



MANDRINI PORTA UTENSILI PER MACCHINE A CNC


TOOLS HOLDING SPINDLES FOR CNC MACHINES

MANDRIN PORTE- OUTILS POUR MACHINES CNC

WERKZEUGTRÄGERSPINDE FÜR CNC - MASCHINEN

CATALOGO MECCANICA 2014

MADE IN ITALY

 Pagnoni S.R.L. é una affermata azienda, nella costruzione di mandrineria e complementi per macchine automatiche.

Specializzatasi nella realizzazione di mandrini con attacco ISO e HSK, nelle varie versioni, standard e no, ultimamente ha approntato una nuova linea di produzione, in modo tale di soddisfare il mercato locale ed internazionale.

Specializzata nel realizzare grosse serie, il suo organico prevede anche una linea per realizzare, con tempistica rapida, ogni eventuale richiesta personalizzata.


Continuamente aggiornata dal punto di vista tecnico, la produzione é caratterizzata da un'ottima resa qualitativa e da una costante disponibilità di articoli pronti a magazzino.

Tutti i nostri portautensili per macchine CNC e relativi accessori sono costruiti con acciaio da cementazione di alta qualità. Questi sono cementati, temperati, rinvenuti, sabbiati e bruniti: hanno una durezza in superficie di 58/60 HRC.

Tutte le parti di contatto tra la macchina e l'utensile sono totalmente retificati, comprese le filettature esterne per la ghiera di serraggio pinza.

Le quote di costruzione e le tolleranze di esecuzione rispondono alle normative DIN.

Siamo in grado di fornire anche portautensili e accessori speciali non presenti a catalogo.

 Pagnoni S.R.L. is a established company, in the construction of spindles and accessories for automated machinery.

It specialises in the construction of spindles with ISO and HSK connections, in either standard or customised versions. Recently it has set up a new line so as to satisfy local and international market.

All these components are generally produced in big runs, but the company also has a line that enables it to meet quickly and accurately any request for tailor-made products.

Continuously updated from the technical viewpoint, its production is characterised by excellent quality levels and the availability of wide range of ready-made articles.

Our tool holders for CNC machines and the relative accessories are all made of first-rate case-hardening steel. The parts are case-hardened, hardened and tempered, sand-blasted and burnished: their surface hardness is 58/60 HRC.

All contact surfaces between the machine and the tool are ground all over, including the external threaded parts for the jaw clamping ring-nut.

Construction dimensions and execution tolerances conform to DIN standards.

We can supply tool holders and special accessories not included in our standard line-up



Come raggiungerci



Mandri ni porta utensili
per macchine a CNC

Tools holding spindles
for CNC machines

Mandrin porte- outils
pour machines CNC

Werkzeugträgerspindel
für CNC - Maschinen



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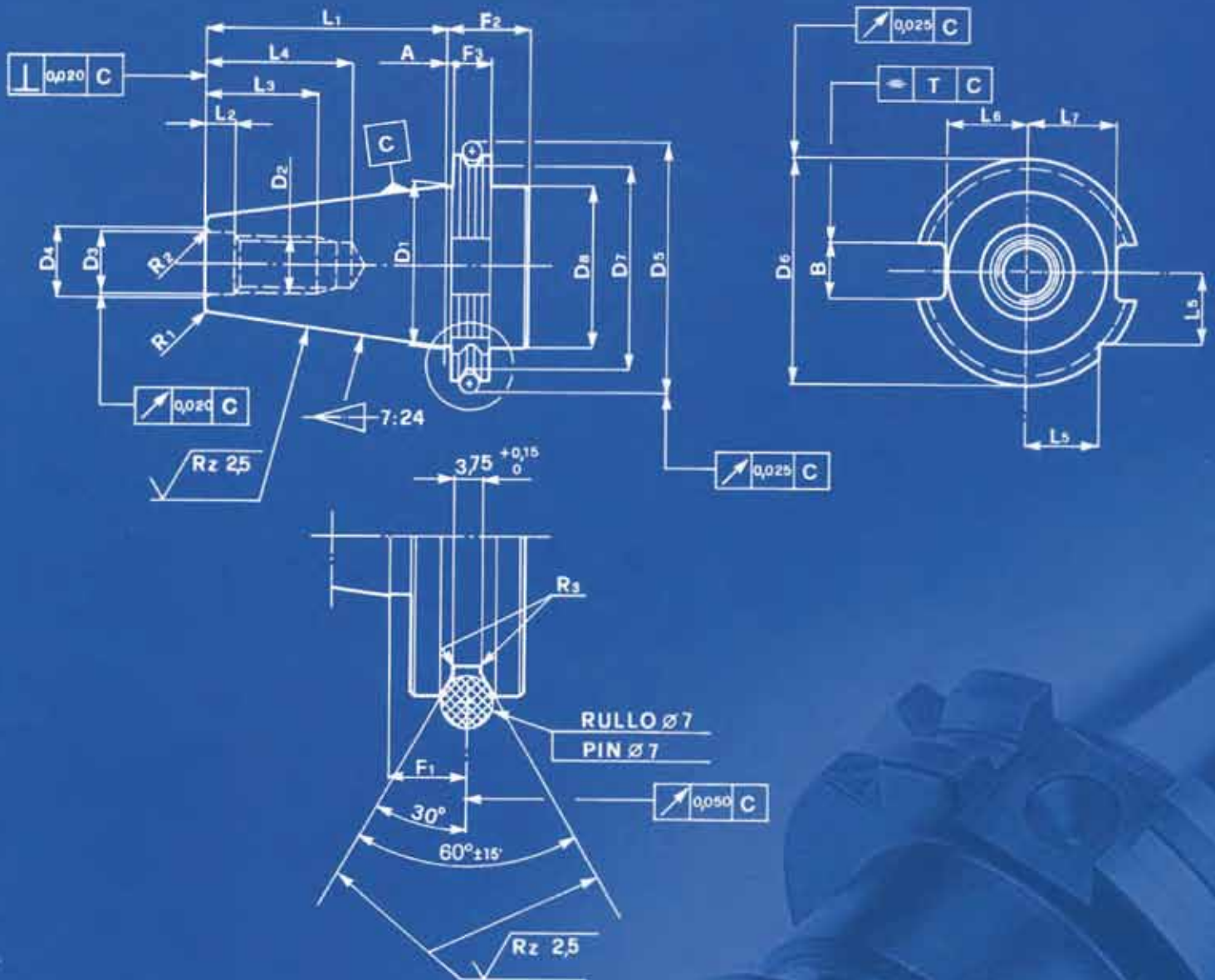


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ACCESSORI Pag. 307

DIN 69871



Cono - Size **40** **50**

A-0,1		3,2
B-H12	18,1	25,7
D1	44,45	69,85
D2	M16	M24
D3-H7	17	25
D4-max	19	28
D5- $\pm 0,05$	72,3	107,25
D6-0,1	63,55	97,50
D7-0,5	56,25	91,25
D8-max	50	80
F1-0,1		11,7

Cono - Size **40** **50**

F2 mm		35
F3-0,1		16,9
L1- $\pm 0,1$	68,4	101,75
L2-0	8,2	11,5
L3-min	32	47
L4 mm	42,5	61,5
L5-0,1	18,5	30
L6-0,4	22,8	35,5
L7-0,4	25	37,7
R1-0,5	1,2	2,5
R2-0,5	1	1,5
T	0,12	0,20

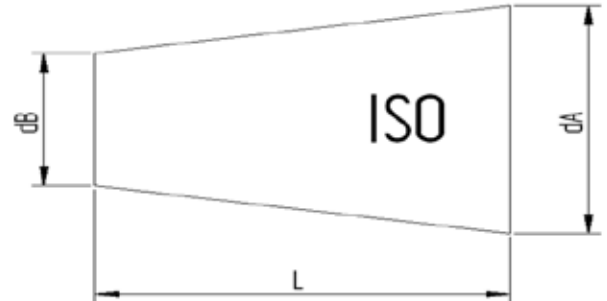


TUTTI I MANDRINI PORTAUTENSILI PAGNONI VENGONO PRODOTTI SECONDO LE NORMATIVE DIN

TOLLERANZA DEL CONO

PRODOTTI IN CLASSE AT3

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



COASSIALITÀ PORTAPINZE

La norma DIN6391 ammette un'errore massimo di 0.016 sia per i portapinze DIN6499 che per DIN 6388.

La nostra produzione normalmente presenta uno scostamento massimo di eccentricità tra cono ISO e sede pinza compreso tra i 0,003 e 0,010 mm.

COASSIALITÀ PORTAFRESE FISSI E COMBINATI

I portafrese fissi e combinati di nostra produzione rispondono ai criteri prescritti dalla norma DIN 6358, la quale prevede un errore massimo di coassialità tra cono ISO 30 e ISO 40 ed i diametri 16-22-27-32-40, di 0,01.

Mentre per ISO 50 è ammesso un errore massimo di 0,015 mm.

COASSIALITÀ PORTAFRESE WELDON - WHISTLE NOTCH

Rispettando la normativa DIN 6359-1 i portafrese WELDON devono rispondere ai seguenti requisiti :

Foro: tolleranza H5

coassialità: scostamento massimo consentito tra cono e sede Weldon <0.01 (per ISO 40)

Garantiamo la tolleranza prescritta sul foro e un valore di coassialità mediamente di 0,005.

EQUILIBRATURA

La maggior parte dei portautensili presenti in questa categoria sono prebilanciati in classe G 6,3 8000 rpm min -1. o bilanciati a 12000 giri rpm min-1.

DATI COSTRUTTIVI

- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4-0,5 mm
- Temprati-rinvenuti
- Durezza HRC 58 +-2 resistenza 800-1000 N/mm2
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiera chiudipinza

EQUILIBRATURA MANDRINI PER ALTE VELOCITÀ

Eventuali bilanciature supplementari sui nostri mandrini vengono eseguite su richiesta cliente, con una classe massima di bilanciatura di G 2,5 a 25000 rpm.

DATI COSTRUTTIVI MANDRINI PER ALTE VELOCITÀ

- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm
- Temprati-rinvenuti
- Durezza HRC 58 +-2 resistenza 800-1000 N/ mm2
- Bruniti
- Finitura di rettifica interna, esterna del cono
- Rettifica parte anteriore e nelle filettature delle ghiera chiudipinza.
- Collaudati 100% con strumenti di misura certificati e forniti con certificato di bilanciatura.

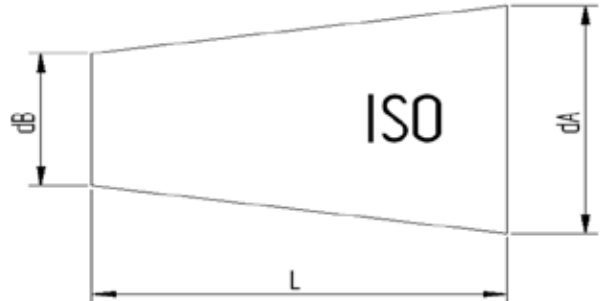


ALL PAGNONI TOOLHOLDERS ARE MANUFACTURED ACCORDING TO DIN NORM.

CONE'S TOLERANCE

ACCORDING TO THE CLASS AT3.

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



COLLET CHUCK'S RUNOUT ACCURACY

The norm DIN6391 permits a runout error between external cone and internal cone / collet seat of 0.016. Our production has a runout accuracy which is guaranteed to be within 0,003 / 0,010 m at the tool seat.

SHELL END MILL ADAPTOR'S RUNOUT ACCURACY

Our shell end mill adaptors meet the requirements of the norm DIN6358, which prescribes for diameters 16-22-27-32-40 a runout accuracy of:0,01 for SK 30/40 0,015 for SK 50.

WELDON END MILL HOLDER'S RUNOUT ACCURACY

According to the norm DIN6359-1 Weldon end mill holders have to meet the following requirements:

Bore: H5 tolerance

Runout accuracy: <0.01 (for SK 40)

Our end mill adaptors ensure the prescribed holes' tolerance and have a runout accuracy which is normally 0.005

BALANCING

The major part of toolholders of this category can run up to 8000 rpm grade G 6,3 or 12000 rpm.

CONSTRUCTIVE FEATURES

- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm
- Hardened-Tempered
- Hardness HRC 58+-2, Strength 800-1000 N/mm2
- Black oxidized
- Internal and external grinding finished.

HIGH-SPEED BALANCING TOOLHOLDERS

Any additional balancing on our toolholders are carried out on client request, with a class maximum of balancing of 25.000 rpm grade g 2,5.

CONSTRUCTIVE FEATURES FOR HIGH-SPEED TOOLHOLDERS

- Manufactured with casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm
- Hardened-Tempered
- Hardness HRC 58+-2, Strength 800-1000 N/mm2
- Black oxidized
- Internal and external grinding finish of the cone
- Grinding finish on the front side and on the thread of collet nuts.
- Tested 100% with certified measuring instruments and supplied with balancing certificate

PAGNONI-STEILKEGELAUFNAHMEN

TECHNISCHE DATEN

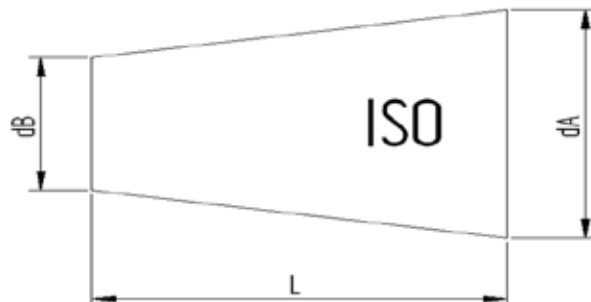


Alle Pagnoni-Steilkegelaufnahmen werden nach den DIN-Normen angefertigt.

KEGELSCHAFTTOLERANZ

In Klasse AT3 angefertigt.

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



RUNDLAUFGENAUIGKEIT DER SPANNZANGENAUFNAHME

Die DIN 6391- Norm schreibt eine Rundlaufgenauigkeit zwischen Aussenkegel und Innenkegel / Spannzangensitz vom 0,016 vor. Unsere Spannzangenfutter weisen einen Rundlauffehler zwischen ISO-Kegelaufnahme und Spannzangensitz, der zwischen 0,003 und 0,010 mm liegt.

AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Pagnoni- Aufsteckfräsdorne entsprechen der DIN 6358- Norm, die einen höchsten Rundlauffehler zwischen ISO 30- und ISO40-Kegel und den Durchmessern 16-22-27-32-40 vom 0,01 vorsieht.

Der mögliche höchste Rundlauffehler für ISO 50 ist 0,015 mm.

WELDON AUFSTECKFRÄSDORNE-RUNDLAUFGENAUIGKEIT

Nach der DIN 6359-1-Norm müssen die Weldon- Aufsteckfräsdorne die folgenden Forderungen aufweisen:

Bohrung: Toleranz H5

Rundlaufgenauigkeit: höchster möglicher Rundlauffehler zwischen Kegel und Weldonsitz < 0,01 (für ISO 40)

Die vorgeschriebene Toleranz der Bohrung und eine durchschnittliche Rundlaufgenauigkeit von 0,005 sind verichert.

WUCHTUNG

Die meisten Werkzeughalter dieser Gruppe sind in Klasse G6,3 auf 8.000 U/Min -1 vorgewuchtet oder auf 12.000 U/Min -1 gewuchtet.

KONSTRUKTIONSDATEN

- aus legiertem Einsatzstahl angefertigt
- in der Einsatzhärte tiefe von 0,4-0,5 mm
- gehärtet, angelassen
- Härte HRC 58 +-2, Festigkeit 800-1000 N-mm2
- brüniert
- inneres, äußeres Schleifen und am Gewinde der Spannzangenmutter

WUCHTUNG MIT HOCHGESCHWINDIGKEIT

Auf Anfrage können wir die Werkzeughalter auf maximal G2,5 25.000 U/min. gegen Aufpreis auswuchten.

KONSTRUKTIONSDATEN

- aus legiertem Einsatzstahl angefertigt
- in der Einsatzhärte tiefe von 0,4-0,5 mm
- gehärtet, angelassen
- Härte HRC 58+-2, Festigkeit 800-1000 N/mm2
- brüniert
- inneres, äußeres Schleifen des Kegels
- Schleifen der Vorderseite und am Gewinde der Spannzangenmutter
- 100% durch zertifizierte Meßinstrumente geprüft und mit Wuchtungsprotokoll geliefert

MANDRINS PAGNONI AVEC ATTACHEMENT ISO

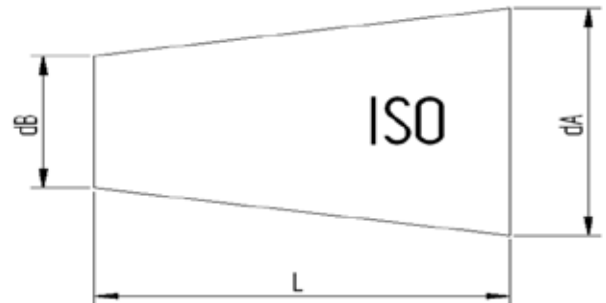
DONNE TECHNIQUES

TOUS LES MANDRINS PORTE-OUTILS PAGNONI SONT PRODUITS SUIVANT LES SPÉCIFICATIONS DIN

TOLLERANCE DU CONE

EN CLASSE AT3.

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



COAXIALITÉ PORTE-PINCE

La norme DIN6391 admet une erreur maximum du 0.016 soit pour les porte-pinces DIN6499 soit pour DIN6388.

Dans notre production l'écart d'excentricité maximum entre cône ISO et logement de la pince est compris entre:0,003 et 0,0010 mm.

COAXIALITÉ PORTE-FRAISES FIXES ET COMBINÉS

Les porte-fraises fixes et combinés de notre production suivent la spécification de la norme DIN6358, qui prévoit pour les diamètres 16-22-27-32-40 une concentricité de 0,01 pour ISO 30 et ISO 40 0,015 pour ISO 50.

COAXIALITÉ PORTE-FRAISES WELDON

Suivant les spécifications DIN 6359-1 les porte-fraises WELDON doivent suivre les conditions suivantes :

Trou: tolérance H5

Coaxialité: écart maximum toléré entre cône et logement du Weldon <0.01 (pour ISO 40)

Nous assurons la tolérance prévue sur le trou et une coaxialité en moyenne de 0.005.

EQUILIBRAGE

La plupart des porte-outils sont pré-équilibrés en classe G 6,3 8000 Tr/Min -1. ou équilibrés à 12000 Tr/Min- 1.

ELEMENTS DE CONSTRUCTION

- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 -0,5 mm
- Trempé - Revenu
- Dureté HRC 58 +/- 2 résistance 800-1000 N/mm2
- Brunis
- Rectification du cône intérieur, extérieur et dans le filetage des écrous qui serrent la pince.

EQUILIBRAGE MANDRINS POUR HAUTE VITESSE

Équilibrage éventuels sur nos mandrins sont exécutés sur demande du client, avec une maximum classe de équilibrage de G 2,5 à 25.000 rpm.

ELEMENTS DE CONSTRUCTION POUR MANDRINS HAUTE VITESSE

- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 - 0,5 mm
- Trempé - Revenu
- Dureté HRC 58+-2, résistance 800-1000 N/mm2
- Brunis
- Finition de rectification intérieure, extérieure et du cône
- Rectification du cône intérieur et dans le filetage des écrous qui serrent la pince.
- Contrôlés à 100 % avec des instruments de mesure certifiés et livrés avec un certificat d'équilibrage.



FIG. 1

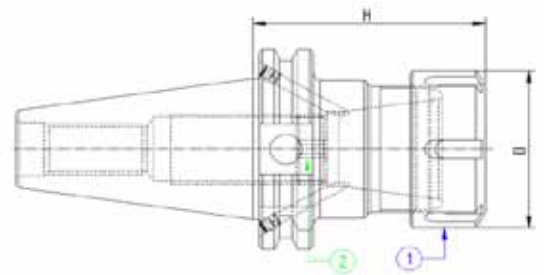
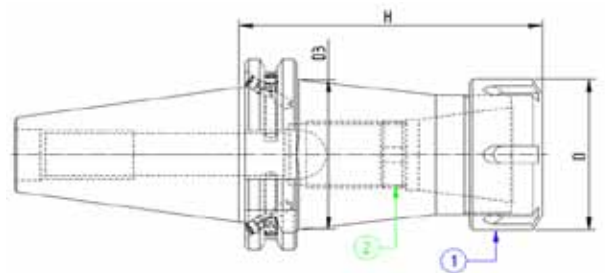


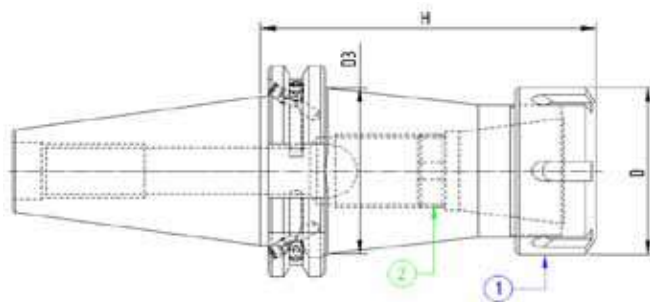
FIG. 2



Codice	ISO	Descrizione	H	D	D3	FIG.	G6.3 12000
140PP110	40	ISO40 DIN69871 P/P H.70 ER16	70	32	-	1	●
140PP113	40	ISO40 DIN69871 P/P H.70 ER20	70	35	-	1	●
140PP116	40	ISO40 DIN69871 P/P H.70 ER25	70	42	-	1	●
140PP120	40	ISO40 DIN69871 P/P H.70 ER32	70	50	-	1	●
140PP126	40	ISO40 DIN69871 P/P H.70 ER40	70	63	-	1	●
140PP210	40	ISO40 DIN69871 P/P H.100 ER16	100	32	28	2	●
140PP213	40	ISO40 DIN69871 P/P H.100 ER20	100	35	30	2	●
140PP216	40	ISO40 DIN69871 P/P H.100 ER25	100	42	45	2	●
140PP220	40	ISO40 DIN69871 P/P H.100 ER32	100	50	48	2	●
140PP226	40	ISO40 DIN69871 P/P H.100 ER40	100	63	50	2	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Int.	Q.tà
				
	1		2	
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1



Codice	ISO	Descrizione	H	D	D3
140PP310	40	ISO40 DIN69871 P/P H.130 ER16	130	32	28
140PP313	40	ISO40 DIN69871 P/P H.130 ER20	130	35	30
140PP316	40	ISO40 DIN69871 P/P H.130 ER25	130	42	45
140PP320	40	ISO40 DIN69871 P/P H.130 ER32	130	50	50
140PP326	40	ISO40 DIN69871 P/P H.130 ER40	130	63	50
140PP410	40	ISO40 DIN69871 P/P H.160 ER16	160	32	31
140PP413	40	ISO40 DIN69871 P/P H.160 ER20	160	35	32
140PP416	40	ISO40 DIN69871 P/P H.160 ER25	160	42	45
140PP420	40	ISO40 DIN69871 P/P H.160 ER32	160	50	50
140PP426	40	ISO40 DIN69871 P/P H.160 ER40	160	63	50
140PP510	40	ISO40 DIN69871 P/P H.200 ER16	200	32	32
140PP513	40	ISO40 DIN69871 P/P H.200 ER20	200	35	35
140PP516	40	ISO40 DIN69871 P/P H.200 ER25	200	42	42
140PP520	40	ISO40 DIN69871 P/P H.200 ER32	200	50	50
140PP526	40	ISO40 DIN69871 P/P H.200 ER40	200	63	50

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Int.	Q.tà
				
	1		2	
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1



FIG. 1

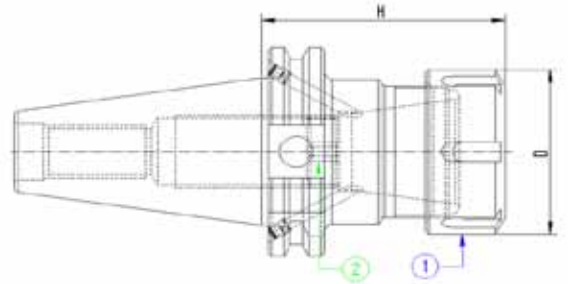
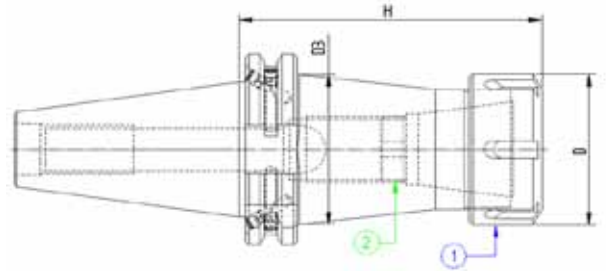


FIG. 2



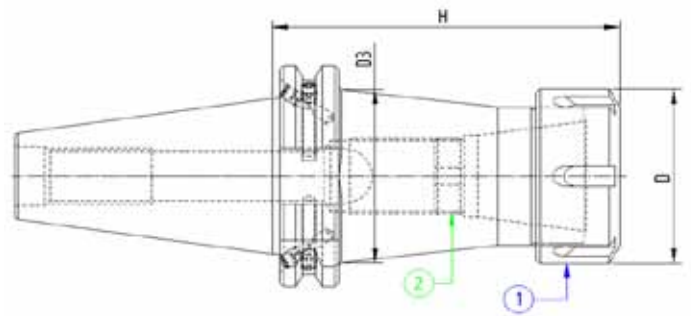
Codice	ISO	Descrizione	H	D	D3	FIG.	G6.3 12000
150PP110	50	ISO50 DIN69871 P/P H70 ER16	70	32	-	1	●
150PP113	50	ISO50 DIN69871 P/P H70 ER20	70	35	-	1	●
150PP116	50	ISO50 DIN69871 P/P H70 ER25	70	42	-	1	●
150PP120	50	ISO50 DIN69871 P/P H70 ER32	70	50	-	1	●
150PP126	50	ISO50 DIN69871 P/P H80 ER40	80	63	-	1	●
150PP210	50	ISO50 DIN69871 P/P H100 ER16	100	32	32	2	●
150PP213	50	ISO50 DIN69871 P/P H100 ER20	100	35	38	2	●
150PP216	50	ISO50 DIN69871 P/P H100 ER25	100	42	45	2	●
150PP220	50	ISO50 DIN69871 P/P H100 ER32	100	50	48	2	●
150PP226	50	ISO50 DIN69871 P/P H100 ER40	100	63	60	2	●
150PP234	50	ISO50 DIN69871 P/P H100 ER50	100	78	75	2	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Int.	Q.tà
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16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1
50	950GHREQ	1	103015901	1



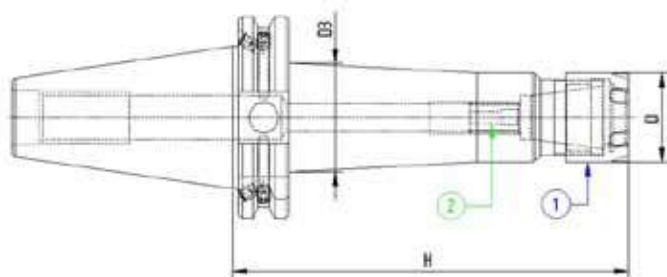
Codice	ISO	Descrizione	H	D	D3
150PP310	50	ISO50 DIN69871 P/P H130 ER16	130	32	32
150PP313	50	ISO50 DIN69871 P/P H130 ER20	130	35	38
150PP316	50	ISO50 DIN69871 P/P H130 ER25	130	42	45
150PP320	50	ISO50 DIN69871 P/P H130 ER32	130	50	48
150PP326	50	ISO50 DIN69871 P/P H130 ER40	130	63	60
150PP334	50	ISO50 DIN69871 P/P H130 ER50	130	78	75
150PP410	50	ISO50 DIN69871 P/P H160 ER16	160	32	32
150PP413	50	ISO50 DIN69871 P/P H160 ER20	160	35	40
150PP416	50	ISO50 DIN69871 P/P H160 ER25	160	42	55
150PP420	50	ISO50 DIN69871 P/P H160 ER32	160	50	50
150PP426	50	ISO50 DIN69871 P/P H160 ER40	160	63	60
150PP434	50	ISO50 DIN69871 P/P H160 ER50	160	78	75
150PP510	50	ISO50 DIN69871 P/P H200 ER16	200	32	32
150PP513	50	ISO50 DIN69871 P/P H200 ER20	200	35	40
150PP516	50	ISO50 DIN69871 P/P H200 ER25	200	42	42
150PP520	50	ISO50 DIN69871 P/P H200 ER32	200	50	50
150PP526	50	ISO50 DIN69871 P/P H200 ER40	200	63	63

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Int.	Q.tà
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16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1
50	950GHREQ	1	103015901	1



Codice	ISO	Descrizione	H	D	D3	G6.3 12000
140PM107	40	ISO40 DIN69871 P/P H70 ER11MINI	70	16	20	●
140PM110	40	ISO40 DIN69871 P/P H70 ER16MINI	70	22	26	●
140PM207	40	ISO40 DIN69871 P/P H100 ER11MINI	100	16	21	●
140PM210	40	ISO40 DIN69871 P/P H100 ER16MINI	100	22	27	●
140PM213	40	ISO40 DIN69871 P/P H100 ER20MINI	100	28	32	●
140PM216	40	ISO40 DIN69871 P/P H100 ER25MINI	100	35	33	●
140PM307	40	ISO40 DIN69871 P/P H130 ER11MINI	130	16	27	
140PM310	40	ISO40 DIN69871 P/P H130 ER16MINI	130	22	27	
140PM313	40	ISO40 DIN69871 P/P H130 ER20MINI	130	28	32	
140PM316	40	ISO40 DIN69871 P/P H130 ER25MINI	130	35	33	
140PM410	40	ISO40 DIN69871 P/P H160 ER16MINI	160	22	27	●
140PM413	40	ISO40 DIN69871 P/P H160 ER20MINI	160	28	32	●
140PM416	40	ISO40 DIN69871 P/P H160 ER25MINI	160	35	33	●
140PM510	40	ISO40 DIN69871 P/P H200 ER16MINI	200	22	35	
140PM513	40	ISO40 DIN69871 P/P H200 ER20MINI	200	28	38	
140PM516	40	ISO40 DIN69871 P/P H200 ER25MINI	200	35	42	

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER MINI Ghiera Q.tà Grano Int. Q.tà



11	911GHRMN	1	100601001	1
16	916GHRMN	1	101001601	1
20	920GHRMN	1	101001601	1
25	925GHRMN	1	101815801	1

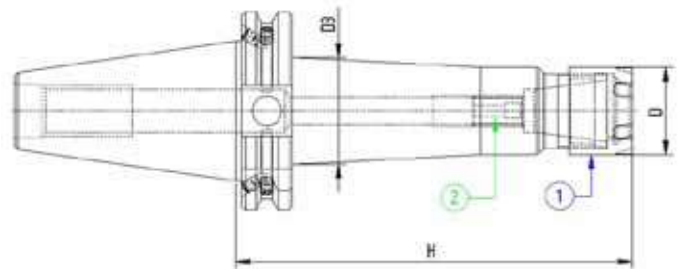


MANDRINI PORTAPINZA TIPO ER MINI
ER MINI COLLET CHUCK
MANDRINS A PINCES TYPE ER MINI
SPANNZANGENFUTTER ER MINI



DIN 69871 AD/B

DIN 6499



Codice	ISO	Descrizione	H	D	D3	G6.3 12000
150PM210	50	ISO50 DIN69871 P/P H100 ER16MINI	100	22	28	●
150PM213	50	ISO50 DIN69871 P/P H100 ER20MINI	100	28	32	●
150PM216	50	ISO50 DIN69871 P/P H100 ER25MINI	100	35	35	●
150PM310	50	ISO50 DIN69871 P/P H130 ER16MINI	130	22	28	
150PM313	50	ISO50 DIN69871 P/P H130 ER20MINI	130	28	33	
150PM316	50	ISO50 DIN69871 P/P H130 ER25MINI	130	35	42	
150PM405	50	ISO50 DIN69871 P/P H160 ER08MINI	160	12	23	●
150PM407	50	ISO50 DIN69871 P/P H160 ER11MINI	160	16	29	●
150PM410	50	ISO50 DIN69871 P/P H160 ER16MINI	160	22	28	●
150PM413	50	ISO50 DIN69871 P/P H160 ER20MINI	160	28	32	●
150PM416	50	ISO50 DIN69871 P/P H160 ER25MINI	160	35	42	●
150PM510	50	ISO50 DIN69871 P/P H200 ER16MINI	200	22	29	
150PM513	50	ISO50 DIN69871 P/P H200 ER20MINI	200	28	32	
150PM516	50	ISO50 DIN69871 P/P H200 ER25MINI	200	35	42	

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER MINI Ghiera Q.tà Grano Int. Q.tà



8	908GHRMN	1	-	-
11	911GHRMN	1	100601001	1
16	916GHRMN	1	101001601	1
20	920GHRMN	1	101001601	1
25	925GHRMN	1	101815801	1

MANDRINI PORTAPINZA TIPO EOC
EOC COLLET CHUCK
MANDRINS A PINCES TYPE EOC
SPANNZANGENFUTTER EOC TYPE



DIN 69871 AD/B

DIN 6388



FIG. 1

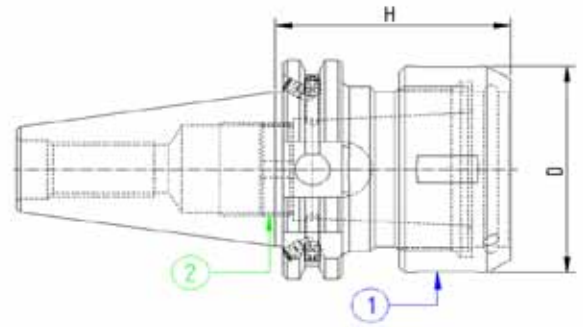
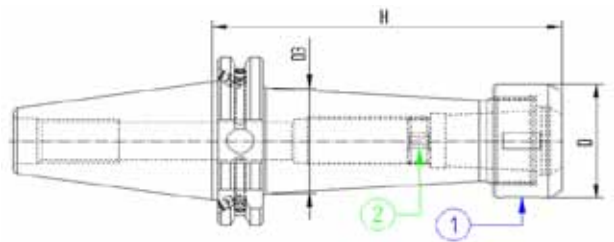


FIG. 2



Codice	ISO	Descrizione	H	D	D3	FIG.	G6.3 12000
140PO116	40	ISO40 DIN69871 P/P H70 EOC16	70	43	33	1	●
140PO125	40	ISO40 DIN69871 P/P H70 EOC25	70	60	48	1	●
140PO132	40	ISO40 DIN69871 P/P H80 EOC32	80	72	50	1	●
140PO216	40	ISO40 DIN69871 P/P H100 EOC16	100	43	40	1	
140PO225	40	ISO40 DIN69871 P/P H100 EOC25	100	60	49	1	
140PO232	40	ISO40 DIN69871 P/P H100 EOC32	100	72	50	1	
140PO316	40	ISO40 DIN69871 P/P H130 EOC16	130	43	40	2	
140PO325	40	ISO40 DIN69871 P/P H130 EOC25	130	60	49	2	

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

EOC Ghiera Q.tà Grano Int. Q.tà

1



2



16	916GHROS	1	101815801	1
25	925GHROS	1	102715901	1
32	932GHROS	1	102715901	1



FIG. 1

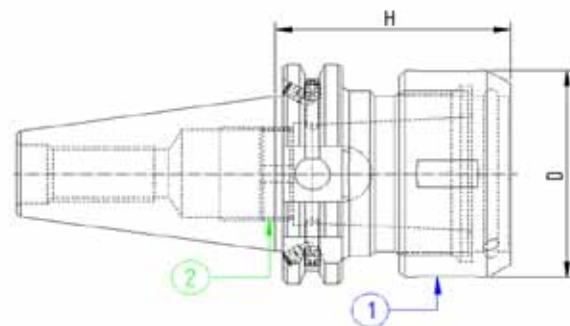
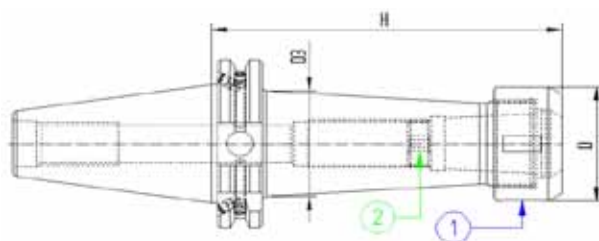


FIG. 2



Codice	ISO	Descrizione	H	D	D3	FIG.	G6.3 12000
150PO116	50	ISO50 DIN69871 P/P H70 EOC16	70	43	33	1	●
150PO125	50	ISO50 DIN69871 P/P H70 EOC25	70	60	48	1	●
150PO132	50	ISO50 DIN69871 P/P H80 EOC32	80	72	60	1	●
150PO216	50	ISO50 DIN69871 P/P H100 EOC16	100	43	40	1	
150PO225	50	ISO50 DIN69871 P/P H100 EOC25	100	60	49	1	
150PO232	50	ISO50 DIN69871 P/P H100 EOC32	100	72	56	1	
150PO316	50	ISO50 DIN69871 P/P H130 EOC16	130	43	40	2	
150PO325	50	ISO50 DIN69871 P/P H130 EOC25	130	60	49	2	
150PO332	50	ISO50 DIN69871 P/P H130 EOC32	130	72	56	2	

COMPONENTI - SPARE PARTS - PIÈCES DETACHEES - ERSATZTEILE

EOC	Ghiera	Q.tà	Grano Int.	Q.tà
16	916GHROS	1	101815801	1
25	925GHROS	1	102715901	1
32	932GHROS	1	102715901	1

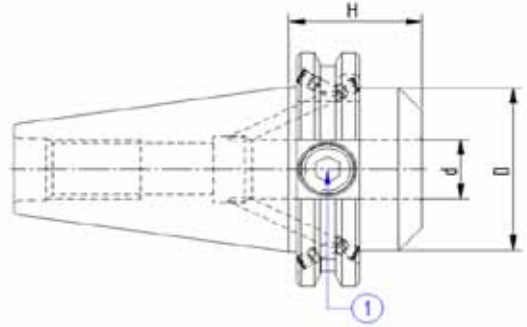


MANDRINI PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTILS TYPE WELDON
 ZYLINDERSCHAFTAUFNHME WELDON



DIN 69871 AD/B

DIN 1835 B



Codice	ISO	Descrizione	H	d	D	G6.3 12000
140WLC16	40	ISO40 DIN69871 WELDON H35 D.16	35	16	44	●
140WLC20	40	ISO40 DIN69871 WELDON H35 D.20	35	20	44	●
140WLC25	40	ISO40 DIN69871 WELDON H35 D.25	35	25	50	●
140WLC32	40	ISO40 DIN69871 WELDON H70 D.32	70	32	72	●

Codice	ISO	Descrizione	H	d	D	G6.3 12000
150WLC16	50	ISO50 DIN69871 WELDON H35 D.16	35	16	70	●
150WLC20	50	ISO50 DIN69871 WELDON H35 D.20	35	20	70	●
150WLC25	50	ISO50 DIN69871 WELDON H35 D.25	35	25	70	●
150WLC32	50	ISO50 DIN69871 WELDON H35 D.32	35	32	80	●
150WLC40	50	ISO50 DIN69871 WELDON H35 D.40	35	40	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà
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1



16	101401602	1
20	101601602	1
25	101801202	1
32	102002002	1
40	102001204	1

Grano	Q.tà
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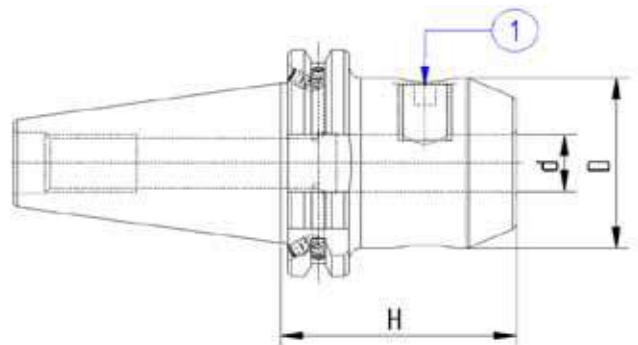
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solo x H = 70	101401004	1
-	-	



MANDRINI PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTILS TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



DIN 69871 AD/B



Codice	ISO	Descrizione	H	d	D	G6.3 12000
140WLD06	40	ISO40 DIN69871 WELDON H50 D.06	50	6	25	●
140WLD08	40	ISO40 DIN69871 WELDON H50 D.08	50	8	28	●
140WLD10	40	ISO40 DIN69871 WELDON H50 D.10	50	10	35	●
140WLD12	40	ISO40 DIN69871 WELDON H50 D.12	50	12	42	●
140WLD14	40	ISO40 DIN69871 WELDON H50 D.14	50	14	44	●
140WLD16	40	ISO40 DIN69871 WELDON H63 D.16	63	16	48	●
140WLD18	40	ISO40 DIN69871 WELDON H63 D.18	63	18	50	●
140WLD20	40	ISO40 DIN69871 WELDON H63 D.20	63	20	52	●
140WLD25	40	ISO40 DIN69871 WELDON H100 D.25	100	25	65	●
140WLD32	40	ISO40 DIN69871 WELDON H100 D.32	100	32	72	●
140WLD40	40	ISO40 DIN69871 WELDON H115 D.40	115	40	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà
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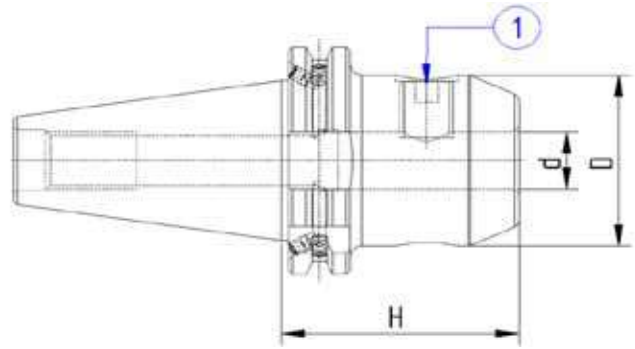
6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2



MANDRINI PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTILS TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



DIN 69871 AD/B



Codice	ISO	Descrizione	H	d	D	G6.3 12000
150WLD06	50	ISO50 DIN69871 WELDON H63 D.06	63	6	25	●
150WLD08	50	ISO50 DIN69871 WELDON H63 D.08	63	8	28	●
150WLD10	50	ISO50 DIN69871 WELDON H63 D.10	63	10	35	●
150WLD12	50	ISO50 DIN69871 WELDON H63 D.12	63	12	42	●
150WLD14	50	ISO50 DIN69871 WELDON H63 D.14	63	14	44	●
150WLD16	50	ISO50 DIN69871 WELDON H63 D.16	63	16	48	●
150WLD18	50	ISO50 DIN69871 WELDON H63 D.18	63	18	50	●
150WLD20	50	ISO50 DIN69871 WELDON H63 D.20	63	20	52	●
150WLD25	50	ISO50 DIN69871 WELDON H80 D.25	80	25	65	●
150WLD32	50	ISO50 DIN69871 WELDON H100 D.32	100	32	72	●
150WLD40	50	ISO50 DIN69871 WELDON H120 D.40	120	40	80	●
150WLD50	50	ISO50 DIN69871 WELDON H120 D.50	120	50	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2
50	102422504	2

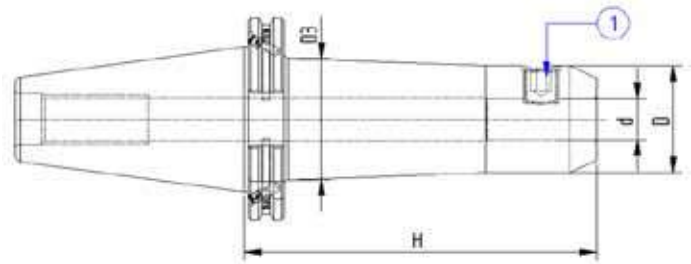


MANDRINI PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTILS TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



DIN 69871 AD/B

DIN 1835 B



Codice	ISO	Descrizione	H	d	D	D3	G6.3 12000
140WE206	40	ISO40 DIN69871 WELDON H100 D.6	100	6	25	35	●
140WE208	40	ISO40 DIN69871 WELDON H100 D.8	100	8	28	38	●
140WE210	40	ISO40 DIN69871 WELDON H100 D.10	100	10	35	40	●
140WE212	40	ISO40 DIN69871 WELDON H100 D.12	100	12	42	-	●
140WE214	40	ISO40 DIN69871 WELDON H100 D.14	100	14	44	-	●
140WE216	40	ISO40 DIN69871 WELDON H100 D.16	100	16	48	-	●
140WE218	40	ISO40 DIN69871 WELDON H100 D.18	100	18	50	-	●
140WE220	40	ISO40 DIN69871 WELDON H100 D.20	100	20	50	-	●

Codice	ISO	Descrizione	H	d	D	D3
140WE306	40	ISO40 DIN69871 WELDON H130 D.6	130	6	25	35
140WE308	40	ISO40 DIN69871 WELDON H130 D.8	130	8	28	38
140WE310	40	ISO40 DIN69871 WELDON H130 D.10	130	10	35	40
140WE312	40	ISO40 DIN69871 WELDON H130 D.12	130	12	42	-
140WE314	40	ISO40 DIN69871 WELDON H130 D.14	130	14	44	-
140WE316	40	ISO40 DIN69871 WELDON H130 D.16	130	16	48	-
140WE318	40	ISO40 DIN69871 WELDON H130 D.18	130	18	50	-
140WE320	40	ISO40 DIN69871 WELDON H130 D.20	130	20	50	-
140WE325	40	ISO40 DIN69871 WELDON H130 D.25	130	25	65	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2

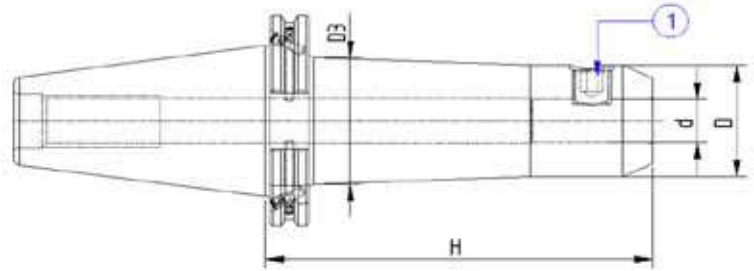


MANDRINI PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTILS TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



DIN 69871 AD/B

DIN 1835 B



Codice	ISO	Descrizione	H	d	D	D3	G6.3 12000
140WE406	40	ISO40 DIN69871 WELDON H160 D.6	160	6	25	25	●
140WE408	40	ISO40 DIN69871 WELDON H160 D.8	160	8	27.5	38	●
140WE410	40	ISO40 DIN69871 WELDON H160 D.10	160	10	34.5	40	●
140WE412	40	ISO40 DIN69871 WELDON H160 D.12	160	12	41.5	-	●
140WE414	40	ISO40 DIN69871 WELDON H160 D.14	160	14	44	-	●
140WE416	40	ISO40 DIN69871 WELDON H160 D.16	160	16	48	-	●
140WE418	40	ISO40 DIN69871 WELDON H160 D.18	160	18	50	-	●
140WE420	40	ISO40 DIN69871 WELDON H160 D.20	160	20	50	-	●
140WE425	40	ISO40 DIN69871 WELDON H160 D.25	160	25	65	-	●
140WE432	40	ISO40 DIN69871 WELDON H160 D.32	160	32	72	-	●

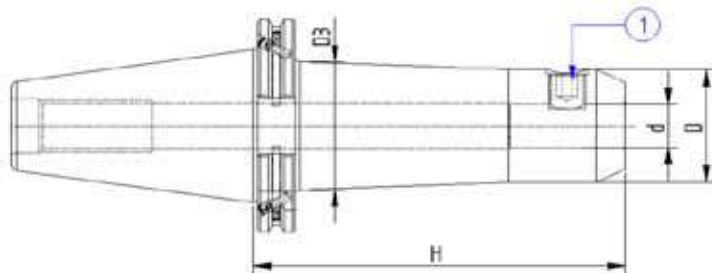
Codice	ISO	Descrizione	H	d	D	D3
140WE506	40	ISO40 DIN69871 WELDON H200 D.6	200	6	25	38
140WE508	40	ISO40 DIN69871 WELDON H200 D.8	200	8	28	41
140WE510	40	ISO40 DIN69871 WELDON H200 D.10	200	10	35	43
140WE512	40	ISO40 DIN69871 WELDON H200 D.12	200	12	42	48
140WE514	40	ISO40 DIN69871 WELDON H200 D.14	200	14	44	48
140WE516	40	ISO40 DIN69871 WELDON H200 D.16	200	16	48	-
140WE518	40	ISO40 DIN69871 WELDON H200 D.18	200	18	50	-
140WE520	40	ISO40 DIN69871 WELDON H200 D.20	200	20	50	-
140WE525	40	ISO40 DIN69871 WELDON H200 D.25	200	25	65	-
140WE532	40	ISO40 DIN69871 WELDON H200 D.32	200	32	72	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà	D	Grano	Q.tà
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6	100601002	1	16	101401602	1
8	100801002	1	18	101401602	1
10	101001202	1	20	101601602	1
12	101201602	1	25	101802002	2
14	101201602	1	32	102002002	2



Codice	ISO	Descrizione	H	d	D	D3
150WE206	50	ISO50 DIN69871 WELDON H.100 D.06	100	6	25	35
150WE208	50	ISO50 DIN69871 WELDON H.100 D.08	100	8	28	38
150WE210	50	ISO50 DIN69871 WELDON H.100 D.10	100	10	35	42
150WE212	50	ISO50 DIN69871 WELDON H.100 D.12	100	12	42	48
150WE214	50	ISO50 DIN69871 WELDON H.100 D.14	100	14	44	50
150WE216	50	ISO50 DIN69871 WELDON H.100 D.16	100	16	48	54
150WE218	50	ISO50 DIN69871 WELDON H.100 D.18	100	18	50	56
150WE220	50	ISO50 DIN69871 WELDON H.100 D.20	100	20	52	59
150WE225	50	ISO50 DIN69871 WELDON H.100 D.25	100	25	65	-

Codice	ISO	Descrizione	H	d	D	D3
150WE306	50	ISO50 DIN69871 WELDON H.130 D.6	130	6	25	35
150WE308	50	ISO50 DIN69871 WELDON H.130 D.8	130	8	28	38
150WE310	50	ISO50 DIN69871 WELDON H.130 D.10	130	10	35	42
150WE312	50	ISO50 DIN69871 WELDON H.130 D.12	130	12	42	48
150WE314	50	ISO50 DIN69871 WELDON H.130 D.14	130	14	44	50
150WE316	50	ISO50 DIN69871 WELDON H.130 D.16	130	16	48	54
150WE318	50	ISO50 DIN69871 WELDON H.130 D.18	130	18	50	56
150WE320	50	ISO50 DIN69871 WELDON H.130 D.20	130	20	52	59
150WE325	50	ISO50 DIN69871 WELDON H.130 D.25	130	25	65	-
150WE332	50	ISO50 DIN69871 WELDON H.130 D.32	130	32	72	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà	D	Grano	Q.tà
					
6	100601002	1	16	101401602	1
8	100801002	1	18	101401602	1
10	101001202	1	20	101601602	1
12	101201602	1	25	101802002	2
14	101201602	1	32	102002002	2

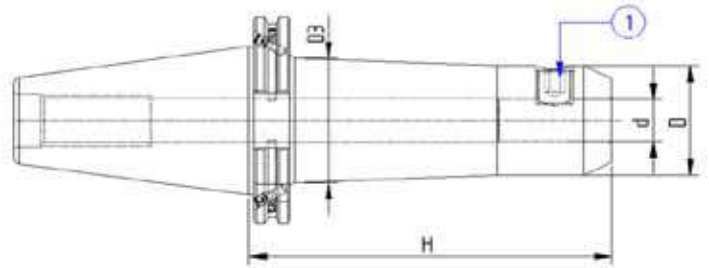


MANDRINI PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTILS TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



DIN 69871 AD/B

DIN 1835 B



Codice	ISO	Descrizione	H	d	D	D3
150WE406	50	ISO50 DIN69871 WELDON H160 D.6	160	6	25	35
150WE408	50	ISO50 DIN69871 WELDON H160 D.8	160	8	28	38
150WE410	50	ISO50 DIN69871 WELDON H160 D.10	160	10	34.5	42
150WE412	50	ISO50 DIN69871 WELDON H160 D.12	160	12	42	48
150WE414	50	ISO50 DIN69871 WELDON H160 D.14	160	14	44	50
150WE416	50	ISO50 DIN69871 WELDON H160 D.16	160	16	47.5	54
150WE418	50	ISO50 DIN69871 WELDON H160 D.18	160	18	50	56
150WE420	50	ISO50 DIN69871 WELDON H160 D.20	160	20	51.5	59
150WE425	50	ISO50 DIN69871 WELDON H160 D.25	160	25	65	70
150WE432	50	ISO50 DIN69871 WELDON H160 D.32	160	32	65	-
150WE440	50	ISO50 DIN69871 WELDON H160 D.40	160	40	80	-
150WE450	50	ISO50 DIN69871 WELDON H160 D.50	160	50	95	-

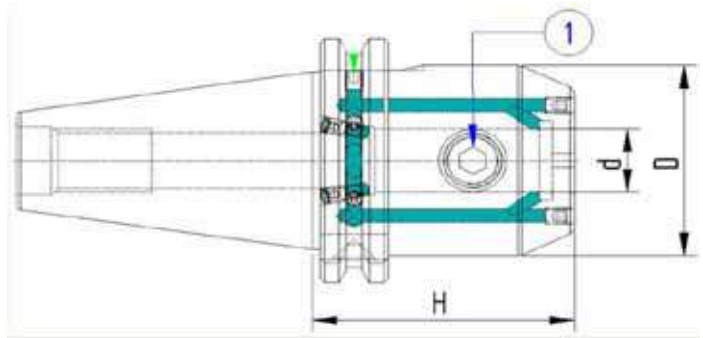
Codice	ISO	Descrizione	H	d	D	D3
150WE506	50	ISO50 DIN69871 WELDON H200 D.6	200	6	25	38
150WE508	50	ISO50 DIN69871 WELDON H200 D.8	200	8	28	41
150WE510	50	ISO50 DIN69871 WELDON H200 D.10	200	10	35	45
150WE512	50	ISO50 DIN69871 WELDON H200 D.12	200	12	42	51
150WE514	50	ISO50 DIN69871 WELDON H200 D.14	200	14	44	53
150WE516	50	ISO50 DIN69871 WELDON H200 D.16	200	16	48	57
150WE518	50	ISO50 DIN69871 WELDON H200 D.18	200	18	50	59
150WE520	50	ISO50 DIN69871 WELDON H200 D.20	200	20	52	61
150WE525	50	ISO50 DIN69871 WELDON H200 D.25	200	25	65	72
150WE532	50	ISO50 DIN69871 WELDON H200 D.32	200	32	72	-
150WE540	50	ISO50 DIN69871 WELDON H200 D.40	200	40	80	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà	D	Grano	Q.tà
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6	100601002	1	18	101401602	1
8	100801002	1	20	101601602	1
10	101001202	1	25	101802002	2
12	101201602	1	32	102002002	2
14	101201602	1	40	102002002	2
16	101401602	1	50	102422504	2



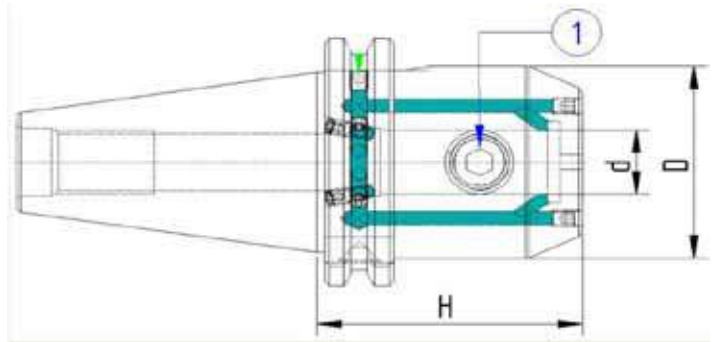
Codice	ISO	Descrizione	H	d	D	G6.3 12000
140WLK06	40	ISO40 DIN69871 WELDON H50 D.6	50	6	25	●
140WLK08	40	ISO40 DIN69871 WELDON H50 D.8	50	8	28	●
140WLK10	40	ISO40 DIN69871 WELDON H50 D.10	50	10	35	●
140WLK12	40	ISO40 DIN69871 WELDON H50 D.12	50	12	42	●
140WLK14	40	ISO40 DIN69871 WELDON H50 D.14	50	14	44	●
140WLK16	40	ISO40 DIN69871 WELDON H63 D.16	63	16	48	●
140WLK18	40	ISO40 DIN69871 WELDON H63 D.18	63	18	50	●
140WLK20	40	ISO40 DIN69871 WELDON H63 D.20	63	20	52	●
140WLK25	40	ISO40 DIN69871 WELDON H100 D.25	100	25	63	●
140WLK32	40	ISO40 DIN69871 WELDON H100 D.32	100	32	72	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2



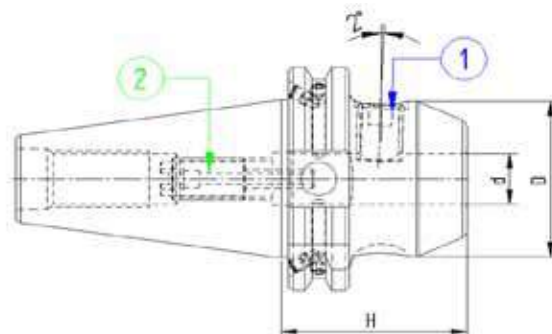
Codice	ISO	Descrizione	H	d	D	G6.3 12000
150WLK06	50	ISO50 DIN69871 WELDON H63 D.6	63	6	25	●
150WLK08	50	ISO50 DIN69871 WELDON H63 D.8	63	8	28	●
150WLK10	50	ISO50 DIN69871 WELDON H63 D.10	63	10	35	●
150WLK12	50	ISO50 DIN69871 WELDON H63 D.12	63	12	42	●
150WLK14	50	ISO50 DIN69871 WELDON H63 D.14	63	14	44	●
150WLK16	50	ISO50 DIN69871 WELDON H63 D.16	63	16	48	●
150WLK18	50	ISO50 DIN69871 WELDON H63 D.18	63	18	50	●
150WLK20	50	ISO50 DIN69871 WELDON H63 D.20	63	20	52	●
150WLK25	50	ISO50 DIN69871 WELDON H80 D.25	80	25	65	●
150WLK32	50	ISO50 DIN69871 WELDON H100 D.32	100	32	72	●
150WLK40	50	ISO50 DIN69871 WELDON H120 D.40	120	40	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà
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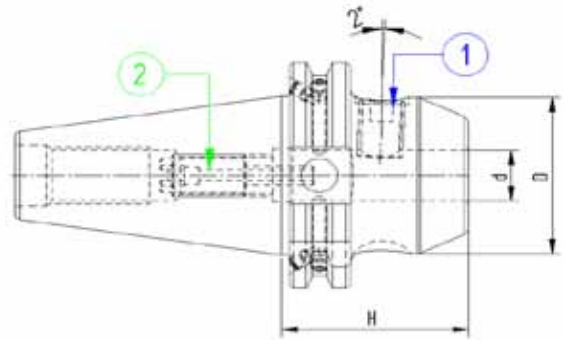
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8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2



Codice	ISO	Descrizione	H	d	D	G6.3 12000
140WHN06	40	ISO40 DIN69871 W/NOTCH H50 D.6	50	6	25	●
140WHN08	40	ISO40 DIN69871 W/NOTCH H50 D.8	50	8	28	●
140WHN10	40	ISO40 DIN69871 W/NOTCH H50 D.10	50	10	35	●
140WHN12	40	ISO40 DIN69871 W/NOTCH H50 D.12	50	12	42	●
140WHN14	40	ISO40 DIN69871 W/NOTCH H50 D.14	50	14	44	●
140WHN16	40	ISO40 DIN69871 W/NOTCH H63 D.16	63	16	48	●
140WHN18	40	ISO40 DIN69871 W/NOTCH H63 D.18	63	18	50	●
140WHN20	40	ISO40 DIN69871 W/NOTCH H63 D.20	63	20	52	●
140WHN25	40	ISO40 DIN69871 W/NOTCH H100 D.25	100	25	65	●
140WHN32	40	ISO40 DIN69871 W/NOTCH H100 D.32	100	32	72	●
140WHN40	40	ISO40 DIN69871 W/NOTCH H115 D.40	115	40	80	●



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

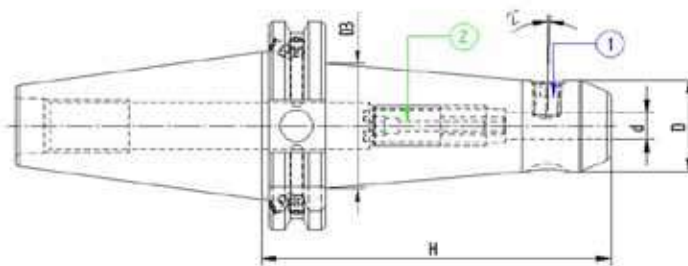
D	Grano	Q.tà	Grano Int.	Q.tà
				
		1		2
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16	101401602	1	101204001	1
18	101401602	1	101204001	1
20	101601602	1	101603501	1
25	101802002	2	102002001	1
32	102002002	2	102002001	1
40	102002002	2	102002001	1



Codice	ISO	Descrizione	H	d	D	G6.3 12000
150WHN06	50	ISO50 DIN69871 W/NOTCH H63 D.06	63	6	25	●
150WHN08	50	ISO50 DIN69871 W/NOTCH H63 D.08	63	8	28	●
150WHN10	50	ISO50 DIN69871 W/NOTCH H63 D.10	63	10	35	●
150WHN12	50	ISO50 DIN69871 W/NOTCH H63 D.12	63	12	42	●
150WHN14	50	ISO50 DIN69871 W/NOTCH H63 D.14	63	14	44	●
150WHN16	50	ISO50 DIN69871 W/NOTCH H63 D.16	63	16	48	●
150WHN18	50	ISO50 DIN69871 W/NOTCH H63 D.18	63	18	50	●
150WHN20	50	ISO50 DIN69871 W/NOTCH H63 D.20	63	20	52	●
150WHN25	50	ISO50 DIN69871 W/NOTCH H80 D.25	80	25	65	●
150WHN32	50	ISO50 DIN69871 W/NOTCH H100 D.32	100	32	72	●
150WHN40	50	ISO50 DIN69871 W/NOTCH H120 D.40	120	40	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà	Grano Int.	Q.tà
				
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16	101401602	1	101204001	1
18	101401602	1	101204001	1
20	101601602	1	101603501	1
25	101802002	2	102002001	1
32	102002002	2	102002001	1
40	102002002	2	102002001	1



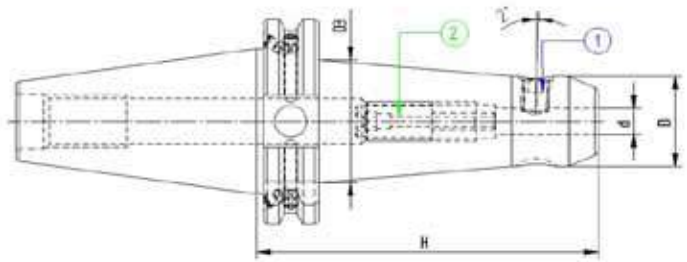
Codice	ISO	Descrizione	H	d	D	D3
140WN206	40	ISO40 DIN69871 W/NOTCH H100 D.06	100	6	25	35
140WN208	40	ISO40 DIN69871 W/NOTCH H100 D.08	100	8	28	38
140WN210	40	ISO40 DIN69871 W/NOTCH H100 D.10	100	10	35	40
140WN212	40	ISO40 DIN69871 W/NOTCH H100 D.12	100	12	42	-
140WN214	40	ISO40 DIN69871 W/NOTCH H100 D.14	100	14	44	-
140WN216	40	ISO40 DIN69871 W/NOTCH H100 D.16	100	16	48	-
140WN218	40	ISO40 DIN69871 W/NOTCH H100 D.18	100	18	50	-
140WN220	40	ISO40 DIN69871 W/NOTCH H100 D.20	100	20	50	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà	Grano Int.	Q.tà
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6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16	101401602	1	101204001	1
18	101401602	1	101204001	1
20	101601602	1	101603501	1



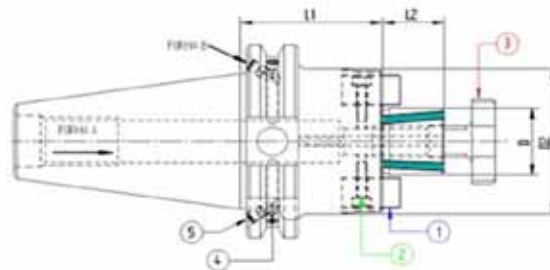
Codice	ISO	Descrizione	H	d	D	D3
150WN206	50	ISO50 DIN69871 W/NOTCH H100 D.06	100	6	25	35
150WN208	50	ISO50 DIN69871 W/NOTCH H100 D.08	100	8	28	38
150WN210	50	ISO50 DIN69871 W/NOTCH H100 D.10	100	10	35	42
150WN212	50	ISO50 DIN69871 W/NOTCH H100 D.12	100	12	42	48
150WN214	50	ISO50 DIN69871 W/NOTCH H100 D.14	100	14	44	50
150WN216	50	ISO50 DIN69871 W/NOTCH H100 D.16	100	16	48	54
150WN218	50	ISO50 DIN69871 W/NOTCH H100 D.18	100	18	50	56
150WN220	50	ISO50 DIN69871 W/NOTCH H100 D.20	100	20	52	59
150WN225	50	ISO50 DIN69871 W/NOTCH H100 D.25	100	25	65	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà	Grano Int.	Q.tà
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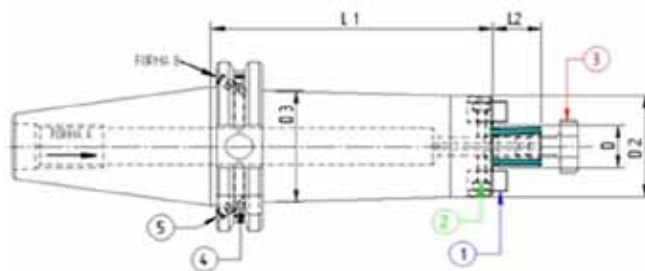
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8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16	101401602	1	101204001	1
18	101401602	1	101204001	1
20	101601602	1	101603501	1
25	101802002	2	102002001	1



Codice	ISO	Descrizione	L1	L2	D	D2
140PF016	40	ISO40 DIN69871 P/F FISSO H35 D.16	35	17	16	38
140PF022	40	ISO40 DIN69871 P/F FISSO H35 D.22	35	19	22	48
140PF027	40	ISO40 DIN69871 P/F FISSO H35 D.27	35	21	27	50
140PF032	40	ISO40 DIN69871 P/F FISSO H35 D.32	35	24	32	50
140PF116	40	ISO40 DIN69871 P/F FISSO H45 D.16	45	17	16	38
140PF122	40	ISO40 DIN69871 P/F FISSO H45 D.22	45	19	22	48
140PF127	40	ISO40 DIN69871 P/F FISSO H50 D.27	50	21	27	58
140PF132	40	ISO40 DIN69871 P/F FISSO H55 D.32	55	24	32	78
140PF140	40	ISO40 DIN69871 P/F FISSO H55 D.40	55	27	40	88

COMPONENTI - SPARE PARTS - PIÈCES DETACHÉES - ERSATZTEILE

D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 38	916TSL11	2	110301201	2	916VTC02	1
22 / 48	922TSL11	2	110401201	2	922VTC02	1
27 / 50	927TSL10	2	110501201	2	927VTC02	1
27 / 58	927TSL11	2	110501601	2	927VTC02	1
32 / 50	932TSL04	2	110601201	2	932VTC02	1
32 / 78	932TSL12	2	110602001	2	932VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1



Codice	ISO	Descrizione	L1	L2	D	D2	D3
140PF216	40	ISO40 DIN69871 P/F FISSO H100 D.16	100	17	16	32	42
140PF222	40	ISO40 DIN69871 P/F FISSO H100 D.22	100	19	22	40	49
140PF227	40	ISO40 DIN69871 P/F FISSO H100 D.27	100	21	27	48	-
140PF232	40	ISO40 DIN69871 P/F FISSO H100 D.32	100	24	32	58	-
140PF240	40	ISO40 DIN69871 P/F FISSO H100 D.40	100	27	40	70	-
140PF316	40	ISO40 DIN69871 P/F FISSO H130 D.16	130	17	16	38	-
140PF322	40	ISO40 DIN69871 P/F FISSO H130 D.22	130	19	22	46	48
140PF327	40	ISO40 DIN69871 P/F FISSO H130 D.27	130	21	27	58	50
140PF332	40	ISO40 DIN69871 P/F FISSO H130 D.32	130	24	32	78	50
140PF340	40	ISO40 DIN69871 P/F FISSO H130 D.40	130	27	40	88	50
140PF416	40	ISO40 DIN69871 P/F FISSO H160 D.16	160	17	16	39	-
140PF422	40	ISO40 DIN69871 P/F FISSO H160 D.22	160	19	22	46	48
140PF427	40	ISO40 DIN69871 P/F FISSO H160 D.27	160	21	27	58	50
140PF432	40	ISO40 DIN69871 P/F FISSO H160 D.32	160	24	32	78	50
140PF440	40	ISO40 DIN69871 P/F FISSO H160 D.40	160	27	40	80	50
140PF516	40	ISO40 DIN69871 P/F FISSO H200 D.16	200	17	16	39	-
140PF522	40	ISO40 DIN69871 P/F FISSO H200 D.22	200	19	22	46	48
140PF527	40	ISO40 DIN69871 P/F FISSO H200 D.27	200	21	27	58	50
140PF532	40	ISO40 DIN69871 P/F FISSO H200 D.32	200	24	32	78	50
140PF540	40	ISO40 DIN69871 P/F FISSO H200 D.40	200	27	40	88	50

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
16 / 32	916TSL10	2	110300801	2	916VTC02	1
16 / 38	916TSL11	2	110301201	2	916VTC02	1
22 / 40	922TSL10	2	110401001	2	922VTC02	1
22 / 46	922TSL11	2	110401201	2	922VTC02	1
27 / 48	927TSL10	2	110501201	2	927VTC02	1
27 / 58	927TSL11	2	110501601	2	927VTC02	1
32 / 58	932TSL10	2	110601201	2	932VTC02	1
32 / 78	932TSL12	2	110602001	2	932VTC02	1
40 / 70	940TSL10	2	110602001	2	940VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1

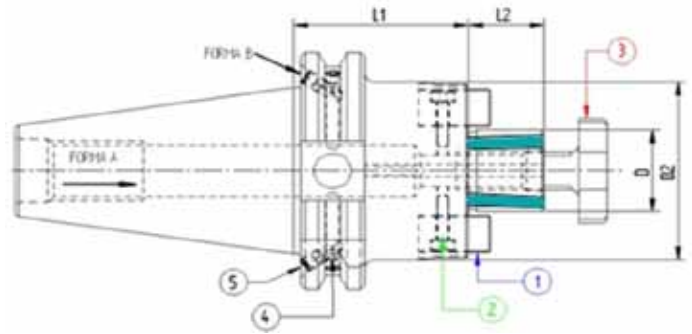


PORTAFRESE FISSI CON PASSAGGIO REFRIGERANTE
SHELL MILL HOLDERS WITH INTERNAL COOLANT SUPPLY
PORTE-FRAISES ENTRAINEMENT AVEC ARROSAGE INTERNE
AUFSTECKFRAESDORNE MIT QUERNUT UND KÜHLMITTELZUFUHR






DIN 69871 AD/B

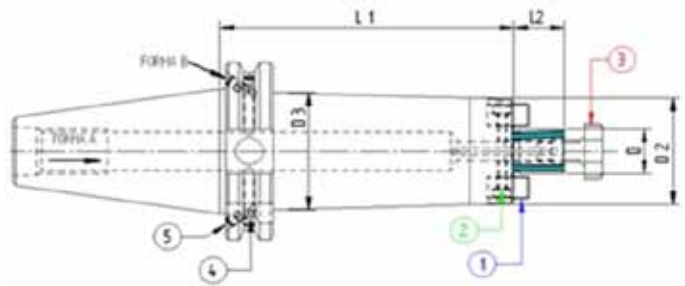
ISO 3937



Codice	ISO	Descrizione	L1	L2	D	D2
150PF016	50	ISO50 DIN69871 P/F FISSO H.35 D.16	35	17	16	38
150PF022	50	ISO50 DIN69871 P/F FISSO H.35 D.22	35	19	22	48
150PF027	50	ISO50 DIN69871 P/F FISSO H.35 D.27	35	21	27	58
150PF032	50	ISO50 DIN69871 P/F FISSO H.35 D.32	35	24	32	78
150PF040	50	ISO50 DIN69871 P/F FISSO H.35 D.40	35	27	40	80
150PF116	50	ISO50 DIN69871 P/F FISSO H.45 D.16	45	17	16	38
150PF122	50	ISO50 DIN69871 P/F FISSO H.45 D.22	45	19	22	48
150PF127	50	ISO50 DIN69871 P/F FISSO H.45 D.27	45	21	27	58
150PF132	50	ISO50 DIN69871 P/F FISSO H.55 D.32	55	24	32	78
150PF140	50	ISO50 DIN69871 P/F FISSO H.55 D.40	55	27	40	88

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

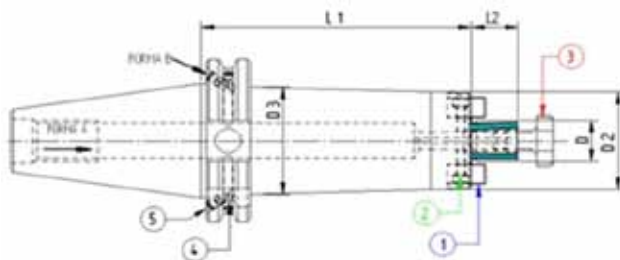
D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
16 / 38	916TSL11	2	110301201	2	916VTC02	1
22 / 48	922TSL11	2	110401201	2	922VTC02	1
27 / 58	927TSL11	2	110501601	2	927VTC02	1
32 / 78	932TSL12	2	110602001	2	932VTC02	1
40 / 80	940TSL05	2	110601601	2	940VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1



Codice	ISO	Descrizione	L1	L2	D	D2	D3
150PF216	50	ISO50 DIN69871 P/F FISSO H.100 D.16	100	17	16	32	42
150PF222	50	ISO50 DIN69871 P/F FISSO H.100 D.22	100	19	22	40	55
150PF227	50	ISO50 DIN69871 P/F FISSO H.100 D.27	100	21	27	48	60
150PF232	50	ISO50 DIN69871 P/F FISSO H.100 D.32	100	24	32	58	68
150PF240	50	ISO50 DIN69871 P/F FISSO H.100 D.40	100	27	40	70	-
150PF316	50	ISO50 DIN69871 P/F FISSO H.130 D.16	130	17	16	38	-
150PF322	50	ISO50 DIN69871 P/F FISSO H.130 D.22	130	19	22	46	60
150PF327	50	ISO50 DIN69871 P/F FISSO H.130 D.27	130	21	27	55	78
150PF332	50	ISO50 DIN69871 P/F FISSO H.130 D.32	130	24	32	66	78
150PF340	50	ISO50 DIN69871 P/F FISSO H.130 D.40	130	27	40	70	78
150PF416	50	ISO50 DIN69871 P/F FISSO H.160 D.16	160	17	16	38	-
150PF422	50	ISO50 DIN69871 P/F FISSO H.160 D.22	160	19	22	46	48
150PF427	50	ISO50 DIN69871 P/F FISSO H.160 D.27	160	21	27	55	78
150PF432	50	ISO50 DIN69871 P/F FISSO H.160 D.32	160	24	32	66	78
150PF440	50	ISO50 DIN69871 P/F FISSO H.160 D.40	160	27	40	70	78
150PF516	50	ISO50 DIN69871 P/F FISSO H.200 D.16	200	17	16	39	-
150PF522	50	ISO50 DIN69871 P/F FISSO H.200 D.22	200	19	22	46	48
150PF527	50	ISO50 DIN69871 P/F FISSO H.200 D.27	200	21	27	55	78
150PF532	50	ISO50 DIN69871 P/F FISSO H.200 D.32	200	24	32	66	78
150PF540	50	ISO50 DIN69871 P/F FISSO H.200 D.40	200	27	40	70	78




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

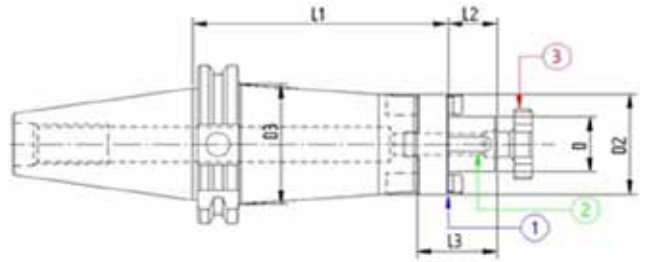
D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
16 / 32	916TSL10	2	110300801	2	916VTC02	1
16 / 38	916TSL11	2	110301201	2	916VTC02	1
22 / 40	922TSL10	2	110401001	2	922VTC02	1
22 / 46	922TSL11	2	110401201	2	922VTC02	1
27 / 48	927TSL10	2	110501201	2	927VTC02	1
27 / 55	927TSL11	2	110501601	2	927VTC02	1
32 / 58	932TSL10	2	110601201	2	932VTC02	1
32 / 66	932TSL11	2	110602001	2	932VTC02	1
40 / 70	940TSL10	2	110602001	2	940VTC02	1



Codice	ISO	Descrizione	L1	L2	D	D2	D3	Fig.
150PF616	50	ISO50 DIN69871 P/F FISSO H.250 D.16	250	17	16	38	52	1
150PF622	50	ISO50 DIN69871 P/F FISSO H.250 D.22	250	19	22	48	60	1
150PF627	50	ISO50 DIN69871 P/F FISSO H.250 D.27	250	21	27	55	78	1
150PF632	50	ISO50 DIN69871 P/F FISSO H.250 D.32	250	24	32	66	78	2
150PF640	50	ISO50 DIN69871 P/F FISSO H.250 D.40	250	27	40	80	80	2
150PF716	50	ISO50 DIN69871 P/F FISSO H.300 D.16	300	17	16	38	52	1
150PF722	50	ISO50 DIN69871 P/F FISSO H.300 D.22	300	19	22	48	60	1
150PF727	50	ISO50 DIN69871 P/F FISSO H.300 D.27	300	21	27	55	78	1
150PF732	50	ISO50 DIN69871 P/F FISSO H.300 D.32	300	24	32	66	66	2
150PF740	50	ISO50 DIN69871 P/F FISSO H.300 D.40	300	27	40	80	80	2
150PF816	50	ISO50 DIN69871 P/F FISSO H.350 D.16	350	17	16	38	52	1
150PF822	50	ISO50 DIN69871 P/F FISSO H.350 D.22	350	19	22	48	60	1
150PF827	50	ISO50 DIN69871 P/F FISSO H.350 D.27	350	21	27	55	78	1
150PF832	50	ISO50 DIN69871 P/F FISSO H.350 D.32	350	24	32	66	66	2




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

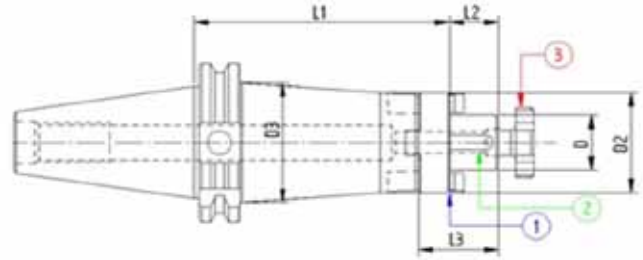
D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 55	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1



Codice	ISO	Descrizione	L1	L2	L3	D	D2	D3
140PU116	40	ISO40 DIN69871 P/F UNIVERS.H55 D.16	55	17	27	16	32	-
140PU122	40	ISO40 DIN69871 P/F UNIVERS.H55 D.22	55	19	31	22	40	-
140PU127	40	ISO40 DIN69871 P/F UNIVERS.H55 D.27	55	21	33	27	48	-
140PU132	40	ISO40 DIN69871 P/F UNIVERS.H60 D.32	60	24	38	32	58	-
140PU140	40	ISO40 DIN69871 P/F UNIVERS.H60 D.40	60	27	41	40	70	-
140PU216	40	ISO40 DIN69871 P/F UNIVERS.H100 D.16	100	17	27	16	32	44
140PU222	40	ISO40 DIN69871 P/F UNIVERS.H100 D.22	100	19	31	22	40	-
140PU227	40	ISO40 DIN69871 P/F UNIVERS.H100 D.27	100	21	33	27	48	-
140PU232	40	ISO40 DIN69871 P/F UNIVERS.H100 D.32	100	24	38	32	58	-
140PU240	40	ISO40 DIN69871 P/F UNIVERS.H100 D.40	100	27	41	40	70	-
140PU316	40	ISO40 DIN69871 P/F UNIVERS.H130 D.16	130	17	27	16	32	44
140PU322	40	ISO40 DIN69871 P/F UNIVERS.H130 D.22	130	19	31	22	40	-
140PU327	40	ISO40 DIN69871 P/F UNIVERS.H130 D.27	130	21	33	27	48	-
140PU332	40	ISO40 DIN69871 P/F UNIVERS.H130 D.32	130	24	38	32	58	-
140PU340	40	ISO40 DIN69871 P/F UNIVERS.H130 D.40	130	27	41	40	70	-
140PU416	40	ISO40 DIN69871 P/F UNIVERS.H160 D.16	160	17	27	16	32	44
140PU422	40	ISO40 DIN69871 P/F UNIVERS.H160 D.22	160	19	31	22	40	-
140PU427	40	ISO40 DIN69871 P/F UNIVERS.H160 D.27	160	21	33	27	48	-
140PU432	40	ISO40 DIN69871 P/F UNIVERS.H160 D.32	160	24	38	32	58	-
140PU440	40	ISO40 DIN69871 P/F UNIVERS.H160 D.40	160	27	41	40	70	-
140PU516	40	ISO40 DIN69871 P/F UNIVERS.H200 D.16	200	17	27	16	32	44
140PU522	40	ISO40 DIN69871 P/F UNIVERS.H200 D.22	200	19	31	22	40	-
140PU527	40	ISO40 DIN69871 P/F UNIVERS.H200 D.27	200	21	33	27	48	-
140PU532	40	ISO40 DIN69871 P/F UNIVERS.H200 D.32	200	24	38	32	58	-
140PU540	40	ISO40 DIN69871 P/F UNIVERS.H200 D.40	200	27	41	40	70	-




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

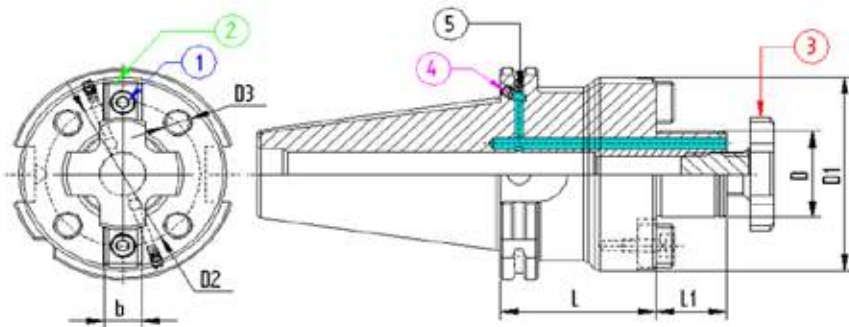
D	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1



Codice	ISO	Descrizione	L1	L2	L3	D	D2	D3
150PU116	50	ISO50 DIN69871 P/F UNIVERS.H55 D.16	55	17	27	16	32	-
150PU122	50	ISO50 DIN69871 P/F UNIVERS.H55 D.22	55	19	31	22	40	-
150PU127	50	ISO50 DIN69871 P/F UNIVERS.H55 D.27	55	21	33	27	48	-
150PU132	50	ISO50 DIN69871 P/F UNIVERS.H55 D.32	55	24	38	32	58	-
150PU140	50	ISO50 DIN69871 P/F UNIVERS.H55 D.40	55	27	41	40	70	-
150PU216	50	ISO50 DIN69871 P/F UNIVERS.H100 D.16	100	17	27	16	32	50
150PU222	50	ISO50 DIN69871 P/F UNIVERS.H100 D.22	100	19	31	22	40	60
150PU227	50	ISO50 DIN69871 P/F UNIVERS.H100 D.27	100	21	33	27	48	60
150PU232	50	ISO50 DIN69871 P/F UNIVERS.H100 D.32	100	24	38	32	58	-
150PU240	50	ISO50 DIN69871 P/F UNIVERS.H100 D.40	100	27	41	40	70	-
150PU316	50	ISO50 DIN69871 P/F UNIVERS.H130 D.16	130	17	27	16	32	50
150PU322	50	ISO50 DIN69871 P/F UNIVERS.H130 D.22	130	19	31	22	40	60
150PU327	50	ISO50 DIN69871 P/F UNIVERS.H130 D.27	130	21	33	27	48	60
150PU332	50	ISO50 DIN69871 P/F UNIVERS.H130 D.32	130	24	38	32	58	66
150PU340	50	ISO50 DIN69871 P/F UNIVERS.H130 D.40	130	27	41	40	70	-
150PU416	50	ISO50 DIN69871 P/F UNIVERS.H160 D.16	160	17	27	16	32	50
150PU422	50	ISO50 DIN69871 P/F UNIVERS.H160 D.22	160	19	31	22	40	60
150PU427	50	ISO50 DIN69871 P/F UNIVERS.H160 D.27	160	21	33	27	48	60
150PU432	50	ISO50 DIN69871 P/F UNIVERS.H160 D.32	160	24	38	32	58	68
150PU440	50	ISO50 DIN69871 P/F UNIVERS.H160 D.40	160	27	41	40	70	-
150PU516	50	ISO50 DIN69871 P/F UNIVERS.H200 D.16	200	17	27	16	32	50
150PU522	50	ISO50 DIN69871 P/F UNIVERS.H200 D.22	200	19	31	22	40	60
150PU527	50	ISO50 DIN69871 P/F UNIVERS.H200 D.27	200	21	33	27	48	60
150PU532	50	ISO50 DIN69871 P/F UNIVERS.H200 D.32	200	24	38	32	58	-
150PU540	50	ISO50 DIN69871 P/F UNIVERS.H200 D.40	200	27	41	40	70	-




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

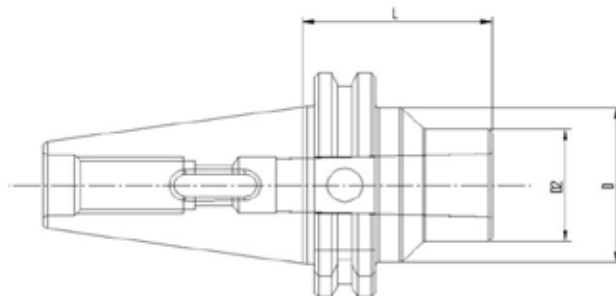
D	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1



Codice	ISO	Descrizione	L	L1	D	D1	b	D2	D3
140PI140	40	ISO40 DIN69871 P/F TRA.FR.H60 D40FM	60	30	40	89	15,9	66,7	M12
150PI140	50	ISO50 DIN69871 P/F TRA.FR.H70 D40FM	70	30	40	89	15,9	66,7	M12
150PI160	50	ISO50 DIN69871 P/F TRA.FR.H70 D60FM	70	40	60	129	25,4	101,6	M16

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Codice	Vite	Q.tà	Tassello	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
140PI140	110601601	2	940TSL04	2	940VTC02	1
150PI140	110601601	2	940TSL04	2	940VTC02	1
150PI160	111202501	2	960TSL04	2	-	-



Codice	ISO	Descrizione	L	D	D2
140MP201	40	ISO40 DIN69871 H120 CM1 PUNTE	120	25	18
140MP202	40	ISO40 DIN69871 H120 CM2 PUNTE	120	32	25
140MP203	40	ISO40 DIN69871 H135 CM3 PUNTE	135	40	33
140MP204	40	ISO40 DIN69871 H165 CM4 PUNTE	165	48	-

Codice	ISO	Descrizione	L	D	D2
150MP201	50	ISO50 DIN69871 H120 CM1 PUNTE	120	25	18
150MP202	50	ISO50 DIN69871 H140 CM2 PUNTE	140	32	25
150MP203	50	ISO50 DIN69871 H150 CM3 PUNTE	150	40	33
150MP204	50	ISO50 DIN69871 H180 CM4 PUNTE	180	48	40
150MP205	50	ISO50 DIN69871 H220 CM5 PUNTE	220	63	55

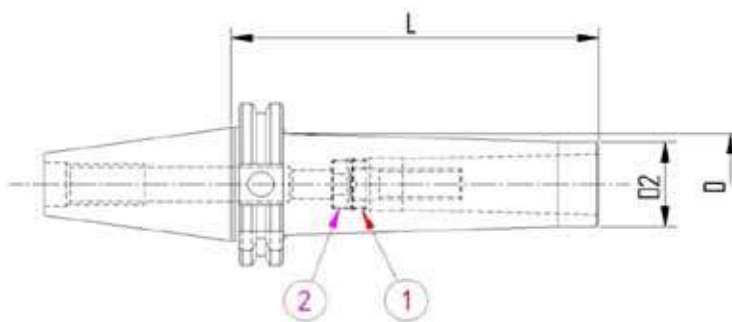
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ISO	MORSE	Vite	Q.tà	GHIERA	Q.tà
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40	1	110604501	1	-	-
40	2	111006014	1	-	-
50	1	110603501	1	-	-
50	2	111004501	1	-	-
50	3	101205001	1	-	-
50	4	111606015	1	-	-
50	5	111209001	1	122004312	1

**VITI FORNITE
SOLO NEL
CASO DI
MANDRINO
COMBINATO**



Codice	ISO	Descrizione	L	D	D2
140MF201	40	ISO40 DIN69871 H120 CM1 FRESE	120	25	18
140MF202	40	ISO40 DIN69871 H120 CM2 FRESE	120	32	25
140MF203	40	ISO40 DIN69871 H135 CM3 FRESE	135	40	33
140MF204	40	ISO40 DIN69871 H165 CM4 FRESE	165	48	40

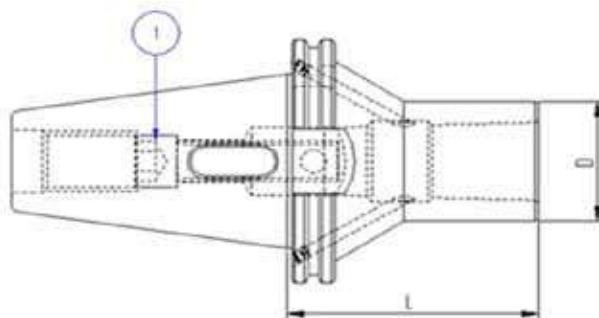
Codice	ISO	Descrizione	L	D	D2
150MF201	50	ISO50 DIN69871 H170 CM1 FRESE	170	-	25
150MF202	50	ISO50 DIN69871 H170 CM2 FRESE	170	32	25
150MF203	50	ISO50 DIN69871 H170 CM3 FRESE	170	40	33
150MF204	50	ISO50 DIN69871 H170 CM4 FRESE	170	48	40
150MF205	50	ISO50 DIN69871 H220 CM5 FRESE	220	63	55

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

CM	Ghiera	Q.tà	Vite	Q.tà
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1	121206502	1	110603501	1
2	121500802	1	111003014	1
3	122000603	1	111204003	1
4	122400903	1	111604514	1
5	123301205	1	112005003	1



Codice	ISO	Descrizione	L	D
140MP101	40	ISO40 DIN69871 H.50 CM1 PUNTE	50	25
140MP102	40	ISO40 DIN69871 H.50 CM2 PUNTE	50	32
140MP103	40	ISO40 DIN69871 H.76 CM3 PUNTE	76	40
140MP104	40	ISO40 DIN69871 H.95 CM4 PUNTE	95	48

Codice	ISO	Descrizione	L	D
150MP101	50	ISO50 DIN69871 H.45 CM1 PUNTE	45	25
150MP102	50	ISO50 DIN69871 H.60 CM2 PUNTE	60	32
150MP103	50	ISO50 DIN69871 H.65 CM3 PUNTE	65	40
150MP104	50	ISO50 DIN69871 H.95 CM4 PUNTE	95	48
150MP105	50	ISO50 DIN69871 H.105 CM5 PUNTE	105	63

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

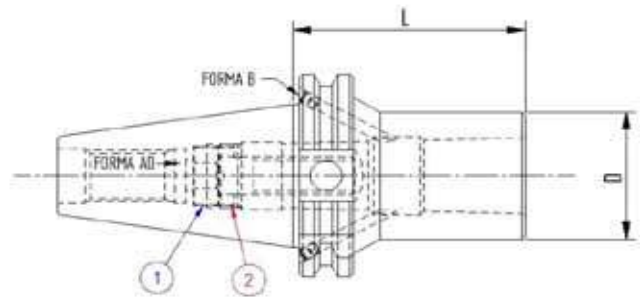
ISO	CM	Vite	Q.tà
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1



40	1	110604501	1
40	2	111004014	1
40	3	-	-
40	4	-	-
50	1	110603501	1
50	2	111004001	1
50	3	111205001	1
50	4	111606015	1
50	5	-	-



**VITI FORNITE
 SOLO NEL
 CASO DI
 MANDRINO
 COMBINATO**

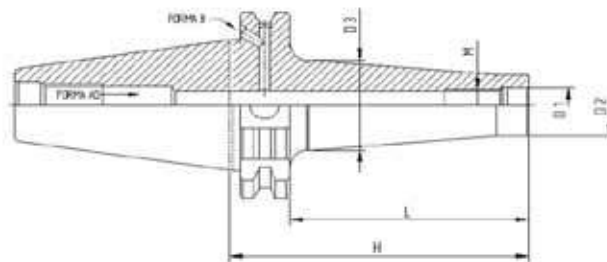


Codice	ISO	Descrizione	L	D
140MF101	40	ISO40 DIN69871 H50 CM1 FRESE	50	25
140MF102	40	ISO40 DIN69871 H50 CM2 FRESE	50	32
140MF103	40	ISO40 DIN69871 H70 CM3 FRESE	70	40
140MF104	40	ISO40 DIN69871 H95 CM4 FRESE	95	48

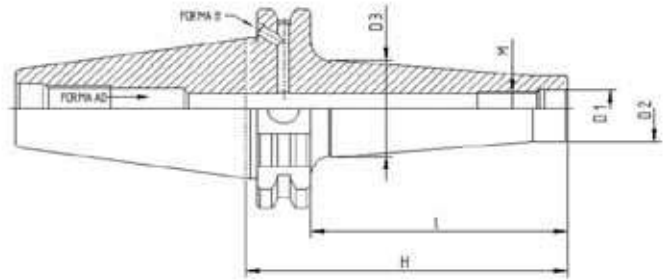
Codice	ISO	Descrizione	L	D
150MF101	50	ISO50 DIN69871 H50 CM1 FRESE	50	25
150MF102	50	ISO50 DIN69871 H50 CM2 FRESE	50	32
150MF103	50	ISO50 DIN69871 H65 CM3 FRESE	65	40
150MF104	50	ISO50 DIN69871 H95 CM4 FRESE	95	48
150MF105	50	ISO50 DIN69871 H120 CM5 FRESE	120	63

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

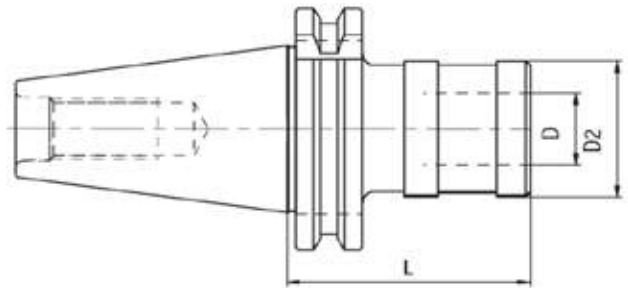
CM	Vite	Q.tà	Ghiera	Q.tà
				
1	110603501	1	121206502	1
2	111003014	1	121500802	1
3	111204003	1	122000603	1
4	111604514	1	122400903	1
5	112005003	1	123601104	1



Codice	ISO	Descrizione	H	L	D3	M	D1	D2	G2.5 20000
140AF108	40	ISO40 DIN69871 P/F ATT.FILET. M8X55	55	36	15	M8	8,5	13	●
140AF110	40	ISO40 DIN69871 P/F ATT.FILET. M10x55	55	36	20	M10	10,5	18	●
140AF112	40	ISO40 DIN69871 P/F ATT.FILET. M12x55	55	36	24	M12	12,5	21	●
140AF116	40	ISO40 DIN69871 P/F ATT.FILET. M16X55	55	36	34	M16	17	29	●
140AF208	40	ISO40 DIN69871 P/F ATT.FILET. M8x75	75	56	23	M8	8,5	13	●
140AF210	40	ISO40 DIN69871 P/F ATT.FILET. M10x75	75	56	25	M10	10,5	18	●
140AF212	40	ISO40 DIN69871 P/F ATT.FILET. M12x75	75	56	24	M12	12,5	21	●
140AF216	40	ISO40 DIN69871 P/F ATT.FILET. M16x75	75	56	34	M16	17	29	●
140AF308	40	ISO40 DIN69871 P/F ATT.FILET. M8x95	95	76	23	M8	8,5	13	●
140AF310	40	ISO40 DIN69871 P/F ATT.FILET. M10x95	95	76	28	M10	10,5	18	●
140AF312	40	ISO40 DIN69871 P/F ATT.FILET. M12x95	95	76	31	M12	12,5	21	●
140AF316	40	ISO40 DIN69871 P/F ATT.FILET. M16x95	95	76	34	M16	17	29	●
140AF408	40	ISO40 DIN69871 P/F ATT.FILET. M8x115	115	96	25	M8	8,5	13	●
140AF410	40	ISO40 DIN69871 P/F ATT.FILET. M10x115	115	96	28	M10	10,5	18	●
140AF412	40	ISO40 DIN69871 P/F ATT.FILET. M12x115	115	96	31	M12	12,5	21	●
140AF416	40	ISO40 DIN69871 P/F ATT.FILET. M16x115	115	96	39	M16	17	29	●
140AF510	40	ISO40 DIN69871 P/F ATT.FILET. M10x145	145	126	34	M10	10,5	18	●
140AF512	40	ISO40 DIN69871 P/F ATT.FILET. M12x145	145	126	38	M12	12,5	21	●
140AF516	40	ISO40 DIN69871 P/F ATT.FILET. M16x145	145	126	39	M16	17	29	●



Codice	ISO	Descrizione	H	L	D3	M	D1	D2	G2.5 20000
150AF110	50	ISO50 DIN69871 P/F ATT.FILET. M10X65	65	46	19,5	M10	10,5	18	●
150AF112	50	ISO50 DIN69871 P/F ATT.FILET. M12X65	65	46	24	M12	12,5	21	●
150AF116	50	ISO50 DIN69871 P/F ATT.FILET. M16X65	65	46	34	M16	17	29	●
150AF210	50	ISO50 DIN69871 P/F ATT.FILET. M10x85	85	66	28	M10	10,5	18	●
150AF212	50	ISO50 DIN69871 P/F ATT.FILET. M12x85	85	66	32	M12	12,5	21	●
150AF216	50	ISO50 DIN69871 P/F ATT.FILET. M16x85	85	66	36	M16	17	29	●
150AF310	50	ISO50 DIN69871 P/F ATT.FILET. M10x135	135	116	28	M10	10,5	18	●
150AF312	50	ISO50 DIN69871 P/F ATT.FILET. M12x135	135	116	32	M12	12,5	21	●
150AF316	50	ISO50 DIN69871 P/F ATT.FILET. M16x135	135	116	36	M16	17	29	●
150AF410	50	ISO50 DIN69871 P/F ATT.FILET. M10x185	185	166	32	M10	10,5	18	●
150AF412	50	ISO50 DIN69871 P/F ATT.FILET. M12x185	185	166	36	M12	12,5	21	●
150AF416	50	ISO50 DIN69871 P/F ATT.FILET. M16x185	185	166	42	M16	17	29	●
150AF512	50	ISO50 DIN69871 P/F ATT.FILET. M12x235	235	216	42	M12	12,5	21	●
150AF516	50	ISO50 DIN69871 P/F ATT.FILET. M16x235	235	216	44	M16	17	29	●



Codice	ISO	Descrizione	L	D2	D
140PCRM1	40	ISO40 DIN69871 M/PORTAM/C/R H.60 GR.1	60	38	19
140PCRM2	40	ISO40 DIN69871 M/PORTAM/C/R H.92 GR.2	92	53	31
150PCRM1	50	ISO50 DIN69871 M/PORTAM/C/R H.62 GR.1	62	38	19
150PCRM2	50	ISO50 DIN69871 M/PORTAM/C/R H.83 GR.2	83	53	31

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



RIF. PAGINA **312**



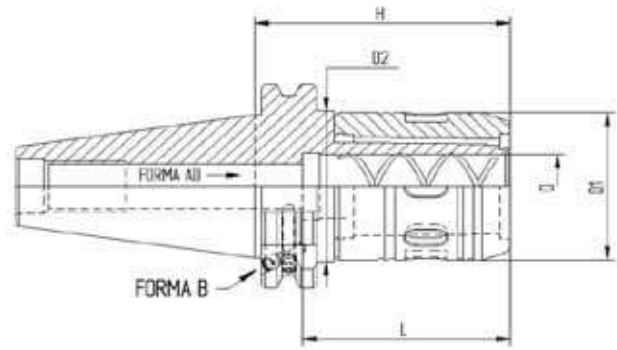
RIF. PAGINA **313**



MANDRINI A FORTE SERRAGGIO
MILLING CHUCK
MANDRINS A FORT SERRAGE
KRAFTSPANNFUTTER



DIN 69871 AD/B




Codice	ISO	Descrizione	H	L	D	D1	D2	G6.3 12000
140FS120	40	ISO40 DIN69871 F. SERR. Ø20 H75	75	60	20	46	47	●
140FS132	40	ISO40 DIN69871 F. SERR. Ø32 H95	95	80	32	62	63	●
140FS332	40	ISO40 DIN69871 F. SERR. Ø32 H135	135	80	32	62	63	●
150FS120	50	ISO50 DIN69871 F. SERR. Ø20 H85	85	60	20	46	47	●
150FS132	50	ISO50 DIN69871 F. SERR. Ø32 H85	85	80	32	62	63	●
150FS332	50	ISO50 DIN69871 F. SERR. Ø32 H135	135	80	32	62	63	●

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR

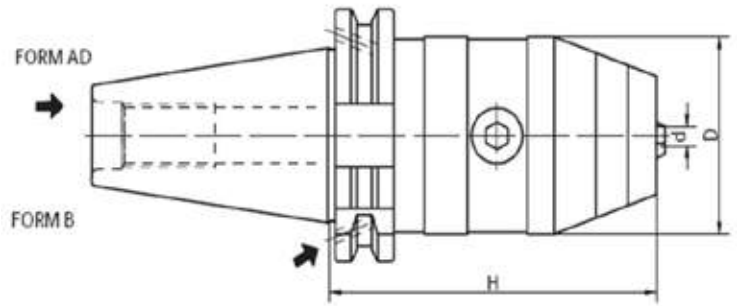


RIF. PAGINA **315**

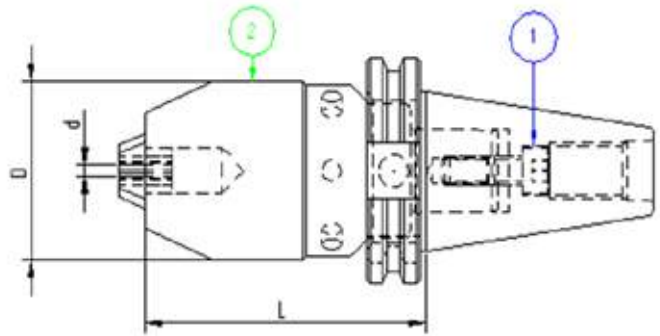

PORTAPUNTE INTEGRALI PER ROTAZIONE DX E SX
NC DRILL CHUCK FOR LEFT AND RIGHT ROTATION
MANDRIN DE PERCAGE CNC POUR ROTATION GAUCHE-DROITE
NC-BOHRFUTTER-FUER RECHTS UND LINKSLAUF



DIN 69871 AD/B

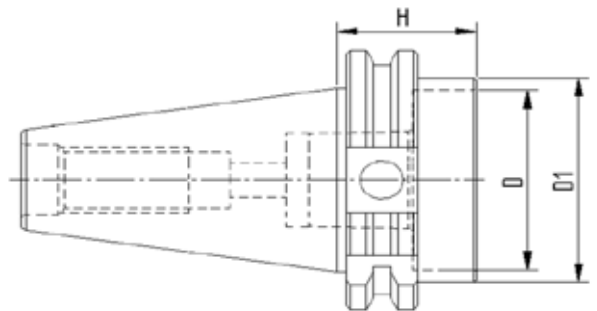


Codice	ISO	Descrizione	H	D	d
140MAZ13	40	ISO40 DIN69871 M/AUTOS./FORI H.88 D.13	88	50	1-13
140MAZ16	40	ISO40 DIN69871 M/AUTOS./FORI H.93 D.16	93	50	3-16
150MAZ13	50	ISO50 DIN69871 M/AUTOS./FORI H.88 D.13	88	50	1-13
150MAZ16	50	ISO50 DIN69871 M/AUTOS./FORI H.97 D.16	97	50	3-16



Codice	ISO	Descrizione	L	D	d
140MPI13	40	ISO40 DIN69871 P/PUNTA INT.H85 DC13	85	50	1-13
140MPI16	40	ISO40 DIN69871 P/PUNTA INT.H106 DC16	106	57	3-16
150MPI13	50	ISO50 DIN69871 P/PUNTA INT.H87 DC13	87	50	1-13
150MPI16	50	ISO50 DIN69871 P/PUNTA INT.H106 DC16	106	57	3-16

MANDRINI DI RICAMBIO - REPLACEMENT DRILL CHUCK HEADS - MANDRINS DE RECHANGE - ERSATZTEILE BOHRFÜTTER



Codice	ISO	Descrizione	D	D1	H
140CPI13	40	ISO40 DIN69871 SOLO MANDRINO 1-13	40	-	19
140CPI16	40	ISO40 DIN69871 SOLO MANDRINO 3-16	44	50	32
150CPI13	50	ISO50 DIN69871 SOLO MANDRINO 1-13	40	-	19
150CPI16	50	ISO50 DIN69871 SOLO MANDRINO 3-16	44	50	32

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Codice	Mandrino	Q.tà	Vite	Q.tà
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2



1

140MPI13	913INS01	1	110802501	1
140MPI16	916INS01	1	110803501	1
150MPI13	913INS01	1	110803501	1
150MPI16	916INS01	1	110803501	1

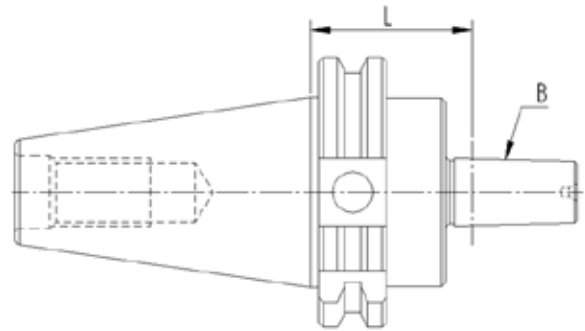


ATTACCO PER MANDRINI PORTAPUNTE
ARBORS FOR DRILL CHUCKS
ARBRES POUR MANDRINS DE PERÇAGE
BOHRFUTTERAUFNAHMEN

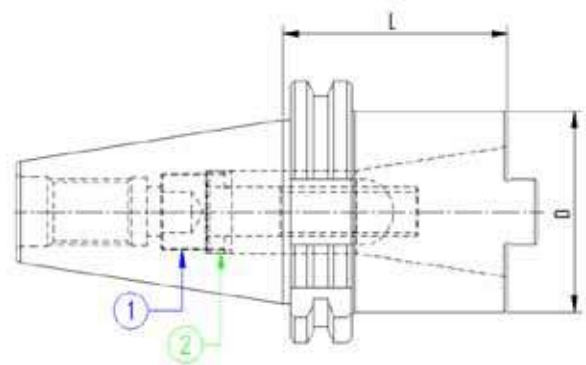


DIN 69871 A

DIN 238






Codice	ISO	Descrizione	L	B
140MPP12	40	ISO40 DIN69871 P/PUNTE H.40 B12	40	12
140MPP16	40	ISO40 DIN69871 P/PUNTE H.40 B16	40	16
140MPP18	40	ISO40 DIN69871 P/PUNTE H.40 B18	40	18
150MPP12	50	ISO50 DIN69871 P/PUNTE H.40 B12	40	12
150MPP16	50	ISO50 DIN69871 P/PUNTE H.40 B16	40	16
150MPP18	50	ISO50 DIN69871 P/PUNTE H.40 B18	40	18

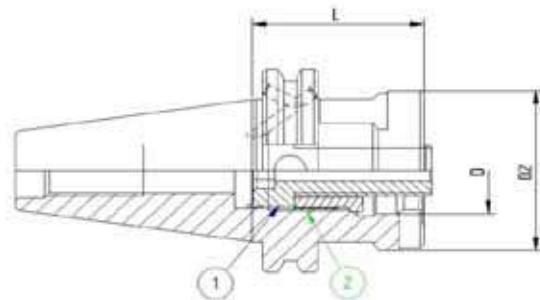


Codice	ISO	Descrizione	L	D
140ISO30	40-30	ISO40 DIN69871 RIDUZIONE H60 ISO30	60	49
140ISO40	40-40	ISO40 DIN69871 RIDUZIONE H100 ISO40	100	68

Codice	ISO	Descrizione	L	D
150ISO40	50-40	ISO50 DIN69871 RIDUZIONE H70 ISO40	70	68
150ISO50	50-50	ISO50 DIN69871 RIDUZIONE H120 ISO50	120	100



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ISO	Vite per TC-BT	Q.tà	Vite per DIN2080	Q.tà	Ghiera	Q.tà
						
	1		1		2	
40-30	111205501	1	111203001	1	122000603	1
40-40	111606514	1	111604514	1	122400903	1
50-40	111606514	1	111604514	1	122400903	1
50-50	112409004	1	112406004	1	124020002	1





Codice	ISO	Descrizione	L	D	D2
140VL050	40	ISO40 DIN69871 MODULARE H27 D50	27	27	50
140VL063	40	ISO40 DIN69871 MODULARE H27 D63	27	32	63
140VL150	40	ISO40 DIN69871 MODULARE H50 D50	50	27	50
140VL163	40	ISO40 DIN69871 MODULARE H50 D63	50	32	63


COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Codice	Vite	Q.tà	Ghiera	Q.tà
				
140VL050	111604011	1	122502007	1
140VL063	112004014	1	123001708	1
140VL150	111604011	1	122502007	1
140VL163	112005011	1	123002408	1

Codice	ISO	Descrizione	L	D	D2
150VL050	50	ISO50 DIN69871 MODULARE H27 D.50	27	27	50
150VL063	50	ISO50 DIN69871 MODULARE H27 D.63	27	32	63
150VL080	50	ISO50 DIN69871 MODULARE H27 D.80	27	32	80
150VL150	50	ISO50 DIN69871 MODULARE H50 D.50	50	27	50
150VL163	50	ISO50 DIN69871 MODULARE H50 D.63	50	32	63
150VL180	50	ISO50 DIN69871 MODULARE H50 D.80	50	32	80

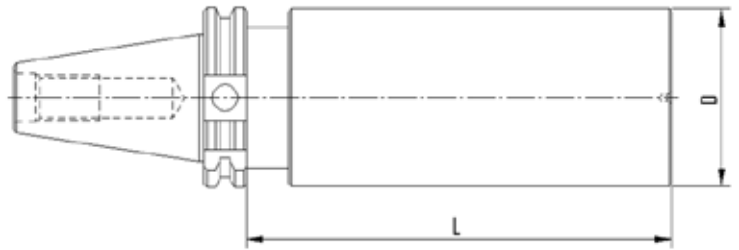
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Diametro	Vite	Q.tà	Ghiera	Q.tà
				
50	111604011	1	122502007	1
63	112005012	1	123002408	1
80	112005012	1	123002408	1

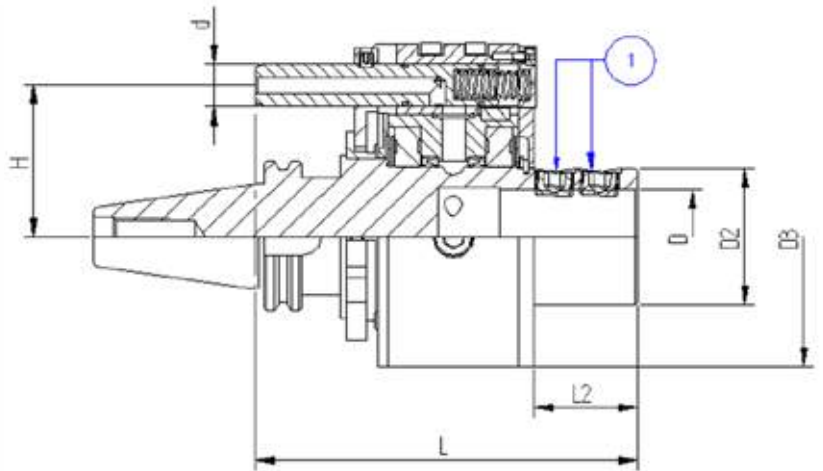

MANDRINI SEMILAVORATI A STELO TENERO
BLANK TOOLHOLDER WITH SOFT SHANK
BARRES D'ALEPAGE SEMI-FINIES
ROHLINGE MIT WEICHEM SCHAFT



DIN 69871 .A



Codice	ISO	Descrizione	D	L
140ST263	40	ISO40 DIN69871 ST.TENERO D.63X250	63	250
150ST397	50	ISO50 DIN69871 ST.TENERO D.97x315	97	315



Codice	ISO	Descrizione	H	d	L	L2	D	D2	D3
140DRC32	40	ISO40 DIN69871 DISTRIB.ROTANTE D.32	65	18	150	33.8	32	48	95
Codice	ISO	Descrizione	H	d	L	L2	D	D2	D3
150DRC40	50	ISO50 DIN69871 DISTRIB.ROTANTE D.40	80	18	165	49	40	58	110

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE



ISO40	Grano	Q.tà	ISO50	Grano	Q.tà
					
32	101400804	1	32	-	-
40	-	-	40	101601604	2



FIG. 1

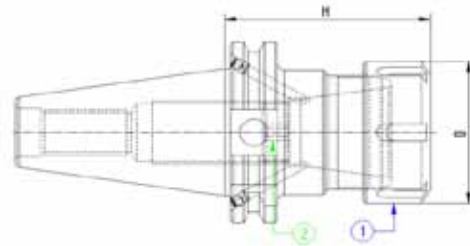


FIG. 2

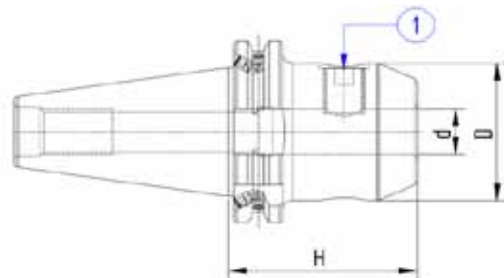
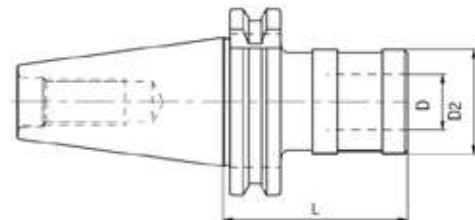


FIG. 3



Codice	ISO	Descrizione Portapinzza	FIG.	H	D	ER	G6.3 12000
130PP110	30	ISO30 DIN69871 P/P H.59 ER16	1	55	32	16	●
130PP116	30	ISO30 DIN69871 P/P H.55 ER25	1	55	35	25	●
130PP120	30	ISO40 DIN69871 P/P H.65 ER32	1	65	42	32	●

Codice	ISO	Descrizione Weldon	FIG.	H	d	D	G6.3 12000
130WLD06	30	ISO30 DIN69871 WELDON H.45 D.06	2	45	6	25	●
130WLD08	30	ISO30 DIN69871 WELDON H.45 D.08	2	45	8	28	●
130WLD10	30	ISO30 DIN69871 WELDON H.50 D.10	2	50	10	35	●
130WLD12	30	ISO30 DIN69871 WELDON H.50 D.12	2	50	12	42	●
130WLD16	30	ISO30 DIN69871 WELDON H.70 D.16	2	70	16	48	●
130WLD20	30	ISO30 DIN69871 WELDON H.70 D.20	2	70	20	52	●

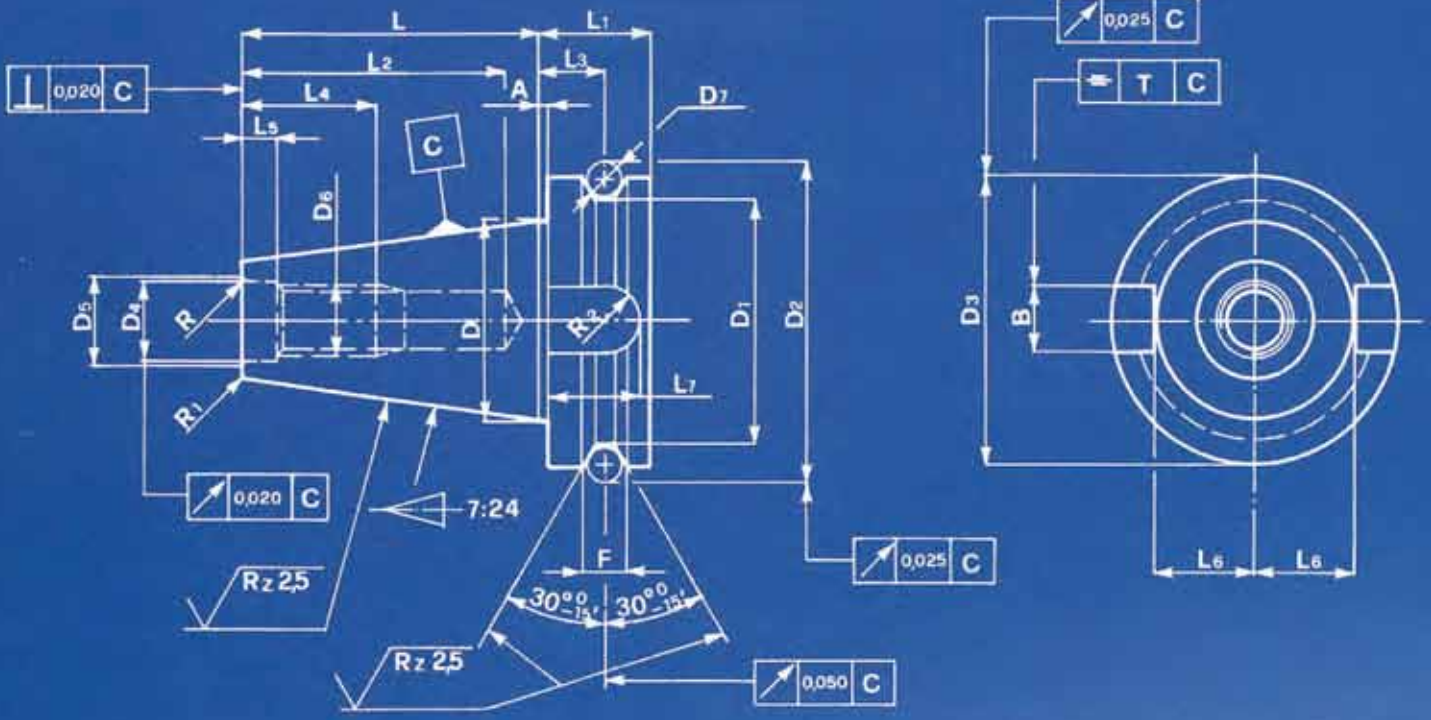
Codice	ISO	Descrizione Portamaschi	FIG.	L	D2	D
130PCRM1	30	ISO30 DIN69871 M/PORTAM/C/R H.60 GR.1	3	60	38	19
130PCRM2	30	ISO30 DIN69871 M/PORTAM/C/R H.101 GR.2	3	101	53	31

Possibilità di realizzare altri mandrini ISO30 su richiesta

NOTE



MAS 403BT



Cono - Size 40 50

A ± 0,2	2	3
B H12	16,1	25,7
D	44,45	69,85
D1 ^{-0,1}	53	85
D2 ⁰	69,679	106,980
D3 ⁰	63	100
D4 H7	17	25
D5 ⁰	19	27
D6 ⁰	M16	M24
D7	8	12
F ^{+0,1}	10	15

Cono - Size 40 50

L ± 0,2	65,4	101,8
L1	27	38
L2	60	90
L3 ± 0,1	16,6	23,2
L4	30	45
L5 ± 0,1	8	11
L6 ⁰	22,6	35
L7	21	31
R	2	4
R1		1
R2	8,05	12,85
T	0,12	0,20

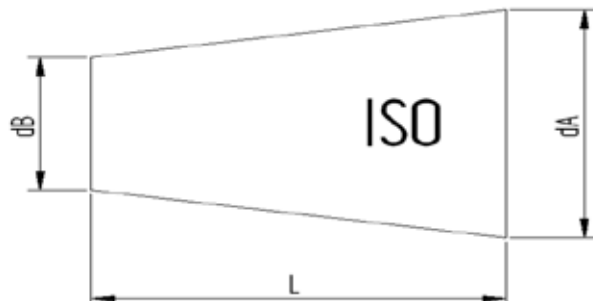


TUTTI I MANDRINI PORTAUTENSILI PAGNONI VENGONO PRODOTTI SECONDO LE NORMATIVE DIN

TOLLERANZA DEL CONO

PRODOTTI IN CLASSE **AT3**

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



COASSIALITA' PORTAPINZE

La norma DIN6391 ammette un'errore massimo di 0.016 sia per i portapinze DIN6499 che per i portapinze DIN 6388.

La nostra produzione normalmente presenta uno scostamento massimo di eccentricità tra cono ISO e sede pinza compreso tra i 0,003 mm e 0,010 mm.

COASSIALITA' PORTAFRESE FISSI E COMBINATI

I portafrese fissi e combinati di nostra produzione rispondono ai criteri prescritti dalla norma DIN6358, la quale prevede un errore massimo di coassialità tra cono ISO 30 e ISO 40 ed i diametri 16 / 22 / 27 / 32 / 40, di 0,01.

Mentre per ISO 50 è ammesso un errore massimo di 0,015 mm.

COASSIALITA' PORTAFRESE WELDON

Rispettando la normativa DIN 6359-1 i portafrese WELDON devono rispondere ai seguenti requisiti:

Foro: tolleranza H5

Coassialità: scostamento massimo consentito tra cono e sede WELDON <0.01 (solo per ISO 40)

Garantiamo la tolleranza prescritta sul foro e un valore di coassialità mediamente di 0.005

EQUILIBRATURA

La maggior parte dei portautensili presenti in questa categoria sono prebilanciati in classe G 6,3 a 8.000 rpm min -1. oppure bilanciati in classe G 6,3 a 12.000 rpm min-1.

DATI COSTRUTTIVI

- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm².
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiere chiudipinza.

EQUILIBRATURA MANDRINI PER ALTE VELOCITA'

Eventuali bilanciature supplementari sui nostri mandrini vengono eseguite su richiesta cliente, con una classe massima di bilanciatura di G 2,5 a 25.000 rpm.

DATI COSTRUTTIVI PER MANDRINI PER ALTE VELOCITA'

- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm².
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiere chiudipinza.
- Collaudati 100% con strumenti di misura certificati e forniti con certificato di bilanciatura.

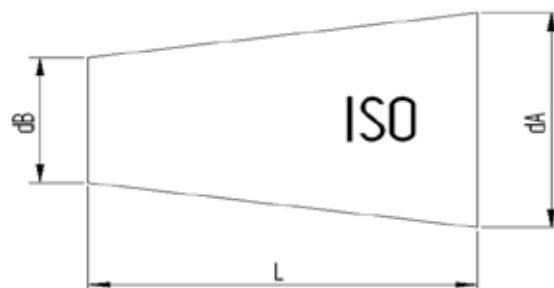


ALL PAGNONI TOOLHOLDERS ARE MANUFACTURED ACCORDING TO DIN NORM.

CONE'S TOLERANCE

ACCORDING TO THE CLASS **AT3**

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



COLLET CHUCK'S RUNOUT ACCURACY

The norm DIN6391 permits a runout error between external cone and internal cone / collet of 0.016
Our production has a runout accuracy which is guaranteed to be within 0,003 / 0,010 mm at the tool seat.

SHELL END MILL ADAPTOR'S RUNOUT ACCURACY

Our shell end mill adaptors meet the requirements of the norm DIN6358, which prescribes for diameters 16 / 22 / 27 / 32 / 40 a runout accuracy of: 0,01 for SK 30 / 40 and 0,015 for SK50.

WELDON END MILL HOLDER'S RUNOUT ACCURACY

According to the DIN6359-1 Weldon end mill holders have to meet the following requirements:

Bore: H5 tolerance

Runout accuracy: <0.01 (for SK40)

Our end mill adaptors ensure the prescribed holes' tolerance and have a runout accuracy which is normally 0.005

BALANCING

The major part of toolholders of this category can run up to 8.000 rpm grade G 6,3 or 12.000 rpm.
Besides the descriptive and dimensional table of products, you can find the additive balancing grade.

CONSTRUCTIVE FEATURES

- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxided.
- Internal and external grinding finished.

HIGH-SPEED BALANCING TOOLHOLDERS

Any additional balancing on our toolholders are carried out on client request, with a class maximum of balancing of 25.000 rpm grade G 2,5.

CONSTRUCTIVE FEATURES FOR HIGH-SPEED TOOLHOLDERS

- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxided.
- Internal and external grinding finished of the cone.
- Grinding finish on the front side and on the thread of collet nuts.
- Tested 100% with certified measuring instruments and supplied with balancing certificate.

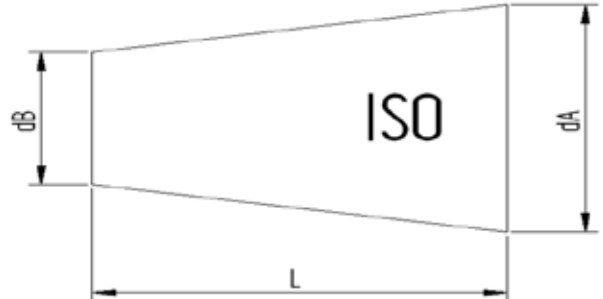


Alle Pagnoni - steilkegelaufnahmen werden nach den DIN-Normen angefertigt.

KEGELSCHAFTTOLERANZ

In Klasse **AT3** angefertigt.

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



RUNDLAUFGENAUIGKEIT DER SPANNZANGENAUFNAHME

Die DIN 639-Norm schreibt eine Rundlaufgenauigkeit zwischen Aussenkegel und Innenkegel/Spanzangensitz vom 0,016 vor. Unsere Spanzangenfutter weisen einen Rundlauffehler zwischen ISO-Kegelaufnahme und Spanzangensitz, der zwischen 0,003 und 0,010 mm liegt.

AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Pagnoni-Aufsteckfräsdorne entsprechen der DIN 6358-Norm, die einen höchsten Rundlauffehler zwischen ISO 30- und ISO 40- Kegel und den Durchmessern 16 / 22 / 27 / 32 / 40 vom 0,01 vorsieht.

Der mögliche höchste Rundlauffehler für ISO 50 ist 0,015 mm.

WELDON AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Nach der DIN 6359-1-Norm müssen die Weldon - Aufsteckfräsdorne die folgenden Forderungen aufweisen:

Bohrung: toleranz H5

Rundlaufgenauigkeit: höchster möglicher Rundlauffehler zwischen Kegel und Weldon Sitz <0,01 (für ISO 40).

Die vorgeschriebene Toleranz der Bohrung und eine durchschnittliche Rundlaufgenauigkeit von 0,005 sind verichert.

WUCHTUNG

Die meisten Werkzeughalter dieser Gruppe sind in Klasse G6,3 auf 8.000 U/Min -1 vorgewuchtet oder auf 12.000 U/Min -1 gewuchtet.

KONSTRUKTIONSDATEN

- Aus legiertem Einsatzstahl angefertigt.
- in der Einsatzhärte tiefe von 0,4 - 0,5 mm zementiert.
- gehärtet, angelassen.
- Härte HRC 58 ± 2, 800-1000 N / mm2.
- Brüniert
- inneres, äußeres Schleifen und am Gewinde der Spanzangemutter.

WUCHTUNG MIT HOCHGESCHWINDIGKEIT

Auf Anfrage können wir die Werkzeughalter auf maximal G2,5 25.000 U/Min gegen Aufpreis auswuchten.

KONSTRUKTIONSDATEN

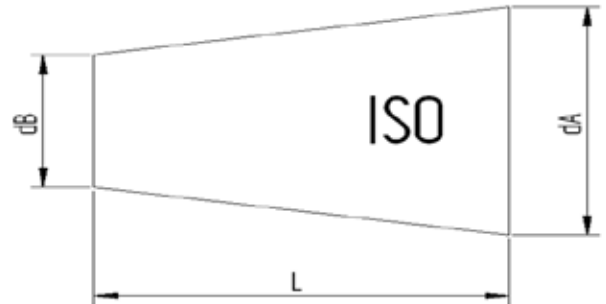
- aus legiertem Einsatzstahl angefertigt.
- in der Einsatzhärte tiefe von 0,4 - 0,5 mm zementiert.
- gehärtet, angelassen.
- Härte HRC 58 ± 2, 800-1000 N / mm2.
- Brüniert
- inneres, äußeres Schleifen des Kegels.
- 100% durch zertifizierte Meßinstrumente geprüft und mit Wuchtungsprotokoll geliefert.

Tous les mandrins porte-outils PAGNONI sont produits suivant les spécifications DIN.

TOLLERANCE DU CONE

En classe **AT3**.

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



COAXIALITÉ PORTE-PINCE

La norme DIN6391 admet une erreur maximum du 0,016 soit pour les porte-pinces DIN6499 soit pour DIN6388.

Dans notre production l'écart d'excentricité maximum entre cône ISO et logement de la pince est compris entre: 0,003 et 0,010 mm.

COAXIALITÉ PORTE-FRAISES FIXES ET COMBINÉS

Les porte-fraises fixes et combinés de notre production suivent la spécification de la norme DIN 6358, qui prévoit pour les diamètres 16 / 22 / 27 / 32 / 40 une concentricité de 0,01 pour ISO 30 et ISO 40 0,015 pour ISO 50.

COAXIALITÉ PORTE-FRAISES WELDON

Suivant les spécifications DIN6359-1 les porte-fraises WELDON doivent suivre les conditions suivantes:

Trou: tolérance H5.

Coaxialité: écart maximum toléré entre cône et logement du Weldon <0,01 (pour ISO 40).

Nous assurons la tolérance prévue sur le trou et une coaxialité en moyenne de 0,005.

EQUILIBRAGE

La plupart des porte-outils sont pré-équilibrés en classe G 6,3 8.000 Tr/Min -1 ou équilibrés à 12.000 Tr/Min -1.

ELEMENTS DE CONSTRUCTION

- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 - 0,5 mm.
- Trempé - Revenu.
- Dureté HRC 58 ± 2 résistance 800-1000 N / mm².
- Brunis.
- Rectification du cône intérieur, extérieur et dans le filetage des écrous qui serrent la pince.

EQUILIBRAGE MANDRINS POUR HAUTE VITESSE

Équilibrage éventuels sur nos mandrins sont exécutés sur demande du client, avec une maximum classe de équilibrage de G2,5 à 25.000 rpm.

ELEMENTS DE CONSTRUCTION POUR MANDRINS HAUTE VITESSE

- Produits en acier cémenté allié.
- Cémenté avec une profondeur 0,4 - 0,5 mm.
- Trempé - Revenu.
- Dureté HRC 58 ± 2 résistance 800-1000 N / mm².
- Brunis.
- Fiition de rectification intérieure, extérieure et di cône.
- Contrôlés à 100% avec des instruments de mesure certifiés et livrés avec un certificat d'équilibrage.

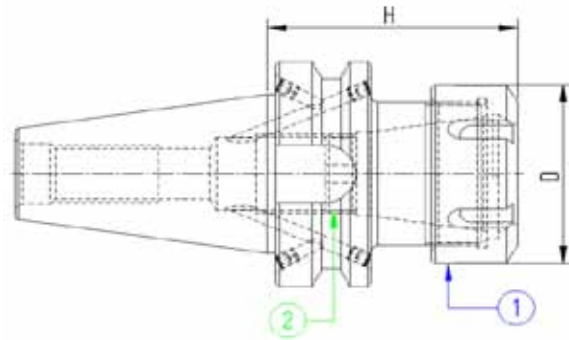


MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCK
MANDRINS A PINCES TYPE ER
SPANNZANGENFUTTER ER



JIS-B 6339 .M.AS 403/BT .AD/B

DIN 6499



Codice	ISO	Descrizione	H	D	G6.3 12000
340PP110	40	ISO40 MAS403BT P/P H.70 ER16	70	32	●
340PP113	40	ISO40 MAS403BT P/P H.70 ER20	70	35	●
340PP116	40	ISO40 MAS403BT P/P H.70 ER25	70	42	●
340PP120	40	ISO40 MAS403BT P/P H.70 ER32	70	50	●
340PP126	40	ISO40 MAS403BT P/P H.70 ER40	70	63	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano	Q.tà
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1

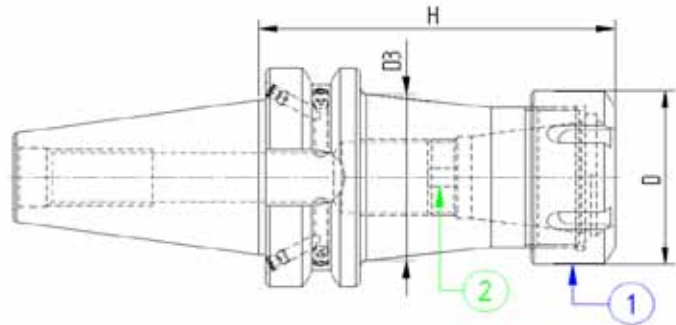


MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCK
MANDRINS A PINCES TYPE ER
SPANNZANGENFUTTER ER



JIS-B 6339 .M.AS 403/BT .AD/B

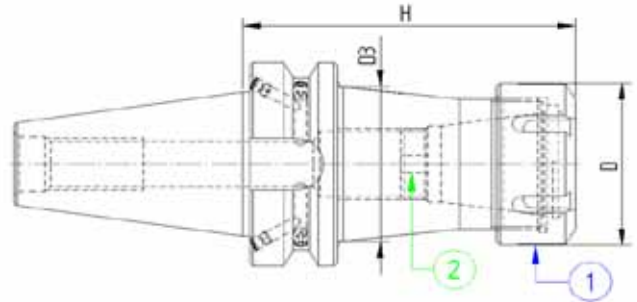
DIN 6499



Codice	ISO	Descrizione	H	D3	D	G6.3 12000
340PP210	40	ISO40 MAS403BT P/P H100 ER16	100	32	32	●
340PP213	40	ISO40 MAS403BT P/P H100 ER20	100	35	35	●
340PP216	40	ISO40 MAS403BT P/P H100 ER25	100	42	42	●
340PP220	40	ISO40 MAS403BT P/P H100 ER32	100	46	50	●
340PP226	40	ISO40 MAS403BT P/P H100 ER40	100	50	63	●
340PP310	40	ISO40 MAS403BT P/P H130 ER16	130	32	32	
340PP313	40	ISO40 MAS403BT P/P H130 ER20	130	37	35	
340PP316	40	ISO40 MAS403BT P/P H130 ER25	130	42	42	
340PP320	40	ISO40 MAS403BT P/P H130 ER32	130	46	50	
340PP326	40	ISO40 MAS403BT P/P H130 ER40	130	50	63	


COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

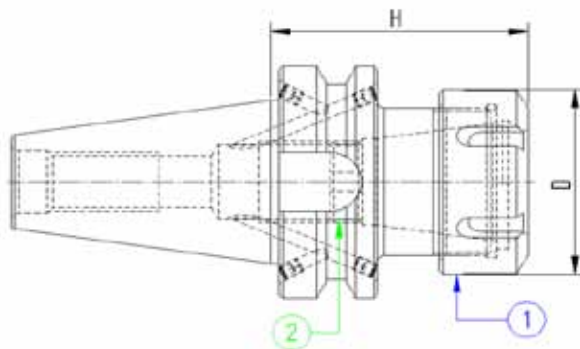
ER	Ghiera	Q.tà	Grano	Q.tà
				
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1



Codice	ISO	Descrizione	H	D3	D
340PP410	40	ISO40 MAS403BT P/P H160 ER16	160	31	32
340PP413	40	ISO40 MAS403BT P/P H160 ER20	160	37	35
340PP416	40	ISO40 MAS403BT P/P H160 ER25	160	40	42
340PP420	40	ISO40 MAS403BT P/P H160 ER32	160	48	50
340PP426	40	ISO40 MAS403BT P/P H160 ER40	160	50	63
340PP510	40	ISO40 MAS403BT P/P H200 ER16	200	32	32
340PP513	40	ISO40 MAS403BT P/P H200 ER20	200	37	35
340PP516	40	ISO40 MAS403BT P/P H200 ER25	200	42	42
340PP520	40	ISO40 MAS403BT P/P H200 ER32	200	50	50
340PP526	40	ISO40 MAS403BT P/P H200 ER40	200	50	63

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

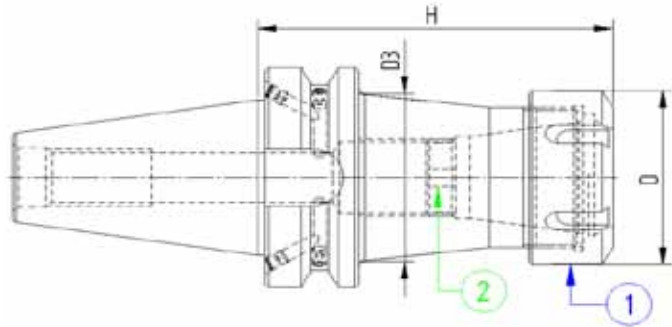
ER	Ghiera	Q.tà	Grano	Q.tà
				
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1



Codice	ISO	Descrizione	H	D	G6.3 12000
350PP110	50	ISO50 MAS403BT P/P H80 ER16	80	32	●
350PP113	50	ISO50 MAS403BT P/P H80 ER20	80	35	●
350PP116	50	ISO50 MAS403BT P/P H80 ER25	80	42	●
350PP120	50	ISO50 MAS403BT P/P H80 ER32	80	50	●
350PP126	50	ISO50 MAS403BT P/P H80 ER40	80	63	●


COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano	Q.tà
				
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1



Codice	ISO	Descrizione	H	D3	D	G6.3 12000
350PP210	50	ISO50 MAS403BT P/P H100 ER16	100	32	32	●
350PP213	50	ISO50 MAS403BT P/P H100 ER20	100	34	35	●
350PP216	50	ISO50 MAS403BT P/P H100 ER25	100	42	42	●
350PP220	50	ISO50 MAS403BT P/P H100 ER32	100	50	50	●
350PP226	50	ISO50 MAS403BT P/P H100 ER40	100	58	63	●
350PP234	50	ISO50 MAS403BT P/P H100 ER50	100	74	78	●
350PP310	50	ISO50 MAS403BT P/P H130 ER16	130	32	32	
350PP313	50	ISO50 MAS403BT P/P H130 ER20	130	34	35	
350PP316	50	ISO50 MAS403BT P/P H130 ER25	130	42	42	
350PP320	50	ISO50 MAS403BT P/P H130 ER32	130	50	50	
350PP326	50	ISO50 MAS403BT P/P H130 ER40	130	60	63	
350PP334	50	ISO50 MAS403BT P/P H130 ER50	130	74	78	

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano	Q.tà
				
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1
50	950GHREQ	1	103015901	1

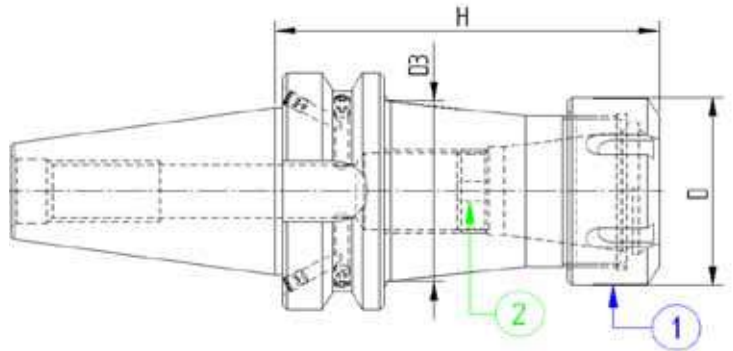


MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCK
MANDRINS A PINCES TYPE ER
SPANNZANGENFUTTER ER





JIS-B 6339 .M.AS 403/BT .AD/B

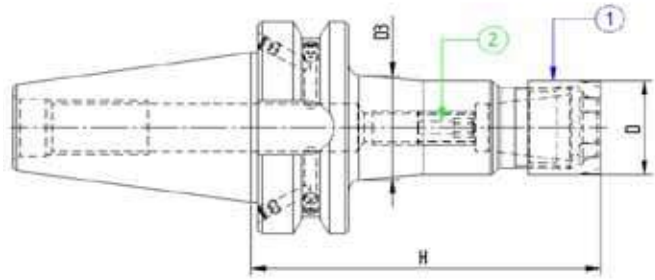
DIN 6499



Codice	ISO	Descrizione	H	D3	D
350PP410	50	ISO50 MAS403BT P/P H160 ER16	160	32	32
350PP413	50	ISO50 MAS403BT P/P H160 ER20	160	35	35
350PP416	50	ISO50 MAS403BT P/P H160 ER25	160	42	42
350PP420	50	ISO50 MAS403BT P/P H160 ER32	160	50	50
350PP426	50	ISO50 MAS403BT P/P H160 ER40	160	57	63
350PP510	50	ISO50 MAS403BT P/P H200 ER16	200	32	32
350PP513	50	ISO50 MAS403BT P/P H200 ER20	200	35	35
350PP516	50	ISO50 MAS403BT P/P H200 ER25	200	42	42
350PP520	50	ISO50 MAS403BT P/P H200 ER32	200	50	50
350PP526	50	ISO50 MAS403BT P/P H200 ER40	200	57	63



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

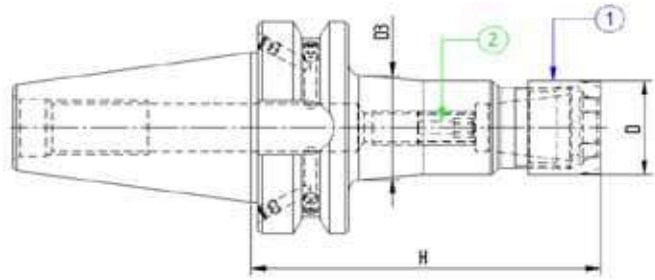
ER	Ghiera	Q.tà	Grano	Q.tà
				
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1



Codice	ISO	Descrizione	H	D3	D	G6.3 12000
340PM207	40	ISO40 MAS403BT P/P H100 ER11MINI	100	20	16	●
340PM210	40	ISO40 MAS403BT P/P H100 ER16MINI	100	26	22	●
340PM213	40	ISO40 MAS403BT P/P H100 ER20MINI	100	30	28	●
340PM216	40	ISO40 MAS403BT P/P H100 ER25MINI	100	33	35	●
340PM307	40	ISO40 MAS403BT P/P H130 ER11MINI	130	20	16	
340PM310	40	ISO40 MAS403BT P/P H130 ER16MINI	130	28	22	
340PM313	40	ISO40 MAS403BT P/P H130 ER20MINI	130	30	28	
340PM316	40	ISO40 MAS403BT P/P H130 ER25MINI	130	33	35	
340PM407	40	ISO40 MAS403BT P/P H160 ER11MINI	160	28	16	●
340PM410	40	ISO40 MAS403BT P/P H160 ER16MINI	160	30	22	●
340PM413	40	ISO40 MAS403BT P/P H160 ER20MINI	160	30	28	●
340PM416	40	ISO40 MAS403BT P/P H160 ER25MINI	160	33	35	●
340PM510	40	ISO40 MAS403BT P/P H200 ER16MINI	200	30	22	
340PM513	40	ISO40 MAS403BT P/P H200 ER20MINI	200	33	28	
340PM516	40	ISO40 MAS403BT P/P H200 ER25MINI	200	33	35	



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

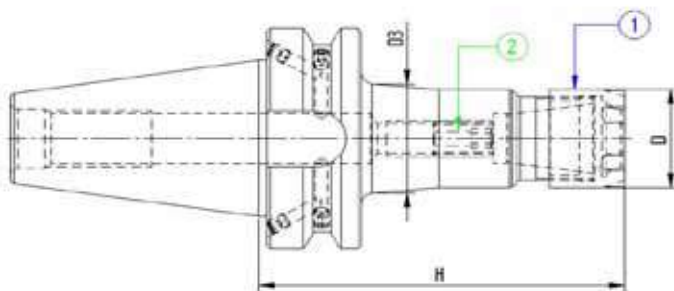
ER MINI	Ghiera	Q.tà	Grano	Q.tà
				
11	911GHRMN	1	100601004	1
16	916GHRMN	1	101001601	1
20	920GHRMN	1	101001601	1
25	925GHRMN	1	101815801	1



Codice	ISO	Descrizione	H	D3	D	G6.3 12000
340PM207	40	ISO40 MAS403BT P/P H100 ER11MINI	100	20	16	●
340PM210	40	ISO40 MAS403BT P/P H100 ER16MINI	100	26	22	●
340PM213	40	ISO40 MAS403BT P/P H100 ER20MINI	100	30	28	●
340PM216	40	ISO40 MAS403BT P/P H100 ER25MINI	100	33	35	●
340PM307	40	ISO40 MAS403BT P/P H130 ER11MINI	130	20	16	
340PM310	40	ISO40 MAS403BT P/P H130 ER16MINI	130	28	22	
340PM313	40	ISO40 MAS403BT P/P H130 ER20MINI	130	30	28	
340PM316	40	ISO40 MAS403BT P/P H130 ER25MINI	130	33	35	
340PM407	40	ISO40 MAS403BT P/P H160 ER11MINI	160	28	16	●
340PM410	40	ISO40 MAS403BT P/P H160 ER16MINI	160	30	22	●
340PM413	40	ISO40 MAS403BT P/P H160 ER20MINI	160	30	28	●
340PM416	40	ISO40 MAS403BT P/P H160 ER25MINI	160	33	35	●
340PM510	40	ISO40 MAS403BT P/P H200 ER16MINI	200	30	22	
340PM513	40	ISO40 MAS403BT P/P H200 ER20MINI	200	33	28	
340PM516	40	ISO40 MAS403BT P/P H200 ER25MINI	200	33	35	

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER MINI	Ghiera	Q.tà	Grano	Q.tà
				
11	911GHRMN	1	100601004	1
16	916GHRMN	1	101001601	1
20	920GHRMN	1	101001601	1
25	925GHRMN	1	101815801	1



Codice	ISO	Descrizione	H	D3	D	G6.3 12000
350PM210	50	ISO50 MAS403BT P/P H100 ER16MINI	100	22	22	●
350PM213	50	ISO50 MAS403BT P/P H100 ER20MINI	100	28	28	●
350PM216	50	ISO50 MAS403BT P/P H100 ER25MINI	100	30	35	●
350PM310	50	ISO50 MAS403BT P/P H130 ER16MINI	130	28	22	
350PM313	50	ISO50 MAS403BT P/P H130 ER20MINI	130	30	28	
350PM316	50	ISO50 MAS403BT P/P H130 ER25MINI	130	30	35	
350PM410	50	ISO50 MAS403BT P/P H160 ER16MINI	160	28	22	●
350PM413	50	ISO50 MAS403BT P/P H160 ER20MINI	160	32	28	●
350PM416	50	ISO50 MAS403BT P/P H160 ER25MINI	160	38	35	●
350PM510	50	ISO50 MAS403BT P/P H200 ER16MINI	200	30	22	
350PM513	50	ISO50 MAS403BT P/P H200 ER20MINI	200	35	28	
350PM516	50	ISO50 MAS403BT P/P H200 ER25MINI	200	40	35	

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE



Codice	Ghiera	Q.tà	Grano	Q.tà
				
16	916GHRMN	1	101001601	1
20	920GHRMN	1	101001601	1
25	925GHRMN	1	101815801	1



FIG. 1

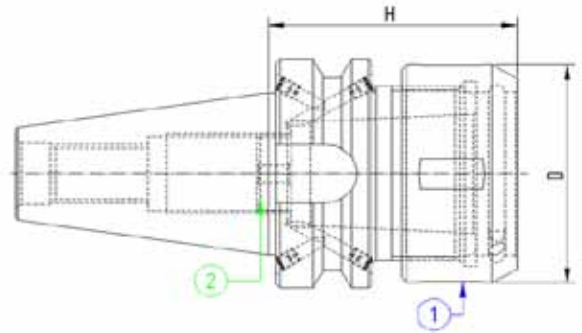
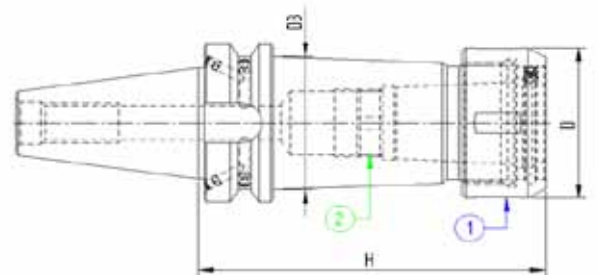


FIG. 2



Codice	ISO	Descrizione	H	D	D3	FIG.	G6.3 12000
340PO116	40	ISO40 MAS403BT P/P H70 EOC16	70	43	33	1	●
340PO125	40	ISO40 MAS403BT P/P H70 EOC25	70	60	45	1	●
340PO132	40	ISO40 MAS403BT P/P H80 EOC32	80	72	60	1	●
340PO216	40	ISO40 MAS403BT P/P H100 EOC16	100	43	33	1	
340PO225	40	ISO40 MAS403BT P/P H100 EOC25	100	60	48	1	
340PO316	40	ISO40 MAS403BT P/P H130 EOC16	130	43	33	2	
340PO325	40	ISO40 MAS403BT P/P H130 EOC25	130	60	48	2	

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE



EOC	Ghiera	Q.tà	Grano	Q.tà
				
16	916GHROS	1	101815801	1
25	925GHROS	1	102715901	1
32	932GHROS	1	102715901	1



FIG. 1

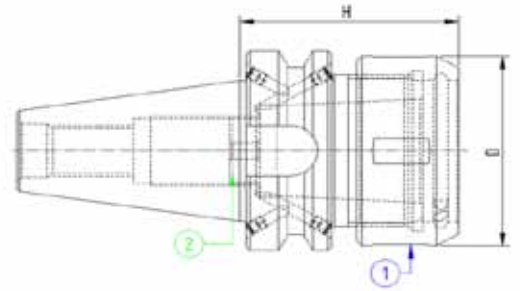
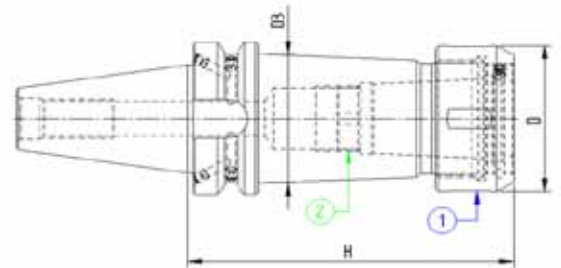





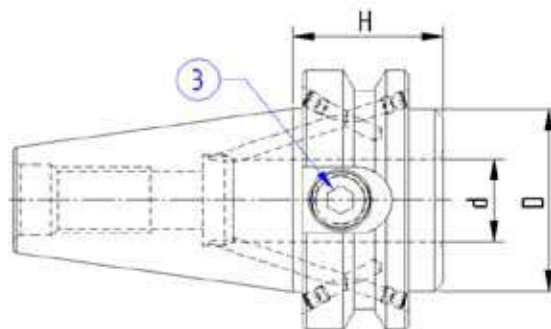
FIG. 2



Codice	ISO	Descrizione	H	D	D3	FIG.	G6.3 12000
350PO116	50	ISO50 MAS403BT P/P H70 EOC16	70	43	33	1	●
350PO125	50	ISO50 MAS403BT P/P H85 EOC25	85	60	48	1	●
350PO132	50	ISO50 MAS403BT P/P H95 EOC32	95	72	60	1	●
350PO216	50	ISO50 MAS403BT P/P H100 EOC16	100	43	33	1	
350PO225	50	ISO50 MAS403BT P/P H100 EOC25	100	60	45	1	
350PO232	50	ISO50 MAS403BT P/P H100 EOC32	100	72	56	1	
350PO325	50	ISO50 MAS403BT P/P H130 EOC25	130	60	48	2	
350PO332	50	ISO50 MAS403BT P/P H130 EOC32	130	72	56	2	

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

EOC	Ghiera	Q.tà	Grano	Q.tà
				
16	916GHROS	1	101815801	1
25	925GHROS	1	102715901	1
32	932GHROS	1	102715901	1



Codice	ISO	Descrizione	H	d	D	G6.3 12000
340WLC16	40	ISO40 MAS403BT WELDON H35 D.16	35	16	48	●
340WLC20	40	ISO40 MAS403BT WELDON H35 D.20	35	20	44	●
340WLC25	40	ISO40 MAS403BT WELDON H35 D.25	35	25	49	●
340WLC32	40	ISO40 MAS403BT WELDON H70 D.32	70	32	72	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà	Grano Interno	Q.tà
16	101401602	1	-	-
20	101401202	1	-	-
25	101401202	1	-	-
32	102002002	1	101400804	1

Codice	ISO	Descrizione	H	d	D	G6.3 12000
350WLC16	50	ISO50 MAS403BT WELDON H44 D.16	44	16	70	●
350WLC20	50	ISO50 MAS403BT WELDON H44 D.20	44	20	70	●
350WLC25	50	ISO50 MAS403BT WELDON H44 D.25	44	25	70	●
350WLC32	50	ISO50 MAS403BT WELDON H44 D.32	44	32	70	●
350WLC40	50	ISO50 MAS403BT WELDON H44 D.40	44	40	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
16	101402502	1
20	101602004	1
25	101802002	1
32	102002002	1
40	102002002	1

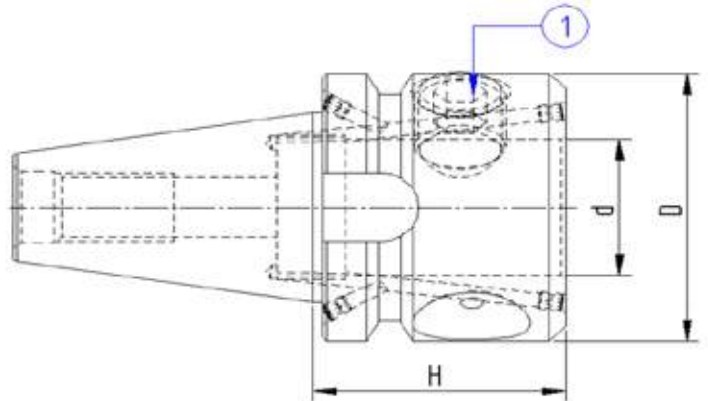


MANDRINI PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTIL TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



JIS-B 6339 .M.AS 403/BT .AD/B

DIN 1835 B



Codice	ISO	Descrizione	H	d	D	G6.3 12000
340WLS25	40	ISO40 MAS403BT WELDON H55 D.25	55	25	63	●
340WLS32	40	ISO40 MAS403BT WELDON H55 D.32	55	32	63	●

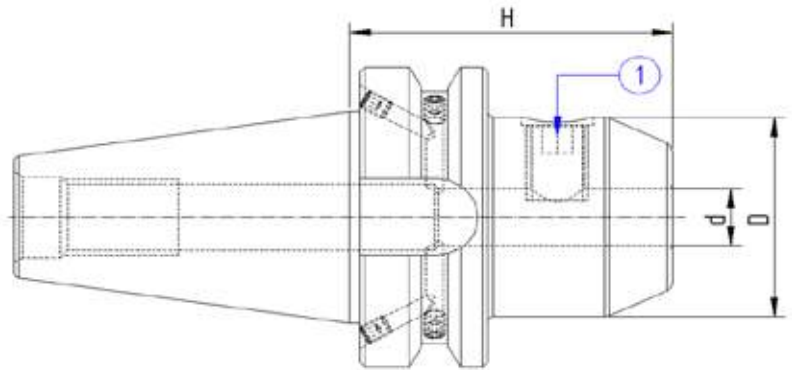
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
---	-------	------




1

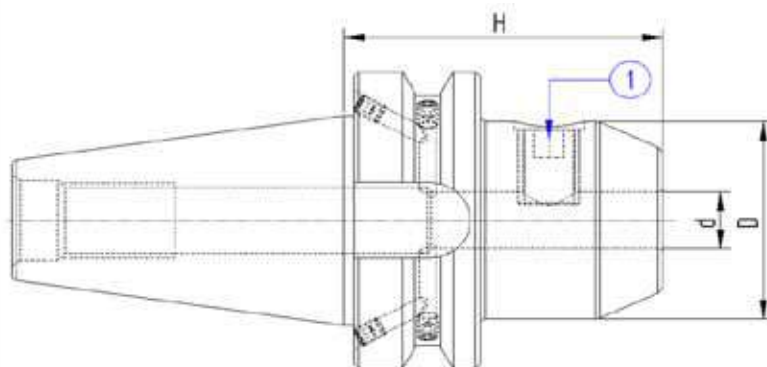
25	101802002	1
32	102001602	1



Codice	ISO	Descrizione	H	d	D	G6.3 12000
340WLD06	40	ISO40 MAS403BT WELDON H50 D.06	50	6	25	●
340WLD08	40	ISO40 MAS403BT WELDON H50 D.08	50	8	28	●
340WLD10	40	ISO40 MAS403BT WELDON H63 D.10	63	10	35	●
340WLD12	40	ISO40 MAS403BT WELDON H63 D.12	63	12	42	●
340WLD14	40	ISO40 MAS403BT WELDON H63 D.14	63	14	44	●
340WLD16	40	ISO40 MAS403BT WELDON H63 D.16	63	16	48	●
340WLD18	40	ISO40 MAS403BT WELDON H63 D.18	63	18	50	●
340WLD20	40	ISO40 MAS403BT WELDON H63 D.20	63	20	52	●
340WLD25	40	ISO40 MAS403BT WELDON H90 D.25	90	25	65	●
340WLD32	40	ISO40 MAS403BT WELDON H100 D.32	100	32	72	●
340WLD40	40	ISO40 MAS403BT WELDON H105 D.40	105	40	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
		
6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2



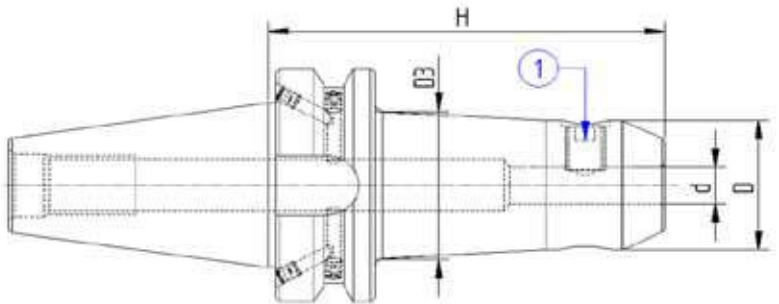
Codice	ISO	Descrizione	H	d	D	G6.3 12000
350WLD06	50	ISO50 MAS403BT WELDON H63 D.6	63	6	25	●
350WLD08	50	ISO50 MAS403BT WELDON H63 D.8	63	8	28	●
350WLD10	50	ISO50 MAS403BT WELDON H70 D.10	70	10	35	●
350WLD12	50	ISO50 MAS403BT WELDON H80 D.12	80	12	42	●
350WLD14	50	ISO50 MAS403BT WELDON H80 D.14	80	14	44	●
350WLD16	50	ISO50 MAS403BT WELDON H80 D.16	80	16	48	●
350WLD18	50	ISO50 MAS403BT WELDON H80 D.18	80	18	50	●
350WLD20	50	ISO50 MAS403BT WELDON H80 D.20	80	20	52	●
350WLD25	50	ISO50 MAS403BT WELDON H100 D.25	100	25	65	●
350WLD32	50	ISO50 MAS403BT WELDON H105 D.32	105	32	72	●
350WLD40	50	ISO50 MAS403BT WELDON H120 D.40	120	40	80	●
350WLD50	50	ISO50 MAS403BT WELDON H125 D.50	125	50	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2
50	102422504	2



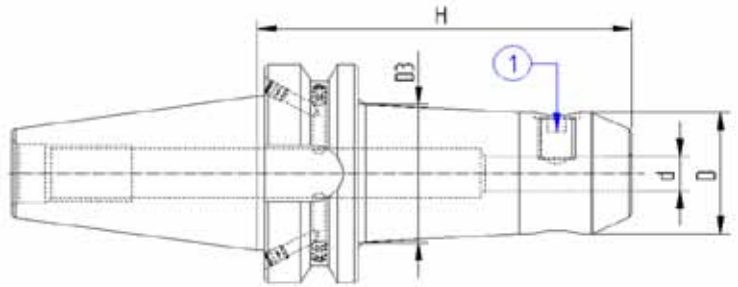
Codice	ISO	Descrizione	H	d	D	D3	G6.3 12000
340WE206	40	ISO40 MAS403BT WELDON H100 D.06	100	6	25	35	●
340WE208	40	ISO40 MAS403BT WELDON H100 D.08	100	8	28	38	●
340WE210	40	ISO40 MAS403BT WELDON H100 D.10	100	10	35	40	●
340WE212	40	ISO40 MAS403BT WELDON H100 D.12	100	12	42	-	●
340WE214	40	ISO40 MAS403BT WELDON H100 D.14	100	14	44	-	●
340WE216	40	ISO40 MAS403BT WELDON H100 D.16	100	16	48	-	●
340WE218	40	ISO40 MAS403BT WELDON H100 D.18	100	18	50	-	●
340WE220	40	ISO40 MAS403BT WELDON H100 D.20	100	20	52	-	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
---	-------	------



6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1



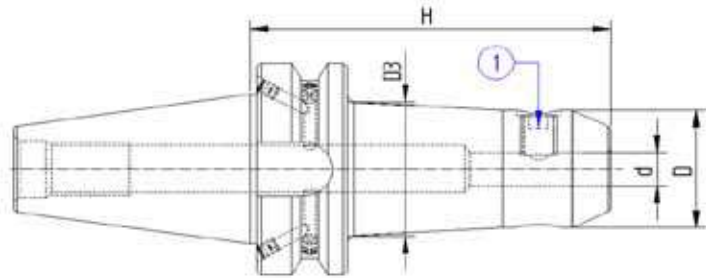
Codice	ISO	Descrizione	H	d	D	D3
340WE306	40	ISO40 MAS403BT WELDON H130 D.06	130	6	25	35
340WE308	40	ISO40 MAS403BT WELDON H130 D.08	130	8	28	38
340WE310	40	ISO40 MAS403BT WELDON H130 D.10	130	10	35	40
340WE312	40	ISO40 MAS403BT WELDON H130 D.12	130	12	42	-
340WE314	40	ISO40 MAS403BT WELDON H130 D.14	130	14	44	-
340WE316	40	ISO40 MAS403BT WELDON H130 D.16	130	16	48	-
340WE318	40	ISO40 MAS403BT WELDON H130 D.18	130	18	50	-
340WE320	40	ISO40 MAS403BT WELDON H130 D.20	130	20	52	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
---	-------	------





6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1

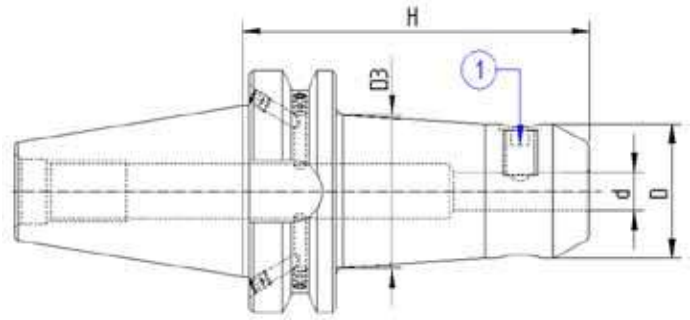


Codice	ISO	Descrizione	H	d	D	D3	G6.3 12000
340WE406	40	ISO40 MAS403BT WELDON H160 D.06	160	6	25	35	●
340WE408	40	ISO40 MAS403BT WELDON H160 D.08	160	8	28	38	●
340WE410	40	ISO40 MAS403BT WELDON H160 D.10	160	10	35	40	●
340WE412	40	ISO40 MAS403BT WELDON H160 D.12	160	12	42	42	●
340WE414	40	ISO40 MAS403BT WELDON H160 D.14	160	14	44	44	●
340WE416	40	ISO40 MAS403BT WELDON H160 D.16	160	16	48	48	●
340WE418	40	ISO40 MAS403BT WELDON H160 D.18	160	18	50	50	●
340WE420	40	ISO40 MAS403BT WELDON H160 D.20	160	20	52	52	●
340WE425	40	ISO40 MAS403BT WELDON H160 D.25	160	25	65	65	●
340WE432	40	ISO40 MAS403BT WELDON H160 D.32	160	32	72	72	●

340WE506	40	ISO40 MAS403BT WELDON H200 D.6	200	6	25	38
340WE508	40	ISO40 MAS403BT WELDON H200 D.8	200	8	28	41
340WE510	40	ISO40 MAS403BT WELDON H200 D.10	200	10	35	43
340WE512	40	ISO40 MAS403BT WELDON H200 D.12	200	12	42	48
340WE514	40	ISO40 MAS403BT WELDON H200 D.14	200	14	44	48
340WE516	40	ISO40 MAS403BT WELDON H200 D.16	200	16	48	48
340WE518	40	ISO40 MAS403BT WELDON H200 D.18	200	18	50	50
340WE520	40	ISO40 MAS403BT WELDON H200 D.20	200	20	52	52
340WE525	40	ISO40 MAS403BT WELDON H200 D.25	200	25	65	65
340WE532	40	ISO40 MAS403BT WELDON H200 D.32	200	32	72	72

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà	Ø	Grano	Q.tà
		1			1
6	100601002	1	16	101401602	1
8	100801002	1	18	101401602	1
10	101001202	1	20	101601602	1
12	101201602	1	25	101802002	2
14	101201602	1	32	102002002	2



Codice	ISO	Descrizione	H	d	D	D3
350WE206	50	ISO50 MAS403BT WELDON H100 D.6	100	6	25	35
350WE208	50	ISO50 MAS403BT WELDON H100 D.8	100	8	28	38
350WE210	50	ISO50 MAS403BT WELDON H100 D.10	100	10	35	42
350WE212	50	ISO50 MAS403BT WELDON H100 D.12	100	12	42	48
350WE214	50	ISO50 MAS403BT WELDON H100 D.14	100	14	44	50
350WE216	50	ISO50 MAS403BT WELDON H100 D.16	100	16	48	54
350WE218	50	ISO50 MAS403BT WELDON H100 D.18	100	18	50	62
350WE220	50	ISO50 MAS403BT WELDON H100 D.20	100	20	52	66

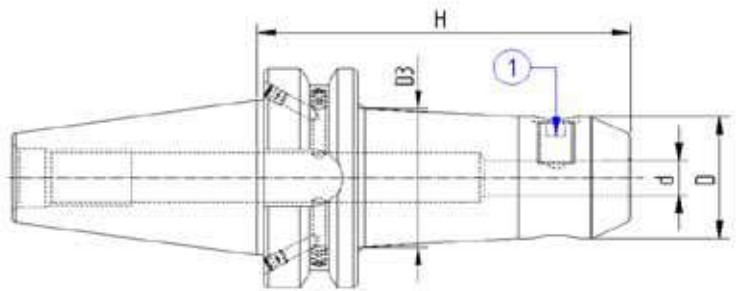
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
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1

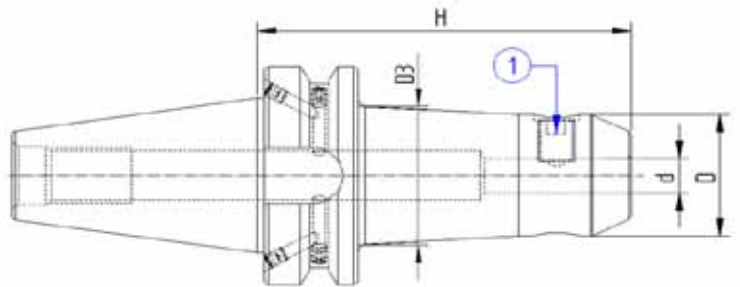
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8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1



Codice	ISO	Descrizione	H	d	D	D3
350WE306	50	ISO50 MAS403BT WELDON H130 D.6	130	6	25	35
350WE308	50	ISO50 MAS403BT WELDON H130 D.8	130	8	28	38
350WE310	50	ISO50 MAS403BT WELDON H130 D.10	130	10	35	42
350WE312	50	ISO50 MAS403BT WELDON H130 D.12	130	12	42	48
350WE314	50	ISO50 MAS403BT WELDON H130 D.14	130	14	44	50
350WE316	50	ISO50 MAS403BT WELDON H130 D.16	130	16	48	54
350WE318	50	ISO50 MAS403BT WELDON H130 D.18	130	18	50	56
350WE320	50	ISO50 MAS403BT WELDON H130 D.20	130	20	52	66
350WE325	50	ISO50 MAS403BT WELDON H130 D.25	130	25	65	72
350WE332	50	ISO50 MAS403BT WELDON H130 D.32	130	32	72	-
350WE340	50	ISO50 MAS403BT WELDON H130 D.40	130	40	80	-


COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
		
6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2



Codice	ISO	Descrizione	H	d	D	D3
350WE406	50	ISO50 MAS403BT WELDON H160 D.6	160	6	25	42
350WE408	50	ISO50 MAS403BT WELDON H160 D.8	160	8	28	45
350WE410	50	ISO50 MAS403BT WELDON H160 D.10	160	10	35	49
350WE412	50	ISO50 MAS403BT WELDON H160 D.12	160	12	42	55
350WE414	50	ISO50 MAS403BT WELDON H160 D.14	160	14	44	57
350WE416	50	ISO50 MAS403BT WELDON H160 D.16	160	16	48	60
350WE418	50	ISO50 MAS403BT WELDON H160 D.18	160	18	50	63
350WE420	50	ISO50 MAS403BT WELDON H160 D.20	160	20	52	69
350WE425	50	ISO50 MAS403BT WELDON H160 D.25	160	25	65	72
350WE432	50	ISO50 MAS403BT WELDON H160 D.32	160	32	72	-
350WE440	50	ISO50 MAS403BT WELDON H160 D.40	160	40	80	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
		
6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2

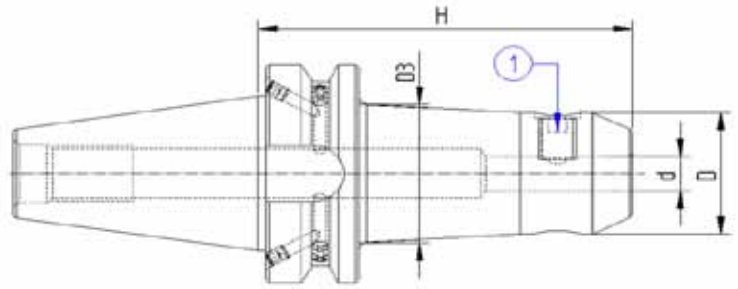


MANDRINI PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTIL TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



JIS-B 6339 .M.AS 403/BT .AD/B

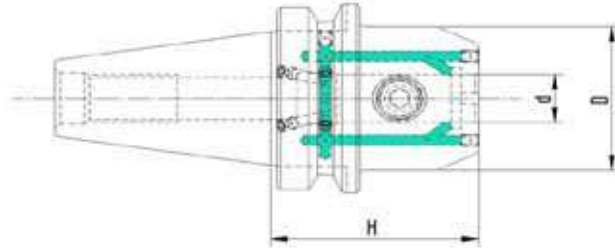
DIN 1835 B



Codice	ISO	Descrizione	H	d	D	D3
350WE506	50	ISO50 MAS403BT WELDON H200 D.6	200	6	25	42
350WE508	50	ISO50 MAS403BT WELDON H200 D.8	200	8	28	45
350WE510	50	ISO50 MAS403BT WELDON H200 D.10	200	10	35	49
350WE512	50	ISO50 MAS403BT WELDON H200 D.12	200	12	42	55
350WE514	50	ISO50 MAS403BT WELDON H200 D.14	200	14	44	57
350WE516	50	ISO50 MAS403BT WELDON H200 D.16	200	16	48	60
350WE518	50	ISO50 MAS403BT WELDON H200 D.18	200	18	50	63
350WE520	50	ISO50 MAS403BT WELDON H200 D.20	200	20	52	63
350WE525	50	ISO50 MAS403BT WELDON H200 D.25	200	25	65	72
350WE532	50	ISO50 MAS403BT WELDON H200 D.32	200	32	72	-
350WE540	50	ISO50 MAS403BT WELDON H200 D.40	200	40	80	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2



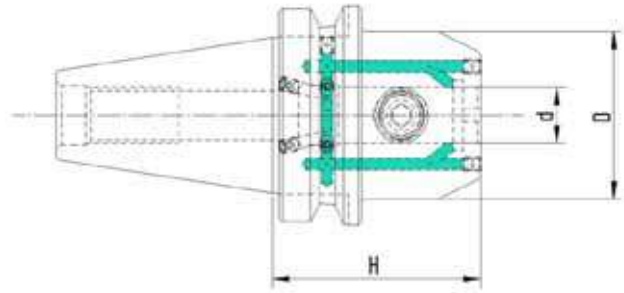
Codice	ISO	Descrizione	H	d	D
340WLK06	40	ISO40 MAS403BT WELDON H50 D.06	50	6	25
340WLK08	40	ISO40 MAS403BT WELDON H50 D.08	50	8	28
340WLK10	40	ISO40 MAS403BT WELDON H63 D.10	63	10	35
340WLK12	40	ISO40 MAS403BT WELDON H63 D.12	63	12	42
340WLK14	40	ISO40 MAS403BT WELDON H63 D.14	63	14	44
340WLK16	40	ISO40 MAS403BT WELDON H63 D.16	63	16	48
340WLK18	40	ISO40 MAS403BT WELDON H63 D.18	63	18	50
340WLK20	40	ISO40 MAS403BT WELDON H63 D.20	63	20	52
340WLK25	40	ISO40 MAS403BT WELDON H90 D.25	90	25	63
340WLK32	40	ISO40 MAS403BT WELDON H100 D.32	100	32	72
340WLK40	40	ISO40 MAS403BT WELDON H105 D.40	105	40	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2



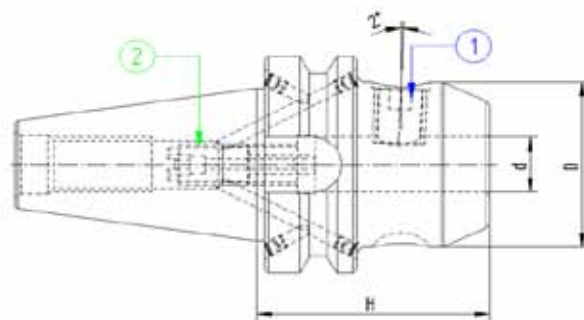
Codice	ISO	Descrizione	H	d	D
350WLK06	50	ISO50 MAS403BT WELDON H63 D.06	63	6	25
350WLK08	50	ISO50 MAS403BT WELDON H63 D.08	63	8	28
350WLK10	50	ISO50 MAS403BT WELDON H70 D.10	70	10	35
350WLK12	50	ISO50 MAS403BT WELDON H80 D.12	80	12	42
350WLK14	50	ISO50 MAS403BT WELDON H80 D.14	80	14	44
350WLK16	50	ISO50 MAS403BT WELDON H80 D.16	80	16	48
350WLK18	50	ISO50 MAS403BT WELDON H80 D.18	80	18	50
350WLK20	50	ISO50 MAS403BT WELDON H80 D.20	80	20	52
350WLK25	50	ISO50 MAS403BT WELDON H100 D.25	100	25	63
350WLK32	50	ISO50 MAS403BT WELDON H105 D.32	105	32	72
350WLK40	50	ISO50 MAS403BT WELDON H120 D.40	120	40	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà
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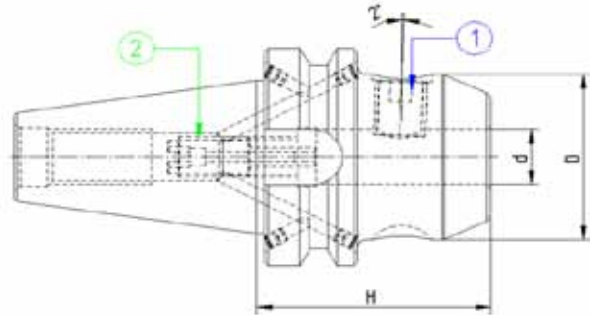
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8	100801002	1
10	101001202	1
12	101201602	1
14	101201602	1
16	101401602	1
18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2
40	102002002	2



Codice	ISO	Descrizione	H	d	D	G6.3 12000
340WHN06	40	ISO40 MAS403BT W/NOTCH H50 D.6	50	6	25	●
340WHN08	40	ISO40 MAS403BT W/NOTCH H50 D.8	50	8	28	●
340WHN10	40	ISO40 MAS403BT W/NOTCH H63 D.10	63	10	35	●
340WHN12	40	ISO40 MAS403BT W/NOTCH H63 D.12	63	12	42	●
340WHN14	40	ISO40 MAS403BT W/NOTCH H63 D.14	63	14	44	●
340WHN16	40	ISO40 MAS403BT W/NOTCH H63 D.16	63	16	48	●
340WHN18	40	ISO40 MAS403BT W/NOTCH H63 D.18	63	18	50	●
340WHN20	40	ISO40 MAS403BT W/NOTCH H63 D.20	63	20	52	●
340WHN25	40	ISO40 MAS403BT W/NOTCH H90 D.25	90	25	65	●
340WHN32	40	ISO40 MAS403BT W/NOTCH H100 D.32	100	32	72	●
340WHN40	40	ISO40 MAS403BT W/NOTCH H105 D.40	105	40	80	●



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

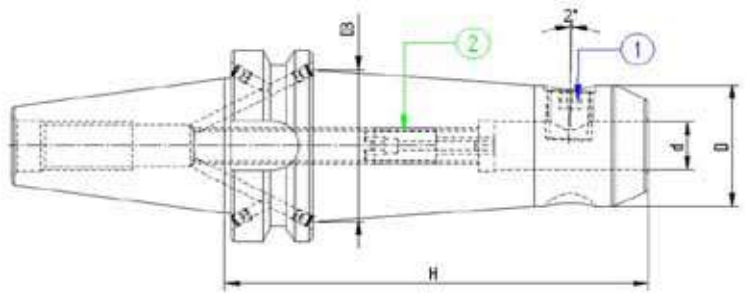
Ø	Grano	Q.tà	Vite	Q.tà
				
				
		1		1
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16	101401602	1	101204001	1
18	101401602	1	101204001	1
20	101601602	1	101603501	1
25	101802002	2	102002001	1
32	102002002	2	102002001	1
40	102002002	2	102002001	1



Codice	ISO	Descrizione	H	d	D	G6.3 12000
350WHN06	50	ISO50 MAS403BT W/NOTCH H63 D.6	63	6	25	●
350WHN08	50	ISO50 MAS403BT W/NOTCH H63 D.8	63	8	28	●
350WHN10	50	ISO50 MAS403BT W/NOTCH H70 D.10	70	10	35	●
350WHN12	50	ISO50 MAS403BT W/NOTCH H80 D.12	80	12	42	●
350WHN14	50	ISO50 MAS403BT W/NOTCH H80 D.14	80	14	44	●
350WHN16	50	ISO50 MAS403BT W/NOTCH H80 D.16	80	16	48	●
350WHN18	50	ISO50 MAS403BT W/NOTCH H80 D.18	80	18	50	●
350WHN20	50	ISO50 MAS403BT W/NOTCH H80 D.20	80	20	52	●
350WHN25	50	ISO50 MAS403BT W/NOTCH H100 D.25	100	25	65	●
350WHN32	50	ISO50 MAS403BT W/NOTCH H105 D.32	105	32	72	●
350WHN40	50	ISO50 MAS403BT W/NOTCH H120 D.40	120	40	80	●



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà	Vite	Q.tà
				
		1		2
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16	101401602	1	101204001	1
18	101401602	1	101204001	1
20	101601602	1	101603501	1
25	101802002	2	102002001	1
32	102002002	2	102002001	1
40	102002002	2	102002001	1



Codice	ISO	Descrizione	H	d	D	D3
340WN206	40	ISO40 MAS403BT W/NOTCH H100 D.06	100	6	25	35
340WN208	40	ISO40 MAS403BT W/NOTCH H100 D.08	100	8	28	38
340WN210	40	ISO40 MAS403BT W/NOTCH H100 D.10	100	10	35	40
340WN212	40	ISO40 MAS403BT W/NOTCH H100 D.12	100	12	42	-
340WN214	40	ISO40 MAS403BT W/NOTCH H100 D.14	100	14	44	-
340WN216	40	ISO40 MAS403BT W/NOTCH H100 D.16	100	16	48	-
340WN218	40	ISO40 MAS403BT W/NOTCH H100 D.18	100	18	50	-
340WN220	40	ISO40 MAS403BT W/NOTCH H100 D.20	100	20	52	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà	Vite	Q.tà
				
	1		2	
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16	101401602	1	101204001	1
18	101401602	1	101204001	1
20	101601602	1	101603501	1

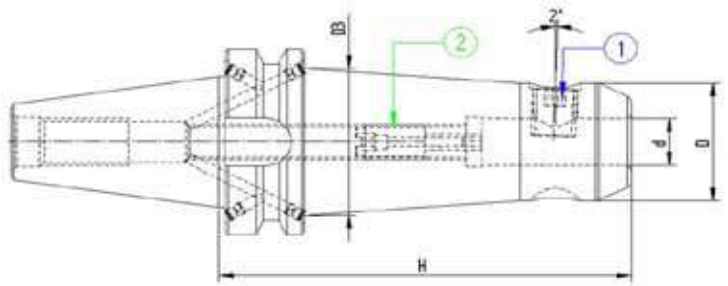


MANDRINI PORTAFRESE TIPO WHISTLE NOTCH
 END MILL HOLDERS WHISTLE NOTCH
 MANDRINS POUR OUTIL TYPE WHISTLE NOTCH
 ZYLINDERSCHAFTAUFNHME WHISTLE NOTCH





JIS-B 6339 .M.AS 403/BT .AD/B

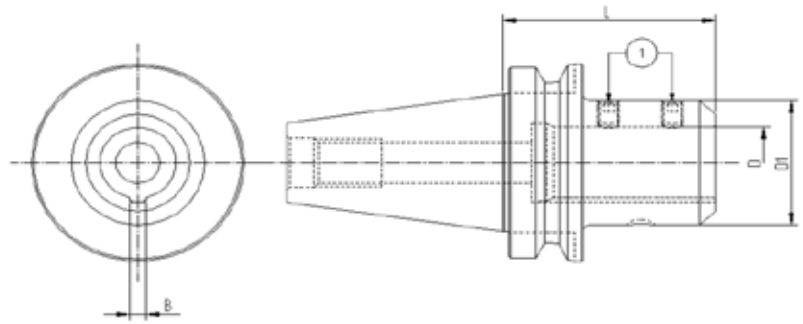
DIN 1835 E



Codice	ISO	Descrizione	H	d	D	D3
350WN206	50	ISO50 MAS403BT W/NOTCH H100 D.06	100	6	25	35
350WN208	50	ISO50 MAS403BT W/NOTCH H100 D.08	100	8	28	38
350WN210	50	ISO50 MAS403BT W/NOTCH H100 D.10	100	10	35	40
350WN212	50	ISO50 MAS403BT W/NOTCH H100 D.12	100	12	42	48
350WN214	50	ISO50 MAS403BT W/NOTCH H100 D.14	100	14	44	50
350WN216	50	ISO50 MAS403BT W/NOTCH H100 D.16	100	16	48	54
350WN218	50	ISO50 MAS403BT W/NOTCH H100 D.18	100	18	50	62
350WN220	50	ISO50 MAS403BT W/NOTCH H100 D.20	100	20	52	66



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Grano	Q.tà	Vite	Q.tà
				
	1		2	
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16	101401602	1	101204001	1
18	101401602	1	101204001	1
20	101601602	1	101603501	1



Codice	ISO	Descrizione	L	D	D1	B
340AR128	40	ISO40 MAS403BT AST.REG. H.70 D.28	70	28	50	6
340AR136	40	ISO40 MAS403BT AST.REG. H.120 D.36	120	36	63	8
Codice	ISO	Descrizione	L	D	D1	B
350AR128	50	ISO50 MAS403BT AST.REG. H.100 D.28	100	28	50	6
350AR136	50	ISO50 MAS403BT AST.REG. H.100 D.36	100	36	63	8

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D.	Grano	Q.tà
		
		
28	100801002	2
36	101001202	2

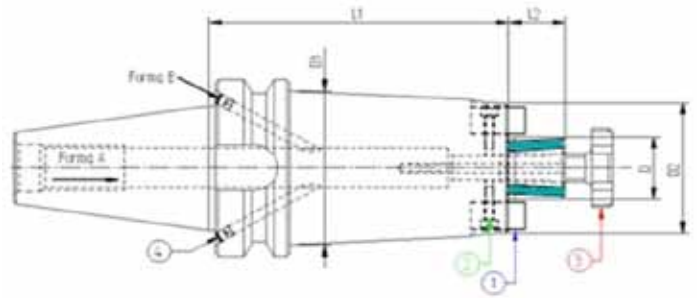


PORTAFRESE FISSI CON PASSAGGIO REFRIGERANTE
SHELL MILL HOLDERS WITH INTERNAL COOLANT SUPPLY
PORTE-FRAISES ENTRAÎNEMENT AVEC ARROSAGE INTERNE
AUFSTECKFRAESERDORNE MIT QUERNUT UND KÜHLMITTELZUFUHR






JIS-B 6339 .M.1S 403/BT .AD/B

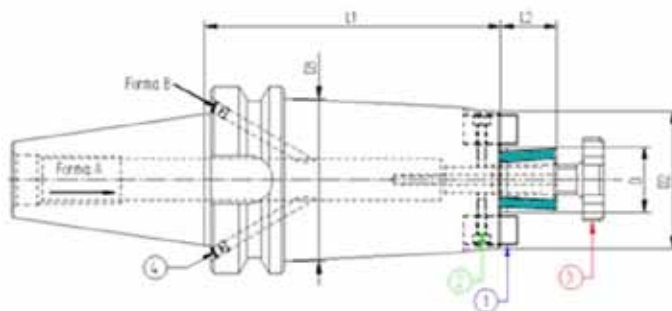
ISO 3937



Codice	ISO	Descrizione	L1	L2	D	D2	D3
340PF016	40	ISO40 MAS403BT P/F FISSO H35 D.16	35	17	16	46	-
340PF022	40	ISO40 MAS403BT P/F FISSO H35 D.22	35	19	22	59	-
340PF027	40	ISO40 MAS403BT P/F FISSO H35 D.27	35	21	27	58	-
340PF116	40	ISO40 MAS403BT P/F FISSO H45 D.16	45	17	16	38	-
340PF122	40	ISO40 MAS403BT P/F FISSO H45 D.22	45	19	22	48	-
340PF127	40	ISO40 MAS403BT P/F FISSO H45 D.27	45	21	27	58	-
340PF132	40	ISO40 MAS403BT P/F FISSO H50 D.32	50	24	32	78	-
340PF140	40	ISO40 MAS403BT P/F FISSO H55 D.40	55	27	40	88	-
340PF216	40	ISO40 MAS403BT P/F FISSO H100 D.16	100	17	16	32	40
340PF222	40	ISO40 MAS403BT P/F FISSO H100 D.22	100	19	22	40	48
340PF227	40	ISO40 MAS403BT P/F FISSO H100 D.27	100	21	27	48	-
340PF232	40	ISO40 MAS403BT P/F FISSO H100 D.32	100	24	32	58	-
340PF240	40	ISO40 MAS403BT P/F FISSO H100 D.40	100	27	40	70	-




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

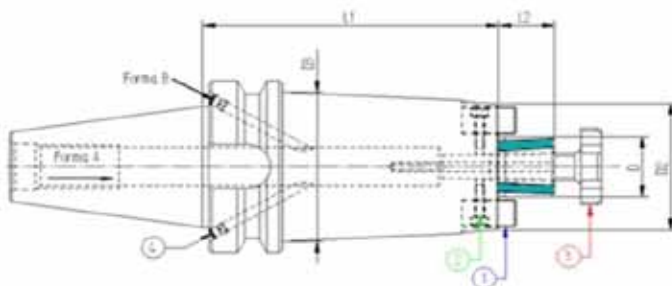
D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
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16 / 32	916TSL10	2	110300801	2	916VTC02	1
16 / 38	916TSL11	2	110301201	2	916VTC02	1
22 / 59	922TSL11	2	110401201	2	922VTC02	1
22 / 48	922TSL11	2	110401201	2	922VTC02	1
22 / 40	922TSL10	2	110401001	2	922VTC02	1
27 / 58 H=35	927TSL02	2	110401601	2	927VTC02	1
27 / 58	927TSL11	2	110501601	2	927VTC02	1
27 / 48	927TSL10	2	110501201	2	927VTC02	1
32 / 78	932TSL12	2	110602001	2	932VTC02	1
32 / 58	932TSL10	2	110601201	2	932VTC02	1
40 / 88	940TSL11	2	110602002	2	940VTC02	1
40 / 70	940TSL10	2	110602001	2	940VTC02	1



Codice	ISO	Descrizione	L1	L2	D	D2	D3
340PF316	40	ISO40 MAS403BT P/F FISSO H130 D.16	130	17	16	39	-
340PF322	40	ISO40 MAS403BT P/F FISSO H130 D.22	130	19	22	46	48
340PF327	40	ISO40 MAS403BT P/F FISSO H130 D.27	130	21	27	55	-
340PF332	40	ISO40 MAS403BT P/F FISSO H130 D.32	130	24	32	66	60
340PF340	40	ISO40 MAS403BT P/F FISSO H130 D.40	130	27	40	88	60
340PF416	40	ISO40 MAS403BT P/F FISSO H160 D.16	160	17	16	39	-
340PF422	40	ISO40 MAS403BT P/F FISSO H160 D.22	160	19	22	46	48
340PF427	40	ISO40 MAS403BT P/F FISSO H160 D.27	160	21	27	55	-
340PF432	40	ISO40 MAS403BT P/F FISSO H160 D.32	160	24	32	66	55
340PF440	40	ISO40 MAS403BT P/F FISSO H160 D.40	160	27	40	88	60
340PF516	40	ISO40 MAS403BT P/F FISSO H200 D.16	200	17	16	39	-
340PF522	40	ISO40 MAS403BT P/F FISSO H200 D.22	200	19	22	46	48
340PF527	40	ISO40 MAS403BT P/F FISSO H200 D.27	200	21	27	55	-
340PF532	40	ISO40 MAS403BT P/F FISSO H200 D.32	200	24	32	66	60
340PF540	40	ISO40 MAS403BT P/F FISSO H200 D.40	200	27	40	88	60




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

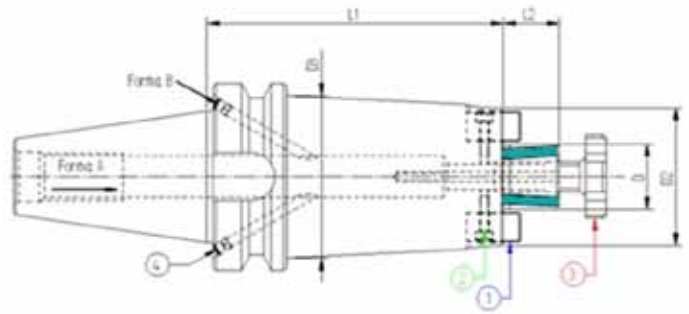
D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 39	916TSL11	2	110301201	2	916VTC02	1
22 / 46	922TSL11	2	110401201	2	922VTC02	1
27 / 55	927TSL11	2	110501601	2	927VTC02	1
32 / 66	932TSL11	2	110602001	2	932VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1



Codice	ISO	Descrizione	L1	L2	D	D2	D3
350PF016	50	ISO50 MAS403BT P/F FISSO H50 D.16	50	17	16	46	-
350PF022	50	ISO50 MAS403BT P/F FISSO H50 D.22	50	19	22	48	-
350PF027	50	ISO50 MAS403BT P/F FISSO H50 D.27	50	21	27	58	-
350PF032	50	ISO50 MAS403BT P/F FISSO H50 D.32	50	24	32	66	-
350PF040	50	ISO50 MAS403BT P/F FISSO H50 D.40	50	27	40	80	-
350PF116	50	ISO50 MAS403BT P/F FISSO H60 D.16	60	17	16	38	-
350PF122	50	ISO50 MAS403BT P/F FISSO H60 D.22	60	19	22	48	-
350PF127	50	ISO50 MAS403BT P/F FISSO H60 D.27	60	21	27	58	-
350PF132	50	ISO50 MAS403BT P/F FISSO H60 D.32	60	24	32	78	-
350PF140	50	ISO50 MAS403BT P/F FISSO H60 D.40	60	27	40	88	-
350PF216	50	ISO50 MAS403BT P/F FISSO H100 D.16	100	17	16	32	40
350PF222	50	ISO50 MAS403BT P/F FISSO H100 D.22	100	19	22	40	52
350PF227	50	ISO50 MAS403BT P/F FISSO H100 D.27	100	21	27	48	55
350PF232	50	ISO50 MAS403BT P/F FISSO H100 D.32	100	24	32	58	65
350PF240	50	ISO50 MAS403BT P/F FISSO H100 D.40	100	27	40	70	-




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 46	916TSL11	2	110301001	2	916VTC02	1
16 / 38	916TSL11	2	110301201	2	916VTC02	1
16 / 32	916TSL10	2	110300801	2	916VTC02	1
22 / 48	922TSL11	2	110401201	2	922VTC02	1
22 / 40	922TSL10	2	110401001	2	922VTC02	1
27 / 58 H=50	927TSL01	2	110401601	2	927VTC02	1
27 / 58 H=60	927TSL11	2	110501601	2	927VTC02	1
27 / 48	927TSL10	2	110501201	2	927VTC02	1
32 / 66	932TSL02	2	110601601	2	932VTC02	1
32 / 78	932TSL12	2	110602001	2	932VTC02	1
32 / 58	932TSL10	2	110601201	2	932VTC02	1
40 / 80	940TSL05	2	110601601	2	940VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1
40 / 70	940TSL10	2	110602001	2	940VTC02	1



Codice	ISO	Descrizione	L1	L2	D	D2	D3
350PF316	50	ISO50 MAS403BT P/F FISSO H130 D.16	130	17	16	39	-
350PF322	50	ISO50 MAS403BT P/F FISSO H130 D.22	130	19	22	46	56
350PF327	50	ISO50 MAS403BT P/F FISSO H130 D.27	130	21	27	55	78
350PF332	50	ISO50 MAS403BT P/F FISSO H130 D.32	130	24	32	66	78
350PF340	50	ISO50 MAS403BT P/F FISSO H130 D.40	130	27	40	70	78
350PF416	50	ISO50 MAS403BT P/F FISSO H160 D.16	160	17	16	39	-
350PF422	50	ISO50 MAS403BT P/F FISSO H160 D.22	160	19	22	46	49
350PF427	50	ISO50 MAS403BT P/F FISSO H160 D.27	160	21	27	55	78
350PF432	50	ISO50 MAS403BT P/F FISSO H160 D.32	160	24	32	66	78
350PF440	50	ISO50 MAS403BT P/F FISSO H160 D.40	160	27	40	70	78
350PF516	50	ISO50 MAS403BT P/F FISSO H200 D.16	200	17	16	39	-
350PF522	50	ISO50 MAS403BT P/F FISSO H200 D.22	200	19	22	46	49
350PF527	50	ISO50 MAS403BT P/F FISSO H200 D.27	200	21	27	55	78
350PF532	50	ISO50 MAS403BT P/F FISSO H200 D.32	200	24	32	66	78
350PF540	50	ISO50 MAS403BT P/F FISSO H200 D.40	200	27	40	70	78

COMPONENTI - SPARE PARTS - PIÈCES DETACHÉES - ERSATZTEILE

D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 39	916TSL11	2	110301201	2	916VTC02	1
22 / 46	922TSL11	2	110401201	2	922VTC02	1
27 / 55	927TSL11	2	110501601	2	927VTC02	1
32 / 66	932TSL11	2	110602001	2	932VTC02	1
40 / 70	940TSL10	2	110602001	2	940VTC02	1

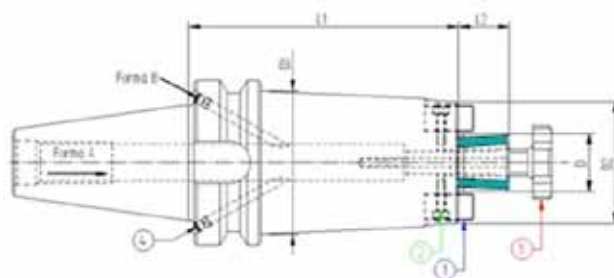


PORTAFRESE FISSI CON PASSAGGIO REFRIGERANTE
SHELL END MILL HOLDERS WITH INTERNAL COOLANT SUPPLY
PORTE-FRAISES ENTRAINEMENT AVEC ARROSAGE INTERNE
AUFSTECKFRAESDORNE MIT QUERNUT UND KUHLMITTELZUFUHR






JIS-B 6339 .M.AS 403/BT .AD/B

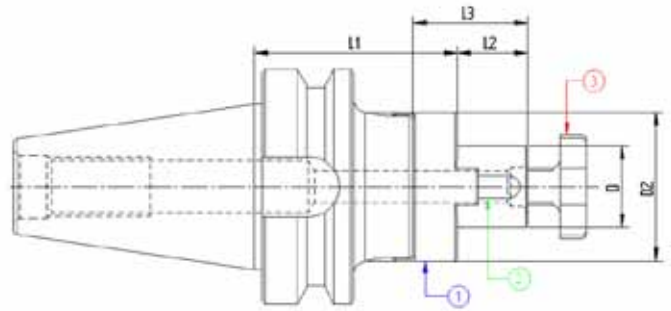
ISO 3937



Codice	ISO	Descrizione	L1	L2	d	D2	D3
350PF616	50	ISO50 MAS403BT P/F FISSO H250 D.16	250	17	16	39	-
350PF622	50	ISO50 MAS403BT P/F FISSO H250 D.22	250	19	22	50	60
350PF627	50	ISO50 MAS403BT P/F FISSO H250 D.27	250	21	27	55	78
350PF632	50	ISO50 MAS403BT P/F FISSO H250 D.32	250	24	32	64	78
350PF640	50	ISO50 MAS403BT P/F FISSO H250 D.40	250	27	40	88	88
350PF716	50	ISO50 MAS403BT P/F FISSO H300 D.16	300	17	16	39	55
350PF722	50	ISO50 MAS403BT P/F FISSO H300 D.22	300	19	22	50	60
350PF727	50	ISO50 MAS403BT P/F FISSO H300 D.27	300	21	27	55	78
350PF732	50	ISO50 MAS403BT P/F FISSO H300 D.32	300	24	32	66	80
350PF740	50	ISO50 MAS403BT P/F FISSO H300 D.40	300	27	40	80	80
350PF816	50	ISO50 MAS403BT P/F FISSO H350 D.16	350	17	16	39	55
350PF822	50	ISO50 MAS403BT P/F FISSO H350 D.22	350	19	22	50	66
350PF827	50	ISO50 MAS403BT P/F FISSO H350 D.27	350	21	27	55	78
350PF832	50	ISO50 MAS403BT P/F FISSO H350 D.32	350	24	32	66	80
350PF840	50	ISO50 MAS403BT P/F FISSO H350 D.40	350	27	40	80	80




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

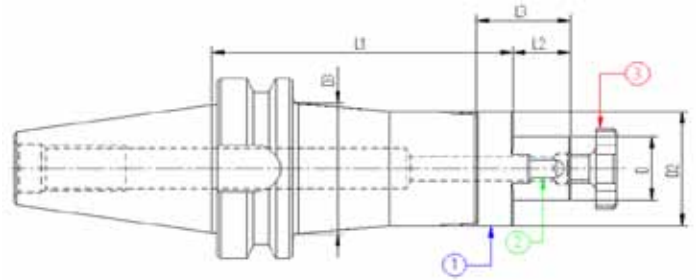
D / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 39	916TSL01	2	110301001	2	916VTC02	1
22 / 50	922TSL01	2	110301201	2	922VTC02	1
27 / 55	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1



Codice	ISO	Descrizione	L1	L2	L3	D	D2
340PU116	40	ISO40 MAS403BT P/F UNIVERS.H55 D.16	55	17	27	16	32
340PU122	40	ISO40 MAS403BT P/F UNIVERS.H55 D.22	55	19	31	22	40
340PU127	40	ISO40 MAS403BT P/F UNIVERS.H55 D.27	55	21	33	27	48
340PU132	40	ISO40 MAS403BT P/F UNIVERS.H60 D.32	60	24	38	32	58
340PU140	40	ISO40 MAS403BT P/F UNIVERS.H60 D.40	60	27	41	40	70




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

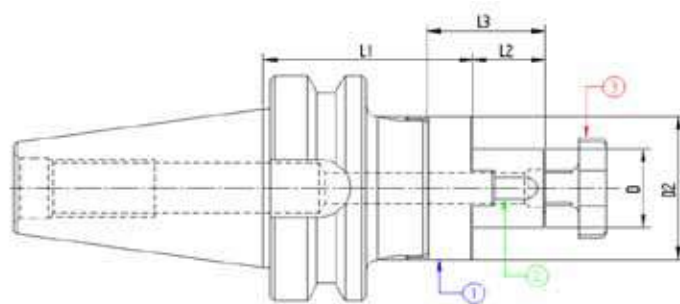
Ø	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1



Codice	ISO	Descrizione	L1	L2	L3	D	D2	D3
340PU216	40	ISO40 MAS403BT P/F UNIVERS.H100 D.16	100	17	27	16	32	44
340PU222	40	ISO40 MAS403BT P/F UNIVERS.H100 D.22	100	19	31	22	40	-
340PU227	40	ISO40 MAS403BT P/F UNIVERS.H100 D.27	100	21	33	27	48	-
340PU232	40	ISO40 MAS403BT P/F UNIVERS.H100 D.32	100	24	38	32	58	-
340PU240	40	ISO40 MAS403BT P/F UNIVERS.H100 D.40	100	27	41	40	70	-
340PU316	40	ISO40 MAS403BT P/F UNIVERS. H130 D.16	130	17	27	16	32	44
340PU322	40	ISO40 MAS403BT P/F UNIVERS. H130 D.22	130	19	31	22	40	47
340PU327	40	ISO40 MAS403BT P/F UNIVERS. H130 D.27	130	21	33	27	48	55
340PU332	40	ISO40 MAS403BT P/F UNIVERS. H130 D.32	130	24	38	32	58	58
340PU340	40	ISO40 MAS403BT P/F UNIVERS. H130 D.40	130	27	41	40	70	62
340PU416	40	ISO40 MAS403BT P/F UNIVERS. H160 D.16	160	17	27	16	32	44
340PU422	40	ISO40 MAS403BT P/F UNIVERS. H160 D.22	160	19	31	22	40	47
340PU427	40	ISO40 MAS403BT P/F UNIVERS. H160 D.27	160	21	33	27	48	55
340PU432	40	ISO40 MAS403BT P/F UNIVERS. H160 D.32	160	24	38	32	58	58
340PU440	40	ISO40 MAS403BT P/F UNIVERS. H160 D.40	160	27	41	40	70	62
340PU516	40	ISO40 MAS403BT P/F UNIVERS. H200 D.16	200	17	27	16	32	44
340PU522	40	ISO40 MAS403BT P/F UNIVERS. H200 D.22	200	19	31	22	40	47
340PU527	40	ISO40 MAS403BT P/F UNIVERS. H200 D.27	200	21	33	27	48	55
340PU532	40	ISO40 MAS403BT P/F UNIVERS. H200 D.32	200	24	38	32	58	58
340PU540	40	ISO40 MAS403BT P/F UNIVERS. H200 D.40	200	27	41	40	70	62




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

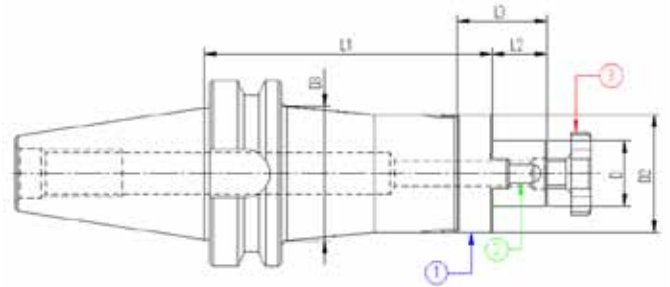
Ø	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1



Codice	ISO	Descrizione	L1	L2	L3	D	D2
350PU116	50	ISO50 MAS403BT P/F UNIVERS. H70 D.16	70	17	27	16	32
350PU122	50	ISO50 MAS403BT P/F UNIVERS. H70 D.22	70	19	31	22	40
350PU127	50	ISO50 MAS403BT P/F UNIVERS. H70 D.27	70	21	33	27	48
350PU132	50	ISO50 MAS403BT P/F UNIVERS. H70 D.32	70	24	38	32	58
350PU140	50	ISO50 MAS403BT P/F UNIVERS. H70 D.40	70	27	41	40	70




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1



Codice	ISO	Descrizione	L1	L2	L3	D	D2	D3
350PU216	50	ISO50 MAS403BT P/F UNIVERS. H100 D.16	100	17	27	16	32	44
350PU222	50	ISO50 MAS403BT P/F UNIVERS. H100 D.22	100	19	31	22	40	50
350PU227	50	ISO50 MAS403BT P/F UNIVERS. H100 D.27	100	21	33	27	48	60
350PU232	50	ISO50 MAS403BT P/F UNIVERS. H100 D.32	100	24	38	32	58	-
350PU240	50	ISO50 MAS403BT P/F UNIVERS. H100 D.40	100	27	41	40	70	-
350PU316	50	ISO50 MAS403BT P/F UNIVERS. H130 D.16	130	17	27	16	32	44
350PU322	50	ISO50 MAS403BT P/F UNIVERS. H130 D.22	130	19	31	22	40	50
350PU327	50	ISO50 MAS403BT P/F UNIVERS. H130 D.27	130	21	33	27	48	60
350PU332	50	ISO50 MAS403BT P/F UNIVERS. H130 D.32	130	24	38	32	58	65
350PU340	50	ISO50 MAS403BT P/F UNIVERS. H130 D.40	130	27	41	40	70	77
350PU416	50	ISO50 MAS403BT P/F UNIVERS. H160 D.16	160	17	27	16	32	44
350PU422	50	ISO50 MAS403BT P/F UNIVERS. H160 D.22	160	19	31	22	40	50
350PU427	50	ISO50 MAS403BT P/F UNIVERS. H160 D.27	160	21	33	27	48	60
350PU432	50	ISO50 MAS403BT P/F UNIVERS. H160 D.32	160	24	38	32	58	65
350PU440	50	ISO50 MAS403BT P/F UNIVERS. H160 D.40	160	27	41	40	70	77
350PU516	50	ISO50 MAS403BT P/F UNIVERS. H200 D.16	200	17	27	16	32	44
350PU522	50	ISO50 MAS403BT P/F UNIVERS. H200 D.22	200	19	31	22	40	50
350PU527	50	ISO50 MAS403BT P/F UNIVERS. H200 D.27	200	21	33	27	48	60
350PU532	50	ISO50 MAS403BT P/F UNIVERS. H200 D.32	200	24	38	32	58	65
350PU540	50	ISO50 MAS403BT P/F UNIVERS. H200 D.40	200	27	41	40	70	77

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1

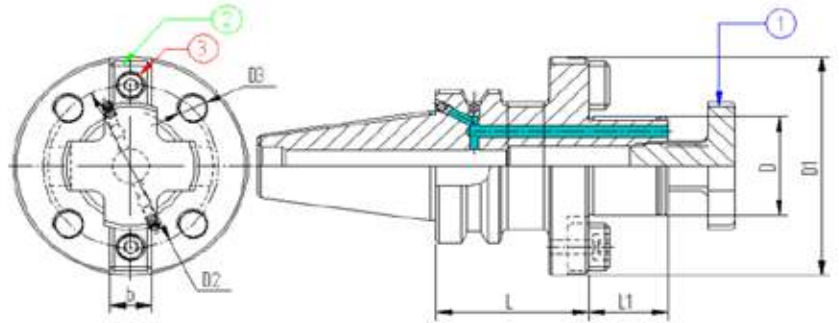


MANDRINI PORTAFRESE PER FRESE A SPIANARE
FACE MILL HOLDER FOR FACE MILLING CUTTERS
MANDRINS PORTE-FRAISE POUR FRAISES A SURFACER
AUFSTECKFRAESDORNE FUER MESSERKOEPEF






JIS-B 6339 .M.AS 403/BT .AD/B

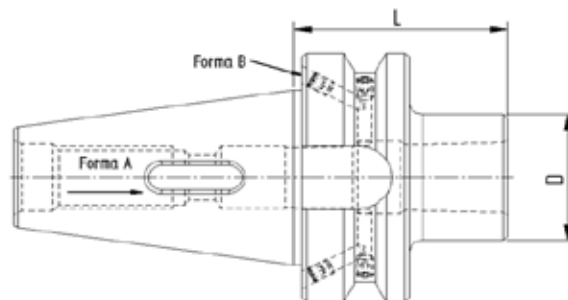
DIN 6357



Codice	ISO	Descrizione	L	L1	D	D1	b	D2	D3
340PI140	40	ISO40 MAS403BT P/F TRA.FR.H.60 D40FM	60	30	40	89	15.9	66.7	M12
350PI140	50	ISO50 MAS403BT P/F TRA.FR.H70 D40FM	70	30	40	89	15.9	66.7	M12
350PI160	50	ISO50 MAS403BT P/F TRA.FR.H80 D60FM	80	40	60	129	25.4	101,6	M16

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Vite Croce	Q.tà	Tassello	Q.tà	Vite	Q.tà
						
	1		2		3	
40	940VTC02	1	940TSL04	2	110601601	2
60	-	-	960TSL04	2	111202501	2



Codice	ISO	Descrizione	L	D
340MP101	40	ISO40 MAS403BT H50 CM1 PUNTE	50	25
340MP102	40	ISO40 MAS403BT H60 CM2 PUNTE	60	32
340MP103	40	ISO40 MAS403BT H76 CM3 PUNTE	76	40
340MP104	40	ISO40 MAS403BT H94.5 CM4 PUNTE	94.5	48
350MP101	50	ISO50 MAS403BT H45 CM1 PUNTE	45	25
350MP102	50	ISO50 MAS403BT H60 CM2 PUNTE	60	32
350MP103	50	ISO50 MAS403BT H65 CM3 PUNTE	65	40
350MP104	50	ISO50 MAS403BT H95 CM4 PUNTE	95	48
350MP105	50	ISO50 MAS403BT H105 CM5 PUNTE	105	63

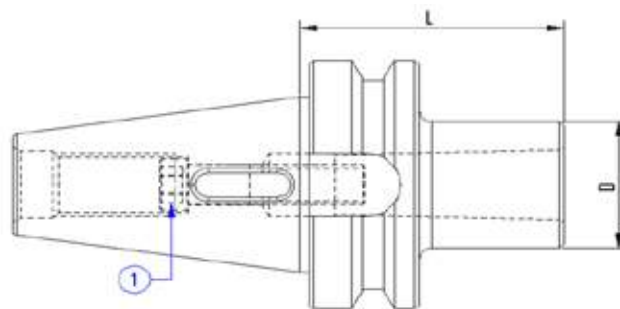
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ISO	TIPO	Vite	Q.tà
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40	CM1	110603501	1
40	CM2	111004514	1
40	CM3	111205001	1
40	CM4	111606015	1
50	CM1	110604501	1
50	CM2	111004514	1
50	CM3	111205001	1
50	CM4	111606015	1
50	CM5	-	-

**VITI FORNITE
SOLO NEL CASO
DI MANDRINO
COMBINATO**



Codice	ISO	Descrizione	L	D
340MP201	40	ISO40 MAS403BT H115 CM1 PUNTE	115	18
340MP202	40	ISO40 MAS403BT H120 CM2 PUNTE	120	25
340MP203	40	ISO40 MAS403BT H140 CM3 PUNTE	140	33
340MP204	40	ISO40 MAS403BT H165 CM4 PUNTE	165	40
350MP201	50	ISO50 MAS403BT H120 CM1 PUNTE	120	18
350MP202	50	ISO50 MAS403BT H140 CM2 PUNTE	140	25
350MP203	50	ISO50 MAS403BT H150 CM3 PUNTE	150	33
350MP204	50	ISO50 MAS403BT H180 CM4 PUNTE	180	40
350MP205	50	ISO50 MAS403BT H220 CM5 PUNTE	220	55

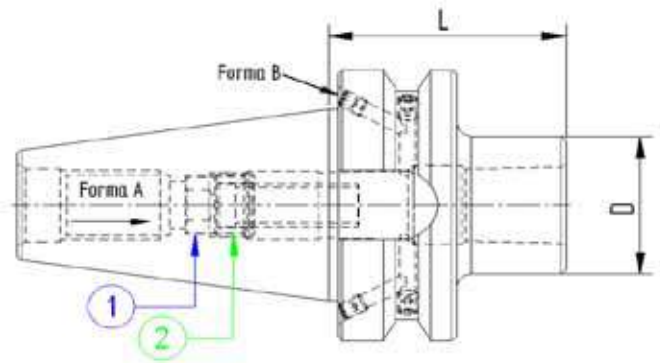
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ISO	TIPO	Vite	Q.tà	Vite	Q.tà
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40	CM1	110604501	1	-	-
40	CM2	111006014	1	-	-
40	CM3	111205501	1	-	-
40	CM4	-	-	-	-
50	CM1	110604501	1	-	-
50	CM2	111004501	1	-	-
50	CM3	111205501	1	-	-
50	CM4	111606015	1	-	-
50	CM5	111209001	1	122004312	1

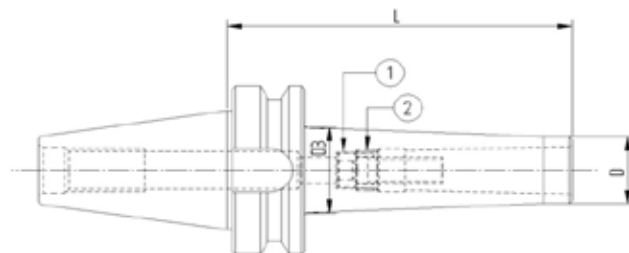
**VITI FORNITE
 SOLO NEL CASO
 DI MANDRINO
 COMBINATO**



Codice	ISO	Descrizione	L	D
340MF101	40	ISO40 MAS403BT H50 CM1 FRESE	50	25
340MF102	40	ISO40 MAS403BT H50 CM2 FRESE	50	32
340MF103	40	ISO40 MAS403BT H75 CM3 FRESE	75	40
340MF104	40	ISO40 MAS403BT H95 CM4 FRESE	95	48
350MF101	50	ISO50 MAS403BT H50 CM1 FRESE	50	25
350MF102	50	ISO50 MAS403BT H50 CM2 FRESE	50	32
350MF103	50	ISO50 MAS403BT H65 CM3 FRESE	65	40
350MF104	50	ISO50 MAS403BT H95 CM4 FRESE	95	48
350MF105	50	ISO50 MAS403BT H120 CM5 FRESE	120	63



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ISO	MORSE	Vite	Q.tà	Ghiera	Q.tà
					
		1		2	
40	1	110603501	1	121206502	1
40	2	111003014	1	121500802	1
40	3	111204003	1	122000903	1
40	4	111604514	1	122400903	1
50	1	110603501	1	121206502	1
50	2	111003014	1	121500802	1
50	3	111203003	1	122000903	1
50	4	111604514	1	122400903	1
50	5	112005003	1	123601104	1



Codice	ISO	Descrizione	L	D	D3
340MF201	40	ISO40 MAS403BT H120 CM1 FRESE	120	18	25
340MF202	40	ISO40 MAS403BT H120 CM2 FRESE	120	25	32
340MF203	40	ISO40 MAS403BT H135 CM3 FRESE	135	33	40
340MF204	40	ISO40 MAS403BT H165 CM4 FRESE	165	40	48
350MF201	50	ISO50 MAS403BT H185 CM1 FRESE	185	18	25
350MF202	50	ISO50 MAS403BT H185 CM2 FRESE	185	25	32
350MF203	50	ISO50 MAS403BT H185 CM3 FRESE	185	33	40
350MF204	50	ISO50 MAS403BT H185 CM4 FRESE	185	40	48
350MF205	50	ISO50 MAS403BT H200 CM5 FRESE	200	55	63

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

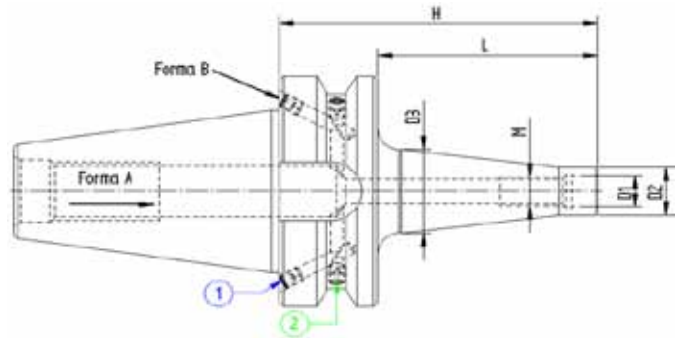
ISO	MORSE	Vite	Q.tà	Ghiera	Q.tà
					
		1		2	
40	1	110603501	1	121206502	1
40	2	111003014	1	121500802	1
40	3	111204003	1	122000903	1
40	4	111604515	1	122400903	1
50	1	110603501	1	121206502	1
50	2	111003014	1	121500802	1
50	3	111204003	1	122000903	1
50	4	111604514	1	122400903	1
50	5	112005503	1	123601104	1



MANDRINI PER FRESE CON ATTACCO FILETTATO
MILLING CUTTER ARBORS FOR SCREW-ON TYPE MILLING CUTTER
MANDRINS POUR FRAISER A VISSER
SPANFUTTER FUER EIN SCHRAUBFRAESER



JIS-B 6339 .M.1S 403/BT .AD/B



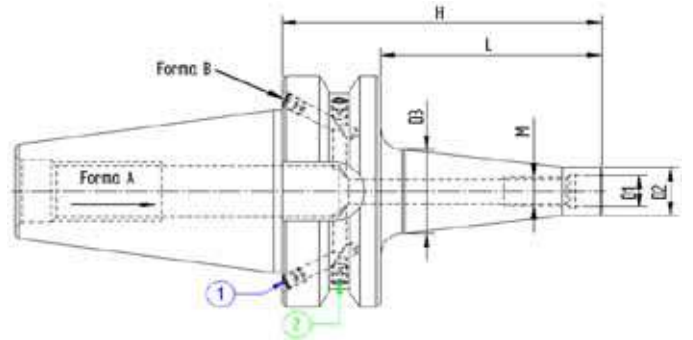
Codice	ISO	Descrizione	H	L	D3	M	D1	D2	G2.5 20000
340AF106	40	ISO40 MAS403BT P/F ATT.FILET. M6x63	63	36	13	6	6,5	10	●
340AF108	40	ISO40 MAS403BT P/F ATT.FILET. M8x63	63	36	15	8	8,5	13	●
340AF110	40	ISO40 MAS403BT P/F ATT.FILET.M10x63	63	36	19.5	10	11	18	●
340AF112	40	ISO40 MAS403BT P/F ATT.FILET.M12x63	63	36	24	12	13	21	●
340AF116	40	ISO40 MAS403BT P/F ATT.FILET.M16x63	63	36	34	16	17.5	29	●
340AF206	40	ISO40 MAS403BT P/F ATT.FILET. M6x83	83	56	20	6	7	10	●
340AF208	40	ISO40 MAS403BT P/F ATT.FILET. M8x83	83	56	23	8	9	13	●
340AF210	40	ISO40 MAS403BT P/F ATT.FILET.M10x83	83	56	25	10	11	18	●
340AF212	40	ISO40 MAS403BT P/F ATT.FILET.M12x83	83	56	24	12	13	21	●
340AF216	40	ISO40 MAS403BT P/F ATT.FILET.M16x83	83	56	34	16	17.5	29	●
340AF308	40	ISO40 MAS403BT P/F ATT.FILET. M8x103	103	76	23	8	9	13	●
340AF310	40	ISO40 MAS403BT P/F ATT.FILET.M10x103	103	76	28	10	11	18	●
340AF312	40	ISO40 MAS403BT P/F ATT.FILET.M12x103	103	76	31	12	13	21	●
340AF316	40	ISO40 MAS403BT P/F ATT.FILET.M16x103	103	76	34	16	17.5	29	●
340AF410	40	ISO40 MAS403BT P/F ATT.FILET.M10x123	123	96	28	10	10.5	18	●
340AF412	40	ISO40 MAS403BT P/F ATT.FILET.M12x123	123	96	31	12	12.5	21	●
340AF416	40	ISO40 MAS403BT P/F ATT.FILET.M16x123	123	96	39	16	17.5	29	●
340AF516	40	ISO40 MAS403BT P/F ATT.FILET.M16x153	153	126	39	16	17.5	29	●



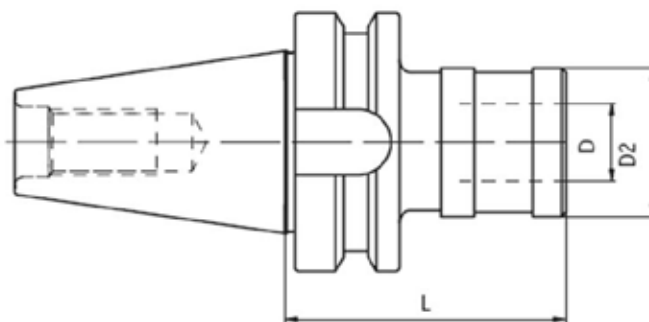
MANDRINI PER FRESE CON ATTACCO FILETTATO
 MILLING CUTTER ARBORS FOR SCREW-ON TYPE MILLING CUTTER
 MANDRINS POUR FRAISER A VISSER
 SPANFUTTER FUER EIN SCHRAUBFRAESER



JIS-B 6339 .M.AS 403/BT .AD/B



Codice	ISO	Descrizione	H	L	D3	M	D1	D2	G2.5 20000
350AF112	50	ISO50 MAS403BT P/F ATT.FILET.M12x64	64	26	24	12	12.5	21	●
350AF116	50	ISO50 MAS403BT P/F ATT.FILET.M16x64	64	26	34	16	17	29	●
350AF212	50	ISO50 MAS403BT P/F ATT.FILET.M12x104	104	66	32	12	12.5	21	●
350AF216	50	ISO50 MAS403BT P/F ATT.FILET.M16x104	104	66	36	16	17	29	●
350AF312	50	ISO50 MAS403BT P/F ATT.FILET.M12x154	154	116	32	12	12.5	21	●
350AF316	50	ISO50 MAS403BT P/F ATT.FILET.M16X154	154	116	40	16	17	29	●
350AF412	50	ISO50 MAS403BT P/F ATT.FILET.M12X204	204	166	36	12	12.5	21	●
350AF416	50	ISO50 MAS403BT P/F ATT.FILET.M16x204	204	166	42	16	17	29	●
350AF512	50	ISO50 MAS403BT P/F ATT.FILET.M12x254	254	216	42	12	12.5	21	●
350AF516	50	ISO50 MAS403BT P/F ATT.FILET.M16x254	254	216	44	16	17	29	●



Codice	ISO	Descrizione	L	D	D2
340PCRM1	40	ISO40 MAS403BT M/PORTAM/C/R L67 GR.1	67	19	38
340PCRM2	40	ISO40 MAS403BT M/PORTAM/C/R L93 GR.2	93	31	53
350PCRM1	50	ISO50 MAS403BT M/PORTAM/C/R L80 GR.1	80	19	38
350PCRM2	50	ISO50 MAS403BT M/PORTAM/C/R L102 GR.2	102	31	53

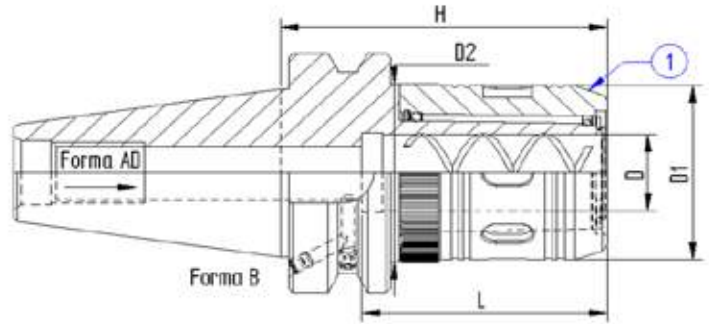
ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



RIF. PAGINA **312**



RIF. PAGINA **313**



Codice	ISO	Descrizione	H	L	D	D1	D2	G.6.3 12000
340FS120	40	ISO40 MAS403BT F. SERR. Ø20 H80	80	60	20	46	47	●
340FS132	40	ISO40 MAS403BT F. SERR. Ø32 H85	85	80	32	62	63	●
340FS332	40	ISO40 MAS403BT F. SERR. Ø32 H135	135	80	32	62	63	●

Codice	ISO	Descrizione	H	L	D	D1	D2	G.6.3 12000
350FS220	50	ISO50 MAS403BT F. SERR. Ø20 H100	100	60	20	46	47	●
350FS232	50	ISO50 MAS403BT F. SERR. Ø32 H100	100	80	32	62	63	●
350FS332	50	ISO50 MAS403BT F. SERR. Ø32 H135	135	80	32	62	63	●

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



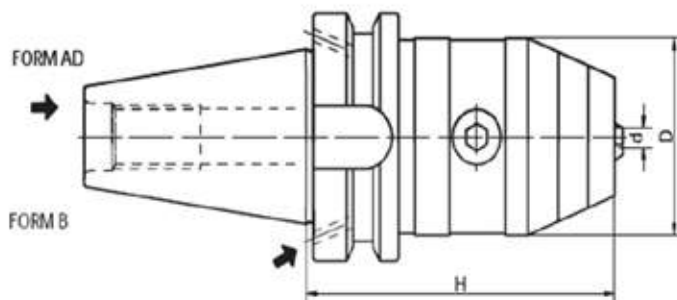
RIF. PAGINA **315**



PORTAPUNTE INTEGRALI PER ROTAZIONE DX E SX
 NC DRILL CHUCK FOR LEFT AND RIGHT ROTATION
 MANDRIN DE PERCAGE CNC POUR ROTATION GAUCHE-DROITE
 NC-BOHRFUTTER FUER RECHTS-UND LINKSLAUF

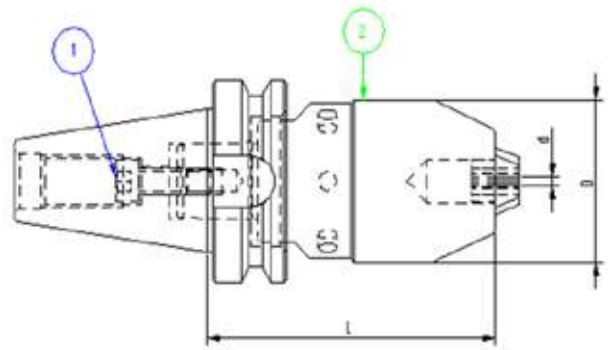


JIS-B 6339 .MAS 403/BT .AD/B



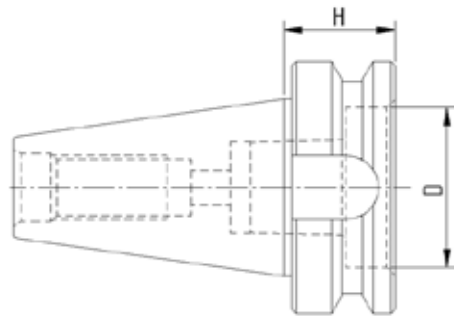
CON REFRIGERANTE CENTRALE - WITH INTERNAL COOLANT SUPPLY - AVEC ARROSAGE INTERNE - MIT ZENTRALEM KUHLMITTELLOCH

Codice	ISO	Descrizione	H	D	d
340MAZ13	40	ISO40 MAS403BT M/AUTOS./FORI H98 D13	98	50	1-13
340MAZ16	40	ISO40 MAS403BT M/AUTOS./FORI H104 D16	104	50	3-16
Codice	ISO	Descrizione	H	D	d
350MAZ13	50	ISO50 MAS403BT M/AUTOS./FORI H90 D13	90	50	1-13
350MAZ16	50	ISO50 MAS403BT M/AUTOS./FORI H95 D16	95	50	3-16





Codice	ISO	Descrizione	L	D	d
340MPI13	40	ISO40 MAS403BT P/PUNTA INT.H98 DC13	98	50	1-13
340MPI16	40	ISO40 MAS403BT P/PUNTA INT.H98 DC16	98	57	1-16
350MPI13	50	ISO50 MAS403BT P/PUNTA INT.H109 DC13	109	50	1-13
350MPI16	50	ISO50 MAS403BT P/PUNTA INT.H109 DC16	109	57	1-16

MANDRINI DI RICAMBIO - REPLACEMENT DRILL CHUCK HEADS - MANDRINS DE RECHANGE - ERSATZTEILE BOHRFÜTTER



Codice	ISO	Descrizione	H	D
340CPI13	40	ISO40 MAS403BT SOLO MANDRINO 1-13	27	40
340CPI16	40	ISO40 MAS403BT SOLO MANDRINO 3-16	27	45
350CPI13	50	ISO50 MAS403BT SOLO MANDRINO 1-13	38	40
350CPI16	50	ISO50 MAS403BT SOLO MANDRINO 3-16	38	45

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Codice	Mandrino	Q.tà	Vite	Q.tà
		2		1
340MPI13	913INS01	1	110802501	1
340MPI16	916INS01	1	110802501	1
350MPI13	913INS01	1	110803501	1
350MPI16	916INS01	1	110803501	1

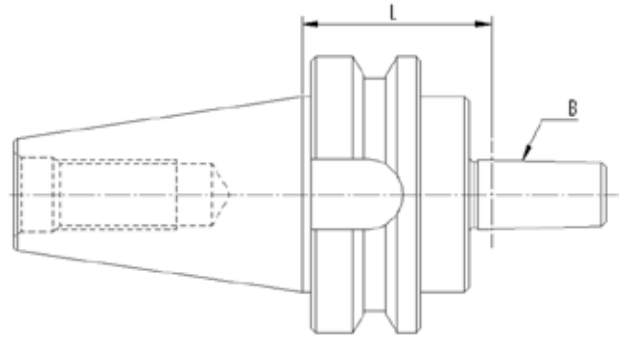


ATTACCO PER MANDRINI PORTAPUNTE
ARBORS FOR DRILL CHUCKS
ARBRES POUR MANDRINS DE PERÇAGE
BOHRFUTTERAUFNAHMEN



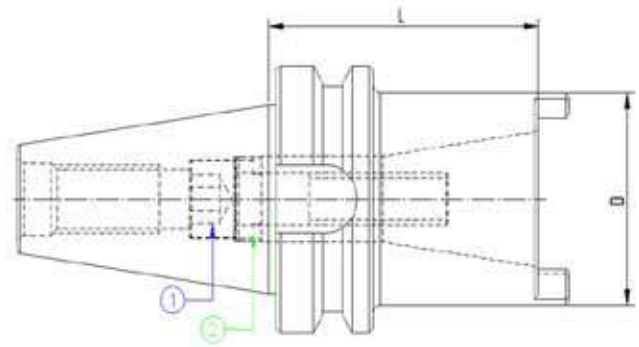
JIS-B 6339.M.AS 403/BT.A

DLN 238



Codice	ISO	Descrizione	L	B
340MPP12	40	ISO40 MAS403BT P/PUNTE H.45 B12	45	12
340MPP16	40	ISO40 MAS403BT P/PUNTE H.45 B16	45	16
340MPP18	40	ISO40 MAS403BT P/PUNTE H.45 B18	45	18




Codice	ISO	Descrizione	L	B
350MPP12	50	ISO50 MAS403BT P/PUNTE H.45 B12	45	12
350MPP16	50	ISO50 MAS403BT P/PUNTE H.45 B16	45	16
350MPP18	50	ISO50 MAS403BT P/PUNTE H.45 B18	45	18



Codice	ISO	Descrizione	L	D
340ISO30	40	ISO40 MAS403BT RIDUZIONE H70 ISO30	70	50
340ISO40	40	ISO40 MAS403BT RIDUZIONE H100 ISO40	100	68

Codice	ISO	Descrizione	L	D
350ISO40	50	ISO50 MAS403BT RIDUZIONE H70 ISO40	70	78
350ISO50	50	ISO50 MAS403BT PROLUNGA H120 ISO50	120	100

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

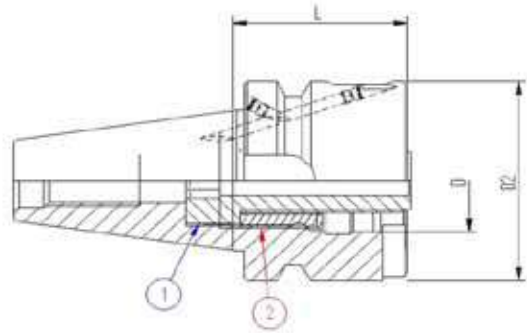
ISO	Vite per TC-BT	Q.tà	Vite per DIN2080	Q.tà	Ghiera	Q.tà
						
	1		1		2	
40-30	111205501	1	111203001	1	122000603	1
40-40	111606514	1	111604514	1	122400903	1
50-40	111606514	1	111604514	1	122400903	1
50-50	112409004	1	112406004	1	124020002	1



ATTACCHI BASE MODULARI "VARILOCK"
 MODULAR BASIC HOLDERS "VARILOCK"
 MODULE DE BASE "VARILOCK"
 GRUNDAUFNAHMEN "VARILOCK"





JIS-B 6339 M.AS 403/BT .AD/B





Codice	ISO	Descrizione	L	D2
340VL050	40	ISO40 MAS403BT MODULARE H.27 D.50	27	50
340VL063	40	ISO40 MAS403BT MODULARE H.35 D.63	35	63
340VL150	40	ISO40 MAS403BT MODULARE H.50 D.50	50	50
340VL163	40	ISO40 MAS403BT MODULARE H.50 D.63	50	63

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Vite	Q.tà	Boccola	Q.tà
				
50	111604011	1	122502007	1
63	112005011	1	123002408	1

Codice	ISO	Descrizione	L	D2
350VL050	50	ISO50 MAS403BT MODULARE H.38 D.50	38	-
350VL150	50	ISO50 MAS403BT MODULARE H.50 D.50	50	50
350VL163	50	ISO50 MAS403BT MODULARE H.50 D.63	50	63
350VL180	50	ISO50 MAS403BT MODULARE H.50 D.80	50	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

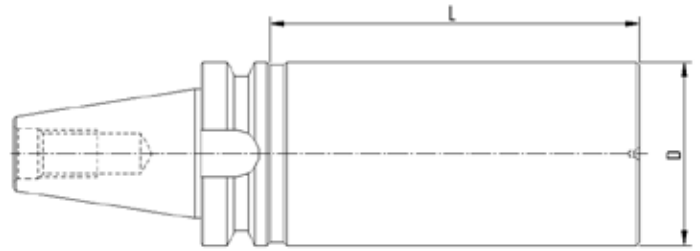
Ø	Vite	Q.tà	Boccola	Q.tà
				
50	111604011	1	122502007	1
63	112005012	1	123002408	1
80	112005012	1	123002408	1



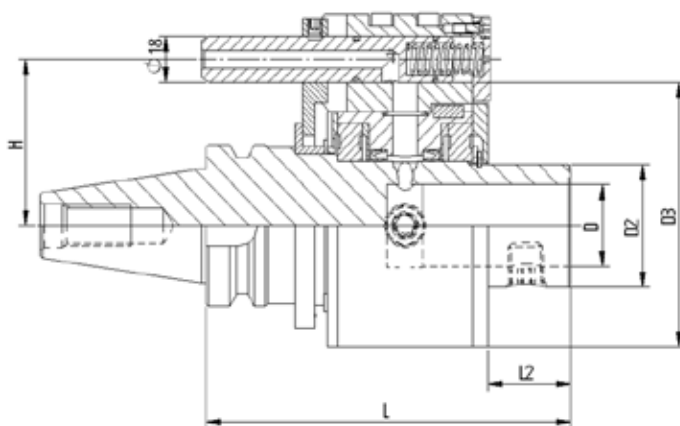
MANDRINI SEMILAVORATI A STELO TENERO
 BLANK TOOLHOLDER WITH SOFT SHANK
 BARRES D'ALEPAGE SEMI-FINIES
 ROHLINGE MIT WEICHEM SCHAFT



JIS-B 6339.MAS 403/BT.A



Codice	ISO	Descrizione	L	D
340ST263	40	ISO40 MAS403BT ST.TENERO D.63x250	250	63
350ST397	50	ISO50 MAS403BT ST.TENERO D.97X315	315	97



Codice	ISO	Descrizione	H	L	L2	D	D2	D3
340DRC32	40	ISO40 MAS403BT DISTRIB.ROTANTE D.32	65	150	34	32	48	95
340DRC40	40	ISO40 MAS403BT DISTRIB.ROTANTE D.40	65	160	44	40	58	110

Codice	ISO	Descrizione	H	L	L2	D	D2	D3
350DRC40	50	ISO50 MAS403BT DISTRIB.ROTANTE D40	80	164	49	40	58	110

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Grano	Q.tà
32	101416154	1
40	101601004	2





FIG. 1

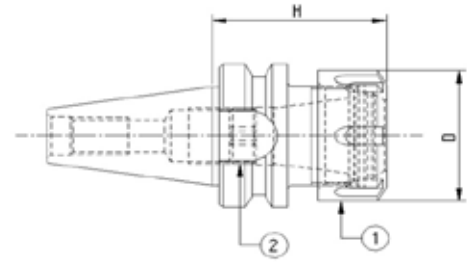
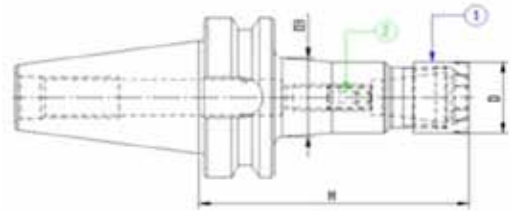


FIG. 2



Codice	ISO	Descrizione Portapinza	FIG.	H	D	ER	G6.3 12000
330PP110	30	ISO30 MAS403BT P/P H.60 ER16 - AD	1	60	32	16	●
330PP113	30	ISO30 MAS403BT P/P H.60 ER20 - AD	1	60	35	20	●
330PP116	30	ISO30 MAS403BT P/P H.60 ER25 - AD	1	60	42	25	●
330PP120	30	ISO30 MAS403BT P/P H.60 ER32 - AD	1	60	50	32	●

Codice	ISO	Descrizione	FIG.	H	D3	D	G6.3 12000
330PM107	30	ISO30 MAS403BT P/P H70 ER11MINI - AD	2	70	19	16	●
330PM210	30	ISO30 MAS403BT P/P H100 ER16MINI - AD	2	100	20	22	●

Possibilità di realizzare altri mandrini ISO30 su richiesta



FIG. 1

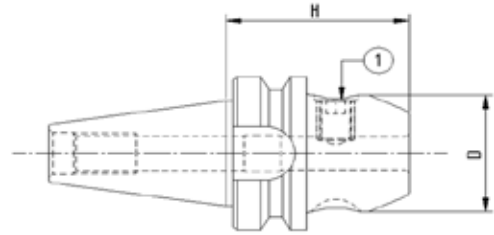
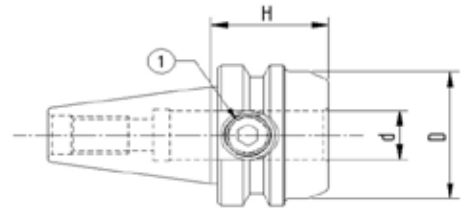


FIG. 2



Codice	ISO	Descrizione	FIG.	H	d	D	G6.3 12000
330WLD06	30	ISO30 MAS403BT WELDON H50 D.06 - AD	1	50	6	25	●
330WLD08	30	ISO30 MAS403BT WELDON H50 D.08 - AD	1	50	8	28	●
330WLD10	30	ISO30 MAS403BT WELDON H50 D.10 - AD	1	50	10	35	●
330WLD12	30	ISO30 MAS403BT WELDON H55 D.12 - AD	1	55	12	42	●
330WLD16	30	ISO30 MAS403BT WELDON H63 D.16 - AD	1	63	16	48	●
330WLD20	30	ISO30 MAS403BT WELDON H70 D.20 - AD	1	70	20	52	●

Codice	ISO	Descrizione	FIG.	H	d	D
330WLC06	30	ISO30 MAS403BT WELDON H35 D.6 - AD	2	35	6	25
330WLC08	30	ISO30 MAS403BT WELDON H35 D.8 - AD	2	35	8	28
330WLC10	30	ISO30 MAS403BT WELDON H35 D.10 - AD	2	35	10	35
330WLC12	30	ISO30 MAS403BT WELDON H35 D.12 - AD	2	35	12	42
330WLC16	30	ISO30 MAS403BT WELDON H35 D.16 - AD	2	35	16	42
330WLC20	30	ISO30 MAS403BT WELDON H35 D.20 - AD	2	35	20	43
330WLC25	30	ISO30 MAS403BT WELDON H35 D.25 - AD	2	35	25	45.5

Possibilità di realizzare altri mandrini ISO30 su richiesta



FIG. 1

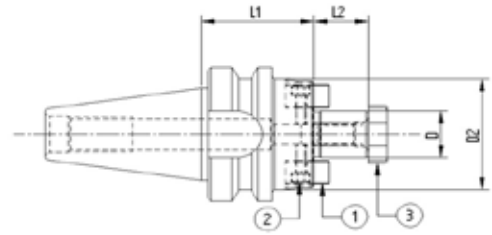
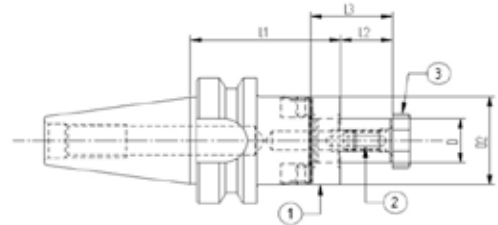


FIG. 2



Codice	ISO	Descrizione	FIG.	L1	L2	D	D2	D3
330PF116	30	ISO30 MAS403BT P/F FISSO H35 D.16 - AD	1	35	17	16	38	-
330PF122	30	ISO30 MAS403BT P/F FISSO H40 D.22 - AD	1	40	19	22	48	-
330PF127	30	ISO30 MAS403BT P/F FISSO H40 D.27 - AD	1	40	21	27	58	-

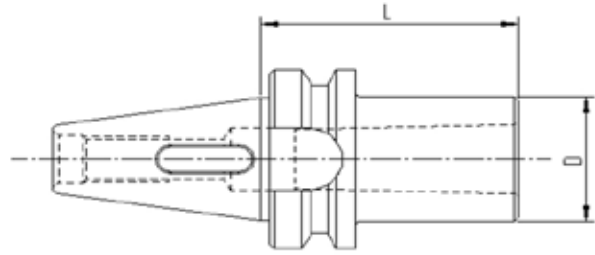
Codice	ISO	Descrizione	FIG.	L1	L2	L3	D	D2
330PU116	30	ISO30 MAS403BT P/F UNIVERS.H50 D.16 - AD	2	50	17	27	16	32
330PU122	30	ISO30 MAS403BT P/F UNIVERS.H50 D.22 - AD	2	50	19	31	22	40
330PU127	30	ISO30 MAS403BT P/F UNIVERS.H55 D.27 - AD	2	55	21	33	27	48

Possibilità di realizzare altri mandrini ISO30 su richiesta


Mandrini ISO30 ATTACCO CONOMORSE PER PUNTE
 Spindle taper ISO30 MORSE TAPER ADAPTOR FOR DRILL
 Mandrins ISO30 DOUILLES POUR CONE MORSE A TENON
 ZWISCHENHULSEN FUER MORSEKEGEL MIT AUSTREIBLAPPEN



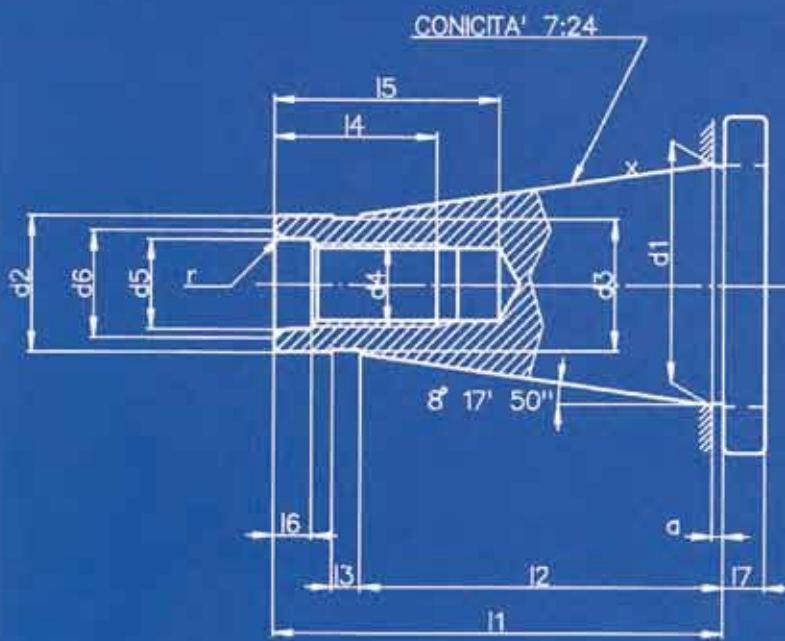
MAS403 BT ISO30



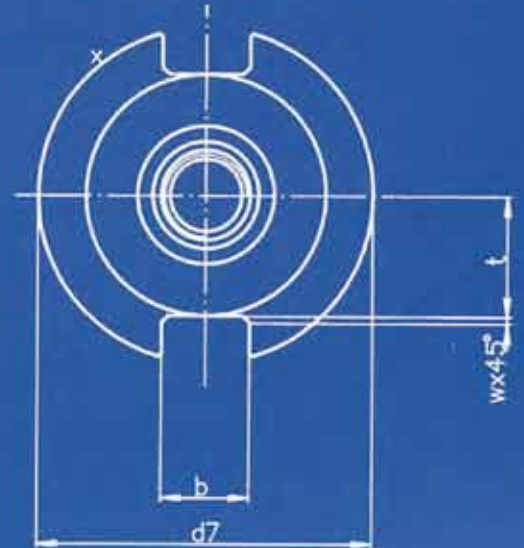
Codice	ISO	Descrizione	FORMA	L	D
330MP101	30	ISO30 MAS403BT H50 CM1 PUNTE	AD	50	25
330MP102	30	ISO30 MAS403BT H60 CM2 PUNTE	AD	60	32
330MP103	30	ISO30 MAS403BT H79 CM3 PUNTE	AD	79	40

Possibilità di realizzare altri mandrini ISO30 su richiesta

DIN 2080



$$x = \sqrt{R_z \cdot 2,5}$$



Cono - Size

40

50

a ± 0,2	1,6	3,2
b H12	18,1	25,7
d1	44,45	60,85
±10	25,3	39,5
d2 max.	25,00	39,29
min.	24,92	39,19
d3	24	38
d4	M16	M24
d5	17	26
d6	21	31
d7 ± 0,2	83	97,5
l1	95	130
l2	67	105
l3	5	8
l4	32	47
l5 min	42,5	61,5
l6 ± 0,5	8,2	11,5
l7 ± 0,15	10	12
t max.	22,5	35,3
r	4	6
w	1,6	2

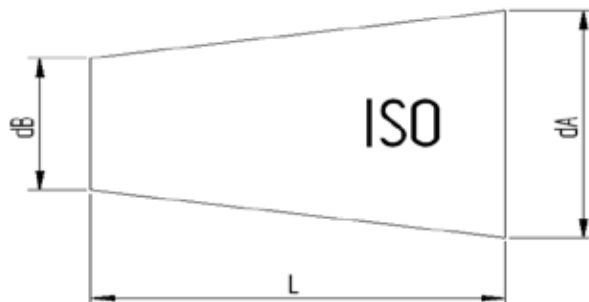
MANDRINI PAGNONI CON ATTACCO ISO**DATI TECNICI**

TUTTI I MANDRINI PORTAUTENSILI PAGNONI VENGONO PRODOTTI SECONDO LE NORMATIVE DIN

TOLLERANZA DEL CONO

PRODOTTI IN CLASSE AT3

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004

**COASSIALITÀ PORTAPINZE**

La norma DIN6391 ammette un'errore massimo di 0.016 sia per i portapinze DIN6499 che per DIN 6388.

La nostra produzione normalmente presenta uno scostamento massimo di eccentricità tra cono ISO e sede pinza compreso tra i 0,003 e 0,010 mm.

COASSIALITÀ PORTAFRESE FISSI E COMBINATI

I portafrese fissi e combinati di nostra produzione rispondono ai criteri prescritti dalla norma DIN 6358, la quale prevede un errore massimo di coassialità tra cono ISO 30 e ISO 40 ed i diametri 16-22-27-32-40, di 0,01.

Mentre per ISO 50 è ammesso un errore massimo di 0,015 mm.

COASSIALITÀ PORTAFRESE WELDON - WHISTLE NOTCH

Rispettando la normativa DIN 6359-1 i portafrese WELDON devono rispondere ai seguenti requisiti :

Foro: tolleranza H5

coassialità: scostamento massimo consentito tra cono e sede Weldon <0.01 (per ISO 40)

Garantiamo la tolleranza prescritta sul foro e un valore di coassialità mediamente di 0,005.

DATI COSTRUTTIVI

- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4-0,5 mm
- Temprati-rinvenuti
- Durezza HRC 58 +-2 resistenza 800-1000 N/mm²
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiere chiudipinza

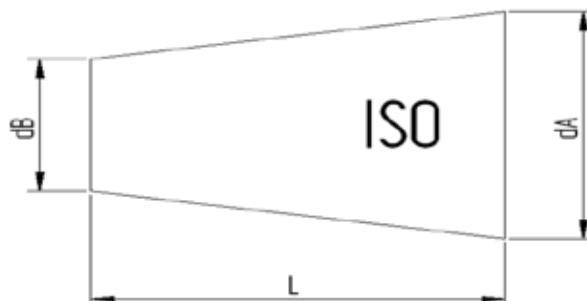


ALL PAGNONI TOOLHOLDERS ARE MANUFACTURED ACCORDING TO DIN NORM.

CONE'S TOLERANCE

ACCORDING TO THE CLASS AT3.

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



COLLET CHUCK'S RUNOUT ACCURACY

The norm DIN6391 permits a runout error between external cone and internal cone / collet seat of 0.016. Our production has a runout accuracy which is guaranteed to be within 0,003 / 0,010 m at the tool seat.

SHELL END MILL ADAPTOR'S RUNOUT ACCURACY

Our shell end mill adaptors meet the requirements of the norm DIN6358, which prescribes for diameters 16-22-27-32-40 a runout accuracy of:0,01 for SK 30/40 0,015 for SK 50.

WELDON END MILL HOLDER'S RUNOUT ACCURACY

According to the norm DIN6359-1 Weldon end mill holders have to meet the following requirements:

Bore: H5 tolerance

Runout accuracy: <0.01 (for SK 40)

Our end mill adaptors ensure the prescribed holes' tolerance and have a runout accuracy which is normally 0.005

CONSTRUCTIVE FEATURES

- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm
- Hardened-Tempered
- Hardness HRC 58+-2, Strength 800-1000 N/mm2
- Black oxidized
- Internal and external grinding finished.

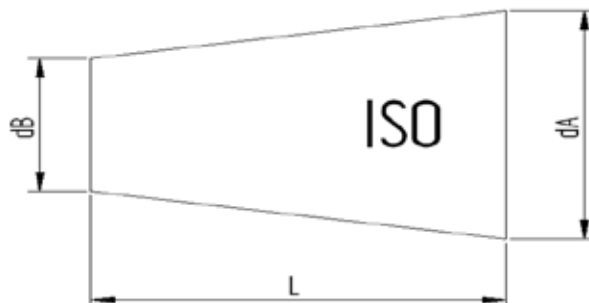


Alle Pagnoni-Steilkegelaufnahmen werden nach den DIN-Normen angefertigt.

KEGELSCHAFTTOLERANZ

In Klasse AT3 angefertigt.

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



RUNDLAUFGENAUIGKEIT DER SPANNZANGENAUFNAHME

Die DIN 6391- Norm schreibt eine Rundlaufgenauigkeit zwischen Aussenkegel und Innenkegel / Spannzangensitz vom 0,016 vor.

Unsere Spannzangenfutter weisen einen Rundlauffehler zwischen ISO-Kegelaufnahme und Spannzangensitz, der zwischen 0,003 und 0,010 mm liegt.

AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Pagnoni- Aufsteckfräsdorne entsprechen der DIN 6358- Norm, die einen höchsten Rundlauffehler zwischen ISO 30- und ISO40-Kegel und den Durchmessern 16-22-27-32-40 vom 0,01 vorsieht.

Der mögliche höchste Rundlauffehler für ISO 50 ist 0,015 mm.

WELDON AUFSTECKFRÄSDORNE-RUNDLAUFGENAUIGKEIT

Nach der DIN 6359-1-Norm müssen die Weldon- Aufsteckfräsdorne die folgenden Forderungen aufweisen:

Bohrung: Toleranz H5

Rundlaufgenauigkeit: höchster möglicher Rundlauffehler zwischen Kegel und Weldonsitz < 0,01 (für ISO 40)

Die vorgeschriebene Toleranz der Bohrung und eine durchschnittliche Rundlaufgenauigkeit von 0,005 sind verisichert.

KONSTRUKTIONSDATEN

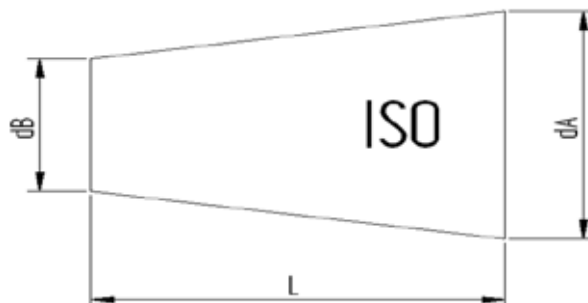
- aus legiertem Einsatzstahl angefertigt
- in der Einsatzhärte tiefe von 0,4-0,5 mm
- gehärtet, angelassen
- Härte HRC 58 +-2, Festigkeit 800-1000 N-mm²
- brüniert
- inneres, äußeres Schleifen und am Gewinde der Spannzangemutter

TOUS LES MANDRINS PORTE-OUTILS PAGNONI SONT PRODUITS SUIVANT LES SPÉCIFICATIONS DIN

TOLLERANCE DU CONE

EN CLASSE AT3.

ISO	L	dA - dB	AT3
30	42	12.250	+ 0.002
40	59	17.208	+ 0.003
50	92	26.833	+ 0.004



COAXIALITÉ PORTE-PINCE

La norme DIN6391 admet une erreur maximum du 0.016 soit pour les porte-pinces DIN6499 soit pour DIN6388.

Dans notre production l'écart d'excentricité maximum entre cône ISO et logement de la pince est compris entre:0,003 et 0,0010 mm.

COAXIALITÉ PORTE-FRAISES FIXES ET COMBINES

Les porte-fraises fixes et combinés de notre production suivent la spécification de la norme DIN6358, qui prévoit pour les diamètres 16-22-27-32-40 une concentricité de 0,01 pour ISO 30 et ISO 40 0,015 pour ISO 50.

COAXIALITÉ PORTE-FRAISES WELDON

Suivant les spécifications DIN 6359-1 les porte-fraises WELDON doivent suivre les conditions suivantes :

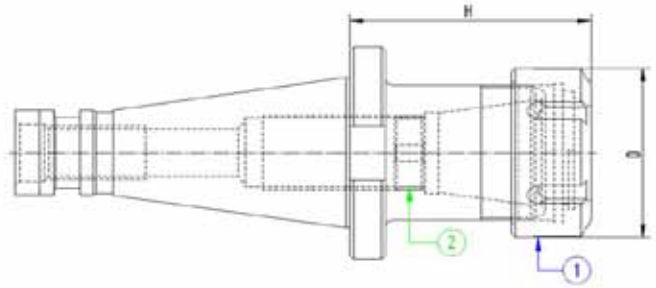
Trou: tolérance H5

Coaxialité: écart maximum toléré entre cône et logement du Weldon <0.01 (pour ISO 40)

Nous assurons la tolérance prévue sur le trou et une coaxialité en moyenne de 0.005.





ELEMENTS DE CONSTRUCTION

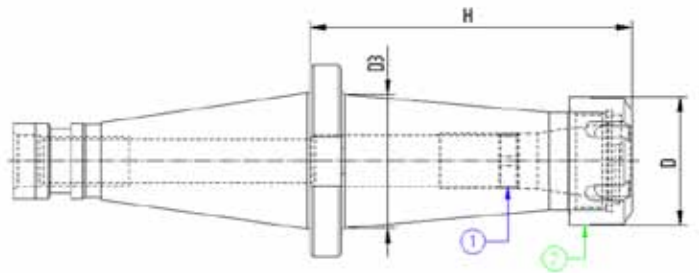
- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 -0,5 mm
- Trempé - Revenu
- Dureté HRC 58 +/- 2 résistance 800-1000 N/mm²
- Brunis
- Rectification du cône intérieur, extérieur et dans le filetage des écrous qui serrent la pince.



Codice	ISO	Descrizione	ER	D	H
540PP110	40	ISO40 DIN2080 P/P H70 ER16	16	32	70
540PP113	40	ISO40 DIN2080 P/P H70 ER20	20	35	70
540PP116	40	ISO40 DIN2080 P/P H70 ER25	25	42	70
540PP120	40	ISO40 DIN2080 P/P H70 ER32	32	50	70
540PP126	40	ISO40 DIN2080 P/P H70 ER40	40	63	70
550PP110	50	ISO50 DIN2080 P/P H80 ER16	16	32	80
550PP113	50	ISO50 DIN2080 P/P H80 ER20	20	35	80
550PP116	50	ISO50 DIN2080 P/P H80 ER25	25	42	80
550PP120	50	ISO50 DIN2080 P/P H80 ER32	32	50	80
550PP126	50	ISO50 DIN2080 P/P H80 ER40	40	63	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Interno	Q.tà	Anello x ISO 40	Anello x ISO 50
						
	1		2			
16	916GHREQ	1	101001601	1	50010001	50010002
20	920GHREQ	1	101001601	1		
25	925GHREQ	1	101815801	1		
32	932GHREQ	1	102215901	1		
40	940GHREQ	1	103015901	1		







L=100

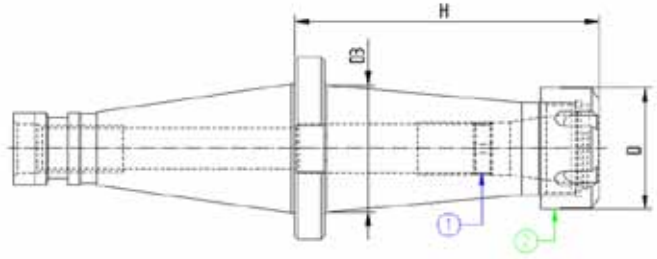
Codice	ISO	Descrizione	ER	D	H	D3
540PP210	40	ISO40 DIN2080 P/P H100 ER16	16	32	100	32
540PP213	40	ISO40 DIN2080 P/P H100 ER20	20	35	100	34
540PP216	40	ISO40 DIN2080 P/P H100 ER25	25	42	100	44
540PP220	40	ISO40 DIN2080 P/P H100 ER32	32	50	100	50
540PP226	40	ISO40 DIN2080 P/P H100 ER40	40	63	100	50
550PP210	50	ISO50 DIN2080 P/P H100 ER16	16	32	100	32
550PP213	50	ISO50 DIN2080 P/P H100 ER20	20	35	100	35
550PP216	50	ISO50 DIN2080 P/P H100 ER25	25	42	100	44
550PP220	50	ISO50 DIN2080 P/P H100 ER32	32	50	100	50
550PP226	50	ISO50 DIN2080 P/P H100 ER40	40	63	100	60

L=130

Codice	ISO	Descrizione	ER	D	H	D3
540PP310	40	ISO40 DIN2080 P/P H130 ER16	16	32	130	34
540PP313	40	ISO40 DIN2080 P/P H130 ER20	20	35	130	38
540PP316	40	ISO40 DIN2080 P/P H130 ER25	25	42	130	40
540PP320	40	ISO40 DIN2080 P/P H130 ER32	32	50	130	45
540PP326	40	ISO40 DIN2080 P/P H130 ER40	40	63	130	48
550PP310	50	ISO50 DIN2080 P/P H130 ER16	16	32	130	32
550PP313	50	ISO50 DIN2080 P/P H130 ER20	20	35	130	35
550PP316	50	ISO50 DIN2080 P/P H130 ER25	25	42	130	44
550PP320	50	ISO50 DIN2080 P/P H130 ER32	32	50	130	50
550PP326	50	ISO50 DIN2080 P/P H130 ER40	40	63	130	60

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Interno	Q.tà	Anello x ISO 40	Anello x ISO 50
						
	2		1			
16	916GHREQ	1	101001601	1	50010001	50010002
20	920GHREQ	1	101001601	1		
25	925GHREQ	1	101815801	1		
32	932GHREQ	1	102215901	1		
40	940GHREQ	1	103015901	1		






L=160

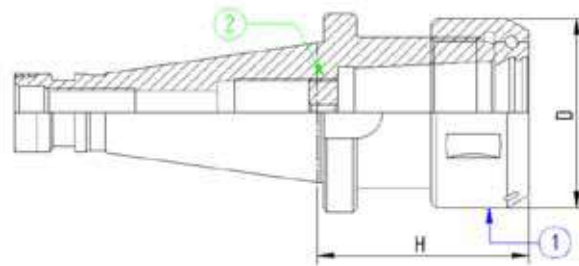
Codice	ISO	Descrizione	ER	D	H	D3
540PP410	40	ISO40 DIN2080 P/P H160 ER16	16	32	160	34
540PP413	40	ISO40 DIN2080 P/P H160 ER20	20	35	160	38
540PP416	40	ISO40 DIN2080 P/P H160 ER25	25	42	160	44
540PP420	40	ISO40 DIN2080 P/P H160 ER32	32	50	160	50
540PP426	40	ISO40 DIN2080 P/P H160 ER40	40	63	160	48
550PP410	50	ISO50 DIN2080 P/P H160 ER16	16	32	160	32
550PP413	50	ISO50 DIN2080 P/P H160 ER20	20	35	160	35
550PP416	50	ISO50 DIN2080 P/P H160 ER25	25	42	160	44
550PP420	50	ISO50 DIN2080 P/P H160 ER32	32	50	160	50
550PP426	50	ISO50 DIN2080 P/P H160 ER40	40	63	160	60

L=200

Codice	ISO	Descrizione	ER	D	H	D3
540PP510	40	ISO40 DIN2080 P/P H200 ER16	16	32	200	36
540PP513	40	ISO40 DIN2080 P/P H200 ER20	20	35	200	40
540PP516	40	ISO40 DIN2080 P/P H200 ER25	25	42	200	44
540PP520	40	ISO40 DIN2080 P/P H200 ER32	32	50	200	50
540PP526	40	ISO40 DIN2080 P/P H200 ER40	40	63	200	48
550PP510	50	ISO50 DIN2080 P/P H200 ER16	16	32	200	35
550PP513	50	ISO50 DIN2080 P/P H200 ER20	20	35	200	38
550PP516	50	ISO50 DIN2080 P/P H200 ER25	25	42	200	44
550PP520	50	ISO50 DIN2080 P/P H200 ER32	32	50	200	50
550PP526	50	ISO50 DIN2080 P/P H200 ER40	40	63	200	60





COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

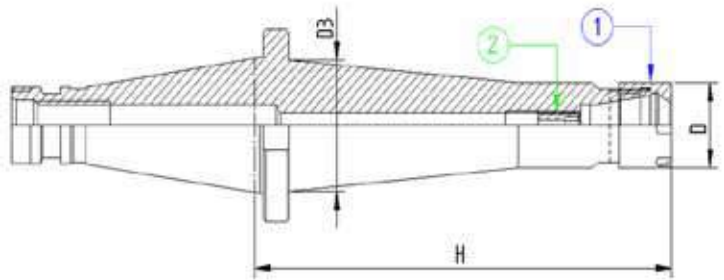
ER	Ghiera	Q.tà	Grano Interno	Q.tà	Anello x ISO 40	Anello x ISO 50
						
	2		1			
16	916GHREQ	1	101001601	1	50010001	50010002
20	920GHREQ	1	101001601	1		
25	925GHREQ	1	101815801	1		
32	932GHREQ	1	102215901	1		
40	940GHREQ	1	103015901	1		



Codice	ISO	Descrizione	EOC	D	H
540PO116	40	ISO40 DIN2080 P/P H70 EOC16	16	43	70
540PO125	40	ISO40 DIN2080 P/P H70 EOC25	25	60	70
540PO132	40	ISO40 DIN2080 P/P H85 EOC32	32	72	85
550PO116	50	ISO50 DIN2080 P/P H70 EOC16	16	43	70
550PO125	50	ISO50 DIN2080 P/P H70 EOC25	25	60	70
550PO132	50	ISO50 DIN2080 P/P H85 EOC32	32	72	85

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

EOC	Ghiera	Q.tà	Grano Int.	Q.tà	Anello x ISO 40	Anello x ISO 50
						
16	916GHROS	1	101815801	1	50010001	50010002
25	925GHROS	1	102715901	1		
32	932GHROS	1	102715901	1		






PORTAPINZA MINI L= 100

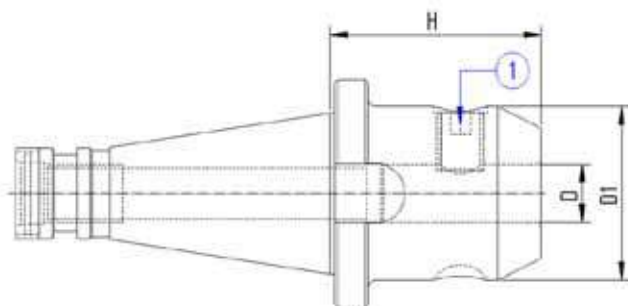
Codice	ISO	Descrizione	ER MINI	H	D	D3
540PM207	40	ISO40 DIN2080 P/P H100 ER11MINI	11	100	16	20
540PM210	40	ISO40 DIN2080 P/P H100 ER16MINI	16	100	22	26
540PM213	40	ISO40 DIN2080 P/P H100 ER20MINI	20	100	28	30
540PM216	40	ISO40 DIN2080 P/P H100 ER25MINI	25	100	35	30
550PM210	50	ISO50 DIN2080 P/P H.100 ER16MINI	16	100	22	26
550PM213	50	ISO50 DIN2080 P/P H.100 ER20MINI	20	100	28	30
550PM216	50	ISO50 DIN2080 P/P H.100 ER25MINI	25	100	35	30

PORTAPINZA MINI L= 160

Codice	ISO	Descrizione	ER MINI	H	D	D3
540PM410	40	ISO40 DIN2080 P/P H160 ER16MINI	16	160	22	28
540PM413	40	ISO40 DIN2080 P/P H160 ER20MINI	20	160	28	32
540PM416	40	ISO40 DIN2080 P/P H160 ER25MINI	25	160	35	30
550PM410	50	ISO50 DIN2080 P/P H160 ER16MINI	16	160	22	26
550PM413	50	ISO50 DIN2080 P/P H160 ER20MINI	20	160	28	32
550PM416	50	ISO50 DIN2080 P/P H160 ER25MINI	25	160	35	30

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

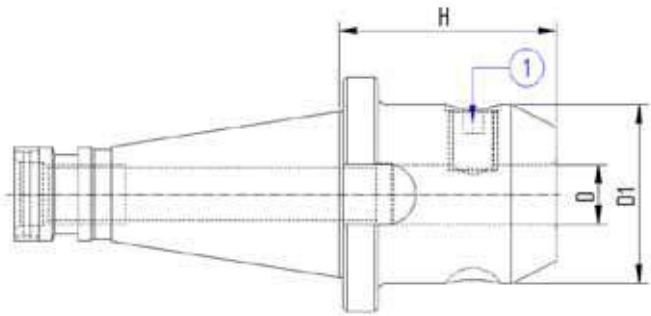
ERM	Ghiera	Q.tà	Grano int.	Q.tà	Anello x ISO 40	Anello x ISO 50
						
11	911GHRMN	1	100601001	1	50010001	50010002
16	916GHRMN	1	101001601	1		
20	920GHRMN	1	101001601	1		
25	925GHRMN	1	101815801	1		



Codice	ISO	Descrizione	D	D1	H
540WLD06	40	ISO40 DIN2080 WELDON H50 D.6	6	25	50
540WLD08	40	ISO40 DIN2080 WELDON H50 D.8	8	28	50
540WLD10	40	ISO40 DIN2080 WELDON H50 D.10	10	35	50
540WLD12	40	ISO40 DIN2080 WELDON H50 D.12	12	42	50
540WLD14	40	ISO40 DIN2080 WELDON H50 D.14	14	44	50
540WLD16	40	ISO40 DIN2080 WELDON H63 D.16	16	48	63
540WLD18	40	ISO40 DIN2080 WELDON H63 D.18	18	50	63
540WLD20	40	ISO40 DIN2080 WELDON H63 D.20	20	52	63
540WLD25	40	ISO40 DIN2080 WELDON H90 D.25	25	63	90
540WLD32	40	ISO40 DIN2080 WELDON H90 D.32	32	72	90
540WLD40	40	ISO40 DIN2080 WELDON H90 D.40	40	79	90
550WLD06	50	ISO50 DIN2080 WELDON H50 D.6	6	25	50
550WLD08	50	ISO50 DIN2080 WELDON H50 D.8	8	28	50
550WLD10	50	ISO50 DIN2080 WELDON H63 D.10	10	35	63
550WLD12	50	ISO50 DIN2080 WELDON H63 D.12	12	42	63
550WLD14	50	ISO50 DIN2080 WELDON H63 D.14	14	44	63
550WLD16	50	ISO50 DIN2080 WELDON H63 D.16	16	48	63
550WLD18	50	ISO50 DIN2080 WELDON H63 D.18	18	50	63
550WLD20	50	ISO50 DIN2080 WELDON H63 D.20	20	52	63
550WLD25	50	ISO50 DIN2080 WELDON H80 D.25	25	65	80
550WLD32	50	ISO50 DIN2080 WELDON H85 D.32	32	72	85
550WLD40	50	ISO50 DIN2080 WELDON H95 D.40	40	78	95

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE




Ø WLD	Grano	Q.tà	Anello x ISO 40	Anello x ISO 50
				
6	100601002	1	500100001	500100002
8	100801002	1		
10	101001202	1		
12 - 14	101201602	1		
16 - 18	101401602	1		
20	101601602	1		
25	101802002	2		
32 - 40	102002002	2		

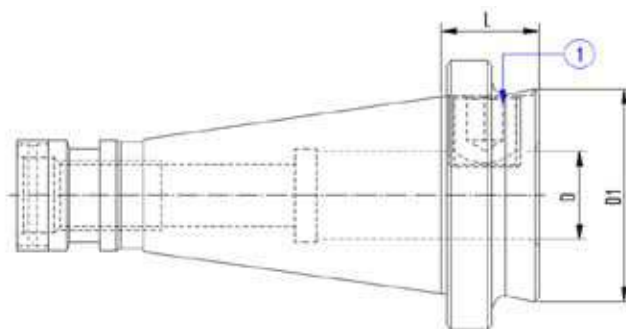


L=100

Codice	ISO	Descrizione	D	D1	H
540WE206	40	ISO40 DIN2080 H100 WELDON D6	6	25	100
540WE208	40	ISO40 DIN2080 H100 WELDON D8	8	28	100
540WE210	40	ISO40 DIN2080 H100 WELDON D10	10	35	100
540WE212	40	ISO40 DIN2080 H100 WELDON D12	12	42	100
540WE214	40	ISO40 DIN2080 H100 WELDON D14	14	44	100
540WE216	40	ISO40 DIN2080 H100 WELDON D16	16	48	100
540WE218	40	ISO40 DIN2080 H100 WELDON D18	18	48	100
540WE220	40	ISO40 DIN2080 H100 WELDON D20	20	52	100
540WE225	40	ISO40 DIN2080 H100 WELDON D25	25	64	100
540WE232	40	ISO40 DIN2080 H100 WELDON D32	32	72	100
550WE206	50	ISO50 DIN2080 H100 WELDON D6	6	25	100
550WE208	50	ISO50 DIN2080 H100 WELDON D8	8	28	100
550WE210	50	ISO50 DIN2080 H100 WELDON D10	10	35	100
550WE212	50	ISO50 DIN2080 H100 WELDON D12	12	42	100
550WE214	50	ISO50 DIN2080 H100 WELDON D14	14	44	100
550WE216	50	ISO50 DIN2080 H100 WELDON D16	16	48	100
550WE218	50	ISO50 DIN2080 H100 WELDON D18	18	50	100
550WE220	50	ISO50 DIN2080 H100 WELDON D20	20	52	100
550WE225	50	ISO50 DIN2080 H100 WELDON D25	25	65	100
550WE232	50	ISO50 DIN2080 H100 WELDON D32	32	72	100




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

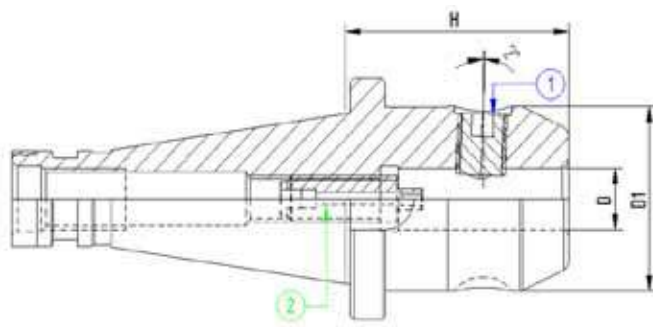
Ø WE	Grano	Q.tà	Anello x ISO 40	Anello x ISO 50
				
6	100601002	1	500100001	500100002
8	100801002	1		
10	101001202	1		
12 - 14	101201602	1		
16 - 18	101401602	1		
20	101601602	1		
25	101802002	2		
32	102002002	2		



Codice	ISO	Descrizione	D	D1	L
540WLC16	40	ISO40 DIN2080 H22 WELDON D16	16	48	22
540WLC20	40	ISO40 DIN2080 H22 WELDON D20	20	48	22
540WLC25	40	ISO40 DIN2080 H22 WELDON D25	25	48	22
540WLC32	40	ISO40 DIN2080 H55 WELDON D32	32	61	55
550WLC16	50	ISO50 DIN2080 H20 WELDON D16	16	48	20
550WLC20	50	ISO50 DIN2080 H20 WELDON D20	20	48	20
550WLC25	50	ISO50 DIN2080 H20 WELDON D25	25	65	20
550WLC32	50	ISO50 DIN2080 H35 WELDON D32	32	72	35





COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

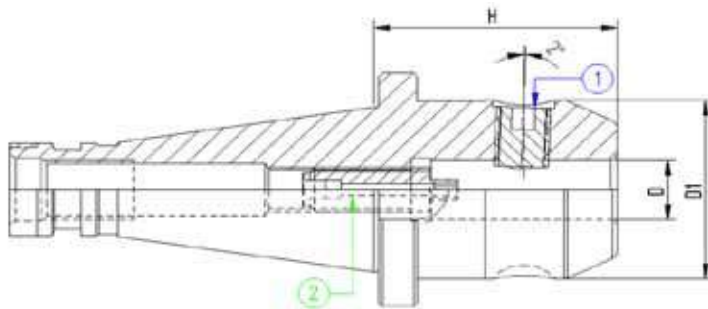
Tipo Cono	Ø WLC	Grano	Q.tà	Anello x ISO 40	Anello x ISO 50
					
ISO 40 - 50	16	101401602	1	500100001	500100002
	20	101601602	1		
	25	101601602	1		
	32	102002002	1		



Codice	ISO	Descrizione	D	D1	H
540WHN06	40	ISO40 DIN2080 W.NOTCH H50 D.6	6	25	50
540WHN08	40	ISO40 DIN2080 W.NOTCH H50 D.8	8	28	50
540WHN10	40	ISO40 DIN2080 W.NOTCH H50 D.10	10	35	50
540WHN12	40	ISO40 DIN2080 W.NOTCH H50 D.12	12	42	50
540WHN14	40	ISO40 DIN2080 W.NOTCH H50 D.14	14	44	50
540WHN16	40	ISO40 DIN2080 W.NOTCH H63 D.16	16	48	63
540WHN18	40	ISO40 DIN2080 W.NOTCH H63 D.18	18	50	63
540WHN20	40	ISO40 DIN2080 W.NOTCH H63 D.20	20	52	63
540WHN25	40	ISO40 DIN2080 W.NOTCH H90 D.25	25	65	90
540WHN32	40	ISO40 DIN2080 W.NOTCH H90 D.32	32	72	90



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

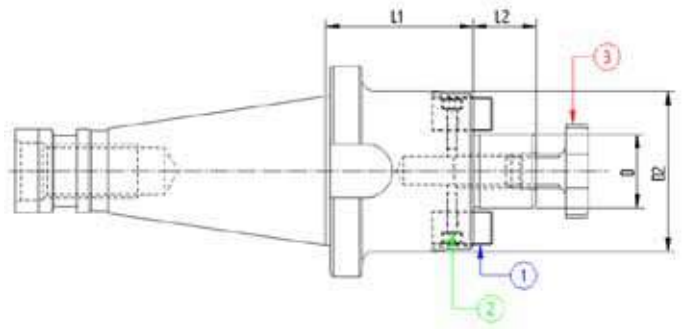
Ø WHN	Grano	Q.tà	Vite	Q.tà	Anello x ISO 40	Anello x ISO 50
						
	1		2			
6	100601002	1	100501601	1	500100001	500100002
8	100801002	1	100601601	1		
10	101001202	1	100801601	1		
12 - 14	101201602	1	101002501	1		
16 - 18	101401602	1	101204001	1		
20	101601602	1	101603501	1		
25	101802002	2	102002001	1		
32	102002002	2	102002001	1		



Codice	ISO	Descrizione	D	D1	H
550WHN06	50	ISO50 DIN2080 W.NOTCH H50 D.6	6	25	50
550WHN08	50	ISO50 DIN2080 W.NOTCH H50 D.8	8	28	50
550WHN10	50	ISO50 DIN2080 W.NOTCH H63 D.10	10	35	63
550WHN12	50	ISO50 DIN2080 W.NOTCH H63 D.12	12	42	63
550WHN14	50	ISO50 DIN2080 W.NOTCH H63 D.14	14	44	63
550WHN16	50	ISO50 DIN2080 W.NOTCH H63 D.16	16	48	63
550WHN18	50	ISO50 DIN2080 W.NOTCH H63 D.18	18	50	63
550WHN20	50	ISO50 DIN2080 W.NOTCH H63 D.20	20	52	63
550WHN25	50	ISO50 DIN2080 W.NOTCH H80 D.25	25	65	80
550WHN32	50	ISO50 DIN2080 W.NOTCH H85 D.32	32	72	85
550WHN40	50	ISO50 DIN2080 W.NOTCH H95 D.40	40	80	95




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

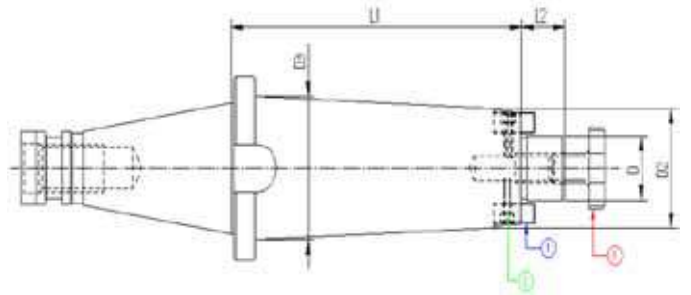
Ø WHN	Grano	Q.tà	Vite	Q.tà	Anello x ISO 40	Anello x ISO 50
						
6	100601002	1	100501601	1	500100001	500100002
8	100801002	1	100601601	1		
10	101001202	1	100801601	1		
12 - 14	101201602	1	101002501	1		
16 - 18	101401602	1	101204001	1		
20	101601602	1	101603501	1		
25	101802002	2	102002001	1		
32 - 40	102002002	2	102002001	1		



Codice	ISO	Descrizione	D	L1	D2	L2
540PF116	40	ISO40 DIN2080 P/F FISSO H45 D16	16	45	38	17
540PF122	40	ISO40 DIN2080 P/F FISSO H45 D22	22	45	48	19
540PF127	40	ISO40 DIN2080 P/F FISSO H45 D27	27	45	58	21
540PF132	40	ISO40 DIN2080 P/F FISSO H50 D32	32	50	78	24
540PF140	40	ISO40 DIN2080 P/F FISSO H55 D40	40	55	88	27
550PF116	50	ISO50 DIN2080 P/F FISSO H45 D16	16	45	38	17
550PF122	50	ISO50 DIN2080 P/F FISSO H45 D22	22	45	48	19
550PF127	50	ISO50 DIN2080 P/F FISSO H45 D27	27	45	58	21
550PF132	50	ISO50 DIN2080 P/F FISSO H50 D32	32	50	78	24
550PF140	50	ISO50 DIN2080 P/F FISSO H50 D40	40	50	88	27

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D / D2	Tassello	Q.tà	Vite Tassello	Q.tà	Vite a Croce	Q.tà
						
16 / 38	916TSL11	2	110301201	2	916VTC02	1
22 / 48	922TSL11	2	110401201	2	922VTC02	1
27 / 58	927TSL11	2	110501601	2	927VTC02	1
32 / 78	932TSL12	2	110602001	2	932VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1



L=100

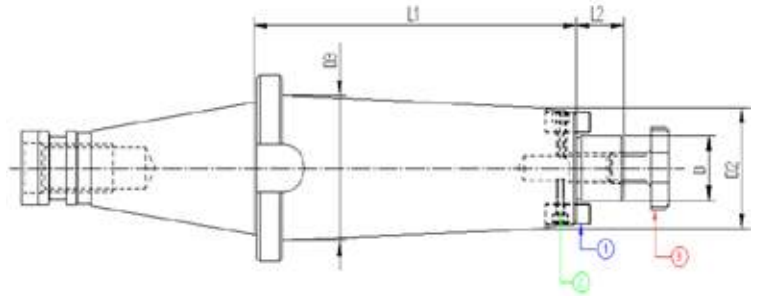
Codice	ISO	Descrizione	D	L1	D2	L2	D3
540PF216	40	ISO40 DIN2080 P/F FISSO H100 D.16	16	100	38	17	38
540PF222	40	ISO40 DIN2080 P/F FISSO H100 D.22	22	100	48	19	48
540PF227	40	ISO40 DIN2080 P/F FISSO H100 D.27	27	100	58	21	58
540PF232	40	ISO40 DIN2080 P/F FISSO H100 D.32	32	100	66	24	61
540PF240	40	ISO40 DIN2080 P/F FISSO H100 D.40	40	100	88	27	61
550PF216	50	ISO50 DIN2080 P/F FISSO H100 D.16	16	100	38	17	38
550PF222	50	ISO50 DIN2080 P/F FISSO H100 D.22	22	100	48	19	48
550PF227	50	ISO50 DIN2080 P/F FISSO H100 D.27	27	100	58	21	58
550PF232	50	ISO50 DIN2080 P/F FISSO H100 D.32	32	100	66	24	66
550PF240	50	ISO50 DIN2080 P/F FISSO H100 D.40	40	100	88	27	70

L=130

Codice	ISO	Descrizione	D	L1	D2	L2	D3
540PF316	40	ISO40 DIN2080 P/F FISSO H130 D.16	16	130	38	17	38
540PF322	40	ISO40 DIN2080 P/F FISSO H130 D.22	22	130	48	19	61
540PF327	40	ISO40 DIN2080 P/F FISSO H130 D.27	27	130	58	21	58
540PF332	40	ISO40 DIN2080 P/F FISSO H130 D.32	32	130	66	24	45
540PF340	40	ISO40 DIN2080 P/F FISSO H130 D.40	40	130	88	27	61
550PF316	50	ISO50 DIN2080 P/F FISSO H130 D.16	16	130	38	17	45
550PF322	50	ISO50 DIN2080 P/F FISSO H130 D.22	22	130	48	19	48
550PF327	50	ISO50 DIN2080 P/F FISSO H130 D.27	27	130	58	21	58
550PF332	50	ISO50 DIN2080 P/F FISSO H130 D.32	32	130	66	24	66
550PF340	50	ISO50 DIN2080 P/F FISSO H130 D.40	40	130	88	27	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D / D2	Tassello	Q.tà	Vite Tassello	Q.tà	Vite a Croce	Q.tà
						
16 / 38	916TSL11	2	110301201	2	916VTC02	1
22 / 48	922TSL11	2	110401201	2	922VTC02	1
27 / 58	927TSL11	2	110501601	2	927VTC02	1
32 / 66	932TSL11	2	110602001	2	932VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1



L=160

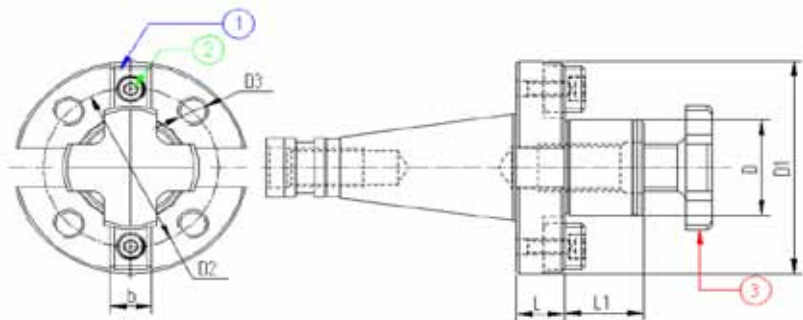
Codice	ISO	Descrizione	D	L1	D2	L2	D3
540PF416	40	ISO40 DIN2080 P/F FISSO H160 D.16	16	160	38	17	38
540PF422	40	ISO40 DIN2080 P/F FISSO H160 D.22	22	160	48	19	48
540PF427	40	ISO40 DIN2080 P/F FISSO H160 D.27	27	160	58	21	58
540PF432	40	ISO40 DIN2080 P/F FISSO H160 D.32	32	160	66	24	61
540PF440	40	ISO40 DIN2080 P/F FISSO H160 D.40	40	160	88	27	50
550PF416	50	ISO50 DIN2080 P/F FISSO H160 D.16	16	160	38	17	38
550PF422	50	ISO50 DIN2080 P/F FISSO H160 D.22	22	160	48	19	48
550PF427	50	ISO50 DIN2080 P/F FISSO H160 D.27	27	160	58	21	58
550PF432	50	ISO50 DIN2080 P/F FISSO H160 D.32	32	160	66	24	66
550PF440	50	ISO50 DIN2080 P/F FISSO H160 D.40	40	160	88	27	70

L=200

Codice	ISO	Descrizione	D	L1	D2	L2	D3
540PF516	40	ISO40 DIN2080 P/F FISSO H200 D.16	16	200	38	17	38
540PF522	40	ISO40 DIN2080 P/F FISSO H200 D.22	22	200	48	19	48
540PF527	40	ISO40 DIN2080 P/F FISSO H200 D.27	27	200	58	21	58
540PF532	40	ISO40 DIN2080 P/F FISSO H200 D.32	32	200	66	24	61
540PF540	40	ISO40 DIN2080 P/F FISSO H200 D.40	40	200	88	27	61
550PF516	50	ISO50 DIN2080 P/F FISSO H200 D.16	16	200	38	17	48
550PF522	50	ISO50 DIN2080 P/F FISSO H200 D.22	22	200	48	19	64
550PF527	50	ISO50 DIN2080 P/F FISSO H200 D.27	27	200	58	21	58
550PF532	50	ISO50 DIN2080 P/F FISSO H200 D.32	32	200	66	24	66
550PF540	50	ISO50 DIN2080 P/F FISSO H200 D.40	40	200	88	27	70

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

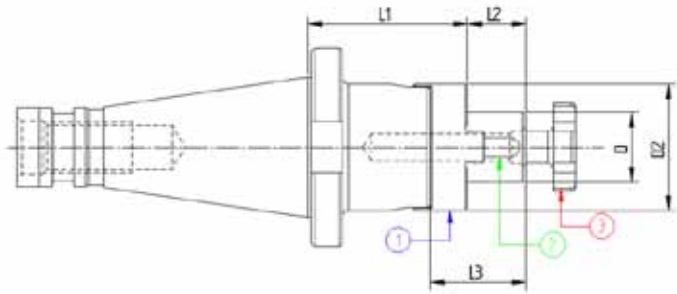
D / D2	Tassello	Q.tà	Vite Tassello	Q.tà	Vite a Croce	Q.tà
16 / 38	916TSL11	2	110301201	2	916VTC02	1
22 / 48	922TSL11	2	110401201	2	922VTC02	1
27 / 58	927TSL11	2	110501601	2	927VTC02	1
32 / 66	932TSL11	2	110602001	2	932VTC02	1
40 / 88	940TSL11	2	110602001	2	940VTC02	1



Codice	ISO	Descrizione	D	L	L1	D1	D2	D3	b
540PI140	40	ISO40 DIN2080 P/F TRA. FR. H20 D40	40	20	30	89	66.7	M12	15.9
550PI140	50	ISO50 DIN2080 P/F TRA. FR. H30 D40	40	30	30	89	66.7	M12	15.9
550PI160	50	ISO50 DIN2080 P/F TRA. FR. H30 D60	60	30	40	129	101.6	M16	25.4




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

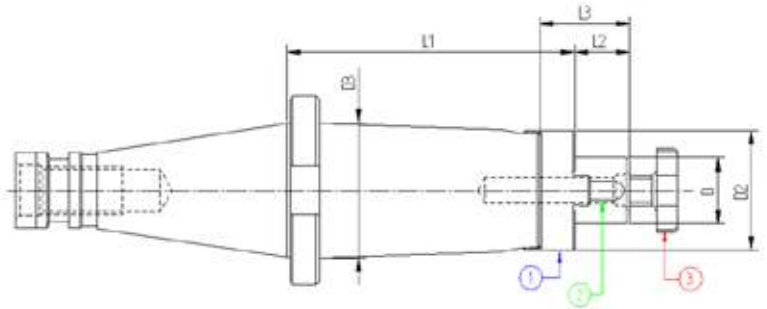
D	Tassello	Q.tà	Vite Tassello	Q.tà	Vite a Croce	Q.tà
						
	1		2		3	
40	940TSL04	2	110601601	2	940VTC02	1
60	960TSL04	2	111202501	2	NON FORNITA	-



Codice	ISO	Descrizione	D	L1	L2	L3	D2
540PU116	40	ISO40 DIN2080 P/F UNIV.H52 D.16	16	52	17	27	32
540PU122	40	ISO40 DIN2080 P/F UNIV.H52 D.22	22	52	19	31	40
540PU127	40	ISO40 DIN2080 P/F UNIV.H52 D.27	27	52	21	33	48
540PU132	40	ISO40 DIN2080 P/F UNIV.H52 D.32	32	52	24	38	58
540PU140	40	ISO40 DIN2080 P/F UNIV.H52 D.40	40	52	27	41	70
550PU116	50	ISO50 DIN2080 P/F UNIV.H55 D.16	16	55	17	27	32
550PU122	50	ISO50 DIN2080 P/F UNIV.H55 D.22	22	55	19	31	40
550PU127	50	ISO50 DIN2080 P/F UNIV.H55 D.27	27	55	21	33	48
550PU132	50	ISO50 DIN2080 P/F UNIV.H55 D.32	32	55	24	38	58
550PU140	50	ISO50 DIN2080 P/F UNIV.H55 D.40	40	55	27	41	70

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Giunto	Q.tà	Linguetta	Q.tà	Vite a croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1






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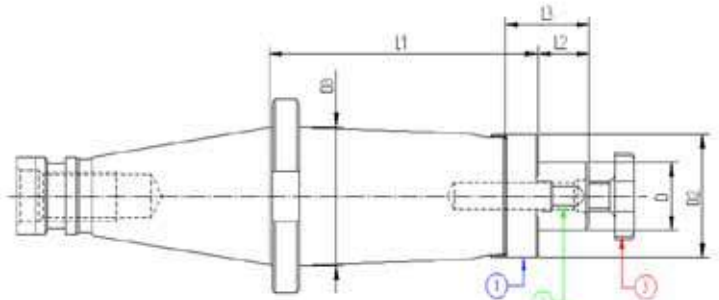
Codice	ISO	Descrizione	D	L1	L2	L3	D2	D3
540PU216	40	ISO40 DIN2080 P/F UNIV.H100 D.16	16	100	17	27	32	40
540PU222	40	ISO40 DIN2080 P/F UNIV.H100 D.22	22	100	19	31	40	44
540PU227	40	ISO40 DIN2080 P/F UNIV.H100 D.27	27	100	21	33	48	-
540PU232	40	ISO40 DIN2080 P/F UNIV.H100 D.32	32	100	24	38	58	-
540PU240	40	ISO40 DIN2080 P/F UNIV.H100 D.40	40	100	27	41	70	-
550PU216	50	ISO50 DIN2080 P/F UNIV.H100 D.16	16	100	17	27	32	50
550PU222	50	ISO50 DIN2080 P/F UNIV.H100 D.22	22	100	19	31	40	60
550PU227	50	ISO50 DIN2080 P/F UNIV.H100 D.27	27	100	21	33	48	60
550PU232	50	ISO50 DIN2080 P/F UNIV.H100 D.32	32	100	24	38	58	-
550PU240	50	ISO50 DIN2080 P/F UNIV.H100 D.40	40	100	27	41	70	-

L=130

Codice	ISO	Descrizione	D	L1	L2	L3	D2	D3
540PU316	40	ISO40 DIN2080 P/F UNIV.H130 D.16	16	130	17	27	32	40
540PU322	40	ISO40 DIN2080 P/F UNIV.H130 D.22	22	130	19	31	44	40
540PU327	40	ISO40 DIN2080 P/F UNIV.H130 D.27	27	130	21	33	48	-
540PU332	40	ISO40 DIN2080 P/F UNIV.H130 D.32	32	130	24	38	58	-
540PU340	40	ISO40 DIN2080 P/F UNIV.H130 D.40	40	130	27	41	70	50
550PU316	50	ISO50 DIN2080 P/F UNIV.H130 D.16	16	130	17	27	32	50
550PU322	50	ISO50 DIN2080 P/F UNIV.H130 D.22	22	130	19	31	40	60
550PU327	50	ISO50 DIN2080 P/F UNIV.H130 D.27	27	130	21	33	48	60
550PU332	50	ISO50 DIN2080 P/F UNIV.H130 D.32	32	130	24	38	58	-
550PU340	50	ISO50 DIN2080 P/F UNIV.H130 D.40	40	130	27	41	70	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Giunto	Q.tà	Linguetta	Q.tà	Vite a croce	Q.tà
16	 916GNT01	1	 170402004	1	 916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1






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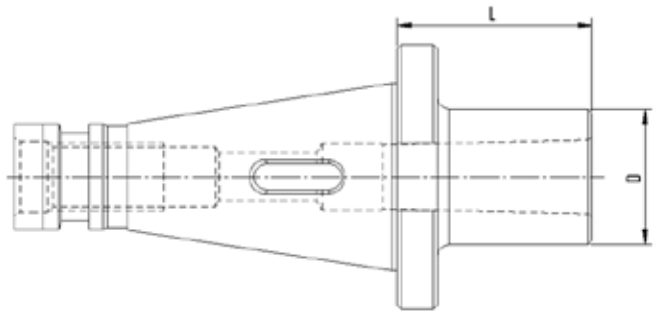
Codice	ISO	Descrizione	D	L1	L2	L3	D2	D3
540PU416	40	ISO40 DIN2080 P/F UNIV.H160 D.16	16	160	17	27	32	40
540PU422	40	ISO40 DIN2080 P/F UNIV.H160 D.22	22	160	19	31	40	44
540PU427	40	ISO40 DIN2080 P/F UNIV.H160 D.27	27	160	21	33	48	-
540PU432	40	ISO40 DIN2080 P/F UNIV.H160 D.32	32	160	24	38	58	-
540PU440	40	ISO40 DIN2080 P/F UNIV.H160 D.40	40	160	27	41	70	50
550PU416	50	ISO50 DIN2080 P/F UNIV.H160 D.16	16	160	17	27	32	50
550PU422	50	ISO50 DIN2080 P/F UNIV.H160 D.22	22	160	19	31	40	60
550PU427	50	ISO50 DIN2080 P/F UNIV.H160 D.27	27	160	21	33	48	60
550PU432	50	ISO50 DIN2080 P/F UNIV.H160 D.32	32	160	24	38	58	-
550PU440	50	ISO50 DIN2080 P/F UNIV.H160 D.40	40	160	27	41	70	-

L=200

Codice	ISO	Descrizione	D	L1	L2	L3	D2	D3
540PU516	40	ISO40 DIN2080 P/F UNIV.H200 D.16	16	200	17	27	32	40
540PU522	40	ISO40 DIN2080 P/F UNIV.H200 D.22	22	200	19	31	40	44
540PU527	40	ISO40 DIN2080 P/F UNIV.H200 D.27	27	200	21	33	48	-
540PU532	40	ISO40 DIN2080 P/F UNIV.H200 D.32	32	200	24	38	58	-
540PU540	40	ISO40 DIN2080 P/F UNIV.H200 D.40	40	200	27	41	70	50
550PU516	50	ISO50 DIN2080 P/F UNIV.H200 D.16	16	200	17	27	32	50
550PU522	50	ISO50 DIN2080 P/F UNIV.H200 D.22	22	200	19	31	40	60
550PU527	50	ISO50 DIN2080 P/F UNIV.H200 D.27	27	200	21	33	48	60
550PU532	50	ISO50 DIN2080 P/F UNIV.H200 D.32	32	200	24	38	58	-
550PU540	50	ISO50 DIN2080 P/F UNIV.H200 D.40	40	200	27	41	70	-





COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Giunto	Q.tà	Linguetta	Q.tà	Vite a croce	Q.tà
16	 916GNT01	1	 170402004	1	 916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1

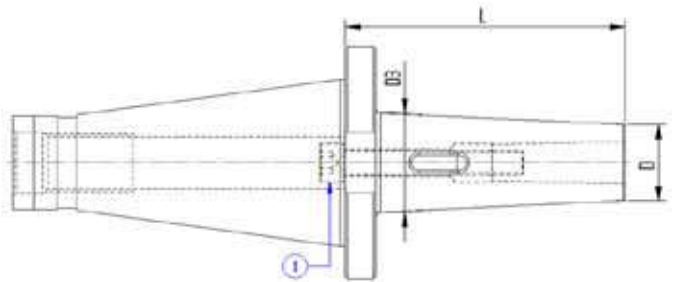


Codice	ISO	Descrizione	MORSE	D	L
540MP101	40	ISO40 DIN2080 H50 CM1 PUNTE	1	25	50
540MP102	40	ISO40 DIN2080 H50 CM2 PUNTE	2	32	50
540MP103	40	ISO40 DIN2080 H65 CM3 PUNTE	3	40	65
540MP104	40	ISO40 DIN2080 H95 CM4 PUNTE	4	48	95
550MP101	50	ISO50 DIN2080 H45 CM1 PUNTE	1	25	45
550MP102	50	ISO50 DIN2080 H60 CM2 PUNTE	2	32	60
550MP103	50	ISO50 DIN2080 H65 CM3 PUNTE	3	40	65
550MP104	50	ISO50 DIN2080 H70 CM4 PUNTE	4	48	70
550MP105	50	ISO50 DIN2080 H100 CM5 PUNTE	5	63	100

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE





ISO	TIPO	Vite	Q.tà	GHIERA	Q.tà	Anello x ISO 40	Anello x ISO 50
							
		1		2			
40	CM1	110604501	1	-	-	50010001	50010002
40	CM2	111004014	1	-	-		
40	CM3	110604501	1	121202806	1		
40	CM4	-	-	-	-		
50	CM1	110604501	1	-	-		
50	CM2	111004501	1	-	-		
50	CM3	111205501	1	-	-		
50	CM4	111606015	1	-	-		
50	CM5	111205501	1	122004312	1		

VITI FORNITE SOLO NEL CASO DI MANDRINO COMBINATO

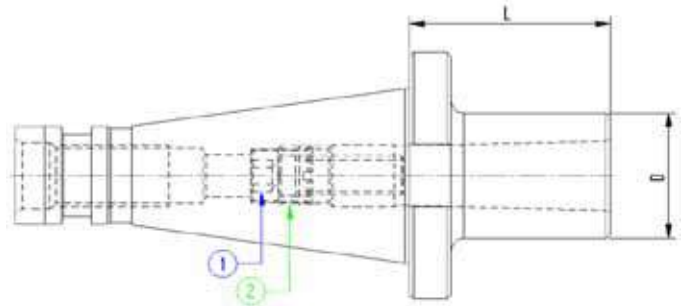


Codice	ISO	Descrizione	Morse	D	D3	L
540MP201	40	ISO40 DIN2080 H92 CM1 PUNTE	1	25	18	92
540MP202	40	ISO40 DIN2080 H109 CM2 PUNTE	2	32	25	109
540MP203	40	ISO40 DIN2080 H129 CM3 PUNTE	3	40	33	129
540MP204	40	ISO40 DIN2080 H152 CM4 PUNTE	4	48	40	152
550MP201	50	ISO50 DIN2080 H120 CM1 PUNTE	1	25	18	120
550MP202	50	ISO50 DIN2080 H140 CM2 PUNTE	2	32	25	140
550MP203	50	ISO50 DIN2080 H150 CM3 PUNTE	3	40	33	150
550MP204	50	ISO50 DIN2080 H180 CM4 PUNTE	4	48	40	180
550MP205	50	ISO50 DIN2080 H220 CM5 PUNTE	5	63	55	220

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE





ISO	TIPO	Vite	Q.tà	GHIERA	Q.tà	Anello x ISO 40	Anello x ISO 50
							
		1		2			
40	CM1	110603501	1	-	-	50010001	50010002
40	CM2	111004014	1	-	-		
40	CM3	110605501	1	121202806	1		
40	CM4	-	-	-	-		
50	CM1	110604501	1	-	-		
50	CM2	111006001	1	-	-		
50	CM3	111205501	1	-	-		
50	CM4	111606015	1	-	-		
50	CM5	111209001	1	122004312	1		

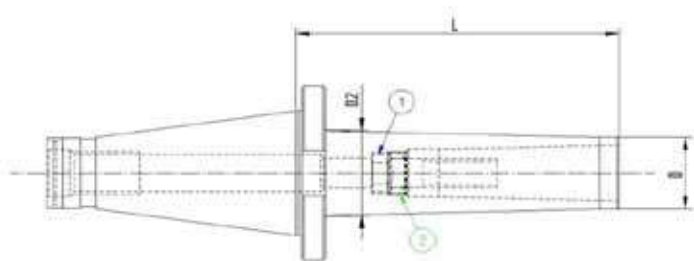
VITI FORNITE SOLO NEL CASO DI MANDRINO COMBINATO



Codice	ISO	Descrizione	MORSE	D	L
540MF101	40	ISO40 DIN2080 H50 CM1 FRESE	1	25	50
540MF102	40	ISO40 DIN2080 H50 CM2 FRESE	2	32	50
540MF103	40	ISO40 DIN2080 H65 CM3 FRESE	3	40	65
540MF104	40	ISO40 DIN2080 H95 CM4 FRESE	4	48	95
550MF101	50	ISO50 DIN2080 H45 CM1 FRESE	1	25	45
550MF102	50	ISO50 DIN2080 H60 CM2 FRESE	2	32	60
550MF103	50	ISO50 DIN2080 H65 CM3 FRESE	3	40	65
550MF104	50	ISO50 DIN2080 H65 CM4 FRESE	4	48	65
550MF105	50	ISO50 DIN2080 H120 CM5 FRESE	5	63	120

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	TIPO	Vite	Q.tà	Boccola	Q.tà	Anello x ISO 40	Anello x ISO 50
							
		1		2			
ISO 40 - 50	CM1	110603501	1	-	-	50010001	50010002
ISO 40 - 50	CM2	111003014	1	121500802	1		
ISO 40 - 50	CM3	111204003	1	122000603	1		
ISO 40 - 50	CM4	111605514	1	122400903	1		
ISO 40 - 50	CM5	112005003	1	123601104	1		



Codice	ISO	Descrizione	MORSE	L	D	D2
540MF201	40	ISO40 DIN2080 H115 CM1 FRESE	1	115	18	25
540MF202	40	ISO40 DIN2080 H115 CM2 FRESE	2	115	25	32
540MF203	40	ISO40 DIN2080 H115 CM3 FRESE	3	115	33	40
540MF204	40	ISO40 DIN2080 H165 CM4 FRESE	4	165	40	48
550MF201	50	ISO50 DIN2080 H115 CM1 FRESE	1	115	18	25
550MF202	50	ISO50 DIN2080 H115 CM2 FRESE	2	115	25	32
550MF203	50	ISO50 DIN2080 H115 CM3 FRESE	3	115	33	40
550MF204	50	ISO50 DIN2080 H165 CM4 FRESE	4	165	40	48
550MF205	50	ISO50 DIN2080 H200 CM5 FRESE	5	200	55	63

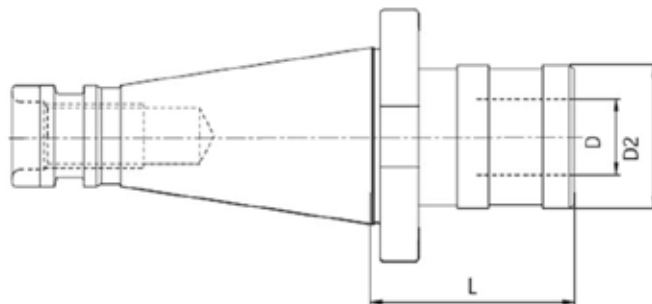
SU RICHIESTA LUNGHEZZE FINO A 350mm

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	TIPO	Vite	Q.tà	Boccola	Q.tà	Anello x ISO 40	Anello x ISO 50
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ISO 40 - 50	CM1	110603501	1	121206502	1	50010001	50010002
ISO 40 - 50	CM2	111003014	1	121500802	1		
ISO 40 - 50	CM3	111204003	1	122000603	1		
ISO 40 - 50	CM4	111604514	1	122400903	1		
ISO 40 - 50	CM5	112005003	1	123601104	1		



Codice	ISO	Descrizione	D	D2	L
540PCRM1	40	DIN2080 ISO40 M./PORTAM./C/R H52 GR.1	19	36	52
540PCRM2	40	DIN2080 ISO40 M./PORTAM./C/R H77 GR.2	31	53	77
550PCRM1	50	DIN2080 ISO50 M./PORTAM./C/R H60 GR.1	19	36	60
550PCRM2	50	DIN2080 ISO50 M./PORTAM./C/R H79 GR.2	31	53	79

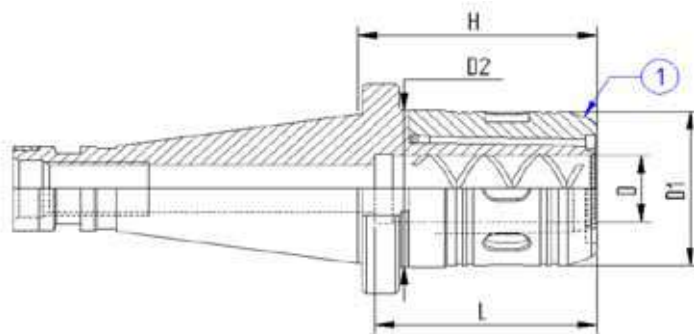
ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



RIF. PAGINA **312**



RIF. PAGINA **313**

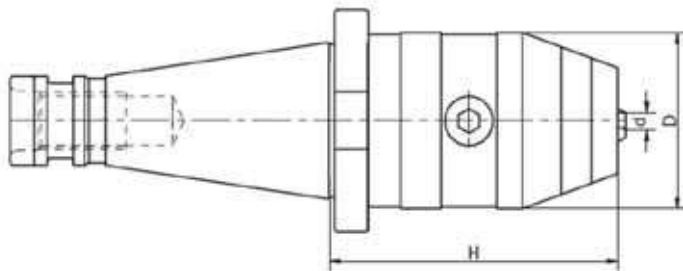


Codice	ISO	Descrizione	D	D1	D2	L	H
540FS120	40	DIN2080 ISO40 F. SERR. Ø20 H65	20	46	47	60	65
540FS132	40	DIN2080 ISO40 F. SERR. Ø32 H80	32	62	63	80	80
550FS120	50	DIN2080 ISO50 F. SERR. Ø20 H70	20	46	47	60	70
550FS132	50	DIN2080 ISO50 F. SERR. Ø32 H75	32	62	63	80	75

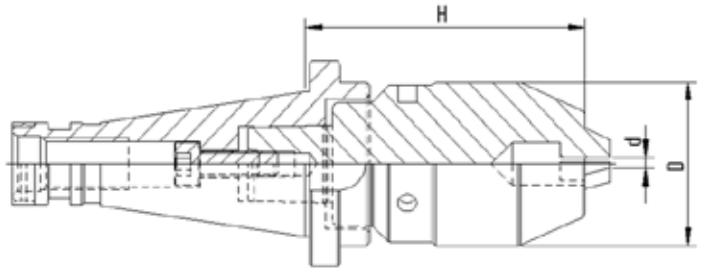
ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



RIF. PAGINA **315**

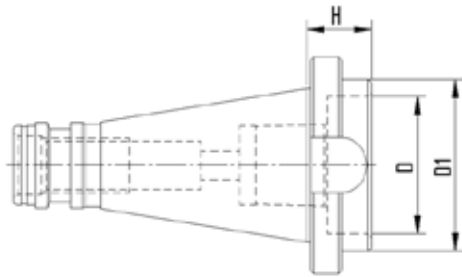


Codice	ISO	Descrizione	d	D	H
540MA013	40	DIN2080 ISO40 M./AUTOS. H85 D13	1-13	50	85
540MA016	40	DIN2080 ISO40 M./AUTOS. H90 D16	3-16	50	90
550MA013	50	DIN2080 ISO50 M./AUTOS. H90 D13	1-13	50	90
550MA016	50	DIN2080 ISO50 M./AUTOS. H95 D16	3-16	50	95



Codice	ISO	Descrizione	d	D	H
540MPI13	40	DIN2080 ISO40 M./PORTAP. / 1-13 H88	1-13	50	88
540MPI16	40	DIN2080 ISO40 M./PORTAP. / 3-16 H100	3-16	57	100
550MPI13	50	DIN2080 ISO50 M./PORTAP. / 1-13 H85	1-13	50	85
550MPI16	50	DIN2080 ISO50 M./PORTAP. / 3-16 H90	3-16	57	90

MANDRINI DI RICAMBIO - REPLACEMENT DRILL CHUCK HEADS - MANDRINS DE RECHANGE - ERSATZTEILE BOHRFUTTER



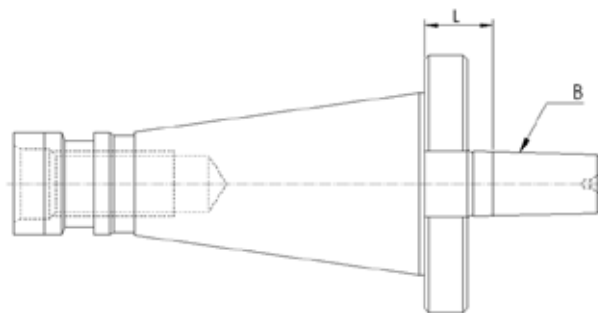
Codice	ISO	Descrizione	D	D1	H
540CPI13	40	DIN2080 ISO40 SOLO MANDRINO 1-13	40	50	21
540CPI16	40	DIN2080 ISO40 SOLO MANDRINO 3-16	44	50	26
550CPI13	50	DIN2080 ISO50 SOLO MANDRINO 1-13	40	50	16
550CPI16	50	DIN2080 ISO50 SOLO MANDRINO 3-16	44	-	15



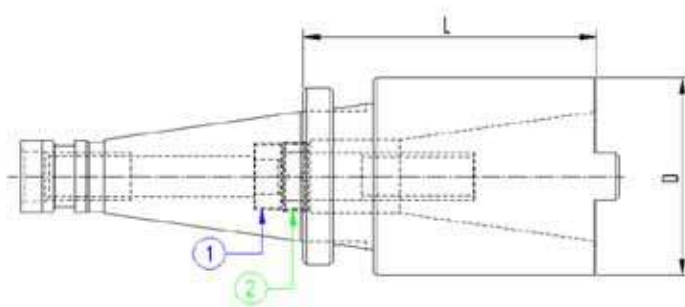
Codice	Descrizione
913INS01	INSERTO 1-13
916INS01	INSERTO 3-16

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ISO	Vite	Q.tà
40	110802501	1
50	110803501	1






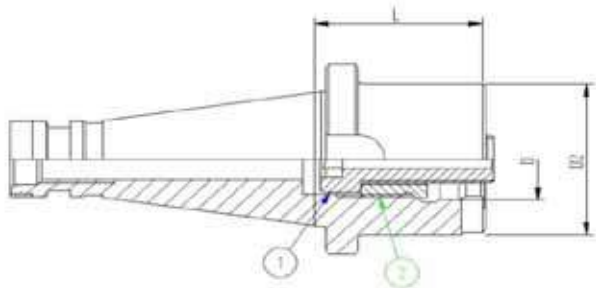
Codice	ISO	Descrizione	B	L
540MPP12	40	ISO40 PORTAPUNTE H18 B12	12	18
540MPP16	40	ISO40 PORTAPUNTE H18 B16	16	18
540MPP18	40	ISO40 PORTAPUNTE H18 B18	18	18
550MPP12	50	ISO50 PORTAPUNTE H20 B12	12	20
550MPP16	50	ISO50 PORTAPUNTE H20 B16	16	20
550MPP18	50	ISO50 PORTAPUNTE H20 B18	18	20



Codice	ISO	Descrizione	Rid. ISO	D	L
540ISO30	40	ISO40 RIDUZIONE H50 ISO30	30	50	50
540ISO40	40	ISO40 RIDUZIONE H100 ISO40	40	68	100
550ISO30	50	ISO50 RIDUZIONE H16 ISO30	30	50	16
550ISO40	50	ISO50 RIDUZIONE H63 ISO40	40	68	63
550ISO50	50	ISO50 RIDUZIONE H100 ISO50	50	100	100



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ISO	Vite per TC-BT	Q.tà	Vite per DIN2080	Q.tà	Ghiera	Q.tà
						
	1		1		2	
40-30	111205501	1	111203001	1	122000603	1
40-40	111606514	1	111604514	1	122400903	1
50-30	111205501	1	111203001	1	122000603	1
50-40	111606514	1	111604514	1	122400903	1
50-50	112409004	1	112406004	1	124020002	1



Codice	ISO	Descrizione	D	D2	L
540VL150	40	DIN2080 ISO40 MODULARE 50 H50	27	50	50
540VL163	40	DIN2080 ISO40 MODULARE 63 H50	32	63	50
550VL050	50	DIN2080 ISO50 MODULARE 50 H27	27	50	27
550VL063	50	DIN2080 ISO50 MODULARE 63 H27	32	63	27
550VL080	50	DIN2080 ISO50 MODULARE 80 H27	32	80	27
550VL150	50	DIN2080 ISO50 MODULARE 50 H50	27	50	50
550VL163	50	DIN2080 ISO50 MODULARE 63 H50	32	63	50
550VL180	50	DIN2080 ISO50 MODULARE 80 H50	32	80	50

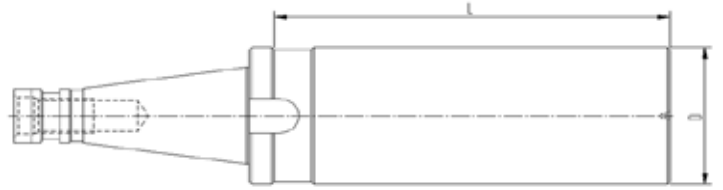
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Diam.	Vite	Q.tà	Ghiera Interna	Q.tà
	1		2	
50	111604011	1	122502007	1
63	112005012	1	123002408	1
80	112005012	1	123002408	1

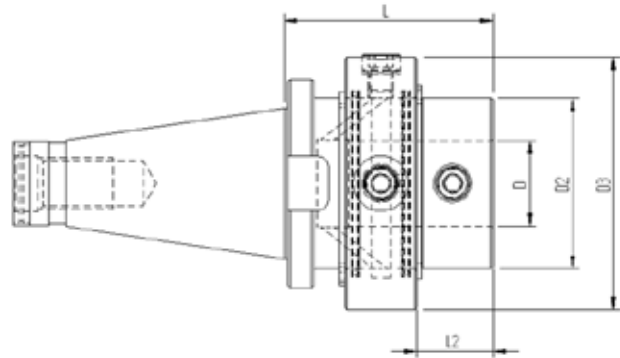

MANDRINI SEMILAVORATI A STELO TENERO
BLANK TOOLHOLDER WITH SOFT SHANK
BARRES D'ALEPAGE SEMI-FINIES
ROHLINGE MIT WEICHEM SCHAFT



DIN 2080

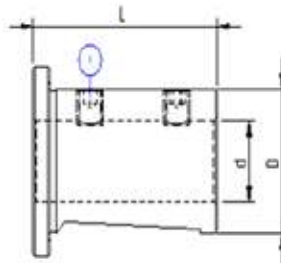


Codice	ISO	Descrizione	D	L
540ST263	40	ISO40 STELO TENERO D63x250	63	250
550ST397	50	ISO50 STELO TENERO D97x315	97	315



Codice	ISO	Descrizione	L	D	D2	D3	L2
540DRB40	40	ISO40 DIN2080 DISTRIB.ROTANTE D.40	100	40	80	118	35
550DRB40	50	ISO50 DIN2080 DISTRIB.ROTANTE D.40	100	40	80	118	36

ACCESSORI - ACCESSORIES - ACCESSIRES - ZUBEHOR



Codice	ISO	Descrizione	L	D	d
932RCD14	40	RIDUZIONE CILINDRICA D.32/14	55	32	14
932RCD16	40	RIDUZIONE CILINDRICA D.32/16	55	32	16
932RCD18	40	RIDUZIONE CILINDRICA D.32/18	55	32	18
932RCD20	40	RIDUZIONE CILINDRICA D.32/20	55	32	20
932RCD25	40	RIDUZIONE CILINDRICA D.32/25	55	32	25
940RCD16	50	RIDUZIONE CILINDRICA D.40/16	55	40	16
940RCD20	50	RIDUZIONE CILINDRICA D.40/20	55	40	20
940RCD25	50	RIDUZIONE CILINDRICA D.40/25	60	40	25
940RCD32	50	RIDUZIONE CILINDRICA D.40/32	65	40	32

LE BUSSOLE DA D32 VENGONO UTILIZZATE PER I DISTRIBUTORI CON CONO DIN69871 (TC) O MAS403BT

Tipo Cono	Ø	Grano	Q.tà
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ISO 40	14	100801004	2
	16	100801004	2
	18	100800804	2
	20	100800604	2
	25	100800604	2
ISO 50	16	100800604	1
	20	100800604	1
	25	100800604	1
	32	-	-



FIG. 1

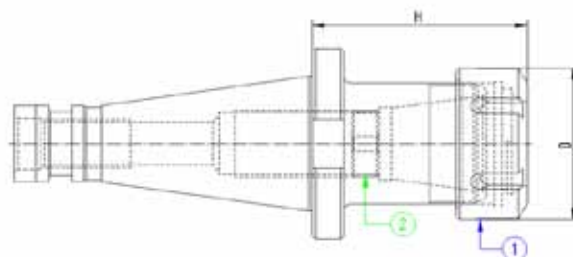
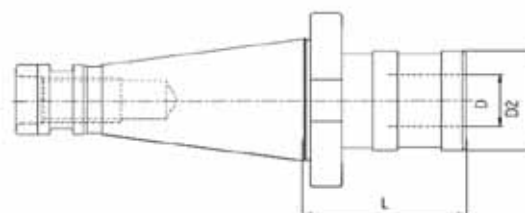


FIG. 2



Codice	ISO	Descrizione	FIG.	ER	D	H
530PP110	30	ISO30 DIN2080 P/P H42 ER16	1	16	32	42
530PP116	30	ISO30 DIN2080 P/P H42 ER25	1	25	42	42
530PP120	30	ISO30 DIN2080 P/P H50 ER32	1	32	50	50

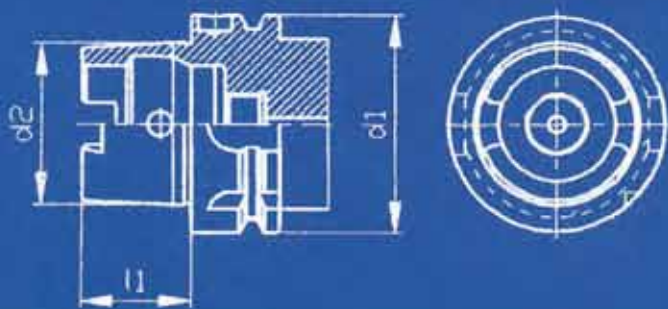
Codice	ISO	Descrizione	FIG.	D	D2	L
530PCRM1	30	ISO30 DIN2080 PORTAM./C/R H50 GR.1	2	19	36	50

Possibilità di realizzare altri mandrini ISO30 su richiesta

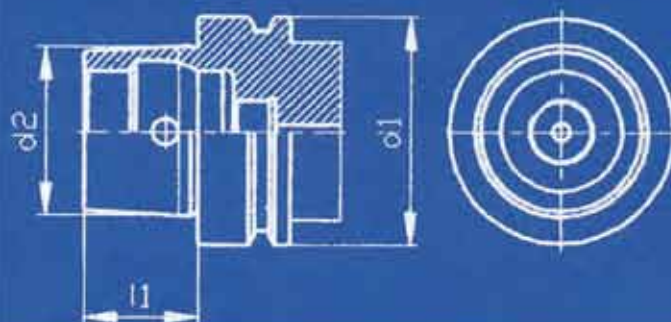
HSK 50/A



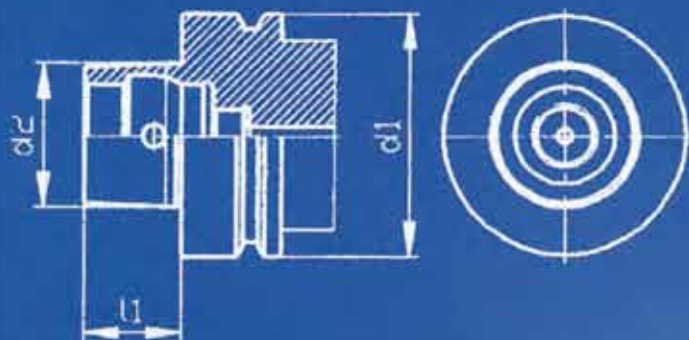
HSK A



HSK E



HSK F



HSK A/E

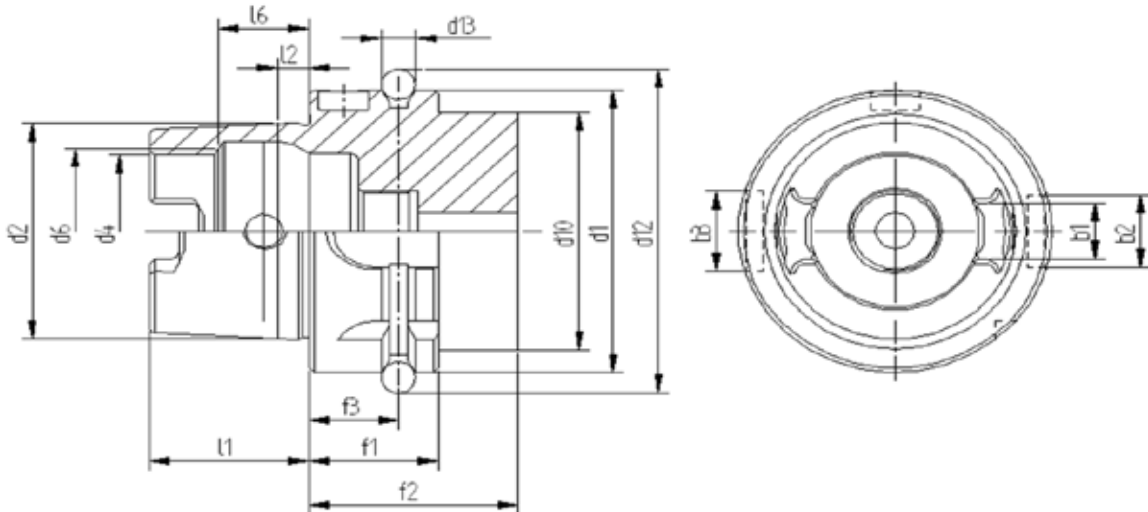
d1 Nominal dia.	d2 Taper dia.	l1 Taper length
--------------------	------------------	--------------------

32	24	16
40	30	20
50	38	25
63	48	32
100	75	50

HSK F

d1 Nominal dia.	d2 Taper dia.	l1 Taper length
--------------------	------------------	--------------------

40	24	16
50	30	20
63	38	25
100	60	40



	HSK 32	HSK 40	HSK 50	HSK 63	HSK 100
b1	7.05	8.05	10.54	12.54	20.02
b2	7	9	12	16	20
b3	9	11	14	18	22
d1	32	40	50	63	100
d2	24	30	38	48	75
d4	17	21	26	34	53
d6	19	23	29	37	58
d10	26	34	42	53	85
d12	37	45	59.3	72.3	109.75
d13	4	4	7	7	7
f1	20	20	26	26	29
f2	35	35	42	42	45
f3	16	16	18	18	20
l1	16	20	25	32	50
l2	3.2	4	5	6.3	10
l6	8.92	11.42	14.13	18.13	28.56

Forma A



- Usato su centri di lavoro, fresatrici e macchine speciali con cambio utensile automatico.
- Adduzione refrigerante centrale.
- Coppia trasmessa con due chiavette al fondo della sede conica.
- Tacche di riferimento sulla flangia per riferimento posizione tagliente. Foro di predisposizione al sistema di riconoscimento a norme DIN 69873 sull'esterno flangia.

Form A



- Used on machining centres, milling machines, turning machines special machines with automatic tool change.
- Central, axial coolant supply through coolant tube.
- Torque transmission via two key slots at end of taper.
- Two slots on collar for tool magazine, location edge. Hole for data carrier DIN 69873 in collar.

Forme A



- Anwendung für Bearbeitungszentren, Fräsmaschinen, Drehmaschinen, Sondermaschinen mit automatischem Werkzeugwechsel.
 - Zentrale, axiale Kühlmittelzufuhr über Kühlmittelrohr.
 - Drehmomentübertragung über zwei Mitnehmernuten am Kegelumlauf.
 - Zwei Bundnuten für Werkzeugmagazin, Positionskerbe.
- Bohrung für Datenträger DIN69873 im Bund.
- Balluffchip

Forme A



- Utilisation sur les centre d'usinage, les fraiseuses, les machines spéciales à changement d'outils automatique.
- Alimentation centrale, axiale du liquide de lubrification par tube d'arrosage.
- Transmission du couple par deux gorges d'entraînement à l'extrémité du cône.
- Deux gorges magasin à outils, entaille de positionnement, perçage pour support de données DIN69873 dans l'épaulement.

**MANDRINI PAGNONI CON ATTACCO HSK****DATI TECNICI**

TUTTI I MANDRINI PORTAUTENSILI PAGNONI VENGONO PRODOTTI SECONDO LE NORMATIVE DIN
 QUESTE NORMATIVE PREVEDONO LE STESSE CLASSI DI TOLLERANZA PER GLI ATTACCHI DIN69893 A+E+F

TOLLERANZA DEL CONO

HSK	L1	L2	D.A.	D.B.	B (only type A)
32 A	3.2	7.3	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005	7.05 ± 0.04
40 A+E	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	8.05 ± 0.04
50 A+E	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006	10.54 ± 0.04
50 F	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	/
63 A+E	6.3	14.7	48 + 0.007 + 0.011	46,53 + 0.003 + 0.007	12.54 ± 0.04
63 F	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006	/
100 A	10	24	75 + 0.009 + 0.015	72,6 + 0.003 + 0.009	20.02 ± 0.04

COASSIALITA' PORTAPINZE

La norma DIN69882-6 ammette un'errore massimo di 0.005 mm. per i portapinze DIN6499.

COASSIALITA' PORTAFRESE FISSI E COMBINATI

I portafrese fissi e combinati rispondono ai criteri prescritti dalla norma DIN69882-2, la quale prevede per i Ø 16/22/27/32 una coassialità di 0,01.

COASSIALITA' PORTAFRESE WELDON

Secondo la normativa DIN 69882-4 il portafrese WELDON deve rispondere ai seguenti requisiti:

Foro: tolleranza H5 e Coassialità: 0.005

EQUILIBRATURA

Tutti i nostri mandrini presenti in questa categoria sono prebilanciati in classe G 6,3 a 8000 rpm min-1 o bilanciati fino a 25.000 rpm min-1.

DATI COSTRUTTIVI

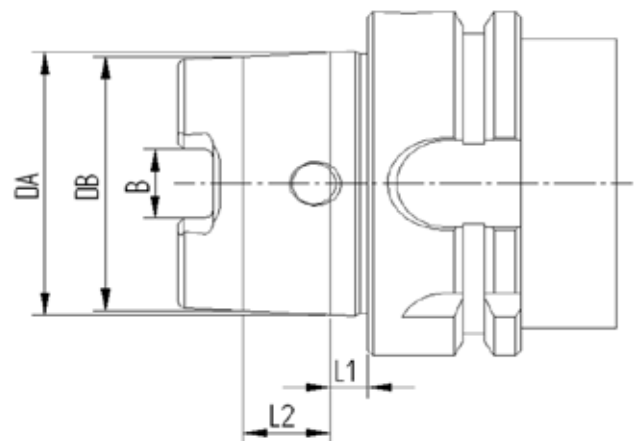
- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm2.
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiera chiudipinza.
- Collaudati 100% con strumenti di misura certificati.

EQUILIBRATURA MANDRINI PER ALTE VELOCITA'

Eventuali bilanciature supplementari sui nostri mandrini vengono eseguite su richiesta cliente, con una classe massima di bilanciatura di G 2,5 a 25.000 rpm.

DATI COSTRUTTIVI PER MANDRINI PER ALTE VELOCITA'

- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm2.
- Bruniti
- Finitura di rettifica interna, esterna del corpo.
- Rettifica parte anteriore e nelle filettature delle ghiera chiudipinza.
- Collaudati 100% con strumenti di misura certificati e forniti con certificato di bilanciatura.





ALL PAGNONI TOOLHOLDERS ARE MANUFACTURED ACCORDING TO DIN NORM.
THESE NORMS PROVIDE THE SAME CLASS OF TOLERANCE FOR THE ATTACHMENT DIN69893 A+E+F

CONE'S TOLERANCE

HSK	L1	L2	D.A.	D.B.	B (only type A)
32 A	3.2	7.3	24 +0.005 +0.007	23,27 +0.003 +0.005	7.05 ± 0.04
40 A+E	4	9.5	30 +0.005 +0.007	29,05 +0.003 +0.005	8.05 ± 0.04
50 A+E	5	11	38 +0.006 +0.009	36,9 +0.003 +0.006	10.54 ± 0.04
50 F	4	9.5	30 +0.005 +0.007	29,05 +0.003 +0.005	/
63 A+E	6.3	14.7	48 +0.007 +0.011	46,53 +0.003 +0.007	12.54 ± 0.04
63 F	5	11	38 +0.006 +0.009	36,9 +0.003 +0.006	/
100 A	10	24	75 +0.009 +0.015	72,6 +0.003 +0.009	20.02 ± 0.04

COLLET CHUCK'S RUNOUT ACCURACY

The norm DIN69882-6 permits a runout error of 0.005 mm. for DIN6499 collet chucks.

SHELL END MILL ADAPTOR'S RUNOUT ACCURACY

Our shell end mill adaptors meet the requirements of the norm DIN69882-2, which prescribes for diameters Ø 16/22/ 27/32 a runout accuracy of 0,01.

WELDON END MILL HOLDER'S RUNOUT ACCURACY

According to norm DIN 69882-4 WELDON end end mill holders have to meet the following requirements:

Bore: H5 and runout accuracy: 0.005

BALANCING

All our toolholders of this category are pre-balanced in grade G 6,3 at 8000 rpm or balanced until 25.000 rpm.

CONSTRUCTIVE FEATURES

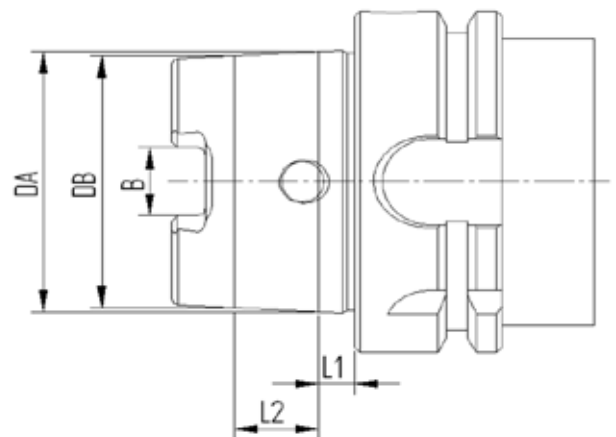
- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxided.
- Thread of collet nuts, internal and external diameters are completely grinding finished
- Tested 100% with certified measuring instruments.

HIGH-SPEED BALANCING TOOLHOLDERS

Any additional balancing on our toolholders are carried out on client request, with a class maximum of balancing of 25.000 rpm grade G 2,5.

CONSTRUCTIVE FEATURES FOR HIGH-SPEED TOOLHOLDERS

- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxided.
- Internal and external grinding finished of the cone
- Grinding finish on the front side and on the thread of collet nuts.
- Tested 100% with certified measuring instruments and supplied with balancing certificate.



STEILGEKELAUFNAMEN PAGNONI HSK
TECHNISCHE DATEN


ALLE PAGNONI - STEILGEKELAUFNAMEN WERDEN NACH DEN DIN - NORMEN ANGEFERTIGT.

DIESE NORMEN SEHEN DIE GLEICHEN TOLERANZKLASSEN FÜR DIE DIN69893 A+E+F AUFNAHMEN VOR.

KEGELSCHAFTTOLERANZ

HSK	L1	L2	D.A.	D.B.	B (only type A)
32 A	3.2	7.3	24 $+0.005$ $+0.007$	23,27 $+0.003$ $+0.005$	7.05 ± 0.04
40 A+E	4	9.5	30 $+0.005$ $+0.007$	29,05 $+0.003$ $+0.005$	8.05 ± 0.04
50 A+E	5	11	38 $+0.006$ $+0.009$	36,9 $+0.003$ $+0.006$	10.54 ± 0.04
50 F	4	9.5	30 $+0.005$ $+0.007$	29,05 $+0.003$ $+0.005$	/
63 A+E	6.3	14.7	48 $+0.007$ $+0.011$	46,53 $+0.003$ $+0.007$	12.54 ± 0.04
63 F	5	11	38 $+0.006$ $+0.009$	36,9 $+0.003$ $+0.006$	/
100 A	10	24	75 $+0.009$ $+0.015$	72,6 $+0.003$ $+0.009$	20.02 ± 0.04

RUNDLAUFGENAUIGKEIT DER SPANNZANGENAUFNAHME

Die DIN 69882-6 Norm schreibt eine Rundlaufgenauigkeit zwischen Aussenkegel und Innenkegel/Spanzangensitz für die DIN 6499-Spannzangenaufnahmen von 0,005 vor.

AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Pagnoni-Aufsteckfräsdorne entsprechen der DIN 69882-2 Norm, die für die \varnothing 16 / 22 / 27 / 32 eine Rundlaufgenauigkeit von 0,01 vorsieht.

WELDON AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Nach der DIN 69882-4 Norm muß der Weldon - Aufsteckfräsdorne die folgenden Forderungen aufweisen:

Bohrung: toleranz H5

Rundlaufgenauigkeit: 0.005

WUCHTUNG

Alle Steilkegelaufnahmen dieser Gruppe sind in Klasse G 6,3 auf 8.000 U/Min -1 vorgewuchtet oder bis auf 25.000 U/Min -1 gewuchtet.

KONSTRUKTIONS DATEN

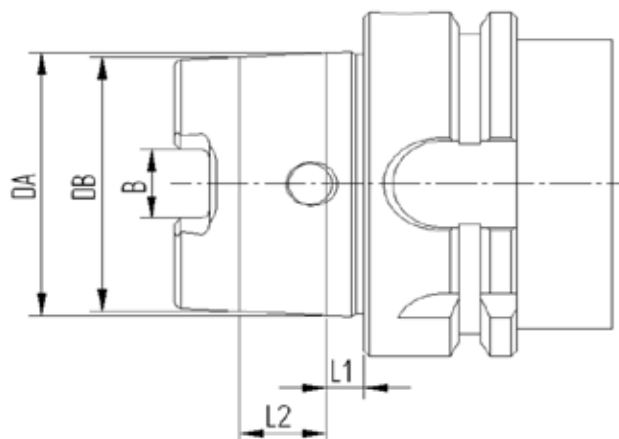
- aus Einastzstahl angefertigt
- in der Einsatztiefe von 0,4 - 0,5 mm.
- gehärtet, angelassen
- Härte HRC 58 ± 2 , Festigkeit 800-1000 N / mm².
- Brüniert
- inneres, äußeres Schleifen und am Gewinde der Spannzangenmutter.
- 100% durch zertifizierte Meßinstrumente geprüft.

WUCHTUNG MIT HOCHGESCHWINDIGKEIT

Auf Anfrage können wir die Werkzeughalter auf maximal G2,5 25.000 U/Min gegen Aufpreis auswuchten.

KONSTRUKTIONS DATEN

- aus Einastzstahl angefertigt
- in der Einsatztiefe von 0,4 - 0,5 mm.
- gehärtet, angelassen
- Härte HRC 58 ± 2 , Festigkeit 800-1000 N / mm².
- Brüniert
- inneres, äußeres Schleifen des Kegels.
- Schleifen der Vorderseite und am Gewinde der Spannzangenmutter.
- 100% durch zertifizierte Meßinstrumente geprüft und mit Wuchtungsprotokoll geliefert.





MANDRINS PAGNONI AVEC ATTACHEMENT HSK

DONNE TECHNIQUES

TOUS LES MANDRINS PORTE-OUTILS PAGNONI SONT FABRIQUÉS SELON LES NORMES DIN QUI PRÉVOIENT LES MÊMES CLASSES DE TOLÉRANCE POUR LES ATTACHEMENT DIN69893 A+E+F

TOLLERANCE DU CONE

HSK	L1	L2	D.A.	D.B.	B (only type A)
32 A	3.2	7.3	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005	7.05 ± 0.04
40 A+E	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	8.05 ± 0.04
50 A+E	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006	10.54 ± 0.04
50 F	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	/
63 A+E	6.3	14.7	48 + 0.007 + 0.011	46,53 + 0.003 + 0.007	12.54 ± 0.04
63 F	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006	/
100 A	10	24	75 + 0.009 + 0.015	72,6 + 0.003 + 0.009	20.02 ± 0.04

COAXIALITÉ PORTE-PINCE

La norme DIN 69882-6 permet une erreur de 0,005 mm. Maximum pour les porte-pinces DIN 6499.

COAXIALITÉ PORTE-FRAISES FIXES ET COMBINÉS

Les porte-fraises fixes et combinés de notre production suivent la spécification de la norme DIN69882-2 qui prévoit pour les diamètres Ø 16 / 22 / 27 / 32 une coaxialité de 0,01.

COAXIALITÉ PORTE-FRAISES WELDON

Suivant les spécifications DIN69882-4 les porte-fraises WELDON doivent suivre les conditions suivantes:

Trou: H5 runout
Coaxialité: 0.005

EQUILIBRAGE

La plupart des porte-outils sont pré-équilibrés en classe G 6,3 8.000 Tr/Min -1 ou équilibrés jusqu'à 25.000 Tr/Min -1.

ELEMENTS DE CONSTRUCTION

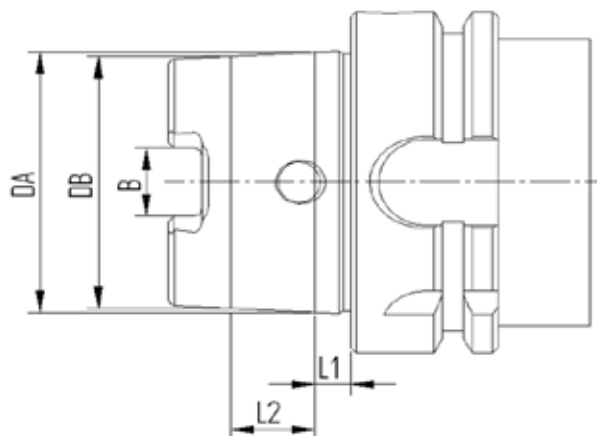
- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 - 0,5 mm.
- Trempé - Revenu.
- Dureté HRC 58 ± 2 résistance 800-1000 N / mm2.
- Brunis.
- Rectification du cône intérieur, extérieur et dans le filetage des écrous qui serrent la pince.
- Contrôlés à 100% avec des instruments de mesure certifiés.

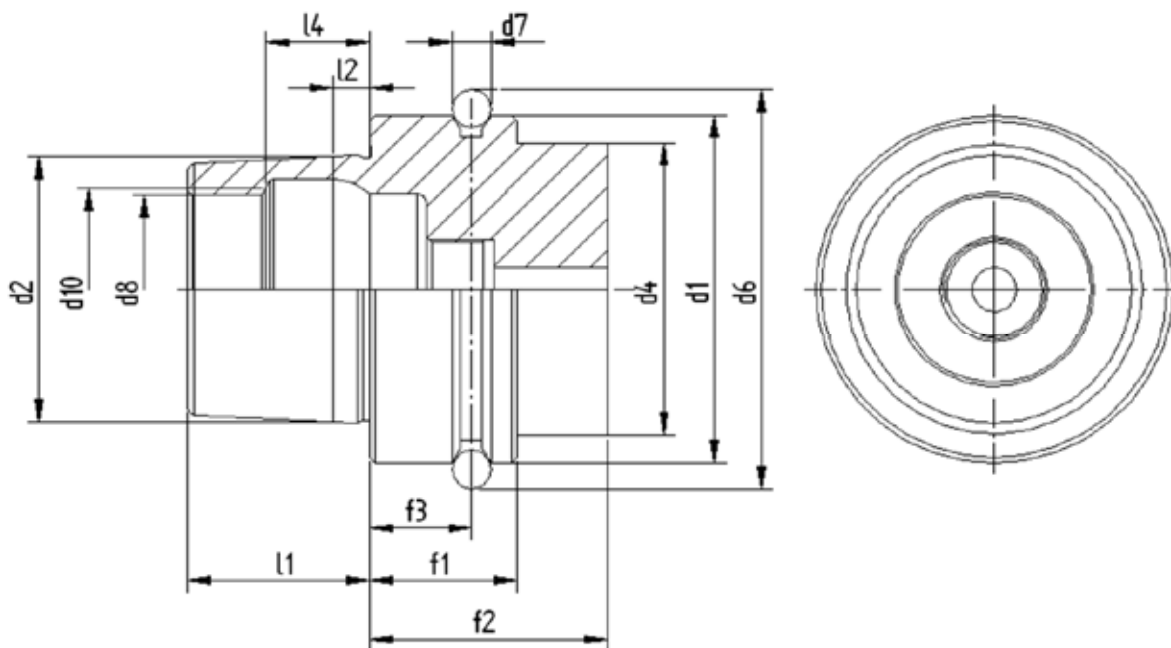
EQUILIBRAGE MANDRINS POUR HAUTE VITESSE

Équilibrage éventuels sur nos mandrins sont exécutés sur demande du client, avec une maximum classe de équilibrage de G2,5 à 25.000 rpm.

ELEMENTS DE CONSTRUCTION POUR MANDRINS HAUTE VITESSE

- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 - 0,5 mm.
- Trempé - Revenu.
- Dureté HRC 58 ± 2 résistance 800-1000 N / mm2.
- Brunis.
- Finition de rectification intérieure, extérieure et du cône.
- Rectification du cône intérieur et dans le filetage des écrous qui serrent la pince.
- Contrôlés à 100% avec des instruments de mesure certifiés et livrés avec un certificat d'équilibrage.





	HSK 50	HSK 63
d1	50	63
d2	38	48
d4	42	53
d6	59.3	72.3
d7	7	7
d8	26	34
d10	29	37
f1	26	26
f2	42	42
f3	18	18
l1	25	32
l2	5	6.3
l4	14.13	18.13

Forma E



- Usato su elettromandri e su macchine per il legno.
- Rotazione simmetrica senza chiavette di trascinamento.
- Coppia trasmessa solo per attrito tra le superfici.
- Adduzione refrigerante dal centro.

Form E



- Used for high frequency spindles and wood machining.
- Rotationally symmetrical, without key slots.
- Torque transmission via friction resistance.
- Central coolant supply possible through coolant tube.

Form E



- Anwendung für Hochfrequenzspindeln, Holzbearbeitungsmaschinen.
- Rotationssymmetrisch, ohne Mitnehmernuten.
- Drehmomentübertragung über Reibschluss.
- Zentrale Kühlmittelzufuhr über Kühlmittelrohr möglich

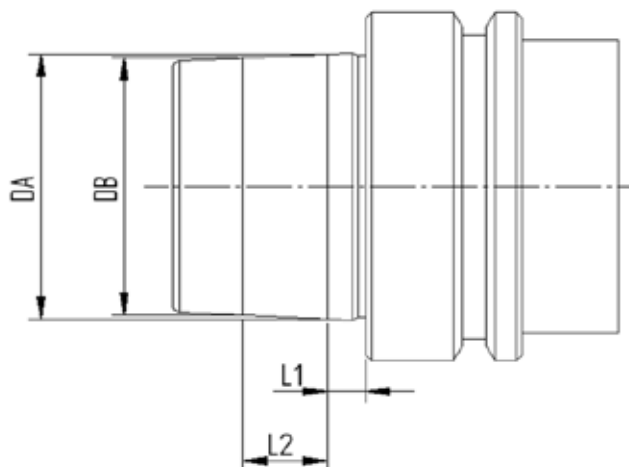
Forme E



- Utilisation pour des broches à hautes fréquences, les machines à usiner le bois.
- Symétrie de rotation, sans gorges d'entraînement.
- Transmission du couple par friction.
- Possibilité d'alimentation centrale du liquide de lubrification par tube d'arrosage.

MANDRINI PAGNONI CON ATTACCO HSK
DATI TECNICI


TUTTI I MANDRINI PORTAUTENSILI PAGNONI VENGONO PRODOTTI SECONDO LE NORMATIVE DIN
 QUESTE NORMATIVE PREVEDONO LE STESSA CLASSI DI TOLLERANZA PER GLI ATTACCHI DIN69893 A+E+F

TOLLERANZA DEL CONO


HSK	L1	L2	D.A.	D.B.
32 A	3.2	7.3	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
50 A+E	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
50 F	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6.3	14.7	48 + 0.007 + 0.011	46,53 + 0.003 + 0.007
63 F	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
100 A	10	24	75 + 0.009 + 0.015	72,6 + 0.003 + 0.009

COASSIALITA' PORTAPINZE

La norma DIN69882-6 ammette un'errore massimo di 0.005 mm. per i portapinze DIN6499.

COASSIALITA' PORTAFRESE FISSI E COMBINATI

I portafrese fissi e combinati rispondono ai criteri prescritti dalla norma DIN69882-2, la quale prevede per i Ø 16 / 22 / 27 / 32 una coassialità di 0,01.

COASSIALITA' PORTAFRESE WELDON

Secondo la normativa DIN 69882-4 il portafrese WELDON deve rispondere ai seguenti requisiti:

Foro: tolleranza H5

Coassialità: 0.005

EQUILIBRATURA

Tutti i nostri mandrini presenti in questa categoria sono prebilanciati in classe G 6,3 a 8000 rpm min-1 o bilanciati fino a 25.000 rpm min-1.

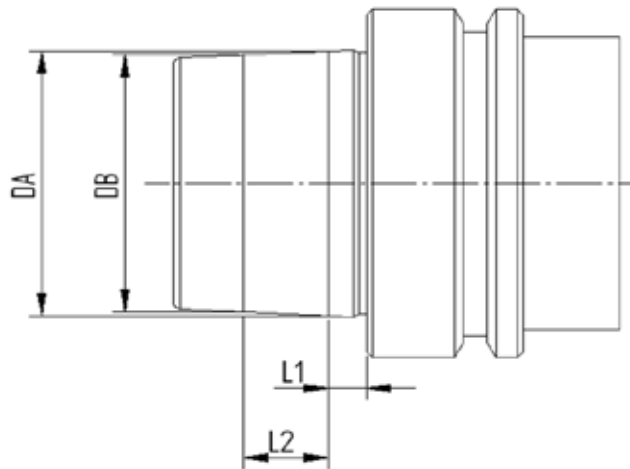
DATI COSTRUTTIVI

- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm2.
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiera chiudipinza.
- Collaudati 100% con strumenti di misura certificati.



ALL PAGNONI TOOLHOLDERS ARE MANUFACTURED ACCORDING TO DIN NORMS.

THESE NORMS PROVIDE THE SAME CLASSES OF TOLLERANCE FOR THE ATTACHMENT DIN69893 A+E+F

CONE'S TOLERANCE

HSK	L1	L2	D.A.	D.B.
32 A	3.2	7.3	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
50 A+E	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
50 F	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6.3	14.7	48 + 0.007 + 0.011	46,53 + 0.003 + 0.007
63 F	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
100 A	10	24	75 + 0.009 + 0.015	72,6 + 0.003 + 0.009

COLLET CHUCK'S RUNOUT ACCURACY

The norm DIN69882-6 permits a runout error of 0.005 mm. for DIN6499 collet chucks.

SHELL END MILL ADAPTOR'S RUNOUT ACCURACY

Our shell end mill adaptors meet the requirements of the norm DIN69882-2, which prescribes for diameters Ø 16 / 22 / 27 / 32 a runout accuracy of 0,01.

WELDON END MILL HOLDER'S RUNOUT ACCURACY

According to norm DIN 69882-4 WELDON end end mill holders have to meet the following requirements:

Bore: H5

Runout accuracy: 0.005

BALANCING

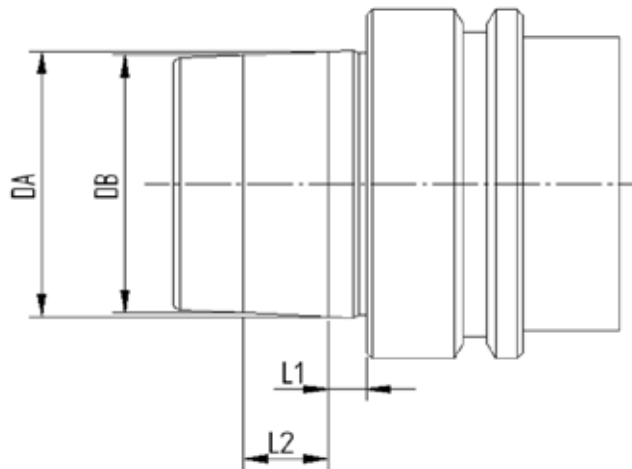
All our toolholders of this category are pre-balanced in grade G 6,3 at 8000 rpm or balanced until 25.000 rpm.

CONSTRUCTIVE FEATURES

- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxided.
- Thread of collet nuts, internal and external diameters are completely grinding finished
- Tested 100% with certified measuring instruments.



ALLE PAGNONI - STEILGEKELAUFNHMEN WERDEN NACH DEN DIN - NORMEN ANGEFERTIGT.
DIESE NORMEN SEHEN DIE GLEICHEN TOLERANZKLASSEN FÜR DIE DIN69893 A+E+F AUFNHMEN VOR.

KEGELSCHAFTTOLERANZ

HSK	L1	L2	D.A.		D.B.	
32 A	3.2	7.3	24	+ 0.005 + 0.007	23,27	+ 0.003 + 0.005
40 A+E	4	9.5	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
50 A+E	5	11	38	+ 0.006 + 0.009	36,9	+ 0.003 + 0.006
50 F	4	9.5	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
63 A+E	6.3	14.7	48	+ 0.007 + 0.011	46,53	+ 0.003 + 0.007
63 F	5	11	38	+ 0.006 + 0.009	36,9	+ 0.003 + 0.006
100 A	10	24	75	+ 0.009 + 0.015	72,6	+ 0.003 + 0.009

RUNDLAUFGENAUIGKEIT DER SPANNZANGENAUFNAHME

Die DIN 69882-6 Norm schreibt eine Rundlaufgenauigkeit zwischen Aussenkegel und Innenkegel/Spannzangensitz für die DIN 6499 Spannzangenaufnahmen von 0,005 vor.

AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Pagnoni-Aufsteckfräsdorne entsprechen der DIN 69882-2 Norm, die für die $\varnothing 16 / 22 / 27 / 32$ eine Rundlaufgenauigkeit vom 0,01 vorsieht.

WELDON AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Nach der DIN 69882-4 Norm muß der Weldon - Aufsteckfräsdorn die folgenden Forderungen aufweisen:

Bohrung: toleranz H5

Rundlaufgenauigkeit: 0.005

WUCHTUNG

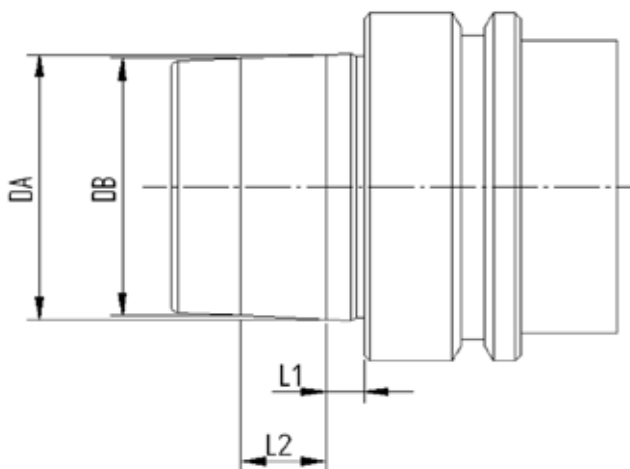
Alle Steilkegelaufnahmen dieser Gruppe sind in Klasse G 6,3 auf 8.000 U/Min -1 vorgewuchtet oder bis auf 25.000 U/Min -1 gewuchtet.

KONSTRUKTIONSDATEN

- aus Einastzstahl angefertigt
- in der Einsatziefe von 0,4 - 0,5 mm zementiert
- gehärtet, angelassen
- Härte HRC 58 \pm 2, Festigkeit 800-1000 N / mm².
- Brüniert
- inneres, äußeres Schleifen und am Gewinde der Spannzangenmutter
- 100% durch zertifizierte Meßinstrumente geprüft.



TOUS LES MANDRINS PORTE-OUTILS PAGNONI SONT FABRIQUÉS SELON LES NORMES DIN
 QUI PRÉVOIENT LES MÊMES CLASSES DE TOLÉRANCE POUR LES ATTACHEMENT DIN69893 A+E+F

TOLLERANCE DU CONE

HSK	L1	L2	D.A.	D.B.
32 A	3.2	7.3	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
50 A+E	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
50 F	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6.3	14.7	48 + 0.007 + 0.011	46,53 + 0.003 + 0.007
63 F	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
100 A	10	24	75 + 0.009 + 0.015	72,6 + 0.003 + 0.009

COAXIALITÉ PORTE-PINCE

La norme DIN 69882-6 permet une erreur de 0,005 mm. Maximum pour les porte-pinces DIN 6499.

COAXIALITÉ PORTE-FRAISES FIXES ET COMBINÉS

Les porte-fraises fixes et combinés de notre production suivent la spécification de la norme DIN69882-2 qui prévoit pour les diamètres 16 / 22 / 27 / 32 une coaxialité de 0,01.

COAXIALITÉ PORTE-FRAISES WELDON

Suivant les spécifications DIN69882-4 les porte-fraises WELDON doivent suivre les conditions suivantes:

Trou: H5

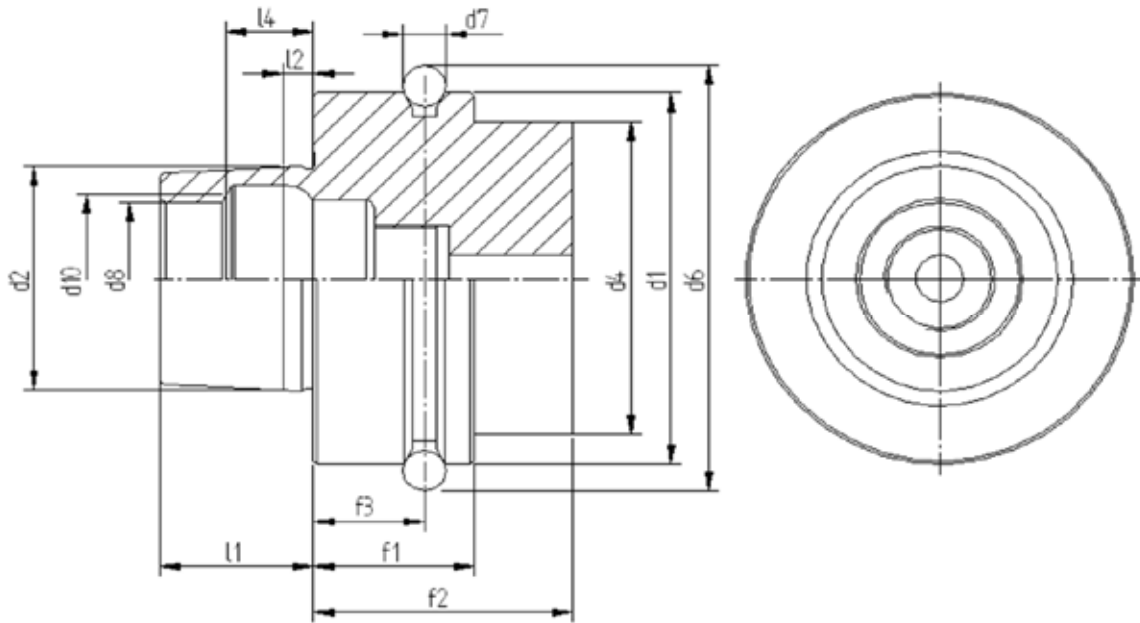
Coaxialité: 0.005

EQUILIBRAGE

La plupart des porte-outils sont pré-équilibrés en classe G 6,3 8.000 Tr/Min -1 ou équilibrés jusqu'à 25.000 Tr/Min -1.

ELEMENTS DE CONSTRUCTION

- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 - 0,5 mm.
- Trempé - Revenu.
- Dureté HRC 58 ± 2 résistance 800-1000 N / mm2.
- Brunis.
- Retification du cône intérieur, extérieur et dans le filetage des écrous qui serrent la pince.
- Contrôlés à 100% avec des instruments de mesure certifiés.



	HSK 50	HSK 63
d1	50	63
d2	30	38
d4	42	53
d6	59.3	72.3
d7	7	7
d8	21	26
d10	23	29
f1	26	26
f2	42	42
f3	18	18
l1	20	25
l2	4	5
l4	11.42	14.13

Forma F

- Usato su elettromandri e su macchine per il legno.
- Con flangia maggiorata.
- Adduzione refrigerante dal centro.

Form F

- Used for high frequency spindles and wood machining.
- With larger collar.
- Central coolant supply possible through coolant tube.

Form F

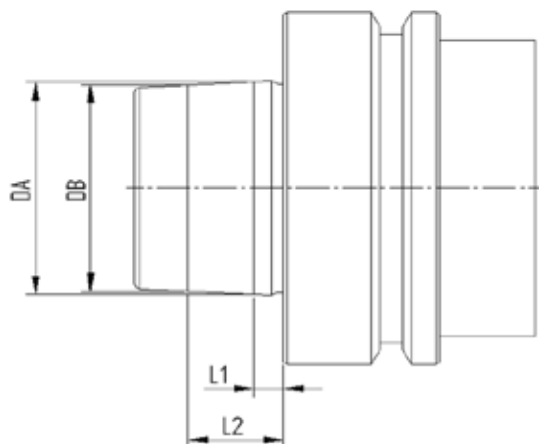
- Anwendung für Hochfrequenzspindeln, Holzbearbeitungsmaschinen.
- Mit vergrößertem Bund.
- Zentrale Kühlmittelzufuhr über Kühlmittelrohr möglich.

Forme F

- Utilisation pour des broches à hautes fréquences, les machines à usiner le bois.
- Avec épaulement agrandi.
- Possibilité d'alimentation centrale du liquide de lubrification par tube d'arrosage.



TUTTI I MANDRINI PORTAUTENSILI PAGNONI VENGONO PRODOTTI SECONDO LE NORMATIVE DIN
 QUESTE NORMATIVE PREVEDONO LE STESSE CLASSI DI TOLLERANZA PER GLI ATTACCHI DIN69893 A+E+F

TOLLERANZA DEL CONO


HSK	L1	L2	D.A.		D.B.	
32 A	3.2	7.3	24	+ 0.005 + 0.007	23,27	+ 0.003 + 0.005
40 A+E	4	9.5	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
50 A+E	5	11	38	+ 0.006 + 0.009	36,9	+ 0.003 + 0.006
50 F	4	9.5	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
63 A+E	6.3	14.7	48	+ 0.007 + 0.011	46,53	+ 0.003 + 0.007
63 F	5	11	38	+ 0.006 + 0.009	36,9	+ 0.003 + 0.006
100 A	10	24	75	+ 0.009 + 0.015	72,6	+ 0.003 + 0.009

COASSIALITA' PORTAPINZE

La norma DIN69882-6 ammette un'errore massimo di 0.005 mm. per i portapinze DIN6499.

COASSIALITA' PORTAFRESE FISSI E COMBINATI

I portafrese fissi e combinati rispondono ai criteri prescritti dalla norma DIN69882-2, la quale prevede per i Ø 16 / 22 / 27 / 32 una coassialità di 0,01.

COASSIALITA' PORTAFRESE WELDON

Secondo la normativa DIN 69882-4 il portafrese WELDON deve rispondere ai seguenti requisiti:

Foro: tolleranza H5

Coassialità: 0.005

EQUILIBRATURA

Tutti i nostri mandrini presenti in questa categoria sono prebilanciati in classe G 6,3 a 8000 rpm min-1 o bilanciati fino a 25.000 rpm min-1.

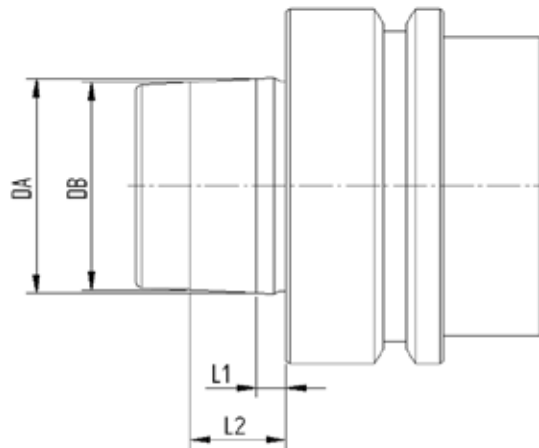
DATI COSTRUTTIVI

- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm².
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiera chiudipinza.
- Collaudati 100% con strumenti di misura certificati.



ALL PAGNONI TOOLHOLDERS ARE MANUFACTURED ACCORDING TO DIN NORMS.
THESE NORMS PROVIDE THE SAME CLASSES OF TOLLERANCE FOR THE ATTACHMENT DIN69893 A+E+F

CONE'S TOLERANCE



HSK	L1	L2	D.A.	D.B.
32 A	3.2	7.3	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
50 A+E	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
50 F	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6.3	14.7	48 + 0.007 + 0.011	46,53 + 0.003 + 0.007
63 F	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
100 A	10	24	75 + 0.009 + 0.015	72,6 + 0.003 + 0.009

COLLET CHUCK'S RUNOUT ACCURACY

The norm DIN69882-6 permits a runout error of 0.005 mm. for DIN6499 collet chucks.

SHELL END MILL ADAPTOR'S RUNOUT ACCURACY

Our shell end mill adaptors meet the requirements of the norm DIN69882-2, which prescribes for diameters Ø 16 / 22 / 27 / 32 a runout accuracy of 0,01.

WELDON END MILL HOLDER'S RUNOUT ACCURACY

According to norm DIN 69882-4 WELDON end end mill holders have to meet the following requirements:

Bore: H5

Runout accuracy: 0.005

BALANCING

All our toolholders of this category are pre-balanced in grade G 6,3 at 8000 rpm or balanced until 25.000 rpm.

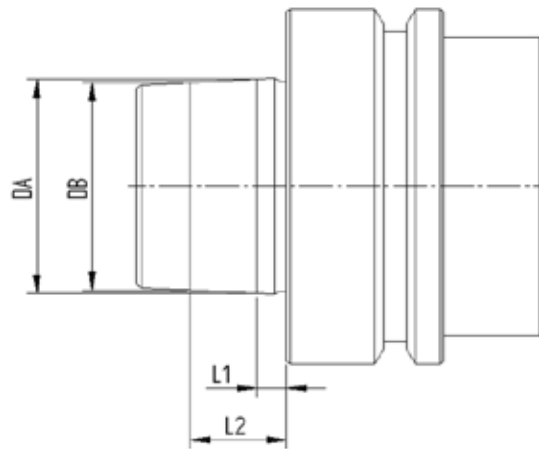
CONSTRUCTIVE FEATURES

- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxided.
- Thread of collet nuts, internal and external diameters are completely grinding finished
- Tested 100% with certified measuring instruments.



ALLE PAGNONI - STEILGEKELAUFNAMEN WERDEN NACH DEN DIN - NORMEN ANGEFERTIGT.
DIESE NORMEN SEHEN DIE GLEICHEN TOLERANZKLASSEN FÜR DIE DIN69893 A+E+F AUFNAMEN VOR.

KEGELSCHAFTTOLERANZ



HSK	L1	L2	D.A.	D.B.
32 A	3.2	7.3	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
50 A+E	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
50 F	4	9.5	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6.3	14.7	48 + 0.007 + 0.011	46,53 + 0.003 + 0.007
63 F	5	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006
100 A	10	24	75 + 0.009 + 0.015	72,6 + 0.003 + 0.009

RUNDLAUFGENAUIGKEIT DER SPANNZANGENAUFNAHME

Die DIN 69882-6 Norm schreibt eine Rundlaufgenauigkeit zwischen Aussenkegel und Innenkegel/Spannzangensitz für die DIN 6499 Spannzangenaufnahmen von 0,005 vor.

AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Pagnoni-Aufsteckfräsdorne entsprechen der DIN 69882-2 Norm, die für die $\varnothing 16 / 22 / 27 / 32$ eine Rundlaufgenauigkeit von 0,01 vorsieht.

WELDON AUFSTECKFRÄSDORNE - RUNDLAUFGENAUIGKEIT

Nach der DIN 69882-4 Norm muß der Weldon - Aufsteckfräsdorn die folgenden Forderungen aufweisen:

Bohrung: toleranz H5

Rundlaufgenauigkeit: 0.005

WUCHTUNG

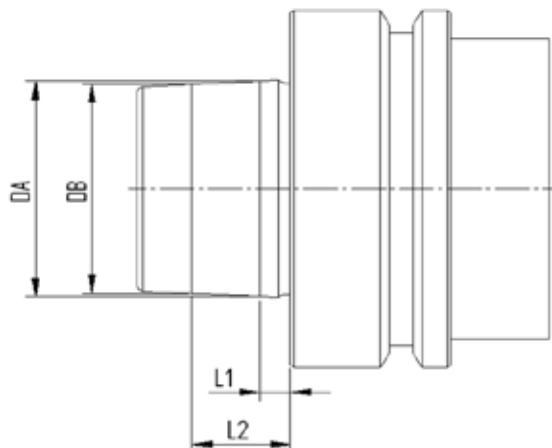
Alle Steilkegelaufnahmen dieser Gruppe sind in Klasse G 6,3 auf 8.000 U/Min -1 vorgewuchtet oder bis auf 25.000 U/Min -1 gewuchtet.

KONSTRUKTIONSDATEN

- aus legiertem Einastzstahl angefertigt
- in der Einsatzhärtetiefe von 0,4 - 0,5 mm zementiert
- gehärtet, angelassen
- Härte HRC 58 ± 2, Festigkeit 800-1000 N / mm².
- Brüniert
- inneres, äußeres Schleifen und am Gewinde der Spannzangenmutter
- 100% durch zertifizierte Meßinstrumente geprüft.



TOUS LES MANDRINS PORTE-OUTILS PAGNONI SONT FABRIQUÉS SELON LES NORMES DIN QUI PRÉVOIENT LES MÊMES CLASSES DE TOLÉRANCE POUR LES ATTACHEMENT DIN69893 A+E+F

TOLLERANCE DU CONE

HSK	L1	L2	D.A.		D.B.	
32 A	3.2	7.3	24	+ 0.005 + 0.007	23,27	+ 0.003 + 0.005
40 A+E	4	9.5	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
50 A+E	5	11	38	+ 0.006 + 0.009	36,9	+ 0.003 + 0.006
50 F	4	9.5	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
63 A+E	6.3	14.7	48	+ 0.007 + 0.011	46,53	+ 0.003 + 0.007
63 F	5	11	38	+ 0.006 + 0.009	36,9	+ 0.003 + 0.006
100 A	10	24	75	+ 0.009 + 0.015	72,6	+ 0.003 + 0.009

COAXIALITÉ PORTE-PINCE

La norme DIN 69882-6 permet une erreur de 0,005 mm. Maximum pour les porte-pinces DIN 6499.

COAXIALITÉ PORTE-FRAISES FIXES ET COMBINÉS

Les porte-fraises fixes et combinés de notre production suivent la spécification de la norme DIN69882-2 qui prévoit pour les diamètres 16 / 22 / 27 / 32 une coaxialité de 0,01.

COAXIALITÉ PORTE-FRAISES WELDON

Suivant les spécifications DIN69882-4 les porte-fraises WELDON doivent suivre les conditions suivantes:

Trou: H5 runout

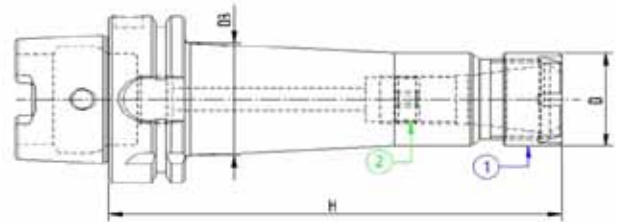
Coaxialité: 0.005

EQUILIBRAGE

La plupart des porte-outils sont pré-équilibrés en classe G 6,3 8.000 Tr/Min -1 ou équilibrés jusqu'à 25.000 Tr/Min -1.

ELEMENTS DE CONSTRUCTION

- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 - 0,5 mm.
- Trempé - Revenu.
- Dureté HRC 58 ± 2 résistance 800-1000 N / mm².
- Brunis.
- Retification du cône intérieur, extérieur et dans le filetage des écrous qui serrent la pince.
- Contrôlés à 100% avec des instruments de mesure certifiés.





STANDARD

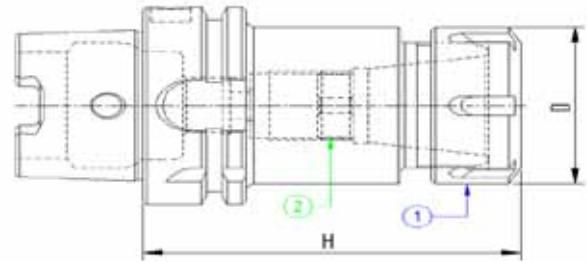
Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
65APM207	50/A	HSK50/A DIN69893 P/P H100 ER11MINI	11	16	100	20	●
65APM210	50/A	HSK50/A DIN69893 P/P H100 ER16MINI	16	22	100	26	●

L = 160

Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
65APM407	50/A	HSK50/A DIN69893 P/P H160 ER11MINI	11	16	160	25	●
65APM410	50/A	HSK50/A DIN69893 P/P H160 ER16MINI	16	22	160	28	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER MINI	Ghiera	Q.tà	Grano	Q.tà
				
	1		2	
11	911GHRMN	1	100601004	1
16	916GHRMN	1	101001601	1





STANDARD

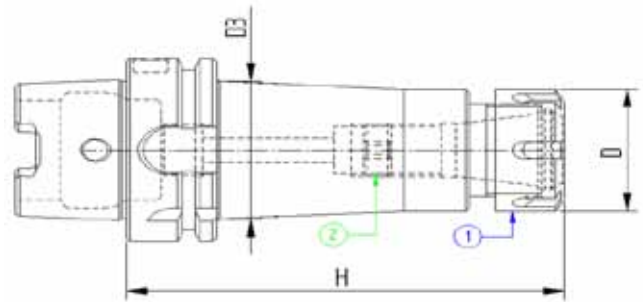
Codice	HSK	Descrizione	ER	D	H	G6.3 15000
65APP110	50/A	HSK50/A DIN69893 P/P H70 ER16	16	32	70	●
65APP113	50/A	HSK50/A DIN69893 P/P H70 ER20	20	35	70	●
65APP116	50/A	HSK50/A DIN69893 P/P H70 ER25	25	42	70	●
65APP120	50/A	HSK50/A DIN69893 P/P H70 ER32	32	50	70	●
65APP126	50/A	HSK50/A DIN69893 P/P H75 ER40	40	63	75	●

L = 100

Codice	HSK	Descrizione	ER	D	H	G6.3 15000
65APP210	50/A	HSK50/A DIN69893 P/P H100 ER16	16	32	100	●
65APP213	50/A	HSK50/A DIN69893 P/P H100 ER20	20	35	100	●
65APP216	50/A	HSK50/A DIN69893 P/P H100 ER25	25	42	100	●
65APP220	50/A	HSK50/A DIN69893 P/P H100 ER32	32	50	100	●
65APP226	50/A	HSK50/A DIN69893 P/P H100 ER40	40	63	100	●



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano	Q.tà
				
	1		2	
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1



Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
65APP410	50/A	HSK50/A DIN69893 P/P H160 ER16	16	32	160	-	●
65APP413	50/A	HSK50/A DIN69893 P/P H160 ER20	20	35	160	-	●
65APP416	50/A	HSK50/A DIN69893 P/P H160 ER25	25	42	160	-	●
65APP420	50/A	HSK50/A DIN69893 P/P H160 ER32	32	50	160	-	●
65APP426	50/A	HSK50/A DIN69893 P/P H160 ER40	40	63	160	-	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano	Q.tà
				
	1		2	
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1

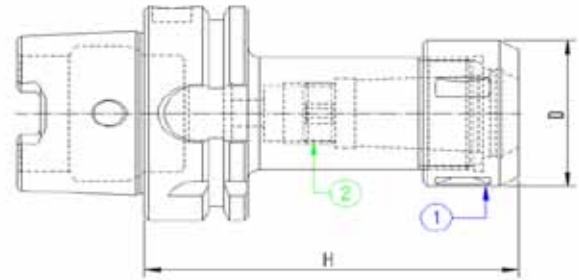


MANDRINI PORTAPINZA TIPO EOC
 EOC COLLET CHUCK
 MANDRINS A PINCES TYPE EOC
 SPANNZANGENFUTTER EOC TYP




DIN 69893

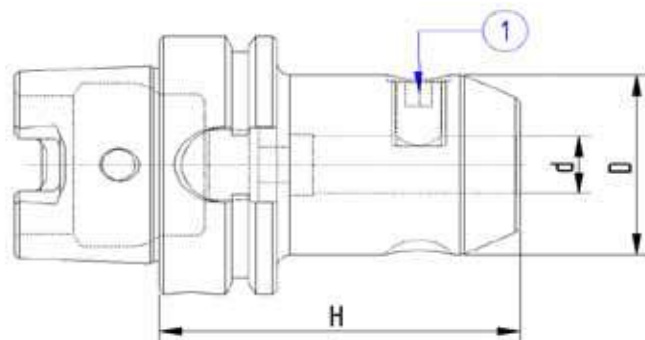
DIN 6388



Codice	HSK	Descrizione	EOC	D	H	G6.3 15000
65APO216	50/A	HSK50/A DIN69893 P/P H100 EOC16	16	43	100	●
65APO225	50/A	HSK50/A DIN69893 P/P H100 EOC25	25	60	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

EOC	Ghiera	Q.tà	Ghiera Interna	Q.tà
				
16	916GHROS	1	101815801	1
25	925GHROS	1	102215901	1



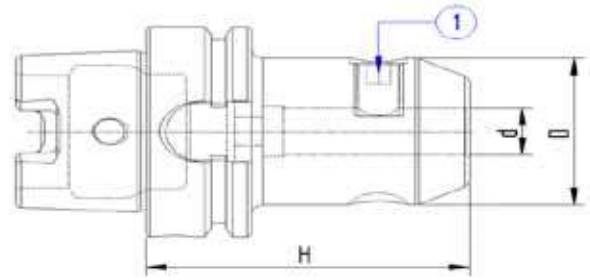
Codice	HSK	Descrizione	d	D	H	G6.3 15000
65AWLD06	50/A	HSK50/A DIN69893 WELDON H65 D.6	6	25	65	●
65AWLD08	50/A	HSK50/A DIN69893 WELDON H65 D.8	8	28	65	●
65AWLD10	50/A	HSK50/A DIN69893 WELDON H65 D.10	10	35	65	●
65AWLD12	50/A	HSK50/A DIN69893 WELDON H80 D.12	12	42	80	●
65AWLD14	50/A	HSK50/A DIN69893 WELDON H80 D.14	14	44	80	●
65AWLD16	50/A	HSK50/A DIN69893 WELDON H80 D.16	16	48	80	●
65AWLD18	50/A	HSK50/A DIN69893 WELDON H80 D.18	18	50	80	●
65AWLD20	50/A	HSK50/A DIN69893 WELDON H80 D.20	20	52	80	●
65AWLD25	50/A	HSK50/A DIN69893 WELDON H105 D.25	25	65	105	●
65AWLD32	50/A	HSK50/A DIN69893 WELDON H120 D.32	32	72	120	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2



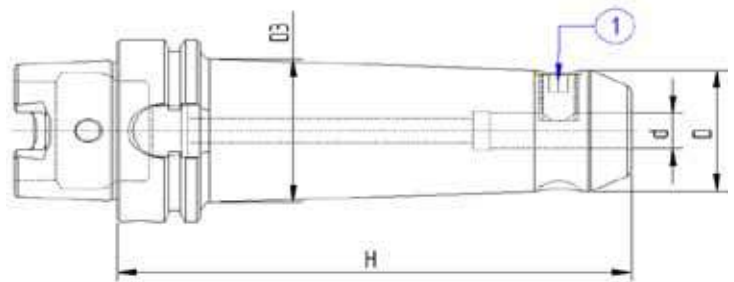
Codice	HSK	Descrizione	d	D	H	G6.3 15000
65AWE206	50/A	HSK50/A DIN69893 WELDON H100 D.6	6	25	100	●
65AWE208	50/A	HSK50/A DIN69893 WELDON H100 D.8	8	28	100	●
65AWE210	50/A	HSK50/A DIN69893 WELDON H100 D.10	10	35	100	●
65AWE212	50/A	HSK50/A DIN69893 WELDON H100 D.12	12	42	100	●
65AWE214	50/A	HSK50/A DIN69893 WELDON H100 D.14	14	44	100	●
65AWE216	50/A	HSK50/A DIN69893 WELDON H100 D.16	16	48	100	●
65AWE218	50/A	HSK50/A DIN69893 WELDON H100 D.18	18	50	100	●
65AWE220	50/A	HSK50/A DIN69893 WELDON H100 D.20	20	52	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1



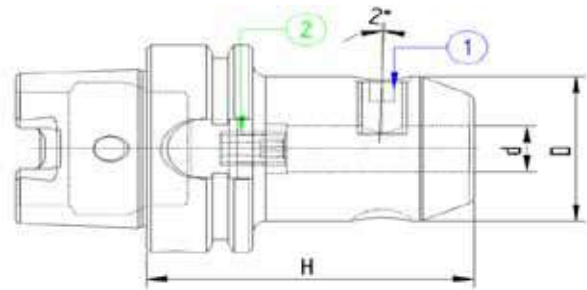
Codice	HSK	Descrizione	d	D	H	D3	G6.3 15000
65AWE406	50/A	HSK50/A DIN69893 WELDON H160 D.6	6	25	160	-	●
65AWE408	50/A	HSK50/A DIN69893 WELDON H160 D.8	8	28	160	-	●
65AWE410	50/A	HSK50/A DIN69893 WELDON H160 D.10	10	35	160	-	●
65AWE412	50/A	HSK50/A DIN69893 WELDON H160 D.12	12	42	160	-	●
65AWE414	50/A	HSK50/A DIN69893 WELDON H160 D.14	14	44	160	-	●
65AWE416	50/A	HSK50/A DIN69893 WELDON H160 D.16	16	48	160	-	●
65AWE418	50/A	HSK50/A DIN69893 WELDON H160 D.18	18	50	160	-	●
65AWE420	50/A	HSK50/A DIN69893 WELDON H160 D.20	20	52	160	-	●
65AWE425	50/A	HSK50/A DIN69893 WELDON H160 D.25	25	65	160	-	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
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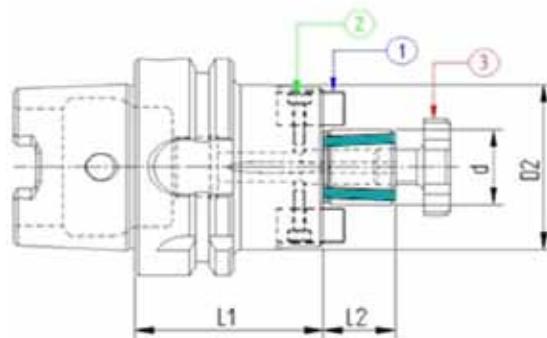
6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2



Codice	HSK	Descrizione	d	D	H	G6.3 15000
65AWHN06	50/A	HSK50/A DIN69893 W/NOTCH H80 D06	6	25	80	●
65AWHN08	50/A	HSK50/A DIN69893 W/NOTCH H80 D08	8	28	80	●
65AWHN10	50/A	HSK50/A DIN69893 W/NOTCH H80 D10	10	35	80	●
65AWHN12	50/A	HSK50/A DIN69893 W/NOTCH H90 D12	12	42	90	●
65AWHN14	50/A	HSK50/A DIN69893 W/NOTCH H90 D14	14	44	90	●
65AWHN16	50/A	HSK50/A DIN69893 W/NOTCH H90 D16	16	48	90	●
65AWHN18	50/A	HSK50/A DIN69893 W/NOTCH H90 D18	18	50	90	●
65AWHN20	50/A	HSK50/A DIN69893 W/NOTCH H100 D20	20	50	100	●
65AWHN25	50/A	HSK50/A DIN69893 W/NOTCH H110 D25	25	65	110	●
65AWHN32	50/A	HSK50/A DIN69893 W/NOTCH H120 D32	32	72	120	●




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

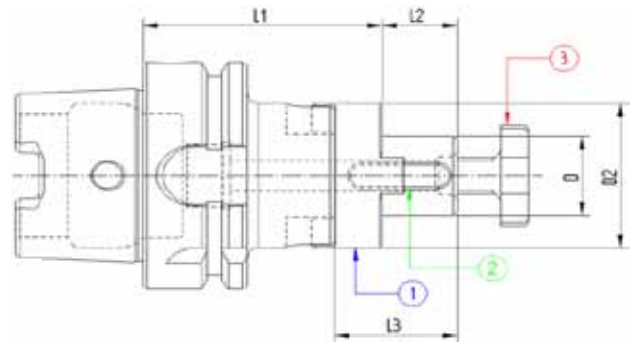
Ø WHN	Grano	Q.tà	Grano	Q.tà
				
	1		2	
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12 - 14	101201602	1	100801601	1
16 - 18	101401602	1	100801601	1
20	101601602	1	100801601	1
25	101802002	2	100801601	1
32	102002002	2	101603501	1



Codice	HSK	Descrizione	L1	L2	d	D2	G6.3 15000
65APF116	50/A	HSK50/A DIN69893 P/F FISSO H50 D16	50	17	16	38	●
65APF122	50/A	HSK50/A DIN69893 P/F FISSO H60 D22	60	19	22	48	●
65APF127	50/A	HSK50/A DIN69893 P/F FISSO H60 D27	60	21	27	58	●
65APF132	50/A	HSK50/A DIN69893 P/F FISSO H60 D32	60	24	32	66	●
65APF140	50/A	HSK50/A DIN69893 P/F FISSO H70 D40	70	27	40	80	●




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE


d / D2	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1



Codice	HSK	Descrizione	D	L1	L2	L3	D2
65APU116	50/A	HSK 50/A P/FRESA UNIV.H50 D.16	16	50	17	27	32
65APU122	50/A	HSK 50/A P/FRESA UNIV.H50 D.22	22	50	19	31	40
65APU127	50/A	HSK 50/A P/FRESA UNIV.H65 D.27	27	65	21	33	48
65APU132	50/A	HSK 50/A P/FRESA UNIV.H65 D.32	32	65	24	38	58
65APU140	50/A	HSK 50/A P/FRESA UNIV.H75 D.40	40	75	27	41	70

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

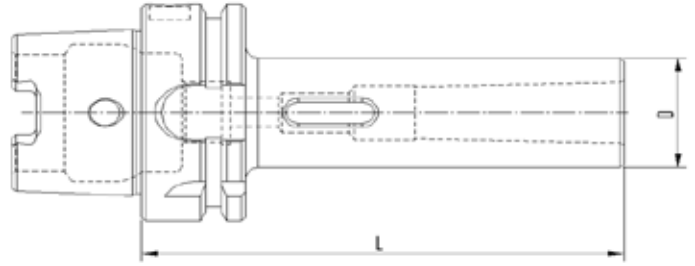
D	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1


MANDRINI ATTACCO CONO MORSE PER PUNTE
MORSE TAPER ADAPTORS FOR DRILLS
DOUILLES POUR CONE MORSE A TENON
ZWISCHENHULSEN FUER MORSEKEGEL MIT AUSTREIBLAPPEN




DIN 69893

DIN 228-2

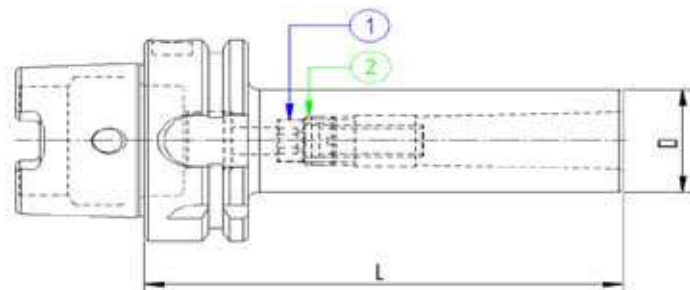


Codice	HSK	Descrizione	L	D
65AMP101	50/A	HSK50/A DIN69893 H100 CM1PUNTE	100	25
65AMP102	50/A	HSK50/A DIN69893 H120 CM2PUNTE	120	32
65AMP103	50/A	HSK50/A DIN69893 H140 CM3PUNTE	140	40


MANDRINI ATTACCO CONO MORSE PER FRESE
MORSE TAPER ADAPTER WITH THREAD
DOUILLES POUR CONE MORSE AVEC TARAUDAGE
ZWISCHENHULSEN FÜR MORSEKEGEL MIT ANZUGSGEWINDE





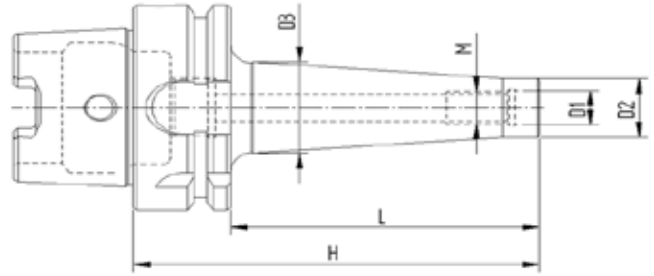
DIN 69893
DIN 228-2



Codice	HSK	Descrizione	L	D
65AMF101	50/A	HSK50/A DIN69893 H100 CM1FRESE	100	25
65AMF102	50/A	HSK50/A DIN69893 H120 CM2FRESE	120	32
65AMF103	50/A	HSK50/A DIN69893 H140 CM3FRESE	140	40

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

CM	Ghiera Interna	Q.tà	Vite	Q.tà
				
	2		1	
CM1	-	-	110604501	1
CM2	121500802	1	111003014	1
CM3	122000903	1	111204003	1



L = 59

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 25000
65AAF106	50/A	HSK50/A DIN69893 P/F AT.FIL.M6x59	6,5	9,7	10	59	33	M6	●
65AAF108	50/A	HSK50/A DIN69893 P/F AT.FIL.M8x59	8,5	13	15	59	33	M8	●
65AAF110	50/A	HSK50/A DIN69893 P/F AT.FIL.M10x59	10,5	18	20	59	33	M10	●
65AAF112	50/A	HSK50/A DIN69893 P/F AT.FIL.M12x59	12,5	21	24	59	33	M12	●

L = 84

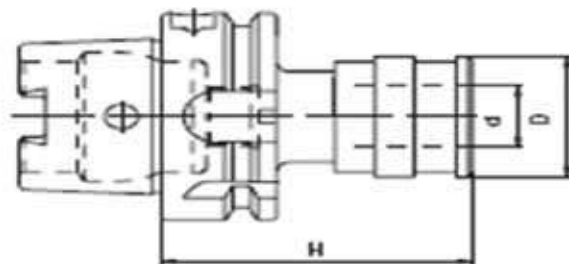
Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 25000
65AAF206	50/A	HSK50/A DIN69893 P/F AT.FIL.M6x84	6,5	9,7	20	84	58	M6	●
65AAF208	50/A	HSK50/A DIN69893 P/F AT.FIL.M8x84	8,5	13	23	84	58	M8	●
65AAF210	50/A	HSK50/A DIN69893 P/F AT.FIL.M10x84	10,5	18	25	84	58	M10	●
65AAF212	50/A	HSK50/A DIN69893 P/F AT.FIL.M12x84	12,5	21	24	84	58	M12	●

L = 109

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 25000
65AAF306	50/A	HSK50/A DIN69893 P/F AT.FIL.M6x109	6,5	9,7	23	109	83	M6	●
65AAF308	50/A	HSK50/A DIN69893 P/F AT.FIL.M8x109	8,5	13	23	109	83	M8	●
65AAF310	50/A	HSK50/A DIN69893 P/F AT.FIL.M10x109	10,5	18	28	109	83	M10	●
65AAF312	50/A	HSK50/A DIN69893 P/F AT.FIL.M12x109	12,5	21	31	109	83	M12	●

L = 134

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 25000
65AAF408	50/A	HSK50/A DIN69893 P/F AT.FIL.M8x134	8,5	13	25	134	108	M8	●
65AAF410	50/A	HSK50/A DIN69893 P/F AT.FIL.M10x134	10,5	18	30	134	108	M10	●
65AAF412	50/A	HSK50/A DIN69893 P/F AT.FIL.M12x134	12,5	21	31	134	108	M12	●



CON COMPENSAZIONE

Codice	HSK	Descrizione	D	d	H
65APCRM1	50/A	HSK50/A M/PORTAM/C/R H72 GR.1	38	19	72
65APCRM2	50/A	HSK50/A M/PORTAM/C/R H110 GR.2	54	31	110

SENZA COMPENSAZIONE

Codice	HSK	Descrizione	D	d	H
65APRRM1	50/A	HSK50/A M/PORTAM/C/R/R H72 GR.1	38	19	72
65APRRM2	50/A	HSK50/A M/PORTAM/C/R/R H110 GR.2	54	31	110

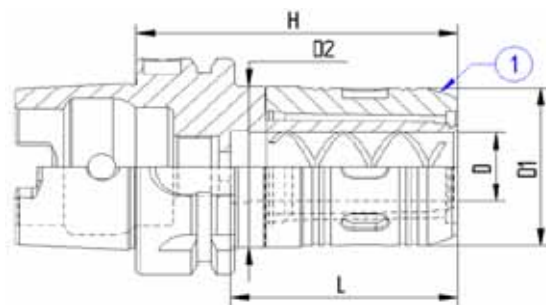
ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



RIF. PAGINA **312**



RIF. PAGINA **313**



Codice	HSK	Descrizione	H	D	D1	D2	L	G6.3 12000
65AFS120	50/A	HSK 50/A FORTE SERRAGGIO Ø20 H90	90	20	46	47	60	●
65AFS232	50/A	HSK 50/A FORTE SERRAGGIO Ø32 H110	110	32	62	63	80	●

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR

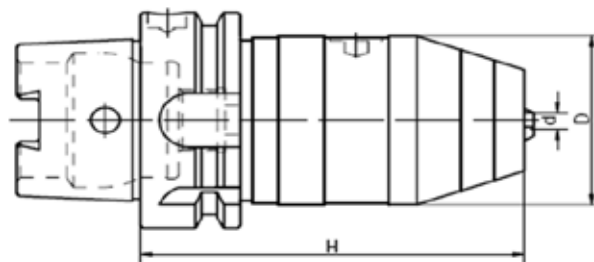


RIF. PAGINA **315**


MANDRINI INTEGRALI CON CHIAVE ESAGONALE
NC-DRILL WITH EXAGONAL KEY LOCK SYSTEM
MANDRINS MONOBLOC-SERRAGE PAR CLÉ 6 PANS
NC-KURZBOHRFUTTER FUER SPANNEN DURCH 6 KANTSCHLUSSEL



DIN 69893



Codice	HSK	Descrizione	H	D	Capacità
65AMAZ13	50/A	HSK50/A M/AUTOS./FORI H100 D13	100	50	1-13
65AMAZ16	50/A	HSK50/A M/AUTOS./FORI H105 D16	105	50	3-16


MANDRINI SEMILAVORATI A STELO TENERO
BLANK TOOLHOLDERS WITH SOFT SHANK
BARRE D'ALEPAGE SEMI-FINIES
ROHLINGE MIT WEICHEM SCHAFT

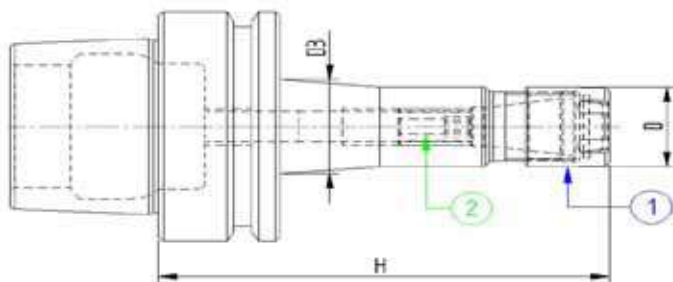


DIN 69893



Codice	HSK	Descrizione	L	D
65AST250	50/A	HSK50/A DIN69893 ST.TENERO D.50x200	200	50
65AST263	50/A	HSK50/A DIN69893 ST.TENERO D.63x200	200	63

HSK 50/E





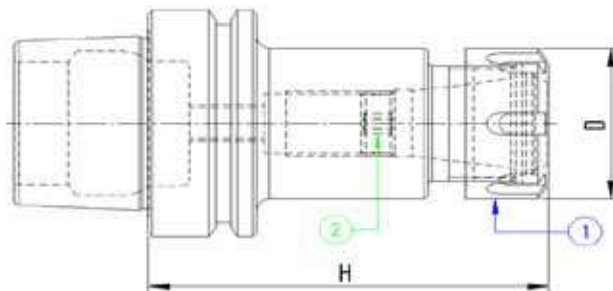
Codice	HSK	Descrizione	ER	D	H	D3	G2.5 20000
65EPM207	50/E	HSK50/E DIN69893 P/P H100 ER11MINI	11	16	100	20	●
65EPM210	50/E	HSK50/E DIN69893 P/P H100 ER16MINI	16	22	100	24	●

L = 160

Codice	HSK	Descrizione	ER	D	H	D3	G2.5 20000
65EPM407	50/E	HSK50/E DIN69893 P/P H160 ER11MINI	11	16	160	24	●
65EPM410	50/E	HSK50/E DIN69893 P/P H160 ER16MINI	16	22	160	30	●



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER MINI	Ghiera	Q.tà	Grano Interno	Q.tà
				
11	911GHRMN	1	100601001	1
16	916GHRMN	1	101001601	1



Codice	HSK	Descrizione	ER	D	H	G2.5 20000
65EPP210	50/E	HSK50/E DIN69893 P/P H=100 ER16	16	32	100	●
65EPP213	50/E	HSK50/E DIN69893 P/P H=100 ER20	20	35	100	●
65EPP216	50/E	HSK50/E DIN69893 P/P H=100 ER25	25	42	100	●
65EPP220	50/E	HSK50/E DIN69893 P/P H=100 ER32	32	50	100	●
65EPP226	50/E	HSK50/E DIN69893 P/P H=100 ER40	40	63	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Interno	Q.tà
				
	1		2	
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	103015901	1

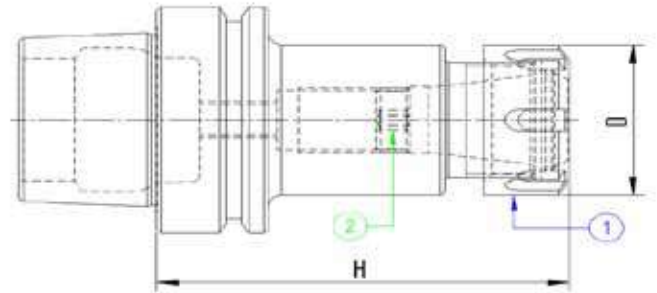


MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCK
MANDRINS A PINCES TYPE ER
SPANNZANGENFUTTER ER





DIN 69893

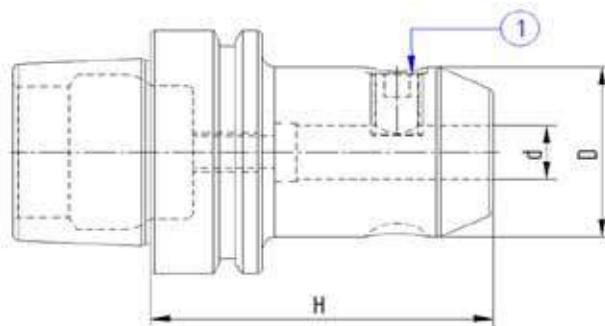
DIN 6499



Codice	HSK	Descrizione	ER	D	H	G2.5 20000
65EPP410	50/E	HSK50/E DIN69893 P/P H160 ER16	16	32	160	●
65EPP413	50/E	HSK50/E DIN69893 P/P H160 ER20	20	35	160	●
65EPP416	50/E	HSK50/E DIN69893 P/P H160 ER25	25	42	160	●
65EPP420	50/E	HSK50/E DIN69893 P/P H160 ER32	32	50	160	●
65EPP426	50/E	HSK50/E DIN69893 P/P H160 ER40	40	63	160	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Grano Interno	Q.tà	Ghiera	Q.tà
				
16	101001601	1	916GHREQ	1
20	101001601	1	920GHREQ	1
25	101815801	1	925GHREQ	1
32	102215901	1	932GHREQ	1
40	103015901	1	940GHREQ	1



Codice	HSK	Descrizione	d	D	H	G2.5 20000
65EWLD06	50/E	HSK50/E DIN69893 WELDON H65 D.06	6	25	65	●
65EWLD08	50/E	HSK50/E DIN69893 WELDON H65 D.08	8	28	65	●
65EWLD10	50/E	HSK50/E DIN69893 WELDON H65 D.10	10	35	65	●
65EWLD12	50/E	HSK50/E DIN69893 WELDON H80 D.12	12	42	80	●
65EWLD14	50/E	HSK50/E DIN69893 WELDON H80 D.14	14	44	80	●
65EWLD16	50/E	HSK50/E DIN69893 WELDON H80 D.16	16	48	80	●
65EWLD18	50/E	HSK50/E DIN69893 WELDON H80 D.18	18	50	80	●
65EWLD20	50/E	HSK50/E DIN69893 WELDON H80 D.20	20	52	80	●
65EWLD25	50/E	HSK50/E DIN69893 WELDON H105 D.25	25	65	105	●

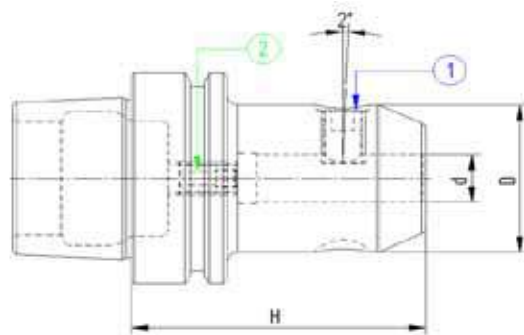
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
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1

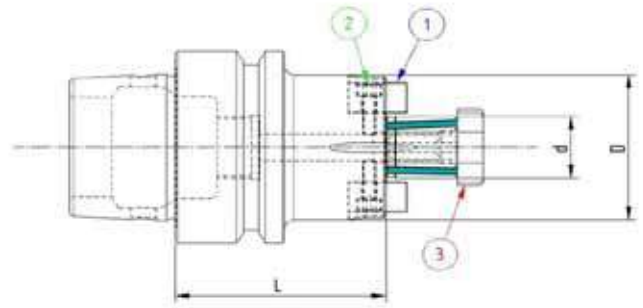
6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2



Codice	HSK	Descrizione	d	D	H	G2.5 20000
65EWHN06	50/E	HSK50/E DIN69893 W/NOTCH H80 D06	6	25	80	●
65EWHN08	50/E	HSK50/E DIN69893 W/NOTCH H80 D08	8	28	80	●
65EWHN10	50/E	HSK50/E DIN69893 W/NOTCH H80 D10	10	35	80	●
65EWHN12	50/E	HSK50/E DIN69893 W/NOTCH H90 D12	12	42	90	●
65EWHN14	50/E	HSK50/E DIN69893 W/NOTCH H90 D14	14	44	90	●
65EWHN16	50/E	HSK50/E DIN69893 W/NOTCH H100 D16	16	48	100	●
65EWHN18	50/E	HSK50/E DIN69893 W/NOTCH H100 D18	18	50	100	●
65EWHN20	50/E	HSK50/E DIN69893 W/NOTCH H100 D20	20	52	100	●
65EWHN25	50/E	HSK50/E DIN69893 W/NOTCH H110 D25	25	65	110	●
65EWHN32	50/E	HSK50/E DIN69893 W/NOTCH H120 D32	32	72	120	●




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE


Ø WHN	Grano	Q.tà	Vite	Q.tà
				
				
6	100601004	1	100501601	1
8	100801004	1	100601601	1
10	101001204	1	100801601	1
12 - 14	101201604	1	101002501	1
16 - 18	101401604	1	101002501	1
20	101601604	1	101002501	1
25	101802002	2	101002501	1
32	102002002	2	101002501	1



Codice	HSK	Descrizione	L	d	D	G2.5 20000
65EPF116	50/E	HSK50/E DIN69893 P/F FISSO H50 D16	50	16	38	●
65EPF122	50/E	HSK50/E DIN69893 P/F FISSO H60 D22	60	22	48	●
65EPF127	50/E	HSK50/E DIN69893 P/F FISSO H60 D27	60	27	58	●
65EPF132	50/E	HSK50/E DIN69893 P/F FISSO H60 D32	60	32	66	●
65EPF140	50/E	HSK50/E DIN69893 P/F FISSO H70 D40	70	40	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

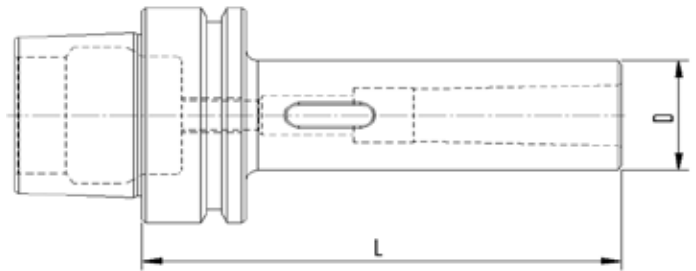
Ø	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16	916TSL01	2	110301001	2	916VTC02	1
22	922TSL01	2	110301201	2	922VTC02	1
27	927TSL01	2	110401601	2	927VTC02	1
32	932TSL01	2	110601601	2	932VTC02	1
40	940TSL01	2	110601601	2	940VTC02	1


MANDRINI ATTACCO CONO MORSE PER PUNTE
MORSE TAPER ADAPTORS FOR DRILL
DOUILLES POUR CONE MORSE A TENON
ZWISCHENHUELSEN FUER MORSEKEGEL MIT AUSTREIBLAPPEN




DIN 69893

DIN 228-2

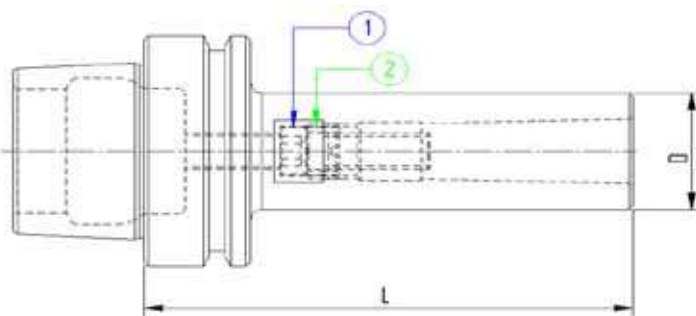


Codice	HSK	Descrizione	L	D
65EMP101	50/E	HSK50/E DIN69893 H100 CM1PUNTE	100	25
65EMP102	50/E	HSK50/E DIN69893 H120 CM2PUNTE	120	32
65EMP103	50/E	HSK50/E DIN69893 H140 CM3PUNTE	140	40
65EMP104	50/E	HSK50/E DIN69893 H160 CM4PUNTE	160	48


MANDRINI ATTACCO CONO MORSE PER FRESE
MORSE TAPER ADAPTER WITH THREAD
DOUILLES POUR CONE MORSE AVEC TARAUDAGE
ZWISCHENHUELSEN FUER MORSEKEGEL MIT ANZUGSGEWINDE





DIN 69893
DIN 228-2 C



Codice	HSK	Descrizione	L	D
65EMF101	50/E	HSK50/E DIN69893 H105 CM1FRESE	105	25
65EMF102	50/E	HSK50/E DIN69893 H120 CM2FRESE	120	32
65EMF103	50/E	HSK50/E DIN69893 H140 CM3FRESE	140	40

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

CM	Ghiera Interna	Q.tà	Vite	Q.tà
				
1			2	
CM1	121206502	1	110603501	1
CM2	121500802	1	111003014	1
CM3	122000903	1	111204003	1


MANDRINI SEMILAVORATI A STELO TENERO
 BLANK TOOLHOLDERS WITH SOFT SHANK
 BARRES D'ALEPAGE SEMI-FINIES
 ROHLINGE MIT WEICHEM SCHAFT

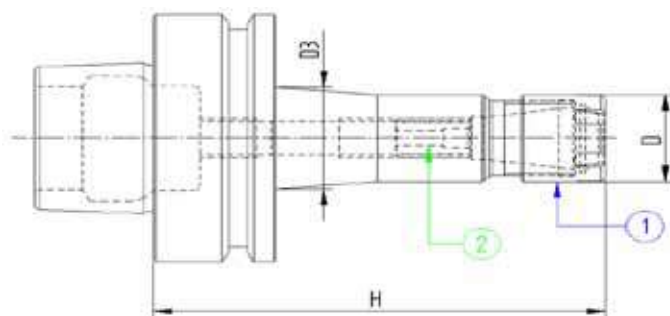


DIN 69893



Codice	HSK	Descrizione	L	D
65EST250	50/E	HSK50/E DIN69893 ST.TENERO D.50x200	200	50
65EST263	50/E	HSK50/E DIN69893 ST.TENERO D.63x200	200	63

HSK 50/F





Codice	HSK	Descrizione	ER	D	H	D3	G2.5 20000
65FPM207	50/F	HSK50/F DIN69893 P/P H100 ER11MINI	11	16	100	20	●
65FPM210	50/F	HSK50/F DIN69893 P/P H100 ER16MINI	16	22	100	24	●

L = 160

Codice	HSK	Descrizione	ER	D	H	D3	G2.5 20000
65FPM407	50/F	HSK50/F DIN69893 P/P H160 ER11MINI	11	16	160	20	●
65FPM410	50/F	HSK50/F DIN69893 P/P H160 ER16MINI	16	22	160	35	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER MINI	Ghiera	Q.tà	Grano	Q.tà
				
11	911GHRMN	1	100601004	1
16	916GHRMN	1	101001601	1

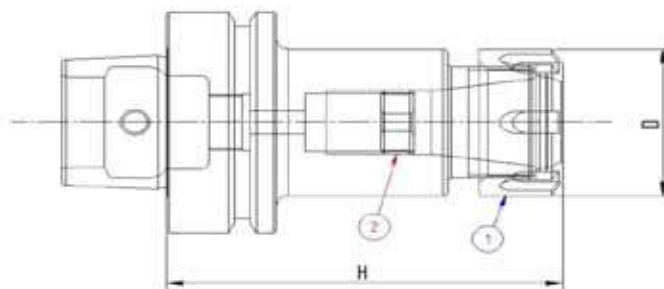


MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCKS
MANDRINS A PINCES TYPE ER
SPANNZANGENFUTTER ER TYP



DIN 69893

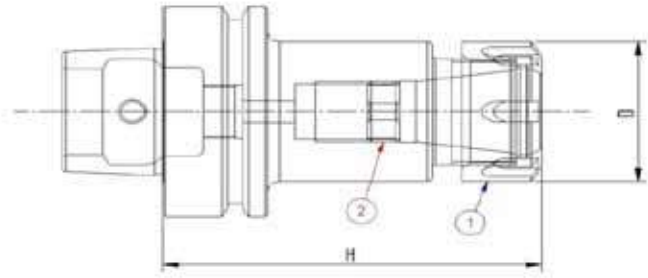
DIN 6499



Codice	HSK	Descrizione	ER	D	H	G2.5 20000
65FPP210	50/F	HSK50/F DIN69893 P/PINZA H.100 ER16	16	32	100	●
65FPP213	50/F	HSK50/F DIN69893 P/PINZA H.100 ER20	20	35	100	●
65FPP216	50/F	HSK50/F DIN69893 P/PINZA H.100 ER25	25	42	100	●
65FPP220	50/F	HSK50/F DIN69893 P/PINZA H.100 ER32	32	50	100	●
65FPP226	50/F	HSK50/F DIN69893 P/PINZA H.100 ER40	40	63	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

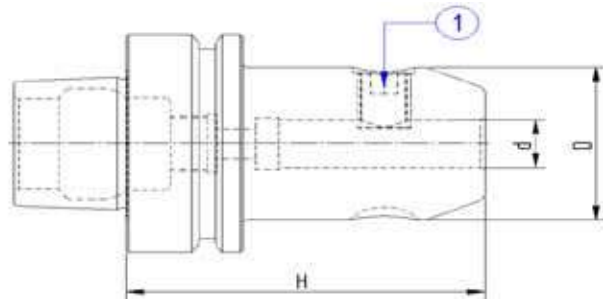
ER	Grano Interno	Q.tà	Ghiera	Q.tà
		2		1
16	101001601	1	916GHREQ	1
20	101001601	1	920GHREQ	1
25	101815801	1	925GHREQ	1
32	102215901	1	932GHREQ	1
40	102215901	1	940GHREQ	1



Codice	HSK	Descrizione	ER	D	L	G2.5 20000
65FPP410	50/F	HSK50/F DIN69893 P/PINZA H.160 ER16	16	32	160	●
65FPP413	50/F	HSK50/F DIN69893 P/PINZA H.160 ER20	20	35	160	●
65FPP416	50/F	HSK50/F DIN69893 P/PINZA H.160 ER25	25	42	160	●
65FPP420	50/F	HSK50/F DIN69893 P/PINZA H.160 ER32	32	50	160	●
65FPP426	50/F	HSK50/F DIN69893 P/PINZA H.160 ER40	40	63	160	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Grano Interno	Q.tà	Ghiera	Q.tà
		2		1
				1
16	101001601	1	916GHREQ	1
20	101001601	1	920GHREQ	1
25	101815801	1	925GHREQ	1
32	102215901	1	932GHREQ	1
40	102215901	1	940GHREQ	1



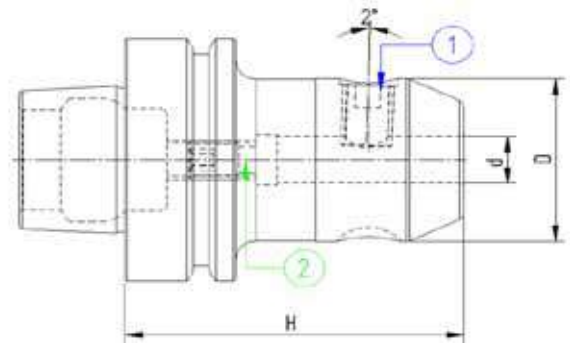
Codice	HSK	Descrizione	d	D	H	G2.5 20000
65FWLD06	50/F	HSK50/F DIN69893 WELDON H.65 D.06	6	25	65	●
65FWLD08	50/F	HSK50/F DIN69893 WELDON H.65 D.08	8	28	65	●
65FWLD10	50/F	HSK50/F DIN69893 WELDON H.65 D.10	10	35	70	●
65FWLD12	50/F	HSK50/F DIN69893 WELDON H.80 D.12	12	42	80	●
65FWLD14	50/F	HSK50/F DIN69893 WELDON H.80 D.14	14	44	80	●
65FWLD16	50/F	HSK50/F DIN69893 WELDON H.80 D.16	16	48	80	●
65FWLD18	50/F	HSK50/F DIN69893 WELDON H.80 D.18	18	50	80	●
65FWLD20	50/F	HSK50/F DIN69893 WELDON H.80 D.20	20	52	80	●
65FWLD25	50/F	HSK50/F DIN69893 WELDON H.105 D.25	25	65	105	●

COMPONENTI - SPARE PARTS - PIÈCES DETACHÉES - ERSATZTEILE

Ø WLD	Grano	Q.tà
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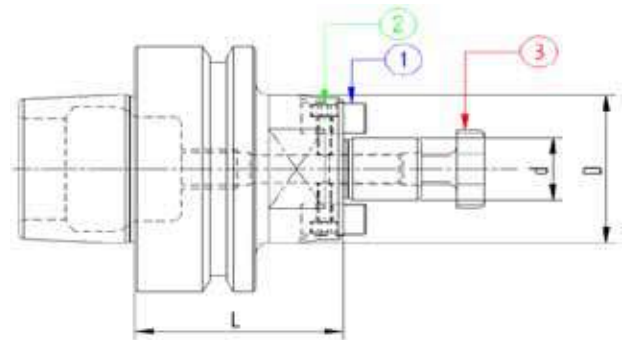
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8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2



Codice	HSK	Descrizione	d	D	H	G2.5 20000
65FWHN06	50/F	HSK50/F DIN69893 W/NOTCH H80 D06	6	25	80	●
65FWHN08	50/F	HSK50/F DIN69893 W/NOTCH H80 D08	8	28	80	●
65FWHN10	50/F	HSK50/F DIN69893 W/NOTCH H80 D10	10	35	80	●
65FWHN12	50/F	HSK50/F DIN69893 W/NOTCH H90 D12	12	42	90	●
65FWHN14	50/F	HSK50/F DIN69893 W/NOTCH H90 D14	14	44	90	●
65FWHN16	50/F	HSK50/F DIN69893 W/NOTCH H100 D16	16	48	100	●
65FWHN18	50/F	HSK50/F DIN69893 W/NOTCH H100 D18	18	50	100	●
65FWHN20	50/F	HSK50/F DIN69893 W/NOTCH H100 D20	20	52	100	●
65FWHN25	50/F	HSK50/F DIN69893 W/NOTCH H110 D25	25	65	110	●
65FWHN32	50/F	HSK50/F DIN69893 W/NOTCH H120 D32	32	72	120	●




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE


Ø WHN	Grano	Q.tà	Grano	Q.tà
				
	1		2	
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100601601	1
12 - 14	101201602	1	101002501	1
16 - 18	101401602	1	101002501	1
20	101601602	1	101002501	1
25	101802002	2	102002001	1
32	102002002	2	102002001	1



Codice	HSK	Descrizione	L	d	D	G2.5 20000
65FPF116	50/F	HSK50/F DIN69893 P/F FISSO H50 D16	50	16	38	●
65FPF122	50/F	HSK50/F DIN69893 P/F FISSO H50 D22	50	22	48	●
65FPF127	50/F	HSK50/F DIN69893 P/F FISSO H60 D27	60	27	58	●
65FPF132	50/F	HSK50/F DIN69893 P/F FISSO H60 D32	60	32	66	●
65FPF140	50/F	HSK50/F DIN69893 P/F FISSO H70 D40	70	40	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

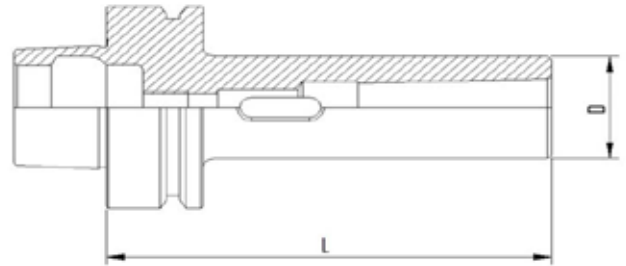
d / D	Tassello	Q.tà	Vite Tassello	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1


MANDRINI ATTACCO CONO MORSE PER PUNTE
MORSE TAPER ADAPTORS FOR DRILL
DOUILLES POUR CONE MORSE A TENON
ZWISCHENHULSEN FUER MORSEKEGEL MIT AUSTREIBLAPPEN

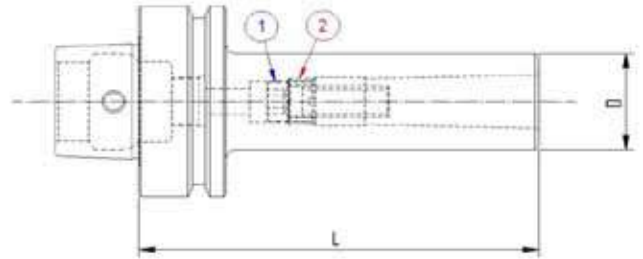


DIN 69893

DIN 228-2





Codice	HSK	Descrizione	L	D
65FMP101	50/F	HSK50/F DIN69893 H100 CM1PUNTE	100	25
65FMP102	50/F	HSK50/F DIN69893 H120 CM2PUNTE	120	32
65FMP103	50/F	HSK50/F DIN69893 H140 CM3PUNTE	140	40
65FMP104	50/F	HSK50/F DIN69893 H160 CM4PUNTE	160	48



Codice	HSK	Descrizione	L	D
65FMF101	50/F	HSK50/F DIN69893 H100 CM1FRESE	100	25
65FMF102	50/F	HSK50/F DIN69893 H120 CM2FRESE	120	32
65FMF103	50/F	HSK50/F DIN69893 H140 CM3FRESE	140	40

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

CM	Ghiera Interna	Q.tà	Vite	Q.tà
				
	1		2	
CM1	111206502	1	110603501	1
CM2	121500802	1	111003014	1
CM3	122000903	1	111204003	1



Codice	HSK	Descrizione	L	D
65FST250	50/F	HSK50/F DIN69893 ST.TENERO D.50x200	200	50
65FST263	50/F	HSK50/F DIN69893 ST.TENERO D.63x200	200	63

HSK 63/A

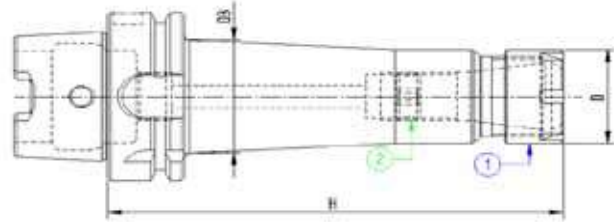


MANDRINI PORTAPINZA TIPO ER MINI
ER MINI COLLET CHUCK
MANDRINS A PINCES TYPE ER MINI
SPANNZANGENFUTTER ER MINI





DIN 69893

DIN 6499



Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
66APM107	63/A	HSK63/A DIN69893 P/P H80 ER11MINI	11	16	80	-	●
66APM207	63/A	HSK63/A DIN69893 P/P H100 ER11MINI	11	16	100	20	●
66APM210	63/A	HSK63/A DIN69893 P/P H100 ER16MINI	16	22	100	25	●
66APM213	63/A	HSK63/A DIN69893 P/P H100 ER20MINI	20	28	100	31	●
66APM216	63/A	HSK63/A DIN69893 P/P H100 ER25MINI	25	35	100	38	●
66APM407	63/A	HSK63/A DIN69893 P/P H160 ER11MINI	11	16	160	23	●
66APM410	63/A	HSK63/A DIN69893 P/P H160 ER16MINI	16	22	160	28	●
66APM413	63/A	HSK63/A DIN69893 P/P H160 ER20MINI	20	28	160	35	●
66APM416	63/A	HSK63/A DIN69893 P/P H160 ER25MINI	25	35	160	42	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Ghiera Interna	Q.tà
				
11	911GHRMN	1	100601004	1
16	916GHRMN	1	101001601	1
20	920GHRMN	1	101001601	1
25	925GHRMN	1	101815801	1

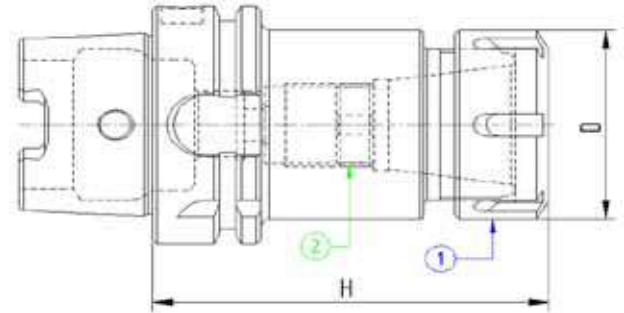


MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCK
MANDRINS A PINCES TYPE ER
SPANNZANGENFUTTER ER





DIN 69893

DIN 6499



Codice	HSK	Descrizione	ER	D	H	G6.3 15000
66APP110	63/A	HSK63/A DIN69893 P/P H75 ER16	16	32	75	●
66APP113	63/A	HSK63/A DIN69893 P/P H75 ER20	20	35	75	●
66APP116	63/A	HSK63/A DIN69893 P/P H75 ER25	25	42	75	●
66APP120	63/A	HSK63/A DIN69893 P/P H75 ER32	32	50	75	●
66APP126	63/A	HSK63/A DIN69893 P/P H80 ER40	40	63	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Ghiera Interna	Q.tà
				
	1		2	
16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	-	-
40	940GHREQ	1	-	-

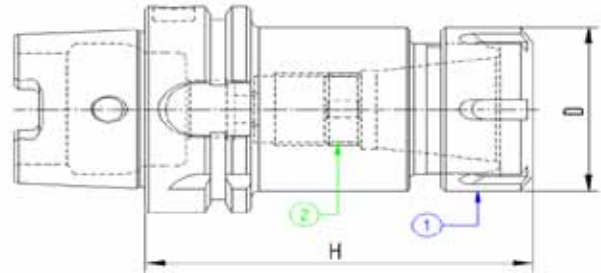


MANDRINI PORTAPINZA TIPO ER
ER COLLET CHUCK
MANDRINS A PINCES TYPE ER
SPANNZANGENFUTTER ER



DIN 69893

DIN 6499



L=100

Codice	HSK	Descrizione	ER	D	H	G6.3 15000
66APP210	63/A	HSK63/A DIN69893 P/P H100 ER16	16	32	100	●
66APP213	63/A	HSK63/A DIN69893 P/P H100 ER20	20	35	100	●
66APP216	63/A	HSK63/A DIN69893 P/P H100 ER25	25	42	100	●
66APP220	63/A	HSK63/A DIN69893 P/P H100 ER32	32	50	100	●
66APP226	63/A	HSK63/A DIN69893 P/P H100 ER40	40	63	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Ghiera Interna	Q.tà
----	--------	------	----------------	------

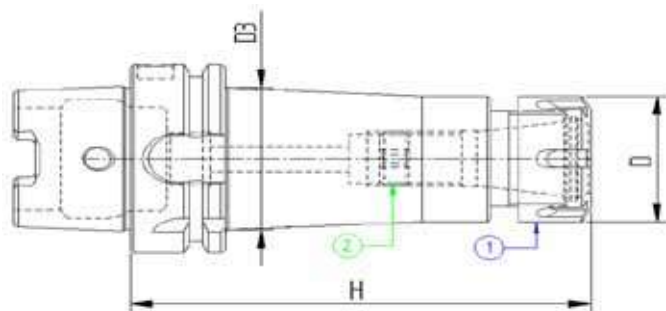
1



2



16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	102215901	1



L=120

Codice	HSK	Descrizione	ER	D	D3	H	G6.3 15000
66APP310	63/A	HSK63/A DIN69893 P/P H120 ER16	16	32	-	120	●
66APP313	63/A	HSK63/A DIN69893 P/P H120 ER20	20	35	-	120	●
66APP316	63/A	HSK63/A DIN69893 P/P H120 ER25	25	42	-	120	●
66APP320	63/A	HSK63/A DIN69893 P/P H120 ER32	32	50	-	120	●
66APP326	63/A	HSK63/A DIN69893 P/P H120 ER40	40	63	50	120	●

L=160

Codice	HSK	Descrizione	ER	D	D3	H	G6.3 15000
66APP410	63/A	HSK63/A DIN69893 P/P H160 ER16	16	32	38	160	●
66APP413	63/A	HSK63/A DIN69893 P/P H160 ER20	20	35	42	160	●
66APP416	63/A	HSK63/A DIN69893 P/P H160 ER25	25	42	48	160	●
66APP420	63/A	HSK63/A DIN69893 P/P H160 ER32	32	50	50	160	●
66APP426	63/A	HSK63/A DIN69893 P/P H160 ER40	40	63	50	160	●

L=200

Codice	HSK	Descrizione	ER	D	D3	H	G6.3 15000
66APP510	63/A	HSK63/A DIN69893 P/P H200 ER16	16	32	40	200	●
66APP513	63/A	HSK63/A DIN69893 P/P H200 ER20	20	35	44	200	●
66APP516	63/A	HSK63/A DIN69893 P/P H200 ER25	25	42	50	200	●
66APP520	63/A	HSK63/A DIN69893 P/P H200 ER32	32	50	50	200	●
66APP526	63/A	HSK63/A DIN69893 P/P H200 ER40	40	63	50	200	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER Ghiera Q.tà Ghiera Interna Q.tà



16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	102215901	1



FIG. 1

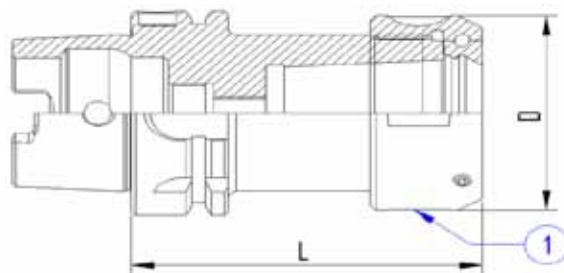
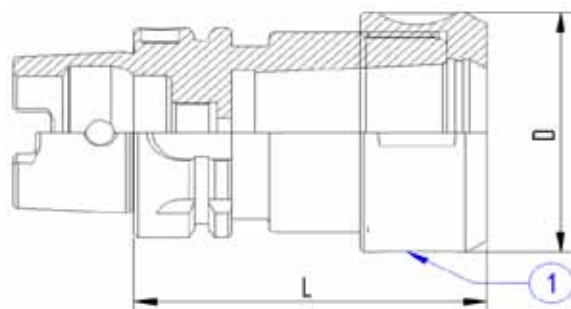


FIG. 2



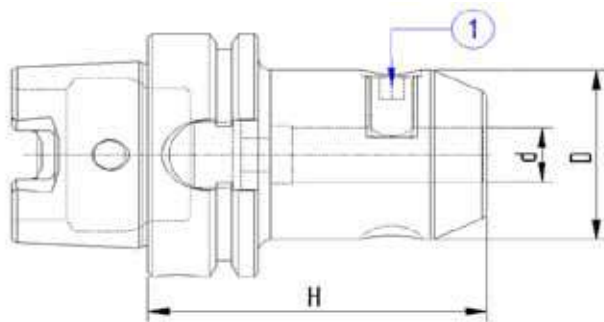
Codice	HSK	Descrizione	EOC	D	L	Fig.	G6.3 15000
66APO216	63/A	HSK63/A DIN69893 P/P H100 EOC16	16	43	100	1	●
66APO225	63/A	HSK63/A DIN69893 P/P H100 EOC25	25	60	100	1	●
66APO232	63/A	HSK63/A DIN69893 P/P H120 EOC32	32	72	120	2	●
66APO416	63/A	HSK63/A DIN69893 P/P H160 EOC16	16	43	160	1	●
66APO425	63/A	HSK63/A DIN69893 P/P H160 EOC25	25	60	160	1	●
66APO432	63/A	HSK63/A DIN69893 P/P H160 EOC32	32	72	160	2	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

EOC	L	Ghiera	Q.tà	Grano	Q.tà
-----	---	--------	------	-------	------



16	100	916GHROS	1	101001601	1
25	100	925GHROS	1	101001601	1
32	100	932GHROS	1	101001601	1
16	160	916GHROS	1	101815801	1
25	160	925GHROS	1	102215901	1
32	160	932GHROS	1	102215901	1



Codice	HSK	Descrizione	d	D	H	G6.3 15000
66AWLD06	63/A	HSK63/A DIN69893 WELDON H65 D.06	6	25	65	●
66AWLD08	63/A	HSK63/A DIN69893 WELDON H65 D.08	8	28	65	●
66AWLD10	63/A	HSK63/A DIN69893 WELDON H65 D.10	10	35	65	●
66AWLD12	63/A	HSK63/A DIN69893 WELDON H80 D.12	12	42	80	●
66AWLD14	63/A	HSK63/A DIN69893 WELDON H80 D.14	14	44	80	●
66AWLD16	63/A	HSK63/A DIN69893 WELDON H80 D.16	16	48	80	●
66AWLD18	63/A	HSK63/A DIN69893 WELDON H80 D.18	18	50	80	●
66AWLD20	63/A	HSK63/A DIN69893 WELDON H80 D.20	20	52	80	●
66AWLD24	63/A	HSK63/A DIN69893 WELDON H100 D.24	24	63	100	●
66AWLD25	63/A	HSK63/A DIN69893 WELDON H110 D.25	25	65	110	●
66AWLD32	63/A	HSK63/A DIN69893 WELDON H110 D.32	32	72	110	●
66AWLD40	63/A	HSK63/A DIN69893 WELDON H125 D.40	40	80	125	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
-------	-------	------



1

6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
24	101802002	2
25	101802002	2
32 - 40	102002002	2

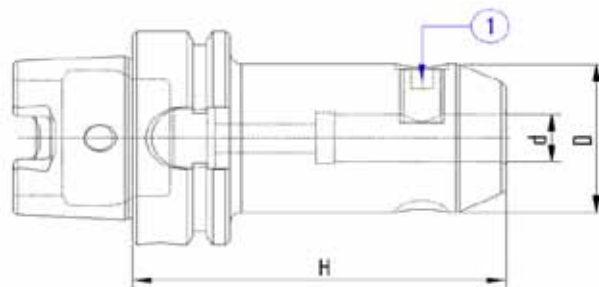


MANDRINO PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTIL TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



DIN 69893

DIN 1835 B



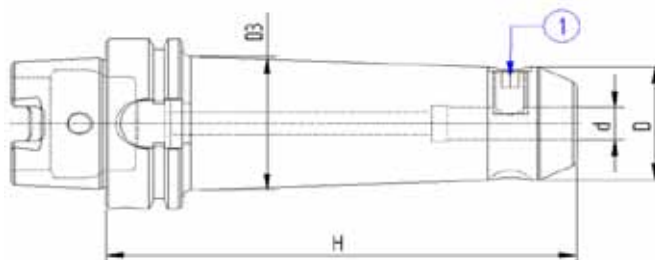
Codice	HSK	Descrizione	d	D	H	G6.3 15000
66AWE206	63/A	HSK63/A DIN69893 WELDON H.100 D.6	6	25	100	●
66AWE208	63/A	HSK63/A DIN69893 WELDON H.100 D.8	8	28	100	●
66AWE210	63/A	HSK63/A DIN69893 WELDON H.100 D.10	10	35	100	●
66AWE212	63/A	HSK63/A DIN69893 WELDON H.100 D.12	12	42	100	●
66AWE214	63/A	HSK63/A DIN69893 WELDON H.100 D.14	14	44	100	●
66AWE216	63/A	HSK63/A DIN69893 WELDON H.100 D.16	16	48	100	●
66AWE218	63/A	HSK63/A DIN69893 WELDON H.100 D.18	18	50	100	●
66AWE220	63/A	HSK63/A DIN69893 WELDON H.100 D.20	20	52	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
-------	-------	------



6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1



Codice	HSK	Descrizione	d	D	H	D3	G6.3 15000
66AWE306	63/A	HSK63/A DIN69893 WELDON H.120 D.6	6	25	120	-	●
66AWE308	63/A	HSK63/A DIN69893 WELDON H.120 D.8	8	28	120	-	●
66AWE310	63/A	HSK63/A DIN69893 WELDON H.120 D.10	10	35	120	-	●
66AWE312	63/A	HSK63/A DIN69893 WELDON H.120 D.12	12	42	120	-	●
66AWE314	63/A	HSK63/A DIN69893 WELDON H.120 D.14	14	44	120	-	●
66AWE316	63/A	HSK63/A DIN69893 WELDON H.120 D.16	16	48	120	-	●
66AWE318	63/A	HSK63/A DIN69893 WELDON H.120 D.18	18	50	120	-	●
66AWE320	63/A	HSK63/A DIN69893 WELDON H.120 D.20	20	52	120	-	●
66AWE325	63/A	HSK63/A DIN69893 WELDON H.120 D.25	25	65	120	52	●
66AWE332	63/A	HSK63/A DIN69893 WELDON H.120 D.32	32	72	120	52	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
-------	-------	------



6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2

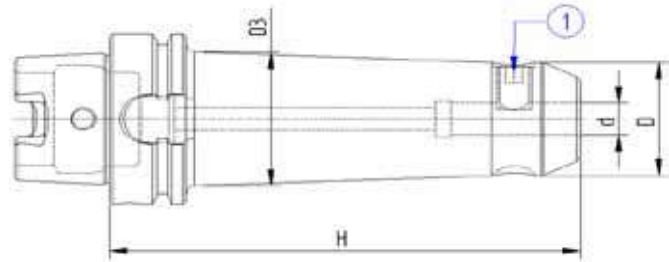


MANDRINO PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTIL TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



DIN 69893

DIN 1835 B




Codice	HSK	Descrizione	d	D	H	D3	G6.3 15000
66AWE406	63/A	HSK63/A DIN69893 WELDON H.160 D.6	6	25	160	32	●
66AWE408	63/A	HSK63/A DIN69893 WELDON H.160 D.8	8	28	160	36	●
66AWE410	63/A	HSK63/A DIN69893 WELDON H.160 D.10	10	35	160	38	●
66AWE412	63/A	HSK63/A DIN69893 WELDON H.160 D.12	12	42	160	46	●
66AWE414	63/A	HSK63/A DIN69893 WELDON H.160 D.14	14	44	160	48	●
66AWE416	63/A	HSK63/A DIN69893 WELDON H.160 D.16	16	44	160	50	●
66AWE418	63/A	HSK63/A DIN69893 WELDON H.160 D.18	18	50	160	-	●
66AWE420	63/A	HSK63/A DIN69893 WELDON H.160 D.20	20	52	160	-	●
66AWE425	63/A	HSK63/A DIN69893 WELDON H.160 D.25	25	63	160	52	●
66AWE432	63/A	HSK63/A DIN69893 WELDON H.160 D.32	32	72	160	52	●
66AWE440	63/A	HSK63/A DIN69893 WELDON H.160 D.40	40	80	160	52	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
-------	-------	------

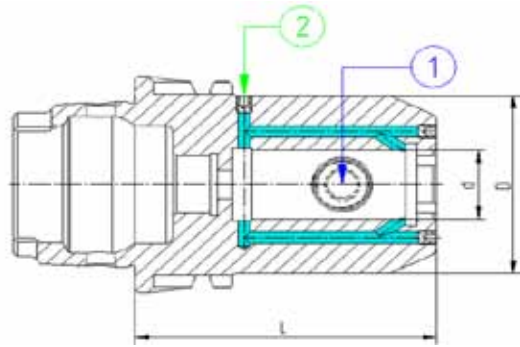


6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32 - 40	102002002	2


MANDRINO PORTAFRESE TIPO WELDON CON CANALI DI LUBRIFICAZIONE
END MILL HOLDERS WELDON WITH COOLANT CHANNELS
MANDRINS POUR OUTIL TYPE WELDON AVEC CANAL D'ARROSAGE
ZYLINDERSCHAFTAUFNAHME WELDON MIT KÜHLKANAL



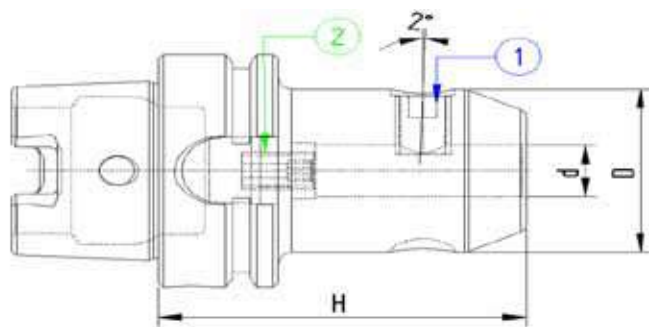
DIN 69893
DIN 1835 B



Codice	HSK	Descrizione	d	D	L	G6.3 15000
66AWLK06	63/A	HSK63/A DIN69893 WELDON/C H65 D.6	6	25	65	●
66AWLK08	63/A	HSK63/A DIN69893 WELDON/C H65 D.8	8	28	65	●
66AWLK10	63/A	HSK63/A DIN69893 WELDON/C H65 D.10	10	35	65	●
66AWLK12	63/A	HSK63/A DIN69893 WELDON/C H80 D.12	12	42	80	●
66AWLK14	63/A	HSK63/A DIN69893 WELDON/C H80 D.14	14	44	80	●
66AWLK16	63/A	HSK63/A DIN69893 WELDON/C H80 D.16	16	48	80	●
66AWLK18	63/A	HSK63/A DIN69893 WELDON/C H80 D.18	18	50	80	●
66AWLK20	63/A	HSK63/A DIN69893 WELDON/C H80 D.20	20	52	80	●
66AWLK25	63/A	HSK63/A DIN69893 WELDON/C H110 D.25	25	65	110	●
66AWLK32	63/A	HSK63/A DIN69893 WELDON/C H110 D.32	32	72	110	●
66AWLK40	63/A	HSK63/A DIN69893 WELDON/C H125 D.40	40	80	125	●



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

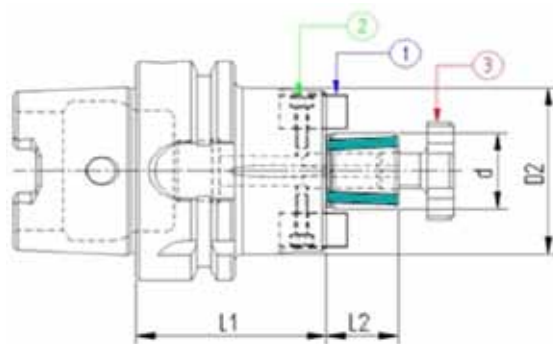
Ø WLD	Grano	Q.tà	Grano	Q.tà
		1		2
6	100601002	1	100400404	2
8	100801002	1	100400504	2
10	101001202	1	100400504	2
12 - 14	101201602	1	100400504	2
16 - 18	101401602	1	100400504	3
20	101601602	1	100400504	3
25	101802002	2	100400504	3
32 - 40	102002002	2	100400504	3



Codice	HSK	Descrizione	d	D	H	G6.3 15000
66AWHN06	63/A	HSK63/A DIN69893 W/NOTCH H.80 D.06	6	25	80	●
66AWHN08	63/A	HSK63/A DIN69893 W/NOTCH H.80 D.08	8	28	80	●
66AWHN10	63/A	HSK63/A DIN69893 W/NOTCH H.80 D.10	10	35	80	●
66AWHN12	63/A	HSK63/A DIN69893 W/NOTCH H.90 D.12	12	42	90	●
66AWHN14	63/A	HSK63/A DIN69893 W/NOTCH H.90 D.14	14	44	90	●
66AWHN16	63/A	HSK63/A DIN69893 W/NOTCH H.100 D.16	16	48	100	●
66AWHN18	63/A	HSK63/A DIN69893 W/NOTCH H.100 D.18	18	50	100	●
66AWHN20	63/A	HSK63/A DIN69893 W/NOTCH H.100 D.20	20	52	100	●
66AWHN25	63/A	HSK63/A DIN69893 W/NOTCH H.110 D.25	25	63	110	●
66AWHN32	63/A	HSK63/A DIN69893 W/NOTCH H.110 D.32	32	72	110	●




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà	Grano Interno	Q.tà
		1		2
				
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12 - 14	101201602	1	101001601	1
16 - 18	101401602	1	101001601	1
20	101601602	1	101002501	1
25	101802002	2	101002501	1
32	102002002	2	101001601	1



Codice	HSK	Descrizione	d	L1	L2	D2	G6.3 15000
66APF116	63/A	HSK63/A DIN69893 P/F FISSO H50 D.16	16	50	17	38	●
66APF122	63/A	HSK63/A DIN69893 P/F FISSO H50 D.22	22	50	19	48	●
66APF127	63/A	HSK63/A DIN69893 P/F FISSO H60 D.27	27	60	21	58	●
66APF132	63/A	HSK63/A DIN69893 P/F FISSO H60 D.32	32	60	24	66	●
66APF140	63/A	HSK63/A DIN69893 P/F FISSO H60 D.40	40	60	27	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d / D2	Tassello	Q.tà	Vite	Q.tà	Vite a Croce	Q.tà
						
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1



L=100

Codice	HSK	Descrizione	d	L	L1	D	G6.3 15000
66APF216	63/A	HSK63/A DIN69893 P/F FISSO H100 D16	16	100	17	38	●
66APF222	63/A	HSK63/A DIN69893 P/F FISSO H100 D22	22	100	19	48	●
66APF227	63/A	HSK63/A DIN69893 P/F FISSO H100 D27	27	100	21	58	●
66APF232	63/A	HSK63/A DIN69893 P/F FISSO H100 D32	32	100	24	66	●
66APF240	63/A	HSK63/A DIN69893 P/F FISSO H100 D40	40	100	27	80	●

L=160

Codice	HSK	Descrizione	d	L	L1	D	G6.3 15000
66APF416	63/A	HSK63/A DIN69893 P/F FISSO H160 D16	16	160	17	38	●
66APF422	63/A	HSK63/A DIN69893 P/F FISSO H160 D22	22	160	19	48	●
66APF427	63/A	HSK63/A DIN69893 P/F FISSO H160 D27	27	160	21	58	●
66APF432	63/A	HSK63/A DIN69893 P/F FISSO H160 D32	32	160	24	66	●
66APF440	63/A	HSK63/A DIN69893 P/F FISSO H160 D40	40	160	27	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d / D	Tassello	Q.tà	Vite	Q.tà	Vite a Croce	Q.tà
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1



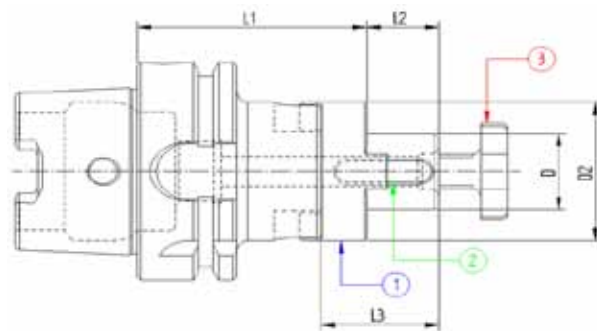
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3






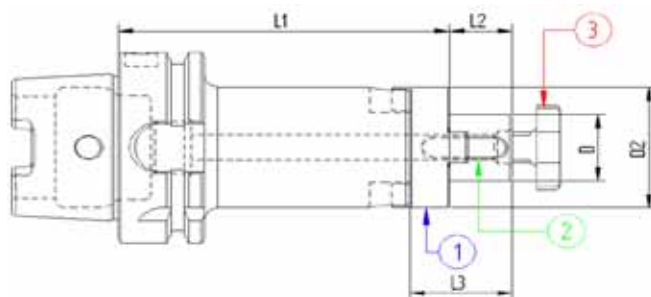
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1



Codice	HSK	Descrizione	D	L1	L2	L3	D2
66APU116	63/A	HSK63/A DIN69893 P/F UNIV.H60 D16	16	60	17	27	32
66APU122	63/A	HSK63/A DIN69893 P/F UNIV.H60 D22	22	60	19	31	40
66APU127	63/A	HSK63/A DIN69893 P/F UNIV.H60 D27	27	60	21	33	48
66APU132	63/A	HSK63/A DIN69893 P/F UNIV.H60 D32	32	60	24	38	58
66APU140	63/A	HSK63/A DIN69893 P/F UNIV.H70 D40	40	70	27	41	70

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Giunto	Q.tà	Linguetta	Q.tà	Vite a Croce	Q.tà
						
	1		2		3	
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1






L=100


Codice	HSK	Descrizione	D	L1	L2	L3	D2
66APU216	63/A	HSK63/A DIN69893 P/F UNIV. H100 D16	16	100	17	27	32
66APU222	63/A	HSK63/A DIN69893 P/F UNIV. H100 D22	22	100	19	31	40
66APU227	63/A	HSK63/A DIN69893 P/F UNIV. H100 D27	27	100	21	33	48
66APU232	63/A	HSK63/A DIN69893 P/F UNIV. H100 D32	32	100	24	38	58
66APU240	63/A	HSK63/A DIN69893 P/F UNIV. H100 D40	40	100	27	41	70

L=160

Codice	HSK	Descrizione	D	L1	L2	L3	D2
66APU416	63/A	HSK63/A DIN69893 P/F UNIV.H160 D16	16	160	17	27	32
66APU422	63/A	HSK63/A DIN69893 P/F UNIV.H160 D22	22	160	19	31	40
66APU427	63/A	HSK63/A DIN69893 P/F UNIV.H160 D27	27	160	21	33	48
66APU432	63/A	HSK63/A DIN69893 P/F UNIV.H160 D32	32	160	24	38	58
66APU440	63/A	HSK63/A DIN69893 P/F UNIV.H160 D40	40	160	27	41	70

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

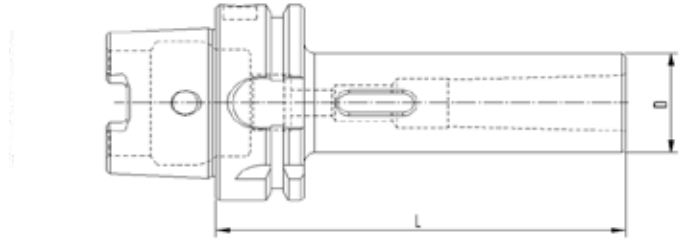
Ø	Giunto	Q.tà	Linguetta	Q.tà	Vite a Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1


MANDRINI ATTACCO CONO MORSE PER PUNTE
MORSE TAPER ADAPTORS FOR DRILL
DOUILLES POUR CONE MORSE A TENON
ZWINSCHENHULSEN FÜR MORSEKEGEL MIT AUSTREIBLAPPEN

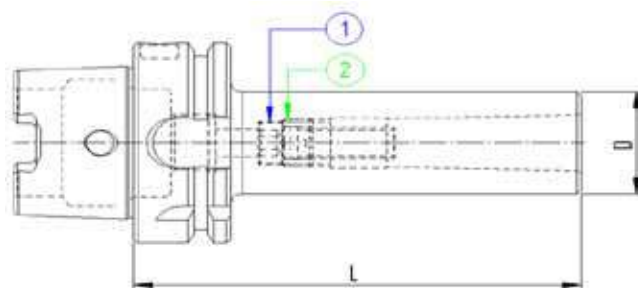


DIN 69893

DIN 228 - 2





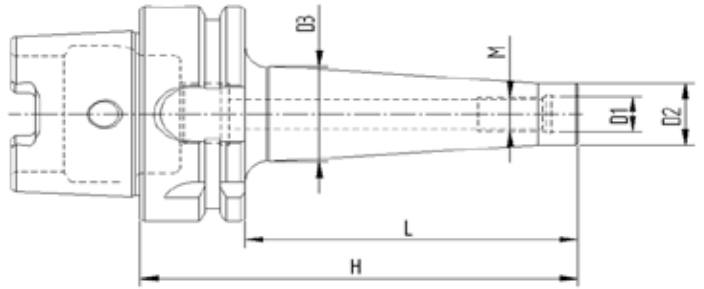
Codice	HSK	Descrizione	MORSE	D	L
66AMP101	63/A	HSK63/A DIN69893 H100 CM1 PUNTE	1	25	100
66AMP102	63/A	HSK63/A DIN69893 H120 CM2 PUNTE	2	32	120
66AMP103	63/A	HSK63/A DIN69893 H140 CM3 PUNTE	3	40	140
66AMP104	63/A	HSK63/A DIN69893 H160 CM4 PUNTE	4	48	160



Codice	HSK	Descrizione	MORSE	D	L
66AMF101	63/A	HSK63/A DIN69893 H100 CM1 FRESE	1	25	100
66AMF102	63/A	HSK63/A DIN69893 H120 CM2 FRESE	2	32	120
66AMF103	63/A	HSK63/A DIN69893 H140 CM3 FRESE	3	40	140
66AMF104	63/A	HSK63/A DIN69893 H160 CM4 FRESE	4	48	160

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

HSK	Vite	Q.tà	Boccola	Q.tà
				
	1		2	
CM1	110603001	1	-	1
CM2	111003014	1	121500802	1
CM3	111204003	1	122000903	1
CM4	111604516	1	122501204	1



L = 59

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
66AAF108	63/A	HSK63/A DIN69893 P/F AT.FIL.M8x59	8.5	13	15	59	33	M8	●
66AAF110	63/A	HSK63/A DIN69893 P/F AT.FIL.M10x59	10.5	18	19.5	59	33	M10	●
66AAF112	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x59	12.5	21	24	59	33	M12	●
66AAF116	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x59	17	29	34	59	33	M16	●

L = 84

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
66AAF208	63/A	HSK63/A DIN69893 P/F AT.FIL.M8x84	8.5	13	23	84	58	M8	●
66AAF210	63/A	HSK63/A DIN69893 P/F AT.FIL.M10x84	10.5	18	25	84	58	M10	●
66AAF212	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x84	12.5	21	24	84	58	M12	●
66AAF216	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x84	17	29	34	84	58	M16	●

L = 109

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
66AAF308	63/A	HSK63/A DIN69893 P/F AT.FIL.M8x109	8.5	13	23	109	83	M8	●
66AAF310	63/A	HSK63/A DIN69893 P/F AT.FIL.M10x109	10.5	18	28	109	83	M10	●
66AAF312	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x109	12.5	21	31	109	83	M12	●
66AAF316	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x109	17	29	34	109	83	M16	●

L = 134

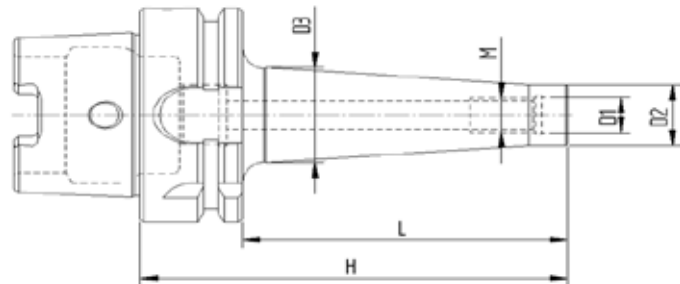
Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
66AAF408	63/A	HSK63/A DIN69893 P/F AT.FIL.M8x134	8.5	13	25	134	108	M8	●
66AAF410	63/A	HSK63/A DIN69893 P/F AT.FIL.M10x134	10.5	18	28	134	108	M10	●
66AAF412	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x134	12.5	21	31	134	108	M12	●
66AAF416	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x134	17	29	39	134	108	M16	●



MANDRINI PER FRESE CON ATTACCO FILETTATO
MILLING CUTTER ARBORS FOR SCREW-ON TYPE MILLING CUTTERS
MANDRINS POUR FRAISES A VISSER
SPANFUTTER FUER EIN SCHRAUBFRAESER



DIN 69893



L = 159

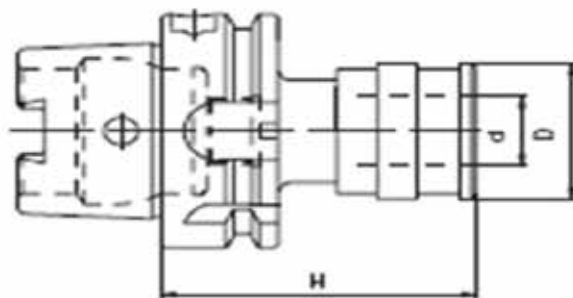
Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
66AAF510	63/A	HSK63/A DIN69893 P/F AT.FIL.M10x159	10.5	18	34	159	133	M10	●
66AAF512	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x159	12.5	21	31	159	133	M12	●
66AAF516	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x159	17	29	39	159	133	M16	●

L = 184

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
66AAF612	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x184	12.5	21	39	184	158	M12	●
66AAF616	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x184	17	29	39	184	158	M16	●

L = 209

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
66AAF712	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x209	12.5	21	42	209	183	M12	●
66AAF716	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x209	17	29	42	209	183	M16	●



Codice	HSK	Descrizione	H	D	d
66APCRM1	63/A	HSK63/A M/PORTAM/C/R H72 GR.1	72	48	19
66APCRM2	63/A	HSK63/A M/PORTAM/C/R H110 GR.2	110	60	31

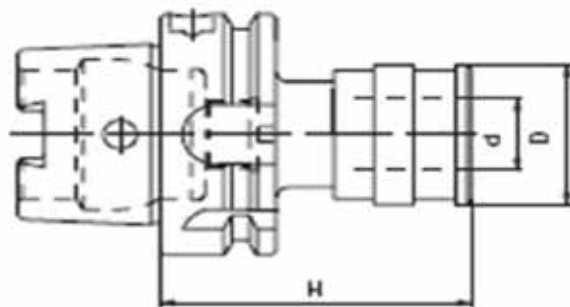
ACCESSORI - ACCESSORIES - ACCESSIRES - ZUBEHOR



RIF. PAGINA **312**



RIF. PAGINA **313**



Codice	HSK	Descrizione	H	D	d
66APRRM1	63/A	HSK63/A M/PORTAM/C/R/R H72 GR.1	72	33	19
66APRRM2	63/A	HSK63/A M/PORTAM/C/R/R H110 GR.2	110	50	31

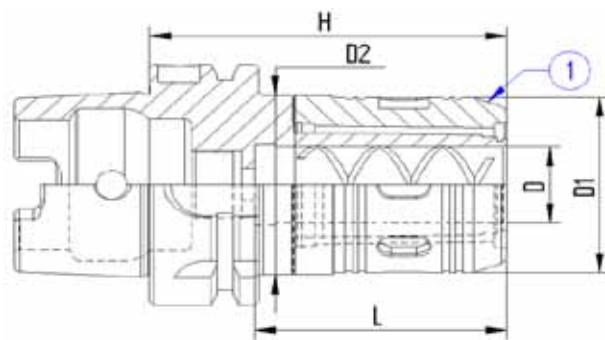
ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



RIF. PAGINA **312**



RIF. PAGINA **313**




Codice	HSK	Descrizione	H	D	D1	D2	L	G6.3 12000
66AFS120	63/A	HSK 63/A FORTE SERRAGGIO Ø20 H85	85	20	46	47	60	●
66AFS232	63/A	HSK 63/A FORTE SERRAGGIO Ø32 H110	110	32	62	63	84	●

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR

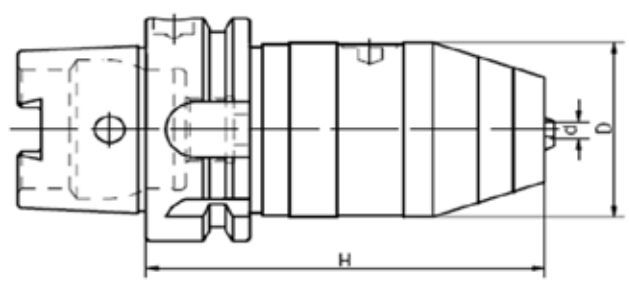


RIF. PAGINA **315**


MANDRINI INTEGRALI CON CHIAVE ESAGONALE
DRILL CHUCK WITH EXAG-KEY LOCK SYSTEM
MANDRINS MONOBLOC-SERRAGE PAR CLE 6 PANS
NC-KURZBOHRFUTTER-SPANNEN DURCH 6 - KANTSCHLUSSEL



DIN 69893



CON REFRIGERANTE CENTRALE - WITH INTERNAL COOLANT SUPPLY - AVEC ARROSAGE INTERNE - MIT ZENTRALEM KUHLMITTELLOCH

Codice	HSK	Descrizione	H	D	d
66AMAZ13	63/A	HSK63/A M/AUTOS./FORI H100 D13	100	50	1 - 13
66AMAZ16	63/A	HSK63/A M/AUTOS./FORI H105 D16	105	50	3 - 16


MANDRINI SEMILAVORATI A STELO TENERO
BLANK TOOLHOLDER WITH SOFT SHANK
BARRES D'ALEPAGE SEMI-FINIES
ROHLINGE MIT WEICHEM SCHAFT

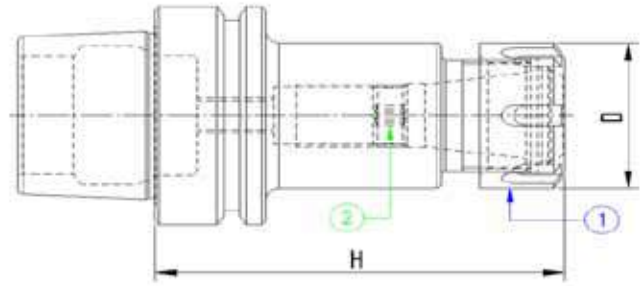


DIN 69893



Codice	HSK	Descrizione	D	L
66AST363	63/A	HSK63/A DIN69893 ST.TENERO D.63x250	63	250
66AST380	63/A	HSK63/A DIN69893 ST.TENERO D.80x250	80	250

HSK 63/E





STANDARD

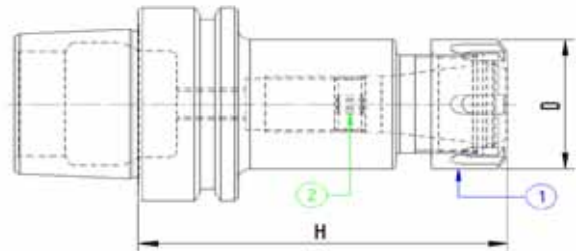
Codice	HSK	Descrizione	ER	D	H	G2.5 20000
66EPP110	63/E	HSK63/E DIN69893 P/P H75 ER16	16	32	75	●
66EPP116	63/E	HSK63/E DIN69893 P/P H75 ER25	25	42	75	●
66EPP120	63/E	HSK63/E DIN69893 P/P H75 ER32	32	50	75	●
66EPP126	63/E	HSK63/E DIN69893 P/P H75 ER40	40	63	75	●

L=100

Codice	HSK	Descrizione	ER	D	H	G2.5 20000
66EPP210	63/E	HSK63/E DIN69893 P/P H100 ER16	16	32	100	●
66EPP216	63/E	HSK63/E DIN69893 P/P H100 ER25	25	42	100	●
66EPP220	63/E	HSK63/E DIN69893 P/P H100 ER32	32	50	100	●
66EPP226	63/E	HSK63/E DIN69893 P/P H100 ER40	40	63	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera Interna	Q.tà	Ghiera	Q.tà
				
	2		1	
16	101001601	1	916GHREQ	1
25	101815801	1	925GHREQ	1
32	102215901	1	932GHREQ	1
40	102215901	1	940GHREQ	1



L=120

Codice	HSK	Descrizione	ER	D	H	G2.5 20000
66EPP310	63/E	HSK63/E DIN69893 P/P H120 ER16	16	32	120	●
66EPP316	63/E	HSK63/E DIN69893 P/P H120 ER25	25	42	120	●
66EPP320	63/E	HSK63/E DIN69893 P/P H120 ER32	32	50	120	●
66EPP326	63/E	HSK63/E DIN69893 P/P H120 ER40	40	63	120	●

L=160

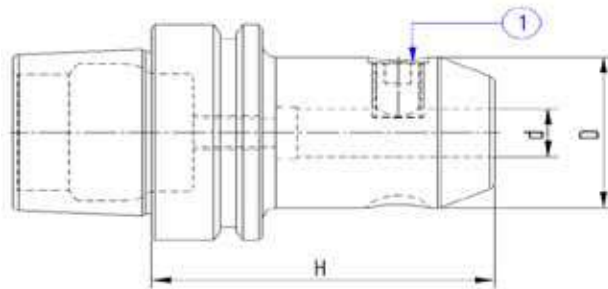
Codice	HSK	Descrizione	ER	D	H	G2.5 20000
66EPP410	63/E	HSK63/E DIN69893 P/P H160 ER16	16	32	160	●
66EPP416	63/E	HSK63/E DIN69893 P/P H160 ER25	25	42	160	●
66EPP420	63/E	HSK63/E DIN69893 P/P H160 ER32	32	50	160	●
66EPP426	63/E	HSK63/E DIN69893 P/P H160 ER40	40	63	160	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera Interna	Q.tà	Ghiera	Q.tà
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16	101001601	1	916GHREQ	1
25	101815801	1	925GHREQ	1
32	102215901	1	932GHREQ	1
40	102215901	1	940GHREQ	1



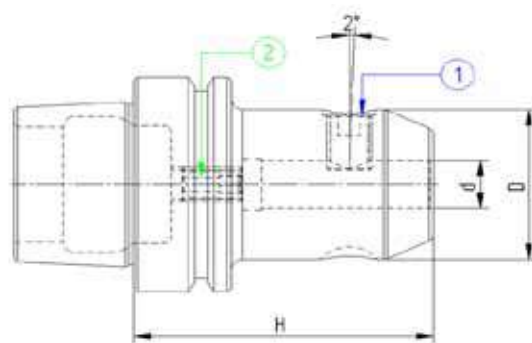
Codice	HSK	Descrizione	d	D	H	G2.5 20000
66EWLD06	63/E	HSK63/E DIN69893 WELDON H65 D06	6	25	65	●
66EWLD08	63/E	HSK63/E DIN69893 WELDON H65 D08	8	28	65	●
66EWLD10	63/E	HSK63/E DIN69893 WELDON H70 D10	10	35	70	●
66EWLD12	63/E	HSK63/E DIN69893 WELDON H80 D12	12	42	80	●
66EWLD14	63/E	HSK63/E DIN69893 WELDON H80 D14	14	44	80	●
66EWLD16	63/E	HSK63/E DIN69893 WELDON H80 D16	16	48	80	●
66EWLD18	63/E	HSK63/E DIN69893 WELDON H80 D18	18	50	80	●
66EWLD20	63/E	HSK63/E DIN69893 WELDON H80 D20	20	52	80	●
66EWLD25	63/E	HSK63/E DIN69893 WELDON H105 D25	25	65	105	●
66EWLD32	63/E	HSK63/E DIN69893 WELDON H110 D32	32	72	110	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
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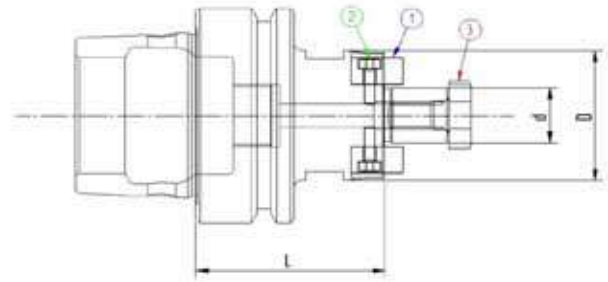
6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2



Codice	HSK	Descrizione	d	D	H	G2.5 20000
66EWHN06	63/E	HSK63/E DIN69893 W/NOTCH H65 D06	6	25	65	●
66EWHN08	63/E	HSK63/E DIN69893 W/NOTCH H65 D08	8	28	65	●
66EWHN10	63/E	HSK63/E DIN69893 W/NOTCH H65 D10	10	35	65	●
66EWHN12	63/E	HSK63/E DIN69893 W/NOTCH H80 D12	12	42	80	●
66EWHN14	63/E	HSK63/E DIN69893 W/NOTCH H80 D14	14	44	80	●
66EWHN16	63/E	HSK63/E DIN69893 W/NOTCH H80 D16	16	44	80	●
66EWHN18	63/E	HSK63/E DIN69893 W/NOTCH H80 D18	18	50	80	●
66EWHN20	63/E	HSK63/E DIN69893 W/NOTCH H80 D20	20	52	80	●
66EWHN25	63/E	HSK63/E DIN69893 W/NOTCH H100 D25	25	65	100	●
66EWHN32	63/E	HSK63/E DIN69893 W/NOTCH H100 D32	32	72	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WHN	Grano	Q.tà	Grano Interno	Q.tà
				
	1		2	
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	-	-
12 - 14	101201602	1	101001601	1
16 - 18	101401602	1	101001601	1
20	101601602	1	101001601	1
25	101802002	2	101001601	1
32	102002002	2	101001601	1



STANDARD

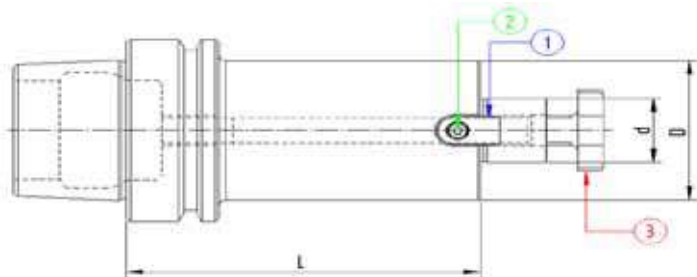
Codice	HSK	Descrizione	d	D	L	G2.5 20000
66EPF116	63/E	HSK63/E DIN69893 P/F FISSO H50 D16	16	38	50	●
66EPF122	63/E	HSK63/E DIN69893 P/F FISSO H50 D22	22	48	50	●
66EPF127	63/E	HSK63/E DIN69893 P/F FISSO H60 D27	27	58	60	●
66EPF132	63/E	HSK63/E DIN69893 P/F FISSO H60 D32	32	66	60	●
66EPF140	63/E	HSK63/E DIN69893 P/F FISSO H65 D40	40	80	65	●

L=100

Codice	HSK	Descrizione	d	D	L	G2.5 20000
66EPF216	63/E	HSK63/E DIN69893 P/F FISSO H100 D16	16	38	100	●
66EPF222	63/E	HSK63/E DIN69893 P/F FISSO H100 D22	22	48	100	●
66EPF227	63/E	HSK63/E DIN69893 P/F FISSO H100 D27	27	58	100	●
66EPF232	63/E	HSK63/E DIN69893 P/F FISSO H100 D32	32	66	100	●
66EPF240	63/E	HSK63/E DIN69893 P/F FISSO H100 D40	40	80	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d / D	Tassello	Q.tà	Vite Tassello	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1





L=130

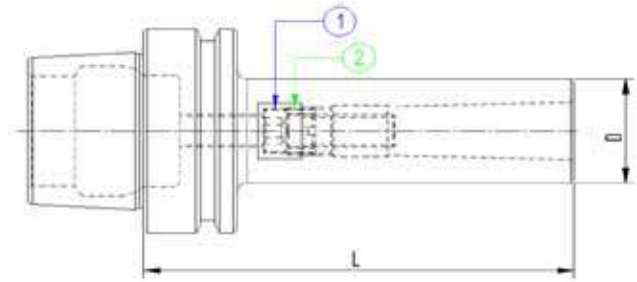
Codice	HSK	Descrizione	d	D	L	G2.5 20000
66EPF316	63/E	HSK63/E DIN69893 P/F FISSO H130 D16	16	38	130	●
66EPF322	63/E	HSK63/E DIN69893 P/F FISSO H130 D22	22	48	130	●
66EPF327	63/E	HSK63/E DIN69893 P/F FISSO H130 D27	27	58	130	●
66EPF332	63/E	HSK63/E DIN69893 P/F FISSO H130 D32	32	66	130	●
66EPF340	63/E	HSK63/E DIN69893 P/F FISSO H130 D40	40	80	130	●

L=160

Codice	HSK	Descrizione	d	D	L	G2.5 20000
66EPF416	63/E	HSK63/E DIN69893 P/F FISSO H160 D16	16	38	160	●
66EPF422	63/E	HSK63/E DIN69893 P/F FISSO H160 D22	22	48	160	●
66EPF427	63/E	HSK63/E DIN69893 P/F FISSO H160 D27	27	58	160	●
66EPF432	63/E	HSK63/E DIN69893 P/F FISSO H160 D32	32	66	160	●
66EPF440	63/E	HSK63/E DIN69893 P/F FISSO H160 D40	40	80	160	●



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d / D	Tassello	Q.tà	Vite Tassello	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1



Codice	HSK	Descrizione	MORSE	D	L
66EMF101	63/E	HSK63/E DIN69893 H100 CM1FRESE	1	25	100
66EMF102	63/E	HSK63/E DIN69893 H125 CM2FRESE	2	32	125
66EMF103	63/E	HSK63/E DIN69893 H145 CM3FRESE	3	40	145
66EMF104	63/E	HSK63/E DIN69893 H165 CM4FRESE	4	48	165

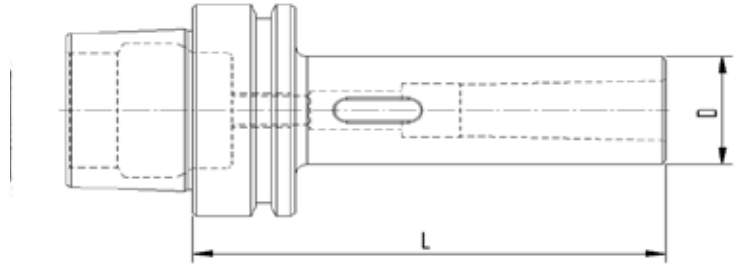
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

HSK	Vite	Q.tà	Boccola	Q.tà
				
	1		2	
CM1	110603501	1	121206502	1
CM2	111003014	1	121500802	1
CM3	111204003	1	122000903	1
CM4	111604514	1	122501204	1

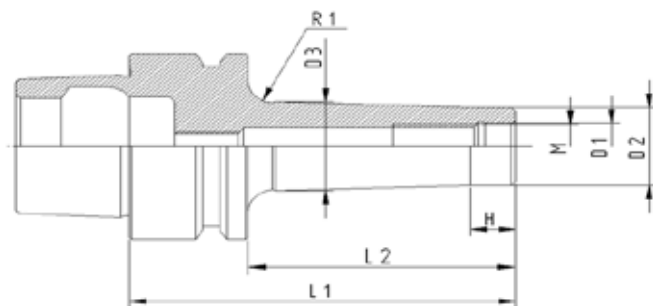

MANDRINI ATTACCO CONO MORSE PER PUNTE
MORSE TAPER ADAPTORS FOR DRILL
DOUILLES POUR CONE MORSE A TENON
ZWISCHENHULSEN FUER MORSEKEGEL MIT AUSTREIBLAPPEN



DIN 69893
DIN 228-2



Codice	HSK	Descrizione	MORSE	D	L
66EMP101	63/E	HSK63/E DIN69893 H100 CM1PUNTE	1	25	100
66EMP102	63/E	HSK63/E DIN69893 H120 CM2PUNTE	2	32	120
66EMP103	63/E	HSK63/E DIN69893 H140 CM3PUNTE	3	40	140
66EMP104	63/E	HSK63/E DIN69893 H165 CM4PUNTE	4	48	165



L = 59

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66EAF106	HSK63/E DIN69893 P/F AT.FIL.M6x59	6.5	9.7	9.7	-	59	33	M6	●
66EAF108	HSK63/E DIN69893 P/F AT.FIL.M8x59	8.5	13	15	10	59	33	M8	●
66EAF110	HSK63/E DIN69893 P/F AT.FIL.M10x59	10.5	18	20	10	59	33	M10	●
66EAF112	HSK63/E DIN69893 P/F AT.FIL.M12x59	12.5	21	24	10	59	33	M12	●
66EAF116	HSK63/E DIN69893 P/F AT.FIL.M16x59	17.0	29	34	10	59	33	M16	●

L = 84

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66EAF206	HSK63/E DIN69893 P/F AT.FIL.M6x84	6.5	9.7	20	10	84	58	M6	●
66EAF208	HSK63/E DIN69893 P/F AT.FIL.M8x84	8.5	13	23	10	84	58	M8	●
66EAF210	HSK63/E DIN69893 P/F AT.FIL.M10x84	10.5	18	25	10	84	58	M10	●
66EAF212	HSK63/E DIN69893 P/F AT.FIL.M12x84	12.5	21	24	10	84	58	M12	●
66EAF216	HSK63/E DIN69893 P/F AT.FIL.M16x84	17.0	29	34	10	84	58	M16	●

L = 109

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66EAF306	HSK63/E DIN69893 P/F AT.FIL.M6x109	6.5	9.7	23	10	109	83	M6	●
66EAF308	HSK63/E DIN69893 P/F AT.FIL.M8x109	8.5	13	23	10	109	83	M8	●
66EAF310	HSK63/E DIN69893 P/F AT.FIL.M10x109	10.5	18	28	10	109	83	M10	●
66EAF312	HSK63/E DIN69893 P/F AT.FIL.M12x109	12.5	21	31	10	109	83	M12	●
66EAF316	HSK63/E DIN69893 P/F AT.FIL.M16x109	17.0	29	34	10	109	83	M16	●

L = 134

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66EAF408	HSK63/E DIN69893 P/F AT.FIL.M8x134	8.5	13	25	10	134	108	M8	●
66EAF410	HSK63/E DIN69893 P/F AT.FIL.M10x134	10.5	18	30	10	134	108	M10	●
66EAF412	HSK63/E DIN69893 P/F AT.FIL.M12x134	12.5	21	31	10	134	108	M12	●
66EAF416	HSK63/E DIN69893 P/F AT.FIL.M16x134	17.0	29	39	10	134	108	M16	●

L = 159

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66EAF512	HSK63/E DIN69893 P/F AT.FIL.M12x159	12.5	21	31	10	159	133	M12	●
66EAF516	HSK63/E DIN69893 P/F AT.FIL.M16x159	17.0	29	39	10	159	133	M16	●


MANDRINI SEMILAVORATI A STELO TENERO
 BLANK TOOLHOLDER WITH SOFT SHANK
 BARRES D'ALEPAGE SEMI-FINIES
 ROHLINGE MIT WEICHEM SCHAFT

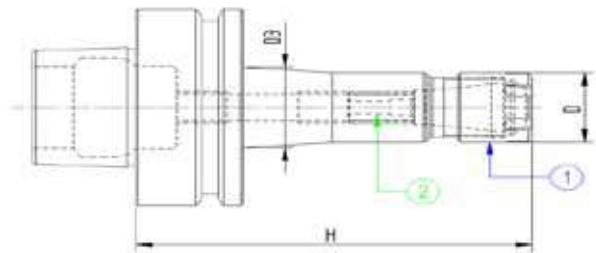


DIN 69893





Codice	HSK	Descrizione	D	L
66EST263	63/E	HSK63/E DIN69893 ST.TENERO D.63x200	63	200
66EST380	63/E	HSK63/E DIN69893 ST.TENERO D.80x250	80	250

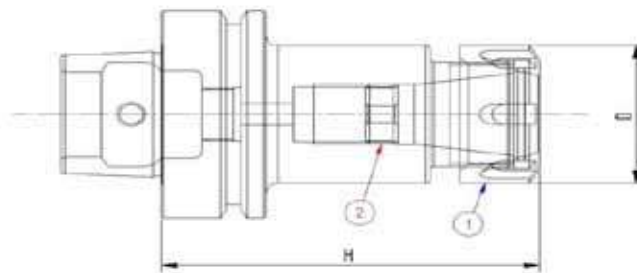
HSK 63/F



Codice	HSK	Descrizione	ER	H	D	D3	G2.5 20000
66FPM207	63/F	HSK63/F DIN69893 P/P H100 ER11MINI	11	100	16	20	●
66FPM210	63/F	HSK63/F DIN69893 P/P H100 ER16MINI	16	100	22	26	●
66FPM213	63/F	HSK63/F DIN69893 P/P H100 ER20MINI	20	100	28	32	●
66FPM216	63/F	HSK63/F DIN69893 P/P H100 ER25MINI	25	100	35	39	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Ghiera Interna	Q.tà
				
11	911GHRMN	1	100601004	1
16	916GHRMN	1	101001601	1
20	920GHRMN	1	101001601	1
25	925GHRMN	1	101815801	1



L=100

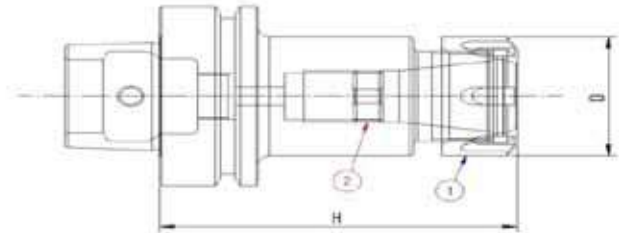
Codice	HSK	Descrizione	ER	D	H	G2.5 20000
66FPP210	63/F	HSK63/F DIN69893 P/P H100 ER16	16	32	100	●
66FPP213	63/F	HSK63/F DIN69893 P/P H100 ER20	20	35	100	●
66FPP216	63/F	HSK63/F DIN69893 P/P H100 ER25	25	42	100	●
66FPP220	63/F	HSK63/F DIN69893 P/P H100 ER32	32	50	100	●
66FPP226	63/F	HSK63/F DIN69893 P/P H100 ER40	40	63	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Ghiera Interna	Q.tà
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16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	102215901	1



L=120

Codice	HSK	Descrizione	ER	D	H	G2.5 20000
66FPP310	63/F	HSK63/F DIN69893 P/P H120 ER16	16	32	120	●
66FPP313	63/F	HSK63/F DIN69893 P/P H120 ER20	20	35	120	●
66FPP316	63/F	HSK63/F DIN69893 P/P H120 ER25	25	42	120	●
66FPP320	63/F	HSK63/F DIN69893 P/P H120 ER32	32	50	120	●
66FPP326	63/F	HSK63/F DIN69893 P/P H120 ER40	40	63	120	●

L=160

Codice	HSK	Descrizione	ER	D	H	G2.5 20000
66FPP410	63/F	HSK63/F DIN69893 P/P H160 ER16	16	32	160	●
66FPP413	63/F	HSK63/F DIN69893 P/P H160 ER20	20	35	160	●
66FPP416	63/F	HSK63/F DIN69893 P/P H160 ER25	25	42	160	●
66FPP420	63/F	HSK63/F DIN69893 P/P H160 ER32	32	50	160	●
66FPP426	63/F	HSK63/F DIN69893 P/P H160 ER40	40	63	160	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Ghiera Interna	Q.tà
----	--------	------	----------------	------

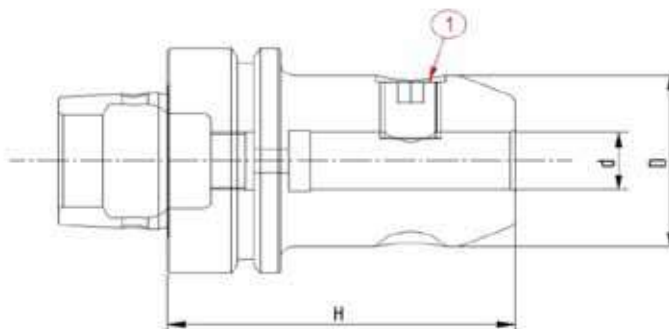
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2



16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	102215901	1



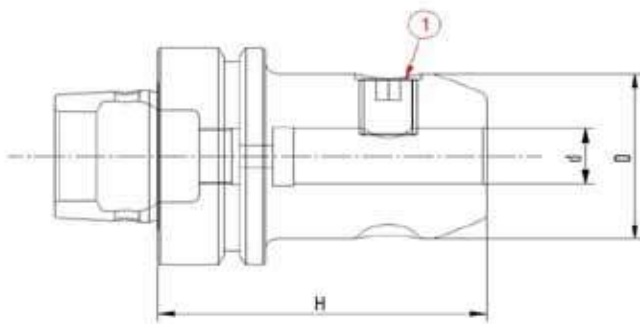
Codice	HSK	Descrizione	d	D	H	G2.5 20000
66FWLD06	63/F	HSK63/F DIN69893 WELDON H.65 D.6	6	25	65	●
66FWLD08	63/F	HSK63/F DIN69893 WELDON H.65 D.8	8	28	65	●
66FWLD10	63/F	HSK63/F DIN69893 WELDON H.65 D.10	10	35	65	●
66FWLD12	63/F	HSK63/F DIN69893 WELDON H.80 D.12	12	42	80	●
66FWLD14	63/F	HSK63/F DIN69893 WELDON H.80 D.14	14	44	80	●
66FWLD16	63/F	HSK63/F DIN69893 WELDON H.80 D.16	16	48	80	●
66FWLD18	63/F	HSK63/F DIN69893 WELDON H.80 D.18	18	50	80	●
66FWLD20	63/F	HSK63/F DIN69893 WELDON H.80 D.20	20	52	80	●
66FWLD25	63/F	HSK63/F DIN69893 WELDON H110 D25	25	65	110	●
66FWLD32	63/F	HSK63/F DIN69893 WELDON H110 D32	32	72	110	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32	102002002	2



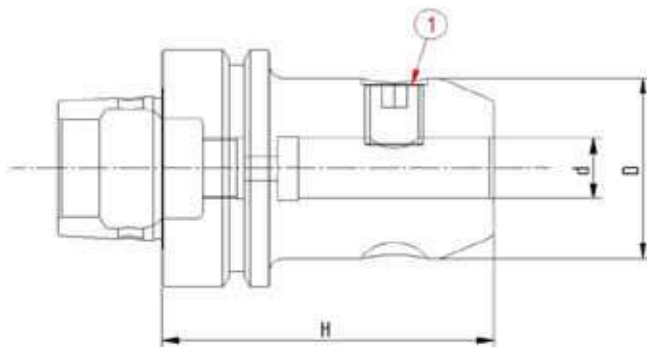
Codice	HSK	Descrizione	d	D	H	G2.5 20000
66FWE206	63/F	HSK63/F DIN69893 WELDON H100 D.6	6	25	100	●
66FWE208	63/F	HSK63/F DIN69893 WELDON H100 D.8	8	28	100	●
66FWE210	63/F	HSK63/F DIN69893 WELDON H100 D.10	10	35	100	●
66FWE212	63/F	HSK63/F DIN69893 WELDON H100 D.12	12	42	100	●
66FWE214	63/F	HSK63/F DIN69893 WELDON H100 D.14	14	44	100	●
66FWE216	63/F	HSK63/F DIN69893 WELDON H100 D.16	16	48	100	●
66FWE218	63/F	HSK63/F DIN69893 WELDON H100 D.18	18	50	100	●
66FWE220	63/F	HSK63/F DIN69893 WELDON H100 D.20	20	52	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
-------	-------	------



6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1



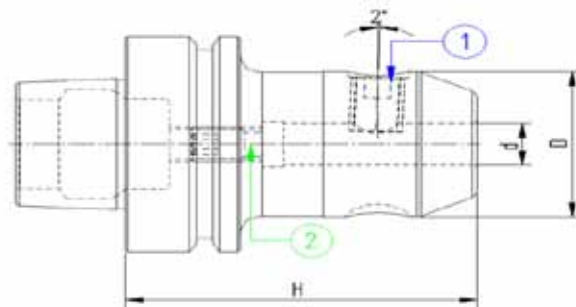
Codice	HSK	Descrizione	d	D	H	G2.5 20000
66FWE406	63/F	HSK63/F DIN69893 WELDON H.160 D.6	6	25	160	●
66FWE408	63/F	HSK63/F DIN69893 WELDON H.160 D.8	8	28	160	●
66FWE410	63/F	HSK63/F DIN69893 WELDON H.160 D.10	10	35	160	●
66FWE412	63/F	HSK63/F DIN69893 WELDON H.160 D.12	12	42	160	●
66FWE414	63/F	HSK63/F DIN69893 WELDON H.160 D.14	14	44	160	●
66FWE416	63/F	HSK63/F DIN69893 WELDON H.160 D.16	16	48	160	●
66FWE418	63/F	HSK63/F DIN69893 WELDON H.160 D.18	18	50	160	●
66FWE420	63/F	HSK63/F DIN69893 WELDON H.160 D.20	20	52	160	●
66FWE425	63/F	HSK63/F DIN69893 WELDON H.160 D.25	25	65	160	●
66FWE432	63/F	HSK63/F DIN69893 WELDON H.160 D.32	32	72	160	●
66FWE440	63/F	HSK63/F DIN69893 WELDON H.160 D.40	40	80	160	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WLD	Grano	Q.tà
-------	-------	------





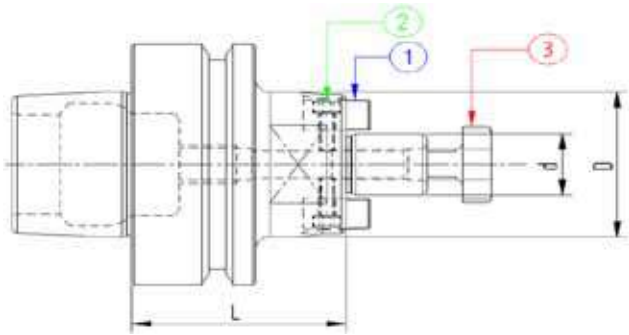
6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32 - 40	102002002	2



Codice	HSK	Descrizione	d	D	H	G2.5 20000
66FWHN06	63/F	HSK63/F DIN69893 W/NOTCH H80 D.06	6	25	80	●
66FWHN08	63/F	HSK63/F DIN69893 W/NOTCH H80 D.08	8	28	80	●
66FWHN10	63/F	HSK63/F DIN69893 W/NOTCH H80 D.10	10	35	80	●
66FWHN12	63/F	HSK63/F DIN69893 W/NOTCH H90 D.12	12	42	90	●
66FWHN14	63/F	HSK63/F DIN69893 W/NOTCH H90 D.14	14	44	90	●
66FWHN16	63/F	HSK63/F DIN69893 W/NOTCH H100 D.16	16	48	100	●
66FWHN18	63/F	HSK63/F DIN69893 W/NOTCH H100 D.18	18	50	100	●
66FWHN20	63/F	HSK63/F DIN69893 W/NOTCH H100 D.20	20	52	100	●
66FWHN25	63/F	HSK63/F DIN69893 W/NOTCH H110 D.25	25	65	110	●
66FWHN32	63/F	HSK63/F DIN69893 W/NOTCH H115 D.32	32	72	115	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø WHN	Grano	Q.tà	Grano Interno	Q.tà
				
	1		2	
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12 - 14	101201602	1	100801601	1
16 - 18	101401602	1	100801601	1
20	101601602	1	100801601	1
25	101802002	2	100801601	1
32	102002002	2	100801601	1






STANDARD

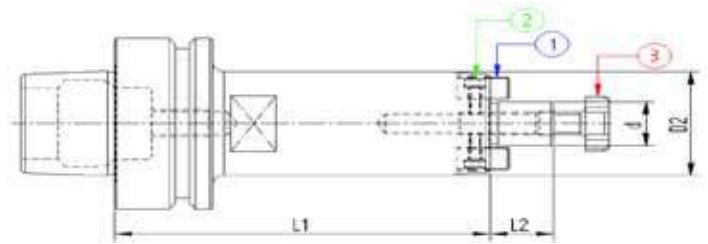
Codice	HSK	Descrizione	d	D	L	G2.5 20000
66FPF116	63/F	HSK63/F DIN69893 P/F FISSO H50 D16	16	38	50	●
66FPF122	63/F	HSK63/F DIN69893 P/F FISSO H50 D22	22	48	50	●
66FPF127	63/F	HSK63/F DIN69893 P/F FISSO H60 D27	27	58	60	●
66FPF132	63/F	HSK63/F DIN69893 P/F FISSO H60 D32	32	63	60	●
66FPF140	63/F	HSK63/F DIN69893 P/F FISSO H60 D40	40	80	60	●

L = 100

Codice	HSK	Descrizione	d	D	L	G2.5 20000
66FPF216	63/F	HSK63/F DIN69893 P/F FISSO H100 D16	16	38	100	●
66FPF222	63/F	HSK63/F DIN69893 P/F FISSO H100 D22	22	48	100	●
66FPF227	63/F	HSK63/F DIN69893 P/F FISSO H100 D27	27	58	100	●
66FPF232	63/F	HSK63/F DIN69893 P/F FISSO H100 D32	32	66	100	●
66FPF240	63/F	HSK63/F DIN69893 P/F FISSO H100 D40	40	80	100	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d / D	Tassello	Q.tà	Vite Tassello	Q.tà	Vite a Croce	Q.tà
						
	1		2		3	
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1






L = 130

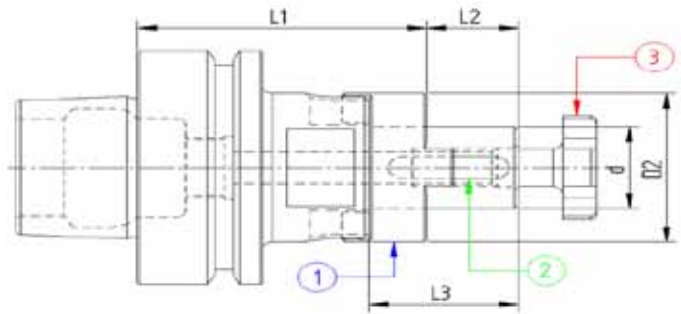
Codice	HSK	Descrizione	d	D	L1	L2	G2.5 20000
66FPF316	63/F	HSK63/F DIN69893 P/F FISSO H130 D16	16	38	130	17	●
66FPF322	63/F	HSK63/F DIN69893 P/F FISSO H130 D22	22	40	130	19	●
66FPF327	63/F	HSK63/F DIN69893 P/F FISSO H130 D27	27	58	130	21	●
66FPF332	63/F	HSK63/F DIN69893 P/F FISSO H130 D32	32	66	130	24	●
66FPF340	63/F	HSK63/F DIN69893 P/F FISSO H130 D40	40	80	130	27	●

L = 160

Codice	HSK	Descrizione	d	D	L1	L2	G2.5 20000
66FPF416	63/F	HSK63/F DIN69893 P/F FISSO H160 D16	16	38	160	17	●
66FPF422	63/F	HSK63/F DIN69893 P/F FISSO H160 D22	22	48	160	19	●
66FPF427	63/F	HSK63/F DIN69893 P/F FISSO H160 D27	27	58	160	21	●
66FPF432	63/F	HSK63/F DIN69893 P/F FISSO H160 D32	32	66	160	24	●
66FPF440	63/F	HSK63/F DIN69893 P/F FISSO H160 D40	40	80	160	27	●

COMPONENTI - SPARE PARTS - PIÈCES DETACHÉES - ERSATZTEILE

d / D	Tassello	Q.tà	Vite Tassello	Q.tà	Vite a Croce	Q.tà
						
	1		2		3	
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1






STANDARD


Codice	HSK	Descrizione	d	L1	L2	L3	D2
66FPU116	63/F	HSK63/F DIN69893 P/F UNIV.H60 D16	16	60	17	27	32
66FPU122	63/F	HSK63/F DIN69893 P/F UNIV.H60 D22	22	60	19	31	40
66FPU127	63/F	HSK63/F DIN69893 P/F UNIV.H60 D27	27	60	21	33	48
66FPU132	63/F	HSK63/F DIN69893 P/F UNIV.H60 D32	32	60	24	38	58
66FPU140	63/F	HSK63/F DIN69893 P/F UNIV.H70 D40	40	70	27	41	70

L = 160

Codice	HSK	Descrizione	d	L1	L2	L3	D2
66FPU416	63/F	HSK63/F DIN69893 P/F UNIV.H160 D16	16	160	17	27	32
66FPU422	63/F	HSK63/F DIN69893 P/F UNIV.H160 D22	22	160	19	31	40
66FPU427	63/F	HSK63/F DIN69893 P/F UNIV.H160 D27	27	160	21	33	48
66FPU432	63/F	HSK63/F DIN69893 P/F UNIV.H160 D32	32	160	24	38	58
66FPU440	63/F	HSK63/F DIN69893 P/F UNIV.H160 D40	40	160	27	41	70

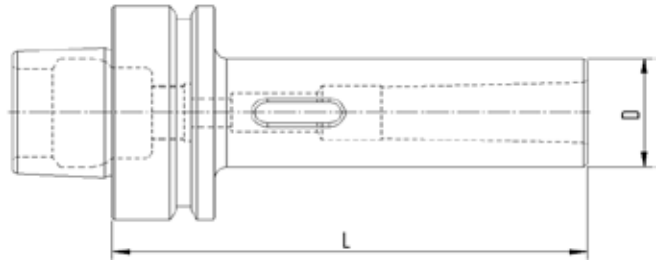
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d	Distanziale	Q.tà	Linguetta	Q.tà	Vite a Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1



MANDRINI ATTACCO CONO MORSE PER PUNTE
MORSE TAPER ADAPTORS FOR DRILL
DOUILLES POUR CONE MORSE A TENON
ZWISCHENHULSEN FUER MORSEKEGEL MIT AUSTREIBLAPPEN



DIN 69893
DIN 228 - 2

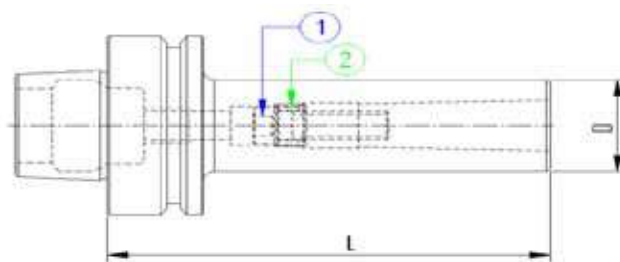


Codice	HSK	Descrizione	MORSE	D	L
66FMP101	63/F	HSK63/F DIN69893 H.100 CM1 PUNTE	1	25	100
66FMP102	63/F	HSK63/F DIN69893 H.120 CM2 PUNTE	2	32	120
66FMP103	63/F	HSK63/F DIN69893 H.140 CM3 PUNTE	3	40	140
66FMP104	63/F	HSK63/F DIN69893 H.165 CM4 PUNTE	4	48	165


MANDRINI ATTACCO CONO MORSE PER FRESE
MORSE TAPER ADAPTER WITH THREAD
DOUILLES POUR CONE MORSE AVEC TARAUDAGE
ZWISCHENHULSEN FUER MORSEKEGEL MIT ANZUGSGEWINDE




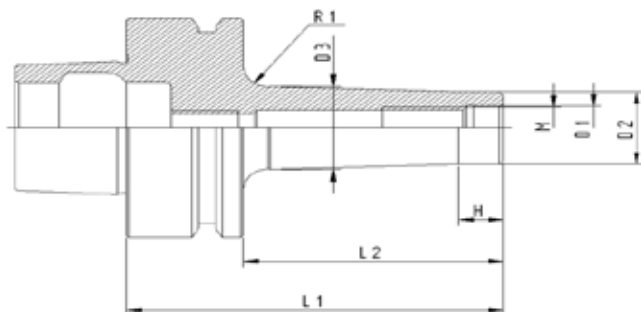
DIN 69893
DIN 228 - 2



Codice	HSK	Descrizione	MORSE	D	L
66FMF101	63/F	HSK63/F DIN69893 H.100 CM1 FRESE	1	25	100
66FMF102	63/F	HSK63/F DIN69893 H.120 CM2 FRESE	2	32	120
66FMF103	63/F	HSK63/F DIN69893 H.140 CM3 FRESE	3	40	140
66FMF104	63/F	HSK63/F DIN69893 H.160 CM4 FRESE	4	48	160

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

CM	Vite	Q.tà	Ghiera Interna	Q.tà
				
1	110603501	1	-	-
2	111003014	1	121500802	1
3	111204016	1	122000903	1
4	111604516	1	122501204	1



STANDARD

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66FAF106	HSK63/F DIN69893 P/F AT.FIL.M6x59	6.5	9.7	9.7	33	59	33	M6	●
66FAF108	HSK63/F DIN69893 P/F AT.FIL.M8x59	8.5	13	15	10	59	33	M8	●
66FAF110	HSK63/F DIN69893 P/F AT.FIL.M10x59	10.5	18	20	10	59	33	M10	●
66FAF112	HSK63/F DIN69893 P/F AT.FIL.M12x59	12.5	21	24	10	59	33	M12	●
66FAF116	HSK63/F DIN69893 P/F AT.FIL.M16x59	17.0	29	34	10	59	33	M16	●

L = 84

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66FAF206	HSK63/F DIN69893 P/F AT.FIL.M6x84	6.5	9.7	20	10	84	58	M6	●
66FAF208	HSK63/F DIN69893 P/F AT.FIL.M8x84	8.5	13	23	10	84	58	M8	●
66FAF210	HSK63/F DIN69893 P/F AT.FIL.M10x84	10.5	18	25	10	84	58	M10	●
66FAF212	HSK63/F DIN69893 P/F AT.FIL.M12x84	12.5	21	24	10	84	58	M12	●
66FAF216	HSK63/F DIN69893 P/F AT.FIL.M16x84	17.0	29	34	10	84	58	M16	●

L = 109

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66FAF306	HSK63/F DIN69893 P/F AT.FIL.M6x109	6.5	9.7	23	10	109	83	M6	●
66FAF308	HSK63/F DIN69893 P/F AT.FIL.M8x109	8.5	13	23	10	109	83	M8	●
66FAF310	HSK63/F DIN69893 P/F AT.FIL.M10x109	10.5	18	28	10	109	83	M10	●
66FAF312	HSK63/F DIN69893 P/F AT.FIL.M12x109	12.5	21	31	10	109	83	M12	●
66FAF316	HSK63/F DIN69893 P/F AT.FIL.M16x109	17.0	29	34	10	109	83	M16	●

L = 134

Codice	Descrizione	D1	D2	D3	H	L1	L2	M	G2.5 20000
66FAF408	HSK63/F DIN69893 P/F AT.FIL.M8x134	8.5	13	25	10	134	108	M8	●
66FAF410	HSK63/F DIN69893 P/F AT.FIL.M10x134	10.5	18	30	10	134	108	M10	●
66FAF412	HSK63/F DIN69893 P/F AT.FIL.M12x134	12.5	21	31	10	134	108	M12	●
66FAF416	HSK63/F DIN69893 P/F AT.FIL.M16x134	17.0	29	39	10	134	108	M16	●


MANDRINI SEMILAVORATI A STELO TENERO
BLANK TOOLHOLDER WITH SOFT SHANK
BARRES D'ALEPAGE SEMI-FINIES
ROHLINGE MIT WEICHEM SCHAFT

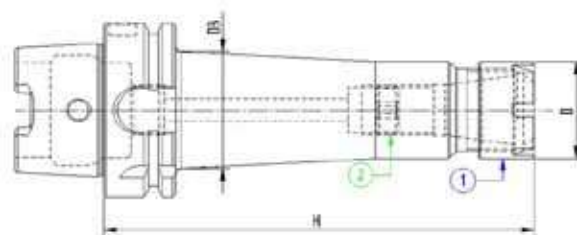


DIN 69893



Codice	HSK	Descrizione	D	L
66FST263	63/F	HSK63/F DIN69893 ST.TENERO D.63x200	63	200
66FST380	63/F	HSK63/F DIN69893 ST.TENERO D.80x250	80	250

HSK 1000/A



STANDARD

Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
61APM210	100/A	HSK100/A DIN69893 P/P H100 ER16MINI	16	22	100	28	●
61APM213	100/A	HSK100/A DIN69893 P/P H100 ER20MINI	20	28	100	28	●
61APM216	100/A	HSK100/A DIN69893 P/P H100 ER25MINI	25	35	100	35	●

L=160

Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
61APM410	100/A	HSK100/A DIN69893 P/P H160 ER16MINI	16	22	160	30	●
61APM413	100/A	HSK100/A DIN69893 P/P H160 ER20MINI	20	28	160	35	●
61APM416	100/A	HSK100/A DIN69893 P/P H160 ER25MINI	25	35	160	48	●

L=200

Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
61APM510	100/A	HSK100/A DIN69893 P/P H200 ER16MINI	16	22	200	32	●
61APM513	100/A	HSK100/A DIN69893 P/P H200 ER20MINI	20	28	200	38	●
61APM516	100/A	HSK100/A DIN69893 P/P H200 ER25MINI	25	35	200	45	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER MINI	Ghiera	Q.tà	Grano Interno	Q.tà
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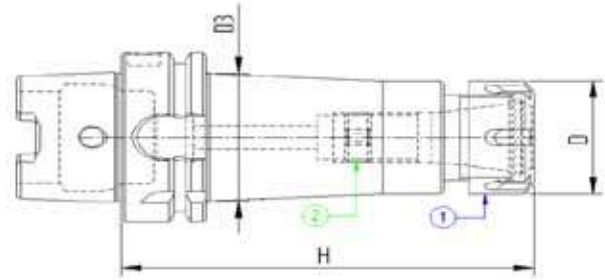
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2



16	916GHRMN	1	101001601	1
20	920GHRMN	1	101001601	1
25	925GHRMN	1	101815801	1



L=100

Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
61APP210	100/A	HSK100/A DIN69893 P/P H.100 ER16	16	32	100	32	●
61APP213	100/A	HSK100/A DIN69893 P/P H.100 ER20	20	35	100	35	●
61APP216	100/A	HSK100/A DIN69893 P/P H.100 ER25	25	42	100	42	●
61APP220	100/A	HSK100/A DIN69893 P/P H.100 ER32	32	50	100	50	●
61APP226	100/A	HSK100/A DIN69893 P/P H.100 ER40	40	63	100	63	●

L=120

Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
61APP310	100/A	HSK100/A DIN69893 P/P H120 ER16	16	32	120	37	●
61APP313	100/A	HSK100/A DIN69893 P/P H120 ER20	20	35	120	42	●
61APP316	100/A	HSK100/A DIN69893 P/P H120 ER25	25	42	120	42	●
61APP320	100/A	HSK100/A DIN69893 P/P H120 ER32	32	50	120	53	●
61APP326	100/A	HSK100/A DIN69893 P/P H120 ER40	40	63	120	63	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Interno	Q.tà
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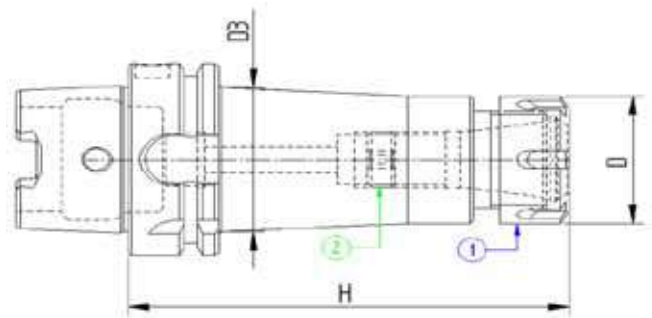
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2



16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	102215901	1



L=160

Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
61APP410	100/A	HSK100/A DIN69893 P/P H160 ER16	16	32	160	38	●
61APP413	100/A	HSK100/A DIN69893 P/P H160 ER20	20	35	160	42	●
61APP416	100/A	HSK100/A DIN69893 P/P H160 ER25	25	42	160	48	●
61APP420	100/A	HSK100/A DIN69893 P/P H160 ER32	32	50	160	50	●
61APP426	100/A	HSK100/A DIN69893 P/P H160 ER40	40	63	160	63	●

L=200

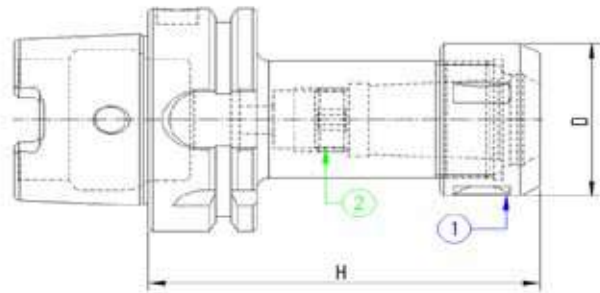
Codice	HSK	Descrizione	ER	D	H	D3	G6.3 15000
61APP510	100/A	HSK100/A DIN69893 P/P H200 ER16	16	32	200	40	●
61APP513	100/A	HSK100/A DIN69893 P/P H200 ER20	20	35	200	45	●
61APP516	100/A	HSK100/A DIN69893 P/P H200 ER25	25	42	200	48	●
61APP520	100/A	HSK100/A DIN69893 P/P H200 ER32	32	50	200	50	●
61APP526	100/A	HSK100/A DIN69893 P/P H200 ER40	40	63	200	63	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Grano Interno	Q.tà
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16	916GHREQ	1	101001601	1
20	920GHREQ	1	101001601	1
25	925GHREQ	1	101815801	1
32	932GHREQ	1	102215901	1
40	940GHREQ	1	102215901	1



Codice	HSK	Descrizione	EOC	D	H	G6.3 15000
61APO216	100/A	HSK100/A DIN69893 P/P H110 EOC16	16	43	110	●
61APO225	100/A	HSK100/A DIN69893 P/P H120 EOC25	25	60	120	●
61APO232	100/A	HSK100/A DIN69893 P/P H130 EOC32	32	72	130	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

EOC	Grano Interno	Q.tà	Ghiera	Q.tà
				
	2		1	
16	101815801	1	916GHROS	1
25	102215901	1	925GHROS	1
32	102215901	1	932GHROS	1

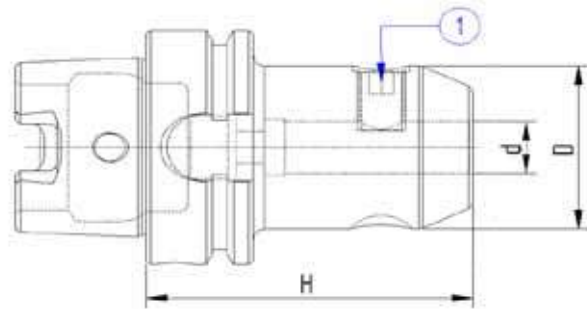


MANDRINO PORTAFRESE TIPO WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTIL TYPE WELDON
 ZYLINDERSCHAFTAUFNAHME WELDON



DIN 69893

DIN 1835 B



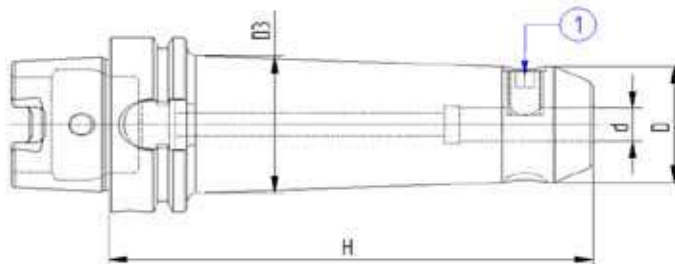
Codice	HSK	Descrizione	d	D	H	G6.3 15000
61AWLD06	100/A	HSK100/A DIN69893 WELDON H.80 D6	6	25	80	●
61AWLD08	100/A	HSK100/A DIN69893 WELDON H.80 D8	8	28	80	●
61AWLD10	100/A	HSK100/A DIN69893 WELDON H.80 D10	10	35	80	●
61AWLD12	100/A	HSK100/A DIN69893 WELDON H.80 D12	12	42	80	●
61AWLD14	100/A	HSK100/A DIN69893 WELDON H.80 D14	14	44	80	●
61AWLD16	100/A	HSK100/A DIN69893 WELDON H.100 D16	16	48	100	●
61AWLD18	100/A	HSK100/A DIN69893 WELDON H.100 D18	18	48	100	●
61AWLD20	100/A	HSK100/A DIN69893 WELDON H.100 D20	20	52	100	●
61AWLD25	100/A	HSK100/A DIN69893 WELDON H.100 D25	25	65	100	●
61AWLD32	100/A	HSK100/A DIN69893 WELDON H.100 D32	32	72	100	●
61AWLD40	100/A	HSK100/A DIN69893 WELDON H.105 D40	40	80	105	●
61AWLD50	100/A	HSK100/A DIN69893 WELDON H.160 D50	50	100	160	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32 - 40	102002002	2
50	102422504	2



L=160

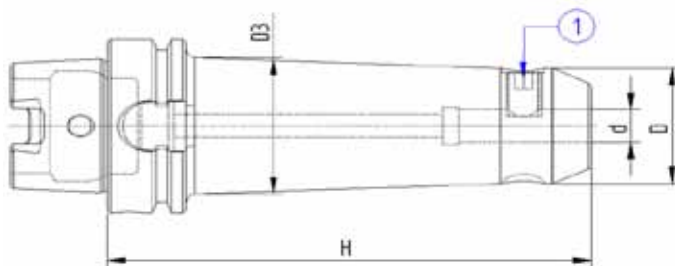
Codice	HSK	Descrizione	d	D	H	D3	G6.3 15000
61AWE406	100/A	HSK100/A DIN69893 WELDON H.160 D6	6	25	160	32	●
61AWE408	100/A	HSK100/A DIN69893 WELDON H.160 D8	8	28	160	35	●
61AWE410	100/A	HSK100/A DIN69893 WELDON H.160 D10	10	35	160	42	●
61AWE412	100/A	HSK100/A DIN69893 WELDON H.160 D12	12	42	160	49	●
61AWE414	100/A	HSK100/A DIN69893 WELDON H.160 D14	14	44	160	52	●
61AWE416	100/A	HSK100/A DIN69893 WELDON H.160 D16	16	48	160	55	●
61AWE418	100/A	HSK100/A DIN69893 WELDON H.160 D18	18	50	160	57	●
61AWE420	100/A	HSK100/A DIN69893 WELDON H.160 D20	20	52	160	60	●
61AWE425	100/A	HSK100/A DIN69893 WELDON H.160 D25	25	65	160	72	●
61AWE432	100/A	HSK100/A DIN69893 WELDON H.160 D32	32	72	160	80	●
61AWE440	100/A	HSK100/A DIN69893 WELDON H.160 D40	40	80	160	80	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d	Grano	Q.tà
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6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32 - 40	102002002	2



L=200

Codice	HSK	Descrizione	d	D	H	D3	G6.3 15000
61AWE506	100/A	HSK100/A DIN69893 WELDON H200 D6	6	25	200	35	●
61AWE508	100/A	HSK100/A DIN69893 WELDON H200 D8	8	28	200	37	●
61AWE510	100/A	HSK100/A DIN69893 WELDON H200 D10	10	35	200	44	●
61AWE512	100/A	HSK100/A DIN69893 WELDON H200 D12	12	42	200	51	●
61AWE514	100/A	HSK100/A DIN69893 WELDON H200 D14	14	44	200	53	●
61AWE516	100/A	HSK100/A DIN69893 WELDON H200 D16	16	48	200	57	●
61AWE518	100/A	HSK100/A DIN69893 WELDON H200 D18	18	50	200	59	●
61AWE520	100/A	HSK100/A DIN69893 WELDON H200 D20	20	52	200	61	●
61AWE525	100/A	HSK100/A DIN69893 WELDON H200 D25	25	65	200	72	●
61AWE532	100/A	HSK100/A DIN69893 WELDON H200 D32	32	72	200	82	●
61AWE540	100/A	HSK100/A DIN69893 WELDON H200 D40	40	80	200	80	●
61AWE550	100/A	HSK100/A DIN69893 WELDON H200 D50	50	100	200	-	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d	Grano	Q.tà
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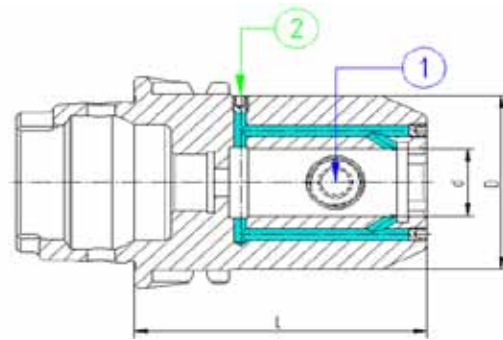
6	100601002	1
8	100801002	1
10	101001202	1
12 - 14	101201602	1
16 - 18	101401602	1
20	101601602	1
25	101802002	2
32 - 40	102002002	2
50	102422504	2

MANDRINO PORTAFRESE WELDON CON CANALI DI LUBRIFICAZIONE
 END MILL HOLDERS WELDON WITH COOLANT CHANNELS
 MANDRINS POUR OUTIL TYPE WELDON AVEC CANAL D'ARROSAGE
 ZYLINDERSCHAFTAUFNAHME WELDON MIT KÜHLKANAL



DIN 69893

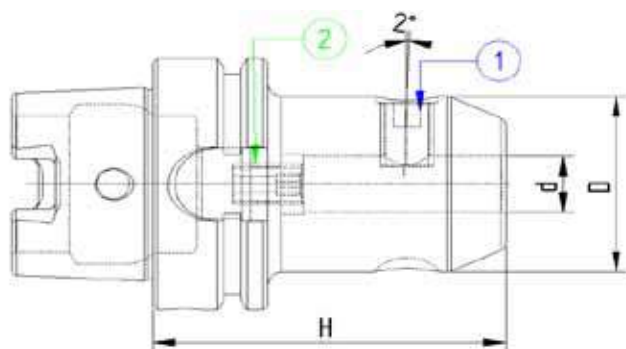
DIN 1835 B



Codice	HSK	Descrizione	d	D	L	G.3 15000
61AWLK06	100/A	HSK100/A DIN69893 WELDON/C H80 D.6	6	25	80	●
61AWLK08	100/A	HSK100/A DIN69893 WELDON/C H80 D.8	8	28	80	●
61AWLK10	100/A	HSK100/A DIN69893 WELDON/C H80 D.10	10	35	80	●
61AWLK12	100/A	HSK100/A DIN69893 WELDON/C H80 D.12	12	42	80	●
61AWLK14	100/A	HSK100/A DIN69893 WELDON/C H80 D.14	14	44	80	●
61AWLK16	100/A	HSK100/A DIN69893 WELDON/C H100 D.16	16	48	100	●
61AWLK18	100/A	HSK100/A DIN69893 WELDON/C H100 D.18	18	50	100	●
61AWLK20	100/A	HSK100/A DIN69893 WELDON/C H100 D.20	20	52	100	●
61AWLK25	100/A	HSK100/A DIN69893 WELDON/C H100 D.25	25	65	100	●
61AWLK32	100/A	HSK100/A DIN69893 WELDON/C H100 D.32	32	72	100	●
61AWLK40	100/A	HSK100/A DIN69893 WELDON/C H105 D.40	40	80	105	●



COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

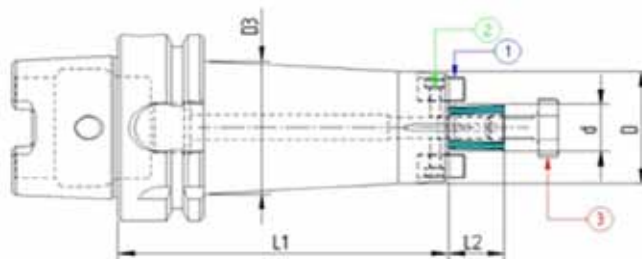
d	Grano	Q.tà	Grano	Q.tà
		1		2
6	100601002	1	100300404 M3x4	2
8	100801002	1	100400504 M4x5	2
10	101001202	1	100400504 M4x5	2
12 - 14	101201602	1	100400504 M4x5	2
16 - 18	101401602	1	100400504 M4x5	3
20	101601602	1	100400504 M4x5	3
25	101802002	2	100400504 M4x5	3
32 - 40	102002002	2	100400504 M4x5	3



Codice	HSK	Descrizione	d	D	H	G6.3 15000
61AWHN06	100/A	HSK100/A DIN69893 W/NOTCH H90 D6	6	25	90	●
61AWHN08	100/A	HSK100/A DIN69893 W/NOTCH H90 D8	8	28	90	●
61AWHN10	100/A	HSK100/A DIN69893 W/NOTCH H90 D10	10	35	90	●
61AWHN12	100/A	HSK100/A DIN69893 W/NOTCH H100 D12	12	42	100	●
61AWHN14	100/A	HSK100/A DIN69893 W/NOTCH H100 D14	14	44	100	●
61AWHN16	100/A	HSK100/A DIN69893 W/NOTCH H100 D16	16	48	100	●
61AWHN18	100/A	HSK100/A DIN69893 W/NOTCH H100 D18	18	50	100	●
61AWHN20	100/A	HSK100/A DIN69893 W/NOTCH H110 D20	20	52	110	●
61AWHN25	100/A	HSK100/A DIN69893 W/NOTCH H120 D25	25	65	120	●
61AWHN32	100/A	HSK100/A DIN69893 W/NOTCH H120 D32	32	72	120	●
61AWHN40	100/A	HSK100/A DIN69893 W/NOTCH H120 D40	40	80	120	●

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d	Grano	Q.tà	Grano Interno	Q.tà
	1		2	
6	100601002	1	100501601	1
8	100801002	1	100601601	1
10	101001202	1	100801601	1
12	101201602	1	101002501	1
14	101201602	1	101002501	1
16 - 18	101401602	1	101002501	1
20	101601602	1	101204001	1
25	101802002	2	101204001	1
32 - 40	102002002	2	101204001	1



STANDARD

Codice	HSK	Descrizione	d	L1	L2	D	D3	G6.3 15000
61APF116	100/A	HSK100/A DIN69893 P/F FISSO H50 D16	16	50	17	38	-	●
61APF122	100/A	HSK100/A DIN69893 P/F FISSO H50 D22	22	50	19	48	-	●
61APF127	100/A	HSK100/A DIN69893 P/F FISSO H50 D27	27	50	24	58	-	●
61APF132	100/A	HSK100/A DIN69893 P/F FISSO H50 D32	32	50	24	66	-	●
61APF140	100/A	HSK100/A DIN69893 P/F FISSO H60 D40	40	60	27	80	-	●




L = 100

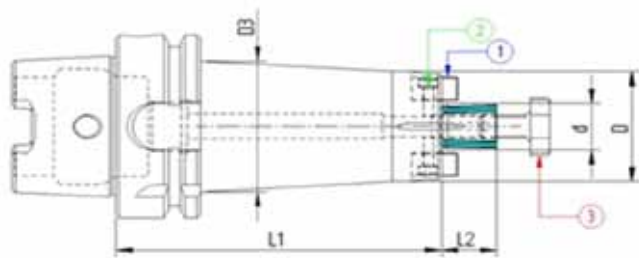
Codice	HSK	Descrizione	d	L1	L2	D	D3	G6.3 15000
61APF216	100/A	HSK100/A DIN69893 P/F FISSO H100 D16	16	100	17	38	43	●
61APF222	100/A	HSK100/A DIN69893 P/F FISSO H100 D22	22	100	19	48	53	●
61APF227	100/A	HSK100/A DIN69893 P/F FISSO H100 D27	27	100	21	58	-	●
61APF232	100/A	HSK100/A DIN69893 P/F FISSO H100 D32	32	100	24	66	-	●
61APF240	100/A	HSK100/A DIN69893 P/F FISSO H100 D40	40	100	27	80	-	●

L = 130

Codice	HSK	Descrizione	d	L1	L2	D	D3	G6.3 15000
61APF316	100/A	HSK100/A DIN69893 P/F FISSO H130 D16	16	130	17	38	44	●
61APF322	100/A	HSK100/A DIN69893 P/F FISSO H130 D22	22	130	19	48	55	●
61APF327	100/A	HSK100/A DIN69893 P/F FISSO H130 D27	27	130	21	58	65	●
61APF332	100/A	HSK100/A DIN69893 P/F FISSO H130 D32	32	130	24	66	73	●
61APF340	100/A	HSK100/A DIN69893 P/F FISSO H130 D40	40	130	27	80	-	●

COMPONENTI - SPARE PARTS - PIÈCES DETACHEES - ERSATZTEILE

d / D	Tassello	Q.tà	Vite Tassello	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1



L=160

Codice	HSK	Descrizione	d	L1	L2	D	D3	G6.3 15000
61APF416	100/A	HSK100/A DIN69893 P/F FISSO H160 D16	16	160	17	38	43	●
61APF422	100/A	HSK100/A DIN69893 P/F FISSO H160 D22	22	160	19	48	56	●
61APF427	100/A	HSK100/A DIN69893 P/F FISSO H160 D27	27	160	21	58	66	●
61APF432	100/A	HSK100/A DIN69893 P/F FISSO H160 D32	32	160	24	66	74	●
61APF440	100/A	HSK100/A DIN69893 P/F FISSO H160 D40	40	160	27	80	-	●




L = 200

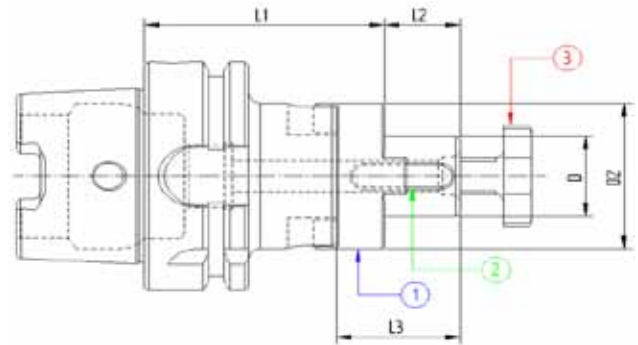
Codice	HSK	Descrizione	d	L1	L2	D	D3	G6.3 15000
61APF516	100/A	HSK100/A DIN69893 P/F FISSO H200 D16	16	200	17	38	47	●
61APF522	100/A	HSK100/A DIN69893 P/F FISSO H200 D22	22	200	19	48	58	●
61APF527	100/A	HSK100/A DIN69893 P/F FISSO H200 D27	27	200	21	58	67	●
61APF532	100/A	HSK100/A DIN69893 P/F FISSO H200 D32	32	200	24	66	75	●
61APF540	100/A	HSK100/A DIN69893 P/F FISSO H200 D40	40	200	27	80	-	●

L = 250

Codice	HSK	Descrizione	d	L1	L2	D	D3	G6.3 15000
61APF616	100/A	HSK100/A DIN69893 P/F FISSO H250 D16	16	250	17	38	48	●
61APF622	100/A	HSK100/A DIN69893 P/F FISSO H250 D22	22	250	19	48	58	●
61APF627	100/A	HSK100/A DIN69893 P/F FISSO H250 D27	27	250	21	58	68	●
61APF632	100/A	HSK100/A DIN69893 P/F FISSO H250 D32	32	250	24	66	77	●
61APF640	100/A	HSK100/A DIN69893 P/F FISSO H250 D40	40	250	27	80	-	●




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

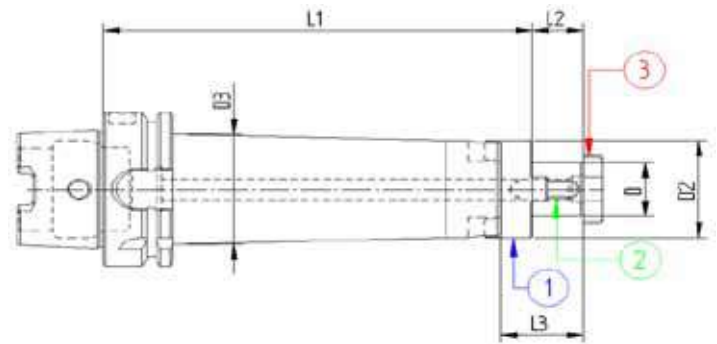
d / D	Tassello	Q.tà	Vite Tassello	Q.tà	Vite Croce	Q.tà
						
	1		2		3	
16 / 38	916TSL01	2	110301001	2	916VTC02	1
22 / 48	922TSL01	2	110301201	2	922VTC02	1
27 / 58	927TSL01	2	110401601	2	927VTC02	1
32 / 66	932TSL01	2	110601601	2	932VTC02	1
40 / 80	940TSL01	2	110601601	2	940VTC02	1



Codice	HSK	Descrizione	D	L1	L2	L3	D2
61APU116	100/A	HSK100/A DIN69893 P/F UNIV.H60 D16	16	60	17	27	32
61APU122	100/A	HSK100/A DIN69893 P/F UNIV.H60 D22	22	60	19	31	40
61APU127	100/A	HSK100/A DIN69893 P/F UNIV.H60 D27	27	60	21	33	48
61APU132	100/A	HSK100/A DIN69893 P/F UNIV.H60 D32	32	60	24	38	58
61APU140	100/A	HSK100/A DIN69893 P/F UNIV.H70 D40	40	70	27	41	70

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

D	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1






L = 100


Codice	HSK	Descrizione	D	L1	L2	L3	D2	D3
61APU216	100/A	HSK100/A DIN69893 P/F UNIV.H100 D16	16	100	17	27	32	44
61APU222	100/A	HSK100/A DIN69893 P/F UNIV.H100 D22	22	100	19	31	40	50
61APU227	100/A	HSK100/A DIN69893 P/F UNIV.H100 D27	27	100	21	33	48	60
61APU232	100/A	HSK100/A DIN69893 P/F UNIV.H100 D32	32	100	24	38	58	58
61APU240	100/A	HSK100/A DIN69893 P/F UNIV.H100 D40	40	100	27	41	70	70

L = 160

Codice	HSK	Descrizione	D	L1	L2	L3	D2	D3
61APU416	100/A	HSK100/A DIN69893 P/F UNIV.H160 D16	16	160	17	27	32	44
61APU422	100/A	HSK100/A DIN69893 P/F UNIV.H160 D22	22	160	19	31	40	50
61APU427	100/A	HSK100/A DIN69893 P/F UNIV.H160 D27	27	160	21	33	48	60
61APU432	100/A	HSK100/A DIN69893 P/F UNIV.H160 D32	32	160	24	38	58	58
61APU440	100/A	HSK100/A DIN69893 P/F UNIV.H160 D40	40	160	27	41	70	70

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

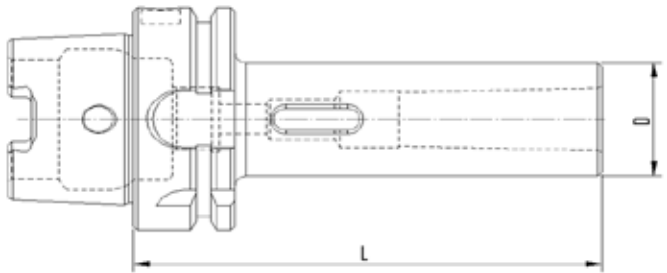
D	Giunto	Q.tà	Linguetta	Q.tà	Vite Croce	Q.tà
						
16	916GNT01	1	170402004	1	916VTC02	1
22	922GNT01	1	170602506	1	922VTC02	1
27	927GNT01	1	170702507	1	927VTC02	1
32	932GNT01	1	170802807	1	932VTC02	1
40	940GNT01	1	171003208	1	940VTC02	1


MANDRINI ATTACCO CONO MORSE PER PUNTE
MORSE TAPER ADAPTOR FOR DRILLS
DOUILLES POUR CONE MORSE A TENON
ZWISCHENHULSEN FUER MORSEKEGEL MIT AUSTREIBLAPPEN



DIN 69893

DIN 228 - 2



Codice	HSK	Descrizione	D	L
61AMP101	100/A	HSK100/A DIN69893 H.110 CM1 PUNTE	25	110
61AMP102	100/A	HSK100/A DIN69893 H.120 CM2 PUNTE	32	120
61AMP103	100/A	HSK100/A DIN69893 H.150 CM3 PUNTE	40	150
61AMP104	100/A	HSK100/A DIN69893 H.170 CM4 PUNTE	48	170
61AMP105	100/A	HSK100/A DIN69893 H.200 CM5 PUNTE	63	200

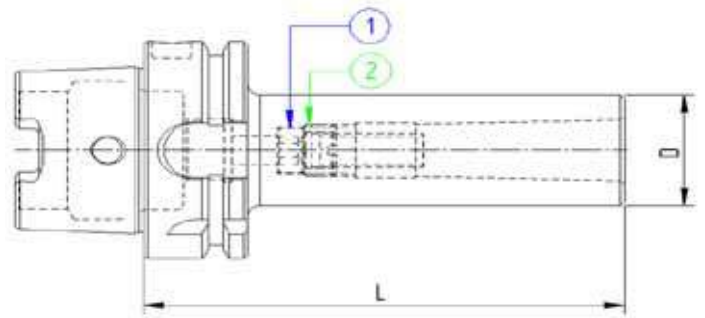


MANDRINI ATTACCO CONO MORSE FRESE CON REFRIGERAZIONE INTERNA
 MORSE TAPER MILL ADAPTER WITH THREAD AND INTERNAL COOLANT SUPPLY
 DOUILLES POUR CONE MORSE AVEC TARAUDAGE ET ARROSAGE INTERNE
 ZWISCHENHULSEN FÜR MORSEKEGEL MIT ZENTRALER KÜHLMITTELZUFUHR





DIN 69893

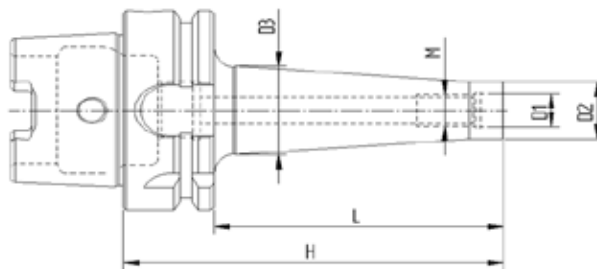
DIN 228 - 2



Codice	HSK	Descrizione	D	L
61AMF101	100/A	HSK100/A DIN69893 H.110 CM1 FRESE	25	110
61AMF102	100/A	HSK100/A DIN69893 H.120 CM2 FRESE	32	120
61AMF103	100/A	HSK100/A DIN69893 H.150 CM3 FRESE	40	150
61AMF104	100/A	HSK100/A DIN69893 H.170 CM4 FRESE	48	170
61AMF105	100/A	HSK100/A DIN69893 H.200 CM5 FRESE	63	200

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

MORSE	Vite	Q.tà	Ghiera	Q.tà
				
1	110603501	1	121206502	1
2	111003014	1	121500802	1
3	111204003	1	122000903	1
4	111604514	1	122501204	1
5	112005003	1	123601104	1



L = 87

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
61AAF212	100/A	HSK100/A DIN69893 P/F AT.FIL.M12X87	12.5	21	24	87	58	12	●
61AAF216	100/A	HSK100/A DIN69893 P/F AT.FIL.M16X87	17	29	32	87	58	16	●

L = 137

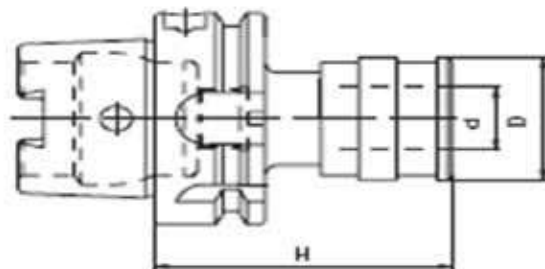
Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
61AAF312	100/A	HSK100/A DIN69893 P/F AT.FIL.M12X137	12.5	21	47	137	108	12	●
61AAF316	100/A	HSK100/A DIN69893 P/F AT.FIL.M16X137	17	29	42	137	108	16	●

L = 187

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
61AAF412	100/A	HSK100/A DIN69893 P/F AT.FIL.M12X187	12.5	21	55	187	158	12	●
61AAF416	100/A	HSK100/A DIN69893 P/F AT.FIL.M16X187	17	29	55	187	158	16	●

L = 237

Codice	HSK	Descrizione	D1	D2	D3	H	L	M	G2.5 20000
61AAF516	100/A	HSK100/A DIN69893 P/F AT.FIL.M16X237	17	29	55	237	208	16	●



Codice	HSK	Descrizione	D	d	H
61APCRM1	100/A	HSK100/A M/PORTAM/C/R H80 GR.1	48	19	80
61APCRM2	100/A	HSK100/A M/PORTAM/C/R H100 GR.2	60	31	100

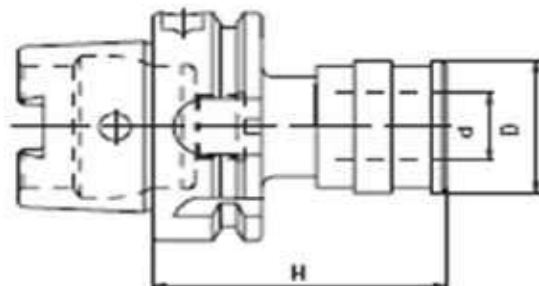
ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



RIF. PAGINA **312**



RIF. PAGINA **313**



Codice	HSK	Descrizione	D	d	H
61APRRM1	100/A	HSK100/A M/PORTAM/C/R/R H80 GR.1	48	19	80
61APRRM2	100/A	HSK100/A M/PORTAM/C/R/R H100 GR.2	60	31	100

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR



RIF. PAGINA **312**



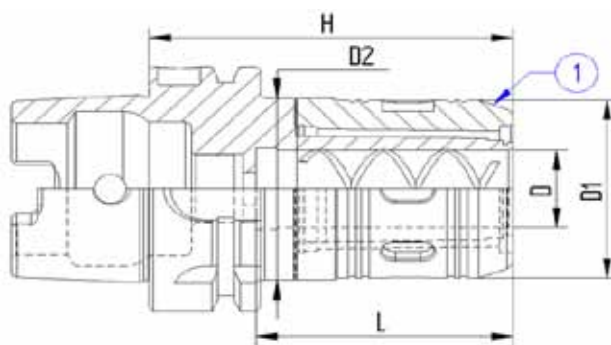
RIF. PAGINA **313**



MANDRINI A FORTE SERRAGGIO
MILLING CHUCK
MANDRINS A FORT SERRAGE
KRAFTSPANNFUTTER



DIN 69893



Codice	HSK	Descrizione	H	D	D1	D2	L	G6.3 12000
61AFS220	100/A	HSK100/A FORTE SERRAGGIO Ø20 H105	105	20	46	47	60	●
61AFS232	100/A	HSK100/A FORTE SERRAGGIO Ø32 H115	115	32	62	63	80	●

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR

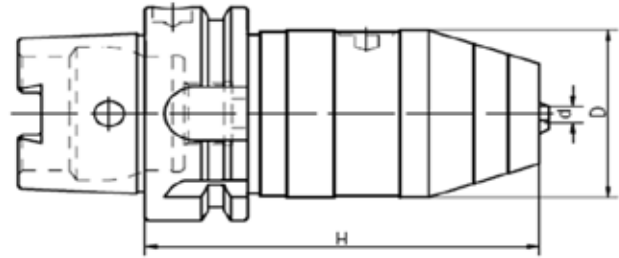


RIF. PAGINA **315**


MANDRINI INTEGRALI CON CHIAVE ESAGONALE
DRILL CHUCK WITH EXAGONAL KEY LOCK SYSTEM
MANDRIN MONOBLOC-SERRAGE PAR CLÉ 6 PANS
NC-KURZBOHRFUTTER-SPANNED DURCH 6 KANTSCHLUSSEL



DIN 69893



CON REFRIGERANTE CENTRALE - WITH INTERNAL COOLANT SUPPLY - AVEC ARROSAGE INTERNE - MIT ZENTRALER KÜHLMITTEL

Codice	HSK	Descrizione	D	H	d
61AMAZ13	100/A	HSK100/A M/AUTOS./FORI H108 D13	50	108	1-13
61AMAZ16	100/A	HSK100/A M/AUTOS./FORI H113 D16	50	113	3-16


MANDRINI SEMILAVORATI CON STELO TENERO
BLANK TOOLHOLDERS WITH SOFT SHANK
BARRE D'ALEPAGE SEMI-FINIES
ROHLINGE MIT WEICHEM SCHAFT



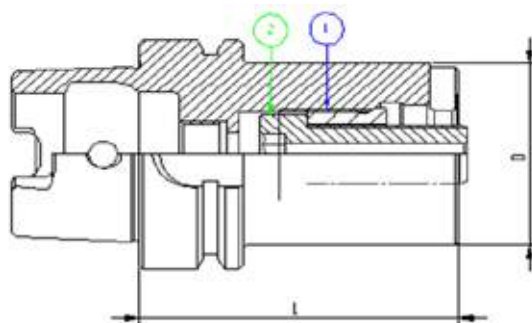
DIN 69893



Codice	HSK	Descrizione	D	L
61AST397	100/A	HSK100/A DIN69893 ST. TENERO D97x315	97	315



HSK 63/A

ATTACCHI BASE MODULARI



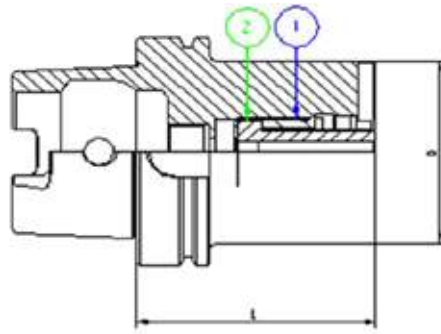
Codice	Descrizione	L	D
66AVL150	HSK63/A DIN69893 MODULARE H.80 D.50	80	50
66AVL163	HSK63/A DIN69893 MODULARE H.90 D.63	90	63

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	VITE	Q.tà	GHIERA	Q.tà
				
	1		2	
50	111604011	1	122502007	1
63	112005011	1	123002408	1



HSK 100/A

ATTACCHI BASE MODULARI

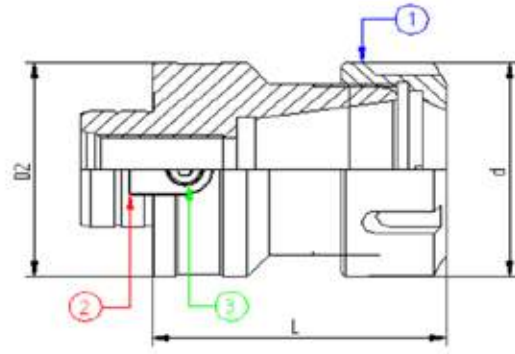


Codice	Descrizione	L	D
61AVL150	HSK100/A DIN69893 MODULARE H.85 D.50	85	50
61AVL163	HSK100/A DIN69893 MODULARE H.95 D.63	95	63
61AVL180	HSK100/A DIN69893 MODULARE H.95 D.80	95	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE




∅	Vite	Q.tà	Ghiera	Q.tà
				
	1		2	
50	111604011	1	122502007	1
63	112005011	1	123002408	1
80	112005011	1	123002408	1

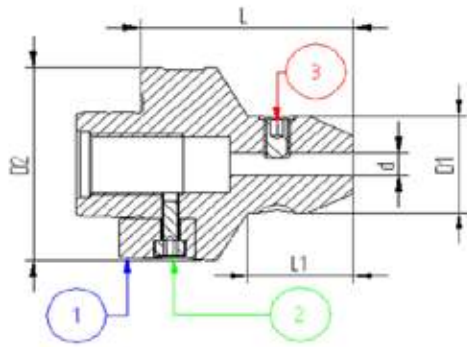
INSERTI MODULARI 50



Codice	Descrizione	D2	L	d
VL5PP113	MODULARE D50 P/PINZE ER20 H=63	50	63	35
VL5PP116	MODULARE D50 P/PINZE ER25 H=63	50	63	42
VL5PP120	MODULARE D50 P/PINZE ER32 H=65	50	65	50

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

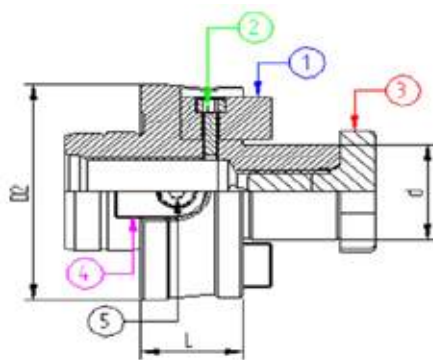
ER	Ghiera	Q.tà	Tassello	Q.tà	Vite	Q.tà
						
20	920GHREQ	1	927TSL03	1	110401601	1
25	925GHREQ	1	927TSL03	1	110401601	1
32	932GHREQ	1	927TSL03	1	110401601	1



Codice	Descrizione	D2	L	d	L1	D1
VL5WLD06	MOD. D50 WELDON D.6 H=50	50	50	6	25	25
VL5WLD08	MOD. D50 WELDON D.8 H=50	50	50	8	25	28
VL5WLD10	MOD. D50 WELDON D.10 H=50	50	50	10	28	35
VL5WLD12	MOD. D50 WELDON D.12 H=60	50	60	12	36	42
VL5WLD14	MOD. D50 WELDON D.14 H=60	50	60	14	37	44
VL5WLD16	MOD. D50 WELDON D.16 H=60	50	60	16	39	48
VL5WLD18	MOD. D50 WELDON D.18 H=60	50	60	18	45	50
VL5WLD20	MOD. D50 WELDON D.20 H=62	50	62	20	47	52
VL5WLD25	MOD. D50 WELDON D.25 H=80	50	80	25	66	65






COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

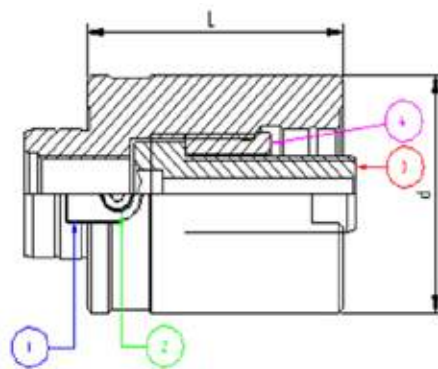
d	Tassello	Q.tà	Vite	Q.tà	Grano	Q.tà
6	927TSL03	1	110401201	1	100601002	1
8	927TSL03	1	110401201	1	100801002	1
10	927TSL03	1	110401201	1	101001202	1
12	927TSL03	1	110401201	1	101201602	1
14	927TSL03	1	110401201	1	101201602	1
16	927TSL03	1	110401201	1	101401602	1
18	927TSL03	1	110401201	1	101401602	1
20	927TSL03	1	110401201	1	101601602	1
25	927TSL03	1	110401201	1	101802002	2



Codice	Descrizione	D2	L	d
VL5PF116	MODULARE D50 P/FRESA D.16 H=30	50	30	16
VL5PF122	MODULARE D50 P/FRESA D.22 H=20	50	20	22
VL5PF127	MODULARE D50 P/FRESA D.27 H=20	50	20	27
VL5PF132	MODULARE D50 P/FRESA D.32 H=25	50	25	32





COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà	Tassello	Q.tà	Vite	Q.tà
										
16	916TSL01	2	110301001	2	916VTC02	1	927TSL03	1	110401201	1
22	922TSL01	2	110301001	2	922VTC02	1	927TSL03	1	110401201	1
27	927TSL01	2	110401601	2	927VTC02	1	927TSL03	1	110401201	1
32	932TSL01	2	110601601	2	932VTC02	1	927TSL03	1	110401201	1

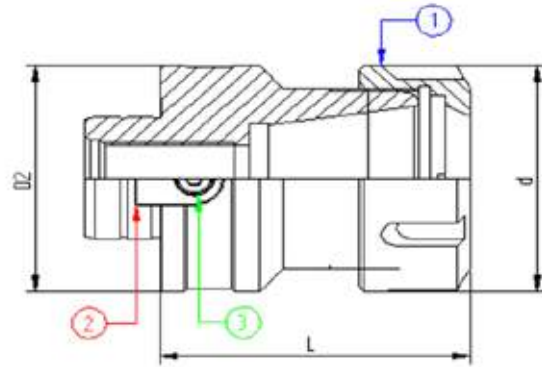


Codice	Descrizione	L	d
VL5PR060	MODULARE D50 PROLUNGA H=60	60	50
VL5PR080	MODULARE D50 PROLUNGA H=80	80	50
VL5PR100	MODULARE D50 PROLUNGA H=100	100	50

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE




L	Tassello	Q.tà	Vite	Q.tà	Vite	Q.tà	Ghiera	Q.tà
								
60	927TSL03	1	111604011	1	110401201	1	122502007	1
80	927TSL03	1	111604011	1	110401201	1	122502007	1
100	927TSL03	1	111604011	1	110401201	1	122502007	1

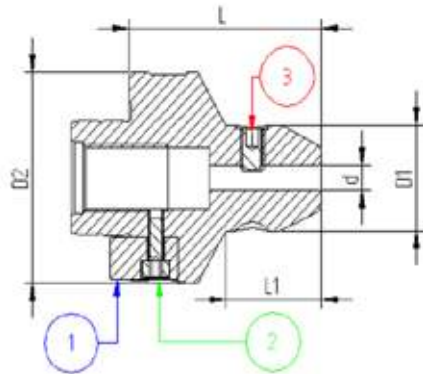
INSERTI MODULARI 63



Codice	Descrizione	D2	L	d
VL6PP120	MODULARE D63 P/PINZE ER32 H=77	63	77	50
VL6PP126	MODULARE D63 P/PINZE ER40 H=86	63	86	63




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER	Ghiera	Q.tà	Tassello	Q.tà	Vite	Q.tà
						
32	932GHREQ	1	940TSL06	1	110601201	1
40	940GHREQ	1	940TSL06	1	110601201	1



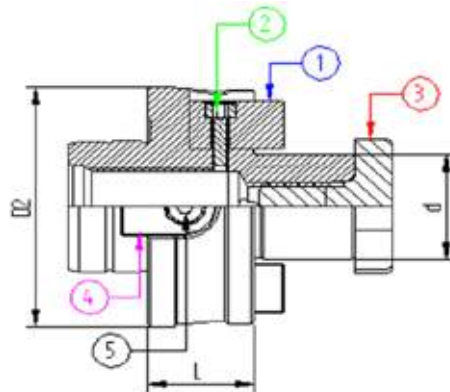
Codice	Descrizione	D2	L	d	L1	D1
VL6WLD10	MOD. D63 WELDON D.10 H=70	63	70	10	36	35
VL6WLD12	MOD. D63 WELDON D.12 H=70	63	70	12	39,5	42
VL6WLD14	MOD. D63 WELDON D.14 H=70	63	70	14	40,5	44
VL6WLD16	MOD. D63 WELDON D.16 H=70	63	70	16	42,5	48
VL6WLD18	MOD. D63 WELDON D.18 H=70	63	70	18	43,5	50
VL6WLD20	MOD. D63 WELDON D.20 H=70	63	70	20	44,5	52
VL6WLD25	MOD. D63 WELDON D.25 H=80	63	80	25	59,5	62
VL6WLD32	MOD. D63 WELDON D.32 H=80	63	80	32	64,5	63
VL6WLD40	MOD. D63 WELDON D.40 H=90	63	90	40	70	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

d	Tassello	Q.tà	Vite	Q.tà	Grano	Q.tà
						
10	940TSL06	1	110601201	1	101001202	1
12	940TSL06	1	110601201	1	101201602	1
14	940TSL06	1	110601201	1	101201602	1
16	940TSL06	1	110601201	1	101401602	1
18	940TSL06	1	110601201	1	101401602	1
20	940TSL06	1	110601201	1	101601602	1
25	940TSL06	1	110601201	1	101802002	2
32	940TSL06	1	110601201	1	102002002	2
40	940TSL06	1	110601201	1	102002002	2



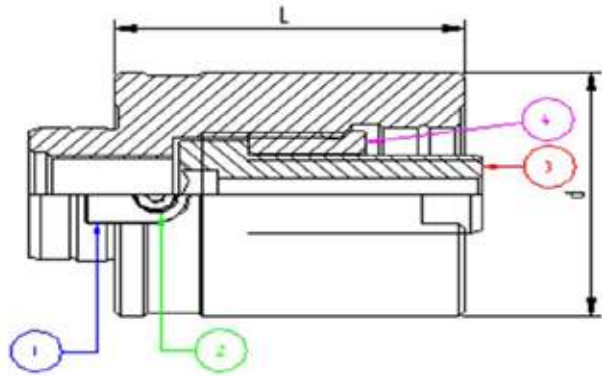
ADATTATORE PORTA FRESA
shell mill HOLDER ADAPTERS
ADAPTATEURS PORTE FRAISES
ADAPTER FUER FRAESER



Codice	Descrizione	D2	L	d
VL6PF122	MODULARE D63 P/FRESA D.22 H=30	63	30	22
VL6PF127	MODULARE D63 P/FRESA D.27 H=30	63	30	27
VL6PF132	MODULARE D63 P/FRESA D.32 H=30	63	30	32
VL6PF140	MODULARE D63 P/FRESA D.40 H=30	63	30	40





COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

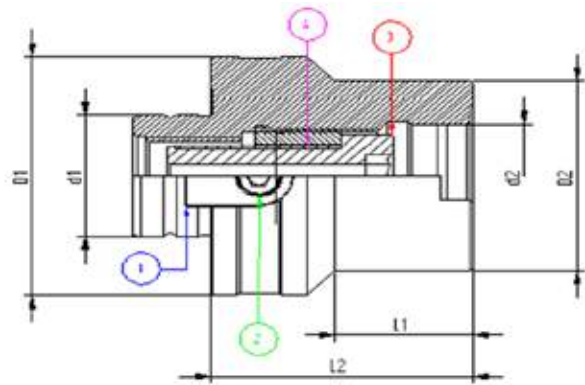
d	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà	Tassello	Q.tà	Vite	Q.tà
22	922TSL01	2	110301201	2	922VTC02	1	940TSL06	1	110601201	1
27	927TSL01	2	110401601	2	927VTC02	1	940TSL06	1	110601201	1
32	932TSL01	2	110601601	2	932VTC02	1	940TSL06	1	110601201	1
40	940TSL01	2	110601601	2	940VTC02	1	940TSL06	1	110601201	1



Codice	Descrizione	L	d
VL6PR080	MODULARE D63 PROLUNGA H=80	80	63
VL6PR120	MODULARE D63 PROLUNGA H=120	120	63





COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

L	Tassello	Q.tà	Vite	Q.tà	Vite	Q.tà	Ghiera	Q.tà
								
	1		2		3		4	
80	940TSL06	1	110601201	1	112005012	1	123002408	1
120	940TSL06	1	110601201	1	112005012	1	123002408	1

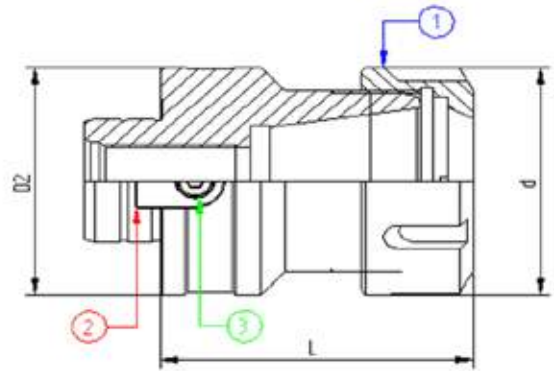


Codice	Descrizione	D1	d1	L2	L1	d2	D2
VL6RD050	MODULARE D63 RIDUZIONE D.50 H=60	63	32	60	31,5	27	50

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE


D	Tassello	Q.tà	Vite	Q.tà	Vite	Q.tà	Ghiera	Q.tà		
1			2			3			4	
50	940TSL03	1	110601201	1	111604011	1	122502007	1		

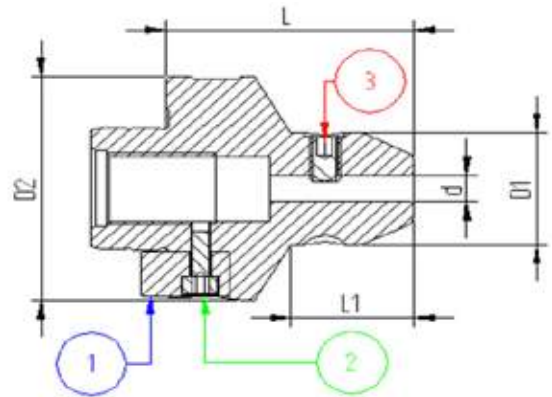
INSERTI MODULARI 80



Codice	Descrizione	D2	L	d
VL8PP126	MODULARE D80 P/PINZE ER40 H=90	80	90	63




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

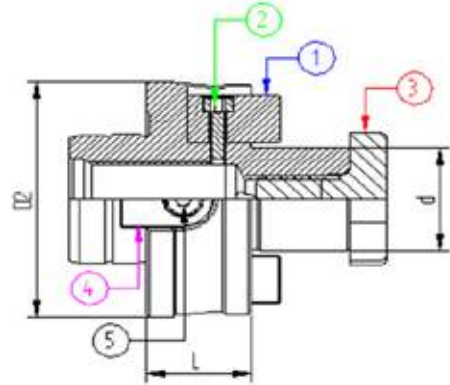
ER	Ghiera	Q.tà	Tassello	Q.tà	Vite	Q.tà
1						
40	940GHREQ	1	940TSL01	1	110601601	1



Codice	Descrizione	D2	L	d	L1	D1
VL8WLD16	MOD. D80 WELDON D.16 H=70	80	70	16	32	48
VL8WLD20	MOD. D80 WELDON D.20 H=70	80	70	20	34	52
VL8WLD25	MOD. D80 WELDON D.25 H=80	80	80	25	50,5	65
VL8WLD32	MOD. D80 WELDON D.32 H=80	80	80	32	54	72
VL8WLD40	MOD. D80 WELDON D.40 H=90	80	90	40	67,5	79






COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

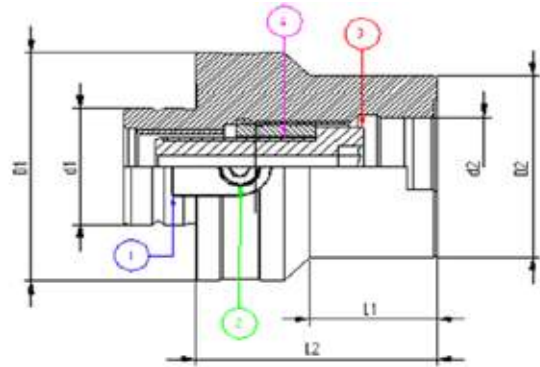
d	Tassello	Q.tà	Vite	Q.tà	Grano	Q.tà
						
1			2		3	
16	940TSL01	1	110601601	1	101401602	1
20	940TSL01	1	110601601	1	101601602	1
25	940TSL01	1	110601601	1	101802002	2
32	940TSL01	1	110601601	1	102002002	2
40	940TSL01	1	110601601	1	102002002	2



Codice	Descrizione	D2	L	d
VL8PF127	MODULARE D80 P/FRESA D.27 H=30	80	30	27
VL8PF132	MODULARE D80 P/FRESA D.32 H=30	80	30	32
VL8PF140	MODULARE D80 P/FRESA D.40 H=30	80	30	40





COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

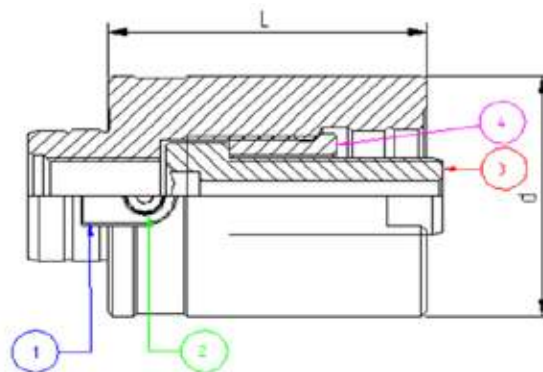
Ø	Tassello	Q.tà	Vite	Q.tà	Vite Croce	Q.tà	Tassello	Q.tà	Vite	Q.tà
										
27	927TSL01	2	110401201	2	927VTC02	1	940TSL01	1	110601601	1
32	932TSL01	2	110601601	2	932VTC02	1	940TSL01	1	110601601	1
40	940TSL01	2	110601601	2	940VTC02	1	940TSL01	1	110601601	1



Codice	Descrizione	D1	d1	L2	L1	d2	D2
VL8RD163	MODULARE D80 RIDUZIONE D.63 H=80	80	32	80	49,5	32	63





COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	Vite	Q.tà	Ghiera	Q.tà	Vite	Q.tà	Tassello	Q.tà
		3		4		2		1
63	112005011	1	123002408	1	110601601	1	940TSL01	1



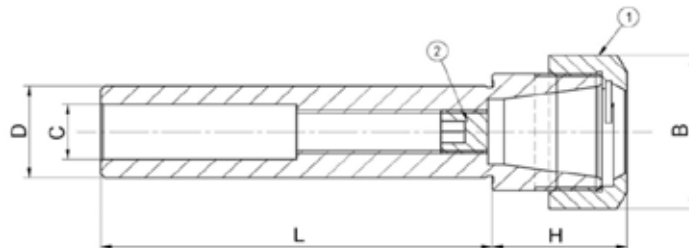
Codice	Descrizione	L	d
VL8PR080	MODULARE D80 PROLUNGA H=80	80	80
VL8PR100	MODULARE D80 PROLUNGA H=100	100	80
VL8PR120	MODULARE D80 PROLUNGA H=120	120	80
VL8PR140	MODULARE D80 PROLUNGA H=140	140	80
VL8PR160	MODULARE D80 PROLUNGA H=160	160	80

COMPONENTI - SPARE PARTS - PIÈCES DÉTACHÉES - ERSATZTEILE

L	Tassello	Q.tà	Vite	Q.tà	Vite	Q.tà	Ghiera	Q.tà
								
80	940TSL01	1	110601601	1	112005011	1	123002408	1
100	940TSL01	1	110601601	1	112005011	1	123002408	1
120	940TSL01	1	110601601	1	112005011	1	123002408	1
140	940TSL01	1	110601601	1	112005011	1	123002408	1
160	940TSL01	1	110601601	1	112005011	1	123002408	1

MANDRINI

CILINDRICI



Codice	D	Descrizione	L	H	B	C	Grano Int.
716PP110	16	CIL.D.16 P/P H60 ER16	60	37.6	32	7	100600604
716PP210	16	CIL.D.16 P/P H100 ER16	100	37.6	32	7.5	100601004
720PP210	20	CIL.D.20 P/P H100 ER16	100	40.6	32	12	101001204
720PP220	20	CIL.D.20 P/P H100 ER32	100	53	50	11	101001204
720PP420	20	CIL.D.20 P/P H160 ER32	160	53	50	11	101001204
725PP216	25	CIL.D.25 P/P H100 ER25	100	40	42	15	101201004
725PP316	25	CIL.D.25 P/P H150 ER25	150	40	42	15	101201004
725PP416	25	CIL.D.25 P/P H160 ER25	160	40	42	15	101201004
725PP420	25	CIL.D.25 P/P H160 ER32	160	53	50	15	101201604
732PP220	32	CIL.D.32 P/P H100 ER32	100	53	50	20	101601604
732PP226	32	CIL.D.32 P/P H100 ER40	100	61	63	20	101601604
732PP320	32	CIL.D.32 P/P H150 ER32	150	53	50	20	101601604
732PP420	32	CIL.D.32 P/P H160 ER32	160	53	50	20	101601604
740PP220	40	CIL.D.40 P/P H100 ER32	100	53	50	25	101601604
740PP326	40	CIL.D.40 P/P H130 ER40	130	65	63	25	101601604

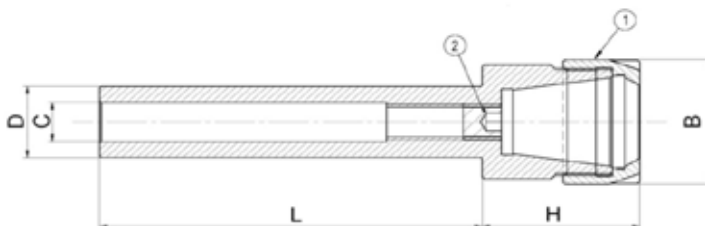
ALTRE MISURE DISPONIBILI A MAGAZZINO

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER Ghiera Q.tà



16	916GHREQ	1
20	920GHREQ	1
25	925GHREQ	1
32	932GHREQ	1
40	940GHREQ	1



2

Codice	D	Descrizione	L	H	B	C	Grano Int.
706PM107	6	CIL.D.6 P/P H45 ER11MINI	45	37.1	16	-	-
708PM207	8	CIL.D.8 P/P H100 ER11MINI	100	37.1	16	-	-
710PM207	10	CIL.D.10 P/P H100 ER11MINI	100	25.6	16	-	-
710PM210	10	CIL.D.10 P/P H100 ER16MINI	100	37.6	22	-	-
712PM207	12	CIL.D.12 P/P H100 ER11MINI	100	25.6	16	-	-
712PM310	12	CIL.D.12 P/P H120 ER16MINI	120	37.6	22	-	-
716PM210	16	CIL.D.16 P/P H100 ER16MINI	100	37.6	22	7.5	100600604
716PM410	16	CIL.D.16 P/P H160 ER16MINI	160	37.6	22	7.5	100600604
720PM210	20	CIL.D.20 P/P H100 ER16MINI	100	37.6	22	11	101001204
720PM216	20	CIL.D.20 P/P H100 ER25MINI	100	46	35	11	101001204
720PM410	20	CIL.D.20 P/P H160 ER16MINI	160	40.6	22	12	101001801
725PM210	25	CIL.D.25 P/P H100 ER16MINI	100	30.6	22	15	101001204
725PM213	25	CIL.D.25 P/P H100 ER20MINI	100	40.0	28	15	101001604
725PM316	25	CIL.D.25 P/P H130 ER25MINI	130	52.0	35	15.0	101001604
725PM410	25	CIL.D.25 P/P H160 ER16MINI	160	30.6	22	15.0	101001204

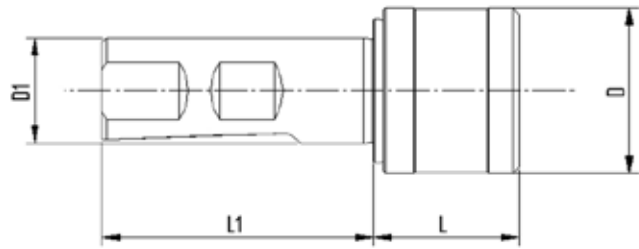
ALTRE MISURE DISPONIBILI A MAGAZZINO

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

ER MINI Ghiera Q.tà

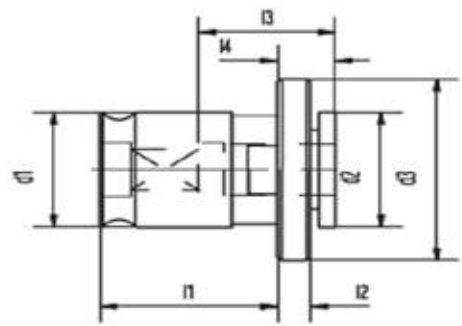


11	911GHRMN	1
16	916GHRMN	1
20	920GHRMN	1
25	925GHRMN	1

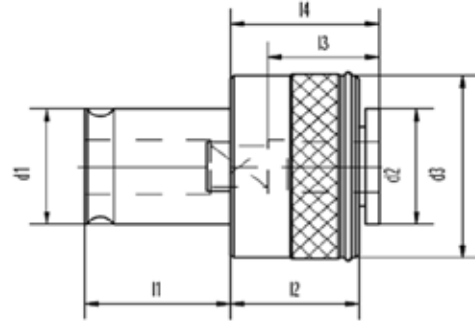


Codice	D	Descrizione	D1	L1	L	TIPO	RANGE	D
720PCRM1	20	CIL.D.20 PORTAM/C/R H=52 GR1	20	52	39	1	M3 - M12	39.2
725PCRM1	25	CIL.D.25 PORTAM/C/R H=60 GR1	25	60	39	1	M3 - M12	39.2
725PCRM2	25	CIL.D.25 PORTAM/C/R H=60 GR2	25	60	65	2	M6 - M20	54.5
732PCRM2	32	CIL.D.32 PORTAM/C/R H=60 GR2	32	60	65	2	M6 - M20	54.5

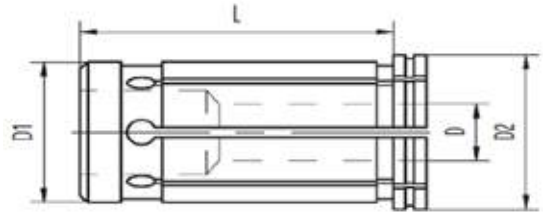
BUSSOLE
PER MASCHIATORI
E MANDRINI
A FORTE SERRAGGIO



Codice	Descrizione	d1	d2	d3	l1	l2	l3	l4
BSF1-2.8	BUSSOLA PORTA/M/S/F 2,8X2,1 GR.1	19	19	30	21.5	4	17	7
BSF1-3.5	BUSSOLA PORTA/M/S/F 3,5X2,7 GR.1	19	19	30	21.5	4	17	7
BSF1-4.0	BUSSOLA PORTA/M/S/F 4X3,0 GR.1	19	19	30	21.5	4	17	7
BSF1-4.5	BUSSOLA PORTA/M/S/F 4,5X3,4 GR.1	19	19	30	21.5	4	17	7
BSF1-5.0	BUSSOLA PORTA/M/S/F 5X4,0 GR.1	19	19	30	21.5	4	17	7
BSF1-6.0	BUSSOLA PORTA/M/S/F 6X4,9 GR.1	19	19	30	21.5	4	17	7
BSF1-7.0	BUSSOLA PORTA/M/S/F 7X5,5 GR.1	19	19	30	21.5	4	17	7
BSF1-8.0	BUSSOLA PORTA/M/S/F 8X6,2 GR.1	19	19	30	21.5	4	17	7
BSF1-9.0	BUSSOLA PORTA/M/S/F 9X7,0 GR.1	19	19	30	21.5	4	17	7
BSF1-10.0	BUSSOLA PORTA/M/S/F 10X8,0 GR.1	19	19	30	21.5	4	17	7
BSF1-11.0	BUSSOLA PORTA/M/S/F 11X9,0 GR.1	19	19	30	21.5	4	17	7
BSF2-6.0	BUSSOLA PORTA/M/S/F 6X4,9 GR.2	31	30	48	35	5	30	11
BSF2-7.0	BUSSOLA PORTA/M/S/F 7X5,5 GR.2	31	30	48	35	5	30	11
BSF2-8.0	BUSSOLA PORTA/M/S/F 8X6,2 GR.2	31	30	48	35	5	30	11
BSF2-9.0	BUSSOLA PORTA/M/S/F 9X7,0 GR.2	31	30	48	35	5	30	11
BSF2-10.0	BUSSOLA PORTA/M/S/F 10X8,0 GR.2	31	30	48	35	5	30	11
BSF2-11.0	BUSSOLA PORTA/M/S/F 11X9,0 GR.2	31	30	48	35	5	30	11
BSF2-12.0	BUSSOLA PORTA/M/S/F 12X9,0 GR.2	31	30	48	35	5	30	11
BSF2-14.0	BUSSOLA PORTA/M/S/F 14X11,0 GR.2	31	30	48	35	5	30	11
BSF2-16.0	BUSSOLA PORTA/M/S/F 16X12,0 GR.2	31	30	48	35	5	30	11
BSF2-18.0	BUSSOLA PORTA/M/S/F 18X14,6 GR.2	31	30	48	35	5	30	11
BSF2-20.0	BUSSOLA PORTA/M/S/F 20X16,0 GR.2	31	30	48	35	5	30	11

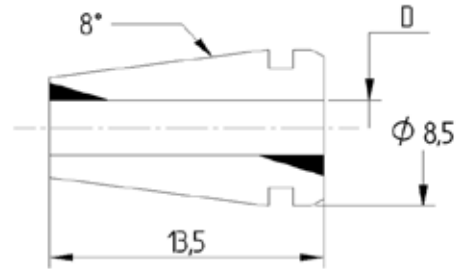


Codice	Descrizione	d1	d2	d3	l1	l2	l3	l4
BCF1-3.5	BUSSOLA PORTA/M/C/F 3,5X2,7 GR.1	19	19	32	21.5	25	17	25
BCF1-4.5	BUSSOLA PORTA/M/C/F 4,5X3,4 GR.1	19	19	32	21.5	25	17	25
BCF1-5.5	BUSSOLA PORTA/M/C/F 5,5X4,3 GR.1	19	19	32	21.5	25	17	25
BCF1-6.0	BUSSOLA PORTA/M/C/F 6X4,9 GR.1	19	19	32	21.5	25	17	25
BCF1-7.0	BUSSOLA PORTA/M/C/F 7X5,5 GR.1	19	19	32	21.5	25	17	25
BCF1-8.0	BUSSOLA PORTA/M/C/F 8X6,2 GR.1	19	19	32	21.5	25	17	25
BCF1-9.0	BUSSOLA PORTA/M/C/F 9X7,0 GR.1	19	19	32	21.5	25	17	25
BCF1-10.0	BUSSOLA PORTA/M/C/F 10X8,0 GR.1	19	19	32	21.5	25	17	25
BCF1-11.0	BUSSOLA PORTA/M/C/F 11X9,0 GR.1	19	19	32	21.5	25	17	25
BCF2-6.0	BUSSOLA PORTA/M/C/F 6X4,9 GR.2	31	30	50	35.0	31	30	34
BCF2-7.0	BUSSOLA PORTA/M/C/F 7X5,5 GR.2	31	30	50	35.0	31	30	34
BCF2-8.0	BUSSOLA PORTA/M/C/F 8X6,2 GR.2	31	30	50	35.0	31	30	34
BCF2-9.0	BUSSOLA PORTA/M/C/F 9X7,0 GR.2	31	30	50	35.0	31	30	34
BCF2-10.0	BUSSOLA PORTA/M/C/F 10X8,0 GR.2	31	30	50	35.0	31	30	34
BCF2-11.0	BUSSOLA PORTA/M/C/F 11X9,0 GR.2	31	30	50	35.0	31	30	34
BCF2-12.0	BUSSOLA PORTA/M/C/F 12X9,0 GR.2	31	30	50	35.0	31	30	34
BCF2-14.0	BUSSOLA PORTA/M/C/F 14X11,0 GR.2	31	30	50	35.0	31	30	34
BCF2-16.0	BUSSOLA PORTA/M/C/F 16X12,0 GR.2	31	30	50	35.0	31	30	34
BCF2-18.0	BUSSOLA PORTA/M/C/F 18X14,6 GR.2	31	30	50	35.0	31	30	34

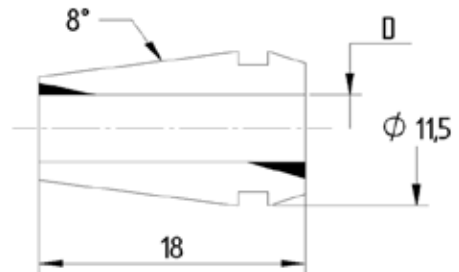


Codice	Descrizione	D1	D2	L	D
920BFS06	PINZA PER FORTE SERR. Ø20 X 6	20	24	50	6
920BFS08	PINZA PER FORTE SERR. Ø20 X 8	20	24	50	8
920BFS10	PINZA PER FORTE SERR. Ø20 X 10	20	24	50	10
920BFS12	PINZA PER FORTE SERR. Ø20 X 12	20	24	50	12
920BFS16	PINZA PER FORTE SERR. Ø20 X 16	20	24	50	16
932BFS06	PINZA PER FORTE SERR. Ø32 X 6	32	37	62	6
932BFS08	PINZA PER FORTE SERR. Ø32 X 8	32	37	62	8
932BFS10	PINZA PER FORTE SERR. Ø32 X 10	32	37	62	10
932BFS12	PINZA PER FORTE SERR. Ø32 X 12	32	37	62	12
932BFS16	PINZA PER FORTE SERR. Ø32 X 16	32	37	62	16
932BFS20	PINZA PER FORTE SERR. Ø32 X 20	32	37	62	20
932BFS25	PINZA PER FORTE SERR. Ø32 X 25	32	37	62	25

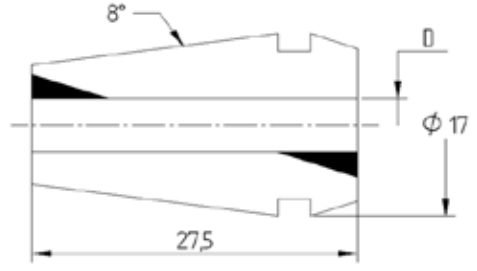
PINZE



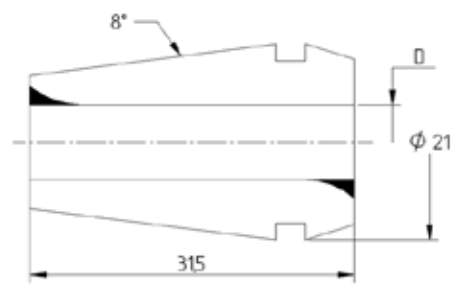
Codice	ER	D
908ER010	8	1
908ER015	8	1,5
908ER020	8	2
908ER025	8	2,5
908ER030	8	3
908ER035	8	3,5
908ER040	8	4
908ER045	8	4,5
908ER050	8	5



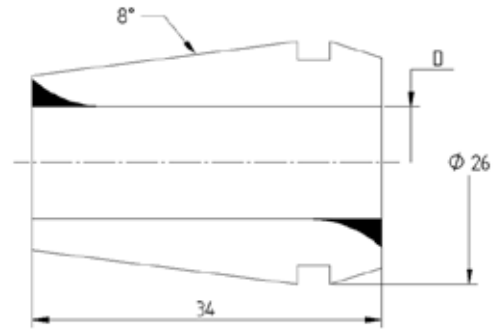
Codice	ER	D
911ER010	11	1
911ER015	11	1,5
911ER020	11	2
911ER025	11	2,5
911ER030	11	3
911ER035	11	3,5
911ER040	11	4
911ER045	11	4,5
911ER050	11	5
911ER055	11	5,5
911ER060	11	6
911ER065	11	6,5
911ER070	11	7



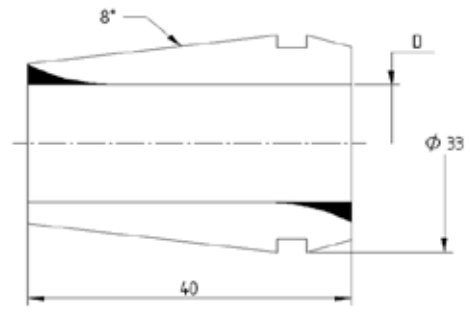
Codice	ER	D
916ER010	16	1
916ER020	16	2
916ER030	16	3
916ER040	16	4
916ER050	16	5
916ER060	16	6
916ER070	16	7
916ER080	16	8
916ER090	16	9
916ER100	16	10



Codice	ER	D
920ER010	20	1
920ER020	20	2
920ER030	20	3
920ER040	20	4
920ER050	20	5
920ER060	20	6
920ER070	20	7
920ER080	20	8
920ER090	20	9
920ER100	20	10
920ER110	20	11
920ER120	20	12
920ER130	20	13



Codice	ER	D
925ER010	25	1
925ER020	25	2
925ER030	25	3
925ER040	25	4
925ER050	25	5
925ER060	25	6
925ER070	25	7
925ER080	25	8
925ER090	25	9
925ER100	25	10
925ER110	25	11
925ER120	25	12
925ER130	25	13
925ER140	25	14
925ER150	25	15
925ER160	25	16

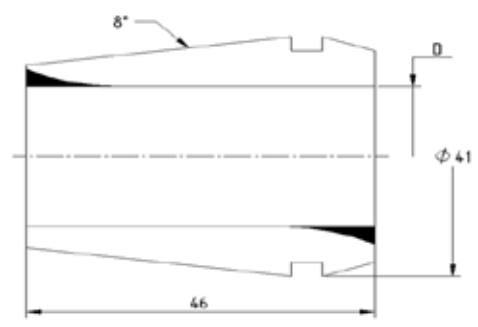


Codice	ER	D
932ER030	32	3
932ER040	32	4
932ER050	32	5
932ER060	32	6
932ER070	32	7
932ER080	32	8
932ER090	32	9
932ER100	32	10
932ER110	32	11
932ER120	32	12
932ER130	32	13
932ER140	32	14
932ER150	32	15
932ER160	32	16
932ER170	32	17
932ER180	32	18
932ER190	32	19
932ER200	32	20

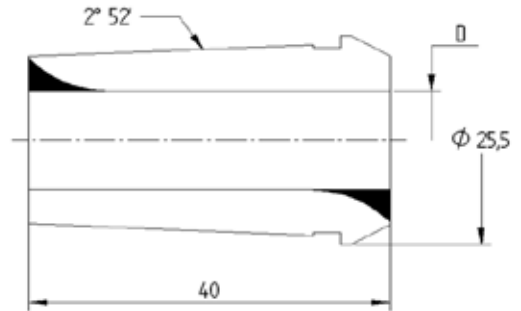

 PINZE TIPO ER
 COLLETS ER TYPE
 PINCES TYPE ER
 ER TYP SPANNZANGEN



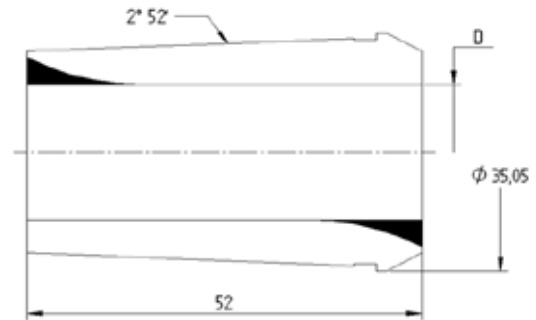
DIN 6499/B



Codice	ER	D
940ER030	40	3
940ER040	40	4
940ER050	40	5
940ER060	40	6
940ER070	40	7
940ER080	40	8
940ER090	40	9
940ER100	40	10
940ER110	40	11
940ER120	40	12
940ER130	40	13
940ER140	40	14
940ER150	40	15
940ER160	40	16
940ER170	40	17
940ER180	40	18
940ER190	40	19
940ER200	40	20
940ER210	40	21
940ER220	40	22
940ER230	40	23
940ER240	40	24
940ER250	40	25
940ER260	40	26
940ER270	40	27
940ER280	40	28
940ER290	40	29
940ER300	40	30

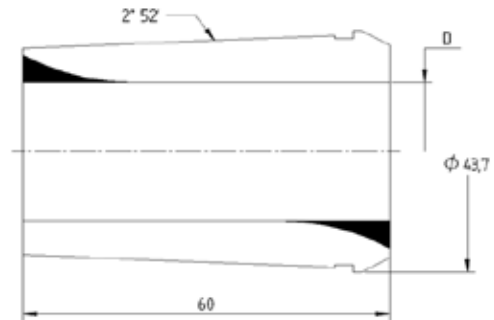


Codice	EOC	D
916EO010	16	1
916EO015	16	1,5
916EO020	16	2
916EO025	16	2,5
916EO030	16	3
916EO035	16	3,5
916EO040	16	4
916EO045	16	4,5
916EO050	16	5
916EO055	16	5,5
916EO060	16	6
916EO065	16	6,5
916EO070	16	7
916EO075	16	7,5
916EO080	16	8
916EO085	16	8,5
916EO090	16	9
916EO095	16	9,5
916EO100	16	10
916EO105	16	10,5
916EO110	16	11
916EO115	16	11,5
916EO120	16	12
916EO125	16	12,5
916EO130	16	13
916EO135	16	13,5
916EO140	16	14
916EO145	16	14,5
916EO150	16	15
916EO155	16	15,5
916EO160	16	16



Codice	EOC	D
925EO020	25	2
925EO025	25	2,5
925EO030	25	3
925EO035	25	3,5
925EO040	25	4
925EO045	25	4,5
925EO050	25	5
925EO055	25	5,5
925EO060	25	6
925EO065	25	6,5
925EO070	25	7
925EO075	25	7,5
925EO080	25	8
925EO085	25	8,5
925EO090	25	9
925EO095	25	9,5
925EO100	25	10
925EO105	25	10,5
925EO110	25	11
925EO115	25	11,5
925EO120	25	12
925EO125	25	12,5
925EO130	25	13
925EO135	25	13,5
925EO140	25	14
925EO145	25	14,5
925EO150	25	15

Codice	EOC	D
925EO155	25	15,5
925EO160	25	16
925EO165	25	16,5
925EO170	25	17
925EO175	25	17,5
925EO180	25	18
925EO185	25	18,5
925EO190	25	19
925EO195	25	19,5
925EO200	25	20
925EO205	25	20,5
925EO210	25	21
925EO215	25	21,5
925EO220	25	22
925EO225	25	22,5
925EO230	25	23
925EO235	25	23,5
925EO240	25	24
925EO245	25	24,5
925EO250	25	25



Codice	EOC	D
932EO030	32	3
932EO035	32	3,5
932EO040	32	4
932EO045	32	4,5
932EO050	32	5
932EO055	32	5,5
932EO060	32	6
932EO065	32	6,5
932EO070	32	7
932EO075	32	7,5
932EO080	32	8
932EO085	32	8,5
932EO090	32	9
932EO095	32	9,5
932EO100	32	10
932EO105	32	10,5
932EO110	32	11
932EO115	32	11,5
932EO120	32	12
932EO125	32	12,5
932EO130	32	13
932EO135	32	13,5
932EO140	32	14
932EO145	32	14,5
932EO150	32	15
932EO155	32	15,5
932EO160	32	16
932EO165	32	16,5
932EO170	32	17
932EO175	32	17,5
932EO180	32	18
932EO185	32	18,5
932EO190	32	19

Codice	EOC	D
932EO195	32	19,5
932EO200	32	20
932EO205	32	20,5
932EO210	32	21
932EO215	32	21,5
932EO220	32	22
932EO225	32	22,5
932EO230	32	23
932EO235	32	23,5
932EO240	32	24
932EO245	32	24,5
932EO250	32	25
932EO255	32	25,5
932EO260	32	26
932EO265	32	26,5
932EO270	32	27
932EO275	32	27,5
932EO280	32	28
932EO285	32	28,5
932EO290	32	29
932EO295	32	29,5
932EO300	32	30
932EO305	32	30,5
932EO310	32	31
932EO315	32	31,5
932EO320	32	32

Tipo "ER"

Codice	Num. di pinze	Capacità
908ERS09	9 Pinze (1 - 5)	Ø 1-1,5-2-2,5-3-3,5-4-4,5-5
911ERS13	13 Pinze (1 - 7)	Ø 1-1,5-2-2,5-3-3,5-4-4,5-5-5,5-6-6,5-7
916ERS10	10 Pinze (1 - 10)	Ø 1-2-3-4-5-6-7-8-9-10
920ERS12	12 Pinze (2 - 13)	Ø 2-3-4-5-6-7-8-9-10-11-12-13
925ERS15	15 Pinze (2 - 16)	Ø 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16
932ERS18	18 Pinze (3 - 20)	Ø 3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20
940ERS23	23 Pinze (4 - 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	28 Pinze (3 - 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

SPPER08	SCATOLA PINZE ER 8 (16 sedi)
SPPER11	SCATOLA PINZE ER 11 (16 sedi)
SPPER16	SCATOLA PINZE ER 16 (16 sedi)
SPPER20	SCATOLA PINZE ER 20 (16 sedi)
SPPER25	SCATOLA PINZE ER 25 (28 sedi)
SPPER32	SCATOLA PINZE ER 32 (28 sedi)
SPPER40	SCATOLA PINZE ER 40 (28 sedi)



Tipo "EOC"

Codice	Num. di pinze	Capacità
916EOS15	15 Pinze (2 - 16)	Ø 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16
925EOS24	24 Pinze (2 - 25)	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	29 Pinze (4 - 32)	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

SPPEOC16	SCATOLA PINZE EOC 16 (28 sedi)
SPPEOC25	SCATOLA PINZE EOC 25 (28 sedi)
SPPEOC32	SCATOLA PINZE EOC 32 (30 sedi)



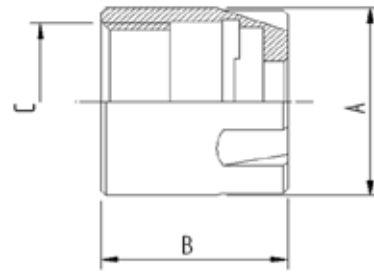
Solo per "EOC32"

GHIERE


 GHIERA MINI
 MINI NUT
 ECROU MINI
 MINI SPANNMUTTER




DIN 6499



Codice	ER	A	B	C
908GHRMN	8M	12	10,8	M10X0,75
911GHRMN	11M	16	12,0	M13X0,75
916GHRMN	16M	22	18	M19X1
920GHRMN	20M	28	19	M24X1
925GHRMN	25M	35	20	M30X1

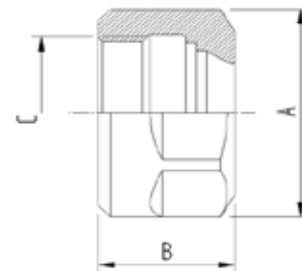


908ER	908CHVMN
911ER	911CHVMN
916ER	916CHVMN
920ER	920CHVMN
925ER	925CHVMN


 GHIERA ER TIPO ESAGONALE
 ER CLAMPING NUTS HEXAGONAL TYPE
 ECROU ER HEXAGONAL TYPE
 SECHSKANTMUTTER TYP ER



DIN 6499



Codice	ER	A	B	C
911GHRES	11	19	14	M14X0,75
916GHRES	16	28	17,5	M22X1,5
920GHRES	20	34	19	M25X1,5

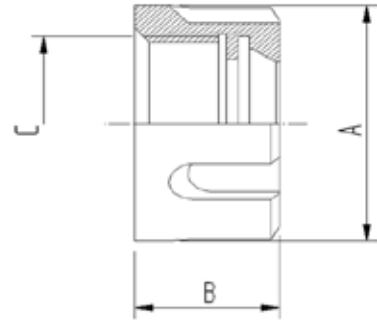




911ER	911CHVES
916ER	916CHVES
920ER	920CHVES


 GHIERA BILANCIATA STANDARD
 BALANCED NUT
 ECROU EQUILIBRE
 GEWUCHTETE SPANNMUTTER



DIN 6499

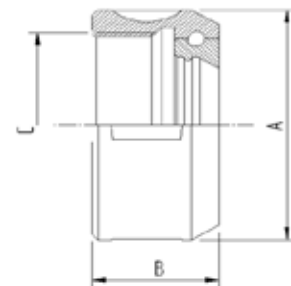




Codice	ER	A	B	C		
916GHREQ	16	32	17	M22X1,5	916ER	916CHVST
920GHREQ	20	35	19	M25X1,5	920ER	920CHVST
925GHREQ	25	42	20	M32X1,5	925ER	925CHVST
932GHREQ	32	50	22,5	M40X1,5	932ER	932CHVST
940GHREQ	40	63	25,5	M50X1,5	940ER	940CHVST
950GHREQ	50	78	35,3	M64X2	950ER	950CHVST


 GHIERA EOC
 EOC NUT
 ECROU EOC
 EOC SPANNMUTTER




DIN 6388



Codice	EOC	A	B	C		
916GHROS	16	43	24	M33X1,5	916EO	916CHVOC
925GHROS	25	60	30	M48X2	925EO	925CHVOC
932GHROS	32	72	33,5	M60X2,5	932EO	932CHVOC

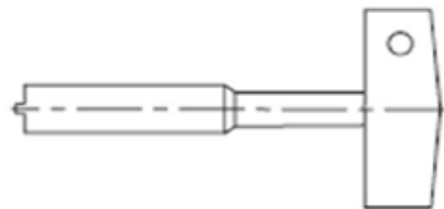
ADDUZIONE REFRIGERANTE


SET ADDUZIONE REFRIGERANTE
COOLANT SUPPLY UNIT
DISPOSITIF DE TRANSFERT DE LIQUIDE DE LUBRIFICATION
KUEHLMITTELUEBERGABEROHR



CODICE	HSK	M	D	L1	L
950APR02	50/F	12 x 1	8	7.5	29.3
950APR01	50/A - 50/E - 63/F	16 x 1	10	9.5	33
963APR01	63/A - 63/E	18 x 1	12	11.5	36.6
910APR01	100/A	24 x 1,5	16	15.5	44

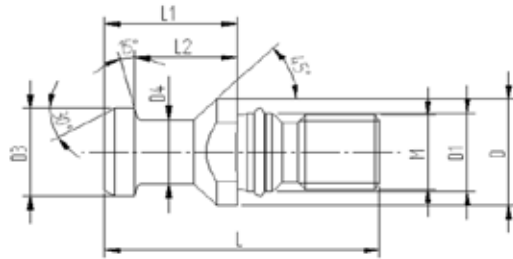

CHIAVE PER ADDUTTORE REFRIGERANTE
KEY FOR COOLANT SUPPLY UNIT
CLES POUR LE DISPOSITIF DE TRANSFERT DE LIQUIDE DE LUBRIFICATION
SCHLUESSEL FUR KUEHLMITTELUEBERGABESATZ



CODICE	HSK
950CHVAR	50
963CHVAR	63
910CHVAR	100

CODOLI

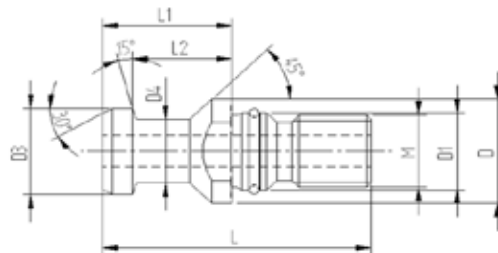
Ohne bohrung - Not drilled - Non percée - Non forato
Mit o'ring - With o'ring - Avec joint torique - Con OR di tenuta



Codice	ISO	M	D	D1	D3	D4	L	L1	L2
940TIR01	40	M16	23	17	19	14	54	26	20
950TIR01	50	M24	36	25	28	21	74	34	25

CODOLI DISPONIBILI ANCHE PER CONI ISO30

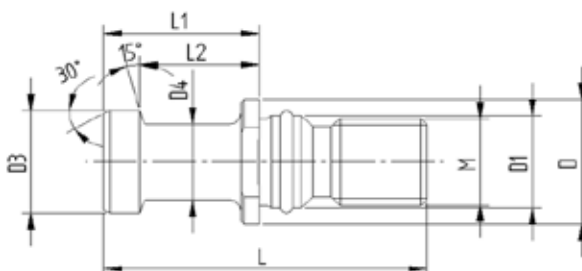
Gebohrt - Drilled - Percée - Forato
Mit o'ring - With o'ring - Avec joint torique - Con OR di tenuta



Codice	ISO	M	D	D1	D3	D4	L	L1	L2	Foro
940TIR02	40	M16	23	17	19	14	54	26	20	7
950TIR02	50	M24	36	25	28	21	74	34	25	11,5

CODOLI DISPONIBILI ANCHE PER CONI ISO30

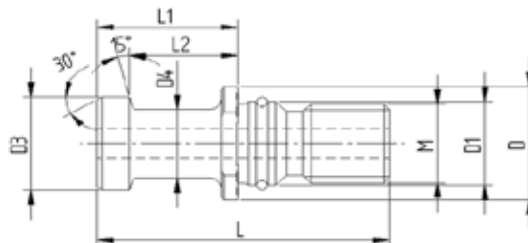
Ohne bohrung - Not drilled - Non percée - Non forato
Mit o'ring - With o'ring - Avec joint torique - Con OR di tenuta



Codice	ISO	M	D	D1	D3	D4	L	L1	L2
940TIR11	40	M16	23	17	19	14	54	26	20
950TIR11	50	M24	36	25	28	21	74	34	25

CODOLI DISPONIBILI ANCHE PER CONI ISO30

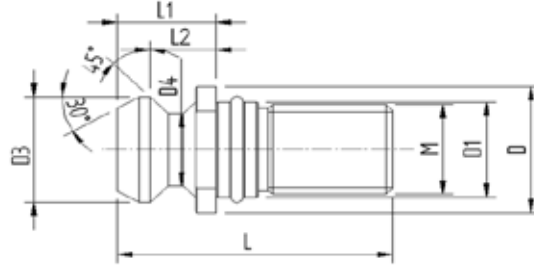
Gebohrt - Drilled - Percée - Forato
Mit o'ring - With o'ring - Avec joint torique - Con OR di tenuta



Codice	ISO	M	D	D1	D3	D4	L	L1	L2	Foro
940TIR12	40	M16	23	17	19	14	54	26	20	7
950TIR12	50	M24	36	25	28	21	74	34	25	11,5

CODOLI DISPONIBILI ANCHE PER CONI ISO30

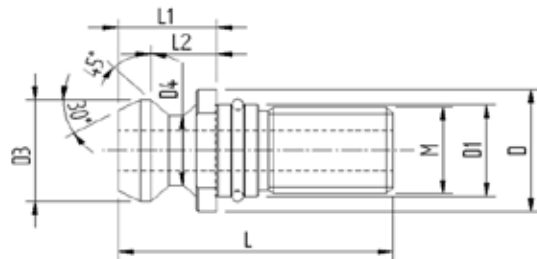
Ohne bohrung - Not drilled - Non percée - Non forato
Mit o'ring - With o'ring - Avec joint torique - Con OR di tenuta



Codice	ISO	M	D	D1	D3	D4	L	L1	L2
940TIR21	40	M16	22,5	17	18,9	12,9	44,5	16,4	11,1
950TIR21	50	M24	37	25	29,1	19,6	65,5	25,5	17,9

CODOLI DISPONIBILI ANCHE PER CONI ISO30

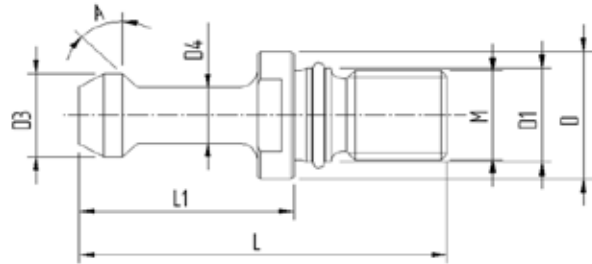
Gebohrt - Drilled - Percée - Forato
Mit o'ring - With o'ring - Avec joint torique - Con OR di tenuta



Codice	ISO	M	D	D1	D3	D4	L	L1	L2	Foro
940TIR22	40	M16	22,5	17	18,9	12,9	44,5	16,4	11,1	7,3
950TIR22	50	M24	37	25	29,1	19,6	65,5	25,5	17,9	11,5

CODOLI DISPONIBILI ANCHE PER CONI ISO30

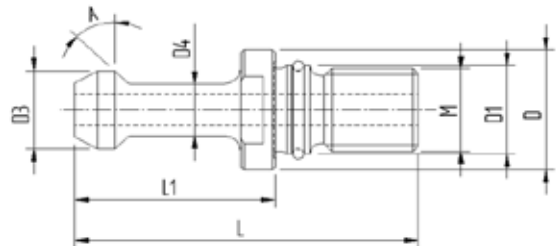
Ohne boh rung - Not drilled - Non percée - Non forato
Mit o'ring - With o'ring - Avec joint torique - Con OR di tenuta



Codice	BT	A	M	L	L1	D	D1	D3	D4
940TIR51	40	30°	M16	60	35	23	17	15	10
940TIR52	40	45°	M16	60	35	23	17	15	10
940TIR50	40	90°	M16	60	35	23	17	15	10
950TIR51	50	30°	M24	85	45	38	25	23	17
950TIR52	50	45°	M24	85	45	38	25	23	17
950TIR50	50	90°	M24	85	45	38	25	23	17

CODOLI DISPONIBILI ANCHE PER CONI ISO30

Gebohrt - Drilled - Percée - Forato
Mit o'ring - With o'ring - Avec joint torique - Con OR di tenuta



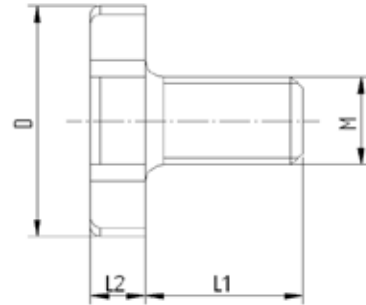
Codice	BT	A	M	L	L1	D	D1	D3	D4	Foro
940TIR55	40	30°	M16	60	35	23	17	15	10	4
940TIR53	40	45°	M16	60	35	23	17	15	10	4
940TIR54	40	90°	M16	60	35	23	17	15	10	4
950TIR55	50	30°	M24	85	45	38	25	23	17	6
950TIR53	50	45°	M24	85	45	38	25	23	17	6
950TIR54	50	90°	M24	85	45	38	25	23	17	6

CODOLI DISPONIBILI ANCHE PER CONI ISO30

VITI TESTA

A

CROCE



CODICE	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

CHIAVI


CHIAVI PER GHIERA MINI
WRENCHES FOR MINI NUT
CLES DE SERRAGE POUR ECROU MINI
SPANNSCHLUESSEL FUER MINI SPANNMUTTER



Codice	ER
908CHVMN	8M
911CHVMN	11M
916CHVMN	16M
920CHVMN	20M
925CHVMN	25M


CHIAVI PER GHIERE ESAGONALI
WRENCHES FOR EXAGONAL CLAMPING NUTS
CLES POUR HEXAGONAL ECROU
SPANNSCHLUESSEL FUER SECHSKANTMUTTER



Codice	ER
911CHVES	11
916CHVES	16
920CHVES	20


CHIAVI PER GHIERA STANDARD
WRENCHES FOR STANDARD NUT
CLES DE SERRAGE POUR ECROU STANDARD
SPANNSCHLUESSEL FUER STANDARD SPANNMUTTER



Codice	ER
916CHVST	16
920CHVST	20
925CHVST	25
932CHVST	32
940CHVST	40
950CHVST	50



CHIAVI CON PRESA LATERALE
 WRENCHES WITH SIDE GRIP
 CLES AVEC PRISES LATERAL
 HAKENSCHLUESSEL



Codice	EOC
916CHVOC	16
925CHVOC	25
932CHVOC	32



CHIAVE PER VITE TESTA A CROCE
 WRENCHES FOR TOOLS RETAINING SCREW
 CLES A VIS A CROSSE
 SPANNSCHLUESSEL FUER FRAESERANZUGSSCHRAUBEN



Codice	Vite	Ø
916CHVTC	16	M8
922CHVTC	22	M10
927CHVTC	27	M12
932CHVTC	32	M16
940CHVTC	40	M20

NOTE



NOTE



Progetto grafico:



Stampa:



Foto:

