serie

testa ad angolo
angle head

Un prodotto fondamentale che, grazie alla riduzione dei piazzamenti in lavorazione, vanta un contributo prezioso per l'aumento della produttività necessaria per competere su tutti i mercati: parliamo della Testa ad Angolo, da considerare come parte integrante del parco utensili della macchina.

- **Esperienza** - E' dall'inizio degli anni '60 che O.M.G. crea prodotti. L'esperienza non si acquista, si acquisisce. La realizzazione fin dai primi anni di prodotti speciali ha formato le competenze per lo sviluppo di una gamma di Teste ad Angolo articolata e performante, idonea alla clientela più esigente che crede negli investimenti per conquistare nuovi mercati.
- **Tradizione** - Il termine "qualità" viene spesso citato, ma non significa soltanto utilizzare macchine utensili tecnologicamente avanzate per ottenere lavorazioni precise. La qualità è il risultato di esperienze pratiche, di calcoli matematici, di sfide vinte e perse ma comunque accettate, di cui fare grande tesoro.
- **Innovazione** - Le Teste ad Angolo Speciali di ultima generazione offrono prestazioni superiori a tutti gli standard e condizionano spesso la produzione fino al punto da divenire indispensabili nel completamento del processo produttivo. Da queste OMG continua a trarne grande beneficio e soddisfazione con soluzioni tecniche poi riproposte sulle Teste ad Angolo Standard a catalogo.
- **Modularità** – Indispensabile oggi la flessibilità produttiva, ancora maggiore negli investimenti. In questa ottica gli elementi modulari delle Teste ad Angolo consentono di ridurre i costi ed aumentare i benefici.
- **Personalizzazione** – Se l'ampia gamma di Teste ad Angolo standard non risponde all'esigenza specifica, siamo pronti a progettare e costruire il prodotto speciale, forti dell'esperienza di centinaia di soluzioni operative volte alle più svariate attività produttive.

An ultimate product that gives a valuable contribution to the productivity increase by reducing the management of the pieces to be machined, necessary condition to compete in the markets all over the world: we are talking about the Angle Heads, to be considered an integrant part of the machine tools range.

- ***Experience*** *- O.M.G. engineers its products since the beginning of the '60's. The experience cannot be bought but it is acquired. Since that time the achievement of special products gave us the expertise to develop a range of Angle Heads very broad and performing, suitable to the most demanding customers believing in investments to gain new market shares.*

- ***Tradition*** *- The word "quality" if often mentioned, but it does not mean just to use technologically advanced machine tools to get accurate machining. The quality is the result of practical experiences, of mathematical calculations, of won and lost challenges, anyway accepted, which are treasured.*

- ***Innovation*** *- The last generation Special Angle Heads offers performances much higher than all standards, and they often affect the production cycles until becoming indispensable when completing production stages. O.M.G. keeps getting beneficial results from his special range which is also reflected into the standard Angle Heads range.*

- ***Modularity*** *- Nowadays the productivity flexibility is mandatory, and even more in the investments. Towards this goal the O.M.G. Angle Heads modular system allows cost reductions and to increase profits.*

- ***Customization*** *- And if the wide range of standard Angle Heads will not meet your requirements, we are ready to engineer and to manufacture a new special product, always supported by our experience of hundreds of solutions done for many different industrial activities.*

Panoramica prodotti
Product owerview

TAR

Piccole per piccoli spazi.

Tiny for narrow spaces.

Pagina/*Page:* 1-10

TA

Lavorazione singola di foratura e fresatura.

Drilling and milling machining.

Pagina/*Page:* 1-18

TA... D

Input refrigerante attraverso lo stop-block e uscita attraverso il centro utensile.

Input coolant from stop-block, and output through tool spindle.

Pagina/*Page:* 1-36

TAO

Mandrino offset, lavorazione in spazi ristretti ed ottima performance in fresatura.

Offset spindle, machining in narrow spaces, and excellent results in milling operations.

Pagina/*Page:* 1-46

TAF

Mandrino fisso, angolo su richiesta del cliente.

Fixed spindle with custom angle.

Pagina/*Page:* 1-60

Simboli/Icons

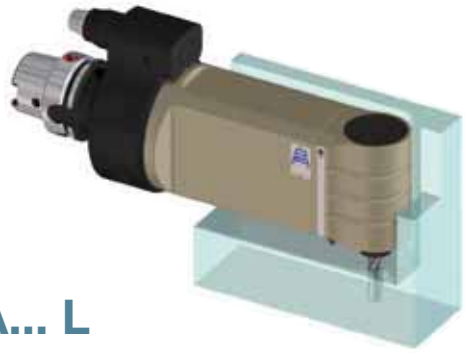
Capacità di foratura
Drilling capacity

Maschiatura
Tapping

Rapporto entrata/uscita
Ratio input/output

N° max giri in uscita
Max output RPM

Panoramica prodotti
Product owerview



TA... L

Versione allungata per lavorazioni singole di foratura e fresatura.

Length stretched version for drilling and milling single machining operations.

Pagina/*Page:* 1-18

TA... 2P

Due mandrini contrapposti di 180°.

180° two opposed spindles.

Pagina/*Page:* 1-30

TAO... PD

Mandrino offset, input refrigerante attraverso il centro cono, uscita attraverso centro utensili con pressione 70 bar.

Offset spindle, input coolant through machine taper, output through tool spindle at 70 bar pressure.

Pagina/*Page:* 1-47

TAV

Mandrino variabile ±90°.

±90° variable spindle.

Pagina/*Page:* 1-54

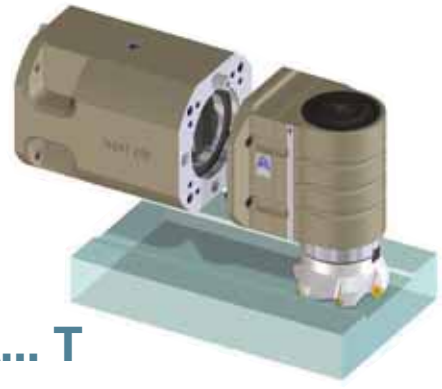
Simboli/Icons

Peso con cono 40
Weight with size 40 shank

Peso con cono 50
Weight with size 50 shank

Rotazione in ingresso
Input rotation

Rotazione in uscita
Output rotation



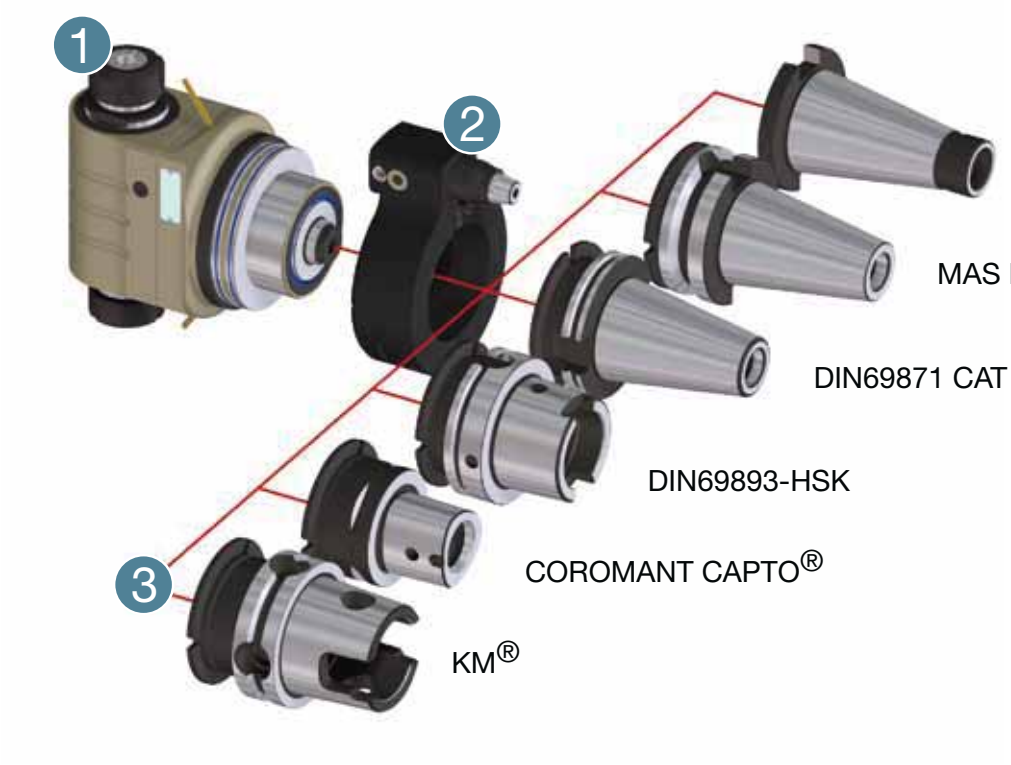
TA... T

Connessione alla macchina tramite flangia.

To be connected to the machine by flange.

Pagina/*Page:* 1-64

Sistema modulare per applicazioni flessibili
Modular system for flexible application



1. Testa ad angolo con presa utensile ER standard, oppure vedi tipi Mandrino.
   Angle Head with standard ER tool connection, or check other spindle types.

2. Antirotante standard “senza gioco”, oppure su specifico design per la vostra macchina utensile.
   No backlash standard torque arm, or under specific design for your machine tool.

3. Coni macchina standard o speciali su richiesta.
   Standard or on-demand machine tapers.

Modularità Coni – Sono disponibili tutti i tipi di coni macchina, da sostituire tramite un esclusivo accoppiamento di precisione che crea un sistema rigido pari ai coni integrali, ma con i pregi dell’intercambiabilità.
Modularità Antirotanti – esistono fondamentalmente tre dimensioni unificate di interasse tra il centro cono ed il centro perno antirotante: mm 65 per i cono grandezza 40, mm 80 per i coni grandezza 50 ed in alcuni casi anche mm 110. Sono disponibili tutte le dimensioni e sostituire il gruppo antirotante è una operazione banale.

Taper modularity *- All the different machine tapers are available, and can be replaced with an exclusive precision coupling system generating a rigid system equal to integral tapers, but with additional interchangeability quality.*
Torque arm modularity *- Essentially three unified dimensions between taper and torque-arm centers exist: 65 mm for the taper size 40, 80 mm for the taper size 50 and also 110 mm in some cases. All sizes are available and torque-arm replacement is very simple.*

Prese utensili - tipi mandrino
Clamping systems and spindle types

1 DIN6388-ER

2 Albero portafrese
Milling shaft

3 Weldon
Whistle-Notch

4 DIN69893-HSK

5 COROMANT
CAPTO®

6 ABS
Licenza KOMET®

7 ISO-DIN2079
NMTB-BT

Refrigerante utensile
Coolant tool

STANDARD

TA... PD
max 10 bar

TAO... PD
max 70 bar

Il circuito refrigerante è standard - Tutte le teste sono provviste di canalizzazione interna, che parte dal perno dell'antirotante e termina sull'ugello vicino all'utensile, senza alcun costo aggiuntivo.
Refrigerante da cono macchina - La costruzione offset delle Teste ad Angolo serie TAO consente il montaggio di tenute ad alta pressione affidabili nel tempo ed isolate dalle parti vitali della Testa ad Angolo, per un sicuro utilizzo di utensili con passaggio refrigerante interno.

Coolant system is standard *- All our Angle Heads are supplied with an internal channel system, which starts from the torque-arm pin and ends on the nozzles next to the tool, without additional cost.*
Coolant system from machine taper *- The offset construction of the TAO Angle Head series allows to fit high pressure seals which are time reliable and isolated from the vital parts of the Angle Heads, for a safe usage of tools with internal coolant transit.*

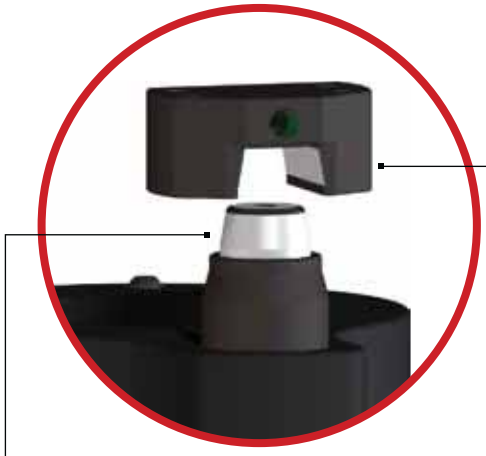
Antirotante
Torque arm

STANDARD

TRIBLOCK

QUADBLOCK

Studiato e realizzato su specifica richiesta.
Customized design according to your application.



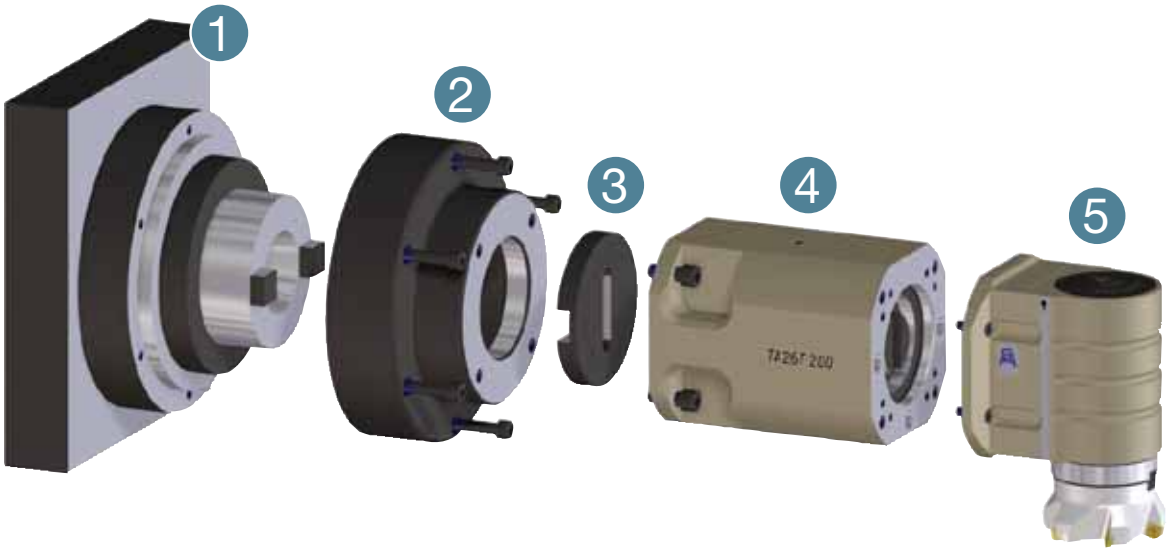
Stop-block

Perno conico
Conical pin

Prestazioni superiori - L'antirotante standard permette di cambiare la testa in automatico. Il sistema di accoppiamento fra perno conico regolabile assialmente e lo stop-block con sede a "V", permette di annullare la tolleranza tra le parti creando un sistema rigido, senza giochi. Evidenti sono i vantaggi: maggiore durata degli utensili, maggiore durata dei cuscinetti, risparmi in termini di manutenzione con conseguente riduzione dei costi.
Massima stabilità - I sistemi antirotanti TriBlock e QuadBlock di O.M.G. con perni regolabili permettono di contrastare al meglio le spinte radiali e assiali con la possibilità di affrontare in sicurezza lavorazioni di fresatura o finitura fino a ora mai effettuate con le teste ad angolo, destinate inizialmente a diversi piazzamenti pezzo.

Higher performances *- The standard torque arm allows an automatic change of the head. The coupling system between the conical pin, which can be axial adjusted, and the "V"-housing of the stop-block, allows to cancel any tolerance between those parts generating a rigid and backlash free system. The advantages are evident: longer life of tools, longer life of bearings, maintenance savings with consequent cost reductions.*
Maximum stability *- The O.M.G. TriBlock and QuadBlock torque arm systems with adjustable pin allow to oppose both radial and axial thrusts at their best, with the possibility of milling or finishing with total security, which was not possible until nowadays because requiring several changes of placement of the piece to be machined.*

Connessione alla macchina tramite flangia
Machine connection by flange



1	Macchina	*Machine*
2	Flangia di connessione	*Connection flange*
3	Viti	*Screws*
4	Giunto	*Driving joint*
5	Estensione	*Extension*
6	Testa ad angolo TA... T	*Angle head TA... T*

Qualità dei componenti
Quality of components

CORPO/*BODY*

Corpo testa in acciaio:
massima rigidità e minima dilatazione termica.

Heady body in steel:
maximum rigidity and minimum thermal expansion.

CUSCINETTI/*BEARINGS*

Cuscinetti obliqui in classe di precisione ABEC7/A.

Angular contact ball bearings of precision class ABEC7/9

INGRANAGGI/*GEARS*

Ingranaggi Gleason con evolvente rettificato:
massime performances e minori vibrazioni.

Gleason rectified gearings:
maximum performances and minimum vibration.

DESIGN

Design compatto, che insieme alle specifiche sopra descritte, consente:
alte performances, elevate velocità, lunga durata degli utensili.

Compact design that, along with above mentioned described specifications, allows: high performances, high speeds, long life of tools.

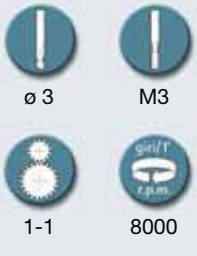
Materiali - Tutte le teste ad angolo standard sono in acciaio ricavate dal pieno per fresatura a pareti sottili, minimo ingombro e minor peso. Hanno il corpo trattato con niploy, trattamento anticorrosione, che garantisce alta protezione contro la ruggine, lubrorefrigeranti aggressivi e acidi.
Componenti - Tutte le teste montano cuscinetti di precisione, oppure conici nelle versioni per grandi asportazioni. Si utilizzano solo cinematismi trattati termicamente e coppie coniche Gleason con dentatura rettificata. Lubrificazione con grasso long-life.

Materials *- All our standard Angle Heads are made from solid steel for thin wall milling, resulting with the minimum possible size and less weight. Body is niploy treated and anti-corrosion coated giving the guarantee of high protection against rust as well as acid and aggressive lubricant-coolants.*
Components *- All our Angle Heads integrate precision bearings, or tapered roller bearings when models are for big removal machining. We only use thermal treated cinematic components and Gleason bevel gears with rectified teeth. Lubrication is with long-life grease.*

testa ad angolo - *angle head*

TAR03.P

caratteristiche/*features*



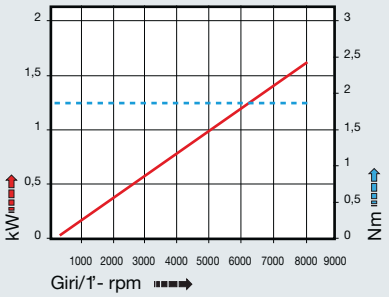
peso/*weight*

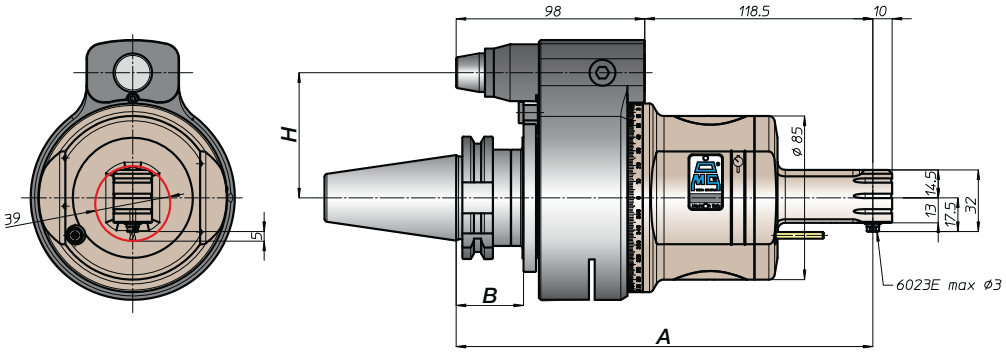
5,5 kg 7,5 kg

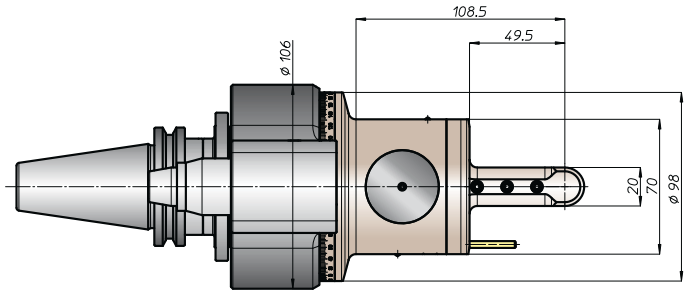
rotazione/*rotation*

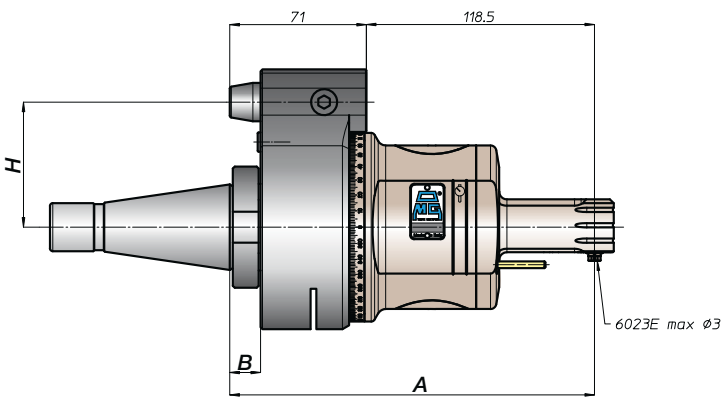
input output

prestazioni/*performances*









CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	216,5	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	224,5	43	80	110
HSK DIN69893	63	225,5	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	220,5		65	
	C6			80	110
	C8				
KM	63	216,5		65	
	80			80	110
	100				
DIN2080	-	186,5	13	65	-
	40				
	-	189,5	16	80	110
	50				
NMTB ANSIB5.18	40	186,5	13	65	-
	50	189,5	16	80	110

TAR03.PL

caratteristiche/*features*

ø 3 M3

1-1 8000

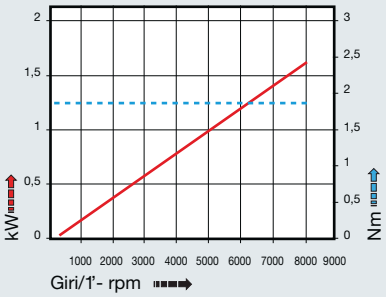
peso/*weight*

5,5 kg 7,5 kg

rotazione/*rotation*

input output

prestazioni/*performances*



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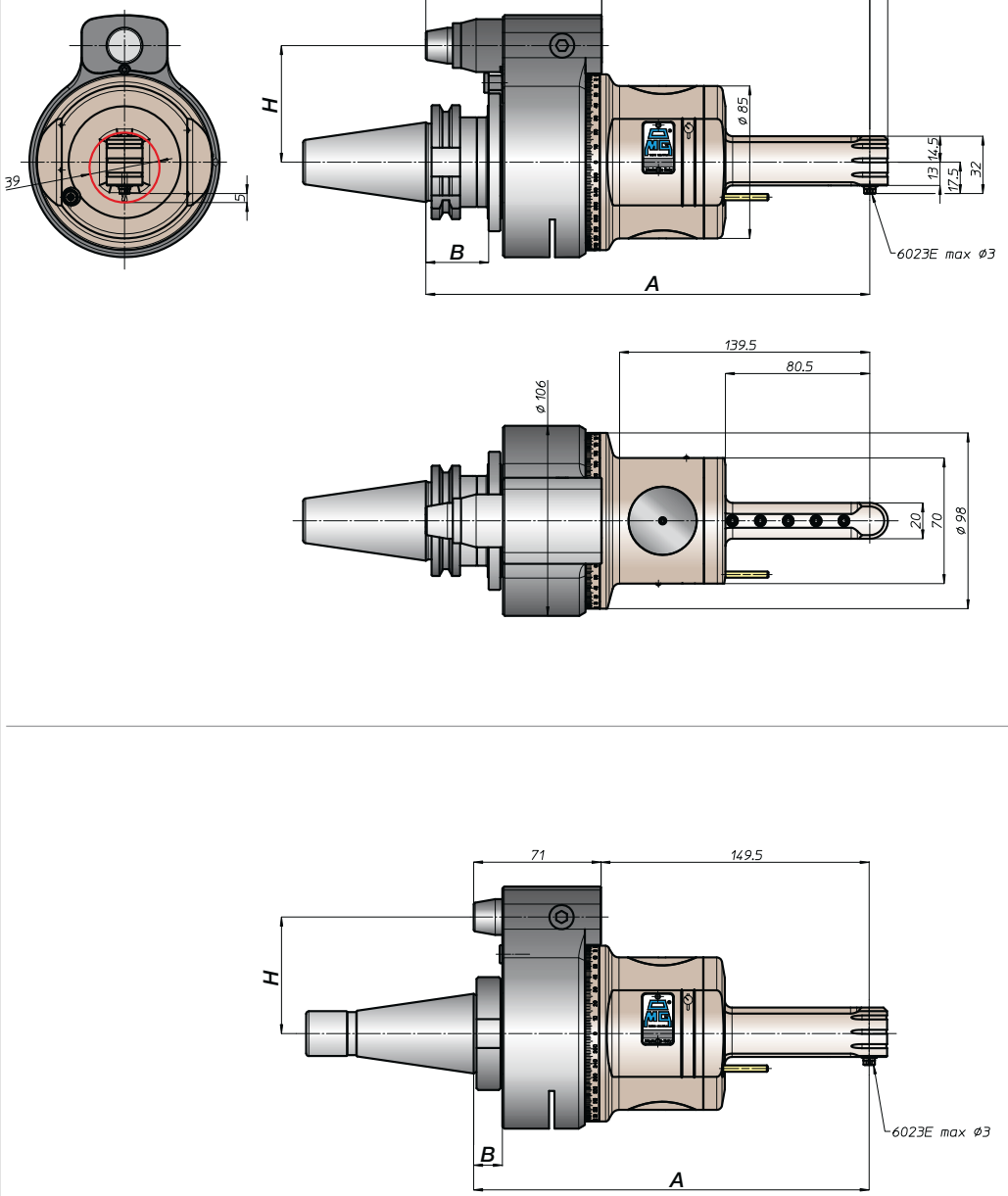
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	255,5	43	80	110
HSK DIN69893	63	256,5	42	65	
	80	260,5	46	80	110
	100				
CAPTO ISO26623	C5	255,5		65	
	C6			80	110
	C8				
KM	63	251,5		65	
	80			80	110
	100				
DIN2080	-	217,5	13	65	-
	40				
	-	220,5	16	80	110
	50				
NMTB ANSIB5.18	40	217,5	13	65	-
	50	220,5	16	80	110



testa ad angolo - *angle head*

TAR04.P

caratteristiche/*features*

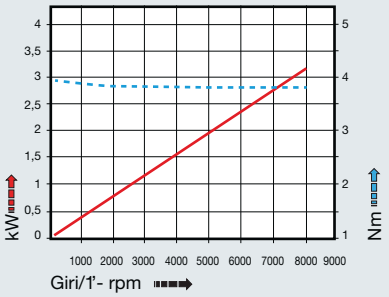
peso/*weight*

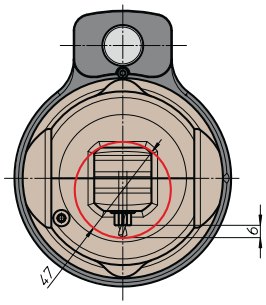
5,5 kg 7,5 kg

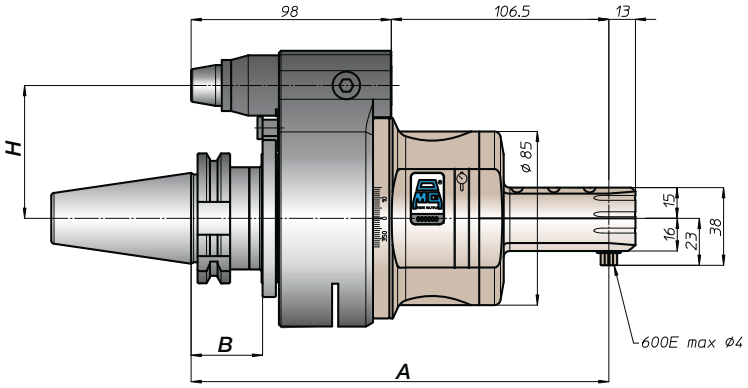
rotazione/*rotation*

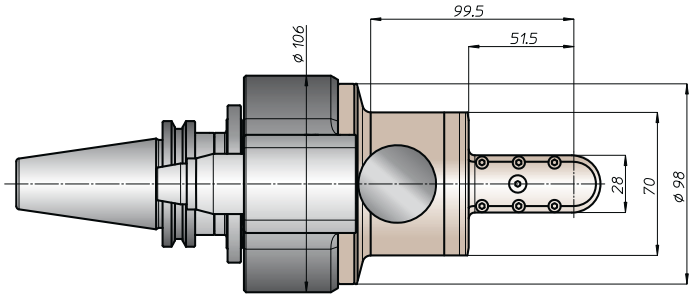
input output

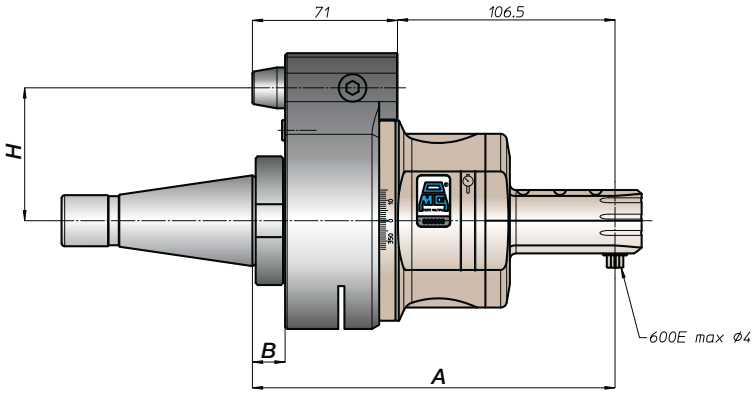
prestazioni/*performances*











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	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	236,5	43	80	110
HSK DIN69893	63	227,5	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	222,5		65	
	C6			80	110
	C8				
KM	63	218,5		65	
	80			80	110
	100				
DIN2080	-	188,5	13	65	-
	40				
	-	191,5	16	80	110
	50				
NMTB ANSIB5.18	40	188,5	13	65	-
	50	191,5	16	80	110

TAR04.PL

caratteristiche/*features*

ø 4 M3

1-1 8000

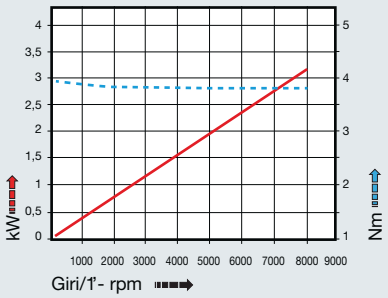
peso/*weight*

5,5 kg 7,5 kg

rotazione/*rotation*

input output

prestazioni/*performances*



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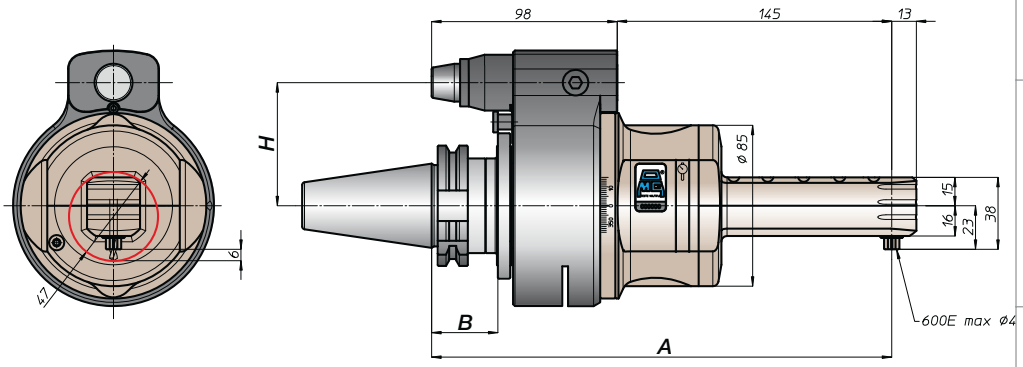
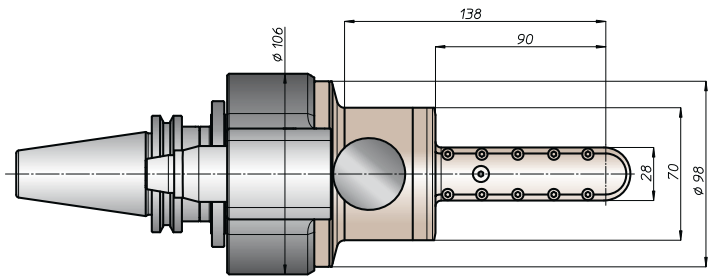
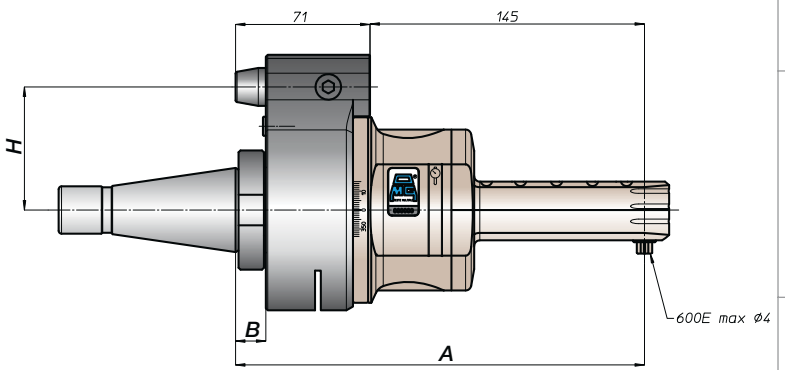
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	275	43	80	110
HSK DIN69893	63	266	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	261		65	
	C6			80	110
	C8				
KM	63	257		65	
	80			80	110
	100				
DIN2080	-	227	13	65	-
	40				
	-	230	16	80	110
	50				
NMTB ANSIB5.18	40	227	13	65	-
	50	230	16	80	110



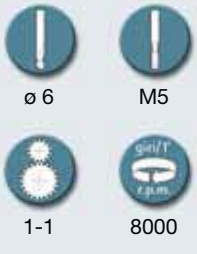




testa ad angolo - *angle head*

TAR06.P

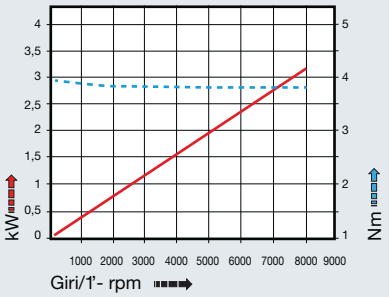
caratteristiche/*features*

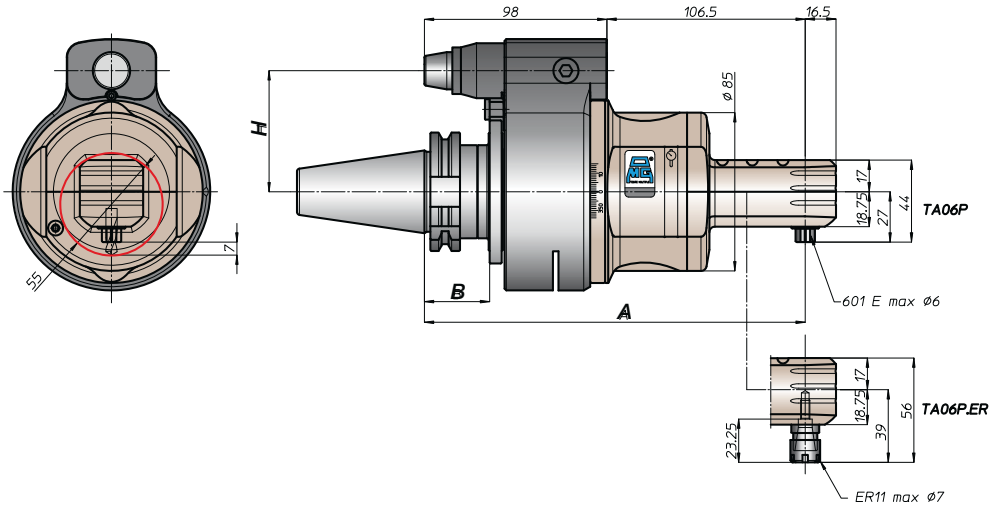


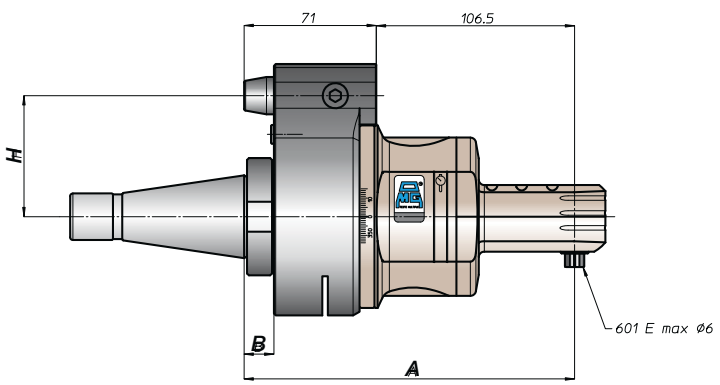
peso/*weight*

rotazione/*rotation*

prestazioni/*performances*







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DIN69871	30	228,5	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	236,5	43	80	110
HSK DIN69893	63	237,5	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	232,5		65	
	C6			80	110
	C8				
KM	63	228,5		65	
	80			80	110
	100				
DIN2080	-	198,5	13	65	-
	40				
	-	201,5	16	80	110
	50				
NMTB ANSIB5.18	40	198,5	13	65	-
	50	201,5	16	80	110

TAR06.PL

caratteristiche/*features*

ø 6 | M5

1-1 | 8000

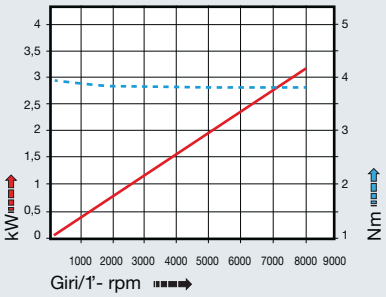
peso/*weight*

6 kg | 8,3 kg

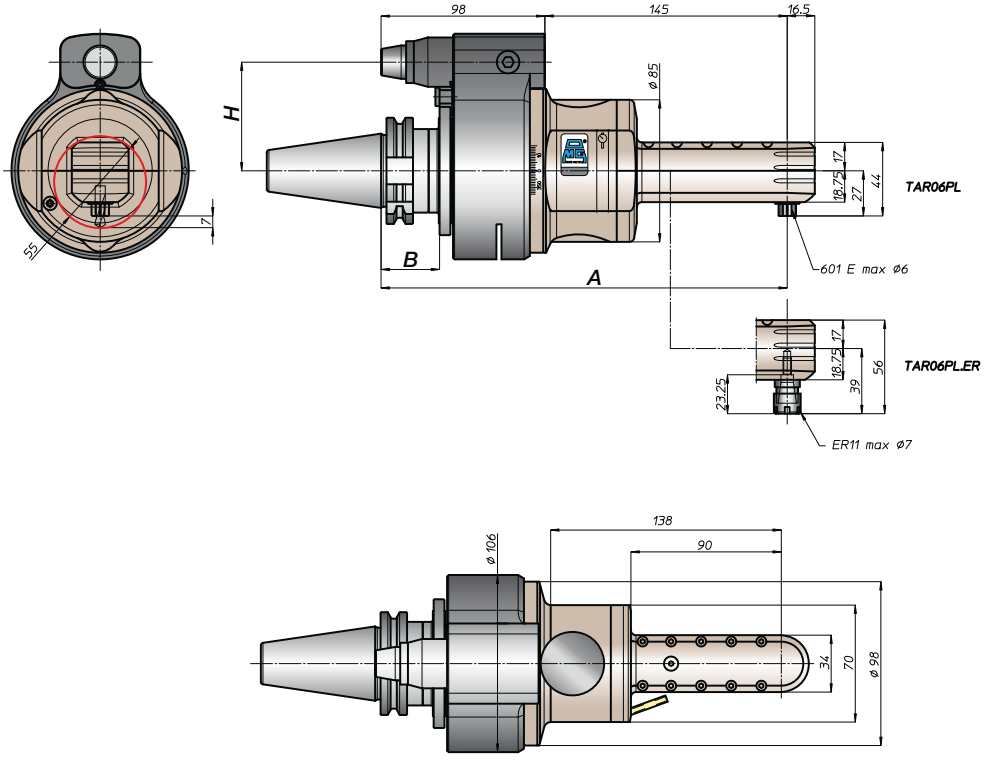
rotazione/*rotation*

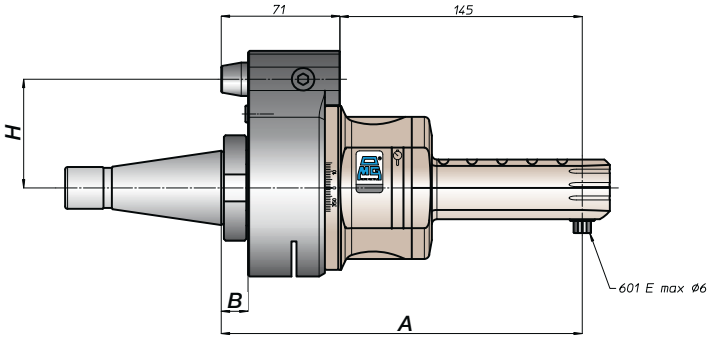
input → output

prestazioni/*performances*



CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	267	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	275	43	80	110
HSK DIN69893	63	276	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	271		65	
	C6			80	110
	C8				
KM	63	267		65	
	80			80	110
	100				
DIN2080	-	237	13	65	-
	40				
	-	240	16	80	110
	50				
NMTB ANSIB5.18	40	237	13	65	-
	50	240	16	80	110





testa ad angolo - *angle head*

TAR10.P

caratteristiche/*features*

ø 10 | M8 | 1-1 | 6000

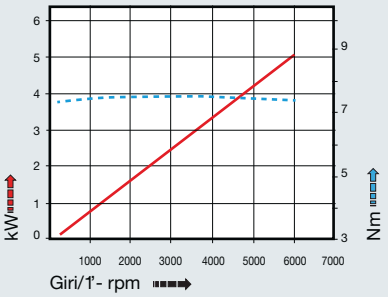
peso/*weight*

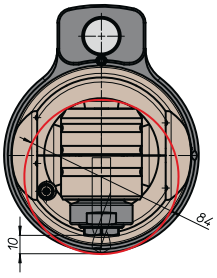
7 kg | 9 kg

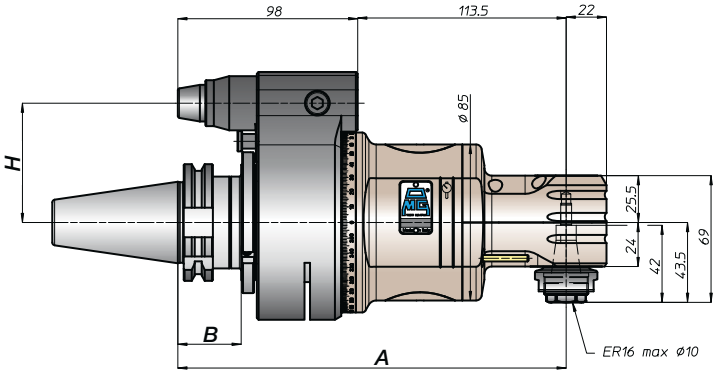
rotazione/*rotation*

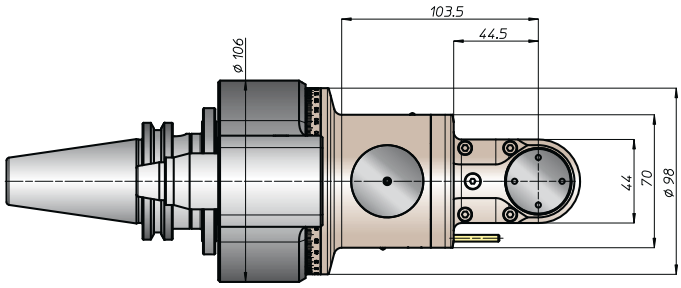
input | output

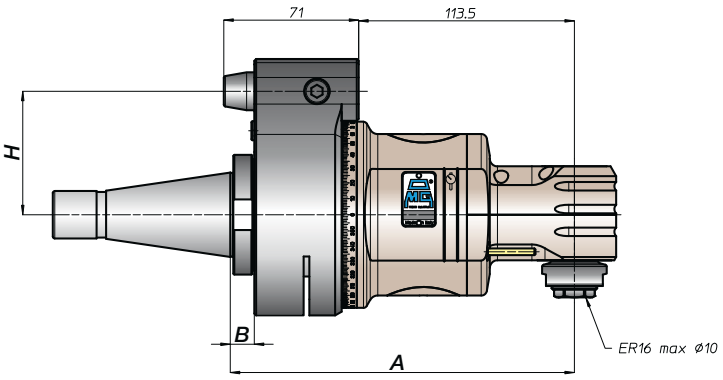
prestazioni/*performances*







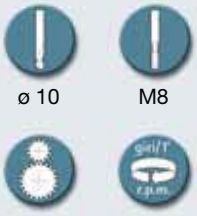




CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	211,5	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	219,5	43	80	110
HSK DIN69893	63	220,5	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	215,5		65	
	C6			80	110
	C8				
KM	63	211,5		65	
	80			80	110
	100				
DIN2080	-	181,5	13	65	-
	40				
	-	184,5	16	80	110
	50				
NMTB ANSIB5.18	40	181,5	13	65	-
	50	184,5	16	80	110

TAR10.PL

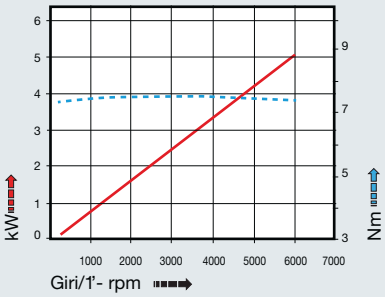
caratteristiche/*features*



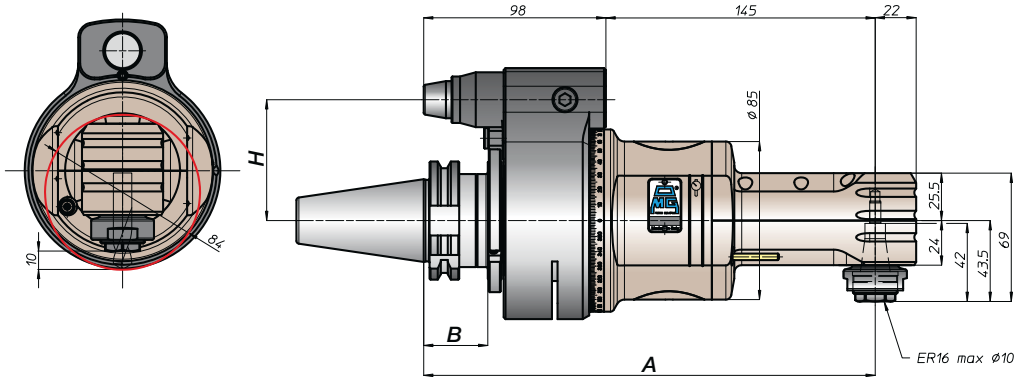
peso/*weight*

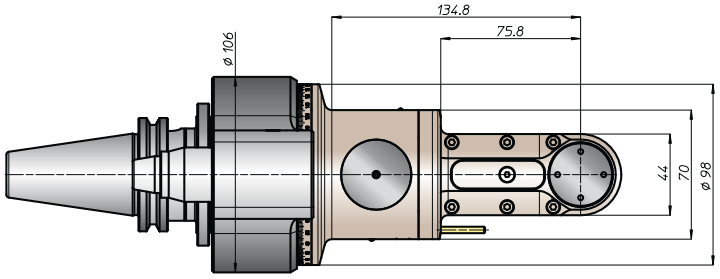
rotazione/*rotation*

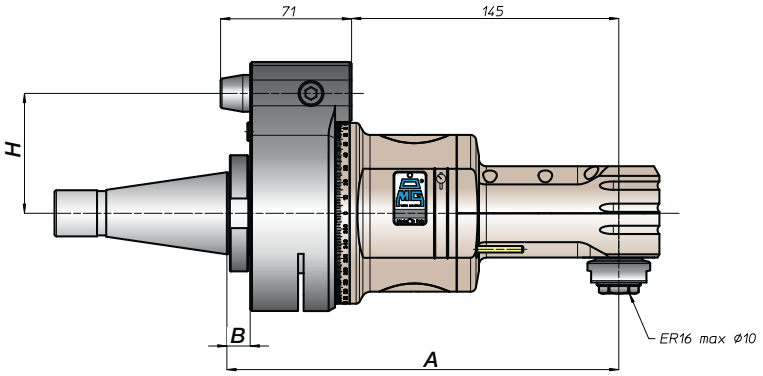
prestazioni/*performances*



CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	243	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	251	43	80	110
HSK DIN69893	63	252	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	247		65	
	C6			80	110
	C8				
KM	63	243		65	
	80			80	110
	100				
DIN2080	-	213	13	65	-
	40				
	-	216	16	80	110
	50				
NMTB ANSIB5.18	40	213	13	65	-
	50	216	16	80	110







testa ad angolo - *angle head*

TA07.P

caratteristiche/*features*

ø 7 | M6

1-1 | 10000

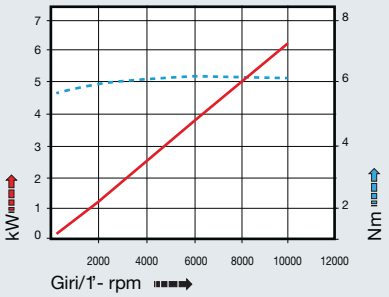
peso/*weight*

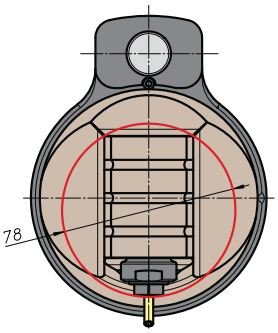
5 kg | 7 kg

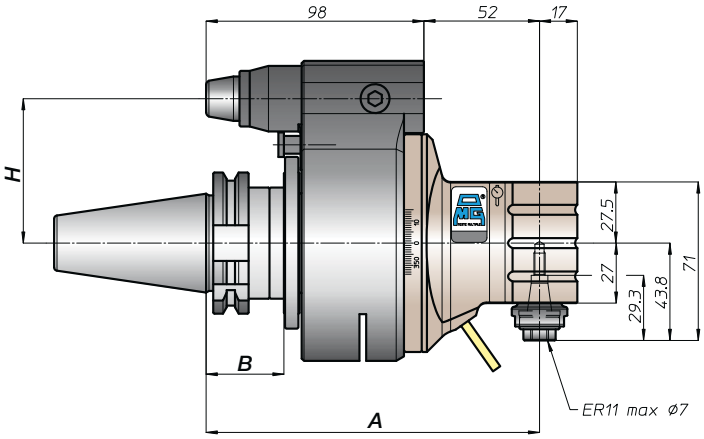
rotazione/*rotation*

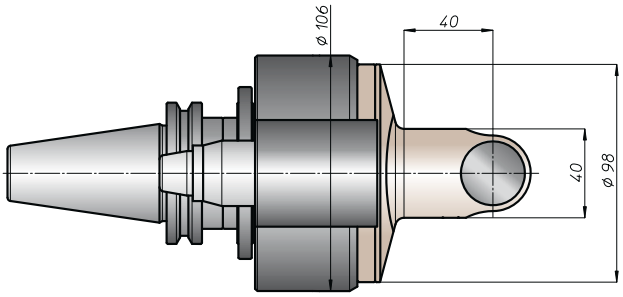
input → output

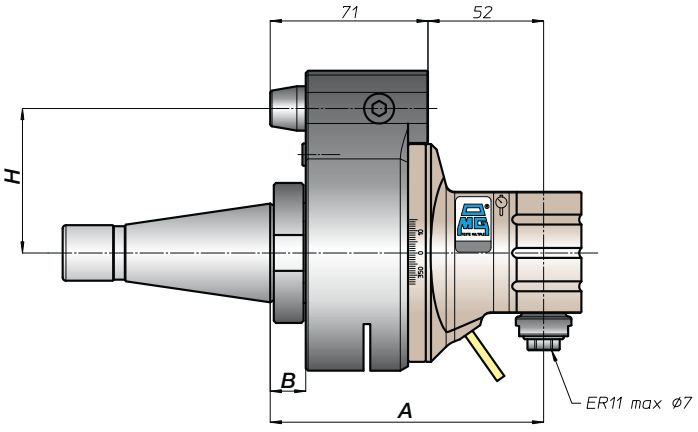
prestazioni/*performances*







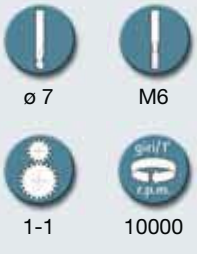




CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	150	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	158	43	80	110
HSK DIN69893	63	159	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	154		65	
	C6			80	110
	C8				
KM	63	150		65	
	80			80	110
	100				
DIN2080	-	120	13	65	-
	40				
	-	123	16	80	110
	50				
NMTB ANSIB5.18	40	120	13	65	-
	50	123	16	80	110

TA07.PL

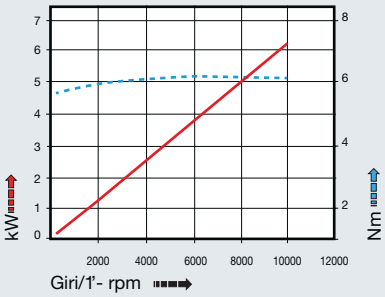
caratteristiche/*features*



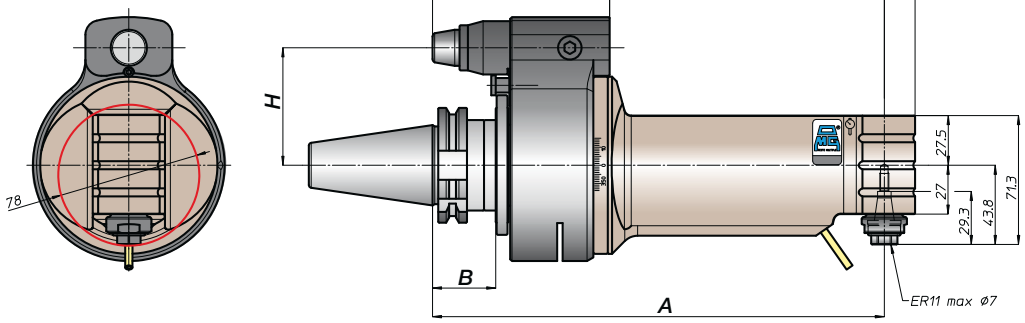
peso/*weight*

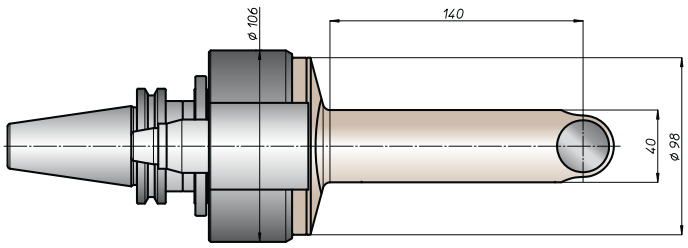
rotazione/*rotation*

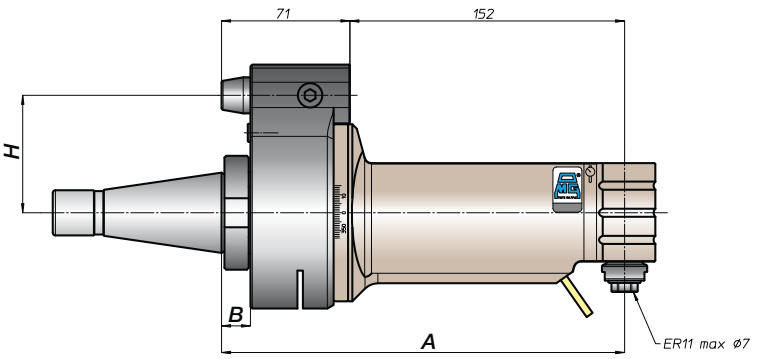
prestazioni/*performances*



CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	250	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	258	43	80	110
HSK DIN69893	63	259	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	254		65	
	C6			80	110
	C8				
KM	63	250		65	
	80			80	110
	100				
DIN2080	-	220	13	65	-
	40				
	-	223	16	80	110
	50				
NMTB ANSIB5.18	40	220	13	65	-
	50	223	16	80	110



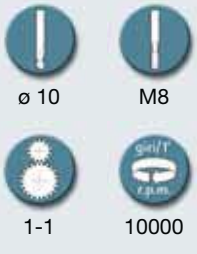




testa ad angolo - *angle head*

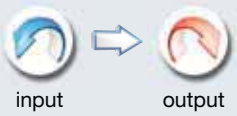
TA10.P

caratteristiche/*features*

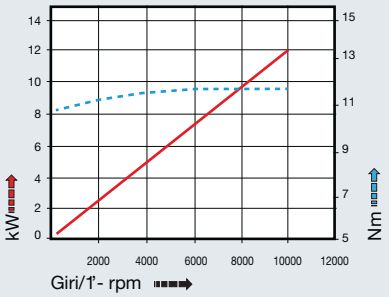


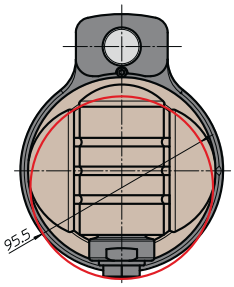
peso/*weight*

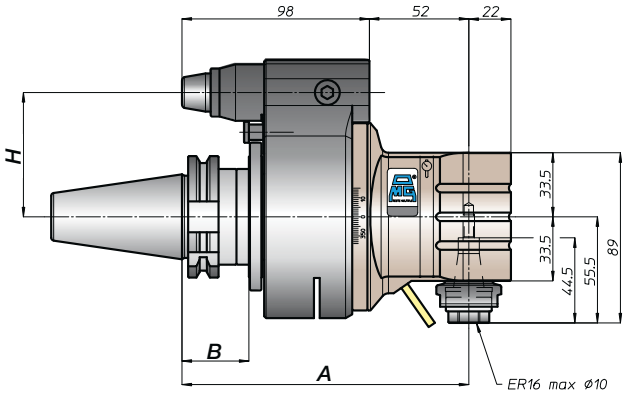
rotazione/*rotation*

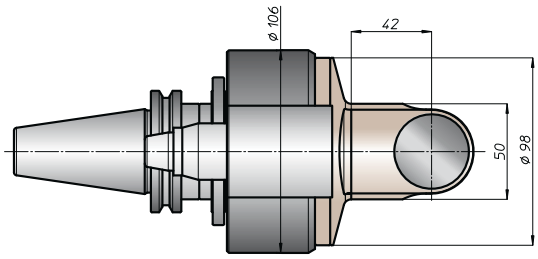


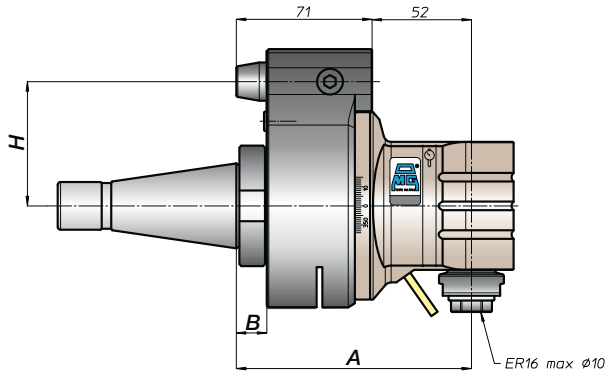
prestazioni/*performances*







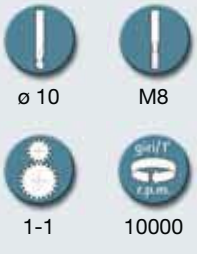




CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	150	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	158	43	80	110
HSK DIN69893	63	159	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	154		65	
	C6			80	110
	C8				
KM	63	150		65	
	80			80	110
	100				
DIN2080	-	120	13	65	-
	40				
	-	123	16	80	110
	50				
NMTB ANSIB5.18	40	120	13	65	-
	50	123	16	80	110

TA10.PL

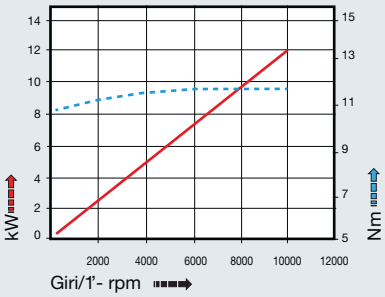
caratteristiche/*features*



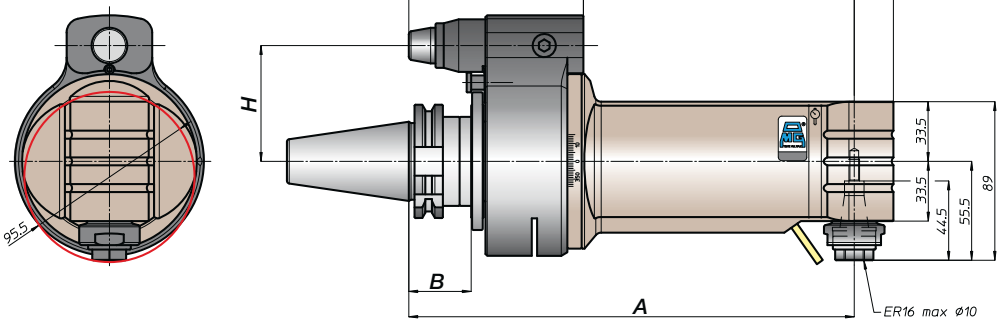
peso/*weight*

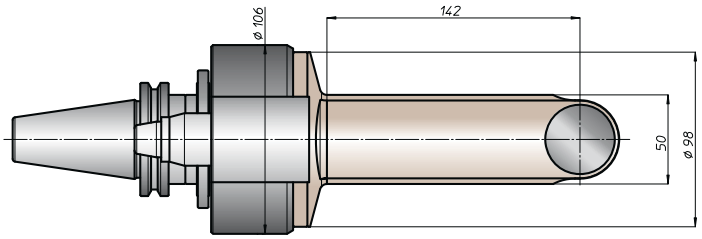
rotazione/*rotation*

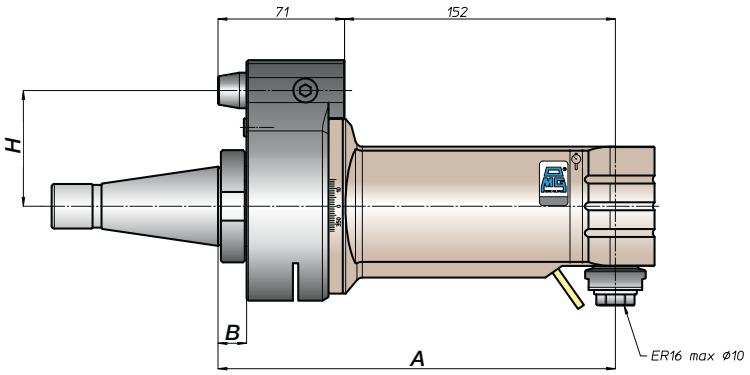
prestazioni/*performances*



CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	250	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	258	43	80	110
HSK DIN69893	63	259	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	254		65	
	C6			80	110
	C8				
KM	63	250		65	
	80			80	110
	100				
DIN2080	-	220	13	65	-
	40				
	-	223	16	80	110
	50				
NMTB ANSIB5.18	40	220	13	65	-
	50	223	16	80	110



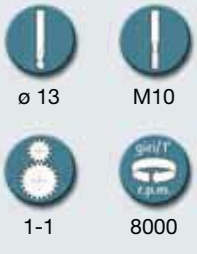




testa ad angolo - *angle head*

TA13.P

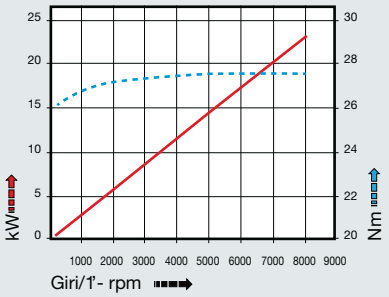
caratteristiche/*features*



peso/*weight*

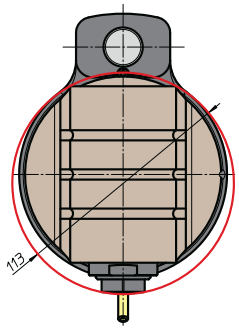
rotazione/*rotation*

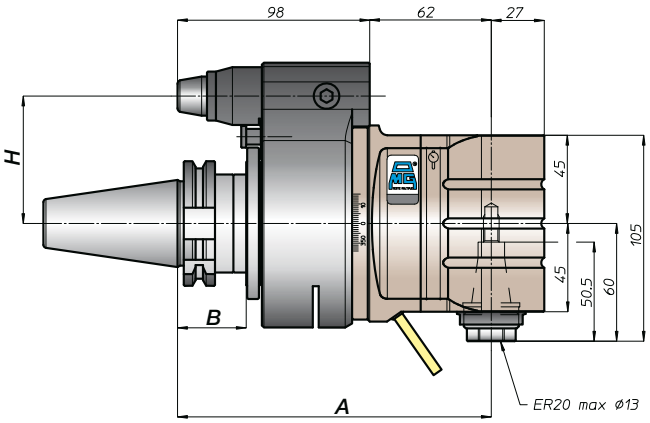
prestazioni/*performances*

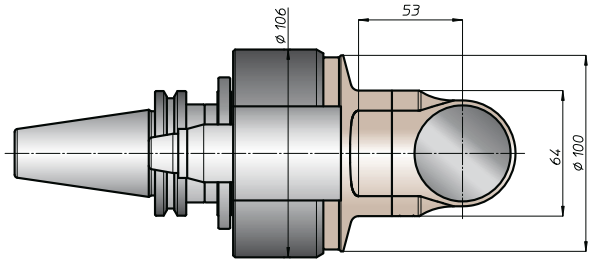


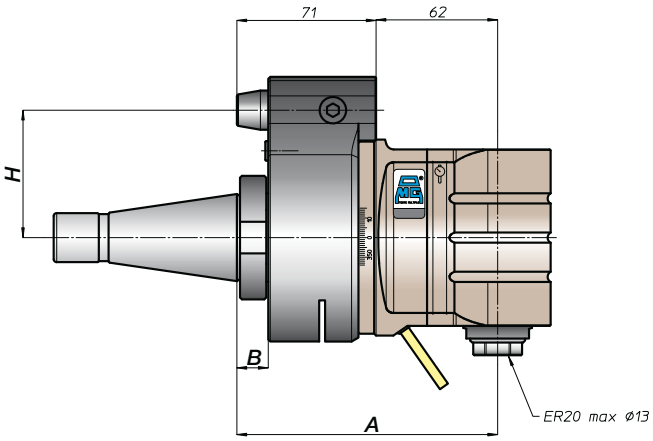
tipi mandrino/*spindle type*

2 **3**









CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	160	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	168	43	80	110
HSK DIN69893	63	169	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	164		65	
	C6			80	110
	C8				
KM	63	160		65	
	80			80	110
	100				
DIN2080	-	130	13	65	-
	40				
	-	133	16	80	110
	50				
NMTB ANSIB5.18	40	130	13	65	-
	50	133	16	80	110

TA13.PL

caratteristiche/*features*

ø 13 | M10

1-1 | 8000

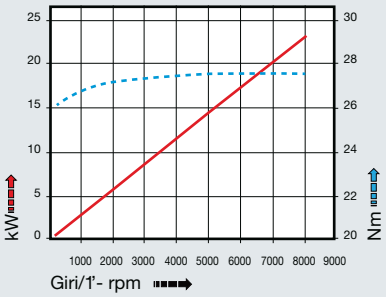
peso/*weight*

6,5 kg | 9 kg

rotazione/*rotation*

input → output

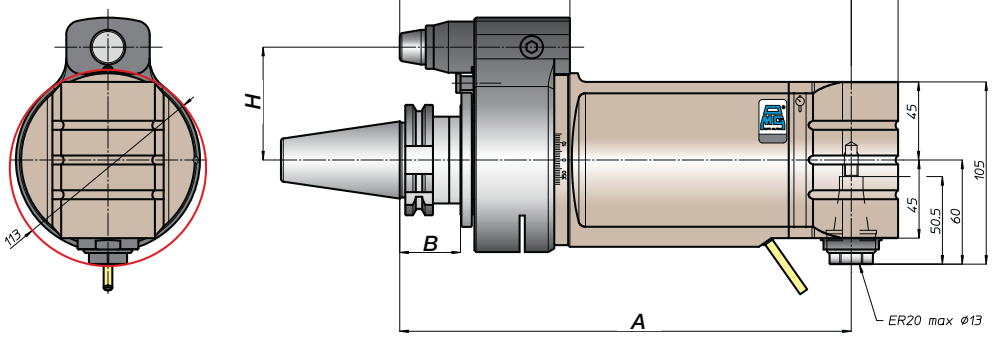
prestazioni/*performances*

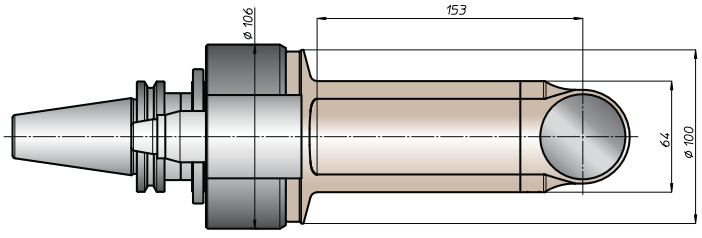


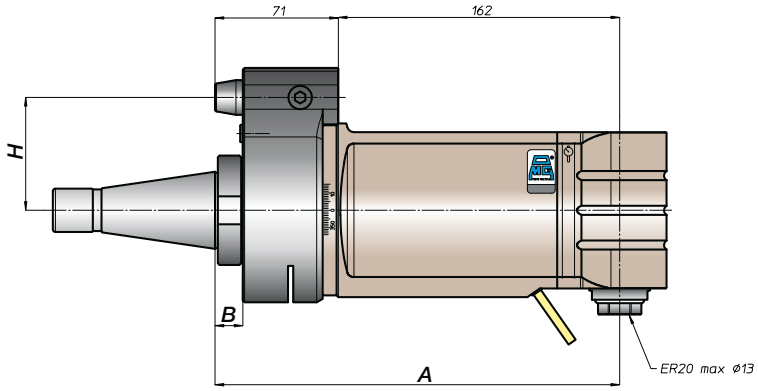
CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	260	35	65	-
	40				
	45			80	110
	50				
ANSIB5.50 CAT	40			65	-
	50			80	110
BT	40			65	
	50	268	43	80	110
DIN69893 HSK	63	269	44	65	
	80		46	80	110
	100				
ISO26623 CAPTO	C5	264		65	
	C6			80	110
	C8				
KM	63	260		65	
	80			80	110
	100				
DIN2080	-	230	13	65	-
	40				
	-	233	16	80	110
	50				
ANSIB5.18 NMTB	40	230	13	65	-
	50	233	16	80	110

tipi mandrino/*spindle type*

2 **3**







TA16.P

caratteristiche/*features*

ø 16 | M12

1-1 | 5000

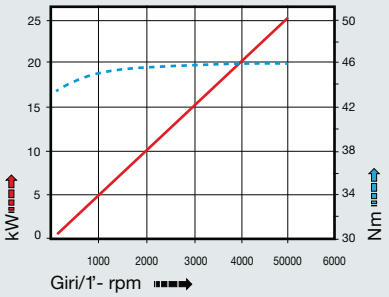
peso/*weight*

7,7 kg | 11,7 kg

rotazione/*rotation*

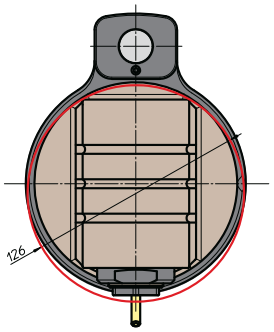
input → output

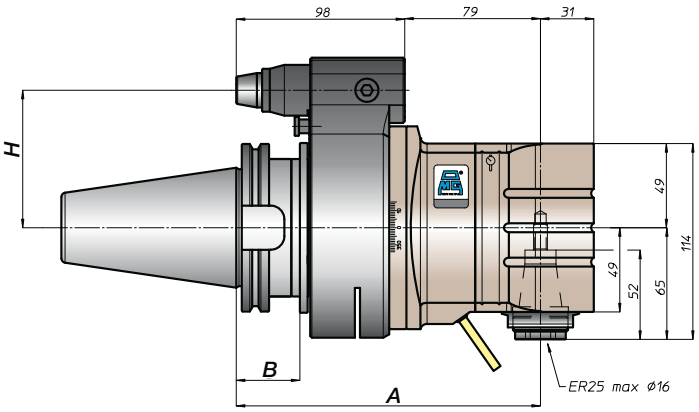
prestazioni/*performances*

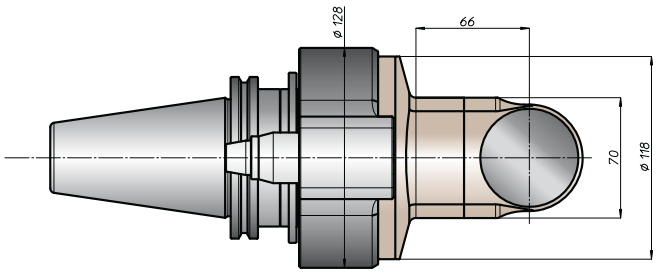


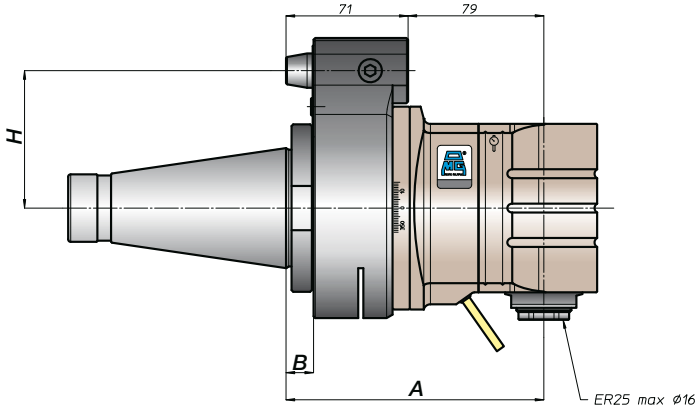
tipi mandrino/*spindle type*

1 ER32 | **2** Ø16–Ø27-Ø32 | **3** Ø20 | **4** HSK32 | **6** ABS32









CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	172	35	65	-
	40				
	45	177		80	110
	50				
CAT ANSIB5.50	40	172		65	-
	50	177		80	110
BT	40	172		65	
	50	185	43	80	110
HSK DIN69893	63	181	44	65	
	80	186	46	80	110
	100				
CAPTO ISO26623	C5	176		65	
	C6	181		80	110
	C8				
KM	63	172		65	
	80	177		80	110
	100				
DIN2080	-	147	13	65	-
	40				
	-	150	16	80	110
	50				
NMTB ANSIB5.18	40	-	13	65	-
	50	150	16	80	110

TA16.PL

caratteristiche/*features*

ø 16 | M12

1-1 | 5000

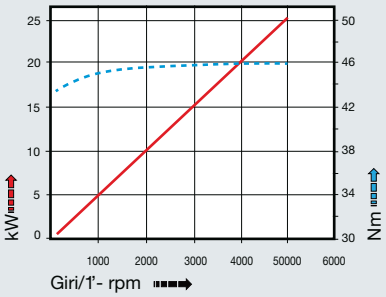
peso/*weight*

7,7 kg | 11,7 kg

rotazione/*rotation*

input → output

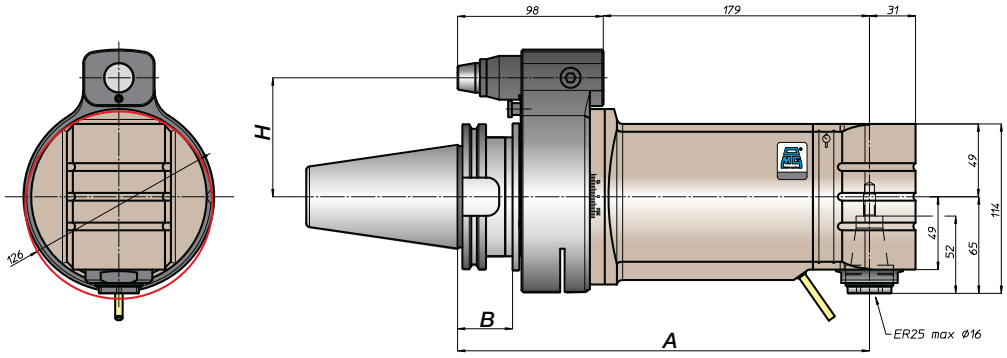
prestazioni/*performances*

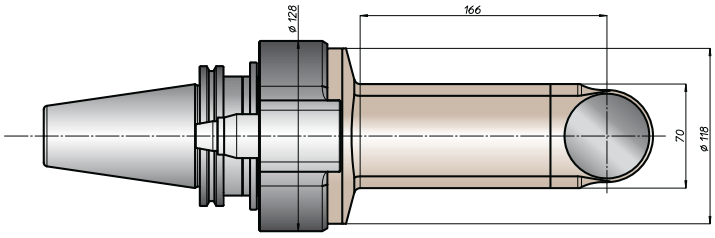


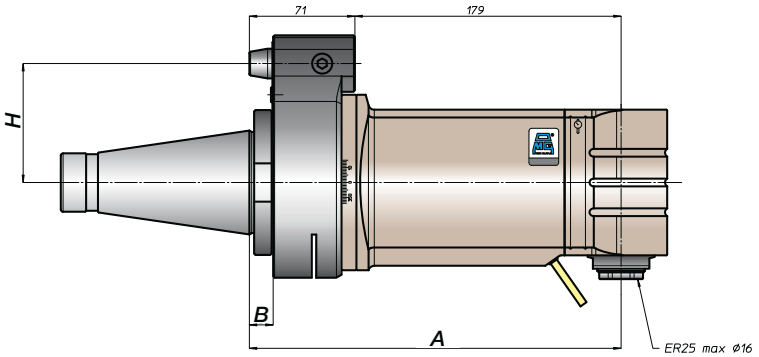
CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	-	35	-	-
	-				
	45	277		80	110
	50				
CAT ANSIB5.50	-	-		-	-
	50	277		80	110
BT	40	272		65	
	50	285	43	80	110
HSK DIN69893	63	281	44	65	
	80	286	46	80	110
	100				
CAPTO ISO26623	C5	276		65	
	C6	281		80	110
	C8				
KM	63	272		65	
	80	277		80	110
	100				
DIN2080	-	-	-	-	-
	-				
	-	250	16	80	110
	50				
NMTB ANSIB5.18	-	-	-	-	-
	50	250	16	80	110

tipi mandrino/*spindle type*

1 ER32 **2** Ø16–Ø27-Ø32 **3** Ø20 **4** HSK32 **6** ABS32







testa ad angolo - *angle head*

TA20.P

caratteristiche/*features*

ø 20 | M14

1-1 | 3500

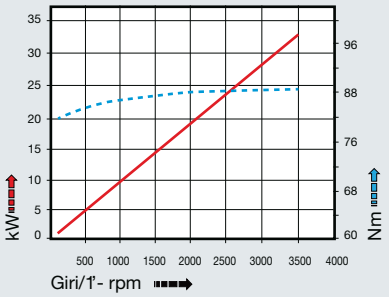
peso/*weight*

14,5 kg

rotazione/*rotation*

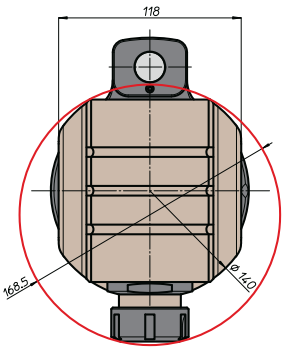
input → output

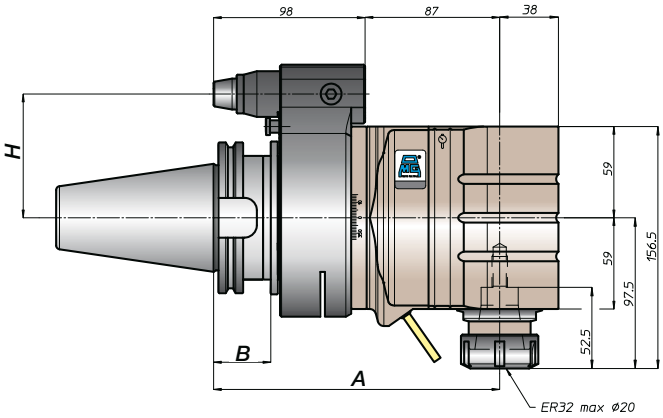
prestazioni/*performances*

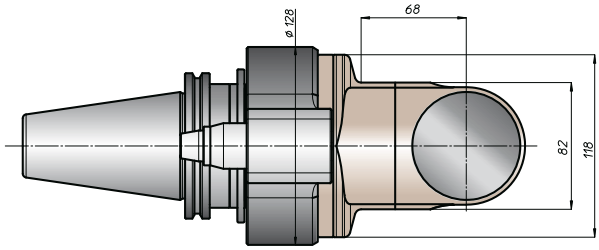


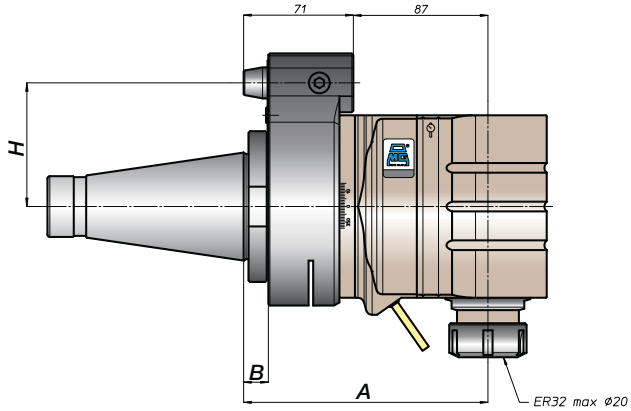
tipi mandrino/*spindle type*

1 ER40 **2** Ø22–Ø27-Ø32 **3** Ø20-Ø25 **4** HSK40 **6** ABS40









CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	185		-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			-	-
	50			80	110
BT	-			-	
	50	193	43	80	110
HSK DIN69893	-	194	-	-	
	80		46	80	110
	100				
CAPTO ISO26623	-	189		-	
	C6			80	110
	C8				
KM	-	185		-	
	80			80	110
	100				
DIN2080	-		-	-	-
	-				
	-	158	16	80	110
	50				
NMTB ANSIB5.18	-		-	-	-
	50	158	16	80	110

TA20.30

caratteristiche/*features*

ø 20 — M14

1-1 — 3500

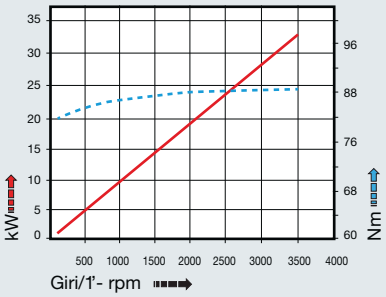
peso/*weight*

14,7 kg

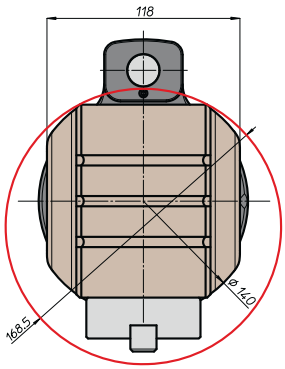
rotazione/*rotation*

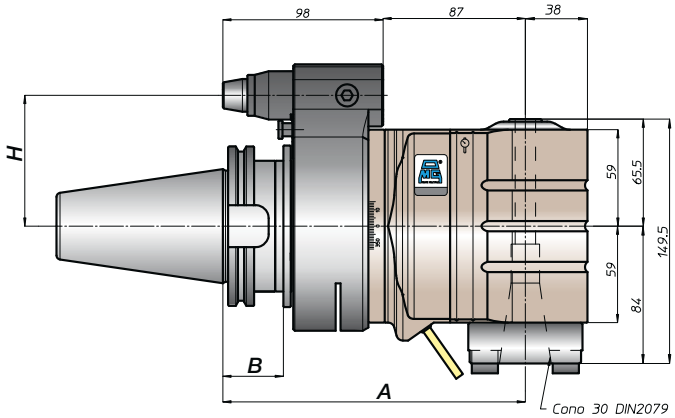
input → output

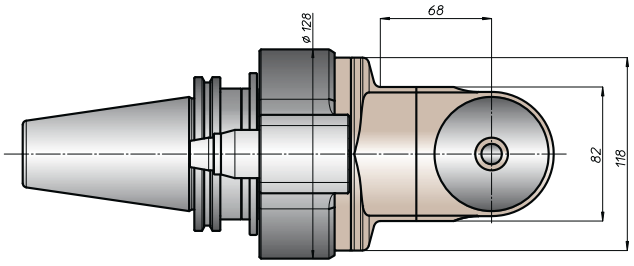
prestazioni/*performances*

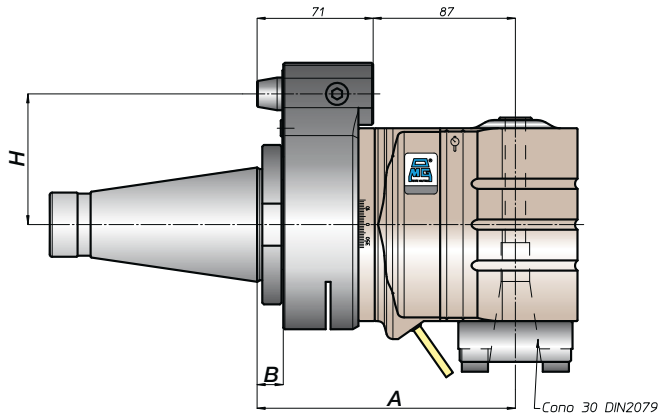


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	185	35	-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			65	-
	50			80	110
BT	-			-	
	50	193	43	80	110
HSK DIN69893	-		-	-	
	80	194	46	80	110
	100				
CAPTO ISO26623	-	189		-	
	C6			80	110
	C8				
KM	-	185		-	
	80			80	110
	100				
DIN2080	-		-	-	-
	-				
	-	158	16	80	110
	50				
NMTB ANSIB5.18	-		-	-	-
	50	158	16	80	110









testa ad angolo - *angle head*

TA26.P

caratteristiche/*features*

ø 26 | M20

1-1 | 2500

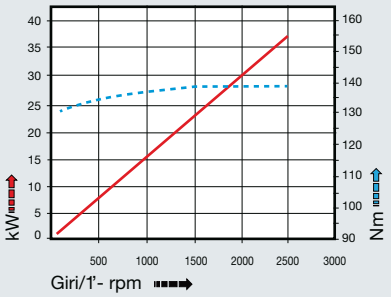
peso/*weight*

22 kg

rotazione/*rotation*

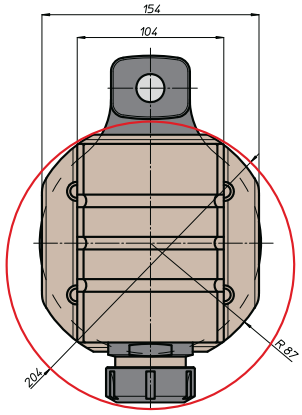
input → output

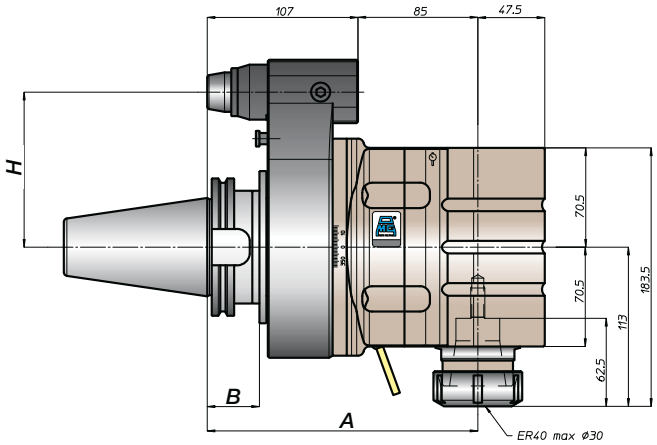
prestazioni/*performances*

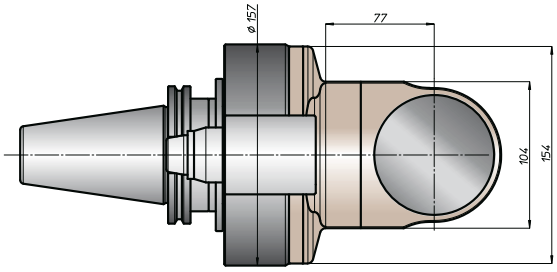


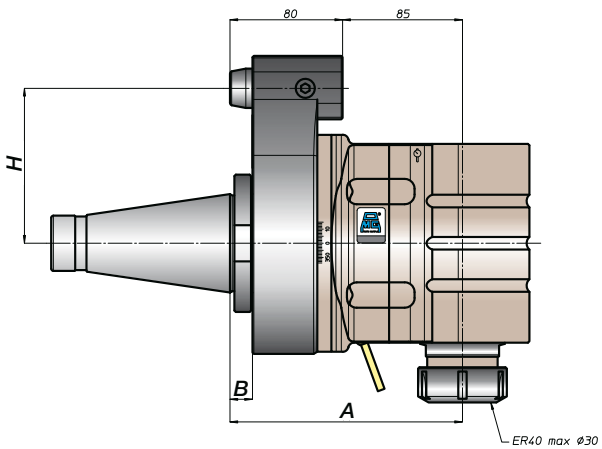
tipi mandrino/*spindle type*

2 Ø16–Ø27-Ø32 **3** Ø32 **4** HSK63 **6** ABS50









CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	192	35	-	-
	-				
	45			110	-
	50				
CAT ANSIB5.50	-			-	-
	50			110	-
BT	-			-	
	50	200	43	110	-
HSK DIN69893	-		-	-	
	80	201	46	110	-
	100				
CAPTO ISO26623	-	196		-	
	-			110	-
	C8				
KM	-	192		-	
	-			110	-
	100				
DIN2080	-		-	-	-
	-				
	-	165	16	110	-
	50				
NMTB ANSIB5.18	-		-	-	-
	50	165	16	110	-

TA26.40

caratteristiche/*features*

ø 26 | M20

1-1 | 2500

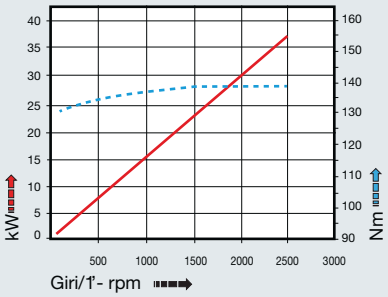
peso/*weight*

22 kg

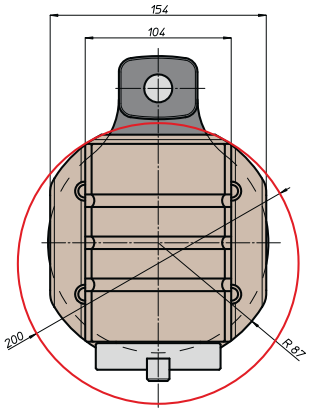
rotazione/*rotation*

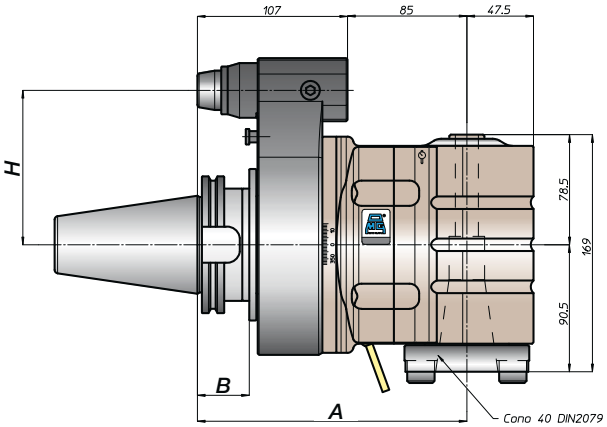
input → output

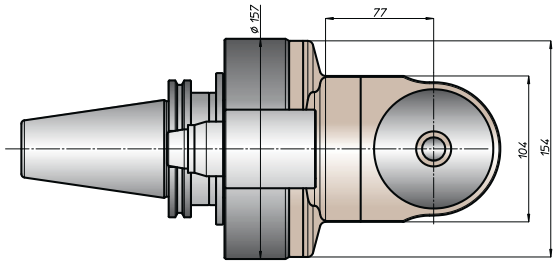
prestazioni/*performances*

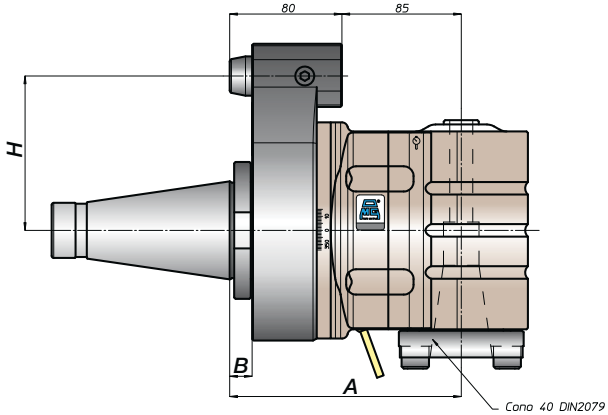


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	192	35	-	-
	-				
	45			110	-
	50				
CAT ANSIB5.50	-			-	-
	50			110	-
BT	-			-	
	50	200	43	110	-
HSK DIN69893	-		-	-	
	80	201	46	110	-
	100				
CAPTO ISO26623	-	196		-	
	-			110	-
	C8				
KM	-	192		-	
	-			110	-
	100				
DIN2080	-		-	-	-
	-				
	-	165	16	110	-
	50				
NMTB ANSIB5.18	-		-	-	-
	50	165	16	110	-









testa ad angolo - *angle head*

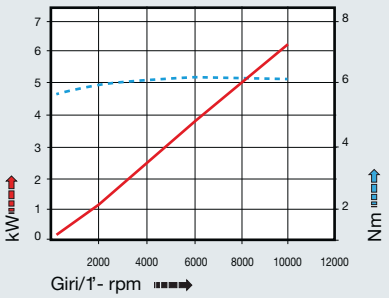
TA07.2P

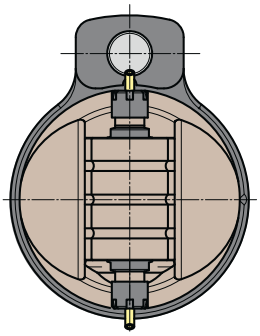
caratteristiche/*features*

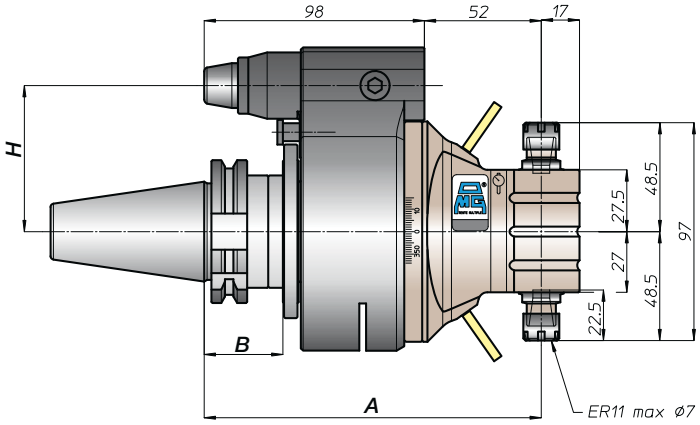
peso/*weight*

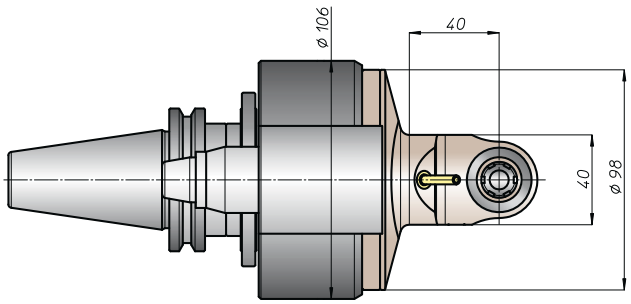
rotazione/*rotation*

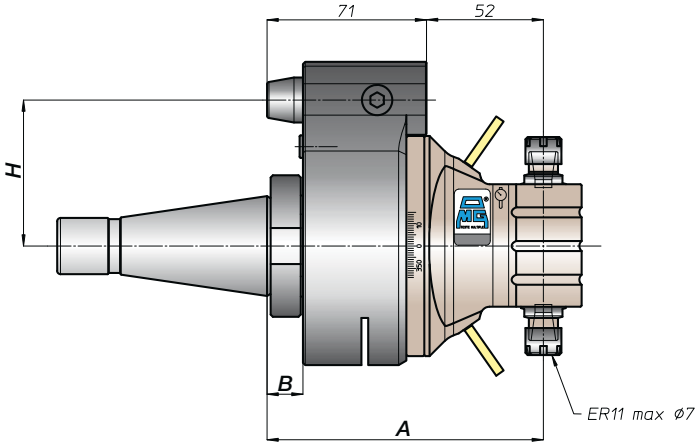
prestazioni/*performances*







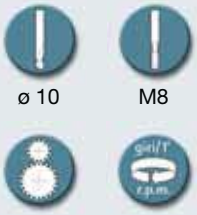




CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	150	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	158	43	80	110
HSK DIN69893	63	159	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	154		65	
	C6			80	110
	C8				
KM	63	150		65	
	80			80	110
	100				
DIN2080	-	120	13	65	-
	40				
	-	123	16	80	110
	50				
NMTB ANSIB5.18	40	120	13	65	-
	50	123	16	80	110

TA10.2P

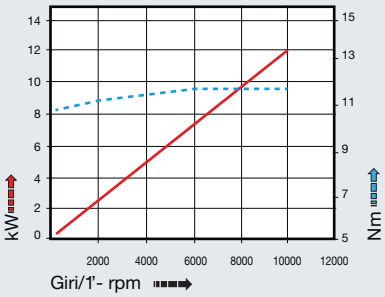
caratteristiche/*features*



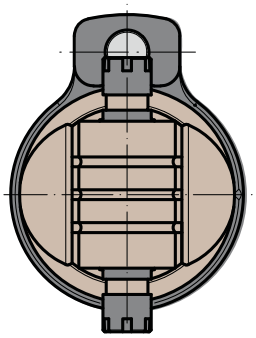
peso/*weight*

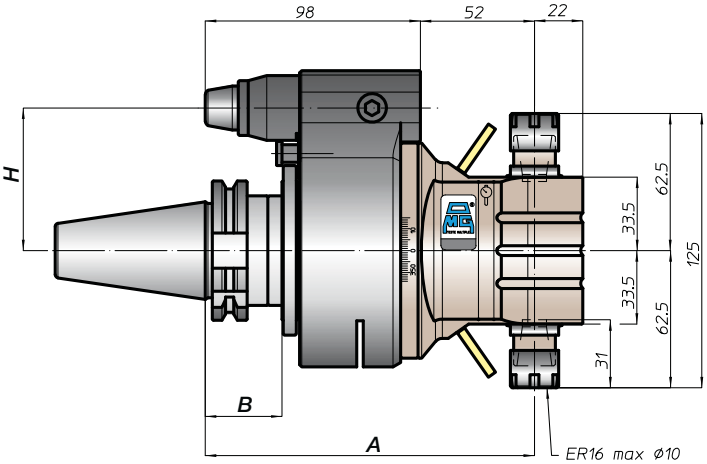
rotazione/*rotation*

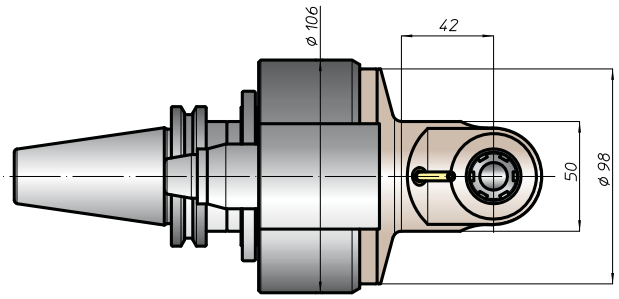
prestazioni/*performances*

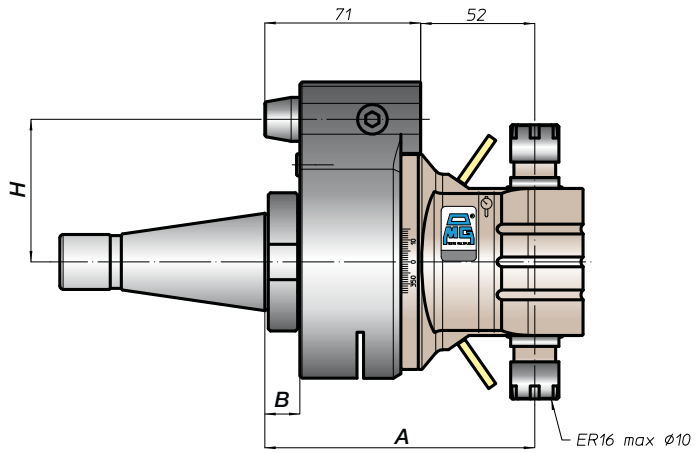


CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	150	35	65	-
	40				
	45			80	110
	50				
ANSIB5.50 CAT	40			65	-
	50			80	110
BT	40			65	
	50	158	43	80	110
DIN69893 HSK	63	159	44	65	
	80		46	80	110
	100				
ISO26623 CAPTO	C5	154		65	
	C6			80	110
	C8				
KM	63	150		65	
	80			80	110
	100				
DIN2080	-	120	13	65	-
	40				
	-	123	16	80	110
	50				
ANSIB5.18 NMTB	40	120	13	65	-
	50	123	16	80	110









testa ad angolo - *angle head*

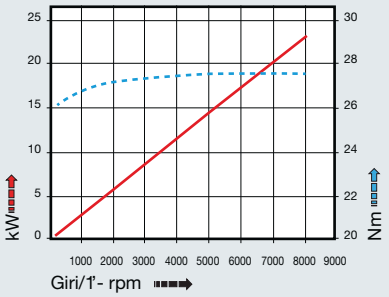
TA13.2P

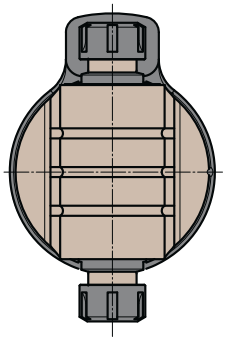
caratteristiche/*features*

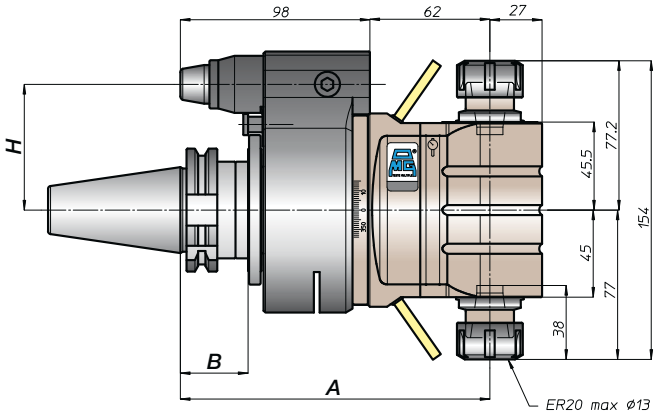
peso/*weight*

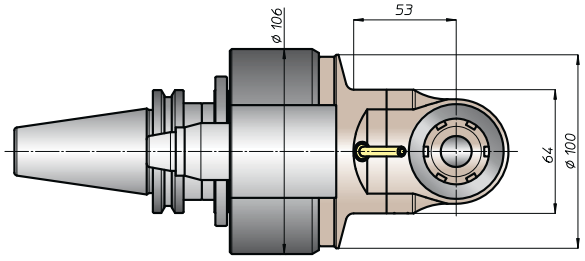
rotazione/*rotation*

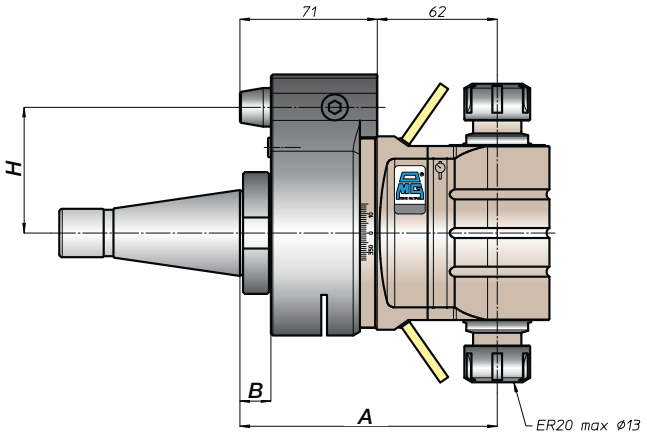
prestazioni/*performances*











CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	160	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	168	43	80	110
HSK DIN69893	63	169	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	164		65	
	C6			80	110
	C8				
KM	63	160		65	
	80			80	110
	100				
DIN2080	-	130	13	65	-
	40				
	-	133	16	80	110
	50				
NMTB ANSIB5.18	40	130	13	65	-
	50	133	16	80	110

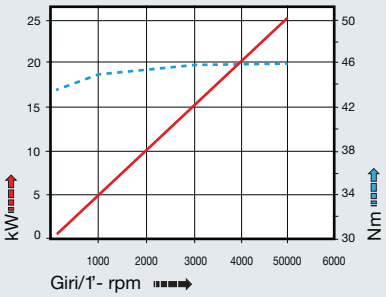
TA16.2P

caratteristiche/*features*

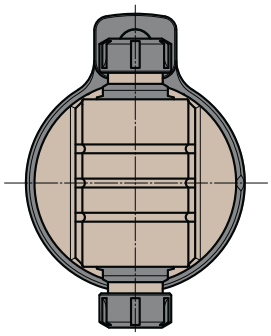
peso/*weight*

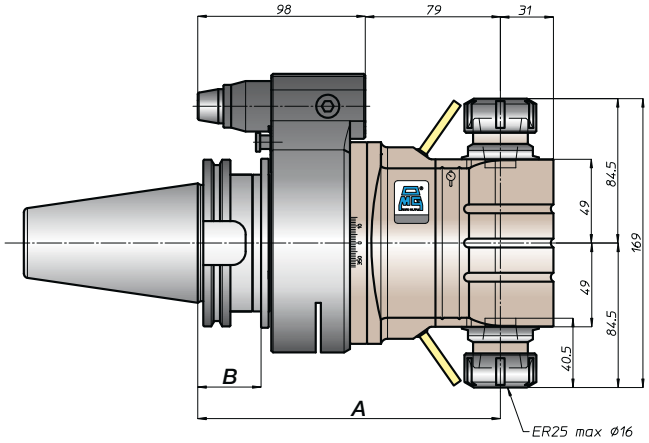
rotazione/*rotation*

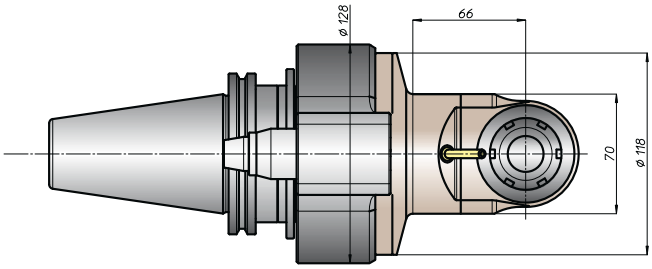
prestazioni/*performances*

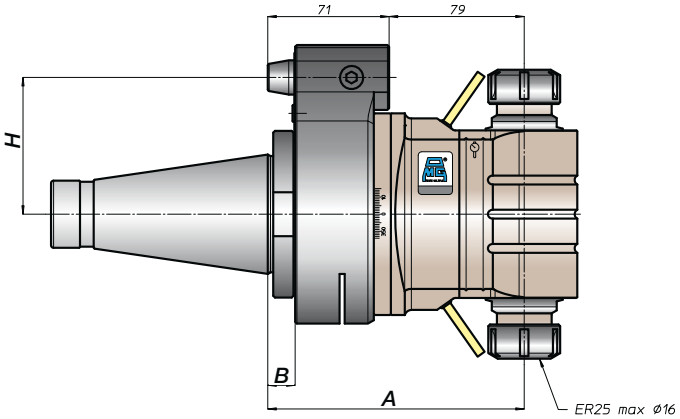


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	172	35	65	-
	40				
	45	177		80	110
	50				
ANSIB5.50 CAT	40	172		65	-
	50	177		80	110
BT	40	172		65	
	50	185	43	80	110
DIN69893 HSK	63	181	44	65	
	80	186	46	80	110
	100				
ISO26623 CAPTO	C5	176		65	
	C6	181		80	110
	C8				
KM	63	172		65	
	80	177		80	110
	100				
DIN2080	-	147	13	65	-
	40				
	-	150	16	80	110
	50				
ANSIB5.18 NMTB	40	-	13	65	-
	50	150	16	80	110









testa ad angolo - *angle head*

TA20.2P

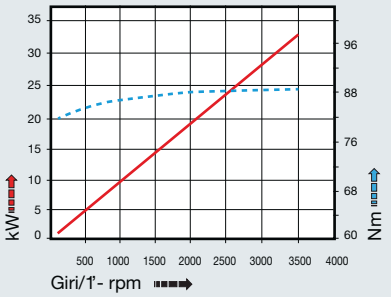
caratteristiche/*features*

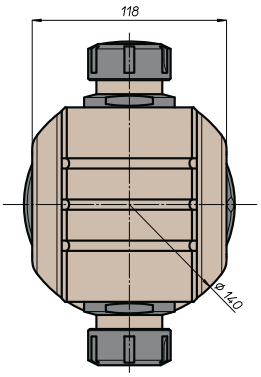
peso/*weight*

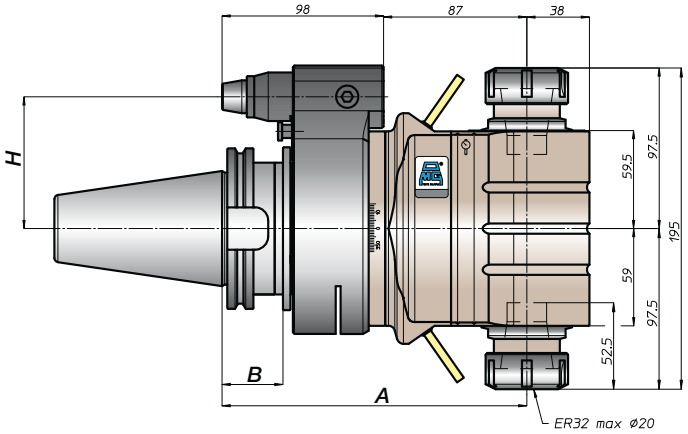
15 kg

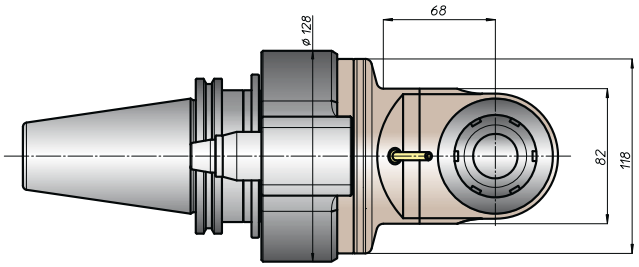
rotazione/*rotation*

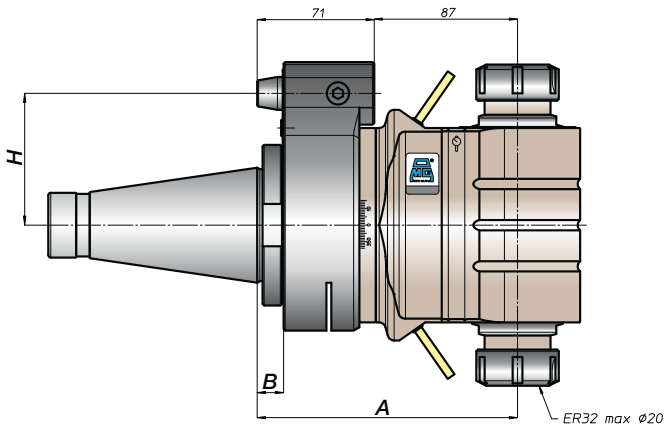
prestazioni/*performances*











CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	185		-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			-	-
	50			80	110
BT	-			-	
	50	193	43	80	110
HSK DIN69893	-	194	-	-	
	80		46	80	110
	100				
CAPTO ISO26623	-	189		-	
	C6			80	110
	C8				
KM	-	185		-	
	80			80	110
	100				
DIN2080	-		-	-	-
	-				
	-	158	16	80	110
	50				
NMTB ANSIB5.18	-		-	-	-
	50	158	16	80	110

TA26.2P

caratteristiche/*features*

ø 26 | M20

1-1 | 2500

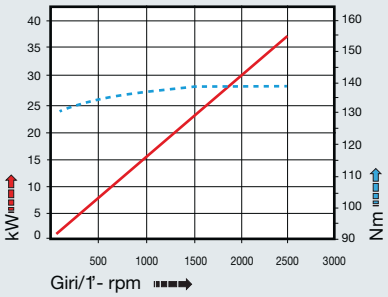
peso/*weight*

22,5 kg

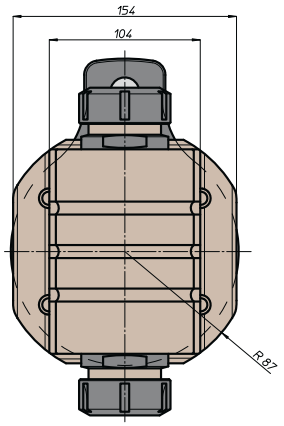
rotazione/*rotation*

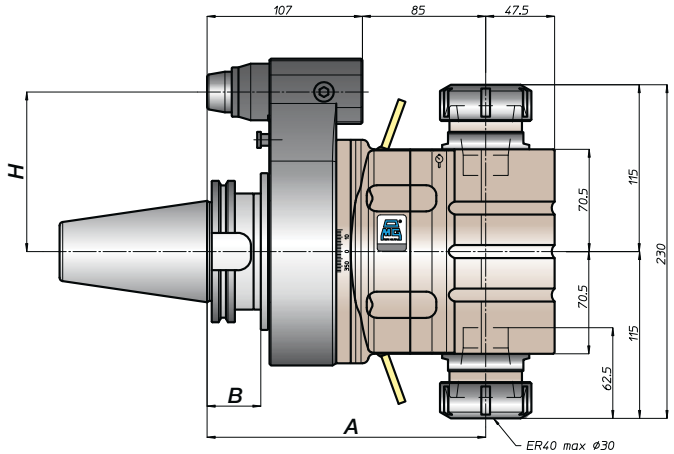
input → output

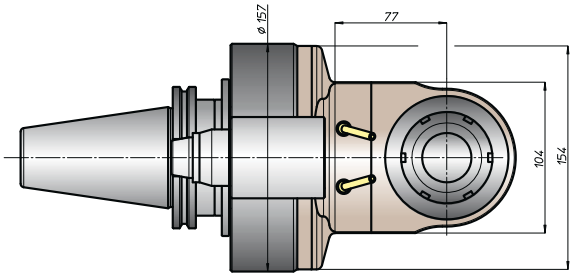
prestazioni/*performances*

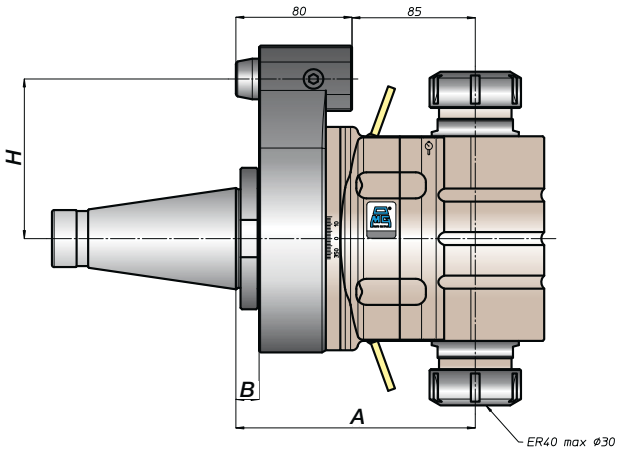


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	192	35	-	-
	-				
	45			110	-
	50				
CAT ANSIB5.50	-			-	-
	50			110	-
BT	-			-	
	50	200	43	110	-
HSK DIN69893	-		-	-	
	80	201	46	110	-
	100				
CAPTO ISO26623	-	196		-	
	-			110	-
	C8				
KM	-	192		-	
	-			110	-
	100				
DIN2080	-		-	-	-
	-				
	-	165	16	110	-
	50				
NMTB ANSIB5.18	-		-	-	-
	50	165	16	110	-









testa ad angolo - *angle head*

TA07.PD

caratteristiche/*features*

ø 7 | M6 | 1-1

10000 | 10 bar

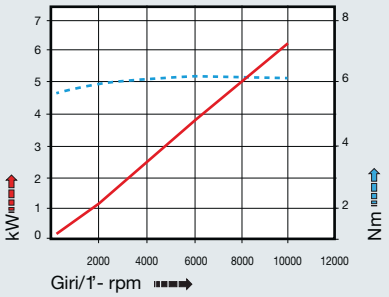
peso/*weight*

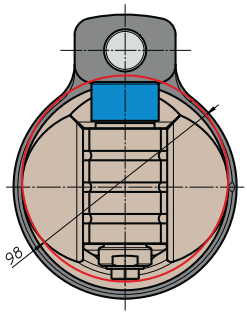
5 kg | 7 kg

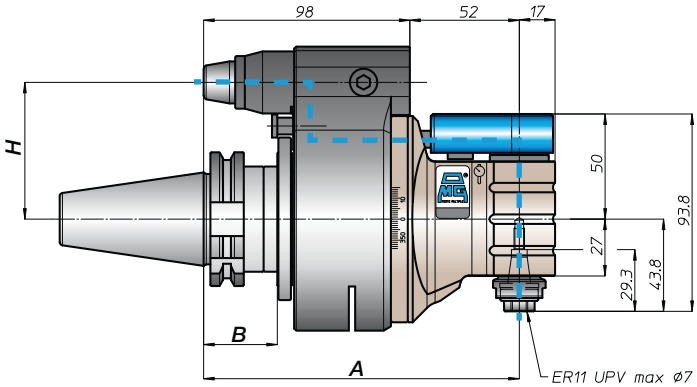
rotazione/*rotation*

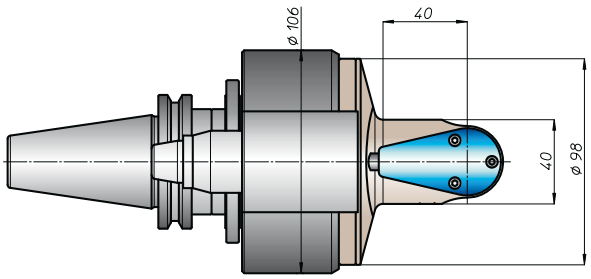
input | output

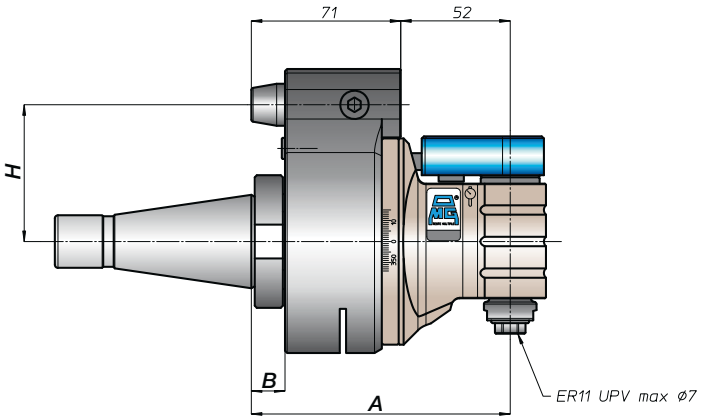
prestazioni/*performances*











CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	150	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	158	43	80	110
HSK DIN69893	63	159	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	154		65	
	C6			80	110
	C8				
KM	63	150		65	
	80			80	110
	100				
DIN2080	-	120	13	65	-
	40				
	-	123	16	80	110
	50				
NMTB ANSIB5.18	40	120	13	65	-
	50	123	16	80	110

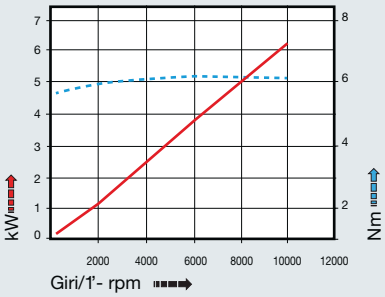
TA07.PDL

caratteristiche/*features*

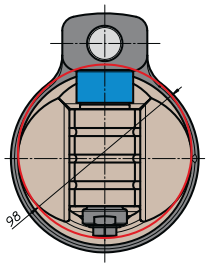
peso/*weight*

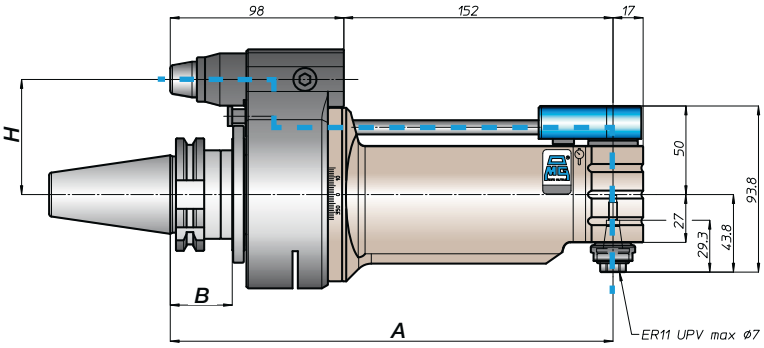
rotazione/*rotation*

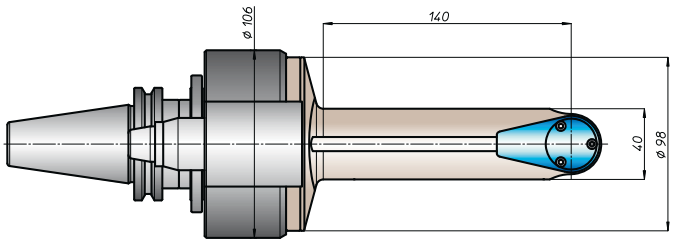
prestazioni/*performances*

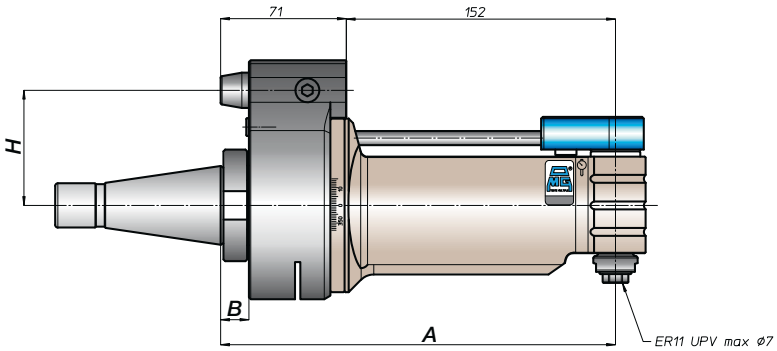


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	250	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	258	43	80	110
HSK DIN69893	63	259	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	254		65	
	C6			80	110
	C8				
KM	63	250		65	
	80			80	110
	100				
DIN2080	-	220	13	65	-
	40				
	-	223	16	80	110
	50				
NMTB ANSIB5.18	40	220	13	65	-
	50	223	16	80	110









testa ad angolo - *angle head*

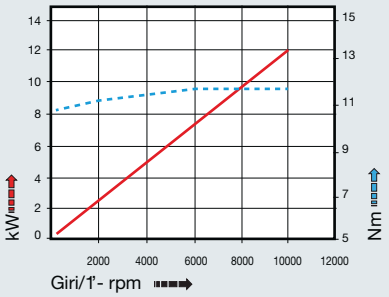
TA10.PD

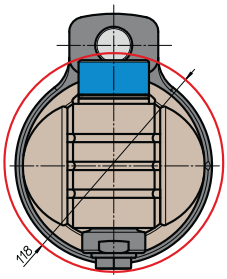
caratteristiche/*features*

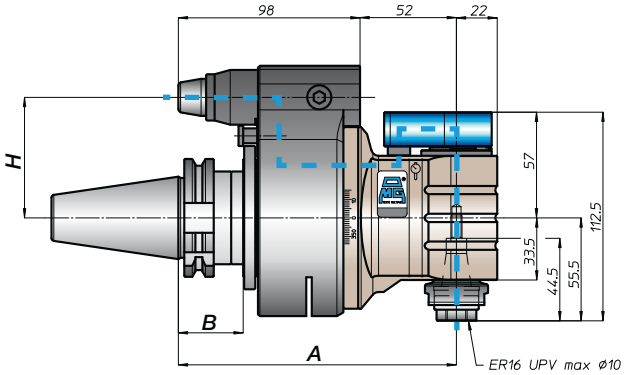
peso/*weight*

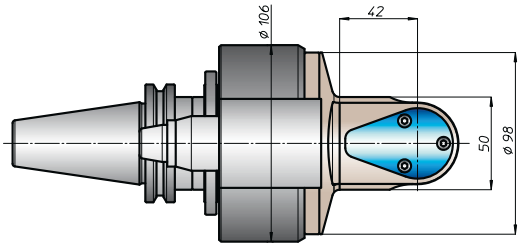
rotazione/*rotation*

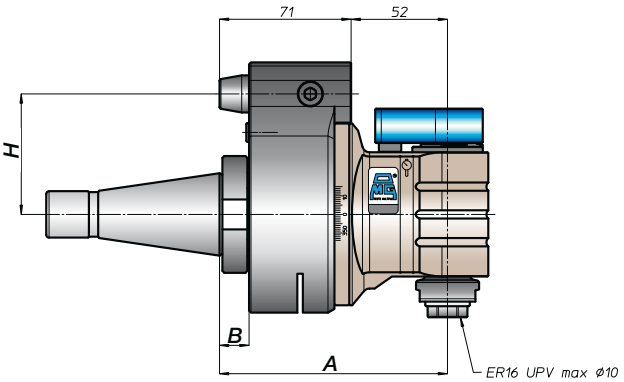
prestazioni/*performances*











CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	150	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	158	43	80	110
HSK DIN69893	63	159	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	154		65	
	C6			80	110
	C8				
KM	63	150		65	
	80			80	110
	100				
DIN2080	-	120	13	65	-
	40				
	-	123	16	80	110
	50				
NMTB ANSIB5.18	40	120	13	65	-
	50	123	16	80	110

TA10.PDL

caratteristiche/*features*

ø 10 | M8 | 1-1

10000 | 10 bar

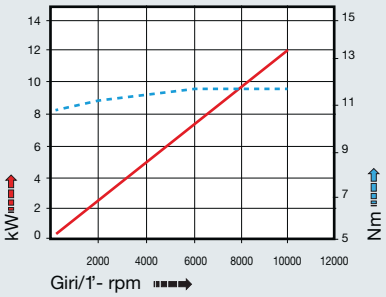
peso/*weight*

8 kg | 10 kg

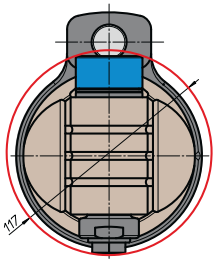
rotazione/*rotation*

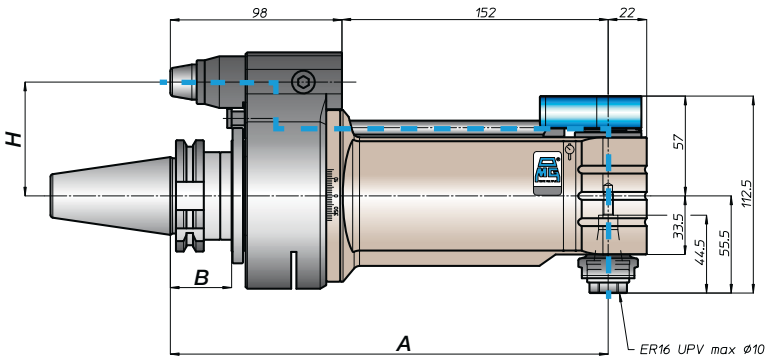
input | output

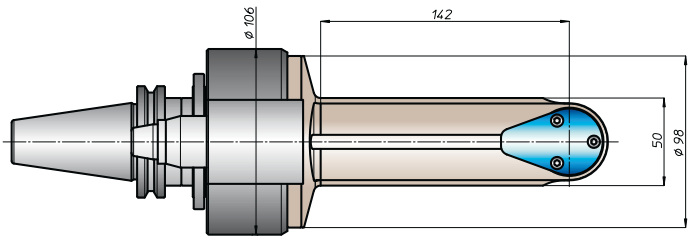
prestazioni/*performances*

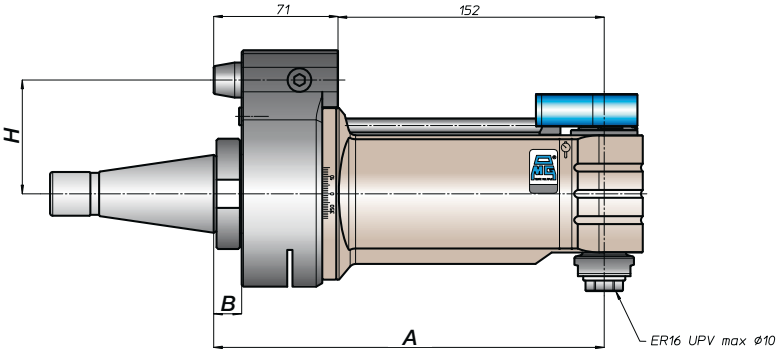


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	250	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	258	43	80	110
HSK DIN69893	63	259	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	284		65	
	C6			80	110
	C8				
KM	63	250		65	
	80			80	110
	100				
DIN2080	-	220	13	65	-
	40				
	-	223	16	80	110
	50				
NMTB ANSIB5.18	40	220	13	65	-
	50	223	16	80	110









testa ad angolo - *angle head*

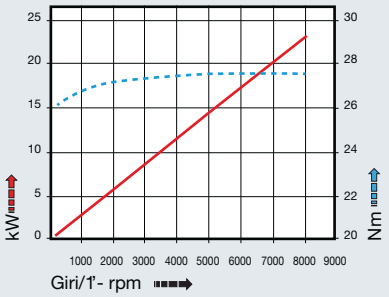
TA13.PD

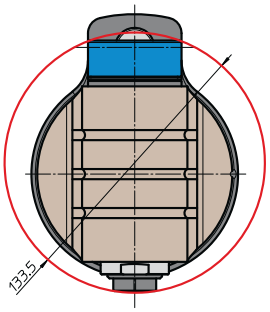
caratteristiche/*features*

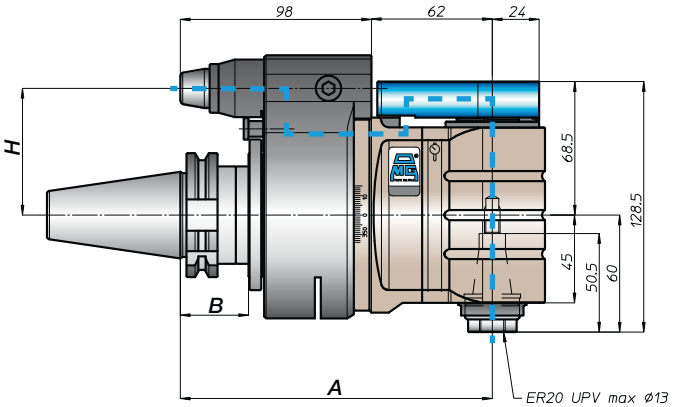
peso/*weight*

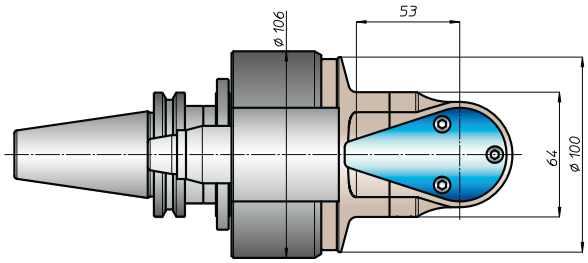
rotazione/*rotation*

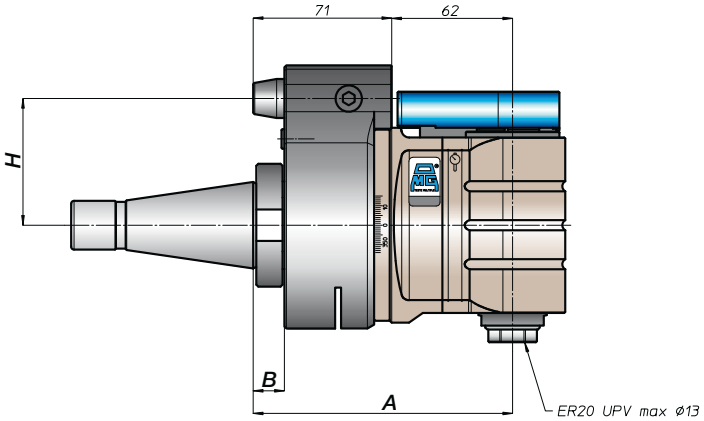
prestazioni/*performances*











CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	160	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	168	43	80	110
HSK DIN69893	63	169	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	164		65	
	C6			80	110
	C8				
KM	63	160		65	
	80			80	110
	100				
DIN2080	-	130	13	65	-
	40				
	-	133	16	80	110
	50				
NMTB ANSIB5.18	40	130	13	65	-
	50	133	16	80	110

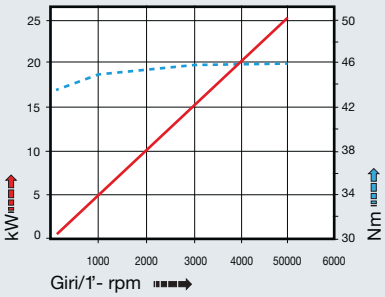
TA16.PD

caratteristiche/*features*

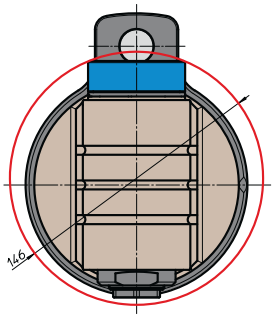
peso/*weight*

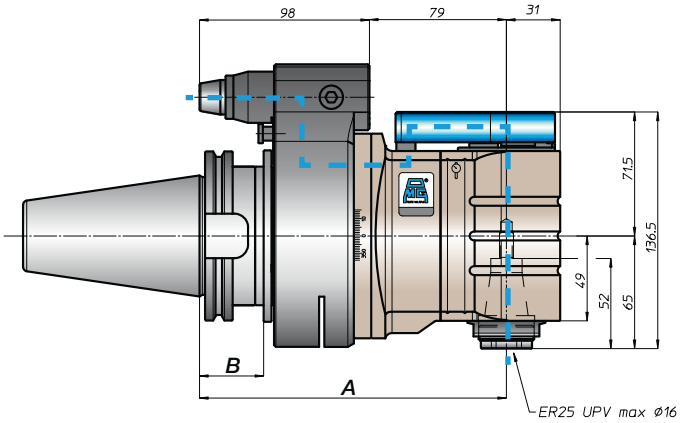
rotazione/*rotation*

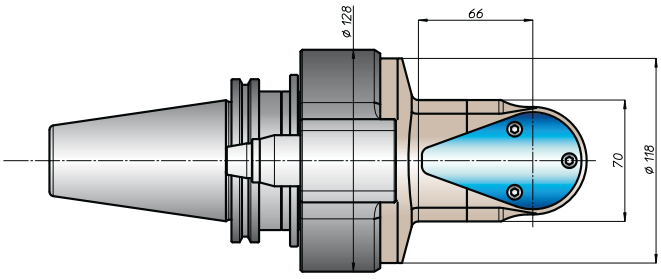
prestazioni/*performances*

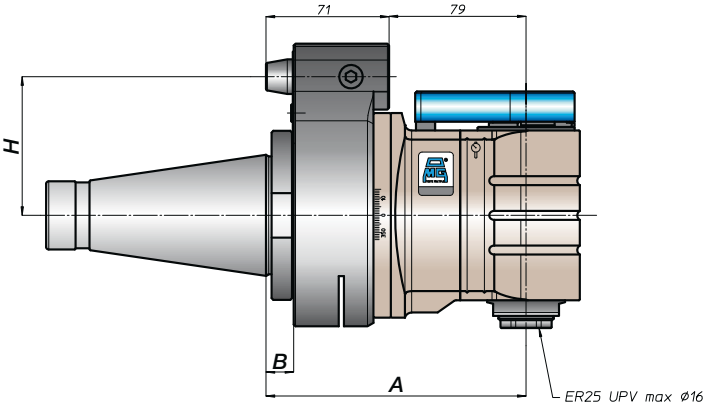


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	172	35	65	-
	40				
	45	177		80	110
	50				
ANSIB5.50 CAT	40	172		65	-
	50	177		80	110
BT	40	172		65	
	50	185	43	80	110
DIN69893 HSK	63	181	44	65	
	80	186	46	80	110
	100				
ISO26623 CAPTO	C5	176		65	
	C6	181		80	110
	C8				
KM	63	172		65	
	80	177		80	110
	100				
DIN2080	-	147	13	65	-
	40				
	-	150	16	80	110
	50				
ANSIB5.18 NMTB	40	-	13	65	-
	50	150	16	80	110









testa ad angolo - *angle head*

TA20.PD

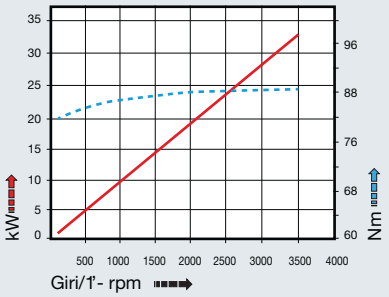
caratteristiche/*features*

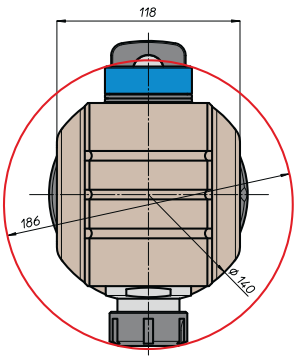
peso/*weight*

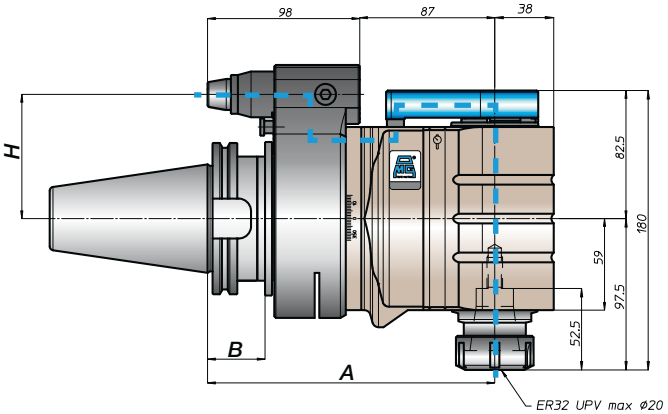
14,5 kg

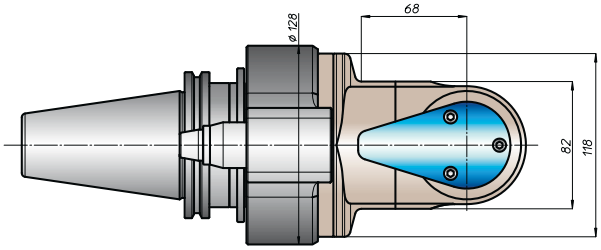
rotazione/*rotation*

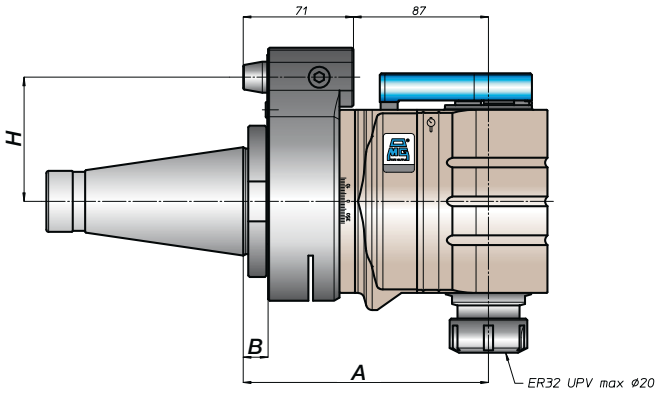
prestazioni/*performances*











CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	185		-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			-	-
	50			80	110
BT	-			-	
	50	193	43	80	110
HSK DIN69893	-	194	-	-	
	80		46	80	110
	100				
CAPTO ISO26623	-	189		-	
	C6			80	110
	C8				
KM	-	185		-	
	80			80	110
	100				
DIN2080	-		-	-	-
	-				
	-	158	16	80	110
	50				
NMTB ANSIB5.18	-		-	-	-
	50	158	16	80	110

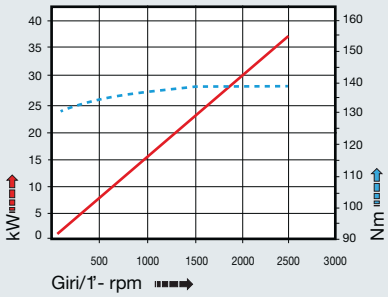
TA26.PD

caratteristiche/*features*

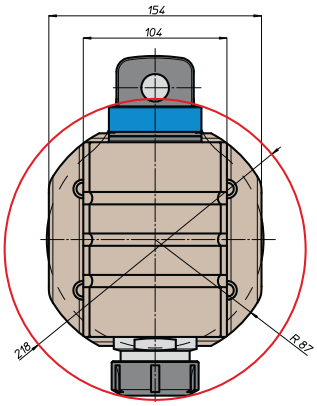
peso/*weight*

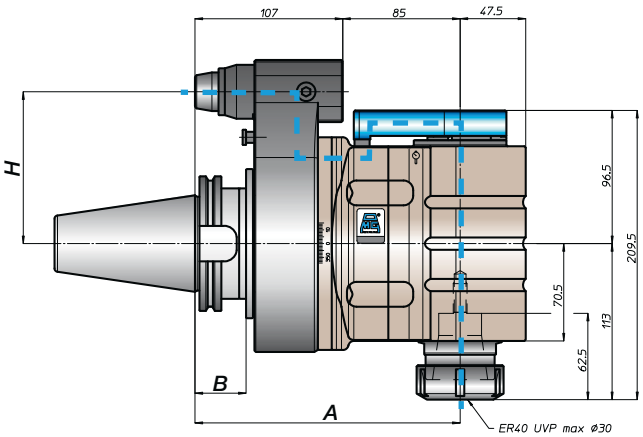
rotazione/*rotation*

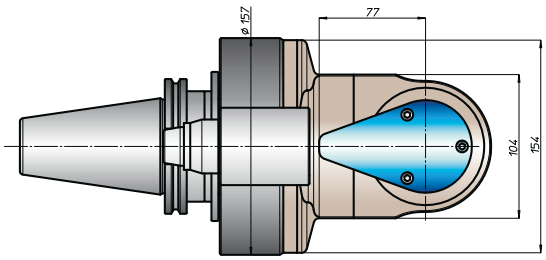
prestazioni/*performances*

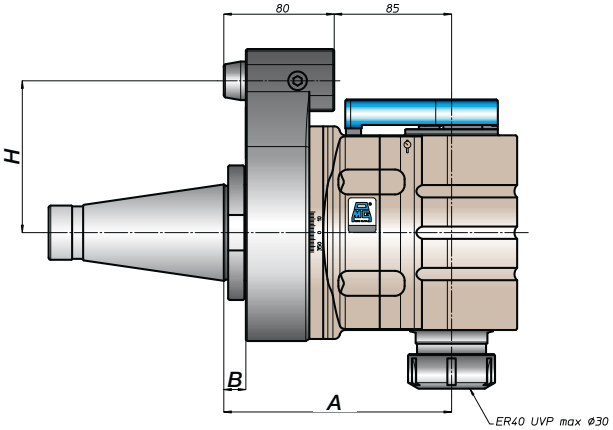


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	192	35	-	-
	-				
	45			110	-
	50				
CAT ANSIB5.50	-			-	-
	50			110	-
BT	-			-	
	50	200	43	110	-
HSK DIN69893	-		-	-	
	80	201	46	110	-
	100				
CAPTO ISO26623	-	196		-	
	-			110	-
	C8				
KM	-	192		-	
	-			110	-
	100				
DIN2080	-		-	-	-
	-				
	-	165	16	110	-
	50				
NMTB ANSIB5.18	-		-	-	-
	50	165	16	110	-









testa ad angolo - *angle head*

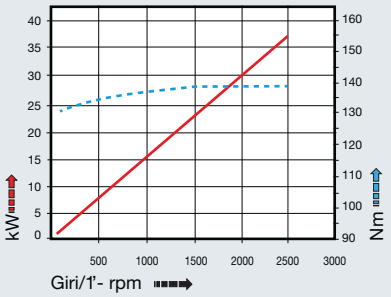
TA26.40.D

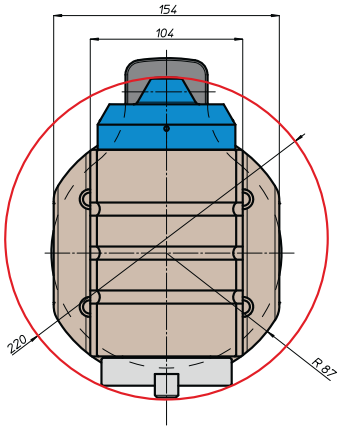
caratteristiche/*features*

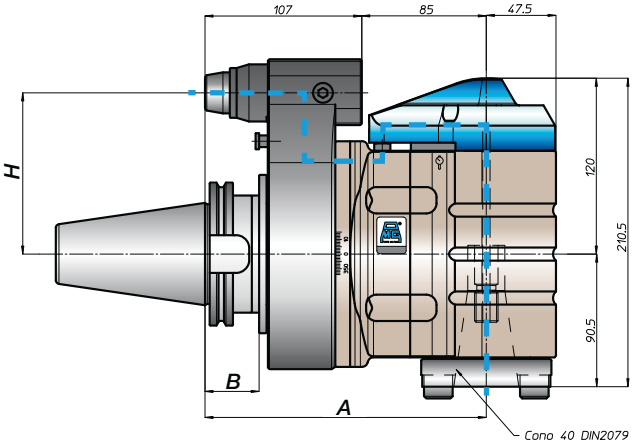
peso/*weight*

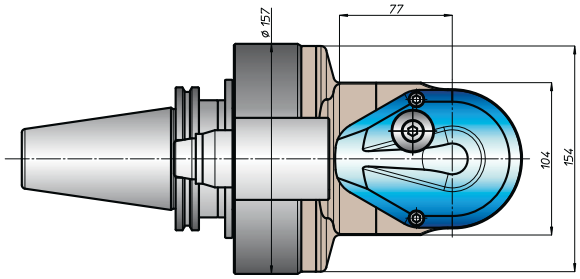
rotazione/*rotation*

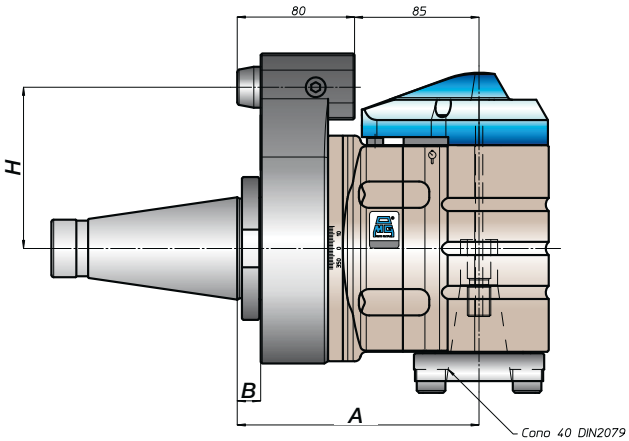
prestazioni/*performances*









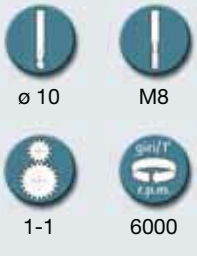


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	192	35	-	-
	-				
	45			110	-
	50				
CAT ANSIB5.50	-			-	-
	50			110	-
BT	-			-	
	50	200	43	110	-
HSK DIN69893	-		-	-	
	80	201	46	110	-
	100				
CAPTO ISO26623	-	196		-	
	-			110	-
	C8				
KM	-	192		-	
	-			110	-
	100				
DIN2080	-		-	-	-
	-				
	-	165	16	110	-
	50				
NMTB ANSIB5.18	-		-	-	-
	50	165	16	110	-

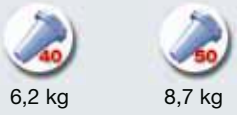
testa ad angolo - *angle head*

TAO10.P

caratteristiche/*features*

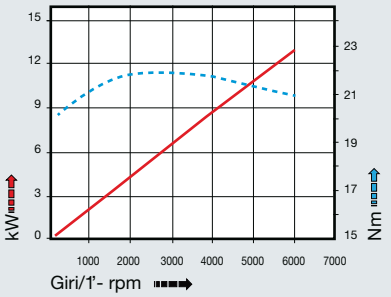


peso/*weight*



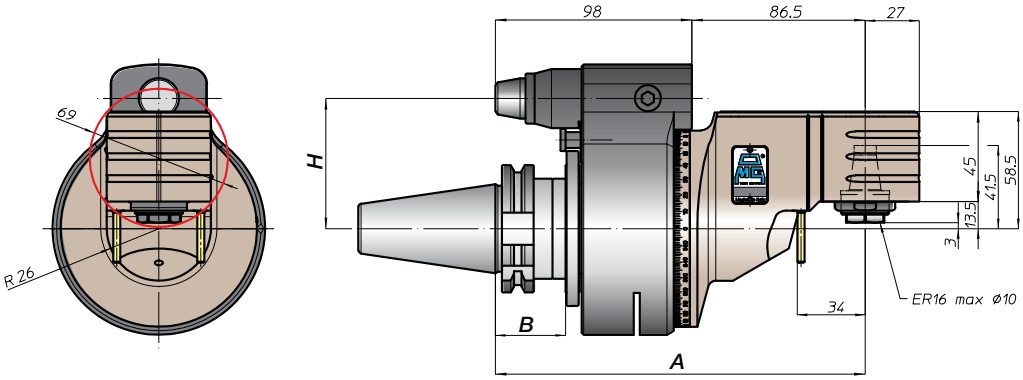
rotazione/*rotation*

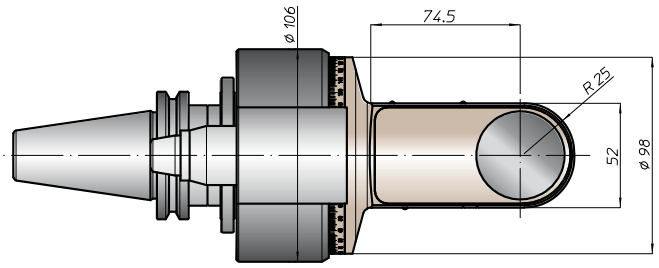
prestazioni/*performances*

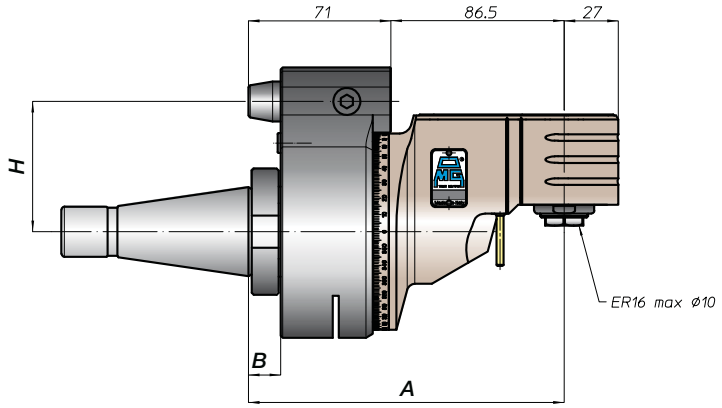


tipi mandrino/*spindle type*

2 Ø16 **3** **4** HSK25







CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	184,5	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	192,5	43	80	110
HSK DIN69893	63	193,5	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	188,5		65	
	C6			80	110
	C8				
KM	63	184,5		65	
	80			80	110
	100				
DIN2080	-	157,5	13	65	-
	40				
	-	160,5	16	80	110
	50				
NMTB ANSIB5.18	40	157,5	13	65	-
	50	160,5	16	80	110

TAO10.PD

caratteristiche/*features*

ø 10 | M8 | 1-1

6000 | 70 bar

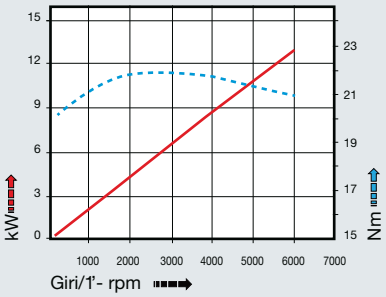
peso/*weight*

6,2 kg | 8,7 kg

rotazione/*rotation*

input | output

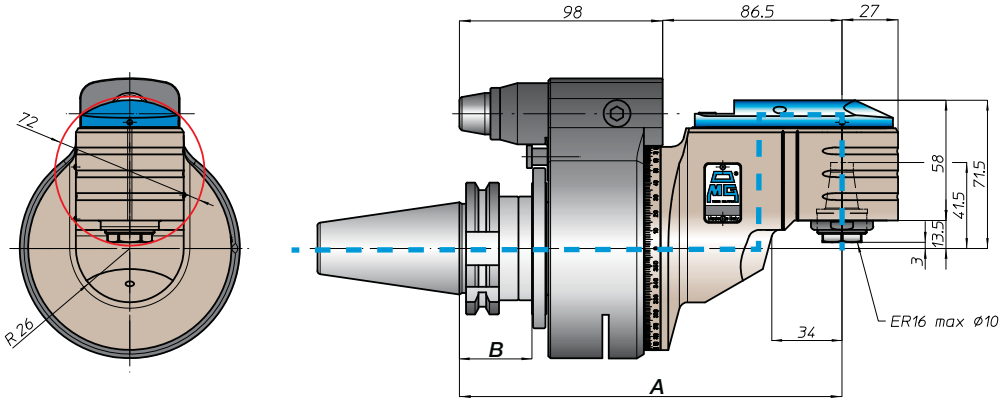
prestazioni/*performances*

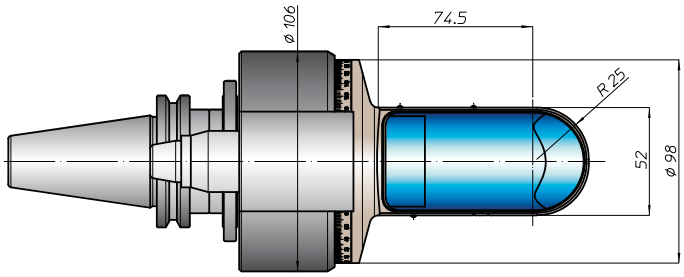


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	184,5	35	65	-
	40				
	45			80	110
	50				
ANSIB5.50 CAT	40			65	-
	50			80	110
BT	40			65	
	50	192,5	43	80	110
DIN69893 HSK	63	193,5	44	65	
	80		46	80	110
	100				
ISO26623 CAPTO	C5	188,5		65	
	C6			80	110
	C8				
KM	63	184,5		65	
	80			80	110
	100				
DIN2080	-			-	-
	-				
	-			-	-
	-				
ANSIB5.18 NMTB	-			-	-
	-			-	-

tipi mandrino/*spindle type*

2 Ø16 | 3 | 4 HSK25





testa ad angolo - *angle head*

TAO13.P

caratteristiche/*features*

ø 13 | M10 | 1-1 | 4500

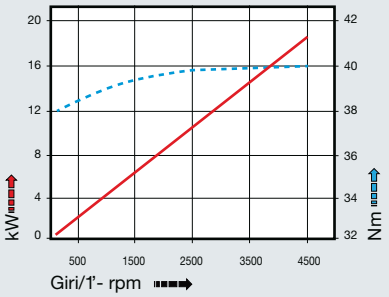
peso/*weight*

7,5 kg | 10,5 kg

rotazione/*rotation*

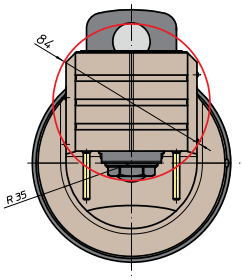
input | output

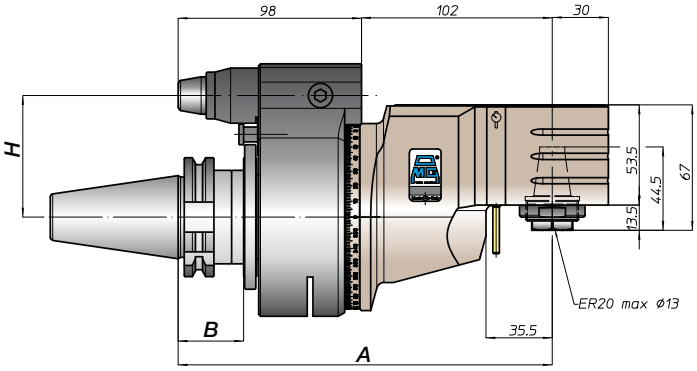
prestazioni/*performances*

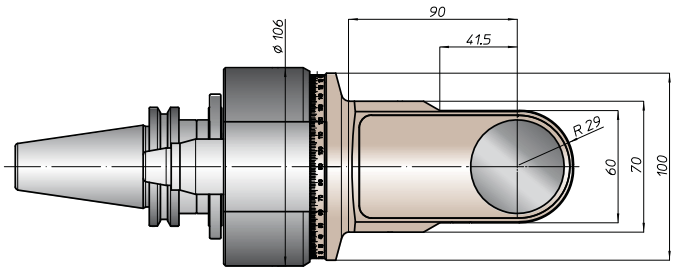


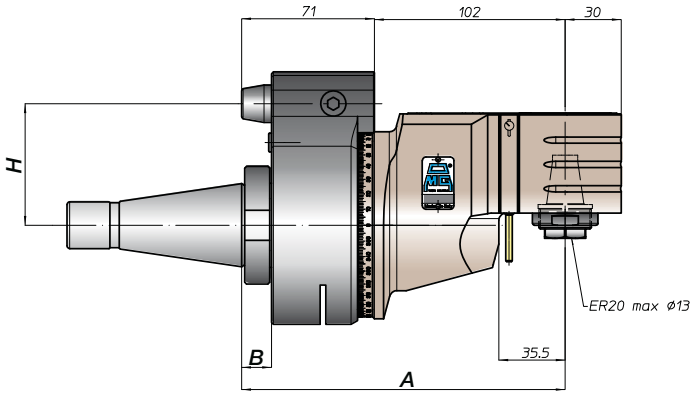
tipi mandrino/*spindle type*

2 Ø16 - Ø22 **3** **4** HSK32









CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	200	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	208	43	80	110
HSK DIN69893	63	209	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	204		65	
	C6			80	110
	C8				
KM	63	200		65	
	80			80	110
	100				
DIN2080	-	173	13	65	-
	40				
	-	176	16	80	110
	50				
NMTB ANSIB5.18	40	173	13	65	-
	50	176	16	80	110

TAO13.PD

caratteristiche/*features*

ø 13 | M10 | 1-1

4500 | 70 bar

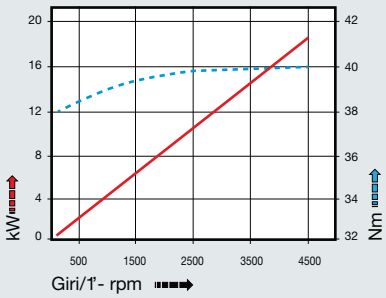
peso/*weight*

7,5 kg | 10,5 kg

rotazione/*rotation*

input | output

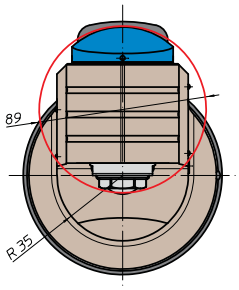
prestazioni/*performances*

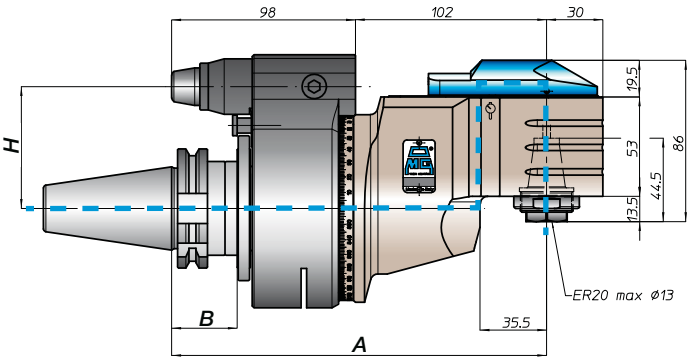


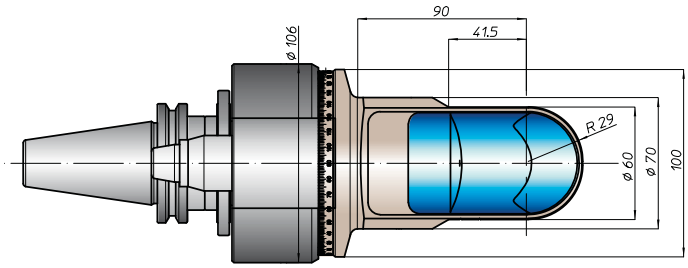
CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	200	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	208	43	80	110
HSK DIN69893	63	209	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	204		65	
	C6			80	110
	C8				
KM	63	200		65	
	80			80	110
	100				
DIN2080	-			-	-
	-				
	-			-	-
	-				
NMTB ANSIB5.18	-			-	-
	-			-	-

tipi mandrino/*spindle type*

2 Ø16 - Ø22 **3** **4** HSK32







testa ad angolo - *angle head*

TAO16.P

caratteristiche/*features*

ø 16 | M12

1-1 | 4000

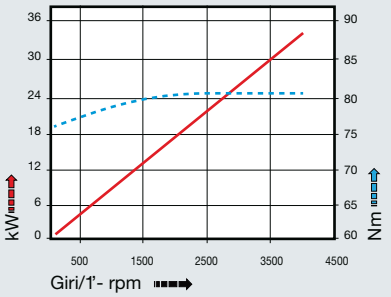
peso/*weight*

7,7 kg | 11,7 kg

rotazione/*rotation*

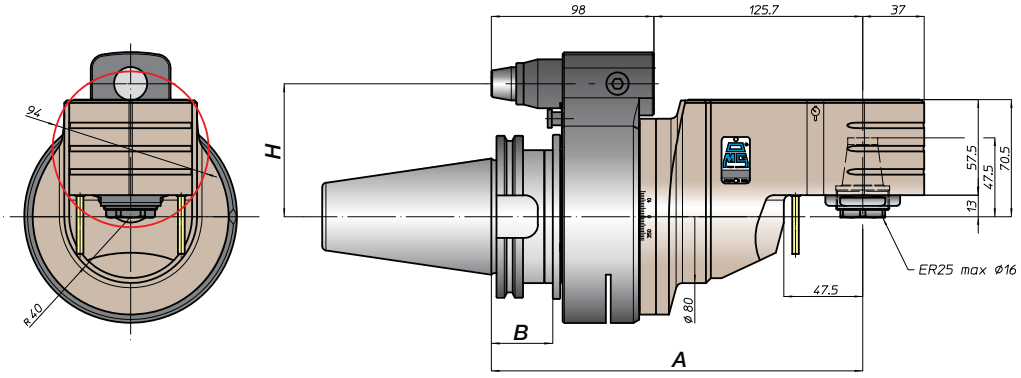
input | output

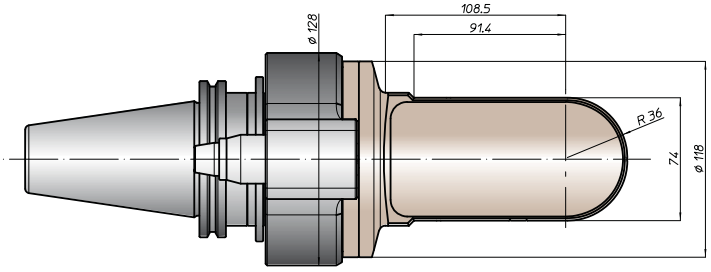
prestazioni/*performances*

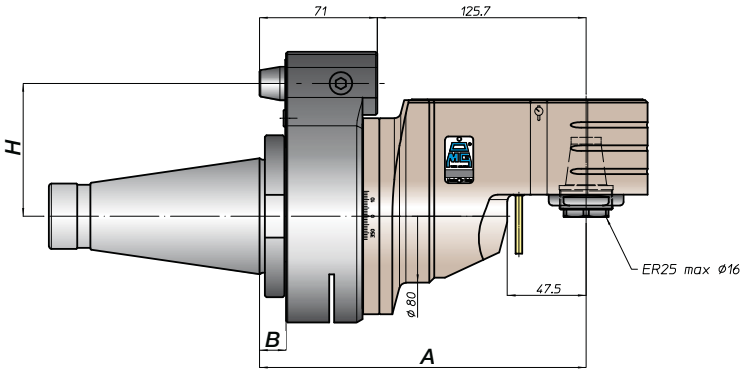


tipi mandrino/*spindle type*

2 Ø16 - Ø22 - Ø27 **3** **4** HSK40







CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	223,5	35	-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			65	-
	50			80	110
BT	-			65	
	50	231,5	43	80	110
HSK DIN69893	-		-	-	
	80	232,5	46	80	110
	100				
CAPTO ISO26623	-	227,5		-	
	C6			80	110
	C8				
KM	-	223,5		-	
	80			80	110
	100				
DIN2080	-		13	-	-
	-				
	-	199,5	16	80	110
	50				
NMTB ANSIB5.18	-	-	13	-	-
	50	199,5	16	80	110

TAO16.PD

caratteristiche/*features*

ø 16 | M12 | 1-1

4000 | 70 bar

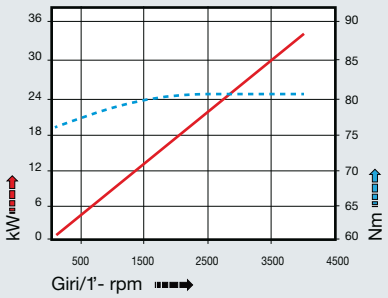
peso/*weight*

7,7 kg | 11,7 kg

rotazione/*rotation*

input → output

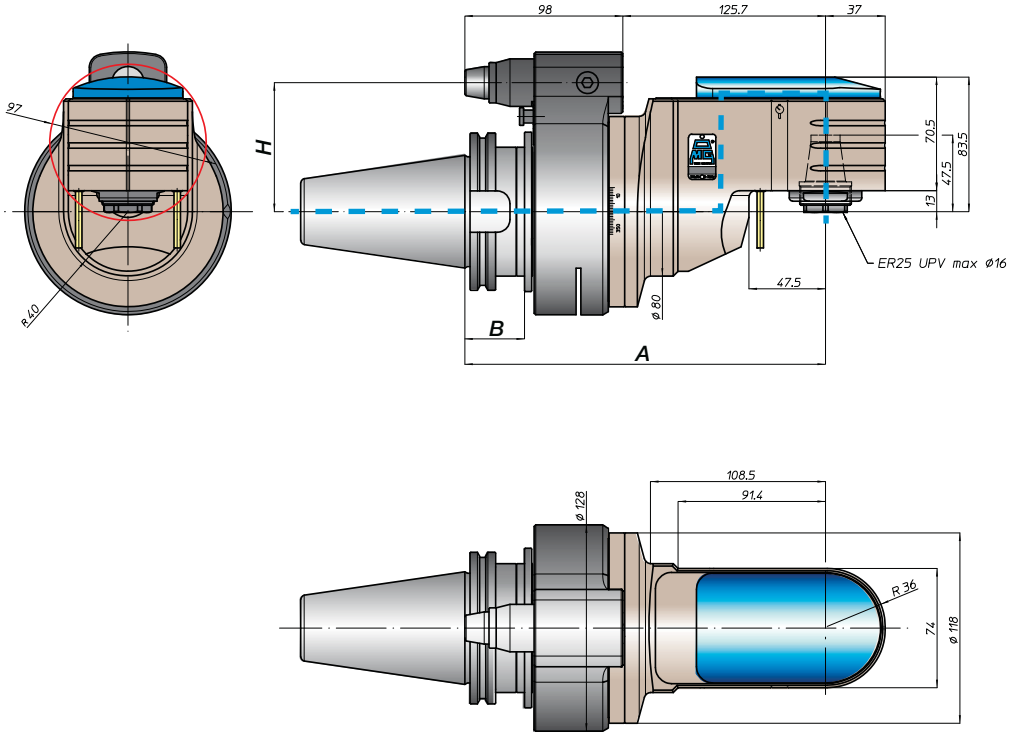
prestazioni/*performances*



CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	223,5	35	-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			65	-
	50			80	110
BT	-			65	
	50	231,5	43	80	110
HSK DIN69893	-		-	-	
	80	232,5	46	80	110
	100				
CAPTO ISO26623	-	227,5		-	
	C6			80	110
	C8				
KM	-	223,5		-	
	80			80	110
	100				
DIN2080	-			-	-
	-				
	-			-	-
	-				
NMTB ANSIB5.18	-			-	-
	-			-	-

tipi mandrino/*spindle type*

2 Ø16 - Ø22 - Ø27 **3** **4** HSK40



testa ad angolo - *angle head*

TAO20.P

caratteristiche/*features*

ø 20 | M14

1-1 | 3500

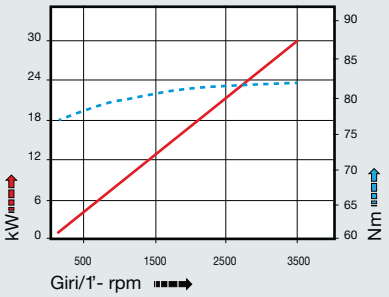
peso/*weight*

14,5 kg

rotazione/*rotation*

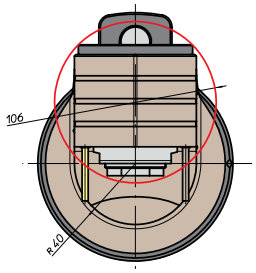
input → output

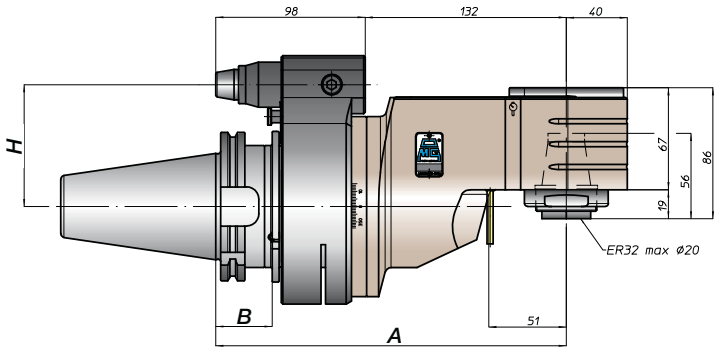
prestazioni/*performances*

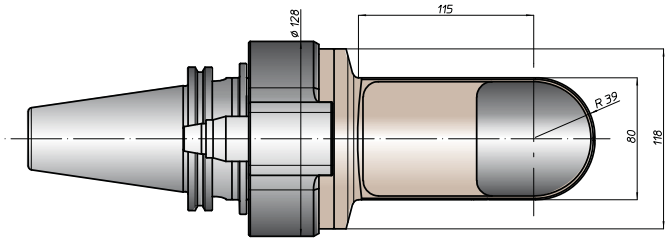


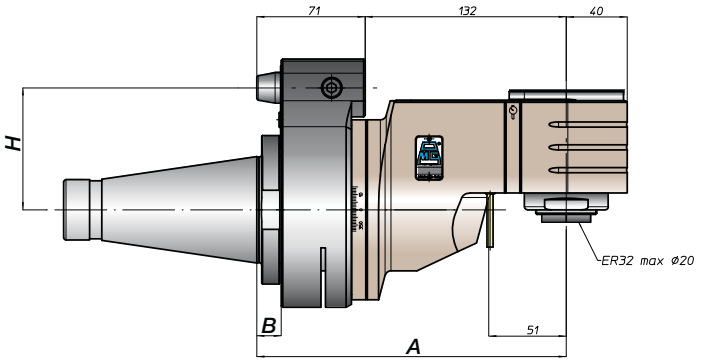
tipi mandrino/*spindle type*

2 Ø22-Ø27-Ø32 **3** **4** HSK50 **6**









CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	230	35	-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			-	-
	50			80	110
BT	-			65	
	50	238	43	80	110
HSK DIN69893	-		-	-	
	80	239	46	80	110
	100				
CAPTO ISO26623	-	234		-	
	C6			80	110
	C8				
KM	-	230		-	
	80			80	110
	100				
DIN2080	-		-	-	-
	-				
	-	203	16	80	110
	50				
NMTB ANSIB5.18	-		-	-	-
	50	203	16	80	110

TAO20.PD

caratteristiche/*features*

ø 20 | M14 | 1-1

3500 | 70 bar

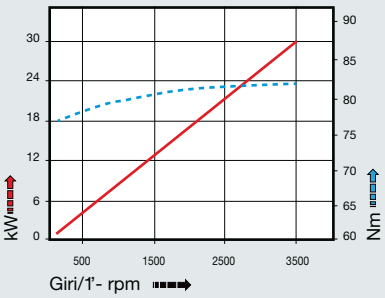
peso/*weight*

14,5 kg

rotazione/*rotation*

input → output

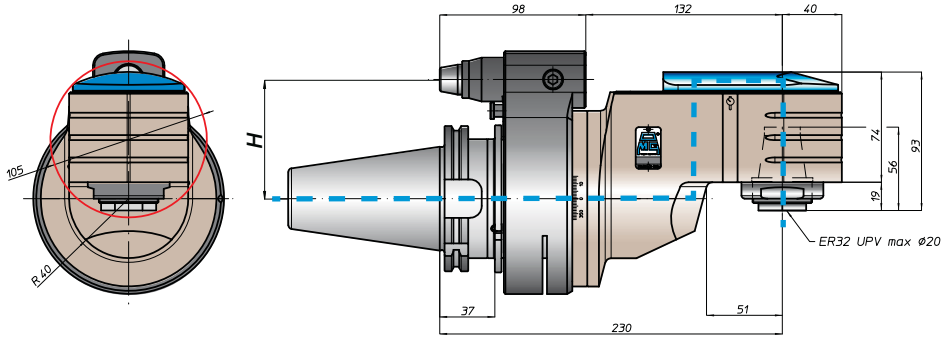
prestazioni/*performances*

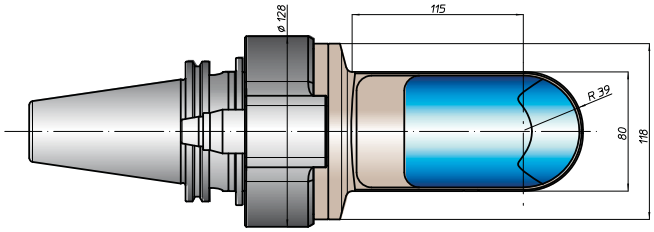


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	230	35	-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			-	-
	50			80	110
BT	-			65	
	50	238	43	80	110
HSK DIN69893	-		42	-	
	80	239	46	80	110
	100				
CAPTO ISO26623	-	234		-	
	C6			80	110
	C8				
KM	-	230		-	
	80			80	110
	100				
DIN2080	-			-	-
	-				
	-			-	-
	-				
NMTB ANSIB5.18	-			-	-
	-			-	-

tipi mandrino/*spindle type*

2 Ø22-Ø27-Ø32 **3** **4** HSK50 **6**

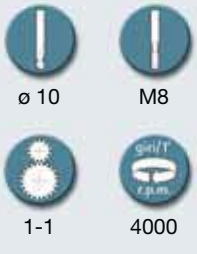




testa ad angolo - *angle head*

TAV10.P

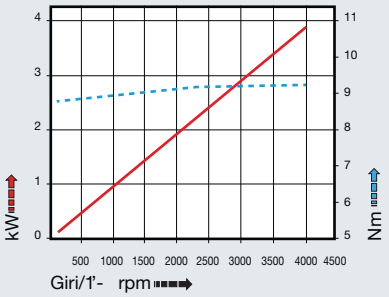
caratteristiche/*features*

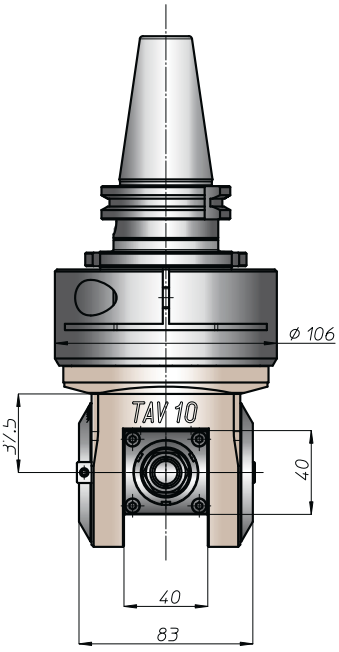


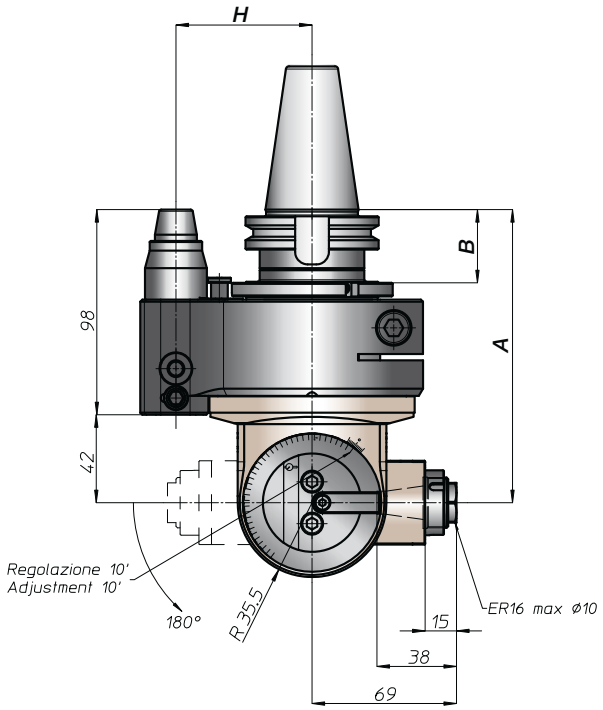
peso/*weight*

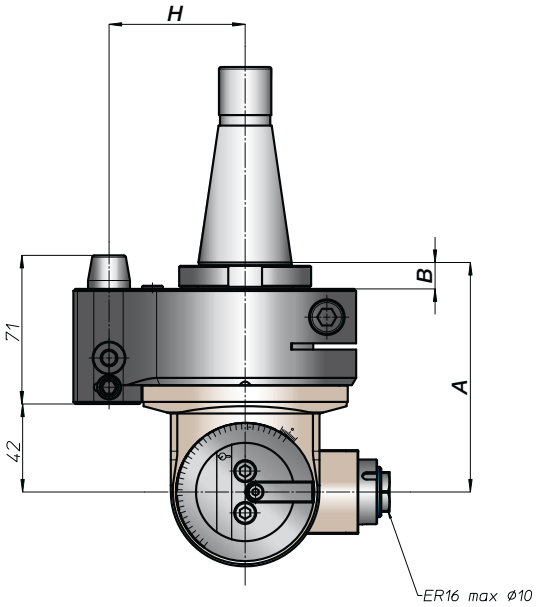
rotazione/*rotation*

prestazioni/*performances*









CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	140	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	148	43	80	110
HSK DIN69893	63	149	44	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	144		65	
	C6			80	110
	C8				
KM	63	140		65	
	80			80	110
	100				
DIN2080	-	113	13	65	-
	40				
	-	116	16	80	110
	50				
NMTB ANSIB5.18	40	113	13	65	-
	50	116	16	80	110

TAV13.P

caratteristiche/*features*

ø 13 | M10

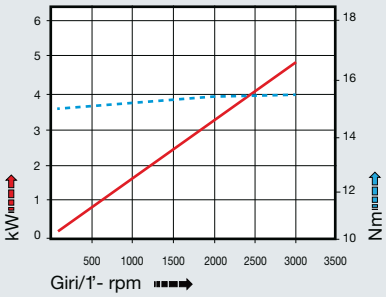
1-1 | 3000

peso/*weight*

7,8 kg | 10,5 kg

rotazione/*rotation*

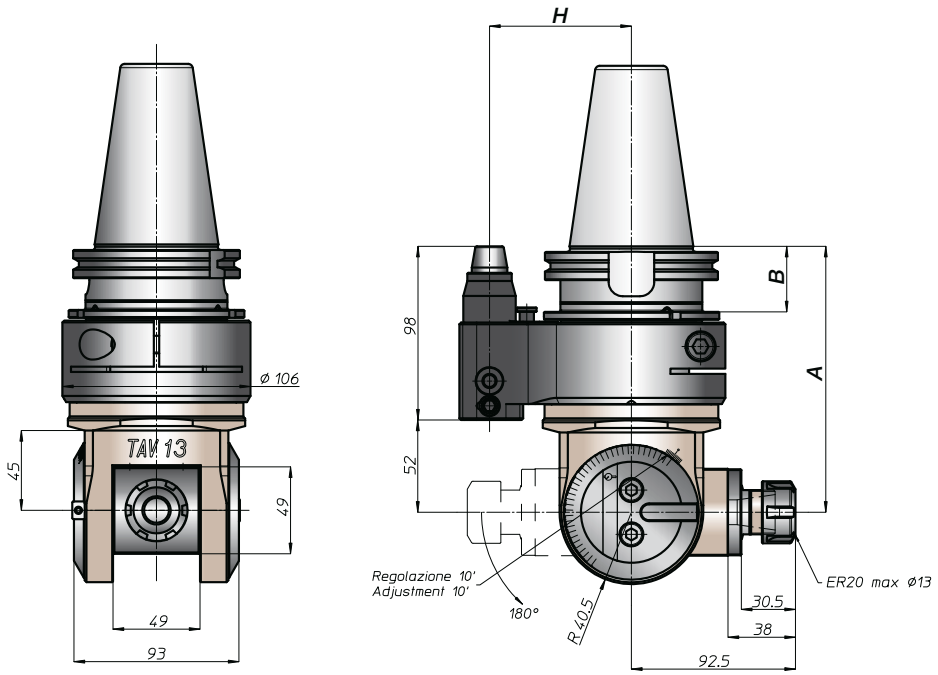
prestazioni/*performances*

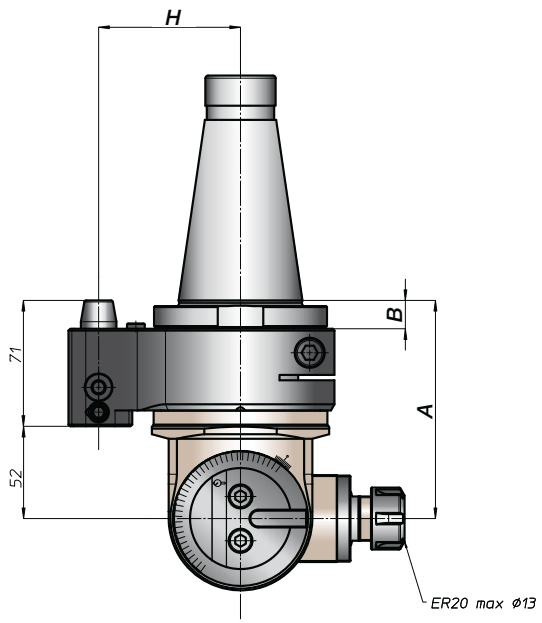


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	150	35	65	-
	40				
	45			80	110
	50				
ANSIB5.50 CAT	40			65	-
	50			80	110
BT	40			65	
	50	158	43	80	110
DIN69893 HSK	63	159	42	65	
	80		46	80	110
	100				
ISO26623 CAPTO	C5	154		65	
	C6			80	110
	C8				
KM	63	150		65	
	80			80	110
	100				
DIN2080	-	120	13	65	-
	40				
	-	123	16	80	110
	50				
ANSIB5.18 NMTB	40	120	13	65	-
	50	123	16	80	110

tipi mandrino/*spindle type*

1 ER25 3





testa ad angolo - *angle head*

TAV20.P

caratteristiche/*features*

ø 20 | M16

1-1 | 2500

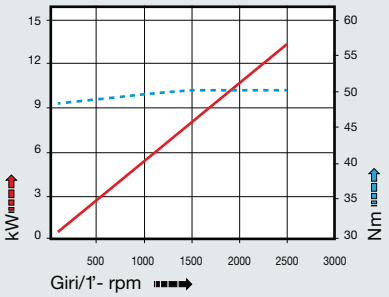
peso/*weight*

18,5 kg

rotazione/*rotation*

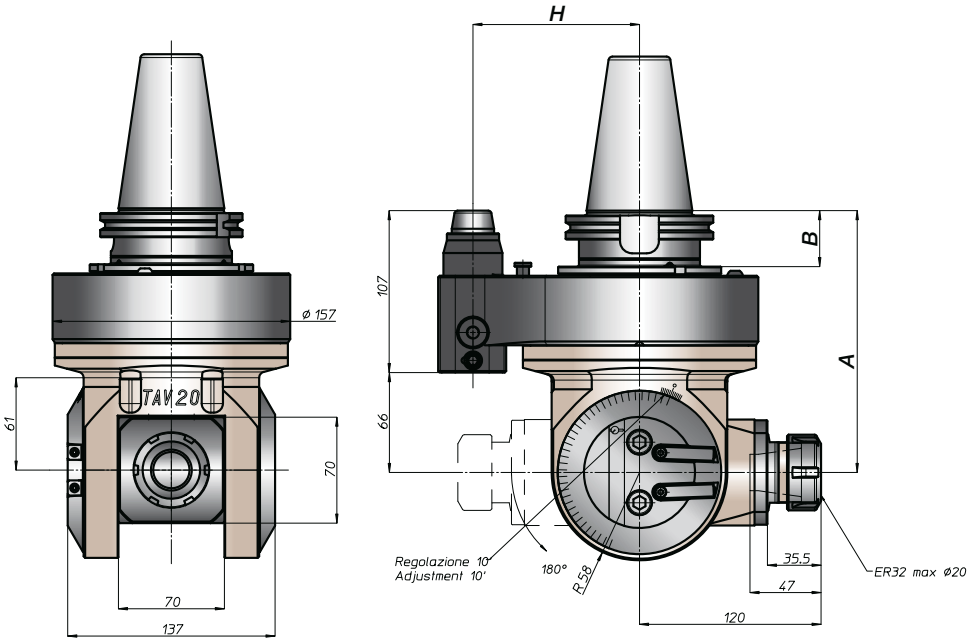
input → output

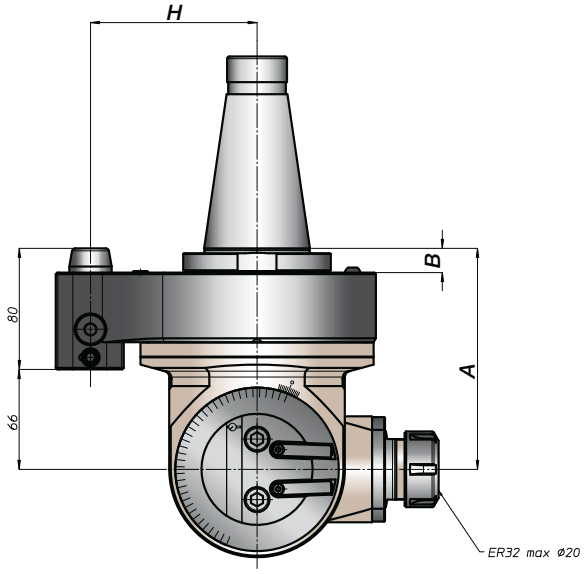
prestazioni/*performances*



tipi mandrino/*spindle type*

1 ER40 **3** **4** HSK50 **6** ABS50





CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	140	35	-	-
	-				
	-			110	-
	50				
CAT ANSIB5.50	-			-	-
	50			110	-
BT	-			-	-
	50	148	43	110	-
HSK DIN69893	-	149	-	-	-
	80		46	110	-
	100				
CAPTO ISO26623	-	144	-	-	-
	-			110	-
	C8				
KM	-	140	-	-	-
	-			110	-
	100				
DIN2080	-	-	-	-	-
	-				
	-	116	16	110	-
	50				
NMTB ANSIB5.18	-	-	-	-	-
	50	116	16	110	-

TAV30.P

caratteristiche/*features*

ø 30 | M24

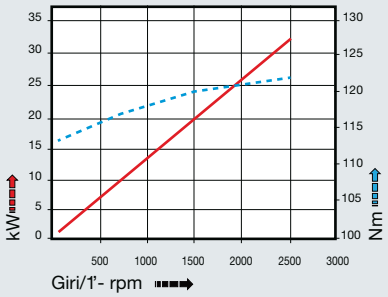
1-1 | 2500

peso/*weight*

42 kg

rotazione/*rotation*

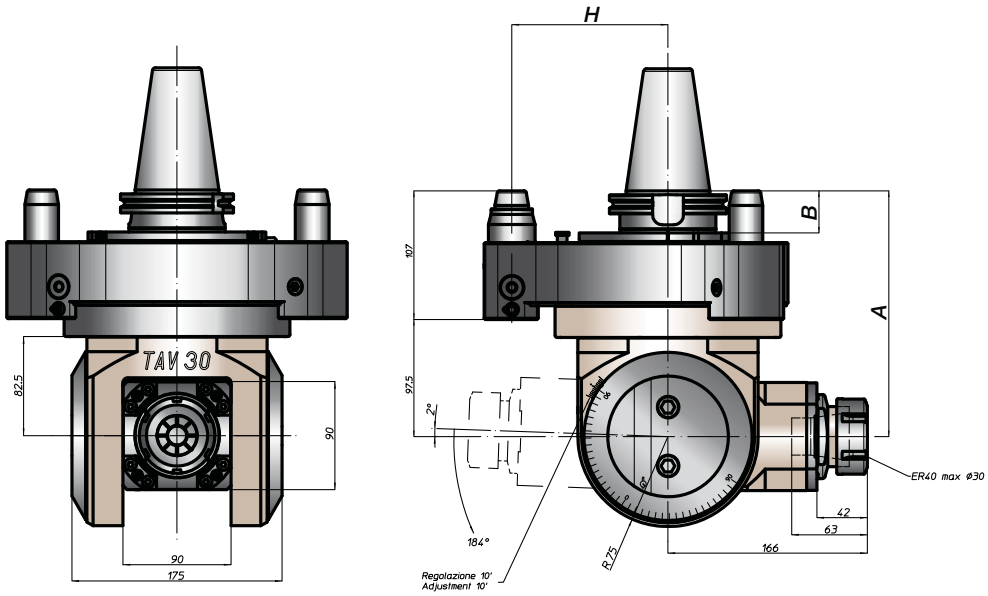
prestazioni/*performances*

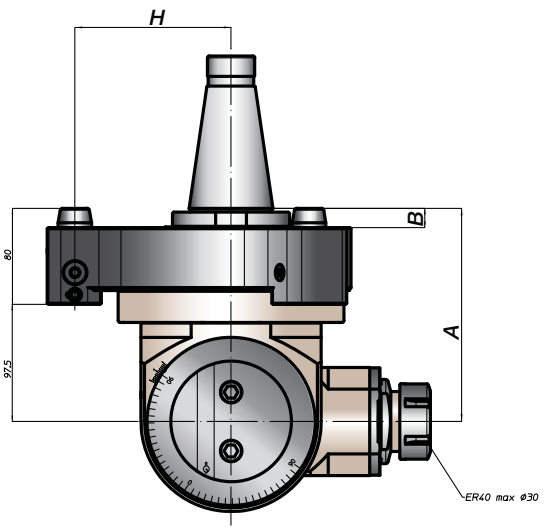


CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	204,5	35	-	-
	-				
	-			130	-
	50				
CAT ANSIB5.50	-			-	-
	50			130	-
BT	-			-	
	50	212,5	43	130	-
HSK DIN69893	-	213,5	42	-	
	-		46	130	-
	100				
CAPTO ISO26623	-	208,5	-	-	
	-			130	-
	C8				
KM	-	204,5	-	-	
	-			130	-
	100				
DIN2080	-	-	-	-	-
	-				
	-	177,5	16	130	-
	50				
NMTB ANSIB5.18	-	-	-	-	-
	50	177,5	16	130	-

tipi mandrino/*spindle type*

1 ER50 | 2 | 3 | 4 HSK63 | 6 ABS63





testa ad angolo - *angle head*

TAV40.T

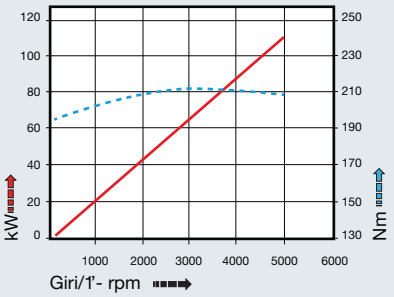
caratteristiche/*features*

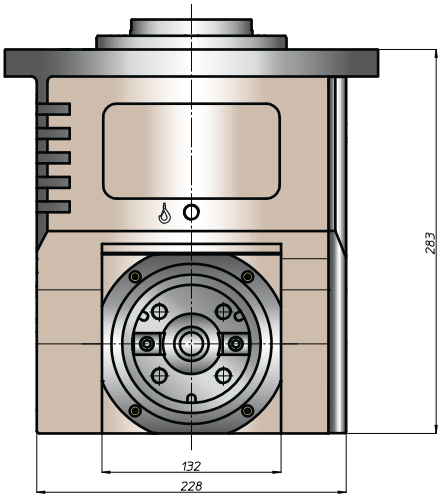
peso/*weight*

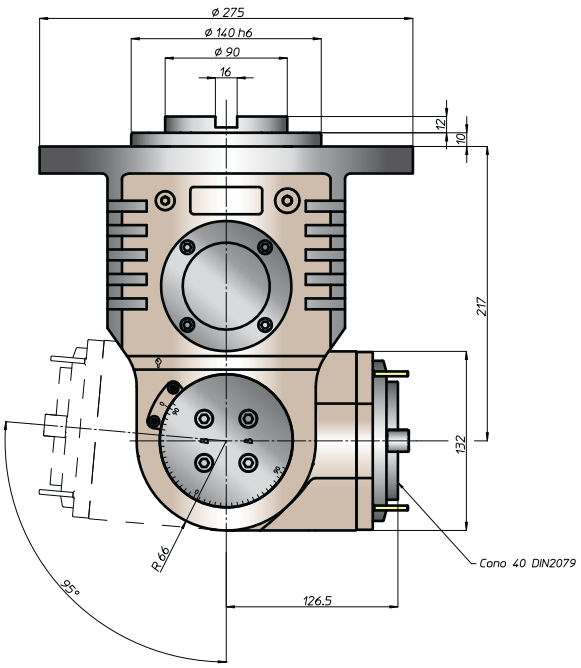
70 kg

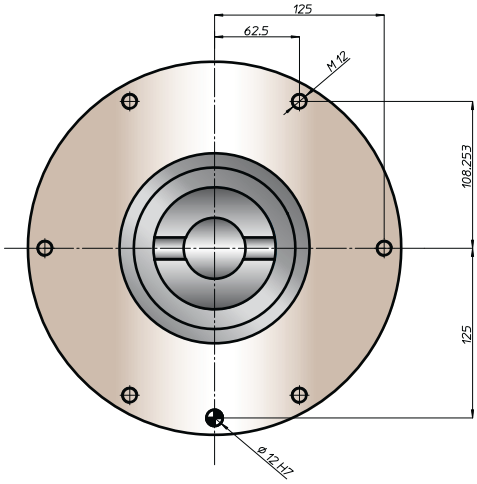
rotazione/*rotation*

prestazioni/*performances*









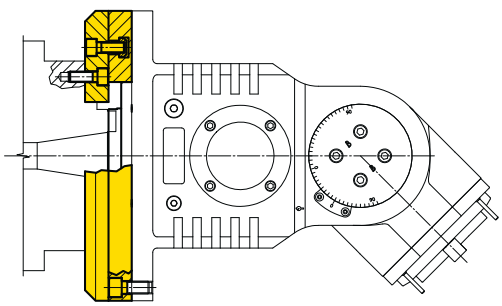
Equipaggiamento standard:
- pressurizzazione mandrinio
- n. 4 ugelli orientabili vicino al mandrino
- regolazione angolare mandrino libera
- nel mandrino DIN2079 si possono utilizzare coni DIN69871-A40, MAS403-BT40

Opzioni:
- mandrinio DIN69893-HSK-A63, CAPTO C5

Standard equipment:
- *spindle front pressurization*
- *nr 4 adjustable nozzle near the spindle*
- *free angle spindle adjustment*
- *on the spindle DIN2079 you can use shank DIN69871-A40, MAS403-BT40*

Options:
- *spindle DIN69893-HSK-A63, CAPTO C5*

esempio di collegamento - *connection example*



TAV50.T

caratteristiche/*features*


ø 45


M36


1-2

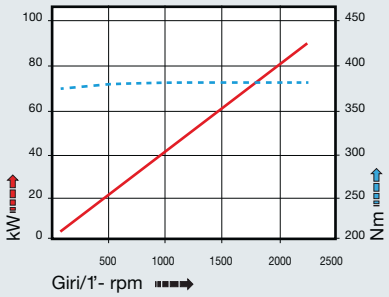

4000
OUTPUT

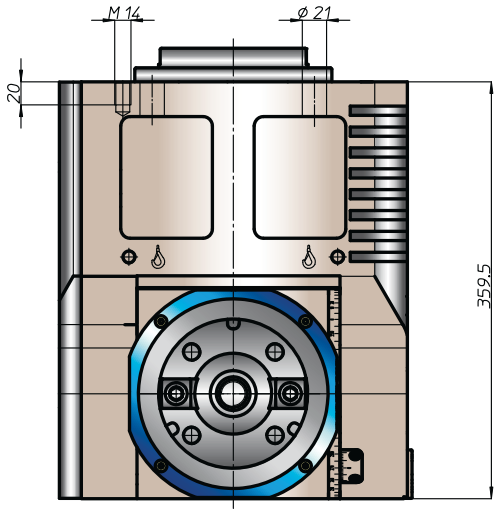
peso/*weight*

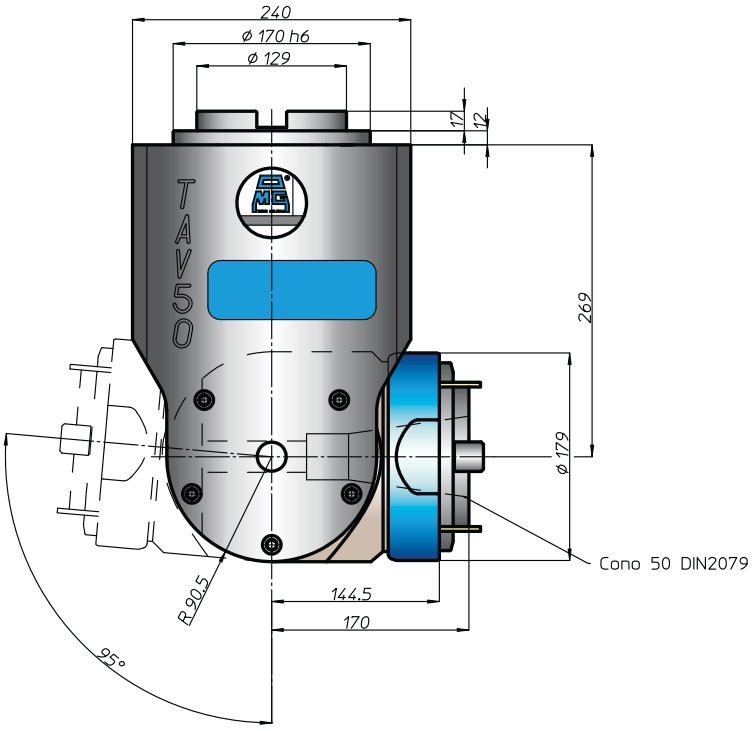

145 kg

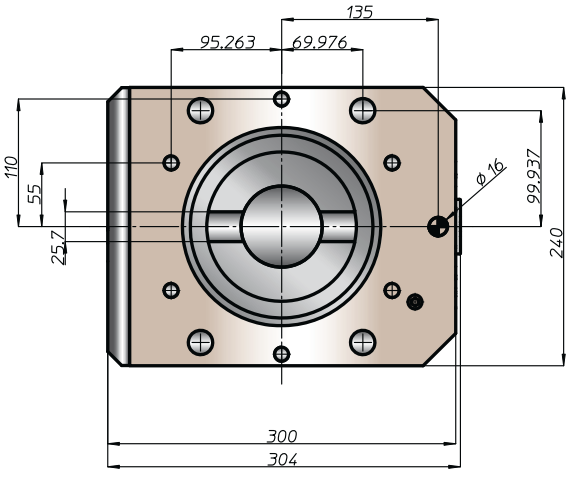
rotazione/*rotation*

prestazioni/*performances*









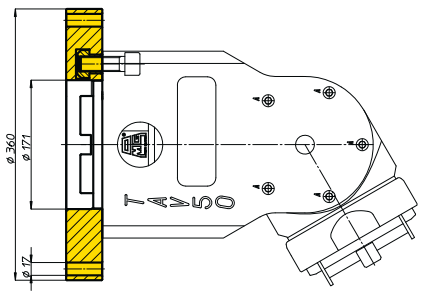
Equipaggiamento standard:
- pressurizzazione mandrinio
- n. 4 ugelli orientabili vicino al mandrino
- regolazione angolare mandrino libera o posizionabile ogni 15°
- nel mandrino DIN2079 si possono utilizzare coni DIN69871-A50, MAS403-BT50

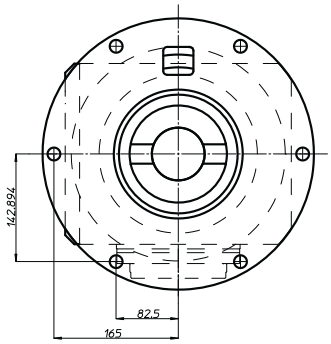
Opzioni:
- mandrinio DIN69893-HSK-A100, CAPTO C8

Standard equipment:
- *spindle front pressurization*
- *nr 4 adjustable nozzle near the spindle*
- *free angle spindle adjustment or by pin each 15°*
- *on the spindle DIN2079 you can use shank DIN69871-A50, MAS403-BT50*

Options:
- *spindle DIN69893-HSK-A100, CAPTO C8*

esempio di collegamento - *connection example*





testa ad angolo - *angle head*

TAF10.P

caratteristiche/*features*

ø 10 | M8

1-1 | 5000

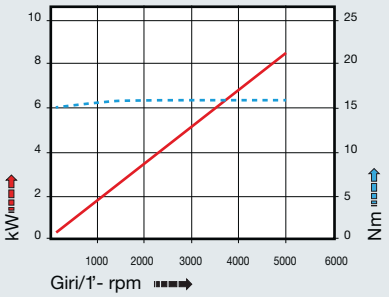
peso/*weight*

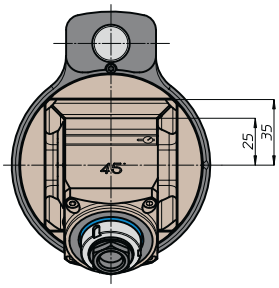
5,5 kg | 7 kg

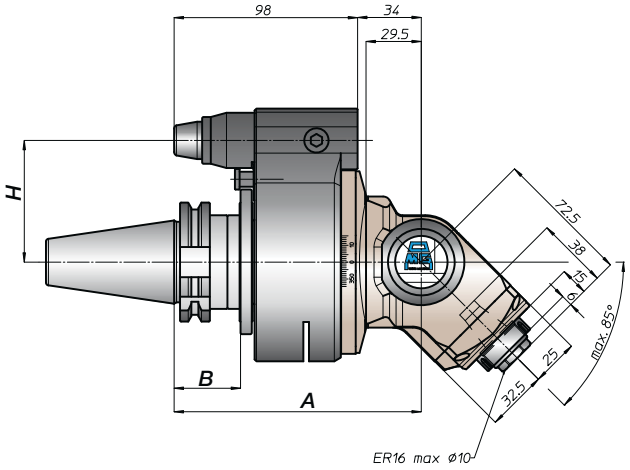
rotazione/*rotation*

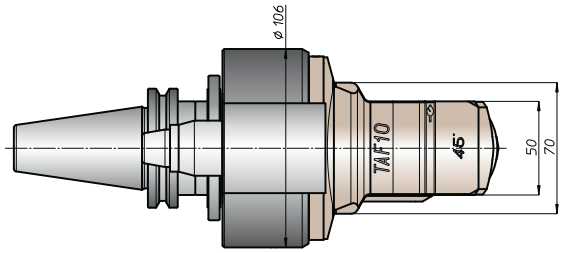
input | output

prestazioni/*performances*









CONO SHANK	size	A	B	H standard	H optional
DIN69871	30	132	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	140	43	80	110
HSK DIN69893	63	141	42	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	136		65	
	C6			80	110
	C8				
KM	63	132		65	
	80			80	110
	100				
DIN2080	-			-	-
	-				
	-			-	-
	-				
NMTB ANSIB5.18	-			-	-
	-			-	-

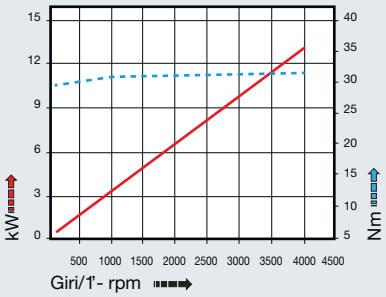
TAF13.P

caratteristiche/*features*

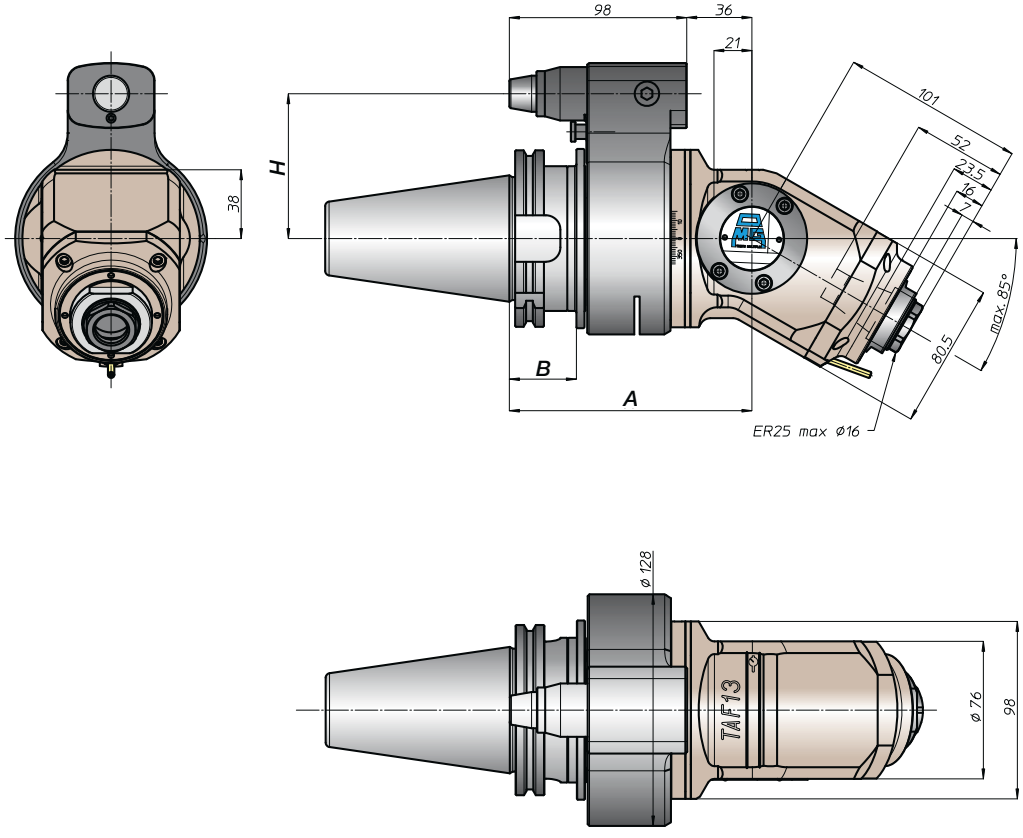
peso/*weight*

rotazione/*rotation*

prestazioni/*performances*



CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	134	35	65	-
	40				
	45			80	110
	50				
CAT ANSIB5.50	40			65	-
	50			80	110
BT	40			65	
	50	142	43	80	110
HSK DIN69893	63	143	42	65	
	80		46	80	110
	100				
CAPTO ISO26623	C5	138		65	
	C6			80	110
	C8				
KM	63	134		65	
	80			80	110
	100				
DIN2080	-			-	-
	-				
	-			-	-
	-				
NMTB ANSIB5.18	-			-	-
	-			-	-



testa ad angolo - *angle head*

TAF20.P

caratteristiche/*features*

ø 20 | M16

1-1 | 3000

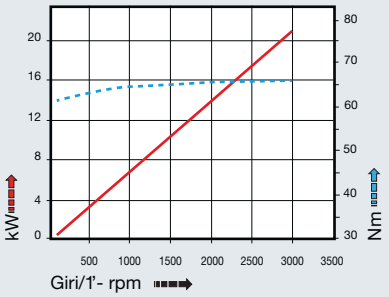
peso/*weight*

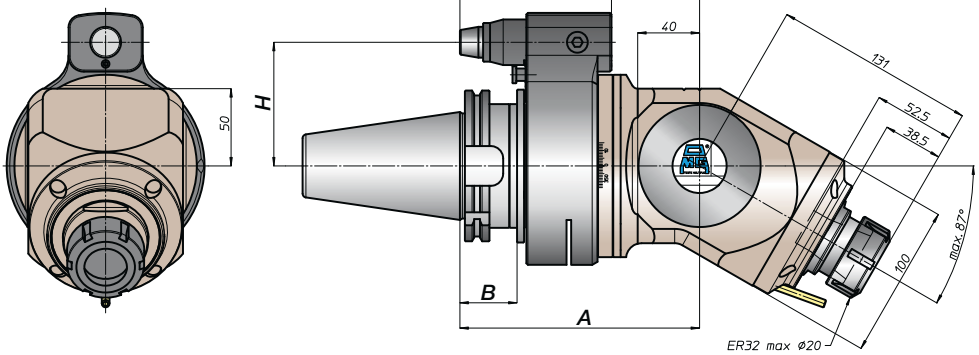
13,5 kg

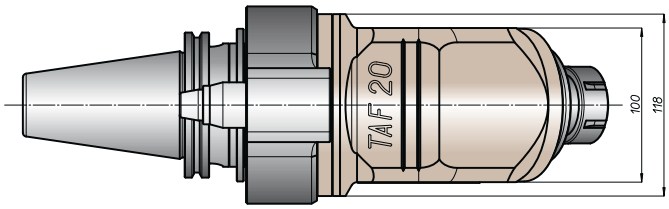
rotazione/*rotation*

input → output

prestazioni/*performances*







CONO SHANK	size	A	B	H standard	H optional
DIN69871	-	155	35	-	-
	-				
	45			80	110
	50				
CAT ANSIB5.50	-			-	-
	50			80	110
BT	-			-	
	50	163	43	80	110
HSK DIN69893	-	164	42	-	
	80		46	80	110
	100				
CAPTO ISO26623	-	159		-	
	C6			80	110
	C8				
KM	-	155		-	
	80			80	110
	100				
DIN2080	-			-	-
	-				
	-			-	-
	-				
NMTB ANSIB5.18	-			-	-
	-			-	-

testa ad angolo - *angle head*

TA13P.T

caratteristiche/*features*

ø 13 | M10

1-1 | 8000

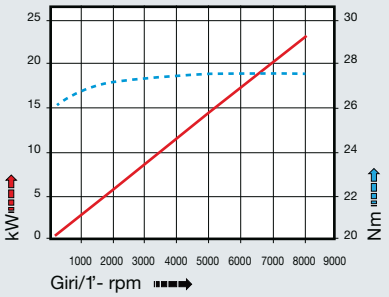
peso/*weight*

3,5 kg

rotazione/*rotation*

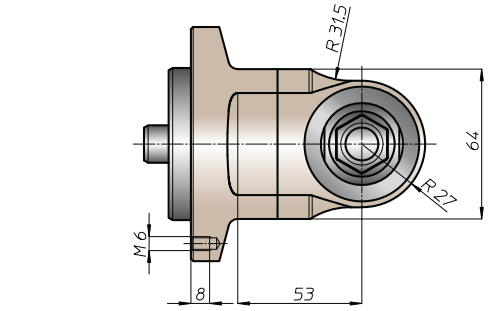
input → output

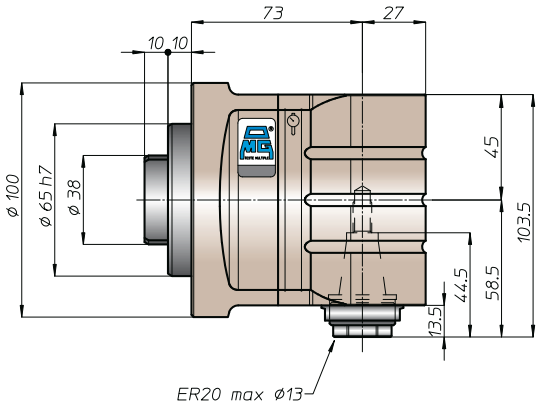
prestazioni/*performances*

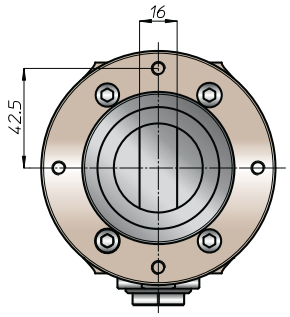


tipi mandrino/*spindle type*

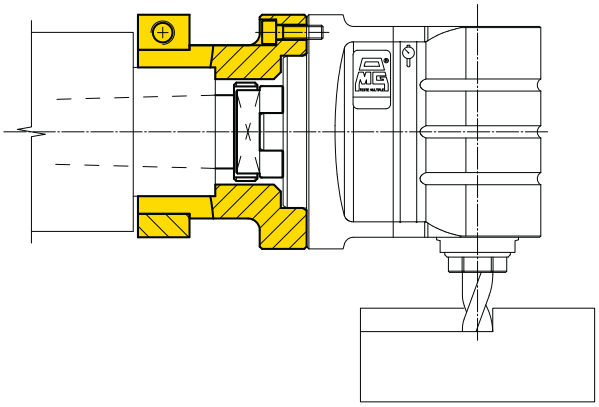
2 **3**







esempio di collegamento - *connection example*



TA16P.T

caratteristiche/*features*

ø 16 | M12

1-1 | 5000

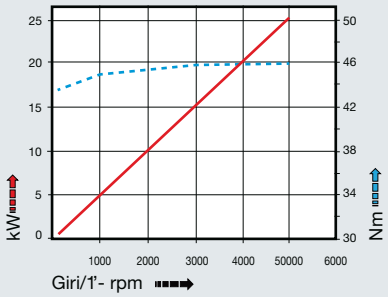
peso/*weight*

5 kg

rotazione/*rotation*

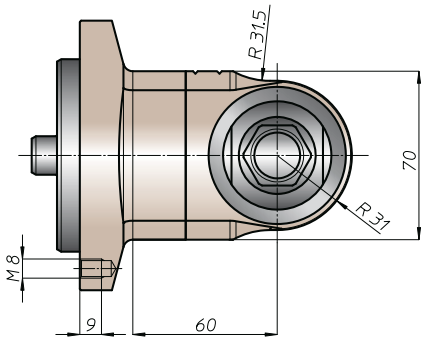
input → output

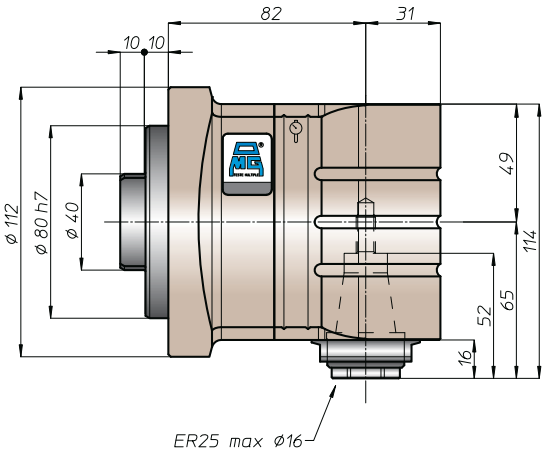
prestazioni/*performances*

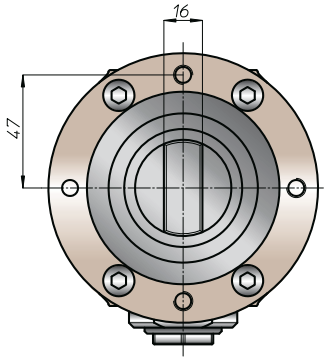


tipi mandrino/*spindle type*

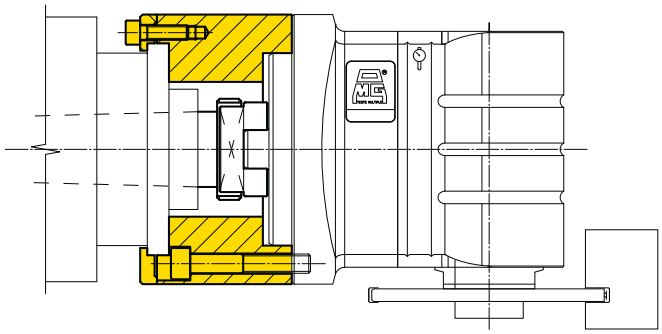
1 ER32 **2** Ø16–Ø27-Ø32 **3** Ø20 **4** HSK32







esempio di collegamento - *connection example*



testa ad angolo - *angle head*

TA20.PT

caratteristiche/*features*

ø 20 | M14

1-1 | 3500

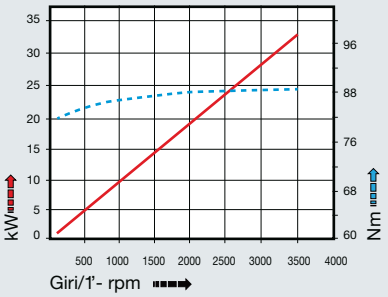
peso/*weight*

head 7,5 kg | extension L 100=7,5 kg L 200=15 kg

rotazione/*rotation*

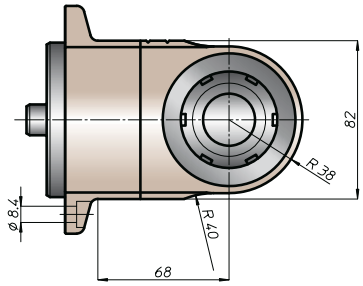
input → output

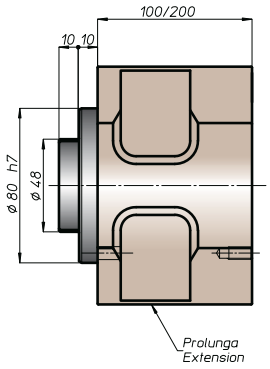
prestazioni/*performances*

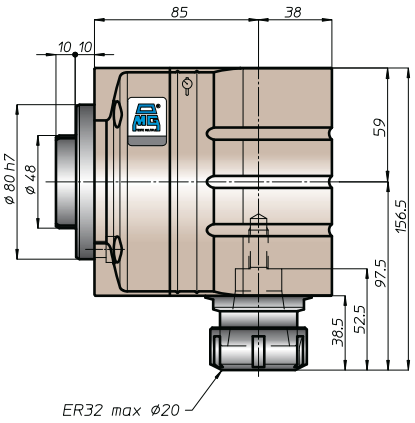


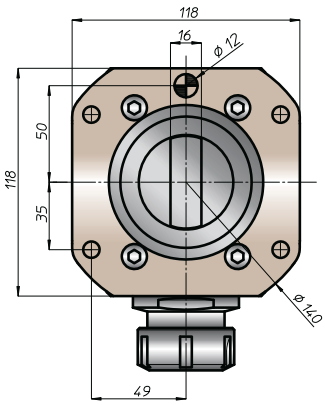
tipi mandrino/*spindle type*

1 ER40 **2** Ø22–Ø27-Ø32 **3** Ø20-Ø25 **4** HSK40

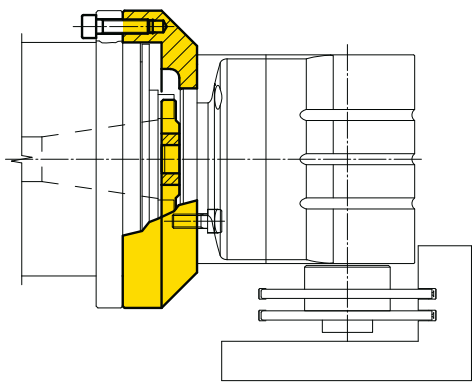








esempio di collegamento - *connection example*



TA20.30.T

caratteristiche/*features*

ø 20 | M14

1-1 | 3500

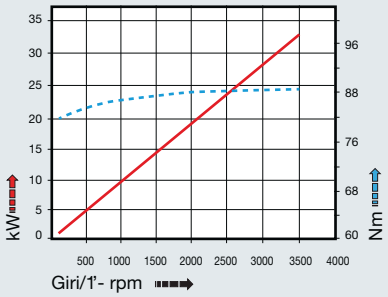
peso/*weight*

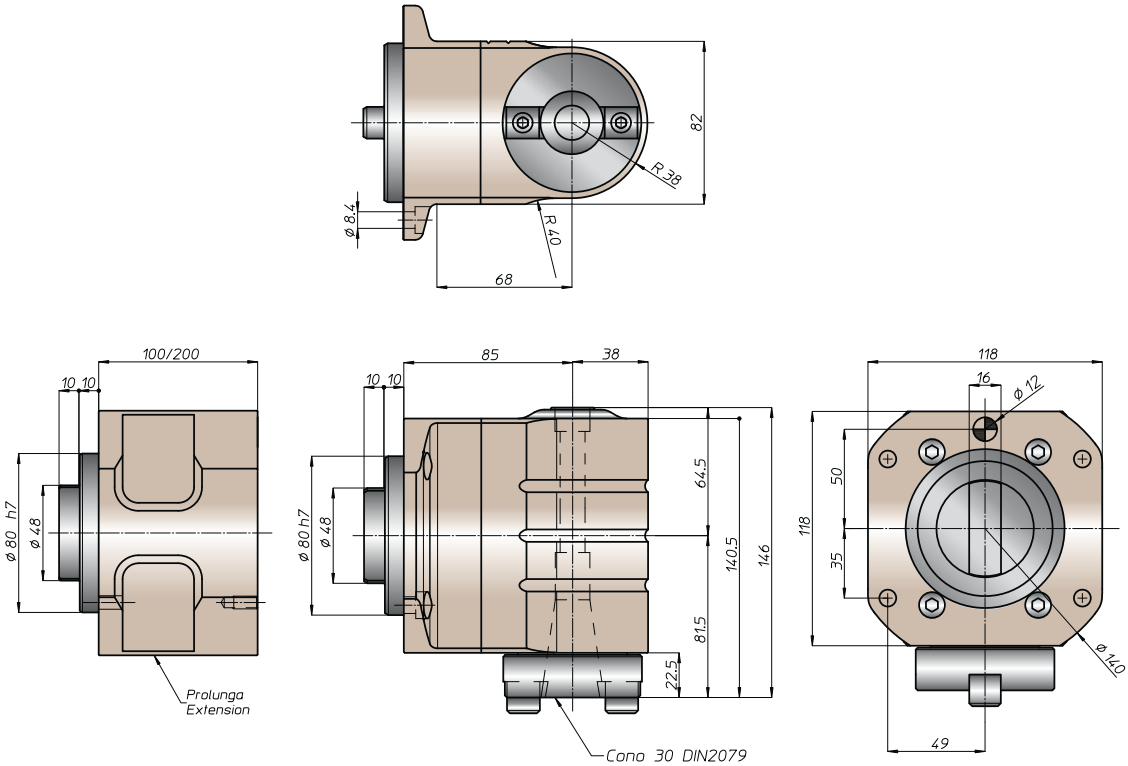
head 7,5 kg | extension L 100=7,5 kg L 200=15 kg

rotazione/*rotation*

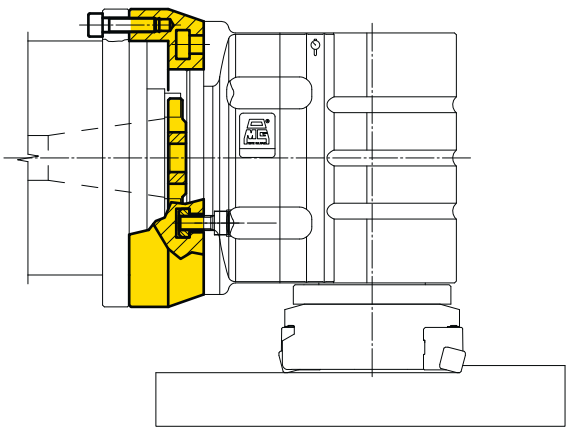
input → output

prestazioni/*performances*





esempio di collegamento - *connection example*



testa ad angolo - *angle head*

TA26.PT

caratteristiche/*features*

ø 26 | M20

1-1 | 2500

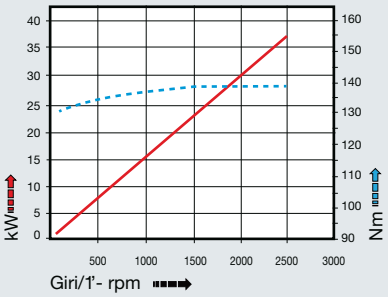
peso/*weight*

head 13,5 kg | extension L 100=21 kg, L 200=21 kg

rotazione/*rotation*

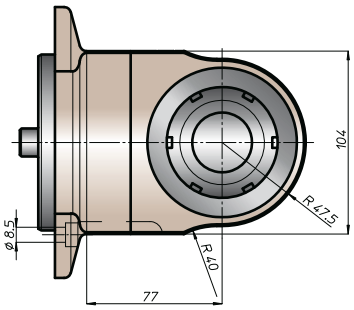
input → output

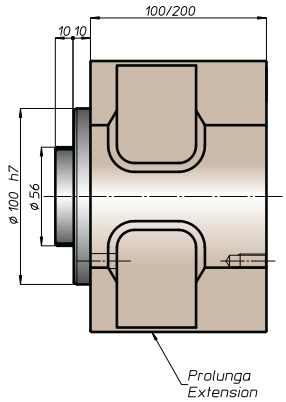
prestazioni/*performances*

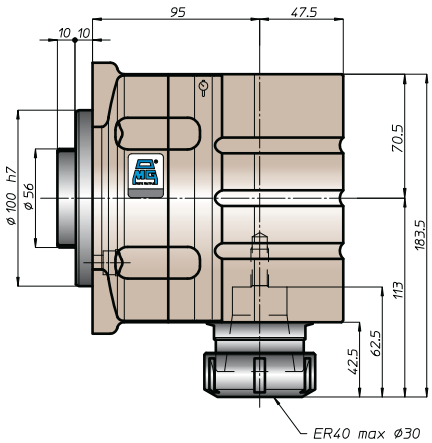


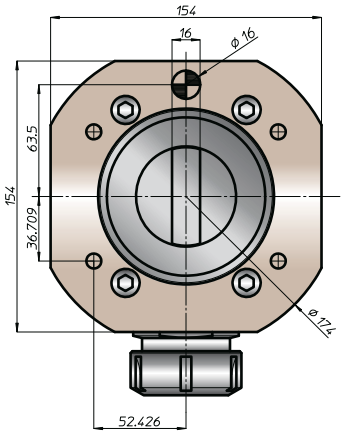
tipi mandrino/*spindle type*

2 Ø16–Ø27-Ø32 **3** Ø32 **4** HSK63 **6** ABS50

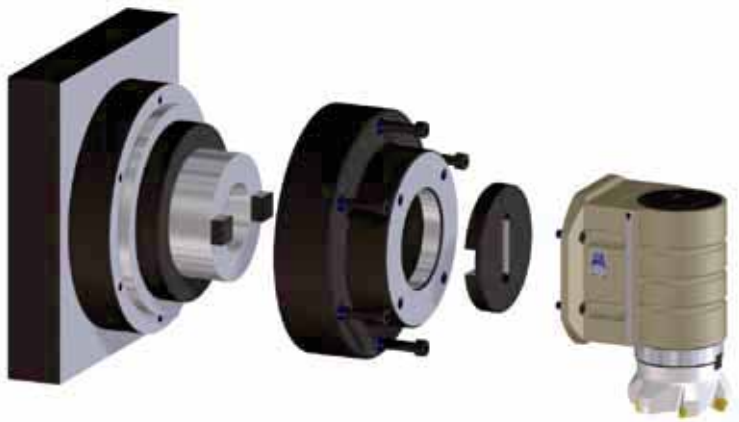








esempio di collegamento - *connection example*



TA26.40.T

caratteristiche/*features*

ø 26 | M20

1-1 | 2500

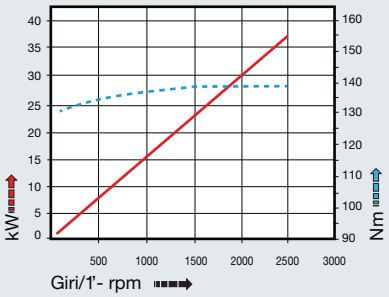
peso/*weight*

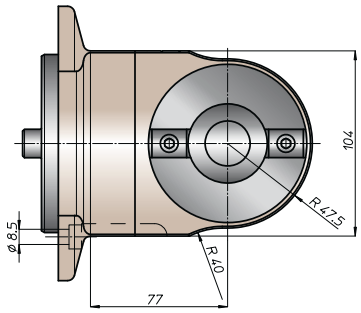
head 13,5 kg | extension L 100=21 kg, L 200=21 kg

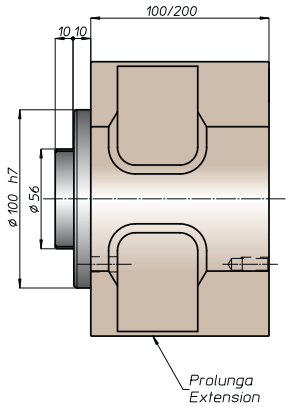
rotazione/*rotation*

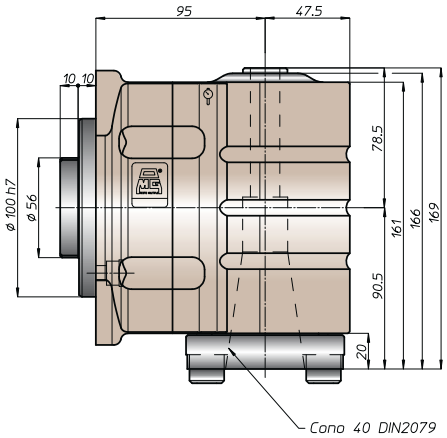
input → output

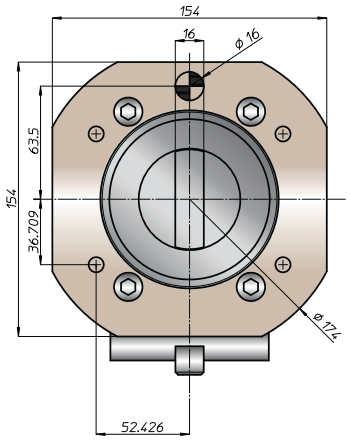
prestazioni/*performances*











esempio di collegamento - *connection example*

testa ad angolo - *angle head*

TA40.T

caratteristiche/*features*

ø 32 | M26

1-1 | 5000

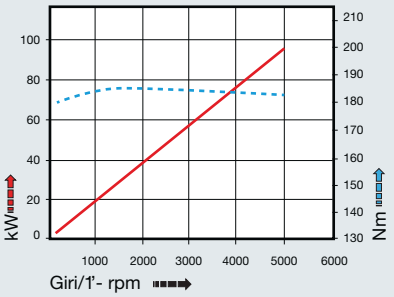
peso/*weight*

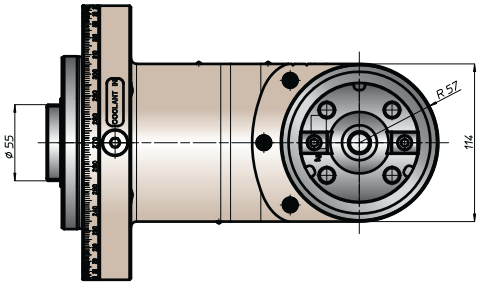
33 kg

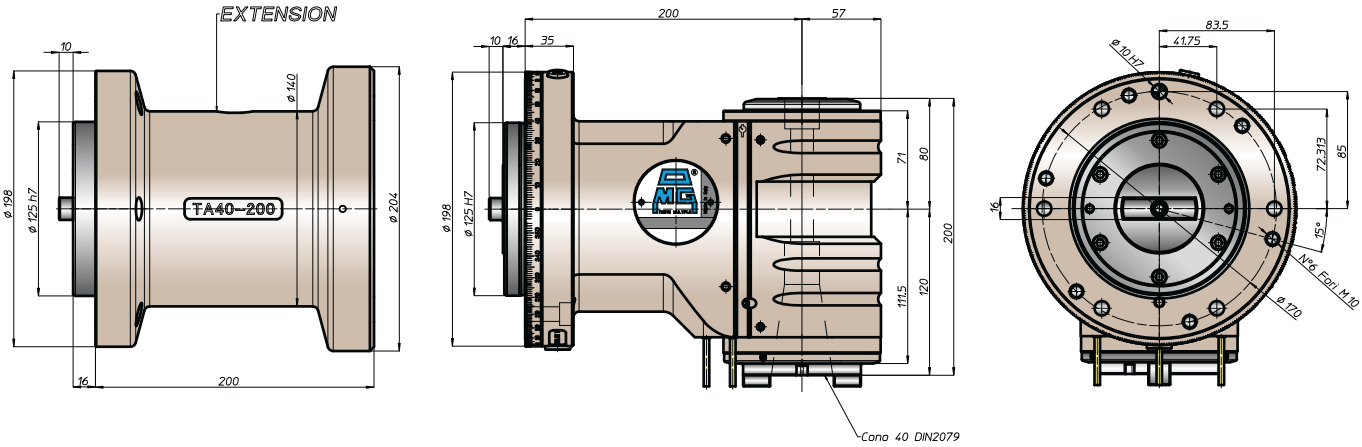
rotazione/*rotation*

input | output

prestazioni/*performances*







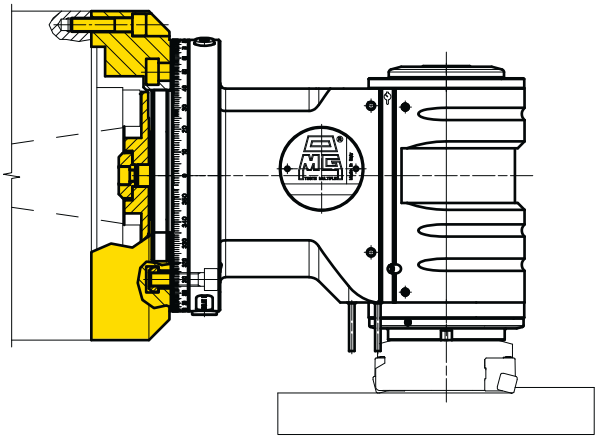
Equipaggiamento standard:
- pressurizzazione mandrino
- n. 3 ugelli orientabili vicino al mandrino
- nel mandrino DIN2079 si possono utilizzare coni DIN69871-A40, MAS403-BT40

Opzioni:
- mandrino DIN69893-HSK-A63, CAPTO C5

Standard equipment:
- *spindle front pressurization*
- *nr 3 adjustable nozzle near the spindle*
- *on the spindle DIN2079 you can use shank DIN69871-A40, MAS403-BT40*

Options:
- *spindle DIN69893-HSK-A63, CAPTO C5*

esempio di collegamento - *connection example*



TA40.TD

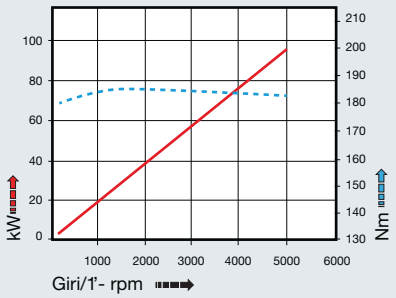
caratteristiche/*features*

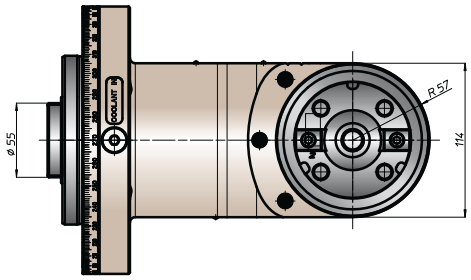
peso/*weight*

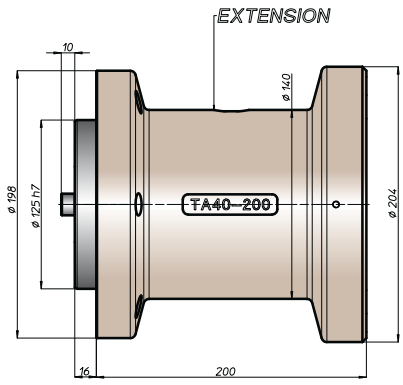
33 kg

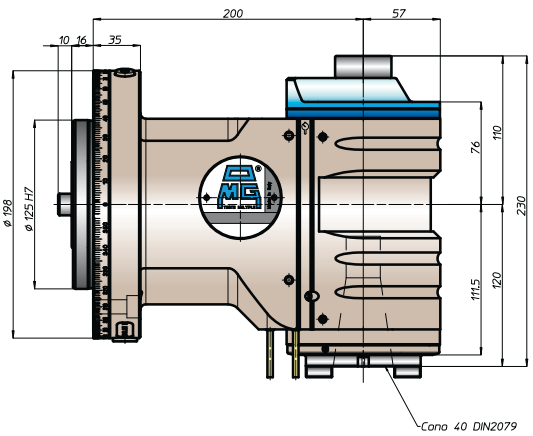
rotazione/*rotation*

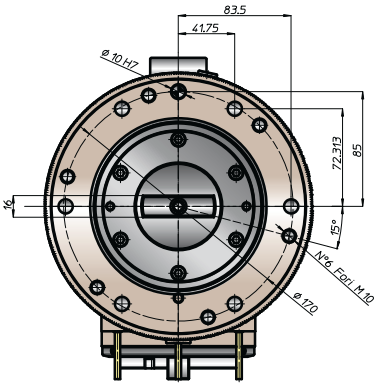
prestazioni/*performances*











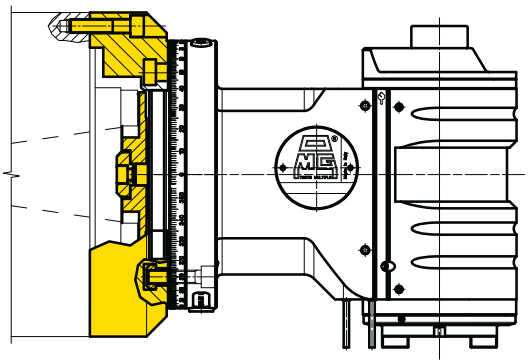
Equipaggiamento standard:
- pressurizzazione mandrino
- n. 3 ugelli orientabili vicino al mandrino
- nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Opzioni:
- mandrino DIN69893-HSK-A63, CAPTO C5

Standard equipment:
- *spindle front pressurization*
- *nr 3 adjustable nozzle near the spindle*
- *on the spindle DIN2079 you can use shank DIN2080-50, DIN69871-A40, MAS403-BT40*

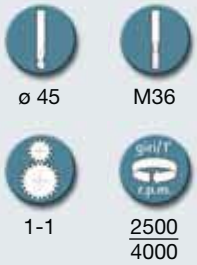
Options:
- *spindle DIN69893-HSK-A63, CAPTO C5*

esempio di collegamento - *connection example*



TA50.T

caratteristiche/*features*

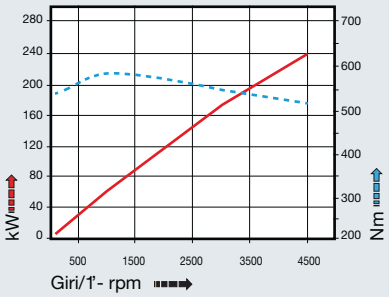


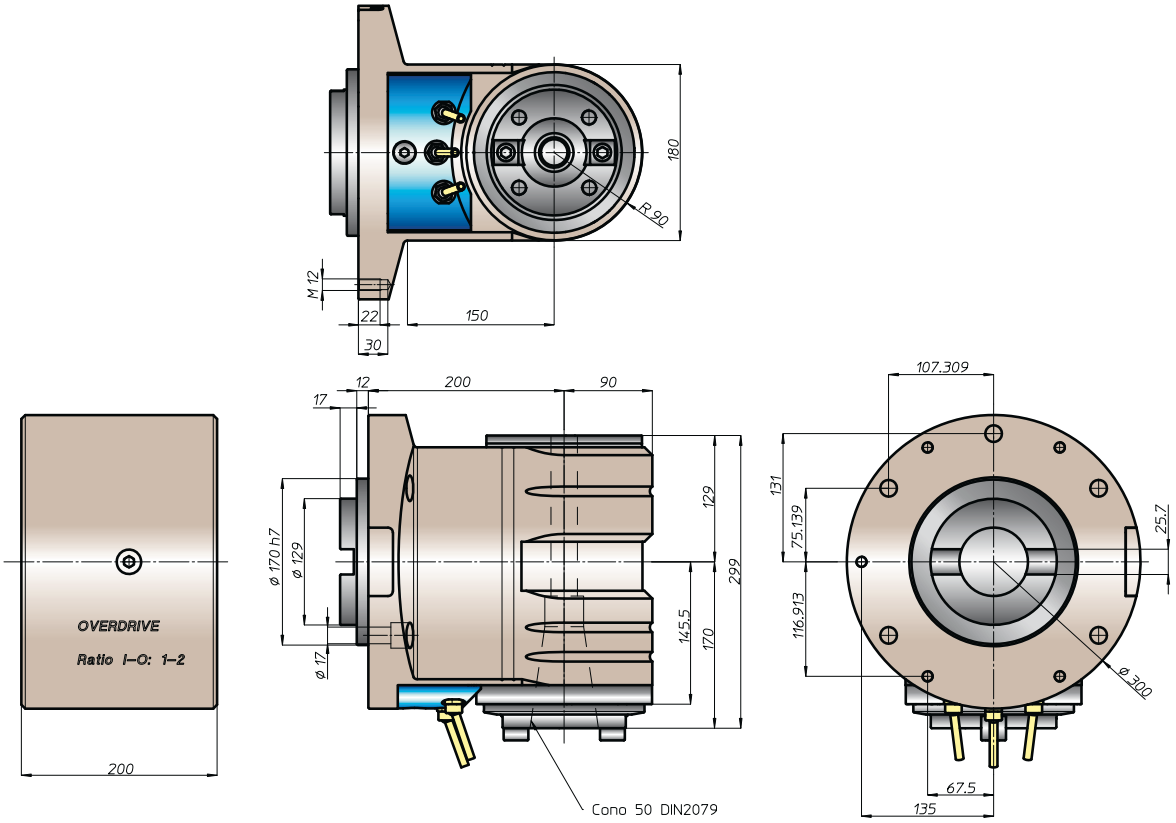
peso/*weight*

95 kg

rotazione/*rotation*

prestazioni/*performances*





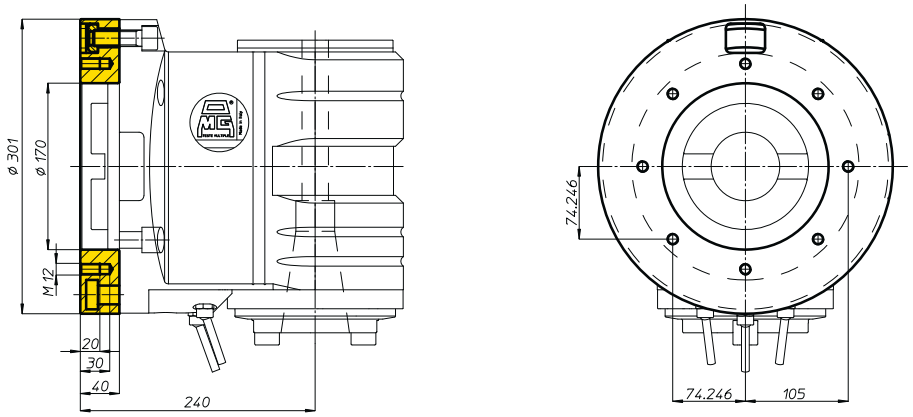
Equipaggiamento standard:
- pressurizzazione mandrino
- n. 3 ugelli orientabili vicino al mandrino
- nel mandrino DIN2079 si possono utilizzare coni DIN2080-50, DIN69871-A50, MAS403-BT50

Opzioni:
- mandrino DIN69893-HSK-A100, CAPTO C8

Standard equipment:
- *spindle front pressurization*
- *nr 3 adjustable nozzle near the spindle*
- *on the spindle DIN2079 you can use shank DIN2080-50, DIN69871-A50, MAS403-BT50*

Options:
- *spindle DIN69893-HSK-A100, CAPTO C8*

esempio di collegamento - *connection example*



TA50.TD

caratteristiche/*features*

ø 45 | M36 | 1-1

2500 / 4000 giri/1' r.p.m. | 50 bar

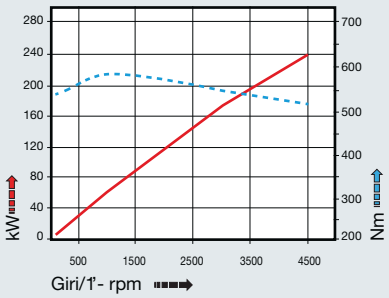
peso/*weight*

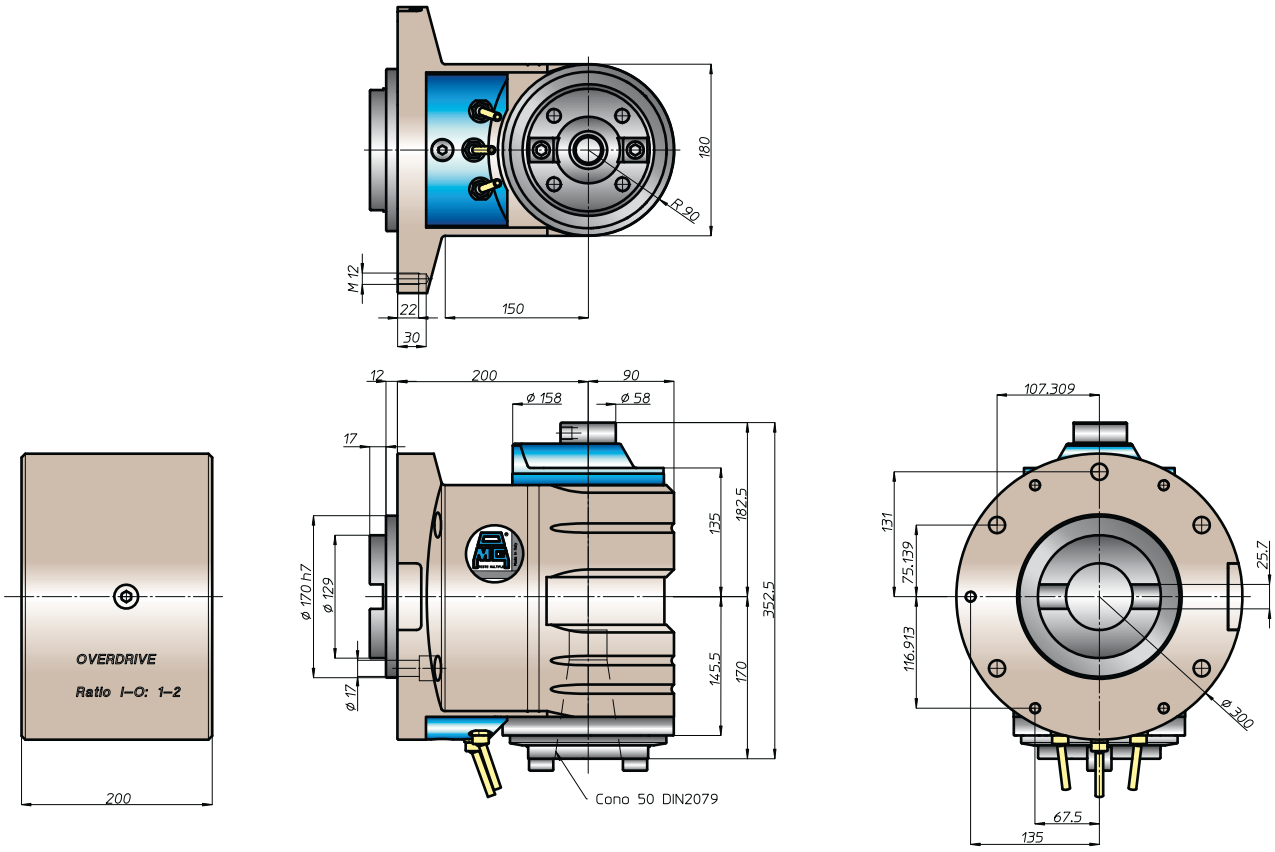
95 kg

rotazione/*rotation*

input → output

prestazioni/*performances*





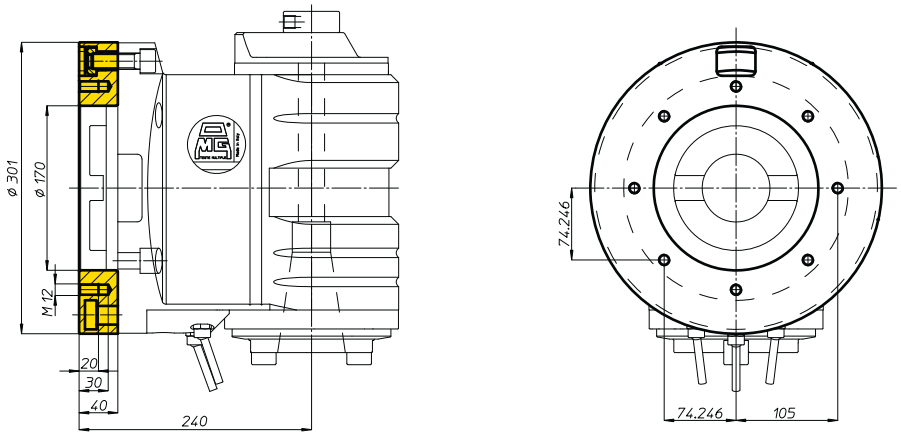
Equipaggiamento standard:
- pressurizzazione mandrino
- n. 3 ugelli orientabili vicino al mandrino
- nel mandrino DIN2079 si possono utilizzare coni DIN69871-A50, MAS403-BT50

Opzioni:
- mandrino DIN69893-HSK-A100, CAPTO C8

Standard equipment:
- *spindle front pressurization*
- *nr 3 adjustable nozzle near the spindle*
- *on the spindle DIN2079 you can use shank DIN69871-A50, MAS403-BT50*

Options:
- *spindle DIN69893-HSK-A100, CAPTO C8*

esempio di collegamento - *connection example*



testa ad angolo - *angle head*

TA13.PVDI

caratteristiche/*features*

ø 13 | M10

1-1 | 8000

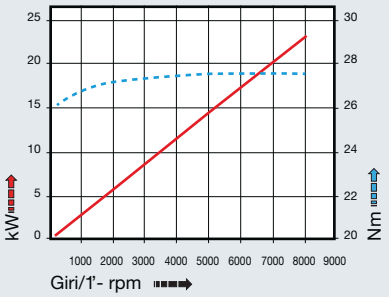
peso/*weight*

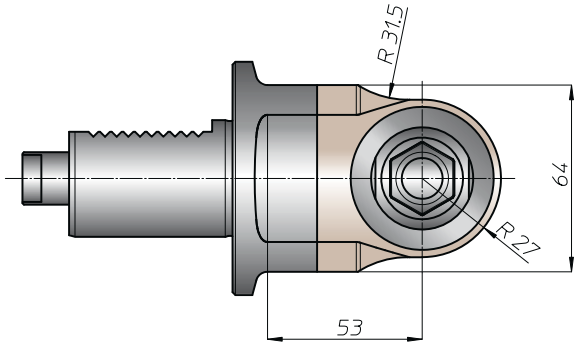
4,5 kg

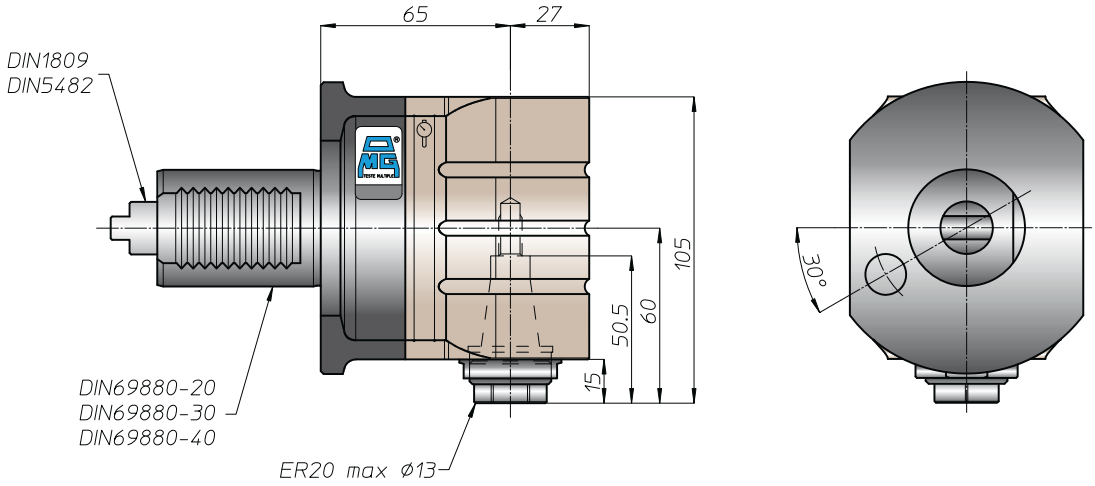
rotazione/*rotation*

input → output

prestazioni/*performances*







soluzioni speciali - *special solutions*

TA16.PVDI

caratteristiche/*features*

ø 16

M12

1-1

5000

peso/*weight*

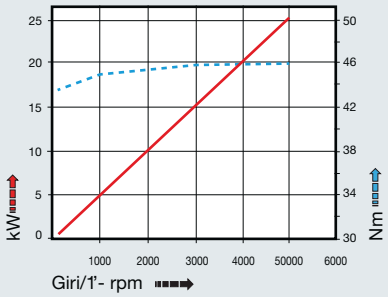
6,5 kg

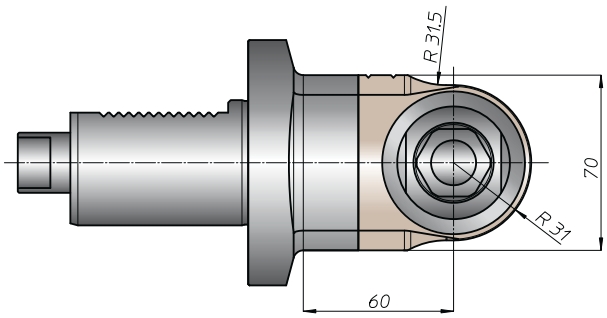
rotazione/*rotation*

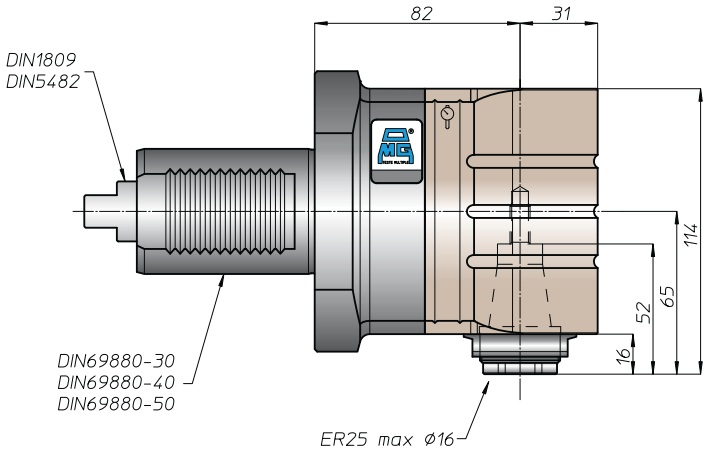
input

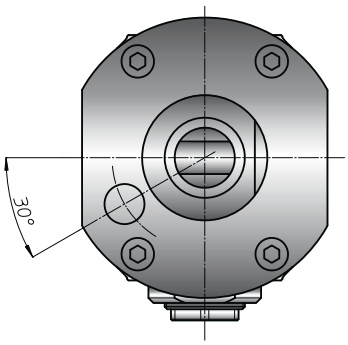
output

prestazioni/*performances*









soluzioni speciali - *special solutions*

testa ad angolo - *angle head*

TAV10.PVDI

caratteristiche/*features*

ø 10 | M8

1-1 | 4000

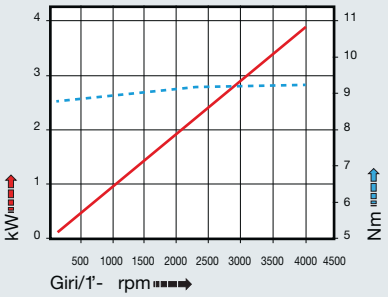
peso/*weight*

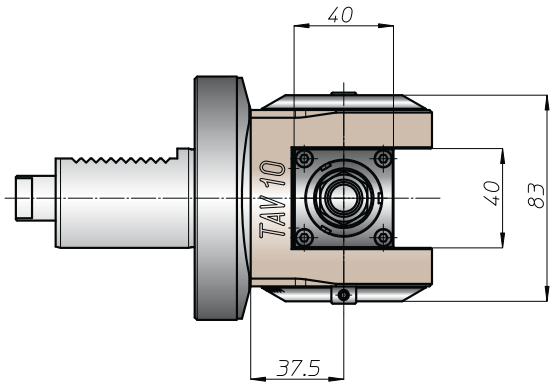
3,5 kg

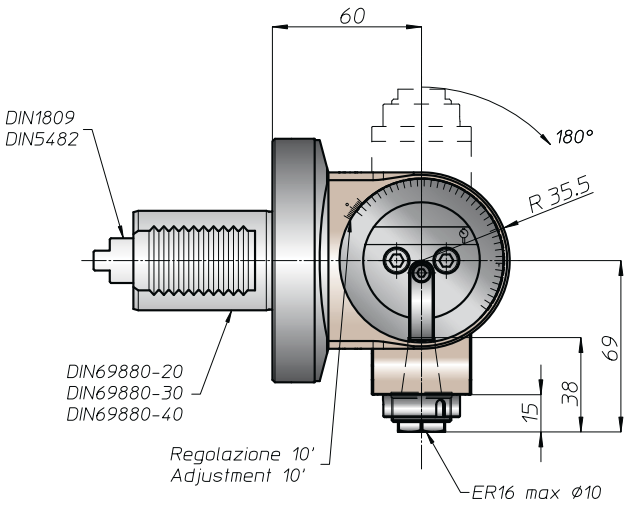
rotazione/*rotation*

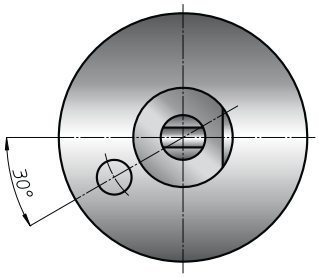
input | output

prestazioni/*performances*









soluzioni speciali - *special solutions*

TAV13.PVDI

caratteristiche/*features*

ø 13

M10

1-1

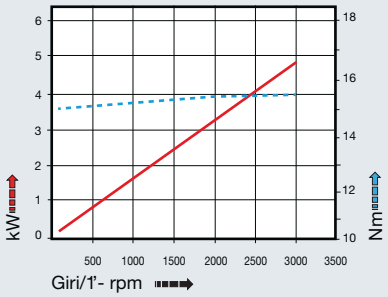
3000

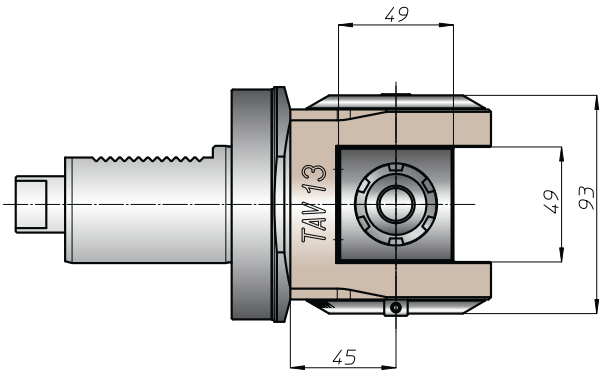
peso/*weight*

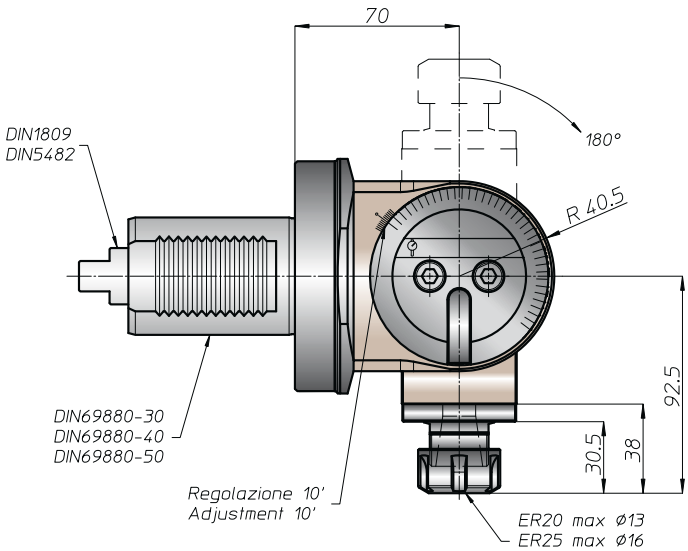
5,5 kg

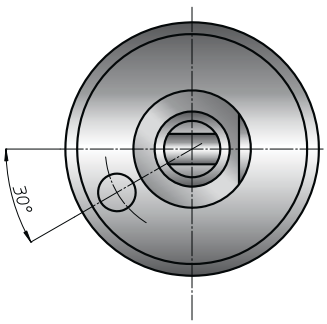
rotazione/*rotation*

prestazioni/*performances*









soluzioni speciali - *special solutions*

Antirotante
Torque arm

Il gruppo antirotante ricopre una funzione di fondamentale importanza nella qualità di lavorazione della testa ad angolo. Per questo motivo i tecnici della OMG hanno studiato e messo a punto un antirotante di nuova concezione i cui punti salienti sono:

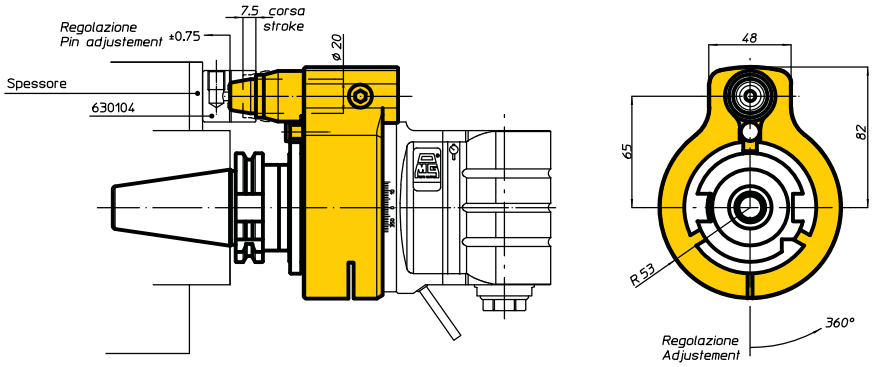
- Il perno conico
- La registrazione assiale del perno
- Adduzione del liquido passante per il corpo testa

Il perno conico e la propria registrazione assiale di mm 1.5 permettono una maggiore rigidità del sistema antirotante rispetto ai tradizionali, dotati di perni di Ø18 mm perché si eliminano i giochi con conseguente miglioramento della rigidità sia angolare che assiale.

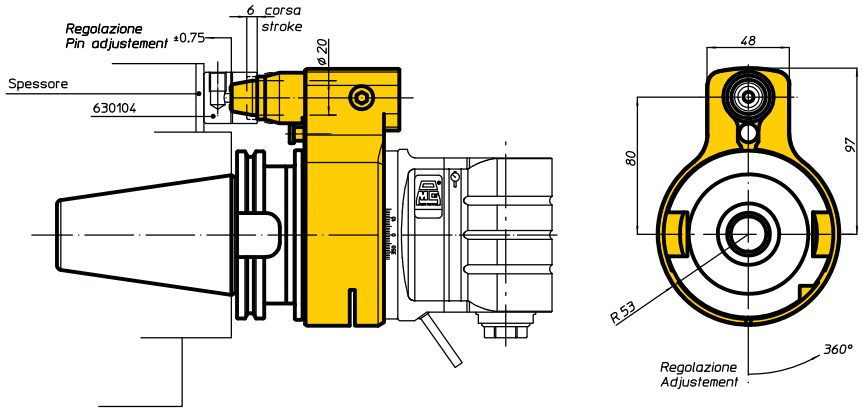
L'adduzione del liquido passante per il corpo testa, la cui uscita avviene tramite un ugello direzionabile, offre il vantaggio di non avere tubi "volanti" che possono muoversi durante le lavorazioni.

Quando possibile, nella Vostra applicazione, posizionate il perno conico dalla parte opposta al mandrino della testa ad angolo.

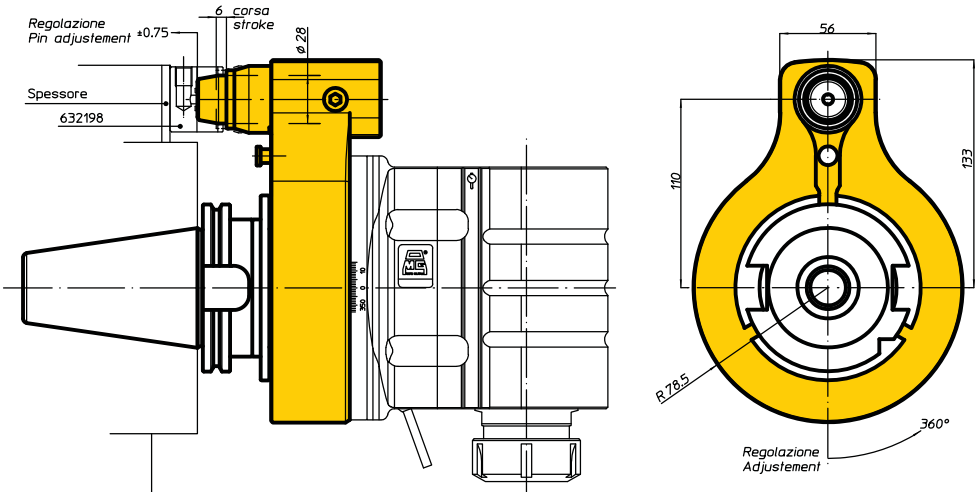
Teste ad angolo con interasse H=65
Angle heads with centre distance H=65



Teste ad angolo con interasse H=80
Angle heads with centre distance H=80



Teste ad angolo con interasse H=110
Angle heads with centre distance H=110



Stop-block

The torque arm system is crucial as far as angle-head machining quality is concerned. For this reason OMG technicians have designed and developed a new system with the following characteristics:

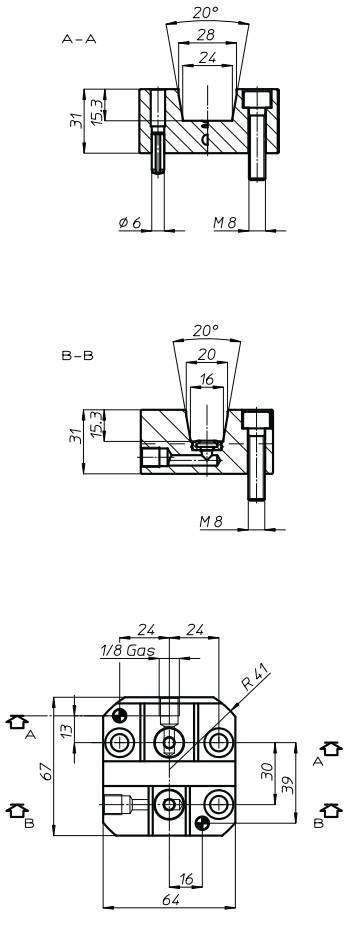
- *conical pin*
- *axial pin adjustment*
- *coolant through the head body*

The conical pin and its 1.5 mm axial adjustment ensure upgraded antirotation system strength compared to traditional systems, featuring Ø 18 mm pin, because play is eliminated, thereby improving both angular and axial strength.

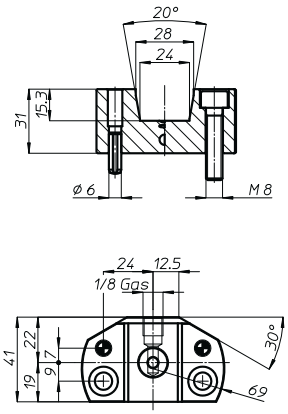
By the pin the coolant through the head, thanks to an adjustable nozzle, the added advantage is achieved of eliminating "free" pipes that could move during machining operations.

Position the conical pin on the opposite side of the angle head spindle when possible in your application.

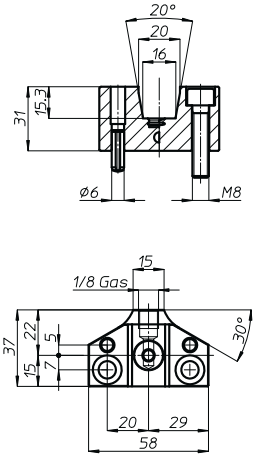
Double Stop-block (cod. 632199)



Stop-block (cod. 632198)



Stop-block (cod. 630104)



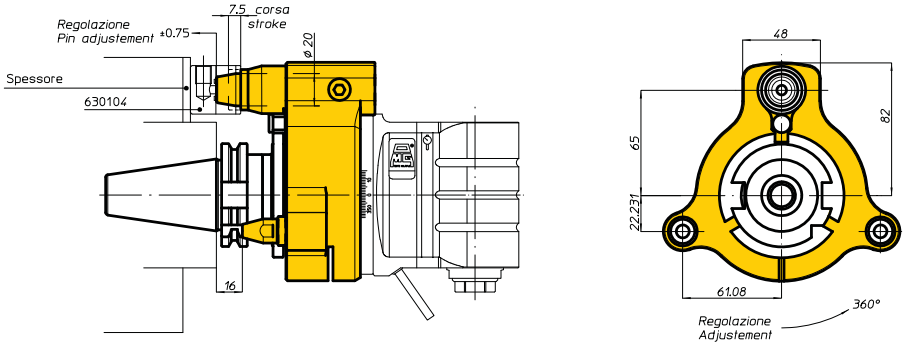
Antirotante TRIBLOCK
Torque arm TRIBLOCK

Il gruppo antirotante TRIBLOCK ricopre una funzione di fondamentale importanza quando alla testa ad angolo è richiesto di:

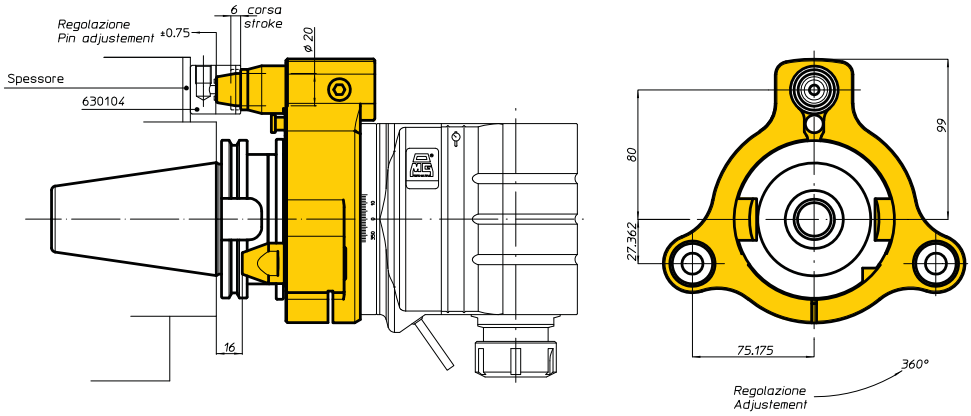
- eseguire una lavorazione più pesante
- essere più lunga dello standard
- finitura superficiale eccellente

Il TRIBLOCK è dotato di tre punti di appoggio di cui uno è lo standard come nei precedenti e due supplementari da registrare tramite un rasamento. Questi tre punti, allargando l'appoggio di base della testa ad angolo, consentono di ottenere una rigidità superiore allo standard. Quando poi si richiede alla testa di essere immagazzinata su di un supporto esterno al magazzeno standard, ecco che il TRIBLOCK utilizza i propri tre punti per posizionare la testa.

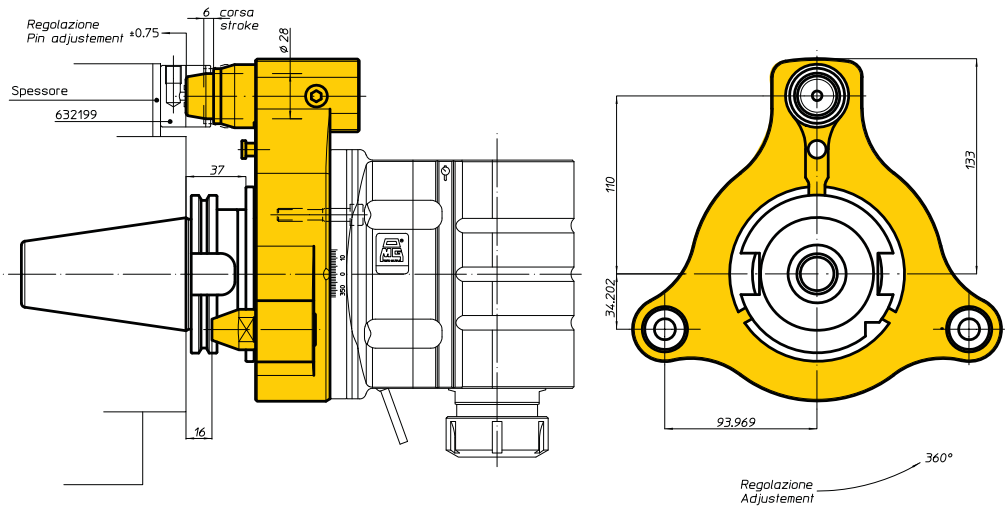
Teste ad angolo con interasse H=65
Angle heads with centre distance H=65



Teste ad angolo con interasse H=80
Angle heads with centre distance H=80

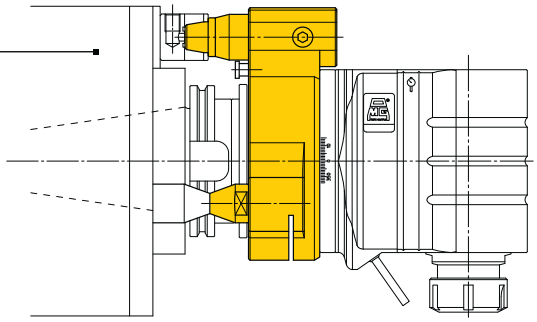


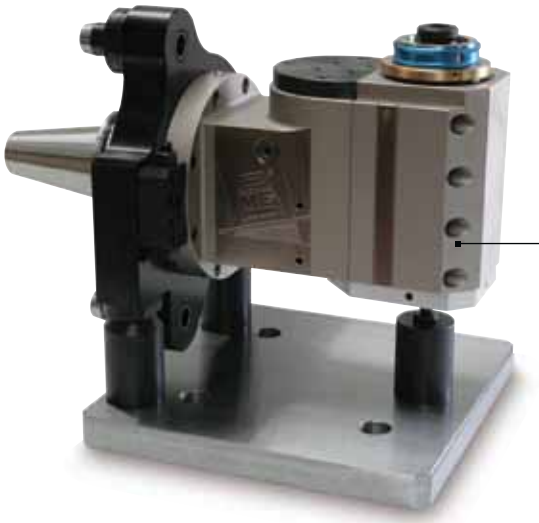
Teste ad angolo con interasse H=110
Angle heads with centre distance H=110



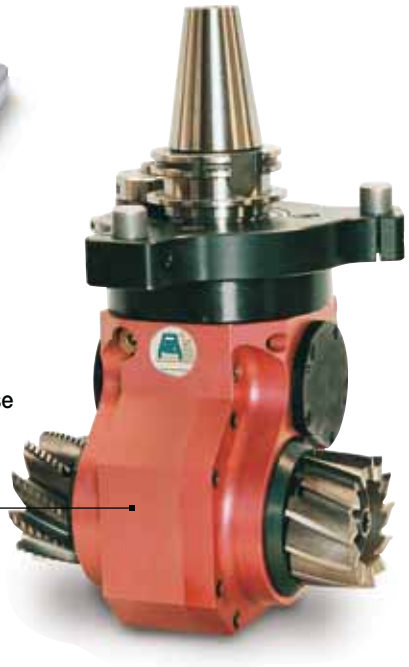
Antirotante TRIBLOCK
Torque arm TRIBLOCK

Sul mandrino macchina
On spindle machine



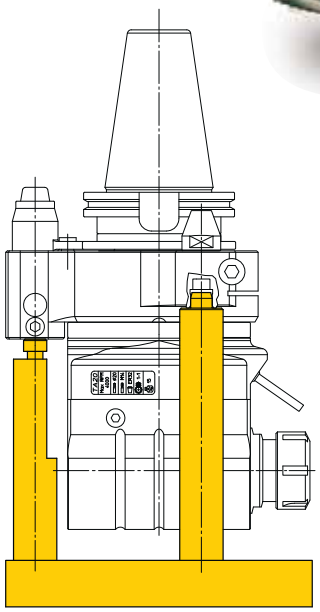


TFS 19907
Testa ad angolo per fresatura componente motore a reazione.
Peso Kg 45,5
Milling angle head for jet engine.
Weight Kg 45,5



TFS 39195
Testa bimandrino di fresatura n° 2 frese Ø 100 peso Kg 33
Twin milling head, nr. 2 milling cutter Ø 100 weight Kg 33

Sul supporto da tavola
On rack table



The Triblock system is of crucial importance when it comes to:

- *doing difficult jobs*
- *having a head that is longer than standard*
- *achieving an excellent surface finish*

The Triblock system features three supporting points, one of which is standard, as in the previous version, plus two additional ones that need adjusting by means of a spacer. These three points, by extending the angle-head supporting base, provide above-average standards of strength.

When the head has to be stored on a rack table outside the standard magazine, the Triblock system uses the three points to storage the angle heads.

Antirotante QUADBLOCK
Torque arm QUADBLOCK

Il sistema antirotante “QuadBlock” è un sistema all’avanguardia per equipaggiare Teste ad Angolo dove si richiede alta asportazione e alta rigidità dell’insieme “testa ad angolo-macchina”. Utilizzabile nel montaggio manuale, esso consiste in un anello antirotante completo di quattro perni di contrasto suddivisi equamente sui 360°. Tale disposizione consente di poter ruotare la Testa ad Angolo in automatico con un semplice movimento della macchina, se questa ne ha le capacità. Il vantaggio di poter lavorare quattro facce del pezzo senza sostituire la Testa ad Angolo si concretizza con la riduzione dei costi previsti per gli utensili.

L’evoluzione del sistema “QuadBlock” per le macchine con cambio automatico, consente di utilizzare la Testa ad Angolo come un prolungamento del mandrino macchina ruotato dei gradi richiesti dal cliente. È possibile inoltre sostituire il portautensile in automatico ed ampliare infinitamente la versatilità della macchina utensile avendo a disposizione quei servizi normalmente presenti sul mandrino macchina:

- Aria pulizia del portautensile
- Liquido refrigerante centro utensile alta pressione
- Liquido refrigerante esterno utensile
- Liquido bloccaggio-sbloccaggio utensile
- Controllo presenza utensile

Tutto ciò per consentire l’utilizzo di portautensili tipo Capto, HSK, DIN69871. Mettiamo a disposizione il nostro ufficio tecnico e la nostra esperienza per personalizzare al meglio il Vostro sistema.

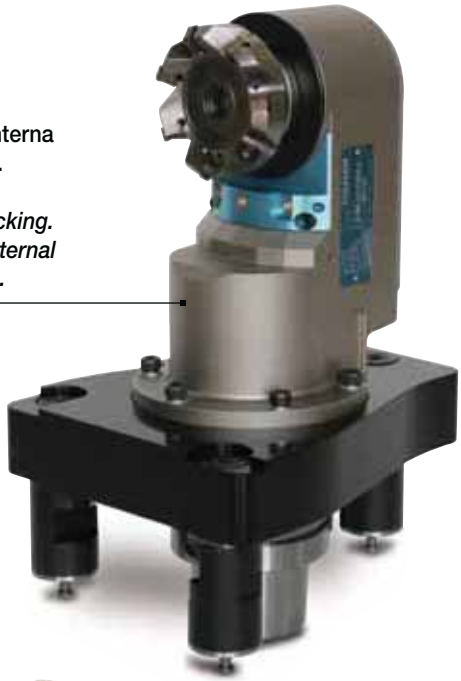
TAS13609
Fresatura su corpo in fusione di ghisa. Peso kg 36.
Milling on cast iron pump’s body. Weight 36 kg.

TAS13209
Lavorazione di finitura interna culle motore idraulico. Peso kg 36.
Internal finishing work for hydraulic motor’s body. Weight 21 kg.

TAS16209
Linee di servizio per il mandrino HSK63F con cambio automatico dell’utensile, sensore presenza utensile in radiofrequenza.
Peso kg 28.
Utility line for HSK63F spindle with automatic tool change, radio-frequency switch to verify tool presence. Weight 28 kg.

Antirotante QUADBLOCK
Torque arm QUADBLOCK

TAS24408
Lavorazione di fresatura interna corpo pinza freno in ghisa.
Peso Kg 28.
Triblock with automatic locking. Cast iron brake housing internal milling work. Weight 28 kg.



TA12907
Lavorazione di fresatura generica struttura elettrosaldata di acciaio.
Peso Kg 48.
Special Quadblock with automatic locking. General milling work on electro-welded steel structure. Weight 48 kg.

TAS08606
Servizi per mandrino CAPTO C4 con cambio automatico dell'utensile.
Peso kg 36.
Spindle with utility line for CAPTO C4 with automatic tool change. Weight kg 36.

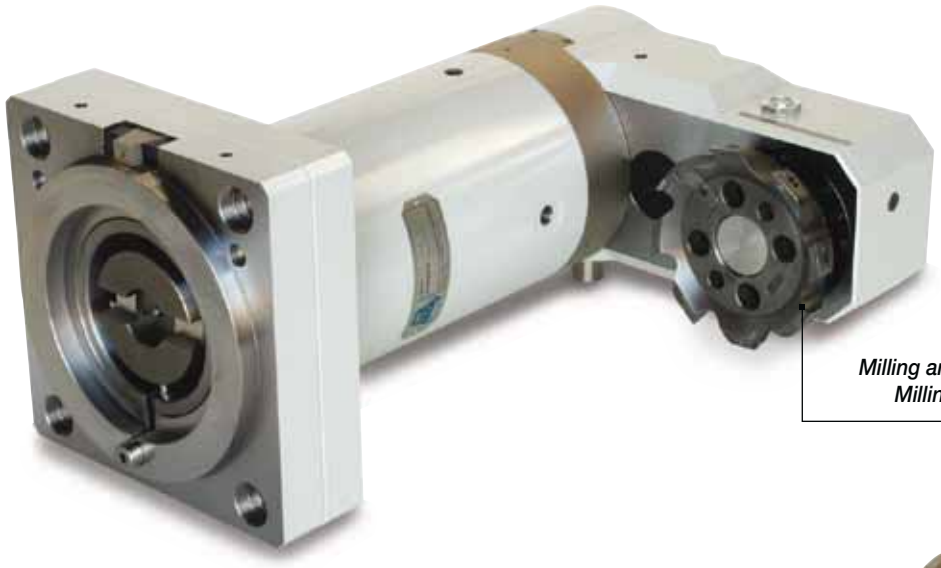
The QuadBlock torque arm is a forefront system to equip Angle Heads which are requested with a high removal machining capacity and with extremely high rigidity in coupling with the machine tool. It can be used with a manual tool change and is made by a torque arm ring complete with four counterposed pins with same distance each other on the 360°. Such a layout allows an automatic rotation of the Angle Head with a simple movement of the machine if featured to do it. The possibility of machining four faces of the piece without replacing the Angle Head is giving the advantage of reducing costs of tools equipment.

The evolution of the QuadBlock system on automatic tool change machines allows to use the Angle Head like an extension of the machine spindle with the degree rotations required by the customer. It is also possible to automatically change the tool holder and to infinitely widen the versatility of the machine tool getting those utilities normally available on the machine spindle:

- *tool-holder cleaning air*
- *through-tool high pressure coolant*
- *side-tool coolant*
- *tool locking-unlocking liquid*
- *tool presence control*

All these to allow using tool-holders like Capto, HSK, DIN69871. Our R&D department is at your disposal with his experience to customize your system at its best.

Teste ad angolo speciali
Special angle heads



TFS 41304
Testa ad angolo di fresatura con mandrino ribaltato. Fresa Ø 200. Peso Kg 327,5.
Milling angle head with reverse spindle. Milling tool Ø 200. Weight Kg 327,5.

TFS 05303
Testa ad angolo di fresatura con fresa diam. 7 peso Kg 8
Milling angle head with milling cutter diam. 7 weight Kg 8

TAS 15505
Testa ad angolo di foratura e fresatusa, attacco utensile CAPTO C4 automatico. Peso Kg 130.
Drilling and milling angle head, automatic tools changer CAPTO C4. Weight Kg 130.

TFS 23301
Testa ad angolo di foratura a tre mandrini peso kg 5,9
Drilling angle head with three spindles weight kg 5,9

TFS 39998
Testa ad angolo universale. Presa utensili ISO50, peso kg 580
Angle head with tool shank ISO50, weight kg 580

Teste ad angolo speciali
Special angle heads

TFS 36699
Testa ad angolo bimandrino registrabile, peso kg 29
Adjustable twin angle head, weight kg 29

TFS 34004
Testa ad angolo di foratura a 3 mandrini a 120°.
Peso Kg 18.
Drilling angle head, n 3 spindles at 120°.
Weight Kg 18.

TAF 37503
Doppia testa ad angolo di foratura.
Twin drilling angle head.

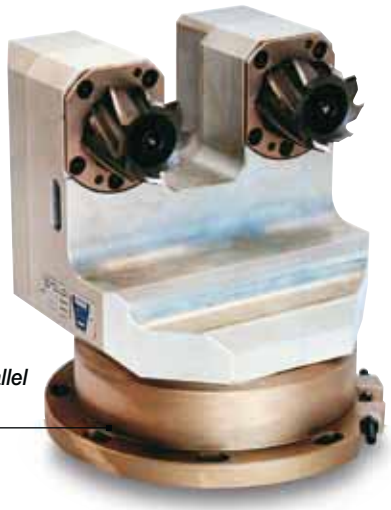
TA 09603
Testa ad angolo di alesatura con utensile Ø 160 peso Kg 77
Boring angle head with tools Ø 160 weight Kg 77

TFS 08993
Testa ad angolo speciale con doppia coppia di mandrini contrapposti peso kg 18
Angle head with two opposite twin spindles weight kg 18

TFS 06003
Testa ad angolo di fresatura con fresa Ø 110 peso Kg 210
Milling angle head with milling cutter Ø 110 weight Kg 210

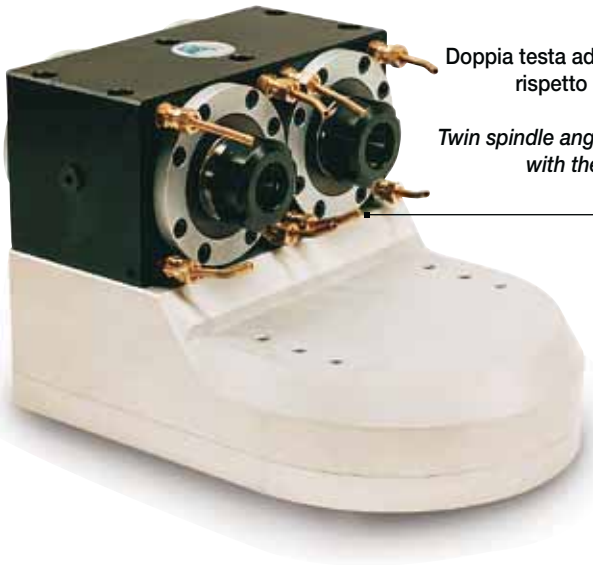
Teste ad angolo speciali
Special angle heads

TAS 33206
Testa bimandrino di fresatura
per frese Ø 160 peso kg 63
Twin milling head with
milling cutter Ø 160 weight kg 63



TFS 21701
Testa di fresaturaa due mandrini
paralleli, peso kg 14
Milling angle head with two parallel
spindles, weight kg 14

TFS 34495
Testa bimandrino di fresatura n. 2 frese Ø 130
peso kg 290
Twin milling head, nr. 2 milling cutter Ø 130
weight kg 290



TFS 16696
Doppia testa ad angolo disassata
rispetto all'asse macchina
peso kg 24
Twin spindle angle head not in line
with the machine spindle
weight kg 24

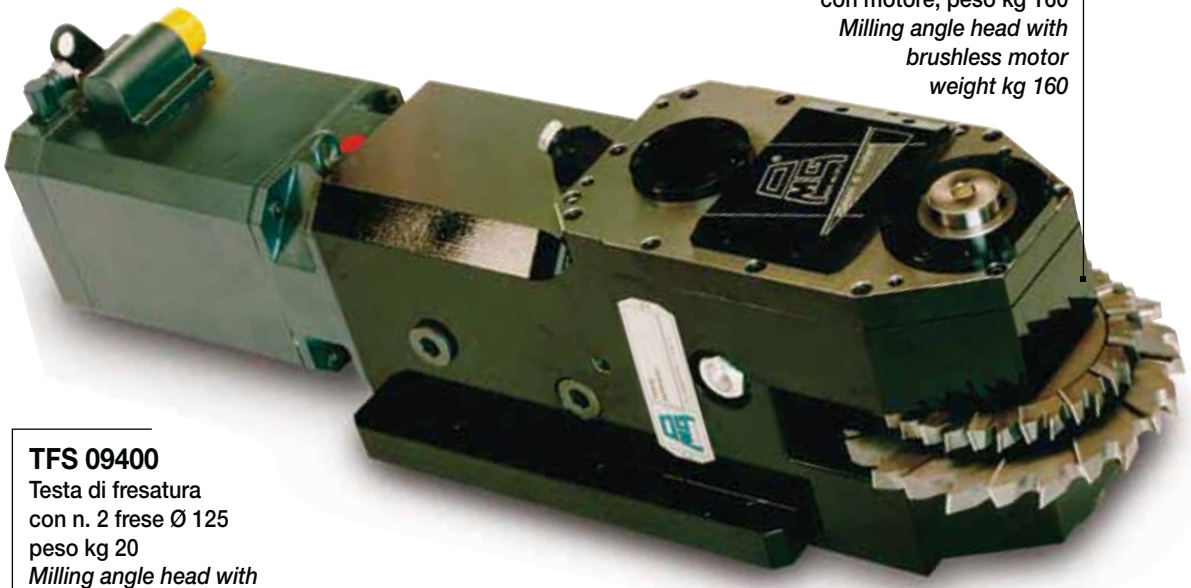
TFS 36994
Testa bimandrino di fresatura
n. 2 frese Ø 60, peso kg 15,5
Twin milling head, nr. 2 milling
cutter Ø 60, weight kg 15,5

Teste ad angolo speciali
Special angle heads

TFS 12101
Testa di fresatura con cono ISO30
peso kg 16
Milling angle head with ISO30
weight kg 16

TFS 13094
Testa ad angolo disassata rispetto all'asse macchina
peso kg 17
Angle head not in line with the machine spindle
weight kg 17

TFS 50900
Testa di fresatura con motore, peso kg 160
Milling angle head with brushless motor
weight kg 160



TFS 09400
Testa di fresatura con n. 2 frese Ø 125
peso kg 20
Milling angle head with nr. 2 milling cutter Ø 125
weight kg 20

TFS 24196
Testa ad angolo bimandrino per fresatura su scatola del cambio
peso kg 70
Twin milling spindle angle head on gear box weight kg 70

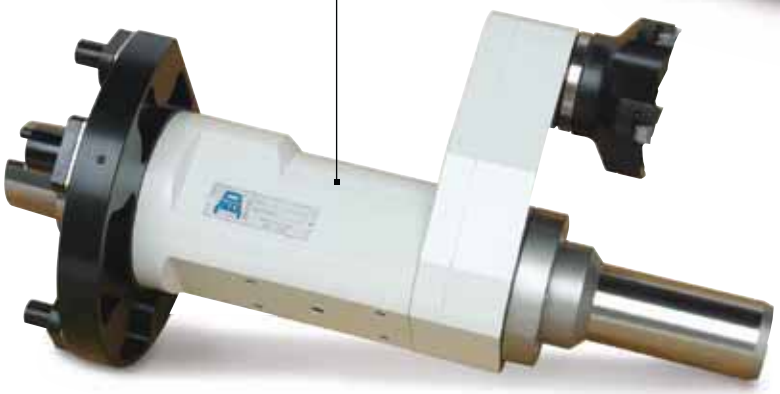
Teste ad angolo speciali
Special angle heads

TAS 41504
Testa ad angolo mandrino di fresatura. Peso Kg 338.
Twin milling angle head. Weight Kg 338.

TFS 35698
Testa ad angolo di fresatura con fresa Ø 100 peso Kg34
Milling angle head, with milling cutter Ø 100 weight Kg 34

TFS 28603
Testa di fresatura con n. 4 frese a disco Ø 125. Peso Kg 218.
Milling head, nr. 4 milling disc cutter Ø 125. Weight Kg 218.

TFS 12005
Testa ad angolo disassata per fresature Ø 150. Peso Kg 48.
Shift spindle angle head, milling tools Ø 150. Weight Kg 48.



Teste ad angolo speciali
Special angle heads

TFS 33303
Testa ad angolo disassata per foratura. Peso Kg 9,4.
Angle head with shift drilling spendle. Weight Kg 9,4.

TFS 12095
Testa ad angolo di foratura peso kg 5
Drilling angle head weight Kg 5

TAS 30505
Testa ad angolo di foratura HSK100 entrata e uscita. Peso Kg 50.
Drilling angle head, HSK 100 input-output. Weight Kg 50

TFS 33503
Testa ad angolo di lucidatura con doppia rotazione, sia corpo che utensile. Peso kg 6,5.
Polish angle head with duble rotation: body and tools. Weight Kg 6,5.

TFS 13198
Testa ad angolo disassata per foratura peso kg 5
Angle head with shift spindle weight kg 5

Teste ad angolo speciali
Special angle heads

TFS 39997
Testa ad angolo speciale bimandrino per foratura e maschiatura peso kg 16
Twin angle head for drilling and tapping weight kg 16

TAS 13806
Testa bimandrino Capto C5 manuale, peso kg 33
Twin angle head with Capto C5 manual clamping tool weight kg 33

TAS 39806
Testa di foratura a due mandrini con refrigerante attraverso il centro utensile a 50 Bar peso kg 21
Twin drilling angle head with coolant through the centre tool at 50 Bar, weight kg 21

TAS 08606
Testa fresatura conica su acciaio peso kg 23
Milling angle head with conical tool weight kg 23

TFS 40601
Testa ad angolo bimandrino, angolo tra i due mandrini 176°, peso Kg 13
Twin angle head, angle 176° between spindles, weight Kg 13

Teste ad angolo speciali
Special angle heads

TFS 20298
Testa bimandrino di fresatura
n°2 frese Ø 120 peso kg 25
Twin milling angle head, nr.2 milling cutter Ø 120 weight kg 25

TA 05500
Testa ad angolo di fresatura
con fresa Ø125 peso kg 17
Milling angle head with milling cutter Ø 125, weight kg 17

TAS 39706
Testa di fresatura per
supporto motore frese
Ø160/180 peso kg 31
Milling head for engine's bracket milling cutter Ø160/180 weight kg 31

TAS 20706
Testa per fresatura interna
pinza freno peso Kg 23
Angle milling head for brake housing weight Kg 23

TA 34397
Testa ad angolo
di fresatura
con cono ISO20
peso kg 0,9
Milling angle head with shank ISO20 weight kg 0,9

TFS 39999
Testa ad angolo
speciale fresatura
su plastica peso kg 4
Milling angle head for plastic weight kg 4

TA 17292
Testa ad angolo di fresatura
n. 2 frese per legno
peso kg 3
Twin angle head with nr. 2 milling cutter for wood weight kg 3

Teste ad angolo speciali
Special angle heads

TAS 37806
Testa ad Angolo di fresatura componente aeronautico, materiale Inconel. Peso Kg 40
Milling Angle Head for aeronautic piece, Inconel alloy material. Weight Kg 40

TFS 23910
Testa ad Angolo bimandrino, fresatura di componente in ghisa. Peso Kg 50
Twin Angle Head, milling cast iron pieces. Weight Kg 50

TFS 31110
Testa ad Angolo di foratura con mandrino HSK50 ribaltato. Peso Kg 31
Drilling Angle Head with HSK50 reverse spindle. Weight Kg 31

TAS 10708
Testa ad Angolo lunghezza mm 1.000, fresatura di cave su acciaio. Peso Kg 216
Angle Head overall lenght mm 1.000, milling key-way on steel. Weight Kg 216

TAS 13910
Testa ad Angolo di foratura con mandrino ER25.
Peso Kg 31
Drilling Angle Head with ER25 spindle.
Weight Kg 31

Teste ad angolo speciali
Special angle heads

TAS 08411
Testa ad Angolo con tre mandrini di foratura con avanzamento idraulico. Peso Kg 17,5
Drilling Angle Head with three spindles, hydraulic spindles feed. Weight Kg 17,5

TFS 26908
Testa ad Angolo bimandrino di foratura per macchina transfer. Peso Kg 9,5
Twin drilling Angle Head for transfer machine. Weight Kg 9,5

TFS 05609
Testa ad Angolo di fresatura per tornio verticale.
Peso Kg 286
Milling Angle Head for vertical lathe. Weight Kg 286

TAS 19610
Testa ad Angolo di fresatura per macchina transfer.
Peso Kg 35
Milling Angle Head for transfer machine. Weight Kg 35

TAS 28010
Testa ad Angolo con tre assi a regolazione manuale.
Peso Kg 590
Angle Head with three manual movement axis. Weight Kg 590

Teste ad angolo speciali
Special angle heads

TAS 19010
Testa ad Angolo di foratura per macchina transfer. Max RPM 20.000. Peso Kg 5
Drilling Angle Head for transfer machine. Max RPM 20.000. Weight Kg 5

TAS 26810
Testa ad Angolo TAO20, utilizzata in fresatura su torretta a revolver HT250. Peso Kg 14
Milling Angle Head TAO20, assembled on HT250 turret head. Weight Kg 14

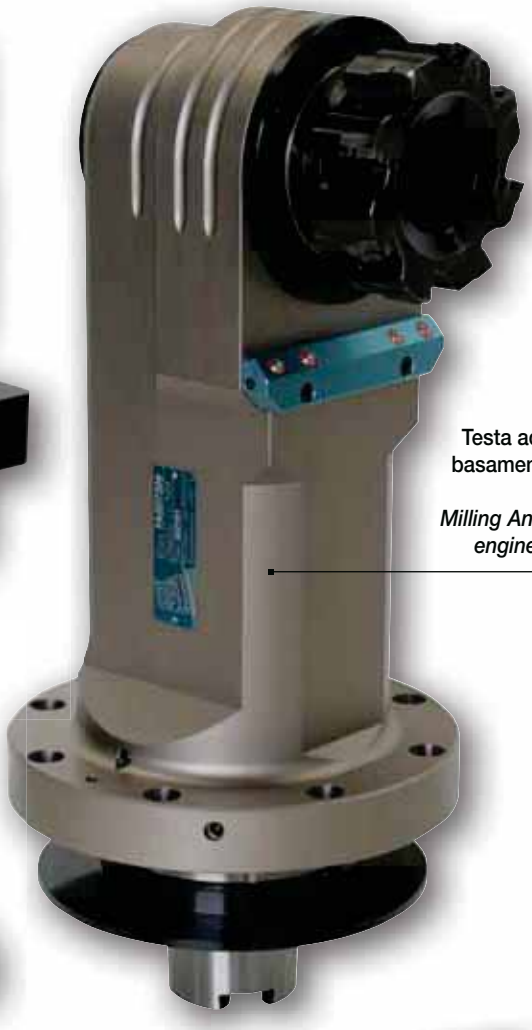
TFS 06906
Testa ad Angolo di foratura scatola sterzo. Peso Kg 10
Drilling Angle Head for steering body. Weight Kg 10

TAS 09407
Testa ad Angolo per fresatura canna di fucile. Peso Kg 6,5
Milling Angle Head for rile barrel. Weight Kg 6,5

TAS 16308
Testa ad Angolo di foratura con mandrino HSK32 a cambio automatico utensile. Peso Kg 13,5
Drilling Angle Head with spindle HSK32 with automatic tool changer. Weight Kg 13,5

Teste ad angolo speciali
Special angle heads

TAS 24508
Testa ad Angolo di fresatura pinza freno. Peso Kg 29
Milling Angle Head for brake truck body. Weight Kg 29



TAS 07309
Testa ad Angolo di fresatura, basamento motore 12 cilindri. Peso Kg 60
Milling Angle Head, 12 cylinder engine block. Weight Kg 60

TAS 24010
Testa ad Angolo di foratura componente aeronautico in alluminio. Peso Kg 13,5
Drilling Angle Head for aluminium aeronautic component. Weight Kg 13,5

TAS 07509
Testa ad Angolo bimandrino di alesatura, motore 12 cilindri. Peso Kg 63
Twin spindle boring Angle Head, 12 cylinder engine block. Weight Kg 63

TAS 28606
Testa ad Angolo di foratura componente aeronautico con mandrino HSK50, materiale Inconel. Peso Kg 27
Drilling Angle Head with HSK50 spindle for aeronautic piece, Inconel alloy material. Weight Kg 27