



# Classic Line TESTE ANGOLARI - ANGLE HEADS



MADE IN ITALY



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*series*  
**LIGHT**
*series*  
**MINI 90°**
*series*  
**STD 90°**
**ATC - AUTOMATIC TOOL CHANGE**

GL90-7	G90-3 100	GS90-2	G90-20 / 20L
GL90-10	G90-3 200	G90-5	G90-30 / 30L
GL90-16	G90-3 300	G90-7 / 7L	G90-20L/272
GTU-10	G90-3 300 S	G90-10 / 10L	G90-S40/280
		G90-16 / 16L	G90-S40 / S40L

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*series*  
**STD 90°**
*series*  
**XL**
**MTC - MANUAL TOOL CHANGE**

G90-5	G90-30 / 30L	G90-S40
G90-7 / 7L		G90-S40 XL
G90-10 / 10L		G90-S40 XLxx
G90-16 / 16L		G90-S50
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**ACCESSORIES**
**ATC - AUTOMATIC TOOL CHANGE**

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

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*series*  
**EXTENDED**

*series*  
**GMU**

*series*  
**DOUB2E**

*series*  
**OFFSET**

## ATC - AUTOMATIC TOOL CHANGE

G90-10L 240	GMU-13	G90-16 / 16L 2U	GR90-5
G90-16L 270	GMU-13L	G90-20 / 20L 2U	GR90-10
G90-20L 332	GMU-16	G90-30 / 30L 2U	GR90-16
G90-30L 287	GMU-20		GR90-S40

**1.63 - 1.67**

*series*  
**GMU**

**1.68 - 1.73**

*series*  
**DOUB2E**

## MTC - MANUAL TOOL CHANGE

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

**1.86 - 1.89**
**1.90 - 1.91**

# ACCESSORIES

## MTC - AUTOMATIC TOOL CHANGE

## ATC & MTC

**OPZIONE REFRIGERANTE INTERNO**  
INTERNAL COOLANT OPTION

**CONI / FLANGE / PROLUNGHE**  
SHANKS / FLANGES / EXTENSIONS

**ESEMPIO SCHEDA DI COLLAUDO**  
INSPECTION SHEET EXAMPLE

**ESEMPIO DI MONTAGGIO**  
MOUNTING EXAMPLE

**PINZE / GHIERE / CHIAVI**  
COLLETS / NUTS / WRENCHES

# 1 Linea Classic

## Teste Angolari Integrali

Le teste angolari Gerardi della nuovissima Linea Classic nascono da solide basi tecniche e dall'esperienza maturata in oltre 40 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.

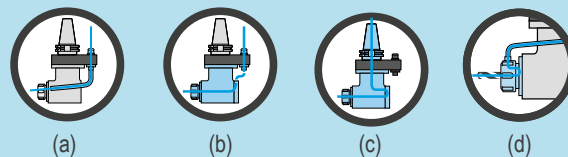
141 modelli di teste angolari standard, ideati, realizzati e distribuiti in oltre 60 paesi nel mondo dalla Gerardi S.p.A., corredati da una gamma di opzioni che ne completano le potenzialità applicative e prestazionali.



Fig. 1

## Caratteristiche tecniche principali:

- 1- Corpo in acciaio sabbiato e cromato ad alta resistenza
- 2- **Albero con cono di attacco integrale (cementato, temprato e rettificato) per garantire la massima rigidità**
- 3- 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.
- 4- 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.
- 5- Pesi e ingombri ridotti rispetto ai modelli corrispondenti della linea Evolution.
- 6- Doppia tenuta anteriore (labirinto + tenuta).
- 7- Adduzione refrigerante esterno tramite perno e pressurizzazione interna compresa nel prezzo (a)
- 8- Opzione adduzione refrigerante interno attraverso l'utensile:
  - 10 bar tramite distributore rotante (b)
  - Da **30 a 70 bar** tramite mandrino macchina, rotazione a secco non possibile (c)
  - Ghiere speciali ReCool per ottenere il passaggio refrigerante tramite utensile anche su teste che non prevedono questa opzione. (d)
- 9- Alta velocità fino a 10.000 giri.
- 10- Compatibilità con le teste da sempre installate (perno anti-rotazione e stop block identici).
- 11- 100% Made in Italy, le teste angolari Gerardi Classic Line sono progettate ed interamente realizzate in Italia e sono coperte da 1 anno di garanzia.



Per caratteristiche tecniche, prestazioni e dotazione standard, fare riferimento alle pagine successive

### Serie ATC

da pag 1.9 a 1.43



E' la linea di teste adatte ai centri di lavoro, trasportabile automaticamente dal magazzino utensili al mandrino e viceversa. L'anello di orientamento e la flangia di indexaggio, che supporta il perno di fermo, sono entrambi posizionabili su 360° consentendo una facile ottimizzazione degli orientamenti angolari del cono e del corpo testa rispetto al tassello di fermo disposto sul mandrino del centro di lavoro.

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. (FIG.1)**

Recentissima novità è il perno di fermo intercambiabile.

### Serie MTC

da pag 1.45 a 1.73



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.



## Classic Line Integral Angle Heads

The new Classic line of Gerardi angle heads has been designed from a technical base derived from more than 40 years experience of solving thousands of production problems, finding optimum solutions and always guaranteeing the highest product quality. 141 standard angle head types are now offered, designed, built and distributed in more than 60 countries the world over by Gerardi S.p.A., and available with a range of options to complete their application and performance potentials.

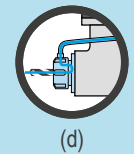
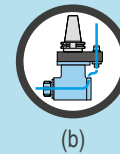
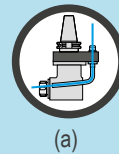
INTEGRAL  
Shank & Shaft



Pic.1

## Main Technical features:

- 1- Minimum thermal expansion and high corrosion resistant treated steel body
  - 2- Main shaft is one solid piece with the drive input taper, case hardened and ground, to ensure maximum rigidity
  - 3- Shafts supported by sets of super precision pre-loaded angular contact bearings with Long Life grease lubrication and ABEC 9 accuracy rating
  - 4- 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
  - 5- New types of longer angular heads with reduced weights and overall dimensions
  - 6- Double seals on the front (mechanical seal + gasket)
  - 7- External coolant through the pin and internal air pressure included as a standard option. (a)
  - 8- Internal coolant feed through the tool options:
    - 10 bar through rotating distributor (b)
    - From **30 to 70 bar** through machine spindle, dry running not possible (c)
    - Special ReCool nuts to get the internal coolant through the tool even on angle heads that aren't fitted for this option. (d)
  - 9- High speed until 10.000 rpm
  - 10- 100% compatibility with heads installed during the last 40 years (same anti-rotation/arrester pin and stop block dimensions)
  - 11- GERARDI Classic angle heads have been designed and are manufactured in Italy. They are covered by 1 year warranty.
- For technical features, performances and standard equipment, please refer to the following pages.



## ATC Series

From page 1.9 to 1.43



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. The orientation ring and the arrester arm, which carries the arrester pin, can both be rotated through 360°.

This allows easy adjustment of the drive taper and head relative to arrester 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. (PIC.1)

The last news is the interchangeable positioning pin.

## MTC Series

From page 1.45 to 1.73



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 length 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.



Extension

1  
**Novità / News**

# Linea Classic / Classic Line



## Teste angolari integrali

Integral angle heads



*series*  
**MINI 90°**

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

New serie of angle heads with interchangeable angle chuck for machinings with Ø1,6 to Ø 3



*series*  
**EXTENDED**

La serie di teste angolari EXTRA LUNGHE con torretta riportata.

New EXTENDED series angle heads with reported turret.



*series*  
**STD 90°**

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

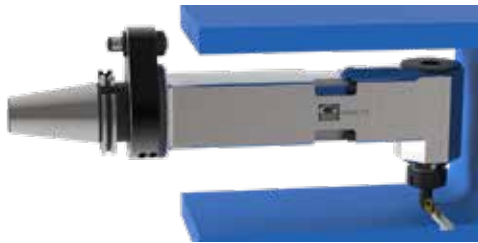
## Teste angolari integrali serie ATC (Cambio utensile automatico)

Integral angle heads ATC series (Automatic tool change)



series  
**MINI** 90°

La nuova serie di teste angolari con mandrino ad angolo intercambiabile per lavorazioni in ingombri minimi  
New series of angle heads with interchangeable angle chuck 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



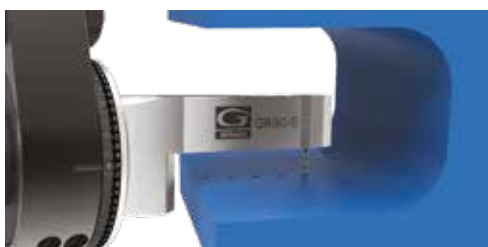
series  
**GMU**

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



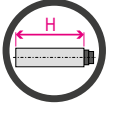


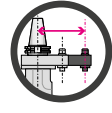
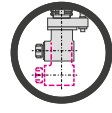

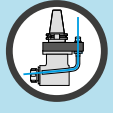
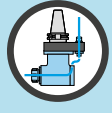
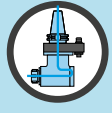
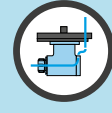
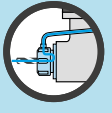
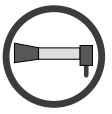
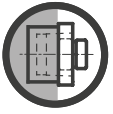
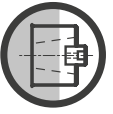
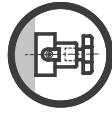


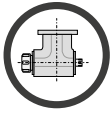
series  
**OFFSET**

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

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

## INDICE OPZIONI OPTIONS INDEX

<b>OPZIONI</b> OPTIONS							
	<b>Prolunga per mandrino ad angolo</b> Extension for angular chuck	<b>Alta velocità</b> High speed	<b>Spina per posizionamento rapido</b> Quick positioning pin	<b>Interasse speciale</b> Special pitch	<b>Lunghezze speciali</b> Special length	<b>Flangia Multipoint</b> Multipoint flange	
<b>PASSAGGIO REFRIGERANTE</b> COOLANT							
	<b>Attraverso il perno</b> Through the Pin	<b>Perno » Distrib » Utensile</b> Pin » Distributor » Tool <b>10bar</b>	<b>Cono » Distrib » Utensile</b> Shank » Distributor » Tool <b>30 / 40 / 70bar</b>	<b>Distributore » Utensile</b> Distributor » Tool <b>10bar</b>	<b>Perno » Ghiera » Utensile</b> Pin » Distrib » Tool <b>ReCool NUT</b>		
	<b>ROT. a SECCO</b> DRY RUNNING ✓	<b>ROT. a SECCO</b> DRY RUNNING ✓	<b>ROT. a SECCO</b> DRY RUNNING NO	<b>ROT. a SECCO</b> DRY RUNNING ✓			
<b>USCITA</b> OUTPUT							
	<b>Mandrino ad angolo</b> Angular chuck	<b>Uscita HSK</b> HSK output	<b>Uscita ISO</b> ISO output	<b>Uscita portafresa</b> Toolholder output	<b>Uscita WELDON</b> WELDON output	<b>Uscita C.</b> C. output	<b>Doppia uscita</b> Double output



# ATC SERIES AUTOMATIC TOOL CHANGE

1

## 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

## STOP BLOCK

**con bussola cementata e guarnizione**

with case hardened bushing and gasket



## 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:

- Portapinzina 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.

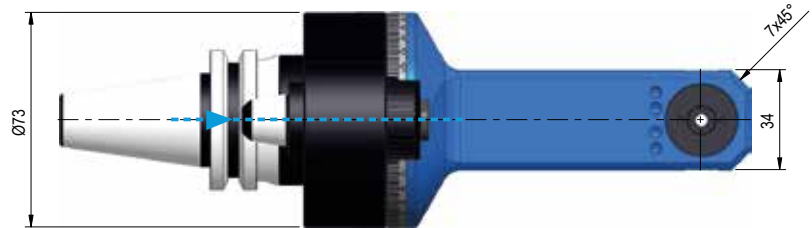
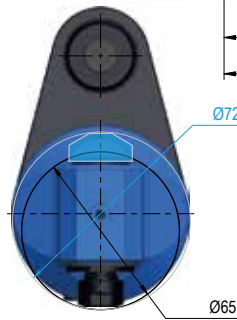
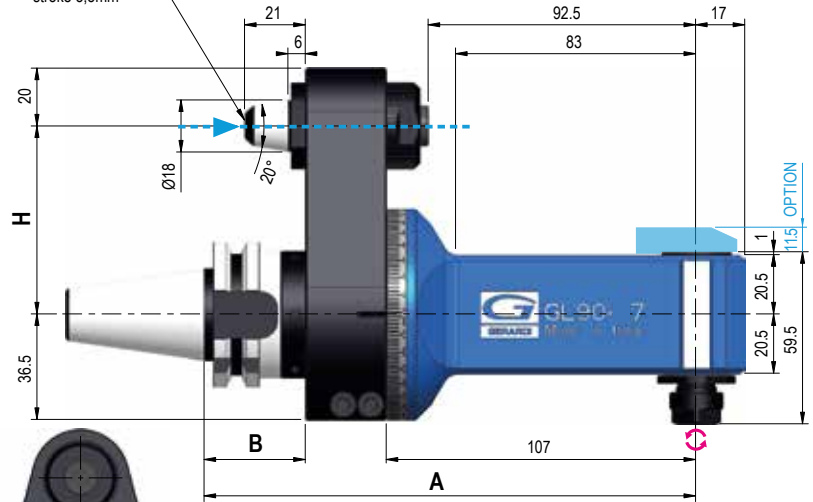
# GL90-7

TYPE 0

Code: **9.GL9.07000**  
Price:



Perno in posizione di sgancio  
corsa 5,5mm  
Pin during release position  
stroke 5,5mm



### 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



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
Grandezza - Size	30	40	40	30	40	50 / 63
Prezzo EXTRA Price €	std	std	std	std	std	optional
H	Standard 65 / 80		65 / 80	65 / 80		65 / 80
	Optional 110 EXTRA Price €		optional	optional		optional
A	150		150	145	150	157
B	35		35	30	35	42

### Dotazione Standard Standard Equipment

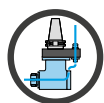
Valigetta - Stop-block - Ghiera ER -  
Chiavi di servizio - Tubetto di grasso -  
Libro istruzioni  
Special bag - Stop-block - ER nut -  
Wrenches - Grease tube - Instruction book

### IMBALLO & PESO

PACK & WEIGHT: Max. Kg



### Opzioni - Options

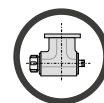


REFR. DAL PERNO  
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

optional



DOPPIA USCITA  
DOUBLE OUTPUT

ER 11 / ER 8M

optional

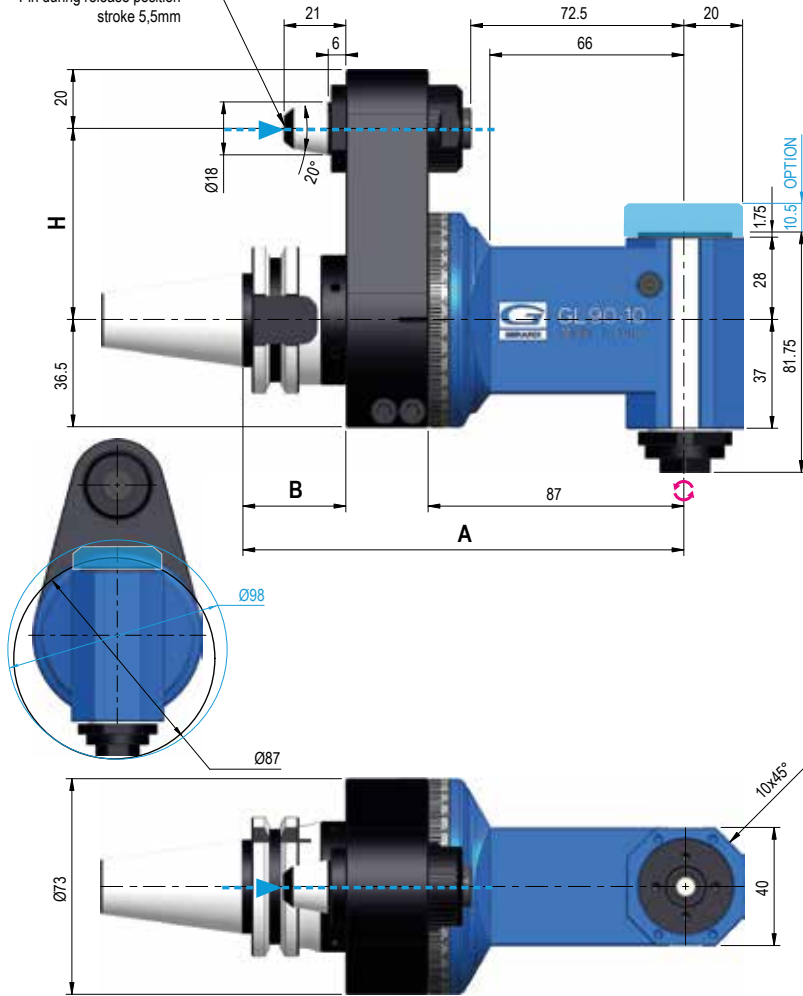


USCITA  
OUTPUT

Weldon Max Ø 6

optional

Perno in posizione di sgancio  
corsa 5,5mm  
Pin during release position  
stroke 5,5mm



**GL90-10**

TYPE 0

Code:

9.GL9.10000

Price:



**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  
Ø1/10



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
Prezzo EXTRA Price €	std	std	std	std	std	optional
H	Standard	65 / 80		65 / 80		65 / 80
	Optional 110 EXTRA Price €	optional		optional		optional
A	150		150	145	150	157
B	35		35	30	35	42

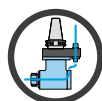
**Dotazione Standard**  
Standard Equipment

**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

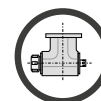


REFR. DAL PERNO  
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

optional



DOPPIA USCITA  
DOUBLE OUTPUT

ER 11 / ER 8M

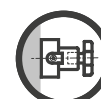
optional



USCITA  
OUTPUT

Weldon Max Ø 6

optional

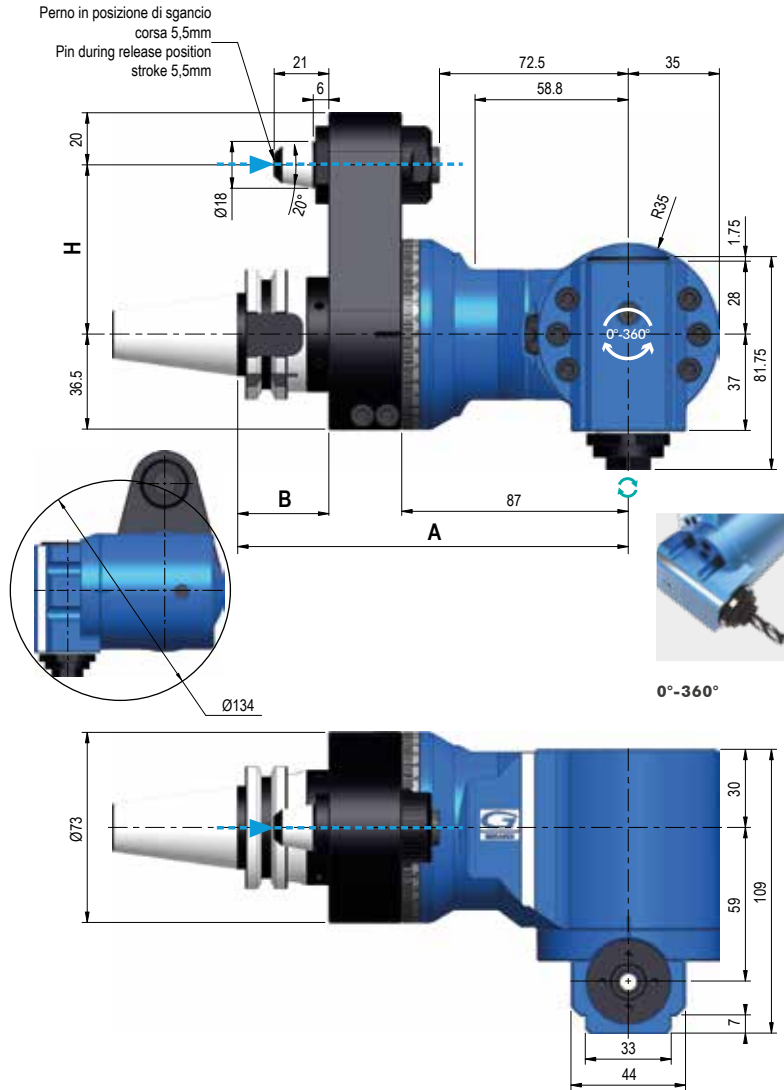


USCITA  
OUTPUT

Portafresa - Toolholder Ø13

optional





**GTU-10**

TYPE 0

Code:

9.GTU.10000

Price:



**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



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
Prezzo EXTRA Price €	std	std	std	std	std	std	std	std	optional	optional	optional	optional		
H Standard	65 / 80		80	65 / 80	80	65 / 80		80	65 / 80		80	65 / 80		80
H Optional 110 EXTRA Price €	optional			optional		optional			optional			optional		
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 -  
Chiacchi di servizio - Tubetto di grasso -  
Libro istruzioni  
Special bag - Stop-block - ER nut -  
Wrenches - Grease tube - Instruction book

**IMBALLO & PESO**

PACK & WEIGHT: Max. Kg



USCITA  
OUTPUT  
Weldon Max Ø10

optional



ALTA VELOCITÀ  
HIGH SPEED  
8.000 Rpm



SPINA POSIZIONE RAPIDA  
QUICK POSITIONING PIN  
Angolazioni personalizzate  
Customized angles

optional

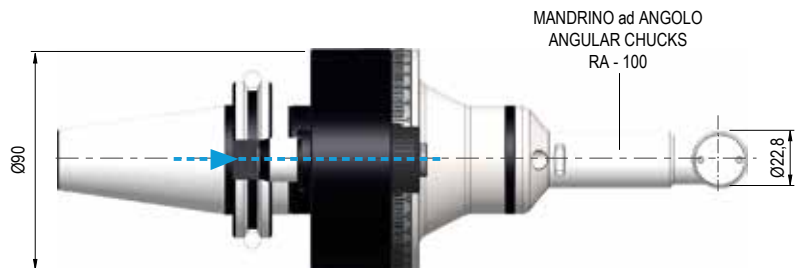
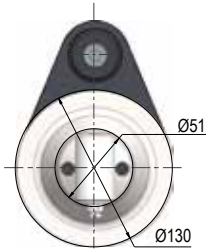
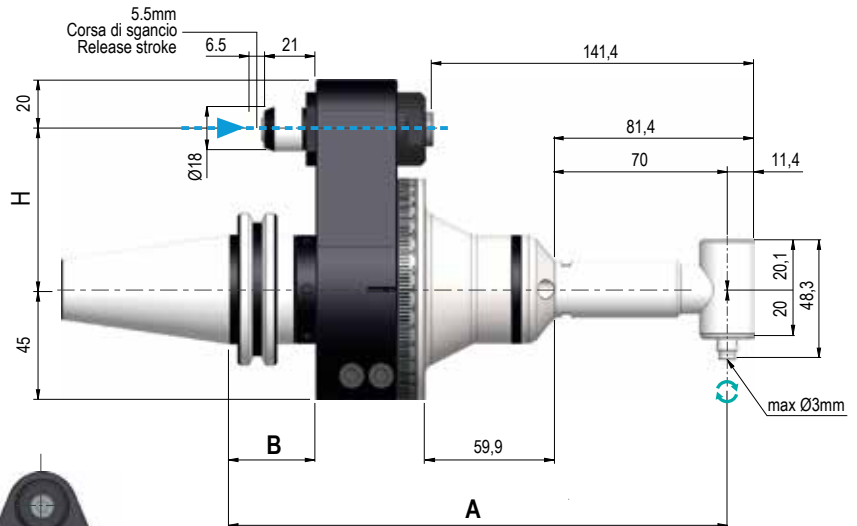
# G90-3 100

TYPE 1

Code:

9.G90.03100

Price:



### Dati tecnici - Technical data



Ratio  
1:2,67



Kg 3,8



Rpm  
7.490



Max Ø3



Nm 4



CH8:  
Ø 3mm



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			
	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
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 -  
Tubetto di grasso - Libro istruzioni  
Special bag - Stop-block - Wrenches -  
Instruction book

### IMBALLO & PESO

PACK & WEIGHT: Max. - Kg



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

RA-200

optional



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

MFC-300 S

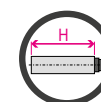
optional



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

IC-300

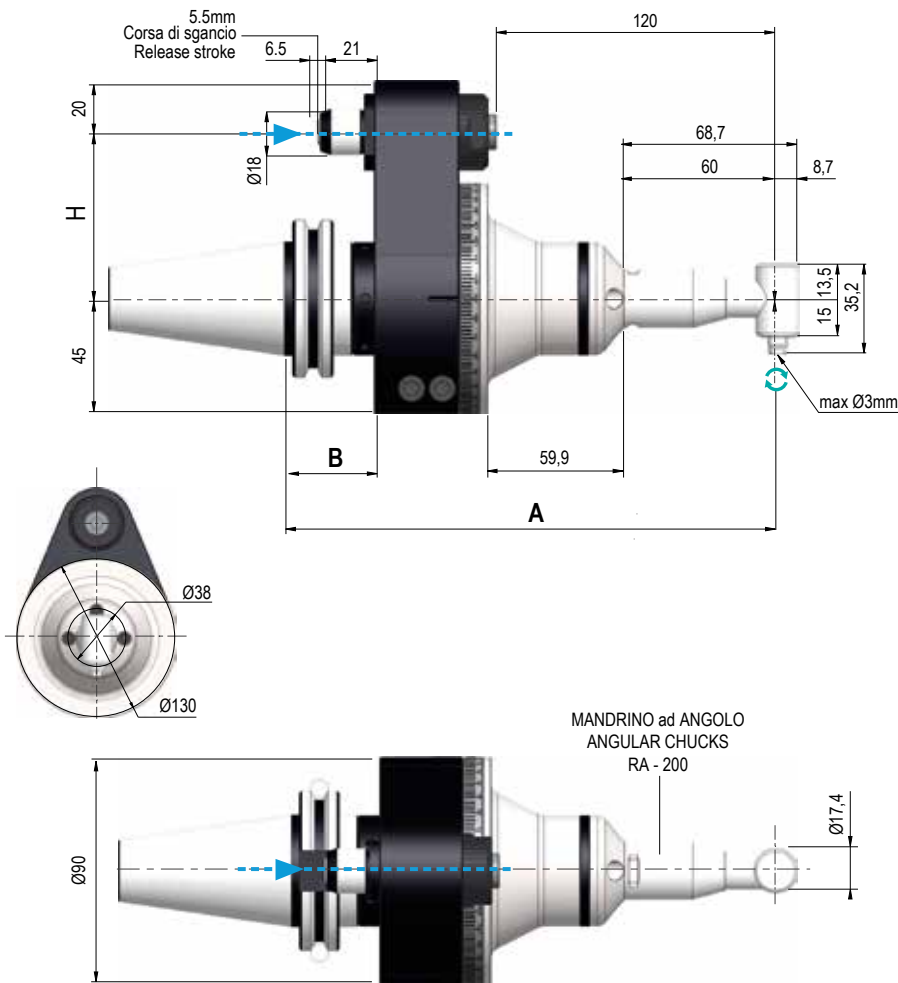
optional



PROLUNGA  
EXTENSION GN-01

H=50,1 mm

optional



**G90-3 200**

TYPE 1

Code:

9.G90.03200

Price:



**Dati tecnici - Technical data**



Ratio  
1:1,5



Kg 3,7



Rpm  
13.300



Max Ø3



Nm 4



CHS:  
Ø 3mm



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			
	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
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 -  
Tubetto di grasso - Libro istruzioni  
Special bag - Stop-block - Wrenches -  
Instruction book



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

RA-100

optional



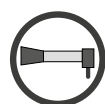
MANDRINO AD ANGOLO  
ANGULAR CHUCKS

IC-300

optional

**IMBALLO & PESO**

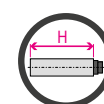
PACK & WEIGHT: Max. Kg



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

MFC-300 S

optional



PROLUNGA  
EXTENSION CN-01

H=50,1 mm

optional

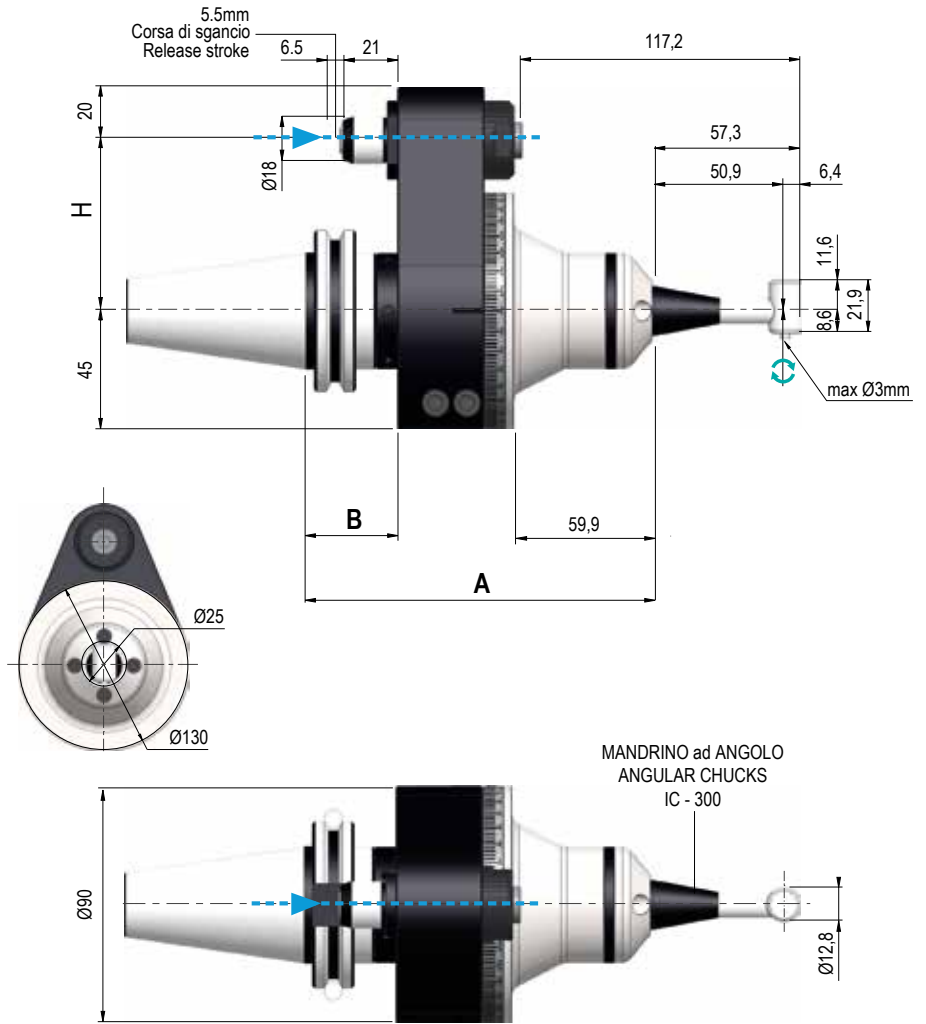
# G90-3 300

TYPE 1

Code:

9.G90.03300

Price:



### Dati tecnici - Technical data



Ratio  
1:1,33



Kg 3,58



Rpm  
22.550



Max Ø3



Nm 4



CHC:  
Ø 3mm



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			
	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	183		183		183	189	190	193	186		188		
B	35		35		35	41	42	45	38		40		

### Dotazione Standard Standard Equipment

Valigetta - Stop-block - Chiavi di servizio -  
Tubetto di grasso - Libro istruzioni  
Special bag - Stop-block - Wrenches -  
Instruction book

### IMBALLO & PESO

PACK & WEIGHT: Max. - Kg



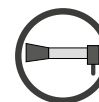
### Opzioni - Options



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

RA-100

optional



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

RA-200

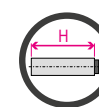
optional



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

MFC-300 S

optional

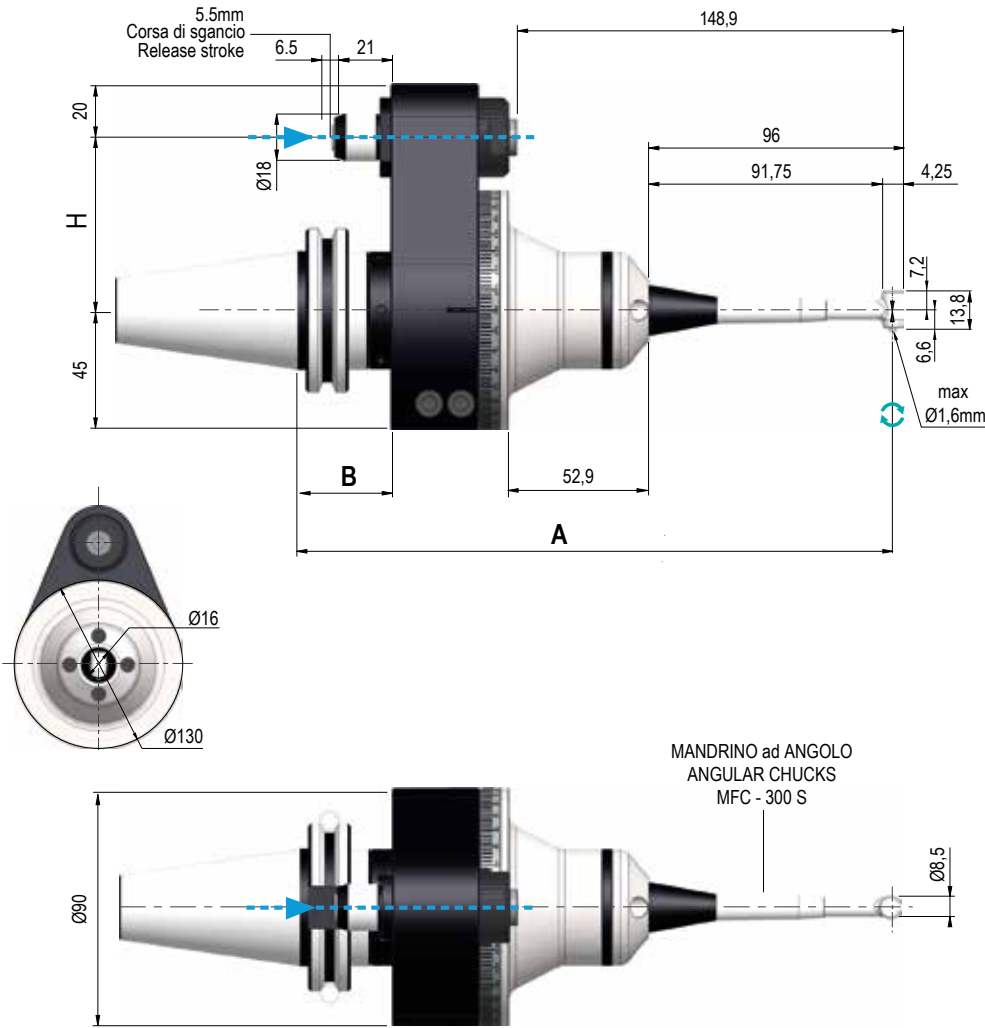


PROLUNGA  
EXTENSION GN-01

H=50,1 mm

optional





**G90-3 300S**

TYPE 1

Code:

9.G90.0330S

Price:



**Dati tecnici - Technical data**



Ratio  
1:1,1



Kg 3,6



Rpm  
13.636



Max Ø1,6



Nm 4



K252:  
Ø1,6mm



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			
	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	223,8		223,8		223,8	229,8	230,8	233,8		226,8		228,8	
B	35		35		35	41	42	45		38		40	

**Dotazione Standard**  
Standard Equipment

**Opzioni - Options**

Valigetta - Stop-block - Chiavi di servizio -  
Tubetto di grasso - Libro istruzioni  
Special bag - Stop-block - Wrenches -  
Instruction book



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

RA-100

optional



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

RA-200

optional

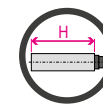
**IMBALLO & PESO**  
PACK & WEIGHT:



MANDRINO AD ANGOLO  
ANGULAR CHUCKS

IC-300

optional



PROLUNGA  
EXTENSION CN-01

H=50,1 mm

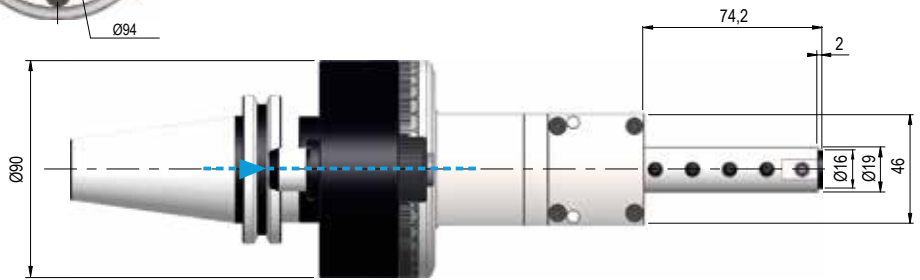
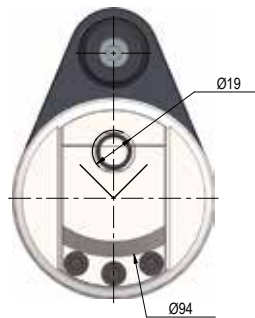
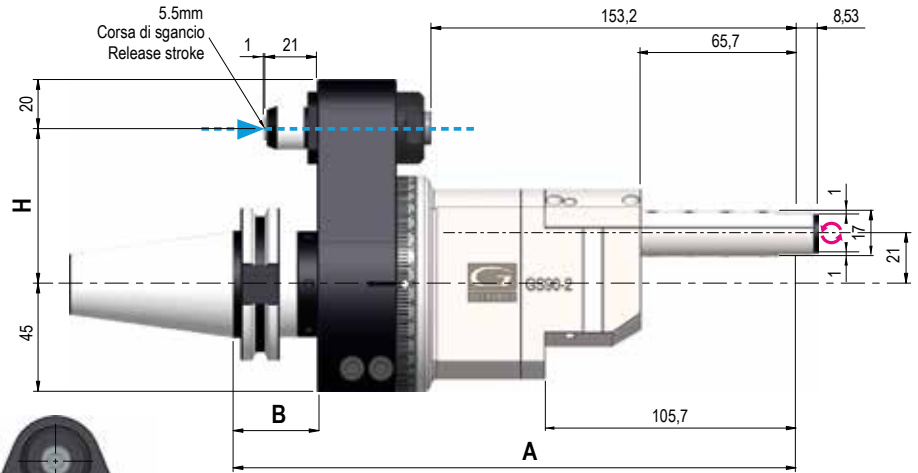
optional

# GS90-2

TYPE 0

Code: **9.GS9.02000**

Price:



**Dati tecnici - Technical data**

Ratio 1:2.475	<b>ISO/BT40</b> 4,96 Kg
Rpm 6.000	Ø-
N-	M-
Nm 1.6	CH4 Ø1/10



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		
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8
Grandezza - Size														
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	opt.	optional	optional	optional	optional		
H Standard	65 / 80		80	65 / 80		80	65 / 80			80	65 / 80		80	
H Optional 110 EXTRA Price €	optional			optional		optional			optional			optional		
A	235,7			235,7		230,7	235,7	241,7	242,7		245,7	238,7		240,7
B	35			35		30	35	41	42		45	38		40

**Dotazione Standard**  
Standard Equipment

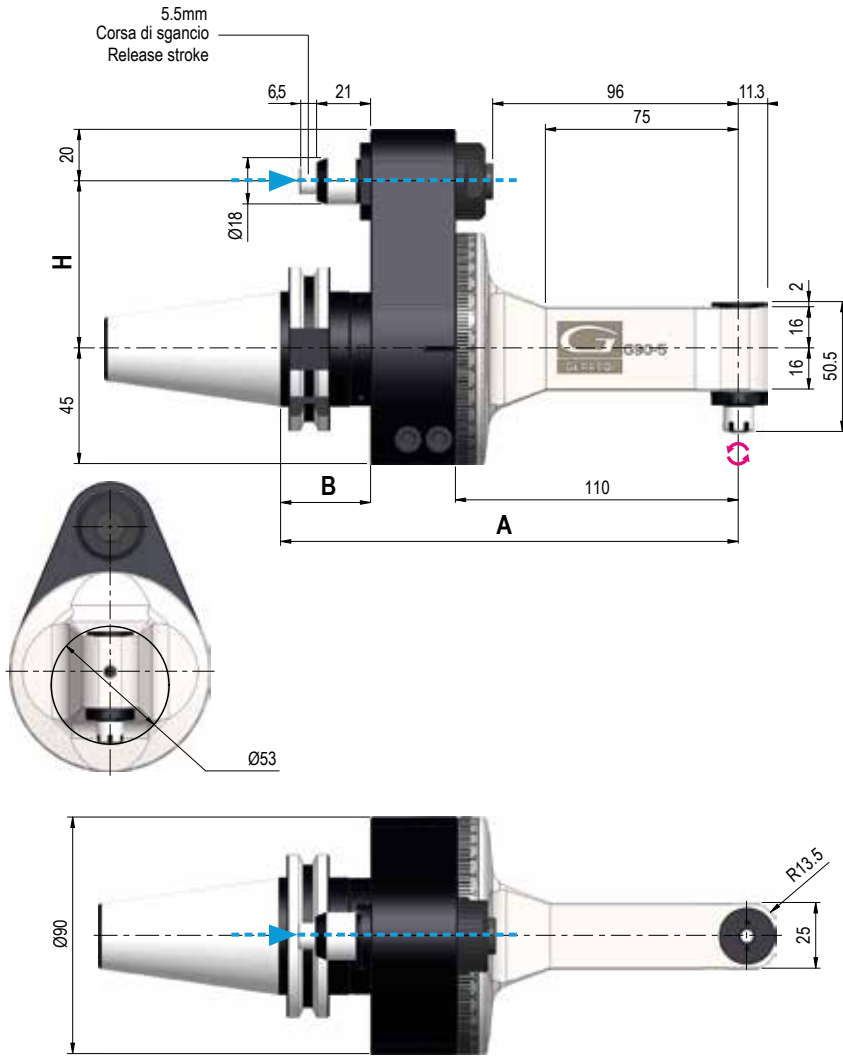
**Opzioni - Options**

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



USCITA  
OUTPUT  
Weldon Max Ø 6  
optional



**G90-5**

TYPE 1

Code:

9.G90.05000

Price:



**Dati tecnici - Technical data**

- Ratio 1:1
- ISO/BT30 4 Kg
- ISO/BT40 - Kg
- Rpm 10.000
- Ø 5
- N 60
- M 4
- Nm 4
- ER8 Ø0,5/5



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		
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size															
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	optional	optional	optional	optional			
H Standard	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80
H Optional 110 EXTRA Price €	optional			optional			optional			optional			optional		
A	178			178			173	178	184	185	188	181	183		
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



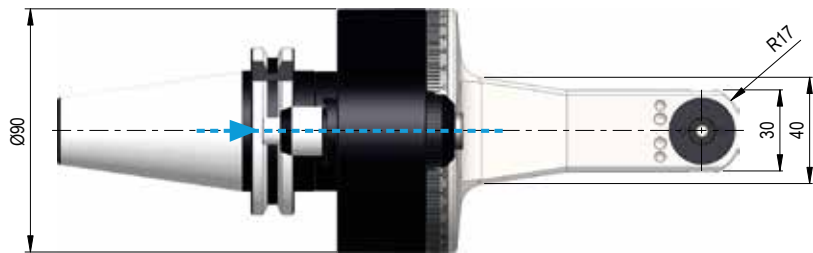
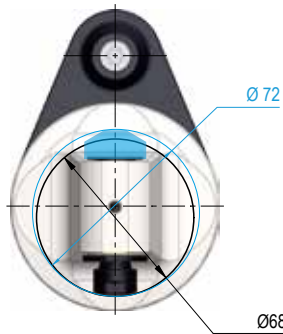
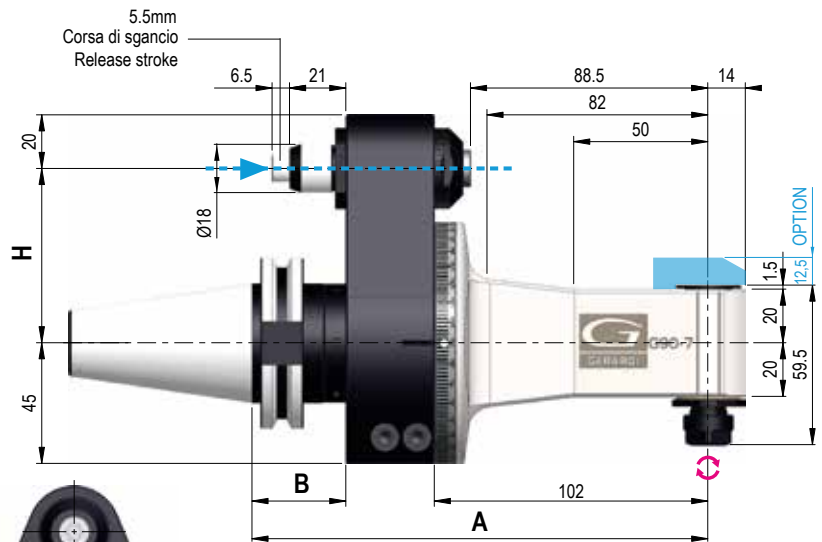
USCITA  
OUTPUT  
Weldon Max Ø 6  
optional

# G90-7

TYPE 1

Code: **9.G90.07000**

Price:



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

### Dati tecnici - Technical data

	Ratio 1:1		Kg 4
	Rpm 10.000		Ø 7
	N 120		M 6
	Nm 5		ER11 Ø17

Coni Shanks	SK DIN 69871			CAT ANSI B5.50			BT MAS 403			HSK DIN 69893			C. ISO 26623		
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size															
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	optional	optional	optional	optional			
Standard	65 / 80		80	65/80	80	65 / 80		80	65 / 80		80	65 / 80		80	
H Optional 110 EXTRA Price €	optional			optional			optional			optional			optional		
A	170			170	165	170	176	177	180	173		175			
B	35			35	35	35	41	42	45	38		40			

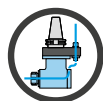
### Dotazione Standard Standard Equipment

### 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. 9 Kg

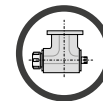


REFR. DAL PERNO  
COOLANT PIN THROUGH

**DRY RUNNING POSSIBLE**

Max 10 bar

optional



DOPPIA USCITA  
DOUBLE OUTPUT

ER 11 / ER 8M

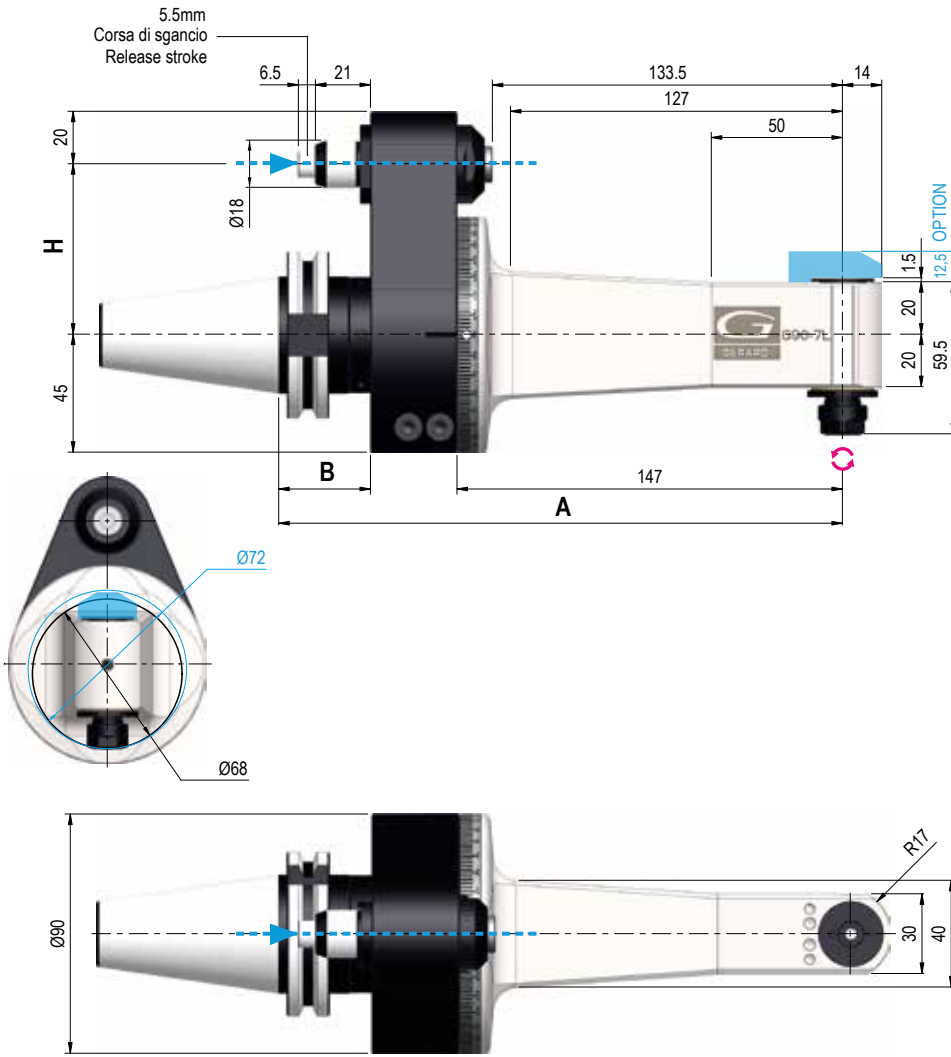
optional



USCITA  
OUTPUT

Weldon Max Ø 8

optional



**G90-7L**

TYPE 1

Code:

9.G90.07L00

Price:



**Dati tecnici - Technical data**

- Ratio 1:1
- Kg 4,3
- Rpm 10.000
- Ø7
- N 120
- M6
- 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			C. ISO 26623		
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size															
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	optional	optional	optional	optional			
H Standard	65 / 80		80	65/80	80	65 / 80		80	65 / 80		80	65 / 80			80
H Optional 110 EXTRA Price €	optional			optional			optional			optional			optional		
A	215			215	210	215	221	222	225	218		220			
B	35			35	30	35	41	42	45	38		40			

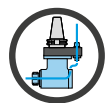
**Dotazione Standard**  
Standard Equipment

**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



REFR. DAL PERNO  
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

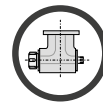
optional



USCITA  
OUTPUT

Weldon Max Ø 8

optional



DOPIA USCITA  
DOUBLE OUTPUT

ER 11 / ER 8M

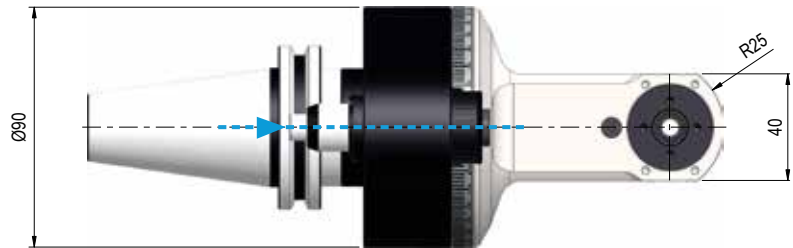
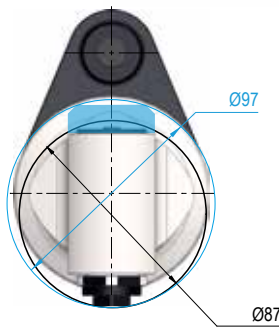
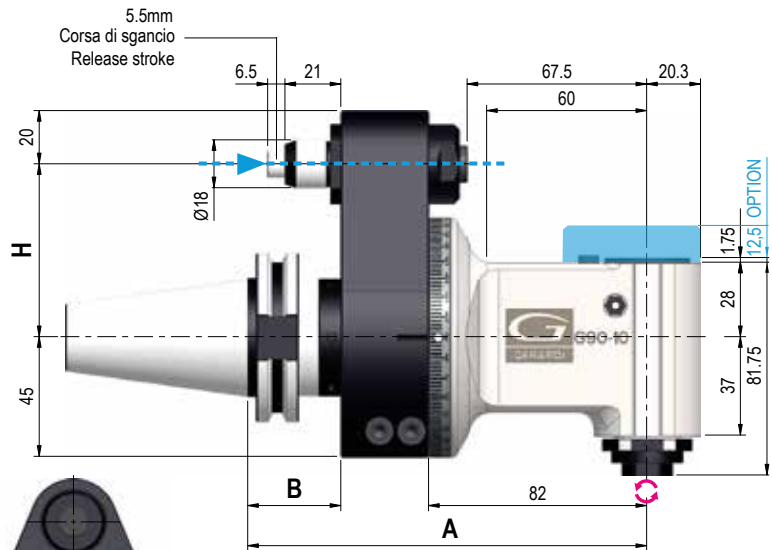
optional

# G90-10

TYPE 1

Code: **9.G90.10000**

Price:



SENDO 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		ER16 Ø1/10

Coni Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623		
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8
Grandezza - Size	opt.	std	std	std	optional	opt.	std	std	optional	optional	optional	optional		
Prezzo EXTRA Price €														
Standard	65 / 80		80	65/80	80	65 / 80		80	65 / 80		80	65 / 80		80
H Optional 110 EXTRA Price €	optional			optional		optional			optional			optional		
A	150			150		145	150	156	157		160	153		155
B	35			35		30	35	41	42		45	38		40

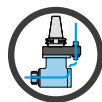
### Dotazione Standard Standard Equipment

### 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



REFR. DAL PERNO  
COOLANT PIN THROUGH

**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional



USCITA  
OUTPUT  
Weldon Max Ø10  
optional

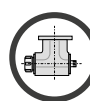


USCITA  
OUTPUT  
Toolholder Ø16  
optional



REFR. DAL PERNO  
COOLANT PIN THROUGH

**DRY RUNNING NOT POSSIBLE**  
Max 40 bar  
optional



DOPPIA USCITA  
DOUBLE OUTPUT  
ER16 - ER11 M  
optional

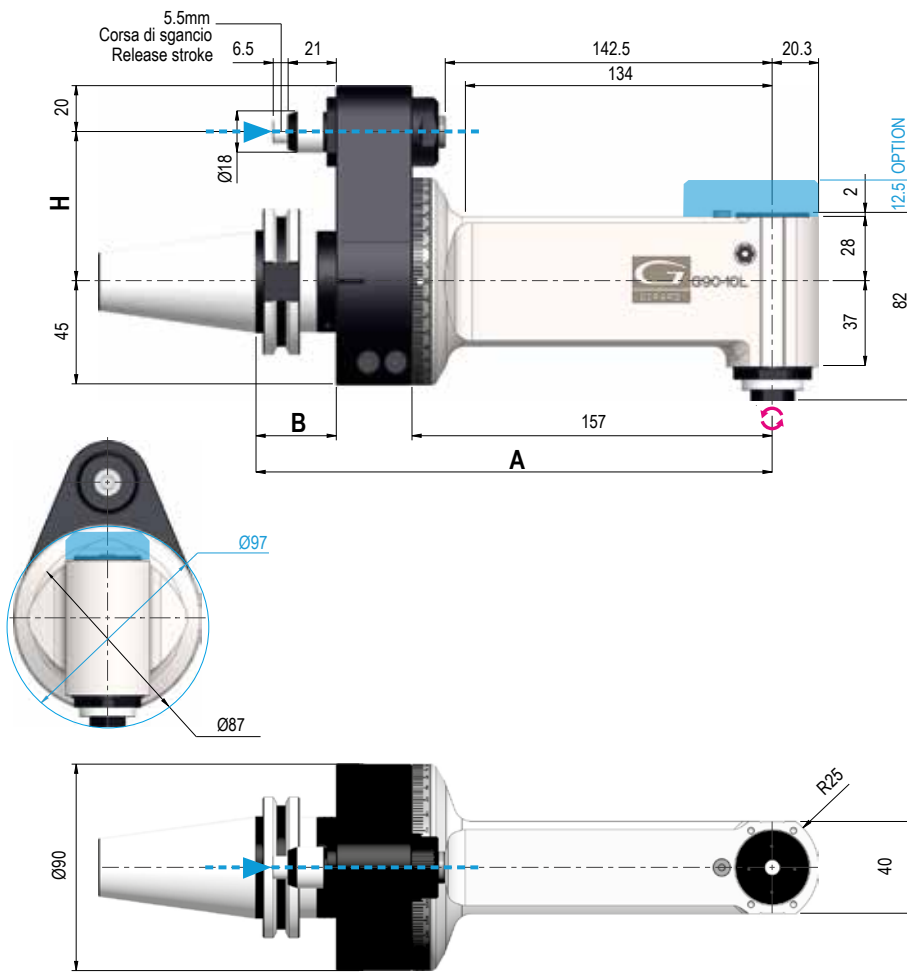
# G90-10L

TYPE 1

Code:

9.G90.10L00

Price:



### Dati tecnici - Technical data

	Ratio 1:1		Kg 5,2
	Rpm 10.000		Ø 10
	N 250		M 8
	Nm 10		ER16 Ø1/10



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			C. ISO 26623			
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size															
Prezzo EXTRA Price €	opt.	std	std	optional	optional	opt.	std	std	optional	optional	optional	optional			
H Standard	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80
H Optional 110 EXTRA Price €	optional			optional		optional			optional			optional			
A	225			225		220	225	231	232		235	228		230	
B	35			35		30	35	41	42		45	38		40	

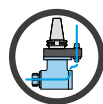
### Dotazione Standard Standard Equipment

### 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. 10,5 Kg



REFR. DAL PERNO COOLANT PIN THROUGH

**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional



USCITA OUTPUT  
Weldon Max Ø10  
optional



USCITA OUTPUT  
Toolholder Ø16  
optional



REFR. DAL PERNO COOLANT PIN THROUGH

**DRY RUNNING NOT POSSIBLE**  
Max 40 bar  
optional



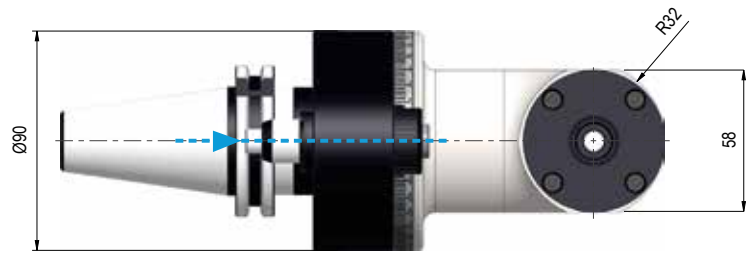
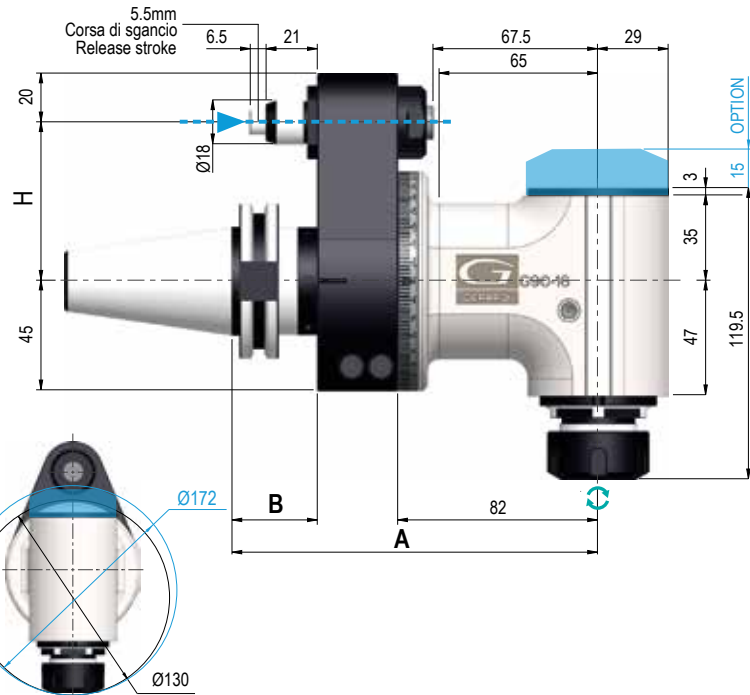
DOPPIA USCITA DOUBLE OUTPUT  
ER16 - ER11 M  
optional

# G90-16

TYPE 1

Code: **9.G90.16000**

Price:



### Dati tecnici - Technical data

Ratio 1:1	Kg 5,4
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	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80			
H Optional 110 EXTRA Price €	optional		optional		optional		optional			optional			
A	150		150		150		156		157	160		153	155
B	35		35		35		41		42	45		38	40

### Dotazione Standard Standard Equipment

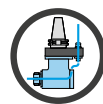
Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni  
Special bag - Stop-block - ER nut - Grease tube - Instruction book

### IMBALLO & PESO

PACK & WEIGHT: Max. 11 Kg



### Opzioni - Options



REFR. DAL PERNO  
COOLANT PIN THROUGH

**DRY RUNNING POSSIBLE**

Max 10 bar

optional



USCITA  
OUTPUT

Weldon Max Ø16

optional



USCITA  
OUTPUT

Toolholder Ø16

optional



REFR. DAL PERNO  
COOLANT PIN THROUGH

**DRY RUNNING NOT POSSIBLE**

Max 40 bar

optional



DOPPIA USCITA  
DOUBLE OUTPUT

ER25 - ER16 M

optional

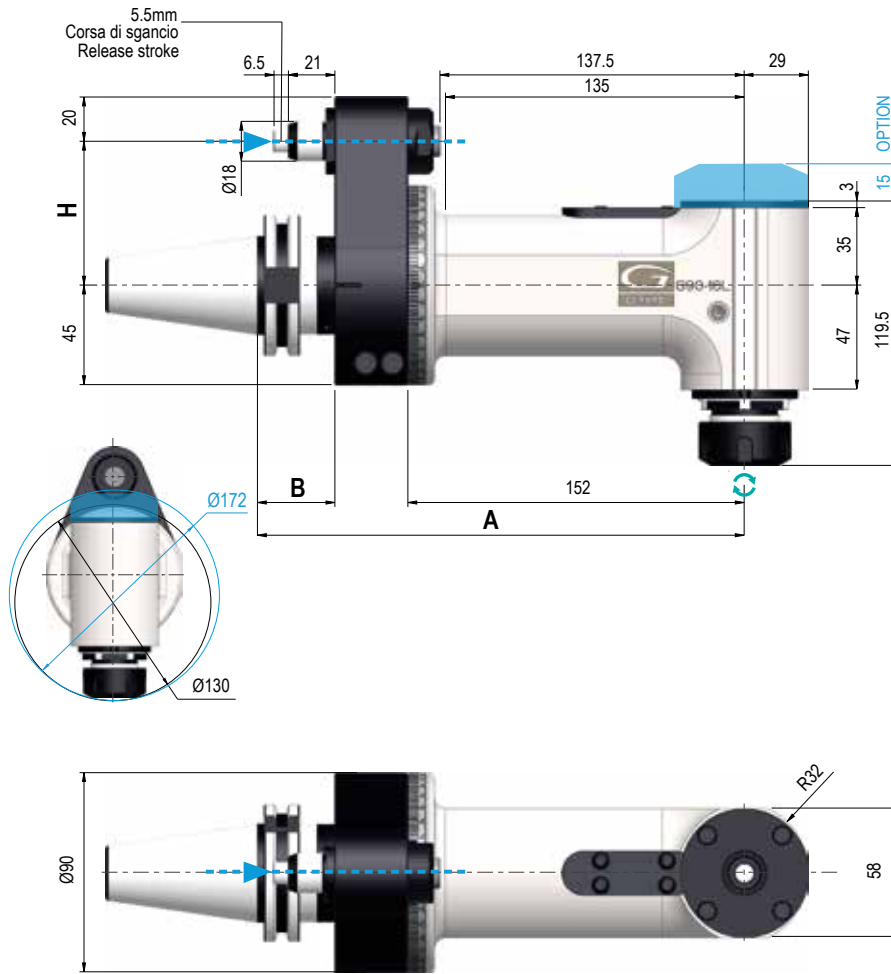


USCITA  
OUTPUT

HSK 32

optional





# G90-16L

TYPE 1

Code:

9.G90.16L00

Price:



### Dati tecnici - Technical data

	Ratio 1:1		Kg 6,7
	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		
	40	50	40	50	40	50	63	80	100	C5	C6	C8
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional		
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80	
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional	
A	220		220		220	226	227	230	223	225		
B	35		35		35	41	42	45	38	40		

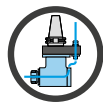
### Dotazione Standard Standard Equipment

### 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



REFR. DAL PERNO COOLANT PIN THROUGH

**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional

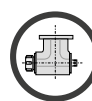


REFR. DAL PERNO COOLANT PIN THROUGH

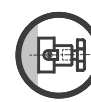
**DRY RUNNING NOT POSSIBLE**  
Max 40 bar  
optional



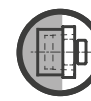
USCITA OUTPUT  
Weldon Max Ø16  
optional



DOPPIA USCITA DOUBLE OUTPUT  
ER25 - ER16 M  
optional



USCITA OUTPUT  
Toolholder Ø16  
optional



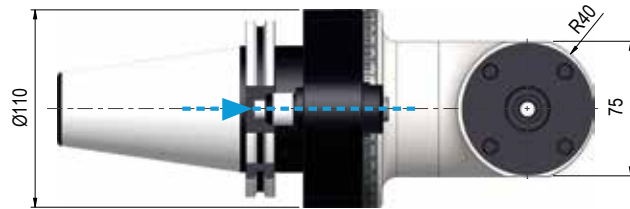
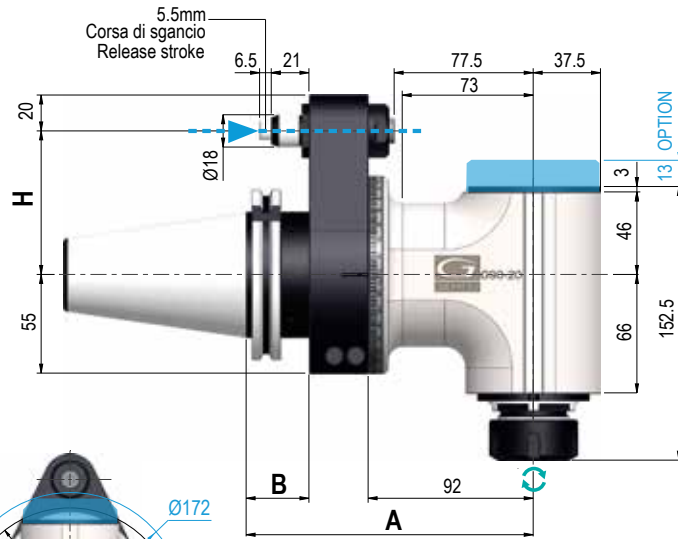
USCITA OUTPUT  
HSK 32  
optional

# G90-20

TYPE 2

Code: **9.G90.20000**

Price:



**Dati tecnici - Technical data**

Ratio 1:1	Kg 11
Rpm 4.000	Ø 20
N 1.250	M 16
Nm 40	ER32 Ø2/20



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

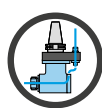
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623			
Grandezza - Size	50	50	50	63	80	100	C6	C8
Prezzo EXTRA Price €	std	std	std	optional	optional	optional	optional	
H	Standard	80	80	80	80		80	
	Optional 110 EXTRA Price €	optional	optional	optional	optional		optional	
A	160	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

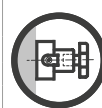
**IMBALLO & PESO**  
PACK & WEIGHT: Max. Kg



REFR. DAL PERNO COOLANT PIN THROUGH  
**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional



USCITA OUTPUT  
Weldon  
Max Ø20  
optional



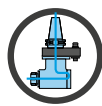
USCITA OUTPUT  
Portafresa  
Toolholder Ø22  
optional



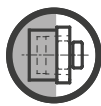
USCITA OUTPUT  
C4  
optional



ALTA VELOCITÀ  
HIGH SPEED  
6.000 Rpm  
optional



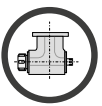
REFR. DAL CONO COOLANT THROUGH SHANK  
**DRY RUNNING NOT POSSIBLE**  
40 bar 70 bar  
opt. opt.



USCITA OUTPUT  
HSK 40  
optional



USCITA OUTPUT  
ISO/CAT/BT 30  
optional



DOPIA USCITA  
DOUBLE OUTPUT  
ER32 - ER20M  
optional

**G90-20L**

TYPE 2

Code:

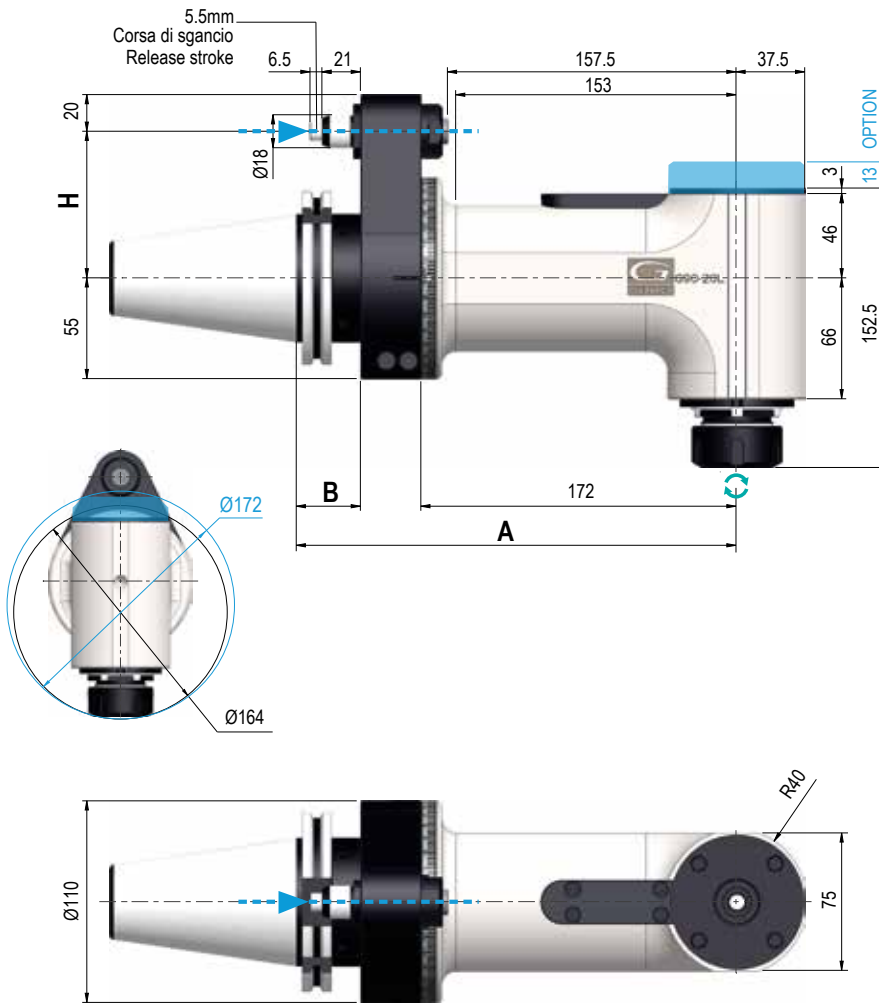
9.G90.20L00

Price:



**Dati tecnici - Technical data**

	Ratio 1:1		Kg 13,8
	Rpm 4.000		Ø 20
	N 1.250		M 16
	Nm 40		ER32 Ø2/20



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
Prezzo EXTRA Price €	std	std	std	optional	optional	optional	optional	
H	Standard	80	80	80			80	
	Optional 110 EXTRA Price €	optional	optional	optional	optional			optional
A	240	240	246	247	250	243	245	
B	35	35	41	42	45	38	40	

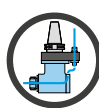
**Dotazione Standard**  
Standard Equipment

**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



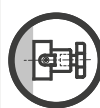
REFR. DAL PERNO  
COOLANT PIN THROUGH  
**DRY RUNNING POSSIBLE**

Max 10 bar  
optional



USCITA  
OUTPUT  
Weldon  
Max Ø20

optional



USCITA  
OUTPUT  
Portafresa  
Toolholder Ø22

optional



USCITA  
OUTPUT  
C4

optional



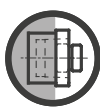
ALTA VELOCITÀ  
HIGH SPEED  
6.000 Rpm

optional



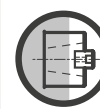
REFR. DAL CONO  
COOLANT THROUGH SHANK  
**DRY RUNNING NOT POSSIBLE**

40 bar 70 bar  
opt. opt.



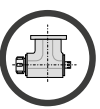
USCITA  
OUTPUT  
HSK 40

optional



USCITA  
OUTPUT  
ISO/CAT/  
BT 30

optional



DOPPIA USCITA  
DOUBLE OUTPUT  
ER32 - ER20M

optional



USCITA  
OUTPUT  
G90-20/20L  
ER40

optional

**G90-20L/272** TYPE 2

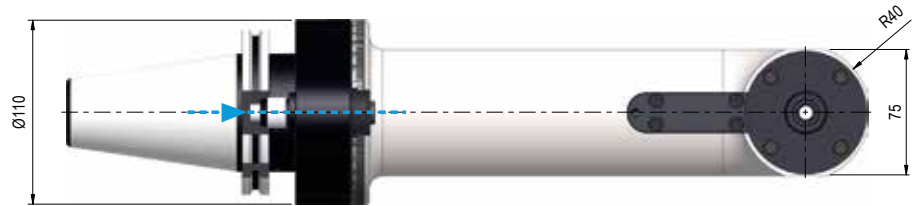
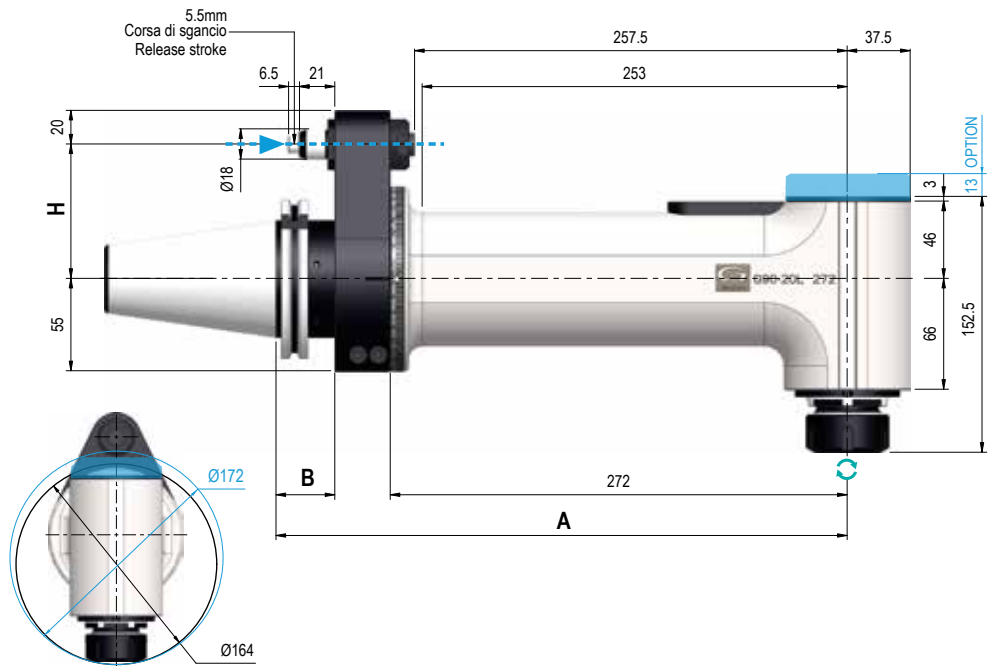
Code: **9.G90.20L00.272**

Price:



**Dati tecnici - Technical data**

Ratio 1:1	Kg 17
Rpm 4.000	Ø 20
N 1.250	M 16
Nm 40	ER32 Ø2/20



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	C6	C8
Prezzo EXTRA Price €	std	std	std	optional	optional	optional	
H Standard	80	80	80	80		80	
H Optional 110 EXTRA Price €	optional	optional	optional	optional		optional	
A	340	340	346	347	350	343	345
B	35	35	41	42	45	38	40

**Dotazione Standard**  
Standard Equipment

**Opzioni - Options**

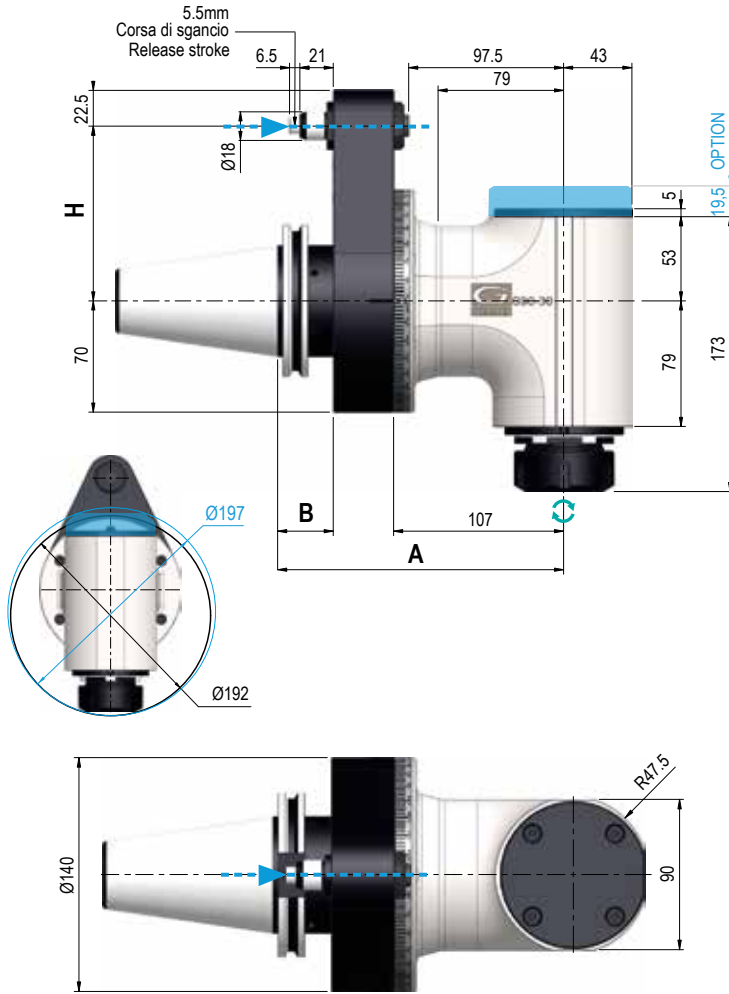
Cassa in legno - Stop-block -  
Ghiera ER - Chiavi di servizio -  
Tubetto di grasso - Libro istruzioni  
Wood box - Stop-block - ER nut -  
Wrenches - Grease tube - Instruction book

**IMBALLO & PESO**

PACK & WEIGHT: Max. Kg



	REFR. DAL PERNO COOLANT PIN THROUGH <b>DRY RUNNING POSSIBLE</b> Max 10 bar optional		USCITA OUTPUT C4 optional		USCITA OUTPUT Weldon Max Ø20 optional		USCITA OUTPUT Portafresa Toolholder Ø22 optional
	REFR. DAL PERNO COOLANT PIN THROUGH <b>DRY RUNNING NOT POSSIBLE</b> 40 bar optional		USCITA OUTPUT HSK 40 optional		USCITA OUTPUT ISO/CAT/ BT 30 optional		DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20M optional



**G90-30**

TYPE 3

Code:

9.G90.30000

Price:



**Dati tecnici - Technical data**

	Ratio 1:1		Kg 17
	Rpm 4.000		Ø 30
	N 1.750		M 20
	Nm 75		ER40 Ø3/30



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
Grandezza - Size	50	50	50	80 100	C8
Prezzo EXTRA Price €	std	std	std	optional optional	optional
H Standard	110	110	110	110	110
A	180	180	186	187 190	185
B	35	35	41	42 45	40

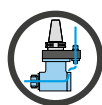
**Dotazione Standard**  
Standard Equipment

**Opzioni - Options**

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**

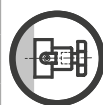
PACK & WEIGHT: Max. Kg



REFR. DAL PERNO  
COOLANT PIN THROUGH  
**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional



USCITA OUTPUT  
Weldon  
Max Ø20  
optional



USCITA OUTPUT  
Portafresa  
Toolholder Ø22  
optional



USCITA OUTPUT  
C4  
optional



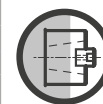
ALTA VELOCITÀ  
HIGH SPEED  
6.000 Rpm  
optional



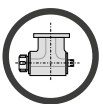
REFR. DAL CONO  
COOLANT THROUGH SHANK  
**DRY RUNNING NOT POSSIBLE**  
40 bar 70 bar  
opt. opt.



USCITA OUTPUT  
HSK 40  
optional

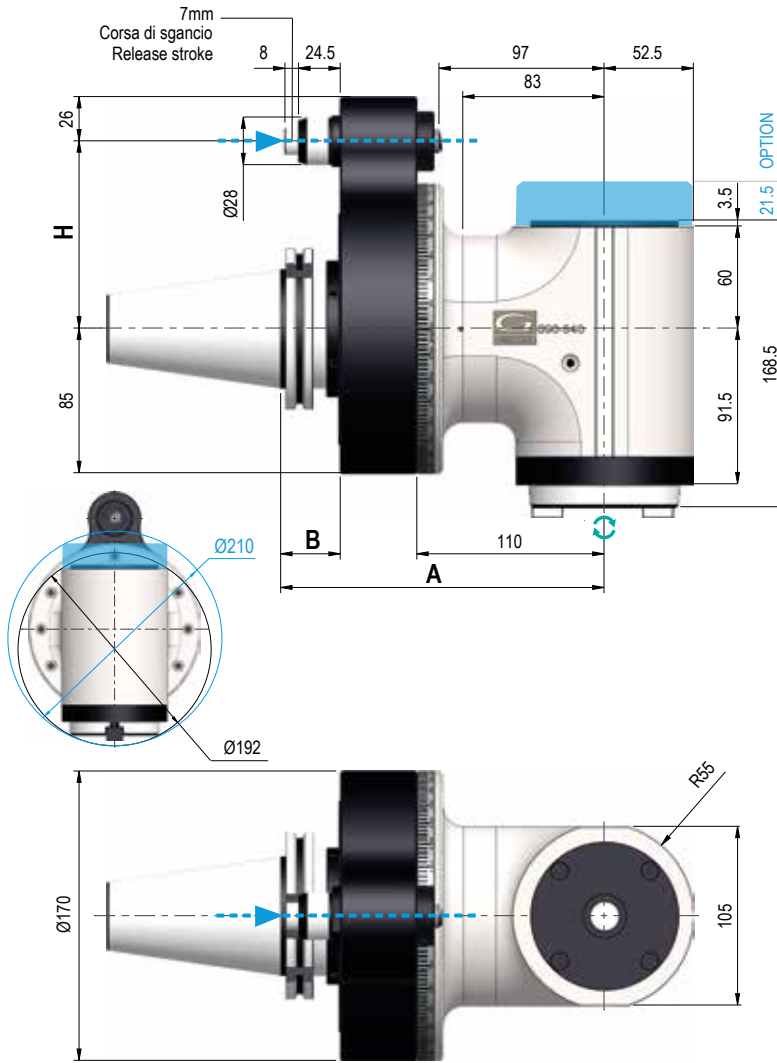


USCITA OUTPUT  
ISO/CAT/  
BT 30  
optional



DOPPIA USCITA  
DOUBLE OUTPUT  
ER32 - ER20M  
optional





# G90-S40

TYPE 4

Code:

9.G90.S4000

Price:



### Dati tecnici - Technical data

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



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	
Prezzo EXTRA Price €	std	std	std	optional	optional	
H Standard Ø28	110	110	110	110	110	
A	190	190	196	197	200	195
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



### Opzioni - Options

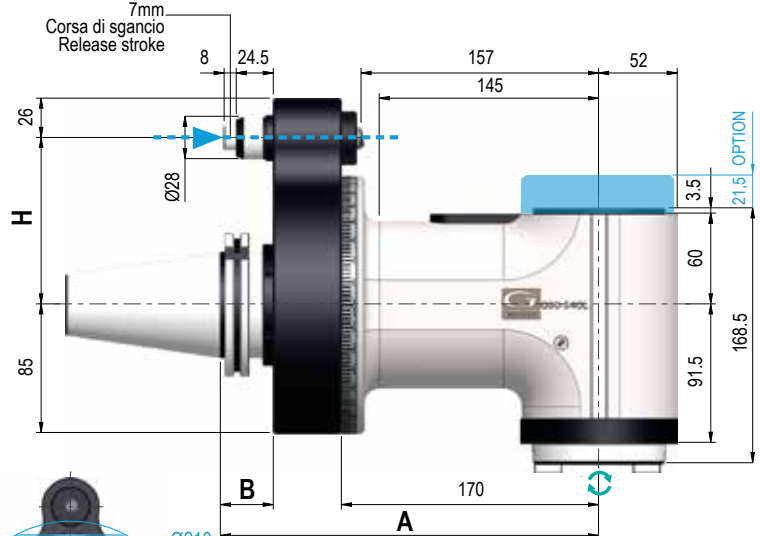
	REFR. DAL PERNO COOLANT PIN THROUGH <b>DRY RUNNING POSSIBLE</b> Max 10 bar optional		USCITA OUTPUT Weldon Max Ø26 optional		USCITA OUTPUT C4 C5 opt. opt.		USCITA OUTPUT Portafresa Toolholder Ø27 optional
	REFR. DAL CONO COOLANT THROUGH SHANK <b>DRY RUNNING NOT POSSIBLE</b> 30 bar 70 bar opt. opt.		USCITA OUTPUT HSK 63 optional		ALTA VELOCITÀ HIGH SPEED 5.000 Rpm optional		

# G90-S40L

TYPE 4

Code: **9.G90.S40L00**

Price:

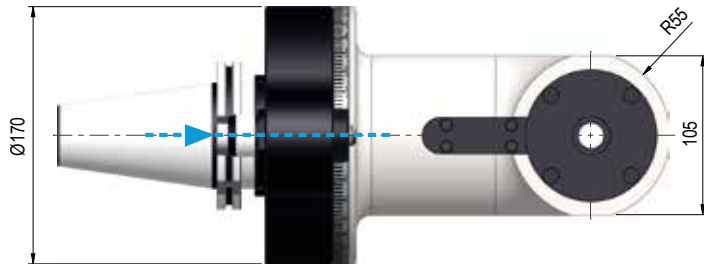


### Dati tecnici - Technical data

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



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
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
<b>H</b> Standard Ø28	110	110	110	110	110	110
<b>A</b>	250	250	256	257	260	255
<b>B</b>	35	35	41	42	45	40

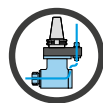
### Dotazione Standard Standard Equipment

### 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



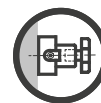
REFR. DAL PERNO  
COOLANT PIN THROUGH  
**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional



USCITA OUTPUT  
Weldon Max Ø26  
optional



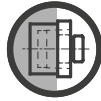
USCITA OUTPUT  
C4 C5  
opt. opt.



USCITA OUTPUT  
Portafresa  
Toolholder Ø32  
optional



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

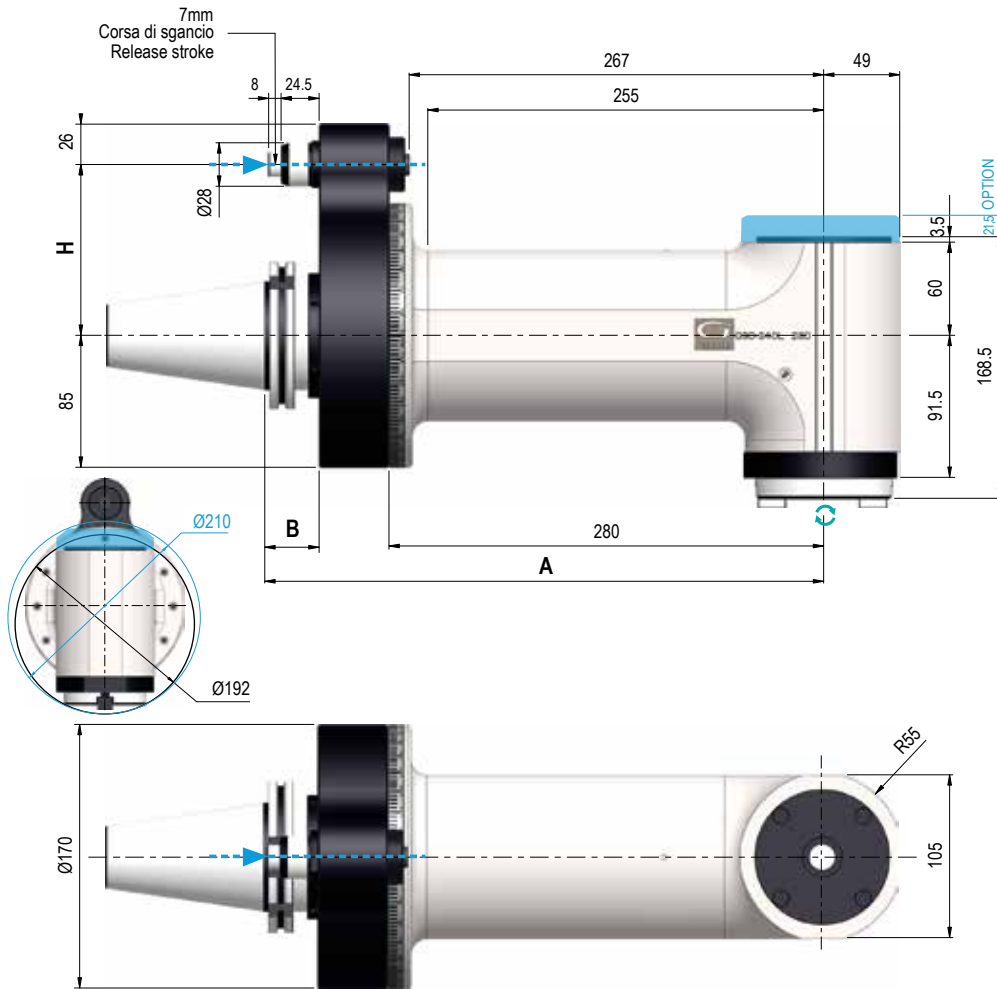


USCITA OUTPUT  
HSK 63  
optional



ALTA VELOCITÀ  
HIGH SPEED  
5.000 Rpm  
optional





**G90-S40L/280** TYPE 4

Code: **9.G90.S40L0.280**

Price:



**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



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
Prezzo EXTRA Price €	std	std	std	optional	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



REFR. DAL PERNO  
COOLANT PIN THROUGH

**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional

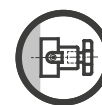


USCITA  
OUTPUT  
Weldon Max Ø26

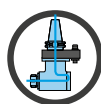
optional



USCITA  
OUTPUT  
C4 C5  
opt. opt.



USCITA  
OUTPUT  
Portafresa  
Toolholder Ø32  
optional



REFR. DAL CONO  
COOLANT THROUGH SHANK  
**DRY RUNNING NOT POSSIBLE**  
30 bar  
optional



USCITA  
OUTPUT  
HSK 63  
optional



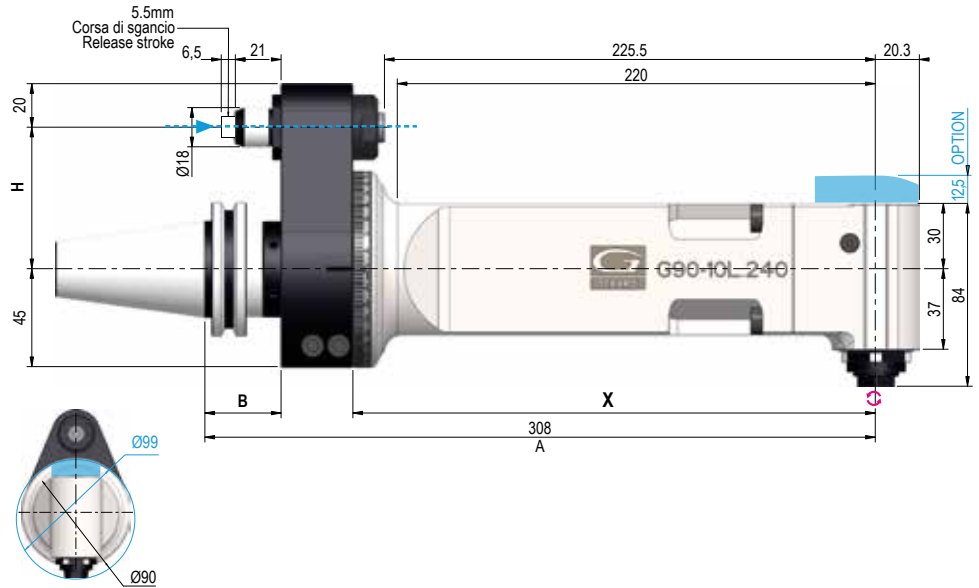
ALTA VELOCITÀ  
HIGH SPEED  
5.000 Rpm  
optional

# G90-10L 240

TYPE 1

Code:

Price:



### Dati tecnici - Technical data



Ratio  
1:1



Kg 6,3



Rpm  
10.000



Ø 10



N 250



M 8



Nm 10



ER16  
Ø1/10

POSSIBILITÀ DI LUNGHEZZE DIFFERENTI  
POSSIBILITY OF DIFFERENT LENGHT



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						
	40	50	40	50	40	50	63	80	100	C5	C6	C8				
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8				
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional						
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80			
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional					
A	308		308		308		314		315		318		311		313	
B	35		35		35		41		42		45		38		40	

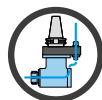
### Dotazione Standard Standard Equipment

### 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

### IMBALLO & PESO

PACK & WEIGHT: Max. Kg



REFR. DAL PERNO  
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

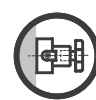
optional



USCITA  
OUTPUT

Weldon Max Ø10

optional



USCITA  
OUTPUT

Toolholder Ø16

optional



REFR. DAL PERNO  
COOLANT PIN THROUGH

DRY RUNNING NOT POSSIBLE

Max 40 bar

optional



DOPPIA USCITA  
DOUBLE OUTPUT

ER16 - ER11 M

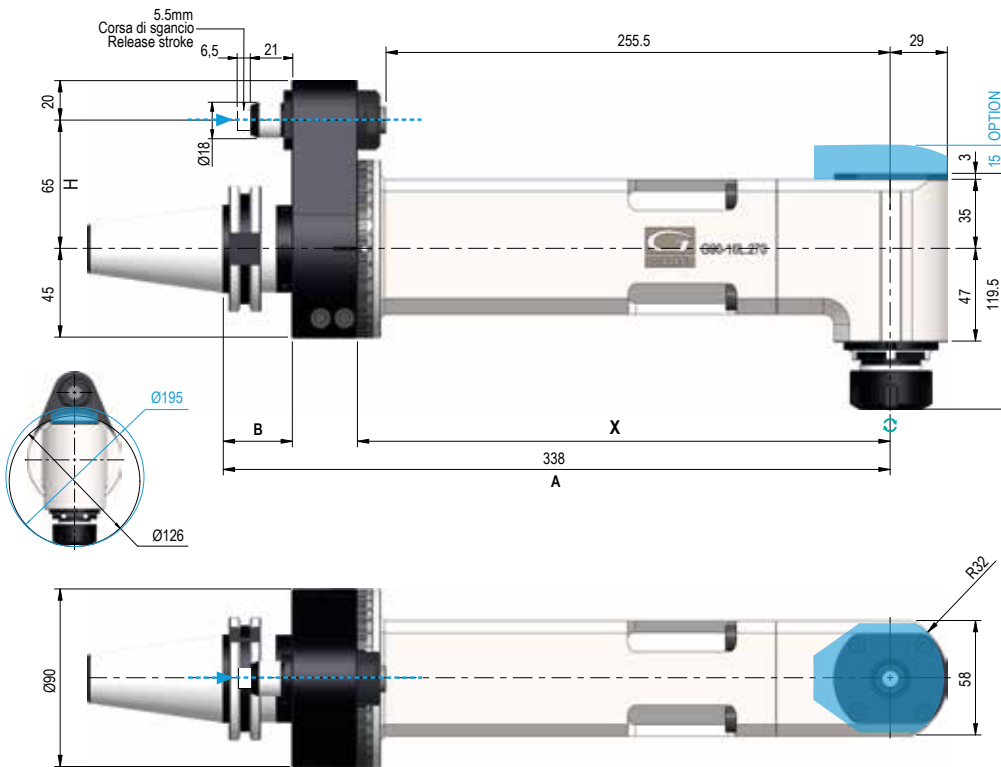
optional

**G90-16L 270**

TYPE 1

Code:

Price:



**Dati tecnici - Technical data**

	Ratio 1:1		Kg 8,9
	Rpm 8.000		Ø 16
	N 510		M 12
	Nm 24		ER25 Ø1/16

**POSSIBILITÀ DI LUNGHEZZE DIFFERENTI**  
POSSIBILITY OF DIFFERENT LENGHT



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		
	40	50	40	50	40	50	63	80	100	C5	C6	C8
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional		
H Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
H Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	338		338		338	344	345	348		341	343	
B	35		35		35	41	42	45		38	40	

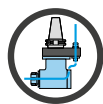
**Dotazione Standard**  
Standard Equipment

**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

**IMBALLO & PESO**

PACK & WEIGHT: Max. 10,5 Kg

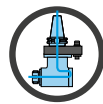


REFR. DAL PERNO  
COOLANT PIN THROUGH

**DRY RUNNING POSSIBLE**

Max 10 bar

optional



REFR. DAL PERNO  
COOLANT PIN THROUGH

**DRY RUNNING NOT POSSIBLE**

Max 40 bar

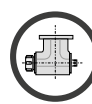
optional



USCITA  
OUTPUT

Weldon Max Ø16

optional



DOPPIA USCITA  
DOUBLE OUTPUT

ER25 - ER16 M

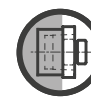
optional



USCITA  
OUTPUT

Toolholder Ø16

optional



USCITA  
OUTPUT

HSK 32

optional



**G90-30L 287**

TYPE 3

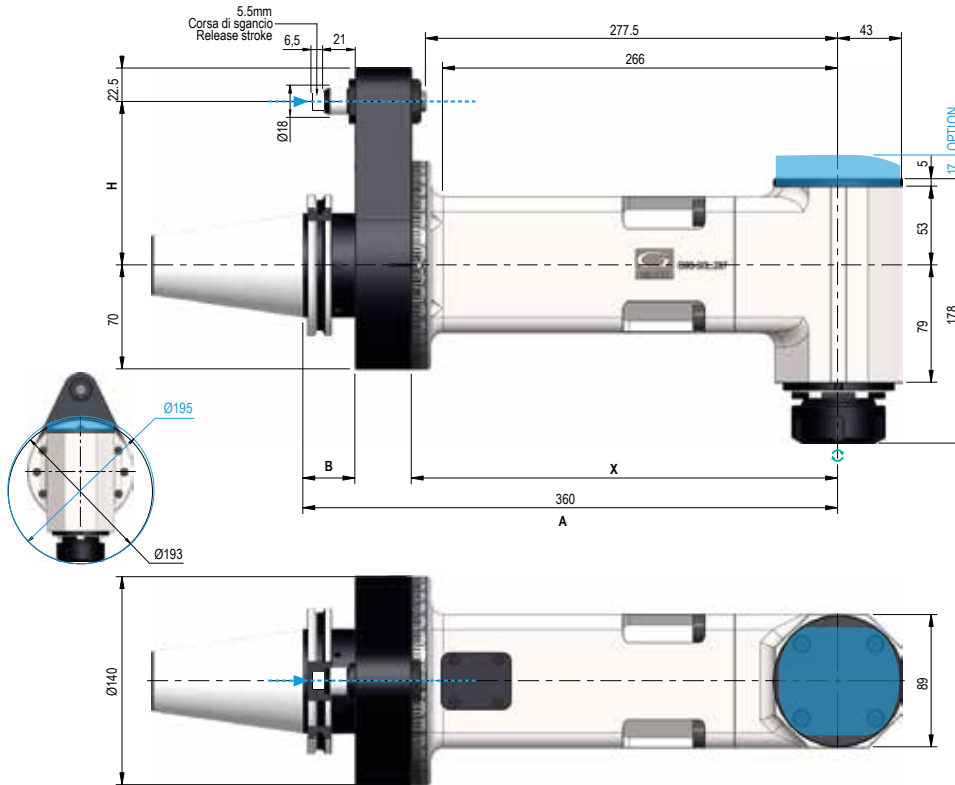
Code:

Price:



**Dati tecnici - Technical data**

- Ratio 1:1
- Kg 22,5
- Rpm 4.000
- Ø 30
- N 1750
- M 20
- Nm 75
- ER40 Ø3/30



**POSSIBILITÀ DI LUNGHEZZE DIFFERENTI**  
POSSIBILITY OF DIFFERENT LENGHT



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
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
<b>H</b> Standard Ø28	110	110	110	110	110	110
<b>A</b>	360	360	366	367	370	365
<b>B</b>	35	35	41	42	45	40

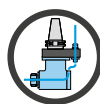
**Dotazione Standard**  
Standard Equipment

**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**

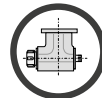
PACK & WEIGHT: Max. Kg



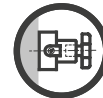
REFR. DAL PERNO  
COOLANT PIN THROUGH  
**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional



USCITA OUTPUT  
Weldon Max Ø25  
optional



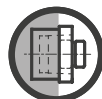
DOPPIA USCITA  
DOUBLE OUTPUT  
ER40 - ER25M  
optional



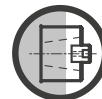
USCITA OUTPUT  
Portafresa  
Toolholder Ø27  
optional



USCITA OUTPUT  
C4  
optional



USCITA OUTPUT  
HSK 40  
optional



USCITA OUTPUT  
ISO 30  
optional



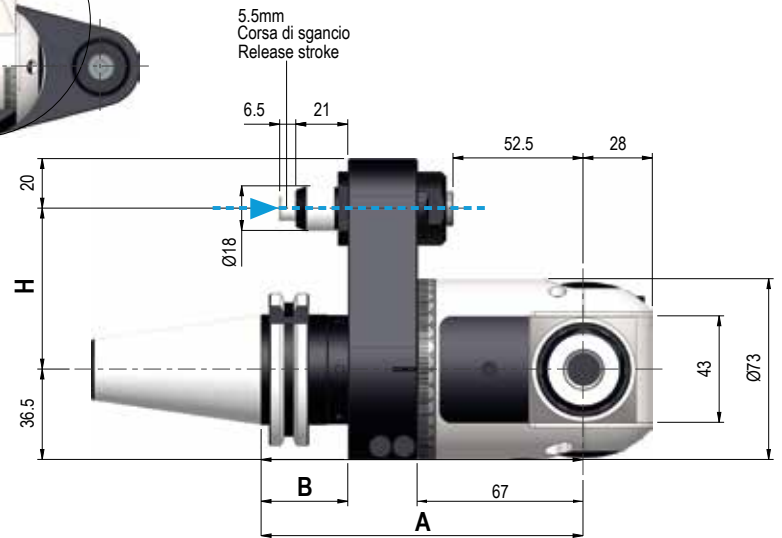
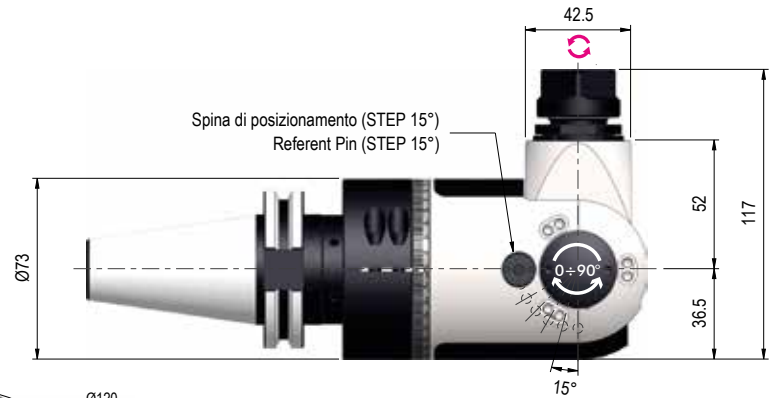
ALTA VELOCITÀ  
HIGH SPEED  
6.000 Rpm  
optional

# GMU-13

TYPE 0

Code: **9.GMU.13000**

Price:



### Dati tecnici - Technical data



Ratio  
1:1



Kg 4.20



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	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80			80
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	130		130		130	136	137	140	133			135	
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



USCITA  
OUTPUT  
Weldon Max Ø16

optional



ALTA VELOCITÀ  
HIGH SPEED

6.000 Rpm

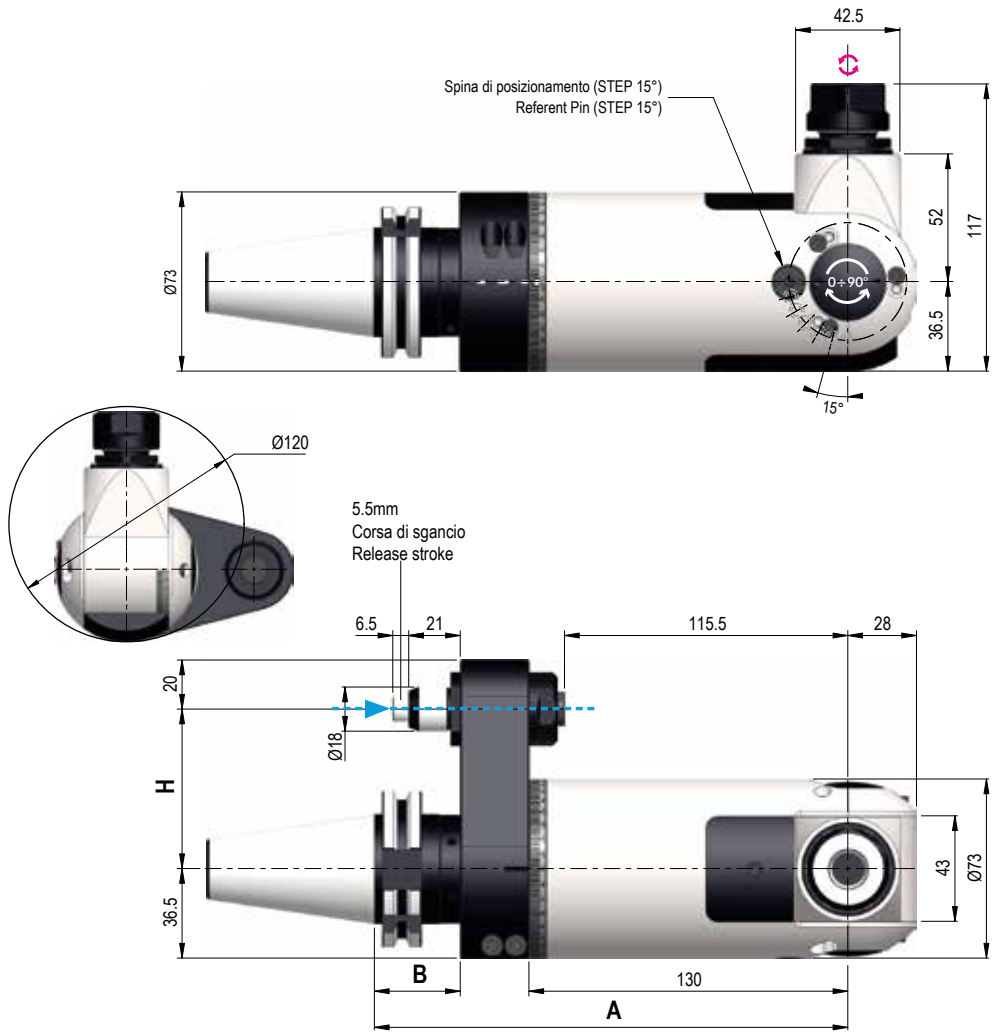
optional



SPINA POSIZIONE RAPIDA  
QUICK POSITIONING PIN

Angolazioni personalizzate  
Customized angles

optional



**GMU-13L**

TYPE 0

Code:

9.GMU.13L00

Price:



**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



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		
	40	50	40	50	40	50	63	80	100	C5	C6	C8
Grandezza -Size												
Prezzo EXTRA Price €	std		std		std		optional	optional	optional	optional		
H												
Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		
Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	193		193		188	193	199	200	203	196		198
B	35		35		30	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



USCITA OUTPUT  
Weldon Max Ø20

optional

ALTA VELOCITÀ  
HIGH SPEED

6.000 Rpm

optional



SPINA POSIZIONE RAPIDA  
QUICK POSITIONING PIN

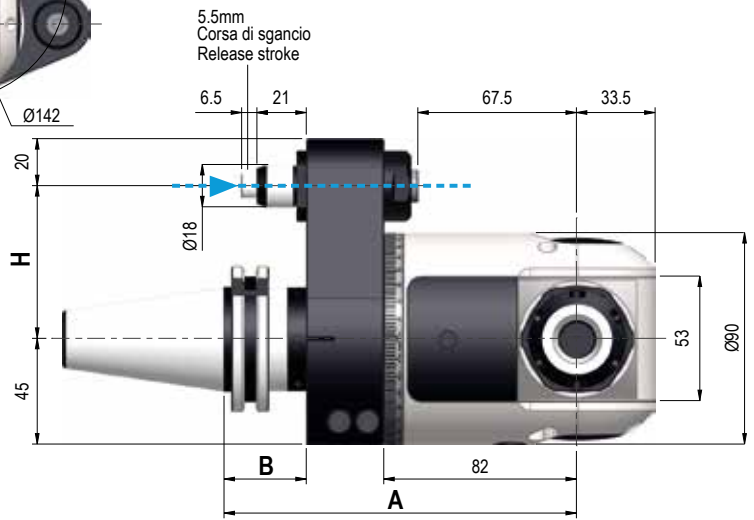
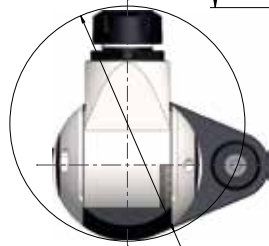
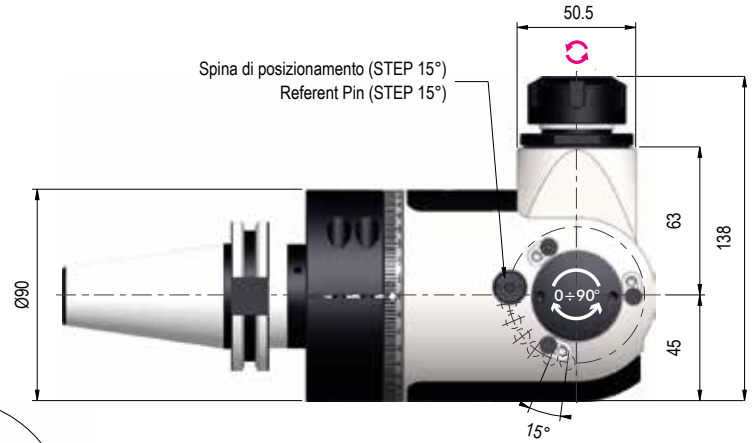
Angolazioni personalizzate  
Customized angles

optional

# GMU-16

TYPE 1

Code: **9.GMU.16000**  
Price:



### 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



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
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional		
Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		
H Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
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.12,5 Kg



### Opzioni - Options



USCITA  
OUTPUT  
Weldon Max Ø16

optional



ALTA VELOCITÀ  
HIGH SPEED

6.000 Rpm

optional



SPINA POSIZIONE RAPIDA  
QUICK POSITIONING PIN

Angolazioni personalizzate  
Customized angles

optional



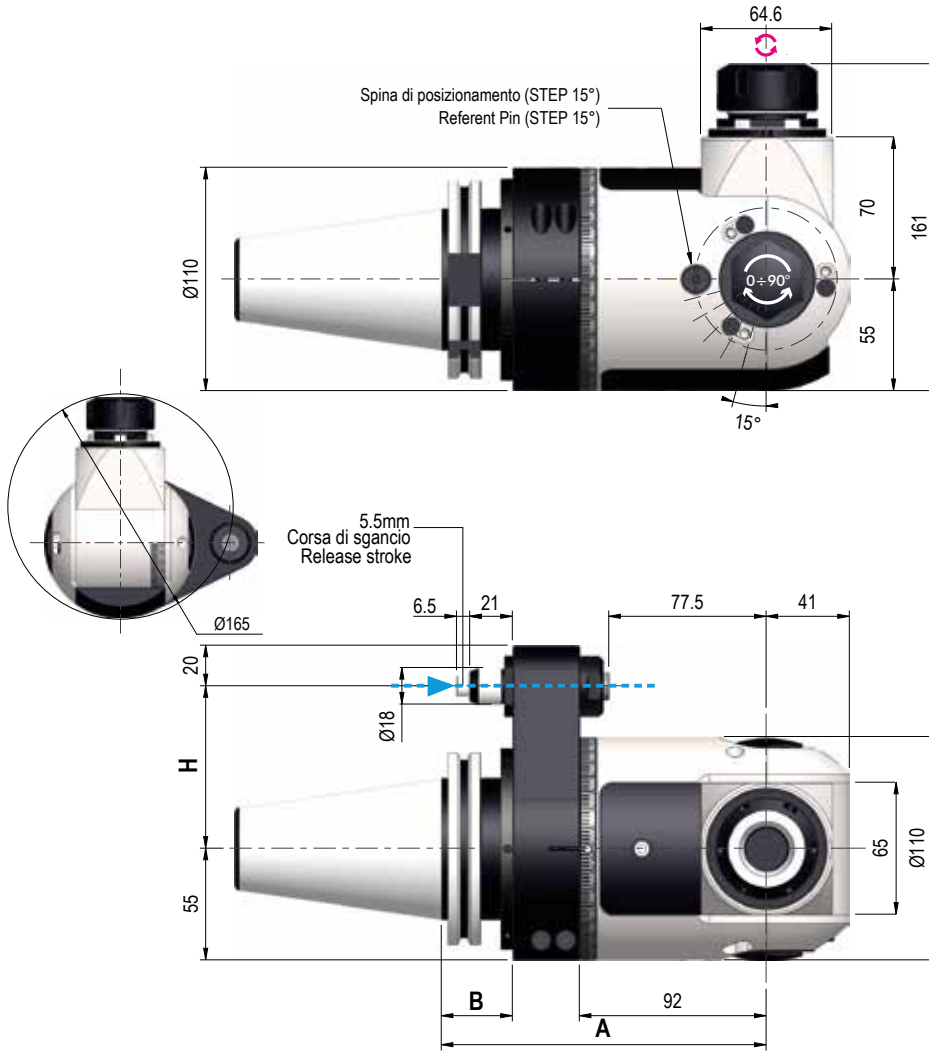
**GMU-20**

TYPE 2

Code:

9.GMU.20000

Price:



**Dati tecnici - Technical data**



Ratio  
1:1



Kg 13



Rpm  
4.000



Ø 20



N 715



M 16



Nm 32



ER-32  
Ø2/20



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
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
H	Standard	80	80	80		80
	Optional 110 EXTRA Price €	optional	optional	optional	optional	optional
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 -  
Chiodi di servizio - Tubetto di grasso -  
Libro istruzioni  
Special bag - Stop-block - ER nut -  
Wrenches - Grease tube - Instruction book

**IMBALLO & PESO**

PACK & WEIGHT: Max. Kg



USCITA  
OUTPUT  
Weldon Max Ø20

optional



ALTA VELOCITÀ  
HIGH SPEED

6.000 Rpm

optional



SPINA POSIZIONE RAPIDA  
QUICK POSITIONING PIN

Angolazioni personalizzate  
Customized angles

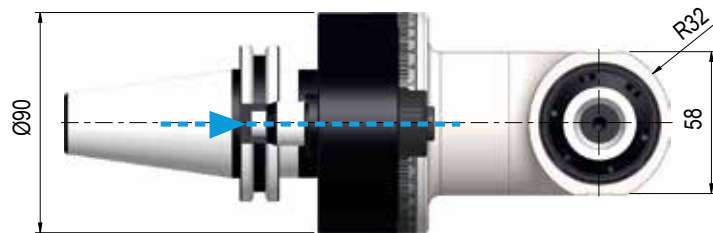
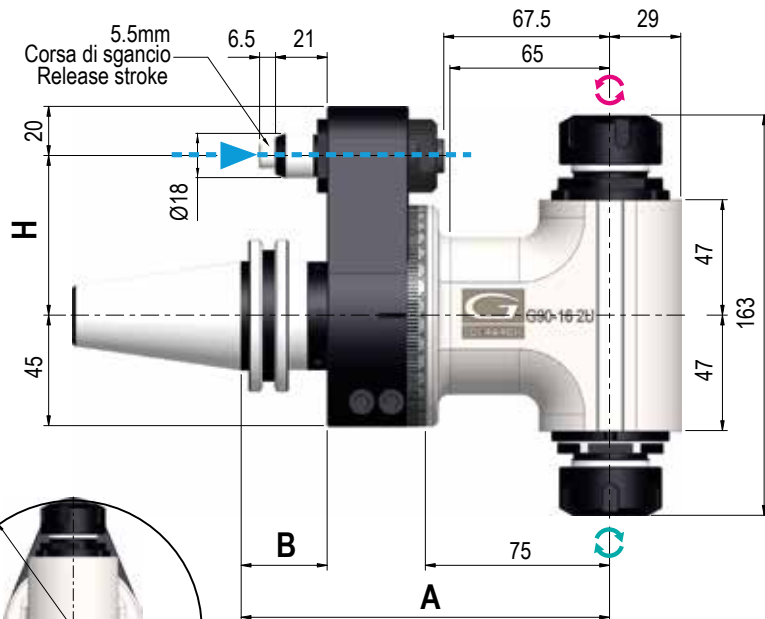
optional

# G90-16-2U

TYPE 1

Code: 9.G90.162U0

Price:



**Dati tecnici - Technical data**

Ratio 1:1	Kg 6,4
Rpm 4.000	Ø 16
N 510	M 12
Nm 24	ER-25 Ø1/16

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			
	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	150		150		150	156	157		160	153		155	
B	35		35		35	41	42		45	38		40	

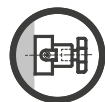
**Dotazione Standard**  
Standard Equipment

**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



USCITA OUTPUT  
Portafresa  
Toolholder Ø16 (X2)

optional



USCITA OUTPUT  
Weldon Max Ø16 (X2)

optional



ALTA VELOCITÀ  
HIGH SPEED

8.000 Rpm

optional

**G90-16L-2U**

TYPE 1

Code:

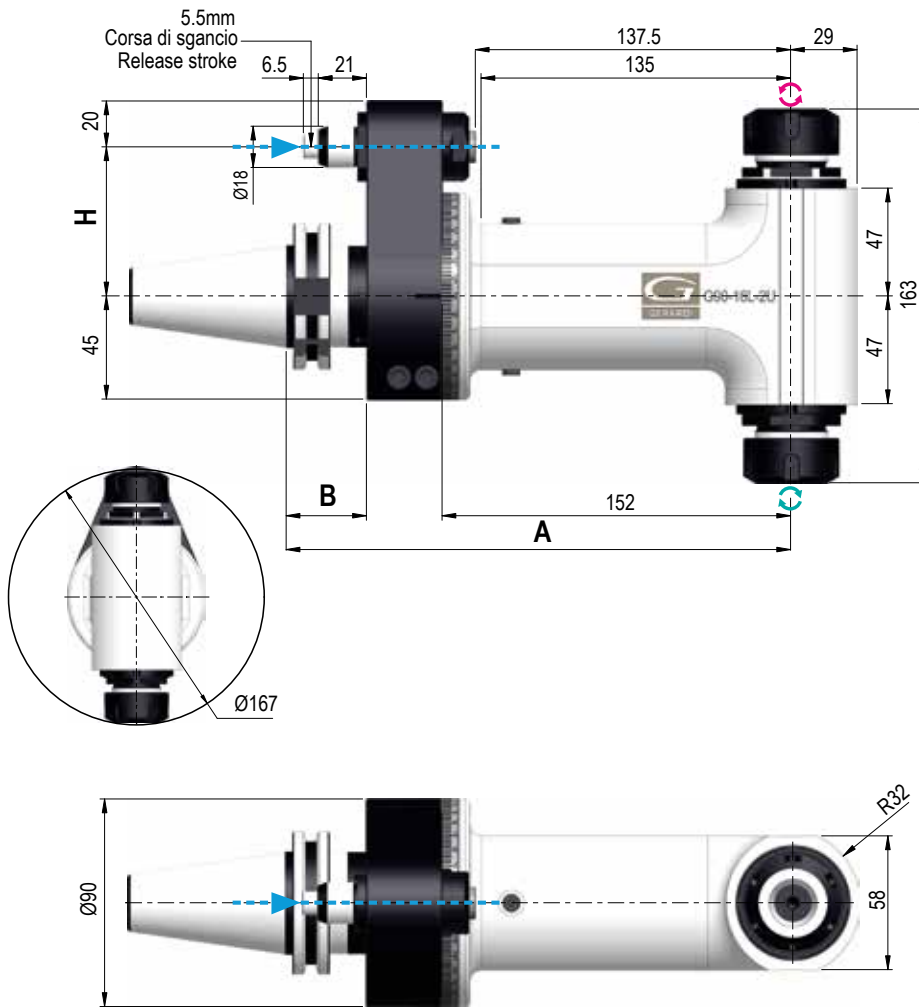
9.G90.16L2U0

Price:



**Dati tecnici - Technical data**

- Ratio 1:1
- Kg 13
- Rpm 4.000
- Ø 16
- N 510
- M 12
- Nm 24
- ER-25 Ø1/16



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		
	40	50	40	50	40	50	63	80	100	C5	C6	C8
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional		
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional	
A	220		220		220	226	227	230	223			
B	35		35		35	41	42	45	39			

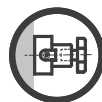
**Dotazione Standard**  
Standard Equipment

**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



USCITA  
OUTPUT  
Portafresa  
Toolholder Ø16 (X2)

optional



USCITA  
OUTPUT  
Weldon Max Ø16 (X2)

optional



ALTA VELOCITÀ  
HIGH SPEED

8.000 Rpm

optional

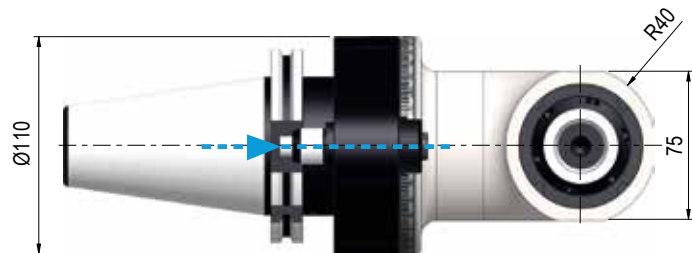
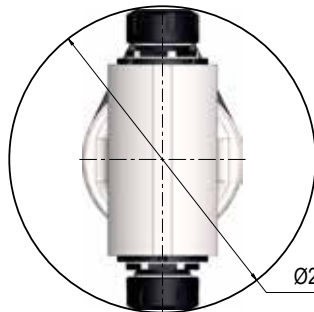
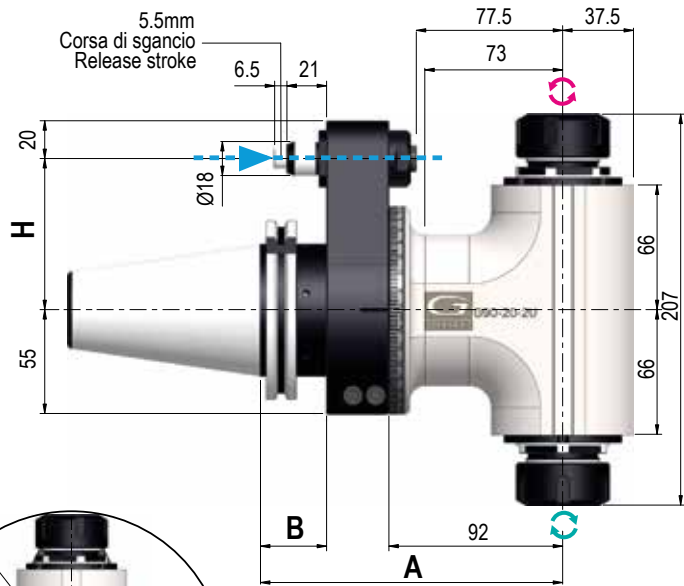
# G90-20-2U

TYPE 2

Code: **9.G90.202U0**

Price:

**NEW**



**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

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	
Grandezza - Size	50	50	50	63	80	100	C6	C8
Prezzo EXTRA Price €	std	std	std	std	optional	optional	optional	
H	Standard	80	80	80			80	
	Optional 110 EXTRA Price €	optional	optional	optional	optional			optional
A	160	160	166	167	170	163	165	
B	35	35	41	42	45	38	40	

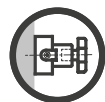
**Dotazione Standard**  
Standard Equipment

**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



USCITA OUTPUT  
Portafresa  
Toolholder Ø27 (X2)

optional

ALTA VELOCITÀ  
HIGH SPEED

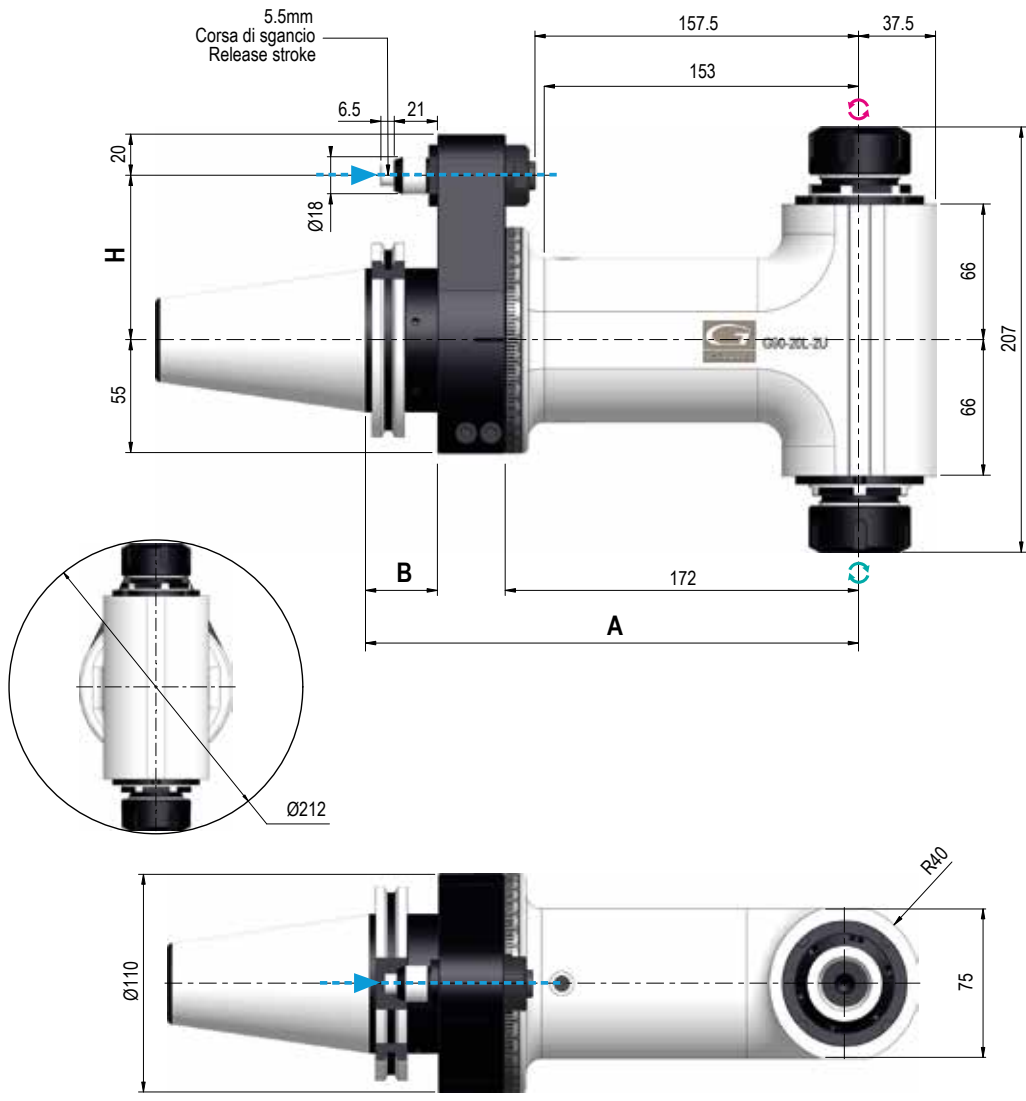
6.000 Rpm

optional



USCITA OUTPUT  
Weldon Max Ø20 (X2)

optional



**G90-20L-2U**

TYPE 2

Code:

9.G90.20L2U0

Price:



**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

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
Grandezza - Size	50	50	50	80 100	C6 C8
Prezzo EXTRA Price €	std	std	std	optional optional	optional
H Standard	80	80	80	80	80
H Optional 110 EXTRA Price €	optional	optional	optional	optional	optional
A	240	240	246	247 250	243 245
B	35	35	41	42 45	38 40

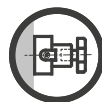
**Dotazione Standard**  
Standard Equipment

**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



USCITA OUTPUT  
Portafresa  
Toolholder Ø27 (X2)

optional



USCITA OUTPUT  
Weldon Max Ø20 (X2)

optional



ALTA VELOCITÀ  
HIGH SPEED

6.000 Rpm

optional

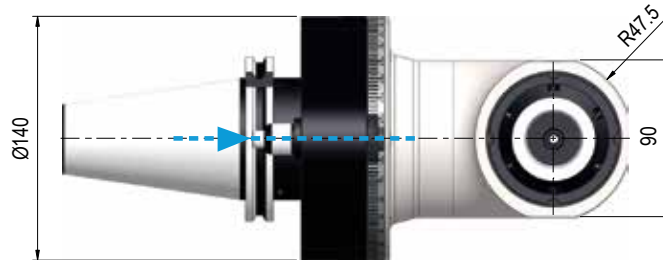
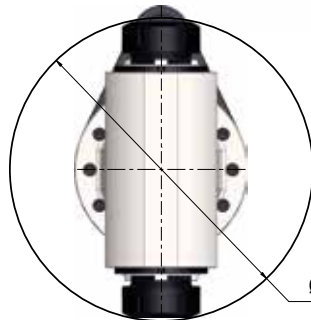
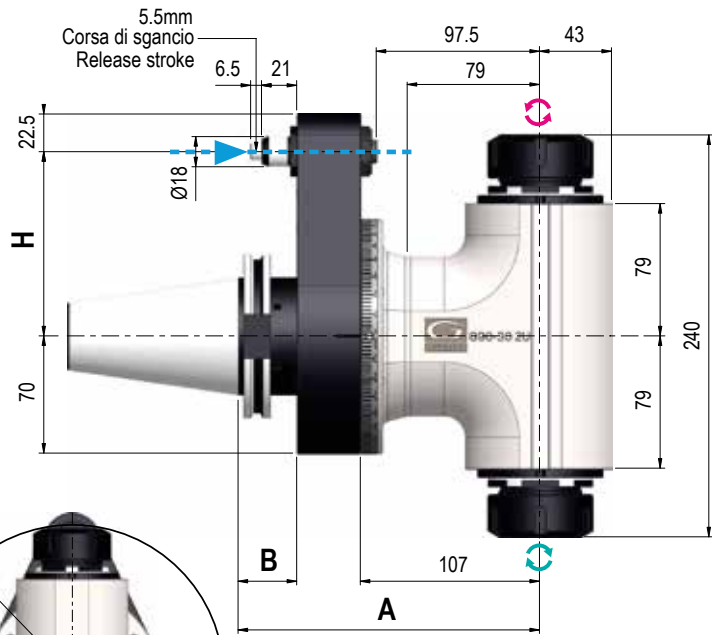
# G90-30-2U

TYPE 3

Code: **9.G90.302U0**

Price:

**NEW**



**Dati tecnici - Technical data**

Ratio 1:1	Kg 20
Rpm 4.000	Ø 30
N 1.750	M 20
Nm 75	ER-40 Ø3/30

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

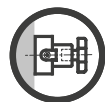
Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
<b>H</b> Standard Ø18	110	110	110	110		110
<b>A</b>	180	180	186	187	190	185
<b>B</b>	35	35	41	42	45	40

**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



USCITA OUTPUT  
Portafresa  
Toolholder Ø27 (X2)

optional



USCITA OUTPUT  
Weldon Max Ø25 (X2)

optional



ALTA VELOCITÀ  
HIGH SPEED

6.000 Rpm

optional

**G90-30L-2U**

TYPE 3

Code:

9.G90.30L2U0

Price:



**Dati tecnici - Technical data**



Ratio  
1:1



Kg 23



Rpm  
4.000



Ø 30



N 1.750



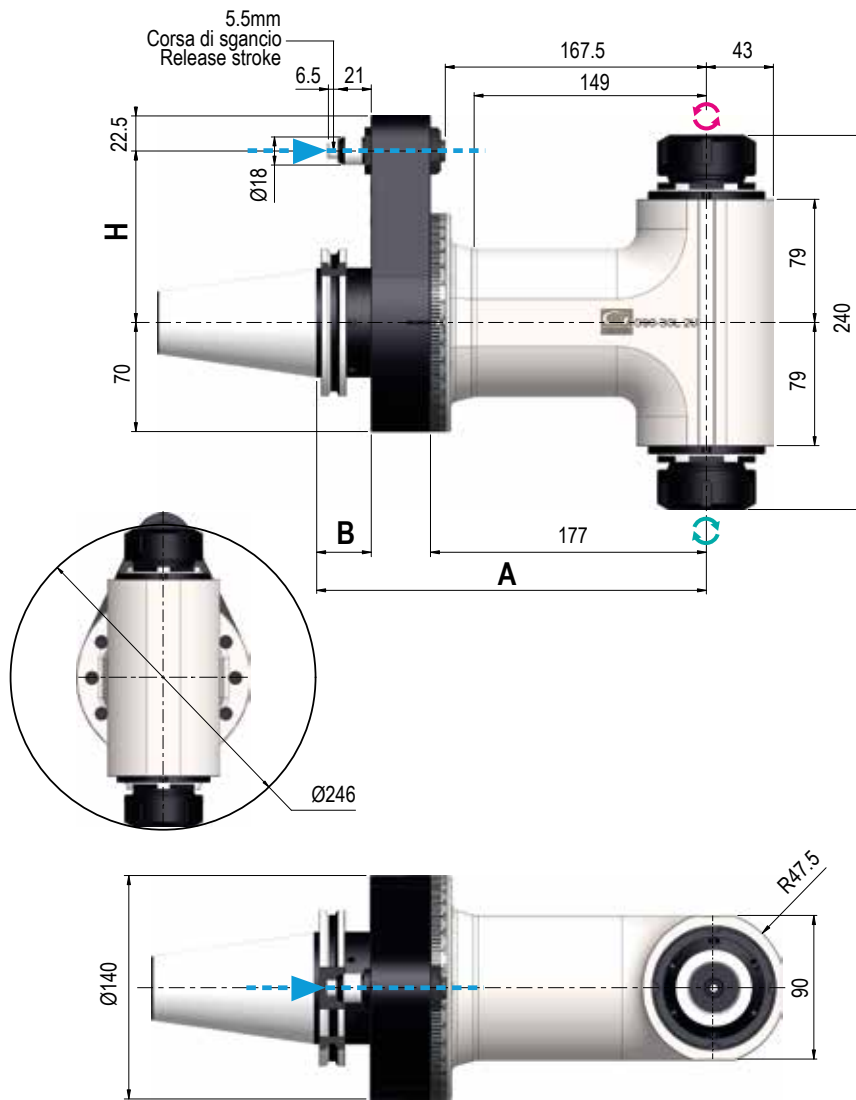
M 20



Nm 75



ER-40  
Ø3/30



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	
Grandezza - Size	50	50	50	80	100	C8
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
H Standard Ø18	110	110	110	110	110	110
A	250	250	256	257	260	255
B	35	35	41	42	45	40

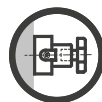
**Dotazione Standard**  
Standard Equipment

**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



USCITA OUTPUT  
Portafresa  
Toolholder Ø27 (X2)

optional



ALTA VELOCITÀ  
HIGH SPEED

6.000 Rpm

optional



USCITA OUTPUT  
Weldon Max Ø25 (X2)

optional

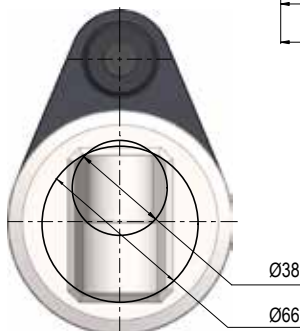
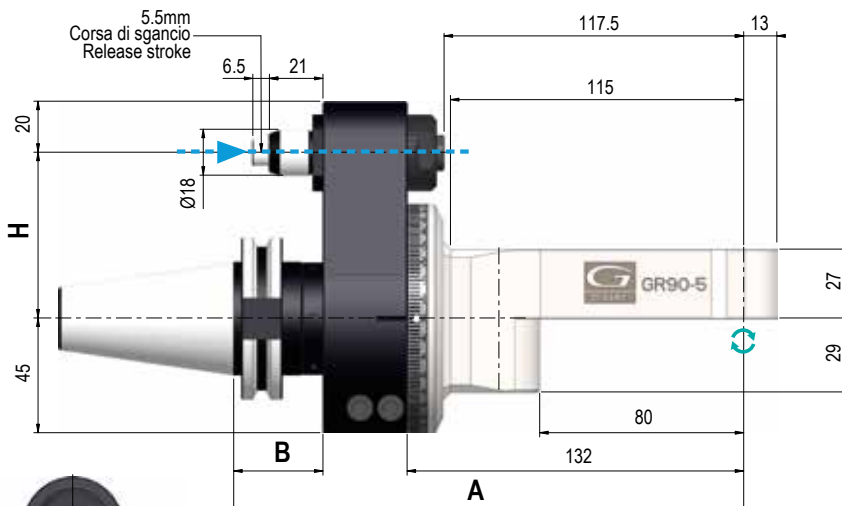
# GR90-5

TYPE 1

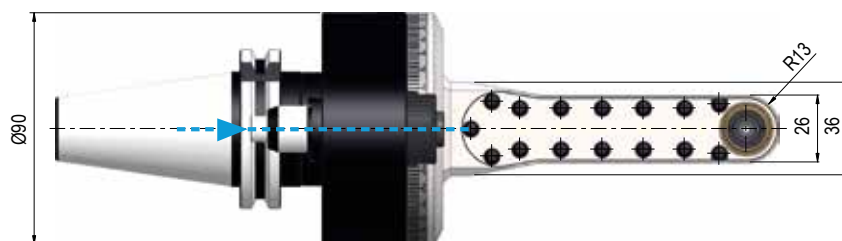
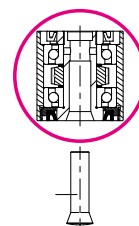
Code: **9.GR9.05000**

Price:

**NEW**



Pinza / Collet  
**SCHAUBLIN P6**



**Dati tecnici - Technical data**



Ratio  
1:1



Kg 4,7



Rpm  
8.000



Ø 4,5



N 140



M 4



Nm 9



SCHAUBLIN P6  
Ø0.3/5



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			
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size	opt.	std	std	std	std	opt.	std	std	optional	optional	optional	optional			
Prezzo EXTRA Price €															
Standard	65 / 80		80	65 / 80		80	65 / 80			80	65 / 80		80		
H Optional 110 EXTRA Price €	optional			optional		optional			optional			optional			
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

USCITA  
OUTPUT

**IMBALLO & PESO**

PACK & WEIGHT: Max. Kg

Schaublin





**GR90-10**

TYPE 1

Code:

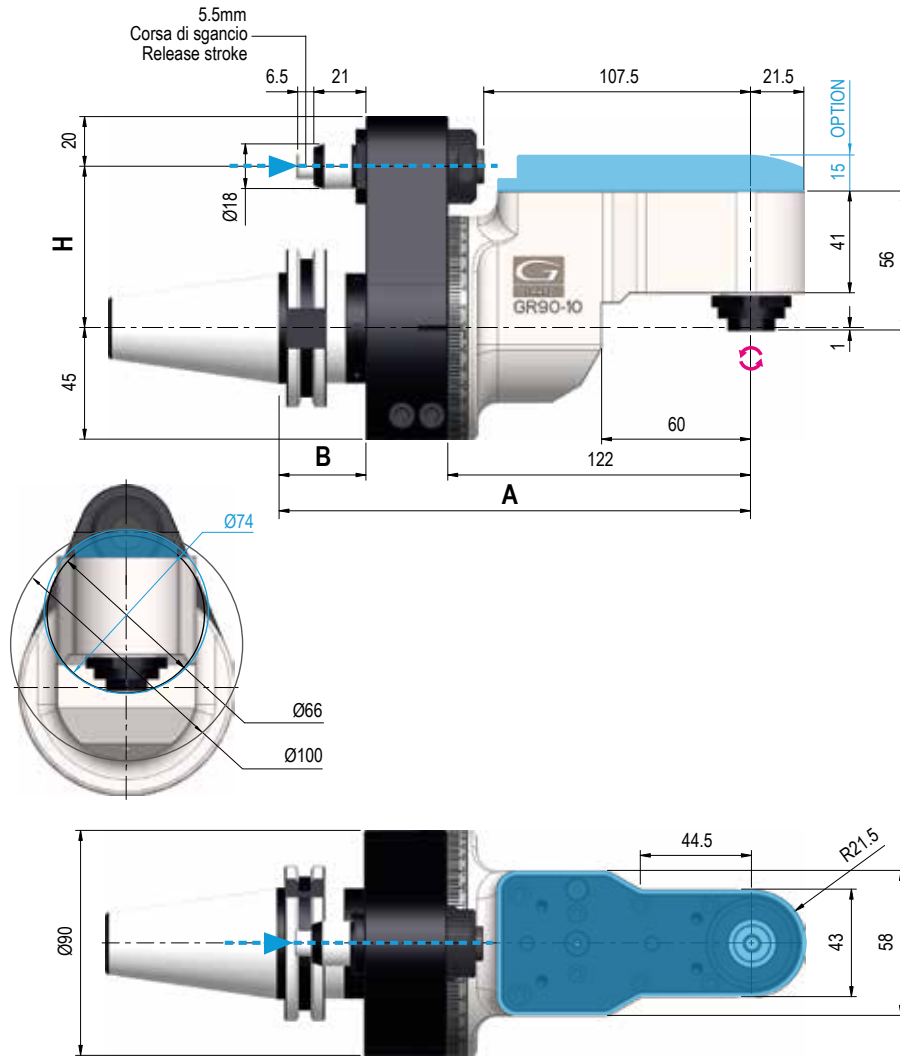
9.GR9.10000

Price:



**Dati tecnici - Technical data**

- Ratio 1:1,6
- Kg 6,2
- Rpm 4.000
- Ø 10
- N 620
- M 8
- Nm 20
- ER16 Ø1/10



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			C. ISO 26623			
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	190		190		190	196	197	200	193		195		
B	35		35		35	41	42	45	38		40		

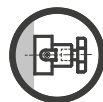
**Dotazione Standard**  
Standard Equipment

**Opzioni - Options**

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

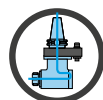
**IMBALLO & PESO**

PACK & WEIGHT: Max. Kg



USCITA  
OUTPUT  
Portafresa  
Toolholder Ø27 (X2)

optional



REFR. DAL CONO  
COOLANT THROUGH SHANK

DRY RUNNING NOT POSSIBLE

Max 70 bar

optional



USCITA  
OUTPUT  
Weldon Max Ø25 (X2)

optional



ALTA VELOCITÀ  
HIGH SPEED

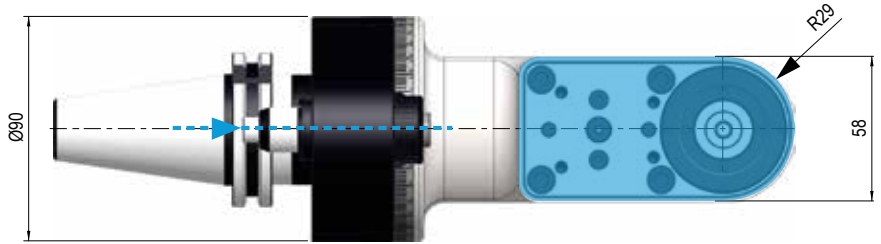
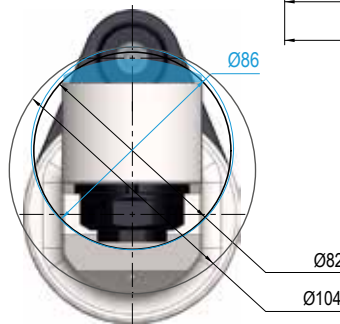
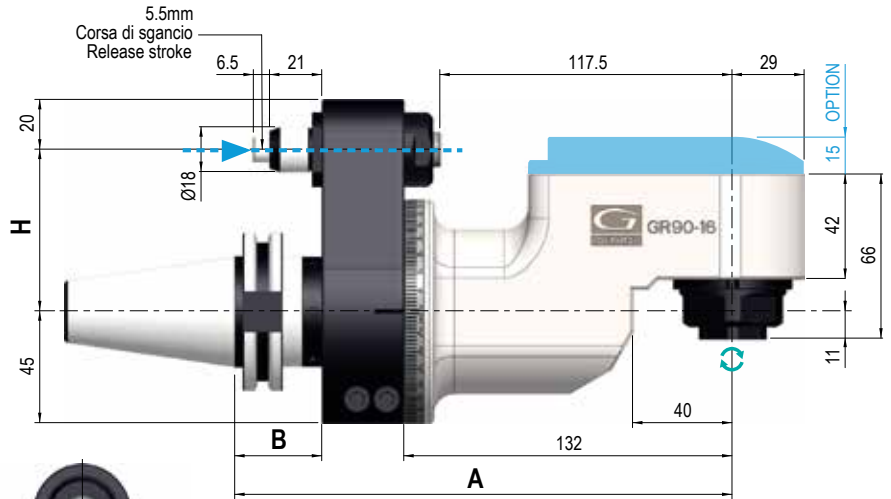
8.000 Rpm

optional

# GR90-16

TYPE 1

Code: **9.GR9.16000**  
Price:



**Dati tecnici - Technical data**

	Ratio 1:1		Kg 6
	Rpm 4.000		Ø 16
	N 620		M 12
	Nm 20		ER-25 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	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	std	std	std	std	std	std	optional	optional	optional	optional			
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
	Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	200		200		200	206	207		210	203		205	
B	35		35		35	41	42		45	38		40	

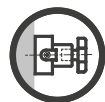
**DOTAZIONE STANDARD**  
STANDARD EQUIPMENT

**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



USCITA OUTPUT  
Portafresa Toolholder Ø16

optional



USCITA OUTPUT  
Weldon Max Ø16

optional



REFR. DAL CONO COOLANT THROUGH SHANK

DRY RUNNING NOT POSSIBLE

Max 70 bar

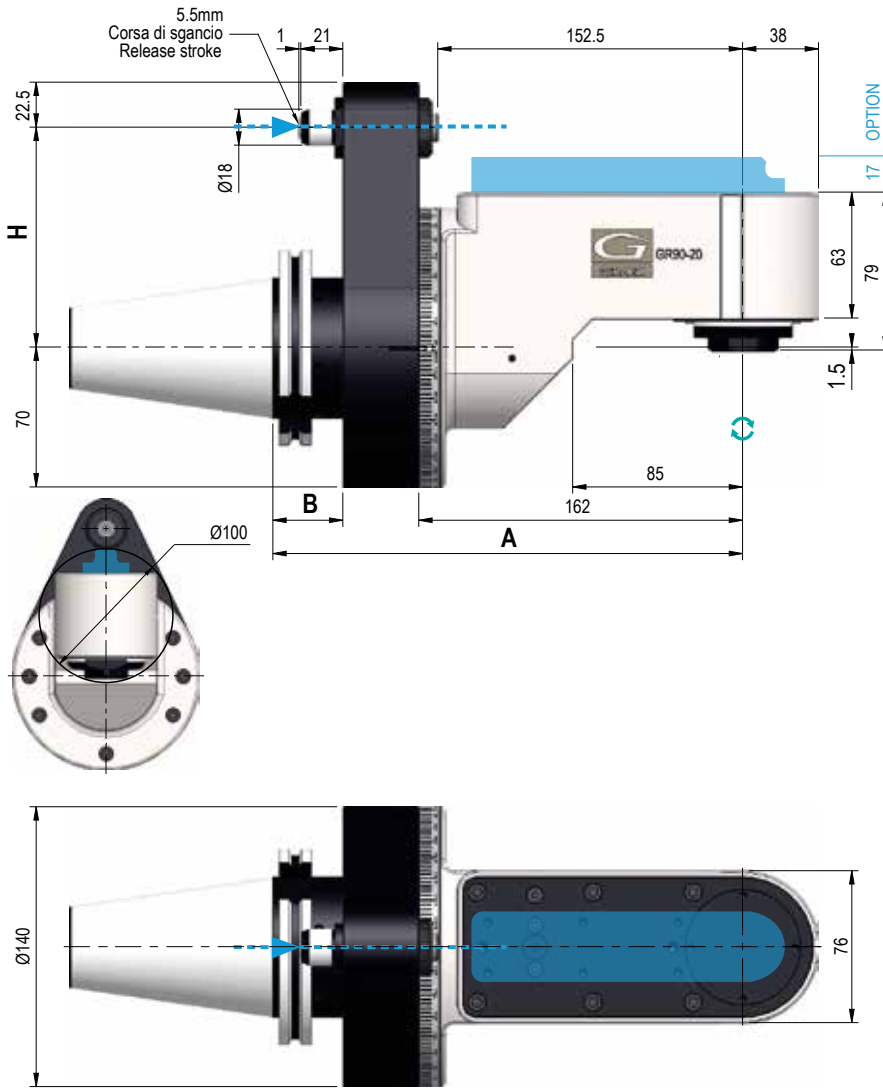
optional



ALTA VELOCITÀ HIGH SPEED

8.000 Rpm

optional



**GR90-20**

TYPE 3

Code:

9.GR9.20000

Price:



**Dati tecnici - Technical data**

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



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
Prezzo EXTRA Price €	std	std	std	optional	optional
H Standard Ø18	110	110	110	110	110
A	235	235	241	245	240
B	35	35	41	45	40

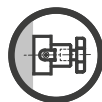
**Dotazione Standard**  
Standard Equipment

**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**

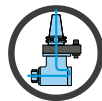
PACK & WEIGHT: Max. Kg



USCITA OUTPUT

Portafresa Toolholder Ø16

optional



REFR. DAL CONO COOLANT THROUGH SHANK

DRY RUNNING NOT POSSIBLE

Max 70 bar

optional



USCITA OUTPUT

Weldon Max Ø16

optional



ALTA VELOCITÀ HIGH SPEED

8.000 Rpm

optional

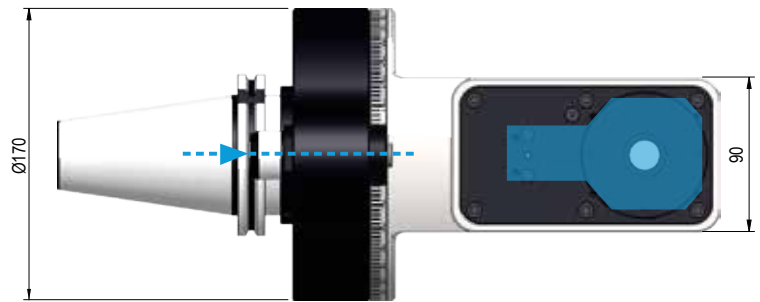
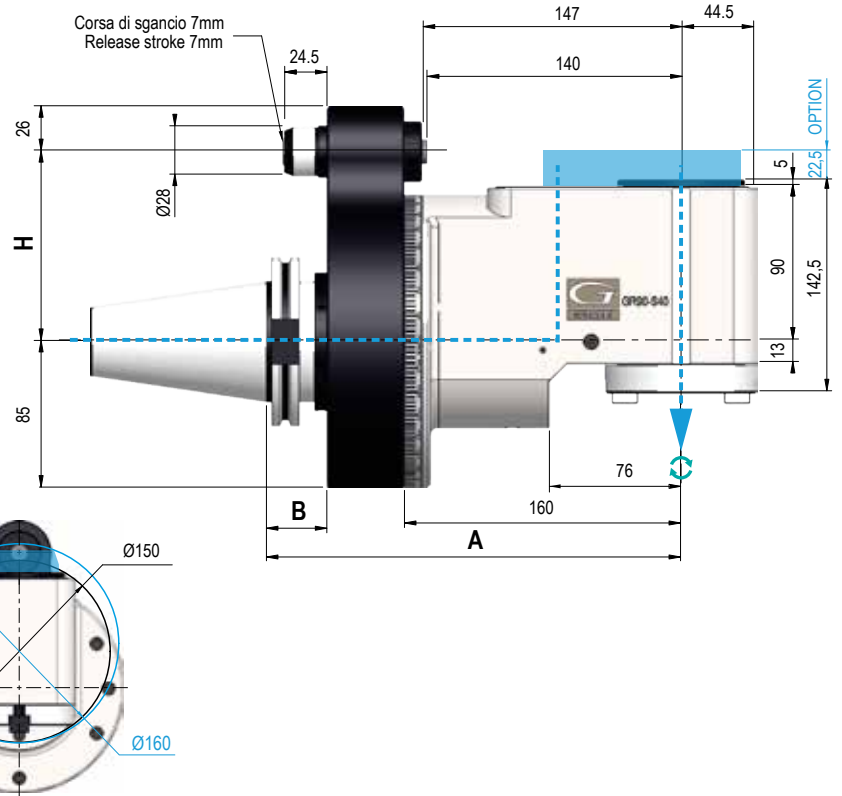
# GR90-S40

TYPE 4

Code:

9.GR9.S4000

Price:



**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



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
Prezzo EXTRA Price €	std	std	std	optional	optional
<b>H</b> Standard Ø18	110	110	110	110	110
<b>A</b>	240	240	246	250	245
<b>B</b>	35	35	41	45	40

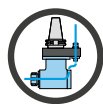
**Dotazione Standard**  
Standard Equipment

**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



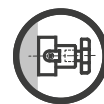
REFR. DAL PERNO COOLANT PIN THROUGH  
**DRY RUNNING POSSIBLE**  
Max 10 bar  
optional



USCITA OUTPUT  
Weldon Max Ø26  
optional



DOPPIA USCITA DOUBLE OUTPUT  
C4 C5  
opt. opt.



USCITA OUTPUT  
Portafresa Toolholder Ø27  
optional



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



USCITA OUTPUT  
HSK 63  
optional



ALTA VELOCITÀ HIGH SPEED  
5.000 Rpm  
optional

Esempi applicativi / Applications examples

# Linea Classic / Classic Line

## Teste angolari integrali serie MTC (Cambio utensile manuale)

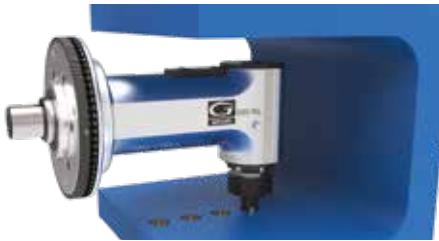
Integral angle heads MTC series (Manual tool change)



### *series* STD 90°

La serie ideale per fresature, forature e maschiature a  $\pm 90^\circ$

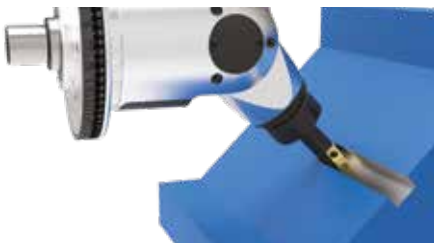
The ideal series for milling, drilling and tapping at  $\pm 90^\circ$ .



### *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  $90^\circ$ .

Angle heads series with adjustable angle from 0 to  $90^\circ$ .



### *series* GMU

La serie di teste angolari con angolazione regolabile da 0 a  $360^\circ$ .

Angle heads series with adjustable angle from 0 to  $360^\circ$ .



### *series* DOUB2E

La serie di teste angolari ideali per fresature, forature e maschiature attraverso 2 mandrini contrapposti di  $180^\circ$

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

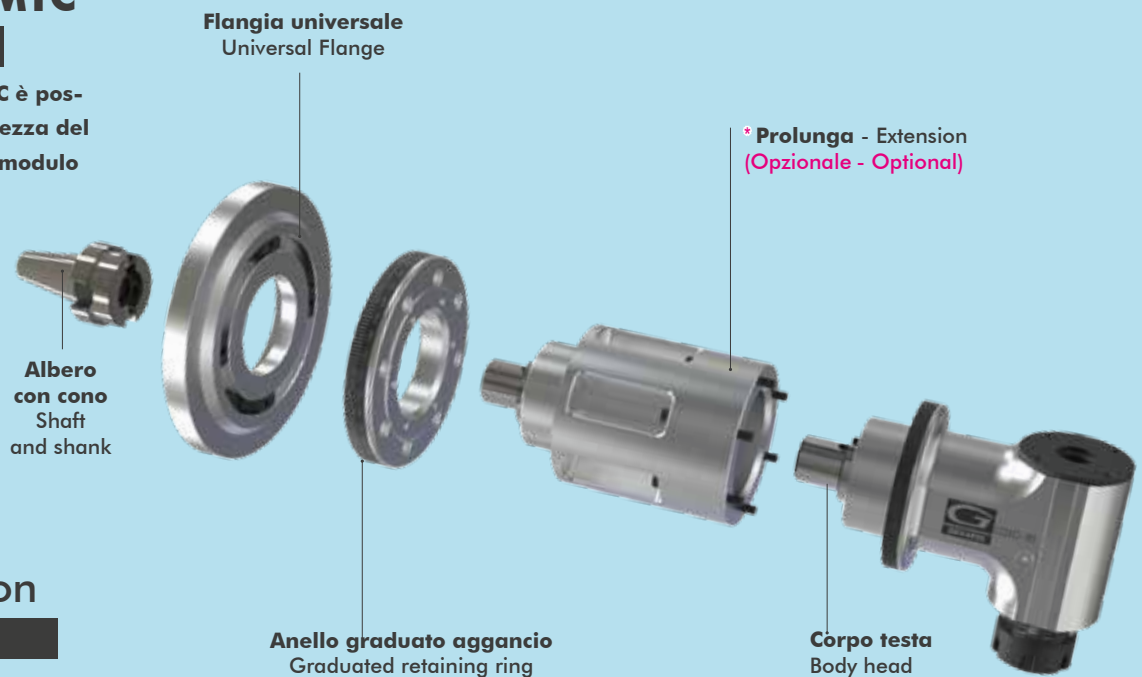
## PROLUNGHE MTC MTC EXTENSIONS



### Prolunghe MTC

pag 1.87

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



### MTC Extension

pag 1.87

On MTC series is possible to extend the length of the body by adding an extension

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). **Massimo 2 elementi di prolunga ammessi.**

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 length of the body by adding a \*extension (Optional). **Max. 2 extensions admitted.**

## 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**

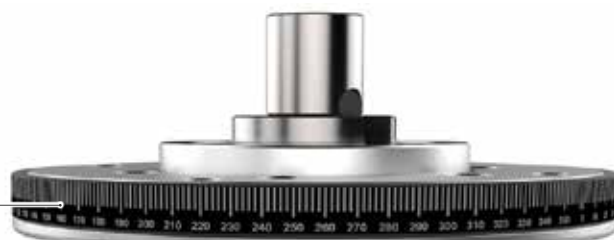
Angular contact preloaded ball bearings of precision class ABEC 9

## 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

**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

## USCITE OUTPUTS:

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

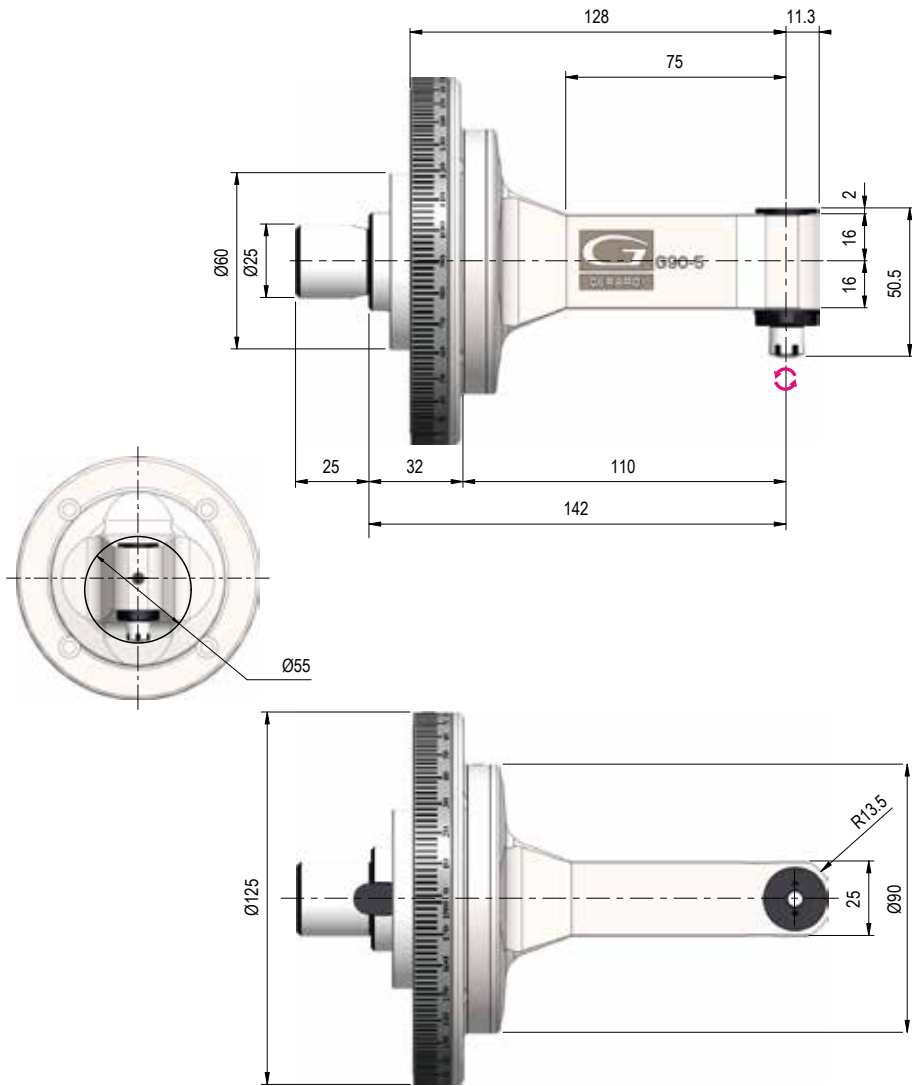


**E' la linea di teste adatte a macchine utensili tradizionali e da fissare al mandrino tramite flangiatura. La cava a "T" ricavata sulla flangia universale permette un facile posizionamento del corpo testa sui 360° intorno al suo asse verticale. Un sistema modulare componibile, rende possibile variare la lunghezza del corpo testa aggiungendo l'elemento di prolunga. Modulo di prolunga, con 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 length 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.







**G90-5**

TYPE 1

Code:

9.G90.05001

Price:



**Dati tecnici - Technical data**

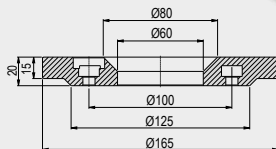
- Ratio 1:1
- Kg 4
- Rpm 10.000
- Ø 5
- N 60
- M 4
- Nm 4
- ER-8 Ø0,5/5



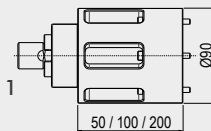
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 1



**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

**IMBALLO & PESO:**

PACK & WEIGHT: Max. Kg



Weldon Max Ø6

optional

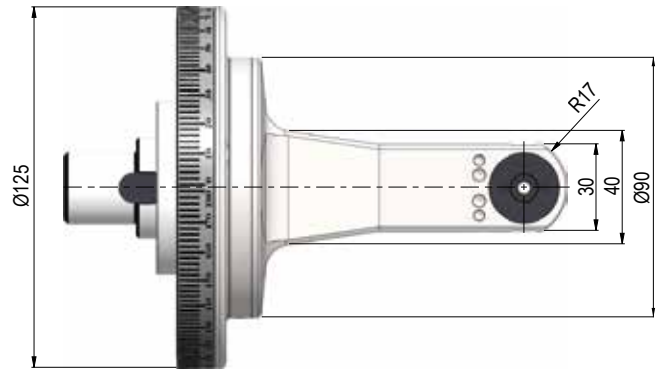
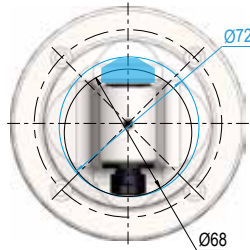
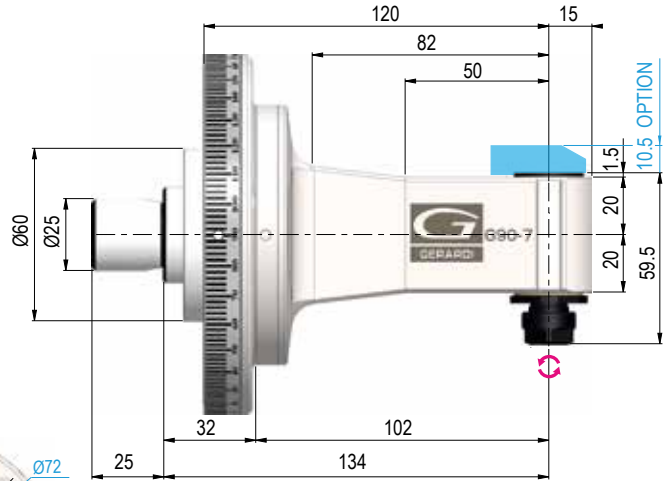


# G90-7

TYPE 1

Code: 9.G90.07001

Price:



### Dati tecnici - Technical data

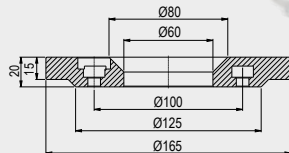
	Ratio 1:1		Kg 3,7
	Rpm 10.000		Ø 7
	N 120		M 6
	Nm 5		ER-11 Ø17



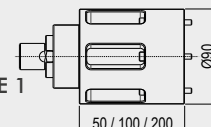
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	opt.	opt.	opt.	optional			optional	optional

### 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



### Opzioni - Options



REFR. DAL DISTRIBUTORE  
COOLANT THROUGH ROTATING DISTRIBUTOR

**DRY RUNNING POSSIBLE**

Max 10 Bar

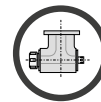
optional



USCITA  
OUTPUT

Weldon Max Ø8

optional



DOPPIA USCITA  
DOUBLE OUTPUT

ER11 - ER8 M

optional

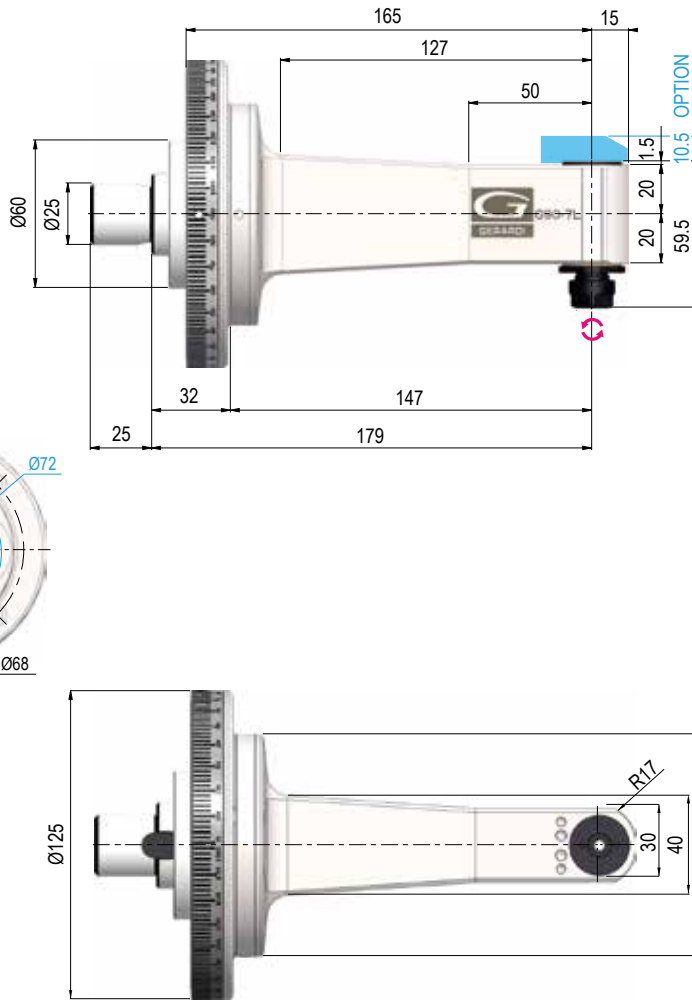
**G90-7L**

TYPE 1

Code:

9.G90.07L01

Price:



**Dati tecnici - Technical data**

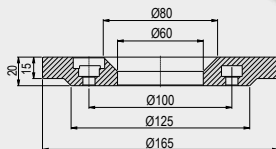
- Ratio 1:1
- Kg 4
- Rpm 10.000
- Ø 7
- N 120
- M 6
- Nm 5
- ER-11 Ø17



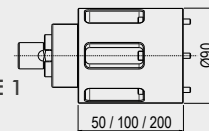
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

**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



**Opzioni - Options**



REFR. DAL DISTRIBUTORE  
COOLANT THROUGH ROTATING DISTRIBUTOR

**DRY RUNNING POSSIBLE**

Max 10 Bar

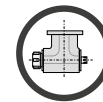
optional



USCITA  
OUTPUT

Weldon Max Ø8

optional

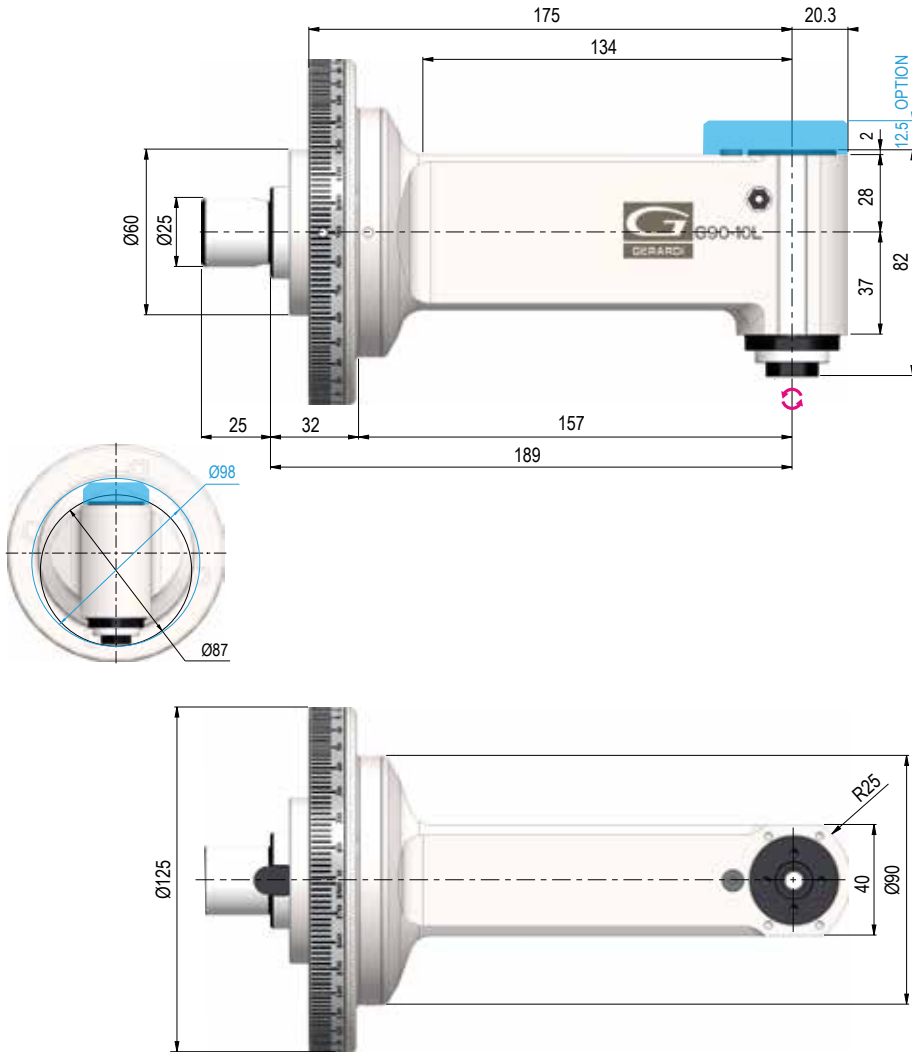


DOPPIA USCITA  
DOUBLE OUTPUT

ER11 - ER8 M

optional





**G90-10L**

TYPE 1

Code:

9.G90.10L01

Price:



**Dati tecnici - Technical data**

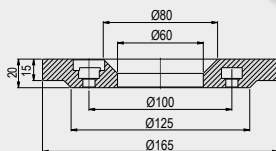
	Ratio 1:1		Kg 6
	Rpm 10.000		ER 16
	N 250		M 8
	Nm 10		ER-16 Ø1/10



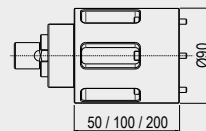
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

**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



**Opzioni - Options**



REFR. DAL DISTRIBUTORE  
COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE DRY RUNNING NOT POSSIBLE

Max 10 Bar

Max 40 bar

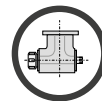
optional



USCITA  
OUTPUT

Weldon Max Ø10

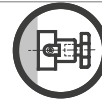
optional



DOPPIA USCITA  
DOUBLE OUTPUT

ER 16 / ER 11 M

optional



USCITA  
OUTPUT  
Portafresa - Toolholder  
Ø13

optional

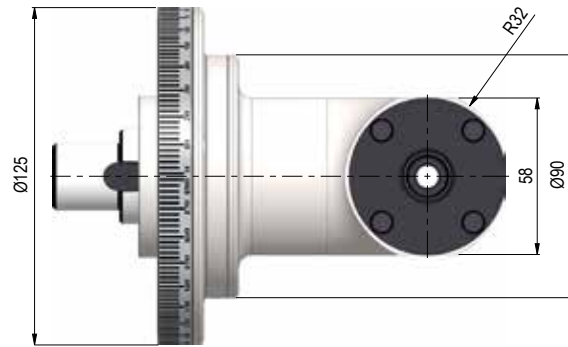
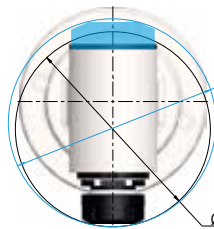
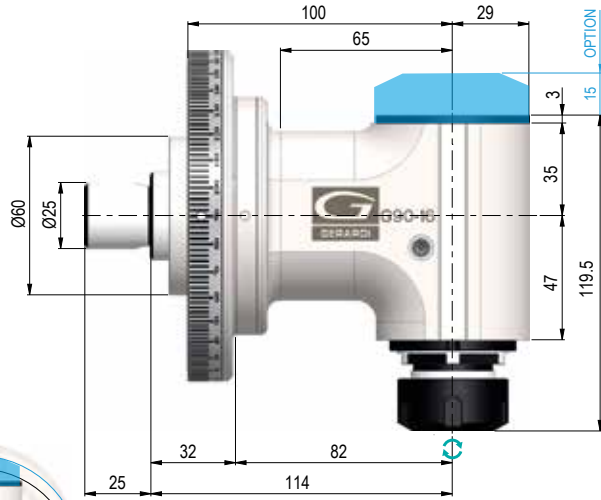
# G90-16

TYPE 1

Code:

9.G90.16001

Price:



### Dati tecnici - Technical data



Ratio  
1:1



Kg 4,5



Rpm  
8.000



Ø 16



N 510



M 12



Nm 24



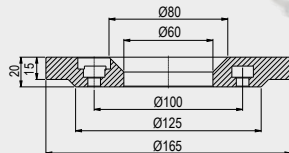
ER-25  
Ø1/16



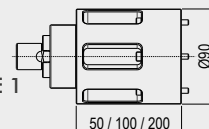
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

### Flangia Universale Universal Flange TIPO - TYPE 1



### Prolunga Extension TIPO - TYPE 1



### Dotazione Standard Standard Equipment

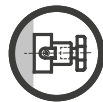
Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro Istruzioni  
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

### IMBALLO & PESO

PACK & WEIGHT: Max. Kg



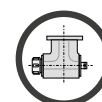
### Opzioni - Options



USCITA OUTPUT  
Portafresa - Toolholder  
Ø16  
**optional**



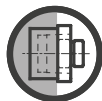
USCITA OUTPUT  
Weldon Max Ø16  
**optional**



DOPPIA USCITA  
DOUBLE OUTPUT  
ER 25/ ER 16 M  
**optional**



REFR. DAL DISTRIBUTORE  
COOLANT THROUGH ROTATING  
DISTRIBUTOR  
DRY RUNNING POSSIBLE  
Max 10 bar | DRY RUNNING NOT POSSIBLE  
Max 40 bar  
**optional**



USCITA OUTPUT  
HSK 32  
**optional**

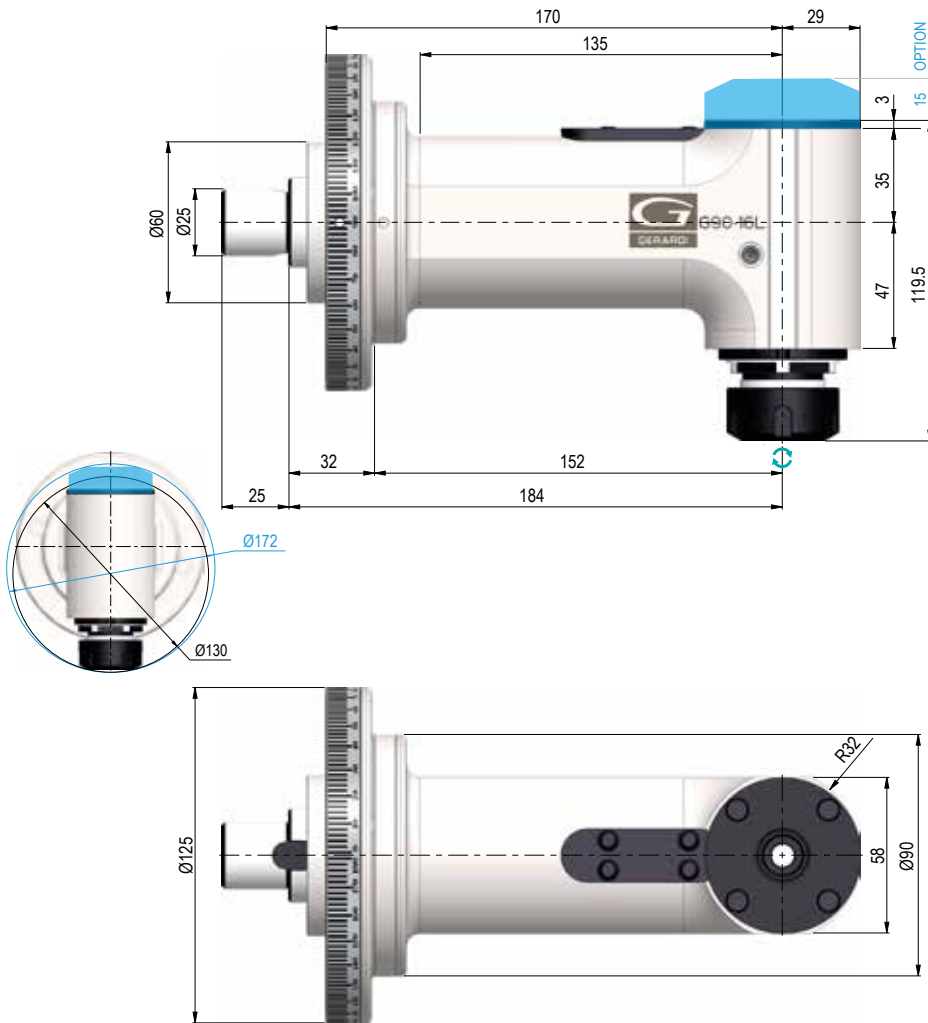
# G90-16L

TYPE 1

Code:

9.G90.16L01

Price:



### Dati tecnici - Technical data

Ratio 1:1	Kg 6,1
Rpm 8.000	Ø 16
N 510	M 12
Nm 24	ER-25 Ø1/16



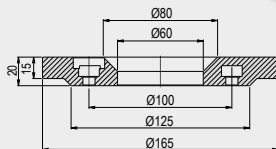
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

### Coni Shanks

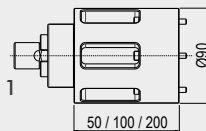


Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	opt.	opt.	opt.	optional			optional	optional

### Flangia Universale Universal Flange TIPO - TYPE 1



### Prolunga Extension TIPO - TYPE 1



### Dotazione Standard Standard Equipment

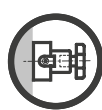
Valigetta - Flangia universale - Ghiera ER - Cono std - Chiavi di servizio - Tubetto di grasso - Libro istruzioni  
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

### IMBALLO & PESO

PACK & WEIGHT: Max. Kg



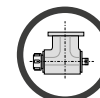
### Opzioni - Options



USCITA OUTPUT  
Portafresa - Toolholder Ø16  
optional



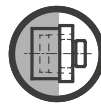
USCITA OUTPUT  
Weldon Max Ø16  
optional



DOPPIA USCITA DOUBLE OUTPUT  
ER 25/ ER 16 M  
optional



REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR  
DRY RUNNING POSSIBLE Max 10 bar | DRY RUNNING NOT POSSIBLE Max 40 bar  
optional

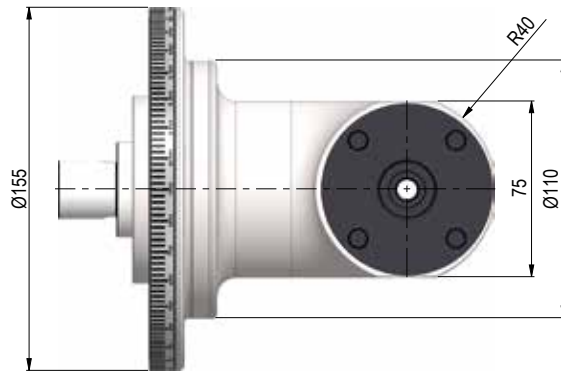
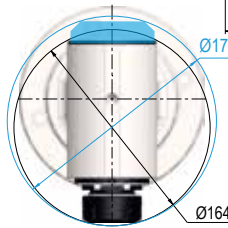
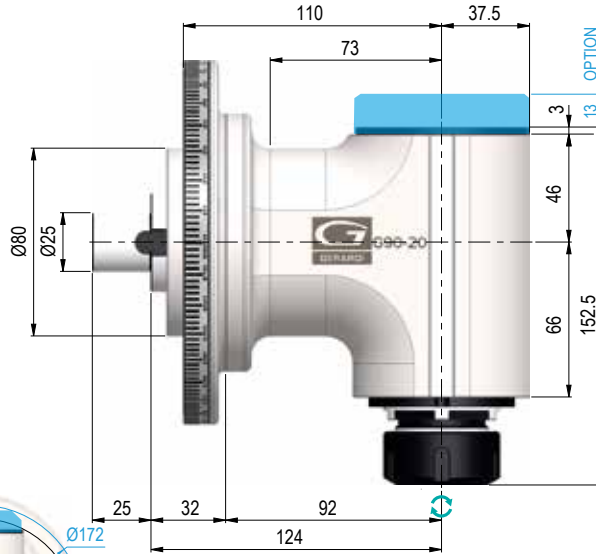


USCITA OUTPUT  
HSK 32  
optional

# G90-20

TYPE 2

Code: **9.G90.20001**  
Price:



**Dati tecnici - Technical data**

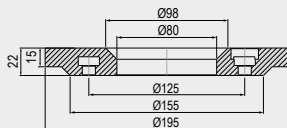
Ratio 1:1	Kg 10
Rpm 4.000	Ø 20
N 1.250	M 16
Nm 40	ER-32 Ø2/20



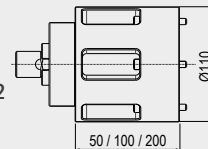
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 2



**Prolunga**  
Extension  
TIPO - TYPE 2



**Dotazione Standard**  
Standard Equipment

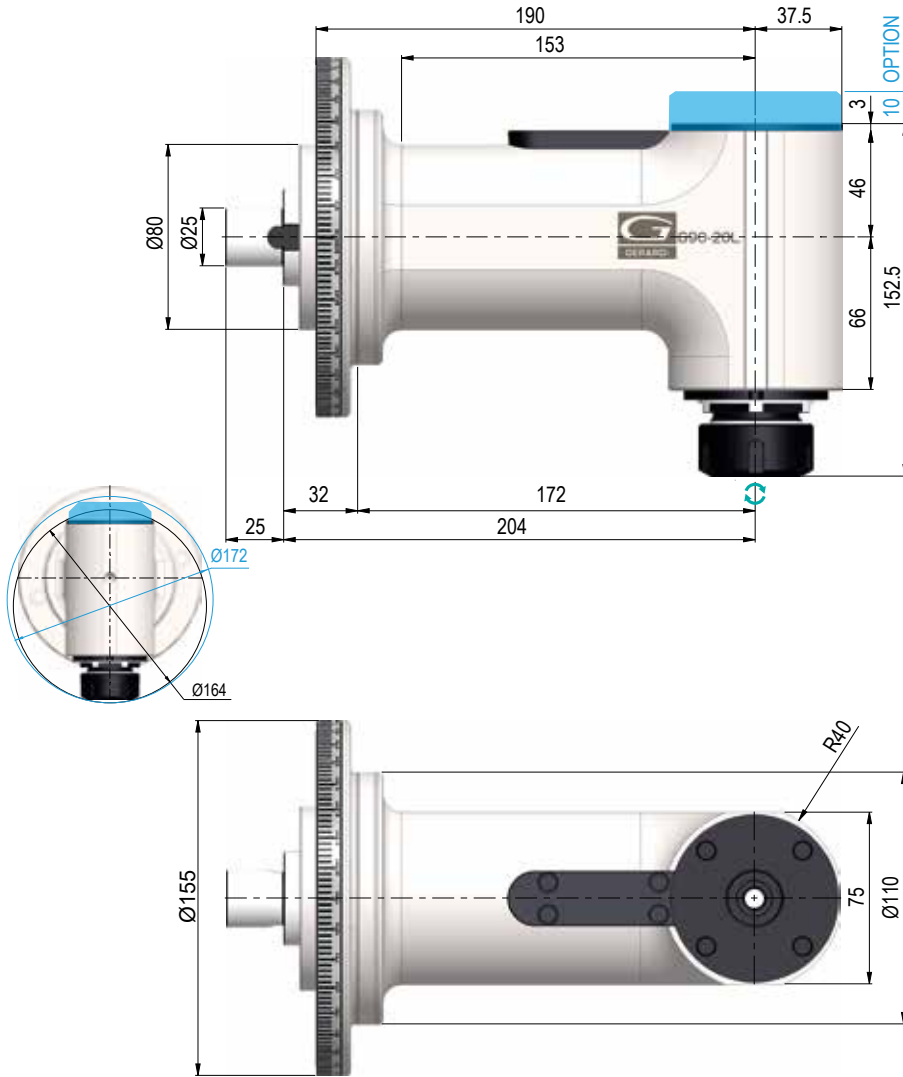
Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni  
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book  
**IMBALLO & PESO**  
PACK & WEIGHT: Max. Kg



**Opzioni - Options**

ALTA VELOCITÀ HIGH SPEED 6.000 Rpm <b>optional</b>	REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR <b>DRY RUNNING POSSIBLE</b> MAX 10bar <b>optional</b>	USCITA OUTPUT Weldon Max Ø20 <b>optional</b>	USCITA OUTPUT Portafresa Toolholder Ø22 <b>optional</b>	DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20 M <b>optional</b>
USCITA OUTPUT C4 <b>optional</b>	REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR <b>DRY RUNNING NOT POSSIBLE</b> MAX 40bar <b>optional</b>	USCITA OUTPUT HSK 40 <b>optional</b>	USCITA OUTPUT ISO/CAT/ BT 30 <b>optional</b>	





**G90-20L**

TYPE 2

Code:

9.G90.20L01

Price:



**Dati tecnici - Technical data**

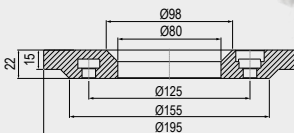
	Ratio 1:1		Kg 12,2
	Rpm 4.000		Ø 20
	N 1.250		M 16
	Nm 40		ER-32 Ø2/20



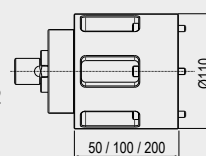
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 2



**Prolunga**  
Extension  
TIPO - TYPE 2



**Dotazione Standard**  
Standard Equipment

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**



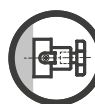
ALTA VELOCITÀ  
HIGH SPEED  
6.000 Rpm  
optional



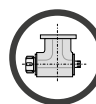
REFR. DAL DISTRIBUTORE  
COOLANT THROUGH  
ROTATING DISTRIBUTOR  
DRY RUNNING POSSIBLE  
MAX 10bar  
optional



USCITA OUTPUT  
Weldon  
Max Ø20  
optional



USCITA OUTPUT  
Portafresa  
Toolholder Ø22  
optional



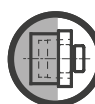
DOPPIA USCITA  
DOUBLE OUTPUT  
ER32 - ER20 M  
optional



USCITA OUTPUT  
C4  
optional



REFR. DAL DISTRIBUTORE  
COOLANT THROUGH  
ROTATING DISTRIBUTOR  
DRY RUNNING NOT POSSIBLE  
MAX 40bar  
optional



USCITA OUTPUT  
HSK 40  
optional



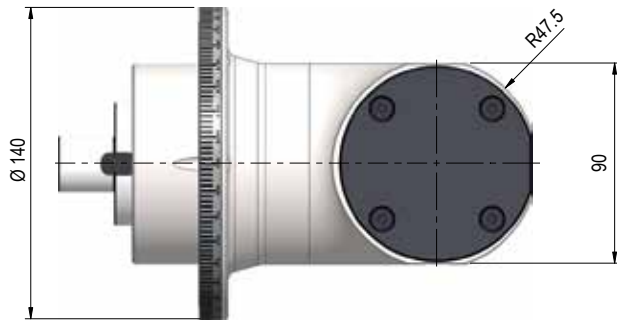
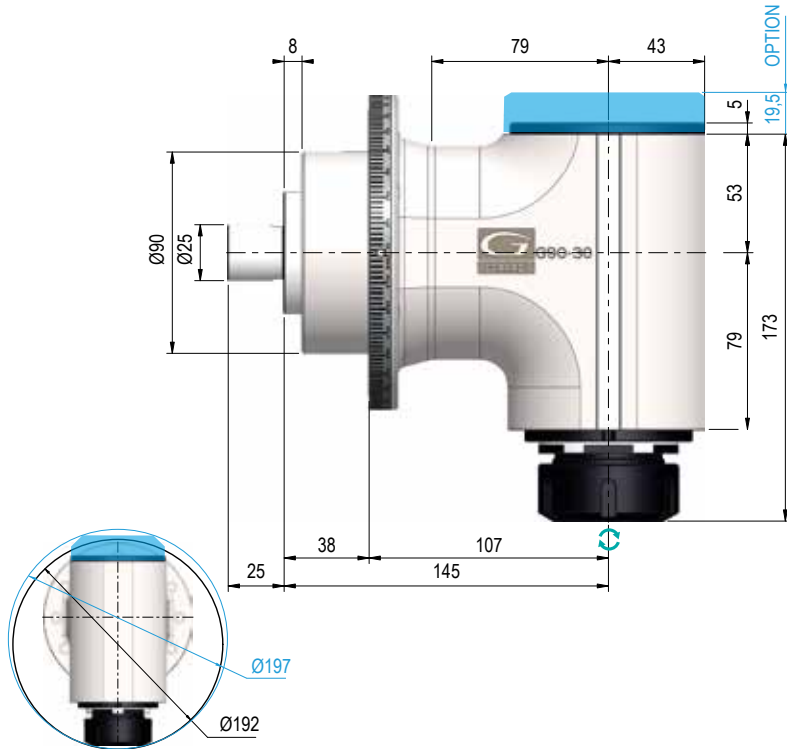
USCITA OUTPUT  
ISO/CAT/  
BT 30  
optional

# G90-30

TYPE 3

Code: 9.G90.30001

Price:



### Dati tecnici - Technical data

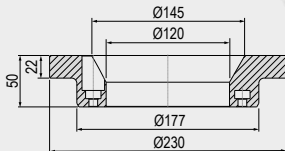
- Ratio 1:1
- Kg 17
- Rpm 4.000
- Ø30
- N 1.750
- M20
- Nm 75
- ER-40 Ø3/30



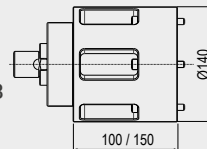
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

### Flangia Universale Universal Flange TIPO - TYPE 3



### Prolunga Extension TIPO - TYPE 3



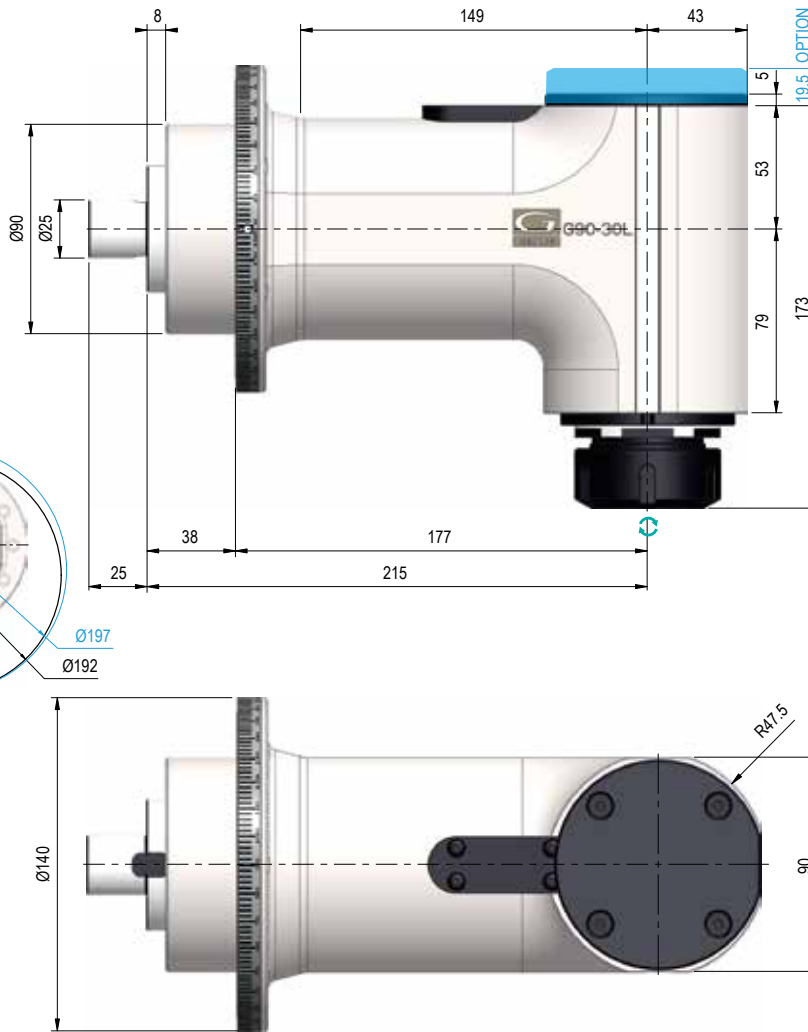
### Dotazione Standard Standard Equipment

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:



### Opzioni - Options

ALTA VELOCITÀ HIGH SPEED 6.000 Rpm optional	REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 10bar optional	USCITA OUTPUT Weldon Max Ø20 optional	USCITA OUTPUT Portafresa Toolholder Ø27 optional	DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20 M optional
USCITA OUTPUT C4 optional	REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR MAX 30bar optional	USCITA OUTPUT HSK 40 optional	USCITA OUTPUT ISO 30 optional	



**G90-30L**

TYPE 3

Code:

9.G90.30L01

Price:



**Dati tecnici - Technical data**

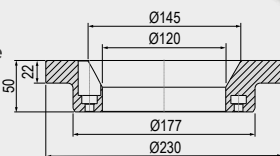
Ratio 1:1	Kg 20
Rpm 4.000	Ø30
N 1.750	M20
Nm 75	ER-40 Ø3/30



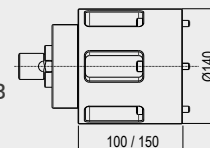
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 3



**Prolunga**  
Extension  
TIPO - TYPE 3



**Dotazione Standard**  
Standard Equipment

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:



**Opzioni - Options**

ALTA VELOCITÀ HIGH SPEED 6.000 Rpm optional	REF. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR DRY RUNNING POSSIBLE MAX 10bar optional	USCITA OUTPUT Welding Max Ø20 optional	USCITA OUTPUT Portafresa Toolholder Ø27 optional	DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20 M optional
USCITA OUTPUT C4 optional	REF. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR DRY RUNNING NOT POSSIBLE MAX 30bar optional	USCITA OUTPUT HSK 40 optional	USCITA OUTPUT ISO 30 optional	

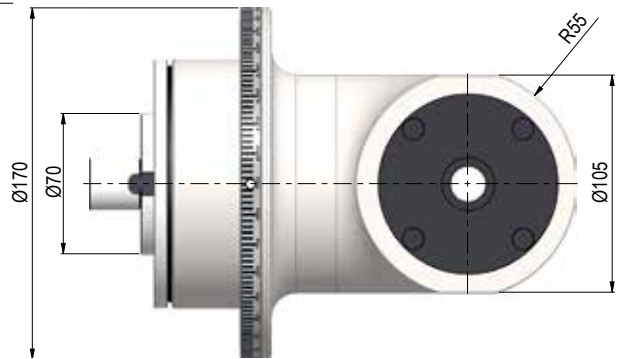
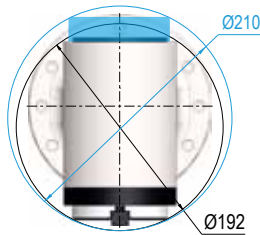
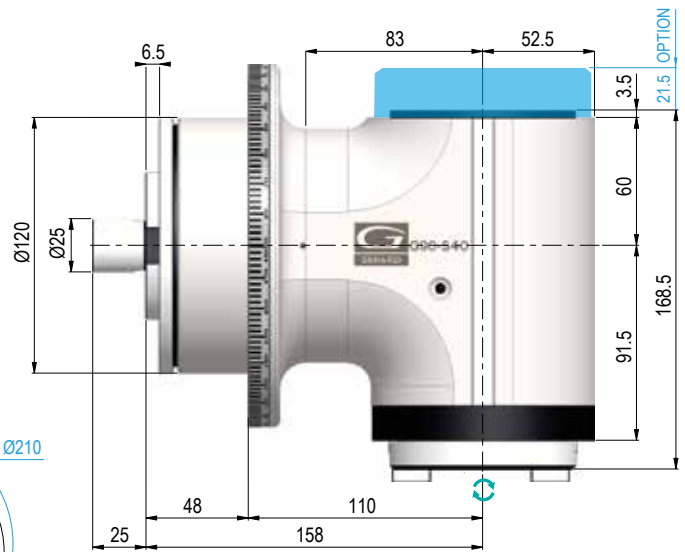
# G90-S40

TYPE 4

Code:

9.G90.S4001

Price:


**Dati tecnici - Technical data**

 Ratio  
1:1


Kg 22


 Rpm  
4.000


Ø26



N 1.800



M20

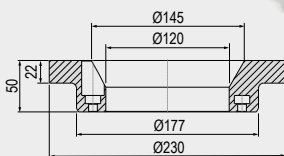


Nm 140


 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	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

**Flangia Universale**  
 Universal Flange  
**TIPO - TYPE 4**

**Dotazione Standard**  
 Standard Equipment

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

**IMBALLO & PESO**

PACK &amp; WEIGHT: Max. Kg

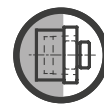

**Opzioni - Options**


C4

optional

C5

optional



HSK 63

optional


 REFR. DAL DISTRIBUTORE  
 COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

Max 10 bar

DRY RUNNING NOT POSSIBLE

Max 30 bar

optional


 ALTA VELOCITÀ  
 HIGH SPEED

5.000 Rpm

optional

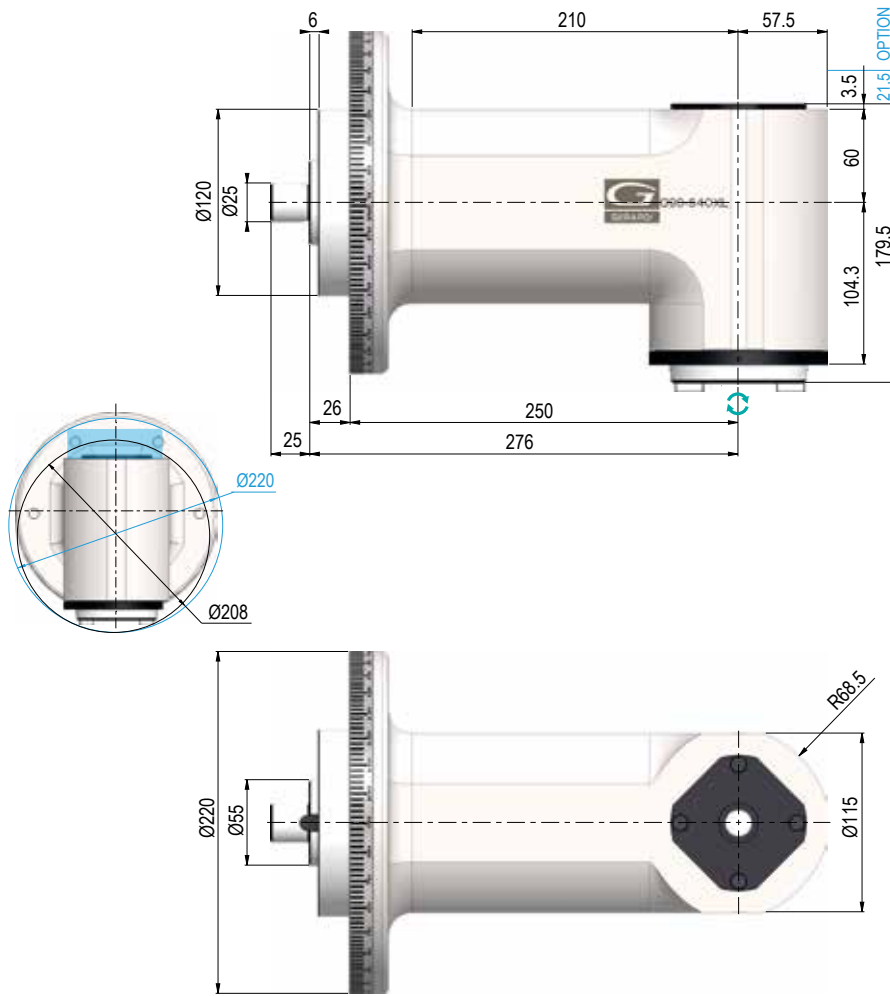
**G90-S40XL**

TYPE 5

Code:

**9.G90.S40XL1**

Price:

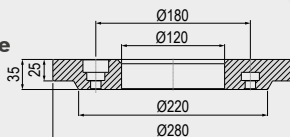

**Dati tecnici - Technical data**

	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

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	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

**Flangia Universale**  
 Universal Flange  
**TIPO - TYPE 5**

**Dotazione Standard**  
 Standard Equipment

 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**

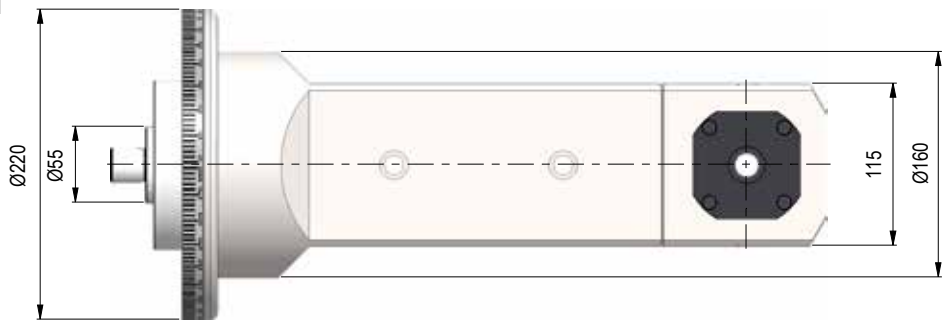
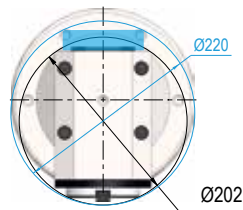
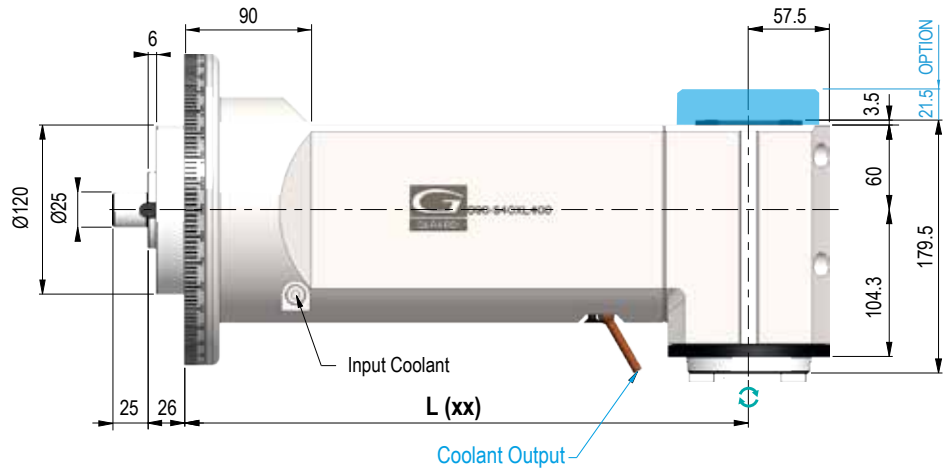
PACK &amp; WEIGHT: Max.70 Kg


**Opzioni - Options**

	C4		C5		HSK 63
	optional		optional		optional
REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR		REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR		ALTA VELOCITÀ HIGH SPEED	
	DRY RUNNING POSSIBLE Max 10 bar		DRY RUNNING NOT POSSIBLE Max 30 bar		5.000 Rpm
			optional		optional

**G90-S40XL xx**
**TYPE 5**

9.G90.S40XL .400 | .500 | .600 | .700


**Dati tecnici - Technical data**

 Ratio  
1:1

 L= 400 - 57 Kg  
 L= 500 - 67 Kg  
 L= 600 - 78 Kg  
 L= 700 - 86 Kg

 Rpm  
4.000


Ø30



N 2.400



M22

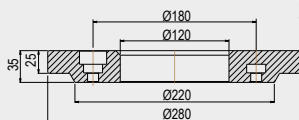


Nm 140


 ISO / CAT  
/ BT40


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

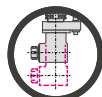
Coni Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN 2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

**Flangia Universale**  
 Universal Flange  
**TIPO - TYPE 5**

**Dotazione Standard**  
 Standard Equipment

 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 &amp; WEIGHT: Max. Kg


**Opzioni - Options**

 LUNGHEZZE SPECIALI  
 SPECIAL LENGHT

**on request**

 REFR. DAL DISTRIBUTORE  
 COOLANT THROUGH ROTATING  
 DISTRIBUTOR

 DRY RUNNING POSSIBLE  
 DRY RUNNING NOT POSSIBLE  
 Max 10 bar | Max 30 bar

**optional**

 USCITA  
 OUTPUT  
 HSK 63

**optional**

 ALTA VELOCITÀ  
 HIGH SPEED  
 5.000 Rpm

**optional**

 USCITA  
 OUTPUT  
 C4

**optional**

C5

**optional**

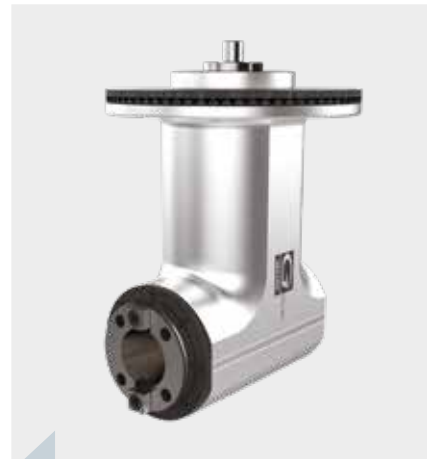
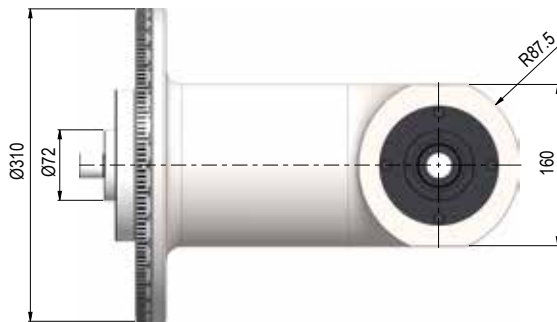
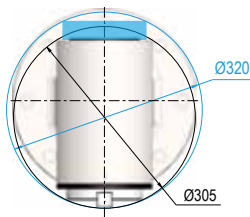
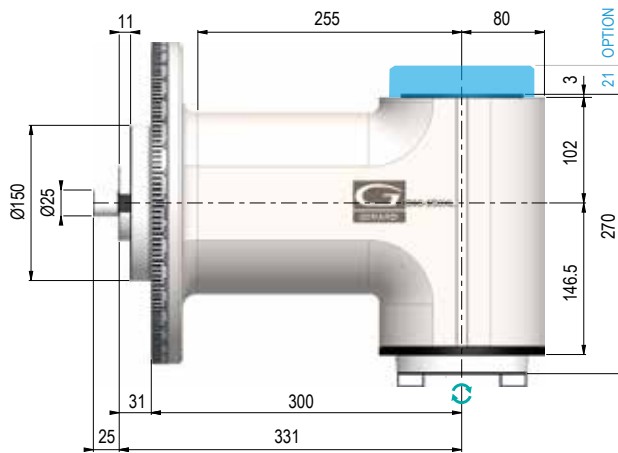
**G90-S50**

TYPE 6

Code:

**9.G90.S5001**

Price:


**Dati tecnici - Technical data**

 Ratio  
1:1


Kg 77


 Rpm  
3.000


Ø45



N 3.300



M36

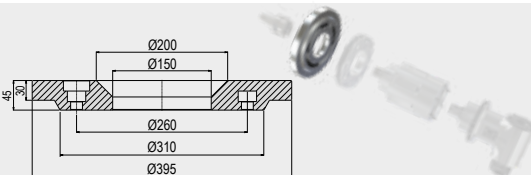


Nm 400


 ISO /  
CAT / BT  
50


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	
	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

**Flangia Universale**  
 Universal Flange  
**TIPO - TYPE 6**

**Dotazione Standard**  
 Standard Equipment

 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**

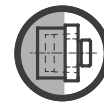
PACK &amp; WEIGHT: Max. Kg


**Opzioni - Options**


C6

 USCITA  
OUTPUT

C8

**on request**

 USCITA  
OUTPUT

HSK 63

**optional**

 REFR. DAL DISTRIBUTORE  
 COOLANT THROUGH ROTATING DISTRIBUTOR

**DRY RUNNING POSSIBLE**

Max 10 bar

**DRY RUNNING NOT POSSIBLE**

Max 30 bar

**optional**

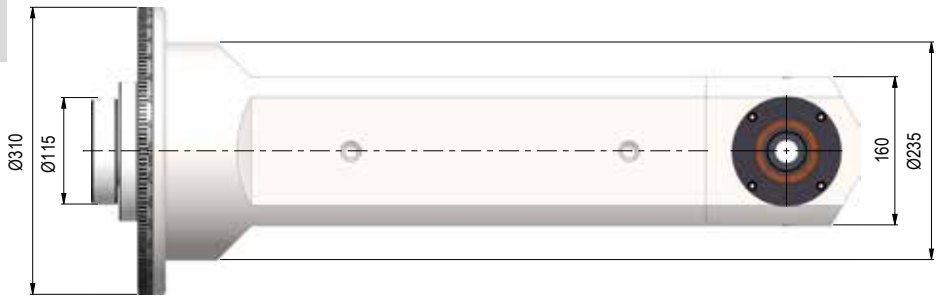
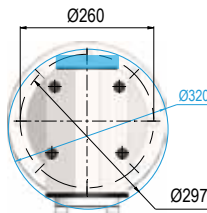
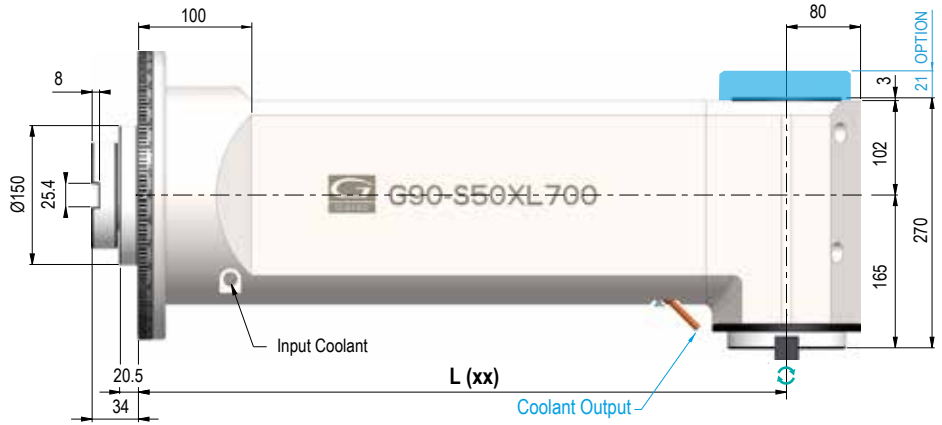
 ALTA VELOCITÀ  
 HIGH SPEED

4.000 Rpm

**optional**

**G90-S50XL xx**
**TYPE 6**

9.G90.S50XL .400 .500 .600 .700 .800


**Dati tecnici - Technical data**

 Ratio  
1:1

 L= 400 - 149 Kg  
 L= 500 - 169 Kg  
 L= 600 - 190 Kg  
 L= 700 - 211 Kg  
 L= 800 - 231 Kg

 Rpm  
3.000


Ø45



N 3.300



M36

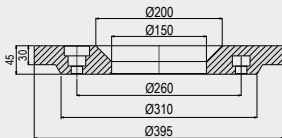


Nm 400


 ISO /CAT  
BT 50


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

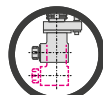
Coni Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN 2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

**Flangia Universale**  
 Universal Flange  
**TIPO - TYPE 6**

**DOTAZIONE STANDARD**  
 STANDARD EQUIPMENT

 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 &amp; WEIGHT: Max. Kg


**OPZIONI - OPTIONS**

 LUNGHEZZE SPECIALI  
 SPECIAL LENGHT

*on request*

 REFR. DAL DISTRIBUTORE  
 COOLANT THROUGH ROTATING  
 DISTRIBUTOR

 DRY RUNNING POSSIBLE DRY RUNNING NOT POSSIBLE  
 Max 10 bar Max 30 bar

*optional*

 USCITA  
 OUTPUT

*optional*

 ALTA VELOCITÀ  
 HIGH SPEED

4.000 Rpm

*optional*

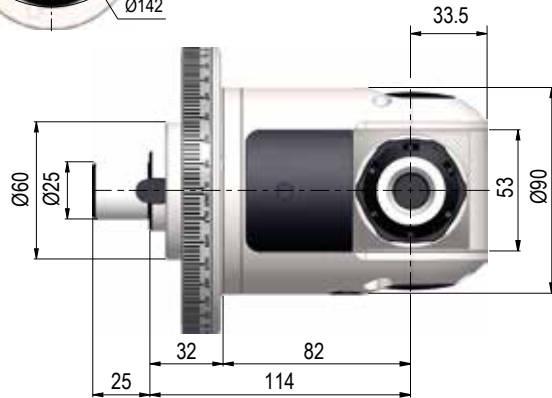
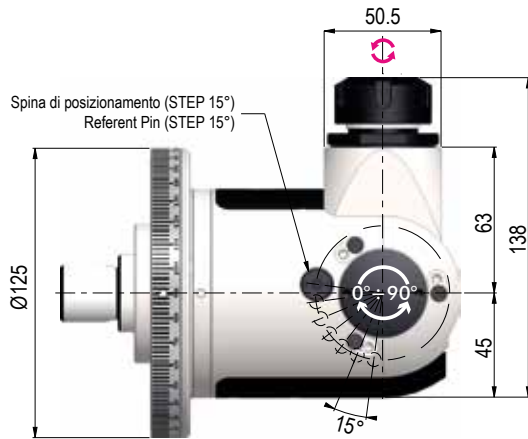
 USCITA  
 OUTPUT

C6

C8

*on request*





**GMU-16**

TYPE 1

Code:

9.GMU.16001

Price:



**Dati tecnici - Technical data**



Ratio  
1:1



Kg 6,3



Rpm  
4.000



Ø16



N 480



M14



Nm 18



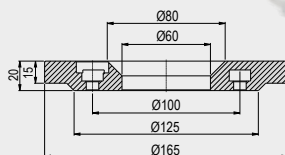
ER-25  
Ø1/16



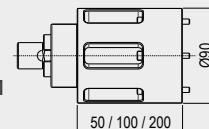
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

**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



**Opzioni - Options**



SPINA POSIZIONE RAPIDA  
QUICK POSITIONING PIN

Portafresa  
Toolholder Ø16

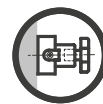
optional



USCITA  
OUTPUT

Weldon Max Ø16

optional



USCITA  
OUTPUT

Portafresa  
Toolholder Ø16

optional



ALTA VELOCITÀ  
HIGH SPEED

6.000 Rpm

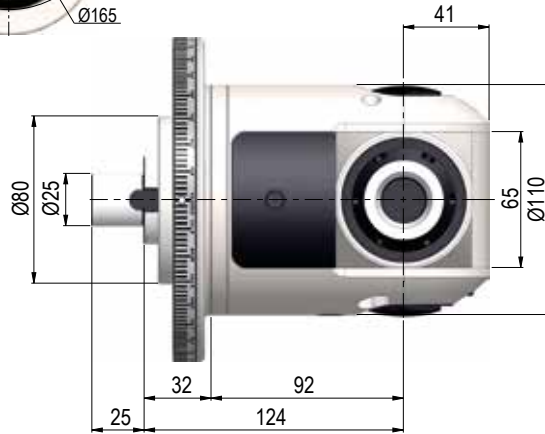
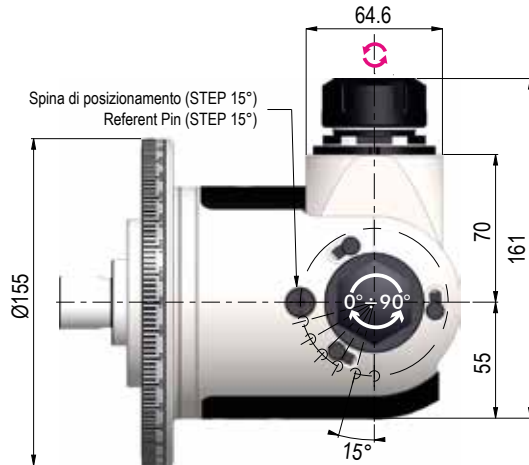
optional

# GMU-20

TYPE 2

Code: **9.GMU.20001**

Price:



### Dati tecnici - Technical data



Ratio  
1:1



Kg 13



Rpm  
4.000



Ø20



N 715



M16



Nm 32



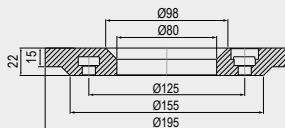
ER32  
Ø2/20



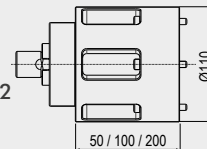
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	opt.	opt.	opt.	optional			optional	optional

### Flangia Universale Universal Flange TIPO - TYPE 2



### Prolunga Extension TIPO - TYPE 2



### 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



USCITA OUTPUT  
Weldon Max Ø20

optional



ALTA VELOCITÀ HIGH SPEED

6.000 Rpm

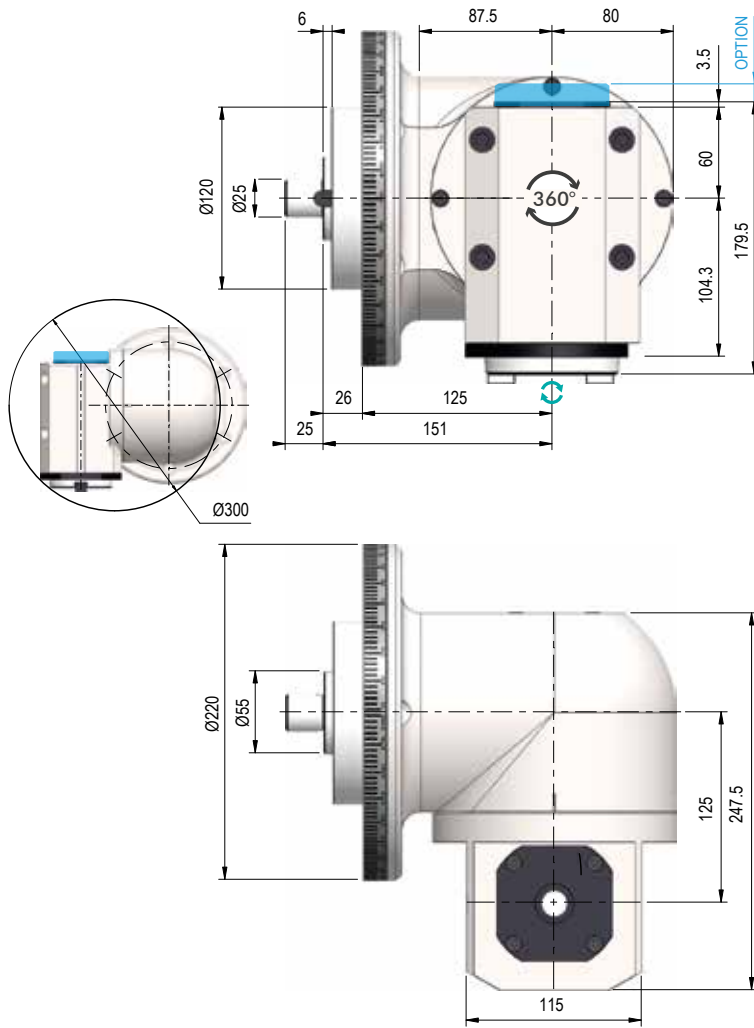
optional



SPINA POSIZIONE RAPIDA QUICK POSITIONING PIN

Angolazioni personalizzate Customized angles

optional



**GMU-S40-125** TYPE 6

Code: **9.GMU.S4001.125**

Price:



**Dati tecnici - Technical data**

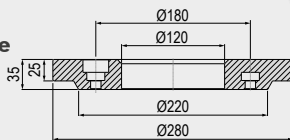
- Ratio 1:1
- Kg 59,3
- Rpm 3.000
- Ø30
- N 2.400
- M22
- Nm 100
- ISO /CAT BT 40



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	63	80	100	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional	optional	optional	optional

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 6



**Dotazione Standard**  
Standard Equipment

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

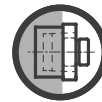
optional



USCITA OUTPUT

C4

optional



USCITA OUTPUT

HSK 63

optional



ALTA VELOCITÀ HIGH SPEED

4.000 Rpm

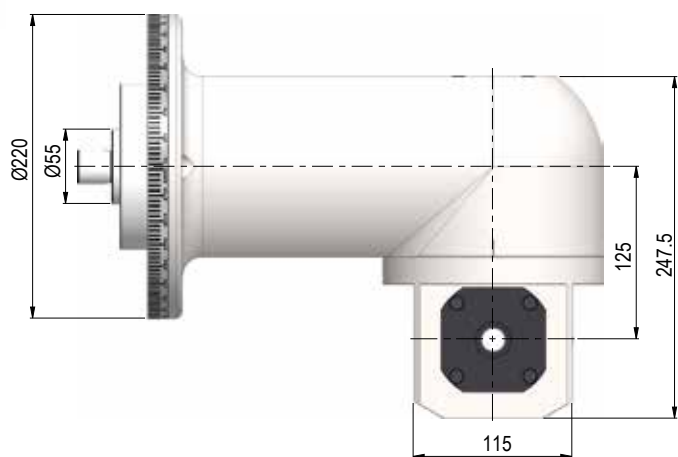
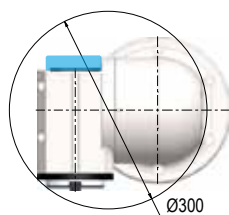
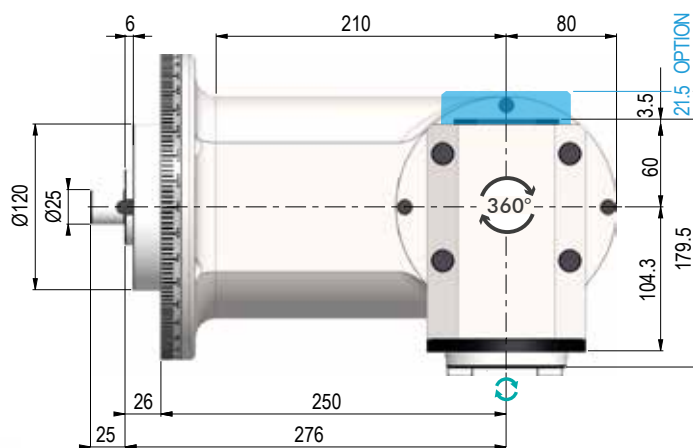
optional

# GMU-S40

TYPE 5

Code: **9.GMU.S4001**

Price:



### Dati tecnici - Technical data

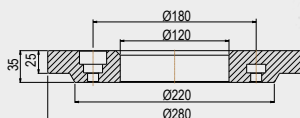
	Ratio 1:1		Kg 49,5
	Rpm 3.000		Ø 30
	N 2.400		M 22
	Nm 100		ISO /CAT BT 40



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	63	80	100	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional		optional	optional

### Flangia Universale Universal Flange TIPO - TYPE 5



### Dotazione Standard Standard Equipment

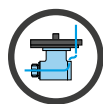
Cassa in legno - Flangia universale - Ghiera ER -  
Corno - Chiavi di servizio - Tubetto di  
grasso - Libro istruzioni  
Wood box - Universal flange - ER nut - Wrenches -  
Grease tube - Shank - Instruction book

### IMBALLO & PESO

PACK & WEIGHT: Max. Kg



### Opzioni - Options



REFR. DAL DISTRIBUTORE  
COOLANT THROUGH ROTATING DISTRIBUTOR

**DRY RUNNING POSSIBLE**

Max 10 bar

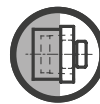
optional



USCITA  
OUTPUT

C6

optional



USCITA  
OUTPUT

HSK 63

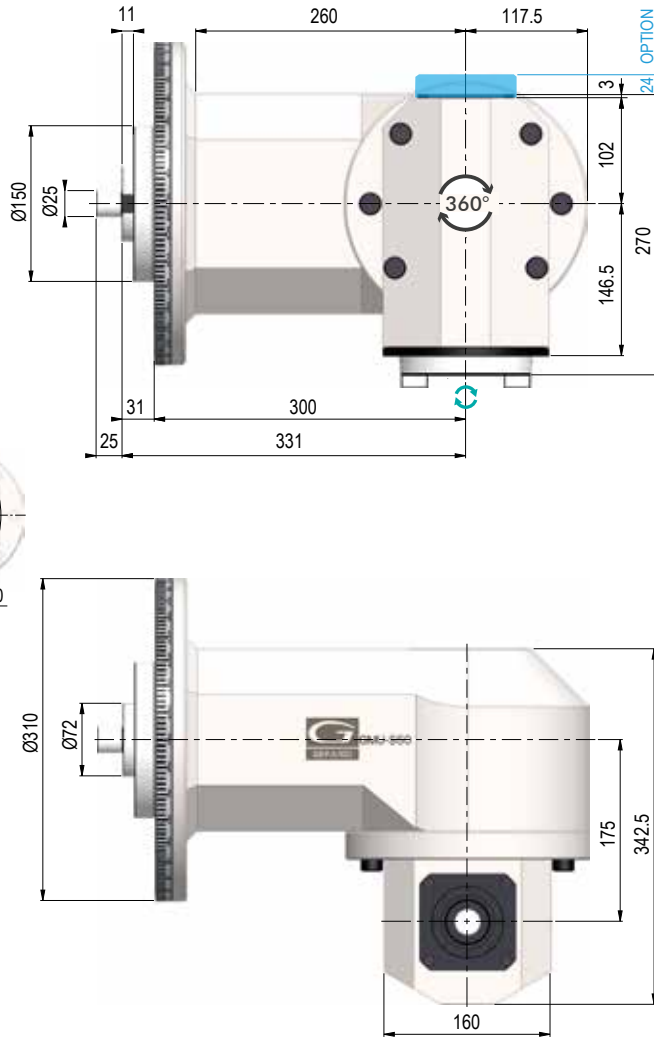
optional



ALTA VELOCITÀ  
HIGH SPEED

4.000 Rpm

optional



**GMU-S50**

TYPE 6

Code:

9.GMU.S5001

Price:



**Dati tecnici - Technical data**



Ratio  
1:1



Kg 121



Rpm  
3.000



Ø45



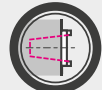
N 3.300



M36



Nm 220



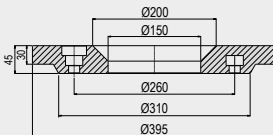
ISO /CAT  
BT 50



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	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 6



**Dotazione Standard**  
Standard Equipment

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

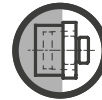
optional



USCITA  
OUTPUT

C6

optional



USCITA  
OUTPUT

HSK 63

optional



ALTA VELOCITÀ  
HIGH SPEED

4.000 Rpm

optional

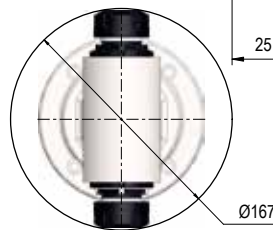
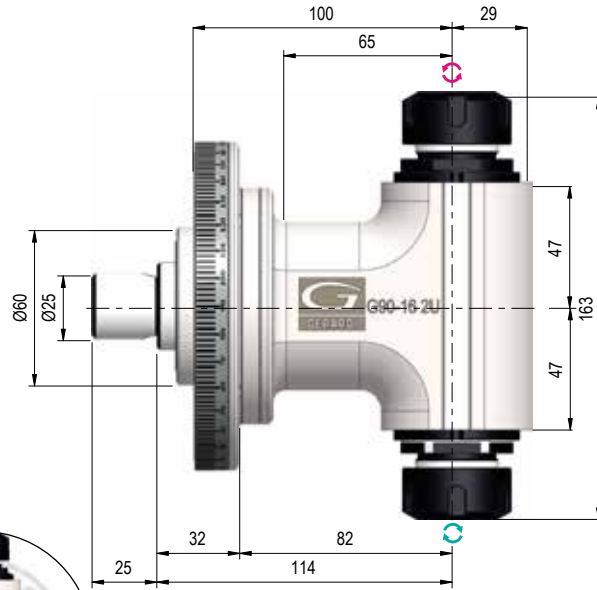
# G90-16 2U

TYPE 1

Code:

9.G90.162U01

Price:



### Dati tecnici - Technical data



Ratio  
1:1



Kg 5,6



Rpm  
4.000



Ø 16



N 510



M 12



Nm 24



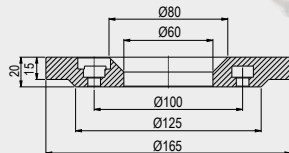
ER-25  
Ø1/16



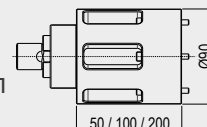
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE  
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

### Flangia Universale Universal Flange TIPO - TYPE 1



### Prolunga Extension TIPO - TYPE 1



### Dotazione Standard Standard Equipment

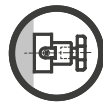
Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni  
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

### IMBALLO & PESO

PACK & WEIGHT: Max. Kg



### Opzioni - Options



USCITA OUTPUT  
Portafresa  
Toolholder Ø16 (X2)  
optional



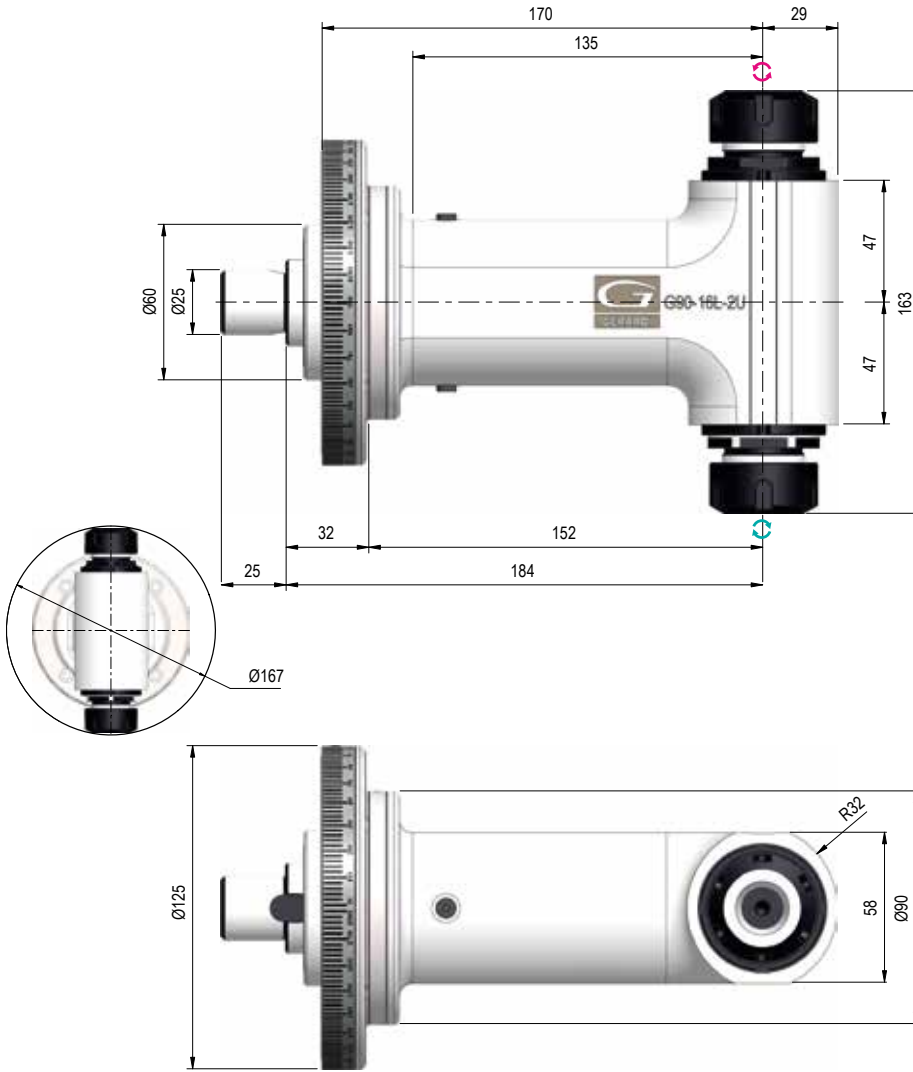
USCITA OUTPUT  
Weldon Max Ø16 (X2)  
optional



USCITA OUTPUT  
HSK 32 (X2)  
-



ALTA VELOCITÀ  
HIGH SPEED  
8.000 Rpm  
optional



**G90-16L 2U**

TYPE 1

Code:

9.G90.16L2U1

Price:



**Dati tecnici - Technical data**

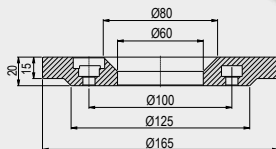
Ratio 1:1	Kg 6,1
Rpm 4.000	Ø 16
N 510	M 12
Nm 24	ER-25 Ø1/16



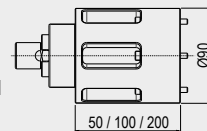
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE  
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 1



**Prolunga**  
Extension  
TIPO - TYPE 1



**Dotazione Standard**  
Standard Equipment

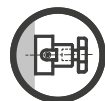
Valigetta - Flangia universale - Ghiera ER - Cono std - Chiavi di servizio - Tubetto di grasso - Libro istruzioni  
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

**IMBALLO & PESO**

PACK & WEIGHT: Max. Kg



**Opzioni - Options**



USCITA OUTPUT  
Portafresa  
Toolholder Ø16 (X2)  
optional



USCITA OUTPUT  
Weldon Max Ø16 (X2)  
optional



USCITA OUTPUT  
HSK 32 (X2)  
-



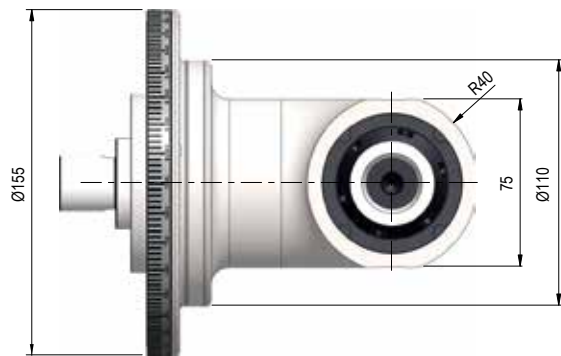
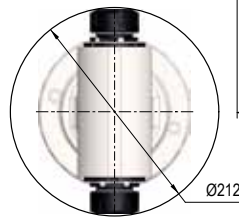
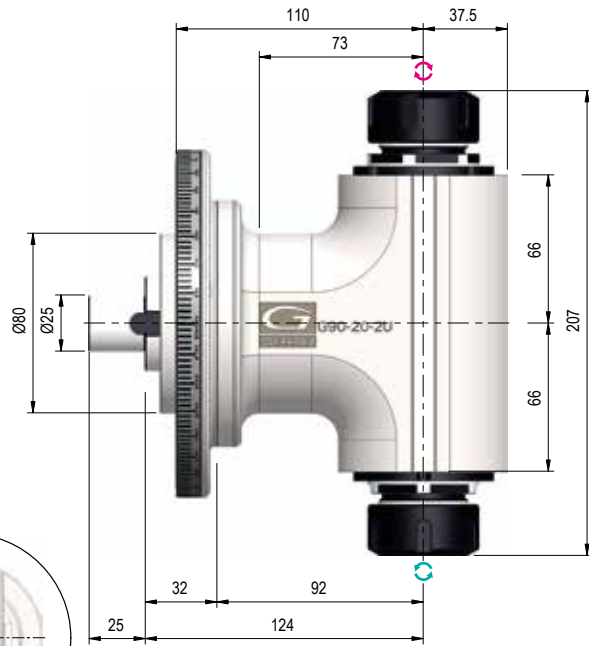
ALTA VELOCITÀ  
HIGH SPEED  
8.000 Rpm  
optional

# G90-20 2U

TYPE 2

Code: 9.G90.202U01

Price:



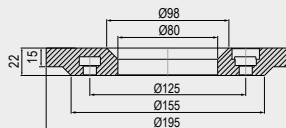
### Dati tecnici - Technical data

Ratio 1:1	Kg 14
Rpm 4.000	Ø 20
N 1.250	M 16
Nm 40	ER-32 Ø2/20

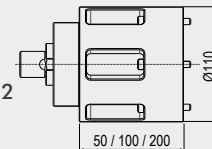
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE  
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

### Flangia Universale Universal Flange TIPO - TYPE 2



### Prolunga Extension TIPO - TYPE 2



### Dotazione Standard Standard Equipment

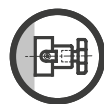
Valigetta - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni  
Special bag - Universal flange - ER nut - Shank - Wrenches - Grease tube - Instruction book

### IMBALLO & PESO

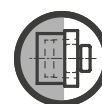
PACK & WEIGHT: Max. Kg



### Opzioni - Options



USCITA OUTPUT  
Portafresa  
Toolholder Ø20 (X2)  
**optional**



USCITA OUTPUT  
HSK 40 (X2)  
**optional**

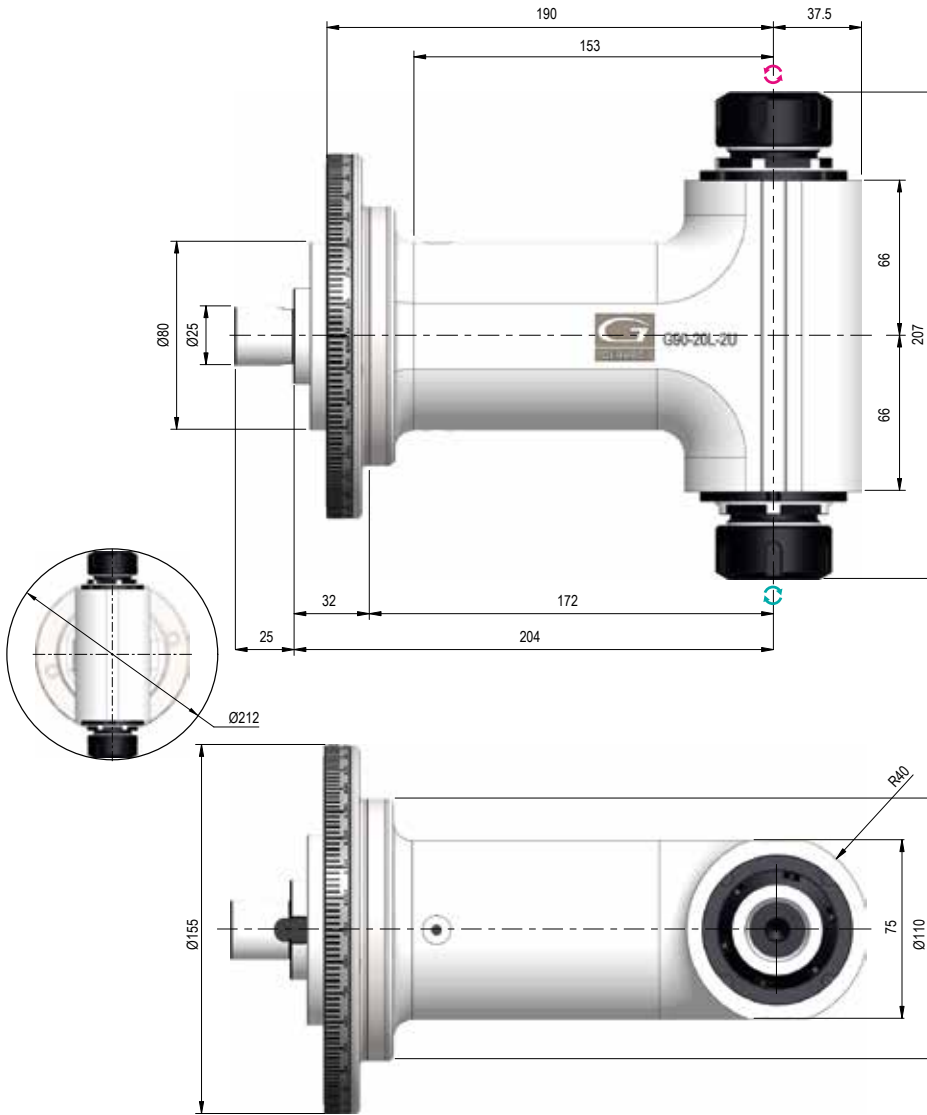


USCITA OUTPUT  
Weldon Max Ø20 (X2)  
**optional**



ALTA VELOCITÀ  
HIGH SPEED  
6.000 Rpm  
**optional**





**G90-20L 2U**

TYPE 2

Code:

9.G90.20L2U1

Price:



**Dati tecnici - Technical data**

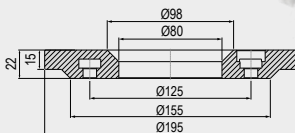
	Ratio 1:1		Kg 15,5
	Rpm 4.000		Ø 20
	N 1.250		M 16
	Nm 40		ER-32 Ø2/20



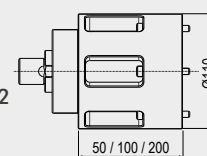
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE  
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 2



**Prolunga**  
Extension  
TIPO - TYPE 2



**Dotazione Standard**  
Standard Equipment

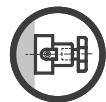
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni  
Wood box - Universal flange - ER nut - Wrenches - Grease tube - Shank - Instruction book

**IMBALLO & PESO**

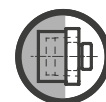
PACK & WEIGHT: Max. Kg



**Opzioni - Options**



USCITA OUTPUT  
Portafresa  
Toolholder Ø22 (X2)  
optional



USCITA OUTPUT  
HSK 40 (X2)  
optional

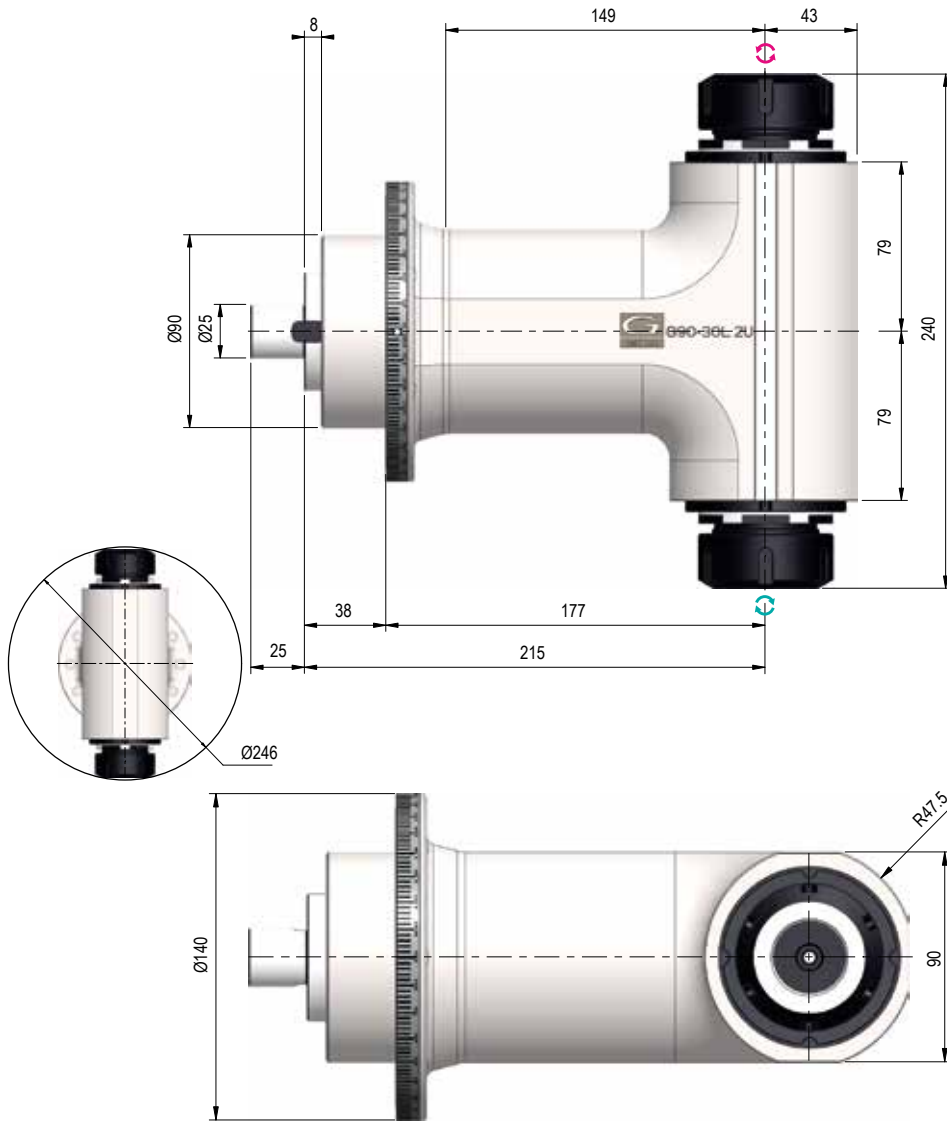


USCITA OUTPUT  
Weldon Max Ø20 (X2)  
optional



ALTA VELOCITÀ  
HIGH SPEED  
6.000 Rpm  
optional





**G90-30L 2U**

TYPE 3

Code:

9.G90.30L2U1

Price:



**Dati tecnici - Technical data**

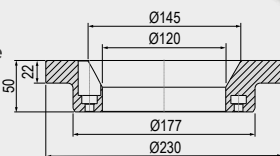
	Ratio 1:1		Kg 23
	Rpm 4.000		Ø 30
	N 1.750		M 20
	Nm 75		ER-40 Ø3/30



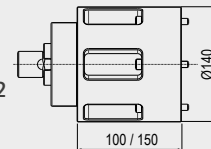
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE  
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

Coni Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN 2080	
	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional			optional	optional

**Flangia Universale**  
Universal Flange  
TIPO - TYPE 3



**Prolunga**  
Extension  
TIPO - TYPE 2



**Dotazione Standard**  
Standard Equipment

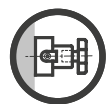
Cassa in legno - Flangia universale - Ghiera ER - Cono - Chiavi di servizio - Tubetto di grasso - Libro istruzioni  
Wood box - Universal flange - ER nut - Wrenches - Grease tube- Shank - Instruction book

**IMBALLO & PESO**

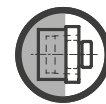
PACK & WEIGHT: Max. Kg



**Opzioni - Options**



USCITA OUTPUT  
Portafresa  
Toolholder Ø27 (X2)  
optional



USCITA OUTPUT  
HSK 40 (X2)  
optional



USCITA OUTPUT  
Weldon Max Ø25 (X2)  
optional



ALTA VELOCITÀ  
HIGH SPEED  
6.000 Rpm  
optional





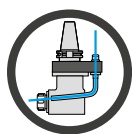
# OPZIONE REFRIGERANTE INTERNO

## INTERNAL COOLANT OPTION

**Opzione B**  
B option

**Opzione RI**  
RI option

**Opzione Re-Cool**  
Re-Cool option



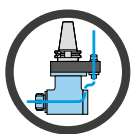
**10bar**



**Perno » Utensile**  
Positioning Pin » Tool

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

**ROTAZIONE A SECCO - DRY RUNNING**  
**POSSIBILE - POSSIBLE**



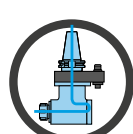
**10bar**



**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**



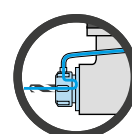
**UP TO 70bar**



**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**



**10bar**



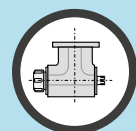
**Perno » Ghiera ReCool » Utensile**  
Positioning Pin » ReCool Nut » Tool

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

PAG. 1.87 - PAG. 1.87

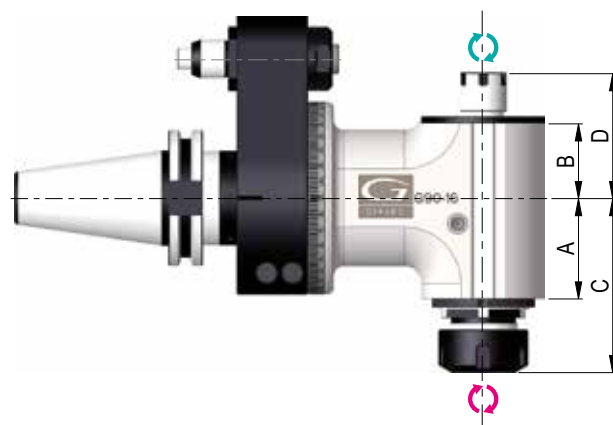
# OPZIONE DOPPIA USCITA

## DOUBLE OUTPUT OPTION



**Disponibile per i modelli - Available for following types:**

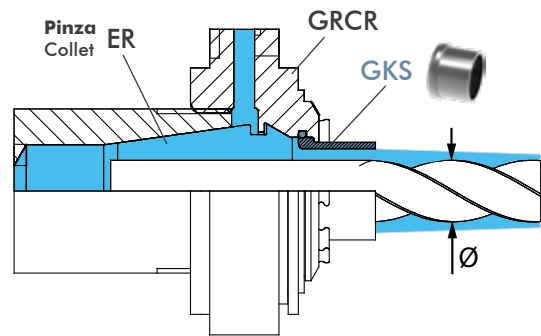
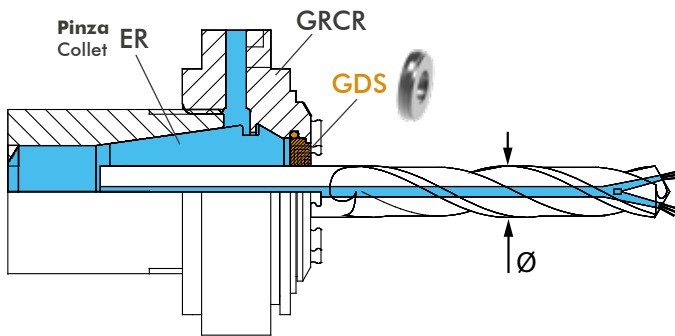
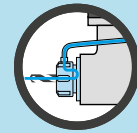
MODELLO MODEL	USCITA OUTPUT	A	B	C	D
GL90-7	ER-11	20	20	38	34
G90-5 / G90-7 / G90-7L	ER-8 MINI				
GL90-10	ER-16	37	28	52	44,5
G90-10 / G90-10L	ER-11 MINI				
GL90-16	ER-25	47	35	81,5	58,5
G90-16 / G90-16L	ER-16 MINI				
G90-20 / G90-20L	ER-32	66	46	103,5	72,5
G90-30 / G90-30L	ER-40				
	ER-25 MINI	79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



**Teste angolari ATC doppia uscita**  
Double output ATC angle heads

# GHIERE ER ReCool ReCool ER NUTS

Con queste ghiera speciali è possibile ottenere il passaggio refrigerante tramite utensile anche su teste che non prevedono questa opzione.  
With these special nuts it is possible to get coolant through the tool even on angle heads which do not have this option.



**GRCR**  
(Ghiera / Nut)



**GDS**  
(Disco di tenuta / Sealing ring)



**GKS**  
(Disco di tenuta / Sealing ring)



**AX (EXTRA)**

MODELLO TESTA ANGOLARE ANGLE HEADS TYPE	Pinza Collet	Ghiera Nut	
		Code	
G90-10 / 10L GL90-10 /	ER16	GRCR16	
		9.GR.CR16	
GMU-13	ER20	GRCR20	
		9.GR.CR20	
G90-16 / 16L GL90-16 / GMU-16	ER25	GRCR25	
		9.GR.CR25	
G90-20 / 20L GMU-20	ER32	GRCR32	
		9.GR.CR32	
G90-S40	ER40	GRCR40	
		9.GR.CR40	

Disco di tenuta per refr.interno Sealing ring for int. coolant	
Code	
GDS16	
9.GD.S16/...	
GDS20	
9.GD.S20/...	
GDS 25	
9.GD.S25/...	
GDS32	
9.GD.S32/...	
GDS40	
9.GD.S40/...	

Disco di tenuta per refr. esterno Sealing ring for est. coolant	
Code	
GKS16	
9.GK.S16/...	
GKS20	
9.GK.S20	
GKS 25	
9.GK.S25	
GKS32	
9.GK.S32	

Chiavi Wrenches	
Code	
CH-16AX	
9.CH.16AX	
CH-20AX	
9.CH.20AX	
CH-25AX	
9.CH.25AX	
CH-32AX	
9.CH.32AX	
CH-40AX	
9.CH.40AX	

INDICARE SEMPRE IN FASE D'ORDINE Ø UTENSILE - IN CASE OF ORDER SPECIFY THE Ø TOOL

■ ER: Pinza ER / ER Collet ■ GRCR: Ghiera / Nut ■ GDS: Disco di tenuta / Sealing ring ■ GKS: Disco di tenuta / Sealing ring

### Dotazione Standard Standard Equipment



- 1 - Ghiera con anello esterno  
Clamping nut with outer ring.
- 2 - Tubo refrigerante con protezione Ø6mm, 400mm  
Coolant pipe with protector Ø6mm, 400mm
- 3 - Raccordi dritti da 1/8"  
Fitting 1/8" straight
- 4 - Raccordi a 90° da 1/8"  
Fitting 1/8" 90° elbow



Tipo di ghiera Nut type	≤3000 Rpm	≤6000 Rpm	≤9000 Rpm	≤12000 Rpm
GRCR16	5 bar	7,5 bar	10 bar	15 bar
GRCR20	5 bar	7,5 bar	10 bar	15 bar
GRCR25	5 bar	7,5 bar	10 bar	15 bar
GRCR32	5 bar	10 bar	15 bar	20 bar
GRCR40	5 bar	10 bar	-	-

Il tubo e gli accessori in dotazione sono progettati e testati per la pressione massima del refrigerante di 58 bar / 840 PSI.  
Maggiore pressione del refrigerante su richiesta.

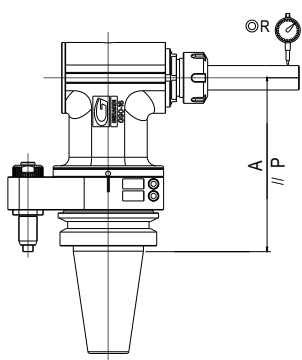
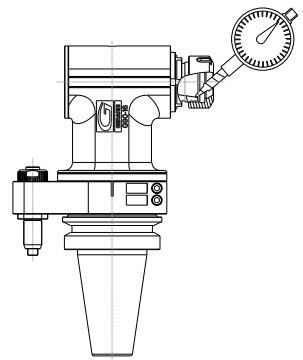
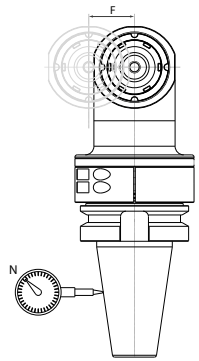
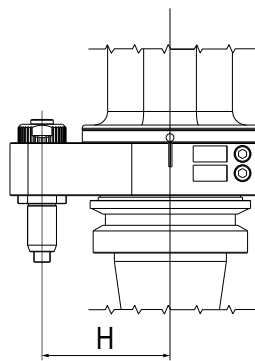
The supplied hose and fittings are designed and tested for maximum coolant pressure of 58 bar / 840 PSI.  
Higher coolant pressure on request.

Esempio di ordine Ghiera:GRCR16 (Cod. 9.GR.CR16) - Disco tenuta: GDS16-Ø10 (Cod. 9.GD.S16/10)  
Example of order Nut: GRCR16 (Code 9.GR.CR16) - Sealing ring: GDS16-Ø10 (Code 9.GD.S16/10)

# ESEMPIO SCHEDA DI COLLAUDO

## INSPECTION SHEET EXAMPLE

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

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

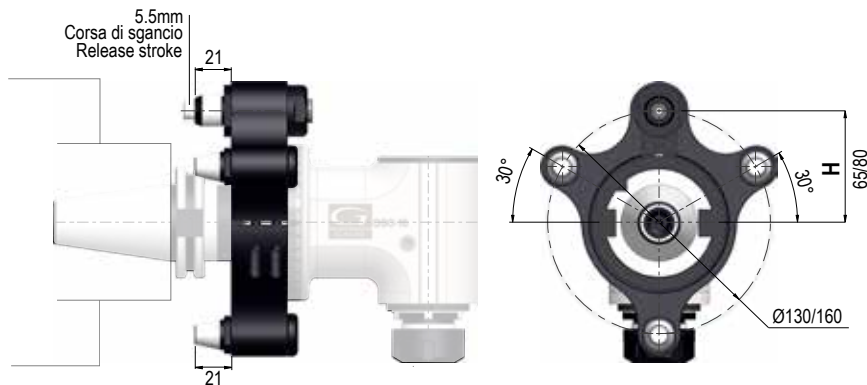
### RODAGGIO TESTA - RUN-IN

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



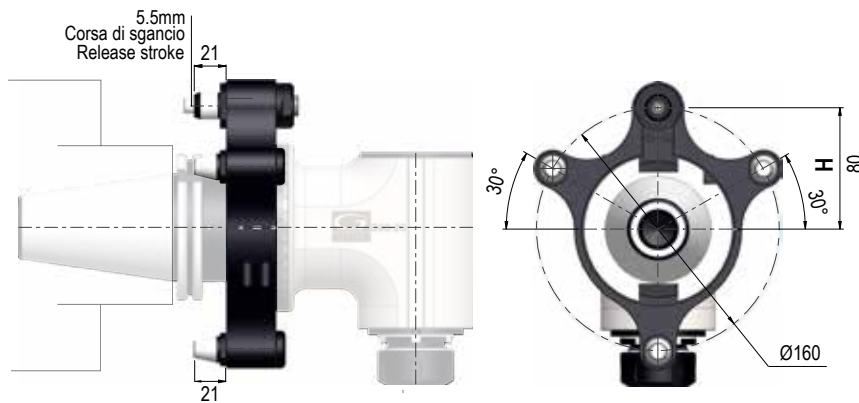
## TYPE 1

Code 9.G90.16T00/...\*

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

Solo flangia *A richiesta*  
Only flange\*\* *On request*

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



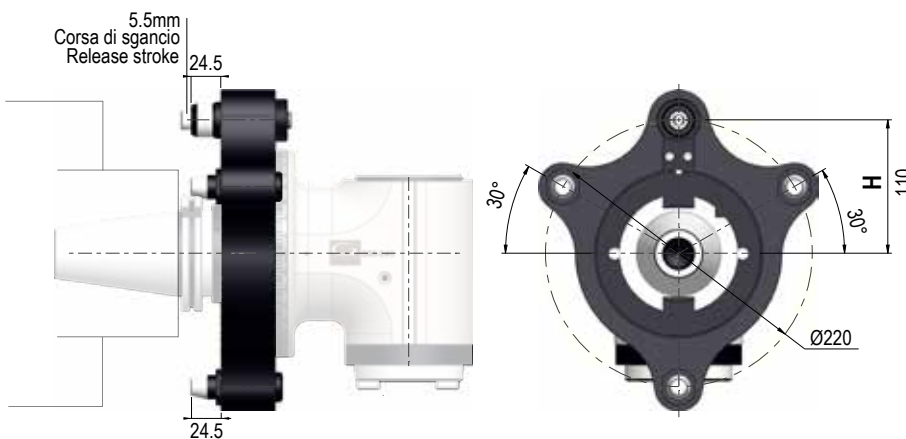
## TYPE 2

Code 9.G90.20T00/...\*

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

Solo flangia *A richiesta*  
Only flange\*\* *On request*

\*\*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.S40T0/...\*

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

Solo flangia *A richiesta*  
Only flange\*\* *On request*

\*\*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 fase di ordine specificare tipo di cono e grandezza

# 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

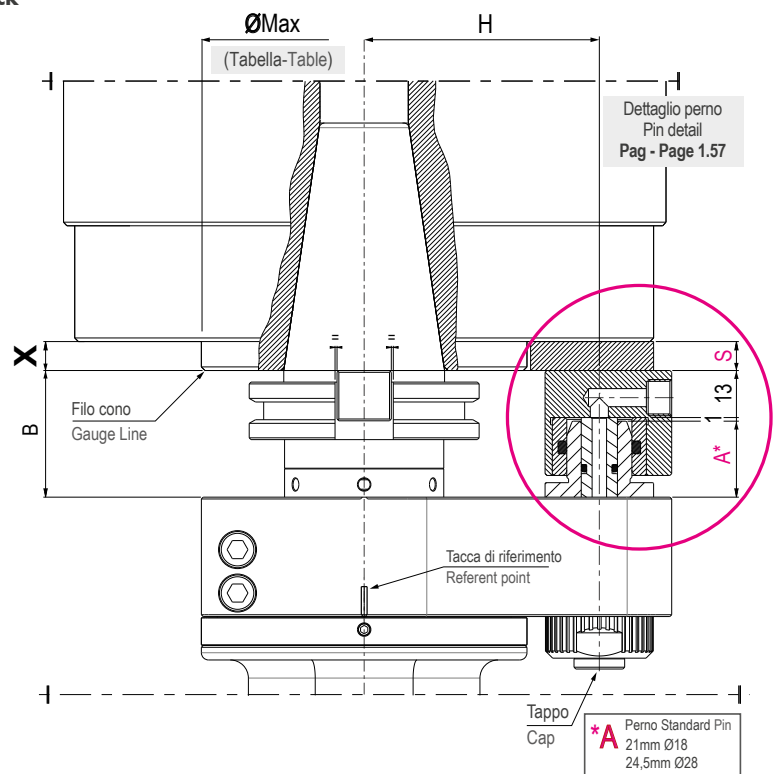
- For Gerardi items, please indicate the type of Angle Head, the H dimension, the pin diameter and height.
- For non-Gerardi items, please send us the stop-block and the machine spindle drawings in order to design the right pin. If possible, we suggest you to use Gerardi standard stop block, taking off 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. 3.25)

### 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. 1.83)



$$S = X + B - 35$$

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

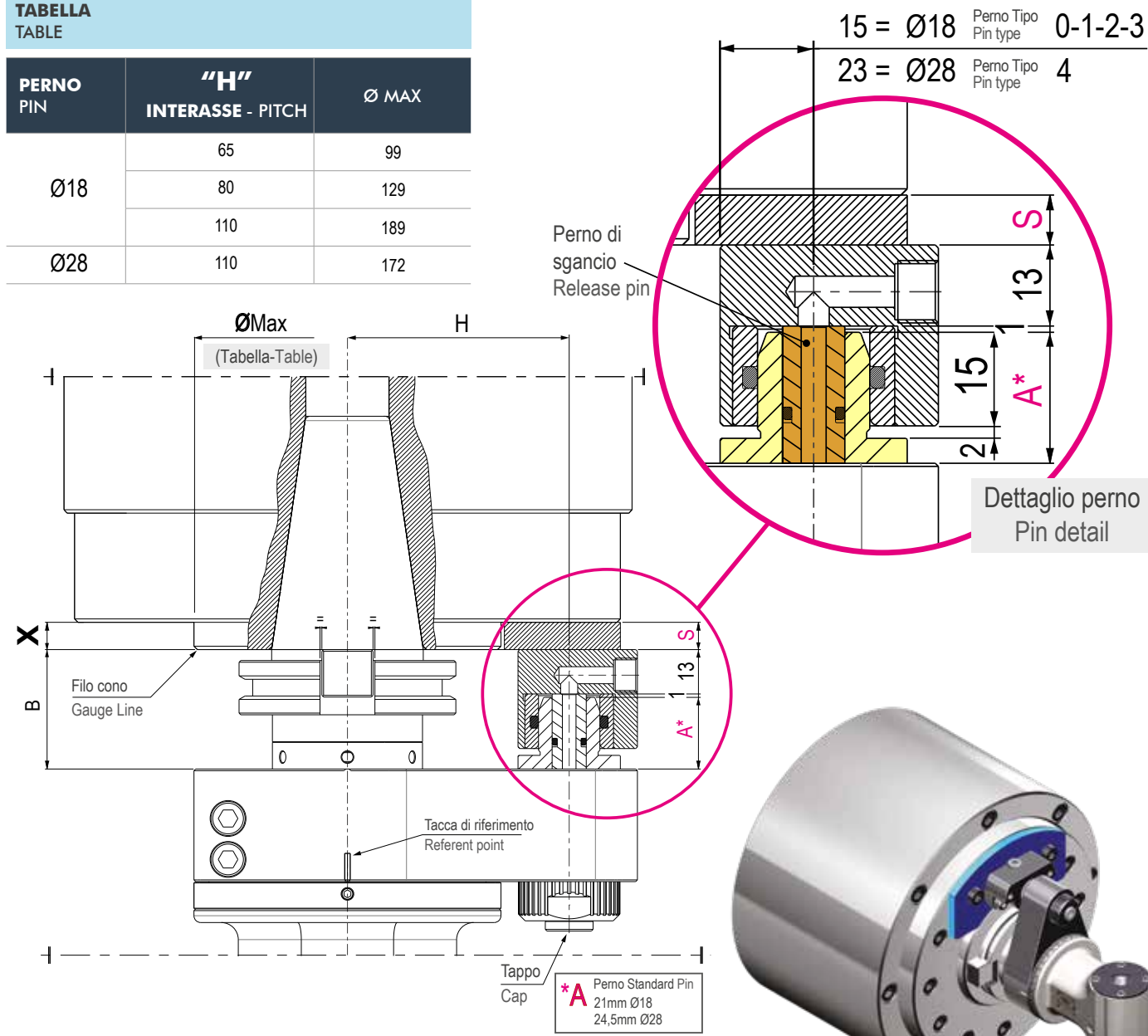
## ATC SERIES MOUNTING EXAMPLE

**PER UN CORRETTO ORDINE VERIFICARE L'IDONEITA' 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.

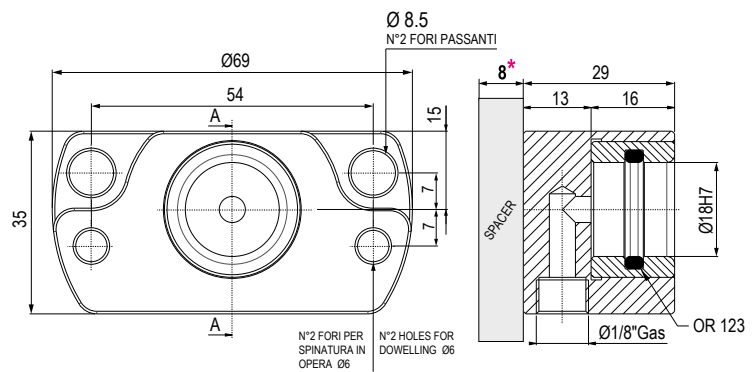
## STOP-BLOCK Standard



Ø18

Con bussola temprata - with hardened bushing

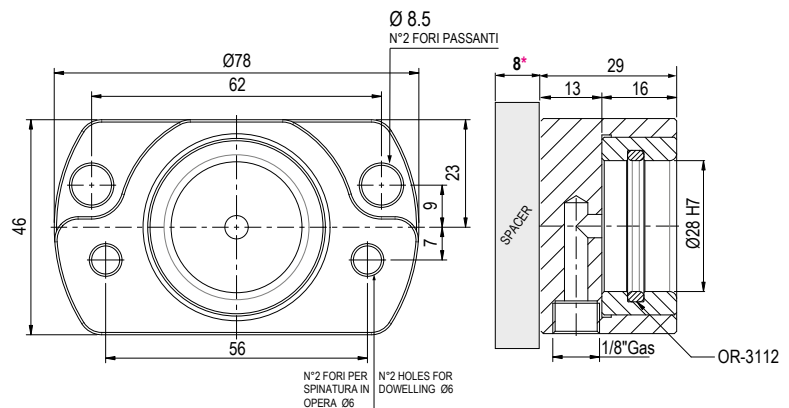
<b>STOP BLOCK Code</b>	
9.INDEX.18	
NO STOP BLOCK INCLUDED	
<b>BUSHING Code</b>	
9.G18.INDEX.2	



Ø28

Con bussola temprata - with hardened bushing

<b>STOP BLOCK Code</b>	
9.INDEX.28	
NO STOP BLOCK INCLUDED	
<b>BUSHING Code</b>	
9.G28.INDEX.2	



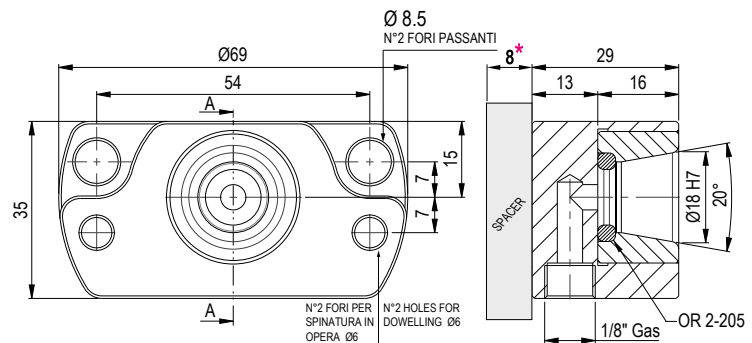
## STOP-BLOCK Conico - Conical



Ø18

Con bussola temprata - with hardened bushing

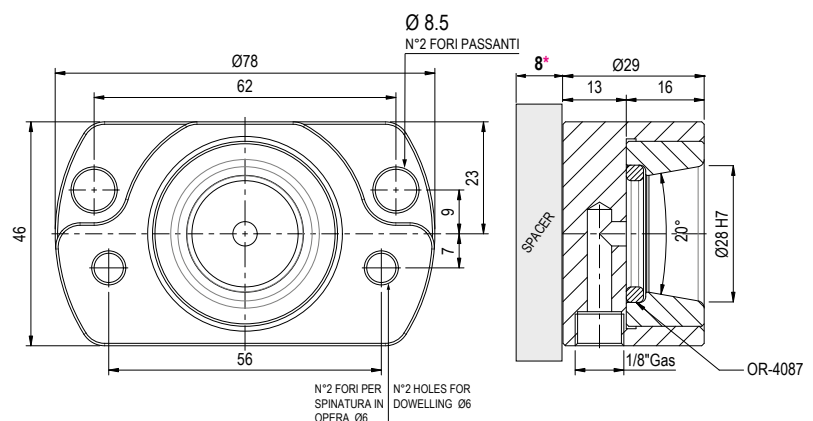
<b>STOP BLOCK Code</b>	
9.INDEX.18C	
NO STOP BLOCK INCLUDED	
<b>BUSHING Code</b>	
9.G18.INDEX.2C	



Ø28

Con bussola temprata - with hardened bushing

<b>STOP BLOCK Code</b>	
9.INDEX.28C	
NO STOP BLOCK INCLUDED	
<b>BUSHING Code</b>	
9.G18.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

## STOP-BLOCK Lavorabile\*\* - Machineable\*\*



Ø18

Con bussola temprata - with hardened bushing

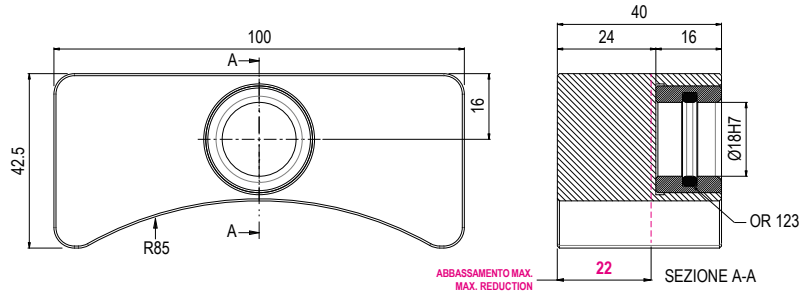
**STOP BLOCK Code**

9.G18.INDEX

NO STOP BLOCK INCLUDED

**BUSHING Code**

9.G18.INDEX.2



Ø28

Con bussola temprata - with hardened bushing

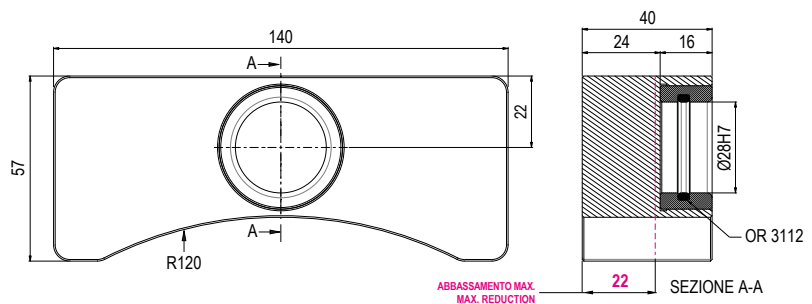
**STOP BLOCK Code**

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

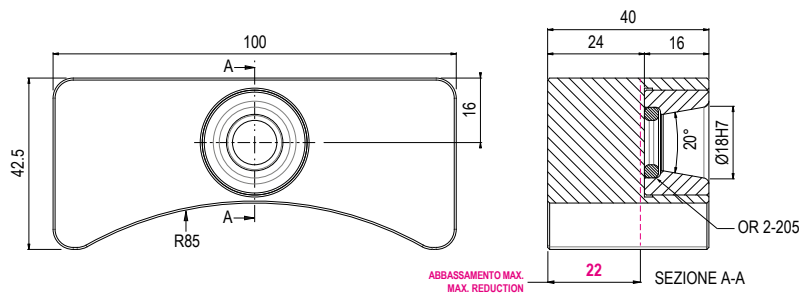
**STOP BLOCK Code**

9.G18.INDEXC

NO STOP BLOCK INCLUDED

**BUSHING Code**

9.G18.INDEX.2C



Ø28

Con bussola temprata - with hardened bushing

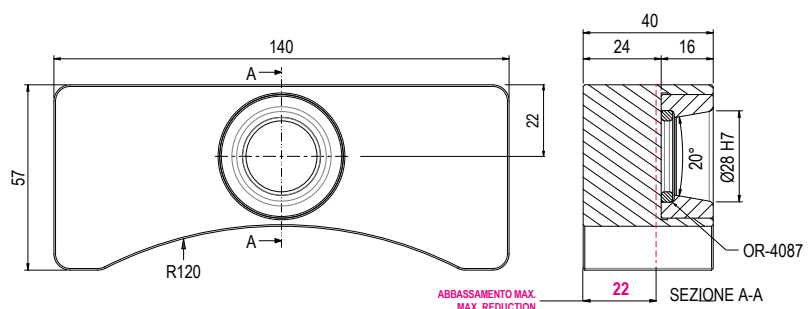
**STOP BLOCK Code**

9.G28.INDEXC

NO STOP BLOCK INCLUDED

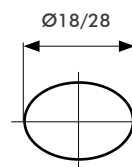
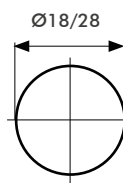
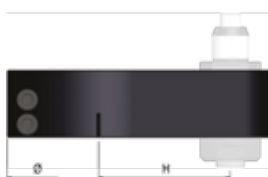
**BUSHING Code**

9.G28.INDEX.2C



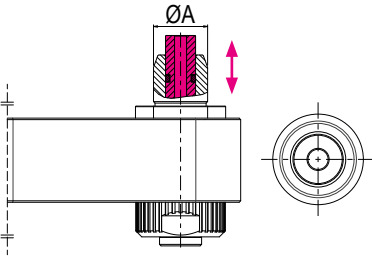
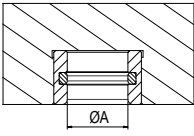
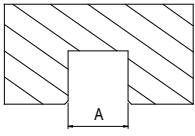
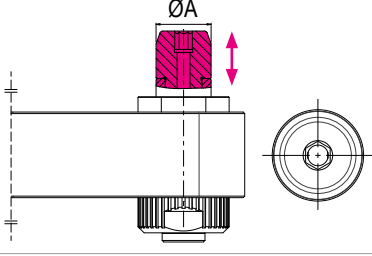
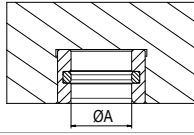
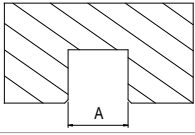
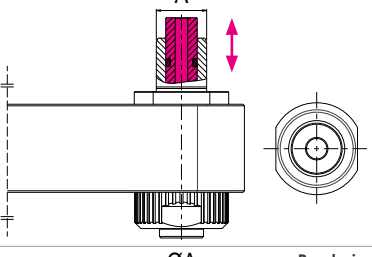
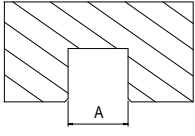
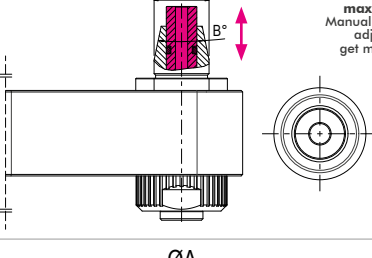
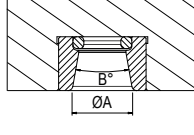
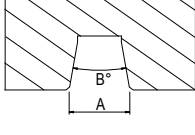
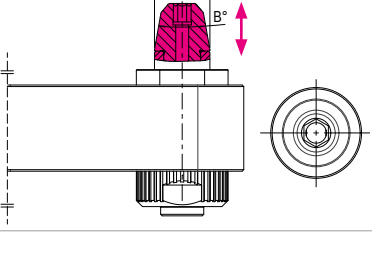
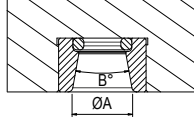
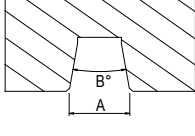
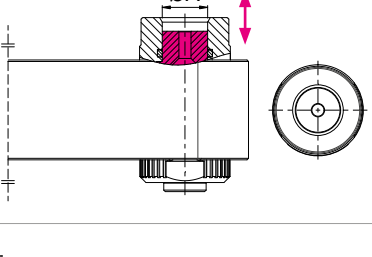
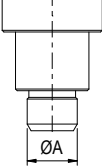
\*\* A richiesta  
\*\* On request

# GRUPPO ANTIROTANTE ANTI-ROTATION GROUP



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	<b>0</b> Ø73	9.GMU.13050C/i65		9.GMU.13030/i65		65		9.GMU.130	Ø18	21	
		9.GMU.13050C/i80									
		9.GMU.13050C/i110		9.GMU.13030/i80	Ø73	80		9.GMU.1307	Ø18	35	
		9.GMU.13050/i65		9.GMU.13030/i110		110		9.GMU.1307	Ø18	21	
GMU 13 / 13L		9.GMU.13050/i80					9.GMU.1307		Ø18	35	
		9.GMU.13050/i110							Ø18	35	
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	<b>1</b> Ø90	9.G90.16050/i65		9.G90.16030/i65		65		9.G90.16071C	Ø18	21	
		9.G90.16050/i80		9.G90.16030/i80	Ø90	80					
		9.G90.16050/i110		9.G90.16030/i110		110		9.G90.16071C	Ø18	35	
G90-20 / 20L G90-20 / 20L 2U GMU 20	<b>2</b> Ø110	9.G90.20050/i80		9.G90.20030/i80		80		9.G90.16071C	Ø18	21	
		9.G90.20050/i110		9.G90.20030/i110	Ø110	110					
G90-30 / 30L G90-30 / 30L 2U	<b>3</b> Ø140	9.G90.30050/i110		9.G90.30030/i110	Ø140	110		9.G90.16071C	Ø28	35	
G90-S40 G90-S40L GR90-S40	<b>4</b> Ø170	9.G90.S4050/i110		9.G90.S4023/i110	Ø170	110		9.G90.16072C	Ø28	24,5	

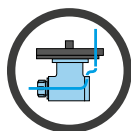
# GRUPPO PERNO SPECIALE SPECIAL PIN GROUP

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

\* Extra prezzo perno speciale  
\* Extra price special pin

# OPZIONE REFRIGERANTE INTERNO INTERNAL COOLANT OPTION

**Opzione B**  
B option



**Up to 40bar**



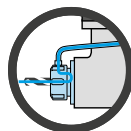
**Mandrino macchina » Distributore » Utensile**  
Machine spindle » Rotating Distributor » Tool

**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

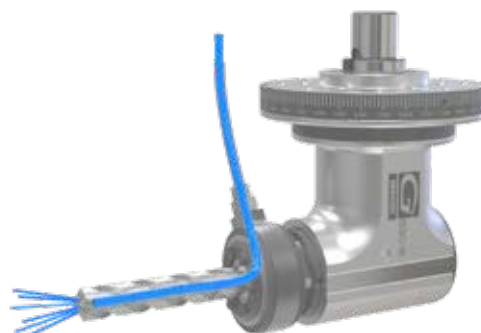
**ROTAZIONE A SECCO - DRY RUNNING**  
**10 BAR POSSIBILE - POSSIBLE**  
**30/40 BAR NON POSSIBILE - NOT POSSIBLE**

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

**Opzione Re-Cool**  
Re-Cool option



**10bar**

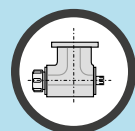


**Perno » Ghiera ReCool » Utensile**  
Positioning Pin » ReCool Nut » Tool

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

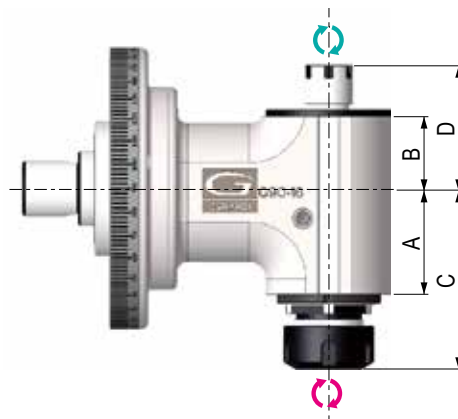
PAG. 1.77 - PAG. 1.77

# OPZIONE DOPPIA USCITA serie MTC DOUBLE OUTPUT OPTION MTC series



Disponibile per i modelli - Available for following types:

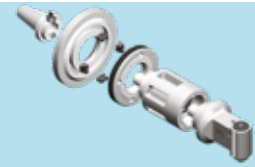
MODELLO MODEL	USCITA OUTPUT	A	B	C	D
G90-5 / G90-7 / G90-7L	ER-11 ER-8 MINI	20	20	38	34
G90-10 / G90-10L	ER-16 ER-11 MINI	37	28	52	44,5
G90-16 / G90-16L	ER-25 ER-16 MINI	47	35	81,5	58,5
G90-20 / G90-20L	ER-32 ER-20 MINI	66	46	103,5	72,5
G90-30 / G90-30L	ER-40 ER-25 MINI	79	53	120	82

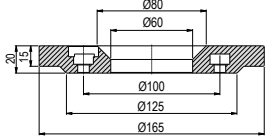
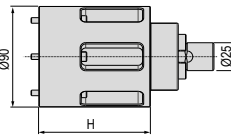

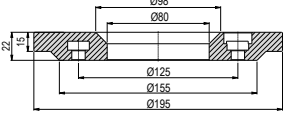
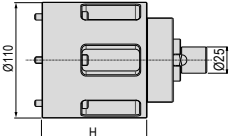

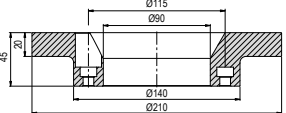
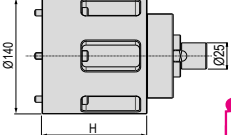

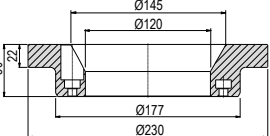

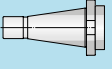
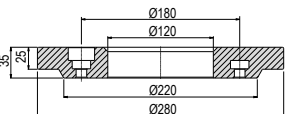


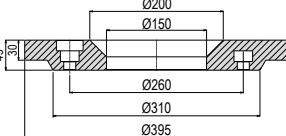




**Teste angolari MTC doppia uscita**  
Double output MTC angle heads



# CONI / FLANGE / PROLUNGHE SHANKS / FLANGES / EXTENSIONS



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	<b>1</b>	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	<b>SK</b> DIN 69871  30/40/50
G90-20 / 20L GMU-20 G90-20 / 20L 2U	<b>2</b>	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	<b>BT</b> MAS 403  30/40/50
G90-30 / 30L G90-30 / 30L 2U	<b>3</b>	9.UF.00003 NO FLANGE		100 150	9.GEX.30100 9.GEX.30150		9.SK40.CAT40 9.SK50.CAT50	<b>CAT</b> ANSI B5.50  40/50
G90-S40	<b>4</b>	9.UF.00004 NO FLANGE					9.SK30.2080 9.SK40.2080 9.SK50.2080	<b>ISO</b> DIN 2080  30/40/50
G90-S40XL G90-S40XLxx GMU-S40-125 GMU-S40	<b>5</b>	9.UF.00005 NO FLANGE					9.HSK.63000 9.HSK.80000 9.HSK.10000	<b>HSK</b> DIN 69893  63/80/100
G90-S50 G90-S50XLxx GMU-S50	<b>6</b>	9.UF.00006 NO FLANGE					9.CPT.C5000 9.CPT.C6000 9.CPT.C8000	<b>C.</b> ISO 26623  C5/C6/C8

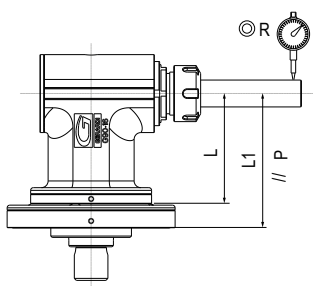
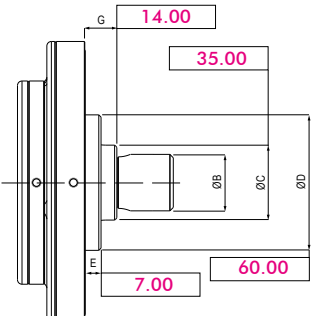
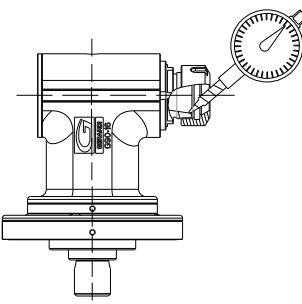
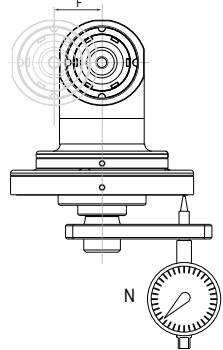
**NEW**

Senza cono -100 €  
No shank -100 €

# ESEMPIO SCHEDA DI COLLAUDO

## INSPECTION SHEET EXAMPLE

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

TIPO DI CONTROLLO Test type	RAFFIGURAZIONE Drawing	ERRORE Error	TIPO DI CONTROLLO Test type	RAFFIGURAZIONE Drawing	ERRORE Error
<p><b>Quota e parallelismo da filo cono ad asse principale. Oscillazione asse utensile.</b></p> <p>Height and parallelism from gauge line to main axis. Runout cutter axis.</p>		<p><b>Ammesso</b> Allowed A = ±0,03 R = ±0,025 P = ±0,015/100</p> <p><b>Rilevato</b> Checked</p> <p>L = +0,020 L1 = +0,010 R = 0,025 P = 0,012/100</p>	<p><b>Verifica delle quote per l'attacco del cono e della flangia.</b></p> <p>Main input shaft dimension checked.</p>		<p><b>Ammesso</b> Allowed E/G = 0,1/-0,5 C/D = +0/-0,03</p> <p><b>Rilevato</b> Checked</p> <p>B = 25h7 <b>ok</b> E = -0,100 G = -0,150 C = -0,020 D = -0,030</p>
<p><b>Oscillazione mandrino porta utensile.</b></p> <p>Runout in cutter spindle.</p>		<p><b>Ammesso</b> Allowed 0,010</p> <p><b>Rilevato</b> Checked</p> <p>0,008</p>	<p><b>Perpendicolarità e disassamento tra gli assi principali.</b></p> <p>Perpendicularity and offset between main axes.</p>		<p><b>Ammesso</b> Allowed F = ± 0,020 N = 0,010/100</p> <p><b>Rilevato</b> Checked</p> <p>F = 0,015 N = 0,010/100</p>

### RODAGGIO TESTA - RUN-IN

RPM in entrata RPM	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				

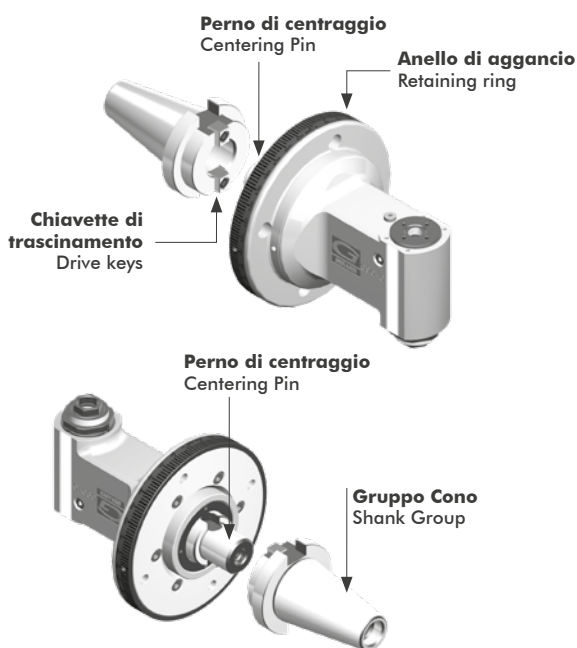
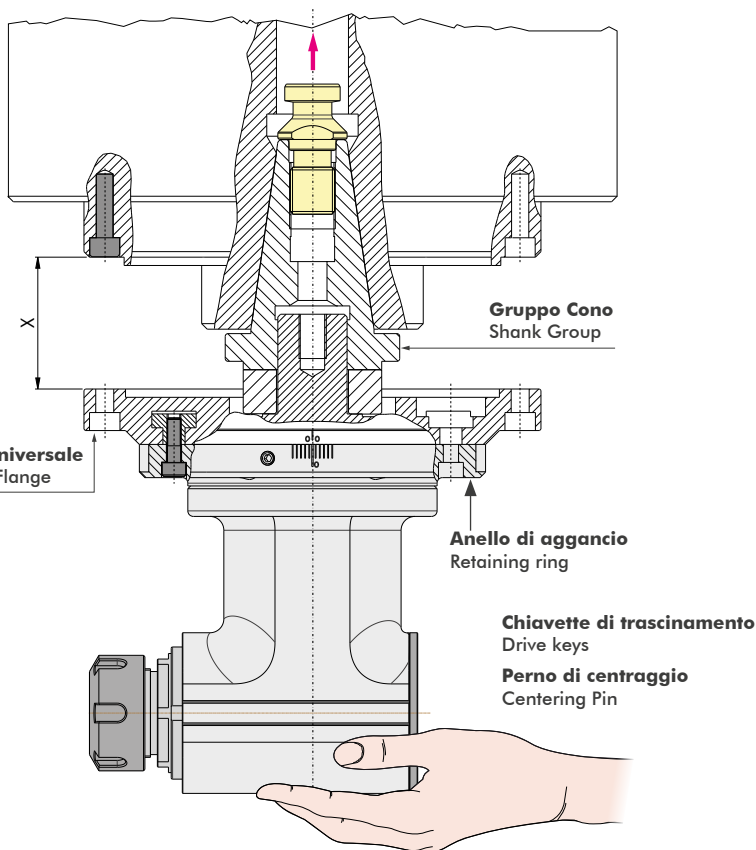
Revisioni - Revisions	Timbro - Stamp	Data - Date
		Firma - Signature

## ESEMPIO di MONTAGGIO MOUNTING EXAMPLE

### DISTANZIALE REALIZZATO IN OPERA SPACER TO BE MADE

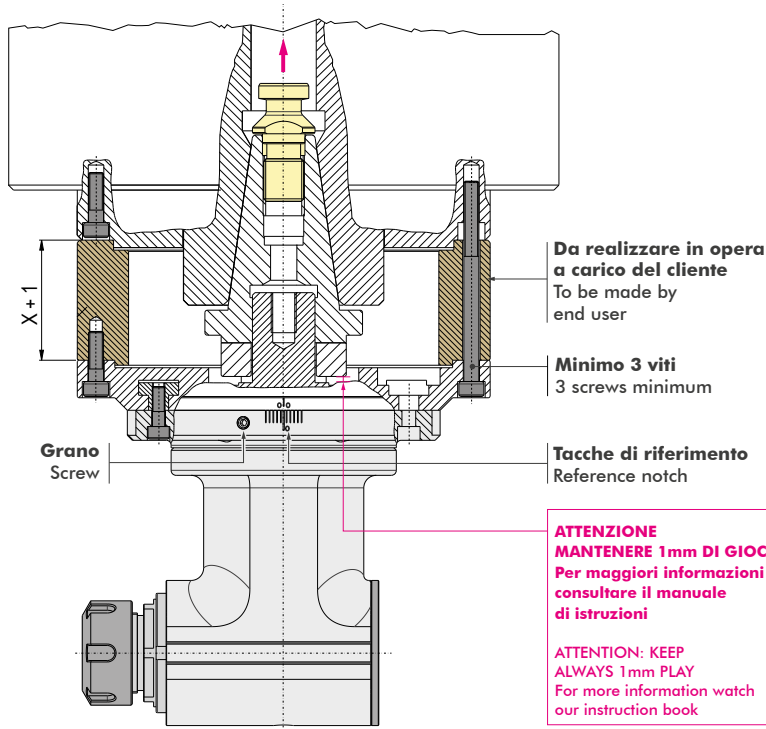
#### FASE 1 - STEP 1

- 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.



**ATTENZIONE**  
MANTENERE 1mm DI GIOCO  
Per maggiori informazioni  
consultare il manuale  
di istruzioni

**ATTENTION: KEEP**  
ALWAYS 1mm PLAY  
For more information watch  
our instruction book

# PINZE - COLLETS

## SCHAUBLIN



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

## ER-DIN 6499

Foratura-fresatura / drilling-milling



MODELLO MODEL	PINZA COLLET	Ø	Code
G90-5	ER8	Ø0,5 / 5	9.ER.08000/...
GL90-7 G90-7 / 7L	ER11	Ø1 / 7	9.ER.11000/...
GL90-7B G90-7B/ 7LB	ER11 WP	Ø3 / 7	9.ER.11WP0/...
GTU 10 GL90-10 G90-10 / 10L GR90-10	ER16	Ø1 / 10	9.ER.16000/...
GL90-10B G90-10B / 10LB G90-10RI / 10LRI GR90-10RI	ER16 WP	Ø1 / 10	9.ER.16WP0/...
GMU-13 / 13L	ER20	Ø1/13	9.ER.20000/...
GL90-16 G90-16 / 16L GMU-16 GR90-16 G90-16 / 16L 2U	ER25	Ø1 / 16	9.ER.25000/...
GL90-16B / RI G90-16B / 16LB G90-16RI / 16LRI GR90-16RI	ER25 WP	Ø1 / 16	9.ER.25WP0/...
G90-20 / 20L G90-20L/272 GMU-20 G90-20 / 20L 2U	ER32	Ø2 / 20	9.ER.32000/...
G90-20B / 20LB G90-20L/272B G90-20RI 20LRI	ER32 WP	Ø2 / 20	9.ER.32WP0/...
G90-30 / 30L G90-30 / 30L 2U	ER40	Ø3 / 30	9.ER.40000/...
G90-30B 30LB G90-30RI 30LRI	ER40 WP	Ø3 / 30	9.ER.40WP0/...

Maschiatura / tapping



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

## CHIAVI - WRENCHES ES - STD

1

MODELLO MODEL	GHIERA NUT	Code	COPPIA SERRAGGIO CLAMPING FORCE (Nm)	
GR90-5	-	-	-	

CHIAVI WRENCHES	Code	
-	-	
-	-	



MODELLO MODEL	GHIERA NUT	Code	COPPIA SERRAGGIO CLAMPING FORCE (Nm)	
G90-5	ER8	9.ER.080ES	5 (6)	
GL90-7 G90-7 / 7L	ER11 ES	9.ER.110ES	12 (15)	
GL90-7B G90-7B/ 7LB	ER11 ES	9.ER.110ES	12 (15)	
GTU 10 GL90-10 G90-10 / 10L GR90-10	ER16 ES	9.ER.160ES	24 (30)	
GL90-10B G90-10B / 10LB G90-10RI / 10LRI GR90-10RI	ER16 ES	9.ER.160ES	24 (30)	
GMU-13 / 13L	ER20 STD	9.ER.20STD	28 (35)	
	ER20 AX	9.ER.200AX	52	
GL90-16 G90-16 / 16L GMU-16 GR90-16 G90-16 / 16L 2U	ER25 STD	9.ER.25STD	32 (40)	
	ER25 AX	9.ER.250AX	80	
GL90-16B / RI G90-16B / 16LB G90-16RI / 16LRI GR90-16RI	ER25 STD	9.ER.25STD	32 (40)	
G90-20 / 20L G90-20L/272 GMU-20 G90-20 / 20L 2U	ER32 STD	9.ER.32STD	136 (70)	
	ER32 AX	9.ER.320AX	104	
G90-20B / 20LB G90-20L/272B G90-20RI 20LRI	ER32 STD	9.ER.32STD	136 (70)	
G90-30 / 30L G90-30 / 30L 2U	ER40 STD	9.ER.40STD	176 (220)	
G90-30B 30LB G90-30RI 30LRI	ER40 STD	9.ER.40STD	176 (220)	

CHIAVI WRENCHES	Code	
CH-8 STD	9.CH.08STD	
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-27 ES	9.CH.270ES	
CH-17 ES	9.CH.170ES	
CH-32 ES	9.CH.320ES	
CH-17 ES	9.CH.170ES	
CH-32 ES	9.CH.320ES	
CH-32 ES	9.CH.320ES	
CH-20 STD	9.CH.20STD	
CH-20 AX	9.CH.200AX	
CH-39 ES	9.CH.390ES	
CH-25 STD	9.CH.25STD	
CH-44 ES	9.CH.440ES	
CH-25 AX	9.CH.250AX	
CH-39 ES	9.CH.390ES	
CH-25 STD	9.CH.25STD	
CH-46 ES	9.CH.460ES	
CH-32 STD	9.CH.32STD	
CH-32 AX	9.CH.320AX	
CH-46 ES	9.CH.460ES	
CH-32 STD	9.CH.32STD	
CH-59-ES	9.CH.590ES	
CH-40STD	9.CH.40STD	
CH-59-ES	9.CH.590ES	
CH-40STD	9.CH.40STD	

# SIRINGA PER INGRASSAGGIO

## SYRINGE FOR GREASING



Sistema di ingrassaggio rapido mediante siringa specifico per la lubrificazione degli ingranaggi delle teste angolari.

Quick greasing system through syringe. Designed specifically for the lubrication of Angle Heads' gears.

MODELLO MODEL	CAPACITÀ Capacity	Code	
Siringa grasso Grease syringe	30ml	9.FA.018055	



# CAMBI RAPIDI MODULARI 2.0

## MODULAR QUICK CHANGE ADAPTORS 2.0



### Compatibili con tutte le uscite ER - Compatible with all ER outputs

Vedi intera gamma nel capitolo Accessori pag. 5.134 / 5.135 - See the full range in the Accessories chapter at pages 5.134 / 5.135

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..

### Modelli 2.0 Types:

- Nuovi cambi rapidi modulari 2.0 a FORTE SERRAGGIO, 100% Made in Italy.
- Sistema di portautensili modulari adatti al montaggio su qualsiasi tipologia di uscita ER.
- 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.
- Modular toolholder system suitable for every Driven Tool ER collet output.
- Guaranteed higher rigidity and performances on Gerardi driven tools thanks to the removable diamond plate and the ball bearing nut
- All modular quick change 2.0 adaptors are suitable for ER toolholder with external and internal coolant supply

CORPO CAMBIO RAPIDO 2.0  
2.0 QUICK CHANGE BODY

GHIERA CON CUSCINETTO  
BALL BEARING NUT

LOSANGA DI TRASCINAMENTO REMOVIBILE  
REMOVABLE DIAMOND PLATE  
BREVETTO DEPOSITATO  
PATENT PENDING



**CAMBI RAPIDI MODULARI 2.0 A FORTE SERRAGGIO!**  
HIGH TORQUE QUICK CHANGE ADAPTORS 2.0

Ghiera con cuscinetto a sfera per un serraggio più rigido e losanga di trascinamento removibile

Ball bearing nut for the highest torque clamping and removable diamond plate.



**ECONOMICI**  
MONEY SAVER

I cambi rapidi modulari ti 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



**GRANDE VERSATILITÀ & MAGGIORE PRESTAZIONE**  
VERSATILITY & PERFORMANCE IMPROVED

Ampia gamma di uscite disponibili. Ghiera cuscinetto e losanga di trascinamento per una maggiore rigidità.

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



**ESTREMA COMPATIBILITÀ**  
EXTREME COMPATIBILITY

I cambi rapidi modulari possono essere montati su ogni tipo di Motorizzato o Testa angolare con uscita ER.

The quick change adaptors can be mounted on any type of Driven Tool or right Angle Head with ER output