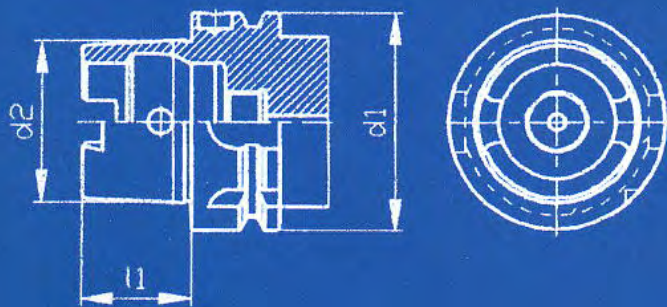


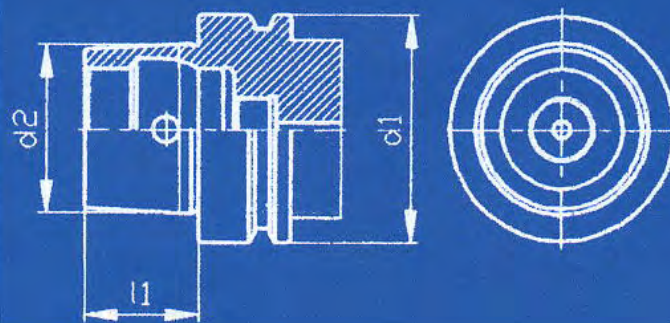
HSK 50/A



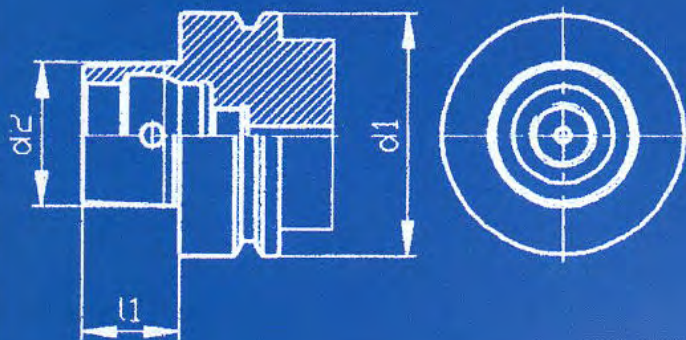
HSK A



HSK E



HSK F

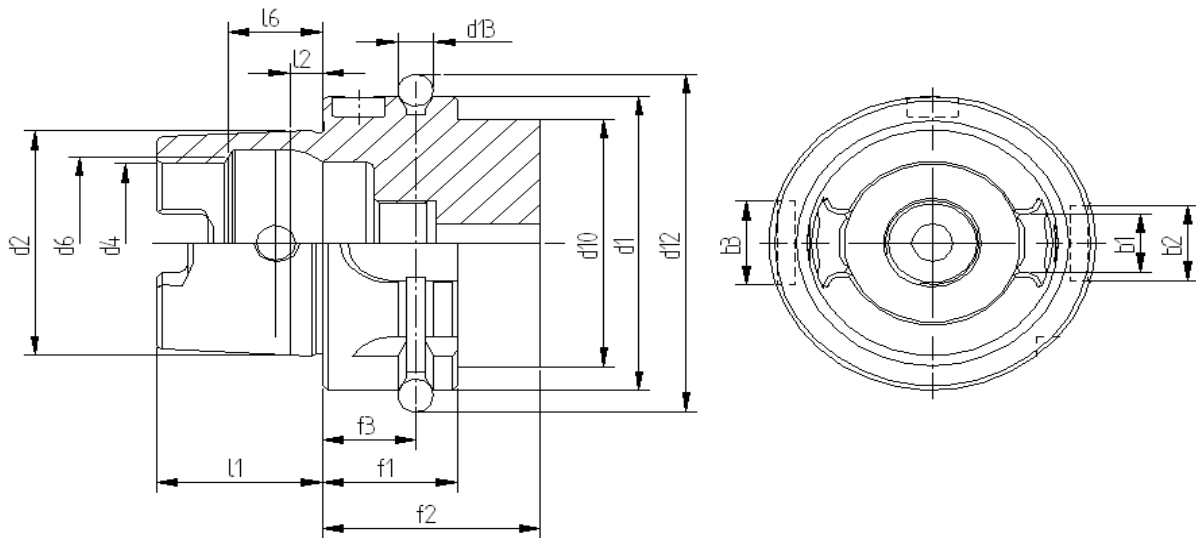


HSK A/E

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.

Form 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	3,02	7.03	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005	7.05 ± 0.04
40 A+E	4	9.05	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	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	/
63 A+E	6,03	14.07	48 + 0.007 + 0.0011	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 + 0.0015	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 a 15.000 rpm min-1.

DATI COSTRUTTIVI

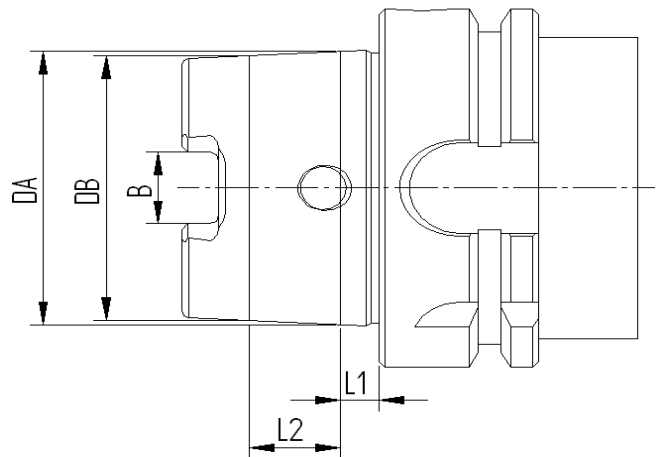
- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm².
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiere chiudipinza.
- Collaudati 100% con strumenti di misura 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 ghiere 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	3,02	7.03	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005	7.05 ± 0.04
40 A+E	4	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	8.05 ± 0.04
50 A+E	3,025	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006	10.54 ± 0.04
50 F	4	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	/
63 A+E	6,03	14.07	48 + 0.007 + 0.0011	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 + 0.0015	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 at 15.000 rpm.

CONSTRUCTIVE FEATURES

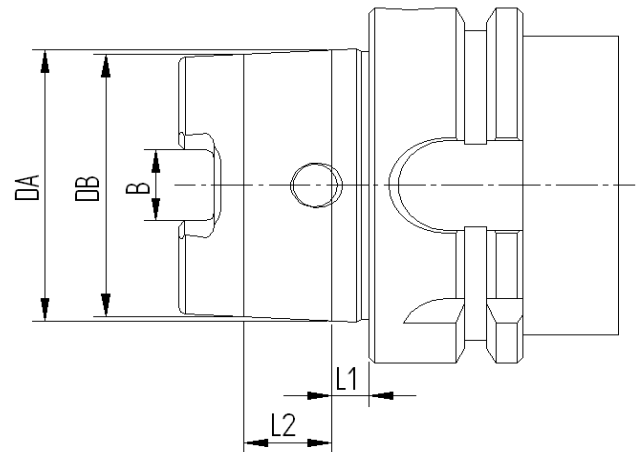
- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxidized.
- Thread of collet nuts, internal and external diameters are completely grinding finished
- Tested 100% with certified measuring instruments.

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 oxidized.
- 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	3,02	7.03	24 $+0.005$ $+0.007$	23,27 $+0.003$ $+0.005$	7.05 ± 0.04
40 A+E	4	9.05	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	9.05	30 $+0.005$ $+0.007$	29,05 $+0.003$ $+0.005$	/
63 A+E	6,03	14.07	48 $+0.007$ $+0.0011$	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 $+0.009$ $+0.0015$	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 \emptyset 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 auf 15.000 U/Min -1 gewuchtet.

KONSTRUKTIONSDATEN

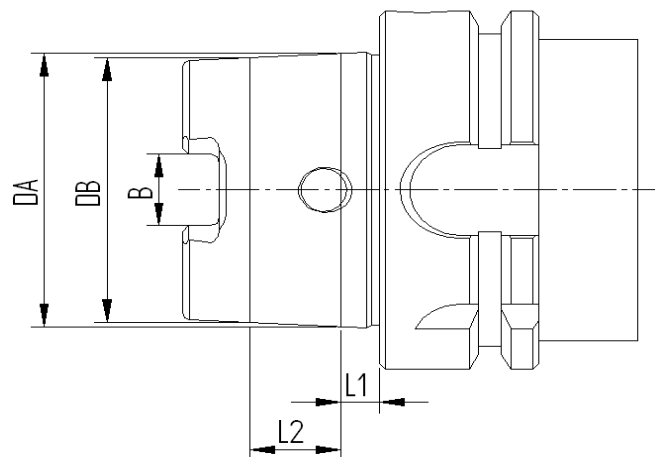
- aus Einastzstahl angefertigt
- in der Einsatztiefe von 0,4 - 0,5 mm.
- gehärtet, angelassen
- Härte HRC 58 ± 2 , Festigkeit 800-1000 N / mm².
- Brüniert
- inneres, äußeres Schleifen und am Gewinde der Spannzangemutter.
- 100% durch zertifizierte Meßinstrumente geprüft.

WUCHTUNG MIT HOCHGESCHWINDIGEKEIT

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

KONSTRUKTIONSDATEN

- 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 Spannzangemutter.
- 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	3,02	7.03	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005	7.05 ± 0.04
40 A+E	4	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	8.05 ± 0.04
50 A+E	3,025	11	38 + 0.006 + 0.009	36,9 + 0.003 + 0.006	10.54 ± 0.04
50 F	4	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005	/
63 A+E	6,03	14.07	48 + 0.007 + 0.0011	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 + 0.0015	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 à 15.000 Tr/Min -1.

ELEMENTS DE CONSTRUCTION

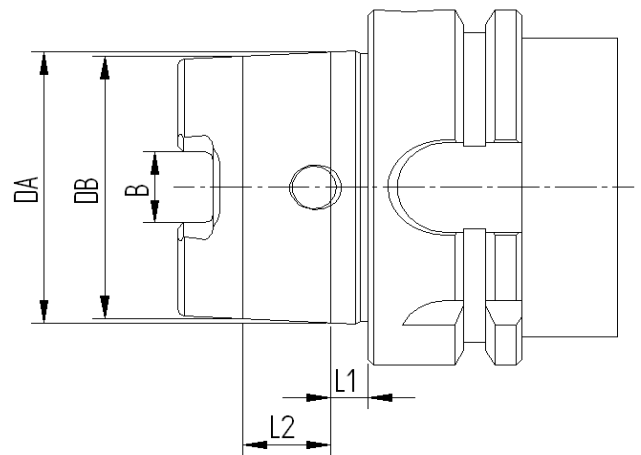
- Produits en acier cémenté allié.
- Cémentés avec une profondeur 0,4 - 0,5 mm.
- Trempé - Revenu.
- Dureté HRC 58 ± 2 résistance 800-1000 N / mm².
- Brunis.
- Rectification du cône intérieur, extérieur et dans le filetage des écrous qui serrent la pince.
- Contrôlés à 100% avec des instruments de mesure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

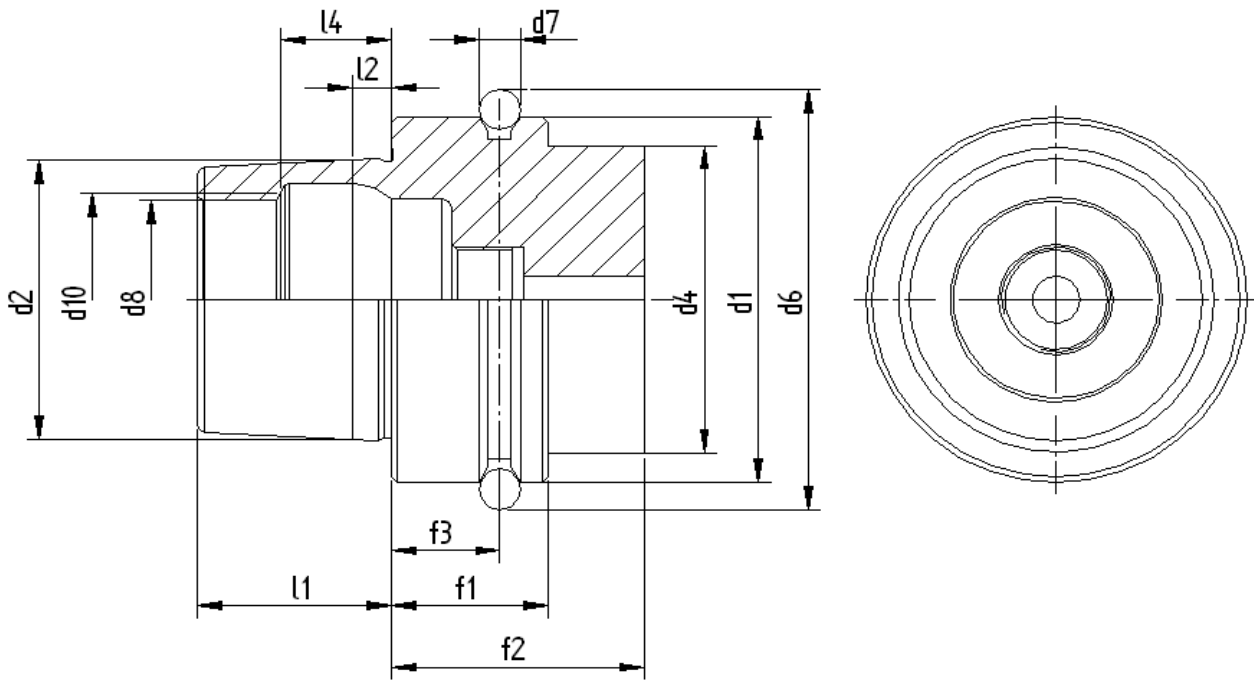
EQUILIBRAGE MANDRINS POUR HAUTE VITESSE

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

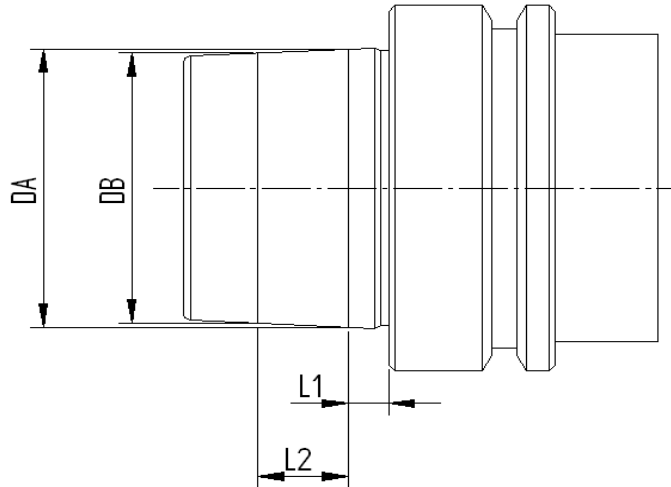
Forme E



- 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	3,02	7.03	24	+ 0.005 + 0.007	23,27	+ 0.003 + 0.005
40 A+E	4	9.05	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	9.05	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
63 A+E	6,03	14.07	48	+ 0.007 + 0.0011	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 + 0.0015	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 a 20.000 rpm min-1.

DATI COSTRUTTIVI

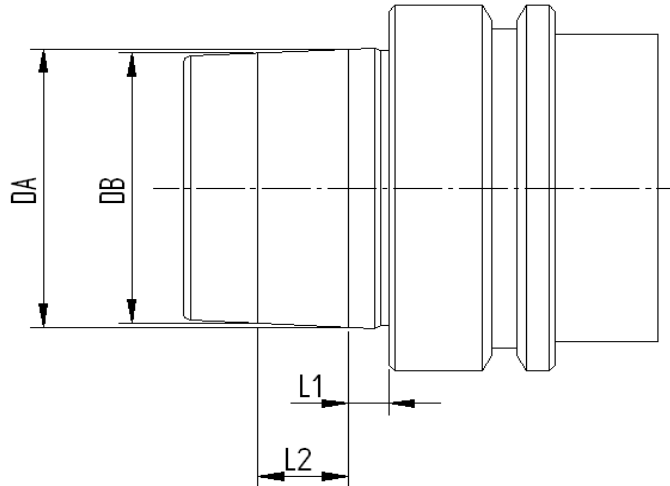
- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm2.
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiere chiudipinza.
- Collaudati 100% con strumenti di misura 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	3,02	7.03	24	+ 0.005 + 0.007	23,27	+ 0.003 + 0.005
40 A+E	4	9.05	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	9.05	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
63 A+E	6,03	14.07	48	+ 0.007 + 0.0011	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 + 0.0015	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 at 20.000 rpm.

CONSTRUCTIVE FEATURES

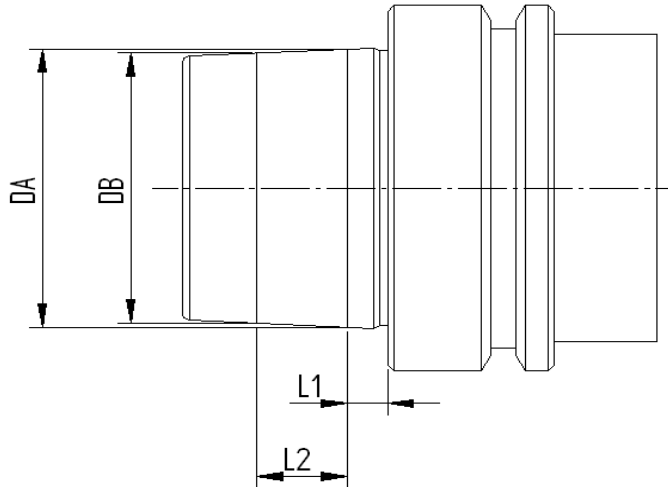
- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxidized.
- Thread of collet nuts, internal and external diameters are completely grinding finished
- Tested 100% with certified measuring instruments.



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	3,02	7.03	24	+ 0.005 + 0.007	23,27	+ 0.003 + 0.005
40 A+E	4	9.05	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	9.05	30	+ 0.005 + 0.007	29,05	+ 0.003 + 0.005
63 A+E	6,03	14.07	48	+ 0.007 + 0.0011	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 + 0.0015	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

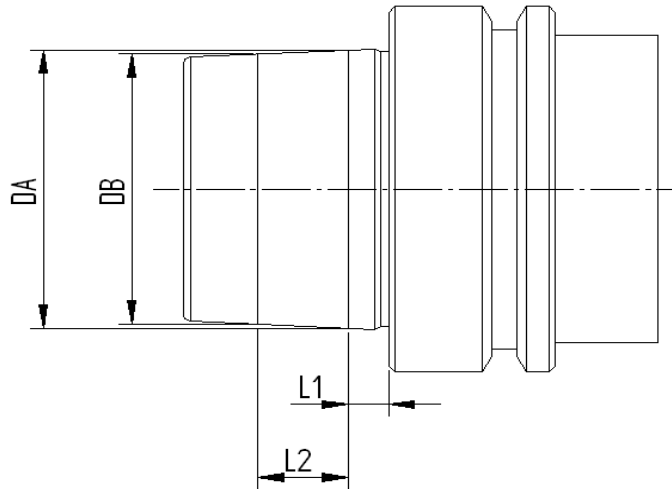
WUCHTUNG

Alle Steilkegelaufnahmen dieser Gruppe sind in Klasse G 6,3 auf 8.000 U/Min -1 vorgewuchtet oder auf 20.000 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	3,02	7.03	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.05	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	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6,03	14.07	48 + 0.007 + 0.0011	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 + 0.0015	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

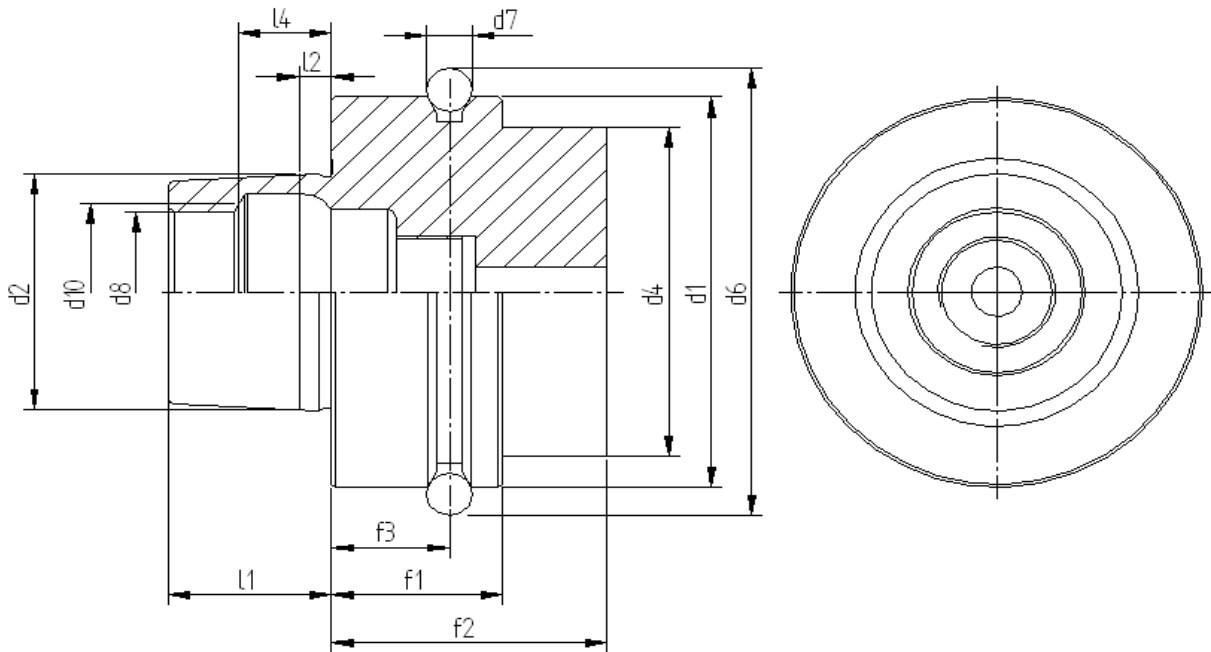
Coaxialité: 0.005

EQUILIBRAGE

La plupart des porte-outils sont pré-équilibrés en classe G 6,3 8.000 Tr/Min -1 ou équilibrés à 20.000 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 elettromandrini 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.

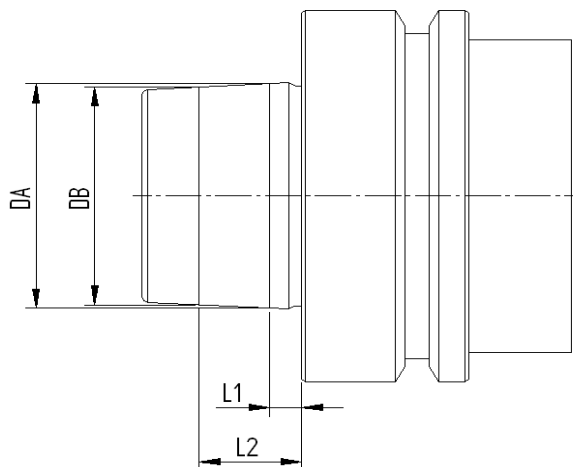
Forme F



- 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.

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.
32 A	3,02	7.03	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.05	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	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6,03	14.07	48 + 0.007 + 0.0011	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 + 0.0015	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 a 20.000 rpm min-1.

DATI COSTRUTTIVI

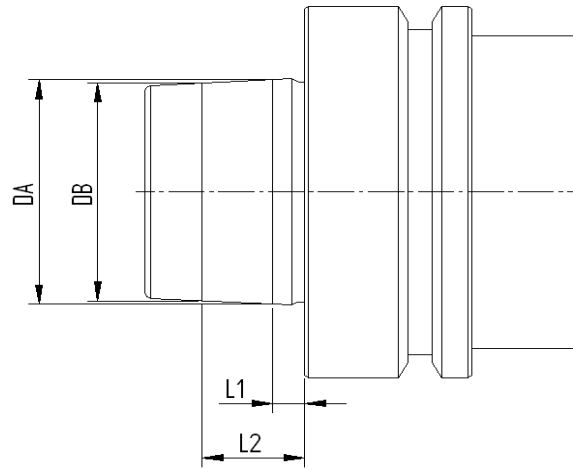
- Costruiti in acciaio da cementazione legato.
- Cementati con profondità 0,4 - 0,5 mm.
- Temprati e rinvenuti.
- Durezza HRC 58 ± 2 resistenza 800-1000 N / mm2.
- Bruniti
- Finitura di rettifica interna, esterna e nelle filettature delle ghiere chiudipinza.
- Collaudati 100% con strumenti di misura 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	3,02	7.03	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.05	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	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6,03	14.07	48 + 0.007 + 0.0011	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 + 0.0015	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 at 20.000 rpm.

CONSTRUCTIVE FEATURES

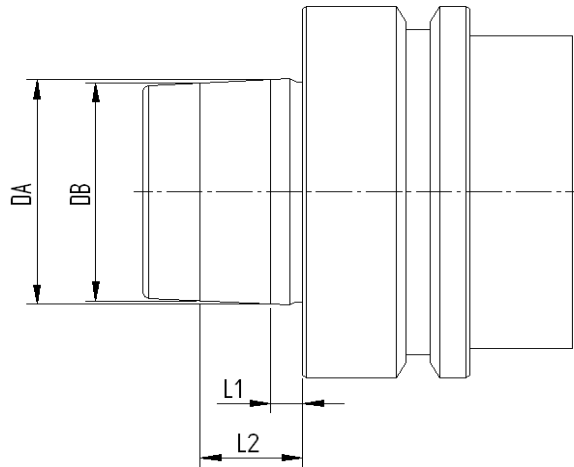
- Manufactured with Casehardening Steel.
- Casehardened with depth 0,4 - 0,5 mm.
- Hardened-Tempered.
- Hardness HRC 58 ± 2, strenght 800-1000 N / mm2.
- Black oxided.
- Thread of collet nuts, internal and external diameters are completely grinding finished
- Tested 100% with certified measuring instruments.



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	3,02	7.03	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.05	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	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6,03	14.07	48 + 0.007 + 0.0011	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 + 0.0015	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

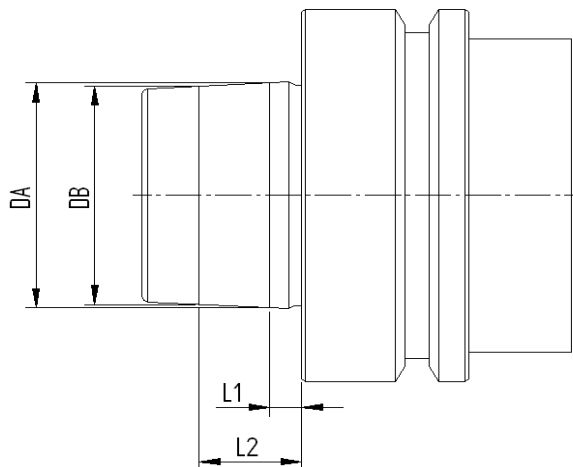
WUCHTUNG

Alle Steilkegelaufnahmen dieser Gruppe sind in Klasse G 6,3 auf 8.000 U/Min -1 vorgewuchtet oder auf 20.000 U/Min -1 gewuchtet.

KONSTRUKTIONSDATEN

- aus legiertem Einastzstahl angefertigt
- in der Einsatzhärtetiefe von 0,4 - 0,5 mm zementiert
- gehärtet, angelassen
- Härte HRC 58 \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	3,02	7.03	24 + 0.005 + 0.007	23,27 + 0.003 + 0.005
40 A+E	4	9.05	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	9.05	30 + 0.005 + 0.007	29,05 + 0.003 + 0.005
63 A+E	6,03	14.07	48 + 0.007 + 0.0011	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 + 0.0015	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 à 20.000 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.



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

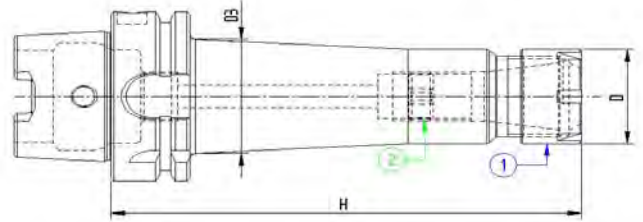


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



STANDARD

Codice	HSK	Descrizione	ER	D	H	D3
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

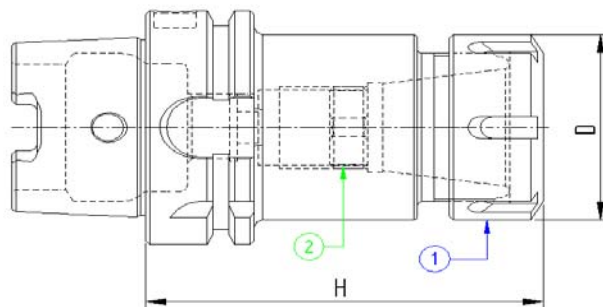
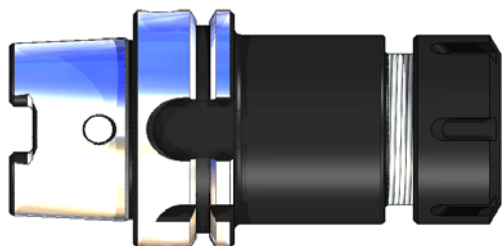
Codice	HSK	Descrizione	ER	D	H	D3
65APM407	50/A	HSK50/A DIN69893 P/P H160 ER11MINI	11	16	160	23,5
65APM410	50/A	HSK50/A DIN69893 P/P H160 ER16MINI	16	22	160	28

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	ER MINI	GRANO	Q.tà	GHIERA	Q.tà
HSK50/A	11		1		1
	16		1		1
		100601004	1	911GHRMN	1
		101001601	1	916GHRMN	1

Bilanciato G.2,5 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



STANDARD

Codice	HSK	Descrizione	ER	D	H
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 H70 ER40	40	63	70

L = 160

Codice	HSK	Descrizione	ER	D	H
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

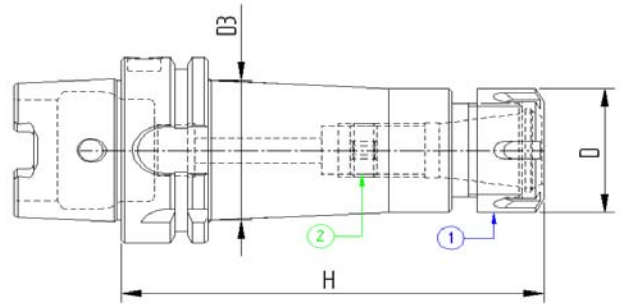
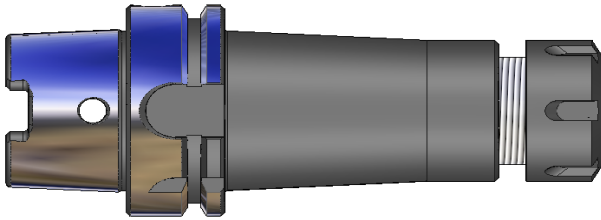
Tipo Cono ER GRANO Q.tà GHIERA Q.tà



HSK50/A	ER	GRANO	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

Bilanciato G.2,5 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	D	H	D3
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	42
65APP420	50/A	HSK50/A DIN69893 P/P H160 ER32	32	50	160	50
65APP426	50/A	HSK50/A DIN69893 P/P H160 ER40	40	63	160	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	ER	GRANO	Q.tà	GHIERA	Q.tà
					
HSK50/A	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



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

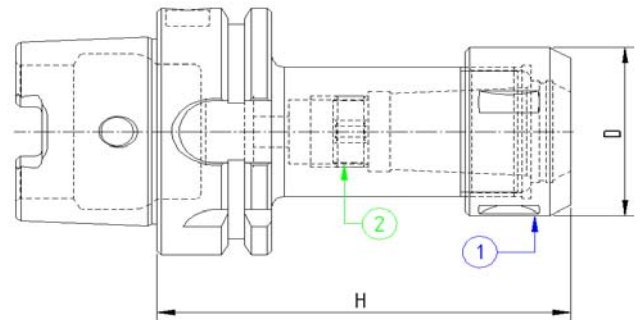
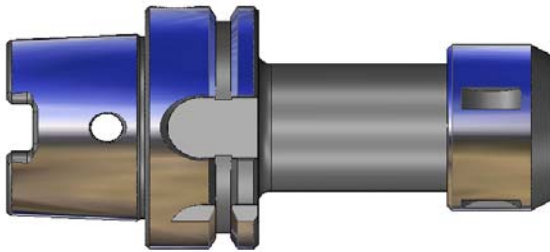


DIN 69893

DIN 6388

Bilanciato G.2,5 20.000 RPM

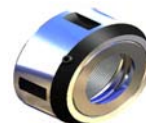
Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	EOC	D	H
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

Tipo Cono EOC **GHIERA INT.** Q.tà **GHIERA** Q.tà



HSK50/A	16	101815801	1	916GHROS	1
	25	102715901	1	925GHROS	1



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

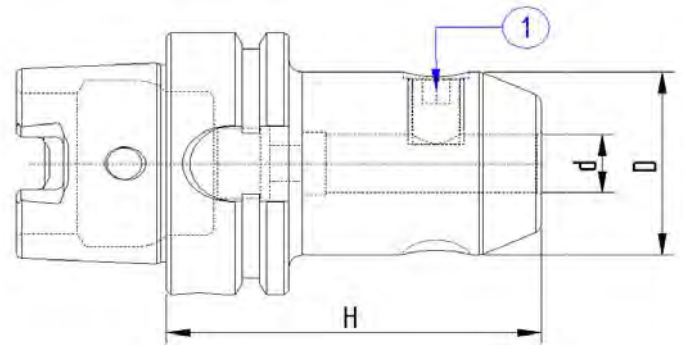


DIN 69893

DIN 1835 B

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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

Tipo Cono

Ø WLD

GRANO

Q.tà



HSK50/A	Ø WLD	GRANO	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32	102002002	2



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

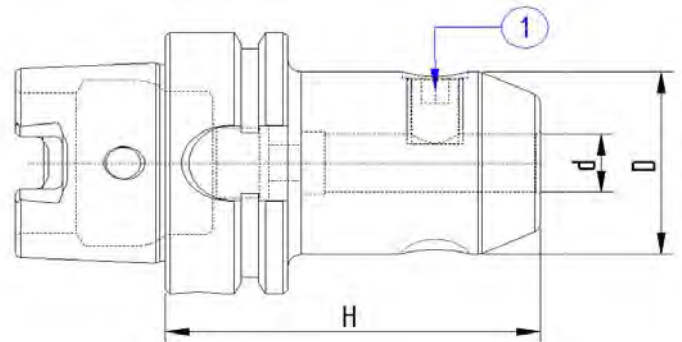


DIN 69893

DIN 1835 B

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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

Tipo Cono Ø WLD GRANO Q.tà



HSK50/A	Ø WLD	GRANO	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1



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

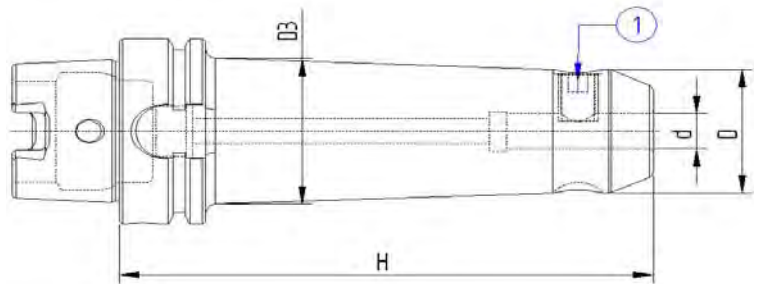


DIN 69893

DIN 1835 B

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H	D3
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

Tipo Cono Ø WLD GRANO Q.tà



HSK50/A	d	GRANO	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2



MANDRINI PORTAFRESE TIPO WHISTLE NOTCH
 END MILL HOLDERS WHISTLE NOTCH
 MANDRINS POUR OUTILS TYPE WHISTLE NOTCH
 ZYLINDERSCHAFTAUFNAHME WHISTLE NOTCH

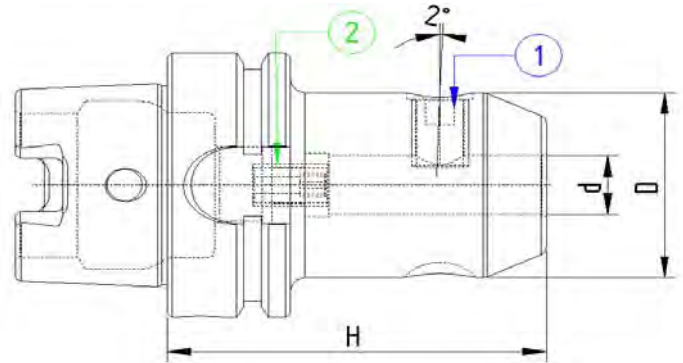


DIN 69893

DIN 1835 E

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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	52	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

Tipo Cono	Ø WHN	GRANO	Q.tà	GRANO	Q.tà
-----------	-------	-------	------	-------	------



HSK50/A	d	GRANO	Q.tà	GRANO	Q.tà
	6	100601004	1	100801601	1
	8	100801004	1	100801601	1
	10	101001204	1	100801601	1
	12 - 14	101201604	1	100801601	1
	16 - 18	101401604	1	100801601	1
	20	101601604	1	100801601	1
	25	101802002	2	-	1
	32	102002002	2	-	1



MANDRINI PORTAFRESE A TRASCINAMENTO FISSO CON PASAGGIO REFRIGERANTE
 FACE MILL HOLDERS-TENDONS DRIVE-WITH INTERNAL COOLANT SUPPLY
 MANDRINS PORTE-FRAISE-ENTRAINEMENT PAR TENONS AVEC ARROSAGE INTERNE
 AUFSTECKFRAESDORNE FUER FRAESER MIT QUERNUT UND KUEHLMITTELZUFUHR

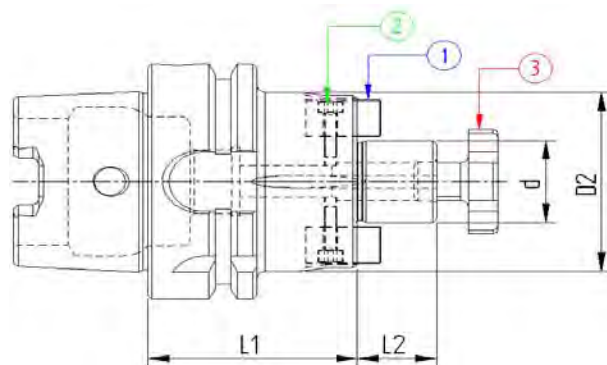
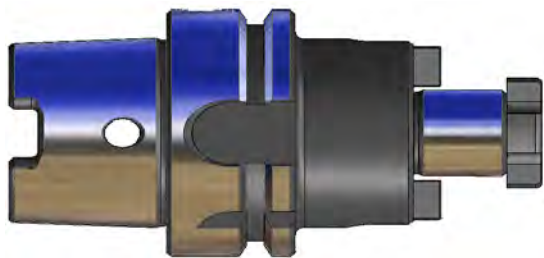


DIN 69893

ISO 3937

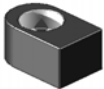


Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



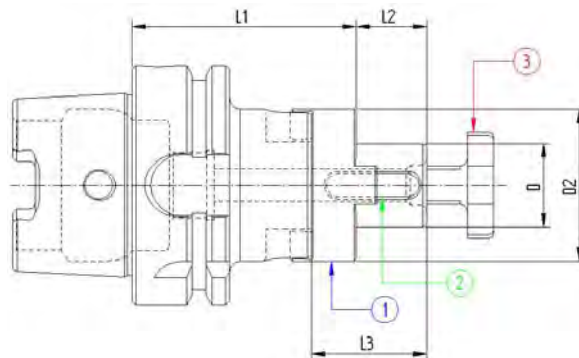
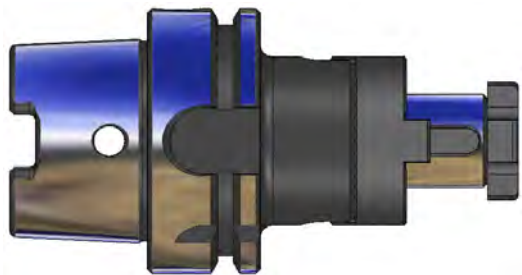
Codice	HSK	Descrizione	L1	L2	d	D2
65APF116	50/A	HSK50/A DIN69893 P/F FISSO H50 D16	50	17	16	38
65APF122	50/A	HSK50/A DIN69893 P/F FISSO H60 D22	60	19	22	48
65APF127	50/A	HSK50/A DIN69893 P/F FISSO H60 D27	60	21	27	58
65APF132	50/A	HSK50/A DIN69893 P/F FISSO H60 D32	60	24	32	66
65APF140	50/A	HSK50/A DIN69893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

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø	TASSELLO	Q.tà	VITE	Q.tà	VITE CROCE	Q.tà
							
HSK50/A	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

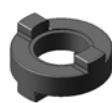


Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



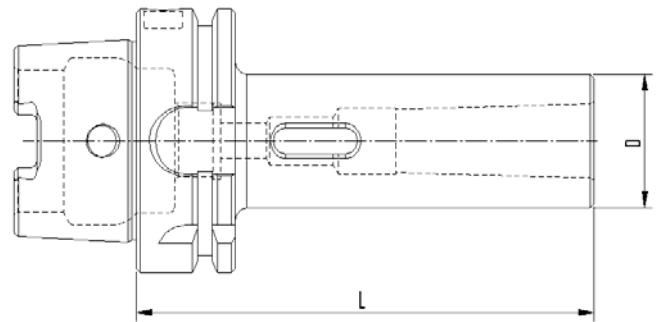
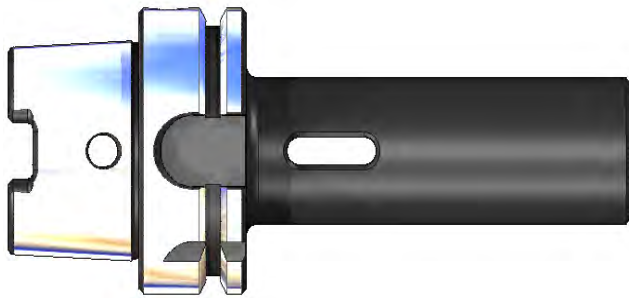
Codice	HSK	Descrizione	D	L1	L2	L3	D2
65APU116	50/A	HSK 50/A P/FRESA UNIV.H50 D.16	16	50	17	27	32
65APU122	50/A	HSK 50/A P/FRESA UNIV.H50 D.22	22	50	19	31	40
65APU127	50/A	HSK 50/A P/FRESA UNIV.H65 D.27	27	65	21	33	48
65APU132	50/A	HSK 50/A P/FRESA UNIV.H65 D.32	32	65	24	38	58
65APU140	50/A	HSK 50/A P/FRESA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

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø	GIUNTO	Q.tà	LINGUETTA	Q.tà	VITE CROCE	Q.tà
							
HSK50/A	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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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 PORTAFRESE CONO MORSE REFRIGERAMENTO INTERNO
 MORSE TAPER MILL ADAPTERS WITH INTERNAL COOLANT
 DOUILLES POUR CONE MORSE AVEC TARAUDAGE
 ZWISCHENHUELSEN FÜR MORSEKEDER MIT ZENTRALER KUEHLMITTELZUFUHR

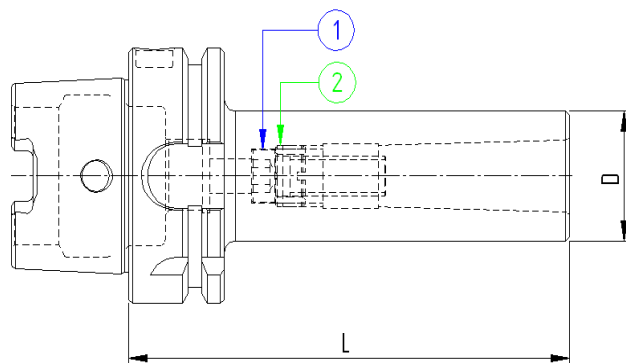
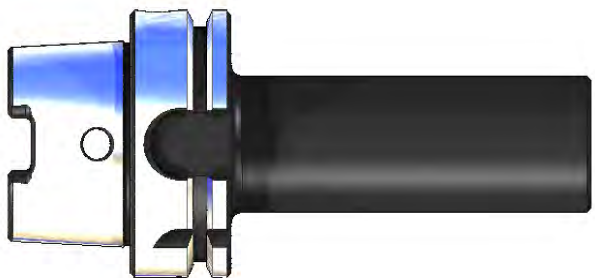


DIN 69893

DIN 228-2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

Tipo Cono CM **GIERA INTERNA** Q.tà **VITE** Q.tà



HSK50/A	CM1	-	-	110603501	1
	CM2	121500802	1	111003014	1
	CM3	122000903	1	111204003	1



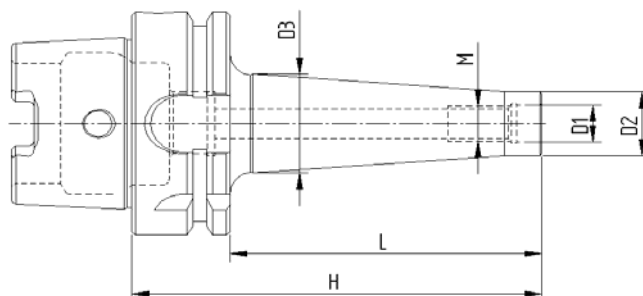
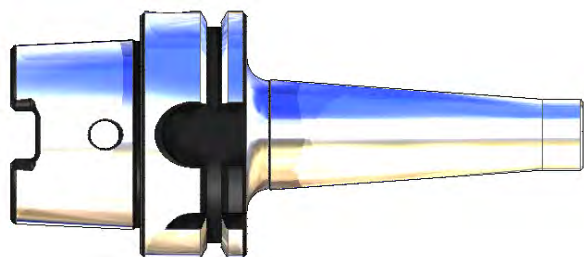
MANDRINI PER FRESE CON ATTACCO FILETTATO
MILLING CUTTER ARBORS FOR SCREW-ON TYPE MILLING CUTTERS
MANDRINS POUR FRAISES A VISSER
SPANFUTTER FÜR EINCHRAUBFRAESER



DIN 69893

DIN 1835 B

Bilanciato G.2,5 20.000 RPM



L = 59

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

L = 84

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

L = 109

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

L = 134

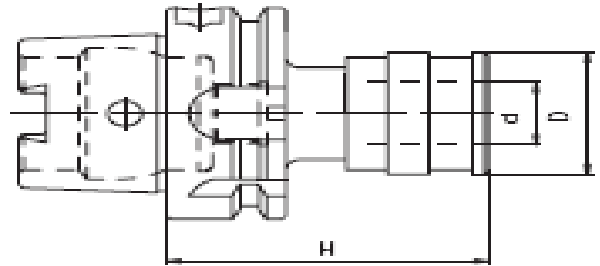
Codice	HSK	Descrizione	D1	D2	H	L	M
65AAF408	50/A	HSK50/A DIN69893 P/F AT.FIL.M8x134	8,5	13	134	108	M8
65AAF410	50/A	HSK50/A DIN69893 P/F AT.FIL.M10x134	10,5	18	134	108	M10
65AAF412	50/A	HSK50/A DIN69893 P/F AT.FIL.M12x134	12,5	21	134	108	M12



PORTAMASCHI A CAMBIO RAPIDO
 QUICK CHANGE TAP HOLDER
 MANDRINS DE TARAUDAGE A' CHANGEMENT RAPIDE
 GEWINDE-SCHNELLWECHSELFUTTER



DIN 69893



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

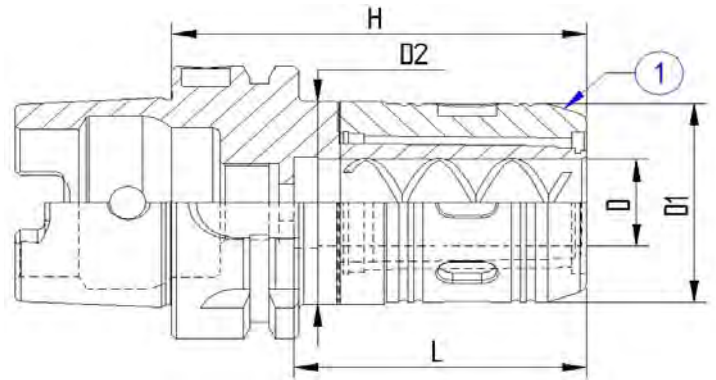
SENZA COMPENSAZIONE

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 - ZUBEHOR



Bilanciato G.6,3 12.000 RPM



Codice	HSK	Descrizione	H	D	D1	D2	L
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



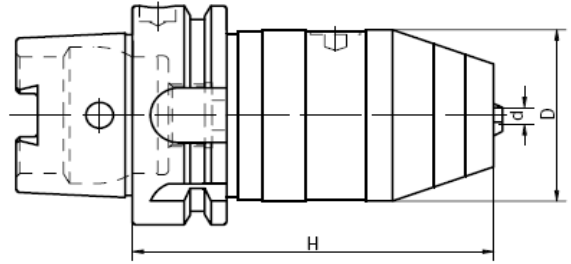
RIF. PAGINA **300**



MANDRINI PORTAPUNTE INTEGRALI PER ROTAZIONE DESTRA E SINISTRA
 NC-DRILL CHUCKS FOR LEFT AND RIGHT ROTATION
 MANDRINS DE PERÇAGE CNC POUR ROTATION GAUCHE-DROITE
 NC-BOHRFUTTER FUER RECHTS UND LINKSLAUF



DIN 69893



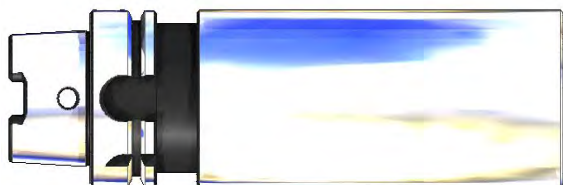
Codice	HSK	Descrizione	H	D	Capacità
65AMAZ13	50/A	HSK50/A M/AUTOS./FORI H111 D13	111	50	1-13
65AMAZ16	50/A	HSK50/A M/AUTOS./FORI H111 D16	111	57	3-16



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



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



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

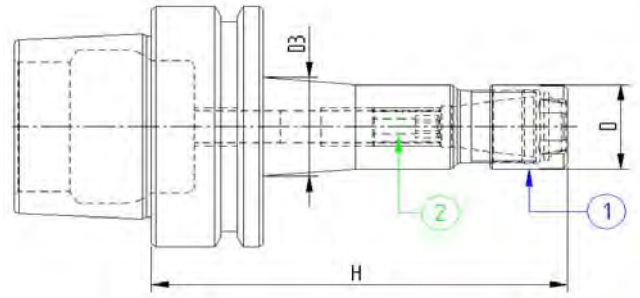
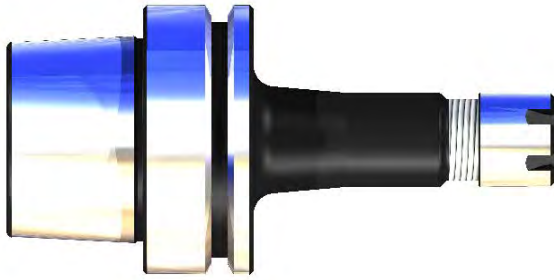


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



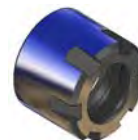
Codice	HSK	Descrizione	ER	D	H	D3
65EPM207	50/E	HSK50/E DIN69893 P/P H100 ER11MINI	11	16	100	20
65EPM210	50/E	HSK50/E DIN69893 P/P H100 ER16MINI	16	22	100	24

L = 160

Codice	HSK	Descrizione	ER	D	H	D3
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

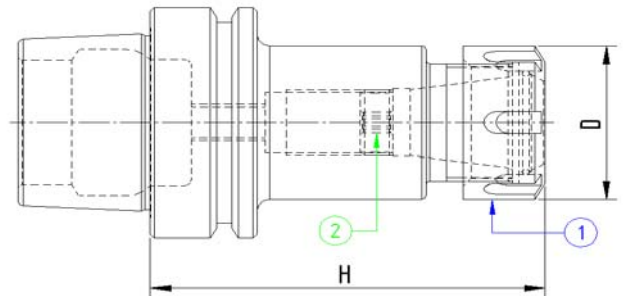
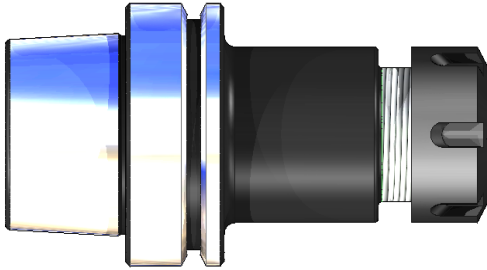
Typo Cono | ER MINI | GRANO INT. | Q.tà | GHIERA | Q.tà



HSK50/E	11	100601001	1	911GHRMN	1
	16	101001601	1	916GHRMN	1

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	D	H
65EPP210	50/E	HSK50/E DIN69893 P/P H80 ER16	16	32	80
65EPP213	50/E	HSK50/E DIN69893 P/P H80 ER20	20	35	80
65EPP216	50/E	HSK50/E DIN69893 P/P H80 ER25	25	42	80
65EPP220	50/E	HSK50/E DIN69893 P/P H80 ER32	32	50	80
65EPP226	50/E	HSK50/E DIN69893 P/P H80 ER40	40	63	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

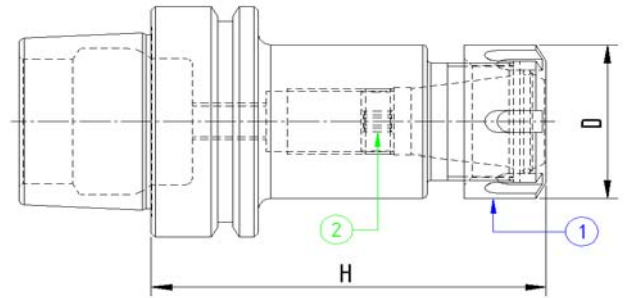
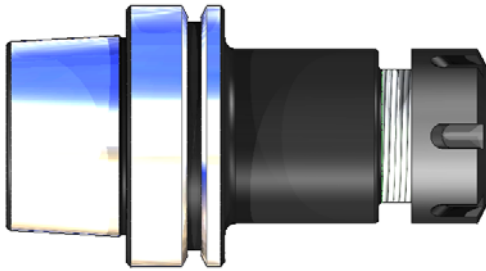
Tipo Cono ER GRANO INT. Q.tà GHIERA Q.tà



HSK50/E	ER	GRANO INT.	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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	D	H
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

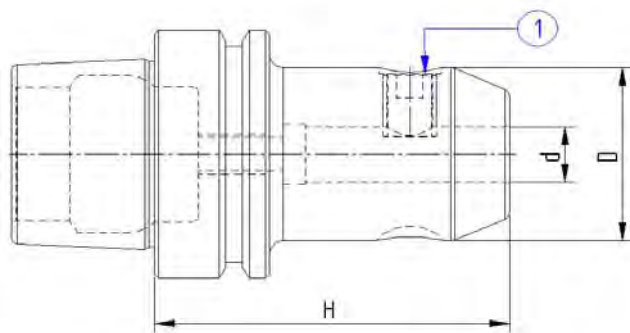
Tipo Cono ER GRANO INT. Q.tà GHIERA Q.tà



HSK50/E	ER	GRANO INT.	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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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

Tipo Cono Ø WLD GRANO 1 Q.tà



HSK50/E	d	Part Number	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2



MANDRINI PORTAFRESE TIPO WHISTLE NOTCH
 END MILL HOLDERS WHISTLE NOTCH
 MANDRINS POUR OUTILS TYPE WHISTLE NOTCH
 ZYLINDERSCHAFTAUFNAHME WHISTLE NOTCH

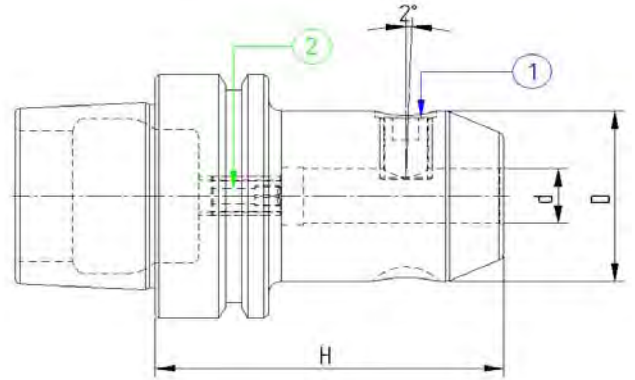
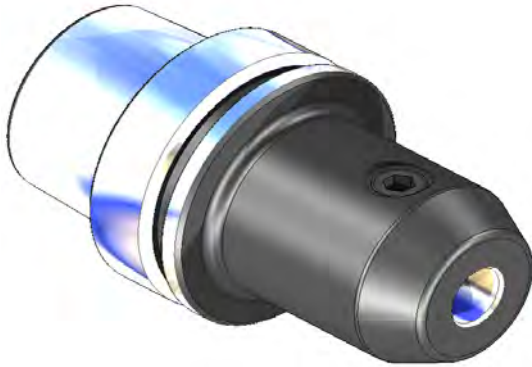


DIN 69893

DIN 1835 E

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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

Tipo Cono Ø WHN GRANO Q.tà



HSK50/E	Ø WHN	GRANO	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32	102002002	2



MANDRINI PORTAFRESA TRASCINAMENTO FISSO CON REFRIGERAZIONE INTERNA
 FACE MILL HOLDERS-TENONS DRIVE WITH INTERNAL COOLANT
 MANDRINS PORTE-FRAISE-ENTRAINEMENT PAR TENONS AVEC ARROSAGE INTERNE
 AUFSTECKFRAESDORNE FÜR FRAESER MIT QUERNUT UND KUEHLMITTELZUFUHR

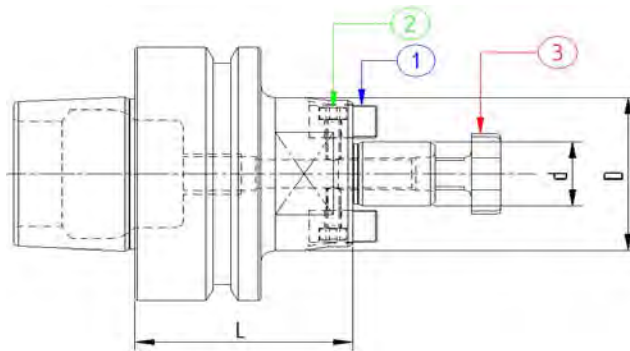
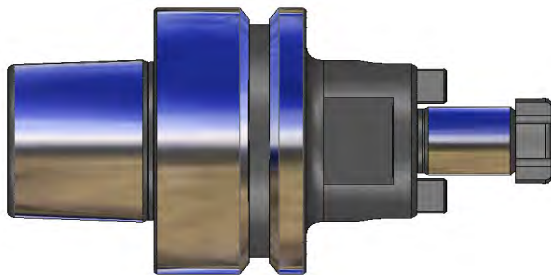


DIN 69893

ISO 3937

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	L	d	D
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

Tipo Cono	Ø	VITE CROCE	Q.tà	TASSELLO	Q.tà	VITE TASSELLO	Q.tà
HSK50/E	16	916VTC02	1	916TSL01	2	110301001	2
	22	922VTC02	1	922TSL01	2	110301201	2
	27	927VTC02	1	927TSL01	2	110401601	2
	32	932VTC02	1	932TSL01	2	110601601	2
	40	940VTC02	1	940TSL01	2	110601601	2



MANDRINI PORTAPUNTE ATTACCO CONO MORSE
 MORSE TAPER ADAPTORS FOR DRILLS
 DOUILLES POUR CONE MORSE A TENON
 ZWISCHENHUELSEN FUER MORSEKEGEL MIT AUSTREIBLAPPEN

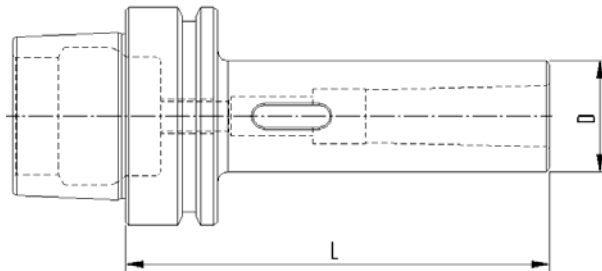
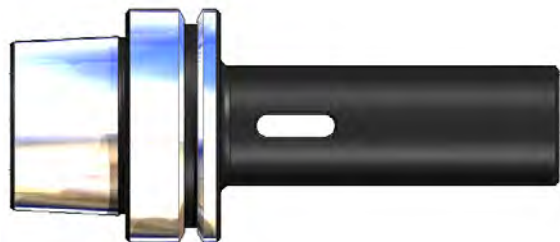


DIN 69893

DIN 228-2

Bilanciato G.6,3 20.000 RPM

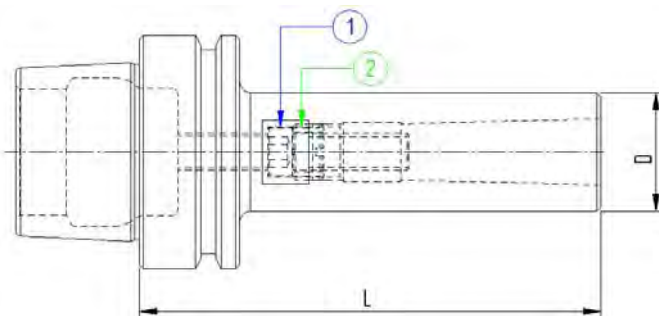
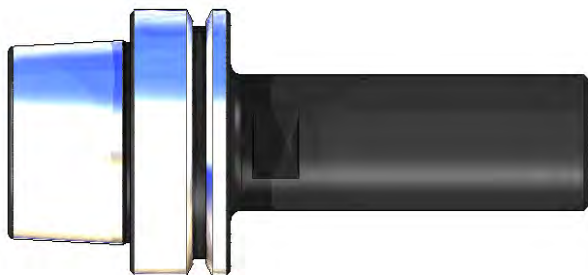
Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

Tipo Cono CM **GHIERA INT.** Q.tà **VITE** Q.tà



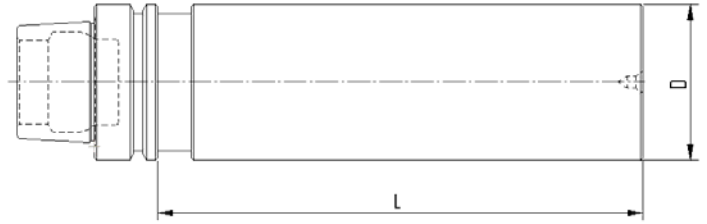
HSK50/E	CM1	-	0	110603501	1
	CM2	121500802	1	111003014	1
	CM3	122000903	1	111204003	1



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



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



MANDRINI PORTAPINZA TIPO ER MIINI
ER COLLET CHUCKS MINI
MANDRINS A PINCES TYPE ER MINI
SPANNZANGENFUTTER ER TYPE MINI

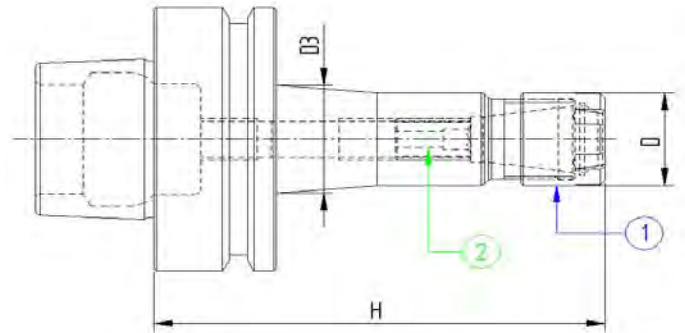


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	D	H	D3
65FPM207	50/F	HSK50/F DIN69893 P/P H100 ER11MINI	11	16	100	19
65FPM210	50/F	HSK50/F DIN69893 P/P H100 ER16MINI	16	22	100	25

L = 160

Codice	HSK	Descrizione	ER	D	H	D3
65FPM407	50/F	HSK50/F DIN69893 P/P H160 ER11MINI	11	16	160	19
65FPM410	50/F	HSK50/F DIN69893 P/P H160 ER16MINI	16	22	160	25

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono ER MINI GRANO Q.tà GHIERA Q.tà



HSK50/F	11	100601004	1	911GHRMN	1
	16	101001601	1	916GHRMN	1



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

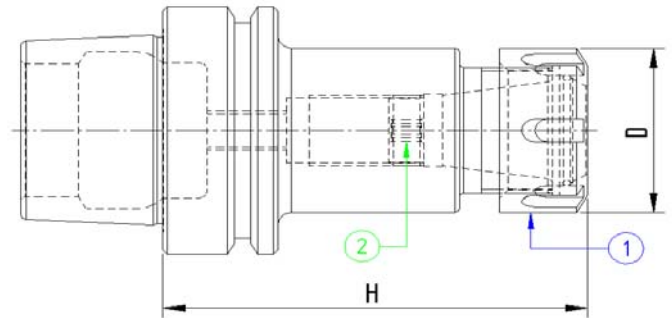
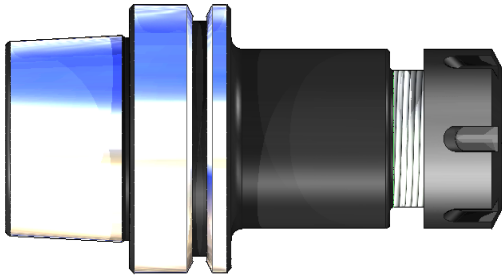


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	D	H
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

Tipo Cono ER GRANO INT. Q.tà GHIERA Q.tà



HSK50/F	ER	GRANO INT.	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



MANDRINI PORTAPINZA TIPO ER - SERIE LUNGA
 ER COLLET CHUCK - LONG
 MANDRINS A PINCES TYPE ER - LONGUE
 SPANNZANGENFUTTER ER TYPE - LANGE AUSFUEHRUNG

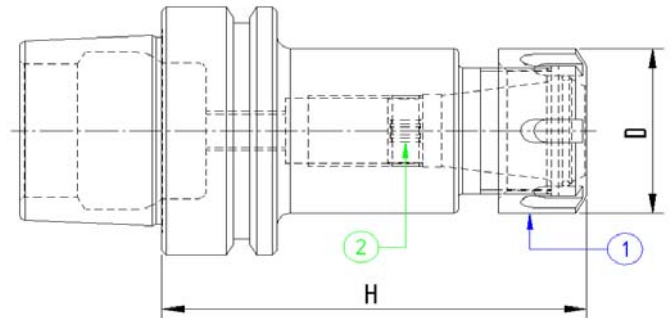
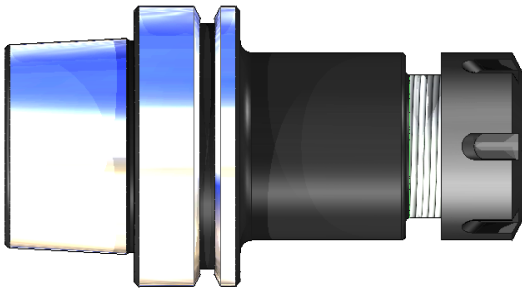


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	D	L
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

Tipo Cono ER GRANO INT. Q.tà GHIERA Q.tà



HSK50/F	ER	GRANO INT.	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



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

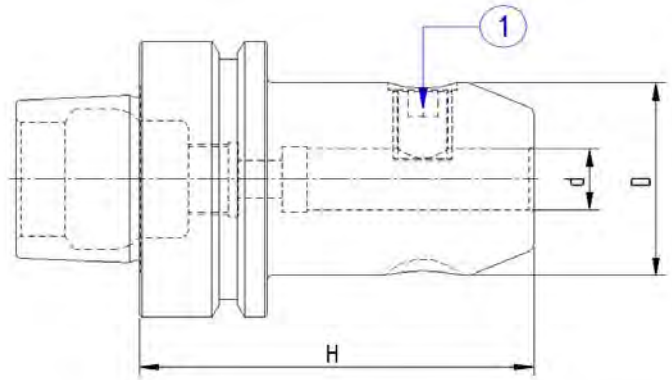
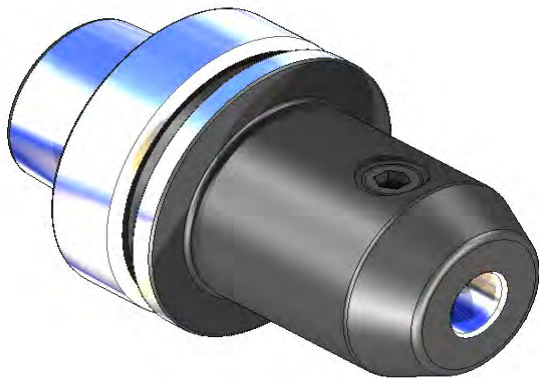


DIN 69893

DIN 1835 B

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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	65
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 - PIECES DETACHEES - ERSATZTEILE

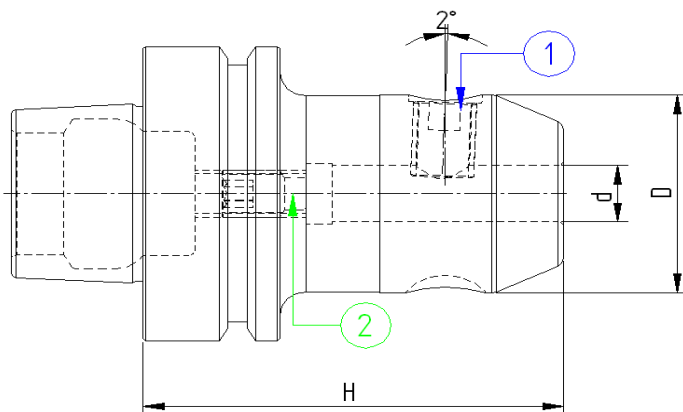
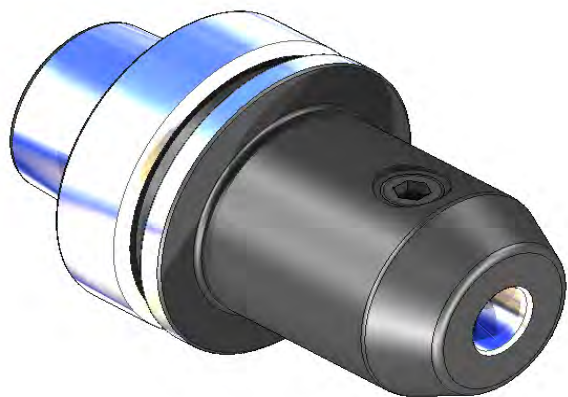
Tipo Cono Ø WLD GRANO Q.tà



HSK50/F			
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



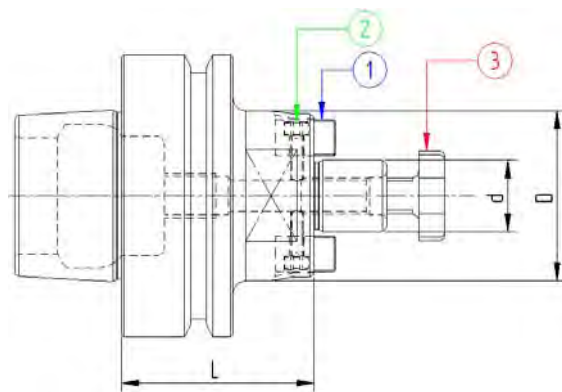
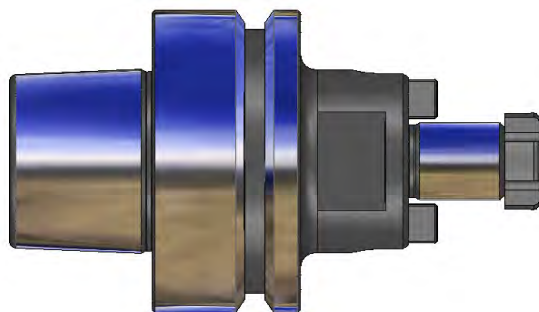
Codice	HSK	Descrizione	d	D	H
65FVHN06	50/F	HSK50/F DIN69893 W/NOTCH H80 D06	6	25	80
65FVHN08	50/F	HSK50/F DIN69893 W/NOTCH H80 D08	8	28	80
65FVHN10	50/F	HSK50/F DIN69893 W/NOTCH H80 D10	10	35	80
65FVHN12	50/F	HSK50/F DIN69893 W/NOTCH H90 D12	12	42	90
65FVHN14	50/F	HSK50/F DIN69893 W/NOTCH H90 D14	14	44	90
65FVHN16	50/F	HSK50/F DIN69893 W/NOTCH H100 D16	16	48	100
65FVHN18	50/F	HSK50/F DIN69893 W/NOTCH H100 D18	18	50	100
65FVHN20	50/F	HSK50/F DIN69893 W/NOTCH H100 D20	20	52	100
65FVHN25	50/F	HSK50/F DIN69893 W/NOTCH H110 D25	25	65	110
65FVHN32	50/F	HSK50/F DIN69893 W/NOTCH H120 D32	32	72	120

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø WHN	GRANO	Q.tà	GRANO	Q.tà
HSK50/F	6	100601004	1	101001601	1
	8	100801004	1	101001601	1
	10	101001204	1	101001601	1
	12 - 14	101201604	1	101001601	1
	16 - 18	101401604	1	101001601	1
	20	101601604	1	101001601	1
	25	101802002	2	101001601	1
	32	102002002	2	101001601	1


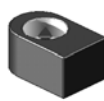

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	L	d	D
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

Tipo Cono	Ø	VITE CROCE	Q.tà	TASSELLO	Q.tà	VITE TASSELLO	Q.tà
							
HSK50/F	16	916VTC02	1	916TSL01	2	110301001	2
	22	922VTC02	1	922TSL01	2	110301201	2
	27	927VTC02	1	927TSL01	2	110401601	2
	32	932VTC02	1	932TSL01	2	110601601	2
	40	940VTC02	1	940TSL01	2	110601601	2



MANDRINI PORTAPUNTE CON ATTACCO CONO MORSE
 MORSE TAPER ADAPTORS FOR DRILLS
 DOUILLES POUR CONE MORSE A TENON
 ZWISCHENHUELSEN FUER MORSEKEGEL MIT AUSTREIBBLAPPEN

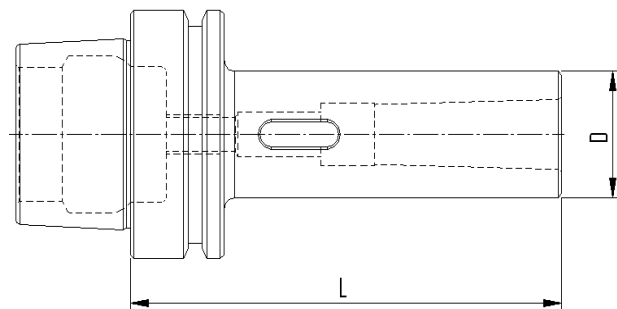
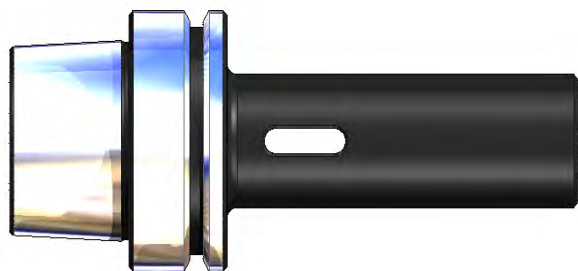


DIN 69893

DIN 228-2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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



MANDRINI PORTAFRESE CONO MORSE
 MORSE TAPER MIL ADAPTERS WITH THREAD
 DOUILLES POUR CONE MORSE
 ZWISCHENHUELSEN FÜR MORSEKEGEL

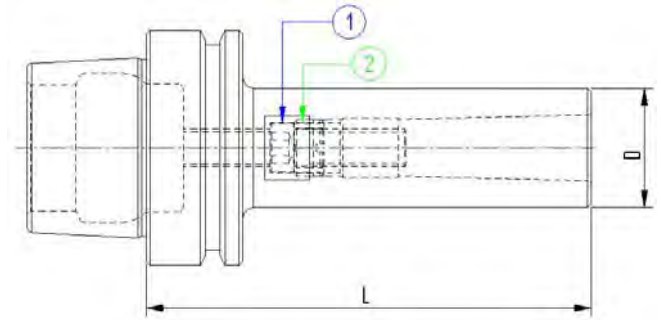
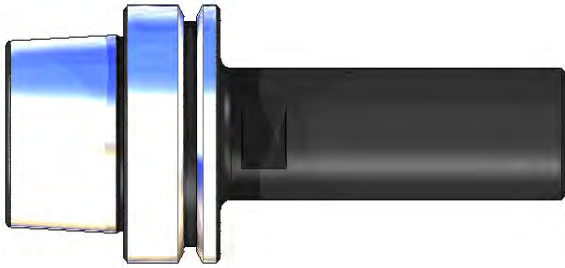


DIN 69893

DIN 228-2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	L	D
65FMF101	50/F	HSK50/F DIN69893 H105 CM1FRESE	105	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

Tipo Cono CM **GIERA INTERNA** Q.tà **VITE** Q.tà



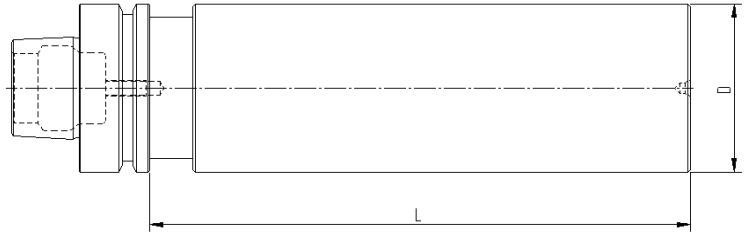
HSK50/A	CM1	-	0	110603501	1
	CM2	121500802	1	111003014	1
	CM3	122000903	1	111204003	1



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



DIN 69893



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 COLLET CHUCK MINI
MANDRINS A PINCES TYPE ER MINI
SPANNZANGENFUTTER ER TYP MINI

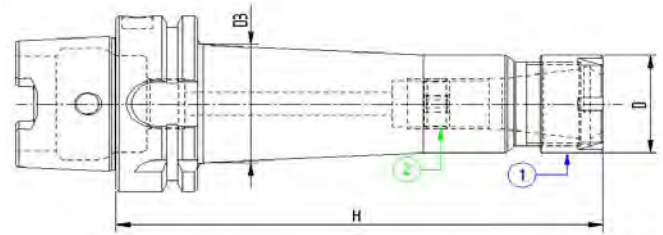


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

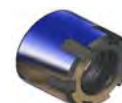
Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	D	H	D3
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	19
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	35
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

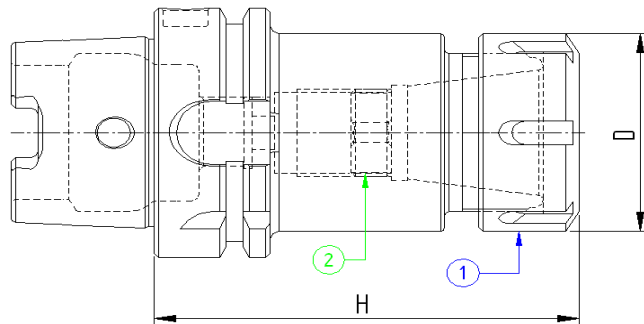
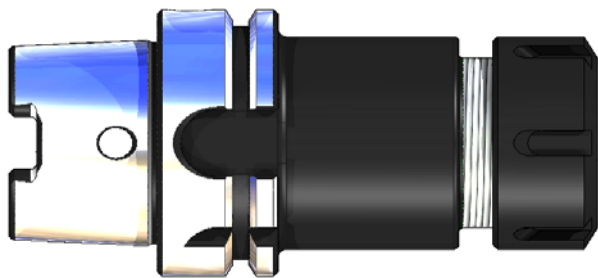
Tipo Cono ER **GHIERA INT.** Q.tà **GHIERA** Q.tà



HSK	ER	GHIERA INT.	Q.tà	GHIERA	Q.tà
11	11	100601004	1	911GHRMN	1
16	16	101001601	1	916GHRMN	1
20	20	101001601	1	920GHRMN	1
25	25	101815801	1	925GHRMN	1



Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



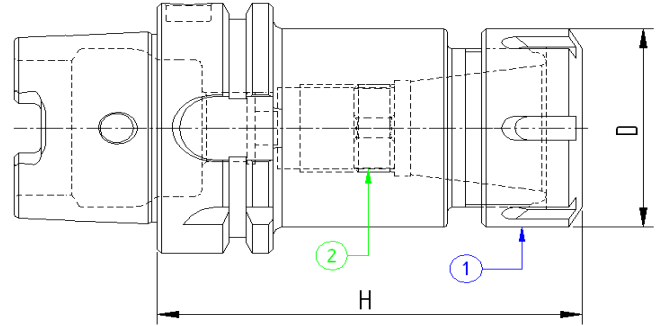
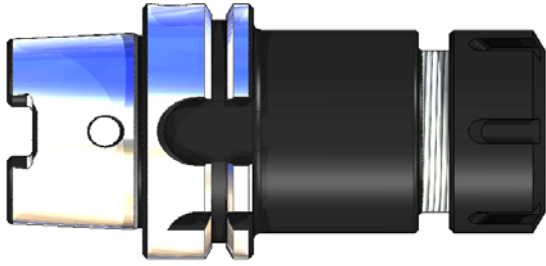
Codice	HSK	Descrizione	ER	D	H
66APP110	63/A	HSK63/A DIN69893 P/P H75 ER16	16	32	75
66APP113	63/A	HSK63/A DIN69893 P/P H75 ER20	20	35	75
66APP116	63/A	HSK63/A DIN69893 P/P H75 ER25	25	42	75
66APP120	63/A	HSK63/A DIN69893 P/P H75 ER32	32	50	75
66APP126	63/A	HSK63/A DIN69893 P/P H80 ER40	40	63	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	ER	GHIERA INT.	Q.tà	GHIERA	Q.tà
					
HSK	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

Bilanciato G.6,3 20.000 RPM



Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=100

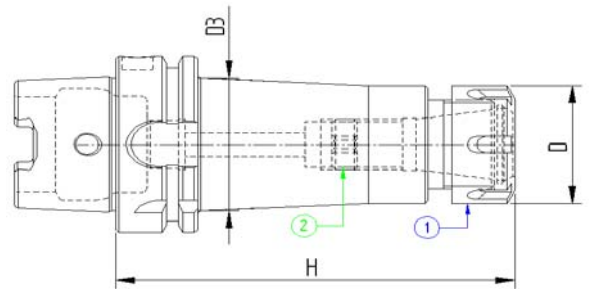
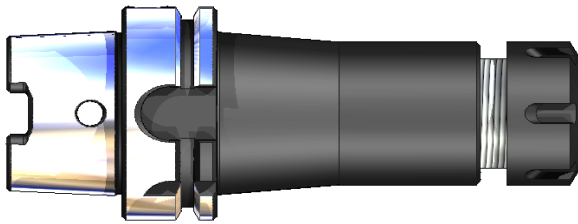
Codice	HSK	Descrizione	ER	D	H
66APP210	63/A	HSK63/A DIN69893 P/P H100 ER16	16	32	100
66APP213	63/A	HSK63/A DIN69893 P/P H100 ER20	20	35	100
66APP216	63/A	HSK63/A DIN69893 P/P H100 ER25	25	42	100
66APP220	63/A	HSK63/A DIN69893 P/P H100 ER32	32	50	100
66APP226	63/A	HSK63/A DIN69893 P/P H100 ER40	40	63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

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	ER	GHIERA INT.	Q.tà	GHIERA	Q.tà
					
HSK	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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=120

Codice	HSK	Descrizione	ER	D	D3	H
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
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
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

Tipo Cono ER GRANO Q.tà GHIERA Q.tà



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



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



DIN 69893

DIN 6388

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO

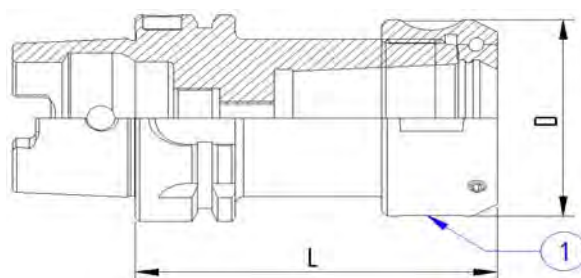
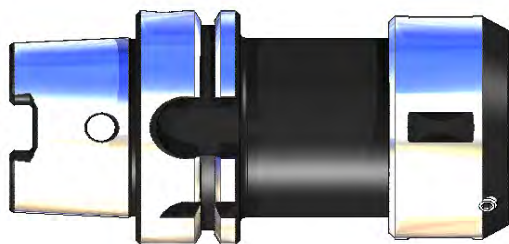


FIGURA 1

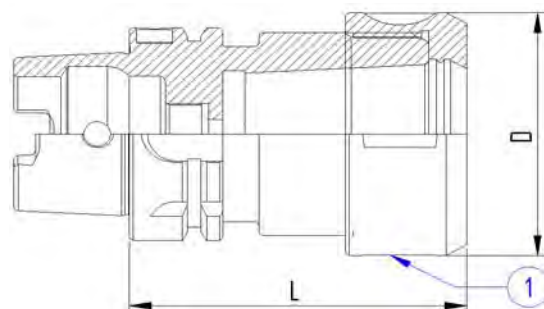


FIGURA 2

Codice	HSK	Descrizione	EOC	D	L	Fig.
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

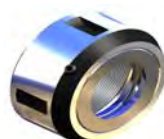
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono

EOC

GHIERA

Q.tà



ISO 40

16

916GHROS

1

25

925GHROS

1

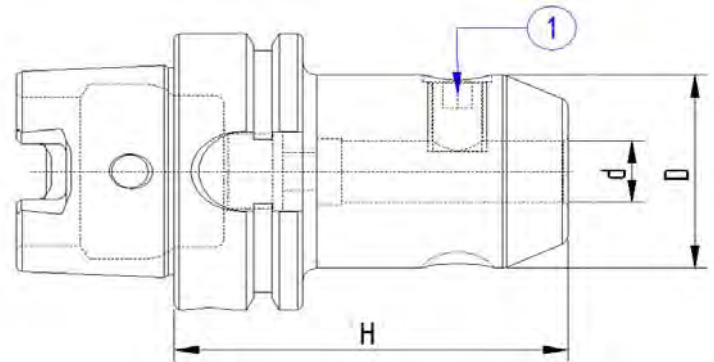
32

932GHROS

1

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO




Codice	HSK	Descrizione	d	D	H
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

Tipo Cono Ø WLD **GRANO** Q.tà



HSK63/A	d	GRANO	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	24	101802002	2
	25	101802002	2
	32 - 40	102002002	2


MANDRINO PORTAFRESE CON ATTACCO TIPO WELDON
END MILL HOLDERS WELDON
MANDRINS POUR OUTIL TYPE WELDON
ZYLINDERSHAFTAUFNAHME WELDON

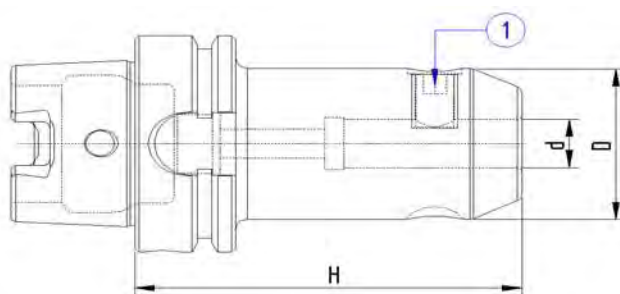


DIN 69893

DIN 1835 B

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=100

Codice	HSK	Descrizione	d	D	H
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

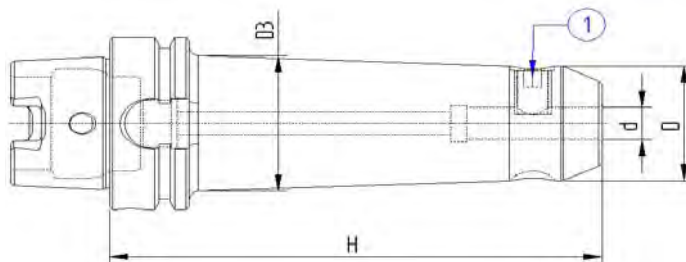
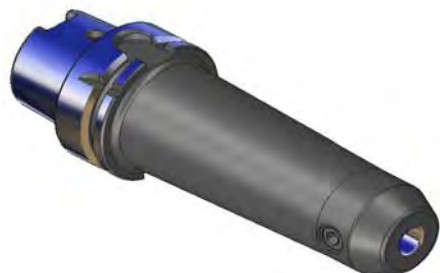
Tipo Cono Ø WLD GRANO Q.tà



HSK63/A			
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=120

Codice	HSK	Descrizione	d	D	H	D3
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	-
66AWE332	63/A	HSK63/A DIN69893 WELDON H.120 D.32	32	72	120	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

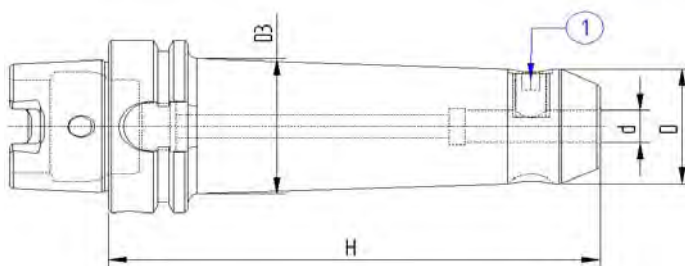
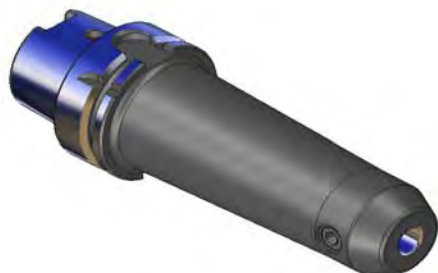
Tipo Cono Ø WLD GRANO Q.tà



HSK63/A	d	GRANO	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32	102002002	2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=160

Codice	HSK	Descrizione	d	D	H	D3
66AWE406	63/A	HSK63/A DIN69893 WELDON H.160 D.6	6	25	160	-
66AWE408	63/A	HSK63/A DIN69893 WELDON H.160 D.8	8	28	160	-
66AWE410	63/A	HSK63/A DIN69893 WELDON H.160 D.10	10	35	160	-
66AWE412	63/A	HSK63/A DIN69893 WELDON H.160 D.12	12	42	160	-
66AWE414	63/A	HSK63/A DIN69893 WELDON H.160 D.14	14	44	160	-
66AWE416	63/A	HSK63/A DIN69893 WELDON H.160 D.16	16	48	160	-
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	65	160	-
66AWE432	63/A	HSK63/A DIN69893 WELDON H.160 D.32	32	72	160	-
66AWE440	63/A	HSK63/A DIN69893 WELDON H.160 D.40	40	80	160	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

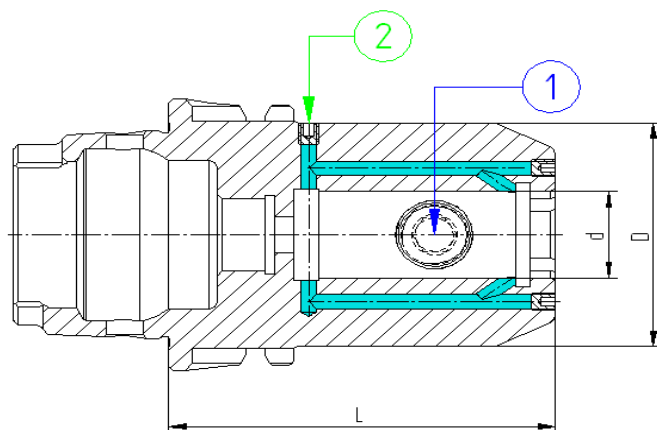
Tipo Cono Ø WLD GRANO Q.tà



HSK63/A	d	GRANO	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32 - 40	102002002	2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	L
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

Tipo Cono	Ø WLD	GRANO 1	Q.tà	GRANO 2	Q.tà
HSK63/A	6	100601004	1	100300404 M3x4	2
	8	100801004	1	100400504 M4x5	2
	10	101001204	1	100400504 M4x5	2
	12 - 14	101201604	1	100400504 M4x5	2
	16 - 18	101401604	1	100400504 M4x5	3
	20	101601604	1	100400504 M4x5	3
	25	101802002	2	100400504 M4x5	3
	32 - 40	102002002	2	100400504 M4x5	3



MANDRINO PORTAFRESE CON ATTACCO TIPO WISTHLE NOTCH
 END MILL HOLDERS WISTHLE NOTCH
 MANDRINS POUR OUTIL TYPE WISTHLE NOTCH
 ZYLINDERSHAFTAUFNAHME WISTHLE NOTCH

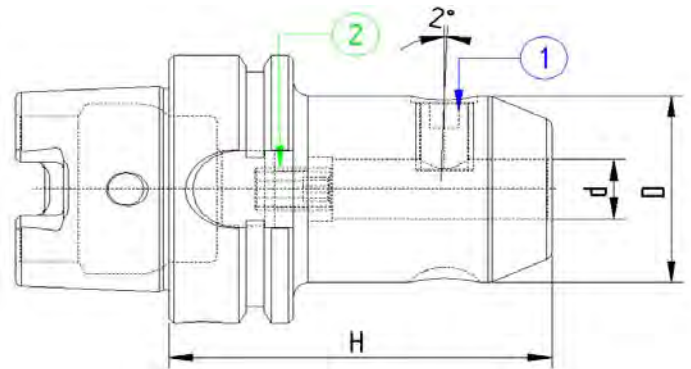


DIN 69893

DIN 1835 E

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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	65	110
66AWHN32	63/A	HSK63/A DIN69893 W/NOTCH H.110 D.32	32	72	110

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø WLD	GRANO 1	Q.tà	GRANO INTERNO	Q.tà
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HSK63/A					
	6	100601004	1	100501607	1
	8	100801004	1	100601607	1
	10	101001204	1	100801601	1
	12 - 14	101201604	1	101001601	1
	16 - 18	101401604	1	101001601	1
	20	101601604	1	101001801	1
	25	101802002	2	101001801	1
	32	102002002	2	101001801	1



MANDRINI PORTAFRESE A TRASCINAMENTO FISSO CON PASAGGIO REFRIGERANTE
 FACE MILL HOLDERS-TENONS DRIVE-WITH INTERNAL COOLANT SUPPLY
 MANDRINS PORTE-FRAISE-ENTRAINEMENT PAR TENONS AVEC ARROSAGE INTERNE
 AUFSTECKFRAESDORNE FUER FRAESER MIT QUERNUT UND KUEHLMITTELZUFUHR

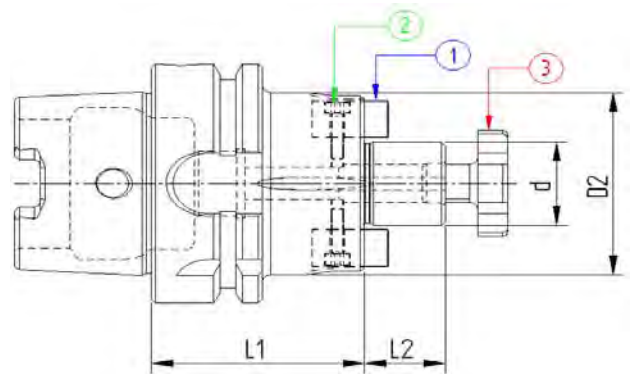
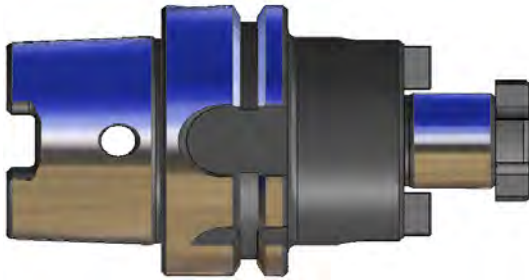


DIN 69893

ISO 3937

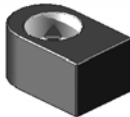


Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



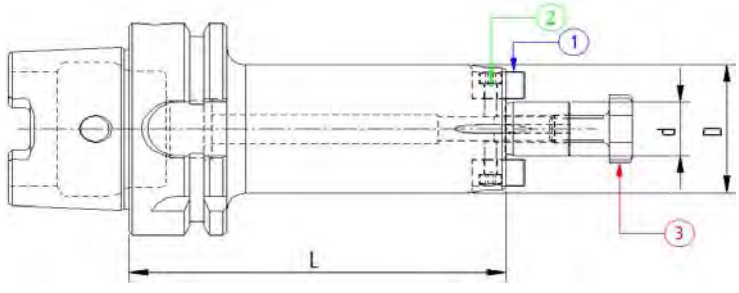
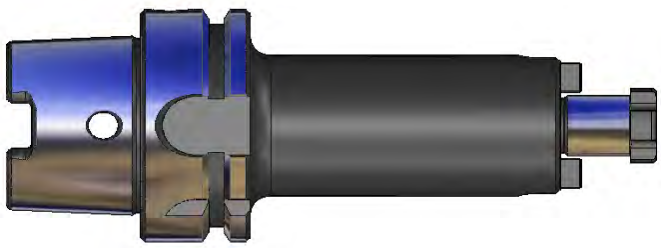
Codice	HSK	Descrizione	D	L1	L2	D2
66APF116	63/A	HSK63/A DIN69893 P/F FISSO H50 D.16	16	50	17	38
66APF122	63/A	HSK63/A DIN69893 P/F FISSO H50 D.22	22	50	19	48
66APF127	63/A	HSK63/A DIN69893 P/F FISSO H60 D.27	27	60	21	58
66APF132	63/A	HSK63/A DIN69893 P/F FISSO H60 D.32	32	60	24	66
66APF140	63/A	HSK63/A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

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø	TASSELLO	Q.tà	VITE	Q.tà	VITE A CROCE	Q.tà
							
HSK	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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=100

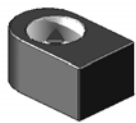
Codice	HSK	Descrizione	d	L	D
66APF216	63/A	HSK63/A DIN69893 P/F FISSO H100 D16	16	100	38
66APF222	63/A	HSK63/A DIN69893 P/F FISSO H100 D22	22	100	48
66APF227	63/A	HSK63/A DIN69893 P/F FISSO H100 D27	27	100	58
66APF232	63/A	HSK63/A DIN69893 P/F FISSO H100 D32	32	100	66
66APF240	63/A	HSK63/A DIN69893 P/F FISSO H100 D40	40	100	80

L=160

Codice	HSK	Descrizione	d	L	D
66APF416	63/A	HSK63/A DIN69893 P/F FISSO H160 D16	16	160	38
66APF422	63/A	HSK63/A DIN69893 P/F FISSO H160 D22	22	160	48
66APF427	63/A	HSK63/A DIN69893 P/F FISSO H160 D27	27	160	58
66APF432	63/A	HSK63/A DIN69893 P/F FISSO H160 D32	32	160	66
66APF440	63/A	HSK63/A DIN69893 P/F FISSO H160 D40	40	160	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

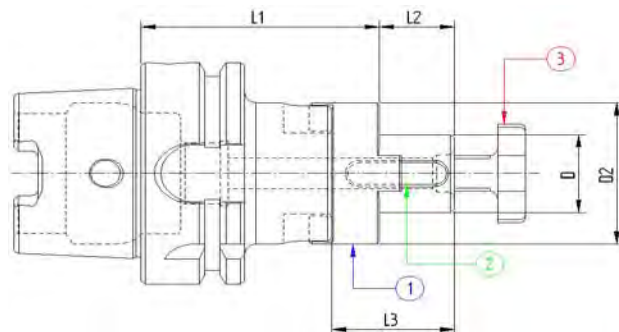
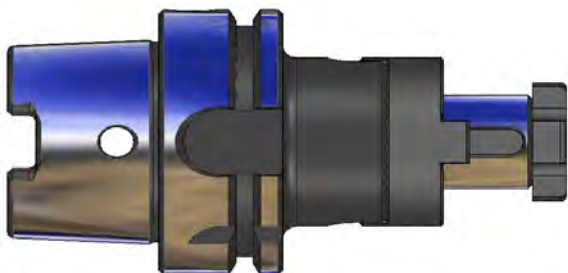
Tipo Cono Ø **TASSELLO** Q.tà **VITE** Q.tà **VITE A CROCE** Q.tà



HSK	Ø	TASSELLO	Q.tà	VITE	Q.tà	VITE A CROCE	Q.tà
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

Bilanciato G.6,3 20.000 RPM

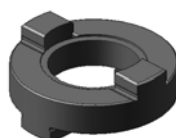
Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

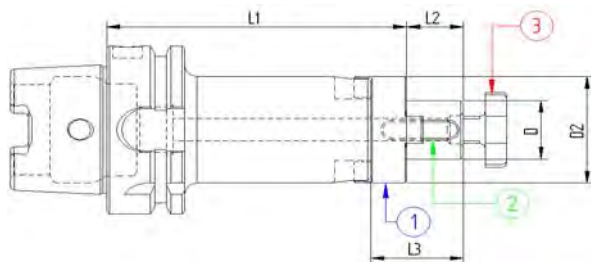
Tipo Cono HSK VITE A CROCE Q.tà DISTANZIALE Q.tà LINGUETTA Q.tà



HSK63/A	D	VITE A CROCE	Q.tà	DISTANZIALE	Q.tà	LINGUETTA	Q.tà
16	916VTC02	1	916GNT01	1	170402004	1	
22	922VTC02	1	922GNT01	1	170602506	1	
27	927VTC02	1	927GNT01	1	170702507	1	
32	932VTC02	1	932GNT01	1	170802807	1	
40	940VTC02	1	940GNT01	1	171003208	1	

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO




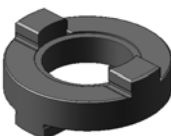

L=100

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

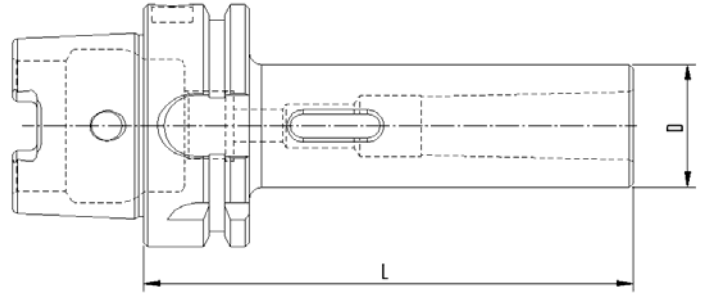
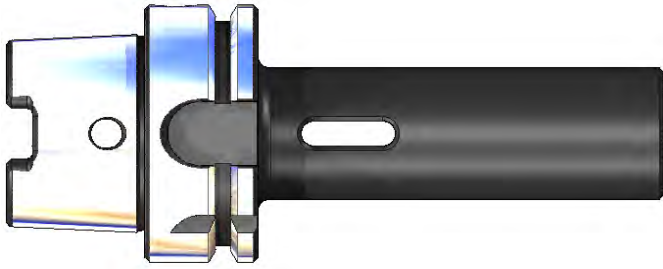
Codice	HSK	Descrizione	D	L1	L2	L3	D2
66APU416	63/A	HSK63/A DIN69893 P/F UNIV.H160 D16	16	160	17	27	32
66APU422	63/A	HSK63/A DIN69893 P/F UNIV.H160 D22	22	160	19	31	40
66APU427	63/A	HSK63/A DIN69893 P/F UNIV.H160 D27	27	160	21	33	48
66APU432	63/A	HSK63/A DIN69893 P/F UNIV.H160 D32	32	160	24	38	58
66APU440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

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	HSK	VITE A CROCE	Q.tà	DISTANZIALE	Q.tà	LINGUETTA	Q.tà
							
HSK63/A	16	916VTC02	1	916GNT01	1	170402004	1
	22	922VTC02	1	922GNT01	1	170602506	1
	27	927VTC02	1	927GNT01	1	170702507	1
	32	932VTC02	1	932GNT01	1	170802807	1
	40	940VTC02	1	940GNT01	1	171003208	1

Bilanciato G.6,3 20.000 RPM

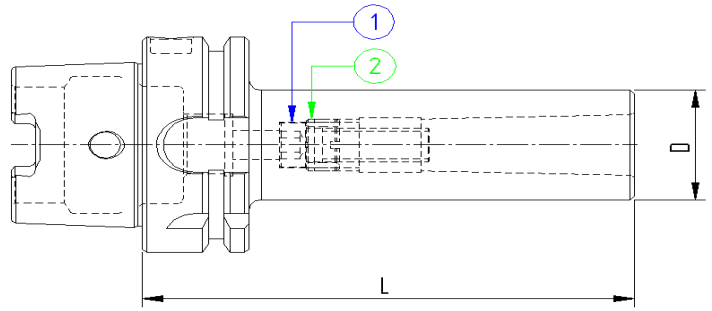
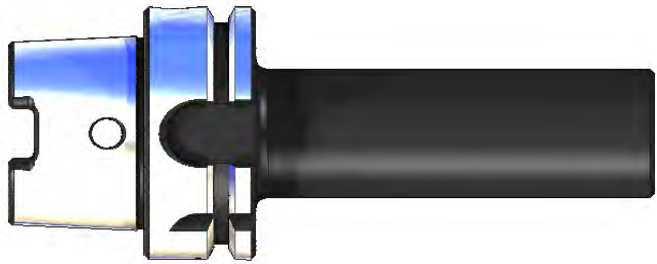
Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciate G.2,5 con EXTRA PREZZO



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

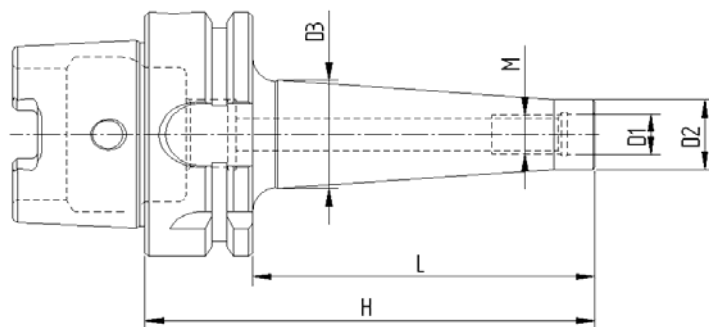
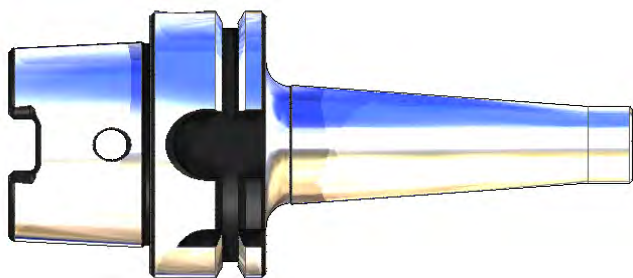
Tipo Cono HSK **VITE (1)** Q.tà **BOCCOLA (2)** Q.tà



HSK63/A	CM1	110603001	1	-	1
	CM2	111003014	1	121500802	1
	CM3	111204003	1	122000903	1
	CM4	111604514	1	122501204	1



Bilanciato G.2,5 20.000 RPM



L = 59

Codice	HSK	Descrizione	D1	D2	D3	H	L	M
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
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
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
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

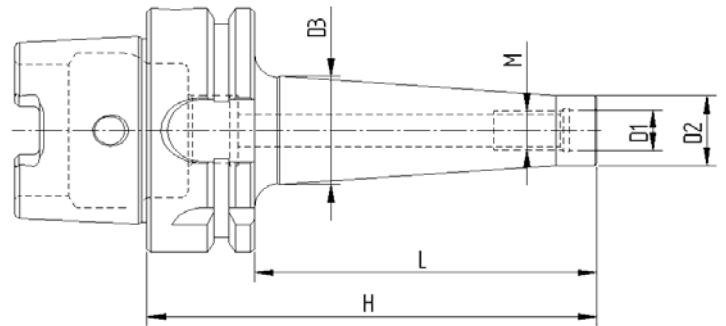
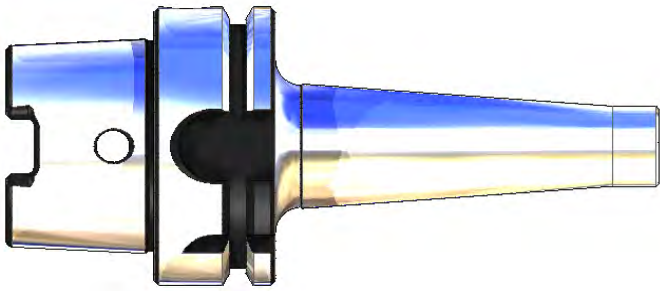


MANDRINI PER FRESE CON ATTACCO FILETTATO
 MILLING CUTTER ARBORS FOR SCREW-ON TYPE MILLING CUTTERS
 MANDRINS POUR FRAISES A VISSER
 SPANFUTTER FUR EINSCHRAUBFRAESER



DIN 69893

Bilanciato G.2,5 20.000 RPM



L = 159

Codice	HSK	Descrizione	D1	D2	D3	H	L	M
66AAF510	63/A	HSK63/A DIN69893 P/F AT.FIL.M10x159	10,5	18	31	159	133	M10
66AAF512	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x159	12,5	21	34	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
66AAF612	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x184	12,5	21	34	184	158	M12
66AAF616	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x184	17	29	39	184	158	M16

L = 209

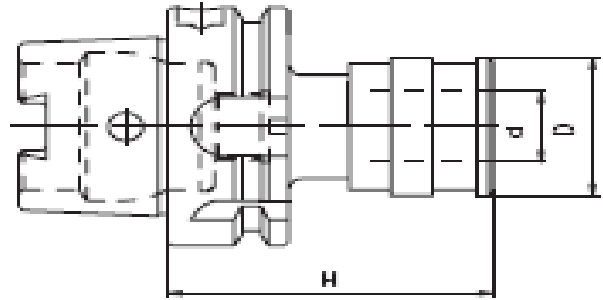
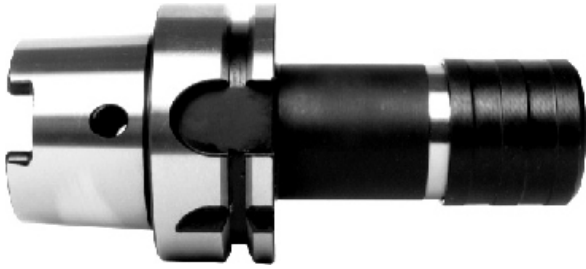
Codice	HSK	Descrizione	D1	D2	D3	H	L	M
66AAF712	63/A	HSK63/A DIN69893 P/F AT.FIL.M12x209	12,5	21	42	209	183	M12
66AAF716	63/A	HSK63/A DIN69893 P/F AT.FIL.M16x209	17	29	42	209	183	M16



MANDRINI PORTAMASCHI A CAMBIO RAPIDO
 QUICK CHANGE TAP HOLDER
 MANDRINS DE TARAUDAGE A CHANGEMENT RAPID
 GEWINDE -SCHNELLWECHSELFUTTER



DLN 69893



Codice	HSK	Descrizione	H	D	d
66APCRM1	63/A	HSK63/A M/PORTAM/C/R H72 GR.1	72	38	19
66APCRM2	63/A	HSK63/A M/PORTAM/C/R H110 GR.2	110	54	31

ACCESSORI - ACCESSORIES - ACCESSIRES - ZUBEHOR



RIF. PAGINA 298



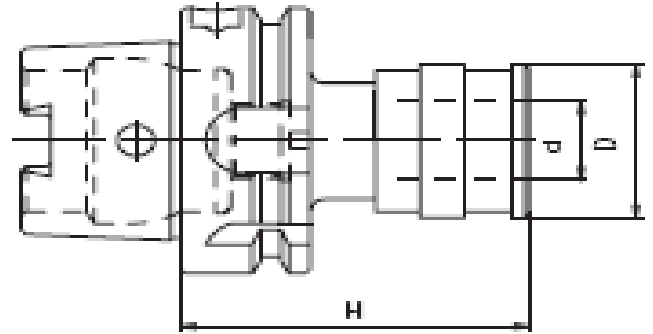
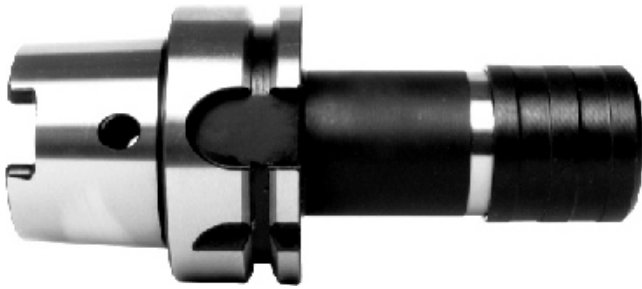
RIF. PAGINA 299



MANDRINI PORTAMASCHI A CAMBIO RAPIDO RIGIDI
 QUICK CHANGE TAP HOLDER
 MANDRINS DE TARAUDAGE A CHANGEMENT RAPID
 GEWINDE -SCHNELLWECHSELFUTTER



DLN 69893



Codice	HSK	Descrizione	H	D	d
66APRRM1	63/A	HSK63/A M/PORTAM/C/R/R H72 GR.1	72	38	19
66APRRM2	63/A	HSK63/A M/PORTAM/C/R/R H110 GR.2	110	54	31

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR





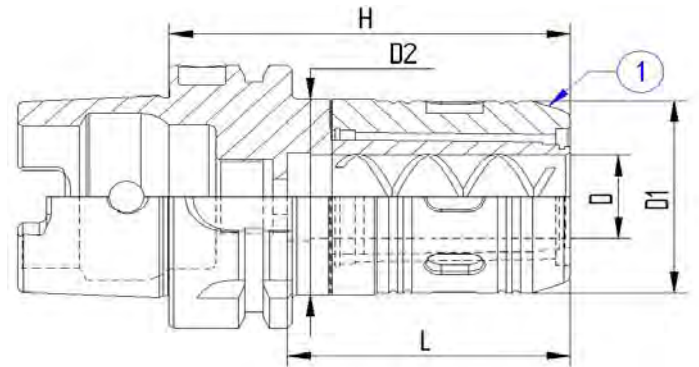
MANDRINI A FORTE SERRAGGIO
MILLING CHUCK
MANDRINS A FORT SERRAGE
KRAFTSPANNFUTTER



DIN 69893

DIN 1835 E

Bilanciato G.6,3 12.000 RPM



Codice	HSK	Descrizione	H	D	D1	D2	L
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	80

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHÖR

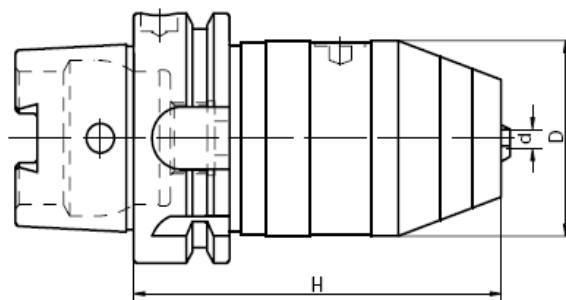




MANDRINI INTEGRALI CON CHIAVE ESAGONALE
 DRILL CHUCK WITH EXAG-KEY LOCK SYSTEM
 MANDRINS MONBLOC-SERRAGE PAR CLE 6 PANS
 NC-KURZBOHRFUTTER-SPANNEN DURCH 6 - KANTSCHLUSSEL



DIN 69893



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

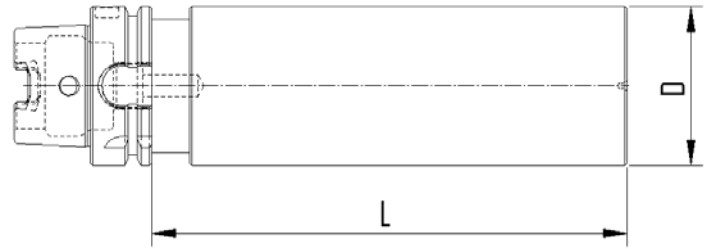
Codice	HSK	Descrizione	H	D	d
66AMAZ13	63/A	HSK63/A M/AUTOS./FORI H111 D13	111	50	1 - 13
66AMAZ16	63/A	HSK63/A M/AUTOS./FORI H111 D16	111	57	3 - 16



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



DIN 69893

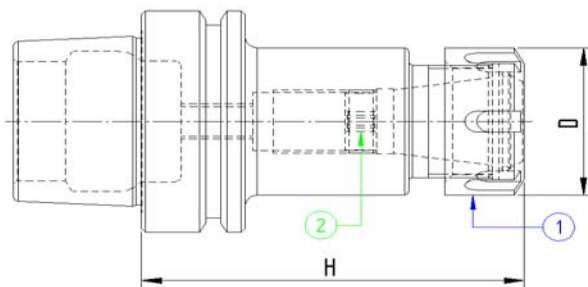
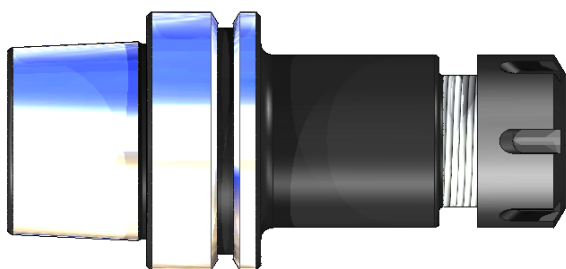


Codice	HSK	Descrizione	D	L
66AST363	63/A	HSK63/A DIN69893 ST.TENERO D.63x250	63	250
66AST380	63/A	HSK63/A DIN69893 ST.TENERO D.80x250	80	250

HSK 63/E

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



STANDARD

Codice	HSK	Descrizione	ER	D	H
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
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

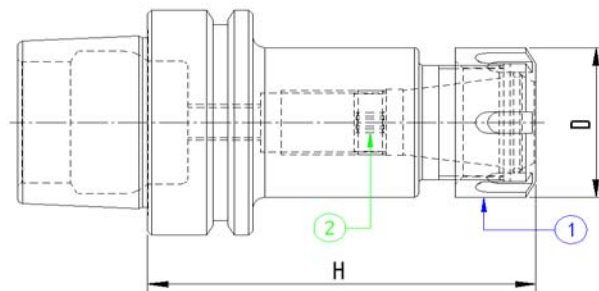
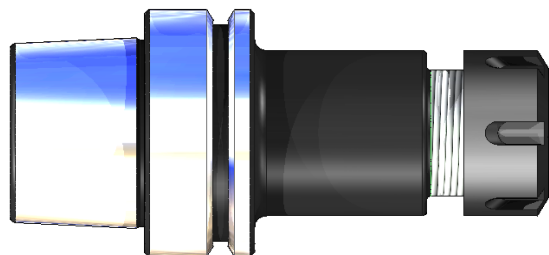
Tipo Cono | ER | **GHIERA INT.** | Q.tà | **GHIERA** | Q.tà



HSK/63 E	ER	101001601	1	916GHREQ	1
	25	101815801	1	925GHREQ	1
	32	102215901	1	932GHREQ	1
	40	103015901	1	940GHREQ	1

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=120

Codice	HSK	Descrizione	ER	D	H
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
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

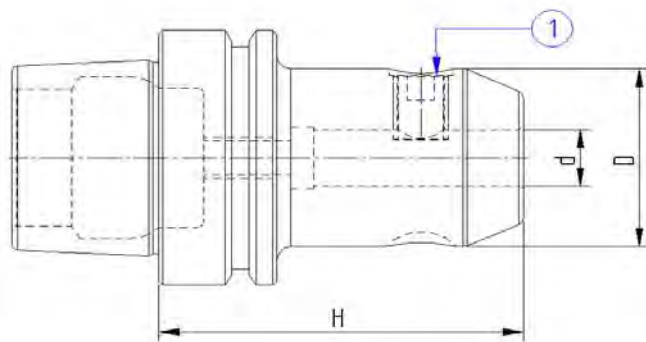
Tipo Cono ER **GHIERA INT.** Q.tà **GHIERA** Q.tà



HSK/63 E	ER	101001601	1	916GHREQ	1
	25	101815801	1	925GHREQ	1
	32	102215901	1	932GHREQ	1
	40	103015901	1	940GHREQ	1

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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

Tipo Cono Ø WLD **GRANO 1** Q.tà



HSK63/E	Ø WLD	Part Number	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32	102002002	2



MANDRINO PORTAFRESE CON ATTACCO TIPO WISTHLE NOTCH
 END MILL HOLDERS WISTHLE NOTCH
 MANDRINS POUR OUTIL TYPE WISTHLE NOTCH
 ZYLINDERSHAFTAUFAHME WISTHLE NOTCH

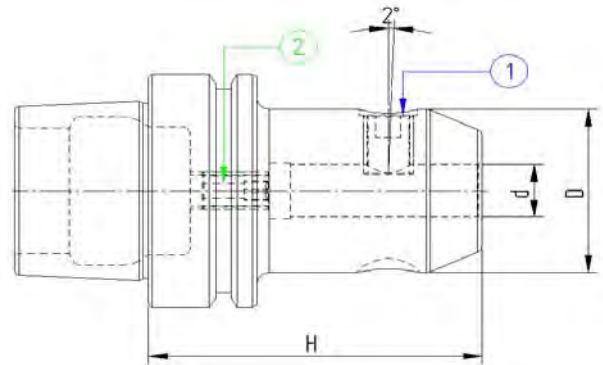


DIN 69893

DIN 1835 E

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	L
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	48	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

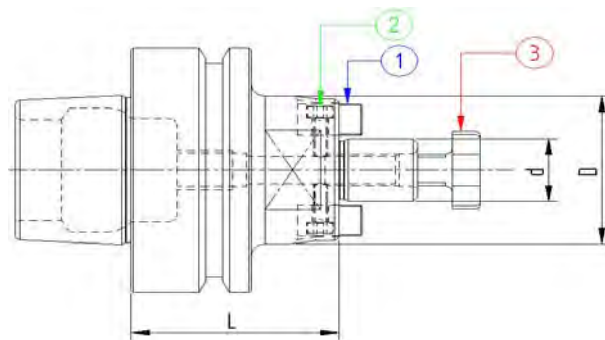
Tipo Cono Ø WLD **GRANO 1** Q.tà **GRANO INTERNO** Q.tà



HSK63/E	Ø WLD	GRANO 1	Q.tà	GRANO INTERNO	Q.tà
	6	100601004	1	100501607	1
	8	100801004	1	100601607	1
	10	101001204	1	100801601	1
	12 - 14	101201604	1	101001601	1
	16 - 18	101401604	1	101001601	1
	20	101601604	1	101001801	1
	25	101802002	2	101001801	1
	32	102002002	2	101001801	1

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



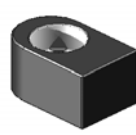


STANDARD

Codice	HSK	Descrizione	d	D	L
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
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

Tipo Cono	Ø	TASSELLO	Q.tà	VITE TASSELLO	Q.tà	VITE A CROCE	Q.tà
							
HSK	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 PORTAFRESA TRASCINAMENTO FISSO
 FACE MILL HOLDERS-TENONS DRIVE WITH INTERNAL COOLANT
 MANDRINS PORTE-FRAISE-ENTRAINEMENT PAR TENONS AVEC ARROSAGE INTERNE
 AUFSTECKFRAESDORNE FÜR FRAESER MIT QUERNUT UND KUEHLMITTELZUFUHR

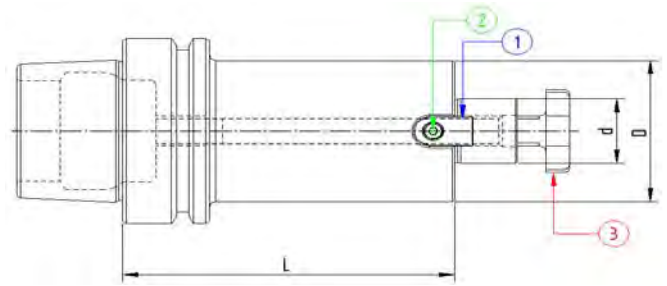
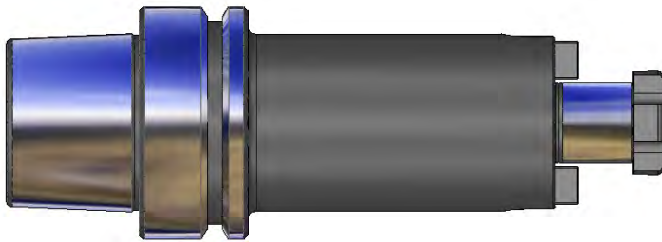


DIN 69893

ISO 3937

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=130

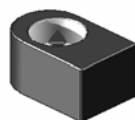
Codice	HSK	Descrizione	d	D	L
66EPF316	63/E	HSK63/E DIN69893 P/F FISSO H130 D16	16	38	130
66EPF322	63/E	HSK63/E DIN69893 P/F FISSO H130 D22	22	48	130
66EPF327	63/E	HSK63/E DIN69893 P/F FISSO H130 D27	27	58	130
66EPF332	63/E	HSK63/E DIN69893 P/F FISSO H130 D32	32	66	130
66EPF340	63/E	HSK63/E DIN69893 P/F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

L=160

Codice	HSK	Descrizione	d	D	L
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

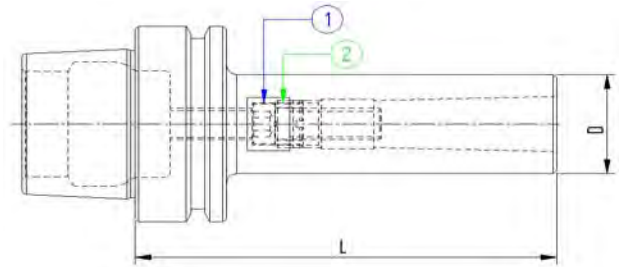
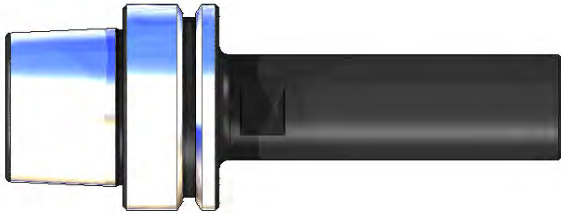
Tipo Cono Ø TASSELLO Q.tà VITE TASSELLO Q.tà VITE A CROCE Q.tà



HSK	Ø	TASSELLO	Q.tà	VITE TASSELLO	Q.tà	VITE A CROCE	Q.tà
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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO




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

Tipo Cono	HSK	VITE (1)	Q.tà	BOCCOLA (2)	Q.tà
-----------	-----	----------	------	-------------	------



HSK63/A	CM	Part Number	Q.tà	Part Number	Q.tà
	CM1	110603001	1	-	1
	CM2	111003014	1	121500802	1
	CM3	111204003	1	122000903	1
	CM4	111604514	1	122501204	1


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

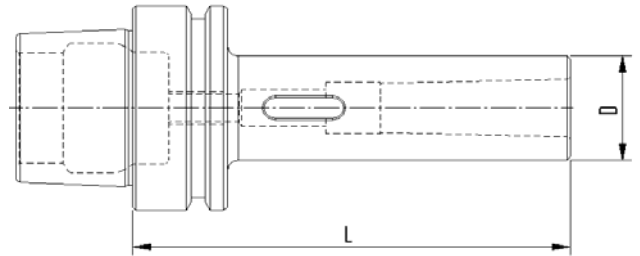
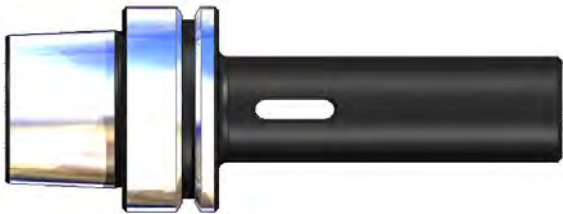


DIN 69893

DIN 228 - 2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

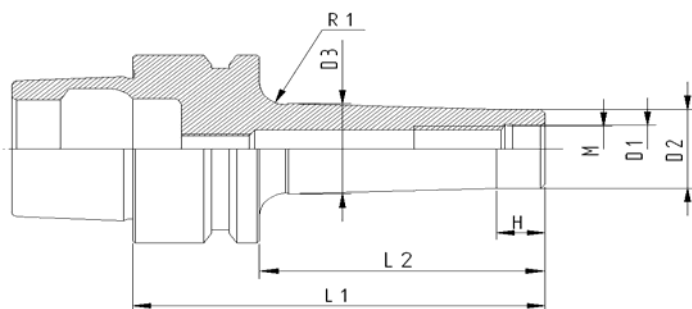
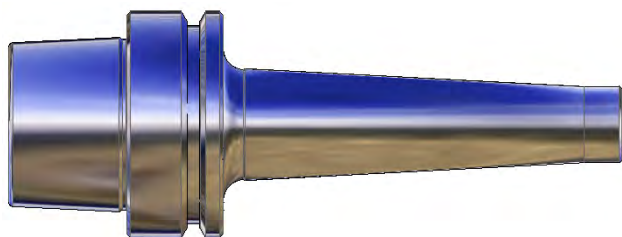


MANDRINI PER FRESE CON ATTACCO FILETTATO
 MILLING CUTTER ARBORS FOR SCREW-ON TYPE MILLING CUTTERS
 MANDRINS POUR FRAISES A VISSER
 SPANFUTTER FUR EINSCHRAUBFRAESER



DIN 69893

Bilanciato G.2,5 20.000 RPM



L = 59

Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66EAF106	63/E	HSK63/E DIN69893 P/F AT.FIL.M6x59	6,5	9,7	9,7	-	59	33	M6
66EAF108	63/E	HSK63/E DIN69893 P/F AT.FIL.M8x59	8,5	13	15	10	59	33	M8
66EAF110	63/E	HSK63/E DIN69893 P/F AT.FIL.M10x59	10,5	18	20	10	59	33	M10
66EAF112	63/E	HSK63/E DIN69893 P/F AT.FIL.M12x59	12,5	21	24	10	59	33	M12
66EAF116	63/E	HSK63/E DIN69893 P/F AT.FIL.M16x59	17,0	29	34	10	59	33	M16

L = 84

Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66EAF206	63/E	HSK63/E DIN69893 P/F AT.FIL.M6x84	6,5	9,7	20	10	84	58	M6
66EAF208	63/E	HSK63/E DIN69893 P/F AT.FIL.M8x84	8,5	13	23	10	84	58	M8
66EAF210	63/E	HSK63/E DIN69893 P/F AT.FIL.M10x84	10,5	18	25	10	84	58	M10
66EAF212	63/E	HSK63/E DIN69893 P/F AT.FIL.M12x84	12,5	21	24	10	84	58	M12
66EAF216	63/E	HSK63/E DIN69893 P/F AT.FIL.M16x84	17,0	29	34	10	84	58	M16

L = 109

Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66EAF306	63/E	HSK63/E DIN69893 P/F AT.FIL.M6x109	6,5	9,7	23	10	109	83	M6
66EAF308	63/E	HSK63/E DIN69893 P/F AT.FIL.M8x109	8,5	13	23	10	109	83	M8
66EAF310	63/E	HSK63/E DIN69893 P/F AT.FIL.M10x109	10,5	18	28	10	109	83	M10
66EAF312	63/E	HSK63/E DIN69893 P/F AT.FIL.M12x109	12,5	21	31	10	109	83	M12
66EAF316	63/E	HSK63/E DIN69893 P/F AT.FIL.M16x109	17,0	29	34	10	109	83	M16

L = 134

Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66EAF408	63/E	HSK63/E DIN69893 P/F AT.FIL.M8x134	8,5	13	25	10	134	108	M8
66EAF410	63/E	HSK63/E DIN69893 P/F AT.FIL.M10x134	10,5	18	30	10	134	108	M10
66EAF412	63/E	HSK63/E DIN69893 P/F AT.FIL.M12x134	12,5	21	31	10	134	108	M12
66EAF416	63/E	HSK63/E DIN69893 P/F AT.FIL.M16x134	17,0	29	39	10	134	108	M16

L = 159

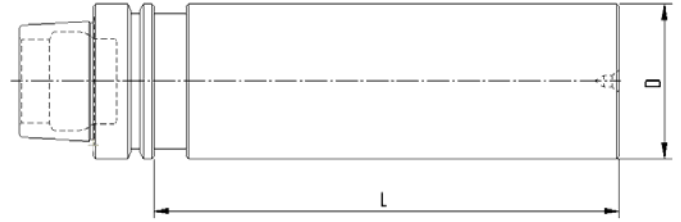
Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66EAF512	63/E	HSK63/E DIN69893 P/F AT.FIL.M12x159	12,5	21	31	10	159	133	M12
66EAF516	63/E	HSK63/E DIN69893 P/F AT.FIL.M16x159	17,0	29	39	10	159	133	M16



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



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

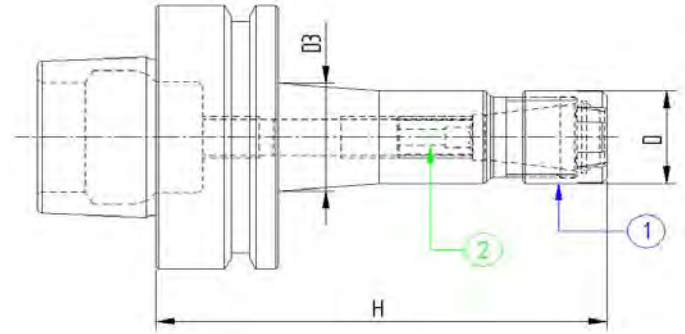
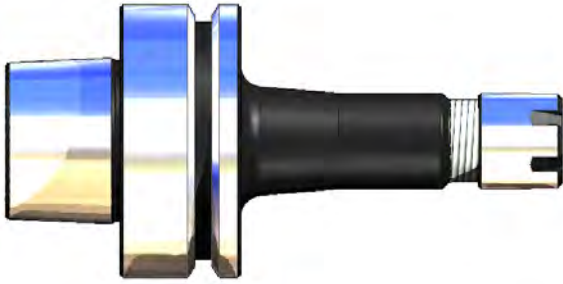


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	H	D	D3
66FPM207	63/F	HSK63/F DIN69893 P/P H100 ER11MINI	11	100	16	19,5
66FPM210	63/F	HSK63/F DIN69893 P/P H100 ER16MINI	16	100	22	25
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

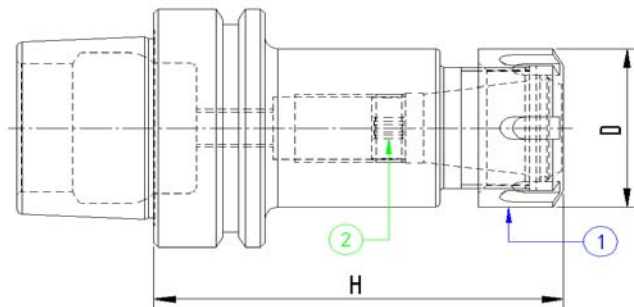
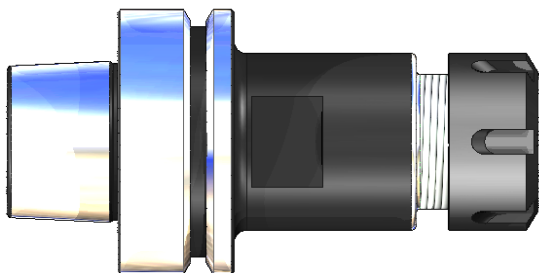
Tipo Cono ER **GHIERA INT.** Q.tà **GHIERA** Q.tà



HSK	ER	GHIERA INT.	Q.tà	GHIERA	Q.tà
11	100601004	1	911GHRMN	1	
16	101001601	1	916GHRMN	1	
20	101001601	1	920GHRMN	1	
25	101815801	1	925GHRMN	1	

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	ER	D	H
66FPP110	63/F	HSK63/F DIN69893 P/P H70 ER16	16	32	70
66FPP113	63/F	HSK63/F DIN69893 P/P H70 ER20	20	35	70
66FPP116	63/F	HSK63/F DIN69893 P/P H70 ER25	25	42	70
66FPP120	63/F	HSK63/F DIN69893 P/P H70 ER32	32	50	70
66FPP126	63/F	HSK63/F DIN69893 P/P H70 ER40	40	63	70

L=100

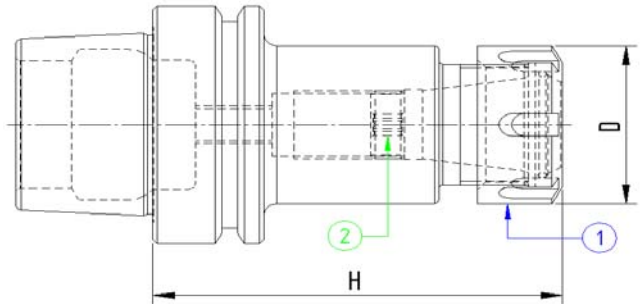
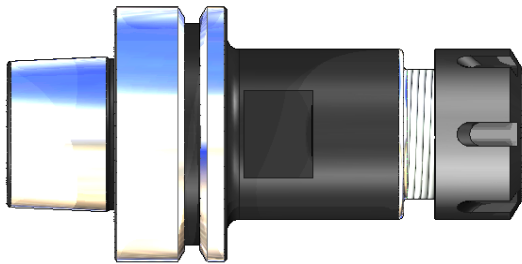
Codice	HSK	Descrizione	ER	D	H
66FPP210	63/F	HSK63/F DIN69893 P/P H100 ER16	16	32	100
66FPP213	63/F	HSK63/F DIN69893 P/P H100 ER20	20	35	100
66FPP216	63/F	HSK63/F DIN69893 P/P H100 ER25	25	42	100
66FPP220	63/F	HSK63/F DIN69893 P/P H100 ER32	32	50	100
66FPP226	63/F	HSK63/F DIN69893 P/P H100 ER40	40	63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

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	ER	GHIERA INT.	Q.tà	GHIERA	Q.tà
HSK	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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=120

Codice	HSK	Descrizione	ER	D	H
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
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

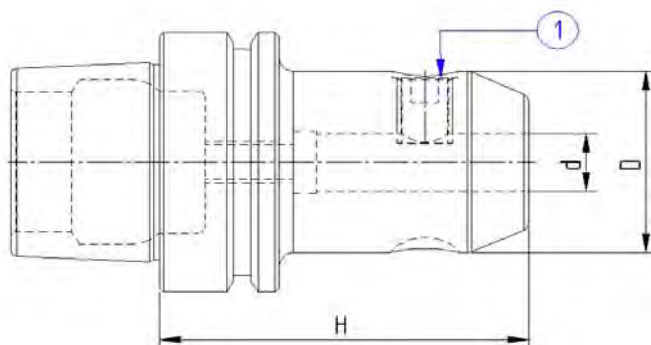
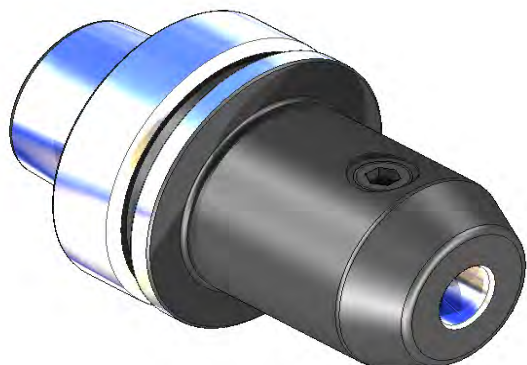
Tipo Cono ER **GHIERA INT.** Q.tà **GHIERA** Q.tà



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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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	20	50	80
66FWLD20	63/F	HSK63/F DIN69893 WELDON H.80 D.20	24	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

Tipo Cono Ø WLD GRANO 1 Q.tà



HSK63/F	d	Part Number	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	1
	32	102002002	1



MANDRINI PORTA FRESA TIPO WELDON - SERIE LUNGA
 END MILL HOLDERS WELDON - LONG PROJECTION
 MANDRINS POUR OUTILS TYPE WELDON - SERIE LONGUE
 ZYLINDERSCHAFTAUFNAHME WELDON - LANGE

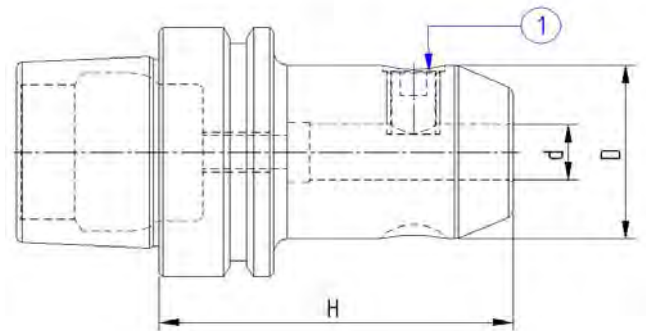
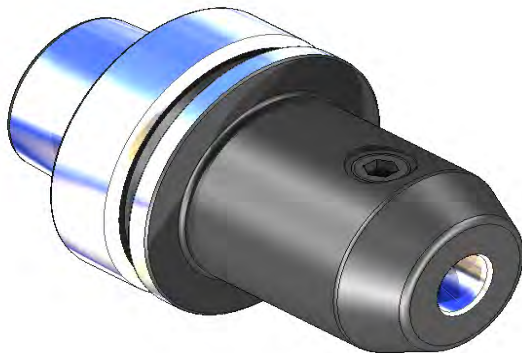


DIN 69893

DIN 1835 B

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=100

Codice	HSK	Descrizione	d	D	H
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

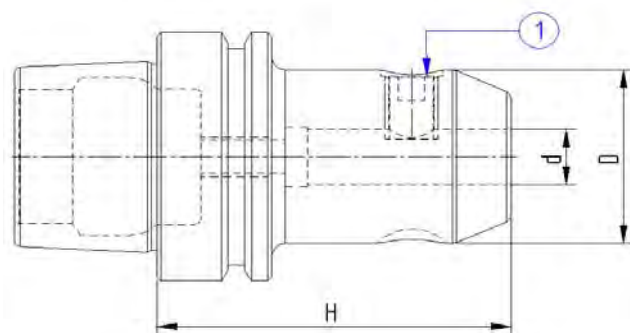
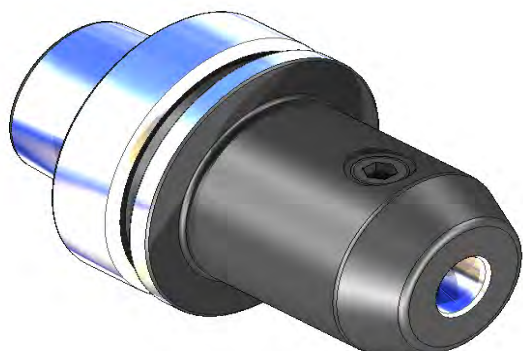
Tipo Cono Ø WLD **GRANO 1** Q.tà



HSK63/F	d	Part Number	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=160

Codice	HSK	Descrizione	d	D	H
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	-	160

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono Ø WLD GRANO 1 Q.tà



HSK63/F	d	Part Number	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32 - 40	102002002	2



MANDRINO PORTAFRESE CON ATTACCO TIPO WISTHLE NOTCH
 END MILL HOLDERS WISTHLE NOTCH
 MANDRINS POUR OUTIL TYPE WISTHLE NOTCH
 ZYLINDERSHAFTAUFNAHME WISTHLE NOTCH

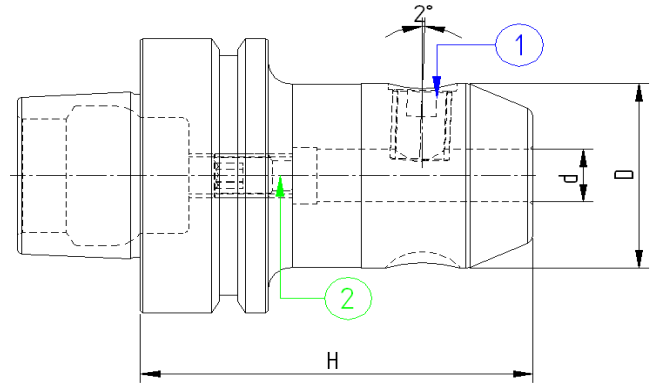
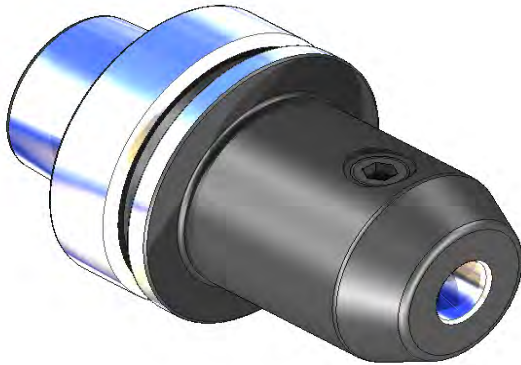


DIN 69893

DIN 1835 E

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
66FVHN06	63/F	HSK63/F DIN69893 W/NOTCH H80 D.06	6	25	80
66FVHN08	63/F	HSK63/F DIN69893 W/NOTCH H80 D.08	8	28	80
66FVHN10	63/F	HSK63/F DIN69893 W/NOTCH H80 D.10	10	35	80
66FVHN12	63/F	HSK63/F DIN69893 W/NOTCH H90 D.12	12	42	90
66FVHN14	63/F	HSK63/F DIN69893 W/NOTCH H90 D.14	14	44	90
66FVHN16	63/F	HSK63/F DIN69893 W/NOTCH H100 D.16	16	48	100
66FVHN18	63/F	HSK63/F DIN69893 W/NOTCH H100 D.18	18	50	100
66FVHN20	63/F	HSK63/F DIN69893 W/NOTCH H100 D.20	20	52	100
66FVHN25	63/F	HSK63/F DIN69893 W/NOTCH H110 D.25	25	65	110
66FVHN32	63/F	HSK63/F DIN69893 W/NOTCH H115 D.32	32	72	115

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono Ø WHN **GRANO 1** Q.tà **GRANO INTERNO** Q.tà



HSK63/F	Ø WHN	GRANO 1	Q.tà	GRANO INTERNO	Q.tà
	6	100601004	1	100501607	1
	8	100801004	1	100601607	1
	10	101001204	1	100801601	1
	12 - 14	101201604	1	101001606	1
	16 - 18	101401604	1	101002507	1
	20	101401604	1	101002507	1
	25	101802002	2	101002507	1
	32	101802002	2	101002507	1



MANDRINI PORTAFRESA TRASCINAMENTO FISSO
 FACE MILL HOLDERS-TENONS DRIVE WITH INTERNAL COOLANT
 MANDRINS PORTE-FRAISE-ENTRAINEMENT PAR TENONS AVEC ARROSAGE INTERNE
 AUFSTECKFRAESDORNE FÜR FRAESER MIT QUERNUT UND KUEHLMITTELZUFUHR

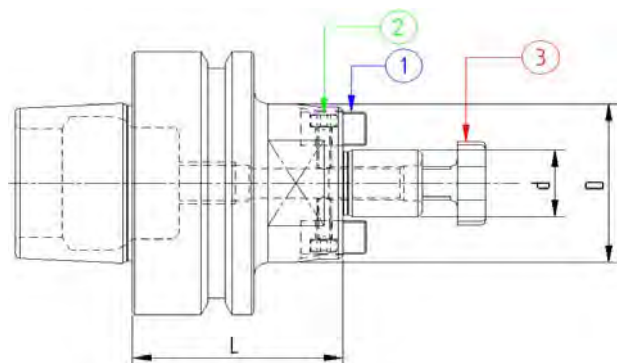
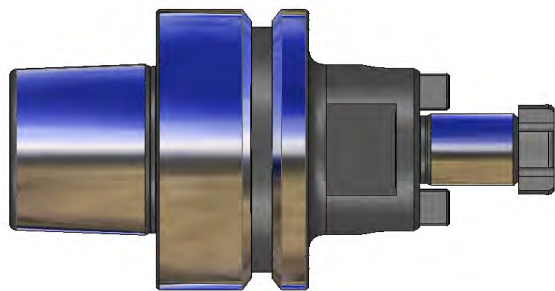


DIN 69893

ISO 3937

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



STANDARD

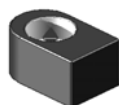
Codice	HSK	Descrizione	d	D	L
66FPF116	63/F	HSK63/F DIN69893 P/F FISSO H50 D16	16	32	50
66FPF122	63/F	HSK63/F DIN69893 P/F FISSO H50 D22	22	40	50
66FPF127	63/F	HSK63/F DIN69893 P/F FISSO H60 D27	27	48	60
66FPF132	63/F	HSK63/F DIN69893 P/F FISSO H60 D32	32	58	60
66FPF140	63/F	HSK63/F DIN69893 P/F FISSO H60 D40	40	70	60

L = 100

Codice	HSK	Descrizione	d	D	L
66FPF216	63/F	HSK63/F DIN69893 P/F FISSO H100 D16	16	32	100
66FPF222	63/F	HSK63/F DIN69893 P/F FISSO H100 D22	22	40	100
66FPF227	63/F	HSK63/F DIN69893 P/F FISSO H100 D27	27	48	100
66FPF232	63/F	HSK63/F DIN69893 P/F FISSO H100 D32	32	58	100
66FPF240	63/F	HSK63/F DIN69893 P/F FISSO H100 D40	40	70	100

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono Ø TASSELLO Q.tà VITE TASSELLO Q.tà VITE A CROCE Q.tà



HSK 63/F	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 PORTAFRESA TRASCINAMENTO FISSO
FACE MILL HOLDERS-TENONS DRIVE WITH INTERNAL COOLANT
MANDRINS PORTE-FRAISE-ENTRAINEMENT PAR TENONS AVEC ARROSAGE INTERNE
AUFSTECKFRAESDORNE FÜR FRAESER MIT QUERNUT UND KUEHLMITTELZUFUHR

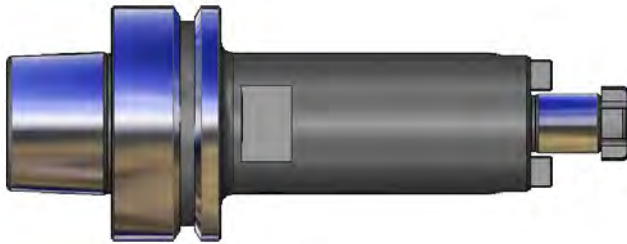


DIN 69893

ISO 3937

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L = 130

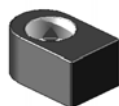
Codice	HSK	Descrizione	d	D	L1	L2
66FPF316	63/F	HSK63/F DIN69893 P/F FISSO H130 D16	16	32	130	17
66FPF322	63/F	HSK63/F DIN69893 P/F FISSO H130 D22	22	40	130	19
66FPF327	63/F	HSK63/F DIN69893 P/F FISSO H130 D27	27	48	130	21
66FPF332	63/F	HSK63/F DIN69893 P/F FISSO H130 D32	32	58	130	24
66FPF340	63/F	HSK63/F DIN69893 P/F FISSO H130 D40	40	70	130	27

L = 160

Codice	HSK	Descrizione	d	D	L1	L2
66FPF416	63/F	HSK63/F DIN69893 P/F FISSO H160 D16	16	32	160	17
66FPF422	63/F	HSK63/F DIN69893 P/F FISSO H160 D22	22	40	160	19
66FPF427	63/F	HSK63/F DIN69893 P/F FISSO H160 D27	27	48	160	21
66FPF432	63/F	HSK63/F DIN69893 P/F FISSO H160 D32	32	58	160	24
66FPF440	63/F	HSK63/F DIN69893 P/F FISSO H160 D40	40	70	160	27

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

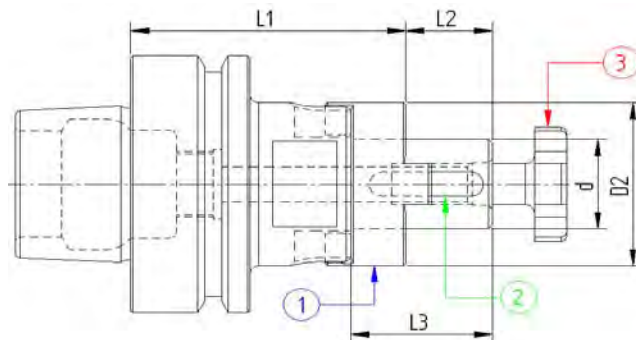
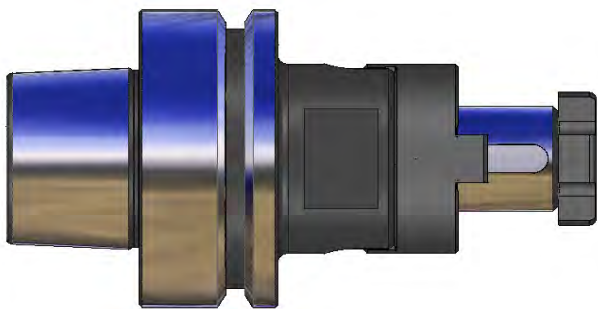
Tipo Cono Ø TASSELLO Q.tà VITE TASSELLO Q.tà VITE A CROCE Q.tà



HSK 63/F	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

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



STANDARD

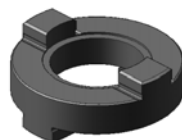
Codice	HSK	Descrizione	d	L1	L2	L3	D2
66FPU116	63/F	HSK63/F DIN69893 P/F UNIV.H60 D16	16	60	17	27	32
66FPU122	63/F	HSK63/F DIN69893 P/F UNIV.H60 D22	22	60	19	31	40
66FPU127	63/F	HSK63/F DIN69893 P/F UNIV.H60 D27	27	60	21	33	48
66FPU132	63/F	HSK63/F DIN69893 P/F UNIV.H60 D32	32	60	24	38	58
66FPU140	63/F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

Tipo Cono	HSK	VITE A CROCE	Q.tà	DISTANZIALE	Q.tà	LINGUETTA	Q.tà
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HSK63/F	d	VITE A CROCE	Q.tà	DISTANZIALE	Q.tà	LINGUETTA	Q.tà
	16	916VTC02	1	916GNT01	1	170402004	1
	22	922VTC02	1	922GNT01	1	170602506	1
	27	927VTC02	1	927GNT01	1	170702507	1
	32	932VTC02	1	932GNT01	1	170802807	1
	40	940VTC02	1	940GNT01	1	171003208	1

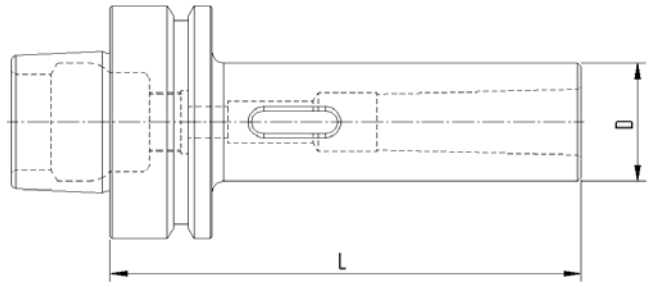

MANDRINI PORTAPUNTE ATTACCO CONO MORSE
MORSE TAPER ADAPTORS FOR DRILLS
DOUILLES POUR CONE MORSE A TENON
ZWISCHENHULSEN FÜR MORSEKEGEL MIT AUSTREIBLAPPEN



DIN 69893
DIN 228 - 2

Bilanciato G.6,3 20.000 RPM

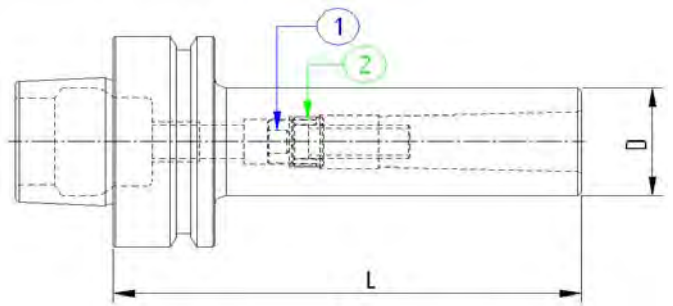
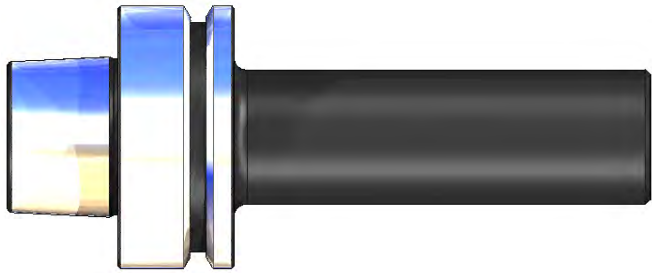
Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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.160 CM4 PUNTE	4	48	160

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

Tipo Cono	CM	GHIERA INT.	Q.tà	VITE	Q.tà
HSK 63/F	1	-	-	110603501	1
	2	121500802	1	111003014	1
	3	122000903	1	111204003	1
	4	122501204	1	111604514	1

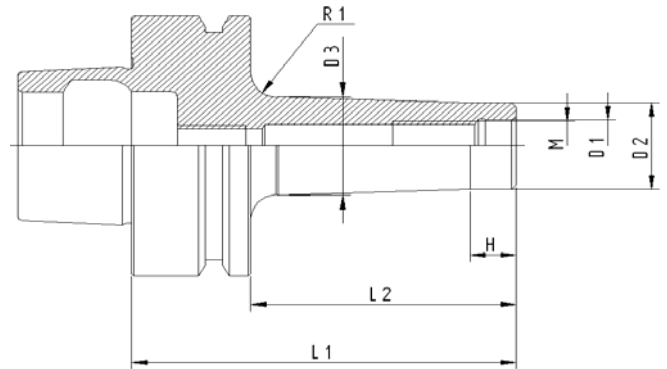
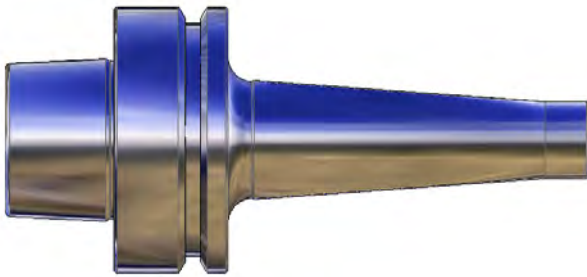


MANDRINI PER FRESE CON ATTACCO FILETTATO
 MILLING CUTTER ARBORS FOR SCREW-ON TYPE MILLING CUTTERS
 MANDRINS POUR FRAISES A VISSER
 SPANFUTTER FÜR EINSCHRAUBFRAESER



DIN 69893

Bilanciato G.2,5 20.000 RPM



STANDARD

Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66FAF106	63/F	HSK63/F DIN69893 P/F AT.FIL.M6x59	6,5	9,7	9,7	-	59	33	M6
66FAF108	63/F	HSK63/F DIN69893 P/F AT.FIL.M8x59	8,5	13	15	10	59	33	M8
66FAF110	63/F	HSK63/F DIN69893 P/F AT.FIL.M10x59	10,5	18	20	10	59	33	M10
66FAF112	63/F	HSK63/F DIN69893 P/F AT.FIL.M12x59	12,5	21	24	10	59	33	M12
66FAF116	63/F	HSK63/F DIN69893 P/F AT.FIL.M16x59	17,0	29	34	10	59	33	M16

L = 84

Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66FAF206	63/F	HSK63/F DIN69893 P/F AT.FIL.M6x84	6,5	9,7	20	10	84	58	M6
66FAF208	63/F	HSK63/F DIN69893 P/F AT.FIL.M8x84	8,5	13	23	10	84	58	M8
66FAF210	63/F	HSK63/F DIN69893 P/F AT.FIL.M10x84	10,5	18	25	10	84	58	M10
66FAF212	63/F	HSK63/F DIN69893 P/F AT.FIL.M12x84	12,5	21	24	10	84	58	M12
66FAF216	63/F	HSK63/F DIN69893 P/F AT.FIL.M16x84	17,0	29	34	10	84	58	M16

L = 109

Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66FAF306	63/F	HSK63/F DIN69893 P/F AT.FIL.M6x109	6,5	9,7	23	10	109	83	M6
66FAF308	63/F	HSK63/F DIN69893 P/F AT.FIL.M8x109	8,5	13	23	10	109	83	M8
66FAF310	63/F	HSK63/F DIN69893 P/F AT.FIL.M10x109	10,5	18	28	10	109	83	M10
66FAF312	63/F	HSK63/F DIN69893 P/F AT.FIL.M12x109	12,5	21	31	10	109	83	M12
66FAF316	63/F	HSK63/F DIN69893 P/F AT.FIL.M16x109	17,0	29	34	10	109	83	M16

L = 134

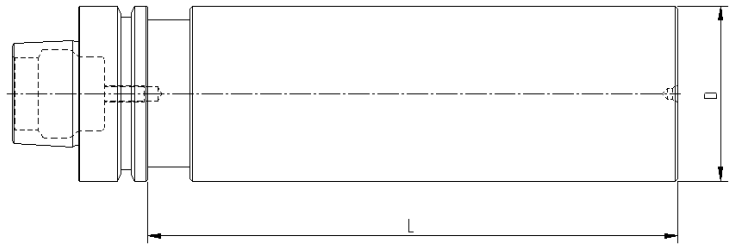
Codice	HSK	Descrizione	D1	D2	D3	H	L1	L2	M
66FAF408	63/F	HSK63/F DIN69893 P/F AT.FIL.M8x134	8,5	13	25	10	134	108	M8
66FAF410	63/F	HSK63/F DIN69893 P/F AT.FIL.M10x134	10,5	18	30	10	134	108	M10
66FAF412	63/F	HSK63/F DIN69893 P/F AT.FIL.M12x134	12,5	21	31	10	134	108	M12
66FAF416	63/F	HSK63/F DIN69893 P/F 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



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

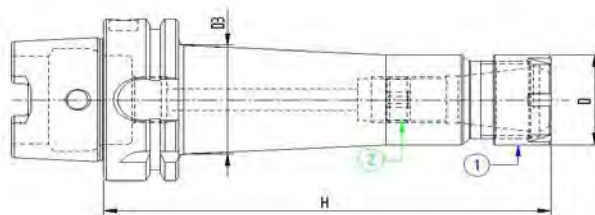
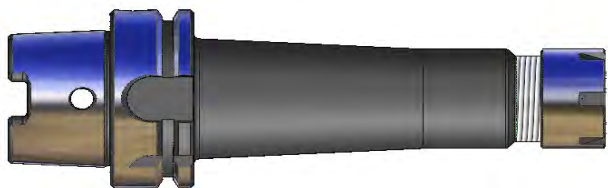


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



STANDARD

Codice	HSK	Descrizione	ER	D	H	D3
61APM210	100/A	HSK100/A DIN69893 P/P H100 ER16MINI	16	22	100	25
61APM213	100/A	HSK100/A DIN69893 P/P H100 ER20MINI	20	28	100	-
61APM216	100/A	HSK100/A DIN69893 P/P H100 ER25MINI	25	35	100	-

L=160

Codice	HSK	Descrizione	ER	D	H	D3
61APM410	100/A	HSK100/A DIN69893 P/P H160 ER16MINI	16	22	160	29
61APM413	100/A	HSK100/A DIN69893 P/P H160 ER20MINI	20	28	160	34
61APM416	100/A	HSK100/A DIN69893 P/P H160 ER25MINI	25	35	160	48

L=200

Codice	HSK	Descrizione	ER	D	H	D3
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	35,8
61APM516	100/A	HSK100/A DIN69893 P/P H200 ER25MINI	25	35	200	49,7

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono ER MINI GRANO INT. Q.tà GHIERA Q.tà



HSK 100/A	ER	GRANO INT.	Q.tà	GHIERA	Q.tà
	16	101001601	1	916GHRMN	1
	20	101001601	1	920GHRMN	1
	25	101815801	1	925GHRMN	1



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

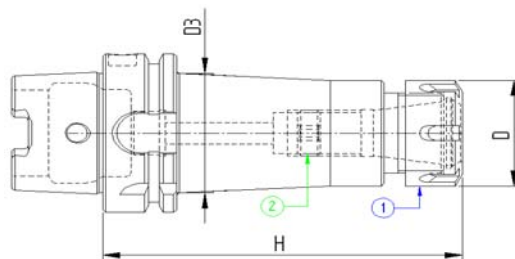
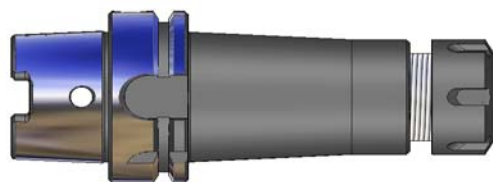


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



STANDARD

Codice	HSK	Descrizione	ER	D	H	D3
61APP113	100/A	HSK100/A DIN69893 P/P H.70 ER20	20	35	70	-
61APP116	100/A	HSK100/A DIN69893 P/P H.75 ER25	25	42	75	-
61APP120	100/A	HSK100/A DIN69893 P/P H.80 ER32	32	50	80	-
61APP126	100/A	HSK100/A DIN69893 P/P H.90 ER40	40	63	90	-

L=100

Codice	HSK	Descrizione	ER	D	H	D3
61APP210	100/A	HSK100/A DIN69893 P/P H.100 ER16	16	32	100	-
61APP213	100/A	HSK100/A DIN69893 P/P H.100 ER20	20	35	100	-
61APP216	100/A	HSK100/A DIN69893 P/P H.100 ER25	25	42	100	-
61APP220	100/A	HSK100/A DIN69893 P/P H.100 ER32	32	50	100	-
61APP226	100/A	HSK100/A DIN69893 P/P H.100 ER40	40	63	100	-

L=120

Codice	HSK	Descrizione	ER	D	H	D3
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	40
61APP316	100/A	HSK100/A DIN69893 P/P H120 ER25	25	42	120	-
61APP320	100/A	HSK100/A DIN69893 P/P H120 ER32	32	50	120	-
61APP326	100/A	HSK100/A DIN69893 P/P H120 ER40	40	63	120	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono ER GRANO INT. Q.tà GHIERA Q.tà



HSK 100/A	ER	GRANO INT.	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



MANDRINI PORTAPINZA TIPO ER-SERIE LUNGA
ER COLLET CHUCK - LONG
MANDRINS A PINCES TYPE ER - SERIE LONGUE
SPANNZANGENFUTTER ER TYP - LANGE AUSFUEHRUNG

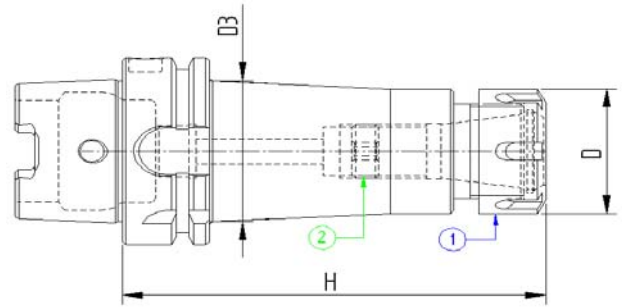
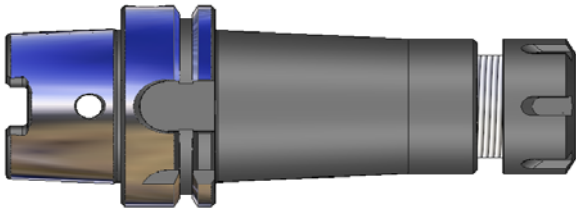


DIN 69893

DIN 6499

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=160

Codice	HSK	Descrizione	ER	D	H	D3
61APP410	100/A	HSK100/A DIN69893 P/P H160 ER16	16	32	160	38,2
61APP413	100/A	HSK100/A DIN69893 P/P H160 ER20	20	35	160	41
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
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	42,8
61APP516	100/A	HSK100/A DIN69893 P/P H200 ER25	25	42	200	49,7
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

Tipo Cono ER GRANO INT. Q.tà GHIERA Q.tà



HSK 100/A	ER	GRANO INT.	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



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

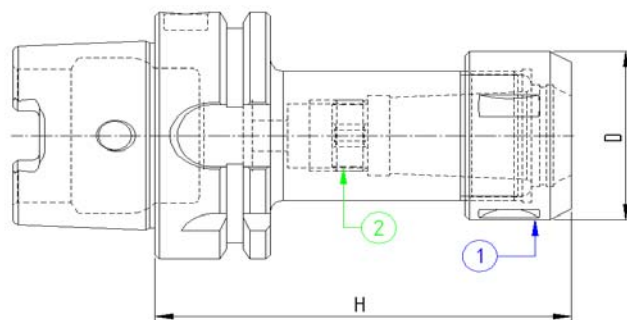
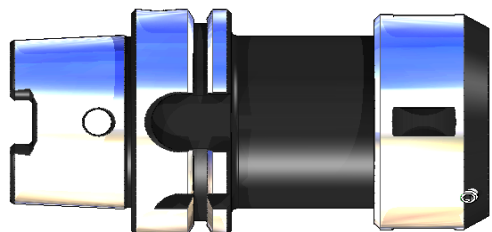


DIN 69893

DIN 6388

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



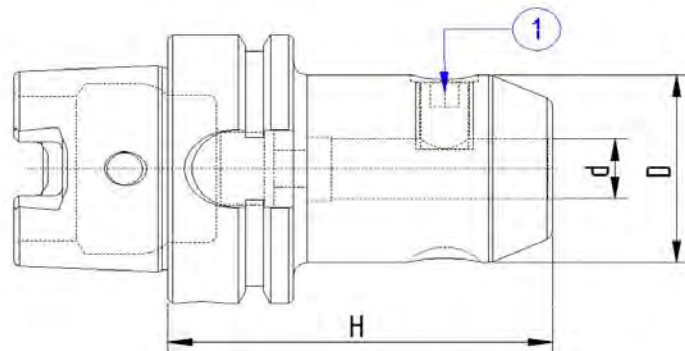
Codice	HSK	Descrizione	EOC	D	H
61APO216	100/A	HSK100/A DIN69893 P/P H110 EOC16	16	43	110
61APO225	100/A	HSK100/A DIN69893 P/P H120 EOC25	25	60	120
61APO232	100/A	HSK100/A DIN69893 P/P H130 EOC32	32	72	130

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	EOC	GRANO INT.	Q.tà	GHIERA	Q.tà
HSK 100/A	16	101815801	1	916GHROS	1
	25	102715901	1	925GHROS	1
	32	102715901	1	932GHROS	1

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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	50	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

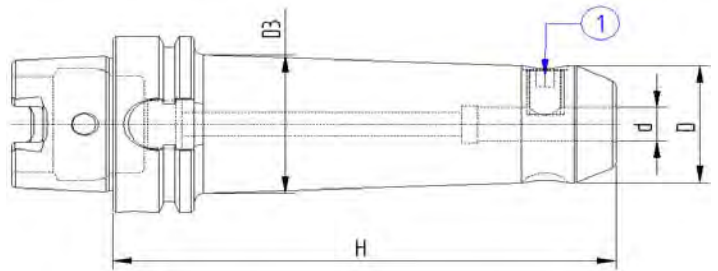
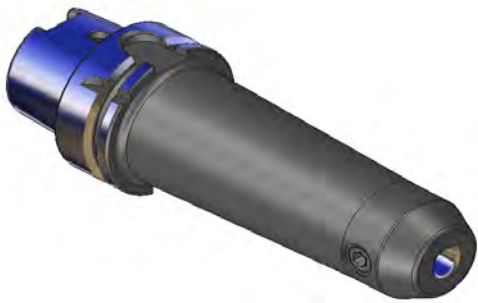
Tipo Cono Ø WLD GRANO 1 Q.tà



HSK100/A	d	Part Number	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32 - 40	102002002	2
	50	102422504	2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=160

Codice	HSK	Descrizione	d	D	H	D3
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	88

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

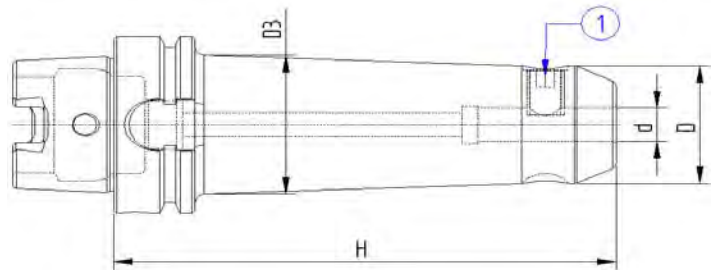
Tipo Cono Ø WLD GRANO 1 Q.tà



HSK100/A	d	Part Number	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32 - 40	102002002	2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=200


Codice	HSK	Descrizione	d	D	H	D3
61AWE506	100/A	HSK100/A DIN69893 WELDON H200 D6	6	25	200	34
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	74
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	-
61AWE550	100/A	HSK100/A DIN69893 WELDON H200 D50	50	100	200	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono Ø WLD GRANO 1 Q.tà



HSK100/A	d	Part Number	Q.tà
	6	100601004	1
	8	100801004	1
	10	101001204	1
	12 - 14	101201604	1
	16 - 18	101401604	1
	20	101601604	1
	25	101802002	2
	32 - 40	102002002	2
	50	102422504	2


MANDRINO PORTAFRESE CON ATTACCO TIPO WELDON CON CANALI
END MILL HOLDERS WELDON WITH COOLANT CHANNELS
MANDRINS POUR OUTIL TYPE WELDON AVEC CANAL
ZYLINDERSHAFTAUFNAHME WELDON MIT KANAL

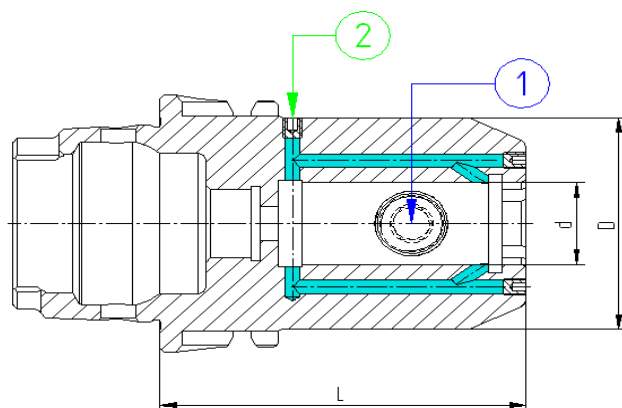


DIN 69893

DIN 1835 B

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	L
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

Tipo Cono Ø WLD **GRANO 1** Q.tà **GRANO 2** Q.tà



HSK100/A	d	GRANO 1	Q.tà	GRANO 2	Q.tà
	6	100601004	1	100300404 M3x4	2
	8	100801004	1	100400504 M4x5	2
	10	101001204	1	100400504 M4x5	2
	12 - 14	101201604	1	100400504 M4x5	2
	16 - 18	101401604	1	100400504 M4x5	3
	20	101601604	1	100400504 M4x5	3
	25	101802002	2	100400504 M4x5	3
	32 - 40	102002002	2	100400504 M4x5	3



MANDRINO PORTAFRESE CON ATTACCO TIPO WISTHLE NOTCH
 END MILL HOLDERS WISTHLE NOTCH
 MANDRINS POUR OUTIL TYPE WISTHLE NOTCH
 ZYLINDERSHAFTAUFNAHME WISTHLE NOTCH

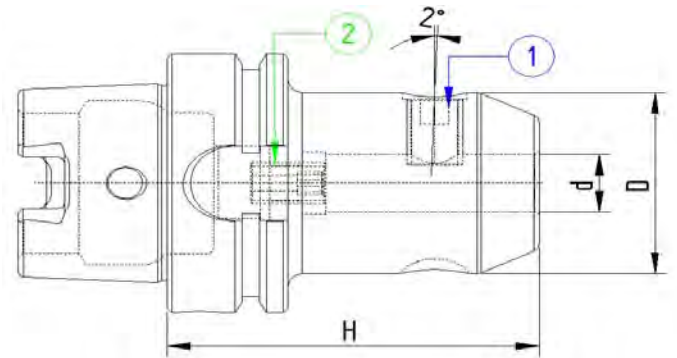


DIN 69893

DIN 1835 E

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



Codice	HSK	Descrizione	d	D	H
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

Tipo Cono Ø WLD **GRANO 1** Q.tà **GRANO INTERNO** Q.tà



HSK100/A	Ø WLD	GRANO 1	Q.tà	GRANO INTERNO	Q.tà
	6	100601004	1	100501607	1
	8	100801004	1	100601607	1
	10	101001204	1	100801601	1
	12 - 14	101201604	1	101001601	1
	16 - 18	101401604	1	101001601	1
	20	101601604	1	101001801	1
	25	101802002	2	101001801	1
	32 - 40	102002002	2	101001801	1



MANDRINI PORTAFRESE A TRASCINAMENTO FISSO CON PASAGGIO REFRIGERANTE
 FACE MILL HOLDERS-TENONS DRIVE-WITH INTERNAL COOLANT SUPPLY
 MANDRINS PORTE-FRAISE-ENTRAINEMENT PAR TENONS AVEC ARROSAGE INTERNE
 AUFSTECKFRAESDORNE FUER FRAESER MIT QUERNUT UND KUEHLMITTELZUFUHR

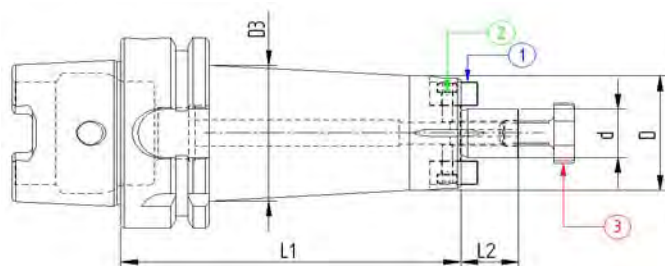
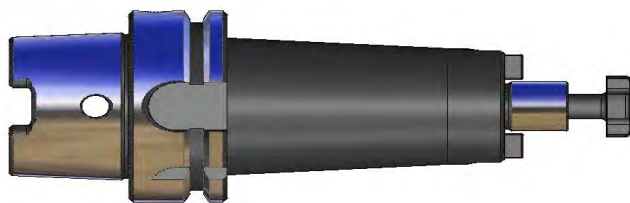


DIN 69893

ISO 3937

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



STANDARD

Codice	HSK	Descrizione	d	L1	L2	D2	D3
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	21	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	-
61APF150	100/A	HSK100/A DIN69893 P/F FISSO H70 D50	50	70	-	-	-

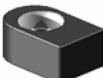


L = 100

Codice	HSK	Descrizione	d	L1	L2	D2	D3
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	-
61APF250	100/A	HSK100/A DIN69893 P/F FISSO H100 D50	50	100	-	-	-

L = 130

Codice	HSK	Descrizione	d	L1	L2	D2	D3
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	-
61APF350	100/A	HSK100/A DIN69893 P/F FISSO H130 D50	50	130	-	-	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø	TASSELLO	Q.tà	VITE TASSELLO	Q.tà	VITE CROCE	Q.tà
							
HSK 100/A	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
	50	950TSL01	2	110601601	2	-	-



MANDRINI PORTAFRESE A TRASCINAMENTO FISSO CON PASAGGIO REFRIGERANTE
 FACE MILL HOLDERS-TENONS DRIVE-WITH INTERNAL COOLANT SUPPLY
 MANDRINS PORTE-FRAISE-ENTRAINEMENT PAR TENONS AVEC ARROSAGE INTERNE
 AUFSTECKFRAESDORNE FUER FRAESER MIT QUERNUT UND KUEHLMITTELZUFUHR

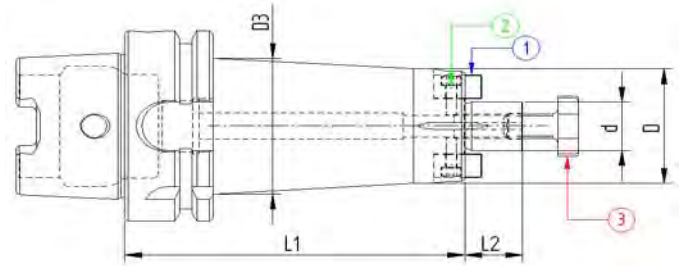
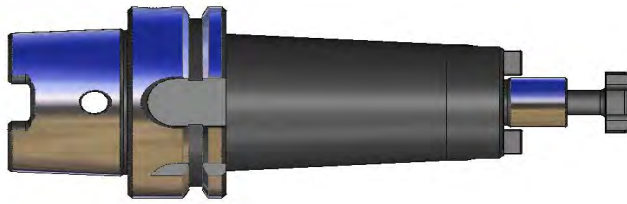


DIN 69893

ISO 3937

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



L=160

Codice	HSK	Descrizione	d	L1	L2	D	D3
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	-
61APF450	100/A	HSK100/A DIN69893 P/F FISSO H160 D50	50	160	-	-	-

L = 200

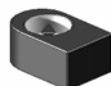
Codice	HSK	Descrizione	d	L1	L2	D	D3
61APF516	100/A	HSK100/A DIN69893 P/F FISSO H200 D16	16	200	17	38	47
61APF522	100/A	HSK100/A DIN69893 P/F FISSO H200 D22	22	200	19	48	58
61APF527	100/A	HSK100/A DIN69893 P/F FISSO H200 D27	27	200	21	58	67
61APF532	100/A	HSK100/A DIN69893 P/F FISSO H200 D32	32	200	24	66	75
61APF540	100/A	HSK100/A DIN69893 P/F FISSO H200 D40	40	200	27	80	-
61APF550	100/A	HSK100/A DIN69893 P/F FISSO H200 D50	50	200	-	-	-

L = 250

Codice	HSK	Descrizione	d	L1	L2	D	D3
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	-
61APF650	100/A	HSK100/A DIN69893 P/F FISSO H250 D50	50	250	-	-	-

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono Ø TASSELLO Q.tà VITE TASSELLO Q.tà VITE CROCE Q.tà



HSK 100/A	Ø	TASSELLO	Q.tà	VITE TASSELLO	Q.tà	VITE CROCE	Q.tà
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
50		950TSL01	2	110601601	2	-	-



MANDRINI PORTAFRESA COMBINATI
 KOMBI-SHELL MILL ADAPTOR
 MANDRINS PORTE-FRAISES A DOUBLE USAGE
 KOMBI AUFSTECKFRAESDORNE

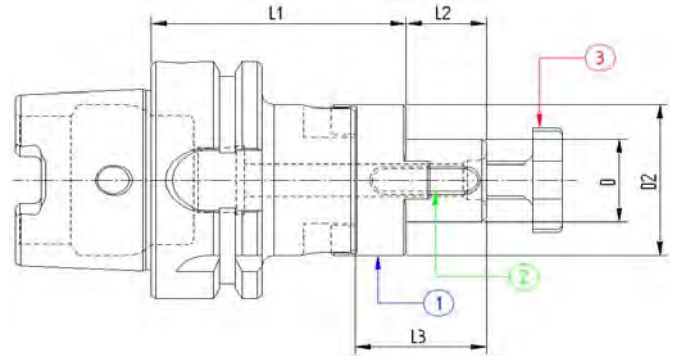
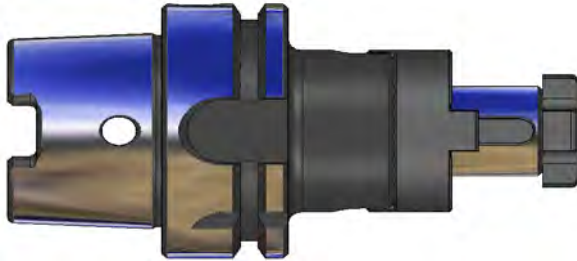


DIN 69893

DIN 6358

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

Tipo Cono	Ø	VITE CROCE	Q.tà	GIUNTO	Q.tà	LINGUETTA	Q.tà
HSK 100/A	16	916VTC02	1	916GNT01	1	170402004	1
	22	922VTC02	1	922GNT01	1	170602506	1
	27	927VTC02	1	927GNT01	1	170702507	1
	32	932VTC02	1	932GNT01	1	170802807	1
	40	940VTC02	1	940GNT01	1	171003208	1



MANDRINI PORTAFRESA COMBINATI PROLUNGATI
 KOMBI-SHELL MILL ADAPTOR LONG
 MANDRINS PORTE-FRAISES A DOUBLE USAGE, SERIE LONGUE
 KOMBI AUFSTECKFRAESDORNE LANG

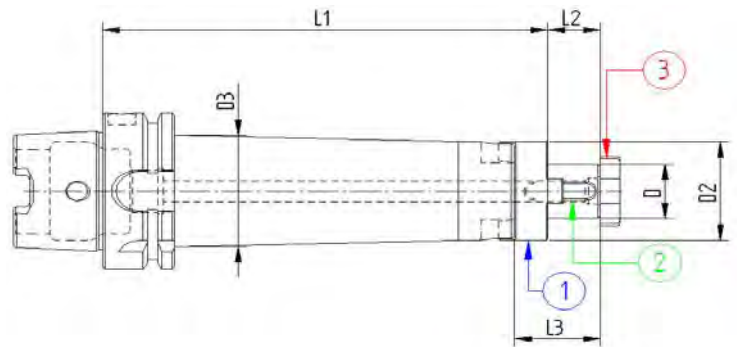


DIN 69893

DIN 6358

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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	37
61APU222	100/A	HSK100/A DIN69893 P/F UNIV.H100 D22	22	100	19	31	40	45
61APU227	100/A	HSK100/A DIN69893 P/F UNIV.H100 D27	27	100	21	33	48	-
61APU232	100/A	HSK100/A DIN69893 P/F UNIV.H100 D32	32	100	24	38	58	-
61APU240	100/A	HSK100/A DIN69893 P/F UNIV.H100 D40	40	100	27	41	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	40
61APU422	100/A	HSK100/A DIN69893 P/F UNIV.H160 D22	22	160	19	31	40	48
61APU427	100/A	HSK100/A DIN69893 P/F UNIV.H160 D27	27	160	21	33	48	57
61APU432	100/A	HSK100/A DIN69893 P/F UNIV.H160 D32	32	160	24	38	58	67
61APU440	100/A	HSK100/A DIN69893 P/F UNIV.H160 D40	40	160	27	41	70	79

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø	VITE CROCE	Q.tà	GIUNTO	Q.tà	LINGUETTA	Q.tà
HSK 100/A	16	916VTC02	1	916GNT01	1	170402004	1
	22	922VTC02	1	922GNT01	1	170602506	1
	27	927VTC02	1	927GNT01	1	170702507	1
	32	932VTC02	1	932GNT01	1	170802807	1
	40	940VTC02	1	940GNT01	1	171003208	1



MANDRINI PORTAPUNTE ATTACCO CONO MORSE
 MORSE TAPER ADAPTERS FOR DRILLS
 DOUILLES POUR CONE MORSE A TENON
 ZWISCHENHULSEN FÜR MORSEKEGEL MIT AUSTREIBLAPPEN

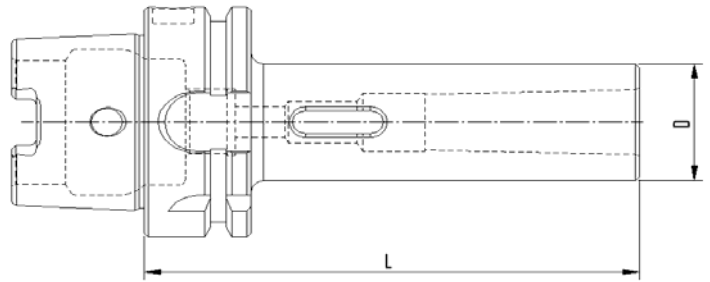
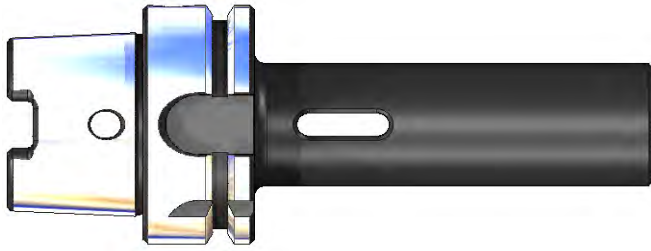


DIN 69893

DIN 228 - 2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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 PORTAFRESE ATTACCO CONO MORSE CON REFRIGERAZIONE INTERNA
 MORSE TAPER MILL ADAPTERS WITH INTERNAL COOLANT
 DOUILLES POUR CONE MORSE AVEC TARAUDAGE
 ZWISCHENHULSEN FÜR MORSEKEGEL MIT ZENTRALER KÜHLMITTELZUFUHR

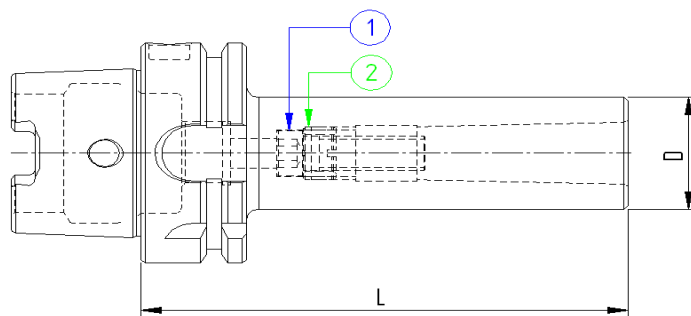
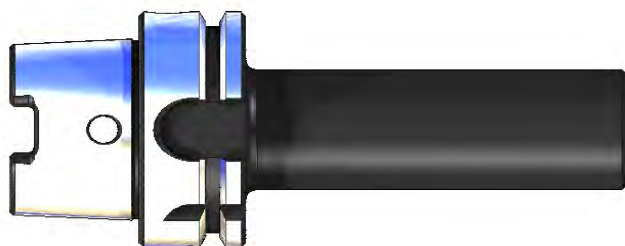


DIN 69893

DIN 228 - 2

Bilanciato G.6,3 20.000 RPM

Su richiesta Bilanciature G.2,5 con EXTRA PREZZO



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

Tipo Cono HSK VITE (1) Q.tà BOCCOLA (2) Q.tà



HSK100/A	CM1	110603001	1	-	1
	CM2	111003014	1	121500802	1
	CM3	111204003	1	122000903	1
	CM4	111604514	1	122501204	1
	CM5	112005003	1	123301205	1

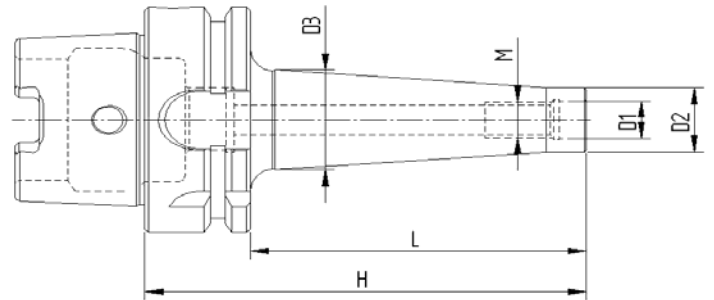
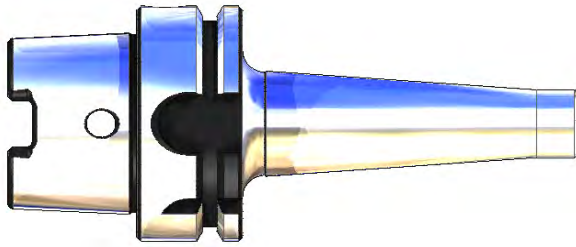


MANDRINI PER FRESE CON ATTACCO FILETTATO
MILLING CUTTER ARBORS FOR SCREW-ON TYPE MILLING CUTTERS
MANDRINS POUR FRAISES A VISSER
SPANFUTTER FÜR EINSCHRAUBFRAESER



DIN 69893

Bilanciato G.2,5 20.000 RPM



L = 87

Codice	HSK	Descrizione	D1	D2	H	L	M
61AAF212	100/A	HSK100/A DIN69893 P/F AT.FIL.M12X87	12,5	21	87	58	12
61AAF216	100/A	HSK100/A DIN69893 P/F AT.FIL.M16X87	17	29	87	58	16

L = 137

Codice	HSK	Descrizione	D1	D2	H	L	M
61AAF312	100/A	HSK100/A DIN69893 P/F AT.FIL.M12X137	12,5	21	137	108	12
61AAF316	100/A	HSK100/A DIN69893 P/F AT.FIL.M16X137	17	29	137	108	16

L = 187

Codice	HSK	Descrizione	D1	D2	H	L	M
61AAF412	100/A	HSK100/A DIN69893 P/F AT.FIL.M12X187	12,5	21	187	158	12
61AAF416	100/A	HSK100/A DIN69893 P/F AT.FIL.M16X187	17	29	187	158	16

L = 237

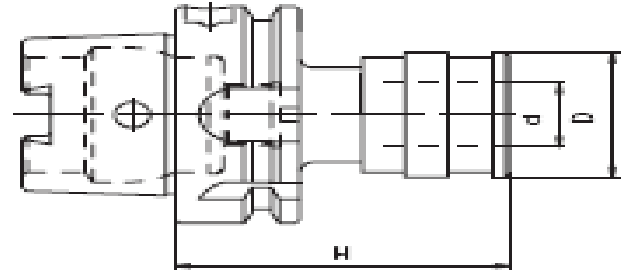
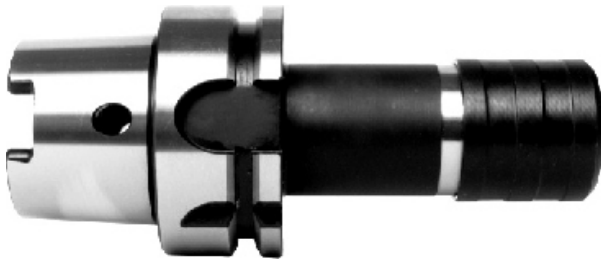
Codice	HSK	Descrizione	D1	D2	H	L	M
61AAF516	100/A	HSK100/A DIN69893 P/F AT.FIL.M16X237	17	29	237	208	16



PORTAMASCHI A CAMBIO RAPIDO
 QUICK CHANGE TAP HOLDER
 MANDRINS DE TARAUDAGE A CHANGEMENT RAPIDE
 GEWINDE-SCHNELLWECHSELFUTTER



DIN 69893



Codice	HSK	Descrizione	D	d	H
61APCRM1	100/A	HSK100/A M/PORTAM/C/R H80 GR.1	36	19	80
61APCRM2	100/A	HSK100/A M/PORTAM/C/R H100 GR.2	53	31	100

ACCESSORI - ACCESSORIES - ACCESSOIRES - ZUBEHOR

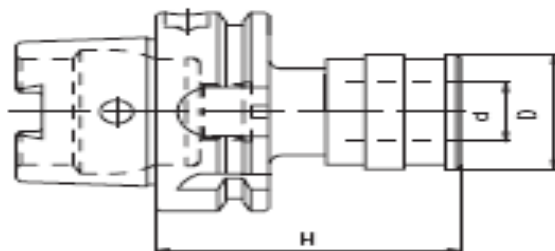
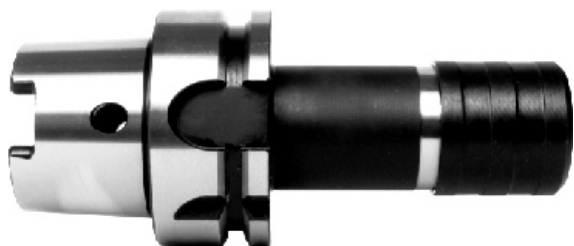




PORTAMASCHI A CAMBIO RAPIDO PER MASCHIATURA RIGIDA
 QUICK CHANGE TAP HOLDER FOR RIGID TAPPING
 MANDRINS A CHANGEMENT RAPIDE POUR TARAUDAGE SYNCHRONISE
 GEWINDE-SCHNELLWECHSELFUTTER FÜR SYNCHRONISATION



DIN 69893



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



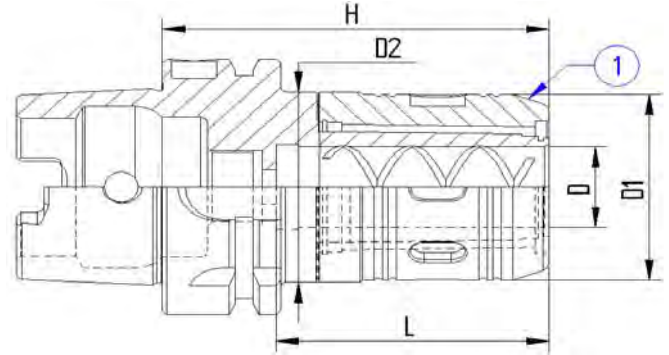


MANDRINI A FORTE SERRAGGIO
MILLING CHUCK
MANDRINS A FORT SERRAGE
KRAFTSPANNFUTTER



DIN 69893

Bilanciato G.6,3 12.000 RPM



Codice	HSK	Descrizione	H	D	D1	D2	L
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

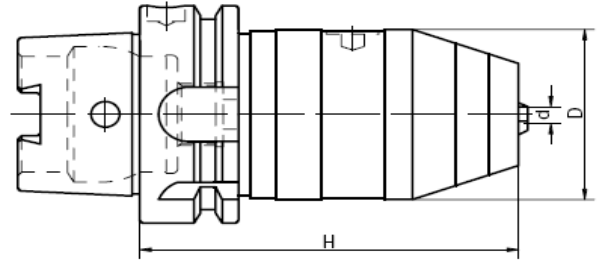




MANDRINI INTEGRALI CON CHIAVE ESAGONALE
 DRILL CHUCK WITH EXAG-KEY LOCK SYSTEM
 MANDRINS MONOBLOC-SERRAGE PAR CLE 6 PANS
 NC-KURZBOHRFUTTER-SPANNEN DURCH 6 - KANTSCHLUSSEL



DIN 69893



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

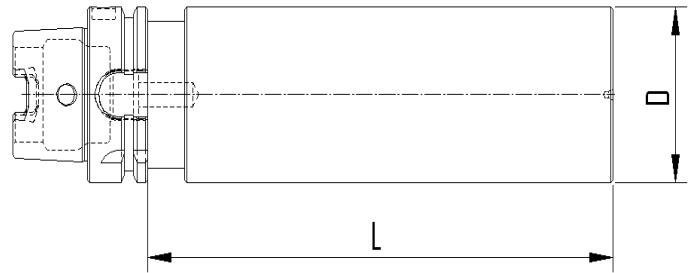
Codice	HSK	Descrizione	D	H	d
61AMAZ13	100/A	HSK100/A M/AUTOS./FORI H111 D13	50	111	1-13
61AMAZ16	100/A	HSK100/A M/AUTOS./FORI H111 D16	57	111	3-16



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



DIN 69893

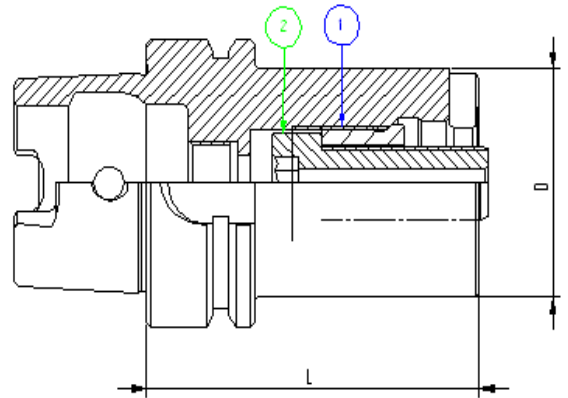
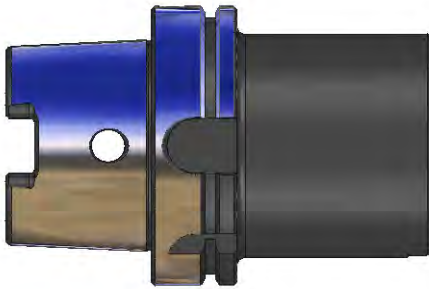


Codice	HSK	Descrizione	D	L
61AST397	100/A	HSK100/A DIN69893 ST. TENERO D97x315	97	315

HSK 63/A

ATTACCHI BASE MODULARI

Bilanciato G.6,3 20.000 RPM



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
66AVL180	HSK63/A DIN69893 MODULARE H.90 D.80	90	80

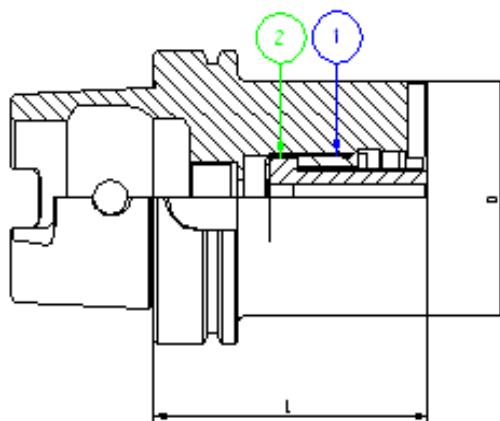
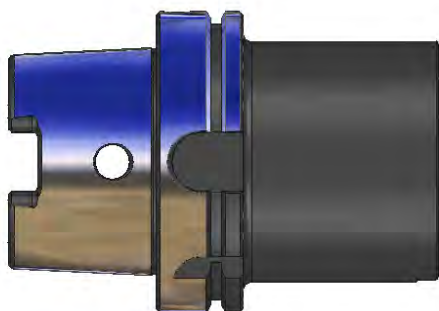
COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø	VITE	Q.tà	GHIERA	Q.tà
HSK63/A	50	111604011	1	122502007	1
	63	112005011	1	123002408	1
	80	112005011	1	123002408	1

HSK 100/A

ATTACCHI BASE MODULARI

Bilanciato G.6,3 20.000 RPM

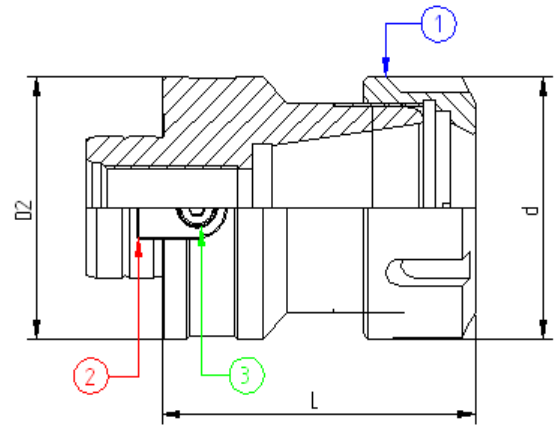
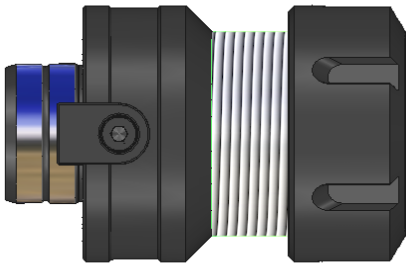


Codice	Descrizione	L	D
61AVL150	HSK100/A DIN69893 MODULARE H.85 D.50	85	50
61AVL163	HSK100/A DIN69893 MODULARE H.95 D.63	95	63
61AVL180	HSK100/A DIN69893 MODULARE H.95 D.80	95	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Tipo Cono	Ø	VITE	Q.tà	GHIERA	Q.tà
HSK100/A	50	111604011	1	122502007	1
	63	112005011	1	123002408	1
	80	112004511	1	123002408	1

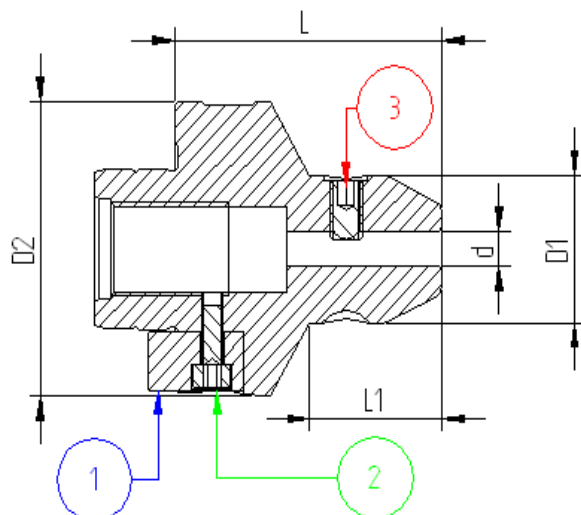
INSERTI MODULARI 50



Codice	Descrizione	D2	L	d
VL5PP113	MODULARE D50 P/PINZE ER20 H=60	50	60	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	VITE	Q.tà	TASSELLO	Q.tà	GHIERA	Q.tà
						
20	110401601	1	927TSL03	1	920GHREQ	1
25	110401601	1	927TSL03	1	925GHREQ	1
32	110401601	1	927TSL03	1	932GHREQ	1



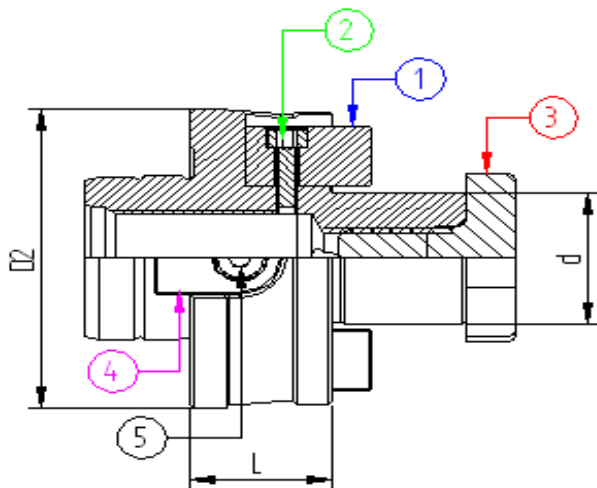
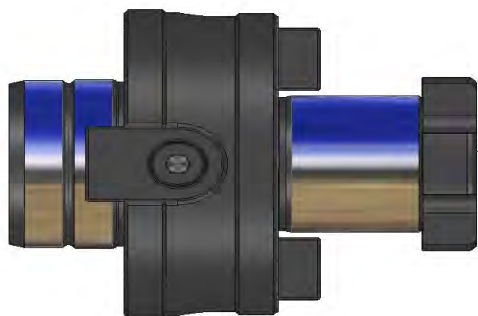
Codice	Descrizione	D2	L	d	L1	D1
VL5WLD06	MOD. D50 WELDON D.6 H=50	50	50	6	25	25
VL5WLD08	MOD. D50 WELDON D.8 H=50	50	50	8	26	28
VL5WLD10	MOD. D50 WELDON D.10 H=50	50	50	10	28	35
VL5WLD12	MOD. D50 WELDON D.12 H=60	50	60	12	36	42
VL5WLD14	MOD. D50 WELDON D.14 H=60	50	60	14	37	44
VL5WLD16	MOD. D50 WELDON 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=60	50	60	20	47	52
VL5WLD25	MOD. D50 WELDON D.25 H=80	50	80	25	66	65

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	VITE	Q.tà	TASSELLO	Q.tà	GRANO	Q.tà
						
6	110401201	1	927TSL03	1	100601004	1
8	110401201	1	927TSL03	1	100801004	1
10	110401201	1	927TSL03	1	101001204	1
12	110401201	1	927TSL03	1	101201604	1
14	110401201	1	927TSL03	1	101201604	1
16	110401201	1	927TSL03	1	101401604	1
18	110401201	1	927TSL03	1	101401604	1
20	110401201	1	927TSL03	1	101601604	1
25	110401201	1	927TSL03	1	101802002	2








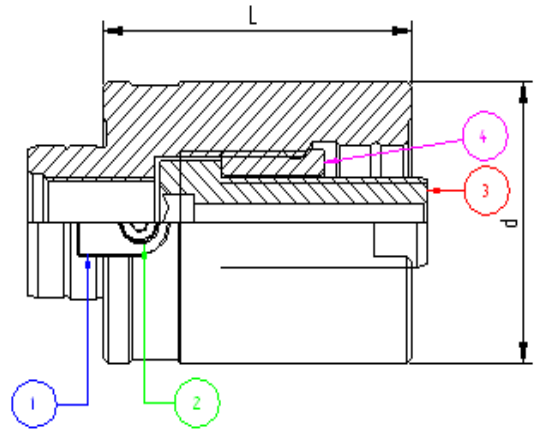
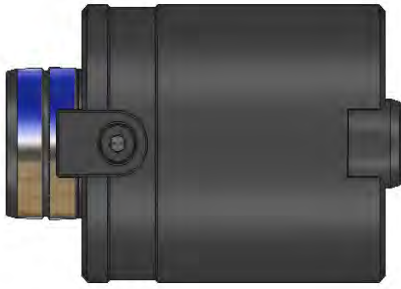
ADATTATORE PORTA FRESA
MILLING CUTTERS HOLDER ADAPTERS
ADAPTATEURS POTE FRAISE
ADAPTER FUER FRASER



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

Ø	VITE (n°5)	Q.tà	TASSELLO (n°4)	Q.tà	VITE CROCE	Q.tà
						
16	110401201	1	927TSL03	1	916VTC02	1
22	110401201	1	927TSL03	1	922VTC02	1
27	110401201	1	927TSL03	1	927VTC02	1
32	110401201	1	927TSL03	1	932VTC02	1
Ø	VITE (n°2)	Q.tà	TASSELLO (n°1)	Q.tà		
						
16	110301001	2	916TSL01	2		
22	110301001	2	922TSL01	2		
27	110401601	2	927TSL01	2		
32	110601601	2	932TSL01	2		

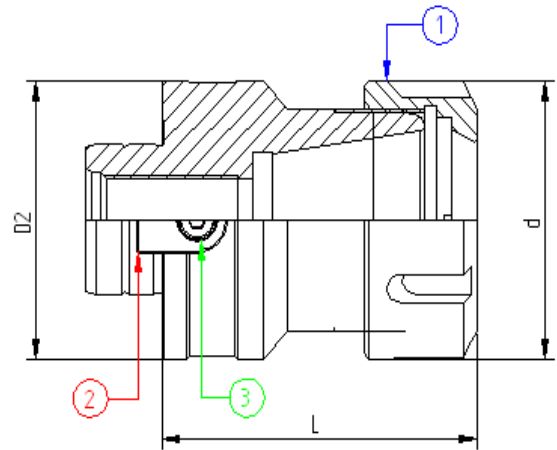
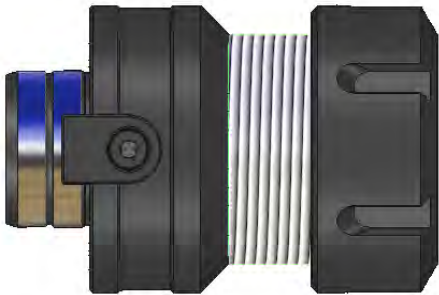


Codice	Descrizione	L	d
VL5PR060	MODULARE D50 PROLUNGA H=60	60	50
VL5PR080	MODULARE D50 PROLUNGA H=80	80	50
VL5PR100	MODULARE D50 PROLUNGA H=100	100	50

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE




L	VITE	Q.tà	GHIERA	Q.tà	VITE	Q.tà	TASSELLO	Q.tà
								
60	111604011	1	122502007	1	110401201	1	927TSL03	1
80	111604011	1	122502007	1	110401201	1	927TSL03	1
100	111604011	1	122502007	1	110401201	1	927TSL01	1

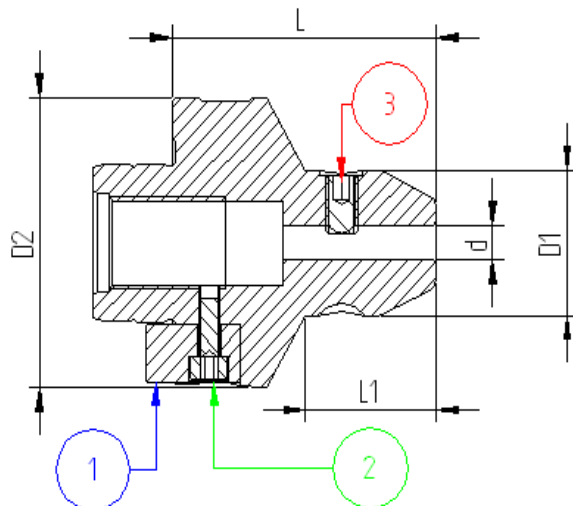
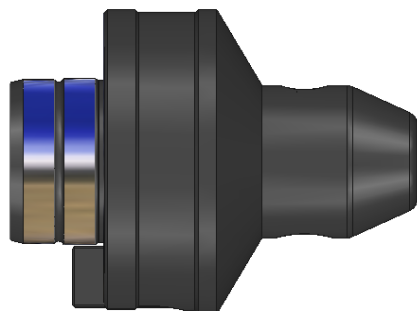
INSERTI MODULARI 63



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	VITE	Q.tà	TASSELLO	Q.tà	GHIERA	Q.tà
						
32	110601201	1	940TSL06	1	932GHREQ	1
40	110601201	1	940TSL06	1	940GHREQ	1



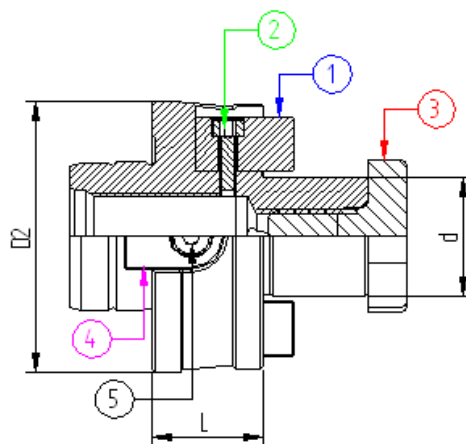
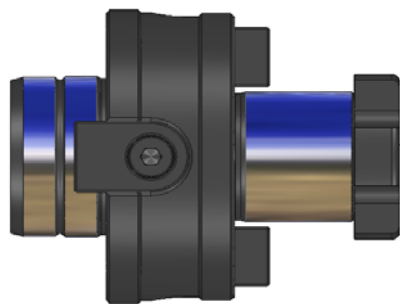
Codice	Descrizione	D2	L	d	L1	D1
VL6WLD10	MOD. D63 WELDON D.10 H=70	63	70	10	36	35
VL6WLD12	MOD. D63 WELDON D.12 H=70	63	70	12	39,5	42
VL6WLD14	MOD. D63 WELDON D.14 H=70	63	70	14	40,5	44
VL6WLD16	MOD. D63 WELDON D.16 H=70	63	70	16	42,5	48
VL6WLD18	MOD. D63 WELDON D.18 H=70	63	70	18	43,5	50
VL6WLD20	MOD. 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=95	63	95	40	70	80

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

Ø	VITE	Q.tà	TASSELLO	Q.tà	GRANO	Q.tà
10	110601201	1	940TSL06	1	101001204	1
12	110601201	1	940TSL06	1	101201604	1
14	110601201	1	940TSL06	1	101201604	1
16	110601201	1	940TSL06	1	101401604	1
18	110601201	1	940TSL06	1	101401604	1
20	110601201	1	940TSL06	1	101601604	1
25	110601201	1	940TSL06	1	101802002	2
32	110601201	1	940TSL06	1	102002002	2
40	110601201	1	940TSL06	1	102002002	2








ADATTATORE PORTA FRESA
MILLING CUTTERS HOLDER ADAPTERS
ADAPTATEURS PORTE FRAISES
ADAPTER FUER FRASER

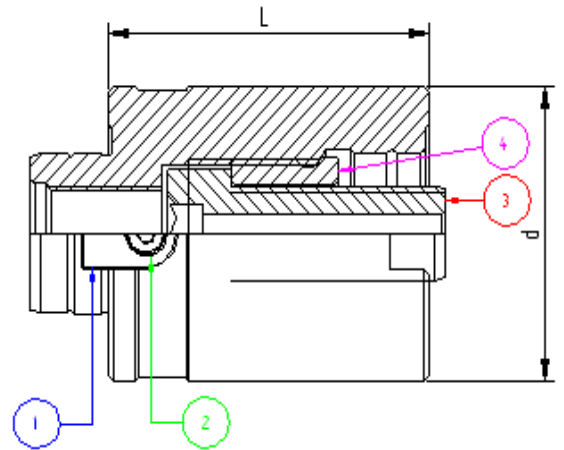
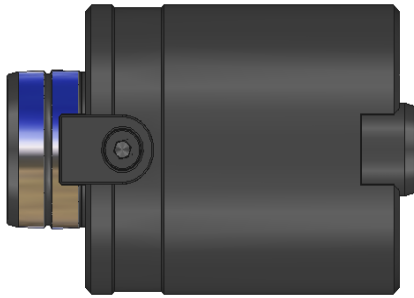


Codice	Descrizione	D2	L	d
VL6PF122	MODULARE D63 P/FRESA D.22 H=30	63	30	22
VL6PF127	MODULARE D63 P/FRESA D.27 H=30	63	30	27
VL6PF132	MODULARE D63 P/FRESA D.32 H=30	63	30	32
VL6PF140	MODULARE D63 P/FRESA D.40 H=30	63	30	40

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE





Ø	VITE	Q.tà	TASSELLO	Q.tà	VITE CROCE	Q.tà
						
22	110601401	1	940TSL06	1	922VTC02	1
27	110601201	1	940TSL06	1	927VTC02	1
32	110601201	1	940TSL06	1	932VTC02	1
40	110601201	1	940TSL06	1	940VTC02	1

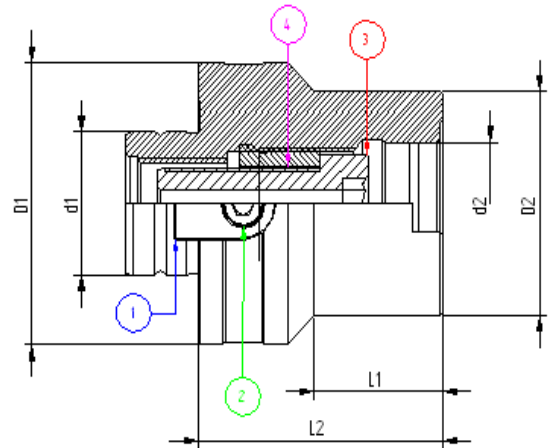
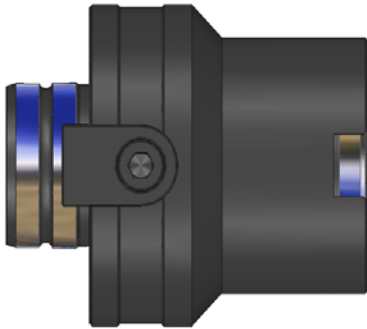
Ø	VITE	Q.tà	TASSELLO	Q.tà
				
22	110301201	2	922TSL01	2
27	110401601	2	927TSL01	2
32	110601601	2	932TSL01	2
40	110601601	2	940TSL01	2



Codice	Descrizione	L	d
VL6PR080	MODULARE D63 PROLUNGA H=80	80	63
VL6PR120	MODULARE D63 PROLUNGA H=120	120	63





COMPONENTI - SPARE PARTS - PIÈCES DETACHÉES - ERSATZTEILE

L	VITE (n° 3)	Q.tà	GHIERA (n° 4)	Q.tà	VITE (n° 2)	Q.tà	TASSELLO (n° 1)	Q.tà
								
80	112005012	1	123002408	1	110601201	1	940TSL06	1
120	112005012	1	123002408	1	110601201	1	940TSL06	1

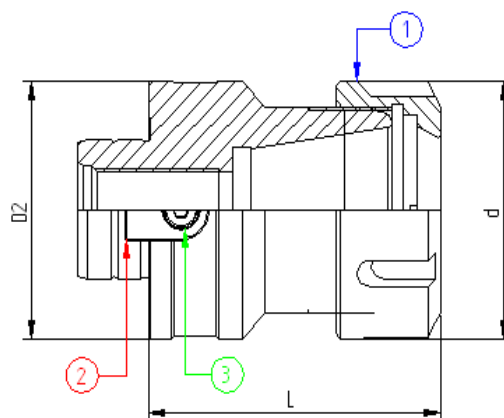
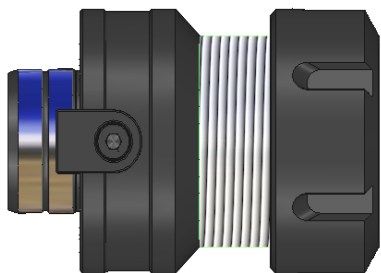


Codice	Descrizione	D1	d1	L2	L1	d2	D2
VL6RD050	MODULARE D63 RIDUZIONE D.50 H=60	63	32	60	31,5	27	50

COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE




D	VITE (n° 3)	Q.tà	GHIERA (n° 4)	Q.tà	VITE (n° 2)	Q.tà	TASSELLO (n° 1)	Q.tà
								
50	111604011	1	122502007	1	110601201	1	940TSL03	1

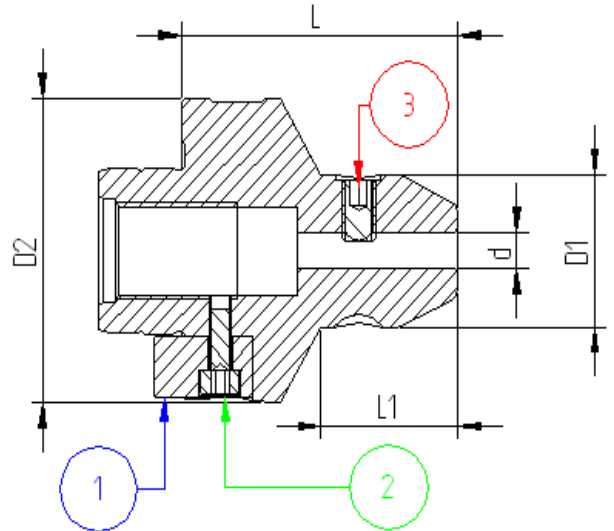
INSERTI MODULARI 80



Codice	Descrizione	D2	L	d
VL8PP126	MODULARE D80 P/PINZE ER40 H=90	80	90	63




COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

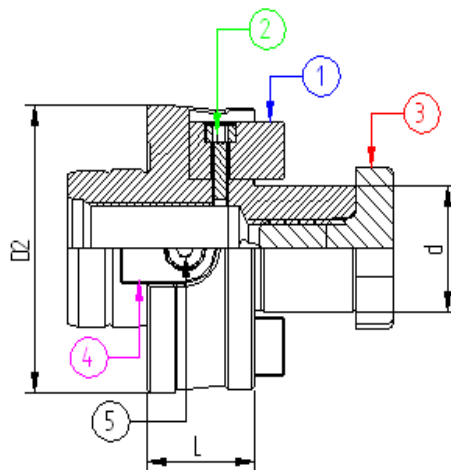
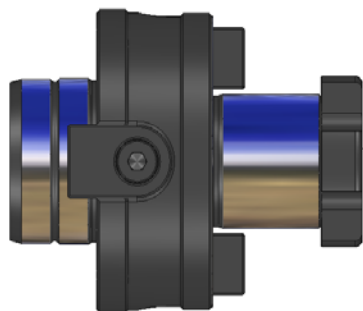
ER	VITE	Q.tà	TASSELLO	Q.tà	GHIERA	Q.tà
						
40	110601601	1	940TSL01	1	940GHREQ	1



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



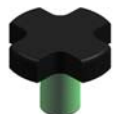


COMPONENTI - SPARE PARTS - PIECES DETACHEES - ERSATZTEILE

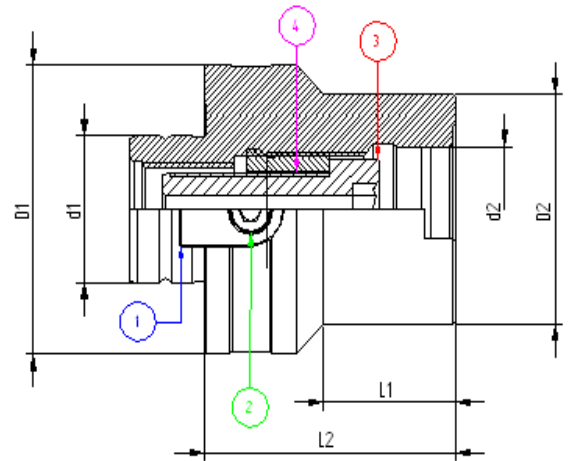
Ø	VITE	Q.tà	TASSELLO	Q.tà	GRANO	Q.tà
						
16	110601601	1	940TSL01	1	101401604	1
20	110601601	1	940TSL01	1	101601604	1
25	110601601	1	940TSL01	1	101802002	2
32	110601601	1	940TSL01	1	102002002	2
40	110601601	1	940TSL01	1	102002002	2



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

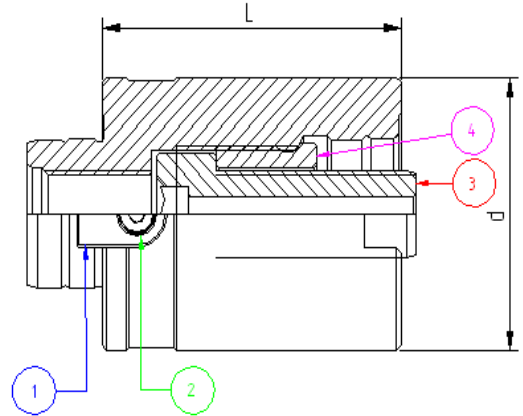
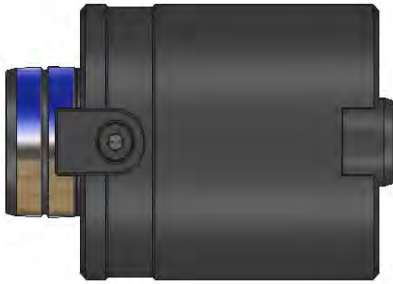
Ø	VITE (n° 5)	Q.tà	TASSELLO (n° 4)	Q.tà	VITE CROCE (n°3)	Q.tà
						
27	110601601	1	940TSL01	1	927VTC02	1
32	110601601	1	940TSL01	1	932VTC02	1
40	110601601	1	940TSL01	1	940VTC02	1
Ø	VITE (n° 2)	Q.tà	TASSELLO (n°1)	Q.tà		
						
27	110401201	2	927TSL01	2		
32	110601601	2	932TSL01	2		
40	110601601	2	940TSL01	2		



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 (n° 3)	Q.tà	GHIERA (n° 4)	Q.tà	VITE (n° 2)	Q.tà	TASSELLO (n° 1)	Q.tà
								
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 - PIECES DETACHEES - ERSATZTEILE

L	VITE (n° 3)	Q.tà	GHIERA (n° 4)	Q.tà	VITE (n° 2)	Q.tà	TASSELLO (n° 1)	Q.tà
								
80	112005011	1	123002408	1	110601601	1	940TSL01	1
100	112005011	1	123002408	1	110601601	1	940TSL01	1
120	112005011	1	123002408	1	110601601	1	940TSL01	1
140	112005011	1	123002408	1	110601601	1	940TSL01	1
160	112005011	1	123002408	1	110601601	1	940TSL01	1