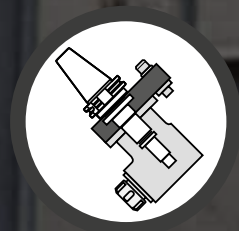




MADE IN ITALY



1



Integral angle heads series!

CLASSIC LINE

Teste Angolari / Angle heads

1.10 - 1.13

1.14 - 1.17



1.18 - 1.33

ATC - AUTOMATIC TOOL CHANGE

<i>series</i> LIGHT	<i>series</i> MINI 90°	<i>series</i> SLIM	<i>series</i> STD 90°	
GL90-7	GM90-3 300 S	GS90-2	G90-5 / 5L	G90-20L.272
GL90-10	GM90-3 300		G90-7 / 7L	G90-30 / 30L
GL90-16	GM90-3 200		G90-10 / 10L	G90-S40 / S40L
GTU-10	GM90-3 100		G90-16 / 16L	G90-S40L.280
			G90-20 / 20L	

1.55 - 1.65

1.66 - 1.70

MTC - MANUAL TOOL CHANGE

series
STD 90°

series
XL

G90-5 / 5L	G90-30 / 30L	G90-S40 / S40 XL
G90-7 / 7L		G90-S40 XLxx
G90-10 / 10L		G90-S50
G90-16 / 16L		G90-S50 XLxx
G90-20 / 20L		

1.84 - 1.93

ATC - AUTOMATIC TOOL CHANGE

ACCESSORIES

OPZIONE REFRIGERANTE INTERNO MODULAR QUICK CHANGE ADAPTORS	ESEMPIO DI MONTAGGIO MOUNTING EXAMPLE
OPZIONE DOPPIA USCITA DOUBLE OUTPUT OPTION	STOP-BLOCK STOP-BLOCK
GHIERE RECOOL RECOOL NUTS	GRUPPO ANTIROTANTE ANTI-ROTATION GROUP
ESEMPIO SCHEDA DI COLLAUDO INSPECTION SHEET EXAMPLE	GRUPPO PERNO SPECIALE SPECIAL PIN GROUP
SISTEMA ANTIROTANTE MULTIPOINT MULTIPOINT ANTIROTATION SYSTEM	

1.34 - 1.37



1.38 - 1.41

1.42 - 1.47

1.48 - 1.52



ATC - AUTOMATIC TOOL CHANGE

<i>series</i> EXTENDED	<i>series</i> GMU	<i>series</i> DOUB2E	<i>series</i> OFFSET
G90-10L.240	GMU-13 / 13L	G90-16 2U / 16L 2U	GR90-5
G90-16L.270	GMU-16	G90-20 2U / 20L 2U	GR90-10
G90-20L.332	GMU-20	G90-30 2U / 30L 2U	GR90-16
G90-30L. 287			GR90-20
			GR90-S40

1.71 - 1.75

1.76 - 1.81

MTC - MANUAL TOOL CHANGE

series
GMU

series
DOUB2E

GMU-16	G90-16 2U / 16L 2U
GMU-20	G90-20 2U / 20L 2U
GMU-S40-125	G90-30 2U / 30L 2U
GMU-S40	
GMU-S50	

1.94 - 1.97

TOOL CHANGE

ACCESSORIES

OPZIONE REFRIGERANTE INTERNO INTERNAL COOLANT OPTION	PINZE / GHIERE / CHIAVI COLLETS / NUTS / WRENCHES
CONI / FLANGE / PROLUNGHE SHANKS / FLANGES / EXTENSIONS	CAMBI RAPIDI MODULARI 2.0 MODULAR QUICK CHANGE 2.0
ESEMPIO SCHEDA DI COLLAUDO INSPECTION SHEET EXAMPLE	
ESEMPIO DI MONTAGGIO MOUNTING EXAMPLE	

Teste Angolari / Angle Heads CLASSIC LINE

Cono e Albero Integrali ! Integral Shank & Shaft !

from 1.10 to 1.52

SERIE ATC / ATC SERIES

E' la linea di teste adatte ai centri di lavoro, trasportabile automaticamente dal magazzino utensili al mandrino e viceversa. Corpo testa orientabile di 360° su ASSE MANDRINO. Quando la testa non è in posizione di lavoro, un sistema di aggancio impedisce la rotazione del cono rispetto al corpo testa. **Una caratteristica primaria delle teste Classic - ATC è l'albero centrale realizzato in un solo pezzo con il cono di attacco, per offrire la massima rigidità.** Recentissima novità è il perno di fermo intercambiabile.

This range of heads is designed to be used on machining centres and can be automatically transferred from the tool magazine to the machine spindle and back. Angle head body adjustable at 360° on SPINDLE AXIS. This allows easy adjustment of the drive taper and head relative to arreser block mounted on the front of the machining centres' spindle housing. When the head is unloaded from the machine spindle, a safety latch prevents the drive taper from rotating. **A major feature of the Classic ATC heads is the main input shaft which is integral with the drive taper to ensure maximum rigidity.** The last news is the interchangeable positioning pin.

from 1.55 to 1.81

SERIE MTC / MTC SERIES

E' la linea di teste adatte a macchine utensili tradizionali e da fissare al mandrino tramite flangiatura. La cava a "T" ricavata sulla flangia universale permette un facile posizionamento del corpo testa sui 360° intorno al suo asse verticale. Un sistema modulare componibile, rende possibile variare la lunghezza del corpo testa aggiungendo l'elemento di prolunga. Modulo di prolunga, coni e flangia universale sono modulari e quindi intercambiabili su tutti i corpi testa appartenenti allo stesso ordine di grandezza.

This is a range of heads for traditional machine tools with flange attachment. The T-slot on the universal flange facilitates positioning the head 360° around its vertical axis. The modular system makes it possible to extend the lenght of the body by adding a spacer. The extension spacer, drive tapers and universal flange are modular and therefore interchangeable among all the heads of similar size.



Prolunga / Extension



Velocità / High-speed
10.000 Rpm



Internal coolant
fino a / Up to
70Bar



Albero-Cono integrale Integral Shank and Shaft

Albero con cono di attacco integrale (cementato, temprato e rettificato) per garantire la massima rigidità

Main shaft is one solid piece with the drive input taper, case hardened and ground, to ensure maximum rigidity



Cuscinetti ABEC 9 ABEC 9 Ball Bearings

Ciascun albero di trasmissione è supportato da una coppia di cuscinetti a contatto obliquo, precaricati in classe di precisione ABEC 9 e lubrificati con grasso a vita.

Shafts supported by sets of super precision pre-loaded angular contact bearings with Long Life grease lubrication and ABEC 9 accuracy rating



Corpo testa in acciaio Steel head body

Corpo testa orientabile a 360° con pressurizzazione interna. In acciaio trattato, massima rigidità e resistenza alla corrosione. Minima dilatazione termica

Treated steel head body with 360° position and internal air pressure, maximum rigidity and corrosion resistant. Minimum thermal expansion



Ingranaggi Gleason Gleason Spiral bevel gears

Ingranaggi conici spiroidali in materiale ad alta resistenza, rettificati per garantire minore riscaldamento e rumorosità ed elevato numero di giri. Calcolo computerizzato della coppia conica degli ingranaggi (gleason): più denti in presa, più coppia in uscita, maggior numero di ore di lavorazione, rumorosità quasi assente.

Ground spiral bevel gears in the highest performance materials able to guaranteed less warming and noise and the highest Rpm. Computerized computation of the data of the set gears more than one tooth working during mesh, more power transmitted, longer gear life, almost no noise

In continuo sviluppo, la gamma di teste Classic Line, è oggi composta da 197 modelli completamente compatibili con la Linea Evolution e con qualunque macchina sul mercato grazie all'ampia gamma di coni disponibili. L'obiettivo è sempre lo stesso: Ottimizzare i cicli, semplificare e migliorare sempre di più la qualità di qualsiasi tipo di lavorazione su centri orizzontali & verticali. Le Teste Angolari Gerardi della linea Classic nascono da solide basi tecniche e dall'esperienza maturata da oltre 45 anni trascorsi al fianco dei nostri clienti durante i quali abbiamo risolto i problemi più variegati cercando la soluzione migliore e garantendo sempre l'elevata qualità ed affidabilità dei nostri prodotti.

The Classic Line Angle Heads range is constantly evolving and it currently consists of 197 items, all compatible with both Evolution Line Angle Heads and all machining centres on the market thanks to the wide range of shanks available. Our goal is always the same: optimizing the production chain by simplifying and improving more and more every type of operation on horizontal and vertical machining centres. The new Classic line of Gerardi angle heads has been designed from a technical base derived from more than 40-years-experience in solving thousands of production problems, finding optimum solutions and always guaranteeing the highest product quality.



Refrigerante 10BAR
attraverso il perno
Standard 10BAR
coolant through the pin

Manipoli ad Angolo
90° Angle Spindle

TESTE ANGOLARI CON PASSAGGIO REFRIGERANTE: ANGLE HEADS COOLANT TYPES:



10bar

» Perno
» Utensile
» Positioning pin
» Tool



10bar

» Perno
» Distributore
» Utensile
» Positioning Pin
» Rotating Distributor
» Tool



up to 70bar

» Cono
» Distributore
» Utensile
» Shank
» Rotating Distributor
» Tool



up to 150bar

» Perno
» Ghiera ReCool
» Utensile
» Positioning Pin
» ReCool Nut
» Tool

SCAN IT TO WATCH THE



VIDEO PRESENTATION



Linea di teste angolari integrali! Integral angle heads series!



Uscite regolabili GMU GMU Adjustable output

Operazioni orizzontali, verticali e angolari con una sola testa. Uscita completamente regolabile con angolazione 0° a 90°

Vertical, horizontal and angular machining operations with one angle head only. Fully adjustable output 0° to 90°

Novità / News



Linea Classic / Classic Line

Nuovi modelli di Teste Angolari Integrali

New types of Integral Angle Heads



series
MI_{NI} 90°

La nuova serie di teste angolari con manipolo ad angolo intercambiabile per lavorazioni con utensile da Ø1,6 a Ø3

New series of angle heads with interchangeable angle spindle for machinings with Ø1,6 to Ø3



series
EXTENDED

La serie di teste angolari EXTRA LUNGHE con torretta riportata.

New EXTENDED series angle heads with reported turret.



series
SLIM

Nuovo modello di testa standard a 90° per MICRO lavorazioni in ingombri minimi

New standard 90° head type for MICRO machining in minimum overall spaces



series
OFFSET

Nuova gamma di teste disassate con refrigerante interno fino a 70bar.

New offset heads range with internal coolant up to 70 bar.

Esempi applicativi / Applications examples

Linea Classic / Classic Line

Teste angolari integrali serie ATC (Cambio utensile automatico)

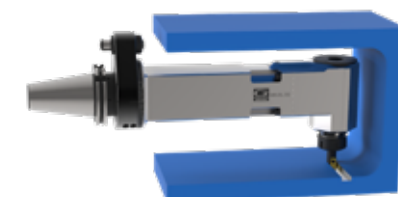
Integral angle heads ATC series (Automatic tool change)



series
MI_{NI} 90°

La nuova serie di teste angolari con manipolo ad angolo intercambiabile per lavorazioni in ingombri minimi

New series of angle heads with interchangeable angle spindle for machining in minimum overall spaces



series
EXTENDED

La serie di teste con torretta riportata ideale per fresature, forature e maschiature in profondità.

The angle head series with reported turret for deep milling, drilling and tapping.



series
COOLANT

La serie di teste angolari con passaggio refrigerante diretto dal mandrino, uscita utensile fino a 70bar

Angle heads series with coolant input directly from machine spindle and output through the tool up to 70bar



series
GMU

La serie di teste angolari con angolazione regolabile da 0 a 90°. Spina di posizionamento rapido (Step 15°)

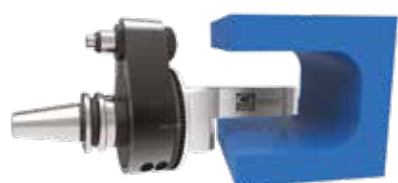
Angle heads series with adjustable angle from 0 to 90°. Quick positioning pin (Step 15°)



series
DOUB2E

La serie di teste angolari ideali per fresature, forature e maschiature attraverso 2 mandrini contrapposti di 180°

Angle Heads series for milling drilling and tapping through 2 opposite outputs

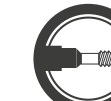


series
OFFSET

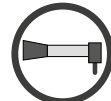
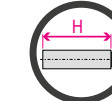
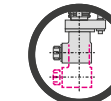
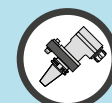
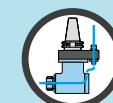
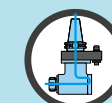
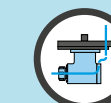
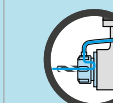
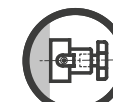
Testa angolari disassate per lavorazioni in spazi ristretti con opzione passaggio refrigerante dal cono, uscita utensile 70 BAR

Offset series for machining in narrow spaces with coolant input directly from machine spindle and output through the tool at 70 BAR

SIMBOLOGIA DATI TECNICI TECHNICAL DATA LOGOS

							
Rapporto trasmissione Ratio	Numero di giri Revolutions per minute Rpm	Carico assiale Axial load N	Coppia Torque Nm	Peso Weight Kg	Uscita Output Ø	Maschio Tapping M	Pinza Collet Ø

INDICE OPZIONI OPTIONS INDEX

OPZIONI OPTIONS						
	Manipolo ad angolo Angular chuck		Spina per posizionamento rapido Quick positioning pin	Prolunga per manipolo ad angolo Extension for angular chuck	Lunghezze speciali Special length	Flangia Multipoint Multipoint flange
PASSAGGIO REFRIGERANTE COOLANT						
	Attraverso il perno Through the Pin	Perno » Distrib » Utensile Pin » Distributor » Tool	Cono » Distrib » Utensile Shank » Distributor » Tool	Distributore » Utensile Distributor » Tool	Perno » Ghiera » Utensile Pin » Distrib » Tool	
	10bar (standard)	10bar	30 / 40 / 70bar	10bar	ReCool NUT	
						
	ROTAZ. a SECCO DRY RUNNING	ROTAZ. a SECCO DRY RUNNING	ROTAZ. a SECCO DRY RUNNING	ROTAZ. a SECCO DRY RUNNING	ROTAZ. a SECCO DRY RUNNING	
USCITA OUTPUT						
	Uscita ER ER output	Uscita HSK HSK output	Uscita ISO ISO output	Uscita portafresa Shell mill holder output	Uscita WELDON WELDON output	Uscita C. C. output
						Doppia uscita Double output

ATC SERIES AUTOMATIC TOOL CHANGE



INGRANAGGI - GEARS

Ingranaggi Gleason con evolvente rettificato massime performances e minori vibrazioni

Gleason ground spiral bevel gears maximum performances and minimum vibration



STOP BLOCK

Con bussola cementata e guarnizione
With case hardened bushing and gasket



CUSCINETTI - BEARINGS

Cuscinetti a sfera a contatto obliquo in classe di precisione ABEC 9

Angular contact preloaded ball bearings of precision class ABEC 9

DESIGN

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

The Compact design, along with mentioned specifications, allows: highest performances, high speeds, long tools life

Albero integrale con cono cementato, temprato, rettificato
Integral case hardened and ground shank and shaft

Gruppo antirotante modulare
Modular antirotation group

Anello graduato
Graduated ring

USCITE - OUTPUTS:
- Portapinza ER (standard)
- Weldon
- Portafresa
- Speciale
- ER collet (standard)
- Weldon
- Shell mill holder
- Special



Perno di riferimento con sbloccaggio automatico del porta utensile
Positioning pin with automatic tool release

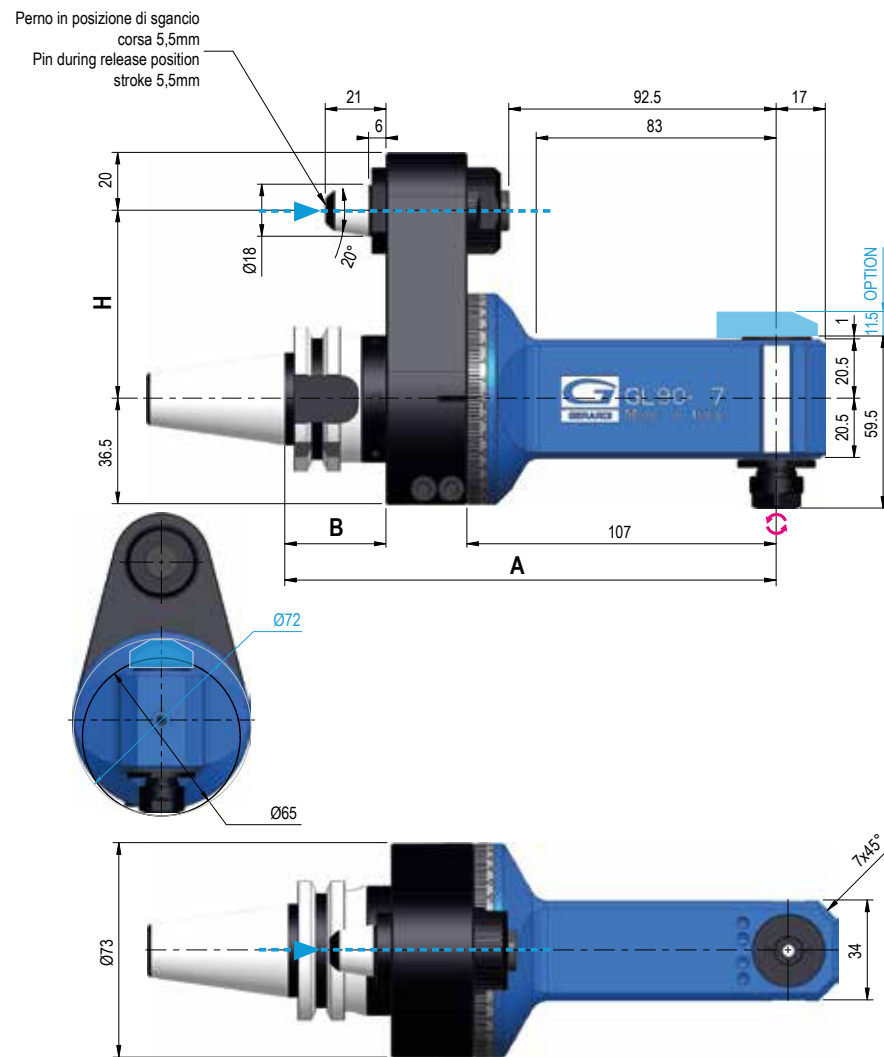
Passaggio refrigerante 10BAR attraverso il perno
Standard 10BAR coolant through the pin

Corpo testa orientabile a 360° con pressurizzazione interna. In acciaio trattato, massima rigidità e resistenza alla corrosione. Minima dilatazione termica.
Treated steel head body with 360° position and internal air pressure, maximum rigidity and corrosion resistant. Minimum thermal expansion.

Ciascun albero di trasmissione supportato da cuscinetti a contatto obliquo, che garantiscono rotazioni dell'albero-cono e dell'uscita portautensile entro 0,01 mm
Each transmission shaft is supported by slanting bearings that ensure the shaft with shank and the toolholder output rotations within 0,01mm.

GL90-7

TYPE 0



Dati tecnici - Technical data

Ratio 1:1	ISO/BT30 2.2 Kg ISO/BT40 2.7 Kg
Rpm 10.000	Ø 7
N 120	M 6
Nm 5	ER11 Ø17

SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893
Grandezza - Size	30 40	40	30 40	63
Dual contact (Optional)				
Standard	65 / 80	65 / 80	65 / 80	65 / 80
H Optional 110				
A	170	170	165	170
B	35	35	30	35
				177
				42

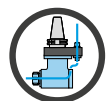
Dotazione Standard Standard Equipment

Opzioni - Options

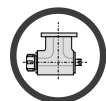
Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro Istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO

PACK & WEIGHT: Max. Kg 5,5



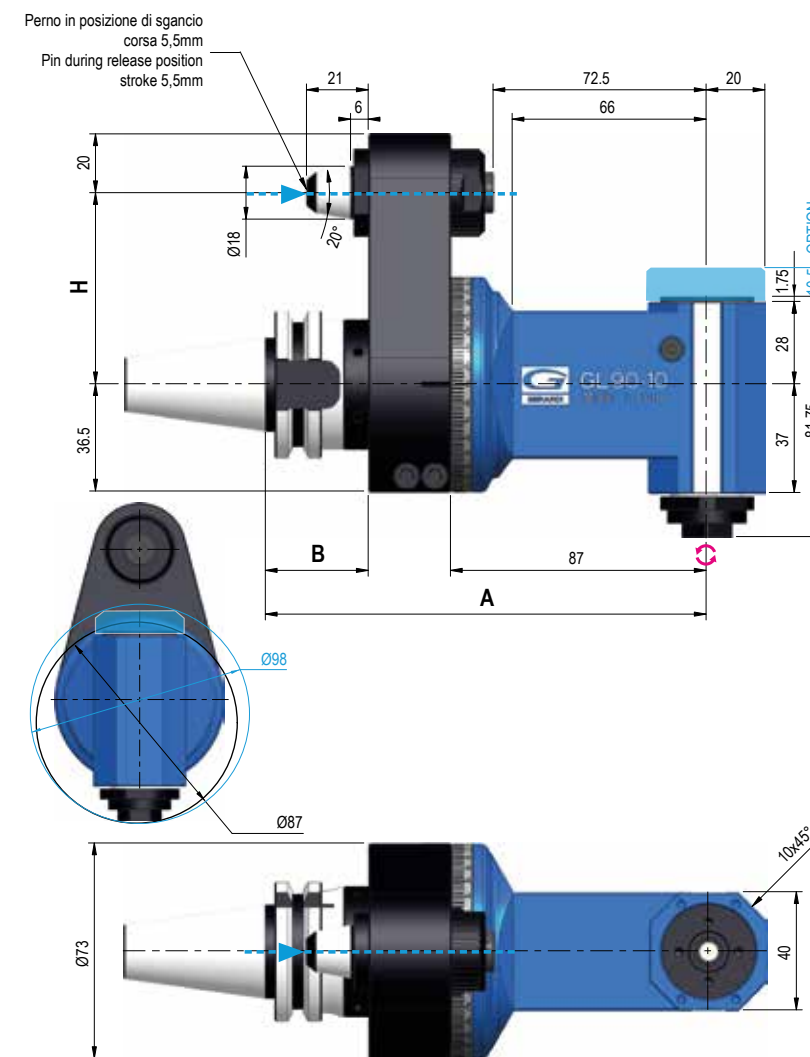
REFR. DAL PERNO
COOLANT PIN THROUGH Max 6.000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER 11 / ER 8M



USCITA
OUTPUT
Weldon Max Ø 6



GL90-10

TYPE 0



Dati tecnici - Technical data

Ratio 1:1	ISO/BT30 2.4 Kg ISO/BT40 2.9 Kg
Rpm 10.000	Ø 10
N 250	M 8
Nm 10	ER16 Ø17/10

SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893
Grandezza - Size	30 40	40	30 40	63
Dual contact (Optional)				
Standard	65 / 80	65 / 80	65 / 80	65 / 80
H Optional 110				
A	150	150	145	150
B	35	35	30	35
				157
				42

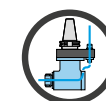
Dotazione Standard Standard Equipment

Opzioni - Options

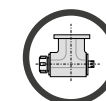
Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro Istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO

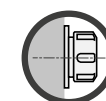
PACK & WEIGHT: Max. Kg 6



REFR. DAL PERNO
COOLANT PIN THROUGH Max 6.000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



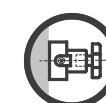
DOPPIA USCITA
DOUBLE OUTPUT
ER 11 / ER 8M



USCITA
OUTPUT
ER 20



USCITA
OUTPUT
Weldon Max Ø 6



USCITA
OUTPUT
Portafresa -
Shell mill holder Ø13

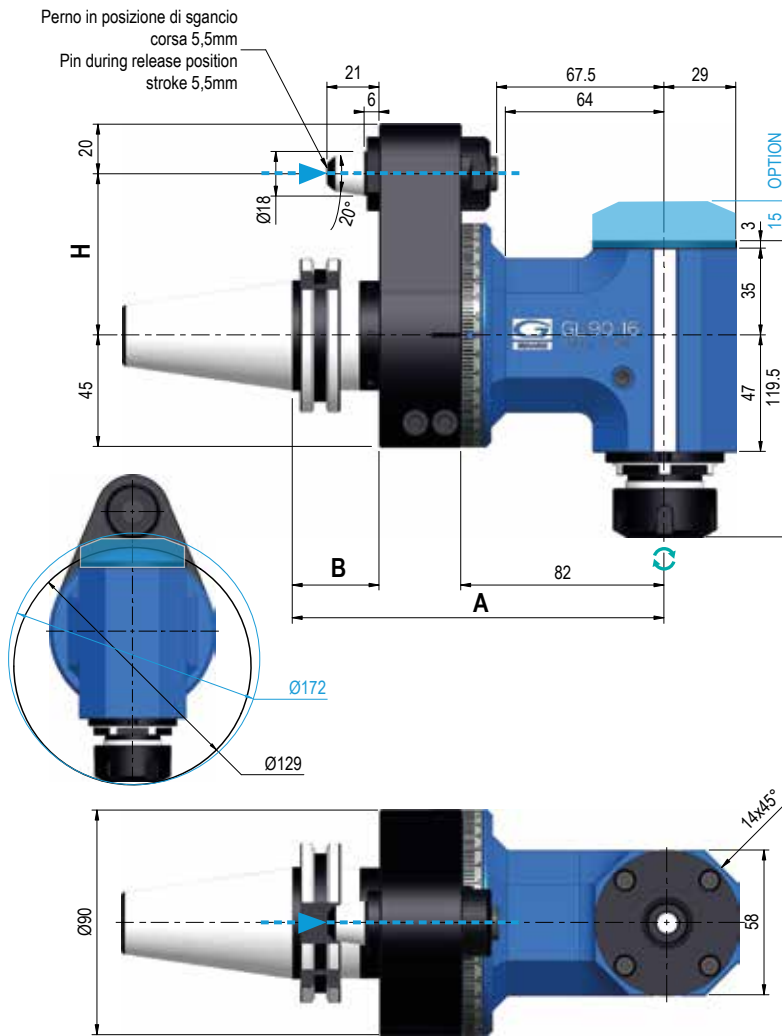
GL90-16

TYPE 1



Dati tecnici - Technical data

Ratio 1:1	ISO/BT40 4,3 Kg ISO/BT50 7,2 Kg
Rpm 8.000	Ø 16
N 510	M 12
Nm 24	ER25 Ø1/16



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

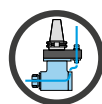
Coni Shanks		 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623					
Grandezza - Size		40	50	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)											
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80
	Optional 110										
A		150	150	150	156	157	160	153	155		
B		35	35	35	41	42	45	38	40		

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

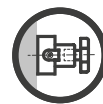
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 10,5



REFR. DAL PERNO
COOLANT PIN THROUGH
Max 4.000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



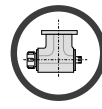
USCITA
OUTPUT
Welding Max Ø16



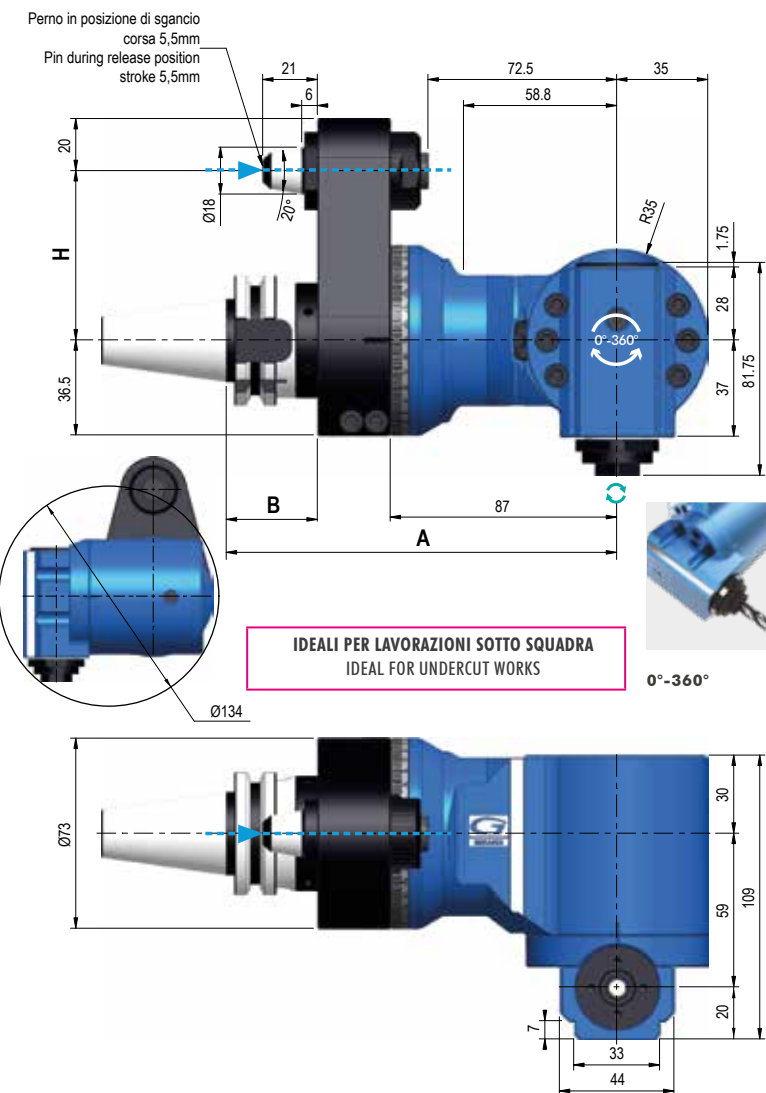
USCITA
OUTPUT
Shell mill holder Ø16



REFR. DAL CONO
COOL THROUGH SHANK
Max 4000 Rpm
DRY RUNNING NOT POSSIBLE
Max 40 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER25 - ER16M



IDEALI PER LAVORAZIONI SOTTO SQUADRA
IDEAL FOR UNDERCUT WORKS

SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks		 SK DIN 69871			 CAT ANSI B5.50		 BT MAS 403			 HSK DIN 69893			 C. ISO 26623		
Grandezza - Size		30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)															
H	Standard	65 / 80		80	65 / 80	80	65 / 80		80	65 / 80		80	65 / 80		80
	Optional 110														
A		150			150		145	150	156	157		10	173		175
B		35			35		30	35	41	42		45	38		40

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 7



USCITA
OUTPUT
Welding Max Ø10



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN
Angolazioni personalizzate
Customized angles



ALTA VELOCITÀ
HIGH SPEED
8.000 Rpm

GTU-10

TYPE 0



Dati tecnici - Technical data

Ratio 1:1	ISO/BT40 3,8 Kg
Rpm 6.000	Ø 10
N 250	M 8
Nm 10	ER16 Ø1/10

0°-360°

GM90-3 300 TYPE 1



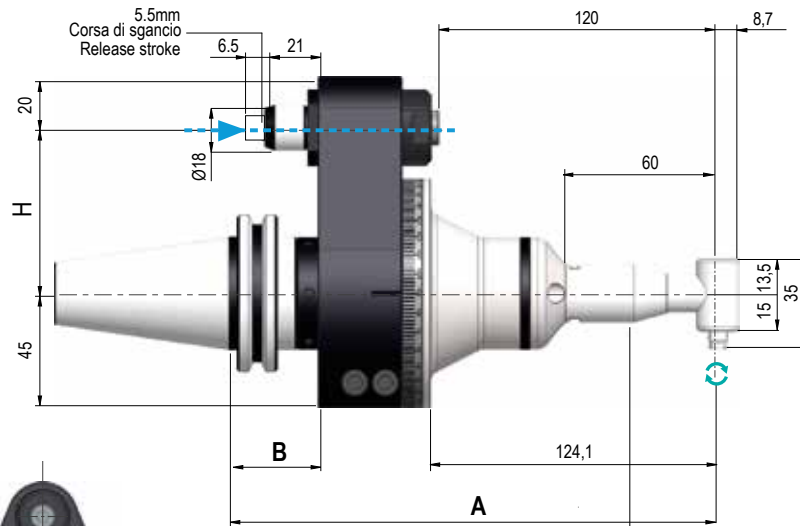
Dotazione Standard Standard Equipment		Opzioni - Options	
Valigetta - Stop-block - Chiavi di servizio Pinza CHCØ3/2,35mm - Tubetto di grasso - Libro Istruzioni Special bag - Stop-block - CHC Ø3/2,35mm collet - Wrenches - Grease tube - Instruction book		MANIPOLO AD ANGOLO 90° ANGLE SPINDLE RA-100	
IMBALLO & PESO PACK & WEIGHT: Max. Kg 7		MANIPOLO AD ANGOLO 90° ANGLE SPINDLE MFC-300 S	
			MANIPOLO AD ANGOLO 90° ANGLE SPINDLE RA-200
			GIUNTO DI ESTENSIONE EXTENSION CN-01 H=50,1 mm

GM90-3 200 TYPE 1



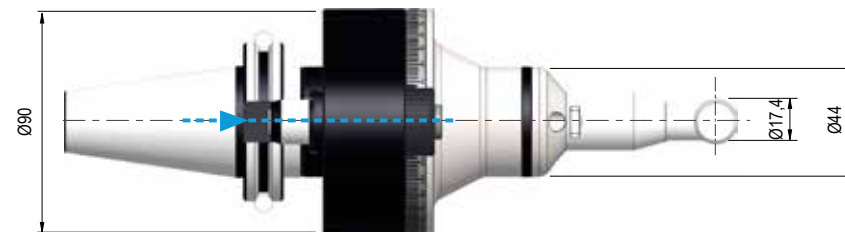
Dati tecnici - Technical data

	Reduction Ratio 1 : 1,5		Kg 3,7
	Rpm 15.000 / 10.000		Max Ø3,175
	-		-
	Nm 4		CHS: Ø 0,8-3,175



MANIPOLO ad ANGOLO
90° ANGLE SPINDLE
RA - 200

IDEALI PER FORATURE E FRESATURE LEGGERE
IDEAL FOR LIGHT DRILLING AND MILLING



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	30 40 50	40 50	30 40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
H Standard	65 / 80	80	65 / 80	80	65 / 80 80
Optional 110					
A	192	192	192	198	199 202 195 197
B	35	35	35	41	42 45 38 40

Dotazione Standard Standard Equipment | Opzioni - Options

Valigetta - Stop-block - Chiavi di servizio
Pinza CHS Ø3mm - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - CHS Ø3mm collet -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 7



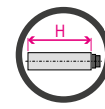
MANIPOLO AD ANGOLO
90° ANGLE SPINDLE
RA-100



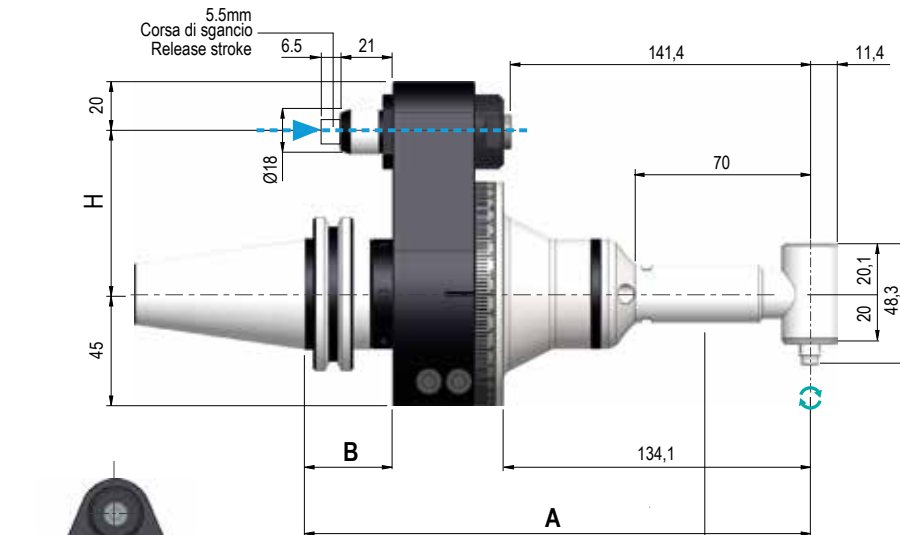
MANIPOLO AD ANGOLO
90° ANGLE SPINDLE
IC-300



MANIPOLO AD ANGOLO
90° ANGLE SPINDLE
MFC-300 S

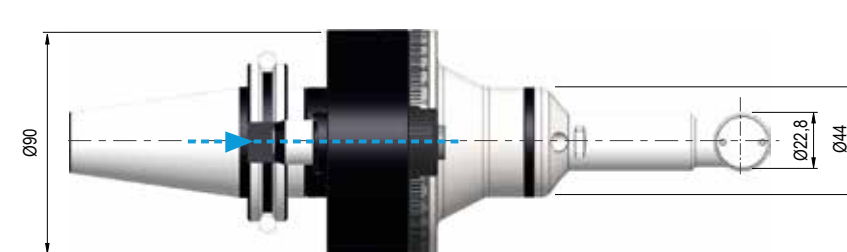


GIUNTO DI ESTENSIONE
EXTENSION
CN-01 H=50,1 mm



MANIPOLO ad ANGOLO
90° ANGLE SPINDLE
RA - 100

IDEALI PER FORATURE E FRESATURE LEGGERE
IDEAL FOR LIGHT DRILLING AND MILLING



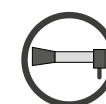
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	30 40 50	40 50	30 40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
H Standard	65 / 80	80	65 / 80	80	65 / 80 80
Optional 110					
A	202	202	202	208	209 212 205 207
B	35	35	35	41	42 45 38 40

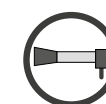
Dotazione Standard Standard Equipment | Opzioni - Options

Valigetta - Stop-block - Chiavi di servizio
Pinza CHS Ø3mm - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - CHS Ø3mm collet -
Wrenches - Grease tube - Instruction book

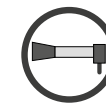
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 7



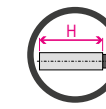
MANIPOLO AD ANGOLO
90° ANGLE SPINDLE
RA-200



MANIPOLO AD ANGOLO
90° ANGLE SPINDLE
IC-300



MANIPOLO AD ANGOLO
90° ANGLE SPINDLE
MFC-300 S



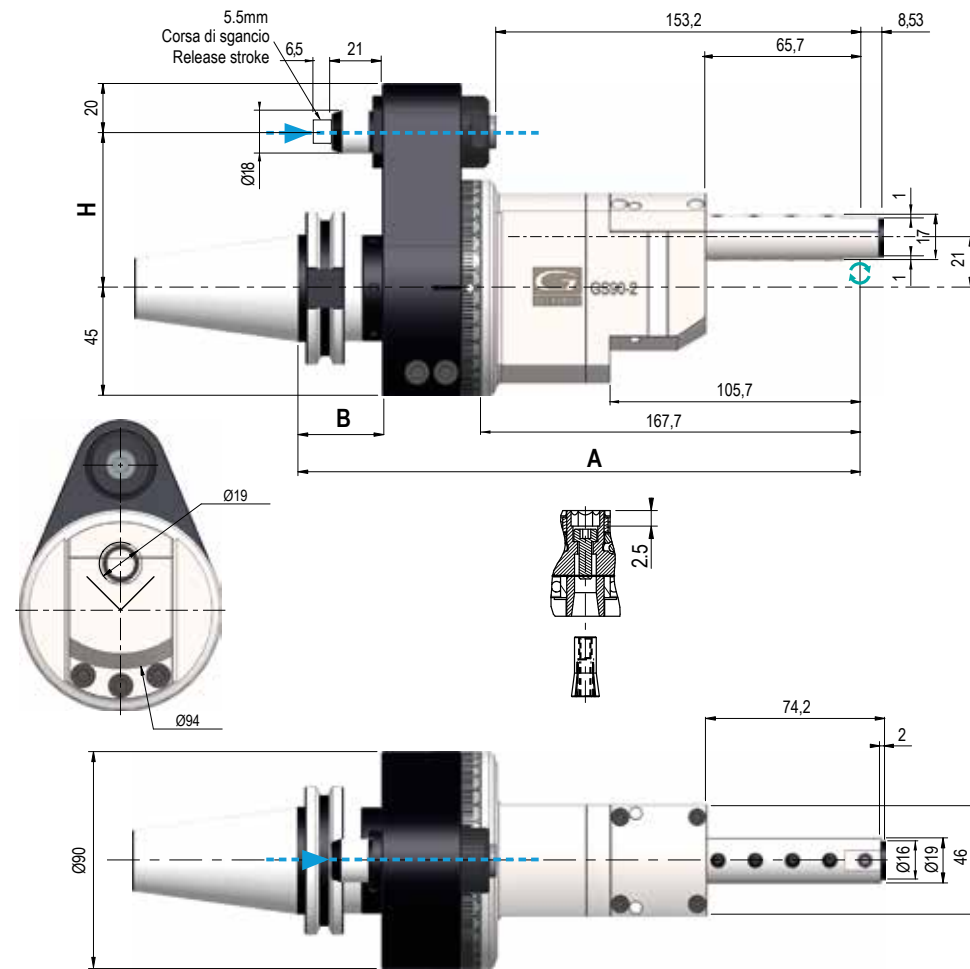
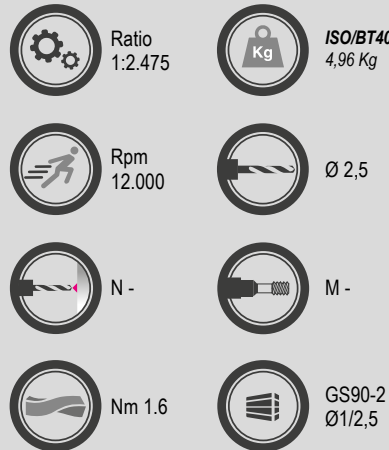
GIUNTO DI ESTENSIONE
EXTENSION
CN-01 H=50,1 mm

GS90-2 TYPE 1



NEW 2021

Dati tecnici - Technical data



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks		 SK DIN 69871			 CAT ANSI B5.50		 BT MAS 403			 HSK DIN 69893			 C. ISO 26623			
Grandezza - Size		30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Dual contact (Optional)																
H	Standard	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80
	Optional 110															
A		235,7			235,7		235,7		241,7	242,7		245,7	238,7		240,7	
B		35			35		35		41	42		45	38		40	

Dotazione Standard Standard Equipment | **Opzioni - Options**

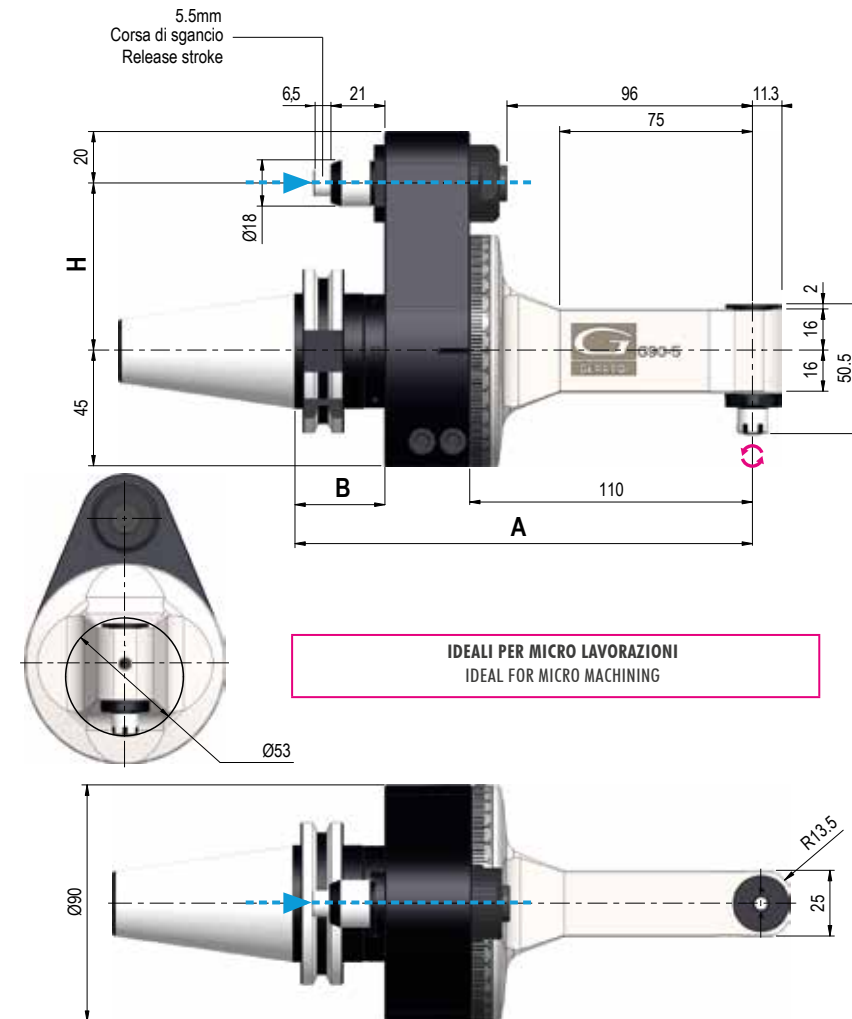
Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube- Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg. 8



PINZA COLLETS

GS90-2
Ø 1 - 1,5 - 2 - 2,5



IDEALI PER MICRO LAVORAZIONI
IDEAL FOR MICRO MACHINING

SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks		 SK DIN 69871			 CAT ANSI B5.50		 BT MAS 403			 HSK DIN 69893			 C. ISO 26623			
Grandezza - Size		30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Dual contact (Optional)																
H	Standard	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80
	Optional 110															
A		178			178		178		184	185		188	181		183	
B		35			35		35		41	42		45	38		40	

Dotazione Standard Standard Equipment | **Opzioni - Options**

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube- Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg. 7



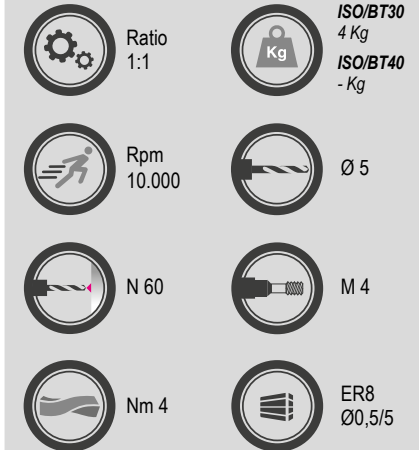
USCITA OUTPUT

Weldon Max Ø 6

G90-5 TYPE 1



Dati tecnici - Technical data

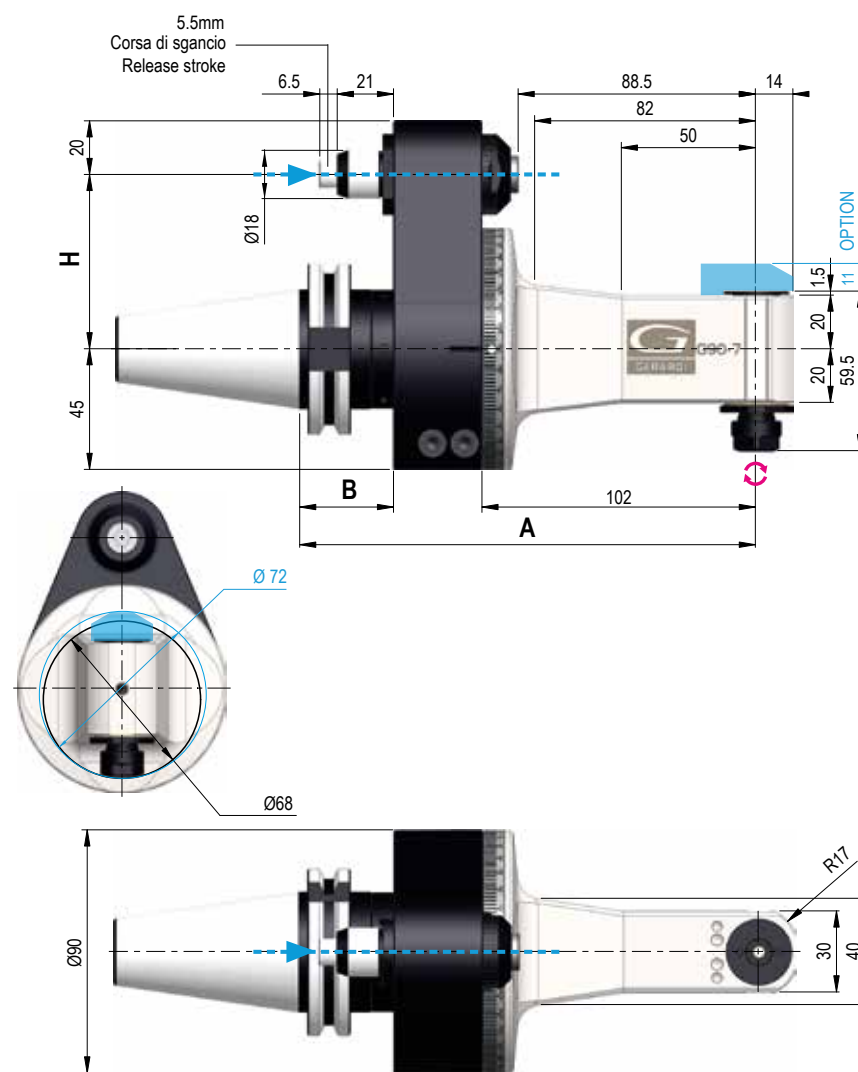


G90-7

TYPE 1



Dati tecnici - Technical data



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

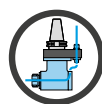
Coni Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623		
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)														
H Standard	65 / 80		80	65/80		80	65 / 80		80	65 / 80		65 / 80		80
H Optional 110	51			51			51			51		51		
A	170			170		170	176		177	180		173		175
B	35			35		35	41		42	45		38		40

Dotazione Standard
Standard Equipment

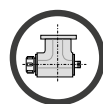
Opzioni - Options

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg. 7



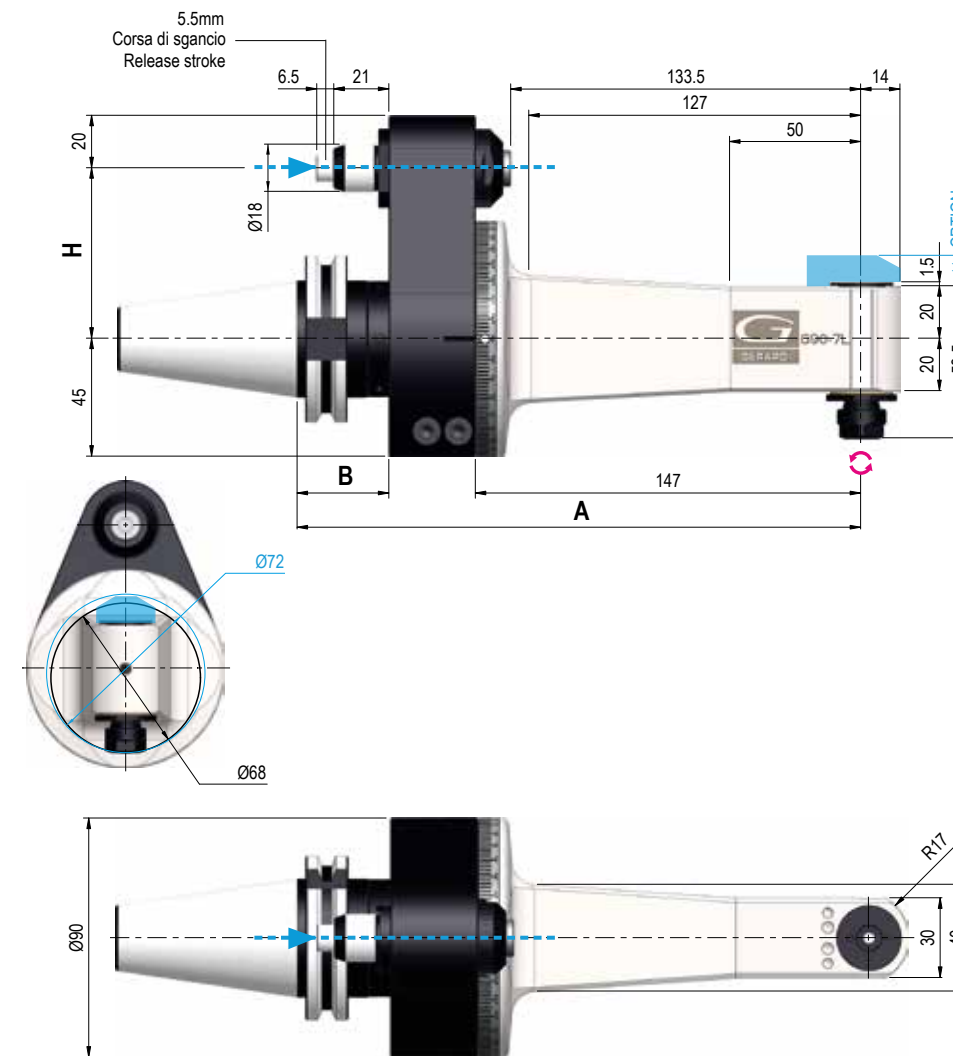
REFR. DAL PERNO
COOLANT PIN THROUGH Max. 6.000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER 11 / ER 8M



USCITA
OUTPUT
Weldon Max Ø 8



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

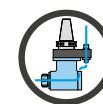
Coni Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623		
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)														
H Standard	65 / 80		80	65/80		80	65 / 80		80	65 / 80		65 / 80		80
H Optional 110														
A	215			215		210	215		221	222		225		218
B	35			35		30	35		41	42		45		40

Dotazione Standard
Standard Equipment

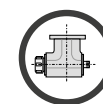
Opzioni - Options

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 7,5



REFR. DAL PERNO
COOLANT PIN THROUGH Max. 6.000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER 11 / ER 8M



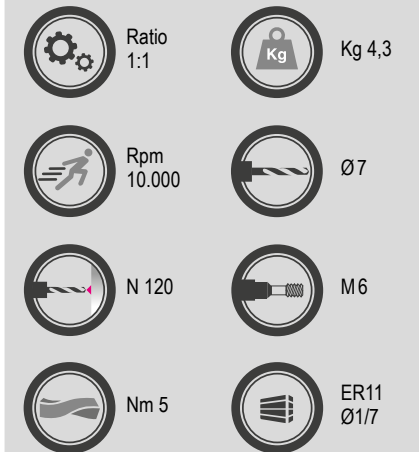
USCITA
OUTPUT
Weldon Max Ø 8

G90-7L

TYPE 1

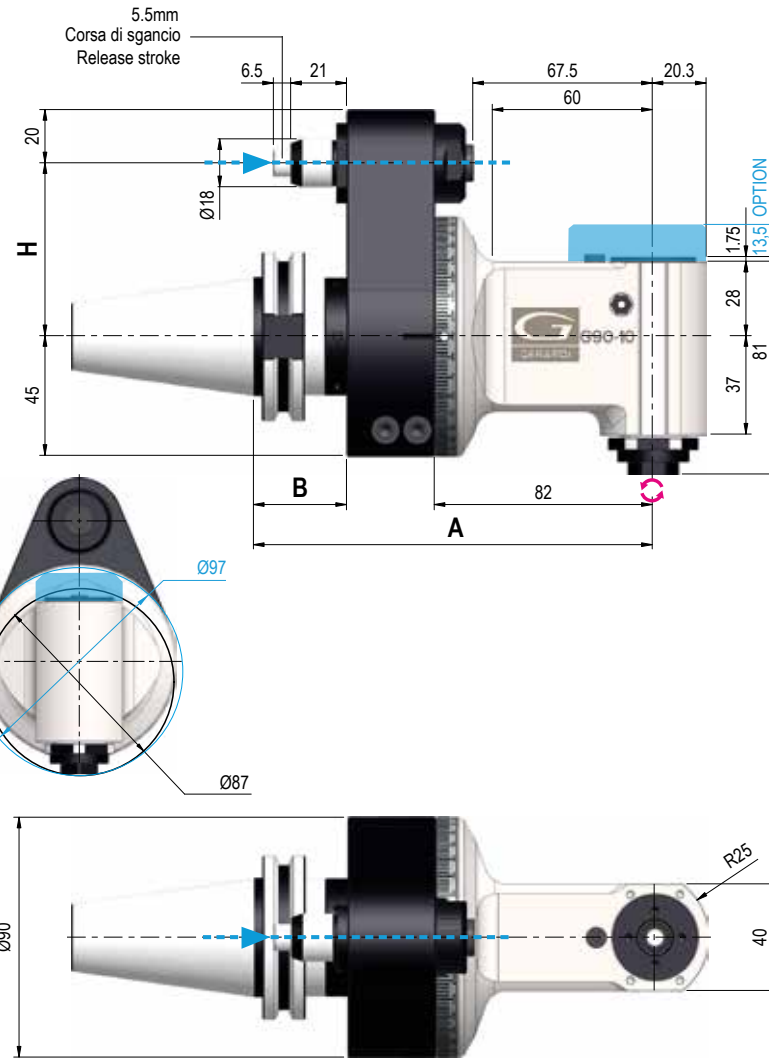


Dati tecnici - Technical data

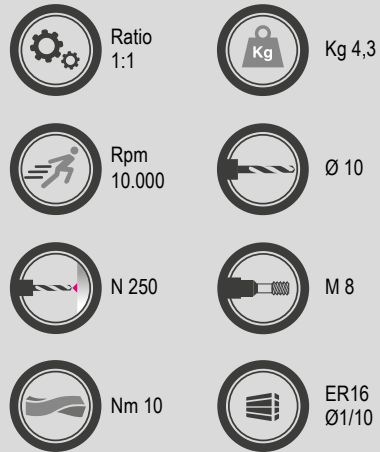


G90-10

TYPE 1



Dati tecnici - Technical data



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

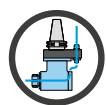
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	30 40 50	40 50	30 40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
H Standard	65 / 80	80	65/80	80	65 / 80
H Optional 110					
A	150	150	145	150	156
B	35	35	30	35	41

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

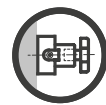
IMBALLO & PESO
PACK & WEIGHT: Max. Kg. 7,5



REFR. DAL PERNO
COOLANT PIN THROUGH
Max. 6.000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



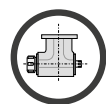
USCITA
OUTPUT
Weldon Max Ø10



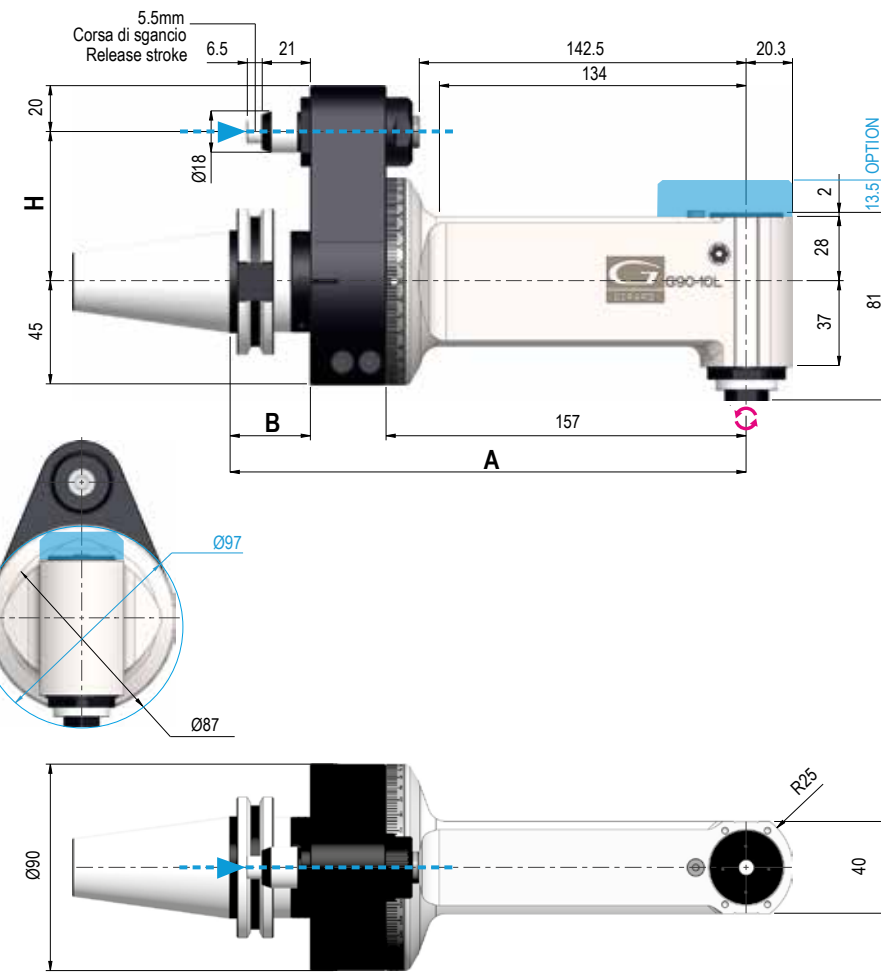
USCITA
OUTPUT
Shell mill holder Ø16



REFR. DAL CONO
COOL. THROUGH SHANK
Max. 6.000 Rpm
DRY RUNNING NOT POSSIBLE
Max 40 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER16 - ER11 M

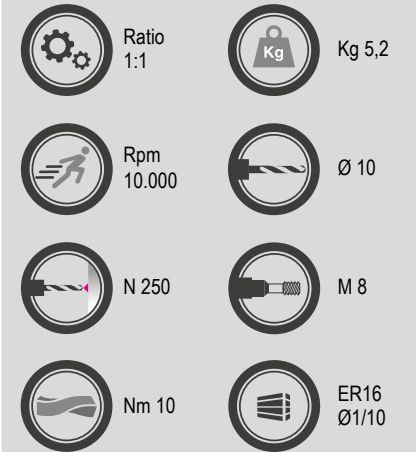


G90-10L

TYPE 1



Dati tecnici - Technical data



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

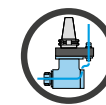
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	30 40 50	40 50	30 40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
H Standard	65 / 80	80	65 / 80	80	65 / 80
H Optional 110					
A	225	225	225	231	232
B	35	35	35	41	42

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

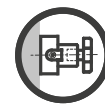
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 8,5



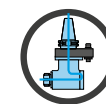
REFR. DAL PERNO
COOLANT PIN THROUGH
Max. 6.000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



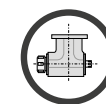
USCITA
OUTPUT
Weldon Max Ø10



USCITA
OUTPUT
Shell mill holder Ø16



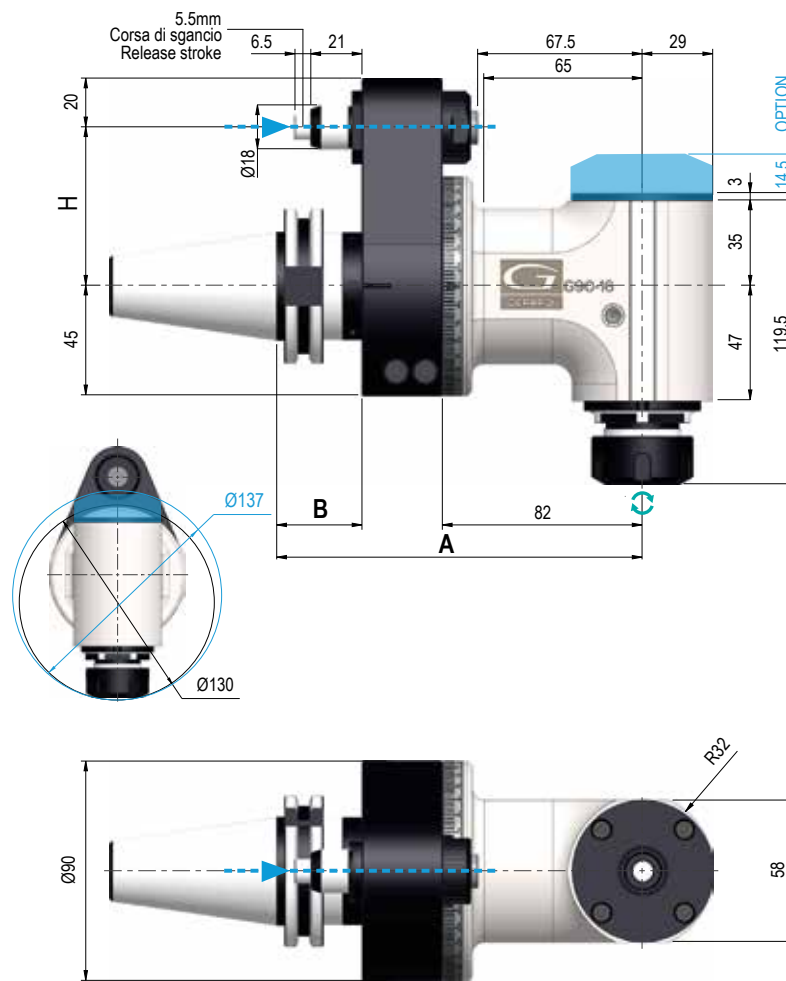
REFR. DAL CONO
COOLANT THROUGH SHANK
Max. 6.000 Rpm
DRY RUNNING NOT POSSIBLE
Max 40 bar



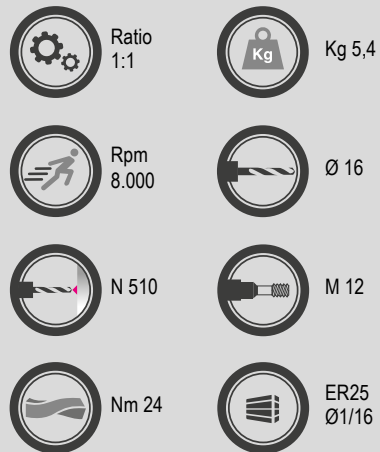
DOPPIA USCITA
DOUBLE OUTPUT
ER16 - ER11 M

G90-16

TYPE 1



Dati tecnici - Technical data



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

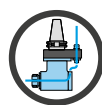
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	40 50	40 50	40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
H Standard	65 / 80	80	65 / 80	80	65 / 80 80
H Optional 110					
A	150	150	150	156	157 160 153 155
B	35	35	35	41	42 45 38 40

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

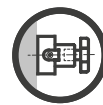
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 8,5



REFR. DAL PERNO
COOLANT PIN THROUGH
Max.4000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



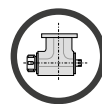
USCITA
OUTPUT
Weldon Max Ø16



USCITA
OUTPUT
Shell mill holder Ø16



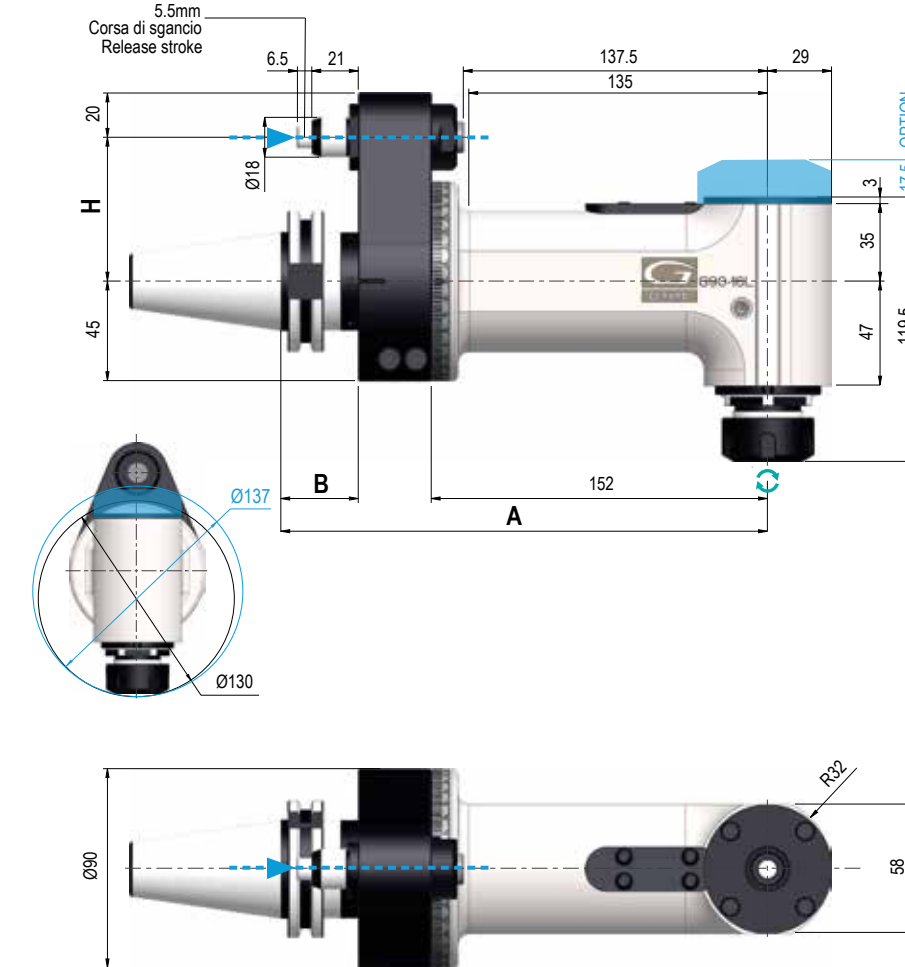
REFR. DAL CONO
COOL. THROUGH SHANK
Max.4000 Rpm
DRY RUNNING NOT POSSIBLE
Max 40 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER25 - ER16 M



USCITA
OUTPUT
HSK 32

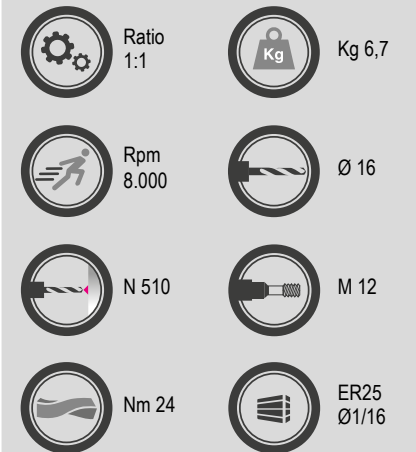


G90-16L

TYPE 1



Dati tecnici - Technical data



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

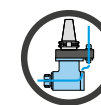
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	40 50	40 50	40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
H Standard	65 / 80	80	65 / 80	80	65 / 80 80
H Optional 110					
A	220	220	220	226	227 230 223 225
B	35	35	35	41	42 45 38 40

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

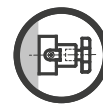
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 10



REFR. DAL PERNO
COOLANT PIN THROUGH
Max.4000 Rpm
DRY RUNNING POSSIBLE
Max 10 bar



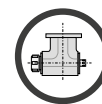
USCITA
OUTPUT
Weldon Max Ø16



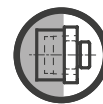
USCITA
OUTPUT
Shell mill holder Ø16



REFR. DAL CONO
COOLANT THROUGH SHANK
Max.4000 Rpm
DRY RUNNING NOT POSSIBLE
Max 40 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER25 - ER16 M



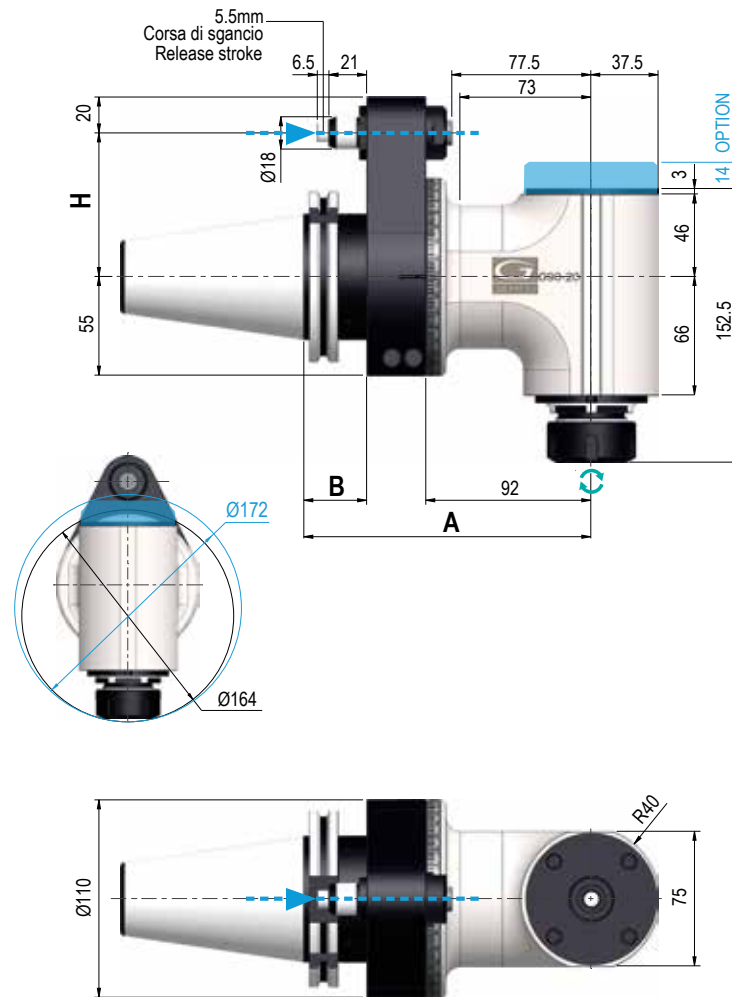
USCITA
OUTPUT
HSK 32

G90-20

TYPE 2



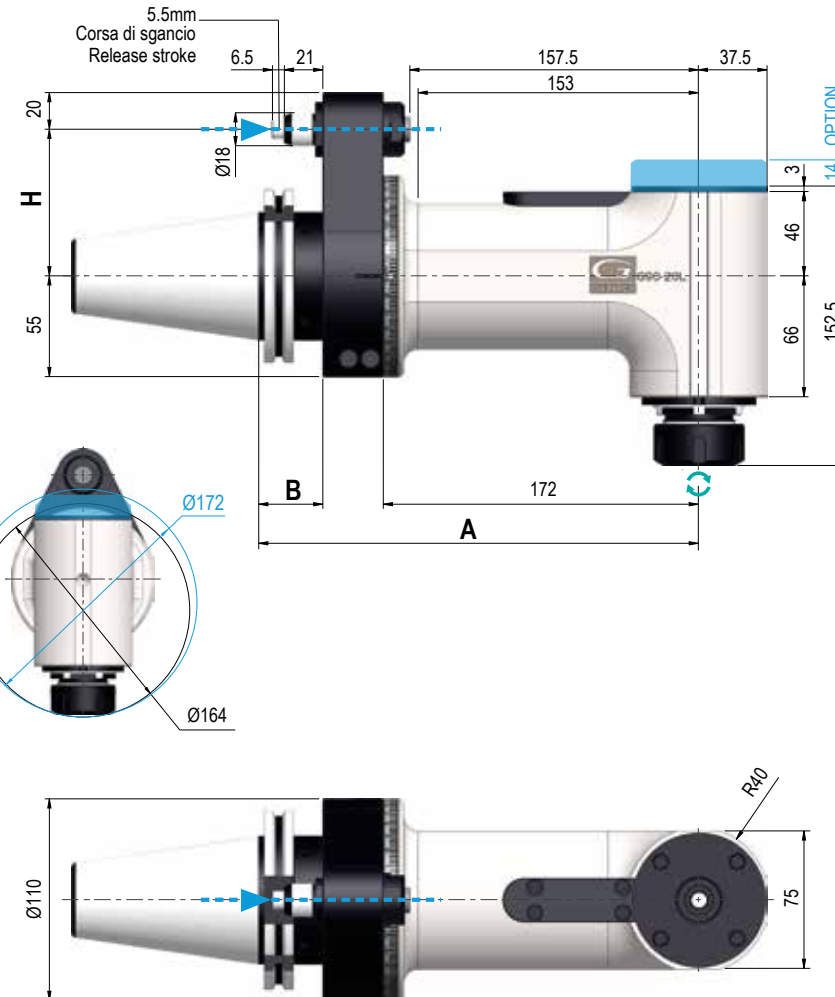
Dati tecnici - Technical data



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	63 80 100	C6 C8
Dual contact (Optional)					
H Standard	80	80	80	80	80
H Optional 110					
A	160	160	166	167 170	163 165
B	35	35	41	42 45	38 40

Dotazione Standard Standard Equipment	Opzioni - Options
Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book IMBALLO & PESO PACK & WEIGHT: Max. Kg 14	REFR. DAL PERNO COOLANT PIN THROUGH Max.4000 Rpm DRY RUNNING POSSIBLE Max10bar USCITA OUTPUT Weldon Max Ø20 USCITA OUTPUT Shell mill holder Ø22 USCITA OUTPUT C4 ALTA VELOCITÀ HIGH SPEED INT. COOL NOT POSSIBLE 6.000 Rpm
	REFR. DAL CONO COOL-THROUGH SHANK Max.4000 Rpm DRY RUNNING NOT POSSIBLE 40bar 70 bar USCITA OUTPUT HSK 40 USCITA OUTPUT ISO/CAT/ BT 30 DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20M USCITA OUTPUT ER40

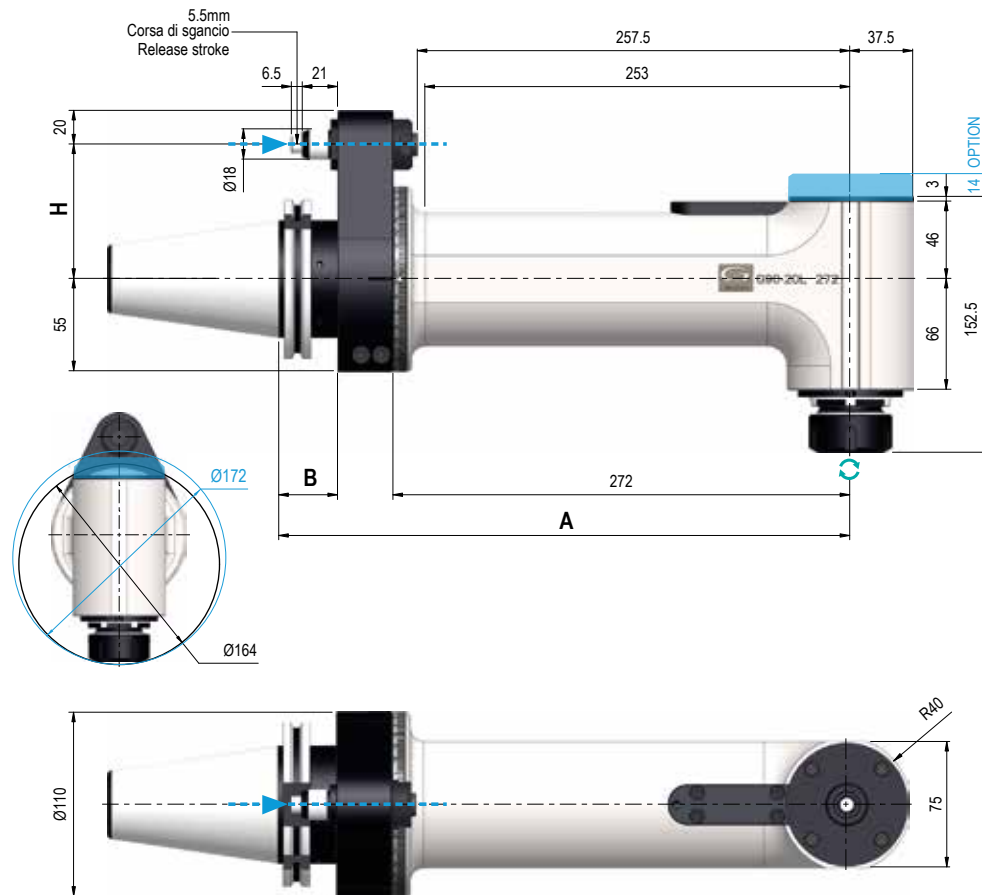


SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	63 80 100	C6 C8
Dual contact (Optional)					
H Standard	80	80	80	80	80
H Optional 110					
A	240	240	246	247 250	243 245
B	35	35	41	42 45	38 40

Dotazione Standard Standard Equipment	Opzioni - Options
Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book IMBALLO & PESO PACK & WEIGHT: Max. Kg 28	REFR. DAL PERNO COOLANT PIN THROUGH Max.4000 Rpm DRY RUNNING POSSIBLE Max 10 bar USCITA OUTPUT Weldon Max Ø20 USCITA OUTPUT Shell mill holder Ø22 USCITA OUTPUT C4 ALTA VELOCITÀ HIGH SPEED INT. COOL NOT POSSIBLE 6.000 Rpm
	REFR. DAL CONO COOL-THROUGH SHANK Max.4000 Rpm DRY RUNNING NOT POSSIBLE 40 bar 70 bar USCITA OUTPUT HSK 40 USCITA OUTPUT ISO/CAT/ BT 30 DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20M USCITA OUTPUT ER40

G90-20L.272 TYPE 2



Dati tecnici - Technical data



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

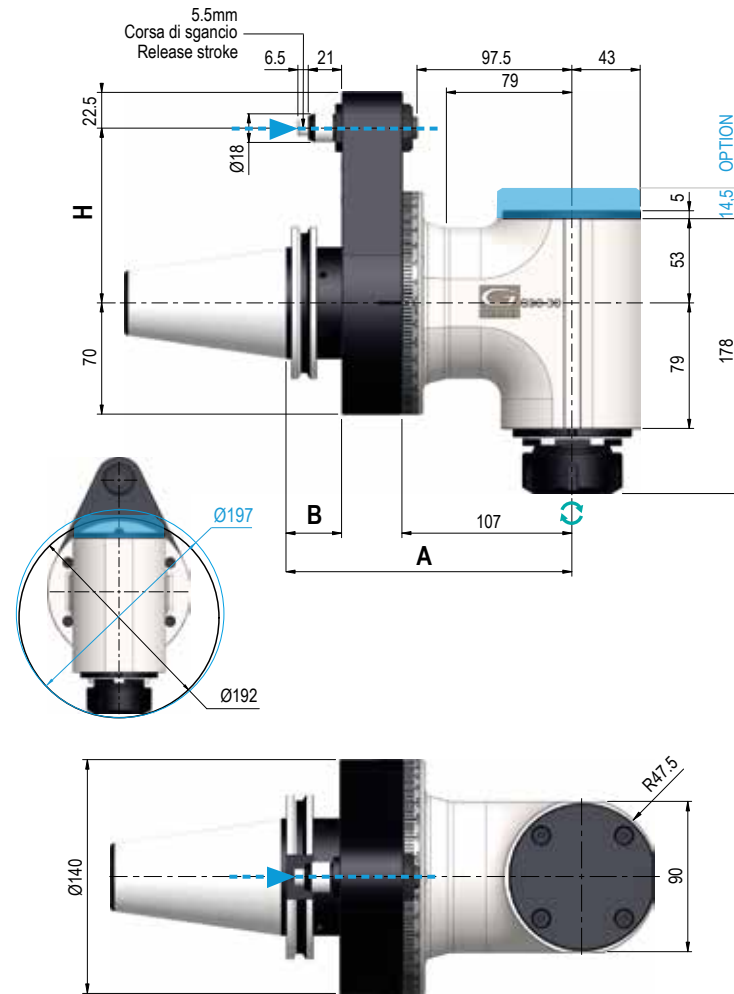
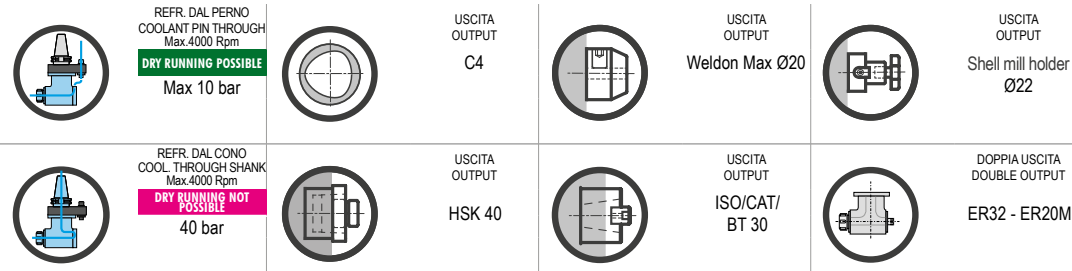
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	80 100	C6 C8
Dual contact (Optional)					
H Standard	80	80	80	80	80
H Optional 110					
A	340	340	346	347 350	343 345
B	35	35	41	42 45	38 40

Dotazione Standard Standard Equipment

Opzioni - Options

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

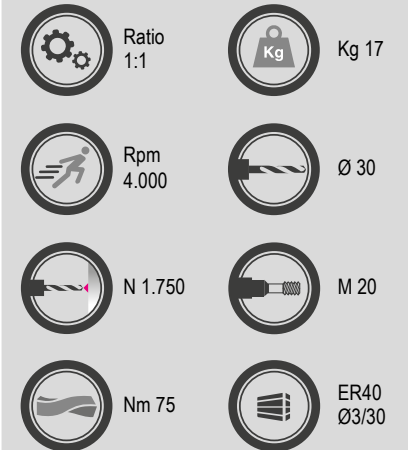
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 31



G90-30 TYPE 3



Dati tecnici - Technical data



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

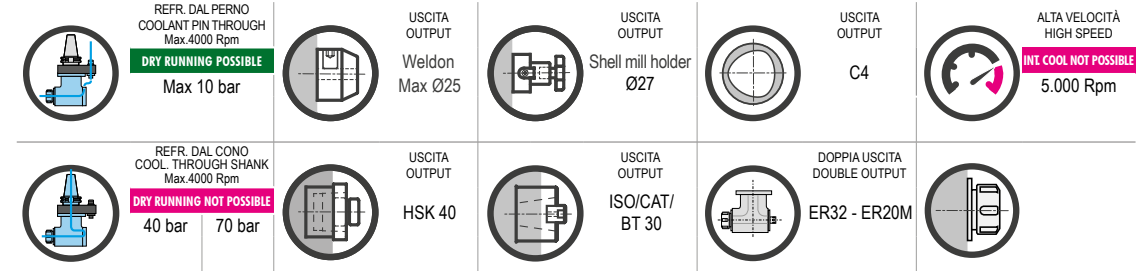
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	80 100	C8
Dual contact (Optional)					
H Standard	110	110	110	110	110
A	180	180	186	187 190	185 185
B	35	35	41	42 45	40

Dotazione Standard Standard Equipment

Opzioni - Options

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

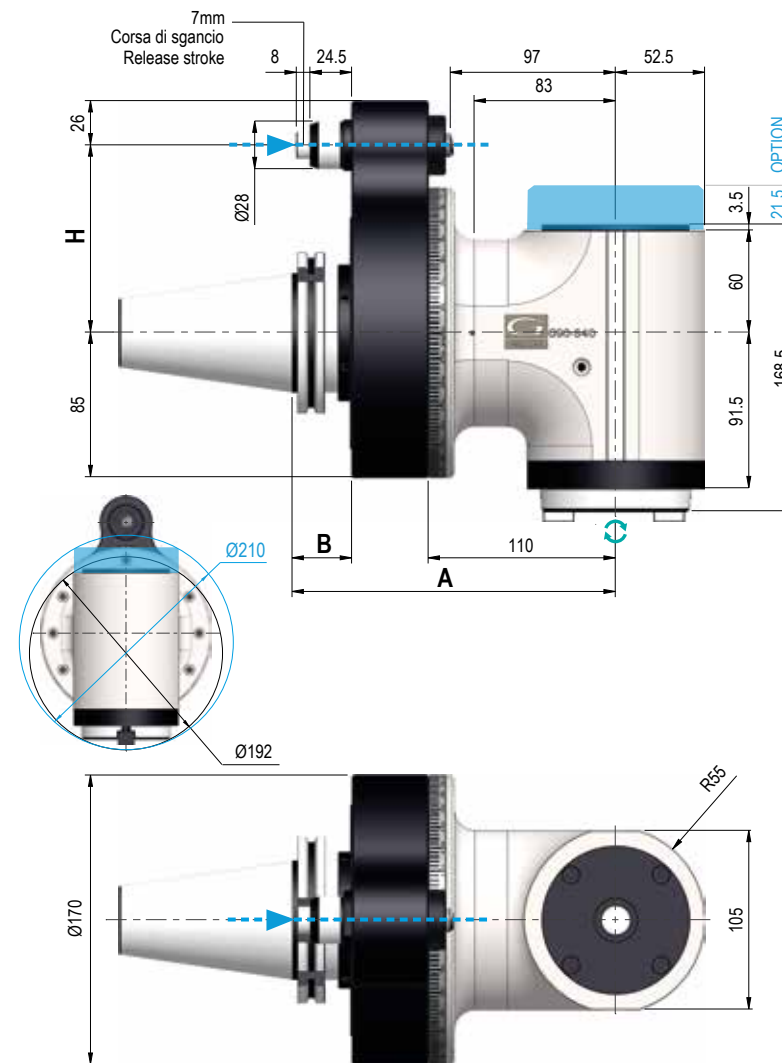
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 31



TYPE 4



	Ratio 1:1		Kg 22
	Rpm 4.000		Ø 26
	N 1.800		M 20
	Nm 140		ISO 40 / CAT / BT40



Coni Shanks		 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623	
Grandezza - Size		50	50	50	80	100	C8
Dual contact (Optional)							
H	Standard Ø28	110	110	110	110		110
A		190	190	196	197	200	195
B		35	35	41	42	45	40

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Stop-block - ER nut - Wrenches - Grease tube- Instruction book	 REFR. DAL PERNO COOLANT PIN THROUGH Max.4000 Rpm DRY RUNNING POSSIBLE Max 10 bar	 USCITA OUTPUT Weldon Max Ø26	 USCITA OUTPUT C4 C5	 USCITA OUTPUT Shell mill holder Ø27
IMBALLO & PESO PACK & WEIGHT: Max. Kg 36	 REFR. DAL CONO COOL. THROUGH SHANK Max.4000 Rpm DRY RUNNING NOT POSSIBLE 30 bar 70 bar	 USCITA OUTPUT HSK 63	 ALTA VELOCITÀ HIGH SPEED INT. COOL. NOT POSSIBLE 5.000 Rpm	

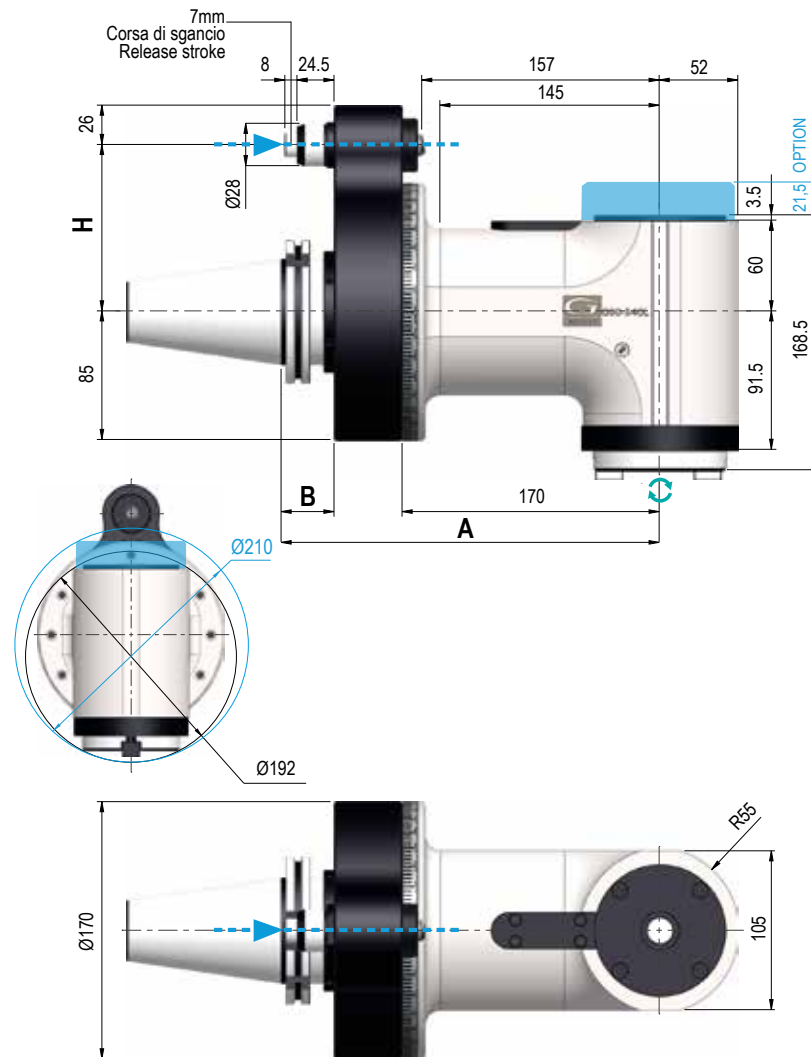
G90-S40L

TYPE 4



Dati tecnici - Technical data

Ratio 1:1	Kg 26,2
Rpm 4.000	Ø 26
N 1.800	M 20
Nm 140	ISO 40 / CAT / BT40



Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	80 100	C8
Dual contact (Optional)					
H Standard Ø28	110	110	110	110	110
A	250	250	256	257 260	255
B	35	35	41	42 45	40

Dotazione Standard Standard Equipment

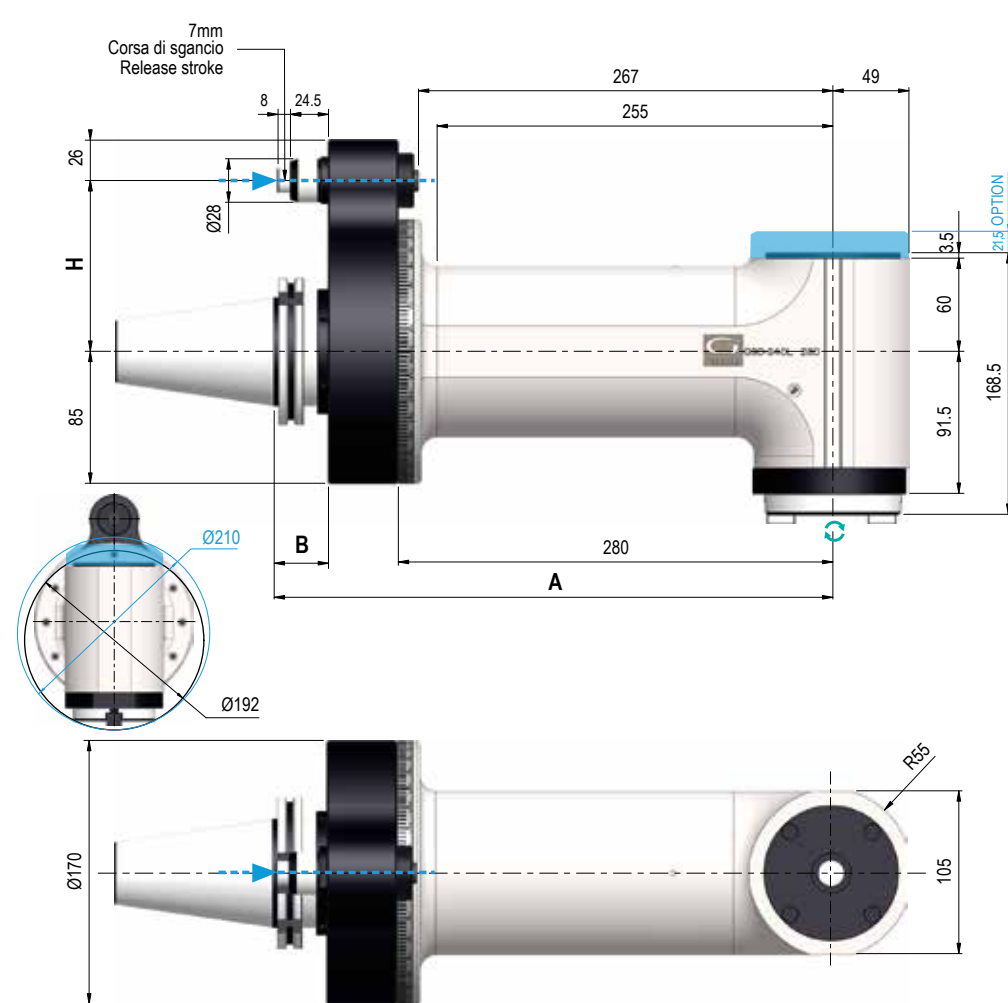
Opzioni - Options

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 40,5



REFR. DAL PERNO COOLANT PIN THROUGH Max.4000 Rpm DRY RUNNING POSSIBLE Max 10 bar	USCITA OUTPUT Weldon Max Ø26	USCITA OUTPUT C4 C5	USCITA OUTPUT Shell mill holder Ø32
REFR. DAL CONO COOL. THROUGH SHANK Max.4000 Rpm DRY RUNNING NOT POSSIBLE 30 bar 70 bar	USCITA OUTPUT HSK 63	ALTA VELOCITÀ HIGH SPEED INT. COOL. NOT POSSIBLE 5.000 Rpm	



G90-S40L.280

TYPE 4



Dati tecnici - Technical data

Ratio 1:1	Kg 32,4
Rpm 4.000	Ø 26
N 1.800	M 20
Nm 140	ISO/BT / CAT 40

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	100	C8
Dual contact (Optional)					
H Standard Ø28	110	110	110	110	110
A	360	360	366	370	365
B	35	35	41	45	40

Dotazione Standard Standard Equipment

Opzioni - Options

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 79

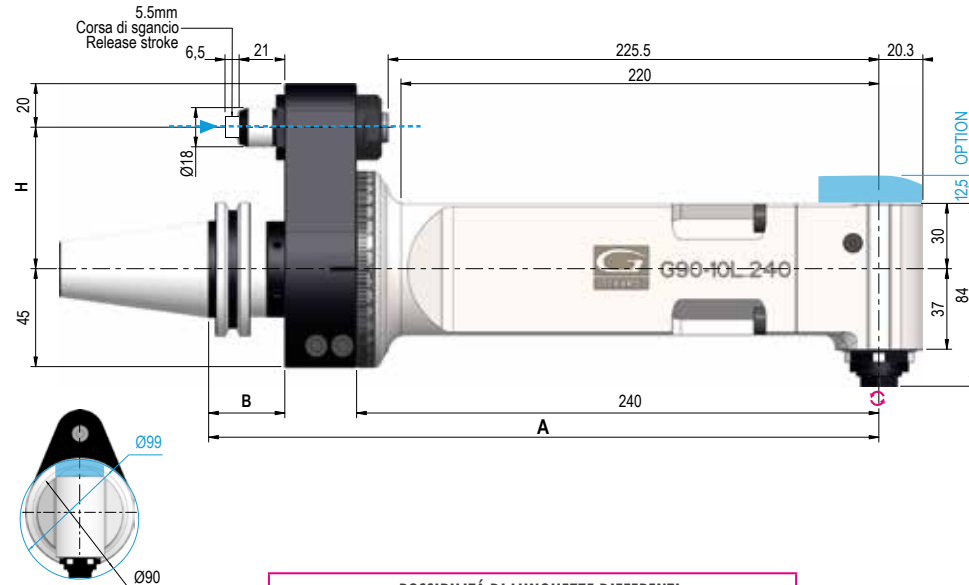


REFR. DAL PERNO COOLANT PIN THROUGH Max.4000 Rpm DRY RUNNING POSSIBLE Max 10 bar	USCITA OUTPUT Weldon Max Ø26	USCITA OUTPUT C4 C5	USCITA OUTPUT Shell mill holder Ø32
REFR. DAL CONO COOL. THROUGH SHANK Max.4000 Rpm DRY RUNNING NOT POSSIBLE 30 bar	USCITA OUTPUT HSK 63		

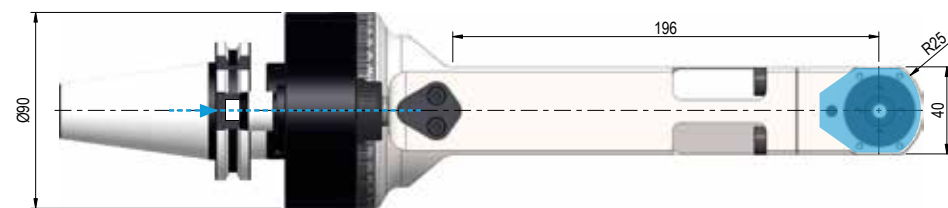
G90-10L.240 TYPE 1



NEW 2021



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI
POSSIBILITY OF DIFFERENT LENGTHS



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Dati tecnici - Technical data

Ratio 1:1	Kg 6,3
Rpm 6.000	Ø 10
N 250	M 8
Nm 10	ER16 Ø1/10

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	40 50	40 50	40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
H Standard	65 / 80	80	65 / 80	80	65 / 80 80
H Optional 110					
A	308	308	308	314	315 318 311 313
B	35	35	35	41	42 45 38 40

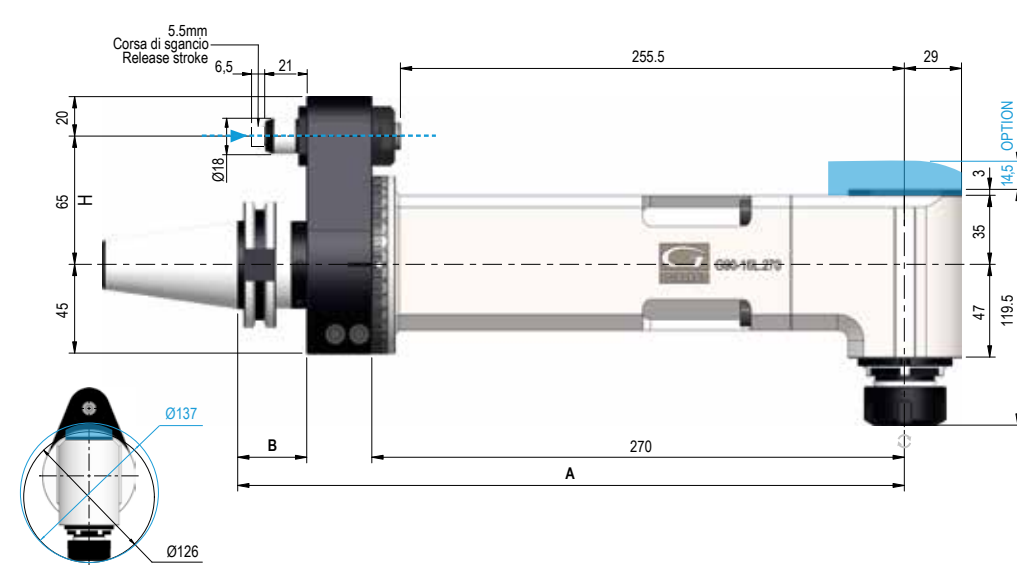
Dotazione Standard Standard Equipment | Opzioni - Options

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book	REFR. DAL PERNO COOLANT PIN THROUGH Max 10 bar	USCITA OUTPUT Weldon Max Ø10	USCITA OUTPUT Shell mill holder Ø16
IMBALLO & PESO PACK & WEIGHT: Max. Kg 9,5	REFR. DAL CONO COOLANT THROUGH SHANK Max 40 bar	DOPPIA USCITA DOUBLE OUTPUT ER16 - ER11 M	USCITA OUTPUT HSK 32

G90-16L.270 TYPE 1



NEW 2021



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI
POSSIBILITY OF DIFFERENT LENGTHS



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Dati tecnici - Technical data

Ratio 1:1	Kg 8,9
Rpm 4.000	Ø 16
N 510	M 12
Nm 24	ER25 Ø1/16

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	40 50	40 50	40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
H Standard	65 / 80	80	65 / 80	80	65 / 80 80
H Optional 110					
A	338	338	338	344	345 348 341 343
B	35	35	35	41	42 45 38 40

Dotazione Standard Standard Equipment | Opzioni - Options

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book	REFR. DAL PERNO COOLANT PIN THROUGH Max 10 bar	USCITA OUTPUT Weldon Max Ø16	USCITA OUTPUT Shell mill holder Ø16
IMBALLO & PESO PACK & WEIGHT: Max. Kg 12	REFR. DAL CONO COOLANT THROUGH SHANK Max 40 bar	DOPPIA USCITA DOUBLE OUTPUT ER25 - ER16 M	USCITA OUTPUT HSK 32

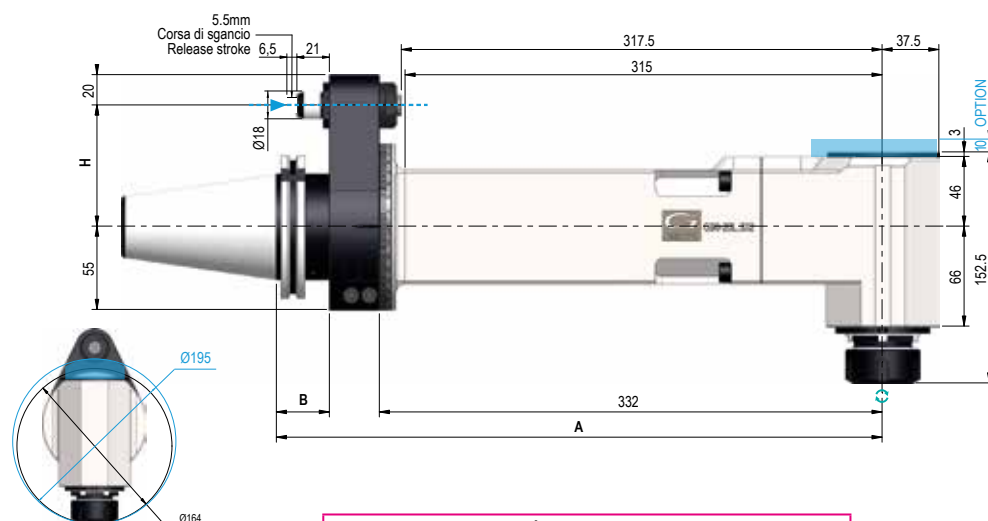
G90-20L.332 TYPE 2



NEW 2021

Dati tecnici - Technical data

Ratio 1:1	Kg 20,5
Rpm 4.000	Ø 20
N 1250	M 16
Nm 40	ER32 Ø2/20



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI
POSSIBILITY OF DIFFERENT LENGTHS



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	80 100	C8
Dual contact (Optional)					
H Standard Ø28	80	80	80	80	80
H Optional 110					
A	400	400	406	407 410	405
B	35	35	41	42 45	40

Dotazione Standard Standard Equipment

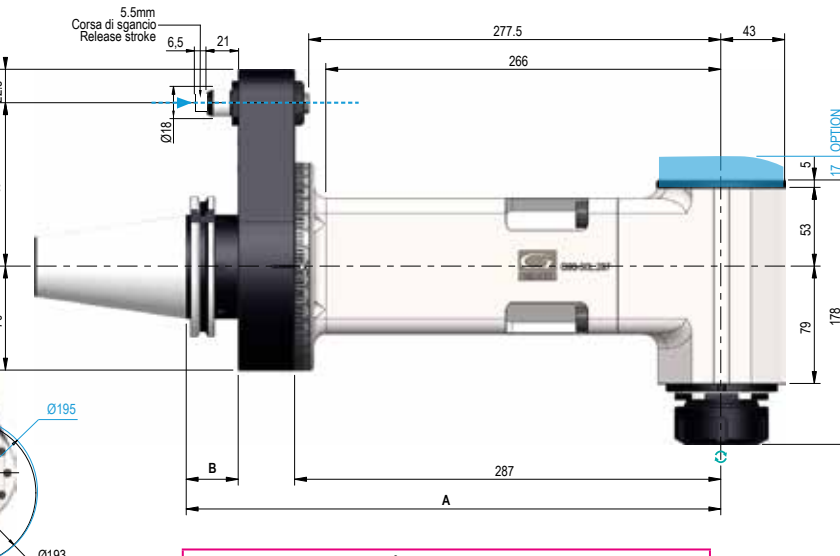
Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 35

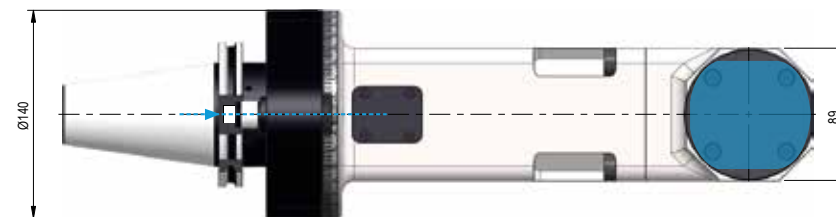


REFR. DAL PERNO COOLANT PIN THROUGH DRY RUNNING POSSIBLE Max 10 bar	USCITA OUTPUT C4	USCITA OUTPUT Shell mill holder Ø22
REFR. DAL CONO COOLANT THROUGH SHANK DRY RUNNING NOT POSSIBLE Max 40 bar	USCITA OUTPUT HSK 40	USCITA OUTPUT ISO/CAT/BT 30
		DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20M

G90-30L.287 TYPE 3



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI
POSSIBILITY OF DIFFERENT LENGTHS



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	80 100	C8
Dual contact (Optional)					
H Standard Ø28	110	110	110	110	110
A	360	360	366	367 370	365
B	35	35	41	42 45	40

Dotazione Standard Standard Equipment

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 36,5



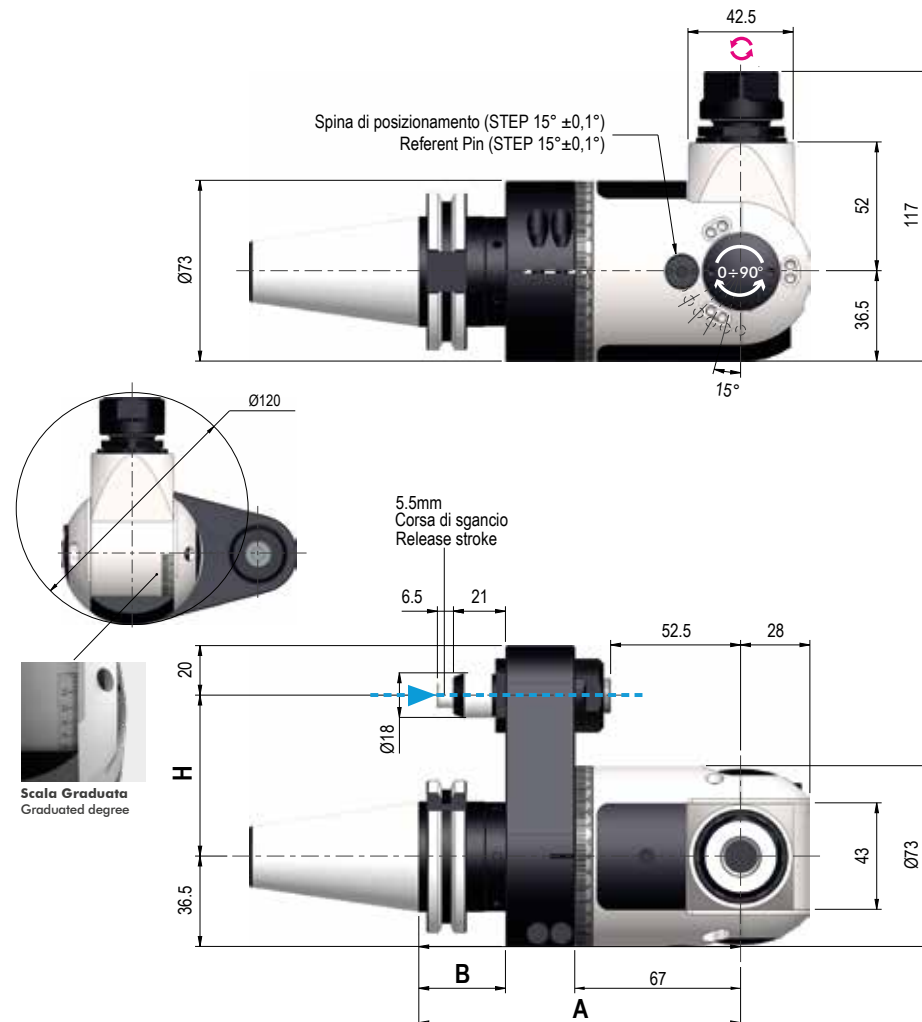
REFR. DAL PERNO COOLANT PIN THROUGH DRY RUNNING POSSIBLE Max 10 bar	USCITA OUTPUT Weldon Max Ø25	DOPPIA USCITA DOUBLE OUTPUT ER40 - ER25M	USCITA OUTPUT Shell mill holder Ø27
REFR. DAL CONO COOLANT THROUGH SHANK DRY RUNNING NOT POSSIBLE Max 40 bar	USCITA OUTPUT C4	USCITA OUTPUT HSK 40	USCITA OUTPUT ISO/CAT/BT 30

GMU-13 TYPE 0



Dati tecnici - Technical data

	Ratio 1:1		Kg 4,4
	Rpm 4.000		Ø 13
	N 450		M 10
	Nm 6		ER-20 Ø1/13



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks		 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623					
Grandezza - Size		40	50	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)											
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80
	Optional 110										
A		130	130	130	136	137	140	133	135		
B		35	35	35	41	42	45	38	40		

Dotazione Standard Standard Equipment

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 7,5

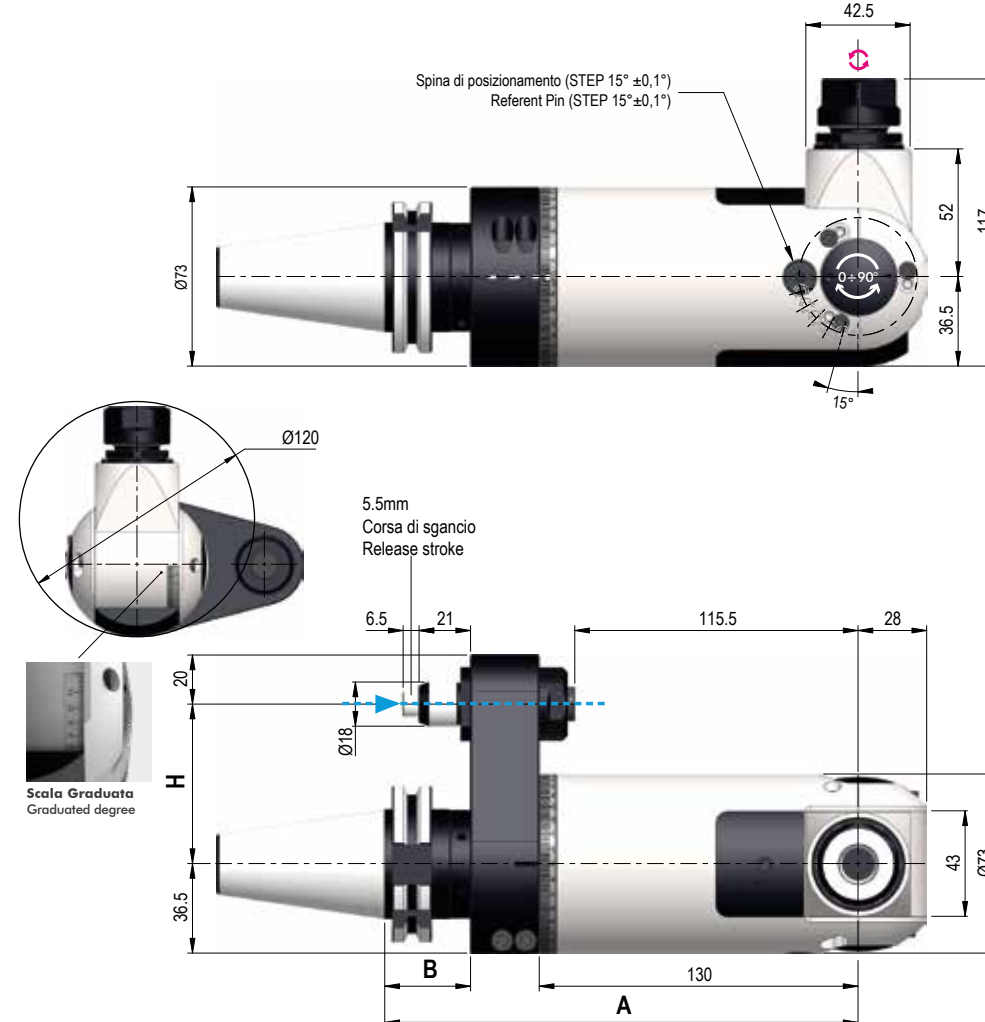


ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm



Angolazioni personalizzate
Customized angles



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks		 SK DIN 69871		 CAT ANSI B5.50		 BT MAS 403		 HSK DIN 69893			 C. ISO 26623		
Grandezza -Size		40	50	40	50	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)													
H	Standard	65	80	65	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110												
A		193		193		193	199	200		203	196		198
B		35		35		35	41	42		45	38		40

Dotazione Standard Standard Equipment

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 11



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm



Angolazioni personalizzate
Customized angles

GMU-13L TYPE 0



Dati tecnici - Technical data

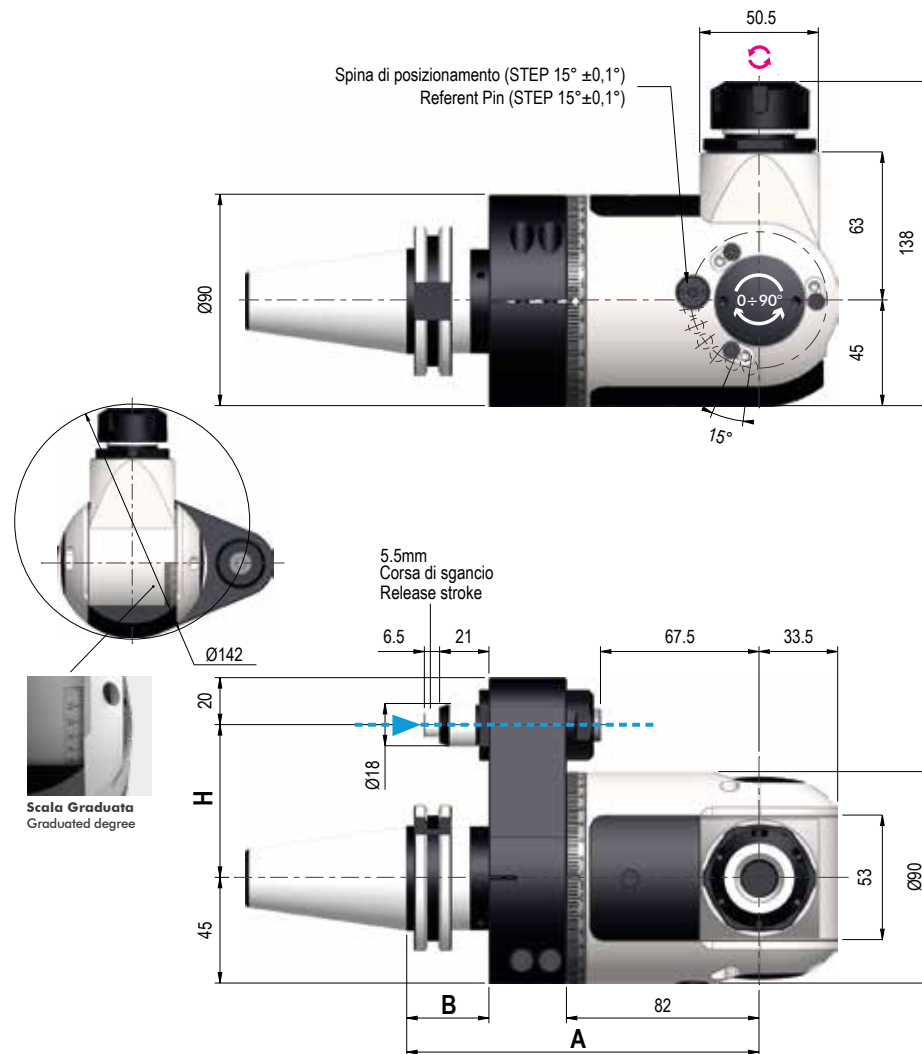
	Ratio 1:1		Kg 6,3
	Rpm 4.000		Ø 13
	N 450		M 10
	Nm 6		ER-20 Ø1/13

GMU-16 TYPE 1



Dati tecnici - Technical data

	Ratio 1:1		Kg 6,8
	Rpm 4.000		Ø 16
	N 480		M 12
	Nm 18		ER-25 Ø1/16



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks		 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623							
Grandezza - Size		40	50	40	50	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)													
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110												
A		150		150		150	156	157		160	153		155
B		35		35		35	41	42		45	38		40

Dotazione Standard Standard Equipment

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 10



ALTA VELOCITÀ
HIGH SPEED

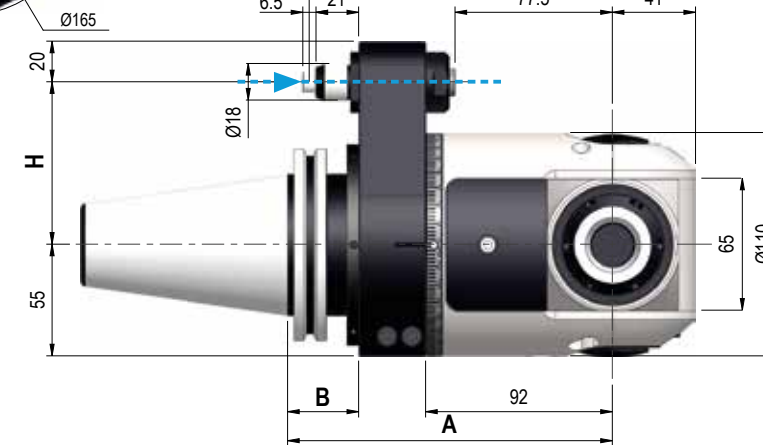
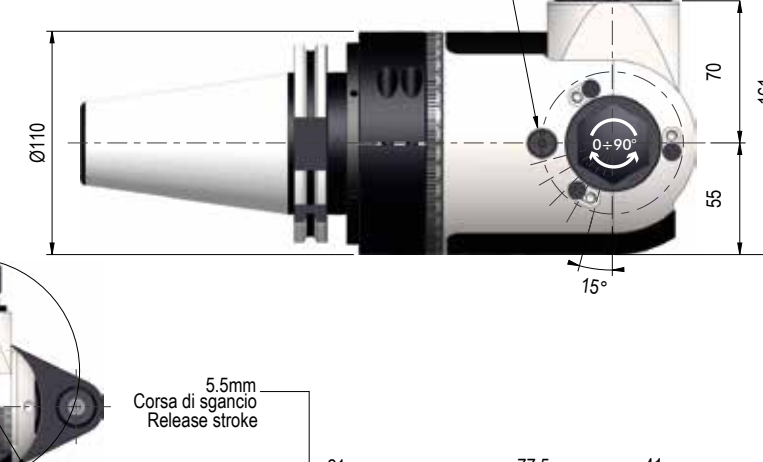
6.000 Rpm



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles

GMU-20 TYPE 2



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893		 C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C6	C8
Dual contact (Optional)							
H	Standard	80	80	80	80	80	
	Optional 110						
A	160	160	166	167	170	163	165
B	35	35	41	42	45	38	40

Dotazione Standard Standard Equipment

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 16



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm



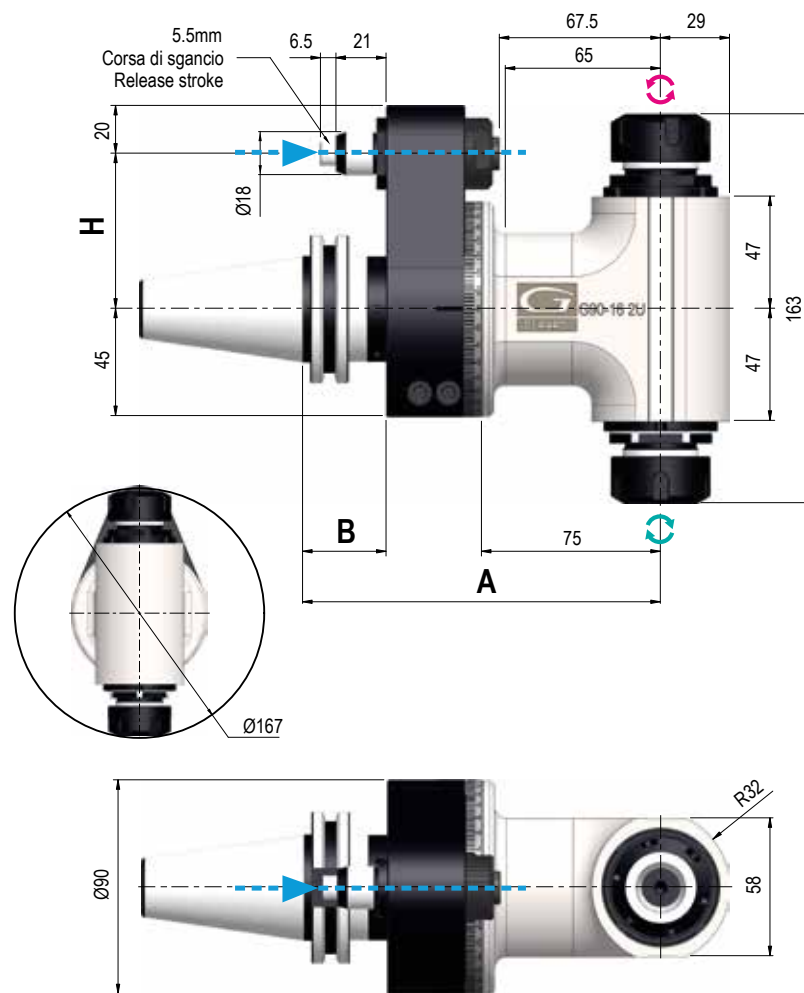
SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles

G90-16 2U TYPE 1



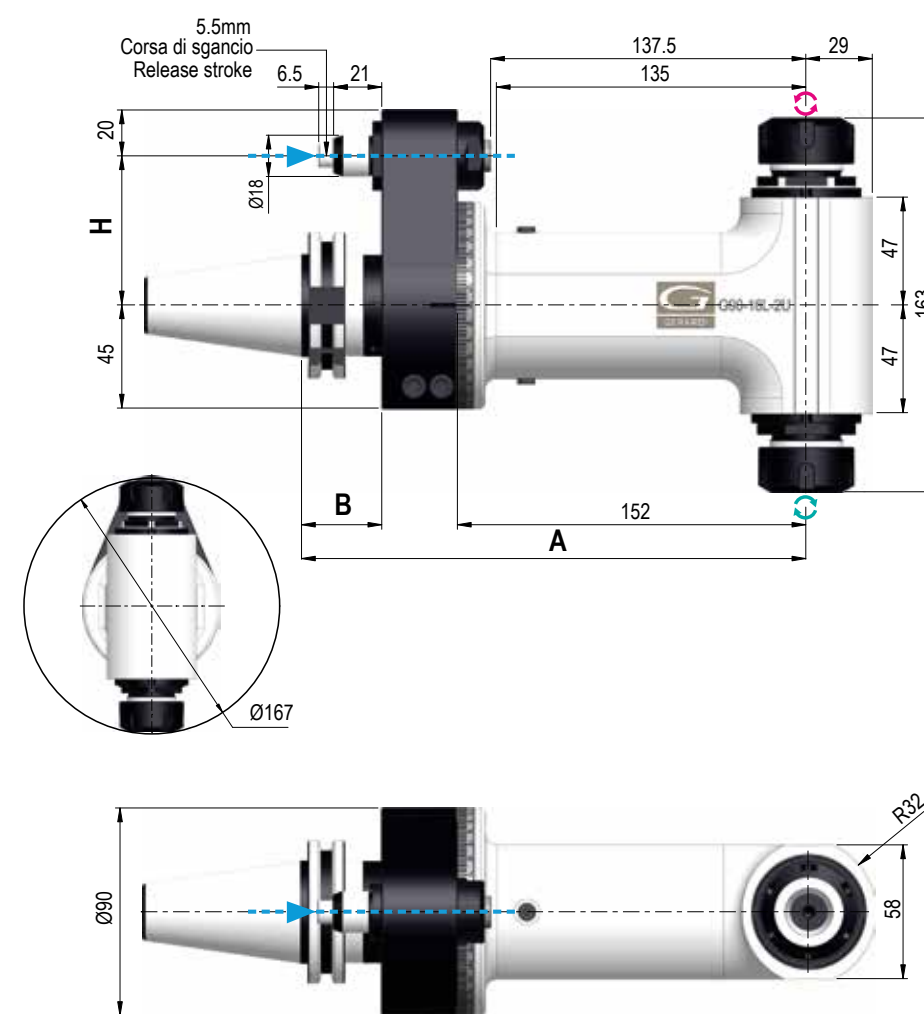
Dati tecnici - Technical data



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks		 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623							
Grandezza - Size		40	50	40	50	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)													
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110												
A		150		150		150	156	157		160	153		155
B		35		35		35	41	42		45	38		40

Dotazione Standard Standard Equipment	Opzioni - Options
Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book	USCITA OUTPUT Shell mill holder Ø16 (X2)
IMBALLO & PESO PACK & WEIGHT: Max. Kg 9,5	ALTA VELOCITÀ HIGH SPEED 8.000 Rpm



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks		 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623							
Grandezza - Size		40	50	40	50	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)													
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110												
A		220		220		220	226	227		230	223		225
B		35		35		35	41	42		45	39		40

Dotazione Standard Standard Equipment	Opzioni - Options
Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book	USCITA OUTPUT Shell mill holder Ø16 (X2)
IMBALLO & PESO PACK & WEIGHT: Max. Kg 27	ALTA VELOCITÀ HIGH SPEED 8.000 Rpm

G90-16L 2U TYPE 1



Dati tecnici - Technical data



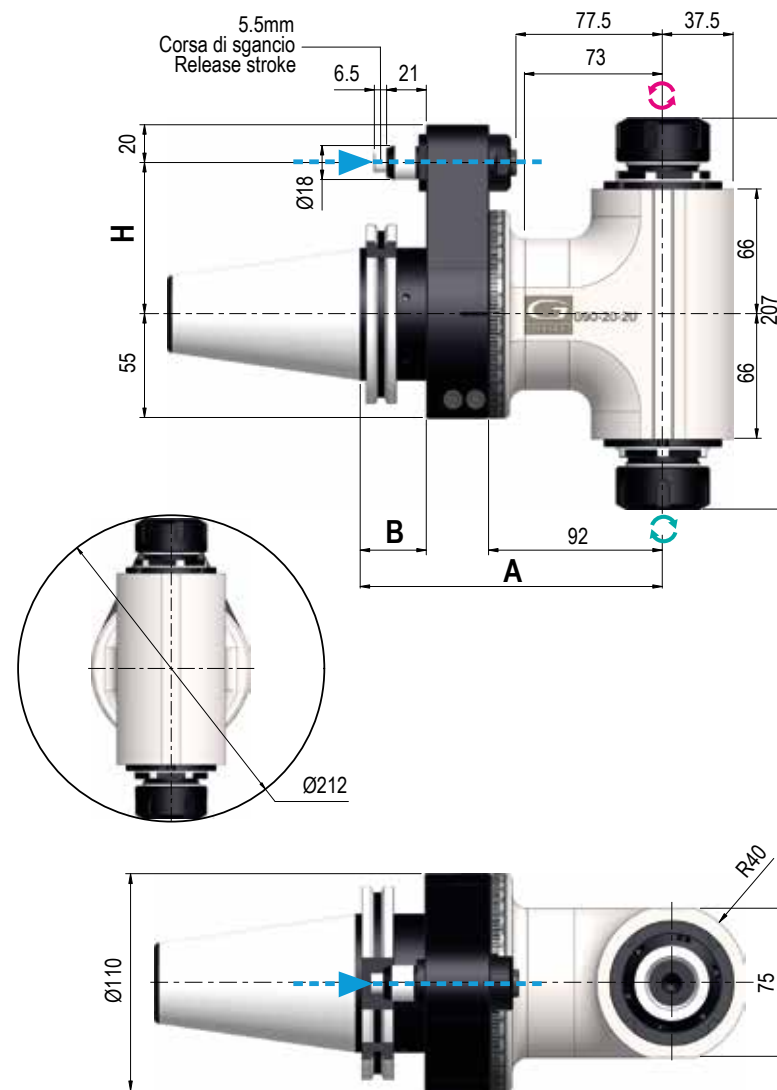
G90-20-2U

TYPE 2



Dati tecnici - Technical data

Ratio 1:1	Kg 11,7
Rpm 4.000	Ø 20
N 1250	M 16
Nm 40	ER-32 Ø2/20



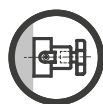
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	63 80 100	C6 C8
Dual contact (Optional)					
H Standard	80	80	80	80	80
H Optional 110					
A	160	160	166	167 170	163 165
B	35	35	41	42 45	38 40

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 15



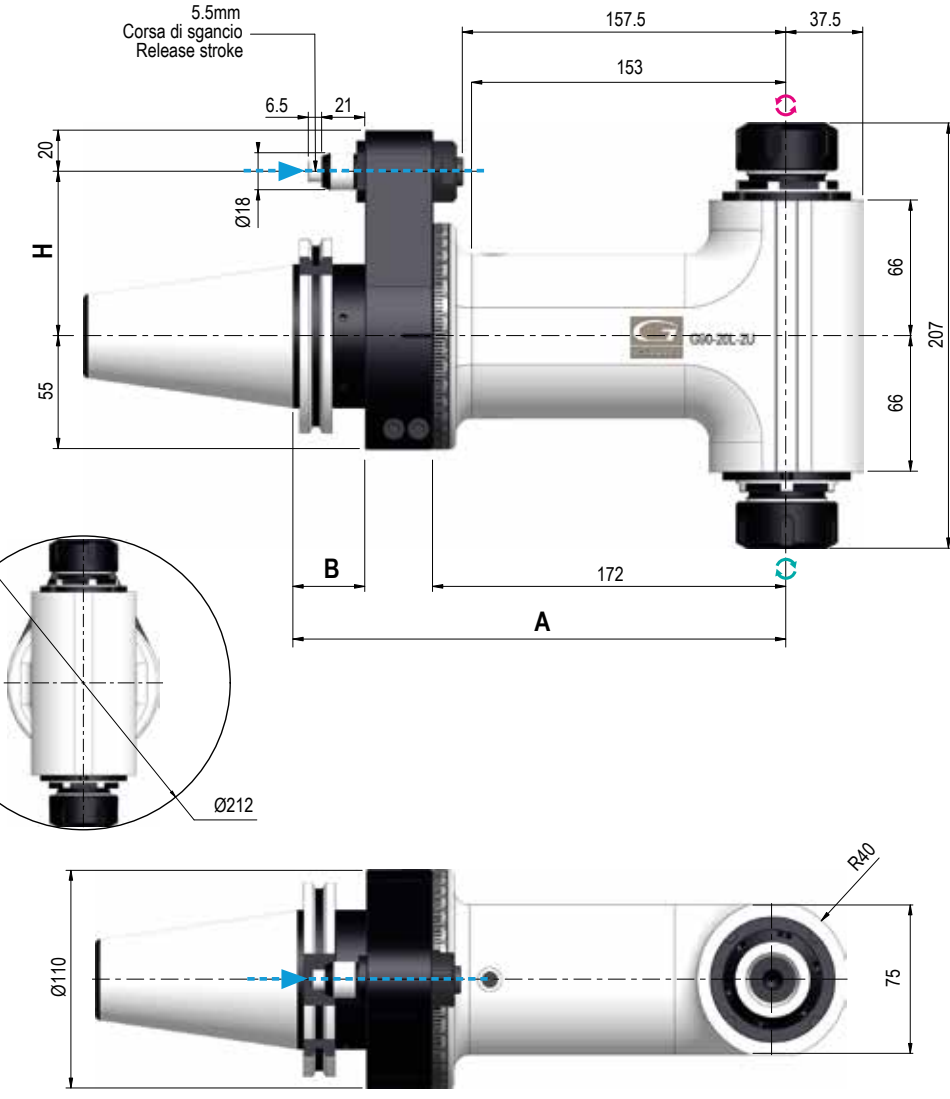
USCITA OUTPUT
Shell mill holder Ø27 (X2)



USCITA OUTPUT
Weldon Max Ø20 (X2)



ALTA VELOCITÀ
HIGH SPEED
6.000 Rpm



G90-20L-2U

TYPE 2



Dati tecnici - Technical data

Ratio 1:1	Kg 15,5
Rpm 4.000	Ø 20
N 1.250	M 16
Nm 40	ER-32 Ø2/20

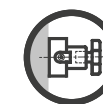
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	80 100	C6 C8
Dual contact (Optional)					
H Standard	80	80	80	80	80
H Optional 110					
A	240	240	246	247 250	243 245
B	35	35	41	42 45	38 40

Dotazione Standard Standard Equipment

Opzioni - Options

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 29,5



USCITA OUTPUT
Shell mill holder Ø27 (X2)



USCITA OUTPUT
Weldon Max Ø20 (X2)



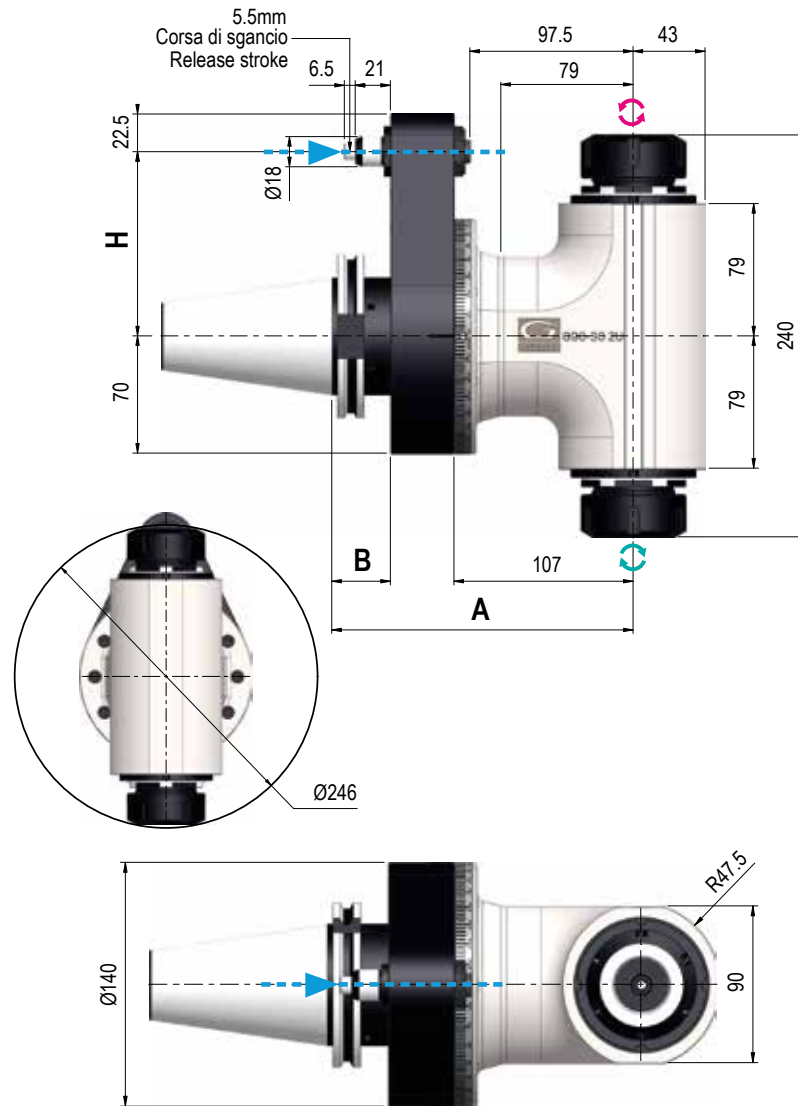
ALTA VELOCITÀ
HIGH SPEED
6.000 Rpm

G90-30-2U

TYPE 3



Dati tecnici - Technical data



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

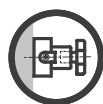
Coni Shanks	 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Dual contact (Optional)						
H Standard Ø18	110	110	110	110		110
A	180	180	186	187	190	185
B	35	35	41	42	45	40

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 23



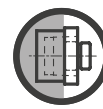
USCITA OUTPUT
Shell mill holder Ø27 (X2)



USCITA OUTPUT
Weldon Max Ø25 (X2)



ALTA VELOCITÀ
HIGH SPEED
6.000 Rpm



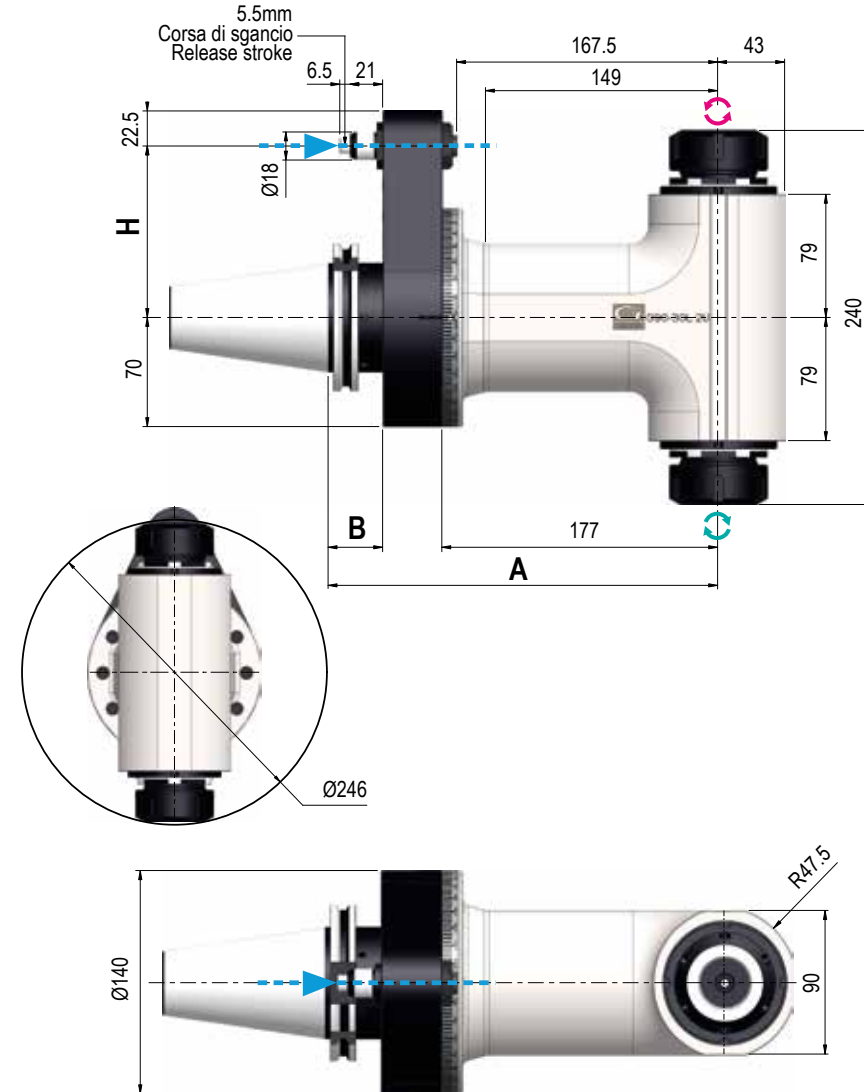
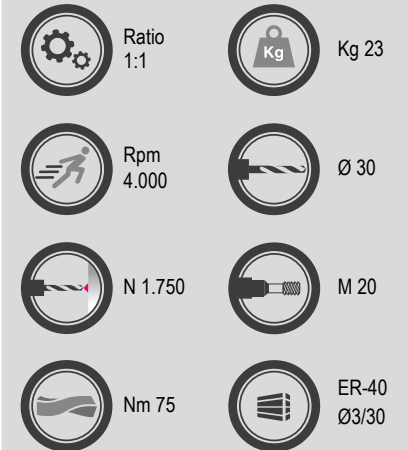
USCITA OUTPUT
HSK 40 (X2)

G90-30L-2U

TYPE 3



Dati tecnici - Technical data



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

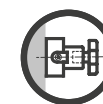
Coni Shanks	 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Dual contact (Optional)						
H Standard Ø18	110	110	110	110		110
A	250	250	256	257	260	255
B	35	35	41	42	45	40

Dotazione Standard Standard Equipment

Opzioni - Options

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 37



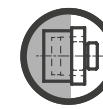
USCITA OUTPUT
Shell mill holder Ø27 (X2)



USCITA OUTPUT
Weldon Max Ø25 (X2)



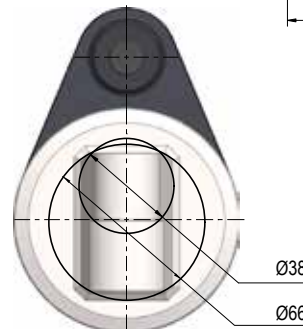
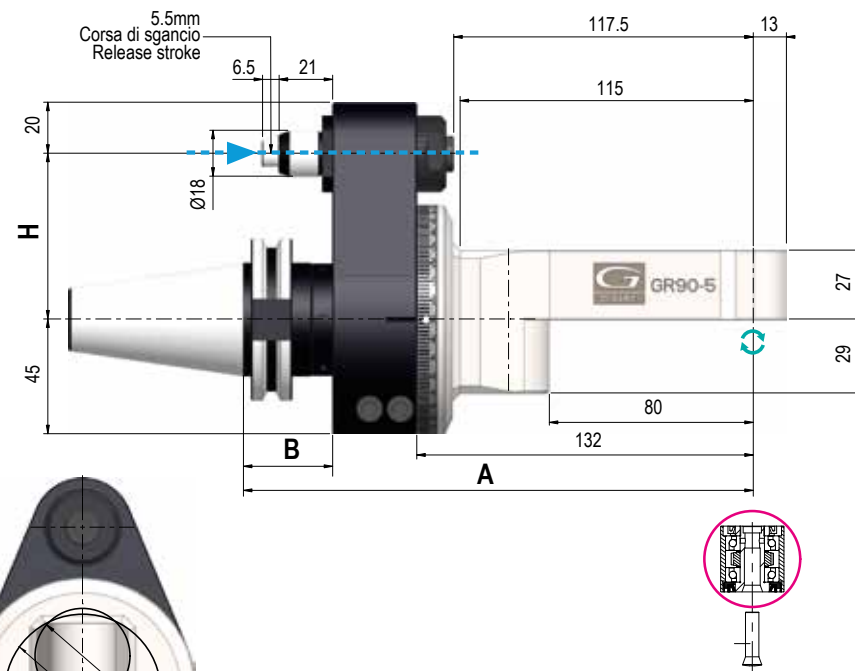
ALTA VELOCITÀ
HIGH SPEED
6.000 Rpm



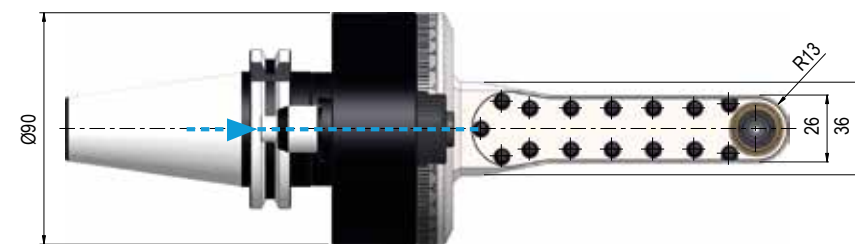
USCITA OUTPUT
HSK 40 (X2)

GR90-5

TYPE 1



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI CON STEP DA 16mm
POSSIBILITY OF DIFFERENT LENGTH WITH 16mm STEP



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Dati tecnici - Technical data



Coni Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623		
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)														
H Standard	65 / 80	80		65 / 80	80	65 / 80	80		65 / 80	80		65 / 80		80
H Optional 110														
A	200			200		195	200	206	207	210		203		205
B	35			35		30	35	41	42	45		38		40

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 8



PINZA
COLLETS

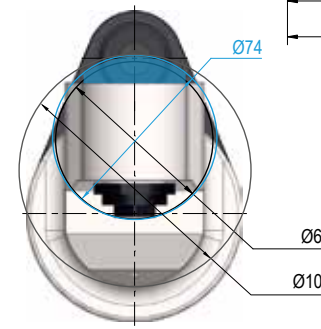
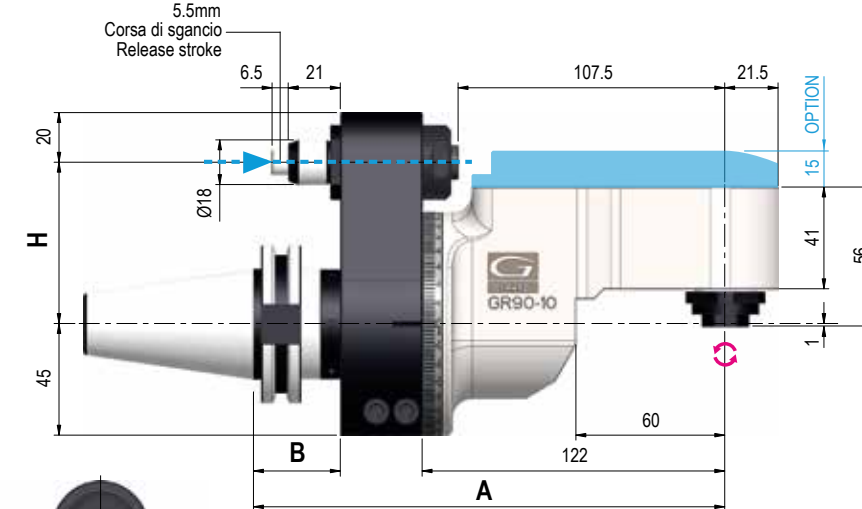
SCHAUBLIN P6

Ø 0,3 - 0,9

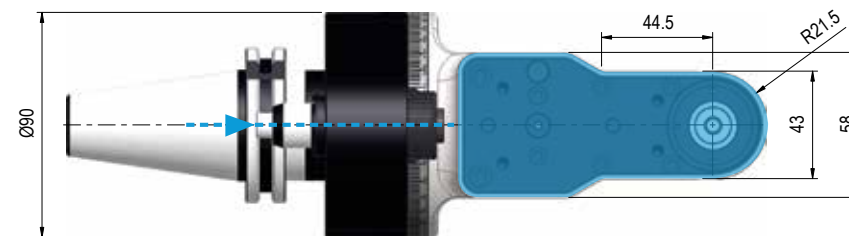
Ø 1 - 1,9

Ø 2 - 3,5

Ø 4 - 5



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI CON STEP DA 30mm
POSSIBILITY OF DIFFERENT LENGTH WITH 30mm STEP



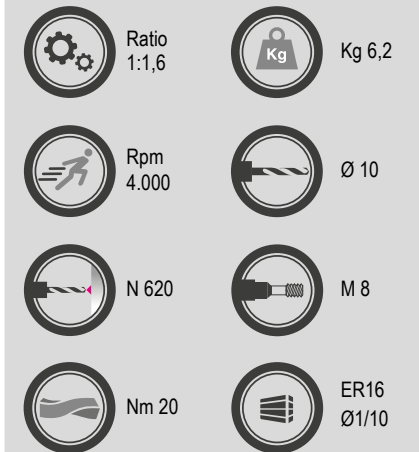
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

GR90-10

TYPE 1



Dati tecnici - Technical data



Coni Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623		
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)												
H Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80		65 / 80		80
H Optional 110												
A	190		190		190	196	197	200		193		195
B	35		35		35	41	42	45		38		40

Dotazione Standard Standard Equipment

Opzioni - Options

Valigetta - Stop-block - Ghiera ER -
Chiavi di servizio - Tubetto di grasso -
Libro istruzioni
Special bag - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 9,5



USCITA
OUTPUT

Shell mill holder Ø13

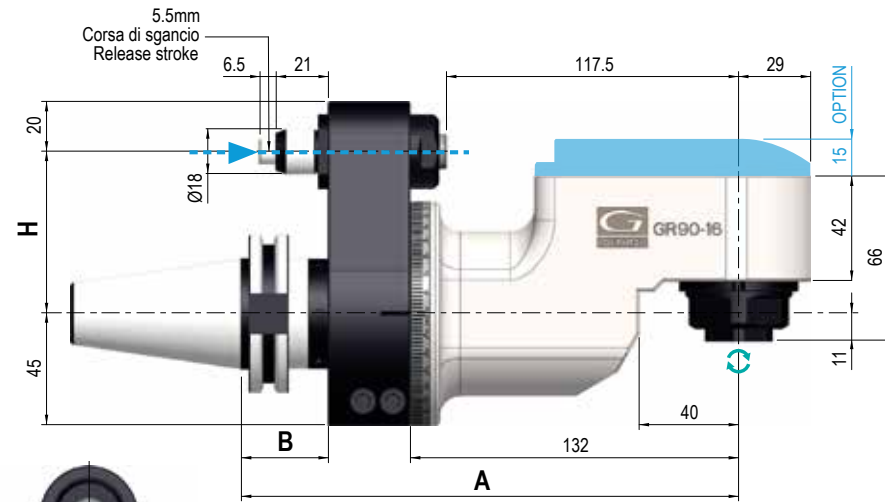
USCITA
OUTPUT

Weldon Max Ø10

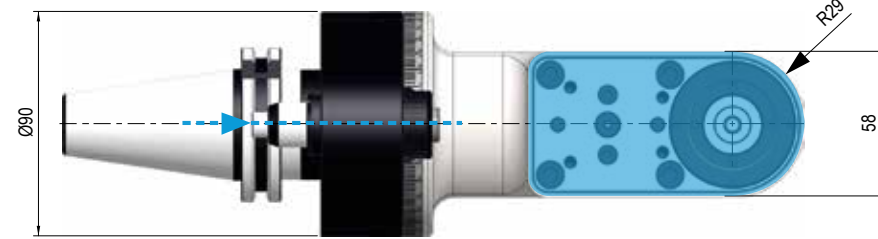
REFR. DAL CONO
COOLANT THROUGH SHANK
DRY RUNNING NOT POSSIBLE
Max 70 bar

ALTA VELOCITÀ
HIGH SPEED
INTERNAL COOLANT NOT POSSIBLE
8.000 Rpm

GR90-16 TYPE 1



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI CON STEP DA 50mm
POSSIBILITY OF DIFFERENT LENGTH WITH 50mm STEP



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Dati tecnici - Technical data

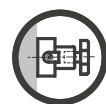
Ratio 1:1	Kg 6
Rpm 4.000	Ø 16
N 620	M 12
Nm 20	ER-25 Ø1/16

Coni Shanks		 SK DIN 69871	 CAT ANSI B5.50	 BT MAS 403	 HSK DIN 69893	 C. ISO 26623					
Grandezza - Size		40	50	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)											
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80
	Optional 110										
A		200	200	200	206	207	210	203	205		
B		35	35	35	41	42	45	38	40		

Dotazione Standard
Standard Equipment

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

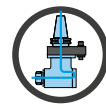
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 10



USCITA OUTPUT
Shell mill holder Ø16



USCITA OUTPUT
Weldon Max Ø16

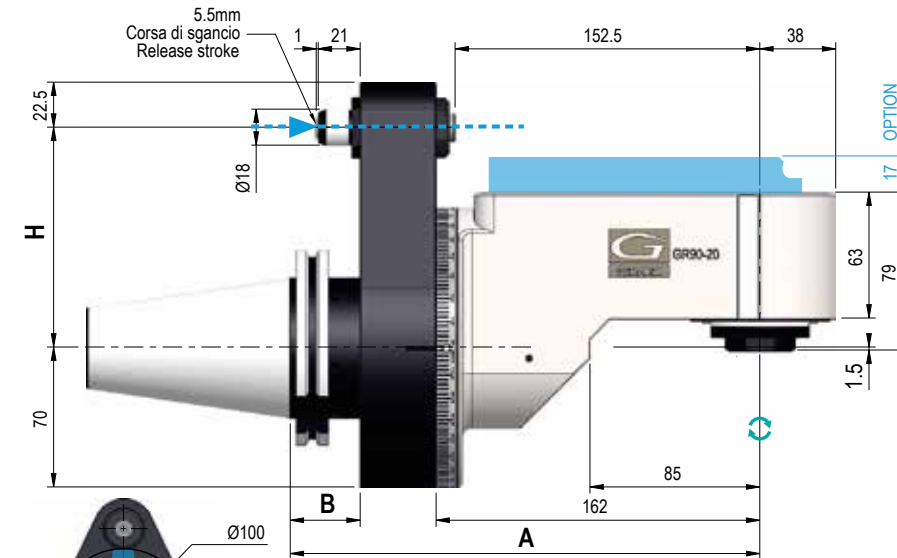


REFR. DAL CONO
COOLANT THROUGH SHANK
DRY RUNNING NOT POSSIBLE
Max 70 bar

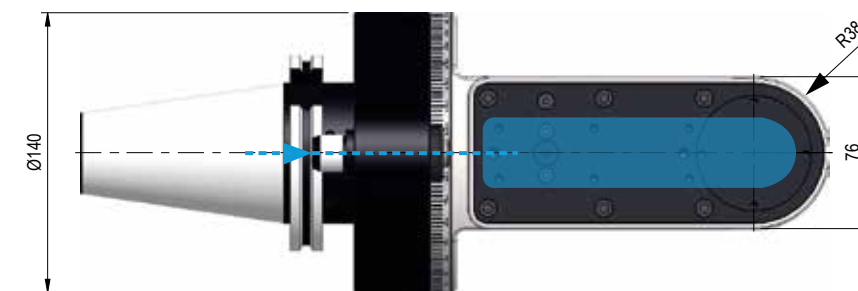


ALTA VELOCITÀ
HIGH SPEED
INTERNAL COOLANT NOT POSSIBLE
8.000 Rpm

GR90-20 TYPE 3



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI CON STEP DA 52mm
POSSIBILITY OF DIFFERENT LENGTH WITH 52mm STEP



SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Dati tecnici - Technical data

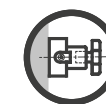
Ratio 1:1	Kg 15,6
Rpm 4.000	Ø 20
N 1.750	M 16
Nm 75	ER32 Ø2/20

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	100	C8
Dual contact (Optional)					
H Standard Ø18	110	110	110	110	110
A	235	235	241	245	240
B	35	35	41	45	40

Dotazione Standard
Standard Equipment

Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 30



USCITA OUTPUT
Shell mill holder Ø16



USCITA OUTPUT
Weldon Max Ø20



REFR. DAL CONO
COOLANT THROUGH SHANK
DRY RUNNING NOT POSSIBLE
Max 70 bar



ALTA VELOCITÀ
HIGH SPEED
INTERNAL COOLANT NOT POSSIBLE
6.000 Rpm

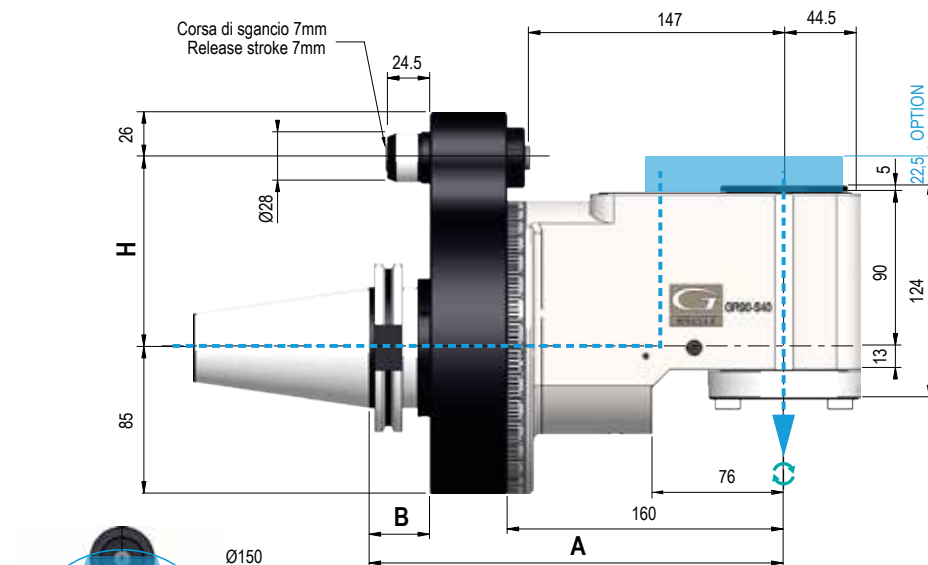
GR90-S40

TYPE 4

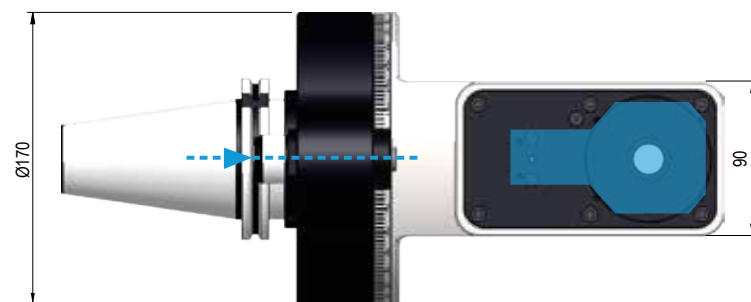


Dati tecnici - Technical data

Ratio 1:1	Kg 22,6
Rpm 4.000	Ø 26
N 1.800	M 20
Nm 140	ISO / CAT / BT 40



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI CON STEP DA 68mm
POSSIBILITY OF DIFFERENT LENGTH WITH 68mm STEP



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	100	C8
Dual contact (Optional)					
H Standard Ø18	110	110	110	110	110
A	240	240	246	250	245
B	35	35	41	45	40

Dotazione Standard Standard Equipment

Opzioni - Options

Cassa in legno - Stop-block -
Ghiera ER - Chiavi di servizio -
Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut -
Wrenches - Grease tube - Instruction book

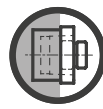
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 37



USCITA OUTPUT
Welding Max Ø26

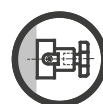


REFR. DAL CONO
COOLANT
THROUGH SHANK
DRY RUNNING NOT POSSIBLE
70 bar

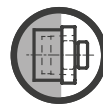


USCITA OUTPUT
C4

USCITA OUTPUT
HSK 63



USCITA OUTPUT
Shell mill holder
Ø27



ALTA VELOCITÀ
HIGH SPEED
INTERNAL COOLANT NOT POSSIBLE
5.000 Rpm

MTC SERIES MANUAL TOOL CHANGE



INGRANAGGI - GEARS

Ingranaggi Gleason con evolvente
rettificato massime performances
e minori vibrazioni

Gleason ground spiral bevel gears maximum
performances and minimum vibration



CUSCINETTI - BEARINGS

Cuscinetti a sfera a contatto obliquo
in classe di precisione ABEC 9

Angular contact preloaded ball bearings
of precision class ABEC 9

DESIGN

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

The Compact design, along with mentioned specifications, allows: highest performances, high speeds, long tools life

Anello graduato
Graduated ring

Flangia universale
Universal flange

USCITE OUTPUTS:

- Portapinza ER (standard)
- Weldon
- Portafresa
- Speciale
- ER collet (standard)
- Weldon
- Shell mill holder
- Special



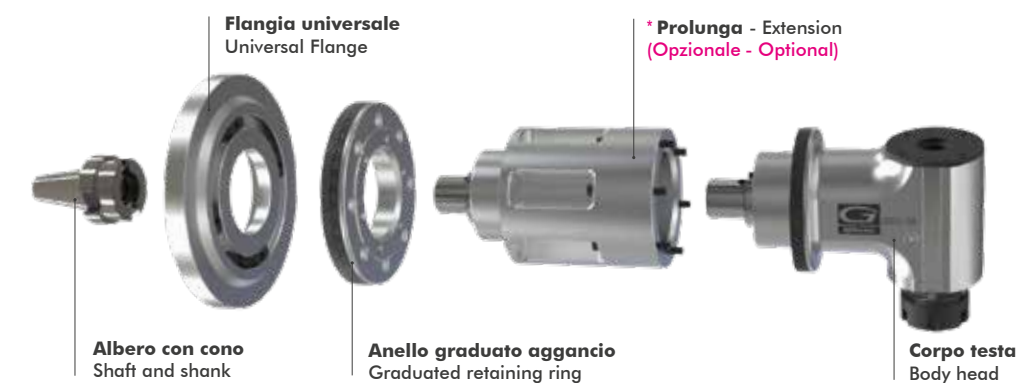
Corpo testa orientabile a 360°
con pressurizzazione interna.
In acciaio trattato, massima
rigidità e resistenza alla
corrosione. Minima
dilatazione termica.

Treated steel head body
with 360° position and internal
air pressure, maximum rigidity
and corrosion resistant.
Minimum thermal expansion

PROLUNGHE - EXTENSIONS

Sulla serie di teste MTC è possibile variare la lunghezza del corpo aggiungendo il modulo di prolunga (pag.1.95)

On MTC series is possible to extend the length of the body by adding an extension (pag.1.95)



Massimo 2 elementi di prolunga ammessi - Max. 2 extensions admitted.

Esempi applicativi / Applications examples

Linea Classic / Classic Line

Teste angolari integrali serie MTC (Cambio utensile manuale)

Integral angle heads MTC series (Manual tool change)



series
STD 90°

La serie ideale per fresature, forature e maschiature a $\pm 90^\circ$
The ideal series for milling, drilling and tapping at $\pm 90^\circ$.



series
STD 90°

La serie ideale per fresature, forature e maschiature a $\pm 90^\circ$
The ideal series for milling, drilling and tapping at $\pm 90^\circ$.



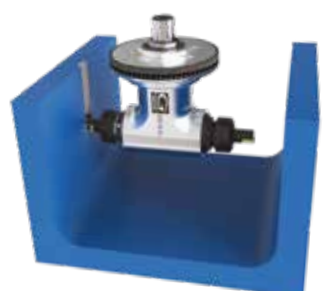
series
GMU

La serie di teste angolari con angolazione regolabile da 0 a 90° .
Angle heads series with adjustable angle from 0 to 90° .



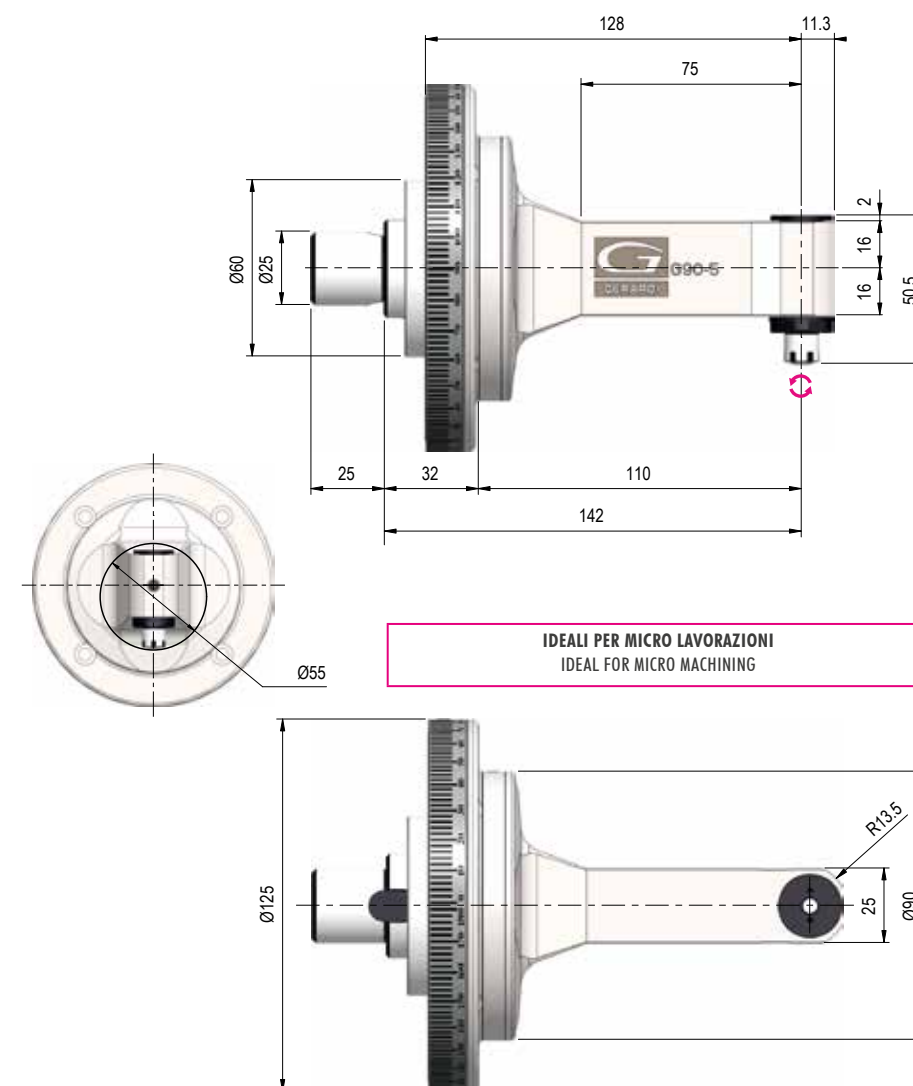
series
GMU

La serie di teste angolari con angolazione regolabile da 0 a 360° .
Angle heads series with adjustable angle from 0 to 360° .



series
DOUB2E

La serie di teste angolari ideali per fresature, forature e maschiature attraverso 2 mandrini contrapposti di 180°
Angle Heads series for milling drilling and tapping through 2 opposite outputs

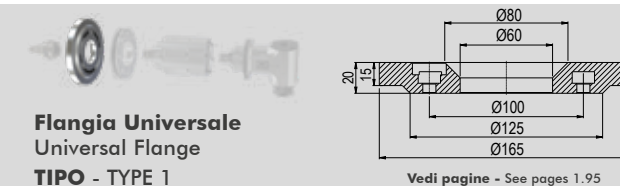


IDEALI PER MICRO LAVORAZIONI
IDEAL FOR MICRO MACHINING



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	30 40 50	40 50	30 40 50	63 80 100	C5 C6 C8	40 50



Flangia Universale
Universal Flange
TIPO - TYPE 1

Vedi pagine - See pages 1.95



Prolunga
Extension
TIPO - TYPE 1

Dotazione Standard Standard Equipment

Valigetta - Flangia universale - Ghiera ER -
Cono std - Chiavi di servizio - Tubetto di
grasso - Libro Istruzioni
Special bag - Universal flange - ER nut - Shank -
Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 8



USCITA
OUTPUT

Weldon Max Ø6

G90-5

TYPE 1

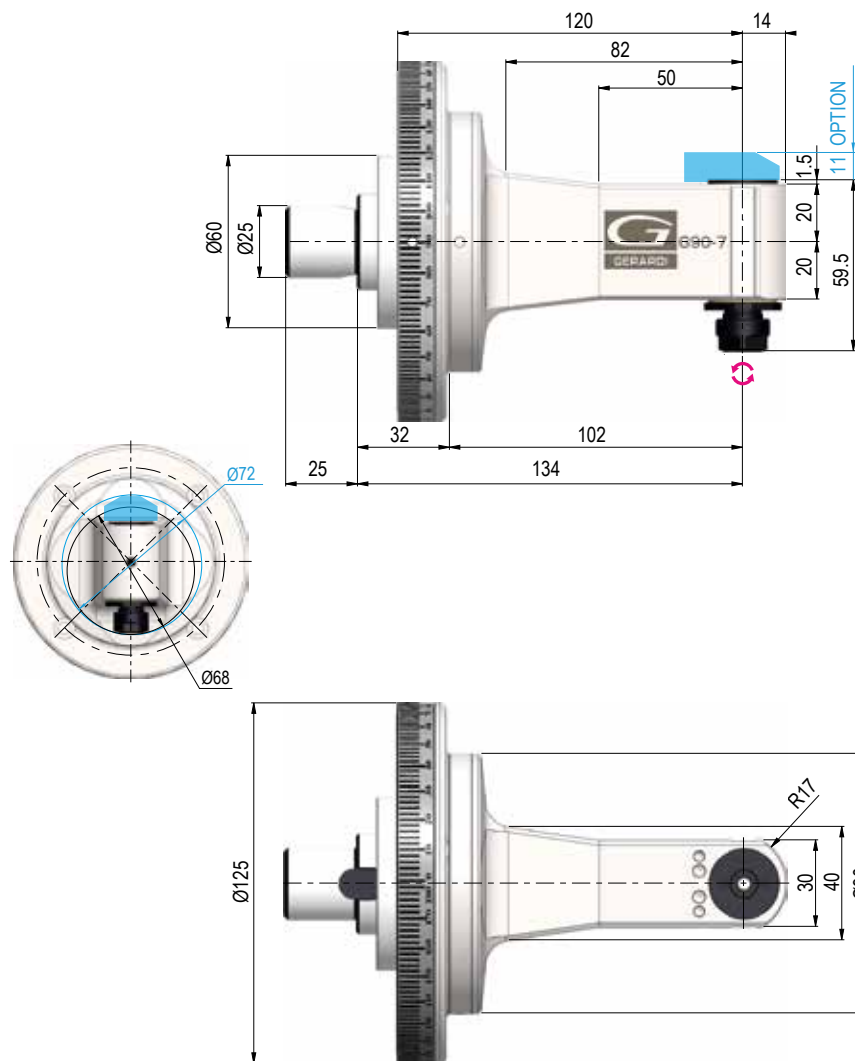


Dati tecnici - Technical data

Ratio 1:1	Kg 4
Rpm 10.000	Ø 5
N 60	M 4
Nm 4	ER-8 Ø0,5/5

G90-7

TYPE 1



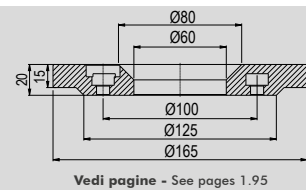
Dati tecnici - Technical data



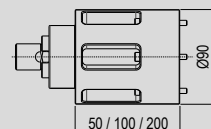
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	 SK DIN 69871			 CAT ANSI B5.50		 BT MAS 403			 HSK DIN 69893			 C. ISO 26623			 ISO DIN 2080	
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard

Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro Istruzioni
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

IMBALLO & PESO

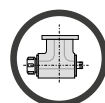
PACK & WEIGHT: Max. Kg 8



Opzioni - Options



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR
Max.6000 Rpm
DRY RUNNING POSSIBLE
Max 10 Bar



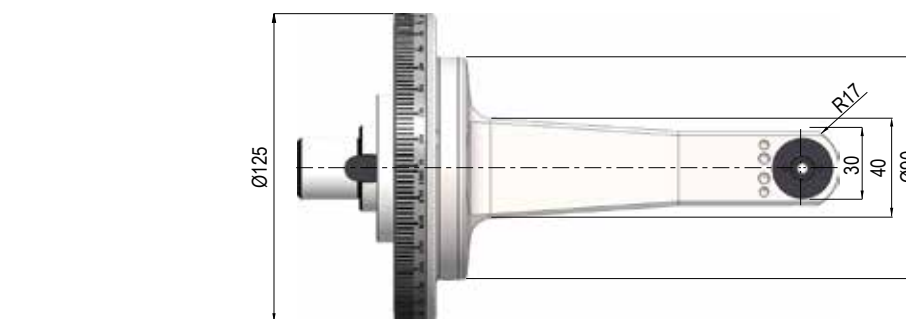
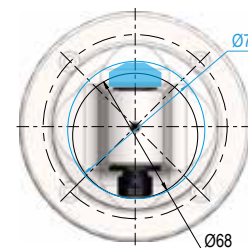
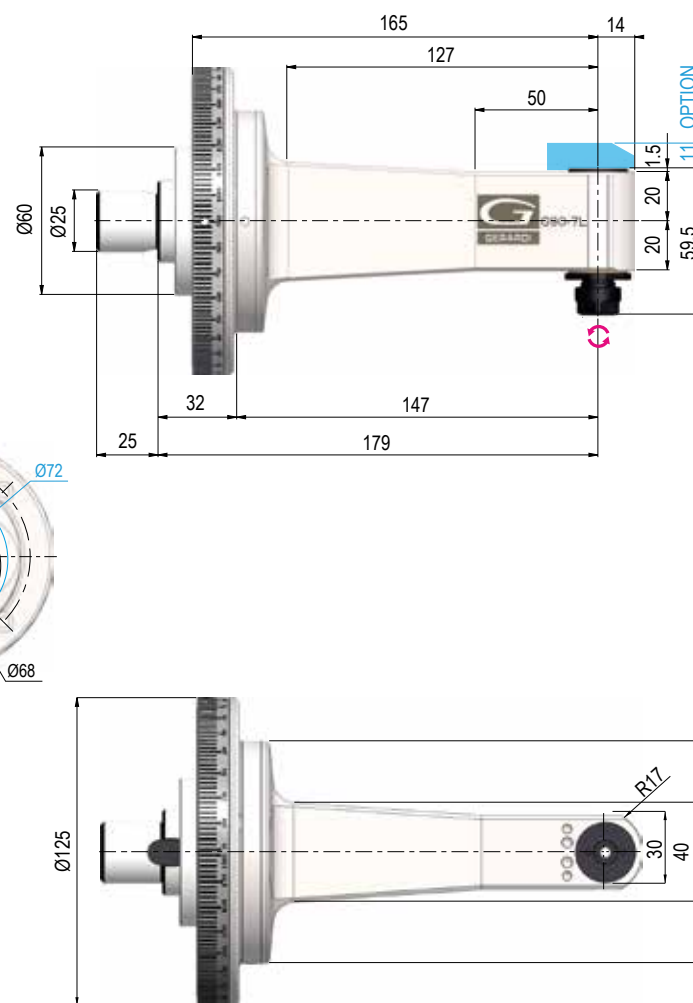
DOPPIA USCITA
DOUBLE OUTPUT
ER11 - ER8 M

USCITA
OUTPUT
Weldon Max Ø8



G90-7L

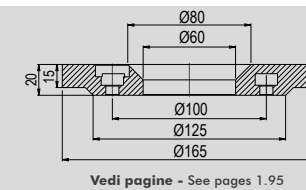
TYPE 1



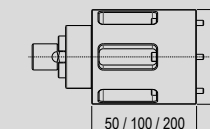
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	 SK DIN 69871			 CAT ANSI B5.50		 BT MAS 403			 HSK DIN 69893			 C. ISO 26623			 ISO DIN 2080	
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard

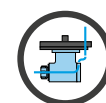
Valigetta - Flangia universale - Ghiera ER - Cono std - Chiavi di servizio - Tubetto di grasso - Libro Istruzioni
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

IMBALLO & PESO

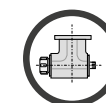
PACK & WEIGHT: Max. Kg 8,5



Opzioni - Options



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR
Max.6000 Rpm
DRY RUNNING POSSIBLE
Max 10 Bar

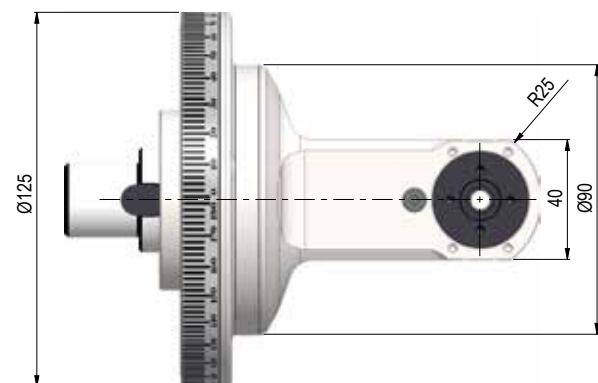
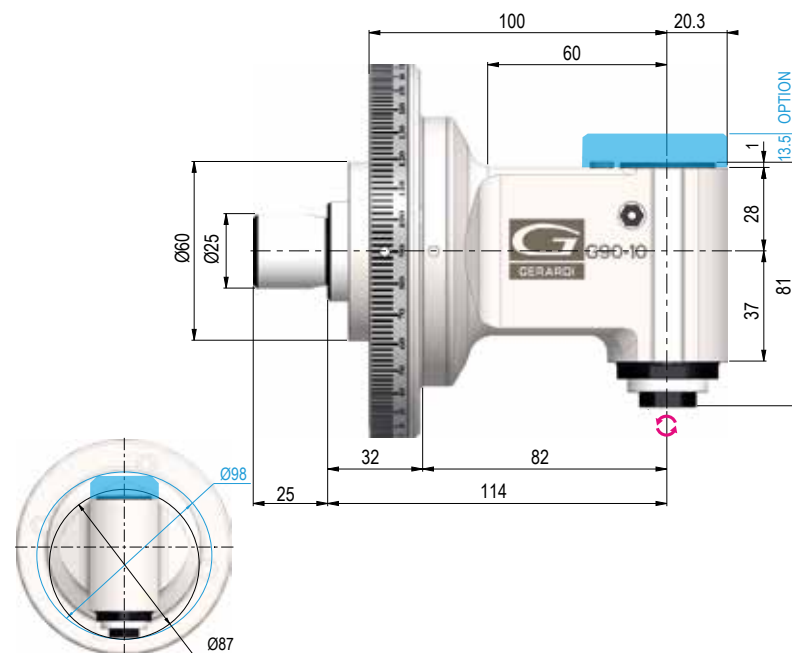


DOPPIA USCITA
DOUBLE OUTPUT
ER11 - ER8 M

USCITA
OUTPUT
Weldon Max Ø8



G90-10 TYPE 1



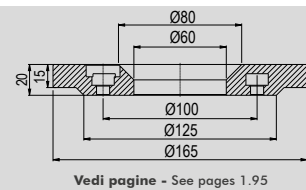
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Dati tecnici - Technical data

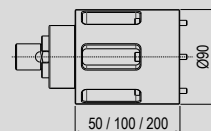
Ratio 1:1	Kg 4,3
Rpm 10.000	Ø 10
N 250	M 8
Nm 10	ER-16 Ø1/10

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	30 40 50	40 50	30 40 50	63 80 100	C5 C6 C8	40 50

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard
Standard Equipment

Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro Istruzioni
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

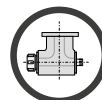
IMBALLO & PESO
PACK & WEIGHT: Max Kg 9



Opzioni - Options



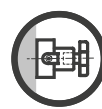
REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR
Max.6000 Rpm
DRY RUNNING POSSIBLE **DRY RUNNING NOT POSSIBLE**
Max 10 Bar Max 40 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER 16 / ER 11 M

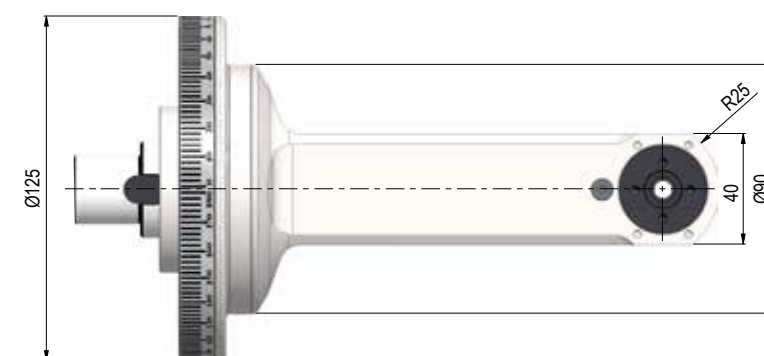
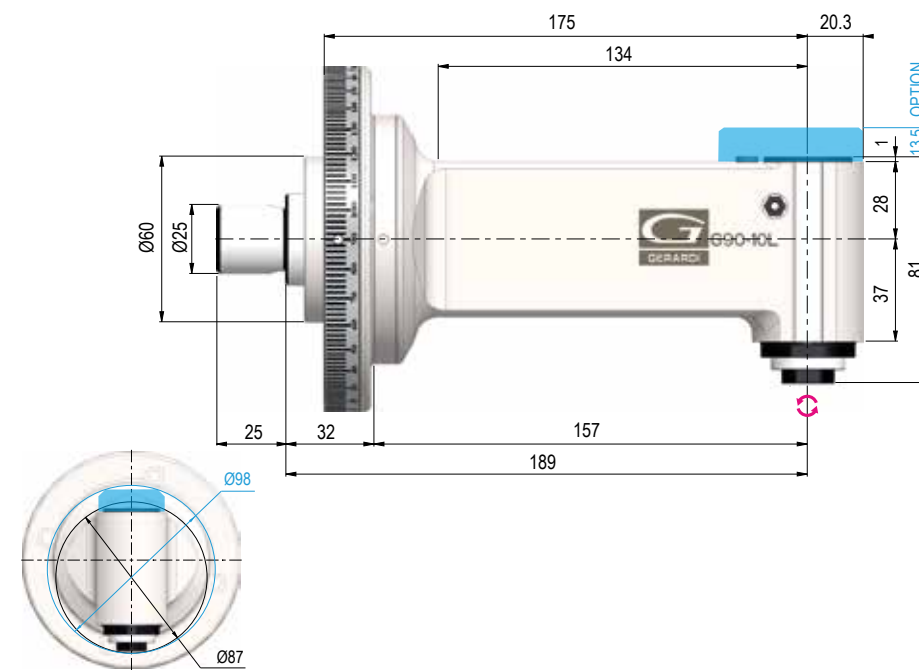


USCITA
OUTPUT
Weldon Max Ø10



USCITA
OUTPUT
Shell mill holder Ø13

G90-10L TYPE 1



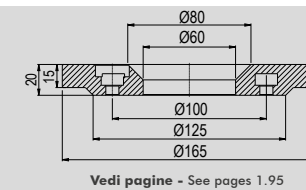
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Dati tecnici - Technical data

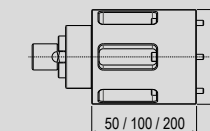
Ratio 1:1	Kg 6
Rpm 10.000	ER 16
N 250	M 8
Nm 10	ER-16 Ø1/10

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	30 40 50	40 50	30 40 50	63 80 100	C5 C6 C8	40 50

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



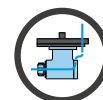
Dotazione Standard
Standard Equipment

Valigetta - Flangia universale - Ghiera ER - Cono std - Chiavi di servizio - Tubetto di grasso - Libro Istruzioni
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

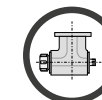
IMBALLO & PESO
PACK & WEIGHT: Max. Kg 10,5



Opzioni - Options



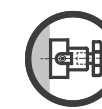
REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR
Max.6000 Rpm
DRY RUNNING POSSIBLE **DRY RUNNING NOT POSSIBLE**
Max 10 Bar Max 40 bar



DOPPIA USCITA
DOUBLE OUTPUT
ER 16 / ER 11 M



USCITA
OUTPUT
Weldon Max Ø10

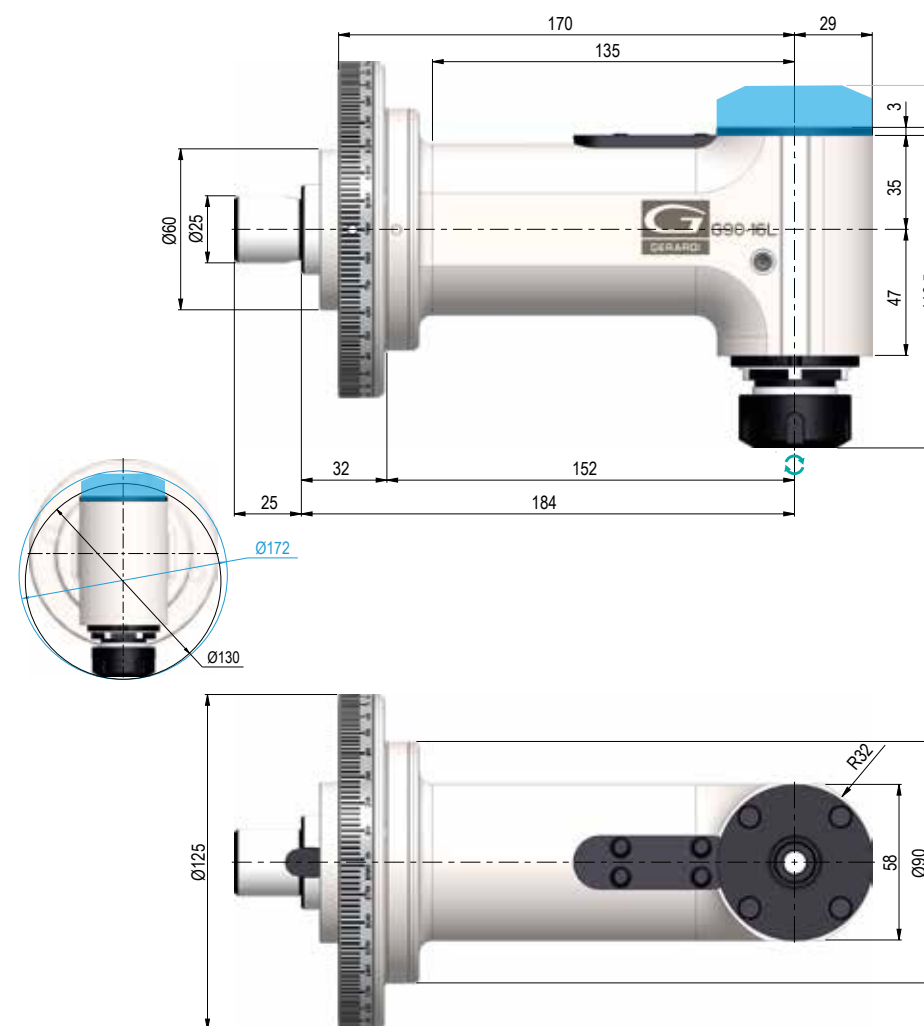
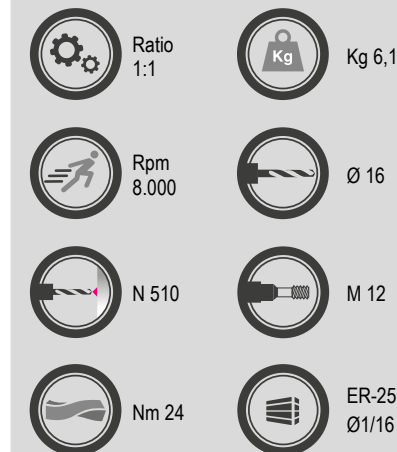


USCITA
OUTPUT
Shell mill holder Ø13

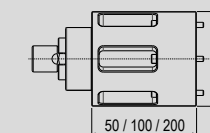
G90-16L TYPE 1



Dati tecnici - Technical data



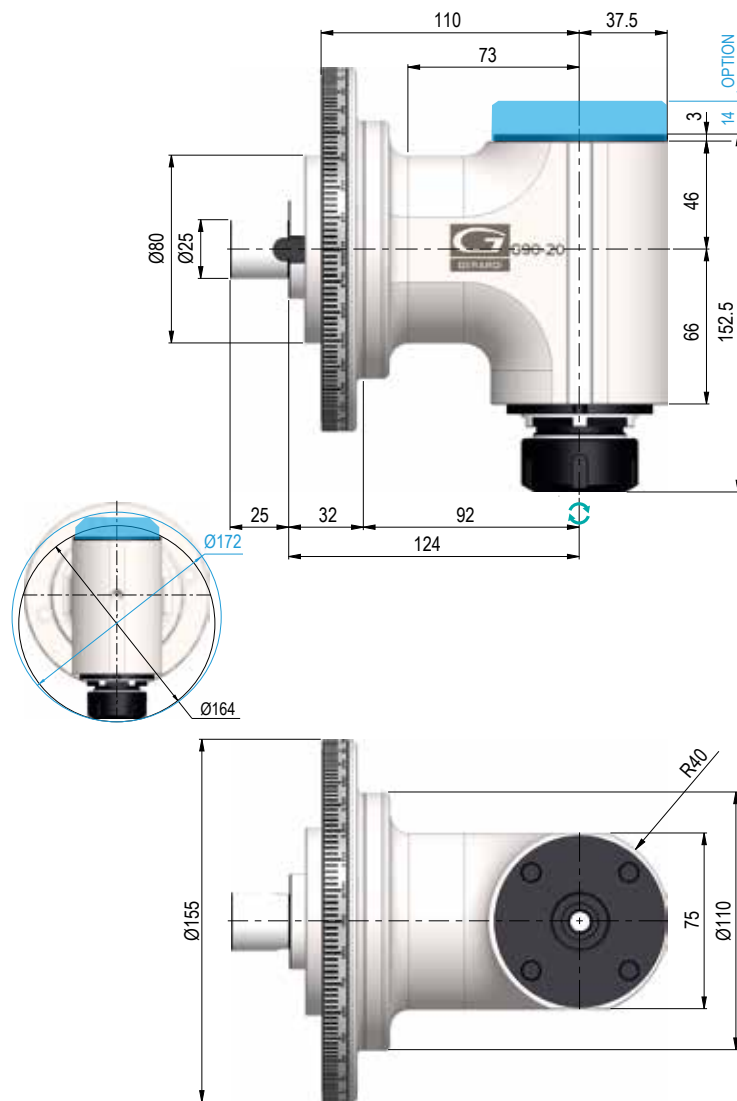
 SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

[illegible]

Prolunga
Extension
TIPO - TYPE 1

Dotazione Standard Standard Equipment		Opzioni - Options	
Valigetta - Flangia universale - Ghiera ER - Cono std - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book	 USCITA OUTPUT Shell mill holder Ø16	 USCITA OUTPUT Weldon Max Ø16	 DOPIA USCITA DOUBLE OUTPUT ER 25/ ER 16 M
IMBALLO & PESO PACK & WEIGHT: Max. Kg 10,5 	REFR. DAL DISTRIBUTORE COOL. THROUGH ROTATING DISTR. MAX.4000 Rpm DRY RUNNING POSSIBLE Max 10 bar DRY RUNNING NOT POSSIBLE Max 40 bar	 USCITA OUTPUT HSK 32	

G90-20 TYPE 2

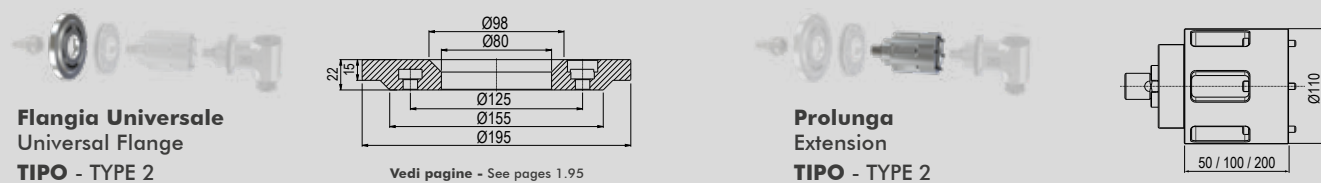


Dati tecnici - Technical data



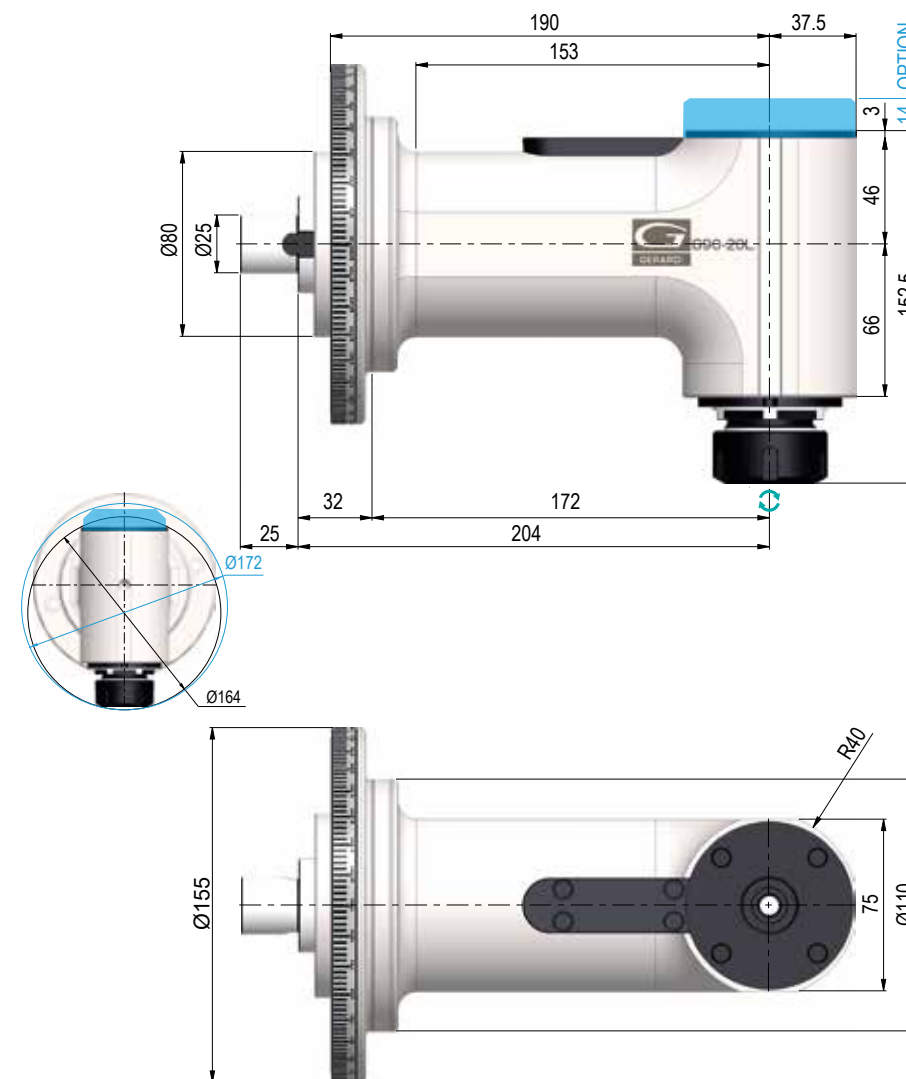
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

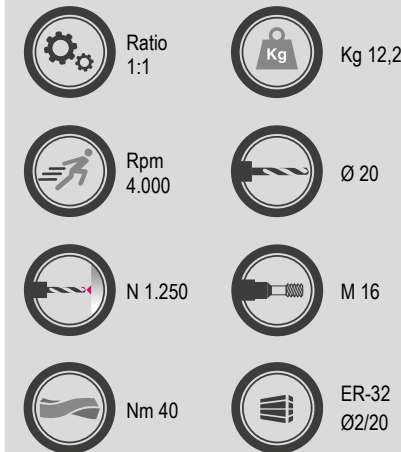


Dotazione Standard Standard Equipment	Opzioni - Options
Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book IMBALLO & PESO PACK & WEIGHT: Max. Kg 15	ALTA VELOCITÀ HIGH SPEED 6.000 Rpm DRY RUNNING NOT POSSIBLE REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 10bar DRY RUNNING POSSIBLE USCITA OUTPUT Weldon Max Ø20 USCITA OUTPUT Shell mill holder Ø22 DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20 M
	USCITA OUTPUT C4 REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 40bar DRY RUNNING NOT POSSIBLE USCITA OUTPUT HSK 40 USCITA OUTPUT ISO/CAT/ BT 30 USCITA OUTPUT ER40

G90-20L TYPE 2

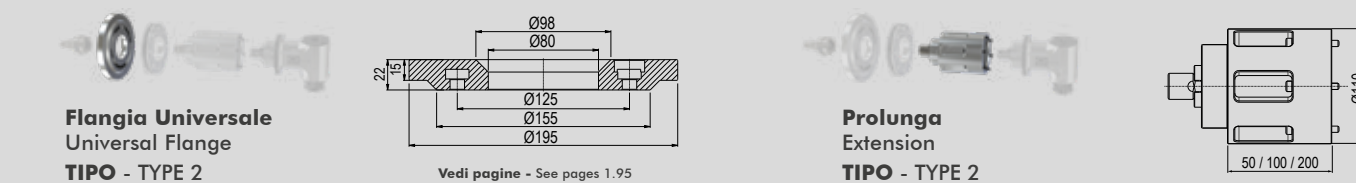


Dati tecnici - Technical data



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50



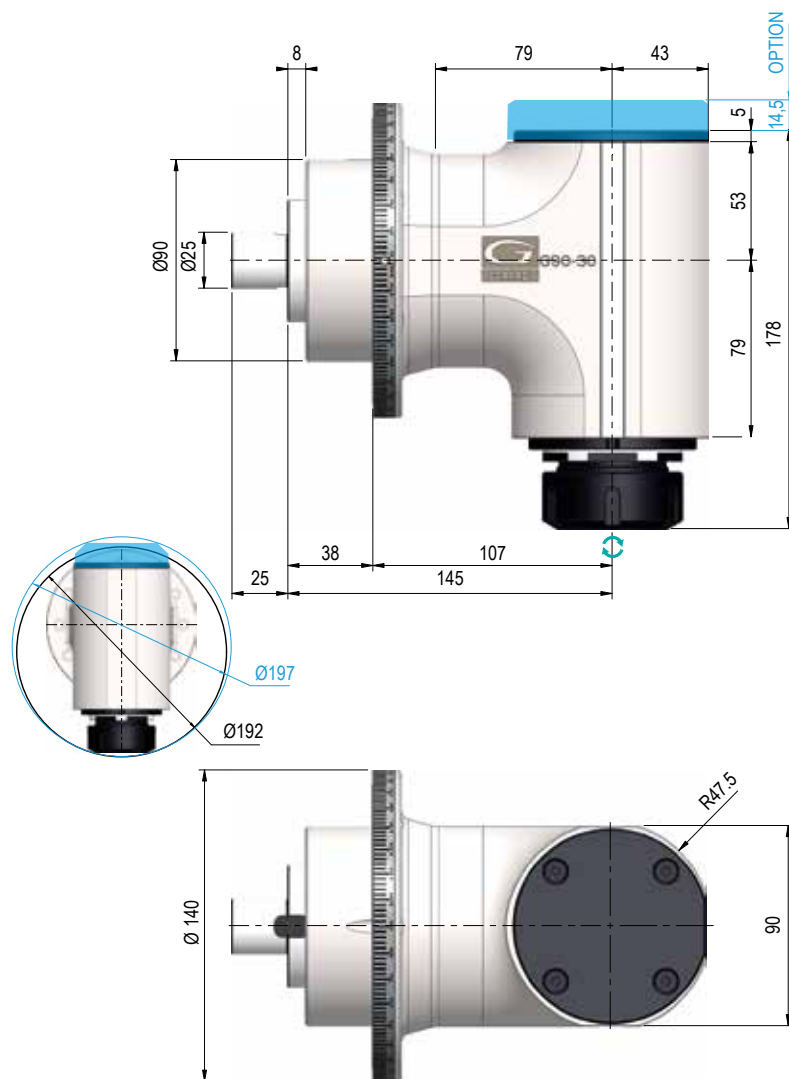
Dotazione Standard Standard Equipment	Opzioni - Options
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank Instruction book IMBALLO & PESO PACK & WEIGHT: Max. Kg 17,5	ALTA VELOCITÀ HIGH SPEED 6.000 Rpm DRY RUNNING NOT POSSIBLE REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 10bar DRY RUNNING POSSIBLE USCITA OUTPUT Weldon Max Ø20 USCITA OUTPUT Shell mill holder Ø22 DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20 M
	USCITA OUTPUT C4 REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 40bar DRY RUNNING NOT POSSIBLE USCITA OUTPUT HSK 40 USCITA OUTPUT ISO/CAT/ BT 30 USCITA OUTPUT ER40

G90-30

TYPE 3

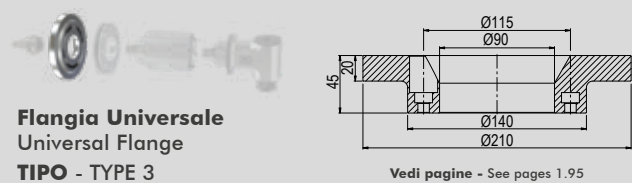


Dati tecnici - Technical data



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

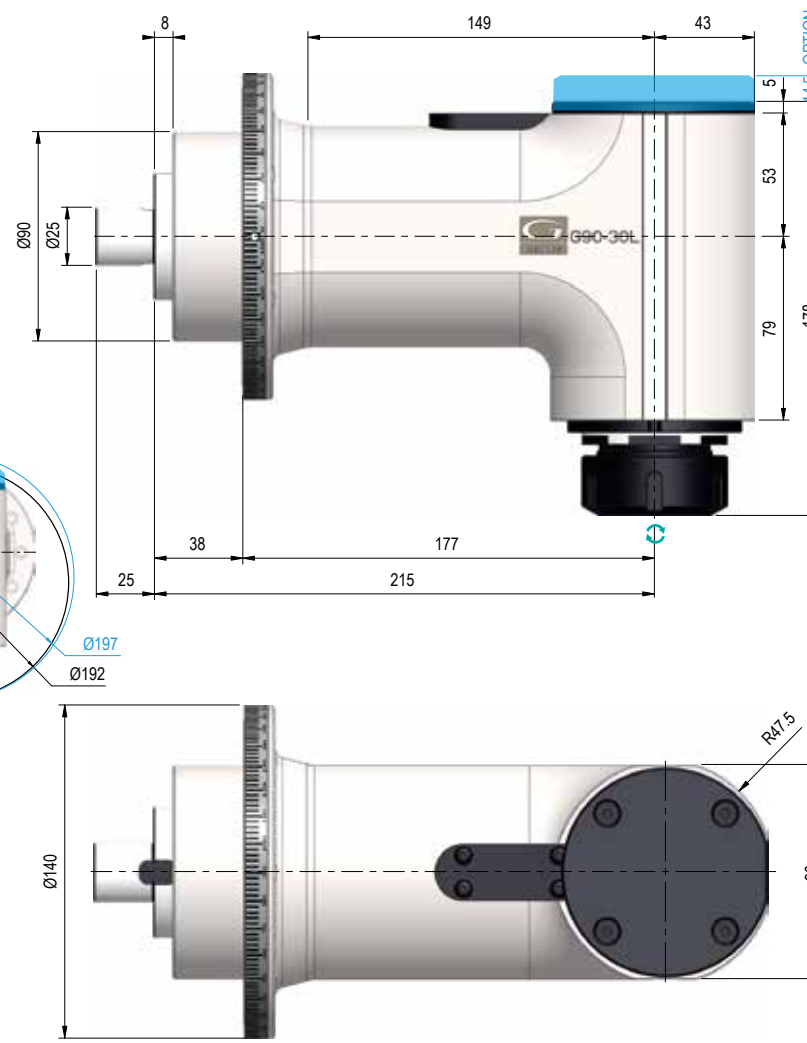


Flangia Universale
Universal Flange
TIPO - TYPE 3



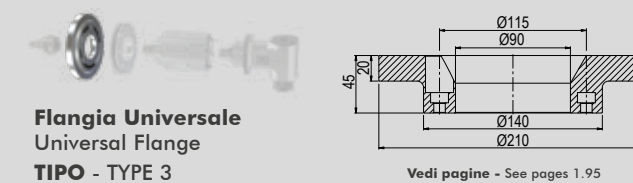
Prolunga
Extension
TIPO - TYPE 3

Dotazione Standard Standard Equipment	Opzioni - Options
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank Instruction book IMBALLO & PESO PACK & WEIGHT: Max. Kg 32	ALTA VELOCITÀ HIGH SPEED 6.000 Rpm DRY RUNNING NOT POSSIBLE REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 10bar DRY RUNNING POSSIBLE USCITA OUTPUT Weldon Max Ø25 USCITA OUTPUT Shell mill holder Ø27 DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20 M
USCITA OUTPUT C4	REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 30bar DRY RUNNING NOT POSSIBLE USCITA OUTPUT HSK 40 USCITA OUTPUT ISO 30



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50



Flangia Universale
Universal Flange
TIPO - TYPE 3



Prolunga
Extension
TIPO - TYPE 3

Dotazione Standard Standard Equipment	Opzioni - Options
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank Instruction book IMBALLO & PESO PACK & WEIGHT: Max. Kg 35	ALTA VELOCITÀ HIGH SPEED 6.000 Rpm DRY RUNNING NOT POSSIBLE REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 10bar DRY RUNNING POSSIBLE USCITA OUTPUT Weldon Max Ø25 USCITA OUTPUT Shell mill holder Ø27 DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20 M
USCITA OUTPUT C4	REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 30bar DRY RUNNING NOT POSSIBLE USCITA OUTPUT HSK 40 USCITA OUTPUT ISO 30

G90-30L

TYPE 3



Dati tecnici - Technical data



TYPE 5



	Ratio 1:1		Kg 32,5
	Rpm 4.000		Ø30
	N 2.400		M22
	Nm 140		ISO / CAT / BT 40

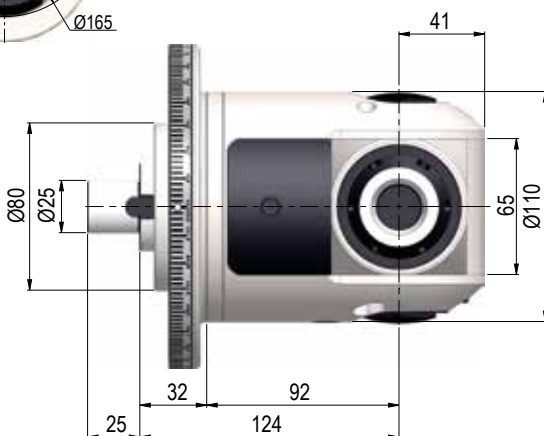
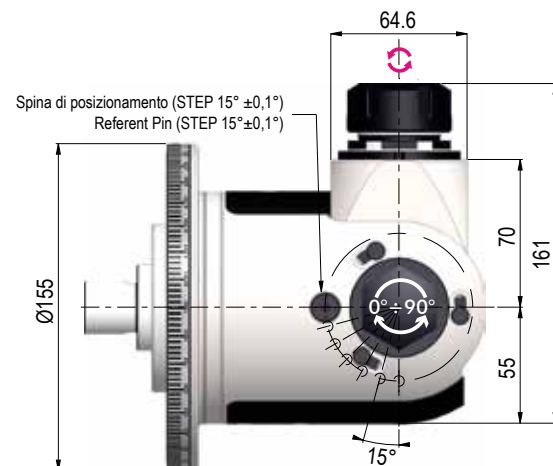
 SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

[illegible]

Dettaglio Standard Standard Equipment		Opzioni - Options	
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank - Instruction book			
		USCITA OUTPUT C4	USCITA OUTPUT C5
			USCITA OUTPUT HSK 63
IMBALLO & PESO PACK & WEIGHT: Max. Kg 47			
		REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR	
		DRY RUNNING POSSIBLE Max 10 bar	DRY RUNNING NOT POSSIBLE Max 30 bar
		ALTA VELOCITÀ HIGH SPEED	
		DRY RUNNING NOT POSSIBLE 5.000 Rpm	
			

1.69

GMU-20 TYPE 2

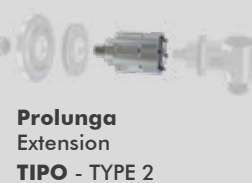
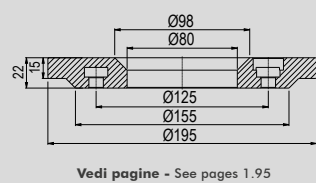


Dati tecnici - Technical data



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50



Dotazione Standard

Opzioni - Options

Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro Istruzioni
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg 18



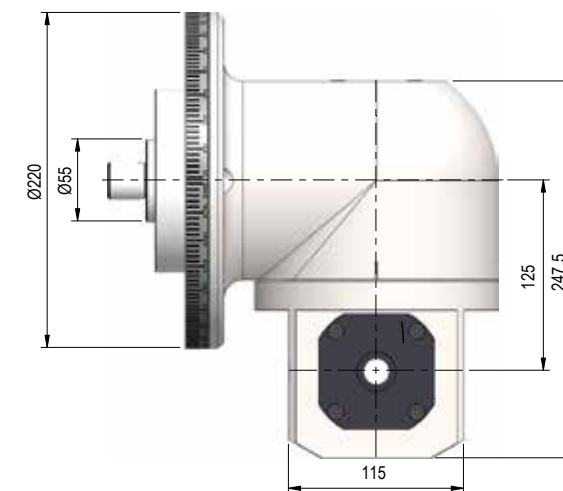
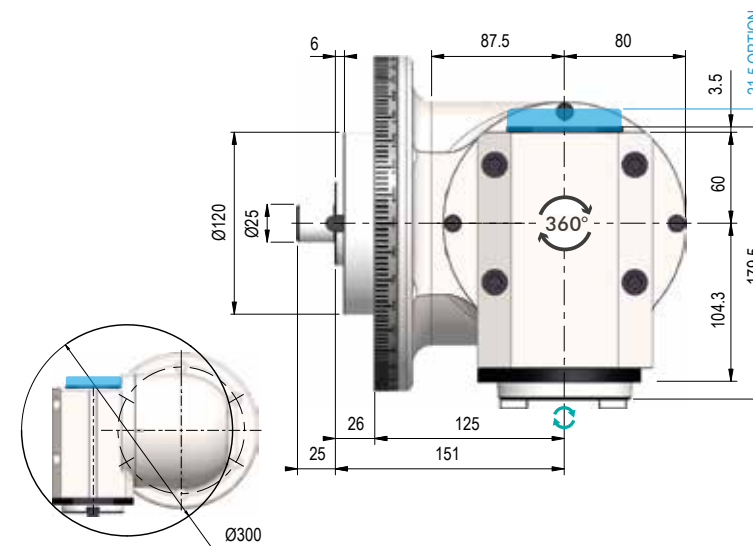
SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles



ALTA VELOCITÀ
HIGH SPEED

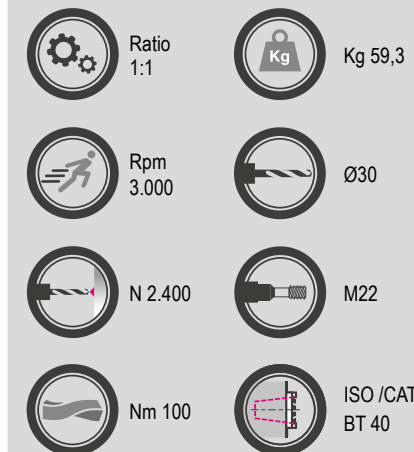
6.000 Rpm



GMU-S40-125 TYPE 6

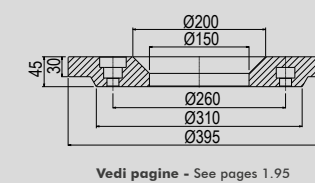


Dati tecnici - Technical data



SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

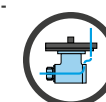


Dotazione Standard

Opzioni - Options

Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro Istruzioni
Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR
DRY RUNNING POSSIBLE
Max 10 bar



USCITA
OUTPUT
HSK 63



USCITA
OUTPUT
C4



ALTA VELOCITÀ
HIGH SPEED
4.000 Rpm

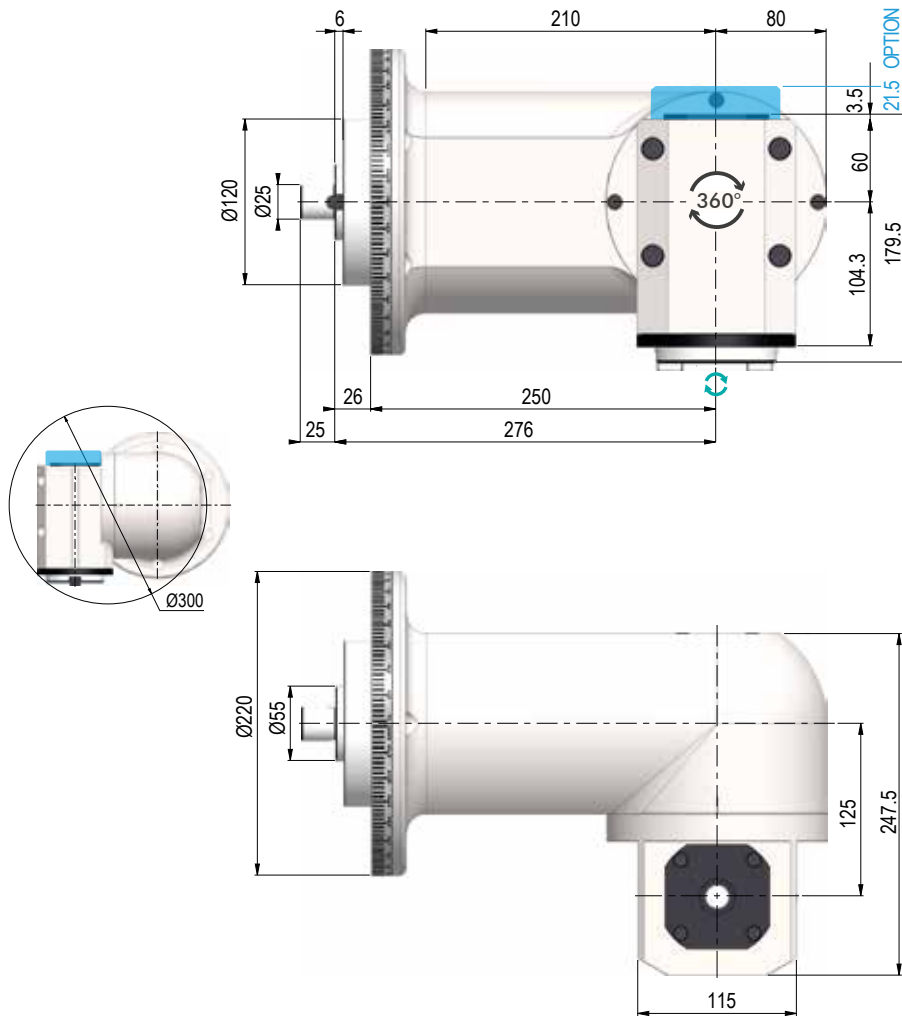
GMU-S40

TYPE 5



Dati tecnici - Technical data

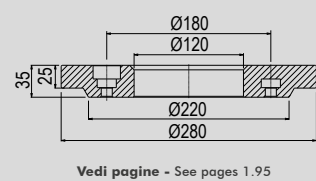
Ratio 1:1	Kg 49,5
Rpm 3.000	Ø 30
N 2.400	M 22
Nm 100	ISO /CAT BT 40



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

Flangia Universale
Universal Flange
TIPO - TYPE 5



Vedi pagine - See pages 1.95

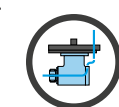
Dotazione Standard

Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg



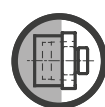
Opzioni - Options



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR
DRY RUNNING POSSIBLE
Max 10 bar



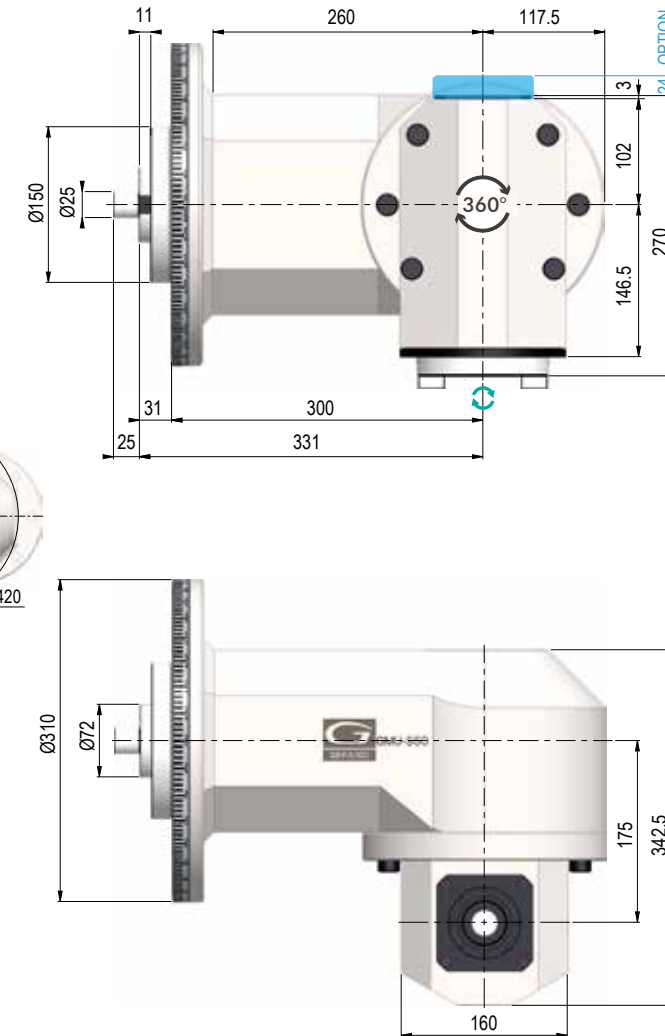
USCITA
OUTPUT
C6



HSK 63



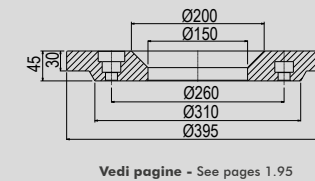
ALTA VELOCITÀ
HIGH SPEED
4.000 Rpm



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

Flangia Universale
Universal Flange
TIPO - TYPE 6



Vedi pagine - See pages 1.95

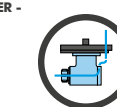
Dotazione Standard

Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg



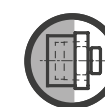
Opzioni - Options



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR
DRY RUNNING POSSIBLE
Max 10 bar



USCITA
OUTPUT
C6



HSK 63

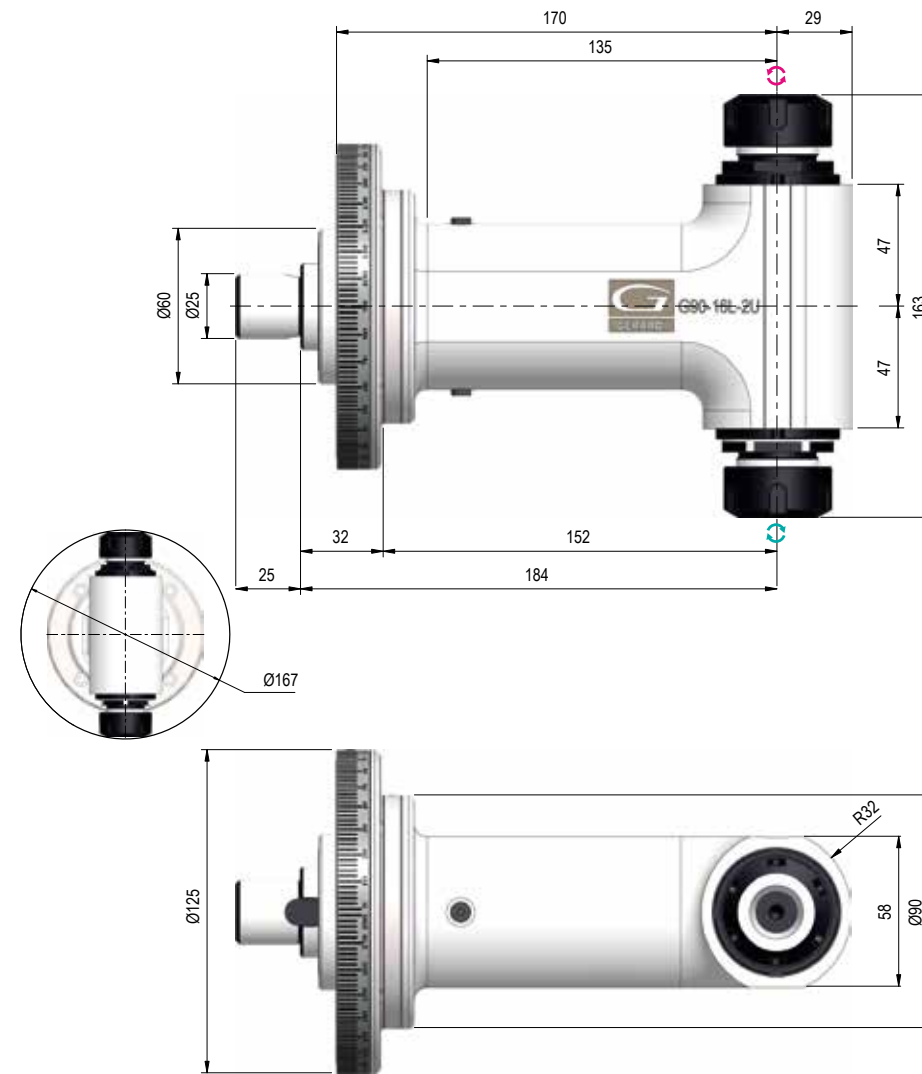
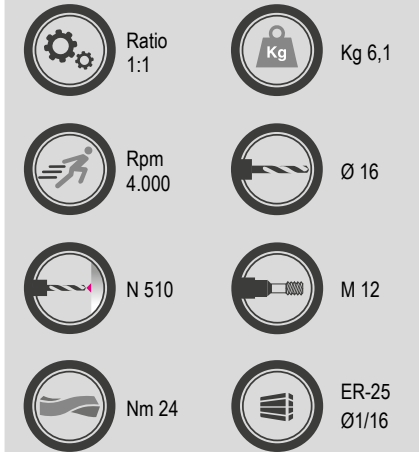


ALTA VELOCITÀ
HIGH SPEED
4.000 Rpm

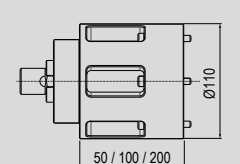
G90-16L 2U TYPE 1



Dati tecnici - Technical data




 SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
 SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

[illegible]

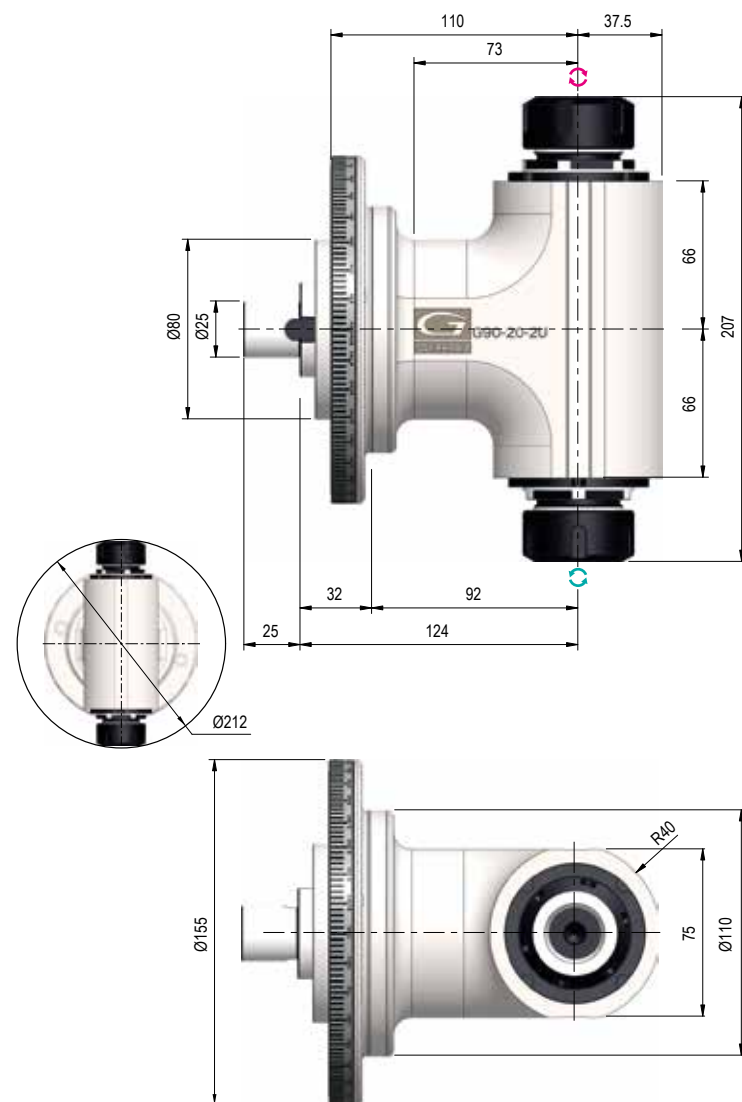
Prolunga
Extension
TIPO - TYPE 2

Dotazione Standard Standard Equipment		Opzioni - Options		
Valigetta - Flangia universale - Ghiera ER - Cono std - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book		USCITA OUTPUT Shell mill holder Ø16 (X2)		USCITA OUTPUT HSK 32 (X2)
IMBALLO & PESO PACK & WEIGHT: Max. Kg 12		USCITA OUTPUT Weldon Max Ø16 (X2)		ALTA VELOCITÀ HIGH SPEED 8.000 Rpm

G90-20 2U TYPE 2

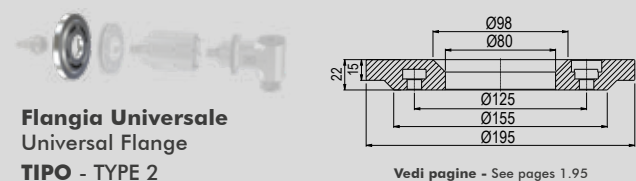


Dati tecnici - Technical data

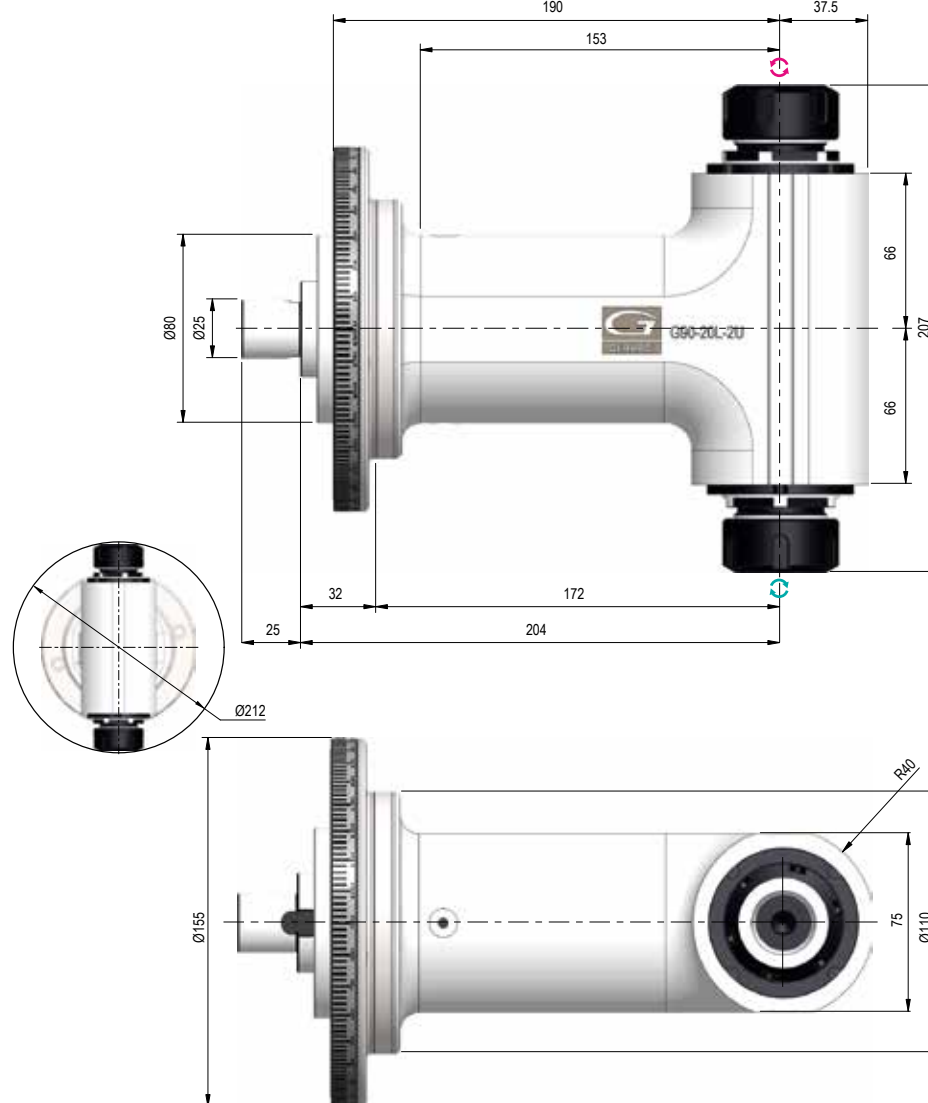


SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

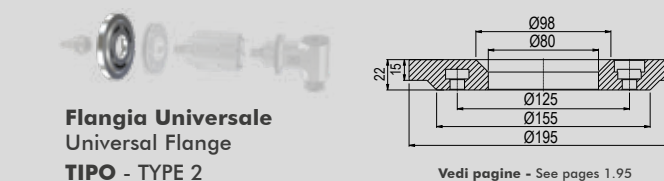


Dotazione Standard Standard Equipment	Opzioni - Options
Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book IMBALLO & PESO PACK & WEIGHT: Max. Kg 21	USCITA OUTPUT Portafresa Toolholder Ø20 (X2) USCITA OUTPUT Weldon Max Ø20 (X2) ALTA VELOCITÀ HIGH SPEED 6.000 Rpm



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

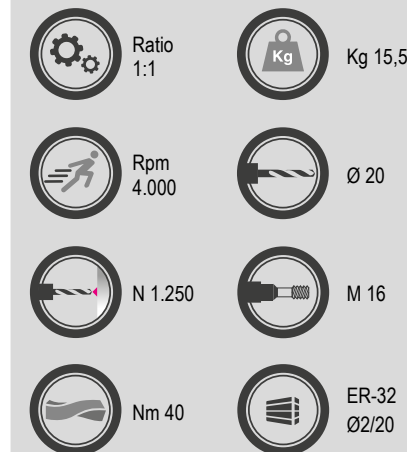


Dotazione Standard Standard Equipment	Opzioni - Options
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank - Instruction book IMBALLO & PESO PACK & WEIGHT: Max. Kg 31	USCITA OUTPUT Shell mill holder Ø22 (X2) USCITA OUTPUT Weldon Max Ø20 (X2) ALTA VELOCITÀ HIGH SPEED 6.000 Rpm

G90-20L 2U TYPE 2



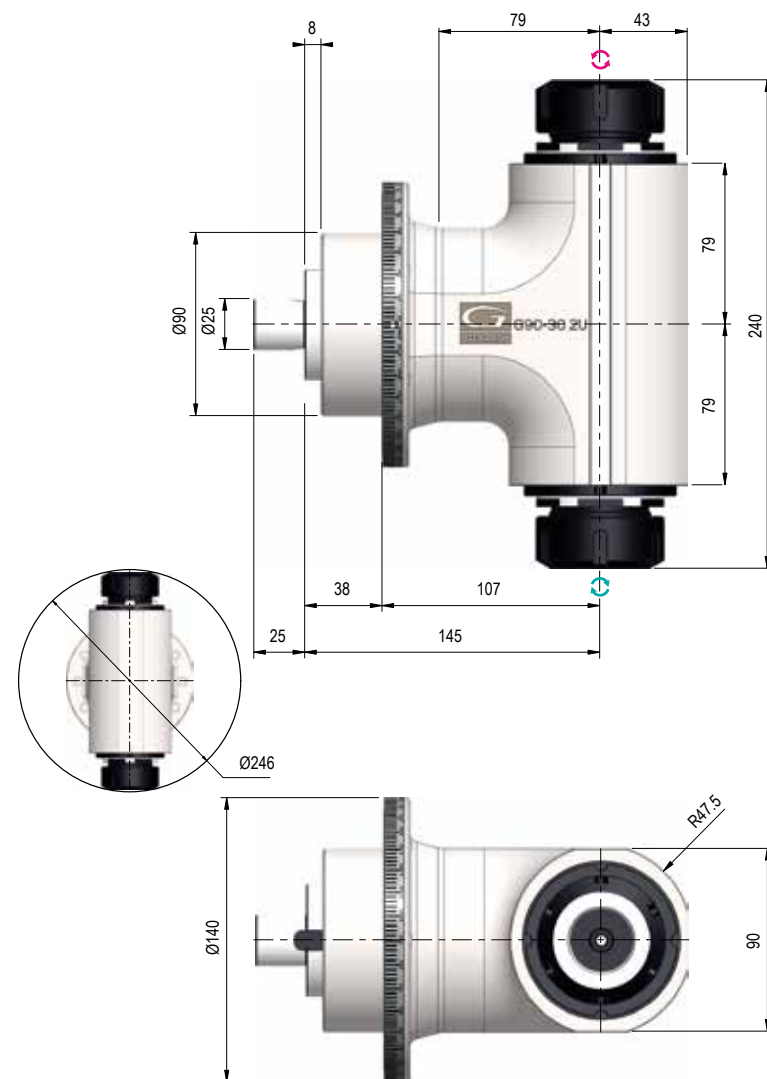
Dati tecnici - Technical data



G90-30 2U TYPE 3

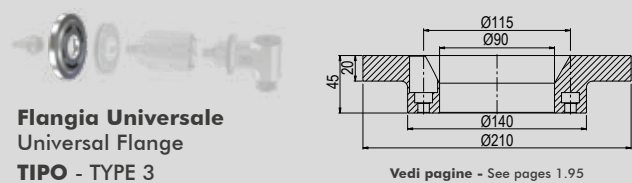


Dati tecnici - Technical data

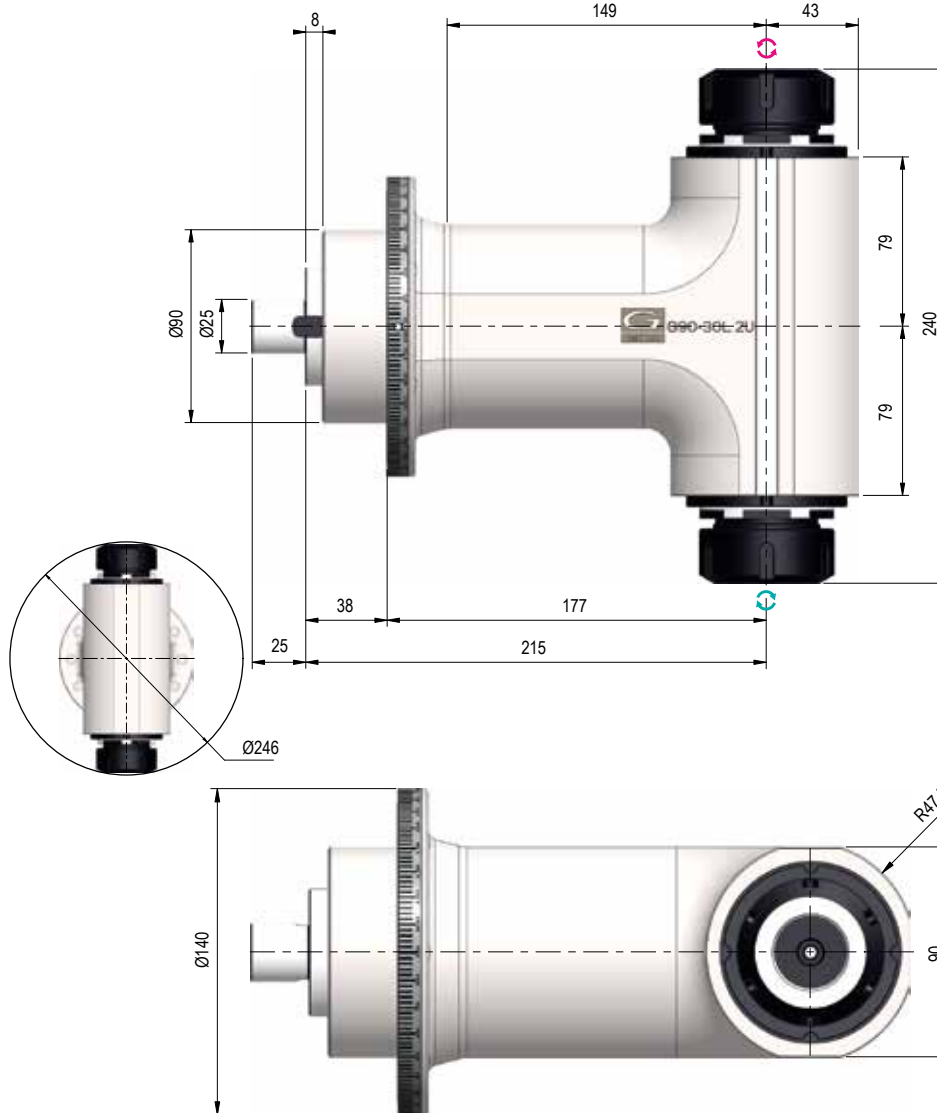


SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

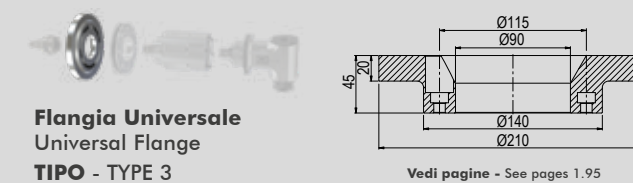


Dotazione Standard Standard Equipment	Opzioni - Options
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank - Instruction book	USCITA OUTPUT Shell mill holder Ø27 (X2)
IMBALLO & PESO PACK & WEIGHT: Max. Kg 35	USCITA OUTPUT Weldon Max Ø25 (X2)
	ALTA VELOCITÀ HIGH SPEED 6.000 Rpm



SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN 2080
Grandezza - Size	40	50	40	50	40	50

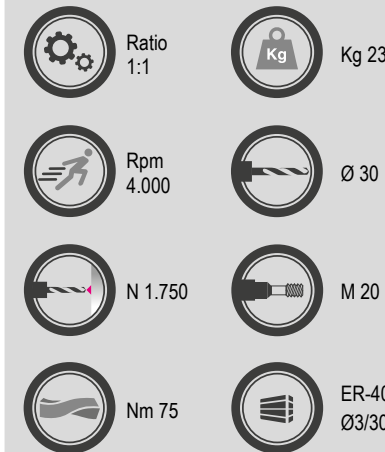


Dotazione Standard Standard Equipment	Opzioni - Options
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank - Instruction book	USCITA OUTPUT Shell mill holder Ø27 (X2)
IMBALLO & PESO PACK & WEIGHT: Max. Kg 38	USCITA OUTPUT Weldon Max Ø25 (X2)
	ALTA VELOCITÀ HIGH SPEED 6.000 Rpm

G90-30L 2U TYPE 3



Dati tecnici - Technical data



Teste Angolari / Angle Heads ACCESSORIES

Accessori Classic Line Classic Line Accessories

from 1.10 to 1.52

SERIE ATC / ATC SERIES

E' la linea di teste adatte ai centri di lavoro, trasportabile automaticamente dal magazzino utensili al mandrino e viceversa. Corpo testa orientabile di 360° su ASSE MANDRINO. Quando la testa non è in posizione di lavoro, un sistema di aggancio impedisce la rotazione del cono rispetto al corpo testa. **Una caratteristica primaria delle teste Classic - ATC è l'albero centrale realizzato in un solo pezzo con il cono di attacco, per offrire la massima rigidità.** Recentissima novità è il perno di fermo intercambiabile.

This range of heads is designed to be used on machining centres and can be automatically transferred from the tool magazine to the machine spindle and back. Angle head body adjustable at 360° on SPINDLE AXIS. This allows easy adjustment of the drive taper and head relative to arresster block mounted on the front of the machining centres' spindle housing. When the head is unloaded from the machine spindle, a safety latch prevents the drive taper from rotating. **A major feature of the Classic ATC heads is the main input shaft which is integral with the drive taper to ensure maximum rigidity.** The last news is the interchangeable positioning pin.



from 1.55 to 1.81

SERIE MTC / MTC SERIES

E' la linea di teste adatte a macchine utensili tradizionali e da fissare al mandrino tramite flangiatura. La cava a "T" ricavata sulla flangia universale permette un facile posizionamento del corpo testa sui 360° intorno al suo asse verticale. Un sistema modulare componibile, rende possibile variare la lunghezza del corpo testa aggiungendo l'elemento di prolunga. Modulo di prolunga, coni e flangia universale sono modulari e quindi intercambiabili su tutti i corpi testa appartenenti allo stesso ordine di grandezza.

This is a range of heads for traditional machine tools with flange attachment. The T-slot on the universal flange facilitates positioning the head 360° around its vertical axis. The modular system makes it possible to extend the lenght of the body by adding a spacer. The extension spacer, drive tapers and universal flange are modular and therefore interchangeable among all the heads of similar size.

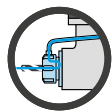


Prolunga / Extension



Cambi rapidi Modulari
Modular Quick Change

2.0



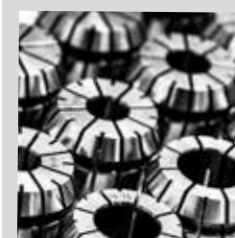
ReCool Nuts
fino a / Up to
150 Bar



Stop-block per ATC Stop-block for ATC

Stop-block antirrotazione con bussola cementata e guarnizione per una maggiore precisione di posizionamento.

Antirrotation Stop-Block with case hardened bushing and gasket for accuracy positioning.



Pinze ER ER Collets

Pinze ER, pinze biconiche realizzate in acciaio e adatte al serraggio di utensili secondo normativa DIN 6499

ER Collets, steel biconical collets for tool clamping according to DIN6499 regulation.



Ghiere ReCool Re Cool nuts

Con queste ghiere speciali è possibile ottenere il passaggio refrigerante fino a 150BAR tramite utensile anche su teste che non prevedono questa opzione

With these special nuts it is possible to get coolant through the tool (Up to 150BAR) even on angle heads which do not have this option.



Cambi Rapidi Quick changes

Il cambio rapido dell'utensile permette di ridurre i tempi morti della macchina. Tempi di installazione ridotti e possibilità di presetting a bordo macchina.

The quick change of preset tools shortens downtime of machine. Reduced set-up times and offline tool presetting possibility.

Ampia gamma di accessori e partri di ricambio per tutta la gamma di teste angolari Classic. Le ghiere e le pinze sono costruite in acciaio temprato e rettificato con macchine utensili ad alta precisione.

Wide range of accessories and spare parts for all types of angle heads classic line. Nuts and collet are produced with top quality steel and they are hardened and grinded with high precision.



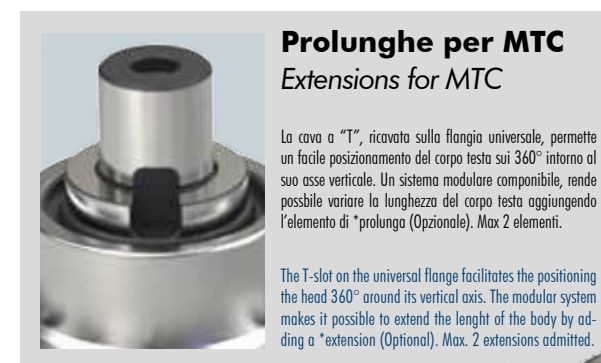
SCAN IT TO WATCH THE



VIDEO PRESENTATION



Un'ampia gamma di accessori!
Wide range of accessories!



Prolunghe per MTC Extensions for MTC

La cava a "T", ricavata sulla flangia universale, permette un facile posizionamento del corpo testa sui 360° intorno al suo asse verticale. Un sistema modulare componibile, rende possibile variare la lunghezza del corpo testa aggiungendo l'elemento di *prolunga (Opzionale). Max 2 elementi.

The T-slot on the universal flange facilitates the positioning the head 360° around its vertical axis. The modular system makes it possible to extend the lenght of the body by adding a *extension (Optional). Max. 2 extensions admitted.



OPZIONE REFRIGERANTE INTERNO INTERNAL COOLANT OPTION



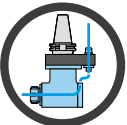
10bar



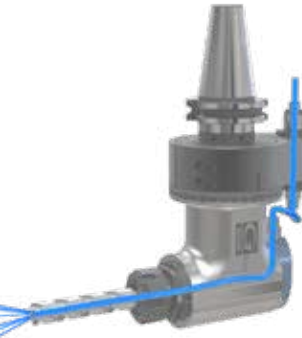
Perno » Utensile
Positioning Pin » Tool

Passaggio refrigerante esterno all'utensile 10bar
External coolant 10bar through the tool

ROTAZIONE A SECCO - DRY RUNNING
POSSIBILE - POSSIBLE



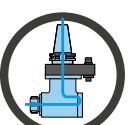
10bar



Perno » Distributore » Utensile
Positioning Pin » Rotating Distributor » Tool

Passaggio refrigerante interno all'utensile 10bar dal perno attraverso distributore rotante
Internal coolant 10bar through the tool from positioning pin and through rotating distributor

ROTAZIONE A SECCO - DRY RUNNING
POSSIBILE - POSSIBLE



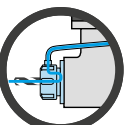
UP TO 70bar



Cono » Distributore » Utensile
Shank » Rotating Distributor » Tool

Passaggio refrigerante interno all'utensile da 30 a 70 bar dal cono e attraverso il distributore rotante
Internal coolant through the tool from 30 to 70 bar from the shank and through the rotating distributor

ROTAZIONE A SECCO - DRY RUNNING
NON POSSIBILE - NOT POSSIBLE



UP TO 150bar



Perno » Ghiera ReCool » Utensile
Positioning Pin » ReCool Nut » Tool

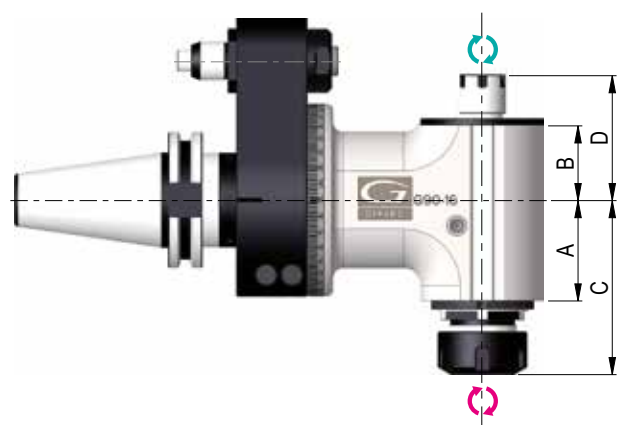
Passaggio refrigerante interno all'utensile per mezzo della ghiera ReCool.
Internal coolant through the tool from the special nut ReCool

Vedi pagine - See Pages 7.16 - 7.18

OPZIONE DOPPIA USCITA DOUBLE OUTPUT OPTION

Disponibile per i modelli - Available for following types:

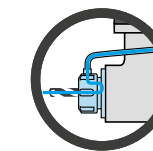
MODELLO MODEL	USCITA OUTPUT	A	B	C	D
GL90-7	ER-11				
G90-5 / G90-7 / G90-7L	ER-8 MINI	20	20	38	34
GL90-10	ER-16				
G90-10 / G90-10L	ER-11 MINI	37	28	52	44,5
GL90-16	ER-25				
G90-16 / G90-16L	ER-16 MINI	47	35	81,5	58,5
G90-20 / G90-20L	ER-32				
G90-20 / G90-20L	ER-20 MINI	66	46	103,5	72,5
G90-30 / G90-30L	ER-40				
G90-30 / G90-30L	ER-25 MINI	79	53	120	82



Teste angolari ATC doppia uscita - Double output ATC angle heads

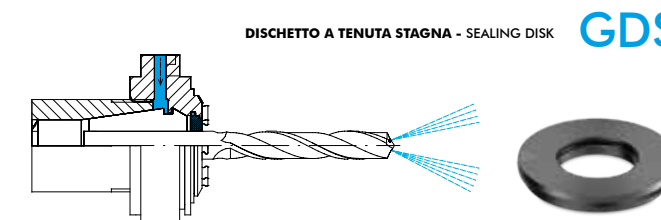
RE COOL NUTS

NEW
2021



DISCHETTI A TENUTA STAGNA PER GHIERE - SEALING DISKS FOR NUTS

REFRIGERAZIONE INTERNA - INTERNAL COOLANT

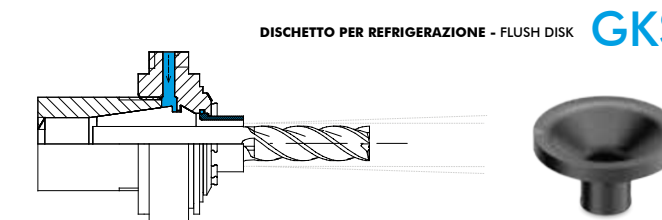
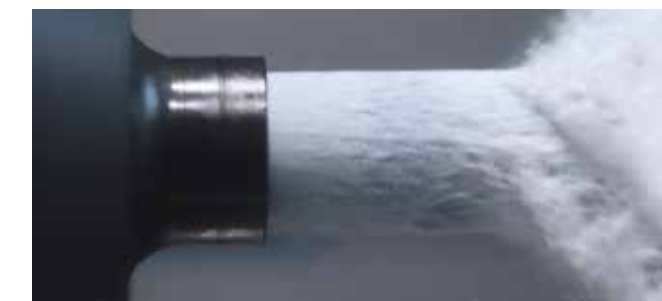


CARATTERISTICHE PRINCIPALI - KEY FEATURES

- Facile aggiunta della lubrorefrigerazione interna con Ghiera ReCool, con il dischetto a tenuta stagna GDS
- Precisa refrigerazione del tagliente e migliore asportazione di truciolo
- Ideale soprattutto per elevate profondità
- Lubrificazione e refrigerazione del tagliente
- Ottima finitura superficiale

- Achieve internal cooling with ReCool nuts and the use of our sealing disk GDS
- Precise cooling at the cutting edge and improved chip removal
- Particularly suitable for deep cavities
- Lubrication of cutting edge and cooling
- Best surface quality

REFRIGERAZIONE PERIFERICA - PERIPHERAL COOLANT



CARATTERISTICHE PRINCIPALI - KEY FEATURES

- Facile aggiunta della lubrorefrigerazione periferica con Ghiera ReCool, con il dischetto per refrigerazione GKS
- Applicabile su teste e motorizzati con refrigerante interno con apposita ghiera STDC - MINIC - AXC
- Lubrorefrigerante lungo l'utensile fino al tagliente
- Ideale per profondità medie

- Achieve peripheral cooling with ReCool nuts and the use of our coolant flush disk GKS
- Applicable on Angle Heads and Driven Tools with internal coolant through suitable nut STDC - MINIC - AXC
- Coolant is fed along the side of the tool to the cutting edge
- Can be used for moderate cavities



APPLICAZIONE RAPIDA E FACILE DELLA REFRIGERAZIONE INTERNA DALL'ESTERNO
REASONABLE, FAST AND EASY CONVERSION TO INTERNAL COOLING

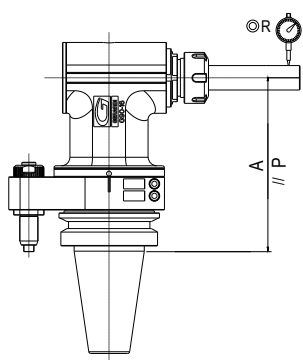
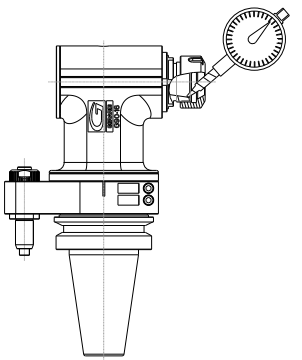
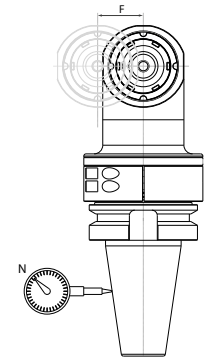
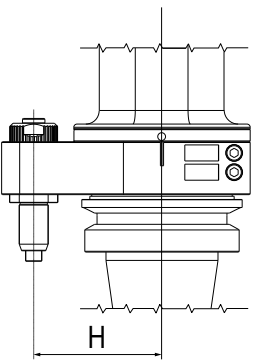


Per maggiori informazioni vedi da pagina 7.16 - 7.18 - See from page 7.16 to 7.18

ESEMPIO SCHEDA DI COLLAUDO

INSPECTION SHEET EXAMPLE

Tipo - Type	G90-16 ATC
Codice - Code	9.G90.16000
Numero seriale - Serial number	18-011
Attacco cono - Input shank	CAT50 - H=80
Note speciali - Special notes	

TIPO DI CONTROLLO Test type	RAFFIGURAZIONE Drawing	ERRORE Error	TIPO DI CONTROLLO Test type	RAFFIGURAZIONE Drawing	ERRORE Error
Quota e parallelismo da filo cono ad asse principale. Oscillazione asse utensile. Height and parallelism from gauge line to main axis. Runout cutter axis.		Ammesso Allowed A= ±0,03 R= ±0,025 P= ±0,015/100	Oscillazione mandrino porta utensile. Runout in cutter spindle.		Ammesso Allowed 0,010
		Rilevato Checked			Rilevato Checked
		A = +0,010			0,008
		R = 0,015			
Concentricità tra cono e asse principale. Disassamento tra gli assi principali. Concentricity between shank and main axis. Offset between main axis		Ammesso Allowed F= ±0,02 N= ±0,02	Interasse cono-perno di posizionamento. Pitch shank-positioning pin.		Ammesso Allowed 0,010
		Rilevato Checked			Rilevato Checked
		F = 0,010			-0,010
		N = 0,016			

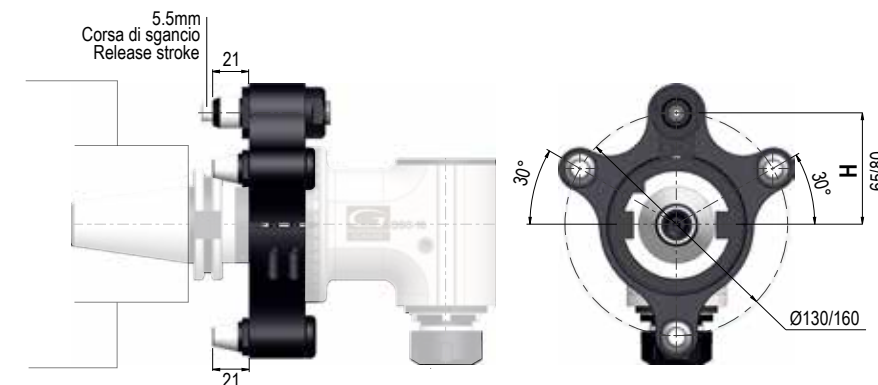
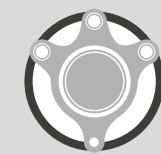
RODAGGIO TESTA - RUN-IN

RPM in entrata RPM	Durata Time	Temperatura Ambiente Room Temperature	Temperatura Sonda Sensor Temperature	Note Notes
1000	00:10:00	22°	27°	
2000	00:10:00		32°	
3000	00:05:00		36°	
4000	00:05:00		42°	
5000				
6000				

Revisioni - Revisions	Timbro - Stamp	Data - Date
		Firma - Signature

SISTEMA ANTIROTANTE MULTIPOINT

MULTIPOINT ANTIROTATION SYSTEM



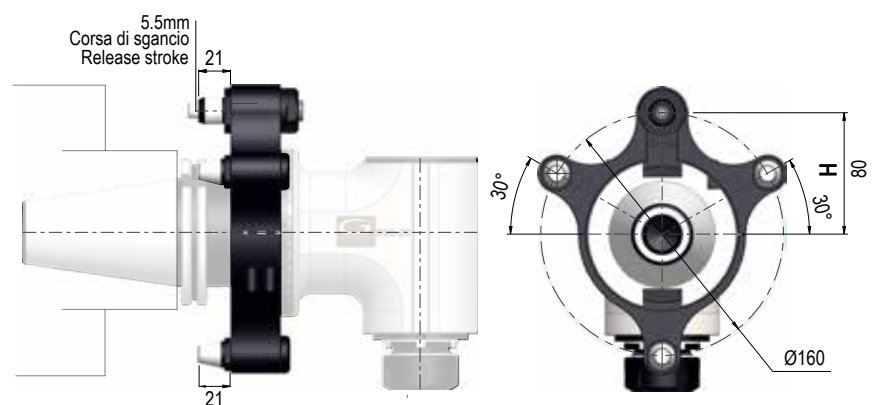
TYPE 1

Code 9.G90.16T00/...

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

Solo flangia
Only flange**

**In caso di acquisto contestuale alla testa angolare
In case of purchase together with angle head



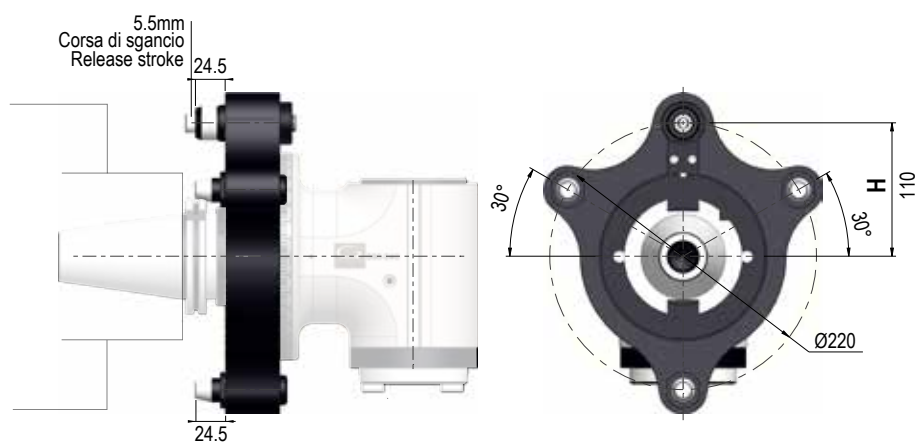
TYPE 2

Code 9.G90.20T00/...

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

Solo flangia
Only flange**

**In caso di acquisto contestuale alla testa angolare
In case of purchase together with angle head



TYPE 3/4

Code 9.G90.30T00/...

Code 9.G90.40T00/...

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

Solo flangia
Only flange**

**In caso di acquisto contestuale alla testa angolare
In case of purchase together with angle head



Il sistema antirotante MULTIPOINT è composto da 4 punti d'appoggio di cui uno standard e tre supplementari ed è stato studiato per i seguenti motivi:

- Garantire una rigidità superiore allo standard
- Poter eseguire lavorazioni pesanti
- Annullare ogni tipo di vibrazione
- Applicabile ad ogni tipo di mandrino macchina

The anti-rotation MULTIPOINT system is made of 4 brace points (one standard and 3 additional) for:

- Granting a higher than standard rigidity
- Allowing heavy duty machining
- Avoiding any type of vibration
- Mounting on any type of machine spindle



* In fase di ordine specificare tipo di cono e grandezza - In case of order specify shank type and size

ESEMPIO DI MONTAGGIO SERIES ATC ATC SERIES MOUNTING EXAMPLE

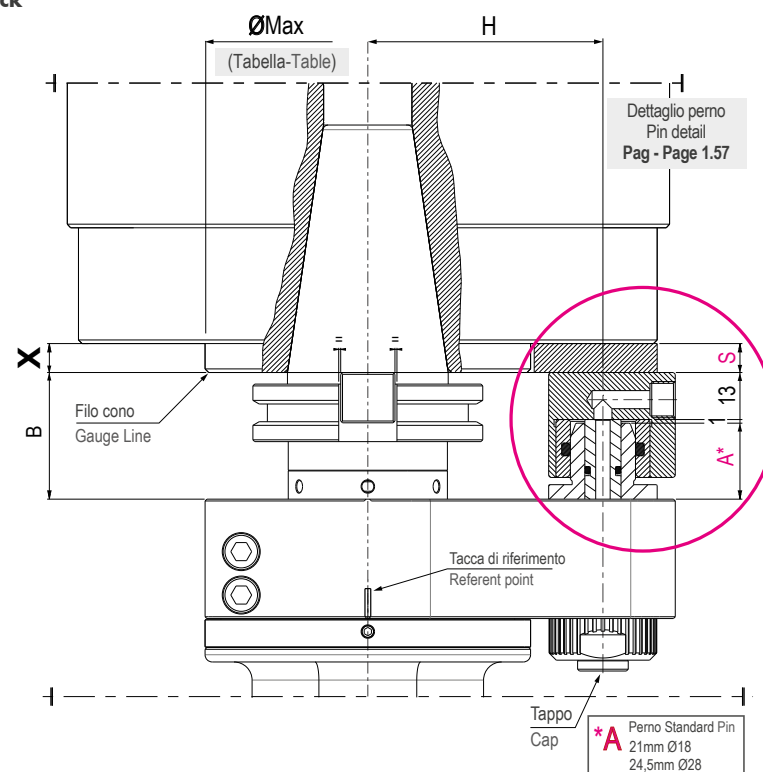
PER UN CORRETTO ORDINE VERIFICARE L'IDONEITÀ DEL PERNO DI POSIZIONAMENTO
FOR A RIGHT PURCHASE ORDER CHECK THE POSITIONING PIN SUITABILITY

1) STOP-BLOCK GIÀ PRESENTE SUL MANDRINO MACCHINA

- Per Stop-block Gerardi è sufficiente indicare il tipo di testa, interasse H, diametro perno ed altezza perno
- In caso di Stop-block NON Gerardi, inviateci il disegno del suddetto e del mandrino macchina per determinare il perno. Se possibile si consiglia di smontare lo stop block presente e di utilizzare il nostro standard.

STOP-BLOCK ALREADY MOUNTED ON THE MACHINE SPINDLE

- For Gerardi items, please indicate the type of Angle Head, the H dimension, the pin diameter and height.
- For non-Gerardi items, please send us the stop-block and the machine spindle drawings in order to design the right pin. If possible, we suggest you to use Gerardi standard stop block, taking off the one already placed on the machine.



2) NESSUNO STOP-BLOCK MONTATO SUL MANDRINO MACCHINA

Rilevare la quota X sul mandrino della macchina e mediante la seguente formula calcolare lo spessore del distanziale. In caso di spessori inferiori a 8 mm è possibile richiedere un apposito stop-block con base lavorabile (Pag. 1.91)

NO STOP-BLOCK MOUNTED ON THE MACHINE SPINDLE

Please check the X dimension on the machine spindle and calculate the width of the spacer through the following formula. In case of widths of less than 8 mm, a special stop block with machineable base can be ordered (Pag. 1.91)

$$S = X + B - 35$$

Se sei in possesso di una testa angolare con perno Ø18
If you have an Angle Head with pin Ø18

$$S = X + B - 38,5$$

Se sei in possesso di una testa angolare con perno Ø28
If you have an Angle Head with pin Ø28

X	B
12mm	35mm (SK40)
$S = X (12) + B (35) - 35 = 12$	

Esempio di calcolo spessore distanziale
Example of calculation for spacer thickness

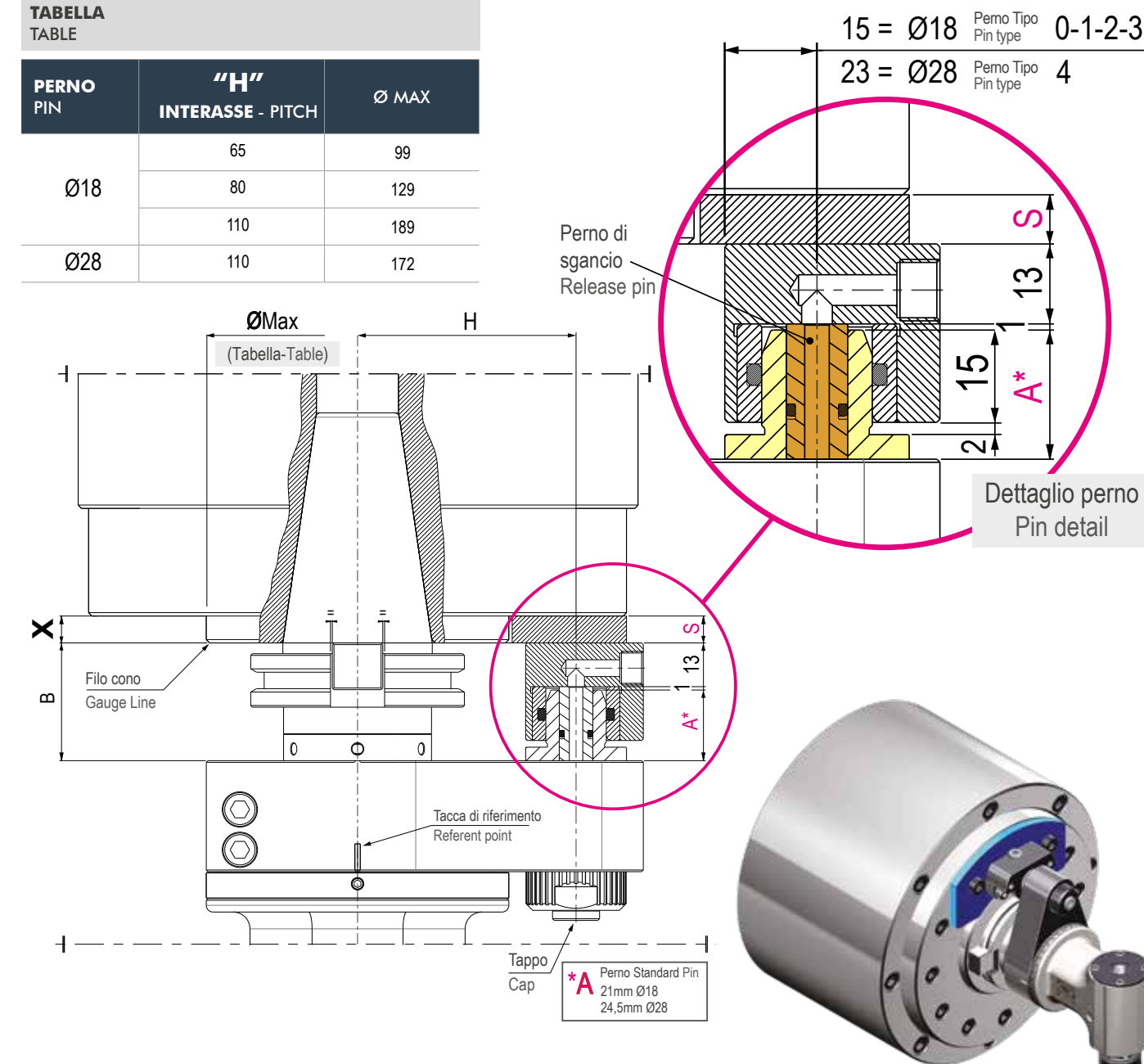
ESEMPIO DI MONTAGGIO SERIE ATC ATC SERIES MOUNTING EXAMPLE

PER UN CORRETTO ORDINE VERIFICARE L'IDONEITÀ DELL'INTERASSE "H"
FOR A RIGHT PURCHASE ORDER CHECK PITCH "H" SUITABILITY

Verificare l'idoneità dell'interasse "H" tramite tabella - Check pitch "H" through table

TABELLA
TABLE

PERNO PIN	"H" INTERASSE - PITCH	Ø MAX
Ø18	65	99
	80	129
	110	189
Ø28	110	172



ATTENZIONE - ATTENTION

Il distanziale per il posizionamento dello stop-block, deve essere realizzato di uno spessore tale da comprimere il perno di sgancio NON per l'intera corsa, ma in modo da lasciare sempre 1mm di gioco.
I calcoli della pagina precedente sono già fatti in tal senso.

The spacer for the stop-block must be done in order to push the release pin NOT for the whole stroke release, but leaving always 1mm play. Previous page calculations are already considering this issue.

STOP-BLOCK Standard



Ø18

Con bussola temprata - with hardened bushing

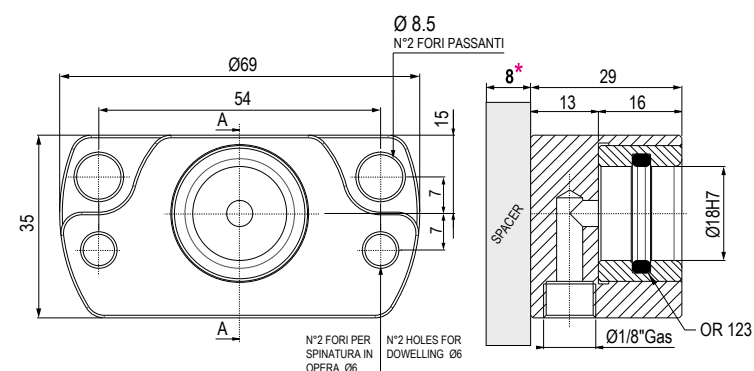
STOP BLOCK Code

9.INDEX.18

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2



Ø28

Con bussola temprata - with hardened bushing

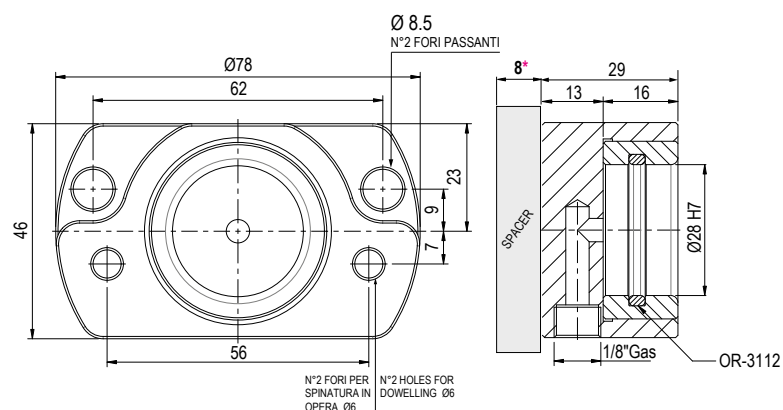
STOP BLOCK Code

9.INDEX.28

NO STOP BLOCK INCLUDED

BUSHING Code

9.G28.INDEX.2



STOP-BLOCK Conico - Conical



Ø18

Con bussola temprata - with hardened bushing

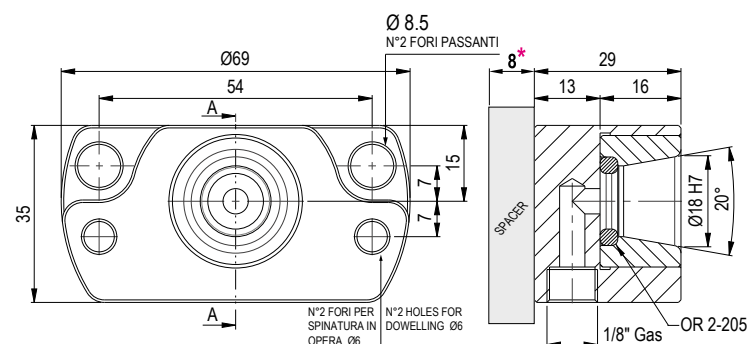
STOP BLOCK Code

9.INDEX.18C

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2C



Ø28

Con bussola temprata - with hardened bushing

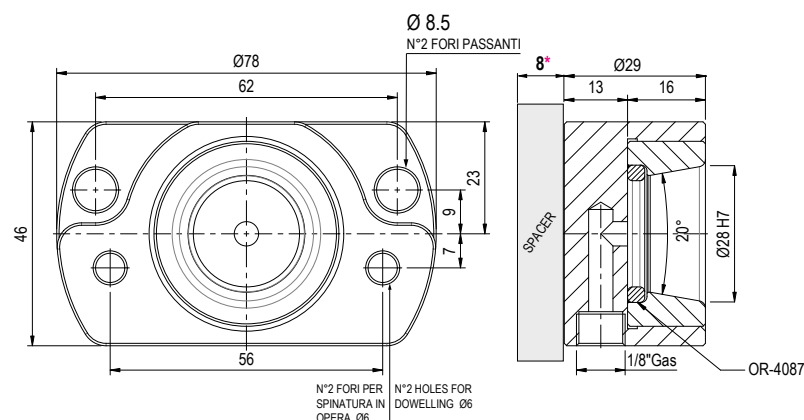
STOP BLOCK Code

9.INDEX.28C

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2C



STOP-BLOCK Lavorabile** - Machineable**



Ø18

Con bussola temprata - with hardened bushing

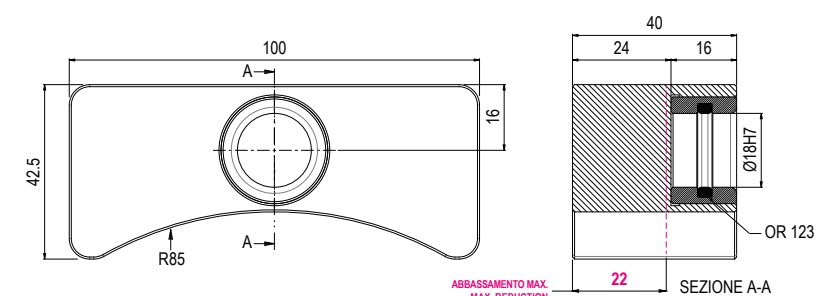
STOP BLOCK Code

9.G18.INDEX

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2



Ø28

Con bussola temprata - with hardened bushing

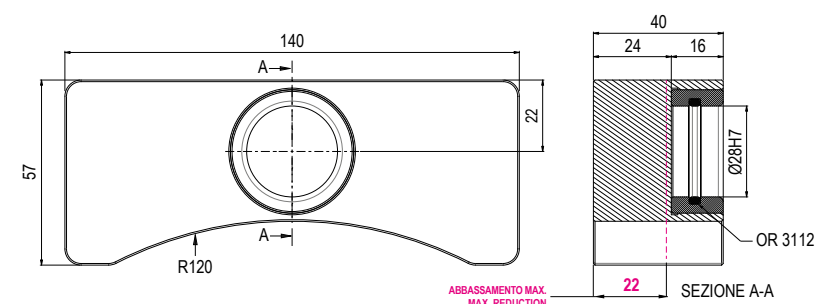
STOP BLOCK Code

9.G28.INDEX

NO STOP BLOCK INCLUDED

BUSHING Code

9.G28.INDEX.2



STOP-BLOCK Lavorabile conico** - Conic machineable**



Ø18

Con bussola temprata - with hardened bushing

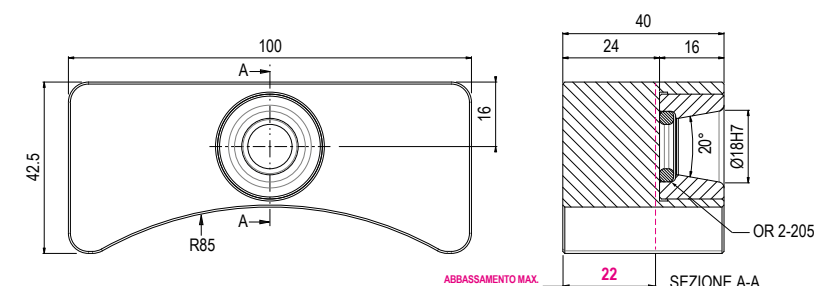
STOP BLOCK Code

9.G18.INDEXC

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2C



Ø28

Con bussola temprata - with hardened bushing

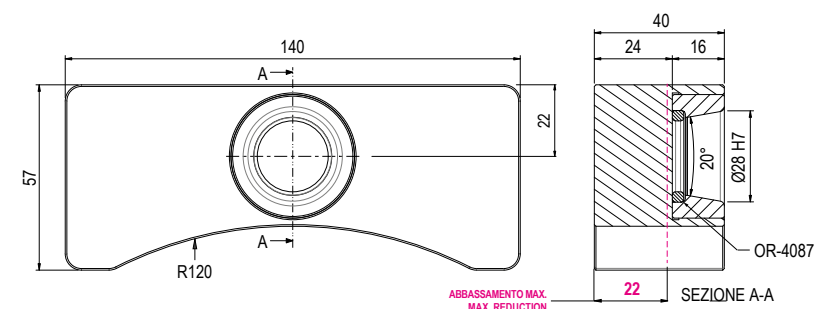
STOP BLOCK Code

9.G28.INDEXC

NO STOP BLOCK INCLUDED

BUSHING Code

9.G28.INDEX.2C



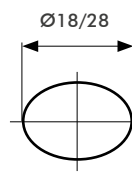
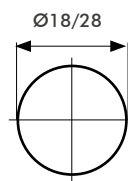
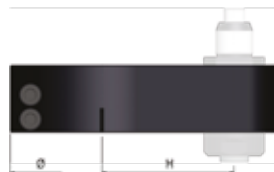
* Misura minima per distanziale sotto la quale è necessario utilizzare lo stop-block lavorabile
Specer minimum dimension under this dimension it is necessary to use the machineable stop-block

** A richiesta - On request

GRUPPO ANTIROTANTE ANTI-ROTATION GROUP



*PERNO CONICO FLOTTANTE
FLOATING CONICAL PIN

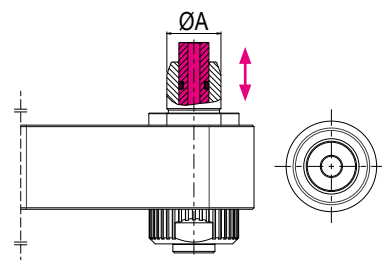
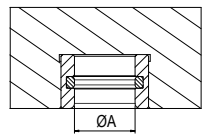
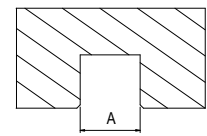
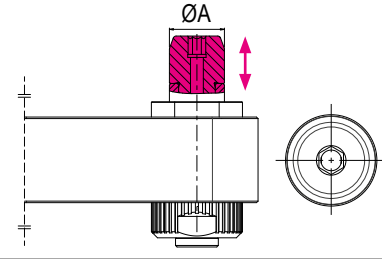
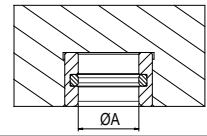
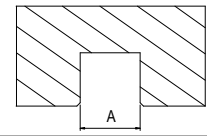
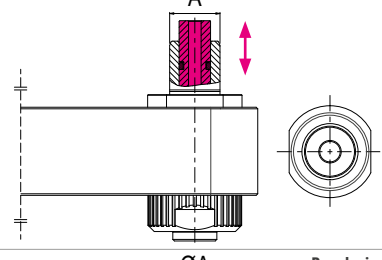
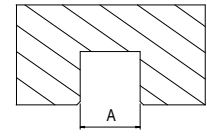
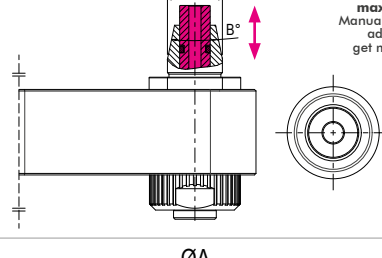
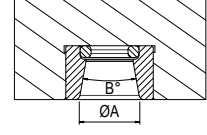
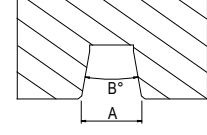
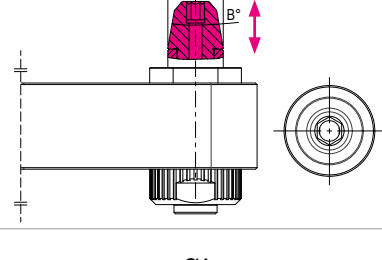
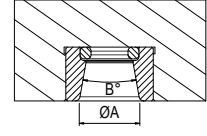
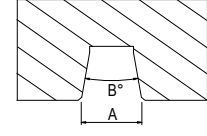
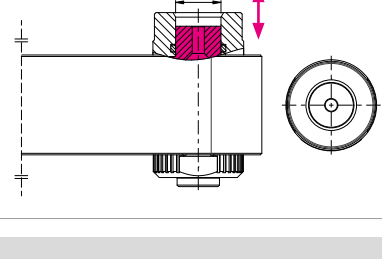
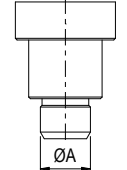


TESTA ANGOLARE ANGLE HEADS		GRUPPO ANTIROTANTE ANTI-ROTATION GROUP		FLANGIA INTEGRALE INTEGRAL FLANGE		STANDARD 2 AXIS	ON REQUEST 1 AXIS	GRUPPO PERNO PIN GROUP	
MODELLO Model	TIPO Type	Code		Code	Ø H	PERNO CILINDRICO CYLINDRICAL PIN	PERNO ELLITTICO ELLIPTIC PIN	P	L
GL90-7 GL90-10 GL90-16 GTU-10	0 Ø73	* 9.GMU.13050C/i65		9.GMU.13030/i65	65	* 9.GMU.13075C		Ø18	21
		* 9.GMU.13050C/i80				* 9.GMU.13075L		Ø18	35
		* 9.GMU.13050C/i110		9.GMU.13030/i80	80	9.GMU.13071C	9.GMU.13073C	Ø18	21
		9.GMU.13050/i65				9.GMU.13071L	9.GMU.13073L	Ø18	35
GMU 13 / 13L		9.GMU.13050/i80		9.GMU.13030/i110	110				
		9.GMU.13050/i110							
G90-5 G90-7 / 7L G90-7 / 7L 2U G90-10 / 10L G90-10 / 10L 2U G90-16 / 16L G90-16 / 16L 2U GMU-16 GR90-5 GR90-10 GR90-16	1 Ø90	9.G90.16050/i65		9.G90.16030/i65	65	9.G90.16071C	9.G90.16073C	Ø18	21
		9.G90.16050/i80		9.G90.16030/i80	80				
		9.G90.16050/i110		9.G90.16030/i110	110	9.G90.16071L	9.G90.16073L	Ø18	35
G90-20 / 20L G90-20 / 20L 2U GMU 20	2 Ø110	9.G90.20050/i80		9.G90.20030/i80	80	9.G90.16071C	9.G90.16073C	Ø18	21
		9.G90.20050/i110		9.G90.20030/i110	110				
G90-30 / 30L G90-30 / 30L 2U	3 Ø140	9.G90.30050/i110		9.G90.30030/i110	110	9.G90.16071L	9.G90.16073L	Ø28	35
G90-S40 G90-S40L GR90-S40	4 Ø170	9.G90.S4050/i110		9.G90.S4023/i110	110	9.G90.S4072C	9.G90.S4074C	Ø28	24,5
						9.G90.S4072L	9.G90.S4074L	Ø28	35

Flangia ad interasse speciale

- Flange with special pitch

GRUPPO PERNO SPECIALE SPECIAL PIN GROUP

FORMA Shape	TIPI DI PERNI Pin Types		TIPI DI STOP-BLOCK Stop-block Types	
Cilindrico standard Cylindrical standard A			Standard con bussola cilindrica Standard with cylindric bushing 	Prismatico Prismatic 
Cilindrico flottante Cylindrical floating B			Standard con bussola cilindrica Standard with cylindric bushing 	Prismatico Prismatic 
Prismatico Prismatic C				Prismatico Prismatic 
Conico regolabile Adjustable conic D	 Regolazione manuale meccanica per max precisione Manual mechanical adjustment to get max accuracy		Bussola conica Conic bushing 	Prismatico conico Conic prismatic 
Conico flottante Floating conical E			Bussola conica Conic bushing 	Prismatico conico Conic prismatic 
Cilindrico femmina Female cylindric F			Cilindrico maschio Cylindric male 	

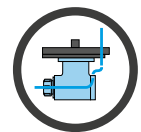
* Extra prezzo perno speciale - * Extra price special pin

OPZIONE REFRIGERANTE INTERNO INTERNAL COOLANT OPTION

CONI / FLANGE / PROLUNGHE SHANKS / FLANGES / EXTENSIONS



Opzione B B option



Up to 40bar



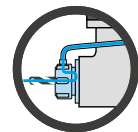
Mandrino macchina » Distributore » Utensile
Machine spindle » Rotating Distributor » Tool

Passaggio refrigerante interno all' utensile.
Dal mandrino macchina e attraverso il distributore rotante
Internal coolant through the tool from the machine spindle and through rotating distributor

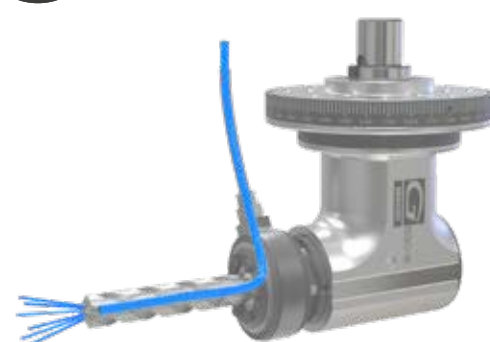
ROTAZIONE A SECCO - DRY RUNNING
10 BAR POSSIBILE - POSSIBLE
30/40 BAR NON POSSIBILE - NOT POSSIBLE

Passaggio refrigerante interno tramite cono » Distributore » Utensile SU RICHIESTA
Internal coolant through shank » rotating distributor » tool **ON REQUEST**

Opzione Re-Cool Re-Cool option



150bar

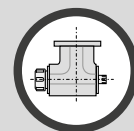


Perno » Ghiera ReCool » Utensile
Positioning Pin » ReCool Nut » Tool

Passaggio refrigerante interno l'utensile per mezzo della ghiera ReCool.
Internal coolant through the tool from the special nut ReCool

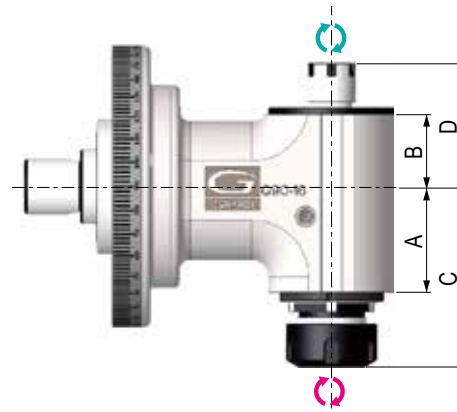
Vedi pagine - See Pages 7.16 - 7.18

OPZIONE DOPPIA USCITA serie MTC DOUBLE OUTPUT OPTION MTC series

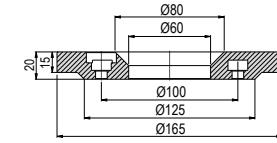
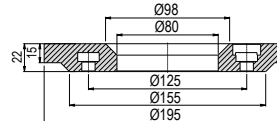
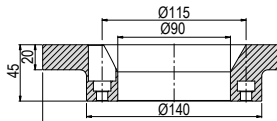
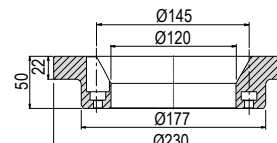
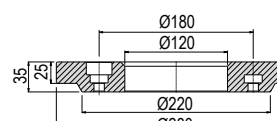
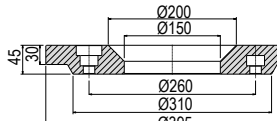


Disponibile per i modelli - Available for following types:

MODELLO MODEL	USCITA OUTPUT	A	B	C	D
G90-5 / G90-7 / G90-7L	ER-11 ER-8 MINI	20	20	38	34
G90-10 / G90-10L	ER-16 ER-11 MINI	37	28	52	44,5
G90-16 / G90-16L	ER-25 ER-16 MINI	47	35	81,5	58,5
G90-20 / G90-20L	ER-32 ER-20 MINI	66	46	103,5	72,5
G90-30 / G90-30L	ER-40 ER-25 MINI	79	53	120	82



Teste angolari MTC doppia uscita - Double output MTC angle heads

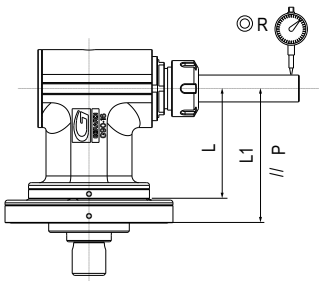
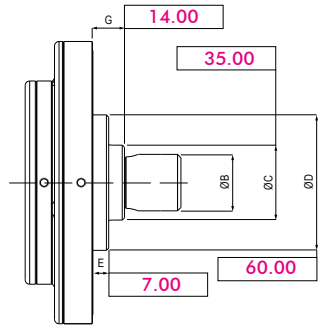
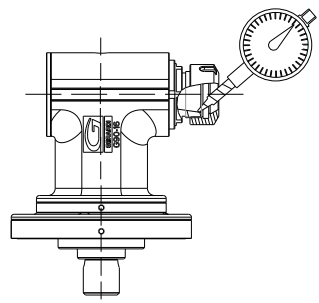
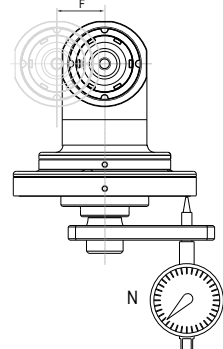
TESTA ANGOLARE ANGLE HEADS		FLANGIA UNIVERSALE UNIVERSAL FLANGE		PROLUNGA EXTENSION		CONO MODULARE MODULAR SHANK	
MODELLO MODEL	TIPO TYPE	Code		H	Code	Code	MODELLO MODEL
G90-5 G90-7 / 7L G90-10 / 10L G90-16 / 16L GMU-16 G90-16 / 16L 2U	1	9.UF.00001 NO FLANGE		50 100 200	9.GEX.10050 9.GEX.10100 9.GEX.10200	9.SK30.ISO 9.SK40.ISO 9.SK50.ISO	SK DIN 69871  30/40/50
G90-20 / 20L GMU-20 G90-20 / 20L 2U	2	9.UF.00002 NO FLANGE		50 100 200	9.GEX.20050 9.GEX.20100 9.GEX.20200	9.SK30.BT 9.SK40.BT 9.SK50.ISO	BT MAS 403  30/40/50
G90-30 / 30L G90-30 / 30L 2U	3	9.UF.00003 NO FLANGE		100 150	9.GEX.30100 9.GEX.30150	9.SK40.CAT40 9.SK50.CAT50	CAT ANSI B5.50  40/50
G90-S40	4	9.UF.00004 NO FLANGE				9.SK30.2080 9.SK40.2080 9.SK50.2080	ISO DIN 2080  30/40/50
G90-S40XL G90-S40XLxx GMU-S40-125 GMU-S40	5	9.UF.00005 NO FLANGE				9.HSK.63000 9.HSK.80000 9.HSK.10000	HSK DIN 69893  63/80/100
G90-S50 G90-S50XLxx GMU-S50	6	9.UF.00006 NO FLANGE				9.CPT.C5000 9.CPT.C6000 9.CPT.C8000	C. ISO 26623  C5/C6/C8

Senza cono - No shank -

ESEMPIO SCHEDA DI COLLAUDO

INSPECTION SHEET EXAMPLE

Tipo - Type	G90-16 MTC
Codice - Code	9.G90.16001
Numero seriale - Serial number	17-127
Attacco cono - Input shank	DIN-69871/40
Note speciali - Special notes	

TIPO DI CONTROLLO TEST TYPE	RAFFIGURAZIONE DRAWING	ERRORE ERROR	TIPO DI CONTROLLO TEST TYPE	RAFFIGURAZIONE DRAWING	ERRORE ERROR
Quota e parallelismo da filo cono ad asse principale. Oscillazione asse utensile. Height and parallelism from gauge line to main axis. Runout cutter axis.		Ammesso Allowed $A = \pm 0,03$ $R = \pm 0,025$ $P = \pm 0,015/100$	Verifica delle quote per l'attacco del cono e della flangia. Main input shaft dimension checked.		Ammesso Allowed $E/G = 0,1/-0,5$ $C/D = +0/-0,03$
		Rilevato Checked $L = +0,020$			Rilevato Checked $B = 25h7$ ok
		$L1 = +0,010$			$E = -0,100$
		$R = 0,025$			$G = -0,150$
Oscillazione mandrino porta utensile. Runout in cutter spindle.		Ammesso Allowed 0,010	Perpendicolarità e disassamento tra gli assi principali. Perpendicularity and offset between main axes.		Ammesso Allowed $F = \pm 0,020$ $N = 0,010/100$
		Rilevato Checked			Rilevato Checked
		$P = 0,012/100$			$F = 0,015$
					$N = 0,010/100$

RODAGGIO TESTA - RUN-IN

RPM IN ENTRATA RPM INPUT	DURATA TIME	TEMPERATURA AMBIENTE ROOM TEMPERATURE	TEMPERATURA SONDA SENSOR TEMPERATURE	NOTE NOTES
1000	00:10:00	20°	28°	
2000	00:10:00		37°	
3000	00:05:00		41°	
4000	00:05:00		48°	
5000				
6000				

Revisioni - Revisions

Timbro - Stamp

Data - Date

Firma - Signature

ESEMPIO DI MONTAGGIO

MOUNTING EXAMPLE

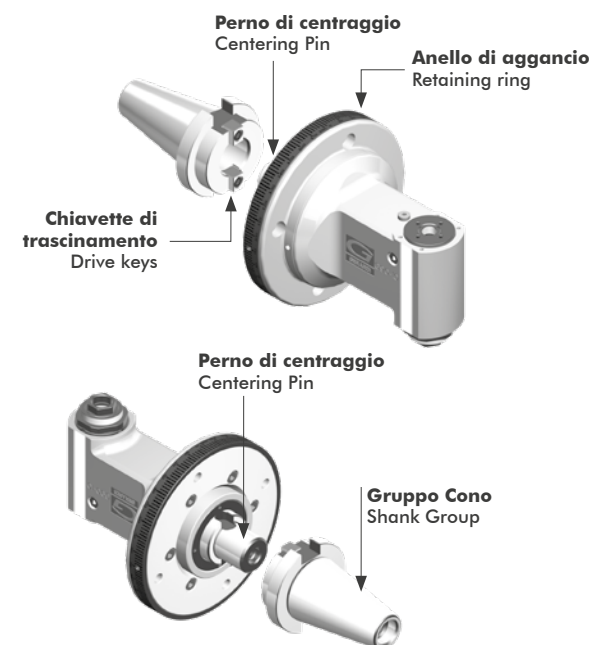
DISTANZIALE REALIZZATO IN OPERA

SPACER TO BE MADE

FASE 1 - STEP 1

- Montare l'anello di aggancio e la flangia universale sulla testa
- Applicare il cono alla testa
- Inserire la testa nel mandrino macchina.
- Rilevare la misura "X"

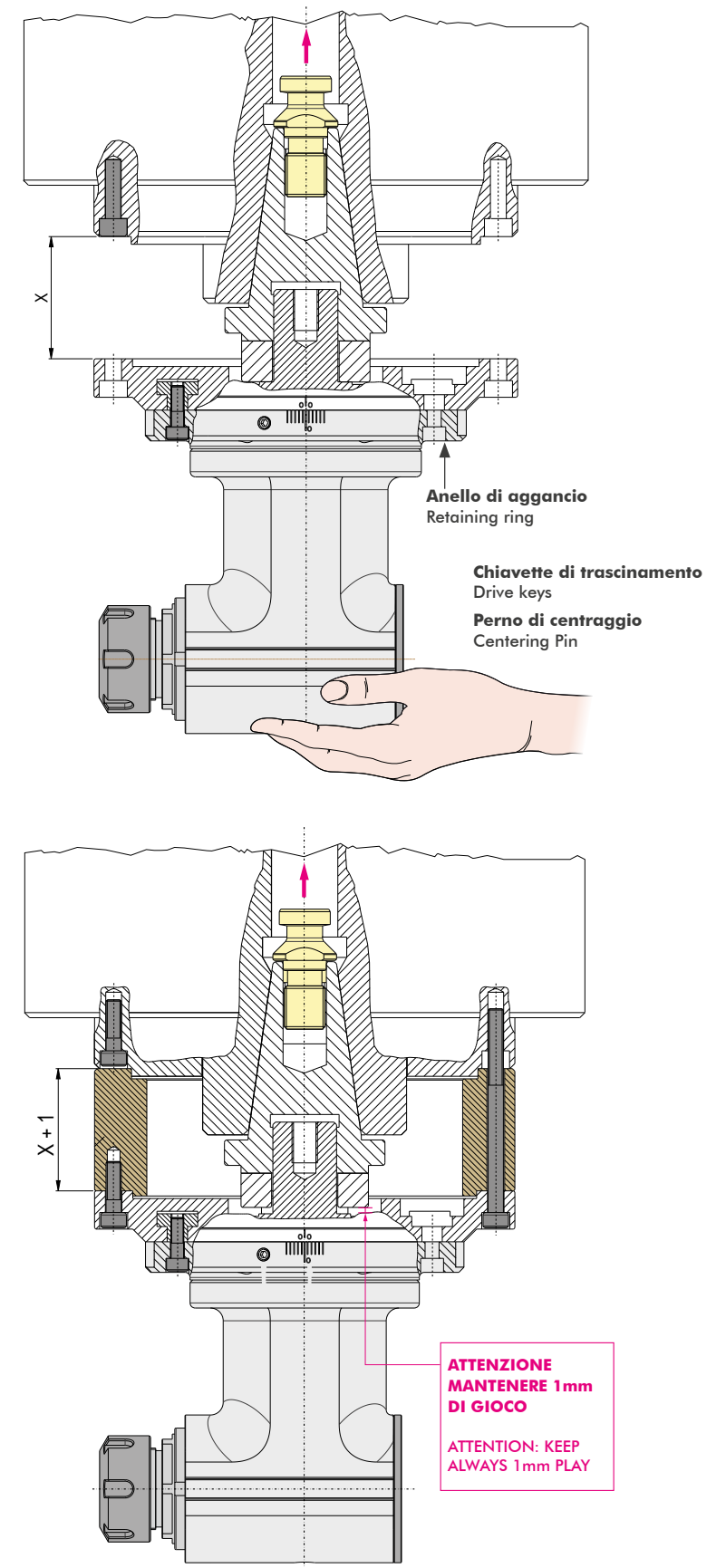
- Mount the retaining ring and the universal flange
- Mount the shank on the Head.
- Mount the head into the machine spindle.
- Check dimension "X"



FASE 2 - STEP 2

- Realizzare un distanziale con spessore $X+1$ mm
- Rimontare il tutto in macchina.
- Orientare e posizionare correttamente la testa angolare
- Azzerare l'anello graduato tramite il grano e le tacche di riferimento

- Make a spacer with $X + 1$ mm thickness.
- Reassemble the Head on the machine.
- Turn the angle head in the correct position.
- Set the graduated ring by rotating the screw to the 0 position.



PINZE
COLLETS

MODELLO - MODEL	PINZA - COLLET	Ø	Code	
GR90-5	Schaublin P6	0,3 - 0,4 - 0,5 - 0,6 - 0,7 - 0,8 - 0,9	9.P6.D0XXX	
		1 - 1,1 - 1,2 - 1,3 - 1,4 - 1,5 - 1,59 (1/16") - 1,6 - 1,7 - 1,8 - 1,9		
		2 - 2,5 - 3 - 3,5		
		4 - 4,5 - 5		

Esempio di ordinazione: Schaublin P6 - Ø0,3 = 9.P6.D003 - Ø1,59 = 9.P6.D0159 - Example to order: Schaublin P6 - Ø0,3 = 9.P6.D003 - Ø1,59 = 9.P6.D0159

MODELLO - MODEL	PINZA - COLLET	Ø	Code	
GS90-2	GS90-2	1 - 1,5 - 2 - 2,5	GS.9020004/...	

MODELLO - MODEL	PINZA - COLLET	Ø	Code	
Manipolo ad angolo IC300 Angular chuck IC300	CHC	1 - 2,35 - 3 - 3,175	CHC00XXX	
		2		
Manipolo ad angolo RA200 Angular chuck RA200	CHS	0,8 - 0,9	CHS00XXX	
		1 - 2 - 2,5		
		1 - 1,1 - 1,2 - 1,3 - 1,4 - 1,5 - 1,7 - 1,8 - 1,9 - 2,1 - 2,2 - 2,3 - 2,4 - 2,6 - 2,7 - 2,8 - 2,9		
		1,6 - 3 - 3,175		
Manipolo ad angolo RA100 Angular chuck RA100	CH8	0,8 - 0,9	CH800XXX	
		1 - 1,5 - 2		
		1 - 1,1 - 1,2 - 1,3 - 1,4 - 1,6 - 1,7 - 1,8 - 1,9 - 2,1 - 2,2 - 2,3 - 2,35 - 2,4		
Manipolo ad angolo MFC300S Angular chuck MFC300S	K252	1,6	K2520XXX	

ER-DIN 6499

Foratura-fresatura / drilling-milling

MODELLO MODEL	PINZA COLLET	Ø	Code	
G90-5	ER8	0,5 / 5	9.ER.08000/...	
GL90-7 G90-7 / 7L	ER11	1 / 7	9.ER.11000/...	
GL90-7B G90-7B/ 7LB	ER11 WP	3 / 7	9.ER.11WP0/...	
GTU 10 GL90-10 G90-10 / 10L GR90-10	ER16	1 / 10	9.ER.16000/...	
GL90-10B G90-10B / 10LB G90-10RI / 10LRI GR90-10RI	ER16 WP	1 / 10	9.ER.16WP0/...	
GMU-13 / 13L	ER20	1/13	9.ER.20000/..	
GL90-16 G90-16 / 16L GMU-16 GR90-16 G90-16 / 16L 2U	ER25	1 / 16	9.ER.25000/...	
GL90-16B / RI G90-16B / 16LB G90-16RI / 16LRI GR90-16RI	ER25 WP	1 / 16	9.ER.25WP0/...	
G90-20 / 20L G90-20L/272 GMU-20 G90-20 / 20L 2U	ER32	2 / 20	9.ER.32000/...	
G90-20B / 20LB G90-20L/272B G90-20RI 20LRI	ER32 WP	2 / 20	9.ER.32WP0/...	
G90-30 / 30L G90-30 / 30L 2U	ER40	3 / 30	9.ER.40000/...	
G90-30B 30LB G90-30RI 30LRI	ER40 WP	3 / 30	9.ER.40WP0/...	

Maschiatura / tapping

PINZA ET1 (compensate) COLLET ET1 (compensation)	Code	
-	-	
-	-	
-	-	
ET-1 / 16 (M1 - M6)	9.ET.16000/...	
-	-	
ET- 1/ 20 (M2 - M8)	9.ET.20000/...	
ET-1 / 25 (M2 - M12)	9.ET.25000/...	
-	-	
ET-1 / 32 (M3,5 - M16)	9.ET.32000/...	
-	-	
ET-1 / 40 (M6 - M16)	9.ET.40000/...	
-	-	

Esempio di ordinazione: ER25 - Ø10=9.ER.25000/10 - Example to order: ER25 - Ø10=9.ER.25000/10

WP= Resistenza all'acqua - WP= Waterproof

GHIERE
NUTS



MODELLO MODEL	GHIERA NUT	Code	COPPIA SERRAGGIO CLAMPING FORCE (Nm)	
G90-5	ER8 Mini	9.ER.0800M	5 (6)	
GL90-7 G90-7 / 7L	ER11 STD	9.ER.11STD	12 (15)	
GTU 10 GL90-10 G90-10 / 10L	ER16 ES-S	9.ER.160ES-S	24 (30)	
GR90-10 / 10RI	ER16 AX	9.ER.160AX	24 (30)	
GMU-13 / 13L	ER20 STD	9.ER.20STD	28 (35)	
GL90-16 G90-16 / 16L GMU-16 G90-16 / 16L 2U	ER25 STD	9.ER.25STD	32 (40)	
GR90-16	ER25 AX	9.ER.250AX	32 (40)	
G90-20 / 20L G90-20L/272 GMU-20 G90-20 / 20L 2U	ER32 STD	9.ER.32STD	136 (70)	
GR90-20	ER32 AX	9.ER.320AX	104	
G90-30 / 30L G90-30 / 30L 2U	ER40 STD	9.ER.40STD	176 (220)	

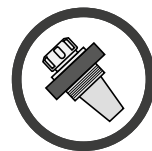
CHIAVI
WRENCHES



CHIAVI WRENCHES	Code	
CH-8 MINI	9.CH.08MINI	
CH-21 ES	9.CH.210ES	
CH-17 ES	9.CH.170ES	
CH-27 ES	9.CH.270ES	
CH-17 ES	9.CH.170ES	
CH-32 ES	9.CH.270ES	
CH-16 AX	9.CH.160AX	
CH-32 ES	9.CH.320ES	
CH-20 STD	9.CH.32STD	
CH-32 ES	9.CH.320ES	
CH-25 STD	9.CH.25STD	
CH-39 ES	9.CH.390ES	
CH-25 AX	9.CH.250AX	
CH-40 ES	9.CH.400ES	
CH-32 STD	9.CH.32STD	
CH-46 ES	9.CH.460ES	
CH-32 AX	9.CH.320AX	
CH-49 ES	9.CH.490ES	
CH-59 ES	9.CH.590ES	
CH-40 STD	9.CH.40STD	

Q MODULAR QUICK CHANGE ADAPTORS

NEW
2021



COMPATIBILI CON TUTTE LE USCITE ER - COMPATIBLE WITH ALL ER OUTPUTS

SISTEMA MODULARE MODULAR SYSTEM



Facile e veloce sistema modulare universale per cambiare rapidamente diverse tipologie di utensili.

An easy modular system to replace quickly any tool you need.

VANTAGGI ADVANTAGES



Aiutano a ridurre i costi-extra per l'acquisto di nuovi motorizzati o teste angolari.

The costs for further requirements of spindle units can be reduced by using the universal quick change adaptors

ALTE PRESTAZIONI HIGH PERFORMANCE



Ghiera con cuscinetto a sfera e losanga di trascinamento removibile per una maggiore rigidità.

High rigidity thanks to the ball bearing nut and the removable diamond plate

COMPATIBILITÀ COMPATIBILITY



Ampia gamma di uscite disponibili adatte al montaggio su qualsiasi tipologia di motorizzato o testa angolare con uscita ER

Wide range of outputs available. Ball bearing nut and removable diamond plate for highest rigidity.

I cambi rapidi modulari Gerardi mantenendo il presetting precedentemente realizzato consentono un notevole risparmio dei costi ed un'ottimizzazione dei tempi ciclo. Sono perfettamente compatibili con tutti i motorizzati e le teste angolari aventi uscita ER DIN6499 e possono essere utilizzati sia con refrigerante interno che esterno.

The Gerardi modular quick change adaptors keep the tool presetting previously made and allow great costs and machining times saving. They are perfectly compatible with all driven tools and angle head with ER DIN6499 output and they can be used with internal or external coolant.

- Nuovi cambi rapidi modulari 2.0 a FORTE SERRAGGIO, 100% Made in Italy.
- Prestazioni garantite e maggior rigidità sui motorizzati Gerardi grazie alla losanga di trascinamento (rimovibile) e alla ghiera con cuscinetto a sfera.
- Adattabili a motorizzati con uscita refrigerante sia interna che esterna.

- Universal HIGH TORQUE modular quick change adaptor 100% Made in Italy.
- Guaranteed higher rigidity and performances on Gerardi driven tools thanks to the removable diamond plate and the ball bearing nut
- Suitable for ER toolholder with external and internal coolant supply



Vedi Pagine 7.12 - 7.15 - See pages 7.12 - 7.15



ER OUTPUTS COMPATIBLE



2 YEARS GUARANTEED



100% MADE IN ITALY