3 12000	2 x 102002002
150WLK40	ISO50	40	120	80	G6.3 12000	2 x 102002002

DIN 69871

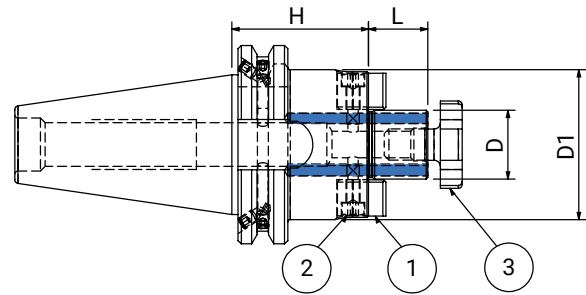


COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
140WHN06	ISO40	6	50	25	G6.3 12000	1 x 100601002
140WHN08	ISO40	8	50	28	G6.3 12000	1 x 100801002
140WHN10	ISO40	10	50	35	G6.3 12000	1 x 101001202
140WHN12	ISO40	12	50	42	G6.3 12000	1 x 101201602
140WHN14	ISO40	14	50	44	G6.3 12000	1 x 101201602
140WHN16	ISO40	16	63	48	G6.3 12000	1 x 101401602
140WHN18	ISO40	18	63	50	G6.3 12000	1 x 101401602
140WHN20	ISO40	20	63	52	G6.3 12000	1 x 101601602
140WHN25	ISO40	25	100	65	G6.3 12000	2 x 101802002
140WHN32	ISO40	32	100	72	G6.3 12000	2 x 102002002
140WHN40	ISO40	40	115	80	G6.3 12000	2 x 102002002
150WHN06	ISO50	6	63	25	G6.3 12000	1 x 100601002
150WHN08	ISO50	8	63	28	G6.3 12000	1 x 100801002
150WHN10	ISO50	10	63	35	G6.3 12000	1 x 101001202
150WHN12	ISO50	12	63	42	G6.3 12000	1 x 101201602
150WHN14	ISO50	14	63	44	G6.3 12000	1 x 101201602
150WHN16	ISO50	16	63	48	G6.3 12000	1 x 101401602
150WHN18	ISO50	18	63	50	G6.3 12000	1 x 101401602
150WHN20	ISO50	20	63	52	G6.3 12000	1 x 101601602
150WHN25	ISO50	25	80	65	G6.3 12000	2 x 101802002
150WHN32	ISO50	32	100	72	G6.3 12000	2 x 102002002
150WHN40	ISO50	40	120	80	G6.3 12000	2 x 102002002

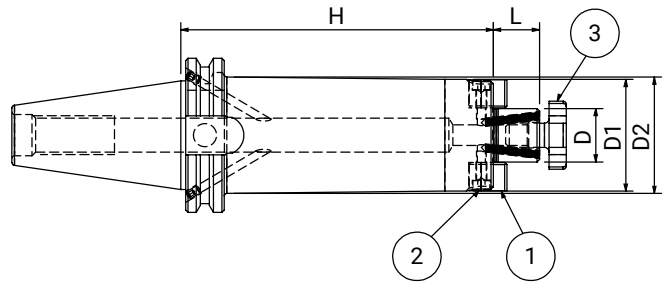


COD	CONO	d	H	D	1 - GRANO	2 - GRANO INTERNO
140WN206	ISO40	6	100	25	1 X 100601002	100501601
140WN208	ISO40	8	100	28	1 X 100801002	100601601
140WN210	ISO40	10	100	35	1 X 101001202	100801601
140WN212	ISO40	12	100	42	1 X 101201602	101002501
140WN214	ISO40	14	100	44	1 X 101201602	101002501
140WN216	ISO40	16	100	48	1 X 101401602	101204001
140WN218	ISO40	18	100	50	1 X 101401602	101204001
140WN220	ISO40	20	100	50	1 X 101601602	101603501
150WN206	ISO50	6	100	25	1 X 100601002	100501601
150WN208	ISO50	8	100	28	1 X 100801002	100601601
150WN210	ISO50	10	100	35	1 X 101001202	100801601
150WN212	ISO50	12	100	42	1 X 101201602	101002501
150WN214	ISO50	14	100	44	1 X 101201602	101002501
150WN216	ISO50	16	100	48	1 X 101401602	101204001
150WN218	ISO50	18	100	50	1 X 101401602	101204001
150WN220	ISO50	20	100	52	1 X 101601602	101603501
150WN225	ISO50	25	100	65	2 X 101802002	102002001

DIN 69871

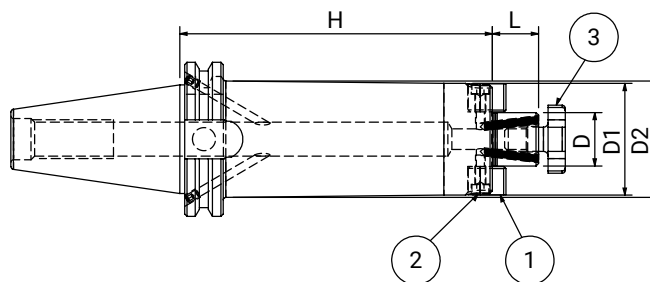


COD	CONO	D	H	L	D1	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
140PF016	ISO40	16	35	17	38	2 x 916TSL11	2 x 110301201	916VTC02
140PF022	ISO40	22	35	19	48	2 x 922TSL11	2 x 110401201	922VTC02
140PF027	ISO40	27	35	21	50	2 x 927TSL10	2 x 110501201	927VTC02
140PF032	ISO40	32	35	24	50	2 x 932TSL04	2 x 110601201	932VTC02
140PF116	ISO40	16	45	17	38	2 x 916TSL11	2 x 110301201	916VTC02
140PF122	ISO40	22	45	19	48	2 x 922TSL11	2 x 110401201	922VTC02
140PF127	ISO40	27	50	21	58	2 x 927TSL11	2 x 110501601	927VTC02
140PF132	ISO40	32	55	24	78	2 x 932TSL12	2 x 110602001	932VTC02
140PF140	ISO40	40	55	27	88	2 x 940TSL11	2 x 110602001	940VTC02
150PF016	ISO50	16	35	17	38	2 x 916TSL11	2 x 110301201	916VTC02
150PF022	ISO50	22	35	19	48	2 x 922TSL11	2 x 110401201	922VTC02
150PF027	ISO50	27	35	21	58	2 x 927TSL11	2 x 110501601	927VTC02
150PF032	ISO50	32	35	24	78	2 x 932TSL12	2 x 110602001	932VTC02
150PF040	ISO50	40	35	27	80	2 x 940TSL05	2 x 110601601	940VTC02
150PF116	ISO50	16	45	17	38	2 x 916TSL11	2 x 110301201	916VTC02
150PF122	ISO50	22	45	19	48	2 x 922TSL11	2 x 110401201	922VTC02
150PF127	ISO50	27	45	21	58	2 x 927TSL11	2 x 110501601	927VTC02
150PF132	ISO50	32	55	24	78	2 x 932TSL12	2 x 110602001	932VTC02
150PF140	ISO50	40	55	27	88	2 x 940TSL11	2 x 110602001	940VTC02

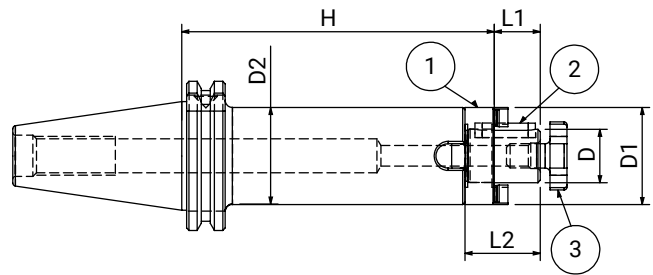


COD	CONO	D	H	L	D1	D2	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
140PF216	ISO40	16	100	17	32	42	2 x 916TSL10	2 x 110300801	916VTC02
140PF222	ISO40	22	100	19	40	49	2 x 922TSL10	2 x 110401001	922VTC02
140PF227	ISO40	27	100	87	48	-	2 x 927TSL10	2 x 110501201	927VTC02
140PF232	ISO40	32	100	84	58	-	2 x 932TSL10	2 x 110601201	932VTC02
140PF240	ISO40	40	100	87	70	50	2 x 940TSL10	2 x 110602001	940VTC02
140PF316	ISO40	16	130	17	38	-	2 x 916TSL11	2 x 110301201	916VTC02
140PF322	ISO40	22	130	19	46	48	2 x 922TSL11	2 x 110401201	922VTC02
140PF327	ISO40	27	130	21	58	50	2 x 927TSL11	2 x 110501601	927VTC02
140PF332	ISO40	32	130	24	78	50	2 x 932TSL12	2 x 110602001	932VTC02
140PF340	ISO40	40	130	27	88	50	2 x 940TSL11	2 x 110602001	940VTC02
140PF416	ISO40	16	160	17	39	-	2 x 916TSL11	2 x 110301201	916VTC02
140PF422	ISO40	22	160	19	46	48	2 x 922TSL11	2 x 110401201	922VTC02
140PF427	ISO40	27	160	21	58	50	2 x 927TSL11	2 x 110501601	927VTC02
140PF432	ISO40	32	160	24	78	50	2 x 932TSL12	2 x 110602001	932VTC02
140PF440	ISO40	40	160	27	80	50	2 x 940TSL11	2 x 110602001	940VTC02
140PF516	ISO40	16	200	17	39	-	2 x 916TSL11	2 x 110301201	916VTC02
140PF522	ISO40	22	200	19	46	48	2 x 922TSL11	2 x 110401201	922VTC02
140PF527	ISO40	27	200	21	58	50	2 x 927TSL11	2 x 110501601	927VTC02
140PF532	ISO40	32	200	24	78	50	2 x 932TSL12	2 x 110602001	932VTC02
140PF540	ISO40	40	200	27	88	50	2 x 940TSL11	2 x 110602001	940VTC02

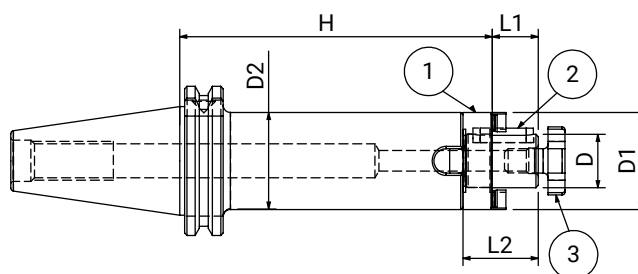
DIN 69871



COD	CONO	D	H	L	D1	D2	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
150PF216	ISO50	16	100	17	32	42	2 x 916TSL10	2 x 110300801	916VTC02
150PF222	ISO50	22	100	19	40	55	2 x 922TSL10	2 x 110401001	922VTC02
150PF227	ISO50	27	100	21	48	60	2 x 927TSL10	2 x 110501201	927VTC02
150PF232	ISO50	32	100	24	58	68	2 x 932TSL10	2 x 110601201	932VTC02
150PF240	ISO50	40	100	27	70	-	2 x 940TSL10	2 x 110602001	940VTC02
150PF316	ISO50	16	130	17	38	-	2 x 916TSL11	2 x 110301201	916VTC02
150PF322	ISO50	22	130	19	46	60	2 x 922TSL11	2 x 110401201	922VTC02
150PF327	ISO50	27	130	21	55	78	2 x 927TSL11	2 x 110501601	927VTC02
150PF332	ISO50	32	130	24	66	78	2 x 932TSL11	2 x 110602001	932VTC02
150PF340	ISO50	40	130	27	70	78	2 x 940TSL10	2 x 110602001	940VTC02
150PF416	ISO50	16	160	17	38	-	2 x 916TSL11	2 x 110301201	916VTC02
150PF422	ISO50	22	160	19	46	48	2 x 922TSL11	2 x 110401201	922VTC02
150PF427	ISO50	27	160	21	55	78	2 x 927TSL11	2 x 110501601	927VTC02
150PF432	ISO50	32	160	24	66	78	2 x 932TSL11	2 x 110602001	932VTC02
150PF440	ISO50	40	160	27	70	78	2 x 940TSL10	2 x 110602001	940VTC02
150PF516	ISO50	16	200	17	39	-	2 x 916TSL11	2 x 110301201	916VTC02
150PF522	ISO50	22	200	19	46	48	2 x 922TSL11	2 x 110401201	922VTC02
150PF527	ISO50	27	200	21	55	78	2 x 927TSL11	2 x 110501601	927VTC02
150PF532	ISO50	32	200	24	66	78	2 x 932TSL11	2 x 110602001	932VTC02
150PF540	ISO50	40	200	27	70	78	2 x 940TSL10	2 x 110602001	940VTC02
150PF616	ISO50	16	250	17	38	52	2 x 916TSL01	2 x 110301001	916VTC02
150PF622	ISO50	22	250	19	48	60	2 x 922TSL01	2 x 110301201	922VTC02
150PF627	ISO50	27	250	21	55	78	2 x 927TSL01	2 x 110401601	927VTC02
150PF632	ISO50	32	250	24	66	78	2 x 932TSL01	2 x 110601601	932VTC02
150PF640	ISO50	40	250	27	80	80	2 x 940TSL01	2 x 110601601	940VTC02
150PF716	ISO50	16	300	17	38	52	2 x 916TSL01	2 x 110301001	916VTC02
150PF722	ISO50	22	300	19	48	60	2 x 922TSL01	2 x 110301201	922VTC02
150PF727	ISO50	27	300	21	55	78	2 x 927TSL01	2 x 110401601	927VTC02
150PF732	ISO50	32	300	24	66	66	2 x 932TSL01	2 x 110601601	932VTC02
150PF740	ISO50	40	300	27	80	80	2 x 940TSL01	2 x 110601601	940VTC02
150PF816	ISO50	16	350	17	38	58	2 x 916TSL01	2 x 110301001	916VTC02
150PF822	ISO50	22	350	19	48	60	2 x 922TSL01	2 x 110301201	922VTC02
150PF827	ISO50	27	350	21	55	78	2 x 927TSL01	2 x 110401601	927VTC02
150PF832	ISO50	32	350	24	66	66	2 x 932TSL01	2 x 110601601	932VTC02



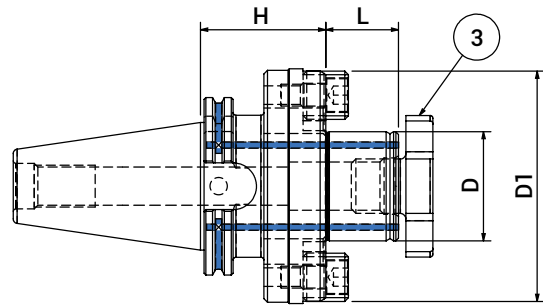
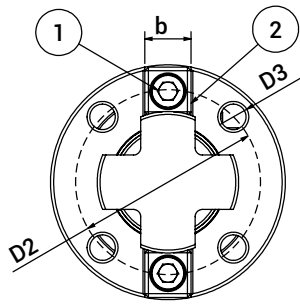
COD	CONO	D	H	L	L1	D1	D2	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
140PU116	ISO40	16	55	17	27	32		916GNT01	170402004	916VTC02
140PU122	ISO40	22	55	19	31	40		922GNT01	170602506	922VTC02
140PU127	ISO40	27	55	21	33	48		927GNT01	170702507	927VTC02
140PU132	ISO40	32	60	24	38	58		932GNT01	170802807	932VTC02
140PU140	ISO40	40	60	27	41	70		940GNT01	171003208	940VTC02
140PU216	ISO40	16	100	17	27	32	44	916GNT01	170402004	916VTC02
140PU222	ISO40	22	100	19	31	40		922GNT01	170602506	922VTC02
140PU227	ISO40	27	100	21	33	48		927GNT01	170702507	927VTC02
140PU232	ISO40	32	100	24	38	58		932GNT01	170802807	932VTC02
140PU240	ISO40	40	100	27	41	70		940GNT01	171003208	940VTC02
140PU316	ISO40	16	130	17	27	32	44	916GNT01	170402004	916VTC02
140PU322	ISO40	22	130	19	31	40		922GNT01	170602506	922VTC02
140PU327	ISO40	27	130	21	33	48		927GNT01	170702507	927VTC02
140PU332	ISO40	32	130	24	38	58		932GNT01	170802807	932VTC02
140PU340	ISO40	40	130	27	41	70		940GNT01	171003208	940VTC02
140PU416	ISO40	16	160	17	27	32	44	916GNT01	170402004	916VTC02
140PU422	ISO40	22	160	19	31	40		922GNT01	170602506	922VTC02
140PU427	ISO40	27	160	21	33	48		927GNT01	170702507	927VTC02
140PU432	ISO40	32	160	24	38	58		932GNT01	170802807	932VTC02
140PU440	ISO40	40	160	27	41	70		940GNT01	171003208	940VTC02
140PU516	ISO40	16	200	17	27	32	44	916GNT01	170402004	916VTC02
140PU522	ISO40	22	200	19	31	40		922GNT01	170602506	922VTC02
140PU527	ISO40	27	200	21	33	48		927GNT01	170702507	927VTC02
140PU532	ISO40	32	200	24	38	58		932GNT01	170802807	932VTC02
140PU540	ISO40	40	200	27	41	70		940GNT01	171003208	940VTC02



COD	CONO	D	H	L	L1	D1	D2	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
150PU116	ISO50	16	55	17	27	32		916GNT01	170402004	916VTC02
150PU122	ISO50	22	55	19	31	40		922GNT01	170602506	922VTC02
150PU127	ISO50	27	55	21	33	48		927GNT01	170702507	927VTC02
150PU132	ISO50	32	55	24	38	58		932GNT01	170802807	932VTC02
150PU140	ISO50	40	55	27	41	70		940GNT01	171003208	940VTC02
150PU216	ISO50	16	100	17	27	32	50	916GNT01	170402004	916VTC02
150PU222	ISO50	22	100	19	31	40	60	922GNT01	170602506	922VTC02
150PU227	ISO50	27	100	21	33	48	60	927GNT01	170702507	927VTC02
150PU232	ISO50	32	100	24	38	58		932GNT01	170802807	932VTC02
150PU240	ISO50	40	100	27	41	70		940GNT01	171003208	940VTC02
150PU316	ISO50	16	130	17	27	32	50	916GNT01	170402004	916VTC02
150PU322	ISO50	22	130	19	31	40	60	922GNT01	170602506	922VTC02
150PU327	ISO50	27	130	21	33	48	60	927GNT01	170702507	927VTC02
150PU332	ISO50	32	130	24	38	58	66	932GNT01	170802807	932VTC02
150PU340	ISO50	40	130	27	41	70		940GNT01	171003208	940VTC02
150PU416	ISO50	16	160	17	27	32	50	916GNT01	170402004	916VTC02
150PU422	ISO50	22	160	19	31	40	60	922GNT01	170602506	922VTC02
150PU427	ISO50	27	160	21	33	48	60	927GNT01	170702507	927VTC02
150PU432	ISO50	32	160	24	38	58	68	932GNT01	170802807	932VTC02
150PU440	ISO50	40	160	27	41	70		940GNT01	171003208	940VTC02
150PU516	ISO50	16	200	17	27	32	50	916GNT01	170402004	916VTC02
150PU522	ISO50	22	200	19	31	40	60	922GNT01	170602506	922VTC02
150PU527	ISO50	27	200	21	33	48	60	927GNT01	170702507	927VTC02
150PU532	ISO50	32	200	24	38	58		932GNT01	170802807	932VTC02
150PU540	ISO50	40	200	27	41	70		940GNT01	171003208	940VTC02

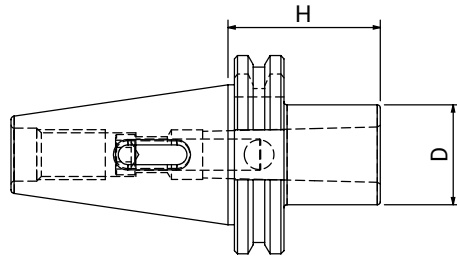
MANDRINI PORTAFRESE PER FRESE A SPIANARE
 FACE MILL HOLDERS
 AUFSTECKFRÄSDORNE FUER MESSERKOEPF
 MANDRINS PORTE-FRAISES POUR FRAISES A SURFACER

DIN 69871
 AD/B
 DIN 6357

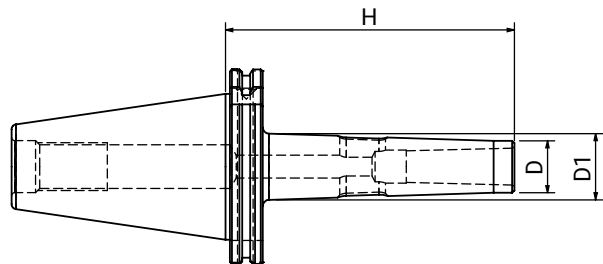


COD	CONO	D	H	D1	L	b	D2	D3	1 - VITE	2 - TASSELLO	3 - VITE A CROCE
140PI140	ISO40	40	60	89	30	15,9	66,7	M12	2 x 110601601	2 x 940TSL04	940VTC02
150PI140	ISO50	40	70	89	30	15,9	66,7	M12	2 x 110601601	2 x 940TSL04	940VTC02
150PI160	ISO50	60	70	129	40	25,4	101,6	M16	2 x 111202501	2 x 940TSL04	-

DIN 69871



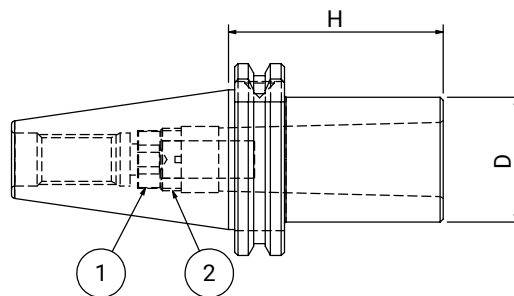
COD	CONO	MORSE	H	D
130MP101	ISO30	1	55	25
130MP102	ISO30	2	60	32
130MP103	ISO30	3	90	40
140MP101	ISO40	1	50	25
140MP102	ISO40	2	50	32
140MP103	ISO40	3	76	40
140MP104	ISO40	4	95	48
150MP101	ISO50	1	45	25
150MP102	ISO50	2	60	32
150MP103	ISO50	3	65	40
150MP104	ISO50	4	95	48
150MP105	ISO50	5	105	63



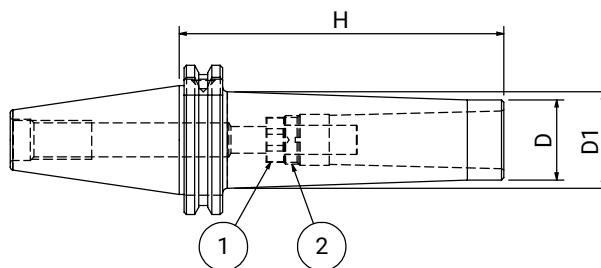
COD	CONO	MORSE	D	H	D1
140MP201	ISO40	1	18	120	25
140MP202	ISO40	2	25	120	32
140MP203	ISO40	3	33	135	40
140MP204	ISO40	4	48	165	48
150MP201	ISO50	1	18	120	25
150MP202	ISO50	2	25	140	32
150MP203	ISO50	3	33	150	40
150MP204	ISO50	4	40	180	48
150MP205	ISO50	5	55	220	63

MANDRINI ATTACCO CONO MORSE FRESE
MORSE TAPER ADAPTORS WITH THREAD
ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT ANZUGSGEWINDE
DOUILLES PUOR CONE MORSE AVEC TARAUDAGE

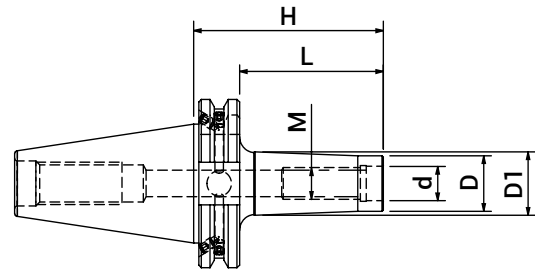
DIN 69871
AD
DIN 228-2



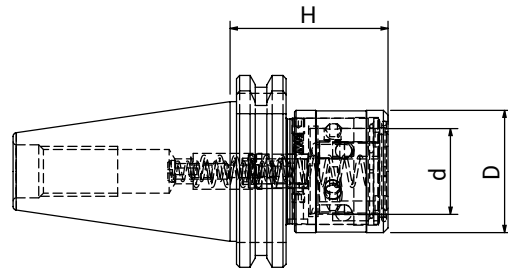
COD	CONO	MORSE	D	H	1 - VITE	2 - GHIERA
130MF101	ISO30	1	25	50	110603501	121206502
130MF102	ISO30	2	32	60	111003014	121500802
130MF103	ISO30	3	40	80	111204003	122000603
140MF101	ISO40	1	25	50	110603501	121206502
140MF102	ISO40	2	32	50	111003014	121500802
140MF103	ISO40	3	40	70	111204003	122000603
140MF104	ISO40	4	48	95	111604514	122400903
150MF101	ISO50	1	25	50	110603501	121206502
150MF102	ISO50	2	32	50	111003014	121500802
150MF103	ISO50	3	40	65	111204003	122000603
150MF104	ISO50	4	48	95	111604514	122400903
150MF105	ISO50	5	63	120	112005003	123601104



COD	CONO	MORSE	D	H	D1	1 - VITE	2 - GHIERA
140MF201	ISO40	1	18	120	25	121206502	110603501
140MF202	ISO40	2	25	120	32	121500802	111003014
140MF203	ISO40	3	33	135	40	122000603	111204003
140MF204	ISO40	4	40	165	48	122400903	111604514
150MF201	ISO50	1	25	170		121206502	110603501
150MF202	ISO50	2	25	170	32	121500802	111003014
150MF203	ISO50	3	33	170	40	122000603	111204003
150MF204	ISO50	4	40	170	48	122400903	111604514
150MF205	ISO50	5	55	220	63	123301205	112005003



COD	CONO	M	H	L	d	D	D1	BILANCIATURA
140AF108	ISO40	M8	55	36	8,5	13	15	G2.5 20000
140AF110	ISO40	M10	55	36	10,5	18	20	G2.5 20000
140AF112	ISO40	M12	55	36	12,5	21	24	G2.5 20000
140AF116	ISO40	M16	55	36	17	29	34	G2.5 20000
140AF208	ISO40	M8	75	56	8,5	13	23	G2.5 20000
140AF210	ISO40	M10	75	56	10,5	18	25	G2.5 20000
140AF212	ISO40	M12	75	56	12,5	21	24	G2.5 20000
140AF216	ISO40	M16	75	56	17	29	34	G2.5 20000
140AF308	ISO40	M8	95	76	8,5	13	23	G2.5 20000
140AF310	ISO40	M10	95	76	10,5	18	28	G2.5 20000
140AF312	ISO40	M12	95	76	12,5	21	31	G2.5 20000
140AF316	ISO40	M16	95	76	17	29	34	G2.5 20000
140AF408	ISO40	M8	115	96	8,5	13	25	G2.5 20000
140AF410	ISO40	M10	115	96	10,5	18	28	G2.5 20000
140AF412	ISO40	M12	115	96	12,5	21	31	G2.5 20000
140AF416	ISO40	M16	115	96	17	29	39	G2.5 20000
140AF510	ISO40	M10	145	126	10,5	18	34	G2.5 20000
140AF512	ISO40	M12	145	126	12,5	21	38	G2.5 20000
140AF516	ISO40	M16	145	126	17	29	39	G2.5 20000
150AF110	ISO50	M10	65	46	10,5	18	19,5	G2.5 20000
150AF112	ISO50	M12	65	46	12,5	21	24	G2.5 20000
150AF116	ISO50	M16	65	46	17	29	34	G2.5 20000
150AF210	ISO50	M10	85	66	10,5	18	28	G2.5 20000
150AF212	ISO50	M12	85	66	12,5	21	32	G2.5 20000
150AF216	ISO50	M16	85	66	17	29	36	G2.5 20000
150AF310	ISO50	M10	135	116	10,5	18	28	G2.5 20000
150AF312	ISO50	M12	135	116	12,5	21	32	G2.5 20000
150AF316	ISO50	M16	135	116	17	29	36	G2.5 20000
150AF410	ISO50	M10	185	166	10,5	18	32	G2.5 20000
150AF412	ISO50	M12	185	166	12,5	21	36	G2.5 20000
150AF416	ISO50	M16	185	166	17	29	42	G2.5 20000
150AF512	ISO50	M12	235	216	12,5	21	42	G2.5 20000
150AF516	ISO50	M16	235	216	17	29	44	G2.5 20000



COD	CONO	RANGE	SIZE	d	D	H
130PCRM1	ISO30	M3-M12	GR.1	19	38	60
130PCRM2	ISO30	M6-M20	GR.2	31	53	101
140PCRM1	ISO40	M3-M12	GR.1	19	38	60
140PCRM2	ISO40	M6-M20	GR.2	31	53	92
150PCRM1	ISO50	M3-M12	GR.1	19	38	62
150PCRM2	ISO50	M6-M20	GR.2	31	53	83

DIN 69871

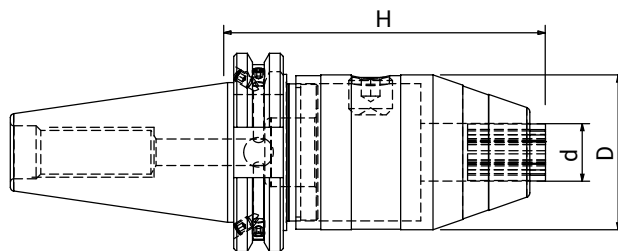
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



> PAG. 258



> PAG. 257



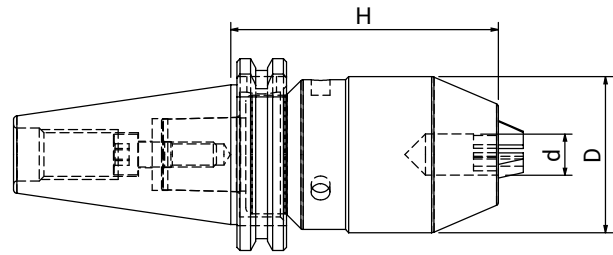
COD	CONO	d	H	D
140MAZ13	ISO40	1-13	93	50
140MAZ16	ISO40	3-16	98	50
150MAZ13	ISO50	1-13	93	50
150MAZ16	ISO50	3-16	98	50

DIN 69871

ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



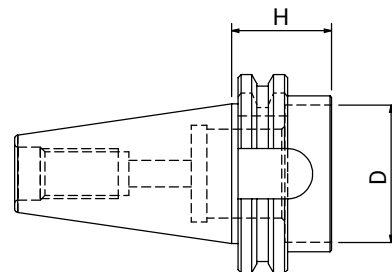
> PAG. 279



COD	CONO	d	H	D
140MPI13	ISO40	1-13	85	50
140MPI16	ISO40	3-16	106	57
150MPI13	ISO50	1-13	87	50
150MPI16	ISO50	3-16	106	57

DIN 69871

MANDRINI DI RICAMBIO | SPARE DRILL CHUCK HEADS | ERSATZ BOHRFÜTTER | MANDRINS DE RECHANGE



COD	CONO	RANGE	D	H
140CP113	ISO40	1-13	40	19
140CP116	ISO40	3-16	44	32
150CP113	ISO50	1-13	40	19
150CP116	ISO50	3-16	44	32

COMPONENTI | SPARE PARTS | ERSATZTEILE | PIECES DETACHEES

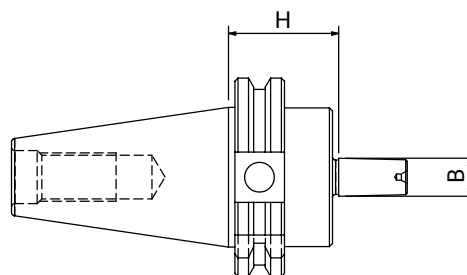


COD	DESCRIZIONE
913INS01	MANDRINO PER PUNTE 1-13
916INS01	MANDRINO PER PUNTE 1-16

ATTACCO PER MANDRINI PORTAPUNTE
 DRILL CHUCK ADAPTORS
 BOHRFUTTERAUFNAHMEN
 ARBRES POUR MANDRINS DE PERÇAGE

DIN 69871

DIN 238

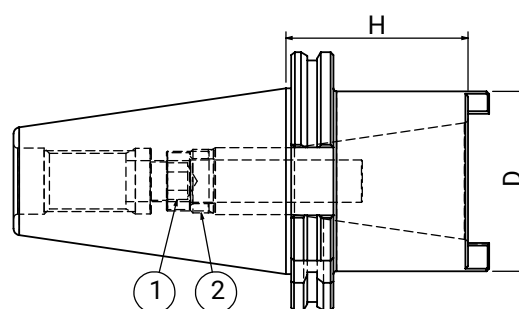


COD	CONO	B	H
140MPP12	ISO40	12	40
140MPP16	ISO40	16	40
140MPP18	ISO40	18	40
150MPP12	ISO50	12	40
150MPP16	ISO50	16	40
150MPP18	ISO50	18	40

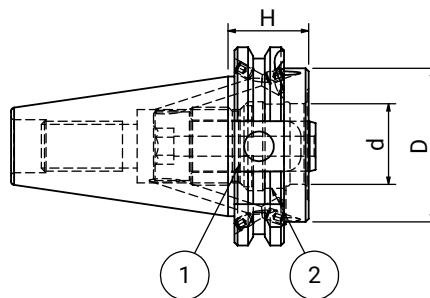
DIN 69871

MANDRINI DI RIDUZIONE
 ISO TAPER ADAPTORS
 ZWISCHENHUELSEN SK-SK
 DOUILLES DE REDUCTION SA-SA

DIN 69871
 AD



COD	CONO	D	H	1 - VITE TC/BT	1 - VITE 2080	2 - GHIERA
140ISO30	ISO40	49	60	111205501	110603001	122000603
140ISO40	ISO40	68	100	111606514	111604514	122400903
150ISO40	ISO50	68	70	111606514	111604514	122400903
150ISO50	ISO50	100	120	112409003	112406003	124020002



COD	CONO	H	D	d	1 - VITE	2 - BOCCOLA
140VL050	ISO40	27	50	27	111604011	122502007
140VL063	ISO40	27	63	32	112004014	123001708
140VL150	ISO40	50	50	27	111604011	122502007
140VL163	ISO40	50	63	32	112005011	123002408
150VL050	ISO50	27	50	27	111604011	122502007
150VL063	ISO50	27	63	32	112005012	123002408
150VL080	ISO50	27	80	32	112005012	123002408
150VL150	ISO50	50	50	27	111604011	122502007
150VL163	ISO50	50	63	32	112005012	123002408
150VL180	ISO50	50	80	32	112005012	123002408

DIN 69871

ADATTATORI MODULARI | MODULAR ADAPTOR | MODULARER ADAPTER | ADAPTATEUR MODULAIRE



> PAG. 243



> PAG. 244



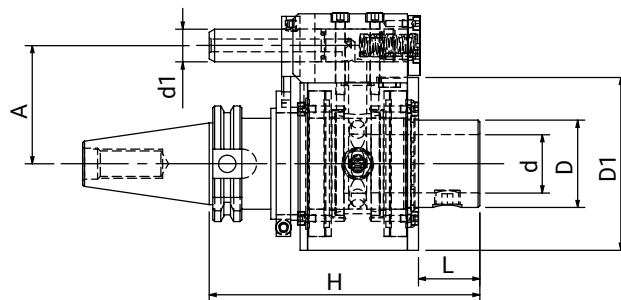
> PAG. 245



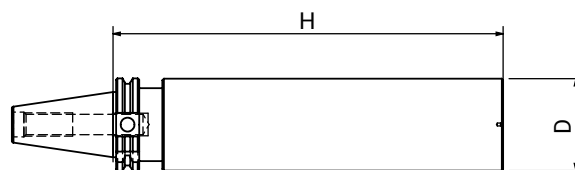
> PAG. 246



> PAG. 247



COD	CONO	d	H	A	L	D	D1	d1	1 - GRANO
140DRC32	ISO40	32	150	65	33,8	48	95	18	1 x 101400804
150DRC40	ISO50	40	165	80	49	58	110	18	2 x 101601604

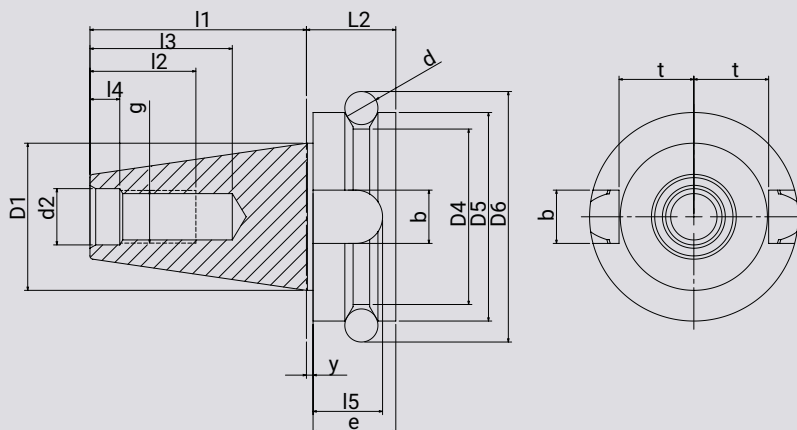


COD	CONO	H	D
140ST263	ISO40	250	63
150ST397	ISO50	315	97

MAS 403 BT



MAS 403 BT

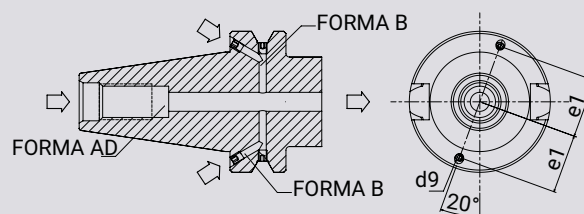
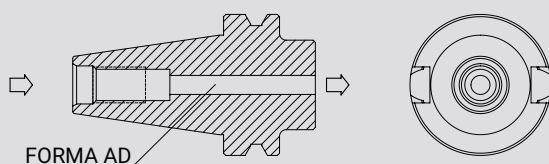


CONO	D1	l1 ±0,2	L2	d2 H8	g 6H	l2 min	l3 min	l4 +0,5/0	b H12	l5 min
30	31,75	48,4	22	12,5	M12	24	34	7	16,1	17
40	44,45	65,4	27	17,0	M16	30	43	9	16,1	21
50	69,85	101,8	38	25,0	M24	45	62	13	25,7	31

CONO	t 0/-0,2	D4	D5 h8	D6	e	y ±0,4	d9	e1 ±0,1	d
30	16,3	38	46	56,14	20	2	4	19	8
40	22,6	53	63	75,679	25	2	4	27	10
50	35,4	85	100	119,02	35	3	5	42	15

MAS 403 BT AD

MAS 403 BT AD/B



Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN
 All PAGNONI TOOLS toolholders are manufactured according to DIN norms
 Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert
 Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

TOLLERANZA DEL CONO:

- < AT3 secondo DIN 7187 e DIN 2080

PRE-BILANCIATI:

- Grado di equilibratura aggiuntiva indicato a fianco della tabella dimensionale
- Mandrini alte velocità: a richiesta classe massima di equilibratura G 2,5 30000

FORMA AD - AD/B

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 ±2 – profondità si indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

AUFNAHME GENAUIGKEIT:

- < AT3 nach DIN 7187 und DIN 2080

VORGEWUCHTET:

- Neben der Übersichtstabelle der Produkte wird die Wuchtgüte angegeben
- Hochgeschwindigkeits Werkzeughalter: Aus Wuchtgüte G2,5 30000 auf Anfrage

FORM AD - AD/B

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 ± 2, Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außenschleifen

TECHNICAL FEATURES

TAPER'S TOLLERANCE:

- < AT3 according to DIN 7187 and DIN 2080

PRE-BALANCED:

- Additional balancing grade beside dimensional table
- High-speed toolholders: balancing grade G 2,5 30000 on request

FORM AD - AD/B

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 ± 2 - hardening depth 0,4-0,5 mm
- Strenght 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRECISION:

- Precision du cône < AT3 selon DIN 7187 et DIN 2080

PRÉ-ÉQUILIBRÉ:

- À côté du tableau de description et dimensions des produits il y a l'indication de la valeur d'équilibrage attentionnel
- Mandrins haute vitesse : sont équilibrés en calsse G 2,5 à 30000 Tr/min-1 classe d'équilibrage maximale G 2,5 à 30000 Tr/min sur demande

FORME AD - AD/B

MATÉRIAUX ET TRAITEMENTS:

- Acier de cémentation allié
- Temprés – Revenus
- Cémentation à HRC 58 ± 2, profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe



> PAG. 123



> PAG. 124



> PAG. 125



> PAG. 126



> PAG. 128



> PAG. 128



> PAG. 129



> PAG. 130



> PAG. 131



> PAG. 132



> PAG. 135



> PAG. 136



> PAG. 137



> PAG. 138



> PAG. 139



> PAG. 141



> PAG. 144



> PAG. 145



> PAG. 146



> PAG. 147



> PAG. 148



> PAG. 149



> PAG. 150



> PAG. 151



> PAG. 151



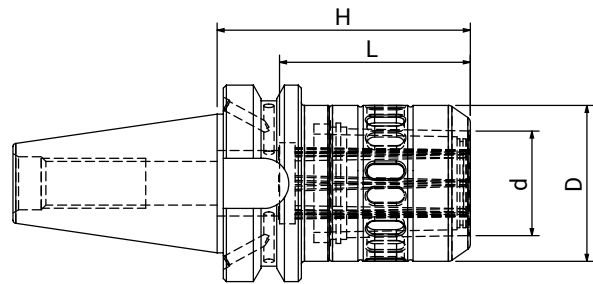
> PAG. 152



> PAG. 153



> PAG. 154



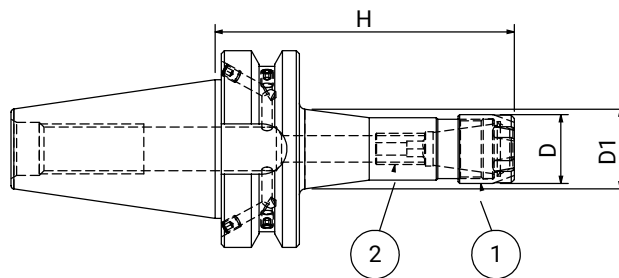
COD	CONO	d	H	L	D	BILANCIATURA
330FS112	ISO30	12	65	60	34	G6.3 12000
330FS116	ISO30	16	65	60	42	G6.3 12000
330FS120	ISO30	20	75	60	46	G6.3 12000
330FS312	ISO30	12	120	60	34	G6.3 12000
330FS316	ISO30	16	120	60	42	G6.3 12000
330FS320	ISO30	20	120	60	46	G6.3 12000
340FS112	ISO40	12	65	60	34	G6.3 12000
340FS116	ISO40	16	60	60	42	G6.3 12000
340FS120	ISO40	20	80	80	46	G6.3 12000
340FS132	ISO40	32	85	77	62	G6.3 12000
340FS312	ISO40	12	120	60	34	G6.3 12000
340FS316	ISO40	16	120	60	42	G6.3 12000
340FS320	ISO40	20	120	80	46	G6.3 12000
340FS332	ISO40	32	135	80	62	G6.3 12000
350FS112	ISO50	12	85	60	34	G6.3 12000
350FS116	ISO50	16	85	60	42	G6.3 12000
350FS120	ISO50	20	85	60	46	G6.3 12000
350FS132	ISO50	32	85	105	62	G6.3 12000
350FS212	ISO50	12	105	60	34	G6.3 12000
350FS216	ISO50	16	105	60	42	G6.3 12000
350FS220	ISO50	20	105	60	46	G6.3 12000
350FS232	ISO50	32	105	105	62	G6.3 12000
350FS312	ISO50	12	135	60	34	G6.3 12000
350FS316	ISO50	16	135	60	42	G6.3 12000
350FS320	ISO50	20	135	60	46	G6.3 12000
350FS332	ISO50	32	135	105	62	G6.3 12000

MAS 403 BT

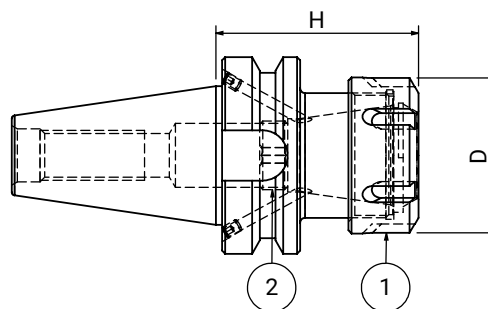
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



> PAG. 259



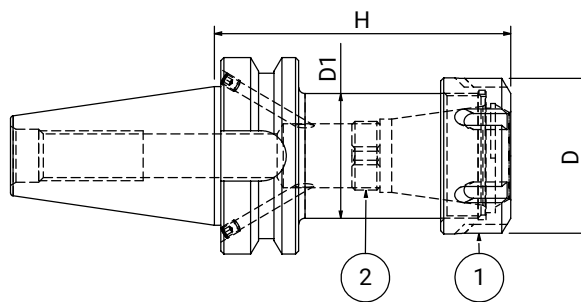
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
330PM107	ISO30	ER11MINI	70	16	19	G6.3 12000	911GHRMN	100601604
330PM210	ISO30	ER16MINI	100	22	20	G6.3 12000	916GHRMN	101001601
340PM207	ISO40	ER11MINI	100	16	20	G6.3 12000	911GHRMN	100601001
340PM210	ISO40	ER16MINI	100	22	26	G6.3 12000	916GHRMN	101001601
340PM213	ISO40	ER20MINI	100	28	30	G6.3 12000	920GHRMN	101001601
340PM216	ISO40	ER25MINI	100	35	33	G6.3 12000	925GHRMN	101815801
340PM307	ISO40	ER11MINI	130	16	20		911GHRMN	100601001
340PM310	ISO40	ER16MINI	130	22	28		916GHRMN	101001601
340PM313	ISO40	ER20MINI	130	28	30		920GHRMN	101001601
340PM316	ISO40	ER25MINI	130	35	33		925GHRMN	101815801
340PM407	ISO40	ER11MINI	160	16	28	G6.3 12000	911GHRMN	100601001
340PM410	ISO40	ER16MINI	160	22	30	G6.3 12000	916GHRMN	101001601
340PM413	ISO40	ER20MINI	160	28	30	G6.3 12000	920GHRMN	101001601
340PM416	ISO40	ER25MINI	160	35	33	G6.3 12000	925GHRMN	101815801
340PM510	ISO40	ER16MINI	200	22	30		916GHRMN	101001601
340PM513	ISO40	ER20MINI	200	28	33		920GHRMN	101001601
340PM516	ISO40	ER25MINI	200	35	33		925GHRMN	101815801
350PM210	ISO50	ER16MINI	100	22	22	G6.3 12000	916GHRMN	101001601
350PM213	ISO50	ER20MINI	100	28	28	G6.3 12000	920GHRMN	101001601
350PM216	ISO50	ER25MINI	100	35	30	G6.3 12000	925GHRMN	101815801
350PM310	ISO50	ER16MINI	130	22	28		916GHRMN	101001601
350PM313	ISO50	ER20MINI	130	28	30		920GHRMN	101001601
350PM316	ISO50	ER25MINI	130	35	30		925GHRMN	101815801
350PM410	ISO50	ER16MINI	160	22	28	G6.3 12000	916GHRMN	101001601
350PM413	ISO50	ER20MINI	160	28	32	G6.3 12000	920GHRMN	101001601
350PM416	ISO50	ER25MINI	160	35	38	G6.3 12000	925GHRMN	101815801
350PM510	ISO50	ER16MINI	200	22	30		916GHRMN	101001601
350PM513	ISO50	ER20MINI	200	28	35		920GHRMN	101001601
350PM516	ISO50	ER25MINI	200	35	40		925GHRMN	101815801



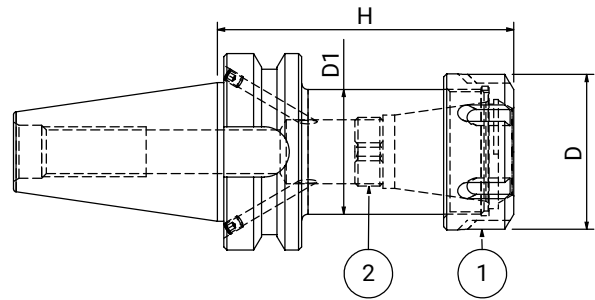
COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
330PP110 *	ISO30	ER16	60	32	G6.3 12000	916GHREQ	101001601
330PP113 *	ISO30	ER20	60	35	G6.3 12000	920GHREQ	101001601
330PP116 *	ISO30	ER25	60	42	G6.3 12000	925GHREQ	101815801
330PP120 *	ISO30	ER32	60	50	G6.3 12000	932GHREQ	102215901
340PP110	ISO40	ER16	70	32	G6.3 15000	916GHREQ	101001601
340PP113	ISO40	ER20	70	35	G6.3 15000	920GHREQ	101001601
340PP116	ISO40	ER25	70	42	G6.3 15000	925GHREQ	101815801
340PP120	ISO40	ER32	70	50	G6.3 15000	932GHREQ	102215901
340PP126	ISO40	ER40	70	63	G6.3 15000	940GHREQ	103015901
350PP110	ISO50	ER16	80	32	G6.3 15000	916GHREQ	101001601
350PP113	ISO50	ER20	80	35	G6.3 15000	920GHREQ	101001601
350PP116	ISO50	ER25	80	42	G6.3 15000	925GHREQ	101815801
350PP120	ISO50	ER32	80	50	G6.3 15000	932GHREQ	102215901
350PP126	ISO50	ER40	80	63	G6.3 15000	940GHREQ	103015901

* NOTE

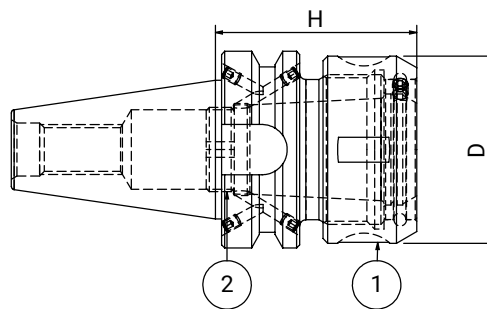
Mandrini portapinza con attacco ISO30 fornibili solo con forma AD
ISO30 collet chucks available only with AD form
ISO30 spannfuttern nur mit AD form lieferbar
Mandrins porte pince ISO30 livrables seulement avec la forme AD



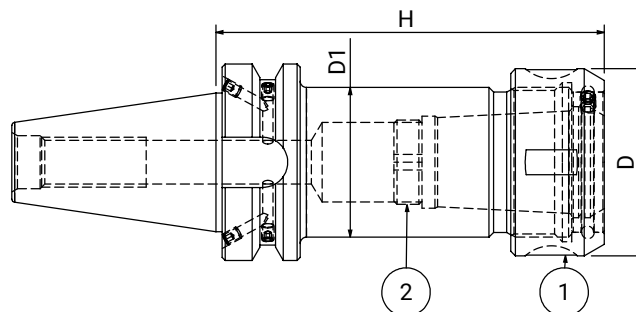
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
340PP210	ISO40	ER16	100	32	31,5	G6.3 15000	916GHREQ	101001601
340PP213	ISO40	ER20	100	35	34,5	G6.3 15000	920GHREQ	101001601
340PP216	ISO40	ER25	100	42	41,5	G6.3 15000	925GHREQ	101815801
340PP220	ISO40	ER32	100	50	49,5	G6.3 15000	932GHREQ	102215901
340PP226	ISO40	ER40	100	63	50,0	G6.3 15000	940GHREQ	103015901
340PP310	ISO40	ER16	130	32	31,5		916GHREQ	101001601
340PP313	ISO40	ER20	130	35	34,5		920GHREQ	101001601
340PP316	ISO40	ER25	130	42	41,5		925GHREQ	101815801
340PP320	ISO40	ER32	130	50	49,5		932GHREQ	102215901
340PP326	ISO40	ER40	130	63	50,0		940GHREQ	103015901
340PP410	ISO40	ER16	160	32	31,5		916GHREQ	101001601
340PP413	ISO40	ER20	160	35	34,5		920GHREQ	101001601
340PP416	ISO40	ER25	160	42	41,5		925GHREQ	101815801
340PP420	ISO40	ER32	160	50	49,5		932GHREQ	102215901
340PP426	ISO40	ER40	160	63	50,0		940GHREQ	103015901
340PP510	ISO40	ER16	200	32	31,5		916GHREQ	101001601
340PP513	ISO40	ER20	200	35	34,5		920GHREQ	101001601
340PP516	ISO40	ER25	200	42	41,5		925GHREQ	101815801
340PP520	ISO40	ER32	200	50	49,5		932GHREQ	102215901
340PP526	ISO40	ER40	200	63	50,0		940GHREQ	103015901



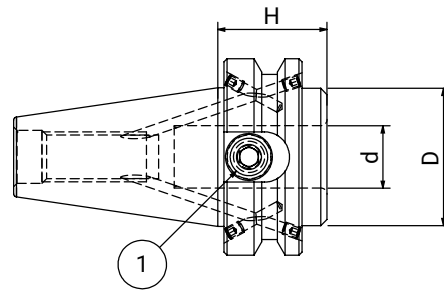
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
350PP210	ISO50	ER16	100	32	31,5	G6.3 15000	916GHREQ	101001601
350PP213	ISO50	ER20	100	35	34,5	G6.3 15000	920GHREQ	101001601
350PP216	ISO50	ER25	100	42	41,5	G6.3 15000	925GHREQ	101815801
350PP220	ISO50	ER32	100	50	49,5	G6.3 15000	932GHREQ	102215901
350PP226	ISO50	ER40	100	63	62,5	G6.3 15000	940GHREQ	103015901
350PP234	ISO50	ER50	100	78	75,0	G6.3 15000	950GHREQ	103015901
350PP310	ISO50	ER16	130	32	31,5		916GHREQ	101001601
350PP313	ISO50	ER20	130	35	34,5		920GHREQ	101001601
350PP316	ISO50	ER25	130	42	41,5		925GHREQ	101815801
350PP320	ISO50	ER32	130	50	49,5		932GHREQ	102215901
350PP326	ISO50	ER40	130	63	62,5		940GHREQ	103015901
350PP334	ISO50	ER50	130	78	75,0		950GHREQ	103015901
350PP410	ISO50	ER16	160	32	31,5		916GHREQ	101001601
350PP413	ISO50	ER20	160	35	34,5		920GHREQ	101001601
350PP416	ISO50	ER25	160	42	41,5		925GHREQ	101815801
350PP420	ISO50	ER32	160	50	49,5		932GHREQ	102215901
350PP426	ISO50	ER40	160	63	62,5		940GHREQ	103015901
350PP510	ISO50	ER16	200	32	31,5		916GHREQ	101001601
350PP513	ISO50	ER20	200	35	34,5		920GHREQ	101001601
350PP516	ISO50	ER25	200	42	41,5		925GHREQ	101815801
350PP520	ISO50	ER32	200	50	49,5		932GHREQ	102215901
350PP526	ISO50	ER40	200	63	62,5		940GHREQ	103015901



COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
340PO116	ISO40	EOC16	70	43	G6.3 12000	916GHROS	101815801
340PO125	ISO40	EOC25	70	60	G6.3 12000	925GHROS	102715901
340PO132	ISO40	EOC32	80	72	G6.3 12000	932GHROS	102715901
340PO216	ISO40	EOC16	100	43		916GHROS	101815801
340PO225	ISO40	EOC25	100	60		925GHROS	102715901
350PO116	ISO50	EOC16	70	43	G6.3 12000	916GHROS	101815801
350PO125	ISO50	EOC25	85	60	G6.3 12000	925GHROS	102715901
350PO132	ISO50	EOC32	95	72	G6.3 12000	932GHROS	102715901
350PO216	ISO50	EOC16	100	43		916GHROS	101815801
350PO225	ISO50	EOC25	100	60		925GHROS	102715901
350PO232	ISO50	EOC32	100	72		932GHROS	102715901



COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
340PO316	ISO40	EOC16	130	43		916GHROS	101815801
340PO325	ISO40	EOC25	130	60		925GHROS	102715901
350PO325	ISO50	EOC25	130	60		925GHROS	102715901
350PO332	ISO50	EOC32	130	72		932GHROS	102715901



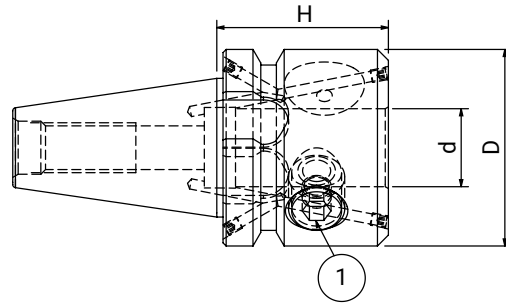
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
330WLC06 *	ISO30	6	35	25	G6.3 12000	1 x 100601002
330WLC08 *	ISO30	8	35	28	G6.3 12000	1 x 100801002
330WLC10 *	ISO30	10	35	35	G6.3 12000	1 x 101001202
330WLC12 *	ISO30	12	35	42	G6.3 12000	1 x 101201002
330WLC16 *	ISO30	16	35	42	G6.3 12000	1 x 101401004
330WLC20 *	ISO30	20	35	43	G6.3 12000	1 x 101400804
330WLC25 *	ISO30	25	35	45,5	G6.3 12000	1 x 101401004
340WLC16	ISO40	16	35	48	G6.3 12000	1 x 101401602
340WLC20	ISO40	20	35	44	G6.3 12000	1 x 101401202
340WLC25	ISO40	25	35	49	G6.3 12000	1 x 101401202
340WLC32	ISO40	32	70	72	G6.3 12000	1 x 102002002
350WLC16	ISO40	16	44	70	G6.3 12000	1 x 101402502
350WLC20	ISO40	20	44	70	G6.3 12000	1 x 101602004
350WLC25	ISO40	25	44	70	G6.3 12000	1 x 101802002
350WLC32	ISO40	32	44	70	G6.3 12000	1 x 102002002
350WLC40	ISO40	40	44	70	G6.3 12000	1 x 102002002

* NOTE

Mandrini portapinza con attacco ISO30 fornibili solo con forma AD
 ISO30 collet chucks available only with AD form
 ISO30 spannfuttern nur mit AD form lieferbar
 Mandrins porte pince ISO30 livrables seulement avec la forme AD

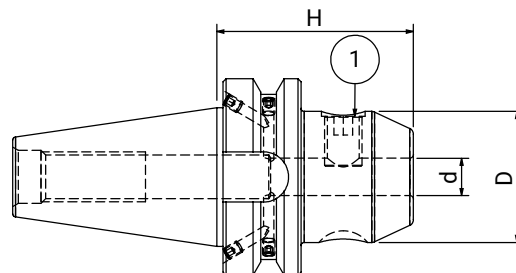
MANDRINI PORTAFRESE TIPO WELDON
 SIDE LOCK END MILL HOLDERS
 WELDON ZYLINDERSCHAFTAUFNAHMEN
 MANDRINS POUR OUTILS TYPE WELDON

MAS 403 BT
 AD/B
 DIN 1835 B



COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
340WLS25	ISO40	25	55	63	G6.3 12000	1 x 101802002
340WLS32	ISO40	32	55	63	G6.3 12000	1 x 102001602

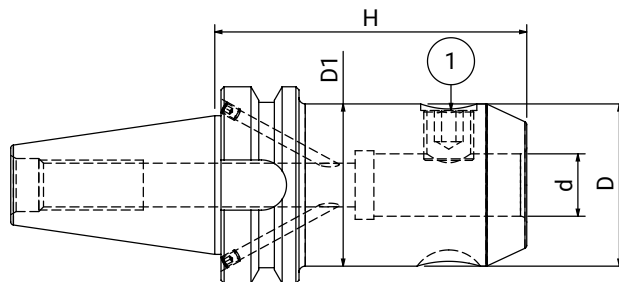
MAS 403 BT



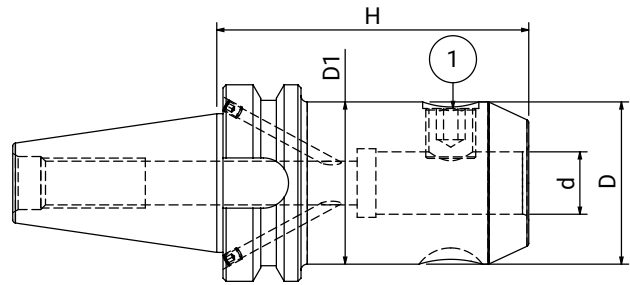
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
330WLD06 *	ISO30	6	50	25	G6.3 12000	1 x 100601002
330WLD08 *	ISO30	8	50	28	G6.3 12000	1 x 100801004
330WLD10 *	ISO30	10	50	35	G6.3 12000	1 x 101001204
330WLD12 *	ISO30	12	55	42	G6.3 12000	1 x 101201602
330WLD16 *	ISO30	16	63	48	G6.3 12000	1 x 101401604
330WLD20 *	ISO30	20	70	52	G6.3 12000	1 x 101601604
340WLD06	ISO40	6	50	25	G6.3 12000	1 x 100601002
340WLD08	ISO40	8	50	28	G6.3 12000	1 x 100801002
340WLD10	ISO40	10	63	35	G6.3 12000	1 x 101001202
340WLD12	ISO40	12	63	45	G6.3 12000	1 x 101201602
340WLD14	ISO40	14	63	44	G6.3 12000	1 x 101201602
340WLD16	ISO40	16	63	42	G6.3 12000	1 x 101201602
340WLD18	ISO40	18	63	50	G6.3 12000	1 x 101201602
340WLD20	ISO40	20	63	52	G6.3 12000	1 x 101201602
340WLD25	ISO40	25	90	65	G6.3 12000	2 x 101802002
340WLD32	ISO40	32	100	72	G6.3 12000	2 x 101802002
340WLD40	ISO40	40	107	80	G6.3 12000	2 x 101802002
350WLD06	ISO50	6	63	25	G6.3 12000	1 x 100601002
350WLD08	ISO50	8	63	28	G6.3 12000	1 x 100801002
350WLD10	ISO50	10	70	35	G6.3 12000	1 x 101001202
350WLD12	ISO50	12	80	42	G6.3 12000	1 x 101201602
350WLD14	ISO50	14	80	44	G6.3 12000	1 x 101201602
350WLD16	ISO50	16	80	48	G6.3 12000	1 x 101201602
350WLD18	ISO50	18	80	50	G6.3 12000	1 x 101201602
350WLD20	ISO50	20	80	52	G6.3 12000	1 x 101201602
350WLD25	ISO50	25	100	65	G6.3 12000	2 x 101802002
350WLD32	ISO50	32	105	72	G6.3 12000	2 x 101802002
350WLD40	ISO50	40	120	80	G6.3 12000	2 x 101802002
350WLD50	ISO50	50	125	100	G6.3 12000	2 x 102422504

* NOTE

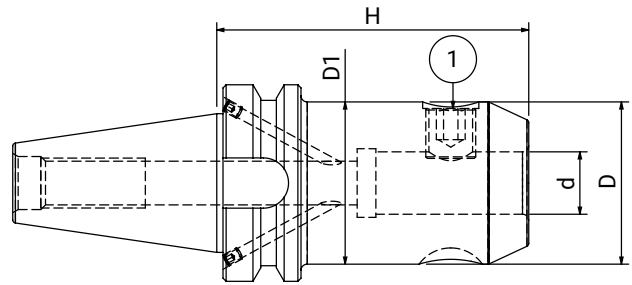
Mandrini portapinza con attacco ISO30 fornibili solo con forma AD
 ISO30 collet chucks available only with AD form
 ISO30 spannfuttern nur mit AD form lieferbar
 Mandrins porte pince ISO30 livrables seulement avec la forme AD



COD	CONO	d	H	D	D1	BILANCIATURA	1 - GRANO
340WE206	ISO40	6	100	25	35	G6.3 12000	1 x 100601002
340WE208	ISO40	8	100	28	38	G6.3 12000	1 x 100801002
340WE210	ISO40	10	100	35	40	G6.3 12000	1 x 101001202
340WE212	ISO40	12	100	42		G6.3 12000	1 x 101201602
340WE214	ISO40	14	100	44		G6.3 12000	1 x 101201602
340WE216	ISO40	16	100	48		G6.3 12000	1 x 101201602
340WE218	ISO40	18	100	50		G6.3 12000	1 x 101201602
340WE220	ISO40	20	100	52		G6.3 12000	1 x 101201602
340WE306	ISO40	6	130	25	35		1 x 100601002
340WE308	ISO40	8	130	28	38		1 x 100801002
340WE310	ISO40	10	130	35	40		1 x 101001202
340WE312	ISO40	12	130	42			1 x 101201602
340WE314	ISO40	14	130	44			1 x 101201602
340WE316	ISO40	16	130	48			1 x 101201602
340WE318	ISO40	18	130	50			1 x 101201602
340WE320	ISO40	20	130	52			1 x 101201602
340WE406	ISO40	6	160	25	35	G6.3 12000	1 x 100601002
340WE408	ISO40	8	160	28	38	G6.3 12000	1 x 100801002
340WE410	ISO40	10	160	35	40	G6.3 12000	1 x 101001202
340WE412	ISO40	12	160	42	42	G6.3 12000	1 x 101201602
340WE414	ISO40	14	160	44	44	G6.3 12000	1 x 101201602
340WE416	ISO40	16	160	48	48	G6.3 12000	1 x 101201602
340WE418	ISO40	18	160	50	50	G6.3 12000	1 x 101201602
340WE420	ISO40	20	160	52	52	G6.3 12000	1 x 101201602
340WE425	ISO40	25	160	65	65	G6.3 12000	2 x 101802002
340WE432	ISO40	32	160	72	72	G6.3 12000	2 x 102002002
340WE506	ISO40	6	200	25	38		1 x 100601002
340WE508	ISO40	8	200	28	41		1 x 100801002
340WE510	ISO40	10	200	35	43		1 x 101001202
340WE512	ISO40	12	200	42	48		1 x 101201602
340WE514	ISO40	14	200	44	48		1 x 101201602
340WE516	ISO40	16	200	48	48		1 x 101201602
340WE518	ISO40	18	200	50	50		1 x 101201602
340WE520	ISO40	20	200	52	52		1 x 101201602
340WE525	ISO40	25	200	65	65		2 x 101802002
340WE532	ISO40	32	200	72	72		2 x 102002002

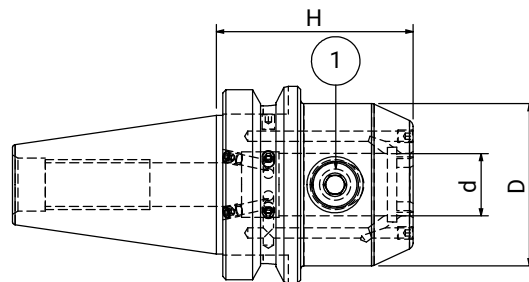


COD	CONO	d	H	D	D1	1 - GRANO
350WE206	ISO50	6	100	25	35	1 X 100601002
350WE208	ISO50	8	100	28	38	1 X 100801002
350WE210	ISO50	10	100	35	42	1 X 101001202
350WE412	ISO50	12	160	42	55	1 X 101201602
350WE214	ISO50	14	100	44	50	1 X 101201602
350WE216	ISO50	16	100	48	54	1 X 101201602
350WE218	ISO50	18	100	50	62	1 X 101201602
350WE220	ISO50	20	100	52	66	1 X 101201602
350WE306	ISO50	6	130	25	35	1 X 100601002
350WE308	ISO50	8	130	28	38	1 X 100801002
350WE310	ISO50	10	130	35	42	1 X 101001202
350WE312	ISO50	12	130	42	48	1 X 101201602
350WE314	ISO50	14	130	44	50	1 X 101201602
350WE316	ISO50	16	130	48	54	1 X 101201602
350WE318	ISO50	18	130	50	56	1 X 101201602
350WE320	ISO50	20	130	52	66	1 X 101201602
350WE325	ISO50	25	130	65	72	2 X 101802002
350WE332	ISO50	32	130	72		2 X 102002002
350WE340	ISO50	40	130	80		2 X 102002002
350WE406	ISO50	6	160	25	42	1 X 100601002
350WE408	ISO50	8	160	28	45	1 X 100801002
350WE410	ISO50	10	160	35	49	1 X 101001202
350WE412	ISO50	12	160	42	55	1 X 101201602
350WE414	ISO50	14	160	44	57	1 X 101201602
350WE416	ISO50	16	160	48	60	1 X 101201602
350WE418	ISO50	18	160	50	63	1 X 101201602
350WE420	ISO50	20	160	52	69	1 X 101201602
350WE425	ISO50	25	160	65	72	2 X 101802002
350WE432	ISO50	32	160	72		2 X 102002002
350WE440	ISO50	40	160	80		2 X 102002002

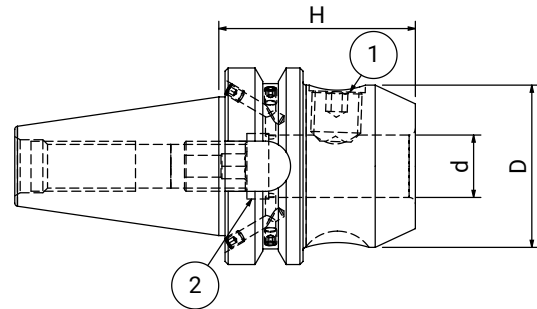


COD	CONO	d	H	D	D1	1 - GRANO
350WE506	ISO50	6	200	25	42	1 X 100601002
350WE508	ISO50	8	200	28	45	1 X 100801002
350WE510	ISO50	10	200	35	49	1 X 101001202
350WE512	ISO50	12	200	42	55	1 X 101201602
350WE514	ISO50	14	200	44	57	1 X 101201602
350WE516	ISO50	16	200	48	60	1 X 101201602
350WE518	ISO50	18	200	50	63	1 X 101201602
350WE520	ISO50	20	200	52	63	1 X 101201602
350WE525	ISO50	25	200	65	72	2 X 101802002
350WE532	ISO50	32	200	72		2 X 102002002
350WE540	ISO50	40	200	80		2 X 102002002

MAS 403 BT

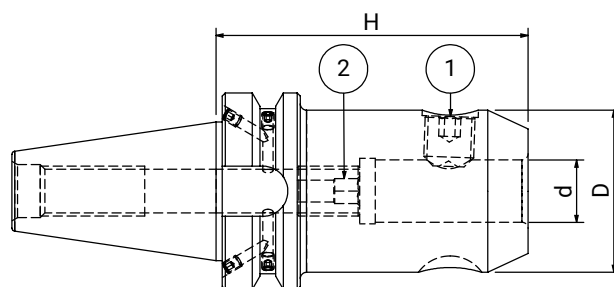


COD	CONO	d	H	D	1 - GRANO
340WLK06	ISO40	6	50	25	1 X 100601002
340WLK08	ISO40	8	50	28	1 X 100801002
340WLK10	ISO40	10	63	35	1 X 101001202
340WLK12	ISO40	12	63	42	1 X 101201602
340WLK14	ISO40	14	63	44	1 X 101201602
340WLK16	ISO40	16	63	48	1 X 101201602
340WLK18	ISO40	18	63	50	1 X 101201602
340WLK20	ISO40	20	63	52	1 X 101201602
340WLK25	ISO40	25	90	65	2 X 101802002
340WLK32	ISO40	32	100	72	2 X 102002002
340WLK40	ISO40	40	107	80	2 X 102002002
350WLK06	ISO50	6	63	25	1 X 100601002
350WLK08	ISO50	8	63	28	1 X 100801002
350WLK10	ISO50	10	70	35	1 X 101001202
350WLK12	ISO50	12	80	42	1 X 101201602
350WLK14	ISO50	14	80	44	1 X 101201602
350WLK16	ISO50	16	80	48	1 X 101201602
350WLK18	ISO50	18	80	50	1 X 101201602
350WLK20	ISO50	20	80	52	1 X 101201602
350WLK25	ISO50	25	100	65	2 X 101802002
350WLK32	ISO50	32	105	72	2 X 102002002
350WLK40	ISO50	40	120	80	2 X 102002002

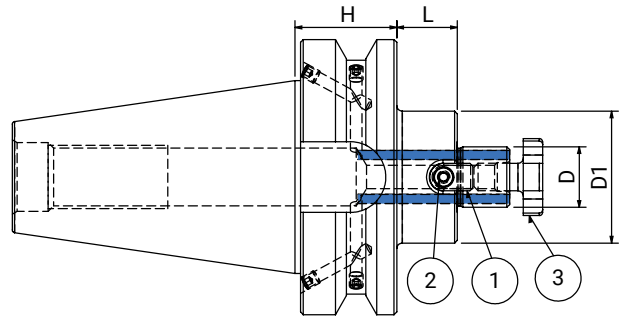


COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
340WHN06	ISO40	6	50	25	G6.3 12000	1 x 100601002
340WHN08	ISO40	8	50	28	G6.3 12000	1 x 100801002
340WHN10	ISO40	10	63	35	G6.3 12000	1 x 101001202
340WHN12	ISO40	12	63	42	G6.3 12000	1 x 101201602
340WHN14	ISO40	14	63	44	G6.3 12000	1 x 101201602
340WHN16	ISO40	16	63	48	G6.3 12000	1 x 101201602
340WHN18	ISO40	18	63	50	G6.3 12000	1 x 101201602
340WHN20	ISO40	20	63	52	G6.3 12000	1 x 101201602
340WHN25	ISO40	25	90	65	G6.3 12000	2 x 101802002
340WHN32	ISO40	32	100	72	G6.3 12000	2 x 102002002
340WHN40	ISO40	40	107	80	G6.3 12000	2 x 102002002
350WHN06	ISO50	6	63	25	G6.3 12000	1 x 100601002
350WHN08	ISO50	8	63	28	G6.3 12000	1 x 100801002
350WHN10	ISO50	10	70	35	G6.3 12000	1 x 101001202
350WHN12	ISO50	12	80	42	G6.3 12000	1 x 101201602
350WHN14	ISO50	14	80	44	G6.3 12000	1 x 101201602
350WHN16	ISO50	16	80	48	G6.3 12000	1 x 101201602
350WHN18	ISO50	18	80	50	G6.3 12000	1 x 101201602
350WHN20	ISO50	20	80	52	G6.3 12000	1 x 101201602
350WHN25	ISO50	25	100	65	G6.3 12000	2 x 101802002
350WHN32	ISO50	32	105	72	G6.3 12000	2 x 102002002
350WHN40	ISO50	40	120	80	G6.3 12000	2 x 102002002

MAS 403 BT



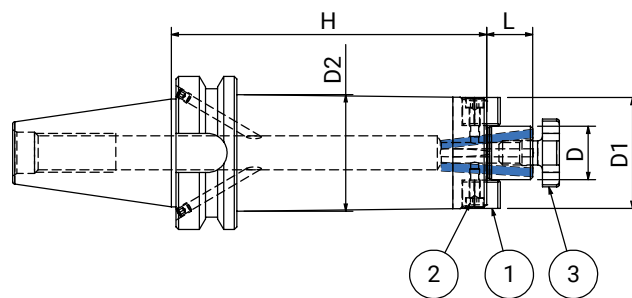
COD	CONO	d	H	D	1 - GRANO	2 - GRANO INTERNO
340WN206	ISO40	6	100	25	1 X 100601002	100501601
340WN208	ISO40	8	100	28	1 X 100801002	100601601
340WN210	ISO40	10	100	35	1 X 101001202	100801601
340WN212	ISO40	12	100	42	1 X 101201602	101002501
340WN214	ISO40	14	100	44	1 X 101201602	101002501
340WN216	ISO40	16	100	48	1 X 101401602	101204001
340WN218	ISO40	18	100	50	1 X 101401602	101204001
340WN220	ISO40	20	100	52	1 X 101601602	101603501
350WN206	ISO50	6	100	25	1 X 100601002	100501601
350WN208	ISO50	8	100	28	1 X 100801002	100601601
350WN210	ISO50	10	100	35	1 X 101001202	100801601
350WN212	ISO50	12	100	42	1 X 101201602	101002501
350WN214	ISO50	14	100	44	1 X 101201602	101002501
350WN216	ISO50	16	100	48	1 X 101401602	101204001
350WN218	ISO50	18	100	50	1 X 101401602	101204001
350WN220	ISO50	20	100	52	1 X 101601602	101603501



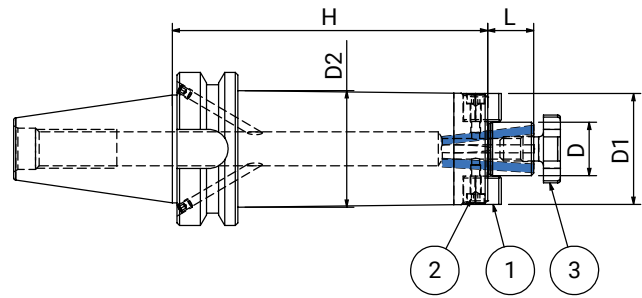
COD	CONO	D	H	L	D1	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
330PF116 *	ISO30	16	35	17	38	2 x 916TSL11	2 x 110301201	916VTC02
330PF122 *	ISO30	22	40	19	48	2 x 922TSL11	2 x 110401201	922VTC02
330PF127 *	ISO30	27	40	21	58	2 x 927TSL11	2 x 110501601	927VTC02
340PF016	ISO40	16	35	17	46	2 x 916TSL01	2 x 110301001	916VTC02
340PF022	ISO40	22	35	19	59	2 x 922TSL11	2 x 110401201	922VTC02
340PF027	ISO40	27	35	21	58	2 x 927TSL02	2 x 110401601	927VTC02
340PF116	ISO40	16	45	17	38	2 x 916TSL11	2 x 110301201	916VTC02
340PF122	ISO40	22	45	19	48	2 x 922TSL11	2 x 110401201	922VTC02
340PF127	ISO40	27	45	21	58	2 x 927TSL11	2 x 110501601	927VTC02
340PF132	ISO40	32	50	24	78	2 x 932TSL12	2 x 110602001	932VTC02
340PF140	ISO40	40	55	27	88	2 x 940TSL11	2 x 110602002	940VTC02
350PF016	ISO50	16	50	17	46	2 x 916TSL11	2 x 110301001	916VTC02
350PF022	ISO50	22	50	19	48	2 x 922TSL11	2 x 110401201	922VTC02
350PF027	ISO50	27	50	21	58	2 x 927TSL01	2 x 110401601	927VTC02
350PF032	ISO50	32	50	24	66	2 x 932TSL02	2 x 110601601	932VTC02
350PF040	ISO50	40	50	27	80	2 x 940TSL05	2 x 110601601	940VTC02
350PF116	ISO50	16	60	17	38	2 x 916TSL11	2 x 110301201	916VTC02
350PF122	ISO50	22	60	19	48	2 x 922TSL11	2 x 110401201	922VTC02
350PF127	ISO50	27	60	21	58	2 x 927TSL11	2 x 110501601	927VTC02
350PF132	ISO50	32	60	24	78	2 x 932TSL12	2 x 110602001	932VTC02
350PF140	ISO50	40	60	27	88	2 x 940TSL11	2 x 110602001	940VTC02

* NOTE

Mandrini portapinza con attacco ISO30 fornibili solo con forma AD
 ISO30 collet chucks available only with AD form
 ISO30 spannfuttern nur mit AD form lieferbar
 Mandrins porte-pince ISO30 livrables seulement avec la forme AD

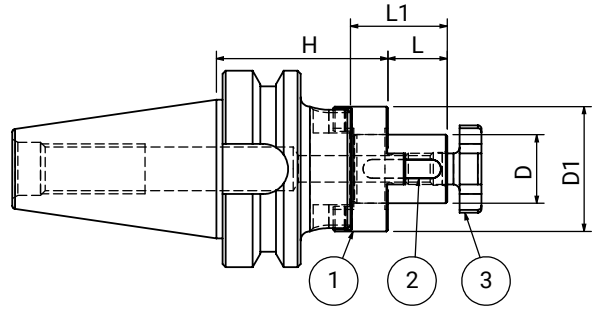


COD	CONO	D	H	L	D1	D2	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
340PF216	ISO40	16	100	17	32	40	2 x 916TSL10	2 x 110300801	916VTC02
340PF222	ISO40	22	100	19	40	48	2 x 922TSL10	2 x 110401001	922VTC02
340PF227	ISO40	27	100	21	48		2 x 927TSL10	2 x 110501201	927VTC02
340PF232	ISO40	32	100	24	58		2 x 932TSL10	2 x 110601201	932VTC02
340PF240	ISO40	40	100	27	70		2 x 940TSL10	2 x 110602001	940VTC02
340PF316	ISO40	16	130	17	39		2 x 916TSL11	2 x 110301201	916VTC02
340PF322	ISO40	22	130	19	46	48	2 x 922TSL11	2 x 110401201	922VTC02
340PF327	ISO40	27	130	21	55		2 x 927TSL11	2 x 110501601	927VTC02
340PF332	ISO40	32	130	24	66	60	2 x 932TSL11	2 x 110602001	932VTC02
340PF340	ISO40	40	130	27	88	60	2 x 940TSL11	2 x 110602001	940VTC02
340PF416	ISO40	16	160	17	39		2 x 916TSL11	2 x 110301201	916VTC02
340PF422	ISO40	22	160	19	46	48	2 x 922TSL11	2 x 110401201	922VTC02
340PF427	ISO40	27	160	21	55		2 x 927TSL11	2 x 110501601	927VTC02
340PF432	ISO40	32	160	24	66	55	2 x 932TSL11	2 x 110602001	932VTC02
340PF440	ISO40	40	160	27	88	60	2 x 940TSL11	2 x 110602001	940VTC02
340PF516	ISO40	16	200	17	39		2 x 916TSL11	2 x 110301201	916VTC02
340PF522	ISO40	22	200	19	46	48	2 x 922TSL11	2 x 110401201	922VTC02
340PF527	ISO40	27	200	21	55		2 x 927TSL11	2 x 110501601	927VTC02
340PF532	ISO40	32	200	24	66	60	2 x 932TSL11	2 x 110602001	932VTC02
340PF540	ISO40	40	200	27	88	60	2 x 940TSL11	2 x 110602001	940VTC02

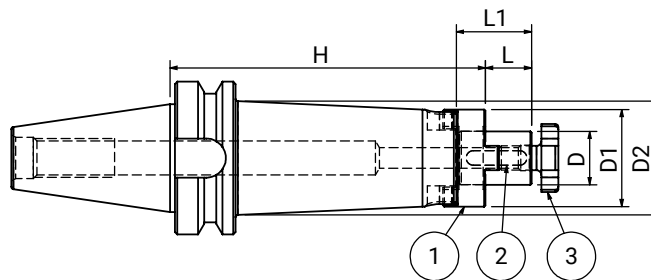


COD	CONO	D	H	L	D1	D2	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
350PF216	ISO50	16	100	17	32	40	2 x 916TSL10	2 x 110300801	916VTC02
350PF222	ISO50	22	100	19	40	52	2 x 922TSL10	2 x 110401001	922VTC02
350PF227	ISO50	27	100	21	48	55	2 x 927TSL10	2 x 110501201	927VTC02
350PF232	ISO50	32	100	24	58	65	2 x 932TSL10	2 x 110601201	932VTC02
350PF240	ISO50	40	100	27	70		2 x 940TSL10	2 x 110602001	940VTC02
350PF316	ISO50	16	130	17	39		2 x 916TSL11	2 x 110301201	916VTC02
350PF322	ISO50	22	130	19	46	56	2 x 922TSL11	2 x 110401201	922VTC02
350PF327	ISO50	27	130	21	55	78	2 x 927TSL11	2 x 110501601	927VTC02
350PF332	ISO50	32	130	24	66	78	2 x 932TSL11	2 x 110602001	932VTC02
350PF340	ISO50	40	130	27	88	78	2 x 940TSL11	2 x 110602001	940VTC02
350PF416	ISO50	16	160	17	39		2 x 916TSL11	2 x 110301201	916VTC02
350PF422	ISO50	22	160	19	46	49	2 x 922TSL11	2 x 110401201	922VTC02
350PF427	ISO50	27	160	21	55	78	2 x 927TSL11	2 x 110501601	927VTC02
350PF432	ISO50	32	160	24	66	78	2 x 932TSL11	2 x 110602001	932VTC02
350PF440	ISO50	40	160	27	70	78	2 x 940TSL11	2 x 110602001	940VTC02
350PF516	ISO50	16	200	17	39		2 x 916TSL11	2 x 110301201	916VTC02
350PF522	ISO50	22	200	19	46	49	2 x 922TSL11	2 x 110401201	922VTC02
350PF527	ISO50	27	200	21	55	78	2 x 927TSL11	2 x 110501601	927VTC02
350PF532	ISO50	32	200	24	66	78	2 x 932TSL11	2 x 110602001	932VTC02
350PF540	ISO50	40	200	27	70	78	2 x 940TSL11	2 x 110602001	940VTC02
350PF616	ISO50	16	250	17	39		2 x 916TSL01	2 x 110301001	916VTC02
350PF622	ISO50	22	250	19	50	60	2 x 922TSL01	2 x 110301201	922VTC02
350PF627	ISO50	27	250	21	55	78	2 x 927TSL01	2 x 110401601	927VTC02
350PF632	ISO50	32	250	24	64	78	2 x 932TSL11	2 x 110602001	932VTC02
350PF640	ISO50	40	250	27	88	88	2 x 940TSL11	2 x 110602001	940VTC02
350PF716	ISO50	16	300	17	39	55	2 x 916TSL01	2 x 110301001	916VTC02
350PF722	ISO50	22	300	19	50	60	2 x 922TSL01	2 x 110301201	922VTC02
350PF727	ISO50	27	300	21	55	78	2 x 927TSL01	2 x 110401601	927VTC02
350PF732	ISO50	32	300	24	66	80	2 x 932TSL01	2 x 110601601	932VTC02
350PF740	ISO50	40	300	27	80	80	2 x 940TSL01	2 x 110601601	940VTC02
350PF816	ISO50	16	350	17	39	55	2 x 916TSL01	2 x 110301001	916VTC02
350PF822	ISO50	22	350	19	50	66	2 x 922TSL01	2 x 110301201	922VTC02
350PF827	ISO50	27	350	21	55	78	2 x 927TSL01	2 x 110401601	927VTC02
350PF832	ISO50	32	350	24	66	80	2 x 932TSL01	2 x 110601601	932VTC02
350PF840	ISO50	40	350	27	80	80	2 x 940TSL01	2 x 110601601	940VTC02

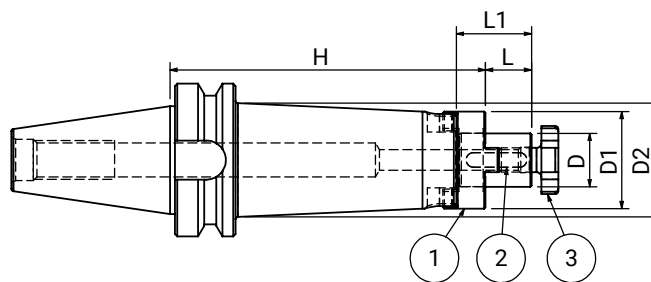
MAS 403 BT



COD	CONO	D	H	L	L1	D1	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
330PU116	ISO30	16	50	17	27	32	916GNT01	170402004	916VTC02
330PU122	ISO30	22	50	19	31	40	922GNT01	170602506	922VTC02
330PU127	ISO30	27	55	21	33	48	927GNT01	170702507	927VTC02
340PU116	ISO40	16	55	17	27	32	916GNT01	170402004	916VTC02
340PU122	ISO40	22	55	19	31	40	922GNT01	170602506	922VTC02
340PU127	ISO40	27	55	21	33	48	927GNT01	170702507	927VTC02
340PU132	ISO40	32	60	24	38	58	932GNT01	170802807	932VTC02
340PU140	ISO40	40	60	27	41	70	940GNT01	171003208	940VTC02
350PU116	ISO50	16	70	17	27	32	916GNT01	170402004	916VTC02
350PU122	ISO50	22	70	19	31	40	922GNT01	170602506	922VTC02
350PU127	ISO50	27	70	21	33	48	927GNT01	170702507	927VTC02
350PU132	ISO50	32	70	24	38	58	932GNT01	170802807	932VTC02
350PU140	ISO50	40	70	27	41	70	940GNT01	171003208	940VTC02



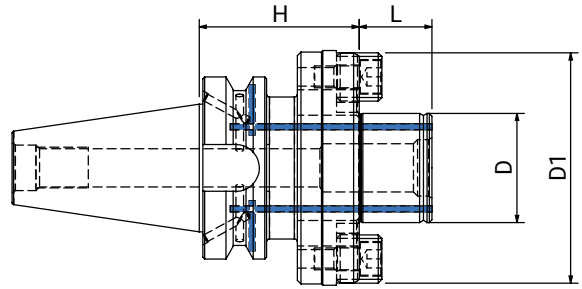
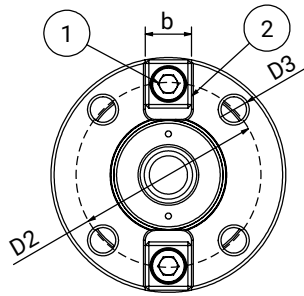
COD	CONO	D	H	L	L1	D1	D2	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
340PU216	ISO40	16	100	17	27	32	44	916GNT01	170402004	916VTC02
340PU222	ISO40	22	100	19	31	40		922GNT01	170602506	922VTC02
340PU227	ISO40	27	100	21	33	48		927GNT01	170702507	927VTC02
340PU232	ISO40	32	100	24	38	58		932GNT01	170802807	932VTC02
340PU240	ISO40	40	100	27	41	70		940GNT01	171003208	940VTC02
340PU316	ISO40	16	130	17	27	32	44	916GNT01	170402004	916VTC02
340PU322	ISO40	22	130	19	31	40	47	922GNT01	170602506	922VTC02
340PU327	ISO40	27	130	21	33	48	55	927GNT01	170702507	927VTC02
340PU332	ISO40	32	130	24	38	58	58	932GNT01	170802807	932VTC02
340PU340	ISO40	40	130	27	41	70	62	940GNT01	171003208	940VTC02
340PU416	ISO40	16	160	17	27	32	44	916GNT01	170402004	916VTC02
340PU422	ISO40	22	160	19	31	40	47	922GNT01	170602506	922VTC02
340PU427	ISO40	27	160	21	33	48	55	927GNT01	170702507	927VTC02
340PU432	ISO40	32	160	24	38	58	58	932GNT01	170802807	932VTC02
340PU440	ISO40	40	160	27	41	70	62	940GNT01	171003208	940VTC02
340PU516	ISO40	16	200	17	27	32	44	916GNT01	170402004	916VTC02
340PU522	ISO40	22	200	19	31	40	47	922GNT01	170602506	922VTC02
340PU527	ISO40	27	200	21	33	48	55	927GNT01	170702507	927VTC02
340PU532	ISO40	32	200	24	38	58	58	932GNT01	170802807	932VTC02
340PU540	ISO40	40	200	27	41	70	62	940GNT01	171003208	940VTC02



COD	CONO	D	H	L	L1	D1	D2	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
350PU216	ISO50	16	100	17	27	32	44	916GNT01	170402004	916VTC02
350PU222	ISO50	22	100	19	31	40	50	922GNT01	170602506	922VTC02
350PU227	ISO50	27	100	21	33	48	60	927GNT01	170702507	927VTC02
350PU232	ISO50	32	100	24	38	58		932GNT01	170802807	932VTC02
350PU240	ISO50	40	100	27	41	70		940GNT01	171003208	940VTC02
350PU316	ISO50	16	130	17	27	32	44	916GNT01	170402004	916VTC02
350PU322	ISO50	22	130	19	31	40	50	922GNT01	170602506	922VTC02
350PU327	ISO50	27	130	21	33	48	60	927GNT01	170702507	927VTC02
350PU332	ISO50	32	130	24	38	58	65	932GNT01	170802807	932VTC02
350PU340	ISO50	40	130	27	41	70	77	940GNT01	171003208	940VTC02
350PU416	ISO50	16	160	17	27	32	44	916GNT01	170402004	916VTC02
350PU422	ISO50	22	160	19	31	40	50	922GNT01	170602506	922VTC02
350PU427	ISO50	27	160	21	33	48	60	927GNT01	170702507	927VTC02
350PU432	ISO50	32	160	24	38	58	65	932GNT01	170802807	932VTC02
350PU440	ISO50	40	160	27	41	70	77	940GNT01	171003208	940VTC02
350PU516	ISO50	16	200	17	27	32	44	916GNT01	170402004	916VTC02
350PU522	ISO50	22	200	19	31	40	50	922GNT01	170602506	922VTC02
350PU527	ISO50	27	200	21	33	48	60	927GNT01	170702507	927VTC02
350PU532	ISO50	32	200	24	38	58	65	932GNT01	170802807	932VTC02
350PU540	ISO50	40	200	27	41	70	77	940GNT01	171003208	940VTC02

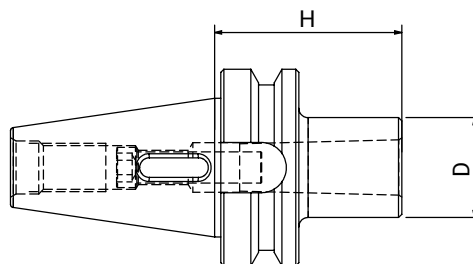
MANDRINI PORTAFRESE PER FRESE A SPIANARE
 FACE MILL HOLDERS
 AUFSTECKFRÄSDORNE FUER MESSERKOEPF
 MANDRINS PORTE-FRAISES POUR FRAISES A SURFACER

MAS 403 BT
 AD/B
 DIN 6357

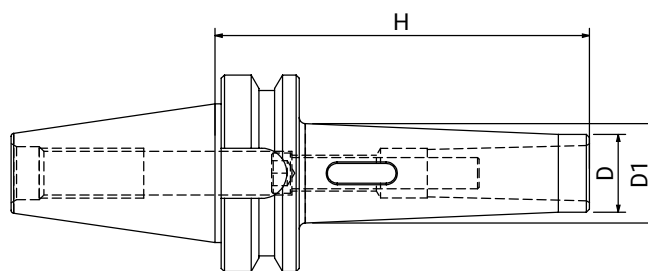


COD	CONO	D	H	D1	L	b	D2	D3	1 - VITE	2 - TASSELLO	3 - VITE A CROCE
340PI140	ISO40	40	60	89	30	15,9	66,7	M12	2 x 110601601	2 x 940TSL04	940VTC02
350PI140	ISO50	40	70	89	30	15,9	66,7	M12	2 x 110601601	2 x 940TSL04	940VTC02
350PI160	ISO50	60	80	129	40	25,4	101,6	M16	2 x 111202501	2 x 940TSL04	-

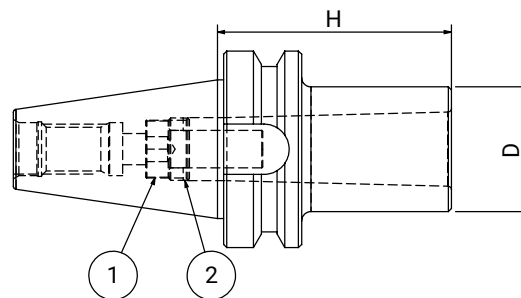
MAS 403 BT



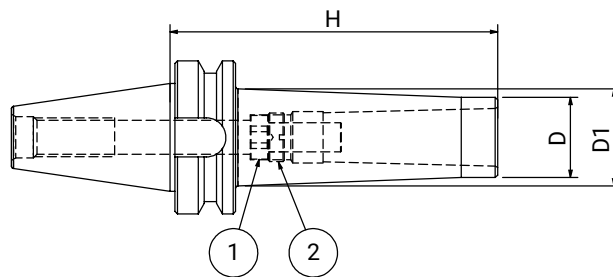
COD	CONO	MORSE	H	D
330MP101	ISO30	1	50	25
330MP102	ISO30	2	60	32
330MP103	ISO30	3	79	40
340MP101	ISO40	1	50	25
340MP102	ISO40	2	60	32
340MP103	ISO40	3	76	40
340MP104	ISO40	4	94,5	48
350MP101	ISO50	1	45	25
350MP102	ISO50	2	60	32
350MP103	ISO50	3	65	40
350MP104	ISO50	4	95	48
350MP105	ISO50	5	105	63



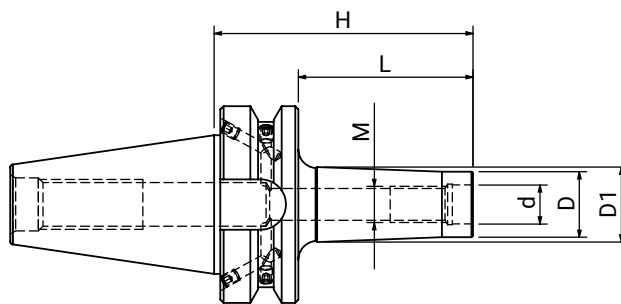
COD	CONO	MORSE	D	H	D1
340MP201	ISO40	1	18	115	25
340MP202	ISO40	2	25	120	32
340MP203	ISO40	3	33	140	40
340MP204	ISO40	4	40	165	48
350MP201	ISO50	1	18	120	25
350MP202	ISO50	2	25	140	32
350MP203	ISO50	3	33	150	40
350MP204	ISO50	4	40	180	48
350MP205	ISO50	5	55	220	69



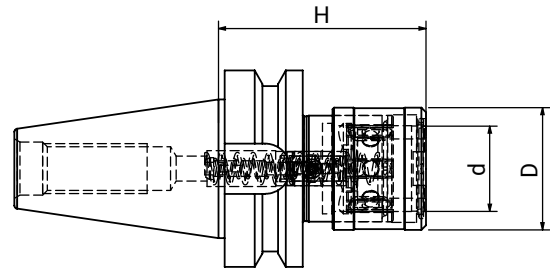
COD	CONO	MORSE	D	H	1 - VITE	2 - GHIERA
330MF101	ISO30	1	25	50	110603501	121206502
330MF102	ISO30	2	32	60	111003014	121500802
330MF103	ISO30	3	40	80	111204003	122000903
340MF101	ISO40	1	25	50	110603501	121206502
340MF102	ISO40	2	32	50	111003014	121500802
340MF103	ISO40	3	40	75	111204003	122000903
340MF104	ISO40	4	48	95	111604514	122000903
350MF101	ISO50	1	25	50	110603501	121206502
350MF102	ISO50	2	32	50	111003014	121500802
350MF103	ISO50	3	40	65	111203003	122000903
350MF104	ISO50	4	48	95	111604514	122000903
350MF105	ISO50	5	63	120	112005003	123601104



COD	CONO	MORSE	D	H	D1	1 - VITE	2 - GHIERA
340MF201	ISO40	1	18	120	25	110603501	121206502
340MF202	ISO40	2	25	120	32	111003014	121500802
340MF203	ISO40	3	33	135	40	111204003	122000903
340MF204	ISO40	4	40	165	48	111604515	122000903
350MF201	ISO50	1	18	185	25	110603501	121206502
350MF202	ISO50	2	25	185	32	111003014	121500802
350MF203	ISO50	3	33	185	40	111204003	122000903
350MF204	ISO50	4	40	185	48	111604514	122000903
350MF205	ISO50	5	55	200	63	112005503	123601104



COD	CONO	M	H	L	d	D	D1	BILANCIATURA
340AF106	ISO40	M6	63	36	6,5	10	13	G2.5 20000
340AF108	ISO40	M8	63	36	8,5	13	15	G2.5 20000
340AF110	ISO40	M10	63	36	11	18	19,5	G2.5 20000
340AF112	ISO40	M12	63	36	13	21	24	G2.5 20000
340AF116	ISO40	M16	63	36	17,5	29	34	G2.5 20000
340AF206	ISO40	M6	83	56	7	10	20	G2.5 20000
340AF208	ISO40	M8	83	56	3	13	23	G2.5 20000
340AF210	ISO40	M10	83	56	11	18	25	G2.5 20000
340AF212	ISO40	M12	83	56	13	21	24	G2.5 20000
340AF216	ISO40	M16	83	56	17,5	29	34	G2.5 20000
340AF308	ISO40	M8	103	76	9	13	23	G2.5 20000
340AF310	ISO40	M10	103	76	11	18	28	G2.5 20000
340AF312	ISO40	M12	103	76	13	21	31	G2.5 20000
340AF316	ISO40	M16	103	76	17,5	29	34	G2.5 20000
340AF410	ISO40	M10	123	96	10,5	18	28	G2.5 20000
340AF412	ISO40	M12	123	96	12,5	21	31	G2.5 20000
340AF416	ISO40	M16	123	96	17,5	29	39	G2.5 20000
340AF516	ISO40	M16	153	126	17,5	29	39	G2.5 20000
350AF112	ISO50	M12	64	26	12,5	21	24	G2.5 20000
350AF116	ISO50	M16	64	26	17	29	34	G2.5 20000
350AF212	ISO50	M12	104	66	12,5	21	32	G2.5 20000
350AF216	ISO50	M16	104	66	17	29	36	G2.5 20000
350AF312	ISO50	M12	154	116	12,5	21	32	G2.5 20000
350AF316	ISO50	M16	154	116	17	29	40	G2.5 20000
350AF412	ISO50	M12	204	166	12,5	21	36	G2.5 20000
350AF416	ISO50	M16	204	166	17	29	42	G2.5 20000
350AF512	ISO50	M12	254	216	12,5	21	42	G2.5 20000
350AF516	ISO50	M16	254	216	17	29	44	G2.5 20000



COD	CONO	RANGE	SIZE	d	D	H
340PCRM1	ISO40	M3-M12	GR.1	19	38	67
340PCRM2	ISO40	M6-M20	GR.2	31	53	93
350PCRM1	ISO50	M3-M12	GR.1	19	38	80
350PCRM2	ISO50	M6-M20	GR.2	31	53	102

MAS 403 BT

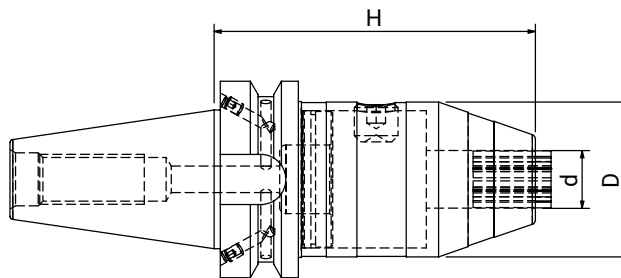
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



> PAG. 258



> PAG. 257

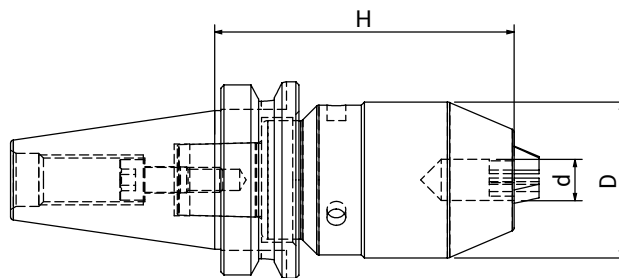


COD	CONO	d	H	D
340MAZ13	ISO40	1-13	101	50
340MAZ16	ISO40	3-16	106	50
350MAZ13	ISO50	1-13	112	50
350MAZ16	ISO50	3-16	117	50

ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES

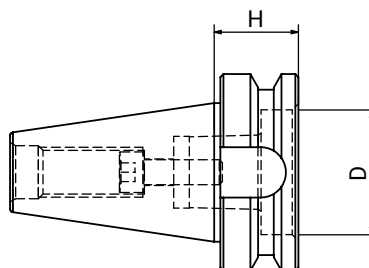


> PAG. 279



COD	CONO	d	H	D
340MPI13	ISO40	1-13	98	50
340MPI16	ISO40	3-16	98	57
350MPI13	ISO50	1-13	109	50
350MPI16	ISO50	3-16	109	57

MANDRINI DI RICAMBIO | SPARE DRILL CHUCK HEADS | ERSATZ BOHRFÜTTER | MANDRINS DE RECHANGE

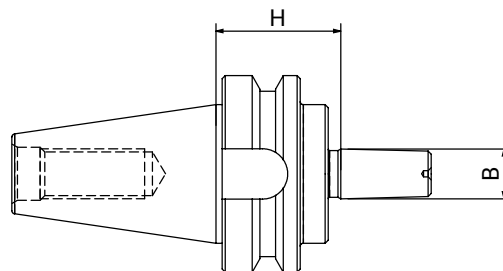


COD	CONO	RANGE	D	H
340CP113	ISO40	1-13	40	27
340CP116	ISO40	3-16	45	27
350CP113	ISO50	1-13	40	38
350CP116	ISO50	3-16	45	38

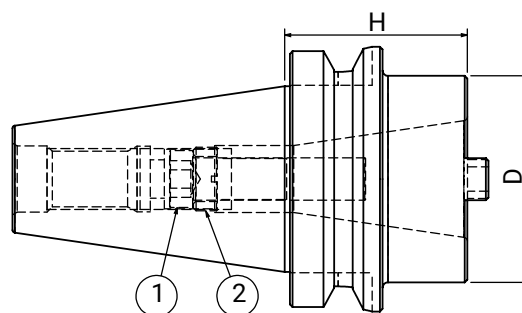
COMPONENTI | SPARE PARTS | ERSATZTEILE | PIÈCES DETACHÉES



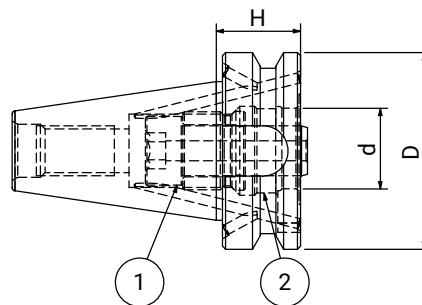
COD	DESCRIZIONE
913INS01	MANDRINO PER PUNTE 1-13
916INS01	MANDRINO PER PUNTE 1-16



COD	CONO	B	H
340MPP12	ISO40	12	45
340MPP16	ISO40	16	45
340MPP18	ISO40	18	45
350MPP12	ISO50	12	45
350MPP16	ISO50	16	45
350MPP18	ISO50	18	45



COD	CONO	D	H	1 - VITE TC/BT	1 - VITE 2080	2 - GHIERA
340ISO30	ISO40	50	70	111205501	110603001	122000603
340ISO40	ISO40	68	100	111606514	111604514	122400903
350ISO40	ISO50	78	70	111606514	111604514	122400903
350ISO50	ISO50	100	120	112409003	112406003	124020002



COD	CONO	H	D	d	1 - VITE	2 - BOCCOLA
340VL050	ISO40	27	50	27	111604011	122502007
340VL063	ISO40	27	63	32	112005011	123002408
340VL150	ISO40	50	50	27	111604011	122502007
340VL163	ISO40	50	63	32	112005011	123002408
350VL050	ISO50	38	50	27	111604011	122502007
350VL150	ISO50	50	50	27	111604011	122502007
350VL163	ISO50	50	63	32	112005012	123002408
350VL180	ISO50	50	80	32	112005012	123002408

MAS 403 BT

ADATTATORI MODULARI | MODULAR ADAPTOR | MODULARER ADAPTER | ADAPTATEUR MODULAIRE



> PAG. 243



> PAG. 244



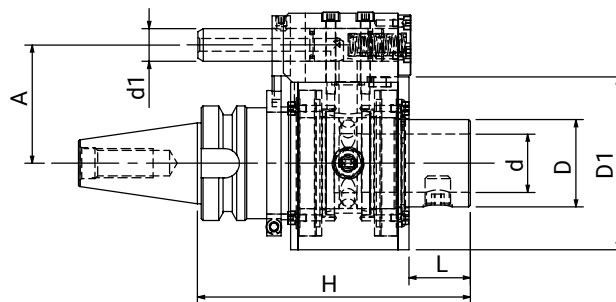
> PAG. 245



> PAG. 246



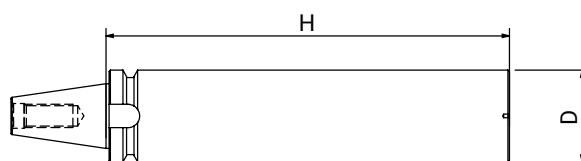
> PAG. 247



COD	CONO	d	H	A	L	D	D1	d1	1 - GRANO
340DRC32	ISO40	32	150	65	34	48	95	18	1 x 101416154
340DRC40	ISO40	40	160	65	44	58	110	18	2 x 101601004
350DRC40	ISO30	40	164	80	49	58	110	18	2 x 101601004

MANDRINI SEMILAVORATI A STELO TENERO
BLANK TOOLHOLDER WITH SOFT SHANK
ROHLINGE MIT WEICHEM SCHAFT
EBAUCHES

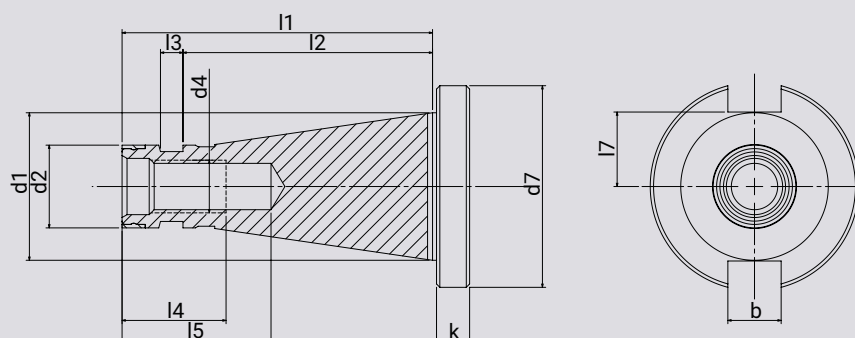
MAS 403 BT



COD	CONO	H	D
340ST263	ISO40	250	63
350ST397	ISO50	315	97

DIN 2080





CONO	a ± 0,2	b h12	d1	d2	d4	d7	k	l1	l2	l3	l4	l5 min	l7 max
30	1,6	16,1	31,75	17,4	M12	50,0	8	68,4	48,4	3	24	50	16,2
40	1,6	16,1	44,45	25,3	M16	63,0	10	93,4	65,4	5	30	70	22,5
50	3,2	25,7	69,85	39,29	M24	97,5	12	126,8	101,8	8	45	90	35,3

Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN
 All PAGNONI TOOLS toolholders are manufactured according to DIN norms
 Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert
 Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

TOLLERANZA DEL CONO:

- < AT3 secondo DIN 7187 e DIN 2080

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 ±2 – profondità si indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

AUFNAHME GENAUIGKEIT:

- < AT3 nach DIN 7187 und DIN 2080

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 ± 2, Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außenschleifen

TECHNICAL FEATURES

TAPER'S TOLLERANCE:

- < AT3 according to DIN 7187 and DIN 2080

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 ± 2 - hardening depth 0,4-0,5 mm
- Strength 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRECISION:

- Precision du cône < AT3 selon DIN 7187 et DIN 2080

MATÉRIAUX ET TRAITEMENTS:

- Acier de cémentation allié
- Temprés – Revenus
- Cémentation à HRC 58 ± 2, profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe



> PAG. 159



> PAG. 160



> PAG. 161



> PAG. 162



> PAG. 164



> PAG. 165



> PAG. 166



> PAG. 167



> PAG. 168



> PAG. 169



> PAG. 170



> PAG. 172



> PAG. 173



> PAG. 175



> PAG. 176



> PAG. 177



> PAG. 178



> PAG. 179



> PAG. 180



> PAG. 181



> PAG. 181



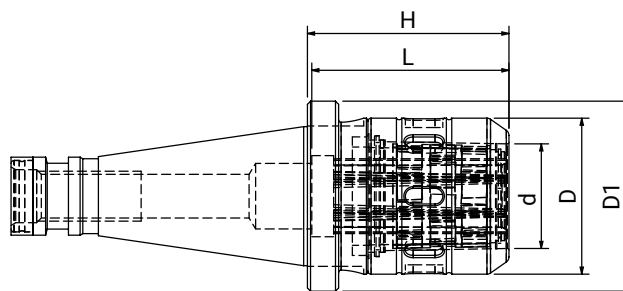
> PAG. 182



> PAG. 183



> PAG. 184

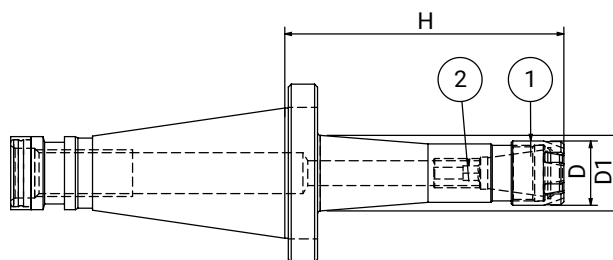


COD	CONO	d	H	L	D
530FS116	ISO30	16	65	60	42
530FS120	ISO30	20	80	80	46
540FS120	ISO40	20	65	60	46
540FS132	ISO40	32	80	80	62
550FS120	ISO50	20	60	60	46
550FS132	ISO50	32	80	80	62

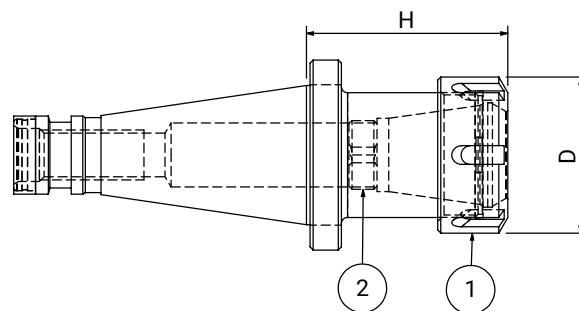
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



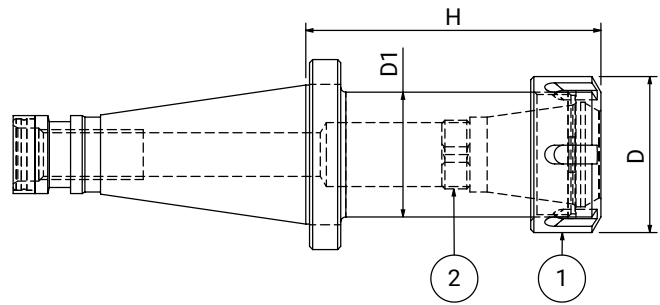
> PAG. 259



COD	CONO	TIPOLOGIA	H	D	D1	1 - GHIERA	2 - GRANO INTERNO
540PM207	ISO40	ER11MINI	100	16	20	911GHRMN	100601001
540PM210	ISO40	ER16MINI	100	22	26	916GHRMN	101001601
540PM213	ISO40	ER20MINI	100	28	30	920GHRMN	101001601
540PM216	ISO40	ER25MINI	100	35	30	925GHRMN	101815801
540PM410	ISO50	ER16MINI	160	22	28	916GHRMN	101001601
540PM413	ISO40	ER20MINI	160	28	32	920GHRMN	101001601
540PM416	ISO40	ER25MINI	160	35	30	925GHRMN	101815801
550PM210	ISO50	ER16MINI	100	22	26	916GHRMN	101001601
550PM213	ISO50	ER20MINI	100	28	30	920GHRMN	101001601
550PM216	ISO50	ER25MINI	100	35	30	925GHRMN	101815801
550PM410	ISO50	ER16MINI	160	22	26	916GHRMN	101001601
550PM413	ISO50	ER20MINI	160	28	32	920GHRMN	101001601
550PM416	ISO50	ER25MINI	160	35	30	925GHRMN	101815801

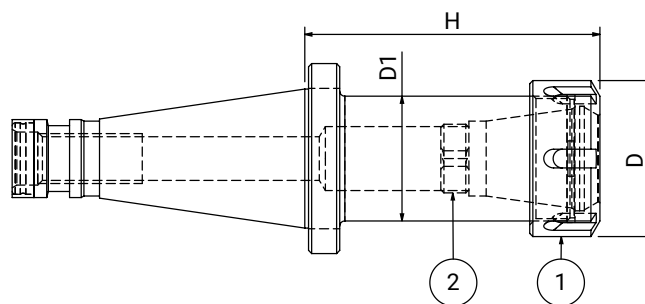


COD	CONO	TIPOLOGIA	H	D	1 - GHIERA	2 - GRANO INTERNO
530PP110	ISO30	ER16	42	32	916GHREQ	101001601
530PP116	ISO30	ER25	42	42	925GHREQ	101001601
530PP120	ISO30	ER32	50	50	932GHREQ	101001601
540PP110	ISO40	ER16	70	32	916GHREQ	101001601
540PP113	ISO40	ER20	70	35	920GHREQ	101001601
540PP116	ISO40	ER25	70	42	925GHREQ	101815801
540PP120	ISO40	ER32	70	50	932GHREQ	102215901
540PP126	ISO40	ER40	70	63	940GHREQ	103015901
550PP110	ISO40	ER16	80	32	916GHREQ	101001601
550PP113	ISO40	ER20	80	35	920GHREQ	101001601
550PP116	ISO40	ER25	80	42	925GHREQ	101815801
550PP120	ISO40	ER32	80	50	932GHREQ	102215901
550PP126	ISO40	ER40	80	63	940GHREQ	103015901

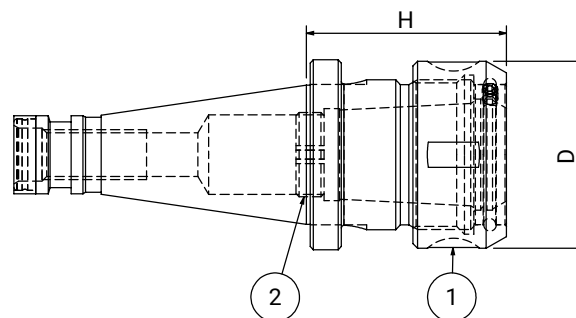


COD	CONO	TIPOLOGIA	H	D	D1	1 - GHIERA	2 - GRANO INTERNO
540PP210	ISO40	ER16	100	32	31,5	916GHREQ	101001601
540PP213	ISO40	ER20	100	35	34,5	920GHREQ	101001601
540PP216	ISO40	ER25	100	42	41,5	925GHREQ	101815801
540PP220	ISO40	ER32	100	50	49,5	932GHREQ	102215901
540PP226	ISO40	ER40	100	63	50,0	940GHREQ	103015901
540PP310	ISO40	ER16	130	32	31,5	916GHREQ	101001601
540PP313	ISO40	ER20	130	35	34,5	920GHREQ	101001601
540PP316	ISO40	ER25	130	42	41,5	925GHREQ	101815801
540PP320	ISO40	ER32	130	50	49,5	932GHREQ	102215901
540PP326	ISO40	ER40	130	63	50,0	940GHREQ	103015901
540PP410	ISO40	ER16	160	32	31,5	916GHREQ	101001601
540PP413	ISO40	ER20	160	35	34,5	920GHREQ	101001601
540PP416	ISO40	ER25	160	42	41,5	925GHREQ	101815801
540PP420	ISO40	ER32	160	50	49,5	932GHREQ	102215901
540PP426	ISO40	ER40	160	63	50,0	940GHREQ	103015901
540PP510	ISO40	ER16	200	32	31,5	916GHREQ	101001601
540PP513	ISO40	ER20	200	35	34,5	920GHREQ	101001601
540PP516	ISO40	ER25	200	42	41,5	925GHREQ	101815801
540PP520	ISO40	ER32	200	50	49,5	932GHREQ	102215901
540PP526	ISO40	ER40	200	63	50,0	940GHREQ	103015901

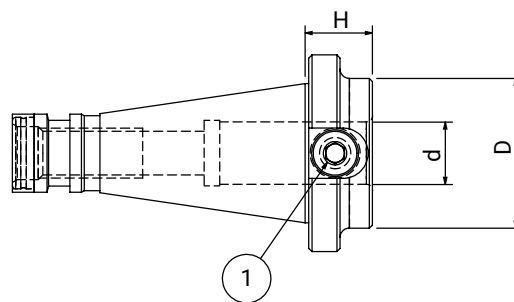
DIN 2080



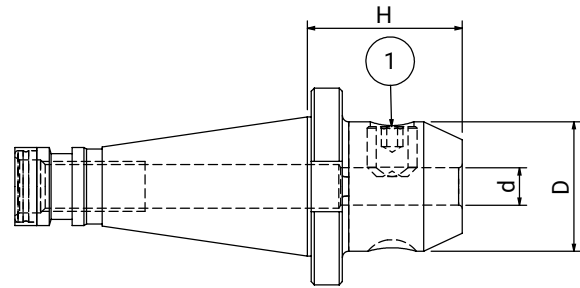
COD	CONO	TIPOLOGIA	H	D	D1	1 - GHIERA	2 - GRANO INTERNO
550PP210	ISO50	ER16	100	32	31,5	916GHREQ	101001601
550PP213	ISO50	ER20	100	35	34,5	920GHREQ	101001601
550PP216	ISO50	ER25	100	42	41,5	925GHREQ	101815801
550PP220	ISO50	ER32	100	50	49,5	932GHREQ	102215901
550PP226	ISO50	ER40	100	63	62,5	940GHREQ	103015901
550PP310	ISO50	ER16	130	32	31,5	916GHREQ	101001601
550PP313	ISO50	ER20	130	35	34,5	920GHREQ	101001601
550PP316	ISO50	ER25	130	42	41,5	925GHREQ	101815801
550PP320	ISO50	ER32	130	50	49,5	932GHREQ	102215901
550PP326	ISO50	ER40	130	63	62,5	940GHREQ	103015901
550PP410	ISO50	ER16	160	32	31,5	916GHREQ	101001601
550PP413	ISO50	ER20	160	35	34,5	920GHREQ	101001601
550PP416	ISO50	ER25	160	42	41,5	925GHREQ	101815801
550PP420	ISO50	ER32	160	50	49,5	932GHREQ	102215901
550PP426	ISO50	ER40	160	63	62,5	940GHREQ	103015901
550PP510	ISO50	ER16	200	32	31,5	916GHREQ	101001601
550PP513	ISO50	ER20	200	35	34,5	920GHREQ	101001601
550PP516	ISO50	ER25	200	42	41,5	925GHREQ	101815801
550PP520	ISO50	ER32	200	50	49,5	932GHREQ	102215901
550PP526	ISO50	ER40	200	63	62,5	940GHREQ	103015901



COD	CONO	TIPOLOGIA	H	D	1 - GHIERA	2 - GRANO INTERNO
540PO116	ISO40	EOC16	70	43	916GHROS	101815801
540PO125	ISO40	EOC25	70	60	925GHROS	102715901
540PO132	ISO40	EOC32	85	72	932GHROS	102715901
550PO116	ISO50	EOC16	70	43	916GHROS	101815801
550PO125	ISO50	EOC25	70	60	925GHROS	102715901
550PO132	ISO50	EOC32	85	72	932GHROS	102715901

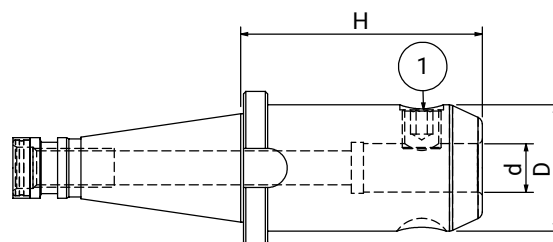


COD	CONO	d	H	D	1 - GRANO
540WLC16	ISO40	16	22	48	1 X 101401602
540WLC20	ISO40	20	22	48	1 X 101601602
540WLC25	ISO40	25	22	48	1 X 101601602
540WLC32	ISO40	32	55	61	1 X 102002002
550WLC16	ISO50	16	20	48	1 X 101401602
550WLC20	ISO50	20	20	48	1 X 101601602
550WLC25	ISO50	25	20	65	1 X 101601602
550WLC32	ISO50	32	35	72	1 X 102002002

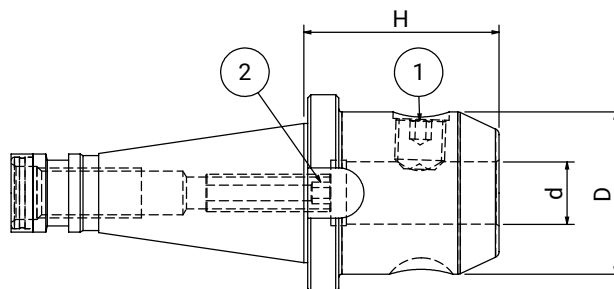


COD	CONO	d	H	D	1 - GRANO
540WLD06	ISO40	6	50	25	1 X 100601002
540WLD08	ISO40	8	50	28	1 X 100801002
540WLD10	ISO40	10	50	35	1 X 101001202
540WLD12	ISO40	12	50	42	1 X 101201602
540WLD14	ISO40	14	50	44	1 X 101201602
540WLD16	ISO40	16	63	48	1 X 101401602
540WLD18	ISO40	18	63	50	1 X 101401602
540WLD20	ISO40	20	63	52	1 X 101601602
540WLD25	ISO40	25	90	63	2 X 101802002
540WLD32	ISO40	32	90	72	2 X 102002002
540WLD40	ISO40	40	90	79	2 X 102002002
550WLD06	ISO50	6	50	25	1 X 100601002
550WLD08	ISO50	8	50	28	1 X 100801002
550WLD10	ISO50	10	63	35	1 X 101001202
550WLD12	ISO50	12	63	42	1 X 101201602
550WLD14	ISO50	14	63	44	1 X 101201602
550WLD16	ISO50	16	63	48	1 X 101401602
550WLD18	ISO50	18	63	50	1 X 101401602
550WLD20	ISO50	20	63	52	1 X 101601602
550WLD25	ISO50	25	80	63	2 X 101802002
550WLD32	ISO50	32	85	72	2 X 102002002
550WLD40	ISO50	40	95	78	2 X 102002002

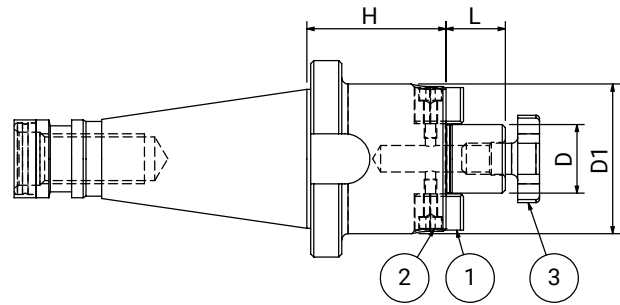
DIN 2080



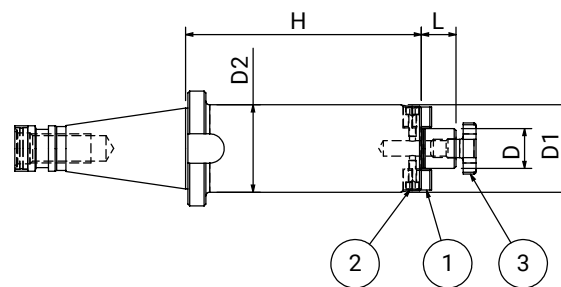
COD	CONO	d	H	D	1 - GRANO
540WE206	ISO40	6	100	25	1 X 100601002
540WE208	ISO40	8	100	28	1 X 100801002
540WE210	ISO40	10	100	35	1 X 101001202
540WE212	ISO40	12	100	42	1 X 101201602
540WE214	ISO40	14	100	44	1 X 101201602
540WE216	ISO40	16	100	48	1 X 101401602
540WE218	ISO40	18	100	48	1 X 101401602
540WE220	ISO40	20	100	52	1 X 101601602
540WE232	ISO40	32	100	72	2 X 102002002
550WE206	ISO50	6	100	25	1 X 100601002
550WE208	ISO50	8	100	28	1 X 100801002
550WE210	ISO50	10	100	35	1 X 101001202
550WE214	ISO50	14	100	44	1 X 101201602
550WE216	ISO50	16	100	48	1 X 101401602
550WE218	ISO50	18	100	50	1 X 101401602
550WE220	ISO50	20	100	52	1 X 101601602
550WE225	ISO50	25	100	65	2 X 101802002
550WE232	ISO50	32	100	72	2 X 102002002



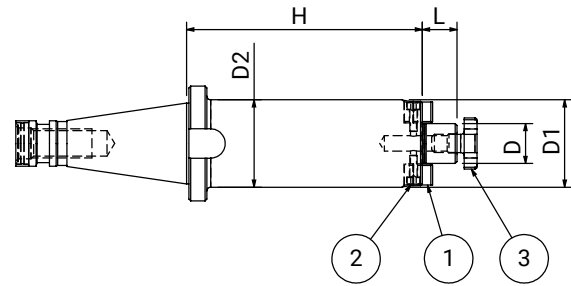
COD	CONO	d	H	D	1 - GRANO	2 - GRANO INTERNO
540WHN06	ISO40	6	50	25	1 X 100601002	500100001
540WHN08	ISO40	8	50	28	1 X 100801002	500100001
540WHN10	ISO40	10	50	35	1 X 101001202	500100001
540WHN12	ISO40	12	50	42	1 X 101201602	500100001
540WHN14	ISO40	14	50	44	1 X 101201602	500100001
540WHN16	ISO40	16	63	48	1 X 101401602	500100001
540WHN18	ISO40	18	63	50	1 X 101401602	500100001
540WHN20	ISO40	20	63	52	1 X 101601602	500100001
540WHN25	ISO40	25	90	65	2 X 101802002	500100001
540WHN32	ISO40	32	90	72	2 X 102002002	500100001
550WHN06	ISO50	6	50	25	1 X 100601002	500100002
550WHN08	ISO50	8	50	28	1 X 100801002	500100002
550WHN10	ISO50	10	63	35	1 X 101001202	500100002
550WHN12	ISO50	12	63	42	1 X 101201602	500100002
550WHN14	ISO50	14	63	44	1 X 101201602	500100002
550WHN16	ISO50	16	63	48	1 X 101401602	500100002
550WHN18	ISO50	18	63	50	1 X 101401602	500100002
550WHN20	ISO50	20	63	52	1 X 101601602	500100002
550WHN25	ISO50	25	80	65	2 X 101802002	500100002
550WHN32	ISO50	32	85	72	2 X 102002002	500100002
550WHN40	ISO50	40	95	80	2 X 102002002	500100002



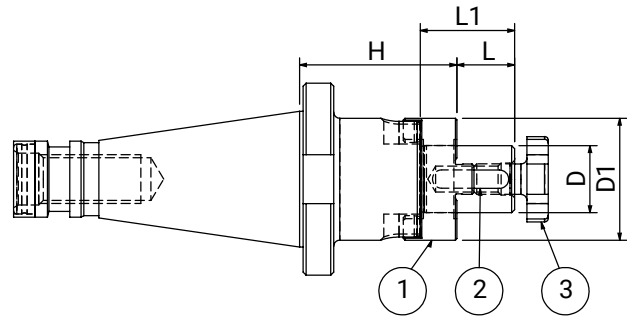
COD	CONO	D	H	L	D1	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
540PF116	ISO40	16	45	17	38	2 x 916TSL11	2 x 110301201	916VTC02
540PF122	ISO40	22	45	19	48	2 x 922TSL11	2 x 110401201	922VTC02
540PF127	ISO40	27	45	21	58	2 x 927TSL11	2 x 110501601	927VTC02
540PF132	ISO40	32	50	24	78	2 x 932TSL11	2 x 110602001	932VTC02
540PF140	ISO40	40	55	27	88	2 x 940TSL11	2 x 110602001	940VTC02
550PF116	ISO50	16	45	17	38	2 x 916TSL11	2 x 110301201	916VTC02
550PF122	ISO50	22	45	19	48	2 x 922TSL11	2 x 110401201	922VTC02
550PF127	ISO50	27	45	21	58	2 x 927TSL11	2 x 110501601	927VTC02
550PF132	ISO50	32	50	24	78	2 x 932TSL11	2 x 110602001	932VTC02
550PF140	ISO50	40	50	27	88	2 x 940TSL11	2 x 110602001	940VTC02



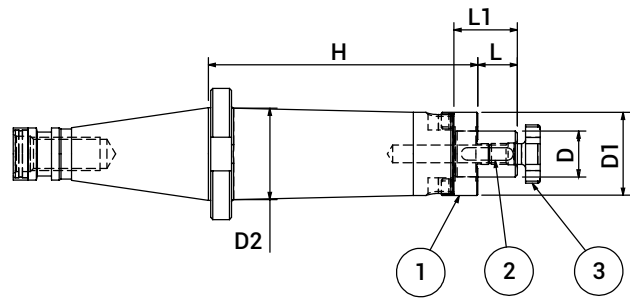
COD	CONO	D	H	L	D1	D2	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
540PF216	ISO40	16	100	17	38	38	2 x 916TSL11	2 x 110301201	916VTC02
540PF222	ISO40	22	100	19	48	48	2 x 922TSL11	2 x 110401201	922VTC02
540PF227	ISO40	27	100	21	58	58	2 x 927TSL11	2 x 110501601	927VTC02
540PF232	ISO40	32	100	24	66	61	2 x 932TSL11	2 x 110602001	932VTC02
540PF240	ISO40	40	100	27	88	61	2 x 940TSL11	2 x 110602001	940VTC02
540PF316	ISO40	16	130	17	38	38	2 x 916TSL11	2 x 110301201	916VTC02
540PF322	ISO40	22	130	19	48	61	2 x 922TSL11	2 x 110401201	922VTC02
540PF327	ISO40	27	130	21	58	58	2 x 927TSL11	2 x 110501601	927VTC02
540PF332	ISO40	32	130	24	66	45	2 x 932TSL11	2 x 110602001	932VTC02
540PF340	ISO40	40	130	27	88	61	2 x 940TSL11	2 x 110602001	940VTC02
540PF416	ISO40	16	160	17	38	38	2 x 916TSL11	2 x 110301201	916VTC02
540PF422	ISO40	22	160	19	48	48	2 x 922TSL11	2 x 110401201	922VTC02
540PF427	ISO40	27	160	21	58	58	2 x 927TSL11	2 x 110501601	927VTC02
540PF432	ISO40	32	160	24	66	61	2 x 932TSL11	2 x 110602001	932VTC02
540PF440	ISO40	40	160	27	88	50	2 x 940TSL11	2 x 110602001	940VTC02
540PF516	ISO40	16	200	17	38	38	2 x 916TSL11	2 x 110301201	916VTC02
540PF522	ISO40	22	200	19	48	48	2 x 922TSL11	2 x 110401201	922VTC02
540PF527	ISO40	27	200	21	58	58	2 x 927TSL11	2 x 110501601	927VTC02
540PF532	ISO40	32	200	24	66	61	2 x 932TSL11	2 x 110602001	932VTC02
540PF540	ISO40	40	200	27	88	61	2 x 940TSL11	2 x 110602001	940VTC02



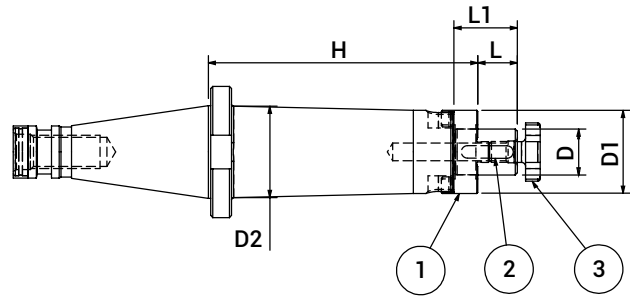
COD	CONO	D	H	L	D1	D2	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
550PF216	ISO50	16	100	17	38	38	2 x 916TSL11	2 x 110301201	916VTC02
550PF222	ISO50	22	100	19	48	48	2 x 922TSL11	2 x 110401201	922VTC02
550PF227	ISO50	27	100	21	58	58	2 x 927TSL11	2 x 110501601	927VTC02
550PF232	ISO50	32	100	24	66	66	2 x 932TSL11	2 x 110602001	932VTC02
550PF240	ISO50	40	100	27	88	70	2 x 940TSL11	2 x 110602001	940VTC02
550PF316	ISO50	16	130	17	38	45	2 x 916TSL11	2 x 110301201	916VTC02
550PF322	ISO50	22	130	19	48	48	2 x 922TSL11	2 x 110401201	922VTC02
550PF327	ISO50	27	130	21	58	58	2 x 927TSL11	2 x 110501601	927VTC02
550PF332	ISO50	32	130	24	66	66	2 x 932TSL11	2 x 110602001	932VTC02
550PF340	ISO50	40	130	27	88	80	2 x 940TSL11	2 x 110602001	940VTC02
550PF416	ISO50	16	160	17	38	38	2 x 916TSL11	2 x 110301201	916VTC02
550PF422	ISO50	22	160	19	48	48	2 x 922TSL11	2 x 110401201	922VTC02
550PF427	ISO50	27	160	21	58	58	2 x 927TSL11	2 x 110501601	927VTC02
550PF432	ISO50	32	160	24	66	66	2 x 932TSL11	2 x 110602001	932VTC02
550PF440	ISO50	40	160	27	88	70	2 x 940TSL11	2 x 110602001	940VTC02
550PF516	ISO50	16	200	17	38	48	2 x 916TSL11	2 x 110301201	916VTC02
550PF522	ISO50	22	200	19	48	64	2 x 922TSL11	2 x 110401201	922VTC02
550PF527	ISO50	27	200	21	58	58	2 x 927TSL11	2 x 110501601	927VTC02
550PF532	ISO50	32	200	24	66	66	2 x 932TSL11	2 x 110602001	932VTC02
550PF540	ISO50	40	200	27	88	70	2 x 940TSL11	2 x 110602001	940VTC02



COD	CONO	D	H	L	L1	D1	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
540PU116	ISO40	16	52	17	27	32	916GNT01	170402004	916VTC02
540PU122	ISO40	22	52	19	31	40	922GNT01	170602506	922VTC02
540PU127	ISO40	27	52	21	33	48	927GNT01	170702507	927VTC02
540PU132	ISO40	32	52	24	38	58	932GNT01	170802807	932VTC02
540PU140	ISO40	40	52	27	41	70	940GNT01	171003208	940VTC02
550PU116	ISO50	16	55	17	27	32	916GNT01	170402004	916VTC02
550PU122	ISO50	22	55	19	31	40	922GNT01	170602506	922VTC02
550PU127	ISO50	27	55	21	33	48	927GNT01	170702507	927VTC02
550PU132	ISO50	32	55	24	38	58	932GNT01	170802807	932VTC02
550PU140	ISO50	40	55	27	41	70	940GNT01	171003208	940VTC02



COD	CONO	D	H	L	L1	D1	D2	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
540PU216	ISO40	16	100	17	27	32	40	916GNT01	170402004	916VTC02
540PU222	ISO40	22	100	19	31	40	44	922GNT01	170602506	922VTC02
540PU227	ISO40	27	100	21	33	48		927GNT01	170702507	927VTC02
540PU232	ISO40	32	100	24	38	58		932GNT01	170802807	932VTC02
540PU240	ISO40	40	100	27	41	70		940GNT01	171003208	940VTC02
540PU316	ISO40	16	130	17	27	32	40	916GNT01	170402004	916VTC02
540PU322	ISO40	22	130	19	31	44	40	922GNT01	170602506	922VTC02
540PU327	ISO40	27	130	21	33	48		927GNT01	170702507	927VTC02
540PU332	ISO40	32	130	24	38	58		932GNT01	170802807	932VTC02
540PU340	ISO40	40	130	27	41	70	50	940GNT01	171003208	940VTC02
540PU416	ISO40	16	160	17	27	32	40	916GNT01	170402004	916VTC02
540PU422	ISO40	22	160	19	31	40	44	922GNT01	170602506	922VTC02
540PU427	ISO40	27	160	21	33	48		927GNT01	170702507	927VTC02
540PU432	ISO40	32	160	24	38	58		932GNT01	170802807	932VTC02
540PU440	ISO40	40	160	27	41	70	50	940GNT01	171003208	940VTC02
540PU516	ISO40	16	200	17	27	32	40	916GNT01	170402004	916VTC02
540PU522	ISO40	22	200	19	31	40	44	922GNT01	170602506	922VTC02
540PU527	ISO40	27	200	21	33	48		927GNT01	170702507	927VTC02
540PU532	ISO40	32	200	24	38	58		932GNT01	170802807	932VTC02
540PU540	ISO40	40	200	27	41	70	50	940GNT01	171003208	940VTC02

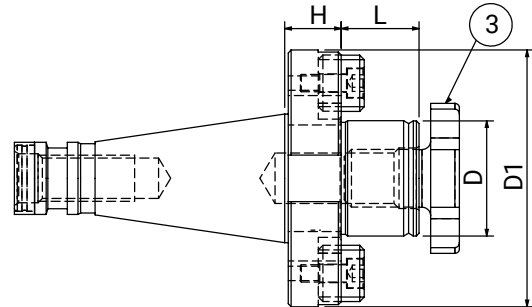
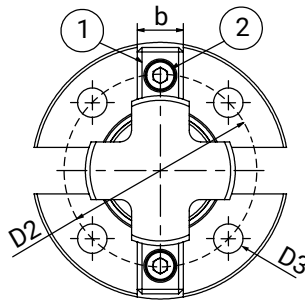


COD	CONO	D	H	L	L1	D1	D2	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
550PU216	ISO50	16	100	17	27	32	50	916GNT01	170402004	916VTC02
550PU222	ISO50	22	100	19	31	40	60	922GNT01	170602506	922VTC02
550PU227	ISO50	27	100	21	33	48	60	927GNT01	170702507	927VTC02
550PU232	ISO50	32	100	24	38	58		932GNT01	170802807	932VTC02
550PU240	ISO50	40	100	27	41	70		940GNT01	171003208	940VTC02
550PU316	ISO50	16	130	17	27	32	50	916GNT01	170402004	916VTC02
550PU322	ISO50	22	130	19	31	40	60	922GNT01	170602506	922VTC02
550PU327	ISO50	27	130	21	33	48	60	927GNT01	170702507	927VTC02
550PU332	ISO50	32	130	24	38	58		932GNT01	170802807	932VTC02
550PU340	ISO50	40	130	27	41	70		940GNT01	171003208	940VTC02
550PU416	ISO50	16	160	17	27	32	50	916GNT01	170402004	916VTC02
550PU422	ISO50	22	160	19	31	40	60	922GNT01	170602506	922VTC02
550PU427	ISO50	27	160	21	33	48	60	927GNT01	170702507	927VTC02
550PU432	ISO50	32	160	24	38	58		932GNT01	170802807	932VTC02
550PU440	ISO50	40	160	27	41	70		940GNT01	171003208	940VTC02
550PU516	ISO50	16	200	17	27	32	50	916GNT01	170402004	916VTC02
550PU522	ISO50	22	200	19	31	40	60	922GNT01	170602506	922VTC02
550PU527	ISO50	27	200	21	33	48	60	927GNT01	170702507	927VTC02
550PU532	ISO50	32	200	24	38	58		932GNT01	170802807	932VTC02
550PU540	ISO50	40	200	27	41	70		940GNT01	171003208	940VTC02

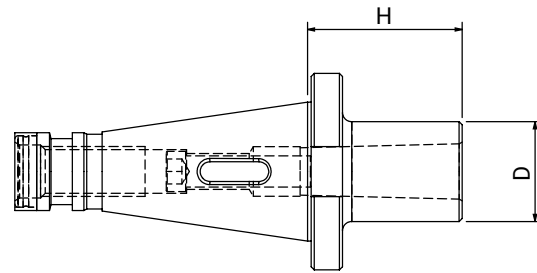
MANDRINI PORTAFRESE PER FRESE A SPIANARE
 FACE MILL HOLDERS
 AUFSTECKFRÄSDORNE FÜR MESSERKÖPFE
 MANDRINS PORTE-FRAISES POUR FRAISES A SURFACER

DIN 2080

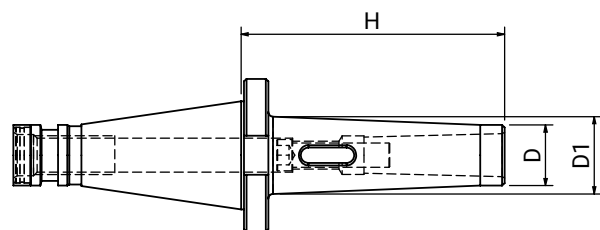
DIN 6357



COD	CONO	D	H	D1	L	b	D2	D3	1 - VITE	2 - TASSELLO	3 - VITE A CROCE
540PI140	ISO40	40	30	89	20	15,9	66,7	M12	2 x 110601601	2 x 940TSL04	940VTC02
550PI140	ISO50	40	30	89	30	15,9	66,7	M12	2 x 110601601	2 x 940TSL04	940VTC02
550PI160	ISO50	60	40	129	30	25,4	101,6	M16	2 x 111202501	2 x 960TSL04	-

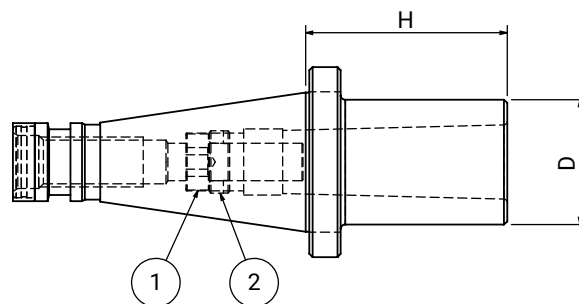


COD	CONO	MORSE	H	D
530MP101	ISO30	1	60	25
530MP102	ISO30	2	60	32
530MP103	ISO30	3	80	40
540MP101	ISO40	1	50	25
540MP102	ISO40	2	50	32
540MP103	ISO40	3	65	40
540MP104	ISO40	4	95	48
550MP101	ISO50	1	45	25
550MP102	ISO50	2	60	32
550MP103	ISO50	3	65	40
550MP104	ISO50	4	70	48
550MP105	ISO50	5	100	63

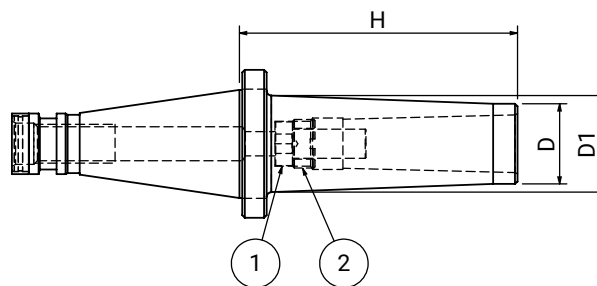


COD	CONO	MORSE	D	H	D1
540MP201	ISO40	1	18	92	25
540MP202	ISO40	2	25	109	32
540MP203	ISO40	3	33	129	40
540MP204	ISO40	4	40	152	48
550MP201	ISO50	1	18	120	25
550MP202	ISO50	2	25	140	32
550MP203	ISO50	3	33	150	40
550MP204	ISO50	4	40	180	48
550MP205	ISO50	5	55	220	63

DIN 2080



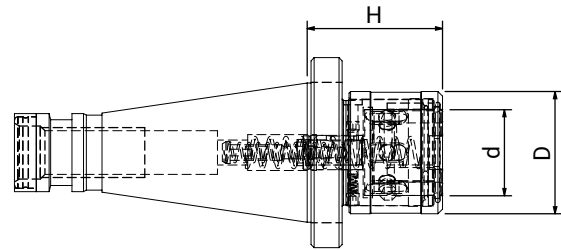
COD	CONO	MORSE	D	H	1 - VITE	2 - GHIERA
530MF101	ISO30	1	25	60	110603501	
530MF102	ISO30	2	32	60	111003014	121500802
530MF103	ISO30	3	40	80	111204003	122000603
540MF101	ISO40	1	25	50	110603501	
540MF102	ISO40	2	32	50	111003014	121500802
540MF103	ISO40	3	40	65	111204003	122000603
540MF104	ISO40	4	48	95	111605514	122400903
550MF101	ISO50	1	25	45	110603501	
550MF102	ISO50	2	32	60	111003014	121500802
550MF103	ISO50	3	40	65	111204003	122000603
550MF104	ISO50	4	48	65	111605514	122400903
550MF105	ISO50	5	63	120	112005003	123601104



COD	CONO	MORSE	D	H	D1	1 - VITE	2 - GHIERA
540MF201	ISO40	1	18	115	25	110603501	121206502
540MF202	ISO40	2	25	115	32	111003014	121500802
540MF203	ISO40	3	33	115	40	111204003	122000603
540MF204	ISO40	4	40	165	48	111605514	122400903
550MF201	ISO50	1	18	115	25	110603501	121206502
550MF202	ISO50	2	25	115	32	111003014	121500802
550MF203	ISO50	3	33	115	40	111204003	122000603
550MF204	ISO50	4	40	165	48	111605514	122400903
550MF205	ISO50	5	55	200	63	112005003	123601104

MANDRINI PORTAMASCHI A DOPPIA COMPENSAZIONE
QUICK-CHANGE TAPPING CHUCKS WITH LENGTH COMPENSATION
GEWINDESCHNEID - SCHNELLWECHSELEIN FÜTTER MIT LÄNGENAUSGLEICH
MANDRINS DE TARAUDAGE AVEC COMPENSATION LONGITUDINALE

DIN 2080



COD	CONO	RANGE	SIZE	d	D	H
530PCRM1	ISO30	M3-M12	GR.1	19	36	50
540PCRM1	ISO40	M3-M12	GR.1	19	36	52
540PCRM2	ISO40	M6-M20	GR.2	31	53	77
550PCRM1	ISO50	M3-M12	GR.1	19	36	60
550PCRM2	ISO50	M6-M20	GR.2	31	53	79

DIN 2080

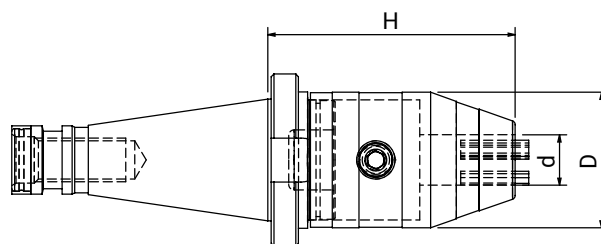
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



> PAG. 258



> PAG. 257

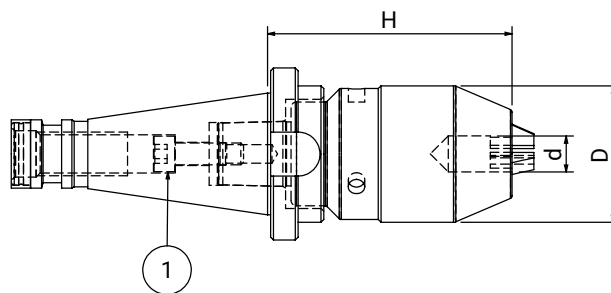


COD	CONO	d	H	D
540MA013	ISO40	1-13	88	50
540MA016	ISO40	3-16	93	50
550MA013	ISO50	1-13	93	50
550MA016	ISO50	3-16	98	50

ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES

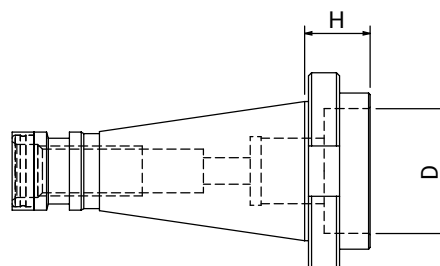


> PAG. 279



COD	CONO	D	d	H	1 - VITE
540MPI13	ISO40	50	1-13	88	110802501
540MPI16	ISO40	57	3-16	100	110802501
550MPI13	ISO50	50	1-13	85	110803501
550MPI16	ISO50	57	3-16	90	110803501

MANDRINI DI RICAMBIO | SPARE DRILL CHUCK HEADS | ERSATZ BOHRFÜTTER | MANDRINS DE RECHANGE

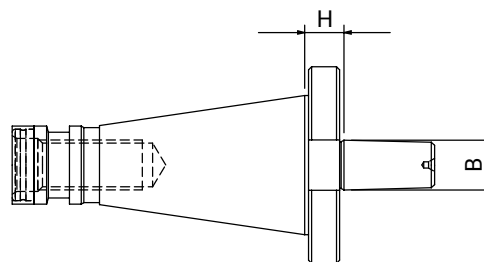


COD	CONO	RANGE	D	H
540CP113	ISO40	1-13	40	21
540CP116	ISO40	3-16	44	26
550CP113	ISO50	1-13	40	16
550CP116	ISO50	3-16	44	15

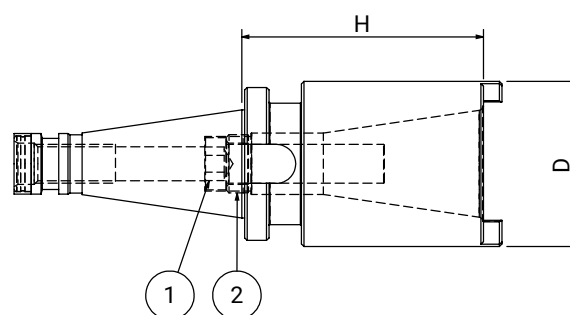
COMPONENTI | SPARE PARTS | ERSATZTEILE | PIECES DETACHEES



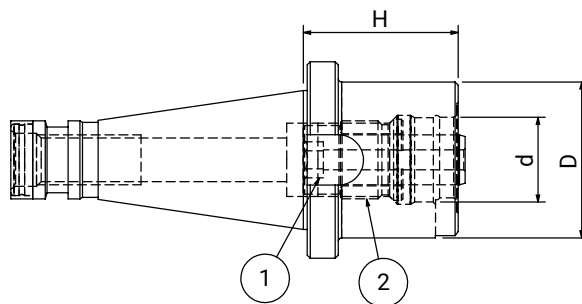
COD	DESCRIZIONE
913INS01	MANDRINO PER PUNTE 1-13
916INS01	MANDRINO PER PUNTE 1-16



COD	CONO	B	H
540MPP12	ISO40	12	18
540MPP16	ISO40	16	18
540MPP18	ISO40	18	18
550MPP12	ISO50	12	20
550MPP16	ISO50	16	20
550MPP18	ISO50	18	20



COD	CONO	D	H	1 - VITE TC/BT	1 - VITE 2080	2 - GHIERA
540ISO30	ISO40	50	50	111205501	110603001	122000603
540ISO40	ISO40	68	100	111606514	111604514	122400903
550ISO30	ISO50	50	16	111205501	111203001	122000603
550ISO40	ISO50	68	63	111606514	111604514	122400903
550ISO50	ISO50	100	100	112409003	112406003	124020002



COD	CONO	H	D	d	1 - VITE	2 - BOCCOLA
540VL150	ISO40	50	50	27	111604011	122502007
540VL163	ISO40	50	63	32	112005012	123002408
550VL050	ISO50	27	50	27	111604011	122502007
550VL063	ISO50	27	63	32	112005012	123002408
550VL080	ISO50	27	80	32	112005012	123002408
550VL150	ISO50	50	50	27	111604011	122502007
550VL163	ISO50	50	63	32	112005012	123002408
550VL180	ISO50	50	80	32	112005012	123002408

ADATTATORI MODULARI | MODULAR ADAPTOR | MODULARER ADAPTER | ADAPTATEUR MODULAIRE



> PAG. 243



> PAG. 244



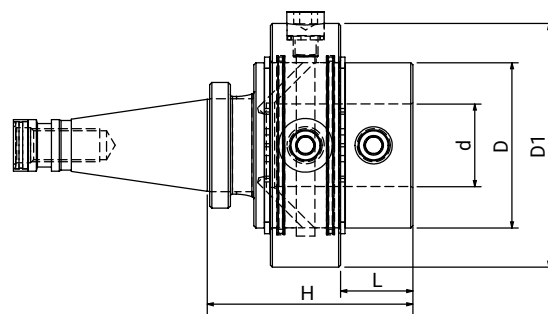
> PAG. 245



> PAG. 246



> PAG. 247

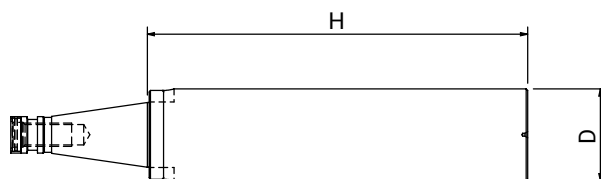


COD	CONO	D	H	L	D1	D2
54DRB40	ISO40	40	100	35	80	118
550DRB40	ISO50	40	100	36	80	118

RIDUZIONE CILINDRICA | REDUCTION BUSH | REDUZIERBÜCHSE | DOUILLE DE REDUCTION



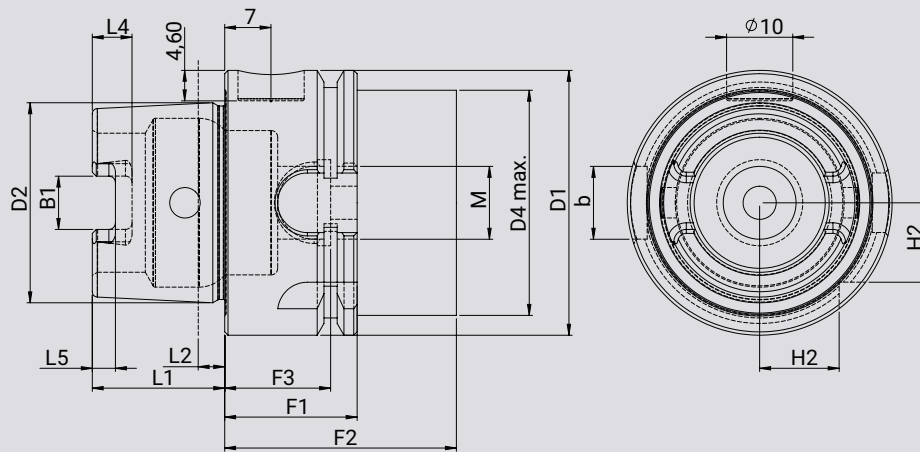
> PAG. 278



COD	CONO	H	D
540ST263	ISO40	250	63
550ST397	ISO50	315	97

DIN 69893 HSK A





D1	D2	D4	L1	L2	L4	L5	M	F1	F2	F3	B1	b	H2
32	24	26	16	3,2	5,0	3,0	M10 x 1	20	35	16	7,05	9	9,5
40	30	34	20	4,0	6,0	3,5	M12 x 1	20	35	16	8,05	11	12,0
50	38	42	25	5,0	7,5	4,5	M16 x 1	26	42	18	10,54	14	15,5
63	48	53	32	6,3	10,0	6,0	M18 x 1	26	42	18	12,54	18	20,0
80	60	67	40	8,0	12,0	8,0	M20 x 1,5	26	42	18	16,04	20	25,0
100	75	85	50	10,0	15,0	10,0	M24 x 1,5	29	45	20	20,02	20	31,5

Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN
 All PAGNONI TOOLS toolholders are manufactured according to DIN norms
 Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert
 Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

PRE-BILANCIATI:

- Grado di equilibratura aggiuntiva indicato a fianco della tabella dimensionale
- Mandrini alte velocità: a richiesta classe massima di equilibratura G 2,5 30000

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 ± 2 – profondità di indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

VORGEWUCHTET:

- Neben der Übersichtstabelle der Produkte wird die Wuchtgüte angegeben
- Hochgeschwindigkeits Werkzeughalter: Aus Wuchtgüte G2,5 30000 auf Anfrage

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 ± 2, Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außenschleifen

TECHNICAL FEATURES

PRE-BALANCED:

- Additional balancing grade beside dimensional table
- High-speed toolholders: balancing grade G 2,5 30000 on request

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 ± 2 - hardening depth 0,4-0,5 mm
- Strength 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRÉ-ÉQUILIBRÉ:

- À côté du tableau de description et dimensions des produits il y a l'indication de la valeur d'équilibrage attentionnel
- Mandrins haute vitesse : sont équilibrés en classe G 2,5 à 30000 Tr/min-1 classe d'équilibrage maximale G 2,5 à 30000 Tr/min sur demande

MATÉRIAUX ET TRAITEMENTS:

- Acier de cimentation allié
- Temprés – Revenus
- Cémentation à HRC 58 ± 2, profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe



> PAG. 189



> PAG. 190



> PAG. 191



> PAG. 194



> PAG. 195



> PAG. 196



> PAG. 199



> PAG. 200



> PAG. 201



> PAG. 202



> PAG. 203



> PAG. 204



> PAG. 205



> PAG. 206



> PAG. 207



> PAG. 210



> PAG. 211



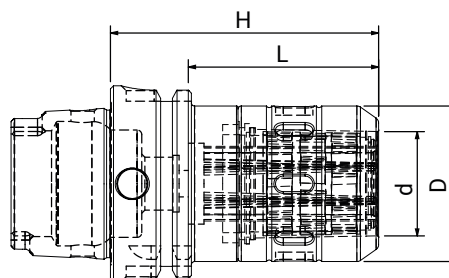
> PAG. 212



> PAG. 213



> PAG. 214

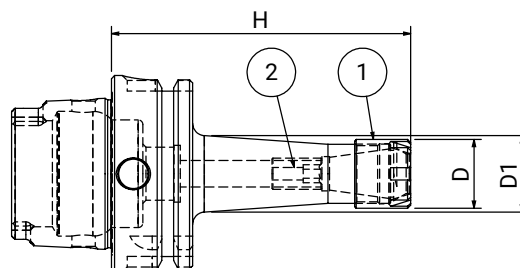


COD	CONO	d	H	L	D	BILANCIATURA
65AFS112	HSK50/A	12	90	60	34	G6.3 12000
65AFS116	HSK50/A	16	90	60	42	G6.3 12000
65AFS120	HSK50/A	20	90	60	46	G6.3 12000
65AFS232	HSK50/A	32	110	80	62	G6.3 12000
66AFS112	HSK63/A	12	90	60	34	G6.3 12000
66AFS116	HSK63/A	16	90	60	42	G6.3 12000
66AFS120	HSK63/A	20	90	60	46	G6.3 12000
66AFS232	HSK63/A	32	110	84	62	G6.3 12000
66AFS332	HSK63/A	32	140	84	62	G6.3 12000
61AFS220	HSK100/A	20	105	60	46	G6.3 12000
61AFS320	HSK100/A	20	140	60	46	G6.3 12000
61AFS232	HSK100/A	32	115	80	62	G6.3 12000
61AFS332	HSK100/A	32	160	80	62	G6.3 12000

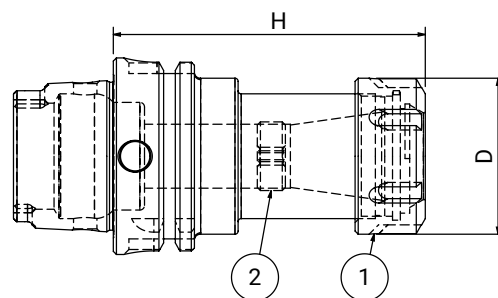
ACCESSORI | ACCESSORIES | ZUBEHÖR | ACCESSOIRES



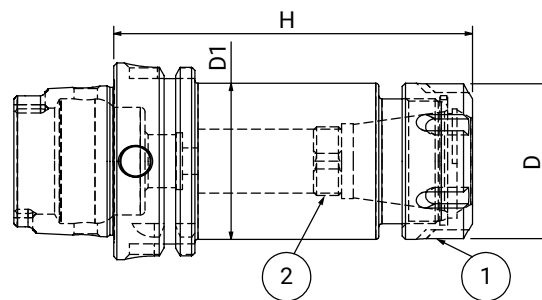
> PAG. 259



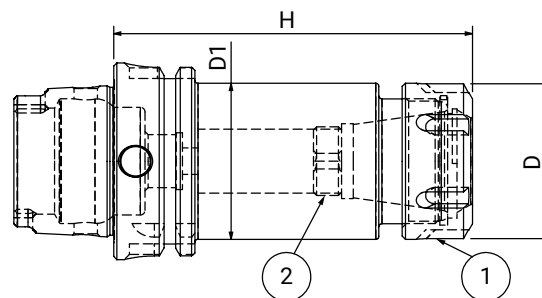
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
65APM207	HSK50/A	ER11MINI	100	16		G6.3 15000	911GHRMN	100601004
65APM210	HSK50/A	ER16MINI	100	22		G6.3 15000	916GHRMN	101001601
65APM407	HSK50/A	ER11MINI	160	16		G6.3 15000	911GHRMN	100601004
65APM410	HSK50/A	ER16MINI	160	22		G6.3 15000	916GHRMN	101001601
66APM107	HSK63/A	ER11MINI	80	16		G6.3 15000	911GHRMN	100601004
66APM207	HSK63/A	ER11MINI	100	16	20	G6.3 15000	911GHRMN	100601004
66APM210	HSK63/A	ER16MINI	100	22	25	G6.3 15000	916GHRMN	101001601
66APM213	HSK63/A	ER20MINI	100	28	31	G6.3 15000	920GHRMN	101001601
66APM216	HSK63/A	ER25MINI	100	35	38	G6.3 15000	925GHRMN	101815801
66APM407	HSK63/A	ER11MINI	160	16	23	G6.3 15000	911GHRMN	100601004
66APM410	HSK63/A	ER16MINI	160	22	28	G6.3 15000	916GHRMN	101001601
66APM413	HSK63/A	ER20MINI	160	28	35	G6.3 15000	920GHRMN	101001601
66APM416	HSK63/A	ER25MINI	160	35	42	G6.3 15000	925GHRMN	101815801
61APM210	HSK100/A	ER16MINI	100	22	28	G6.3 15000	916GHRMN	101001601
61APM213	HSK100/A	ER20MINI	100	28	28	G6.3 15000	920GHRMN	101001601
61APM216	HSK100/A	ER25MINI	100	35	35	G6.3 15000	925GHRMN	101815801
61APM410	HSK100/A	ER16MINI	160	22	30	G6.3 15000	916GHRMN	101001601
61APM413	HSK100/A	ER20MINI	160	28	35	G6.3 15000	920GHRMN	101001601
61APM416	HSK100/A	ER25MINI	160	35	48	G6.3 15000	925GHRMN	101815801
61APM510	HSK100/A	ER16MINI	200	22	32	G6.3 15000	916GHRMN	101001601
61APM513	HSK100/A	ER20MINI	200	28	38	G6.3 15000	920GHRMN	101001601
61APM516	HSK100/A	ER25MINI	200	35	45	G6.3 15000	925GHRMN	101815801



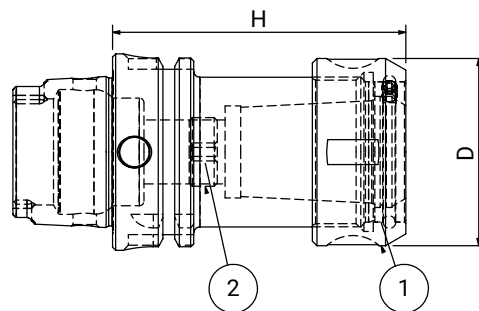
COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
65APP110	HSK50/A	ER16	70	32	G6.3 15000	916GHREQ	101001601
65APP113	HSK50/A	ER20	70	35	G6.3 15000	920GHREQ	101001601
65APP116	HSK50/A	ER25	70	42	G6.3 15000	925GHREQ	101815801
65APP120	HSK50/A	ER32	70	50	G6.3 15000	932GHREQ	102215901
65APP126	HSK50/A	ER40	75	63	G6.3 15000	940GHREQ	103015901
65APP210	HSK50/A	ER16	100	32	G6.3 15000	916GHREQ	101001601
65APP213	HSK50/A	ER20	100	35	G6.3 15000	920GHREQ	101001601
65APP216	HSK50/A	ER25	100	42	G6.3 15000	925GHREQ	101815801
65APP220	HSK50/A	ER32	100	50	G6.3 15000	932GHREQ	102215901
65APP226	HSK50/A	ER40	100	63	G6.3 15000	940GHREQ	103015901
65APP410	HSK50/A	ER16	160	32	G6.3 15000	916GHREQ	101001601
65APP413	HSK50/A	ER20	160	35	G6.3 15000	920GHREQ	101001601
65APP416	HSK50/A	ER25	160	42	G6.3 15000	925GHREQ	101815801
65APP420	HSK50/A	ER32	160	50	G6.3 15000	932GHREQ	102215901
65APP426	HSK50/A	ER40	160	63	G6.3 15000	940GHREQ	103015901



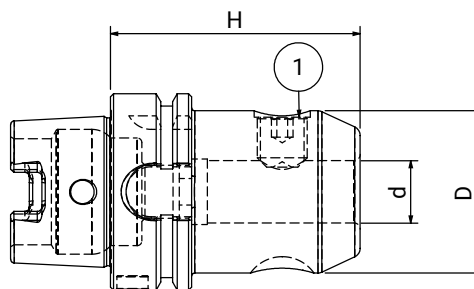
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
66APP110	HSK63/A	ER16	75	32		G6.3 15000	916GHREQ	101001601
66APP113	HSK63/A	ER20	75	35		G6.3 15000	920GHREQ	101001601
66APP116	HSK63/A	ER25	75	42		G6.3 15000	925GHREQ	101815801
66APP120	HSK63/A	ER32	75	50		G6.3 15000	932GHREQ	
66APP126	HSK63/A	ER40	80	63		G6.3 15000	940GHREQ	
66APP210	HSK63/A	ER16	100	32		G6.3 15000	916GHREQ	101001601
66APP213	HSK63/A	ER20	100	35		G6.3 15000	920GHREQ	101001601
66APP216	HSK63/A	ER25	100	42		G6.3 15000	925GHREQ	101815801
66APP220	HSK63/A	ER32	100	50		G6.3 15000	932GHREQ	102215901
66APP226	HSK63/A	ER40	100	63		G6.3 15000	940GHREQ	103015901
66APP310	HSK63/A	ER16	120	32		G6.3 15000	916GHREQ	101001601
66APP313	HSK63/A	ER20	120	35		G6.3 15000	920GHREQ	101001601
66APP316	HSK63/A	ER25	120	42		G6.3 15000	925GHREQ	101815801
66APP320	HSK63/A	ER32	120	50		G6.3 15000	932GHREQ	102215901
66APP326	HSK63/A	ER40	120	63	50	G6.3 15000	940GHREQ	103015901
66APP410	HSK63/A	ER16	160	32	38	G6.3 15000	916GHREQ	101001601
66APP413	HSK63/A	ER20	160	35	42	G6.3 15000	920GHREQ	101001601
66APP416	HSK63/A	ER25	160	42	48	G6.3 15000	925GHREQ	101815801
66APP420	HSK63/A	ER32	160	50	50	G6.3 15000	932GHREQ	102215901
66APP426	HSK63/A	ER40	160	63	50	G6.3 15000	940GHREQ	103015901
66APP510	HSK63/A	ER16	200	32	40	G6.3 15000	916GHREQ	101001601
66APP513	HSK63/A	ER20	200	35	44	G6.3 15000	920GHREQ	101001601
66APP516	HSK63/A	ER25	200	42	50	G6.3 15000	925GHREQ	101815801
66APP520	HSK63/A	ER32	200	50	50	G6.3 15000	932GHREQ	102215901
66APP526	HSK63/A	ER40	200	63	50	G6.3 15000	940GHREQ	103015901



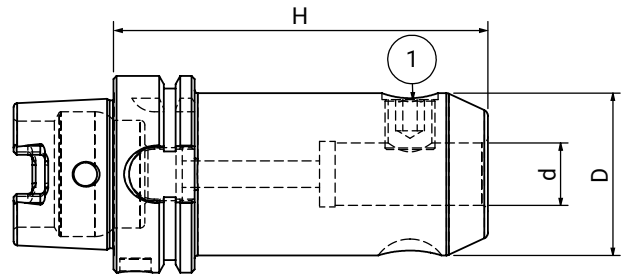
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
61APP210	HSK100/A	ER16	100	32	32	G6.3 15000	916GHREQ	101001601
61APP213	HSK100/A	ER20	100	35	35	G6.3 15000	920GHREQ	101001601
61APP216	HSK100/A	ER25	100	42	42	G6.3 15000	925GHREQ	101815801
61APP220	HSK100/A	ER32	100	50	50	G6.3 15000	932GHREQ	102215901
61APP226	HSK100/A	ER40	100	63	63	G6.3 15000	940GHREQ	103015901
61APP310	HSK100/A	ER16	120	32	37	G6.3 15000	916GHREQ	101001601
61APP313	HSK100/A	ER20	120	35	42	G6.3 15000	920GHREQ	101001601
61APP316	HSK100/A	ER25	120	42	42	G6.3 15000	925GHREQ	101815801
61APP320	HSK100/A	ER32	120	50	53	G6.3 15000	932GHREQ	102215901
61APP326	HSK100/A	ER40	120	63	63	G6.3 15000	940GHREQ	103015901
61APP410	HSK100/A	ER16	160	32	38	G6.3 15000	916GHREQ	101001601
61APP413	HSK100/A	ER20	160	35	42	G6.3 15000	920GHREQ	101001601
61APP416	HSK100/A	ER25	160	42	48	G6.3 15000	925GHREQ	101815801
61APP420	HSK100/A	ER32	160	50	50	G6.3 15000	932GHREQ	102215901
61APP426	HSK100/A	ER40	160	63	63	G6.3 15000	940GHREQ	103015901
61APP510	HSK100/A	ER16	200	32	40	G6.3 15000	916GHREQ	101001601
61APP513	HSK100/A	ER20	200	35	45	G6.3 15000	920GHREQ	101001601
61APP516	HSK100/A	ER25	200	42	48	G6.3 15000	925GHREQ	101815801
61APP520	HSK100/A	ER32	200	50	50	G6.3 15000	932GHREQ	102215901
61APP526	HSK100/A	ER40	200	63	63	G6.3 15000	940GHREQ	103015901



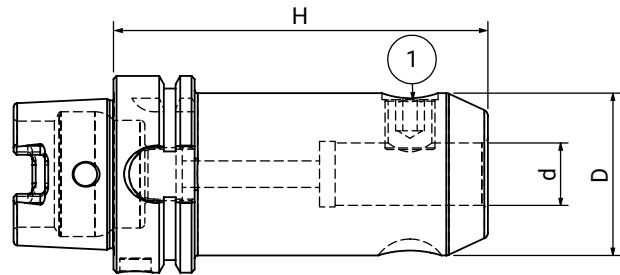
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65APO216	HSK50/A	EOC16	100	43	G6.3 15000	916GHROS	101815801
65APO225	HSK50/A	EOC25	100	60	G6.3 15000	925GHROS	102215901
66APO216	HSK63/A	EOC16	100	43	G6.3 15000	916GHROS	101001601
66APO225	HSK63/A	EOC25	100	60	G6.3 15000	925GHROS	101001601
66APO232	HSK63/A	EOC32	120	72	G6.3 15000	932GHROS	101001601
66APO416	HSK63/A	EOC16	160	43	G6.3 15000	916GHROS	101815801
66APO425	HSK63/A	EOC25	160	60	G6.3 15000	925GHROS	102215901
66APO432	HSK63/A	EOC32	160	72	G6.3 15000	932GHROS	102215901
61APO216	HSK100/A	EOC16	110	43	G6.3 15000	916GHROS	101815801
61APO225	HSK100/A	EOC25	120	60	G6.3 15000	925GHROS	102215901
61APO232	HSK100/A	EOC32	130	72	G6.3 15000	932GHROS	102215901



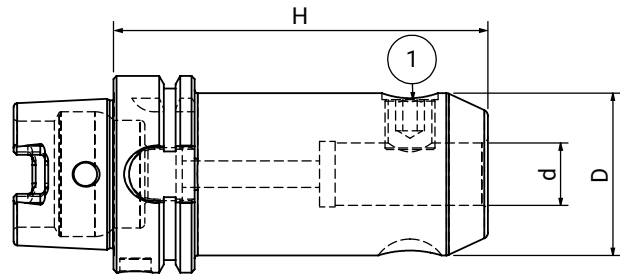
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
65AWLD06	HSK50/A	6	65	25	G6.3 15000	1 x 100601002
65AWLD08	HSK50/A	8	65	28	G6.3 15000	1 x 100801002
65AWLD10	HSK50/A	10	65	35	G6.3 15000	1 x 101001202
65AWLD12	HSK50/A	12	80	42	G6.3 15000	1 x 101201602
65AWLD14	HSK50/A	14	80	44	G6.3 15000	1 x 101201602
65AWLD16	HSK50/A	16	80	48	G6.3 15000	1 x 101401602
65AWLD18	HSK50/A	18	80	50	G6.3 15000	1 x 101401602
65AWLD20	HSK50/A	20	80	52	G6.3 15000	1 x 101601602
65AWLD25	HSK50/A	25	105	65	G6.3 15000	2 x 101802002
65AWLD32	HSK50/A	32	120	72	G6.3 15000	2 x 102002002
66AWLD06	HSK63/A	6	65	25	G6.3 15000	1 x 100601002
66AWLD08	HSK63/A	8	65	28	G6.3 15000	1 x 100801002
66AWLD10	HSK63/A	10	65	35	G6.3 15000	1 x 101001202
66AWLD12	HSK63/A	12	80	42	G6.3 15000	1 x 101201602
66AWLD14	HSK63/A	14	80	44	G6.3 15000	1 x 101201602
66AWLD16	HSK63/A	16	80	48	G6.3 15000	1 x 101401602
66AWLD18	HSK63/A	18	80	50	G6.3 15000	1 x 101401602
66AWLD20	HSK63/A	20	80	52	G6.3 15000	1 x 101601602
66AWLD25	HSK63/A	25	110	65	G6.3 15000	2 x 101802002
66AWLD32	HSK63/A	32	110	72	G6.3 15000	2 x 102002002
66AWLD40	HSK63/A	40	125	80	G6.3 15000	2 x 102002002
61AWLD06	HSK100/A	6	80	25	G6.3 15000	1 x 100601002
61AWLD08	HSK100/A	8	80	28	G6.3 15000	1 x 100801002
61AWLD10	HSK100/A	10	80	35	G6.3 15000	1 x 101001202
61AWLD12	HSK100/A	12	80	42	G6.3 15000	1 x 101201602
61AWLD14	HSK100/A	14	80	44	G6.3 15000	1 x 101201602
61AWLD16	HSK100/A	16	100	48	G6.3 15000	1 x 101401602
61AWLD18	HSK100/A	18	100	50	G6.3 15000	1 x 101401602
61AWLD20	HSK100/A	20	100	52	G6.3 15000	1 x 101601602
61AWLD25	HSK100/A	25	100	65	G6.3 15000	2 x 101802002
61AWLD32	HSK100/A	32	100	72	G6.3 15000	2 x 102002002
61AWLD40	HSK100/A	40	105	80	G6.3 15000	2 x 102002002
61AWLD50	HSK100/A	50	160	100	G6.3 15000	2 x 102422504



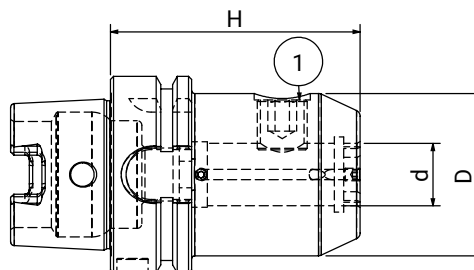
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
65AWE206	HSK50/A	6	100	25	G6.3 15000	1 x 100601002
65AWE208	HSK50/A	8	100	28	G6.3 15000	1 x 100801002
65AWE210	HSK50/A	10	100	35	G6.3 15000	1 x 101001202
65AWE212	HSK50/A	12	100	42	G6.3 15000	1 x 101201602
65AWE214	HSK50/A	14	100	44	G6.3 15000	1 x 101201602
65AWE216	HSK50/A	16	100	48	G6.3 15000	1 x 101401602
65AWE218	HSK50/A	18	100	50	G6.3 15000	1 x 101401602
65AWE220	HSK50/A	20	100	52	G6.3 15000	1 x 101601602
65AWE406	HSK50/A	6	160	25	G6.3 15000	1 x 100601002
65AWE408	HSK50/A	8	160	28	G6.3 15000	1 x 100801002
65AWE410	HSK50/A	10	160	35	G6.3 15000	1 x 101001202
65AWE412	HSK50/A	12	160	42	G6.3 15000	1 x 101201602
65AWE414	HSK50/A	14	160	44	G6.3 15000	1 x 101201602
65AWE416	HSK50/A	16	160	48	G6.3 15000	1 x 101401602
65AWE418	HSK50/A	18	160	50	G6.3 15000	1 x 101401602
65AWE420	HSK50/A	20	160	52	G6.3 15000	1 x 101601602
65AWE425	HSK50/A	25	160	65	G6.3 15000	2 x 101802002



COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
66AWE206	HSK63/A	6	100	25	G6.3 15000	1 x 100601002
66AWE208	HSK63/A	8	100	28	G6.3 15000	1 x 100801002
66AWE210	HSK63/A	10	100	35	G6.3 15000	1 x 101001202
66AWE212	HSK63/A	12	100	42	G6.3 15000	1 x 101201602
66AWE214	HSK63/A	14	100	44	G6.3 15000	1 x 101201602
66AWE216	HSK63/A	16	100	48	G6.3 15000	1 x 101401602
66AWE218	HSK63/A	18	100	50	G6.3 15000	1 x 101401602
66AWE220	HSK63/A	20	100	52	G6.3 15000	1 x 101601602
66AWE306	HSK63/A	6	120	25	G6.3 15000	1 x 100601002
66AWE308	HSK63/A	8	120	28	G6.3 15000	1 x 100801002
66AWE310	HSK63/A	10	120	35	G6.3 15000	1 x 101001202
66AWE312	HSK63/A	12	120	42	G6.3 15000	1 x 101201602
66AWE314	HSK63/A	14	120	44	G6.3 15000	1 x 101201602
66AWE316	HSK63/A	16	120	48	G6.3 15000	1 x 101401602
66AWE318	HSK63/A	18	120	50	G6.3 15000	1 x 101401602
66AWE320	HSK63/A	20	120	52	G6.3 15000	1 x 101601602
66AWE325	HSK63/A	25	120	65	G6.3 15000	2 x 101802002
66AWE332	HSK63/A	32	120	72	G6.3 15000	2 x 102002002
66AWE406	HSK63/A	6	160	25	G6.3 15000	1 x 100601002
66AWE408	HSK63/A	8	160	28	G6.3 15000	1 x 100801002
66AWE410	HSK63/A	10	160	35	G6.3 15000	1 x 101001202
66AWE412	HSK63/A	12	160	42	G6.3 15000	1 x 101201602
66AWE414	HSK63/A	14	160	44	G6.3 15000	1 x 101201602
66AWE416	HSK63/A	16	160	44	G6.3 15000	1 x 101401602
66AWE418	HSK63/A	18	160	50	G6.3 15000	1 x 101401602
66AWE420	HSK63/A	20	160	52	G6.3 15000	1 x 101601602
66AWE425	HSK63/A	25	160	63	G6.3 15000	2 x 101802002
66AWE432	HSK63/A	32	160	72	G6.3 15000	2 x 102002002

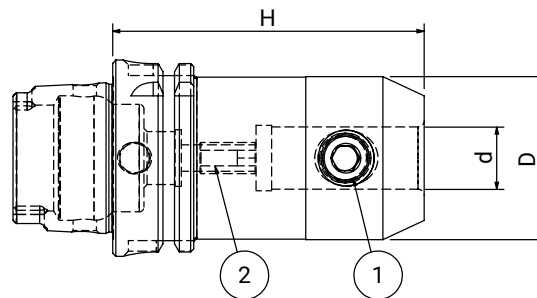


COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
61AWE406	HSK100/A	6	160	25	G6.3 15000	1 x 100601002
61AWE408	HSK100/A	8	160	28	G6.3 15000	1 x 100801002
61AWE410	HSK100/A	10	160	35	G6.3 15000	1 x 101001202
61AWE412	HSK100/A	12	160	42	G6.3 15000	1 x 101201602
61AWE414	HSK100/A	14	160	44	G6.3 15000	1 x 101201602
61AWE416	HSK100/A	16	160	48	G6.3 15000	1 x 101401602
61AWE418	HSK100/A	18	160	50	G6.3 15000	1 x 101401602
61AWE420	HSK100/A	20	160	52	G6.3 15000	1 x 101601602
61AWE425	HSK100/A	25	160	65	G6.3 15000	2 x 101802002
61AWE432	HSK100/A	32	160	72	G6.3 15000	2 x 102002002
61AWE440	HSK100/A	40	160	80	G6.3 15000	2 x 102002002
61AWE506	HSK100/A	6	200	25	G6.3 15000	1 x 100601002
61AWE508	HSK100/A	8	200	28	G6.3 15000	1 x 100801002
61AWE510	HSK100/A	10	200	35	G6.3 15000	1 x 101001202
61AWE512	HSK100/A	12	200	42	G6.3 15000	1 x 101201602
61AWE514	HSK100/A	14	200	44	G6.3 15000	1 x 101201602
61AWE516	HSK100/A	16	200	48	G6.3 15000	1 x 101401602
61AWE518	HSK100/A	18	200	50	G6.3 15000	1 x 101401602
61AWE520	HSK100/A	20	200	52	G6.3 15000	1 x 101601602
61AWE525	HSK100/A	25	200	65	G6.3 15000	2 x 101802002
61AWE532	HSK100/A	32	200	72	G6.3 15000	2 x 102002002
61AWE540	HSK100/A	40	200	80	G6.3 15000	2 x 102002002
61AWE550	HSK100/A	50	200	100	G6.3 15000	2 x 102422504

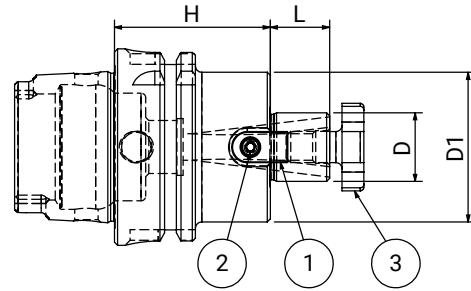


COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
66AWLK06	HSK63/A	6	65	25	G6.3 15000	1 x 100601002
66AWLK08	HSK63/A	8	65	28	G6.3 15000	1 x 100801002
66AWLK10	HSK63/A	10	65	35	G6.3 15000	1 x 101001202
66AWLK12	HSK63/A	12	80	42	G6.3 15000	1 x 101201602
66AWLK14	HSK63/A	14	80	44	G6.3 15000	1 x 101201602
66AWLK16	HSK63/A	16	80	48	G6.3 15000	1 x 101401602
66AWLK18	HSK63/A	18	80	50	G6.3 15000	1 x 101401602
66AWLK20	HSK63/A	20	80	52	G6.3 15000	1 x 101601602
66AWLK25	HSK63/A	25	110	65	G6.3 15000	2 x 101802002
66AWLK32	HSK63/A	32	110	72	G6.3 15000	2 x 102002002
66AWLK40	HSK63/A	40	125	80	G6.3 15000	2 x 102002002

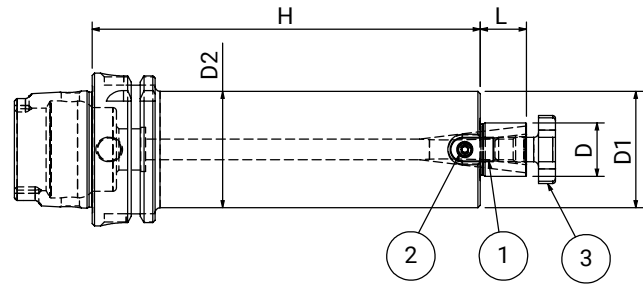
61AWLK06	HSK100/A	6	80	25	G6.3 15000	1 x 100601002
61AWLK08	HSK100/A	8	80	28	G6.3 15000	1 x 100801002
61AWLK10	HSK100/A	10	80	35	G6.3 15000	1 x 101001202
61AWLK12	HSK100/A	12	80	42	G6.3 15000	1 x 101201602
61AWLK14	HSK100/A	14	80	44	G6.3 15000	1 x 101201602
61AWLK16	HSK100/A	16	100	48	G6.3 15000	1 x 101401602
61AWLK18	HSK100/A	18	100	50	G6.3 15000	1 x 101401602
61AWLK20	HSK100/A	20	100	52	G6.3 15000	1 x 101601602
61AWLK25	HSK100/A	25	100	65	G6.3 15000	2 x 101802002
61AWLK32	HSK100/A	32	100	72	G6.3 15000	2 x 102002002
61AWLK40	HSK100/A	40	105	80	G6.3 15000	2 x 102002002



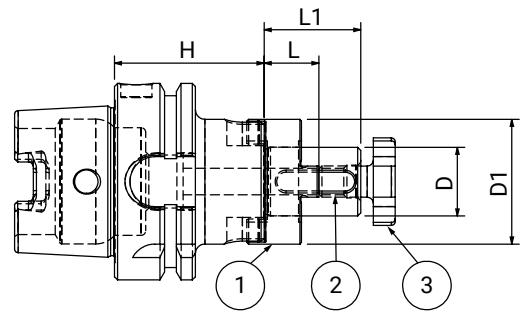
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
65AWHN06	HSK50/A	6	80	25	G6.3 15000	1 x 100601002
65AWHN08	HSK50/A	8	80	28	G6.3 15000	1 x 100801002
65AWHN10	HSK50/A	10	80	35	G6.3 15000	1 x 101001202
65AWHN12	HSK50/A	12	90	42	G6.3 15000	1 x 101201602
65AWHN14	HSK50/A	14	90	44	G6.3 15000	1 x 101201602
65AWHN16	HSK50/A	16	90	48	G6.3 15000	1 x 101401602
65AWHN18	HSK50/A	18	90	50	G6.3 15000	1 x 101401602
65AWHN20	HSK50/A	20	100	52	G6.3 15000	1 x 101601602
65AWHN25	HSK50/A	25	110	65	G6.3 15000	2 x 101802002
65AWHN32	HSK50/A	32	120	72	G6.3 15000	2 x 102002002
66AWHN06	HSK63/A	6	80	25	G6.3 15000	1 x 100601002
66AWHN08	HSK63/A	8	80	28	G6.3 15000	1 x 100801002
66AWHN10	HSK63/A	10	80	35	G6.3 15000	1 x 101001202
66AWHN12	HSK63/A	12	90	42	G6.3 15000	1 x 101201602
66AWHN14	HSK63/A	14	90	44	G6.3 15000	1 x 101201602
66AWHN16	HSK63/A	16	100	48	G6.3 15000	1 x 101401602
66AWHN18	HSK63/A	18	100	50	G6.3 15000	1 x 101401602
66AWHN20	HSK63/A	20	100	52	G6.3 15000	1 x 101601602
66AWHN25	HSK63/A	25	110	63	G6.3 15000	2 x 101802002
66AWHN32	HSK63/A	32	110	72	G6.3 15000	2 x 102002002
61AWHN06	HSK100/A	6	90	25	G6.3 15000	1 x 100601002
61AWHN08	HSK100/A	8	90	28	G6.3 15000	1 x 100801002
61AWHN10	HSK100/A	10	90	35	G6.3 15000	1 x 101001202
61AWHN12	HSK100/A	12	100	42	G6.3 15000	1 x 101201602
61AWHN14	HSK100/A	14	100	44	G6.3 15000	1 x 101201602
61AWHN16	HSK100/A	16	100	48	G6.3 15000	1 x 101401602
61AWHN18	HSK100/A	18	100	50	G6.3 15000	1 x 101401602
61AWHN20	HSK100/A	20	110	52	G6.3 15000	1 x 101601602
61AWHN25	HSK100/A	25	120	65	G6.3 15000	2 x 101802002
61AWHN32	HSK100/A	32	120	72	G6.3 15000	2 x 102002002
61AWHN40	HSK100/A	40	120	80	G6.3 15000	2 x 102002002



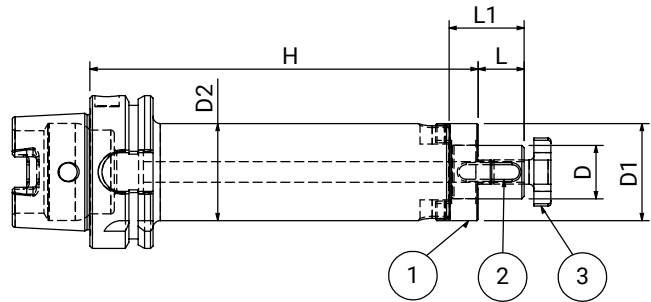
COD	CONO	D	H	L	D1	BILANCIATURA	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
65APF116	HSK50/A	16	50	17	38	G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
65APF122	HSK50/A	22	60	19	48	G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
65APF127	HSK50/A	27	60	21	58	G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
65APF132	HSK50/A	32	60	24	66	G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
65APF140	HSK50/A	40	70	27	80	G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02
66APF116	HSK63/A	16	50	17	38	G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
66APF122	HSK63/A	22	50	19	48	G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
66APF127	HSK63/A	27	60	21	58	G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
66APF132	HSK63/A	32	60	24	66	G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
66APF140	HSK63/A	40	60	27	80	G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02
61APF116	HSK100/A	16	50	17	38	G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
61APF122	HSK100/A	22	50	19	48	G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
61APF127	HSK100/A	27	50	21	58	G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
61APF132	HSK100/A	32	50	24	66	G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
61APF140	HSK100/A	40	60	27	80	G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02



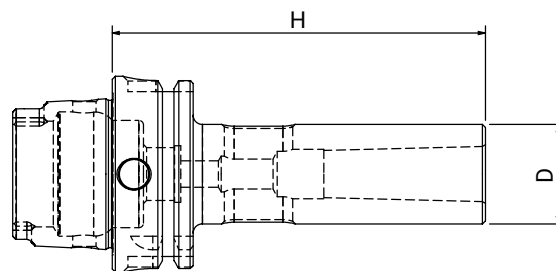
COD	CONO	D	H	L	D1	D2	BILANCIATURA	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
66APF216	HSK63/A	16	100	17	38		G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
66APF222	HSK63/A	22	100	19	48		G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
66APF227	HSK63/A	27	100	21	58		G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
66APF232	HSK63/A	32	100	24	66		G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
66APF240	HSK63/A	40	100	27	80		G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02
66APF416	HSK63/A	16	160	17	38		G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
66APF422	HSK63/A	22	160	19	48		G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
66APF427	HSK63/A	27	160	21	58		G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
66APF432	HSK63/A	32	160	24	66		G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
66APF440	HSK63/A	40	160	27	80		G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02
61APF216	HSK100/A	16	100	17	38	43	G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
61APF222	HSK100/A	22	100	19	48	53	G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
61APF227	HSK100/A	27	100	21	58		G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
61APF232	HSK100/A	32	100	24	66		G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
61APF240	HSK100/A	40	100	27	80		G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02
61APF316	HSK100/A	16	130	17	38	44	G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
61APF322	HSK100/A	22	130	19	48	55	G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
61APF327	HSK100/A	27	130	21	58	65	G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
61APF332	HSK100/A	32	130	24	66	73	G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
61APF340	HSK100/A	40	130	27	80		G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02
61APF416	HSK100/A	16	160	17	38	43	G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
61APF422	HSK100/A	22	160	19	48	56	G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
61APF427	HSK100/A	27	160	21	58	66	G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
61APF432	HSK100/A	32	160	24	66	74	G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
61APF440	HSK100/A	40	160	27	80		G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02
61APF516	HSK100/A	16	200	17	38	47	G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
61APF522	HSK100/A	22	200	19	48	58	G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
61APF527	HSK100/A	27	200	21	58	67	G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
61APF532	HSK100/A	32	200	24	66	75	G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
61APF540	HSK100/A	40	200	27	80		G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02
61APF616	HSK100/A	16	250	17	38	48	G6.3 15000	2 x 916TSL01	2 x 110301001	916VTC02
61APF622	HSK100/A	22	250	19	48	58	G6.3 15000	2 x 922TSL01	2 x 110301201	922VTC02
61APF627	HSK100/A	27	250	21	58	68	G6.3 15000	2 x 927TSL01	2 x 110401601	927VTC02
61APF632	HSK100/A	32	250	24	66	77	G6.3 15000	2 x 932TSL01	2 x 110601601	932VTC02
61APF640	HSK100/A	40	250	27	80		G6.3 15000	2 x 940TSL01	2 x 110601601	940VTC02



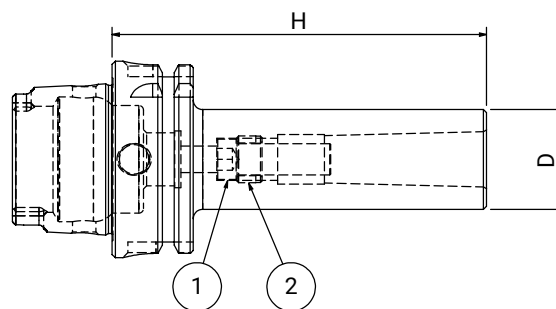
COD	CONO	D	H	L	L1	D1	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
65APU116	HSK50/A	16	50	17	27	32	916GNT01	170402004	916VTC02
65APU122	HSK50/A	22	50	19	31	40	922GNT01	170602506	922VTC02
65APU127	HSK50/A	27	65	21	33	42	927GNT01	170702507	927VTC02
65APU132	HSK50/A	32	65	24	38	52	932GNT01	170802807	932VTC02
65APU140	HSK50/A	40	75	27	41	70	940GNT01	171003208	940VTC02
66APU116	HSK63/A	16	60	17	27	32	916GNT01	170402004	916VTC02
66APU122	HSK63/A	22	60	19	31	40	922GNT01	170602506	922VTC02
66APU127	HSK63/A	27	60	21	33	48	927GNT01	170702507	927VTC02
66APU132	HSK63/A	32	60	24	38	58	932GNT01	170802807	932VTC02
66APU140	HSK63/A	40	70	27	41	70	940GNT01	171003208	940VTC02
61APU116	HSK100/A	16	60	17	27	32	916GNT01	170402004	916VTC02
61APU122	HSK100/A	22	60	19	31	40	922GNT01	170602506	922VTC02
61APU127	HSK100/A	27	60	21	33	48	927GNT01	170702507	927VTC02
61APU132	HSK100/A	32	60	24	38	58	932GNT01	170802807	932VTC02
61APU140	HSK100/A	40	70	27	41	70	940GNT01	171003208	940VTC02



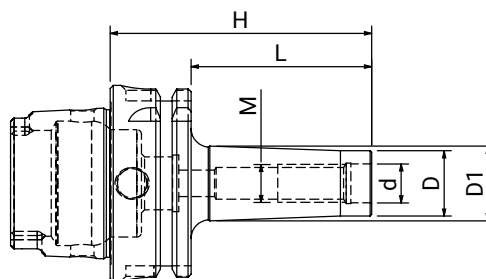
COD	CONO	D	H	L	L1	D1	D2	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
66APU216	HSK63/A	16	100	17	27	32		1 x 916GNT01	1 x 170402004	916VTC02
66APU222	HSK63/A	22	100	19	31	40		1 x 922GNT01	1 x 170602506	922VTC02
66APU227	HSK63/A	27	100	21	33	48		1 x 927GNT01	1 x 170702507	927VTC02
66APU232	HSK63/A	32	100	24	38	58		1 x 932GNT01	1 x 170802807	932VTC02
66APU240	HSK63/A	40	100	27	41	70		1 x 940GNT01	1 x 171003208	940VTC02
66APU416	HSK63/A	16	160	17	27	32		1 x 916GNT01	1 x 170402004	916VTC02
66APU422	HSK63/A	22	160	19	31	40		1 x 922GNT01	1 x 170602506	922VTC02
66APU427	HSK63/A	27	160	21	33	48		1 x 927GNT01	1 x 170702507	927VTC02
66APU432	HSK63/A	32	160	24	38	58		1 x 932GNT01	1 x 170802807	932VTC02
66APU440	HSK63/A	40	160	27	41	70		1 x 940GNT01	1 x 171003208	940VTC02
61APU216	HSK100/A	16	100	17	27	32	44	1 x 916GNT01	1 x 170402004	916VTC02
61APU222	HSK100/A	22	100	19	31	40	50	1 x 922GNT01	1 x 170602506	922VTC02
61APU227	HSK100/A	27	100	21	33	48	60	1 x 927GNT01	1 x 170702507	927VTC02
61APU232	HSK100/A	32	100	24	38	58	58	1 x 932GNT01	1 x 170802807	932VTC02
61APU240	HSK100/A	40	100	27	41	70	70	1 x 940GNT01	1 x 171003208	940VTC02
61APU416	HSK100/A	16	160	17	27	32	44	1 x 916GNT01	1 x 170402004	916VTC02
61APU422	HSK100/A	22	160	19	31	40	50	1 x 922GNT01	1 x 170602506	922VTC02
61APU427	HSK100/A	27	160	21	33	48	60	1 x 927GNT01	1 x 170702507	927VTC02
61APU432	HSK100/A	32	160	24	38	58	58	1 x 932GNT01	1 x 170802807	932VTC02
61APU440	HSK100/A	40	160	27	41	70	70	1 x 940GNT01	1 x 171003208	940VTC02



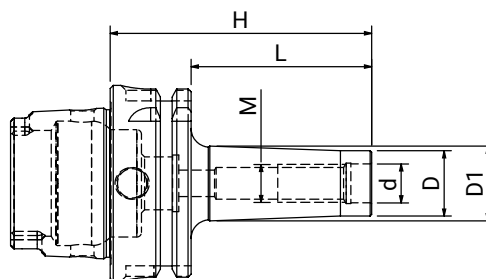
COD	CONO	MORSE	H	D
65AMP101	HSK50/A	1	100	25
65AMP102	HSK50/A	2	120	32
65AMP103	HSK50/A	3	140	40
66AMP101	HSK63/A	1	100	25
66AMP102	HSK63/A	2	120	32
66AMP103	HSK63/A	3	140	40
66AMP104	HSK63/A	4	160	48
61AMP101	HSK100/A	1	110	25
61AMP102	HSK100/A	2	120	32
61AMP103	HSK100/A	3	150	40
61AMP104	HSK100/A	4	170	48
61AMP105	HSK100/A	5	200	63



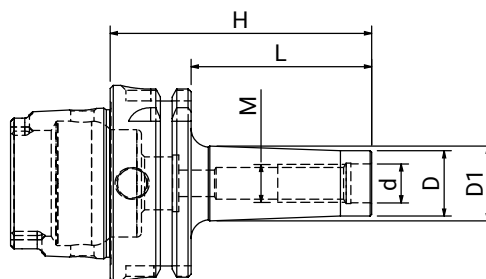
COD	CONO	MORSE	D	H	1 - VITE	2 - GHIERA
65AMF101	HSK50/A	1	25	100	110604501	-
65AMF102	HSK50/A	2	32	120	111003014	121500802
65AMF103	HSK50/A	3	40	140	111204003	122000903
66AMF101	HSK63/A	1	25	100	110603001	-
66AMF102	HSK63/A	2	32	120	111003014	121500802
66AMF103	HSK63/A	3	40	140	111204003	122000903
66AMF104	HSK63/A	4	48	160	111604516	122501204
61AMF101	HSK100/A	1	25	110	110603501	121206502
61AMF102	HSK100/A	2	32	120	111003014	121500802
61AMF103	HSK100/A	3	40	150	111204003	122000903
61AMF104	HSK100/A	4	48	170	111604514	122501204
61AMF105	HSK100/A	5	63	200	112005003	123601104



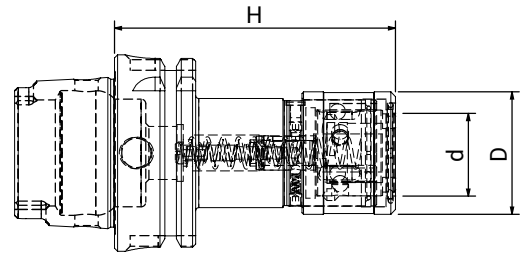
COD	CONO	M	H	L	d	D	D1	BILANCIATURA
65AAF106	HSK50/A	M6	59	33	6,5	9,7	10	G2.5 25000
65AAF108	HSK50/A	M8	59	33	8,5	13	15	G2.5 25000
65AAF110	HSK50/A	M10	59	33	10,5	18	20	G2.5 25000
65AAF112	HSK50/A	M12	59	33	12,5	21	24	G2.5 25000
65AAF206	HSK50/A	M6	84	58	6,5	9,7	20	G2.5 25000
65AAF208	HSK50/A	M8	84	58	8,5	13	23	G2.5 25000
65AAF210	HSK50/A	M10	84	58	10,5	18	25	G2.5 25000
65AAF212	HSK50/A	M12	84	58	12,5	21	24	G2.5 25000
65AAF306	HSK50/A	M6	109	83	6,5	9,7	23	G2.5 25000
65AAF308	HSK50/A	M8	109	83	8,5	13	23	G2.5 25000
65AAF310	HSK50/A	M10	109	83	10,5	18	28	G2.5 25000
65AAF312	HSK50/A	M12	109	83	12,5	21	31	G2.5 25000
65AAF408	HSK50/A	M8	134	108	8,5	13	25	G2.5 25000
65AAF410	HSK50/A	M10	134	108	10,5	18	30	G2.5 25000
65AAF412	HSK50/A	M12	134	108	12,5	21	31	G2.5 25000



COD	CONO	M	H	L	d	D	D1	BILANCIATURA
66AAF108	HSK63/A	M8	59	33	8,5	13	15	G2.5 20000
66AAF110	HSK63/A	M10	59	33	10,5	18	19,5	G2.5 20000
66AAF112	HSK63/A	M12	59	33	12,5	21	24	G2.5 20000
66AAF116	HSK63/A	M16	59	33	17	29	34	G2.5 20000
66AAF208	HSK63/A	M8	84	58	8,5	13	23	G2.5 20000
66AAF210	HSK63/A	M10	84	58	10,5	18	25	G2.5 20000
66AAF212	HSK63/A	M12	84	58	12,5	21	24	G2.5 20000
66AAF216	HSK63/A	M16	84	58	17	29	34	G2.5 20000
66AAF308	HSK63/A	M8	109	83	8,5	13	23	G2.5 20000
66AAF310	HSK63/A	M10	109	83	10,5	18	28	G2.5 20000
66AAF312	HSK63/A	M12	109	83	12,5	21	31	G2.5 20000
66AAF316	HSK63/A	M16	109	83	17	29	34	G2.5 20000
66AAF408	HSK63/A	M8	134	108	8,5	13	25	G2.5 20000
66AAF410	HSK63/A	M10	134	108	10,5	18	28	G2.5 20000
66AAF412	HSK63/A	M12	134	108	12,5	21	31	G2.5 20000
66AAF416	HSK63/A	M16	134	108	17	29	39	G2.5 20000
66AAF510	HSK63/A	M10	159	133	10,5	18	34	G2.5 20000
66AAF512	HSK63/A	M12	159	133	12,5	21	31	G2.5 20000
66AAF516	HSK63/A	M16	159	133	17	29	39	G2.5 20000
66AAF612	HSK63/A	M12	184	158	12,5	21	39	G2.5 20000
66AAF616	HSK63/A	M16	184	158	17	29	39	G2.5 20000
66AAF712	HSK63/A	M12	209	183	12,5	21	42	G2.5 20000
66AAF716	HSK63/A	M16	209	183	17	29	42	G2.5 20000



COD	CONO	M	H	L	d	D	D1	BILANCIATURA
61AAF212	HSK100/A	M12	87	58	12,5	21	24	G2.5 20000
61AAF216	HSK100/A	M16	87	58	17	29	32	G2.5 20000
61AAF312	HSK100/A	M12	137	108	12,5	21	47	G2.5 20000
61AAF316	HSK100/A	M16	137	108	17	29	42	G2.5 20000
61AAF412	HSK100/A	M12	187	158	12,5	21	55	G2.5 20000
61AAF416	HSK100/A	M16	187	158	17	29	55	G2.5 20000
61AAF516	HSK100/A	M16	237	208	17	29	55	G2.5 20000



COD	CONO	RANGE	SIZE	d	D	H
65APCRM1	HSK50/A	M3-M12	GR.1	19	39,2	96
65APCRM2	HSK50/A	M6-M20	GR.2	31	54,5	139
66APCRM1	HSK63/A	M3-M12	GR.1	19	39,2	95
66APCRM2	HSK63/A	M6-M20	GR.2	31	54,5	147
61APCRM1	HSK100/A	M3-M12	GR.1	19	39,2	101
61APCRM2	HSK100/A	M6-M20	GR.2	31	54,5	154

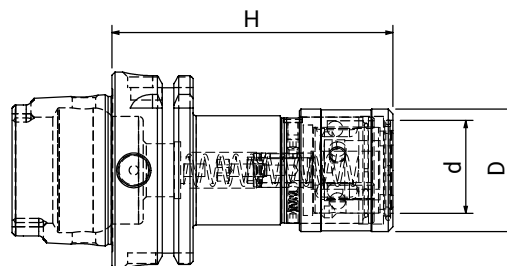
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> PAG. 258



> PAG. 257



COD	CONO	RANGE	SIZE	d	D	H
65APRRM1	HSK50/A	M3-M12	GR.1	19	39,2	96
65APRRM2	HSK50/A	M6-M20	GR.2	31	54,5	114
66APRRM1	HSK63/A	M3-M12	GR.1	19	39,2	95
66APRRM2	HSK63/A	M6-M20	GR.2	31	54,5	113
61APRRM1	HSK100/A	M3-M12	GR.1	19	39,2	101
61APRRM2	HSK100/A	M6-M20	GR.2	31	54,5	119

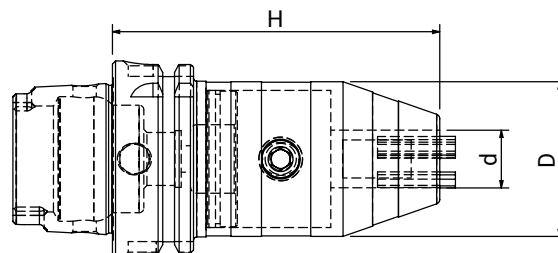
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> PAG. 258

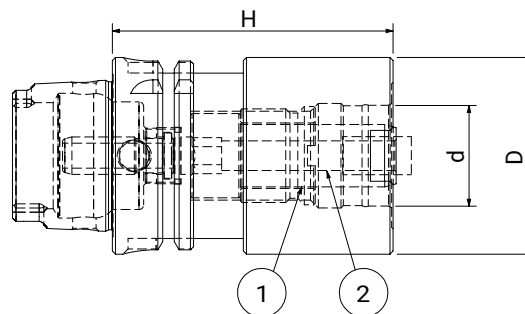


> PAG. 257



COD	CONO	d	H	D
65AMAZ13	HSK50/A	1-13	103	50
65AMAZ16	HSK50/A	3-16	108	50
66AMAZ13	HSK63/A	1-13	103	50
66AMAZ16	HSK63/A	3-16	108	50
61AMAZ13	HSK100/A	1-13	111	50
61AMAZ16	HSK100/A	3-16	116	50





COD	CONO	H	D	1 - VITE	2 - BOCCOLA
66AVL150 *	HSK63/A	75	50	111604011	122502007
66AVL163 *	HSK63/A	85	63	112005011	123002408
61AVL150 *	HSK100/A	80	50	111604011	122502007
61AVL163 *	HSK100/A	90	63	112005011	123002408
61AVL180 *	HSK100/A	90	80	112005011	123002408

* NOTE



Forniti completi di adduzione refrigerante
Supplied complete with coolant supply
Lieferung komplett mit Kühlmittelversorgung
Livré complet de alimentation de liquide de refroidissement

ADATTATORI MODULARI | MODULAR ADAPTOR | MODULARER ADAPTER | ADAPTATEUR MODULAIRE



> PAG. 243



> PAG. 244



> PAG. 245



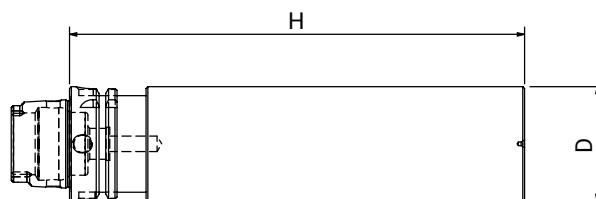
> PAG. 246



> PAG. 247

MANDRINI SEMILAVORATI A STELO TENERO
 BLANK TOOLHOLDER WITH SOFT SHANK
 ROHLINGE MIT WEICHEM SCHAFT
 EBAUCHES

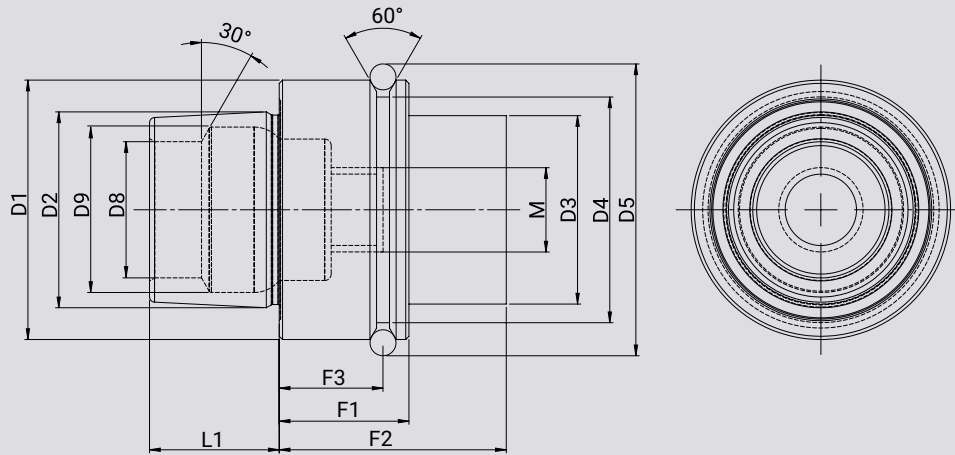
DIN 69893
 HSK A



COD	CONO	H	D
65AST250	HSK50/A	200	50
65AST263	HSK50/A	200	63
66AST363	HSK63/A	250	63
66AST380	HSK63/A	250	80
61AST397	HSK100/A	315	97

DIN 69893 HSK E





D1	D2	D3	D4	D5 _{-0,1}	D8 ^{H10}	D9 ^{H11}	M	F1 _{-0,1}	F2 min.	F3 ^{+/-0,1}	L1 _{-0,2}
32	24 ^{+0,007/+0,005}	26	26,5	37	17	21	M10x1	20	35	16	16
40	30 ^{+0,007/+0,005}	34	34,8	45	21	25,5	M12x1	20	35	16	20
50	38 ^{+0,009/+0,006}	42	43	59,3	26	32	M16x1	26	42	18	25
63	48 ^{+0,011/+0,007}	53	55	72,3	34	40	M18x1	26	42	18	32

Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN
 All PAGNONI TOOLS toolholders are manufactured according to DIN norms
 Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert
 Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

PRE-BILANCIATI:

- Grado di equilibratura aggiuntiva indicato a fianco della tabella dimensionale
- Mandrini alte velocità: a richiesta classe massima di equilibratura G 2,5 30000

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 ± 2 – profondità di indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

VORGEWUCHTET:

- Neben der Übersichtstabelle der Produkte wird die Wuchtgüte angegeben
- Hochgeschwindigkeits Werkzeughalter: Aus Wuchtgüte G2,5 30000 auf Anfrage

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 ± 2 , Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außenschleifen

TECHNICAL FEATURES

PRE-BALANCED:

- Additional balancing grade beside dimensional table
- High-speed toolholders: balancing grade G 2,5 30000 on request

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 ± 2 - hardening depth 0,4-0,5 mm
- Strength 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRÉ-ÉQUILIBRÉ:

- À côté du tableau de description et dimensions des produits il y a l'indication de la valeur d'équilibrage attentionnel
- Mandrins haute vitesse : sont équilibrés en classe G 2,5 à 30000 Tr/min-1 classe d'équilibrage maximale G 2,5 à 30000 Tr/min sur demande

MATÉRIAUX ET TRAITEMENTS:

- Acier de cimentation allié
- Temprés – Revenus
- Cémentation à HRC 58 ± 2 , profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe



> PAG. 219



> PAG. 220



> PAG. 221



> PAG. 222



> PAG. 223



> PAG. 224



> PAG. 224



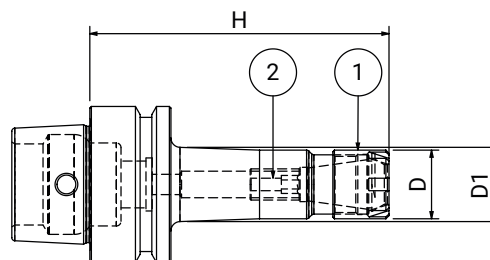
> PAG. 225



> PAG. 226

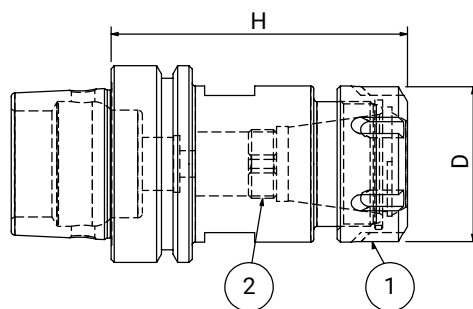
MANDRINI PORTAPINZA TIPO ER MINI
 ER MINI COLLET CHUCK
 ER MINI SPANNZANGERFUTTER
 MANDRINS À PINCES TYPE ER MINI

DIN 69893
 HSK E
 DIN 6499

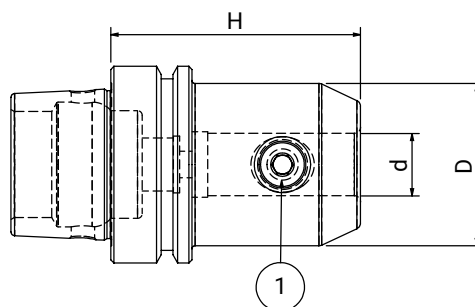


COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
65EPM207	HSK50/E	ER11MINI	100	16	20	G2.5 20000	911GHRMN	100601004
65EPM210	HSK50/E	ER16MINI	100	22	24	G2.5 20000	916GHRMN	101001601
65EPM407	HSK50/E	ER11MINI	160	16	24	G2.5 20000	911GHRMN	100601004
65EPM410	HSK50/E	ER16MINI	160	22	30	G2.5 20000	916GHRMN	101001601

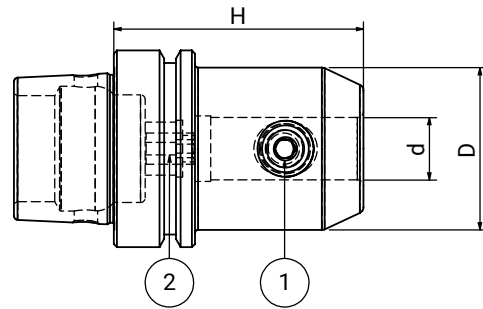
DIN 69893
 HSK E



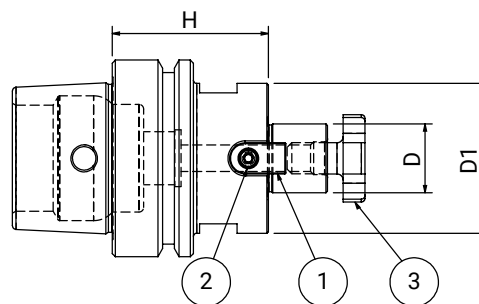
COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
65EPP210	HSK50/E	ER16	100	32	G2.5 20000	916GHREQ	101001601
65EPP213	HSK50/E	ER20	100	35	G2.5 20000	920GHREQ	101001601
65EPP216	HSK50/E	ER25	100	42	G2.5 20000	925GHREQ	101815801
65EPP220	HSK50/E	ER32	100	50	G2.5 20000	932GHREQ	102215901
65EPP226	HSK50/E	ER40	100	63	G2.5 20000	940GHREQ	103015901
65EPP410	HSK50/E	ER16	160	32	G2.5 20000	916GHREQ	101001601
65EPP413	HSK50/E	ER20	160	35	G2.5 20000	920GHREQ	101001601
65EPP416	HSK50/E	ER25	160	42	G2.5 20000	925GHREQ	101815801
65EPP420	HSK50/E	ER32	160	50	G2.5 20000	932GHREQ	102215901
65EPP426	HSK50/E	ER40	160	63	G2.5 20000	940GHREQ	103015901
66EPP110	HSK63/E	ER16	75	32	G2.5 20000	916GHREQ	101001601
66EPP116	HSK63/E	ER25	75	42	G2.5 20000	925GHREQ	101815801
66EPP120	HSK63/E	ER32	75	50	G2.5 20000	932GHREQ	102215901
66EPP126	HSK63/E	ER40	75	63	G2.5 20000	940GHREQ	103015901
66EPP210	HSK63/E	ER16	100	32	G2.5 20000	916GHREQ	101001601
66EPP216	HSK63/E	ER25	100	42	G2.5 20000	925GHREQ	101815801
66EPP220	HSK63/E	ER32	100	50	G2.5 20000	932GHREQ	102215901
66EPP226	HSK63/E	ER40	100	63	G2.5 20000	940GHREQ	103015901
66EPP310	HSK63/E	ER16	120	32	G2.5 20000	916GHREQ	101001601
66EPP316	HSK63/E	ER25	120	42	G2.5 20000	925GHREQ	101815801
66EPP320	HSK63/E	ER32	120	50	G2.5 20000	932GHREQ	102215901
66EPP326	HSK63/E	ER40	120	63	G2.5 20000	940GHREQ	103015901
66EPP410	HSK63/E	ER16	160	32	G2.5 20000	916GHREQ	101001601
66EPP416	HSK63/E	ER25	160	42	G2.5 20000	925GHREQ	101815801
66EPP420	HSK63/E	ER32	160	50	G2.5 20000	932GHREQ	102215901
66EPP426	HSK63/E	ER40	160	63	G2.5 20000	940GHREQ	103015901



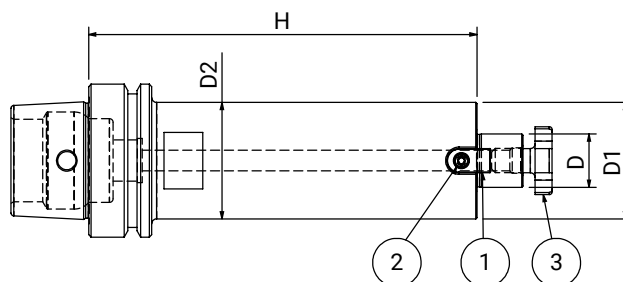
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
65EWLD06	HSK50/E	6	65	25	G2.5 20000	1 x 100601002
65EWLD08	HSK50/E	8	65	28	G2.5 20000	1 x 100801002
65EWLD10	HSK50/E	10	65	35	G2.5 20000	1 x 101001202
65EWLD12	HSK50/E	12	80	42	G2.5 20000	1 x 101201602
65EWLD14	HSK50/E	14	80	44	G2.5 20000	1 x 101201602
65EWLD16	HSK50/E	16	80	48	G2.5 20000	1 x 101401602
65EWLD18	HSK50/E	18	80	50	G2.5 20000	1 x 101401602
65EWLD20	HSK50/E	20	80	52	G2.5 20000	1 x 101601602
65EWLD25	HSK50/E	25	105	65	G2.5 20000	2 x 101802002
66EWLD06	HSK63/E	6	65	25	G2.5 20000	1 x 100601002
66EWLD08	HSK63/E	8	65	28	G2.5 20000	1 x 100801002
66EWLD10	HSK63/E	10	70	35	G2.5 20000	1 x 101001202
66EWLD12	HSK63/E	12	80	42	G2.5 20000	1 x 101201602
66EWLD14	HSK63/E	14	80	44	G2.5 20000	1 x 101201602
66EWLD16	HSK63/E	16	80	48	G2.5 20000	1 x 101401602
66EWLD18	HSK63/E	18	80	50	G2.5 20000	1 x 101401602
66EWLD20	HSK63/E	20	80	52	G2.5 20000	1 x 101601602
66EWLD25	HSK63/E	25	105	65	G2.5 20000	2 x 101802002
66EWLD32	HSK63/E	32	110	72	G2.5 20000	2 x 102002002



COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
65EWHN06	HSK50/E	6	80	25	G2.5 20000	1 x 100601002
65EWHN08	HSK50/E	8	80	28	G2.5 20000	1 x 100801002
65EWHN10	HSK50/E	10	80	35	G2.5 20000	1 x 101001202
65EWHN12	HSK50/E	12	30	42	G2.5 20000	1 x 101201602
65EWHN14	HSK50/E	14	30	44	G2.5 20000	1 x 101201602
65EWHN16	HSK50/E	16	100	48	G2.5 20000	1 x 101401602
65EWHN18	HSK50/E	18	100	50	G2.5 20000	1 x 101401602
65EWHN20	HSK50/E	20	100	52	G2.5 20000	1 x 101601602
65EWHN25	HSK50/E	25	110	65	G2.5 20000	2 x 101802002
65EWHN32	HSK50/E	32	120	72	G2.5 20000	2 x 102002002
66EWHN06	HSK63/E	6	65	25	G2.5 20000	1 x 100601002
66EWHN08	HSK63/E	8	65	28	G2.5 20000	1 x 100801002
66EWHN10	HSK63/E	10	65	35	G2.5 20000	1 x 101001202
66EWHN12	HSK63/E	12	80	42	G2.5 20000	1 x 101201602
66EWHN14	HSK63/E	14	80	44	G2.5 20000	1 x 101201602
66EWHN16	HSK63/E	16	80	44	G2.5 20000	1 x 101401602
66EWHN18	HSK63/E	18	80	50	G2.5 20000	1 x 101401602
66EWHN20	HSK63/E	20	80	52	G2.5 20000	1 x 101601602
66EWHN25	HSK63/E	25	100	65	G2.5 20000	2 x 101802002
66EWHN32	HSK63/E	32	100	72	G2.5 20000	2 x 102002002



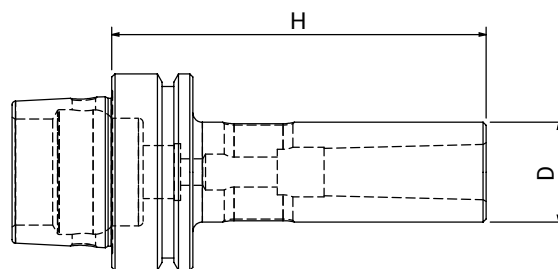
COD	CONO	D	H	D1	BILANCIATURA	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
65EPF116	HSK50/E	16	50	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
65EPF122	HSK50/E	22	60	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
65EPF127	HSK50/E	27	60	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
65EPF132	HSK50/E	32	60	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
65EPF140	HSK50/E	40	70	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02
66EPF116	HSK63/E	16	50	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
66EPF122	HSK63/E	22	50	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
66EPF127	HSK63/E	27	60	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
66EPF132	HSK63/E	32	60	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
66EPF140	HSK63/E	40	65	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02
66EPF216	HSK63/E	16	100	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
66EPF222	HSK63/E	22	100	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
66EPF227	HSK63/E	27	100	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
66EPF232	HSK63/E	32	100	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
66EPF240	HSK63/E	40	100	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02



COD	CONO	D	H	D1	BILANCIATURA	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
66EPF316	HSK63/E	16	130	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
66EPF322	HSK63/E	22	130	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
66EPF327	HSK63/E	27	130	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
66EPF332	HSK63/E	32	130	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
66EPF340	HSK63/E	40	130	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02
66EPF416	HSK63/E	16	160	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
66EPF422	HSK63/E	22	160	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
66EPF427	HSK63/E	27	160	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
66EPF432	HSK63/E	32	160	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
66EPF440	HSK63/E	40	160	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02

MANDRINI ATTACCO CONO MORSE PUNTE
 MORSE TAPER ADAPTORS FOR DRILLS
 ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT AUSTREIBLAPPEN
 DOUILLES PUOR CONE MORSE A TENON

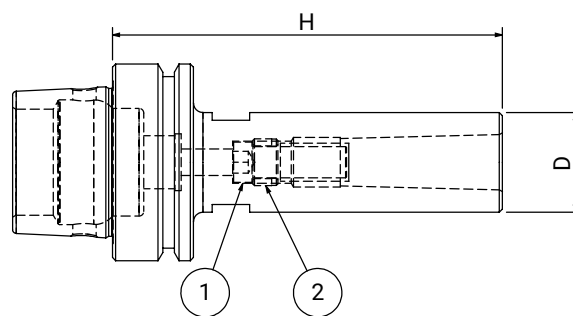
DIN 69893
 HSK E
 DIN 228-2



COD	CONO	MORSE	H	D
65EMP101	HSK50/E	1	100	25
65EMP102	HSK50/E	2	120	32
65EMP103	HSK50/E	3	140	40
65EMP104	HSK50/E	4	160	48
66EMP101	HSK63/E	1	100	25
66EMP102	HSK63/E	2	120	32
66EMP103	HSK63/E	3	140	40
66EMP104	HSK63/E	4	165	48

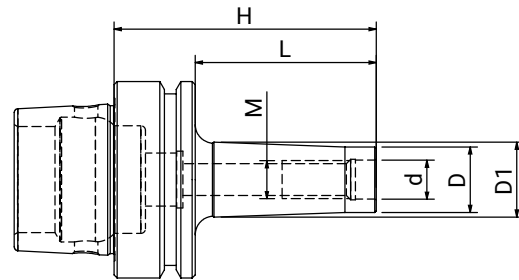
MANDRINI ATTACCO CONO MORSE FRESE
 MORSE TAPER ADAPTORS WITH THREAD
 ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT ANZUGSGEWINDE
 DOUILLES PUOR CONE MORSE AVEC TARAUDAGE

DIN 69893
 HSK E
 DIN 228-2



COD	CONO	MORSE	D	H	1 - VITE	2 - GHIERA
65EMF101	HSK50/E	1	25	105	121206502	110603501
65EMF102	HSK50/E	2	32	120	121500802	111003014
65EMF103	HSK50/E	3	40	140	122000903	111204003
66EMF101	HSK63/E	1	25	100	110603501	121206502
66EMF102	HSK63/E	2	32	125	111003014	121500802
66EMF103	HSK63/E	3	40	145	111204003	122000903
66EMF104	HSK63/E	4	48	165	111604514	122501204

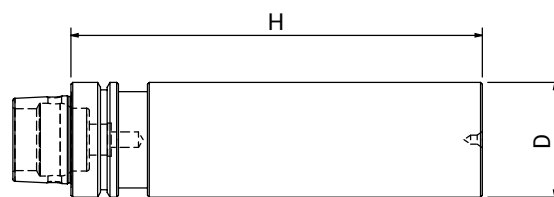
DIN 69893
 HSK E



COD	CONO	M	H	L	d	D	D1	BILANCIATURA
66EAF106	HSK63/E	M6	59	33	6,5	9,7	9,7	G2.5 20000
66EAF108	HSK63/E	M8	59	33	8,5	13	15	G2.5 20000
66EAF110	HSK63/E	M10	59	33	10,5	18	20	G2.5 20000
66EAF112	HSK63/E	M12	59	33	12,5	21	24	G2.5 20000
66EAF116	HSK63/E	M16	59	33	17	29	34	G2.5 20000
66EAF206	HSK63/E	M6	84	58	6,5	9,7	20	G2.5 20000
66EAF208	HSK63/E	M8	84	58	8,5	13	23	G2.5 20000
66EAF210	HSK63/E	M10	84	58	10,5	18	25	G2.5 20000
66EAF212	HSK63/E	M12	84	58	12,5	21	24	G2.5 20000
66EAF216	HSK63/E	M16	84	58	17	29	34	G2.5 20000
66EAF306	HSK63/E	M6	109	83	6,5	9,7	23	G2.5 20000
66EAF308	HSK63/E	M8	109	83	8,5	13	23	G2.5 20000
66EAF310	HSK63/E	M10	109	83	10,5	18	28	G2.5 20000
66EAF312	HSK63/E	M12	109	83	12,5	21	31	G2.5 20000
66EAF316	HSK63/E	M16	109	83	17	29	34	G2.5 20000
66EAF408	HSK63/E	M8	134	108	8,5	13	25	G2.5 20000
66EAF410	HSK63/E	M10	134	108	10,5	18	30	G2.5 20000
66EAF412	HSK63/E	M12	134	108	12,5	21	31	G2.5 20000
66EAF416	HSK63/E	M16	134	108	17	29	39	G2.5 20000
66EAF512	HSK63/E	M12	159	133	12,5	21	31	G2.5 20000
66EAF516	HSK63/E	M16	159	133	17	29	39	G2.5 20000

MANDRINI SEMILAVORATI A STELO TENERO
BLANK TOOLHOLDER WITH SOFT SHANK
ROHLINGE MIT WEICHEM SCHAFT
EBAUCHES

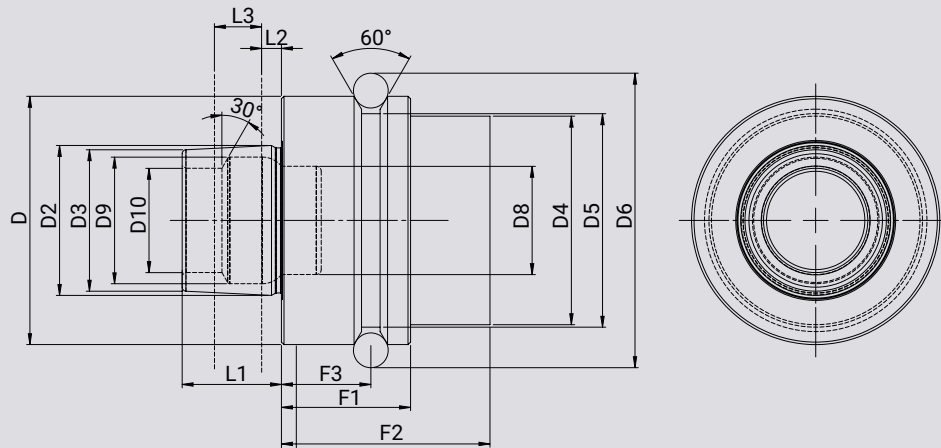
DIN 69893
HSK E



COD	CONO	H	D
65EST250	HSK50/E	200	50
65EST263	HSK50/E	200	63
66EST263	HSK63/E	200	63
66EST380	HSK63/E	250	80

DIN 69893 HSK F





D	D2	D3	D4	D5 _{-0,1}	D6 _{-0,1}	D8 ^{H10}	D9 ^{H11}	D10	F1 _{-0,1}	F2 min.	F3 ^{+/- 0,1}	L1 _{-0,2}	L2	L3
50	30 +0,007/+0,005	29,05 +0,005/+0,003	42	43	59,3	21	25,5	23	26	42	18	20	4	9,5
63	38 +0,009/+0,006	36,90 +0,006/+0,003	53	53	72,3	26	32	29	26	42	18	25	5	11

Tutti i mandrini portautensili PAGNONI TOOLS vengono prodotti secondo le normative DIN
 All PAGNONI TOOLS toolholders are manufactured according to DIN norms
 Alle PAGNONI TOOLS Aufnahme sind nach DIN Norm produziert
 Tous les mandrins porte-outils PAGNONI TOOLS sont produits suivant les specifications DIN

DATI TECNICI

PRE-BILANCIATI:

- Grado di equilibratura aggiuntiva indicato a fianco della tabella dimensionale
- Mandrini alte velocità: a richiesta classe massima di equilibratura G 2,5 30000

MATERIALI E TRATTAMENTI:

- Acciaio da cementazione legato
- Temprati-rinvenuti
- HRC 58 ± 2 - profondità di indurimento 0,4-0,5 mm
- Resistenza 800-1000 N/mm²
- Bruniti dopo trattamento termico
- Rettificati internamente e esternamente

TECHNISCHE DATEN

VORGEWUCHTET:

- Neben der Übersichtstabelle der Produkte wird die Wuchtgüte angegeben
- Hochgeschwindigkeits Werkzeughalter: Aus Wuchtgüte G2,5 30000 auf Anfrage

WERKSTOFF UND OBERFLÄCHENBEHANDLUNGEN:

- Legierter Einsatzstahl
- Gehärtet und angelassen
- Einsatzgehärtet HRC 58 ± 2 , Härtetiefe 0,4-0,5 mm
- Festigkeit 800-1000 N/mm²
- Brüniert nach wärmebehandlung
- Innen- und Außenschleifen

TECHNICAL FEATURES

PRE-BALANCED:

- Additional balancing grade beside dimensional table
- High-speed toolholders: balancing grade G 2,5 30000 on request

MATERIAL AND SURFACE TREATMENTS:

- Alloyed case-hardened steel
- Hardened-tempered
- Case hardened HRC 58 ± 2 - hardening depth 0,4-0,5 mm
- Strength 800-1000 N/mm²
- Black-finished after hardened
- Internal and external grinding

DONNE TECHNIQUES

PRÉ-ÉQUILIBRÉ:

- À côté du tableau de description et dimensions des produits il y a l'indication de la valeur d'équilibrage attentionnel
- Mandrins haute vitesse : sont équilibrés en classe G 2,5 à 30000 Tr/min-1 classe d'équilibrage maximale G 2,5 à 30000 Tr/min sur demande

MATÉRIAUX ET TRAITEMENTS:

- Acier de cémentation allié
- Temprés - Revenus
- Cémentation à HRC 58 ± 2 , profondeur de cémentation 0,4-0,5 mm
- Résistance 800-1000 N/mm²
- Bruni après traitement thermique
- Rectifié en interne et en externe



> PAG. 231



> PAG. 232



> PAG. 233



> PAG. 234



> PAG. 235



> PAG. 236



> PAG. 237



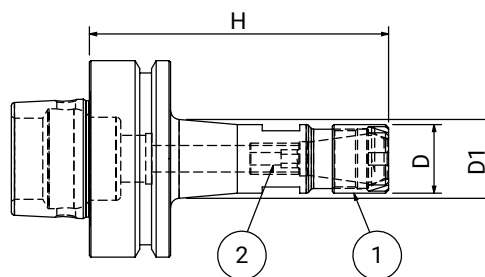
> PAG. 237



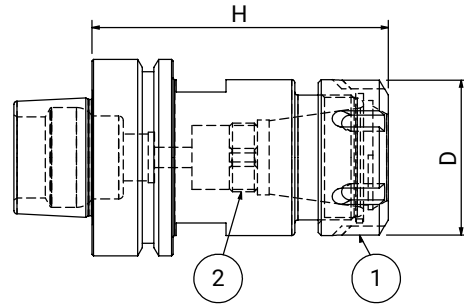
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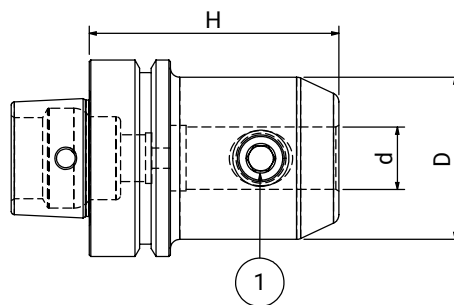
> PAG. 239



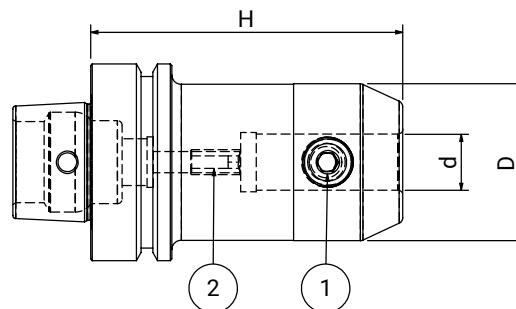
COD	CONO	TIPOLOGIA	H	D	D1	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
65FPM207	HSK50/F	ER11MINI	100	16	20	G2.5 20000	911GHRMN	100601004
65FPM210	HSK50/F	ER16MINI	100	22	24	G2.5 20000	916GHRMN	101001601
65FPM407	HSK50/F	ER11MINI	160	16	20	G2.5 20000	911GHRMN	100601004
65FPM410	HSK50/F	ER16MINI	160	22	35	G2.5 20000	916GHRMN	101001601
66FPM207	HSK63/F	ER11MINI	100	16	20	G2.5 20000	911GHRMN	100601004
66FPM210	HSK63/F	ER16MINI	100	22	26	G2.5 20000	916GHRMN	101001601
66FPM213	HSK63/F	ER20MINI	100	28	32	G2.5 20000	920GHRMN	101001601
66FPM216	HSK63/F	ER25MINI	100	35	39	G2.5 20000	925GHRMN	101815801



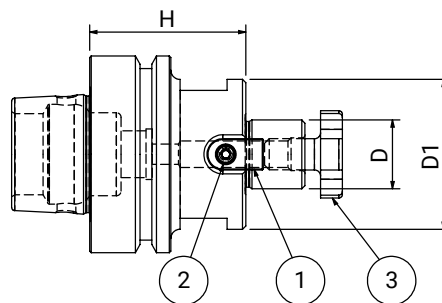
COD	CONO	TIPOLOGIA	H	D	BILANCIATURA	1 - GHIERA	2 - GRANO INTERNO
65FPP210	HSK50/F	ER16	100	32	G2.5 20000	916GHREQ	101001601
65FPP213	HSK50/F	ER20	100	35	G2.5 20000	920GHREQ	101001601
65FPP216	HSK50/F	ER25	100	42	G2.5 20000	925GHREQ	101815801
65FPP220	HSK50/F	ER32	100	50	G2.5 20000	932GHREQ	102215901
65FPP226	HSK50/F	ER40	100	63	G2.5 20000	940GHREQ	103015901
65FPP410	HSK50/F	ER16	160	32	G2.5 20000	916GHREQ	101001601
65FPP413	HSK50/F	ER20	160	35	G2.5 20000	920GHREQ	101001601
65FPP416	HSK50/F	ER25	160	42	G2.5 20000	925GHREQ	101815801
65FPP420	HSK50/F	ER32	160	50	G2.5 20000	932GHREQ	102215901
65FPP426	HSK50/F	ER40	160	63	G2.5 20000	940GHREQ	103015901
66FPP210	HSK63/F	ER16	100	32	G2.5 20000	916GHREQ	101001601
66FPP213	HSK63/F	ER20	100	35	G2.5 20000	920GHREQ	101001601
66FPP216	HSK63/F	ER25	100	42	G2.5 20000	925GHREQ	101815801
66FPP220	HSK63/F	ER32	100	50	G2.5 20000	932GHREQ	102215901
66FPP226	HSK63/F	ER40	100	63	G2.5 20000	940GHREQ	103015901
66FPP310	HSK63/F	ER16	120	32	G2.5 20000	916GHREQ	101001601
66FPP313	HSK63/F	ER20	120	35	G2.5 20000	920GHREQ	101001601
66FPP316	HSK63/F	ER25	120	42	G2.5 20000	925GHREQ	101815801
66FPP320	HSK63/F	ER32	120	50	G2.5 20000	932GHREQ	102215901
66FPP326	HSK63/F	ER40	120	63	G2.5 20000	940GHREQ	103015901
66FPP410	HSK63/F	ER16	160	32	G2.5 20000	916GHREQ	101001601
66FPP413	HSK63/F	ER20	160	35	G2.5 20000	920GHREQ	101001601
66FPP416	HSK63/F	ER25	160	42	G2.5 20000	925GHREQ	101815801
66FPP420	HSK63/F	ER32	160	50	G2.5 20000	932GHREQ	102215901
66FPP426	HSK63/F	ER40	160	63	G2.5 20000	940GHREQ	103015901



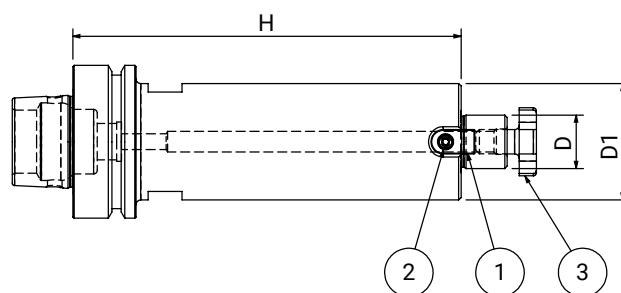
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
65FWLD06	HSK50/F	6	65	25	G2.5 20000	1 x 100601002
65FWLD08	HSK50/F	8	65	28	G2.5 20000	1 x 100801002
65FWLD10	HSK50/F	10	70	35	G2.5 20000	1 x 101001202
65FWLD12	HSK50/F	12	80	42	G2.5 20000	1 x 101201602
65FWLD14	HSK50/F	14	80	44	G2.5 20000	1 x 101201602
65FWLD16	HSK50/F	16	80	48	G2.5 20000	1 x 101401602
65FWLD18	HSK50/F	18	80	50	G2.5 20000	1 x 101401602
65FWLD20	HSK50/F	20	80	52	G2.5 20000	1 x 101601602
65FWLD25	HSK50/F	25	105	65	G2.5 20000	2 x 101802002
66FWLD06	HSK63/F	6	65	25	G2.5 20000	1 x 100601002
66FWLD08	HSK63/F	8	65	28	G2.5 20000	1 x 100801002
66FWLD10	HSK63/F	10	65	35	G2.5 20000	1 x 101001202
66FWLD12	HSK63/F	12	80	42	G2.5 20000	1 x 101201602
66FWLD14	HSK63/F	14	80	44	G2.5 20000	1 x 101201602
66FWLD16	HSK63/F	16	80	48	G2.5 20000	1 x 101401602
66FWLD18	HSK63/F	18	80	50	G2.5 20000	1 x 101401602
66FWLD20	HSK63/F	20	80	52	G2.5 20000	1 x 101601602
66FWLD25	HSK63/F	25	110	65	G2.5 20000	2 x 101802002
66FWLD32	HSK63/F	32	110	72	G2.5 20000	2 x 102002002
66FWE206	HSK63/F	6	100	25	G2.5 20000	1 x 100601002
66FWE208	HSK63/F	8	100	28	G2.5 20000	1 x 100801002
66FWE210	HSK63/F	10	100	35	G2.5 20000	1 x 101001202
66FWE212	HSK63/F	12	100	42	G2.5 20000	1 x 101201602
66FWE214	HSK63/F	14	100	44	G2.5 20000	1 x 101201602
66FWE216	HSK63/F	16	100	48	G2.5 20000	1 x 101401602
66FWE218	HSK63/F	18	100	50	G2.5 20000	1 x 101401602
66FWE220	HSK63/F	20	100	52	G2.5 20000	1 x 101601602
66FWE406	HSK63/F	6	160	25	G2.5 20000	1 x 100601002
66FWE408	HSK63/F	8	160	28	G2.5 20000	1 x 100801002
66FWE410	HSK63/F	10	160	35	G2.5 20000	1 x 101001202
66FWE412	HSK63/F	12	160	42	G2.5 20000	1 x 101201602
66FWE414	HSK63/F	14	160	44	G2.5 20000	1 x 101201602
66FWE416	HSK63/F	16	160	48	G2.5 20000	1 x 101401602
66FWE418	HSK63/F	18	160	50	G2.5 20000	1 x 101401602
66FWE420	HSK63/F	20	160	52	G2.5 20000	1 x 101601602
66FWE425	HSK63/F	25	160	65	G2.5 20000	2 x 101802002
66FWE432	HSK63/F	32	160	72	G2.5 20000	2 x 102002002
66FWE440	HSK63/F	40	160	80	G2.5 20000	2 x 102002002



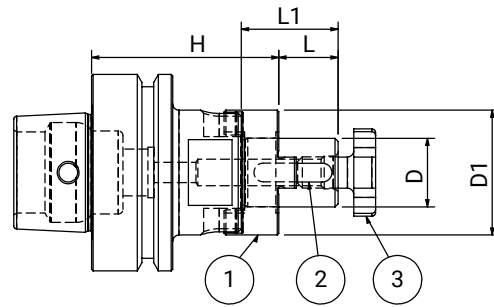
COD	CONO	d	H	D	BILANCIATURA	1 - GRANO
65FWHN06	HSK50/F	6	80	25	G2.5 20000	1 x 100601002
65FWHN08	HSK50/F	8	80	28	G2.5 20000	1 x 100801002
65FWHN10	HSK50/F	10	80	35	G2.5 20000	1 x 101001202
65FWHN12	HSK50/F	12	90	42	G2.5 20000	1 x 101201602
65FWHN14	HSK50/F	14	90	44	G2.5 20000	1 x 101201602
65FWHN16	HSK50/F	16	100	48	G2.5 20000	1 x 101401602
65FWHN18	HSK50/F	18	100	50	G2.5 20000	1 x 101401602
65FWHN20	HSK50/F	20	100	52	G2.5 20000	1 x 101601602
65FWHN25	HSK50/F	25	110	65	G2.5 20000	2 x 101802002
65FWHN32	HSK50/F	32	120	72	G2.5 20000	2 x 102002002
66FWHN06	HSK63/F	6	80	25	G2.5 20000	1 x 100601002
66FWHN08	HSK63/F	8	80	28	G2.5 20000	1 x 100801002
66FWHN10	HSK63/F	10	80	35	G2.5 20000	1 x 101001202
66FWHN12	HSK63/F	12	90	42	G2.5 20000	1 x 101201602
66FWHN14	HSK63/F	14	90	44	G2.5 20000	1 x 101201602
66FWHN16	HSK63/F	16	100	48	G2.5 20000	1 x 101401602
66FWHN18	HSK63/F	18	100	50	G2.5 20000	1 x 101401602
66FWHN20	HSK63/F	20	100	52	G2.5 20000	1 x 101601602
66FWHN25	HSK63/F	25	110	65	G2.5 20000	2 x 101802002
66FWHN32	HSK63/F	32	115	72	G2.5 20000	2 x 102002002



COD	CONO	D	H	D1	BILANCIATURA	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
65FPF116	HSK50/F	16	50	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
65FPF122	HSK50/F	22	50	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
65FPF127	HSK50/F	27	60	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
65FPF132	HSK50/F	32	60	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
65FPF140	HSK50/F	40	70	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02
66FPF116	HSK63/F	16	50	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
66FPF122	HSK63/F	22	50	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
66FPF127	HSK63/F	27	60	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
66FPF132	HSK63/F	32	60	63	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
66FPF140	HSK63/F	40	60	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02
66FPF216	HSK63/F	16	100	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
66FPF222	HSK63/F	22	100	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
66FPF227	HSK63/F	27	100	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
66FPF232	HSK63/F	32	100	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
66FPF240	HSK63/F	40	100	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02



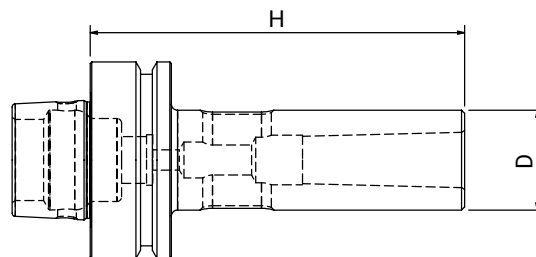
COD	CONO	D	H	D1	BILANCIATURA	1 - TASSELLO	2 - VITE	3 - VITE A CROCE
66FPF316	HSK63/F	16	130	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
66FPF322	HSK63/F	22	130	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
66FPF327	HSK63/F	27	130	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
66FPF332	HSK63/F	32	130	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
66FPF340	HSK63/F	40	130	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02
66FPF416	HSK63/F	16	160	38	G2.5 20000	2 x 916TSL01	2 x 110301001	916VTC02
66FPF422	HSK63/F	22	160	48	G2.5 20000	2 x 922TSL01	2 x 110301201	922VTC02
66FPF427	HSK63/F	27	160	58	G2.5 20000	2 x 927TSL01	2 x 110401601	927VTC02
66FPF432	HSK63/F	32	160	66	G2.5 20000	2 x 932TSL01	2 x 110601601	932VTC02
66FPF440	HSK63/F	40	160	80	G2.5 20000	2 x 940TSL01	2 x 110601601	940VTC02



COD	CONO	D	H	L	L1	D1	1 - GIUNTO	2 - LINGUETTA	3 - VITE A CROCE
66FPU116	HSK63/F	16	60	17	27	32	916GNT01	170402004	916VTC02
66FPU122	HSK63/F	22	60	19	31	40	922GNT01	170602506	922VTC02
66FPU127	HSK63/F	27	60	21	33	48	927GNT01	170702507	927VTC02
66FPU132	HSK63/F	32	60	24	38	58	932GNT01	170802807	932VTC02
66FPU140	HSK63/F	40	70	27	41	70	940GNT01	171003208	940VTC02
66FPU416	HSK63/F	16	160	17	27	32	916GNT01	170402004	916VTC02
66FPU422	HSK63/F	22	160	19	31	40	922GNT01	170602506	922VTC02
66FPU427	HSK63/F	27	160	21	33	48	927GNT01	170702507	927VTC02
66FPU432	HSK63/F	32	160	24	38	58	932GNT01	170802807	932VTC02
66FPU440	HSK63/F	40	160	27	41	70	940GNT01	171003208	940VTC02

MANDRINI ATTACCO CONO MORSE PUNTE
MORSE TAPER ADAPTORS FOR DRILLS
ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT AUSTREIBLAPPEN
DOUILLES PUOR CONE MORSE A TENON

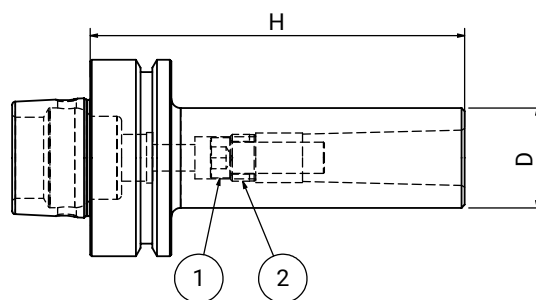
DIN 69893
HSK F
DIN 228-2



COD	CONO	MORSE	H	D
65FMP101	HSK50/F	1	100	25
65FMP102	HSK50/F	2	120	32
65FMP103	HSK50/F	3	140	40
65FMP104	HSK50/F	4	160	48
66FMP101	HSK63/F	1	100	25
66FMP102	HSK63/F	2	120	32
66FMP103	HSK63/F	3	140	40
66FMP104	HSK63/F	4	165	48

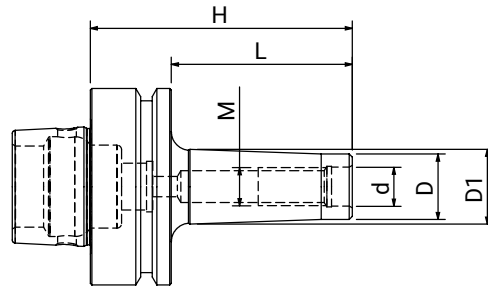
MANDRINI ATTACCO CONO MORSE FRESE
MORSE TAPER ADAPTORS WITH THREAD
ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT ANZUGSGEWINDE
DOUILLES PUOR CONE MORSE AVEC TARAUDAGE

DIN 69893
HSK F
DIN 228-2

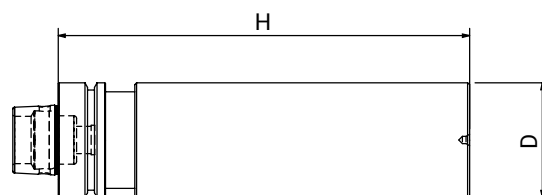


COD	CONO	MORSE	D	H	1 - VITE	2 - GHIERA
65FMF101	HSK50/F	1	25	100	110603501	121206502
65FMF102	HSK50/F	2	32	120	111003014	121500802
65FMF103	HSK50/F	3	40	140	111204003	122000903
66FMF101	HSK63/F	1	25	100	110603501	-
66FMF102	HSK63/F	2	32	120	111003014	121500802
66FMF103	HSK63/F	3	40	140	111204016	122000903
66FMF104	HSK63/F	4	48	160	111604516	122501204

DIN 69893
 HSK F



COD	CONO	M	H	L	d	D	D1	BILANCIATURA
66FAF106	HSK63/F	M6	59	33	6,5	9,7	9,7	G2.5 20000
66FAF108	HSK63/F	M8	59	33	8,5	13	15	G2.5 20000
66FAF110	HSK63/F	M10	59	33	10,5	18	20	G2.5 20000
66FAF112	HSK63/F	M12	59	33	12,5	21	24	G2.5 20000
66FAF116	HSK63/F	M16	59	33	17	29	34	G2.5 20000
66FAF206	HSK63/F	M6	84	58	6,5	9,7	20	G2.5 20000
66FAF208	HSK63/F	M8	84	58	8,5	13	23	G2.5 20000
66FAF210	HSK63/F	M10	84	58	10,5	18	25	G2.5 20000
66FAF212	HSK63/F	M12	84	58	12,5	21	24	G2.5 20000
66FAF216	HSK63/F	M16	84	58	17	29	34	G2.5 20000
66FAF306	HSK63/F	M6	109	83	6,5	9,7	23	G2.5 20000
66FAF308	HSK63/F	M8	109	83	8,5	13	23	G2.5 20000
66FAF310	HSK63/F	M10	109	83	10,5	18	28	G2.5 20000
66FAF312	HSK63/F	M12	109	83	12,5	21	31	G2.5 20000
66FAF316	HSK63/F	M16	109	83	17	29	34	G2.5 20000
66FAF408	HSK63/F	M8	134	108	8,5	13	25	G2.5 20000
66FAF410	HSK63/F	M10	134	108	10,5	18	30	G2.5 20000
66FAF412	HSK63/F	M12	134	108	12,5	21	31	G2.5 20000
66FAF416	HSK63/F	M16	134	108	17	29	39	G2.5 20000



COD	CONO	H	D
65FST250	HSK50/F	200	50
65FST263	HSK50/F	200	63
66FST263	HSK63/F	200	63
66FST380	HSK63/F	250	80

**ADATTATORI MODULARI
MODULAR ADAPTOR
MODULARER ADAPTER
ADAPTATEUR MODULAIRE**



ADATTATORI MODULARI
MODULAR ADAPTOR
MODULARER ADAPTER
ADAPTATEUR MODULAIRE



> PAG. 243



> PAG. 244



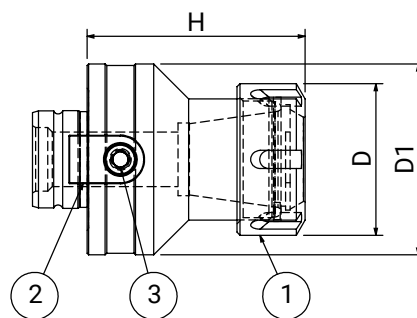
> PAG. 245



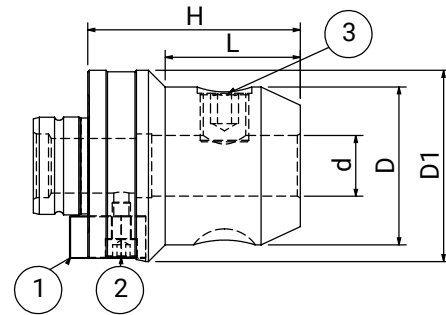
> PAG. 246



> PAG. 247

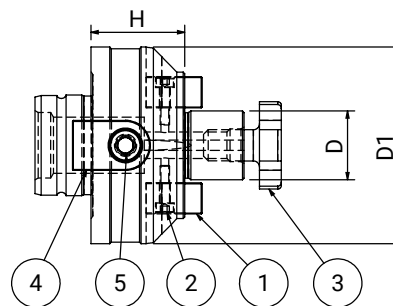


COD	TIPOLOGIA	D	H	D1	1 - GHIERA	2 - TASSELLO	3 - VITE
VL5PP113	ER20	50	63	35	920GHREQ	927TSL03	110401601
VL5PP116	ER25	50	63	42	925GHREQ	927TSL03	110401601
VL5PP120	ER32	50	65	50	932GHREQ	927TSL03	110401601
VL6PP120	ER32	63	77	50	932GHREQ	940TSL06	110601201
VL6PP126	ER40	63	86	63	940GHREQ	940TSL06	110601201
VL8PP126	ER40	63	90	62	940GHREQ	940TSL01	110601601

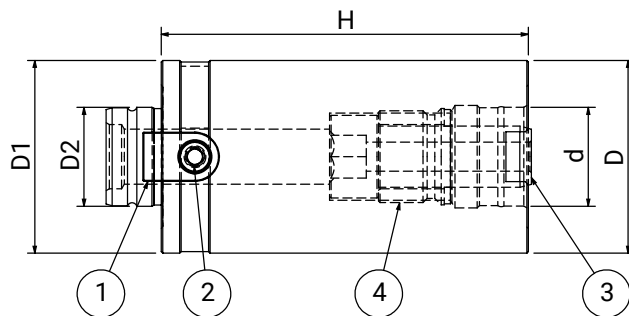


COD	d	H	D	D1	L	1 - TASSELLO	2 - VITE	3 - GRANO
VL5WLD06	6	50	25	50	25	927TSL03	110401201	100601002
VL5WLD08	8	50	28	50	25	927TSL03	110401201	100801002
VL5WLD10	10	50	38	50	28	927TSL03	110401201	101001202
VL5WLD12	12	60	42	50	36	927TSL03	110401201	101201602
VL5WLD14	14	60	44	50	37	927TSL03	110401201	101201602
VL5WLD16	16	60	48	50	39	927TSL03	110401201	101401602
VL5WLD18	18	60	50	50	45	927TSL03	110401201	101401602
VL5WLD20	20	62	52	50	47	927TSL03	110401201	101601602
VL5WLD25	25	80	65	50	66	927TSL03	110401201	101802002
VL6WLD10	10	70	35	63	36	940TSL06	110601201	101001202
VL6WLD12	12	70	42	63	39,5	940TSL06	110601201	101201602
VL6WLD14	14	70	44	63	40,5	940TSL06	110601201	101201602
VL6WLD16	16	70	48	63	42,5	940TSL06	110601201	101401602
VL6WLD18	18	70	50	63	43,5	940TSL06	110601201	101401602
VL6WLD20	20	70	52	63	44,5	940TSL06	110601201	101601602
VL6WLD25	25	80	62	63	59,5	940TSL06	110601201	101802002
VL6WLD32	38	80	63	63	64,5	940TSL06	110601201	102002002
VL6WLD40	40	90	80	63	70	940TSL06	110601201	102002002
VL8WLD16	16	70	48	80	32	940TSL01	110601601	101401602
VL8WLD20	20	70	52	80	34	940TSL01	110601601	101601602
VL8WLD25	25	80	65	80	50,5	940TSL01	110601601	101802002
VL8WLD32	32	80	72	80	54	940TSL01	110601601	102002002
VL8WLD40	40	90	79	80	67,5	940TSL01	110601601	102002002

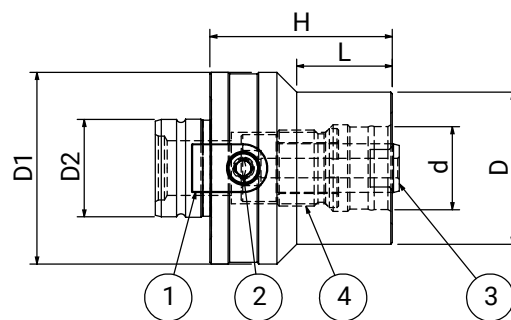
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COD	D	H	D1	1 - TASSELLO	2 - VITE	3 - VITE A CROCE	4 - TASSELLO	5 - VITE
VL5PF116	50	30	16	2 x 916TSL01	2 x 110301001	1 x 916VTC02	1 x 927TSL03	1 x 110401201
VL5PF122	50	20	22	2 x 922TSL01	2 x 110301201	1 x 922VTC02	1 x 927TSL03	1 x 110401201
VL5PF127	50	20	27	2 x 927TSL01	2 x 110401601	1 x 927VTC02	1 x 927TSL03	1 x 110401201
VL5PF132	50	25	32	2 x 932TSL01	2 x 110601601	1 x 932VTC02	1 x 927TSL03	1 x 110401201
VL6PF122	63	30	22	2 x 922TSL01	2 x 110301201	1 x 922VTC02	1 x 940TSL06	1 x 110601201
VL6PF127	63	30	27	2 x 927TSL01	2 x 110401601	1 x 927VTC02	1 x 940TSL06	1 x 110601201
VL6PF132	63	30	32	2 x 932TSL01	2 x 110601601	1 x 932VTC02	1 x 940TSL06	1 x 110601201
VL6PF140	63	30	40	2 x 940TSL01	2 x 110601601	1 x 940VTC02	1 x 940TSL06	1 x 110601201
VL8PF127	80	30	27	2 x 927TSL01	2 x 110401201	1 x 927VTC02	1 x 940TSL01	1 x 110601601
VL8PF132	80	30	32	2 x 932TSL01	2 x 110401601	1 x 932VTC02	1 x 940TSL01	1 x 110601601
VL8PF140	80	30	40	2 x 940TSL01	2 x 110601601	1 x 940VTC02	1 x 940TSL01	1 x 110601601



COD	D	H	d	D1	D2	1 - TASSELLO	2 - VITE	3 - VITE	4 - GHIERA
VL5PR060	50	60	27	50	27	927TSL03	111604011	110401201	122502007
VL5PR080	50	80	27	50	27	927TSL03	111604011	110401201	122502007
VL5PR100	50	100	27	50	27	927TSL03	111604011	110401201	122502007
VL6PR080	63	80	32	63	32	940TSL06	110601201	112005012	123002408
VL6PR120	63	120	32	63	32	940TSL06	110601201	112005012	123002408
VL8PR080	80	80	32	80	32	940TSL01	110601601	112005011	123002408
VL8PR100	80	100	32	80	32	940TSL01	110601601	112005011	123002408
VL8PR120	80	120	32	80	32	940TSL01	110601601	112005011	123002408
VL8PR140	80	140	32	80	32	940TSL01	110601601	112005011	123002408
VL8PR160	80	160	32	80	32	940TSL01	110601601	112005011	123002408



COD	D1	H	L	D	D2	d	1 - TASSELLO	2 - VITE	3 - VITE	4 - GHIERA
VL6RD050	63	60	31,5	50	32	27	940TSL03	110601201	111604011	122502007
VL8RD163	80	80	49,5	63	32	32	112005011	123002408	110601601	940TSL01

MANDRINI CON ATTACCO CILINDRICO
COLLET CHUCKS WITH STRAIGHT SHANK
SPANNFUTTER MIT ZYLINDERSCHAFT
MANDRINS A PINCES A QUEUE CYLINDRIQUE



MANDRINI CON ATTACCO CILINDRICO
COLLET CHUCKS WITH STRAIGHT SHANK
SPANNFUTTER MIT ZYLINDERSCHAFT
MANDRINS A PINCES A QUEUE CYLINDRIQUE



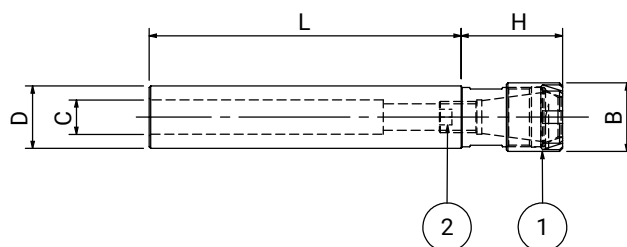
> PAG. 251



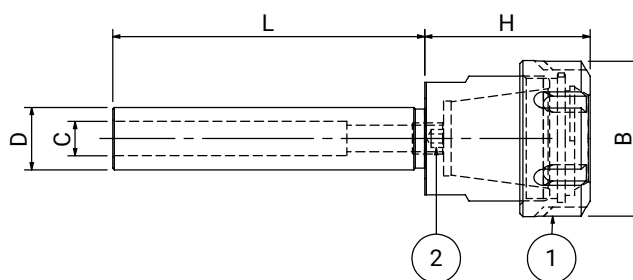
> PAG. 252



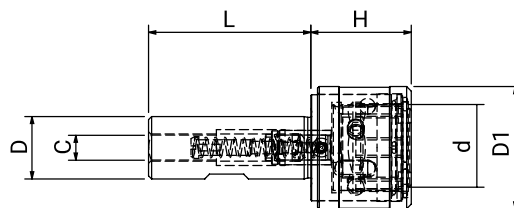
> PAG. 253



COD	TIPOLOGIA	D	H	L	B	C	1 - GHIERA	1 - GRANO INTERNO
706PM107	ER11MINI	6	37,1	45	16		911GHRMN	
708PM207	ER11MINI	8	37,1	100	16		911GHRMN	
710PM207	ER11MINI	10	25,6	100	16		911GHRMN	
710PM210	ER16MINI	10	37,6	100	22		916GHRMN	
712PM207	ER11MINI	12	25,6	100	16		911GHRMN	
712PM310	ER16MINI	12	37,6	120	22		916GHRMN	
716PM210	ER16MINI	16	37,6	100	22	7,5	916GHRMN	100600604
716PM410	ER16MINI	16	37,6	160	22	7,5	916GHRMN	100600604
720PM210	ER16MINI	20	37,6	100	22	11	916GHRMN	101001204
720PM216	ER25MINI	20	46	100	35	11	925GHRMN	101001204
720PM410	ER16MINI	20	40,6	160	22	12	916GHRMN	101001204
725PM210	ER16MINI	25	30,6	100	22	15	916GHRMN	101001204
725PM213	ER25MINI	25	40	100	28	15	920GHRMN	101001604
725PM316	ER25MINI	25	52	130	35	15	925GHRMN	101001604
725PM410	ER16MINI	25	30,6	160	22	15	916GHRMN	101001204



COD	TIPOLOGIA	D	H	L	B	C	1 - GHIERA	1 - GRANO INTERNO
716PP110	ER16	16	37,6	60	32	7	916GHREQ	100600604
716PP210	ER16	16	37,6	100	32	7,5	916GHREQ	100601004
720PP210	ER16	20	40,6	100	32	12	916GHREQ	101001204
720PP220	ER32	20	53	100	50	11	932GHREQ	101001204
725PP216	ER25	25	40	100	42	15	925GHREQ	101201004
725PP316	ER25	25	40	150	42	15	925GHREQ	101201004
725PP416	ER25	25	40	160	42	15	925GHREQ	101201004
725PP420	ER32	25	53	160	50	15	932GHREQ	101201604
732PP220	ER32	32	53	100	50	20	932GHREQ	101601604
732PP226	ER40	32	61	100	63	20	940GHREQ	101601604
732PP320	ER32	32	53	150	50	20	932GHREQ	101601604
732PP420	ER32	32	53	160	50	20	932GHREQ	101601604
740PP220	ER32	40	53	100	50	25	932GHREQ	101601604
740PP326	ER40	40	65	130	63	25	940GHREQ	101601604

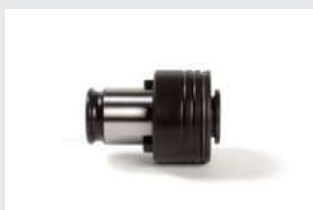


COD	RANGE	SIZE	D	L	C	H	d	D1
720PCRM1	M3-M12	GR.1	20	52	8	40,5	19	39,2
725PCRM1	M3-M12	GR.1	25	60	8	40,5	19	39,2
725PCRM2	M6-M20	GR.2	25	60	9,5	76,5	31	54,5
732PCRM2	M6-M20	GR.2	32	60	9,5	76,5	31	54,5

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 ZUBEHÖR
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> PAG. 257



> PAG. 258



> PAG. 259



> PAG. 260



> PAG. 264



> PAG. 268



> PAG. 270



> PAG. 270



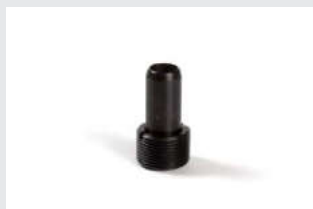
> PAG. 271



> PAG. 271



> PAG. 272



> PAG. 276



> PAG. 276



> PAG. 277



> PAG. 277



> PAG. 278



> PAG. 279



> PAG. 280



> PAG. 280



> PAG. 281



> PAG. 281



> PAG. 281

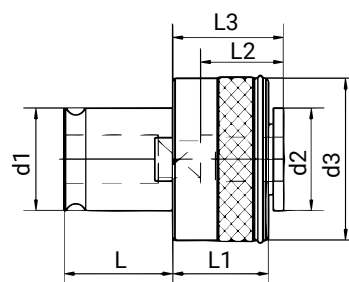


> PAG. 282



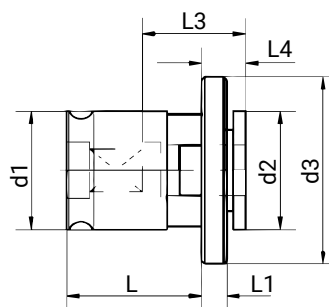
> PAG. 282

BUSSOLE PER MASCHIARE CON FRIZIONE
QUICK CHANGE TAPPING ADAPTERS WITH SAFETY COUPLING
SCHNELL WECHSELEINSAETZE MIT SICHERHEITSKUPPLUNG
ADAPTEURS A CHANGEMENT RAPIDE AVEC COUPLAGE DE SECURITÉ



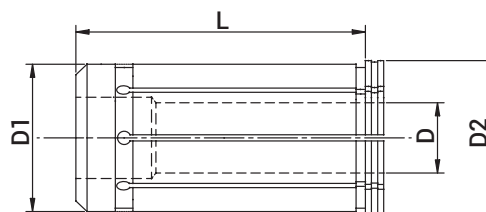
COD	C	SIZE	d1	d2	d3	L	L1	L2	L3
BCF1-3.5	3,5x2,7	M3	19	19	32	21,5	25	17	25
BCF1-4.5	4,5x3,4	M4	19	19	32	21,5	25	17	25
BCF1-5.5	5,5x4,3	M6	19	19	32	21,5	25	17	25
BCF1-6.0	6x4,9	M5 - M6	19	19	32	21,5	25	17	25
BCF1-7.0	7x5,5	M10	19	19	32	21,5	25	17	25
BCF1-8.0	8x6,2	M8	19	19	32	21,5	25	17	25
BCF1-9.0	9x7,0	M12	19	19	32	21,5	25	17	25
BCF1-10.0	10x8,0	M10	19	19	32	21,5	25	17	25
BCF1-11.0	11x9,0	M12	19	19	32	21,5	25	17	25
BCF2-6.0	6x4,9	M5 - M6 - M8	31	30	50	35	31	30	34
BCF2-7.0	7x5,5	M10	31	30	50	35	31	30	34
BCF2-8.0	8x6,2	M8	31	30	50	35	31	30	34
BCF2-9.0	9x7,0	M12	31	30	50	35	31	30	34
BCF2-10.0	10x8,0	M10	31	30	50	35	31	30	34
BCF2-11.0	11x9,0	M14	31	30	50	35	31	30	34
BCF2-12.0	12x9,0	M12	31	30	50	35	31	30	34
BCF2-14.0	14x11,0	M18	31	30	50	35	31	30	34
BCF2-16.0	16x12,0	M20	31	30	50	35	31	30	34
BCF2-18.0	18x14,6	M22	31	30	50	35	31	30	34

BUSSOLE PER MASCHIARE SENZA FRIZIONE
QUICK CHANGE TAPPING ADAPTERS WITHOUT SAFETY COUPLING
SCHNELL WECHSELEINSAETZE OHNE SICHERHEITSKUPPLUNG
ADAPTEURS A CHANGEMENT RAPIDE SANS COUPLAGE DE SECURITÉ

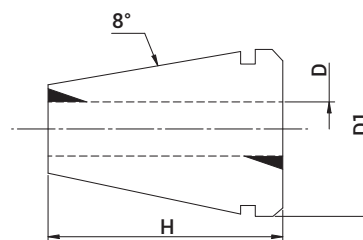


COD	C	SIZE	d1	d2	d3	L	L1	L2	L3
BSF1-2.8	2,8x2,1	M2 - M2,2 - M2,5	19	19	30	21,5	4	17	7
BSF1-3.5	3,5x2,7	M3 - M5	19	19	30	21,5	4	17	7
BSF1-4.0	4x3,0	M3,5	19	19	30	21,5	4	17	7
BSF1-4.5	4,5x3,4	M4 - M6	19	19	30	21,5	4	17	7
BSF1-5.0	5x4,0	M5	19	19	30	21,5	4	17	7
BSF1-6.0	6x4,9	M5 - M6 - M8	19	19	30	21,5	4	17	7
BSF1-7.0	7x5,5	M10	19	19	30	21,5	4	17	7
BSF1-8.0	8x6,2	M8	19	19	30	21,5	4	17	7
BSF1-9.0	9x7,0	M12	19	19	30	21,5	4	17	7
BSF1-10.0	10x8,0	M10	19	19	30	21,5	4	17	7
BSF1-11.0	11x9,0	M14	19	19	30	21,5	4	17	7
BSF2-6.0	6x4,9	M5 - M6 - M8	31	30	48	35	5	30	11
BSF2-7.0	7x5,5	M10	31	30	48	35	5	30	11
BSF2-8.0	8x6,2	M8	31	30	48	35	5	30	11
BSF2-9.0	9x7,0	M12	31	30	48	35	5	30	11
BSF2-10.0	10x9,0	M10	31	30	48	35	5	30	11
BSF2-11.0	11x9,0	M14	31	30	48	35	5	30	11
BSF2-12.0	12x9,0	M16	31	30	48	35	5	30	11
BSF2-14.0	14x11,0	M18	31	30	48	35	5	30	11
BSF2-16.0	16x12,0	M20	31	30	48	35	5	30	11
BSF2-18.0	18x14,6	M22 - M24	31	30	48	35	5	30	11
BSF2-20.0	20x16,0	M27 - M30	31	30	48	35	5	30	11

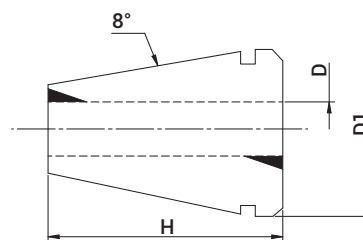
PINZE PER MANDRINI A FORTE SERRAGGIO
HEAVY DUTY MILLING CHUCKS COLLETS
SPANNZANGEN FÜR KRAFTSPANNFUTTER
PINCES POUR MANDRINS A FORT SERRAGE



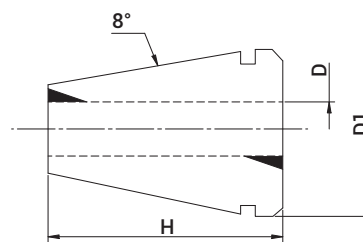
COD	D1	D2	L	D
912BFS03	12	24	40	3
912BFS04	12	24	40	4
912BFS06	12	24	40	6
912BFS08	12	24	40	8
912BFS10	12	24	40	10
916BFS03	16	24	47	3
916BFS04	16	24	47	4
916BFS06	16	24	47	6
916BFS08	16	24	47	8
916BFS10	16	24	47	10
916BFS12	16	24	47	12
920BFS06	20	24	50	6
920BFS08	20	24	50	8
920BFS10	20	24	50	10
920BFS12	20	24	50	12
920BFS16	20	24	50	16
932BFS06	32	37	62	6
932BFS08	32	37	62	8
932BFS10	32	37	62	10
932BFS12	32	37	62	12
932BFS16	32	37	62	16
932BFS20	32	37	62	20
932BFS25	32	37	62	25



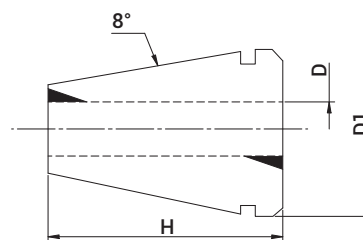
COD	TIPO PINZA	D	H	D1
908ER010	ER8	1-0,5	13,5	8,5
908ER015	ER8	1,5-1	13,5	8,5
908ER020	ER8	2-1,5	13,5	8,5
908ER025	ER8	2,5-2	13,5	8,5
908ER030	ER8	3-2,5	13,5	8,5
908ER035	ER8	3,5-3	13,5	8,5
908ER040	ER8	4-3,5	13,5	8,5
908ER045	ER8	4,5-4	13,5	8,5
908ER050	ER8	5-4,5	13,5	8,5
911ER010	ER11	1-0,5	18	11,5
911ER015	ER11	1,5-1	18	11,5
911ER020	ER11	2-1,5	18	11,5
911ER025	ER11	2,5-2	18	11,5
911ER030	ER11	3-2,5	18	11,5
911ER035	ER11	3,5-3	18	11,5
911ER040	ER11	4-3,5	18	11,5
911ER045	ER11	4,5-4	18	11,5
911ER050	ER11	5-4,5	18	11,5
911ER055	ER11	5,5-5	18	11,5
911ER060	ER11	6-5,5	18	11,5
911ER065	ER11	6,5-6	18	11,5
911ER070	ER11	7-6,5	18	11,5
916ER010	ER16	1-0,5	27,5	17
916ER020	ER16	2-1	27,5	17
916ER030	ER16	3-2	27,5	17
916ER040	ER16	4-3	27,5	17
916ER050	ER16	5-4	27,5	17
916ER060	ER16	6-5	27,5	17
916ER070	ER16	7-6	27,5	17
916ER080	ER16	8-7	27,5	17
916ER090	ER16	9-8	27,5	17
916ER100	ER16	10-9	27,5	17



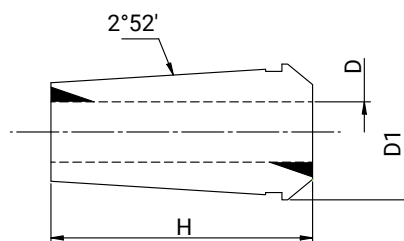
COD	TIPO PINZA	D	H	D1
920ER010	ER20	1-0,5	31,5	21
920ER020	ER20	2-1	31,5	21
920ER030	ER20	3-2	31,5	21
920ER040	ER20	4-3	31,5	21
920ER050	ER20	5-4	31,5	21
920ER060	ER20	6-5	31,5	21
920ER070	ER20	7-6	31,5	21
920ER080	ER20	8-7	31,5	21
920ER090	ER20	9-8	31,5	21
920ER100	ER20	10-9	31,5	21
920ER110	ER20	11-10	31,5	21
920ER120	ER20	12-11	31,5	21
920ER130	ER20	13-12	31,5	21
925ER010	ER25	1-0,5	34	26
925ER020	ER25	2-1,5	34	26
925ER030	ER25	3-2,5	34	26
925ER040	ER25	4-3,5	34	26
925ER050	ER25	5-4	34	26
925ER060	ER25	6-5	34	26
925ER070	ER25	7-6	34	26
925ER080	ER25	8-7	34	26
925ER090	ER25	9-8	34	26
925ER100	ER25	10-9	34	26
925ER110	ER25	11-10	34	26
925ER120	ER25	12-11	34	26
925ER130	ER25	13-12	34	26
925ER140	ER25	14-13	34	26
925ER150	ER25	15-14	34	26
925ER160	ER25	16-15	34	26



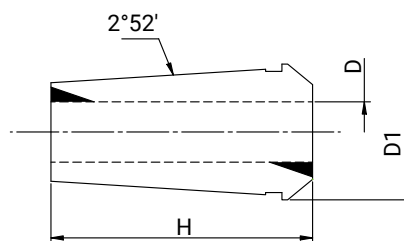
COD	TIPO PINZA	D	H	D1
932ER030	ER32	3-2	40	33
932ER040	ER32	4-3	40	33
932ER050	ER32	5-4	40	33
932ER060	ER32	6-5	40	33
932ER070	ER32	7-6	40	33
932ER080	ER32	8-7	40	33
932ER090	ER32	9-8	40	33
932ER100	ER32	10-9	40	33
932ER110	ER32	11-10	40	33
932ER120	ER32	12-11	40	33
932ER130	ER32	13-12	40	33
932ER140	ER32	14-13	40	33
932ER150	ER32	15-14	40	33
932ER160	ER32	16-15	40	33
932ER170	ER32	17-16	40	33
932ER180	ER32	18-17	40	33
932ER190	ER32	19-18	40	33
932ER200	ER32	20-19	40	33



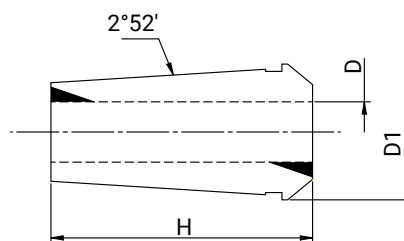
COD	TIPO PINZA	D	H	D1
940ER030	ER40	3-2	46	41
940ER040	ER40	4-3	46	41
940ER050	ER40	5-4	46	41
940ER060	ER40	6-5	46	41
940ER070	ER40	7-6	46	41
940ER080	ER40	8-7	46	41
940ER090	ER40	9-8	46	41
940ER100	ER40	10-9	46	41
940ER110	ER40	11-10	46	41
940ER120	ER40	12-11	46	41
940ER130	ER40	13-12	46	41
940ER140	ER40	14-13	46	41
940ER150	ER40	15-14	46	41
940ER160	ER40	16-15	46	41
940ER170	ER40	17-16	46	41
940ER180	ER40	18-17	46	41
940ER190	ER40	19-18	46	41
940ER200	ER40	20-19	46	41
940ER210	ER40	21-20	46	41
940ER220	ER40	22-21	46	41
940ER230	ER40	23-22	46	41
940ER240	ER40	24-23	46	41
940ER250	ER40	25-24	46	41
940ER260	ER40	26-25	46	41
940ER270	ER40	27-26	46	41
940ER280	ER40	28-27	46	41
940ER290	ER40	29-28	46	41
940ER300	ER40	30-29	46	41



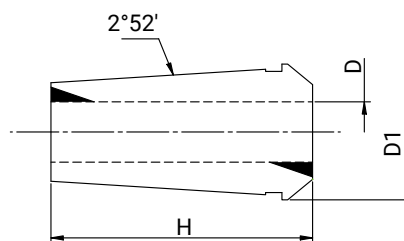
COD	TIPO PINZA	D	H	D1
916E0010	EOC16	1-0,5	40	25,5
916E0015	EOC16	1,5-1	40	25,5
916E0020	EOC16	2-1,5	40	25,5
916E0025	EOC16	2,5-2	40	25,5
916E0030	EOC16	3-2,5	40	25,5
916E0035	EOC16	3,5-3	40	25,5
916E0040	EOC16	4-3,5	40	25,5
916E0045	EOC16	4,5-4	40	25,5
916E0050	EOC16	5-4,5	40	25,5
916E0055	EOC16	5,5-5	40	25,5
916E0060	EOC16	6-5,5	40	25,5
916E0065	EOC16	6,5-6	40	25,5
916E0070	EOC16	7-6,5	40	25,5
916E0075	EOC16	7,5-7	40	25,5
916E0080	EOC16	8-7,5	40	25,5
916E0085	EOC16	8,5-8	40	25,5
916E0090	EOC16	9-8,5	40	25,5
916E0095	EOC16	9,5-9	40	25,5
916E0100	EOC16	10-9,5	40	25,5
916E0105	EOC16	10,5-10	40	25,5
916E0110	EOC16	11-10,5	40	25,5
916E0115	EOC16	11,5-11	40	25,5
916E0120	EOC16	12-11,5	40	25,5
916E0125	EOC16	12,5-12	40	25,5
916E0130	EOC16	13-12,5	40	25,5
916E0135	EOC16	13,5-13	40	25,5
916E0140	EOC16	14-13,5	40	25,5
916E0145	EOC16	14,5-14	40	25,5
916E0150	EOC16	15-14,5	40	25,5
916E0155	EOC16	15,5-15	40	25,5
916E0160	EOC16	16-15,5	40	25,5



COD	TIPO PINZA	D	H	D1
925E0020	EOC25	2-1,5	52	35
925E0025	EOC25	2,5-2	52	35
925E0030	EOC25	3-2,5	52	35
925E0035	EOC25	3,5-3	52	35
925E0040	EOC25	4-3,5	52	35
925E0045	EOC25	4,5-4	52	35
925E0050	EOC25	5-4,5	52	35
925E0055	EOC25	5,5-5	52	35
925E0060	EOC25	6-5,5	52	35
925E0065	EOC25	6,5-6	52	35
925E0070	EOC25	7-6,5	52	35
925E0075	EOC25	7,5-7	52	35
925E0080	EOC25	8-7,5	52	35
925E0085	EOC25	8,5-8	52	35
925E0090	EOC25	9-8,5	52	35
925E0095	EOC25	9,5-9	52	35
925E0100	EOC25	10-9,5	52	35
925E0105	EOC25	10,5-10	52	35
925E0120	EOC25	12-11,5	52	35
925E0125	EOC25	12,5-12	52	35
925E0130	EOC25	13-12,5	52	35
925E0135	EOC25	13,5-13	52	35
925E0140	EOC25	14-13,5	52	35
925E0145	EOC25	14,5-14	52	35
925E0150	EOC25	15-14,5	52	35
925E0155	EOC25	15,5-15	52	35
925E0160	EOC25	16-15,5	52	35
925E0165	EOC25	16,5-16	52	35
925E0170	EOC25	17-16,5	52	35
925E0175	EOC25	17,5-17	52	35
925E0180	EOC25	18-17,5	52	35
925E0185	EOC25	18,5-18	52	35
925E0190	EOC25	19-18,5	52	35
925E0195	EOC25	19,5-19	52	35
925E0200	EOC25	20-19,5	52	35
925E0205	EOC25	20,5-20	52	35
925E0210	EOC25	21-20,5	52	35
925E0215	EOC25	21,5-21	52	35
925E0220	EOC25	22-21,5	52	35
925E0225	EOC25	22,5-22	52	35
925E0230	EOC25	23-22,5	52	35
925E0235	EOC25	23,5-23	52	35
925E0240	EOC25	24-23,5	52	35
925E0245	EOC25	24,5-24	52	35
925E0250	EOC25	25-24,5	52	35



COD	TIPO PINZA	D	H	D1
932E0030	EOC32	3-2,5	60	43,7
932E0035	EOC32	3,5-3	60	43,7
932E0040	EOC32	4-3,5	60	43,7
932E0045	EOC32	4,5-4	60	43,7
932E0050	EOC32	5-4,5	60	43,7
932E0055	EOC32	5,5-5	60	43,7
932E0060	EOC32	6-5,5	60	43,7
932E0065	EOC32	6,5-6	60	43,7
932E0070	EOC32	7-6,5	60	43,7
932E0075	EOC32	7,5-7	60	43,7
932E0080	EOC32	8-7,5	60	43,7
932E0085	EOC32	8,5-8	60	43,7
932E0090	EOC32	9-8,5	60	43,7
932E0095	EOC32	9,5-9	60	43,7
932E0100	EOC32	10-9,5	60	43,7
932E0105	EOC32	10,5-10	60	43,7
932E0110	EOC32	11-10,5	60	43,7
932E0115	EOC32	11,5-11	60	43,7
932E0120	EOC32	12-11,5	60	43,7
932E0125	EOC32	12,5-12	60	43,7
932E0130	EOC32	13-12,5	60	43,7
932E0135	EOC32	13,5-13	60	43,7
932E0140	EOC32	14-13,5	60	43,7
932E0145	EOC32	14,5-14	60	43,7
932E0150	EOC32	15-14,5	60	43,7
932E0155	EOC32	15,5-15	60	43,7
932E0160	EOC32	16-15,5	60	43,7
932E0165	EOC32	16,5-16	60	43,7
932E0170	EOC32	17-16,5	60	43,7
932E0175	EOC32	17,5-17	60	43,7
932E0180	EOC32	18-17,5	60	43,7
932E0185	EOC32	18,5-18	60	43,7
932E0190	EOC32	19-18,5	60	43,7
932E0195	EOC32	19,5-19	60	43,7
932E0200	EOC32	20-19,5	60	43,7
932E0205	EOC32	20,5-20	60	43,7
932E0210	EOC32	21-20,5	60	43,7
932E0215	EOC32	21,5-21	60	43,7
932E0220	EOC32	22-21,5	60	43,7
932E0225	EOC32	22,5-22	60	43,7
932E0230	EOC32	23-22,5	60	43,7
932E0235	EOC32	23,5-23	60	43,7
932E0240	EOC32	24-23,5	60	43,7
932E0245	EOC32	24,5-24	60	43,7
932E0250	EOC32	25-24,5	60	43,7



COD	TIPO PINZA	D	H	D1
932EO255	EOC32	25,5-25	60	43,7
932EO260	EOC32	26-25,5	60	43,7
932EO265	EOC32	26,5-26	60	43,7
932EO270	EOC32	27-26,5	60	43,7
932EO275	EOC32	27,5-27	60	43,7
932EO280	EOC32	28-27,5	60	43,7
932EO285	EOC32	28,5-28	60	43,7
932EO290	EOC32	29-28,5	60	43,7
932EO295	EOC32	29,5-29	60	43,7
932EO300	EOC32	30-29,5	60	43,7
932EO305	EOC32	30,5-30	60	43,7
932EO310	EOC32	31-30,5	60	43,7
932EO315	EOC32	31,5-31	60	43,7
932EO320	EOC32	32-31,5	60	43,7

SERIE DI PINZE TIPO "ER" | COLLETS SETS "ER" | SPANNZANGENSATZ "ER" | JEUX DE PINCES "ER"



COD

908ERS09	SERIE DI 9 PINZE DIN6499/B ER 8 (Ø 1-1,5-2-2,5-3-3,5-4-4,5-5)
911ERS13	SERIE DI 13 PINZE DIN6499/B ER11 d1-d7 (Ø 1-1,5-2-2,5-3-3,5-4-4,5-5-5,5-6-6,5-7)
916ERS10	SERIE DI 10 PINZE DIN6499/B ER16 d1-10 (Ø 1-2-3-4-5-6-7-8-9-10)
920ERS12	SERIE DI 12 PINZE DIN6499/D ER20 d2-13 (Ø 2-3-4-5-6-7-8-9-10-11-12-13)
925ERS15	SERIE DI 15 PINZE DIN6499/B ER25 d2-16 (Ø 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16)
932ERS18	SERIE DI 18 PINZE DIN6499/B ER32 d3-20 (Ø 3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20)
940ERS23	SERIE DI 23 PINZE DIN6499/B ER40 d4-26 (Ø 4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26)
940ERS28	SERIE DI 28 PINZE DIN6499/B ER40 d3-30 (Ø 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)

VALIGETTA PORTAPINZE VUOTA | EMPTY CASE | LEERER FALL | CAS VIDE



COD

SPPER08	VALIGETTA PINZE ER8 (16 sedi)
SPPER11	VALIGETTA PINZE ER11 (16 sedi)
SPPER16	VALIGETTA PINZE ER16 (16 sedi)
SPPER20	VALIGETTA PINZE ER20 (16 sedi)
SPPER25	VALIGETTA PINZE ER25 (28 sedi)
SPPER32	VALIGETTA PINZE ER32 (28 sedi)
SPPER40	VALIGETTA PINZE ER40 (28 sedi)

SERIE DI PINZE TIPO "EOC" | COLLETS SETS "EOC" | SPANNZANGENSATZ "EOC" | JEUX DE PINCES "EOC"



COD

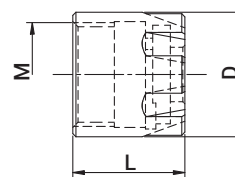
916EOS15	SET 15 PINZE EOC16 (2-16MM) (Ø 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16)
925EOS24	SET 24 PINZE EOC25 (2-25MM) (Ø 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25)
932EOS29	SET 29 PINZE EOC32 (4-32MM) (Ø 4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32)

VALIGETTA PORTAPINZE VUOTA | EMPTY CASE | LEERER FALL | CAS VIDE

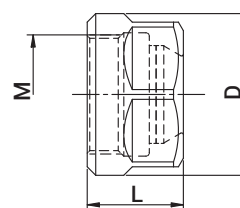


COD

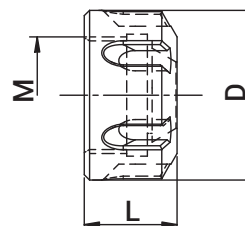
SPPEOC16	VALIGETTA PINZE EOC16 (28 sedi)
SPPEOC25	VALIGETTA PINZE EOC25 (28 sedi)
SPPEOC32	VALIGETTA PINZE EOC32 (30 sedi)



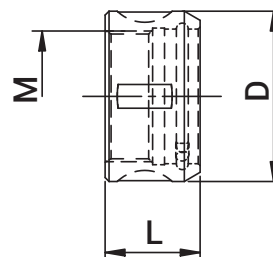
COD	ER	D	L	M
908GHRMN	ER8MINI	12	10,8	M10x0,75
911GHRMN	ER11MINI	16	12	M13x0,75
916GHRMN	ER16MINI	22	18	M19x1
920GHRMN	ER20MINI	28	19	M24x1
925GHRMN	ER25MINI	35	20	M30x1



COD	ER	D	L	M
911GHRES	ER11	19	14	M14x0,75
916GHRES	ER16	28	17,5	M22x1,5
920GHRES	ER20	34	19	M25x1,5

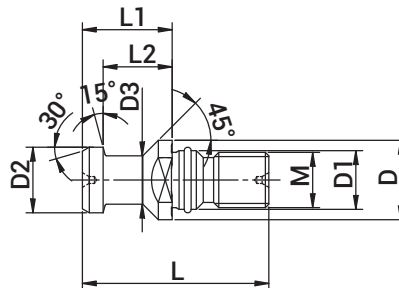


COD	ER	D	L	M
916GHREQ	ER16	32	17	M22x1,5
920GHREQ	ER20	35	19	M25x1,5
925GHREQ	ER25	42	20	M32x1,5
932GHREQ	ER32	50	22,5	M40x1,5
940GHREQ	ER40	63	25,5	M50x1,5
950GHREQ	ER50	78	35,5	M64x2



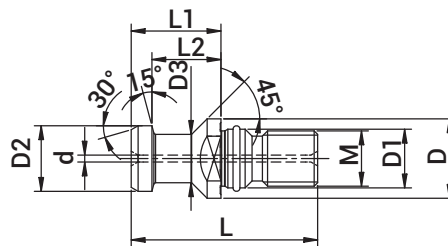
COD	EOC	D	L	M
916GHROS	EOC16	43	24	M33x1,5
925GHROS	EOC25	60		M48x2
932GHROS	EOC32	72	33,5	M60x2,5

NON FORATO | NOT DRILLED | OHNE BOHRUNG | NON PERCÉE
CON OR DI TENUTA | WITH O'RING | MIT O'RING | AVEC JOINT TORIQUE



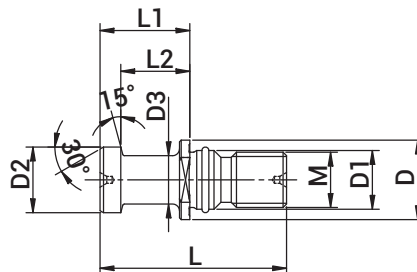
COD	ISO	M	D	D1	D2	D3	L	L1	L2
930TIR01	ISO30	M12	17	13	13	9	44	24	19
940TIR01	ISO40	M16	23	17	19	14	54	26	20
950TIR01	ISO50	M24	36	25	28	21	74	34	25

FORATO | DRILLED | BOHRUNG | PERCÉE
CON OR DI TENUTA | WITH O'RING | MIT O'RING | AVEC JOINT TORIQUE



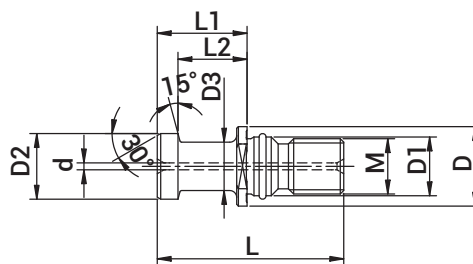
COD	ISO	d	M	D	D1	D2	D3	L	L1	L2
940TIR02	ISO40	7	M16	23	17	19	14	54	26	20
950TIR02	ISO50	11,5	M24	36	25	28	21	74	34	25

NON FORATO | NOT DRILLED | OHNE BOHRUNG | NON PERCÉE
CON OR DI TENUTA | WITH O'RING | MIT O'RING | AVEC JOINT TORIQUE



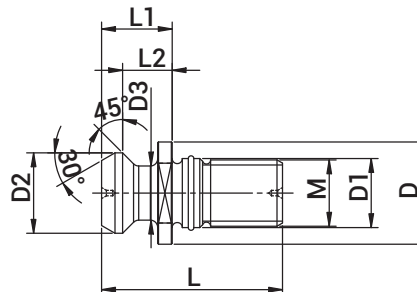
COD	ISO	M	D	D1	D2	D3	L	L1	L2
930TIR11	ISO30	M12	16	13	12	8	44	24	19
940TIR11	ISO40	M16	23	17	19	14	54	26	20
950TIR11	ISO50	M24	36	25	28	21	74	34	25

FORATO | DRILLED | BOHRUNG | PERCÉE
CON OR DI TENUTA | WITH O'RING | MIT O'RING | AVEC JOINT TORIQUE



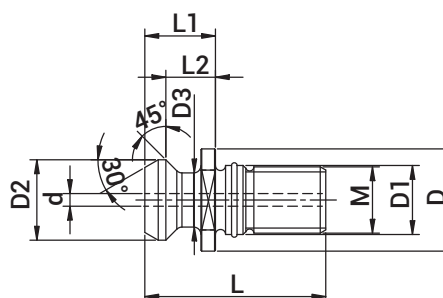
COD	ISO	d	M	D	D1	D2	D3	L	L1	L2
940TIR12	ISO40	7	M16	23	17	19	14	54	26	20
950TIR12	ISO50	11,5	M24	36	25	28	21	74	34	25

NON FORATO | NOT DRILLED | OHNE BOHRUNG | NON PERCÉE
CON OR DI TENUTA | WITH O'RING | MIT O'RING | AVEC JOINT TORIQUE



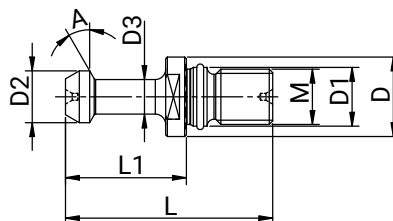
COD	ISO	M	D	D1	D2	D3	L	L1	L2
940TIR21	ISO40	M16	22,5	17	18,9	12,9	44,5	16,4	11,1
950TIR21	ISO50	M24	37	25	29,1	19,6	65,5	25,5	17,9

FORATO | DRILLED | BOHRUNG | PERCÉE
CON OR DI TENUTA | WITH O'RING | MIT O'RING | AVEC JOINT TORIQUE



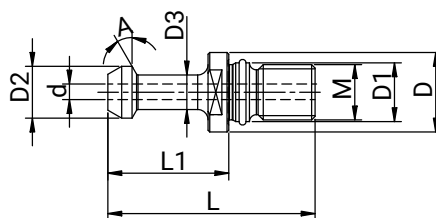
COD	ISO	d	M	D	D1	D2	D3	L	L1	L2
940TIR22	ISO40	7,3	M16	22,5	17	18,9	12,9	44,5	16,4	11,1
950TIR22	ISO50	11,5	M24	37	25	29,1	19,6	65,5	25,5	17,9

NON FORATO | NOT DRILLED | OHNE BOHRUNG | NON PERCÉE
CON OR DI TENUTA | WITH O'RING | MIT O'RING | AVEC JOINT TORIQUE



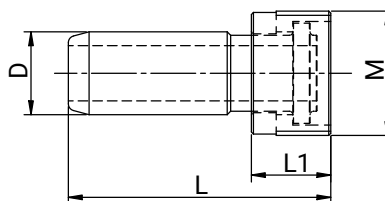
COD	ISO	M	A	D	D1	D2	D3	L	L1
930TIR51	ISO30	M12	30°	16,5	12,5	11	7	43	23
930TIR52	ISO30	M12	45°	16,5	12,5	11	7	43	23
940TIR51	ISO40	M16	30°	23	17	15	10	60	35
940TIR52	ISO40	M16	45°	23	17	15	10	60	35
940TIR50	ISO40	M16	90°	23	17	15	10	60	35
950TIR51	ISO50	M24	30°	38	25	42	17	85	45
950TIR52	ISO50	M24	45°	38	25	42	17	85	45
950TIR50	ISO50	M24	90°	38	25	42	17	85	45

FORATO | DRILLED | BOHRUNG | PERCÉE
CON OR DI TENUTA | WITH O'RING | MIT O'RING | AVEC JOINT TORIQUE



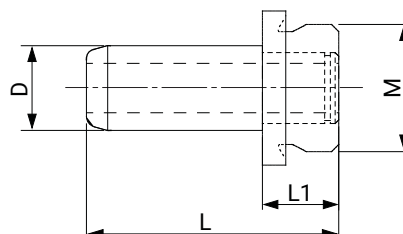
COD	ISO	d	M	A	D	D1	D2	D3	L	L1
940TIR55	ISO40	4	M16	30°	23	17	15	10	60	35
940TIR53	ISO40	4	M16	45°	23	17	15	10	60	35
940TIR54	ISO40	4	M16	90°	23	17	15	10	60	35
950TIR55	ISO50	6	M24	30°	38	25	42	17	85	45
950TIR53	ISO50	6	M24	45°	38	25	42	17	85	45
950TIR54	ISO50	6	M24	90°	38	25	42	17	85	45

ADDUZIONE REFRIGERANTE PER MANDRINI DIN 69893 HSK
DELIVERY UNIT FOR COOLANT
KÜHLMITTELÜBERGABEEINHEIT
UNITE DE TRANSMISSION DE LIQUIDE



COD	CONO	M	D	L	L1
950APR02	HSK50/F	M12x1	8	29,3	7,5
950APR01	HSK 50/A - 50/E - 63/F	M16x1	10	33	9,5
963APR01	HSK 63/A - 63/E	M18x1	12	36,6	11,5
910APR01	HSK100/A	M24x1,5	16	44	15,5

ADDUZIONE REFRIGERANTE PER ADATTATORI MODULARI DIN 69893 HSK
DIN 69893 HSK MODULAR HOLDERS DELIVERY UNIT FOR COOLANT
GRUNDAUFNAHMEN DIN 69893 HSK KÜHLMITTELÜBERGABEEINHEIT
MODULE DE BASE DIN 69893 HSK UNITE DE TRANSMISSION DE LIQUIDE



COD	CONO	M	D	L	L1
963APR02	HSK 63/A	M18x1	12	35,1	10,8
910APR02	HSK100/A	M24x1,5	16	43,1	15,4

CHIAVE PER ADDUTTORE REFRIGERANTE
COOLANT SUPPLY UNIT KEY
SCHLUESSEL FÜR KUEHLMITTELUEBERGABESATZ
CLES POUR LE DISPOSITIF DE TRANSFERT DE LIQUIDE DE LUBRIFICATION



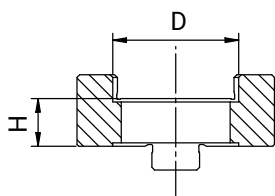
COD	HSK
950CHVAR	HSK50
963CHVAR	HSK63
910CHVAR	HSK100

VITI TESTA A CROCE DIN 6367
 RETAINING SCREWS DIN 6367
 FRÄSERANZUGSCHRAUBEN DIN 6367
 VIS DE SERRAGE DIN 6367



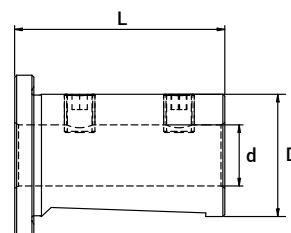
COD	M	D	L1	L2
916VTC02	M8	20	16	6
922VTC02	M10	28	18	7
927VTC02	M12	35	22	8
932VTC02	M16	42	26	9
940VTC02	M20	52	30	10

GIUNTI DI TRASCINAMENTO DIN 6366
 CLUTCH DRIVE RINGS DIN 6366
 MITNEHMERRINGE DIN 6366
 BAGUES D'ENTRAÎNEMENT DIN 6366



COD	D	H
916GNT01	16	10
922GNT01	22	12
927GNT01	27	12
932GNT01	32	14
940GNT01	40	14

RIDUZIONE CILINDRICA
 RUDUCTION BUSH
 REDUZIERBÜCHSE
 DOUILLE DE REDUCTION

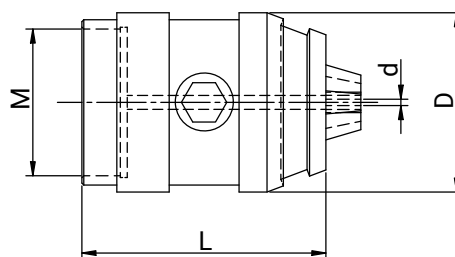


COD	D	d	L
932RCD14	32	14	55
932RCD16	32	16	55
932RCD18	32	18	55
932RCD20	32	20	55
932RCD25	32	25	55
940RCD16	40	16	55
940RCD20	40	20	55
940RCD25	40	25	60
940RCD32	40	32	65

MANDRINI PER PUNTE
PRECISION RAPID CLAMPING DRILL CHUCKS
PRÄZISIONS-SCHNELLSPANN-BOHRFUTTER
MANDRINS DE PERÇAGE PRÉCIS A SERRAGE RAPIDE



COD	DESCRIZIONE	CAPACITA'
913INS01	MANDRINO PER PUNTE 1-13	1-13
916INS01	MANDRINO PER PUNTE 1-16	3-16



COD	DESCRIZIONE	M	D	L	CAPACITA'
MAZ13	MANDRINO AUTOSERRANTE DC13	43,5x1	50	70	1-13
MAZ16	MANDRINO AUTOSERRANTE DC16	43,5x1	50	75	3-16

ANELLI DIN 2080
RINGS DIN 2080
RINGE DIN 2080
BAGUES DIN 2080



COD	ISO	D	H
500100001	ISO40	25	7
500100002	ISO50	40	8

OGIVE PER PORTABARENI
COOLANT NOZZLE
KÜHLMITTELDÜSEN
BUSE DE LIQUIDE DE REFROIDISSEMENT



COD	DESCRIZIONE
OGIVA08	UGELLO REFRIGERANTE D. EST. 8MM - FIL. M4 CON DI VITI DI PIANTAGGIO
OGIVA10	UGELLO REFRIGERANTE D. EST. 10MM - FIL. M5 CON DI VITI DI PIANTAGGIO
OGIVA12	UGELLO REFRIGERANTE D. EST. 12MM - FIL. M6 CON DI VITI DI PIANTAGGIO

CHIAVI PER GHIERE ER MINI
WRENCHES FOR ER MINI CLAMPING NUTS
SPANNSCHLUESSEL FUER ER MINI SPANNMUTTER
CLIES DE SERRAGE POUR ECROU ER MINI



COD	TIPOLOGIA
908CHVMN	ER8MINI
911CHVMN	ER11MINI
916CHVMN	ER16MINI
920CHVMN	ER20MINI
925CHVMN	ER25MINI

CHIAVI PER GHIERE ER ESAGONALI
WRENCHES FOR HEXAGONAL ER CLAMPING NUTS
SPANNSCHLUESSEL FUER ER SECHSKANMUTTER
CLIES DE SERRAGE POUR ECROU ER HEXAGONAL



COD	TIPOLOGIA
911CHVES	ER11
916CHVES	ER16
920CHVES	ER20

CHIAVI PER GHIERE ER STANDARD
WRENCHES FOR STANDARD ER NUTS
SPANNSCHLUESSEL FUER ER STANDARD SPANNMUTTER
CLIES DE SERRAGE POUR ECROU ER STANDARD



COD	TIPOLOGIA
916CHVST	ER16
920CHVST	ER20
925CHVST	ER25
932CHVST	ER32
940CHVST	ER40
950CHVST	ER50

CHIAVI CON PRESA LATERALE PER GHIERE EOC E FORTE SERRAGGIO
WRENCHES WITH SIDE GRIP
HAKENSCHLUESSEL
CLES AVEC PRISES LATERAL



COD	TIPOLOGIA	
912CHVFS	-	FORTE SERRAGGIO D.12
916CHVFS	-	FORTE SERRAGGIO D.16
916CHVOC	EOC16	FORTE SERRAGGIO D.20
925CHVOC	EOC25	FORTE SERRAGGIO D.32
932CHVOC	EOC32	-

CHIAVI PER VITE TESTA A CROCE
WRENCHES FOR TOOLS RETEINING SCREW
SPANNSCHLUESSEL FUER FRAESERANZUGSSCHRAUBEN
CLES A VIS A CROSSE



COD	VITE A CROCE
916CHVTC	M8
922CHVTC	M10
927CHVTC	M12
932CHVTC	M16
940CHVTC	M20

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