

MADE IN ITALY



STM 90°  
CLASSIC LINE



*Integral angle heads series!*

# CLASSIC LINE

**Teste Angolari / Angle Heads**

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# Teste Angolari / Angle Heads CLASSIC LINE



Velocità / High-speed  
10.000 Rpm



Internal coolant  
fino a / Up to  
70Bar

**Cono e Albero Integrali - Integral Shank & Shaft !**

from 1.10 to 1.54

## SERIE ATC / ATC SERIES

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

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

from 1.57 to 1.88

## SERIE MTC / MTC SERIES

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

This is a range of heads for traditional machine tools with flange attachment. The T-slot on the universal flange facilitates positioning the head 360° around its vertical axis. The modular system makes it possible to extend the 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.



## Albero & Cono Integrale Integral Shank & Shaft

Albero con cono di attacco integrale (cementato, temprato e rettificato) per garantire la massima rigidità. Intercambiabili per un utilizzo su più centri di lavoro.

Main shaft is one solid piece with the drive input taper, case hardened and ground, to ensure maximum rigidity. They are interchangeable to fit any machine spindle



## Cuscinetti ABEC 9 ABEC 9 Ball Bearings

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

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



## Corpo Principale Main Body

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

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



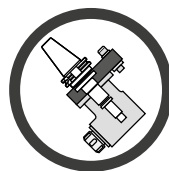
## Ingranaggi Gleason Gleason Gears

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

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

In continuo sviluppo, la gamma di teste Classic Line, è oggi composta da 252 modelli completamente compatibili con la Linea Evolution e con qualunque macchina sul mercato grazie all'ampia gamma di coni disponibili. L'obiettivo è sempre lo stesso: Ottimizzare i cicli, semplificare e migliorare sempre di più la qualità di qualsiasi tipo di lavorazione su centri orizzontali & verticali. Le Teste Angolari Gerardi della linea Classic nascono da solide basi tecniche e dall'esperienza maturata da oltre 50 anni trascorsi al fianco dei nostri clienti durante i quali abbiamo risolto i problemi più variegati cercando la soluzione migliore e garantendo sempre l'elevata qualità ed affidabilità dei nostri prodotti.

The Classic Line Angle Heads range is constantly evolving and it currently consists of 252 items, all compatible with both Evolution Line Angle Heads and all machining centres on the market thanks to the wide range of shanks available. Our goal is always the same: optimizing the production chain by simplifying and improving more and more every type of operation on horizontal and vertical machining centres. The new Classic line of Gerardi angle heads has been designed from a technical base derived from more than 50-years-experience in solving thousands of production problems, finding optimum solutions and always guaranteeing the highest product quality.



SCAN IT TO SEE



THE WEB PAGE



## Linea di teste angolari integrali! Integral angle heads series!

### Uscite regolabili GMU GMU Adjustable output

Operazioni orizzontali, verticali e angolari con una sola testa. Uscita completamente regolabile con angolazione  $\pm 90^\circ$

Vertical, horizontal and angular machining operations with one angle head only. Fully adjustable output  $\pm 90^\circ$



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



Manipoli ad Angolo  
90° Angle Spindle



### PASSAGGIO REFRIGERANTE - COOLANT TYPES:



10bar

- » Perno
- » Utensile
- » Positioning pin
- » Tool



10bar

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



up to  
70bar

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



up to  
150bar

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

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Novità / News

# Classic Line

## Nuovi Modelli di Teste Angolari Integrali

New Types of Integral Angle Heads



### MINI90° SERIES

La nuova serie di teste angolari con manipolo ad angolo intercambiabile per lavorazioni con utensile da Ø1,6 a Ø3  
New series of angle heads with interchangeable angle spindle for machinings with Ø1,6 to Ø 3



### EXTENDED SERIES

La serie di teste angolari EXTRA LUNGHE con torretta riportata.  
New EXTENDED series angle heads with reported turret.



### SLIM SERIES

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



### OFFSET SERIES

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

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

### Integral angle heads ATC series (Automatic tool change)



#### MINI90° SERIES

La nuova serie di teste angolari con manipolo ad angolo intercambiabile per lavorazioni in ingombri minimi  
New series of angle heads with interchangeable angle spindle for machining in minimum overall spaces



#### EXTENDED SERIES

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.



#### COOLANT SERIES

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



#### GMU SERIES

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°)



#### DOUBLE SERIES

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











#### OFFSET SERIES




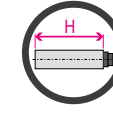
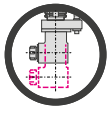

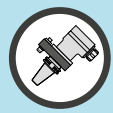
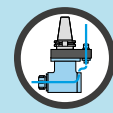
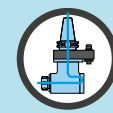

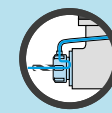
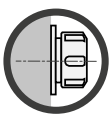
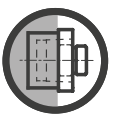

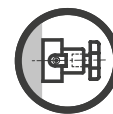

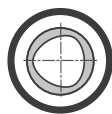
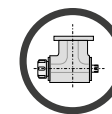
Testa angolari disassate per lavorazioni in spazi ristretti con opzione passaggio refrigerante dal cono, uscita utensile 70 BAR  
Offset series for machining in narrow spaces with coolant input directly from machine spindle and output through the tool at 70 BAR

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## SIMBOLOGIA DATI TECNICI TECHNICAL DATA LOGOS

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

## INDICE OPZIONI OPTIONS INDEX

<b>OPZIONI</b> OPTIONS							
	<b>Manipolo ad angolo</b> Angular chuck	Angular chuck	<b>Spina per posizionamento rapido</b> Quick positioning pin	<b>Prolunga per manipolo ad angolo</b> Extension for angular chuck	<b>Lunghezze speciali</b> Special lenght	<b>Flangia Multipoint</b> Multipoint flange	
<b>PASSAGGIO REFRIGERANTE</b> COOLANT							
	<b>Attaverso il perno</b> Through the Pin  10bar (standard) <b>ROTAZ. a SECCO</b> DRY RUNNING ✓	<b>Perno » Distrib » Utensile</b> Pin » Distributor » Tool  10bar <b>ROTAZ. a SECCO</b> DRY RUNNING ✓	<b>Cono » Distrib » Utensile</b> Shank » Distributor » Tool 30 / 40 / 70bar <b>ROTAZ. a SECCO</b> DRY RUNNING NO	<b>Distributore » Utensile</b> Distributor » Tool 10bar <b>ROTAZ. a SECCO</b> DRY RUNNING ✓	<b>Perno » Ghiera » Utensile</b> Pin » Distrib » Tool  <b>ReCool NUT</b>		
<b>USCITA</b> OUTPUT							
	<b>Uscita ER</b> ER output	<b>Uscita HSK</b> HSK output	<b>Uscita ISO</b> ISO output	<b>Uscita portafresa</b> Shell mill holder output	<b>Uscita WELDON</b> WELDON output	<b>Uscita C.</b> C. output	<b>Doppia uscita</b> Double output



## ATC SERIES AUTOMATIC TOOL CHANGE



### INGRANAGGI - GEARS

Ingranaggi Gleason con evolvente rettificato massime performances e minori vibrazioni

Gleason ground spiral bevel gears maximum performances and minimum vibration



### STOP BLOCK

Con bussola cementata e guarnizione

With case hardened bushing and gasket

### CUSCINETTI - BEARINGS

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

Angular contact preloaded ball bearings of precision class ABEC 9



### DESIGN

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

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

**Albero integrale con cono cementato, temprato, rettificato**

Integral case hardened and ground shank and shaft

**Gruppo antirotante modulare**  
Modular antirotation group

**Anello graduato**  
Graduated ring

### USCITE - OUTPUTS:

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



**Perno di riferimento con sbloccaggio automatico del porta utensile**

Positioning pin with automatic tool release

**Passaggio refrigerante 10BAR attraverso il perno**

Standard 10BAR coolant through the pin

**Corpo testa orientabile a 360° con pressurizzazione interna.**

In acciaio trattato, massima rigidità e resistenza alla corrosione.

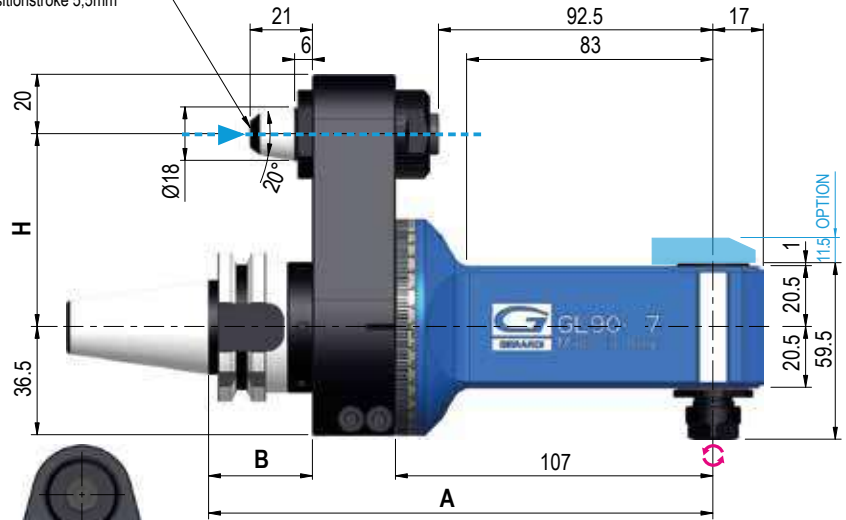
Minima dilatazione termica.

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

Minimum thermal expansion.

**GL90-7**

TYPE 0


 Perno in posizione  
 di sgancio corsa 5,5mm  
 Pin during release  
 position stroke 5.5mm

**Dati tecnici - Technical data**

 Ratio  
 1:1

 ISO / BT 30  
 Kg 2.2  
 ISO / BT 40  
 Kg 2.7

 Rpm  
 10.000


Ø 7



N 120



M 6



Nm 5


 ER11  
 Ø17


Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 5,5Kg


**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

**OPZIONI - OPTIONS**

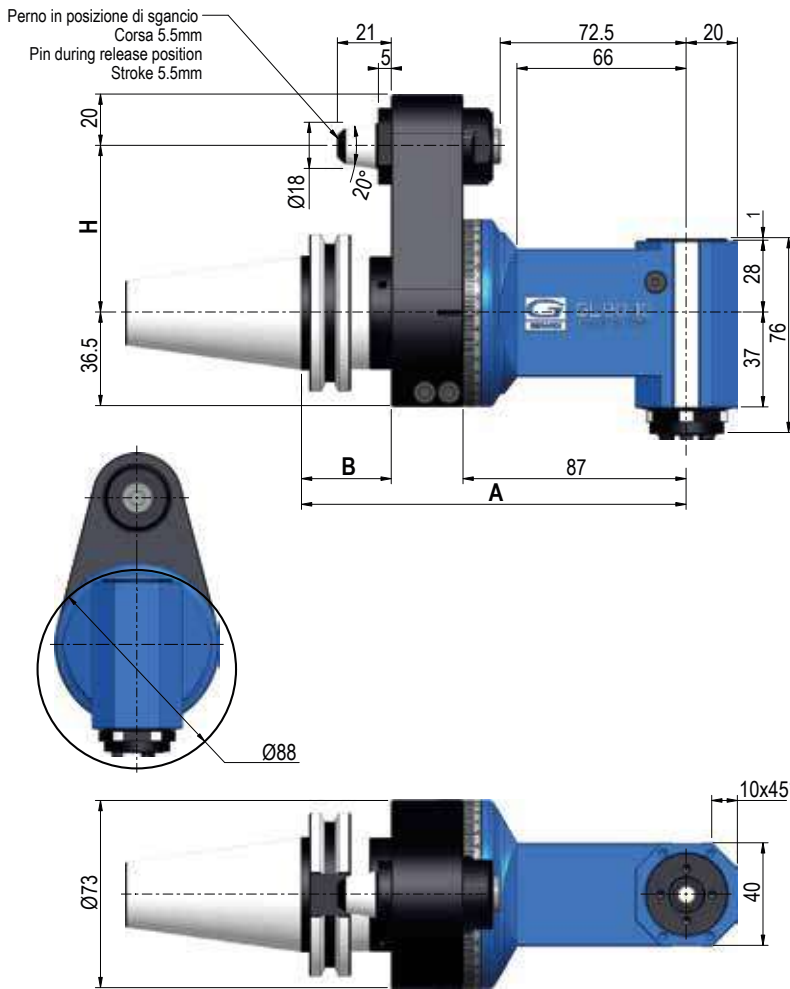
 REFR. - COOLANT - dal Perno - Pin through Max 10bar - 6000Rpm - **Dry running YES**

OUTPUT - Weldon Max Ø6

DOUBLE OUTPUT - ER11 - ER 8M

### GL90-10

TYPE 0



#### Dati tecnici - Technical data



Ratio  
1:1



ISO / BT 40  
Kg 2,4  
ISO / BT 50  
Kg 2,9



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
Dual contact (Optional)						
<b>H</b>	Standard	65 / 80	65 / 80	65 / 80	65 / 80	65 / 80
	Optional 110					
<b>A</b>	150	150	150	145	150	157
<b>B</b>	35	35	35	30	35	42

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 6Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 6000Rpm - Dry running YES

OUTPUT - Weldon Max Ø6

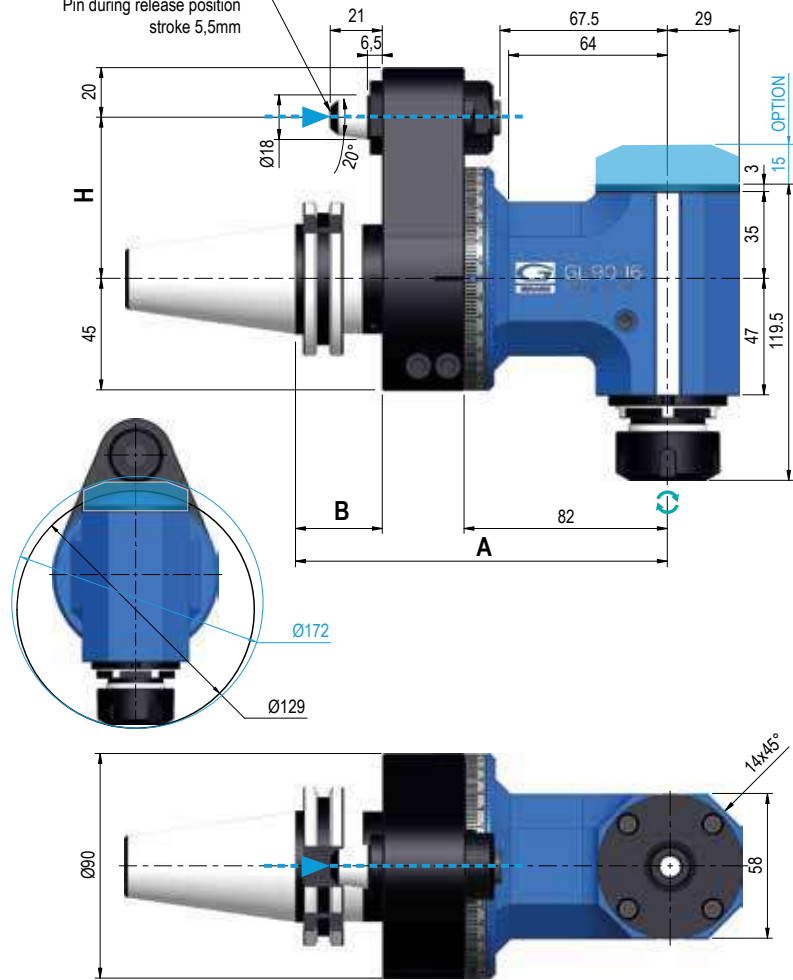
OUTPUT - Shell mill holder Ø13

OUTPUT - ER20

DOUBLE OUTPUT - ER11 - ER 8M

# GL90-16

TYPE 1


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

**Dati tecnici - Technical data**

 Ratio  
 1:1

**ISO / BT 40**  
 Kg 4,3  
**ISO / BT 50**  
 Kg 7,2

 Rpm  
 8.000

 $\varnothing 16$ 


N 510



M 12



Nm 24


**ER25**  
 $\varnothing 1/16$ 


Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 10,5Kg


**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

 Valigetta / Stop block / Ghiera ER / Chiavi di servizio  
 Tubetto di grasso / Libro istruzioni

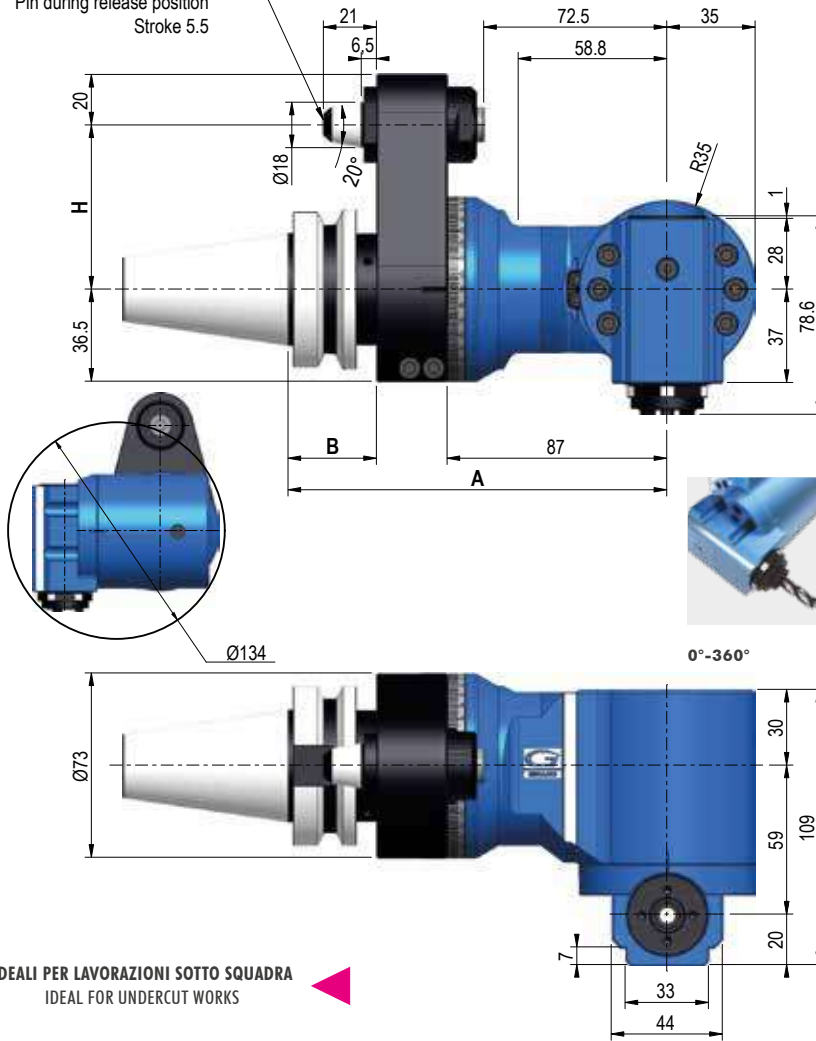
Special bag / Stop block / ER nut / Wrenches / Grease tube / Instruction book

**OPZIONI - OPTIONS**
**REFR. - COOLANT** - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**
**REFR. - COOLANT** - dal Cono - Shank through Max 40bar - 4000Rpm - **Dry running NO**
**OUTPUT** - Shell mill holder  $\varnothing 16$ 
**OUTPUT** - ER32

**DOUBLE OUTPUT** - ER25 - ER 16M

**OUTPUT** - Weldon Max  $\varnothing 16$

Perno in posizione di sgancio  
Corsa 5.5  
Pin during release position  
Stroke 5.5



### GTU-10

TYPE 0



#### Dati tecnici - Technical data



Ratio  
1:1



Kg ISO / BT40  
Kg 3,8



Rpm  
6.000



Ø 10



N 250



M 8



Nm 10



ER16  
Ø1/10

IDEALI PER LAVORAZIONI SOTTO SQUADRA  
IDEAL FOR UNDERCUT WORKS



Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50			BT MAS 403			HSK DIN 69893			C. ISO 26623		
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Dual contact (Optional)															
H	Standard	65 / 80	65 / 80	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
	Optional 110														
A	150	150	150	150	150	145	150	156	157	157	160	173	173	175	
B	35	35	35	35	35	30	35	41	42	42	45	38	38	40	

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 8000 Rpm

QUICK POSITIONING - Customized Angles

OUTPUT - Weldon Max Ø10

OUTPUT - ER20

### GM90-3 300S TYPE 1



#### Dati tecnici - Technical data



Reduction Ratio  
1:-1

**Kg** Kg 3,6



Rpm  
15.000

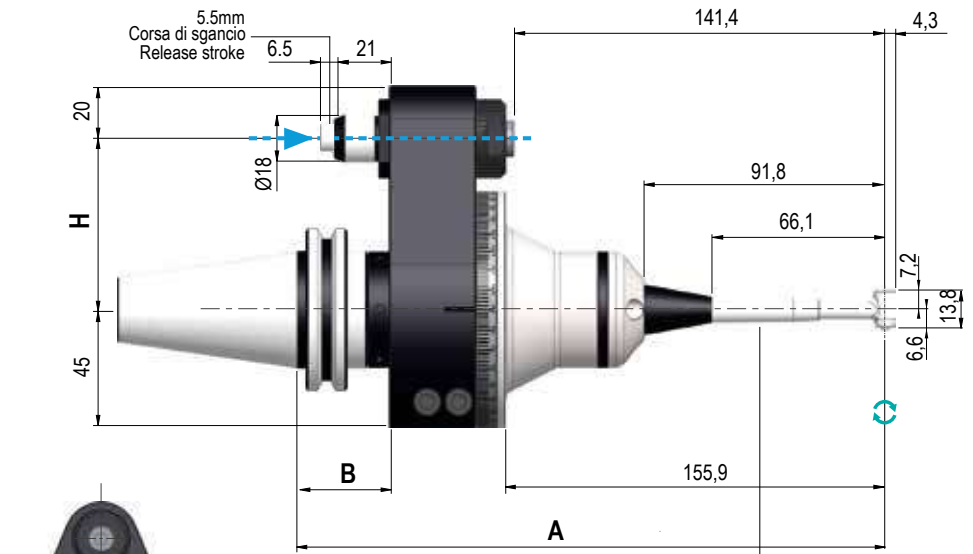
**Ø** Ø 1,6 Max



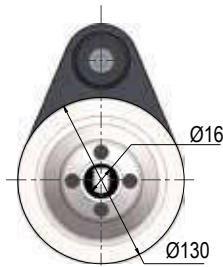
Nm 1



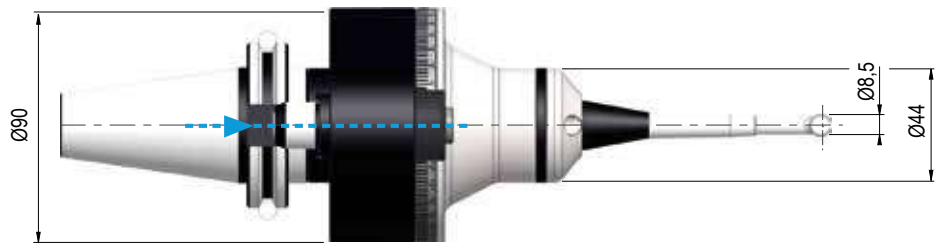
**K252**  
Ø1,6



**MANIPOLO ad ANGOLO**  
90° ANGLE SPINDLE  
MFC - 300 S



IDEALI PER SVASATURE E SBAVATURE  
IDEAL FOR COUNTERSINKING AND SNAGGING



Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50			BT MAS 403			HSK DIN 69893			C. ISO 26623		
Grandezza - Size	30	40	50	40	50		30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)															
<b>H</b> Standard	65 / 80	65 / 80	80	65 / 80	80		65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
Optional 110															
<b>A</b>	223,8	223,8	223,8	223,8	223,8		223,8	223,8	229,8	230,8	230,8	233,8	226,8	226,8	228,8
<b>B</b>	35	35	35	35	35		35	35	41	42	42	45	38	38	40

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Valigetta / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni / Pinza K252 Ø1,6mm  
Special bag / Stop block / ER nut / Wrenches / Grease tube  
Instruction book / K252 Ø1,6mm collet

#### OPZIONI - OPTIONS

MANIPOLO - 90° ANGLE SPINDLE - RA-100

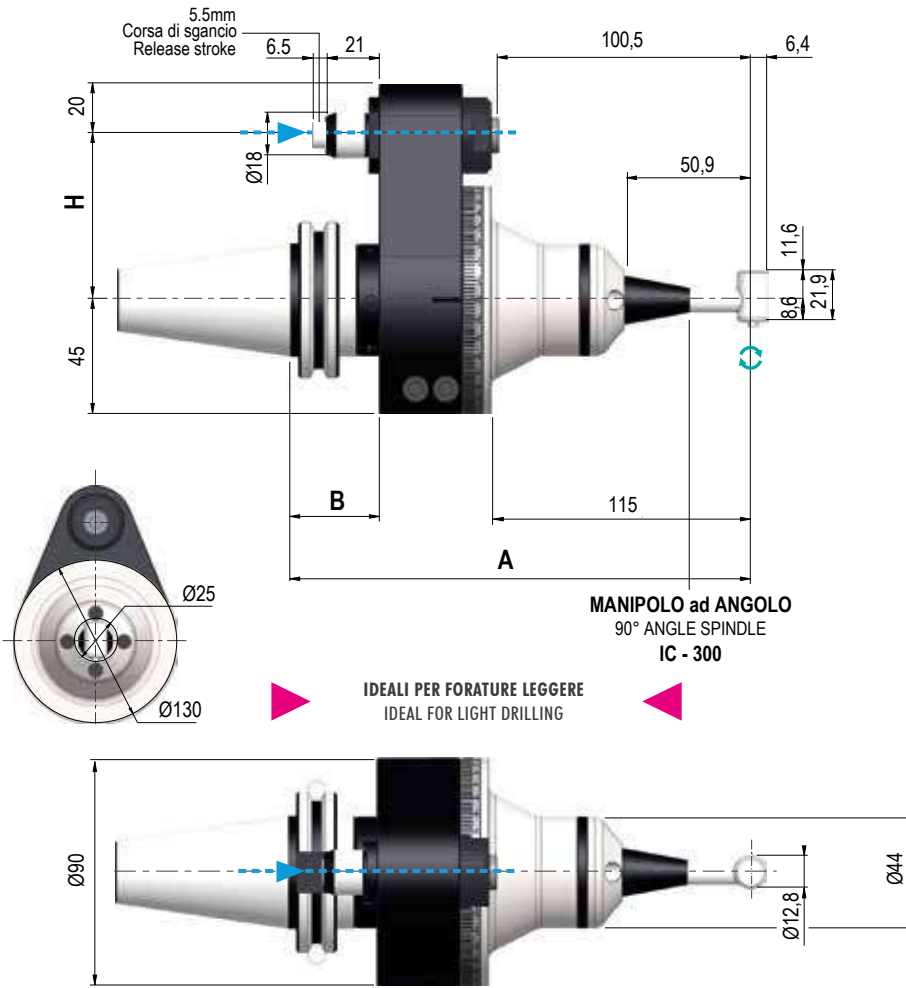
MANIPOLO - 90° ANGLE SPINDLE - IC-300

MANIPOLO - 90° ANGLE SPINDLE - RA-200

PROLUNGA - EXTENSION - CN-01 H=50,1 mm

### GM90-3 300

TYPE 1



#### Dati tecnici - Technical data

	Reduction Ratio 3/4		Kg 3,58
	Rpm 15.000 / 11.250		Ø 3,175 Max
	-		-
	Nm 1		CHC Ø 1,6-3,175

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50			BT MAS 403			HSK DIN 69893			C. ISO 26623		
Grandezza - Size	30	40	50	40	50		30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)															
H	Standard	65 / 80	65 / 80	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
	Optional 110														
A		183	183	183	183	183	183	183	189	190	190	193	186	186	188
B		35	35	35	35	35	35	35	41	42	42	45	38	38	40

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Valigetta / Stop block / Ghiera ER / Chiavi di servizio  
 Tubetto di grasso / Libro istruzioni / Pinza CHCØ3/2,35mm  
 Special bag / Stop block / ER nut / Wrenches / Grease tube  
 Instruction book / CHCØ3/2,35mm collet

#### OPZIONI - OPTIONS

MANIPOLO - 90° ANGLE SPINDLE - RA-100

MANIPOLO - 90° ANGLE SPINDLE - MFC-300 S

MANIPOLO - 90° ANGLE SPINDLE - RA-200

PROLUNGA - EXTENSION - CN-01 H=50,1 mm

### GM90-3 200

TYPE 1



**NEW  
2024**

Corpo - Body

RA - 200

#### Dati tecnici - Technical data



Reduction Ratio  
1:1,5



**Kg** 3,7



Rpm  
15.000 /  
10.000



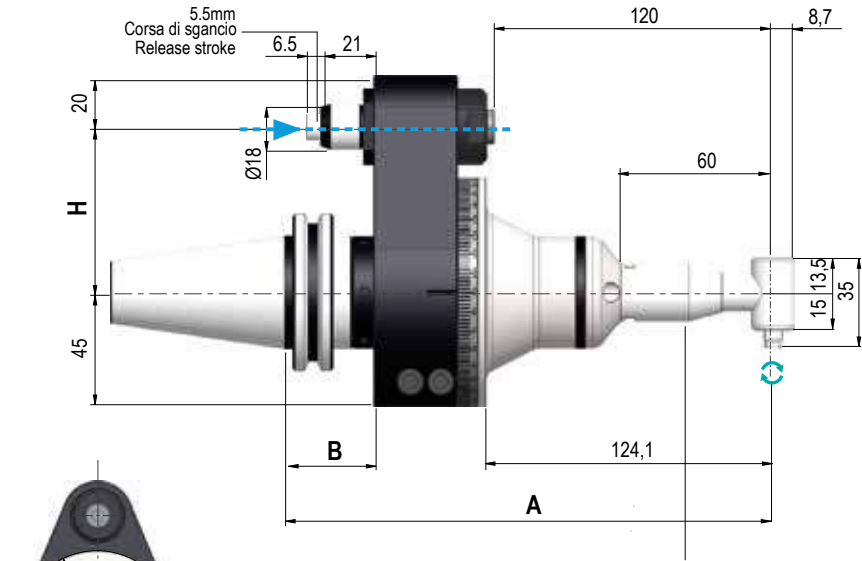
Ø 3,175  
Max



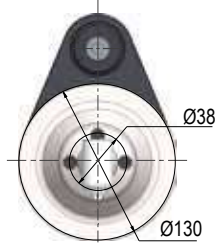
Nm 4



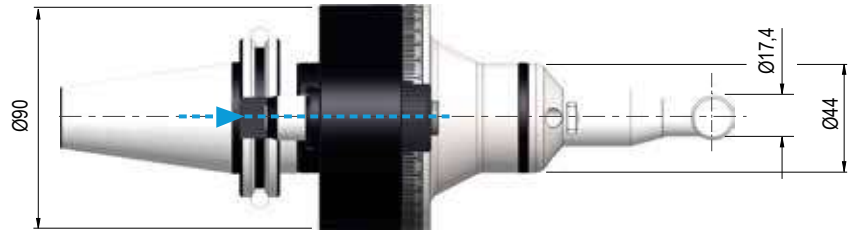
CHS: Ø  
0,8-3,175



**MANIPOLO ad ANGOLO  
90° ANGLE SPINDLE  
RA - 200**



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



Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Valigetta / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni / Pinza K252 Ø1,6mm  
Special bag / Stop block / ER nut / Wrenches / Grease tube  
Instruction book / K252 Ø1,6mm collet

#### OPZIONI - OPTIONS

MANIPOLO - 90° ANGLE SPINDLE - RA-100

MANIPOLO - 90° ANGLE SPINDLE - MFC-300 S

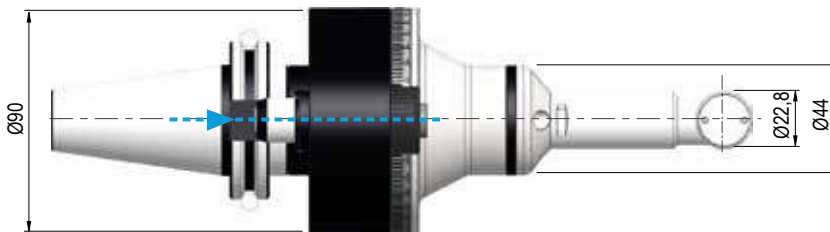
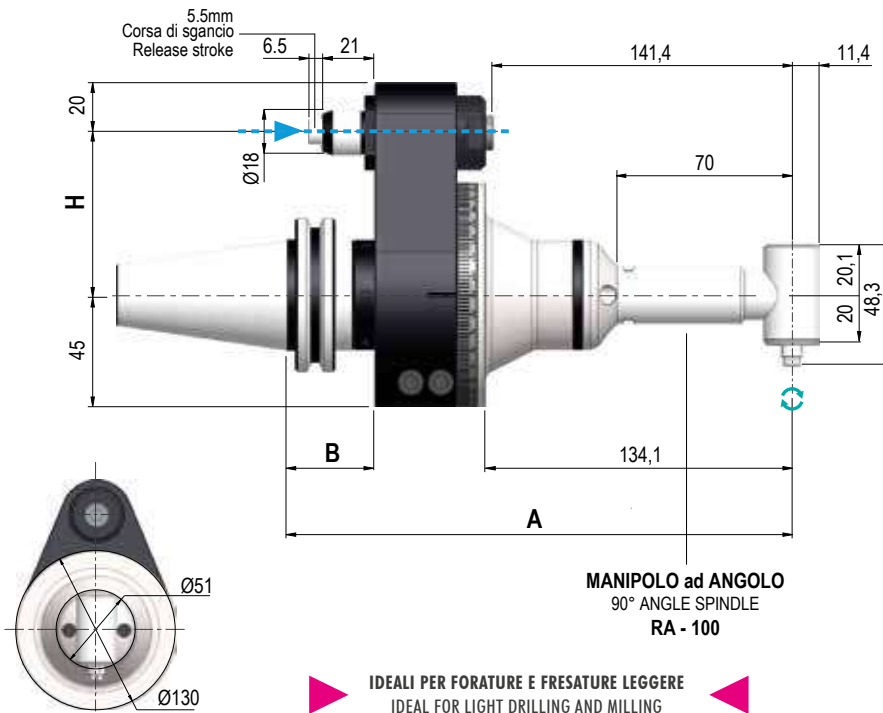
MANIPOLO - 90° ANGLE SPINDLE - IC-300

PROLUNGA - EXTENSION - CN-01 H=50,1 mm



### GM90-3 100

TYPE 1



#### Dati tecnici - Technical data

	Reduction Ratio 1 / 2,67		Kg 3,8
	Rpm 15.000 / 5.620		Max Ø3,175
	-		-
	Nm 4		CH8: Ø 0,8-3,175

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Valigetta / Stop block / Ghiera ER / Chiavi di servizio  
 Tubetto di grasso / Libro istruzioni / Pinza CH8Ø3mm  
 Special bag / Stop block / ER nut / Wrenches / Grease tube  
 Instruction book / CH8Ø3mm collet

#### OPZIONI - OPTIONS

MANIPOLO - 90° ANGLE SPINDLE - RA-200

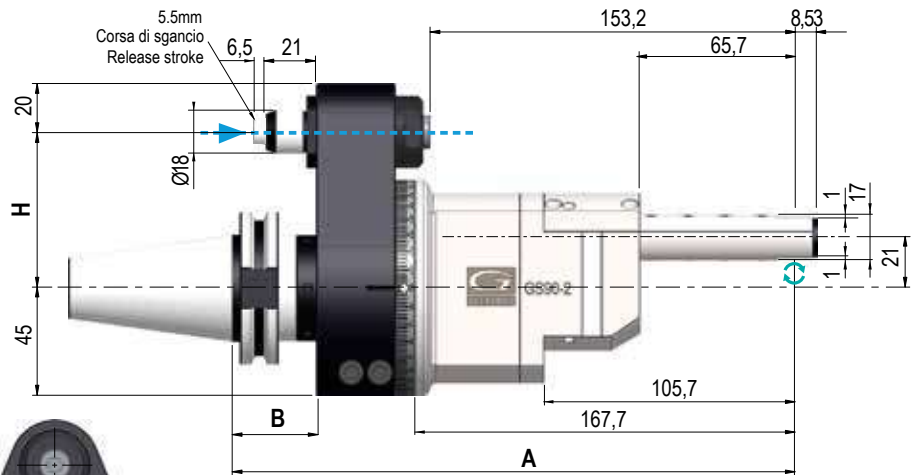
MANIPOLO - 90° ANGLE SPINDLE - MFC-300 S

MANIPOLO - 90° ANGLE SPINDLE - IC-300

PROLUNGA - EXTENSION - CN-01 H=50,1 mm

**GS90-2**

TYPE 1


**Dati tecnici - Technical data**

Ratio 1:2,475

**Kg** ISO / BT40  
Kg 4,96

Rpm 12.000

Ø 2,5



Nm 1.6

 GS90-2  
Ø1/2,5

 IDEALI PER MICRO LAVORAZIONI  
 IDEAL FOR MICRO MACHINING


Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 8Kg


**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

Valigetta / Stop block / Ghiera ER / Chiavi di servizio

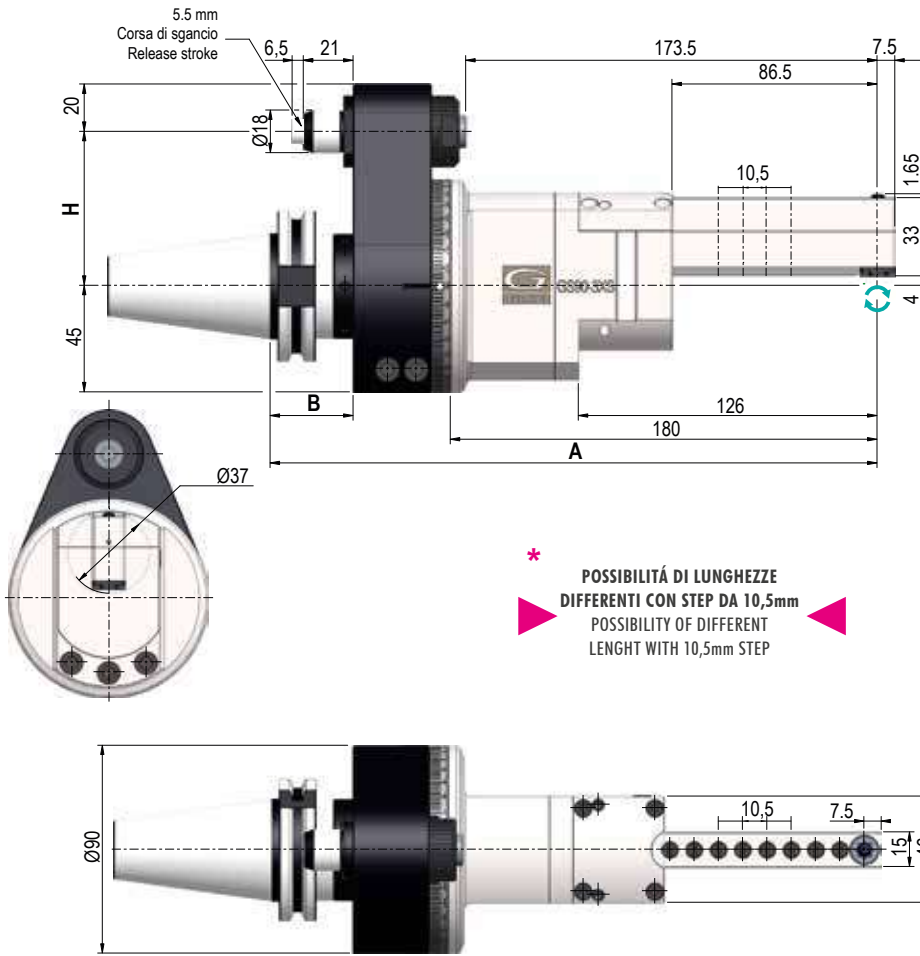
Tubetto di grasso / Libro istruzioni

Special bag / Stop block / ER nut / Wrenches / Grease tube / Instruction book

**OPZIONI - OPTIONS**
**PINZA - COLLETS** GS90-2 Ø1 - 1,5 - 2 - 2,5

**GS90-3XS**

TYPE 1


**Dati tecnici - Technical data**

 Ratio  
 1:3.19


Kg 5,34


 Rpm  
 10.000


Ø 3,5



-



-



Nm 2.3


 GS90-3XS  
 Ø2/3,5

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50			BT MAS 403			HSK DIN 69893			C. ISO 26623		
Grandezza - Size	30	40	50	40	50		30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)															
H	Standard	65 / 80	65 / 80	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
	Optional 110														
A		256	256	256	256	256	251	256	262	263	263	266	259	259	261
B		35	35	35	35	35	30	35	41	42	42	45	38	38	40

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 8,5Kg


**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

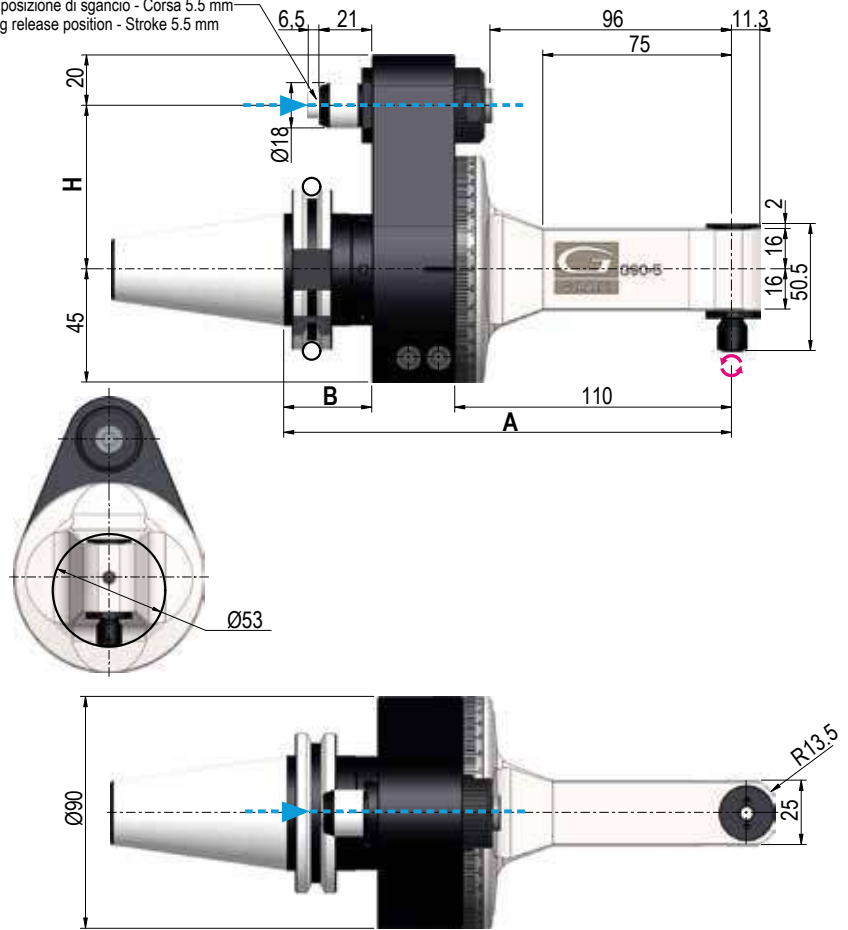
**OPZIONI - OPTIONS**
**PINZA** - COLLETS GS90-3XS Ø2 - 2,5 - 3 - 3,5

### G90-5

TYPE 1



Perno in posizione di sgancio - Corsa 5.5 mm  
Pin during release position - Stroke 5.5 mm



#### Dati tecnici - Technical data



Ratio  
1:1



ISO / BT 30  
Kg 4  
ISO / BT 40  
Kg 3,7



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	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Dual contact (Optional)															
H	Standard	65 / 80	65 / 80	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
	Optional 110														
A	178	178	178	178	178	178	178	184	185	185	188	181	181	183	
B	35	35	35	35	35	35	35	41	42	42	45	38	38	40	

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

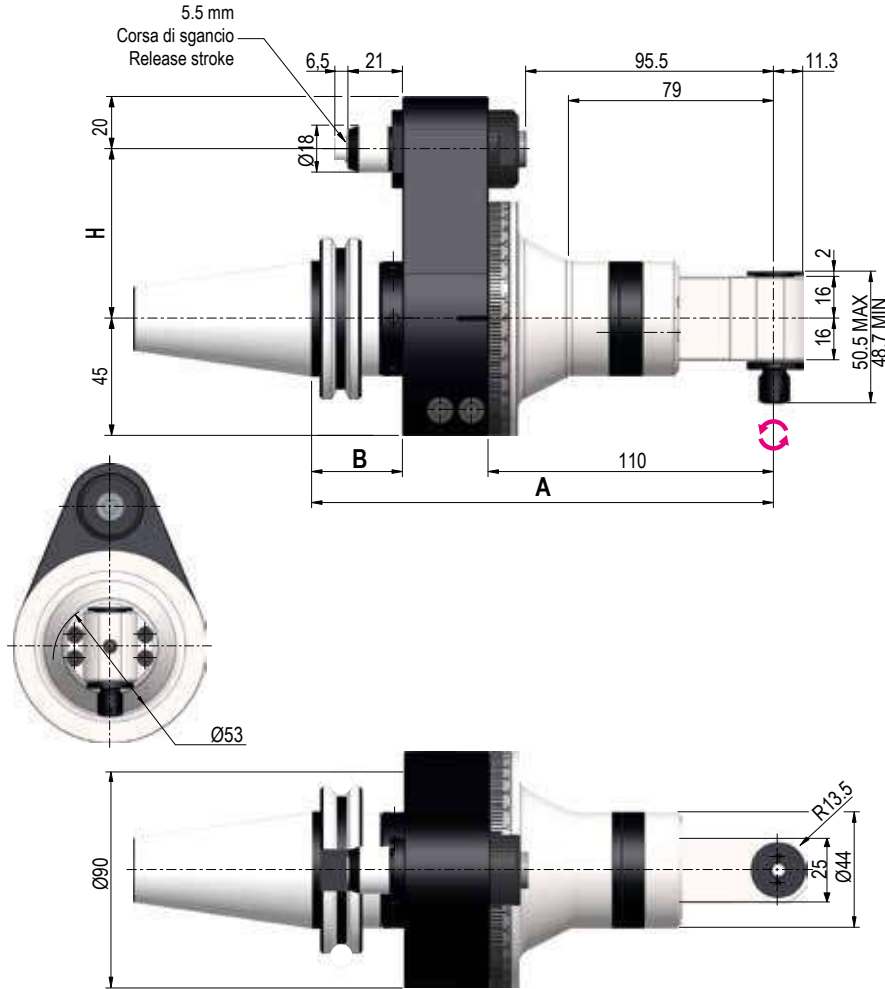
Valigetta / Stop block / Ghiera ER / Chiavi di servizio

Tubetto di grasso / Libro istruzioni

Special bag / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

OUTPUT - WELDON MAX Ø6



### GM90-5

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 3,84



Rpm  
10.000



Ø 5



N 60



-



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
Grandezza - Size	40 50	40 50	40 50	63 80 100	C5 C6 C8
Dual contact (Optional)					
<b>H</b> Standard	65 / 80	80	65 / 80	80	65 / 80
Optional 110					
<b>A</b>	178	178	178	178	184 185 185 188 181 181 183
<b>B</b>	35	35	35	35	41 42 42 45 38 38 40

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Valigetta / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

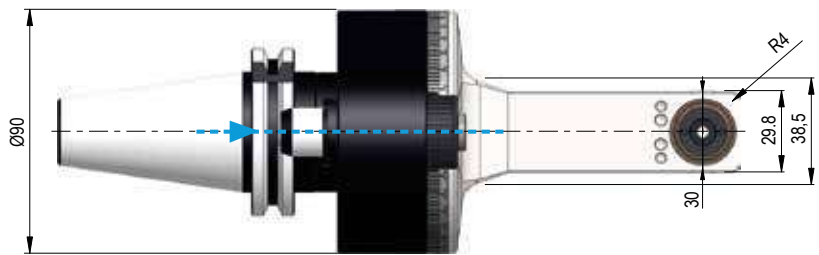
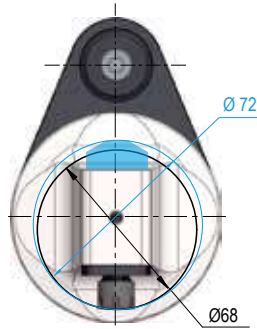
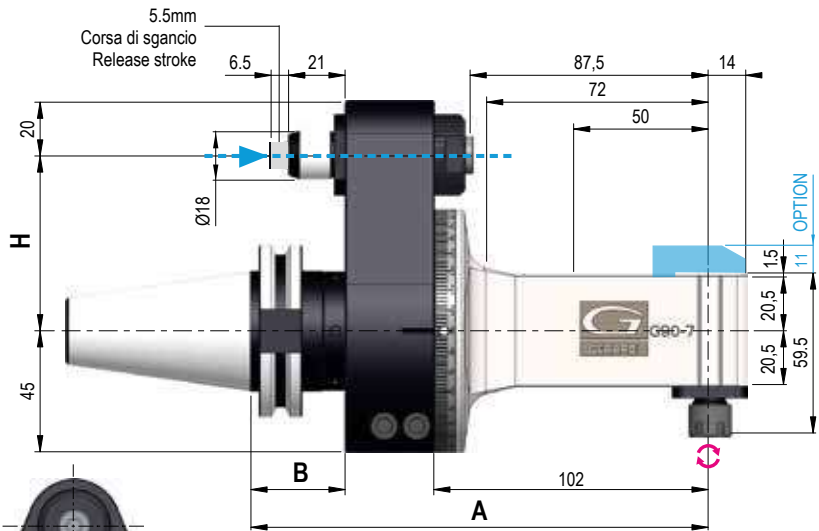
Special bag / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

OUTPUT - WELDON MAX Ø6

### G90-7

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 4



Rpm  
10.000



Ø 7



N 120



M 6



Nm 5



ER11  
Ø17



Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7Kg



#### 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

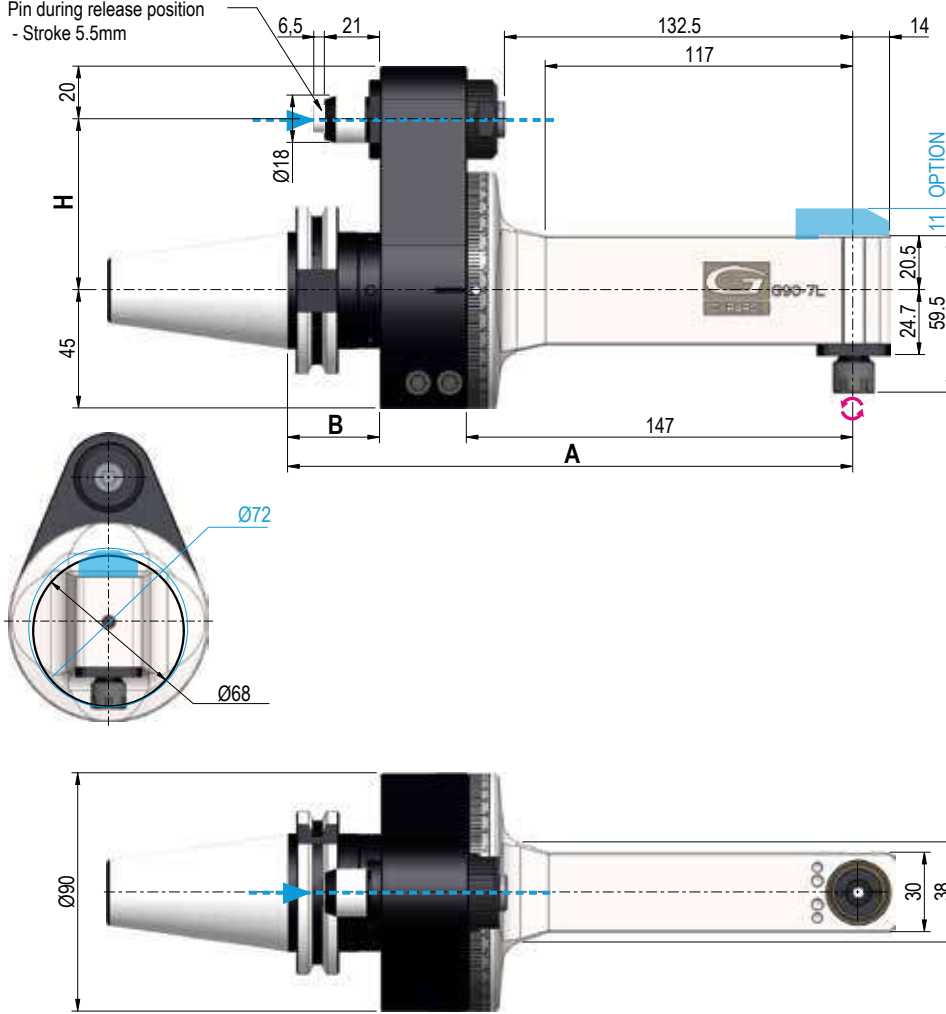
#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Pemo - Pin through Max 10bar - 6000Rpm - **Dry running YES**

OUTPUT - Weldon Max Ø8

DOUBLE OUTPUT - ER11 - ER 8M

Perno in posizione di sgancio  
- Corsa 5.5mm  
Pin during release position  
- Stroke 5.5mm



### G90-7L

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 4,3



Rpm  
10.000



Ø 7



N 120



M 6



Nm 5



ER11  
Ø17

Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50			BT MAS 403			HSK DIN 69893			C. ISO 26623		
Grandezza - Size	30	40	50	40	50		30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)															
<b>H</b>	Standard	65 / 80	65 / 80	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
	Optional 110														
<b>A</b>		215	215	215	215	215	210	215	221	222	222	225	218	218	220
<b>B</b>		35	35	35	35	35	30	35	41	42	42	45	38	38	40

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 7,5Kg



#### 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

#### OPZIONI - OPTIONS

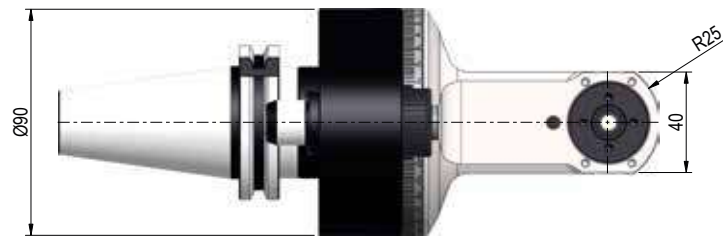
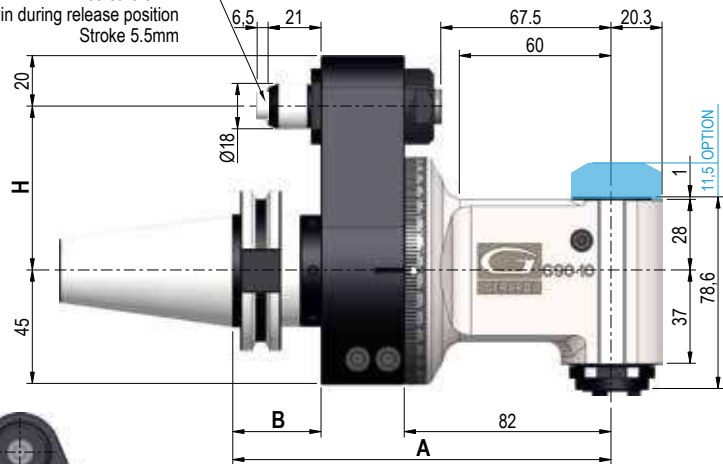
REFR. - COOLANT - dal Perno - Pin through Max 10bar - 6000Rpm - **Dry running YES**

OUTPUT - Weldon Max Ø8

DOUBLE OUTPUT - ER11 - ER 8M

# G90-10

TYPE 1


 Perno in posizione di sgancio  
 corsa 5.5mm  
 Pin during release position  
 Stroke 5.5mm

**Dati tecnici - Technical data**

 Ratio  
 1:1


Kg 4,3


 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		
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Dual contact (Optional)															
<b>H</b> Standard	65 / 80	65 / 80	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80	
Optional 110															
<b>A</b>	150	150	150	150	150	145	150	156	157	157	160	153	153	155	
<b>B</b>	35	35	35	35	35	30	35	41	42	42	45	38	38	40	

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 7,5Kg


**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

**OPZIONI - OPTIONS**

 REFR. - COOLANT - dal Perno - Pin through Max 10bar - 6000Rpm - **Dry running YES**

 REFR. - COOLANT - dal Cono - Through shank Max 40bar - 6000Rpm - **Dry running NO**

OUTPUT - Shell mill holder Ø16

OUTPUT - ER20

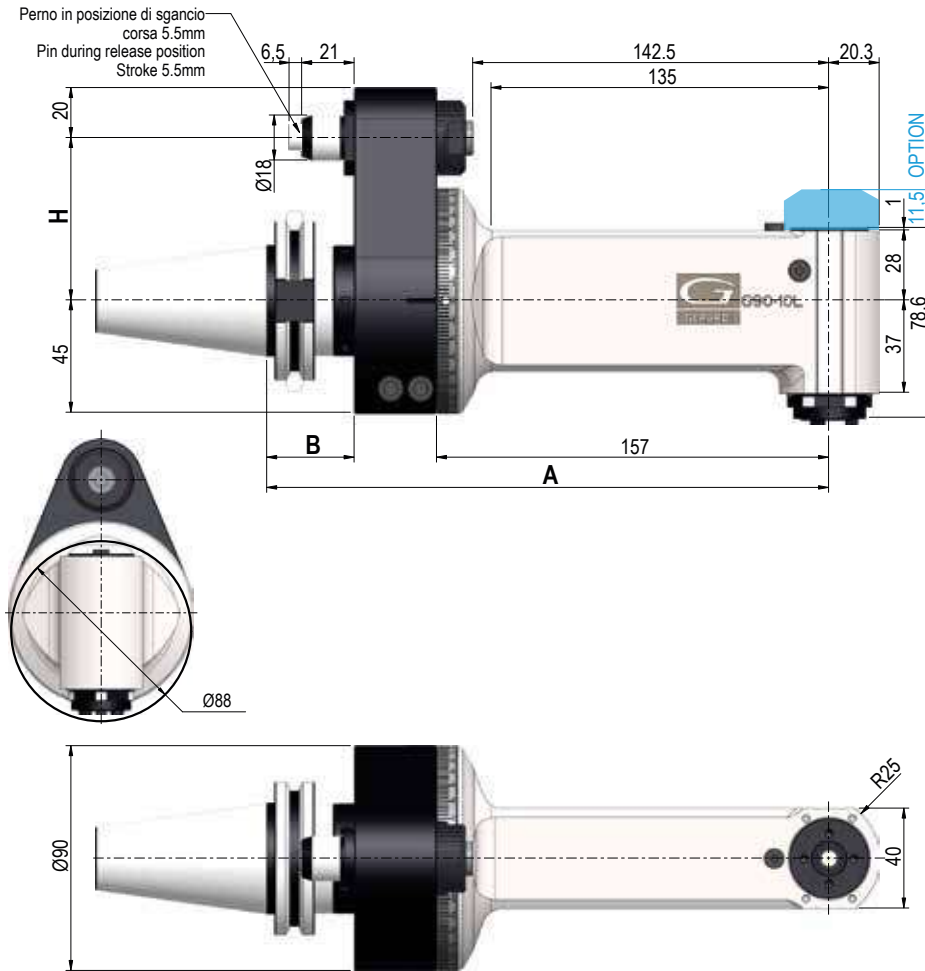
DOUBLE OUTPUT - ER16 - ER 11M

OUTPUT - Weldon Max Ø10



### G90-10L

TYPE 1



#### 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		
Grandezza - Size	30	40	50	40	50		30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)															
<b>H</b> Standard	65 / 80	65 / 80	80	65 / 80	80		65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
Optional 110															
<b>A</b>	225	225	225	225	225		225	225	231	232	232	235	228	228	230
<b>B</b>	35	35	35	35	35		35	35	41	42	42	45	38	38	40

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 8,5Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 6000Rpm - Dry running YES

REFR. - COOLANT - dal Cono - Through shank Max 40bar - 6000Rpm - Dry running NO

OUTPUT - Shell mill holder Ø16

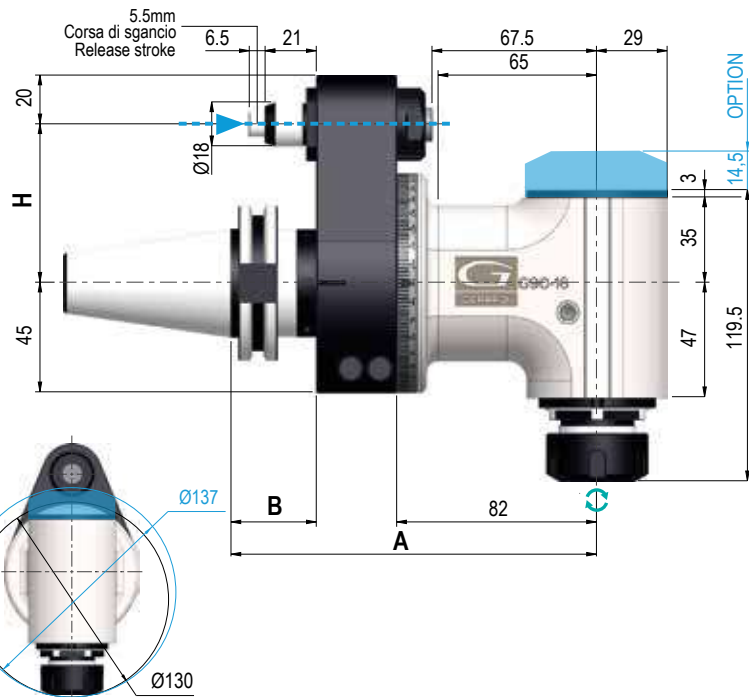
OUTPUT - ER20

DOUBLE OUTPUT - ER16 - ER 11M

OUTPUT - Weldon Max Ø10

# G90-16

TYPE 1


**Dati tecnici - Technical data**

 Ratio  
1:1


Kg 5,4


 Rpm  
8.000


Ø 16



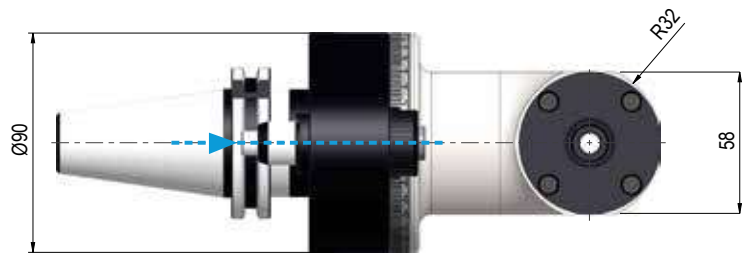
N 510



M 12



Nm 24


 ER25  
Ø1/16


Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 8,5Kg


**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

**OPZIONI - OPTIONS**

 REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**

 REFR. - COOLANT - dal Cono - Through shank Max 40bar - 4000Rpm - **Dry running NO**

OUTPUT - Shell mill holder Ø16

OUTPUT - ER32

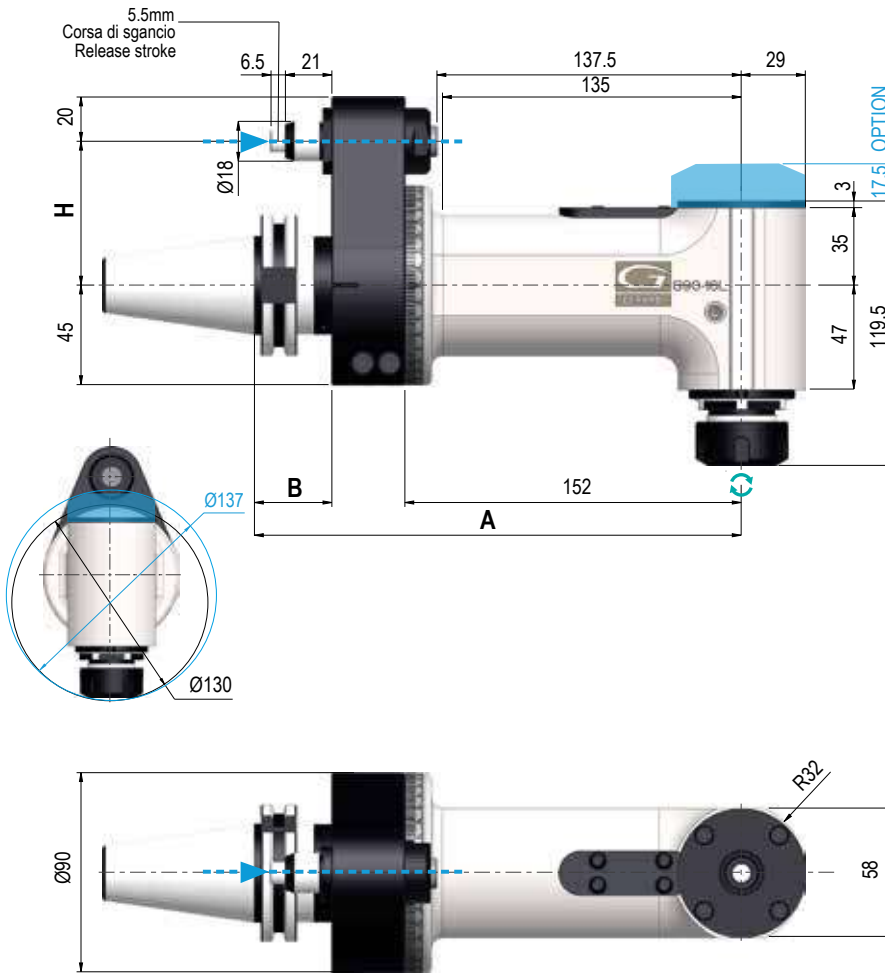
DOUBLE OUTPUT - ER25 - ER 16M

OUTPUT - Weldon Max Ø16

OUTPUT - HSK 32

### G90-16L

TYPE 1



#### 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 the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 10Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**

REFR. - COOLANT - dal Cono - Through shank Max 40bar - 4000Rpm - **Dry running NO**

OUTPUT - Shell mill holder Ø16

OUTPUT - ER32

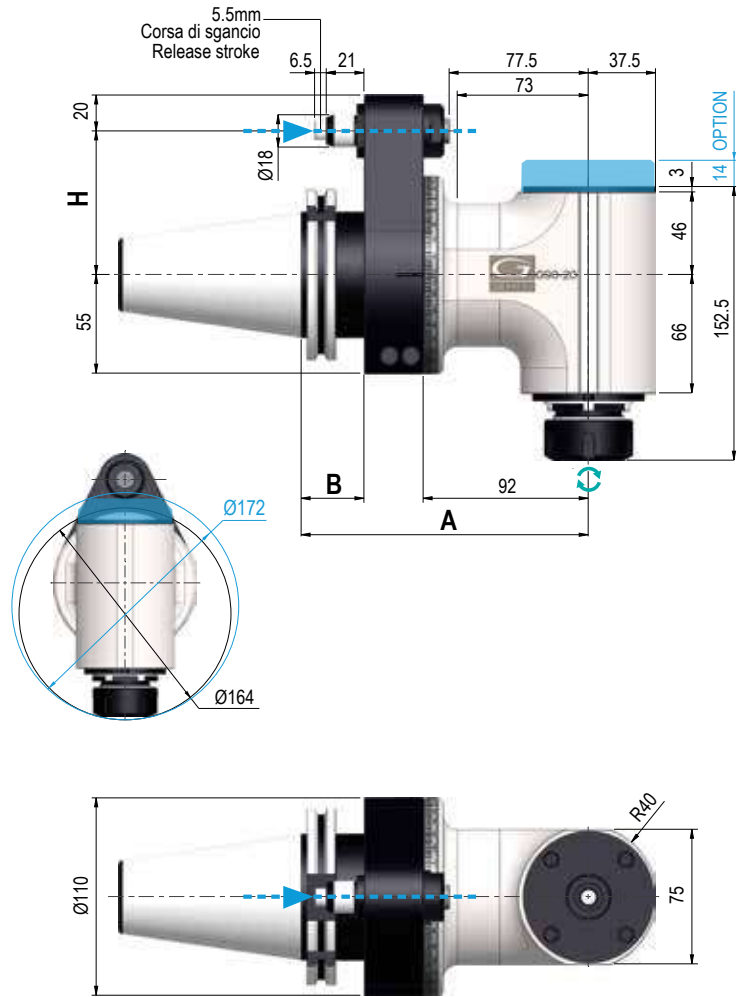
DOUBLE OUTPUT - ER25 - ER 16M

OUTPUT - Weldon Max Ø16

OUTPUT - HSK 32

**G90-20**

TYPE 2


**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 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
Dual contact (Optional)					
<b>H</b> Standard	80	80	80	80	80
Optional 110					
<b>A</b>	160	160	166	167	170
<b>B</b>	35	35	41	42	45

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 14Kg


**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

**OPZIONI - OPTIONS**
**HIGH SPEED** - 6000 Rpm - **Internal coolant NO**
**REFR. - COOLANT** - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**
**REFR. - COOLANT** - dal Cono - Through shank Max 40bar - 4000Rpm - **Dry running NO**
**REFR. - COOLANT** - dal Cono - Through shank Max 70bar - 4000Rpm - **Dry running NO**
**OUTPUT** - Weldon Max Ø20

**OUTPUT** - HSK 40

**OUTPUT** - Shell mill holder Ø22

**OUTPUT** - ISO / CAT / BT 30

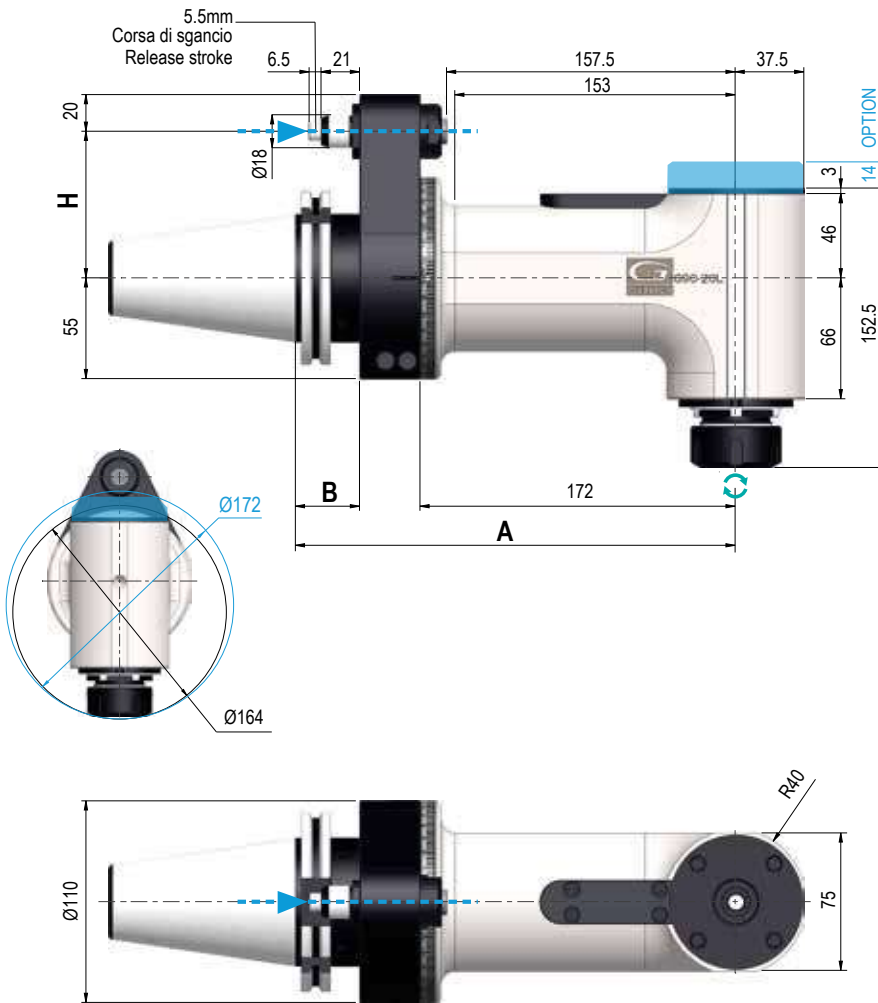
**OUTPUT** - C4

**OUTPUT** - ER40

**DOUBLE OUTPUT** - ER32 - ER20M

### G90-20L

TYPE 2



#### 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 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
Dual contact (Optional)					
H	Standard	80	80	80	80
	Optional 110				
A	240	240	246	247	243
B	35	35	41	42	40

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 28Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm - **Internal coolant NO**

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**

REFR. - COOLANT - dal Cono - Through shank Max 40bar - 4000Rpm - **Dry running NO**

REFR. - COOLANT - dal Cono - Through shank Max 70bar - 4000Rpm - **Dry running NO**

OUTPUT - Weldon Max Ø20

OUTPUT - HSK 40

OUTPUT - Shell mill holder Ø22

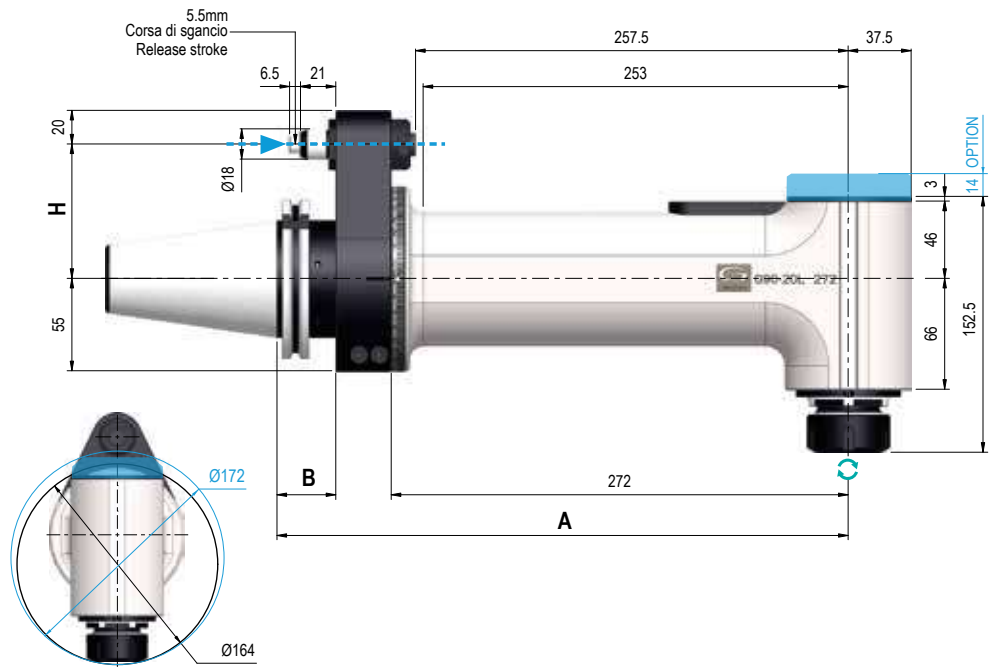
OUTPUT - ISO / CAT / BT 30

OUTPUT - C4

OUTPUT - ER40

DOUBLE OUTPUT - ER32 - ER20M

### G90-20L.272 TYPE 2



#### 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 the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 31Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio

Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**

REFR. - COOLANT - dal Cono - Through shank Max 40bar - 4000Rpm - **Dry running NO**

OUTPUT - Weldon Max Ø20

OUTPUT - HSK 40

OUTPUT - Shell mill holder Ø22

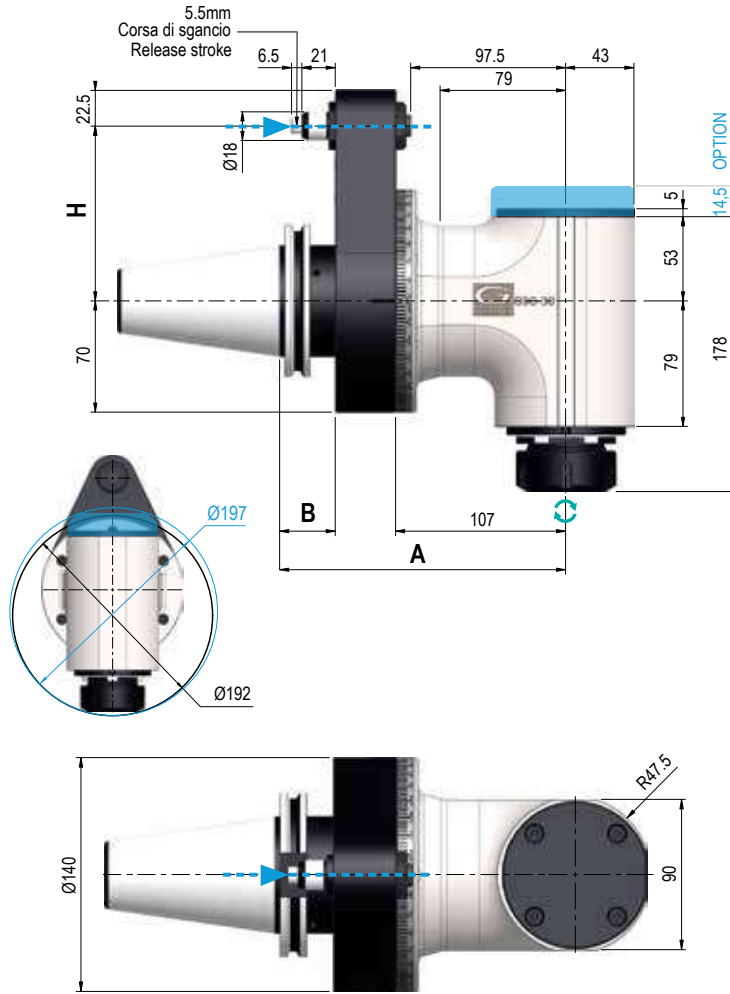
OUTPUT - ISO / CAT / BT 30

OUTPUT - C4

DOUBLE OUTPUT - ER32 - ER20M

### G90-30

TYPE 3



#### 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 the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 31Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

HIGH SPEED - 5000 Rpm - **Internal coolant NO**

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**

REFR. - COOLANT - dal Cono - Through shank Max 40bar - 4000Rpm - **Dry running NO**

REFR. - COOLANT - dal Cono - Through shank Max 70bar - 4000Rpm - **Dry running NO**

OUTPUT - Weldon Max Ø25

OUTPUT - HSK 40

OUTPUT - Shell mill holder Ø27

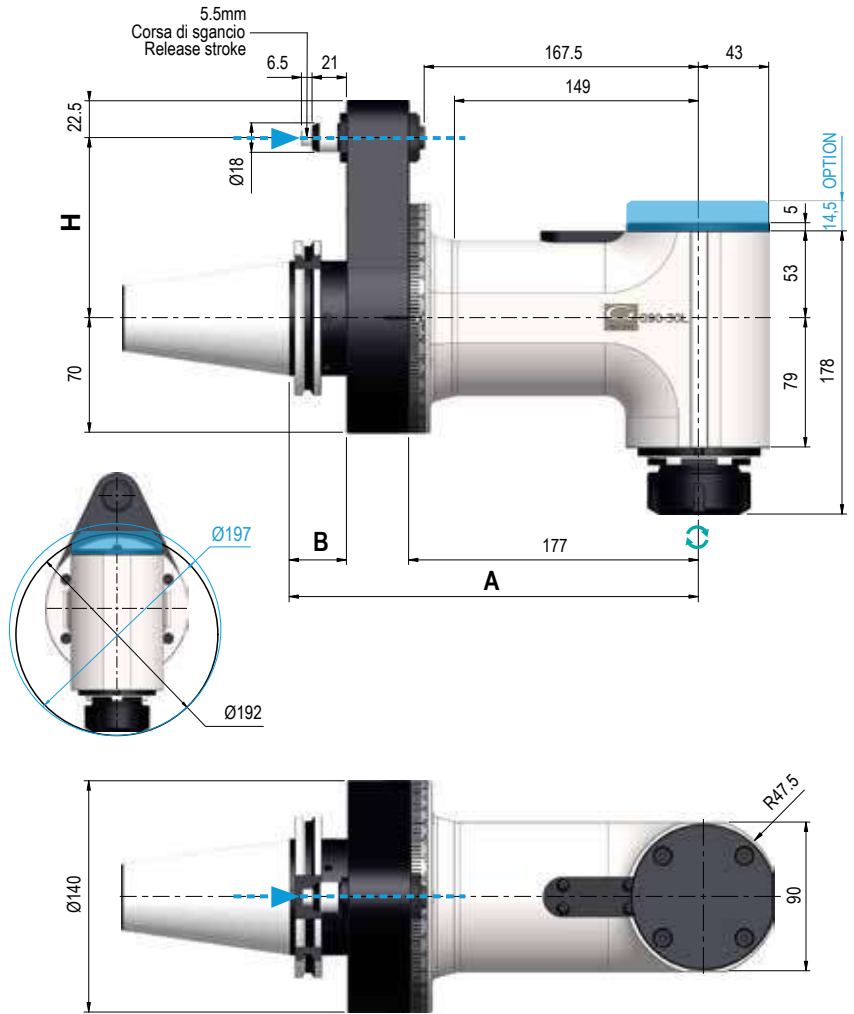
OUTPUT - ISO / CAT / BT 30

OUTPUT - C4

DOUBLE OUTPUT - ER32 - ER20M

### G90-30L

TYPE 3



#### Dati tecnici - Technical data



Ratio  
1:1



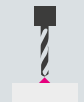
Kg 20



Rpm  
4.000



Ø 30



N 1.750



M 20



Nm 75



ER40  
Ø3/30



Senso di rotazione Uguaale al mandrino - Direction of rotation Same as the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 34Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio

Tubeetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm - **Internal coolant NO**

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**

REFR. - COOLANT - dal Cono - Through shank Max 40bar - 4000Rpm - **Dry running NO**

REFR. - COOLANT - dal Cono - Through shank Max 70bar - 4000Rpm - **Dry running NO**

OUTPUT - Weldon Max Ø25

OUTPUT - HSK 40

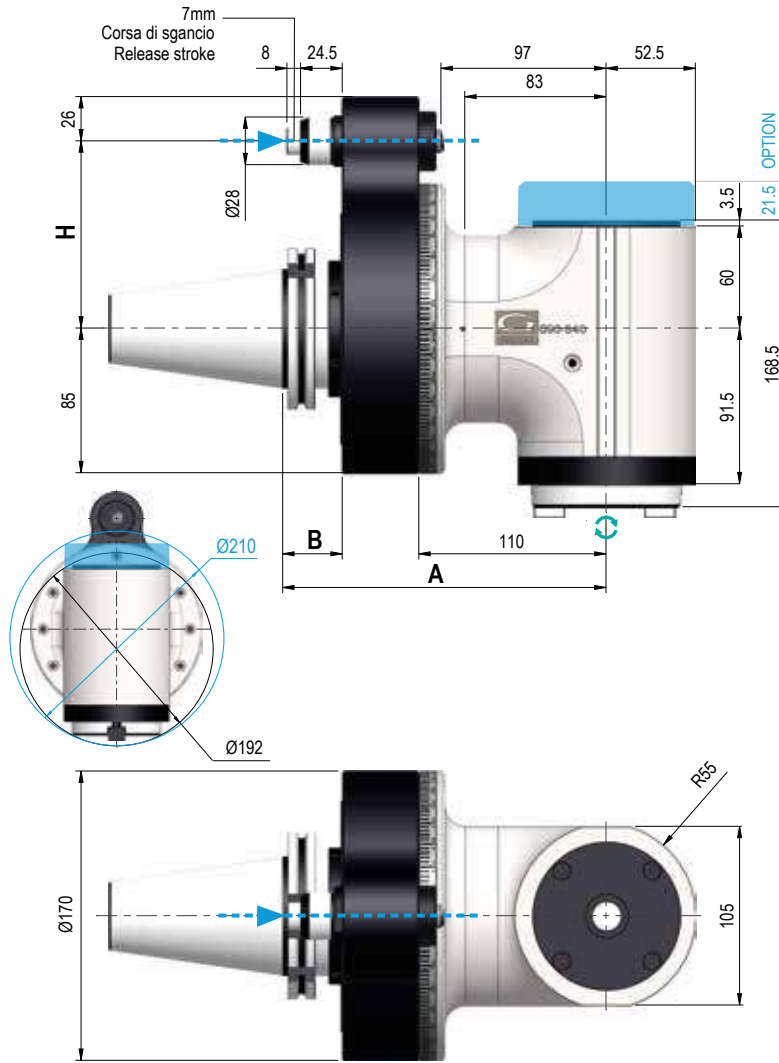
OUTPUT - Shell mill holder Ø27

OUTPUT - ISO 30

OUTPUT - C4

DOUBLE OUTPUT - ER40 - ER25M





### G90-S40

TYPE 4



#### 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 the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 36Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

HIGH SPEED - 5000 Rpm - **Internal coolant NO**

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**

REFR. - COOLANT - dal Cono - Through shank Max 30bar - 4000Rpm - **Dry running NO**

REFR. - COOLANT - dal Cono - Through shank Max 70bar - 4000Rpm - **Dry running NO**

OUTPUT - Weldon Max Ø26

OUTPUT - HSK 63

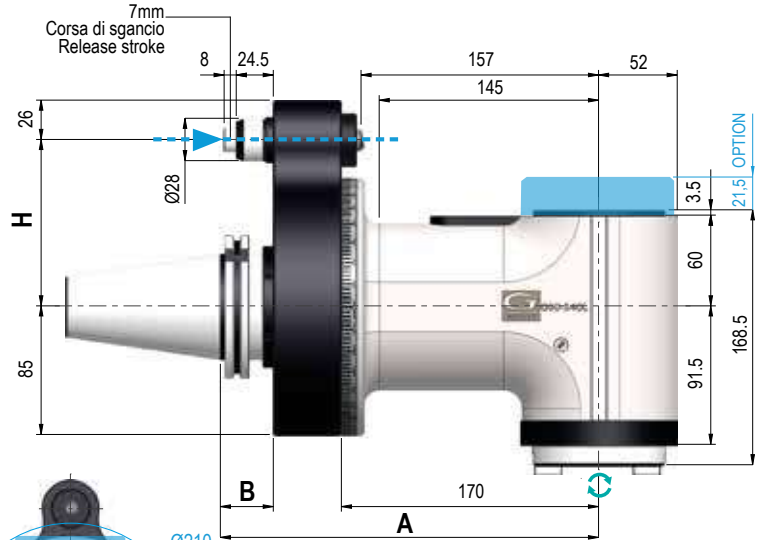
OUTPUT - Shell mill holder Ø27

OUTPUT - C4

OUTPUT - C5

### G90-S40L

TYPE 4



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 26,2



Rpm  
4.000



Ø 26



N 1.800



M 20



Nm 140



ISO 40 /  
CAT / BT40



Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Dual contact (Optional)						
<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

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 40,5Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio

Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

HIGH SPEED - 5000 Rpm - Internal coolant NO

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - Dry running YES

REFR. - COOLANT - dal Cono - Through shank Max 30bar - 4000Rpm - Dry running NO

REFR. - COOLANT - dal Cono - Through shank Max 70bar - 4000Rpm - Dry running NO

OUTPUT - Weldon Max Ø26

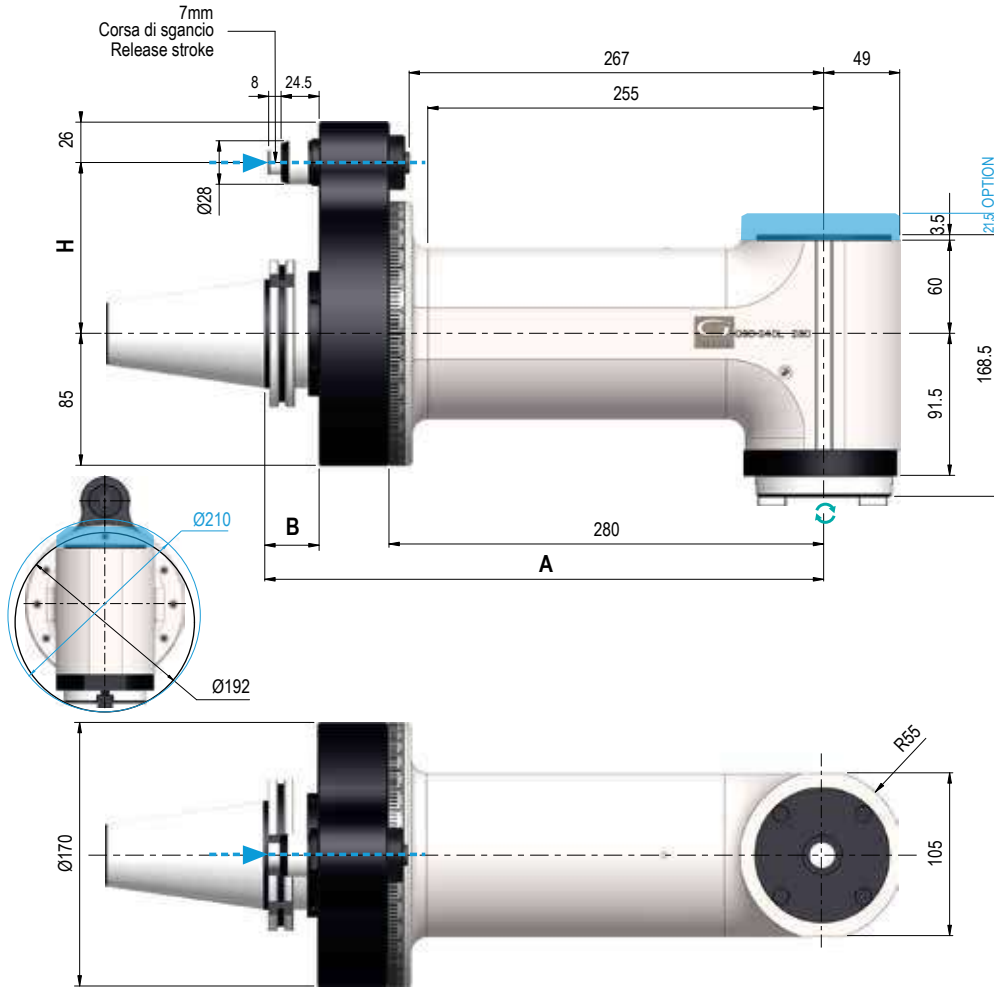
OUTPUT - HSK 63

OUTPUT - Shell mill holder Ø32

OUTPUT - C4

OUTPUT - C5

### G90-S40L.280 TYPE 4



#### Dati tecnici - Technical data

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

Senso di rotazione Uguale al mandrino - Direction of rotation Same as 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	100	C8
Dual contact (Optional)					
<b>H</b> Standard Ø28	110	110	110	110	110
<b>A</b>	360	360	366	370	365
<b>B</b>	35	35	41	45	40

**IMBALLO & PESO - PACK WEIGHT:**  
Cassa in Legno - Wooden Box 79Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni  
Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

- REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - **Dry running YES**
- REFR. - COOLANT - dal Cono - Through shank Max 30bar - 4000Rpm - **Dry running NO**
- REFR. - COOLANT - dal Cono - Through shank Max 70bar - 4000Rpm - **Dry running NO**
- OUTPUT - Weldon Max Ø26

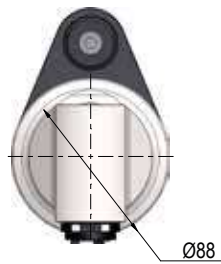
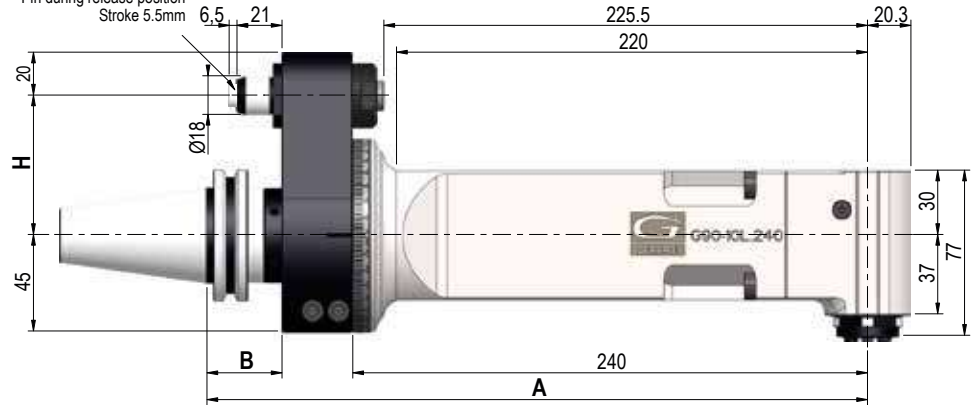
- OUTPUT - HSK 63
- OUTPUT - Shell mill holder Ø32
- OUTPUT - C4
- OUTPUT - C5

### G90-10L.240 TYPE 1

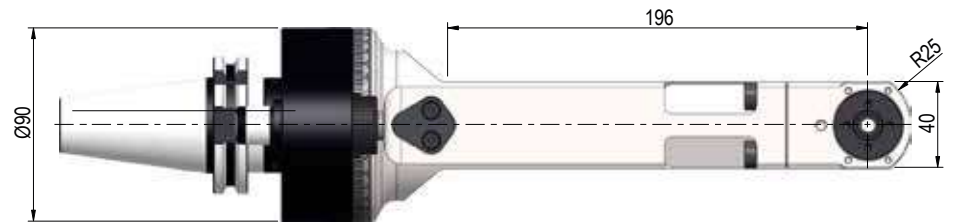


**NEW  
2024**

Perno in posizione di sgancio  
corsa 5.5mm  
Pin during release position  
Stroke 5.5mm



IDEALI PER MICRO LAVORAZIONI  
IDEAL FOR MICRO MACHINING



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 6,3



Rpm  
6.000



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			
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Dual contact (Optional)													
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
	Optional 110												
A	308	308	308	308	308	314	315	315	318	311	311	313	
B	35	35	35	35	35	41	42	42	45	38	38	40	

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 9,5Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 6000Rpm - **Dry running YES**

REFR. - COOLANT - dal Cono - Through shank Max 40bar - 6000Rpm - **Dry running NO**

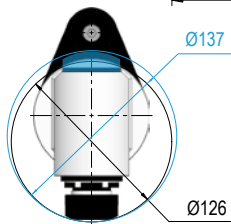
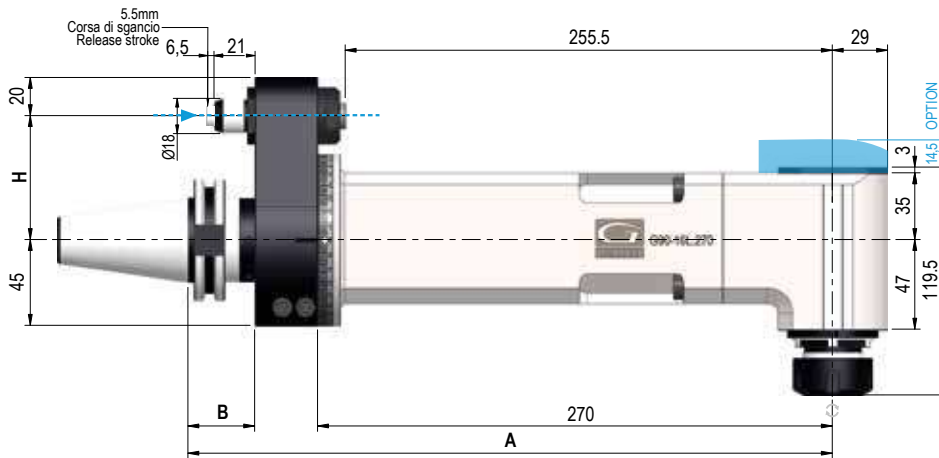
OUTPUT - Shell mill holder Ø16

OUTPUT - ER20

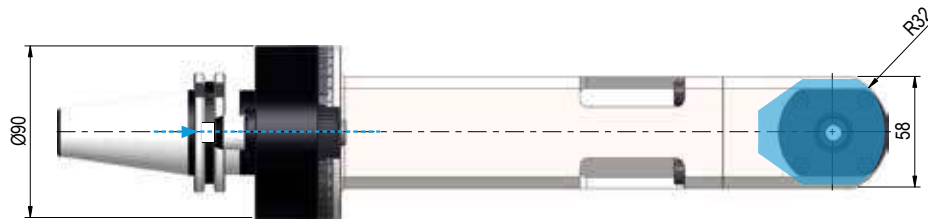
DOUBLE OUTPUT - ER16 - ER 11M

OUTPUT - Weldon Max Ø10

### G90-16L.270 TYPE 1



IDEALI PER MICRO LAVORAZIONI  
IDEAL FOR MICRO MACHINING



**NEW  
2024**

#### Dati tecnici - Technical data



Ratio  
1:1



Kg 8,9



Rpm  
4.000



Ø 16



N 510



M 12



Nm 24



ER25  
Ø1/16

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 12Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Perno - Pin through Max 10bar - 4000Rpm - Dry running YES

REFR. - COOLANT - dal Cono - Through shank Max 40bar - 4000Rpm - Dry running NO

OUTPUT - Shell mill holder Ø16

OUTPUT - ER32

DOUBLE OUTPUT - ER25 - ER 16M

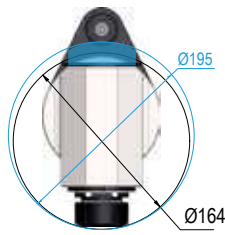
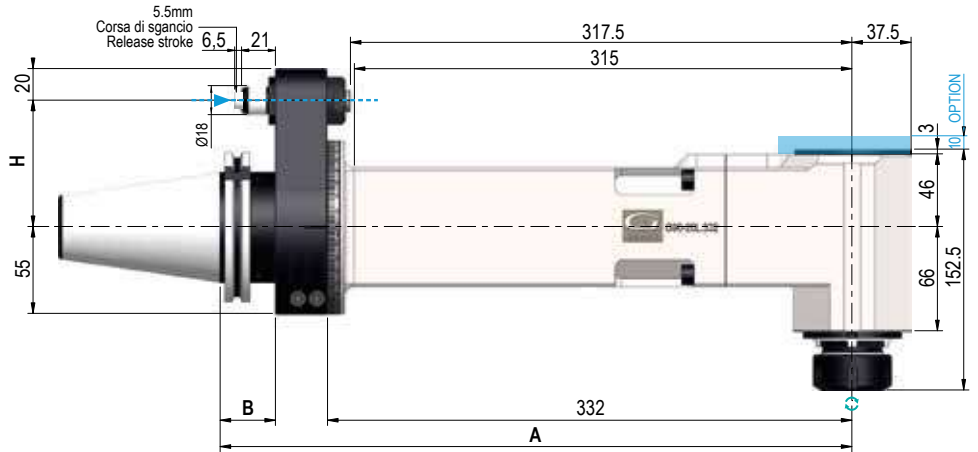
OUTPUT - Weldon Max Ø16

OUTPUT - HSK 32

### G90-20L.332 TYPE 2



**NEW  
2024**



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI  
POSSIBILITY OF DIFFERENT LENGTHS



#### Dati tecnici - Technical data



Ratio  
1:1



**Kg** 20,5



Rpm  
4.000



Ø 20



N 1250



M 16



Nm 40



ER32  
Ø2/20



Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 35Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Perno - Pin through Max 10bar - Dry running YES

REFR. - COOLANT - dal Cono - Through Shank 40bar - Dry running NO

DOUBLE OUTPUT - ER32 - ER 20M

OUTPUT - Weldon Max Ø20

OUTPUT - HSK 40

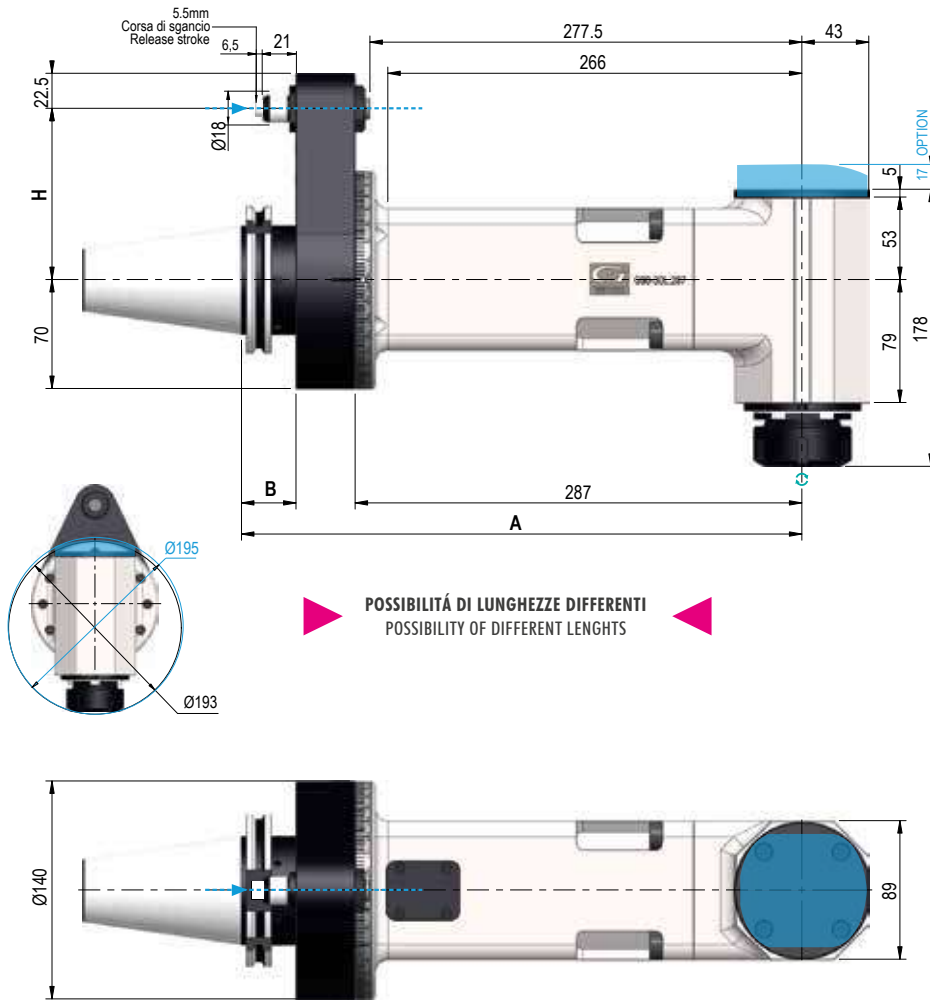
OUTPUT - Shell mill holder Ø22

OUTPUT - C4

OUTPUT - ISO / CAT / BT 30

### G90-30L.287

TYPE 3



POSSIBILITÀ DI LUNGHEZZE DIFFERENTI  
POSSIBILITY OF DIFFERENT LENGTHS



**NEW  
2024**

#### Dati tecnici - Technical data



Ratio  
1:1



Kg 22,5



Rpm  
4.000



Ø 30



N 1750



M 20



Nm 75



ER40  
Ø3/30

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Dual contact (Optional)						
<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

**IMBALLO & PESO - PACK WEIGHT:**  
Cassa in Legno - Wooden Box 36,5Kg



**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Perno - Pin through Max 10bar - Dry running YES

REFR. - COOLANT - dal Cono - Through Shank 40bar - Dry running NO

DOUBLE OUTPUT - ER40 - ER 25M

OUTPUT - Weldon Max Ø25

OUTPUT - HSK 40

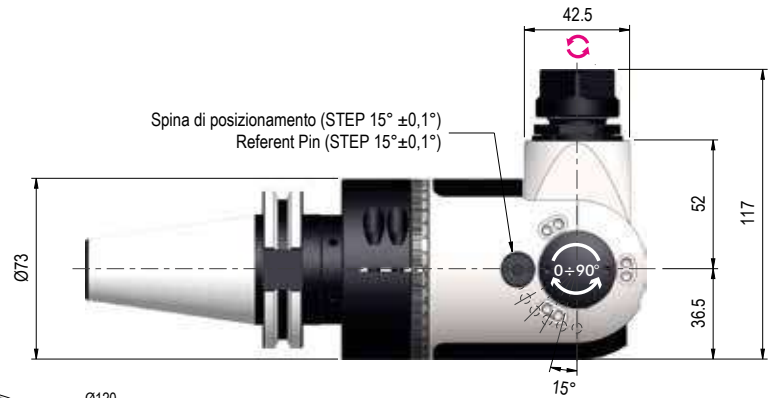
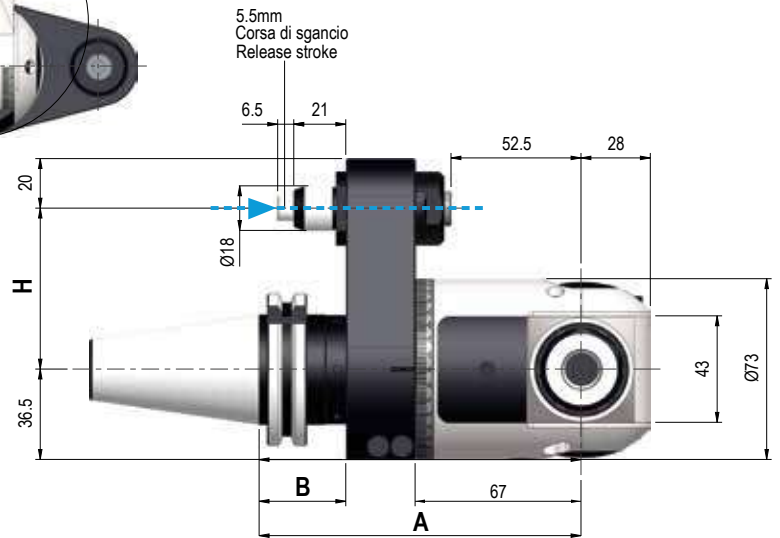
OUTPUT - Shell mill holder Ø27

OUTPUT - C4

OUTPUT - ISO / CAT / BT 30

# GMU-13

TYPE 0


 Scala Graduata  
 Graduated degree

**Dati tecnici - Technical data**

 Ratio  
 1:1


Kg 4,4


 Rpm  
 4.000


Ø 13



N 450



M 10



Nm 6


 ER20  
 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	30	40	50	40	50		30	40	50	63	80	100	C5	C6	C8
Dual contact (Optional)															
<b>H</b> Standard	65 / 80	65 / 80	80	65 / 80	80		65 / 80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
Optional 110															
<b>A</b>	130	130	130	130	130		125	130	136	137	137	140	133	133	135
<b>B</b>	35	35	35	35	35		30	35	41	42	42	45	38	38	40

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 7,5Kg


**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

**OPZIONI - OPTIONS**

HIGH SPEED - 6000 Rpm

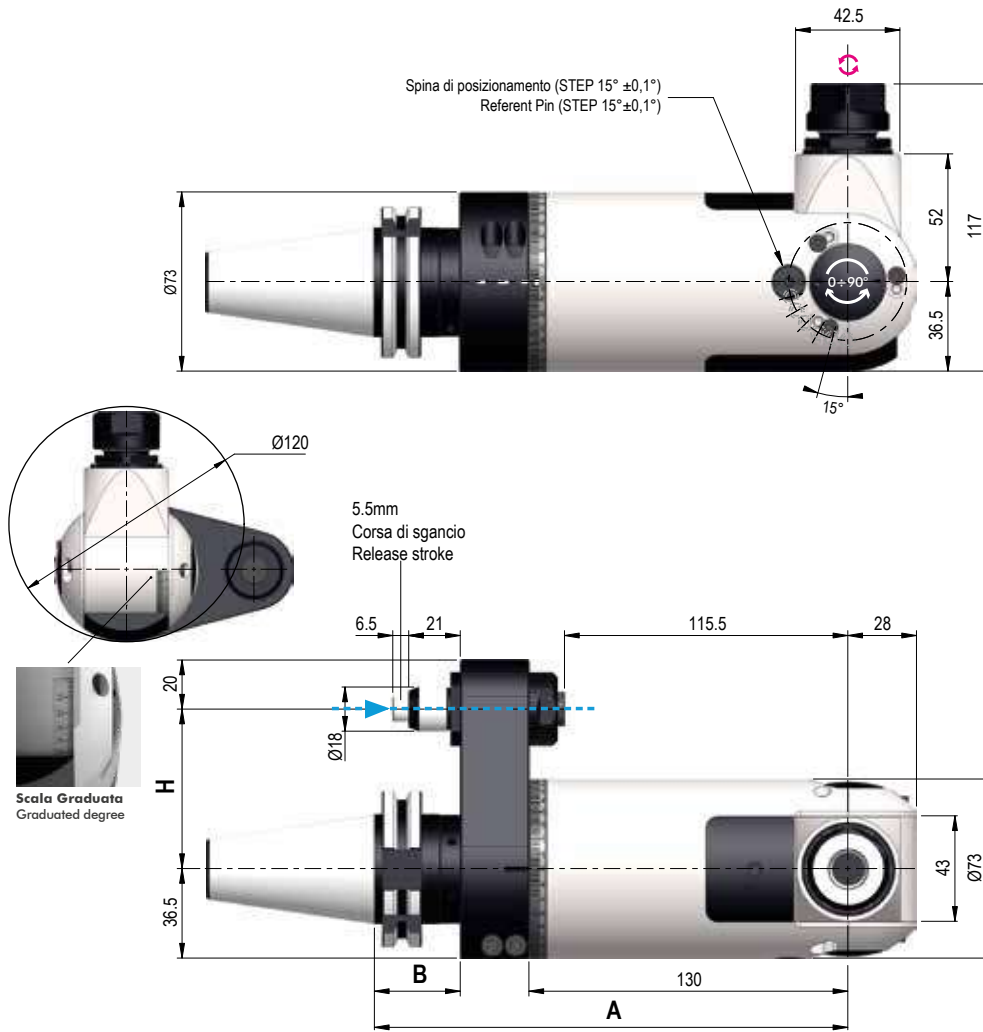
QUICK POSITIONING - Customized Angles

OUTPUT - ER 25



**GMU-13L**

TYPE 0


**Dati tecnici - Technical data**

	Ratio 1:1		Kg 6,3
	Rpm 4.000		Ø 13
	N 450		M 10
	Nm 6		ER20 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	
Dual contact (Optional)													
<b>H</b>	Standard	65	80	65	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
	Optional 110												
<b>A</b>		193	193	193	193	193	199	200	200	203	196	196	198
<b>B</b>		35	35	35	35	35	41	42	42	45	38	38	40

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 11Kg


**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

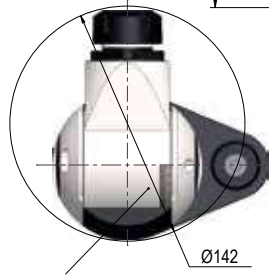
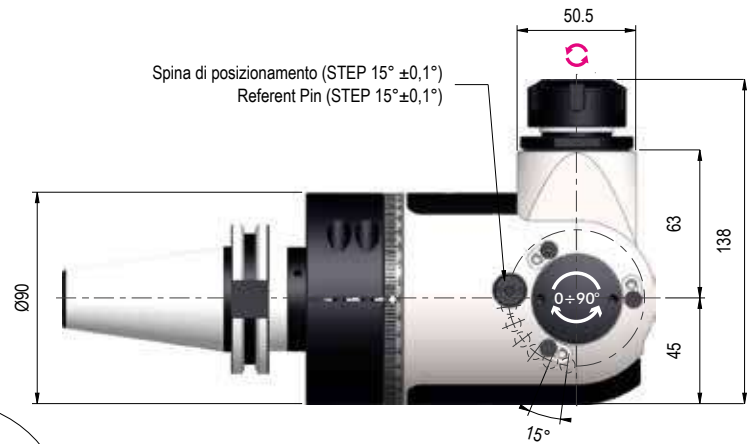
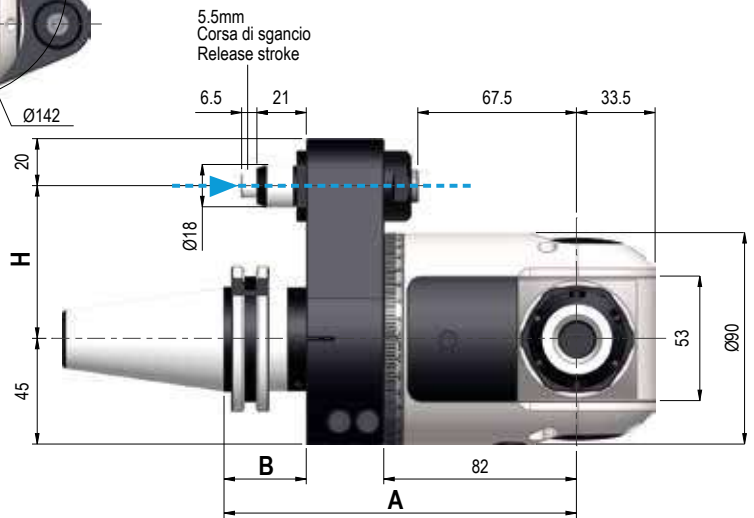
**OPZIONI - OPTIONS**
**HIGH SPEED** - 6000 Rpm

**QUICK POSITIONING** - Customized Angles

**OUTPUT** - ER 25

# GMU-16

TYPE 1


 Scala Graduata  
 Graduated degree

**Dati tecnici - Technical data**

 Ratio  
 1:1


Kg 6,8


 Rpm  
 4.000


Ø 16



N 480



M 12



Nm 18


 ER25  
 Ø1/16


Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 10Kg


**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

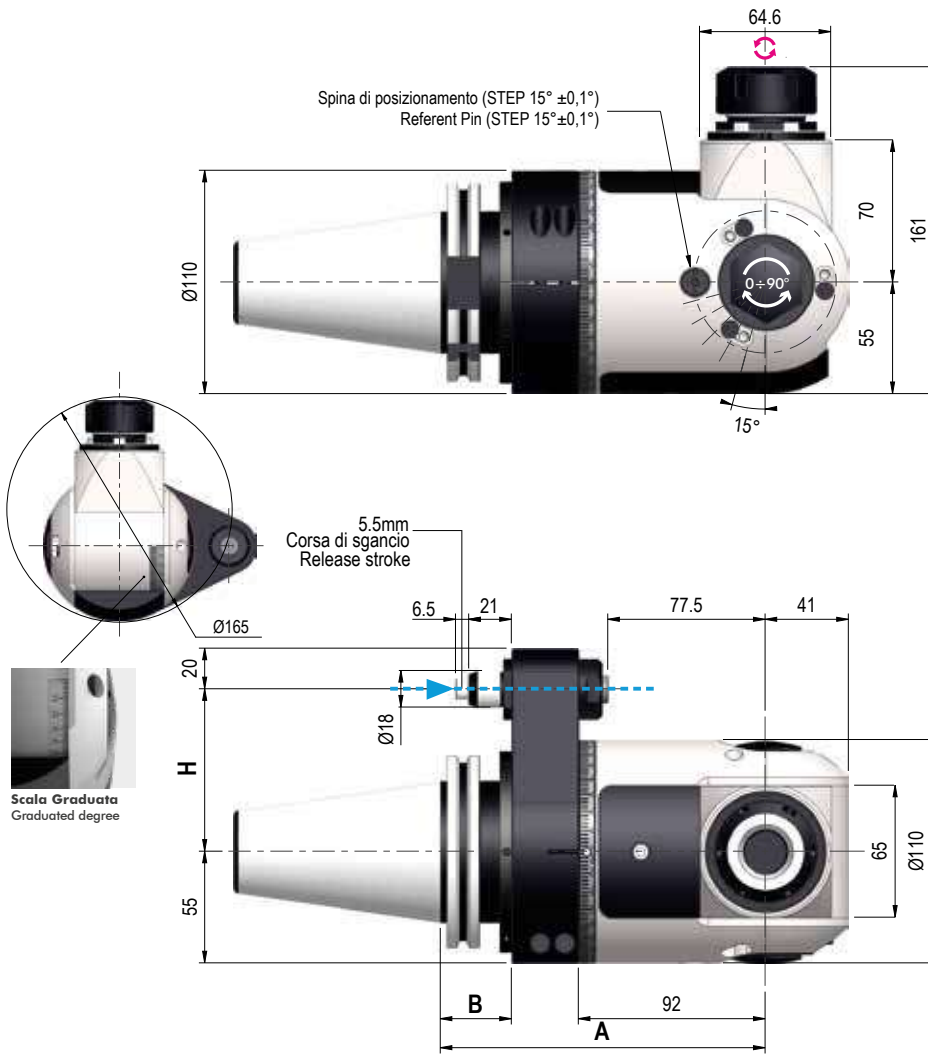
**OPZIONI - OPTIONS**

HIGH SPEED - 6000 Rpm

QUICK POSITIONING - Customized Angles

**GMU-20**

TYPE 2


**Dati tecnici - Technical data**

 Ratio  
1:1


Kg 13


 Rpm  
4.000


Ø 20



N 715



M 16



Nm 32


 ER32  
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
Dual contact (Optional)							
<b>H</b>	Standard	80	80	80	80	80	80
	Optional 110						
<b>A</b>	160	160	166	167	170	163	165
<b>B</b>	35	35	41	42	45	38	40

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 16Kg


**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

 Valigetta / Stop block / Ghiera ER / Chiavi di servizio  
 Tubetto di grasso / Libro istruzioni

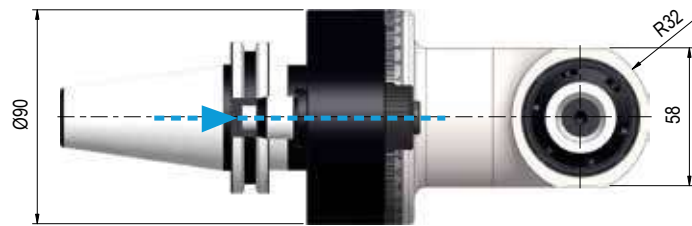
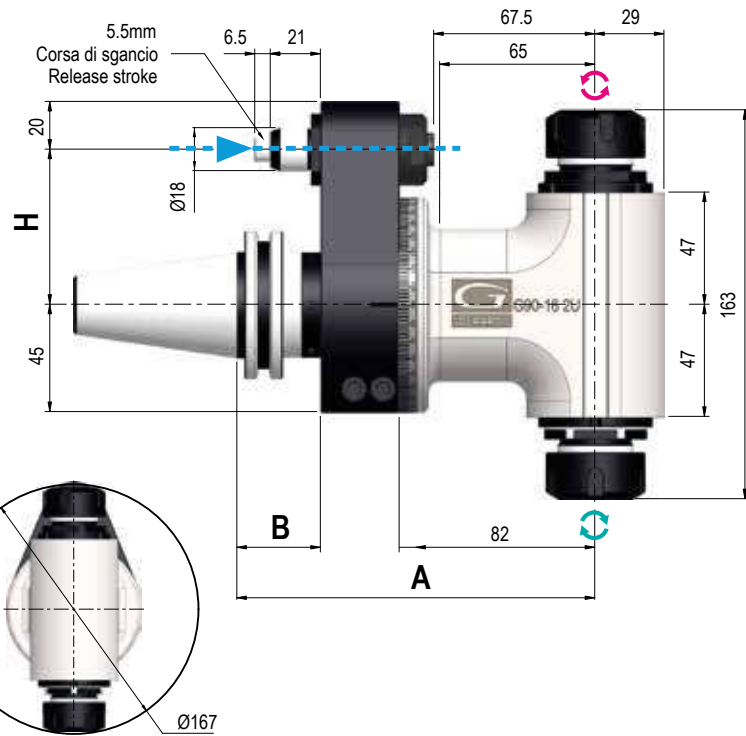
Special bag / Stop block / ER nut / Wrenches / Grease tube / Instruction book

**OPZIONI - OPTIONS**
**HIGH SPEED** - 6000 Rpm

**QUICK POSITIONING** - Customized Angles

### G90-16 2U

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 6,4



Rpm  
4.000



Ø 16



N 510



M 12



Nm 24



ER25  
Ø1/16



Senso di rotazione Uguale e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 9,5Kg



#### 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

#### OPZIONI - OPTIONS

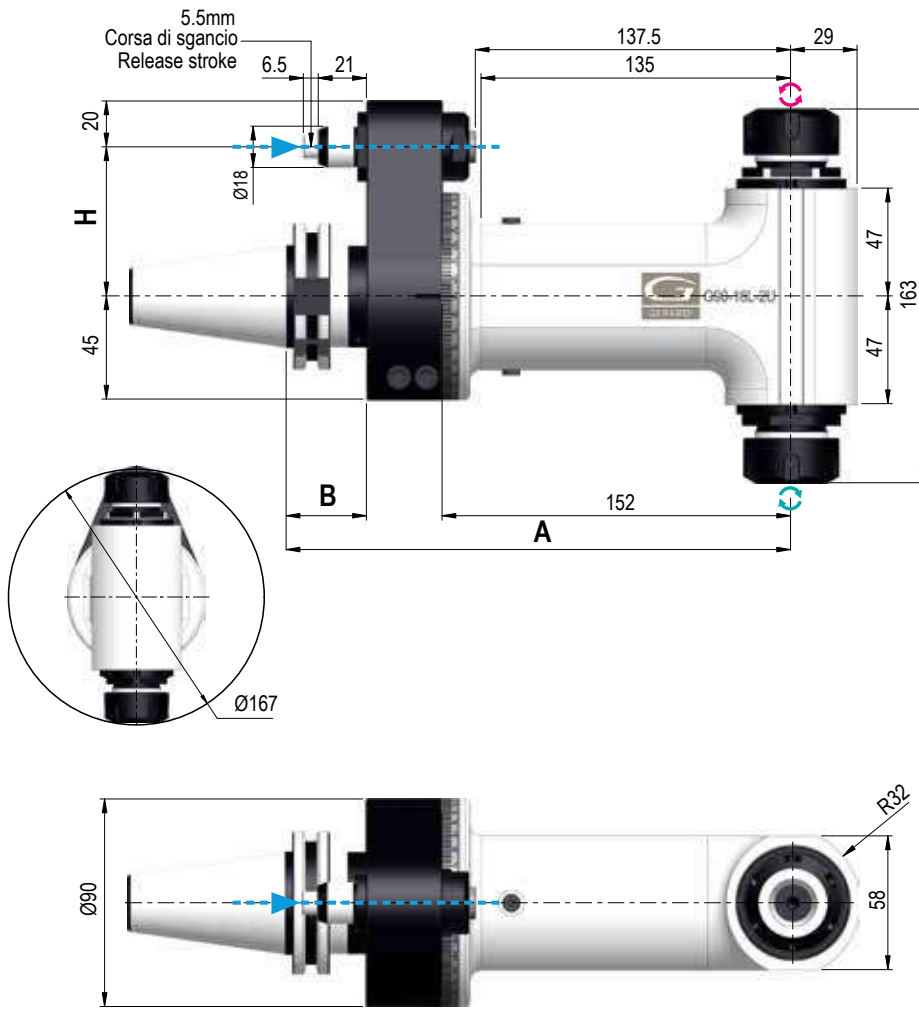
HIGH SPEED - 8000 Rpm

OUTPUT - Weldon Max Ø16 (X2)

OUTPUT - Shell mill holder Ø16 (X2)

### G90-16L 2U

TYPE 1



#### Dati tecnici - Technical data

	Ratio 1:1		Kg 13
	Rpm 4.000		Ø 16
	N 510		M 12
	Nm 24		ER25 Ø1/16

Senso di rotazione UguaLe e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 27Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

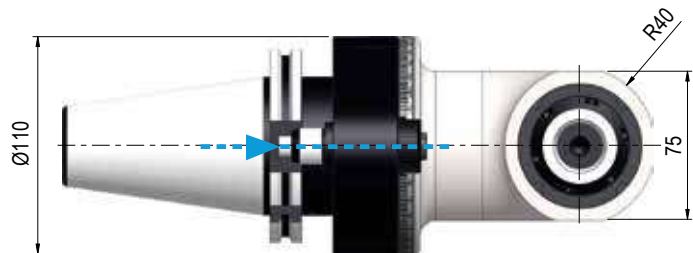
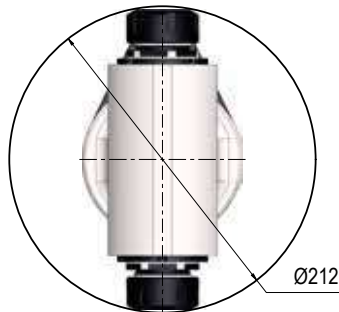
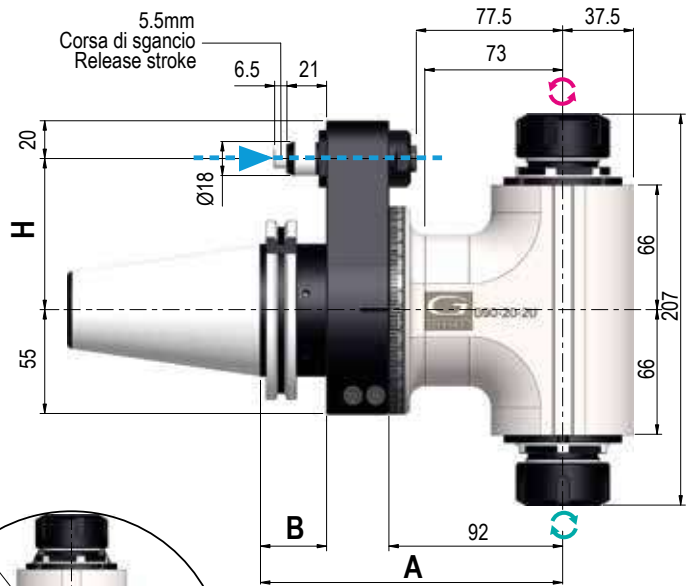
HIGH SPEED - 8000 Rpm

OUTPUT - Weldon Max Ø16 (X2)

OUTPUT - Shell mill holder Ø16 (X2)

### G90-20-2U

TYPE 2



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 11,7



Rpm  
4.000



Ø 20



N 1250



M 16



Nm 40



ER32  
Ø2/20



Senso di rotazione Uguale e Contrario al mandrino - Direction of rotation Same & 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
Dual contact (Optional)								
<b>H</b> Standard	80	80	80	80	80	80	80	80
Optional 110								
<b>A</b>	160	160	166	167	167	170	163	165
<b>B</b>	35	35	41	42	42	45	38	40

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 15Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Valigetta / Stop block / Ghiera ER / Chiavi di servizio

Tubetto di grasso / Libro istruzioni

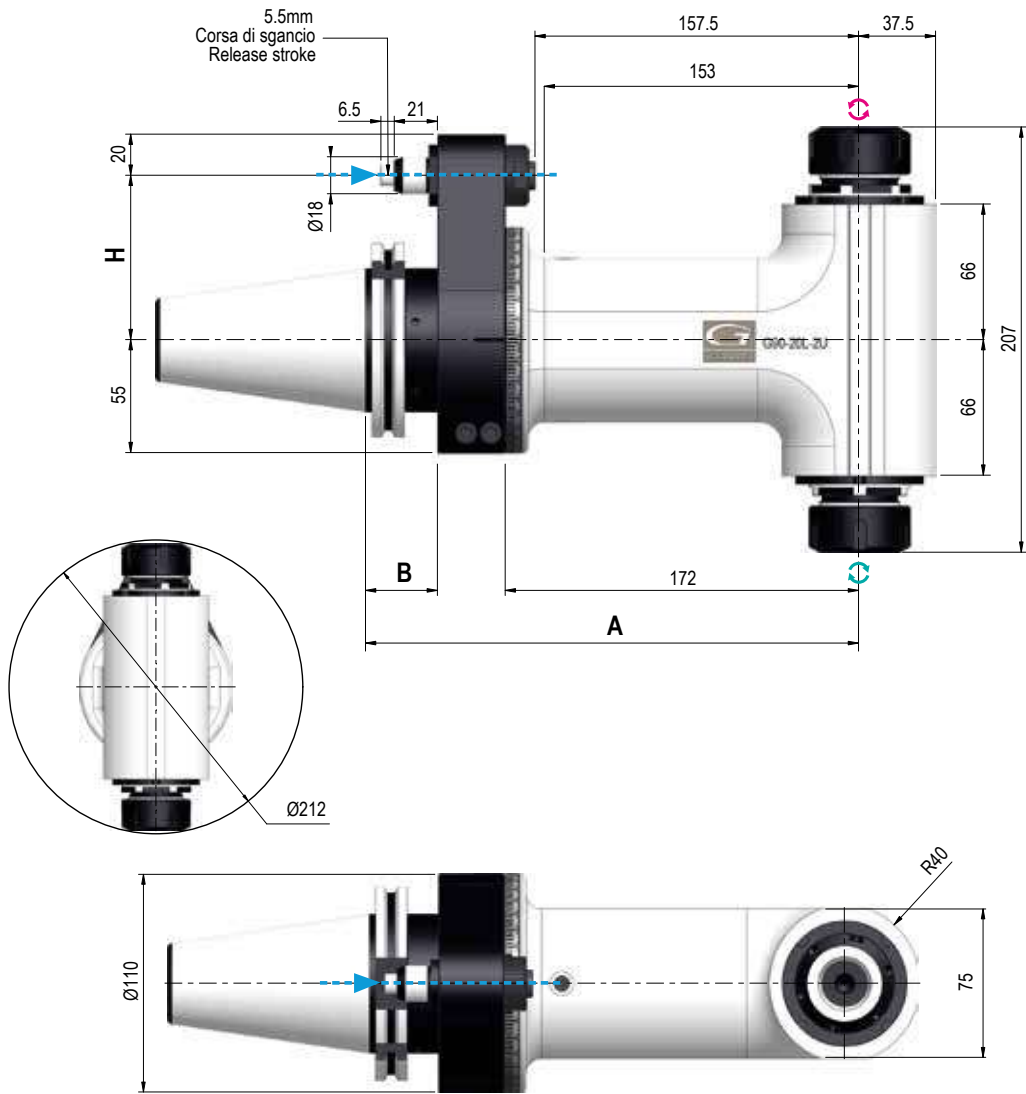
Special bag / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm

OUTPUT - Weldon Max Ø20 (X2)

OUTPUT - Shell mill holder Ø27 (X2)



### G90-20L-2U

TYPE 2



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 15,5



Rpm  
4.000



Ø 20



N 1.250



M 16



Nm 40



ER-32  
Ø2/20

Senso di rotazione Uguale e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**  
Cassa in Legno - Wooden Box 29,5Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

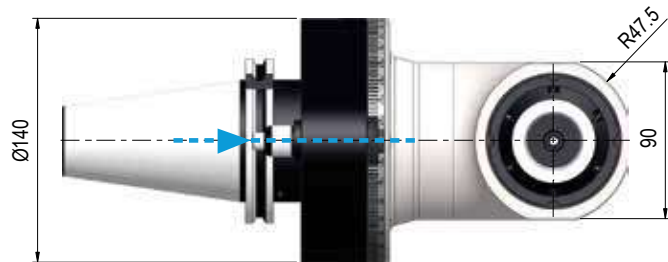
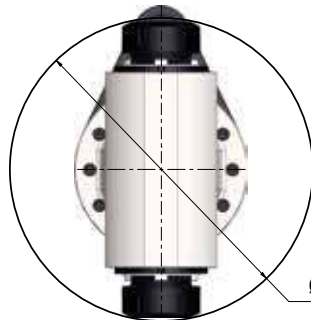
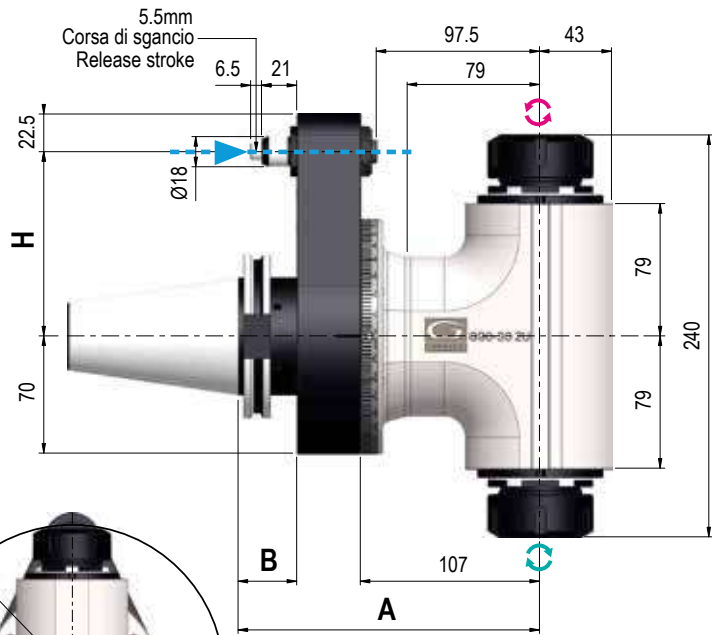
**HIGH SPEED** - 6000 Rpm

**OUTPUT** - Weldon Max Ø20 (X2)

**OUTPUT** - Shell mill holder Ø27 (X2)

### G90-30-2U

TYPE 3



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 20



Rpm  
4.000



Ø 30



N 1750



M 20



Nm 75



ER40  
Ø3/30



Senso di rotazione Uguale e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

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

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 23Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm

OUTPUT - Weldon Max Ø25 (X2)

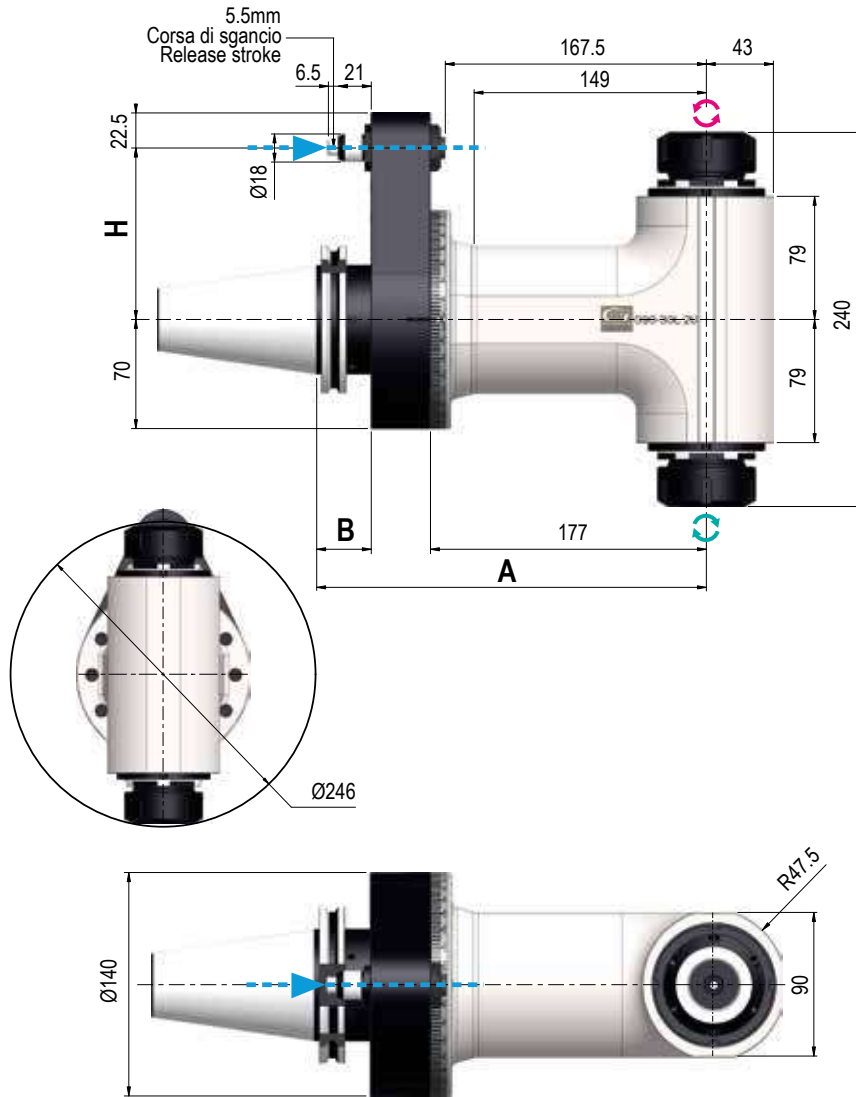
OUTPUT - Shell mill holder Ø27 (X2)

OUTPUT - HSK 40 (X2)



### G90-30L-2U

TYPE 3



#### 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 e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**  
Cassa in Legno - Wooden Box 37Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni  
Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

**HIGH SPEED** - 6000 Rpm

**OUTPUT** - Weldon Max Ø25 (X2)

**OUTPUT** - Shell mill holder Ø27 (X2)

**OUTPUT** - HSK 40 (X2)

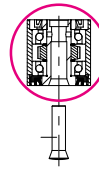
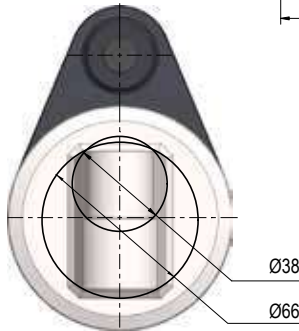
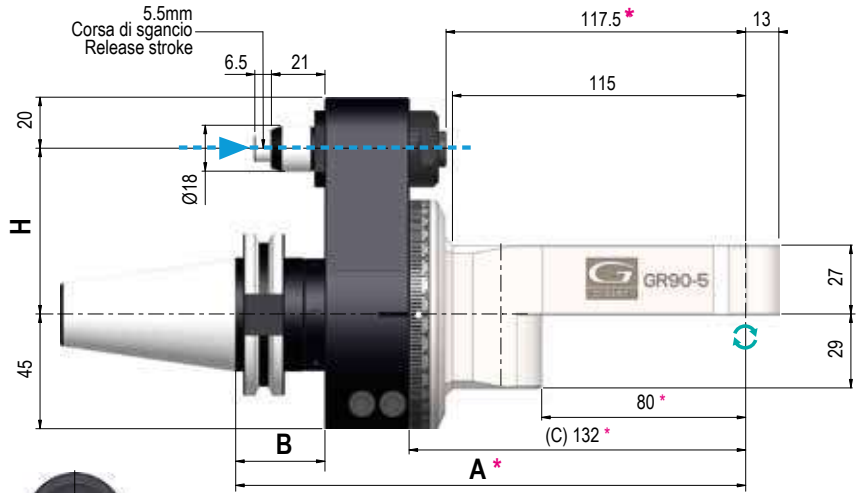
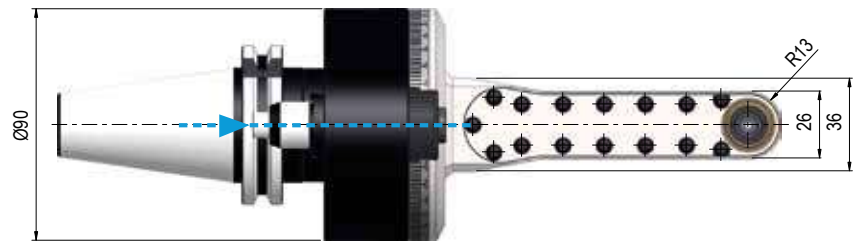
**GR90-5**

TYPE 1

\* mm C

+ 16 148

+ 32 164


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

**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 the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 8Kg


**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

**OPZIONI - OPTIONS**
**COLLETS** - Pinza Schaublin P6 Ø0,3-0,9

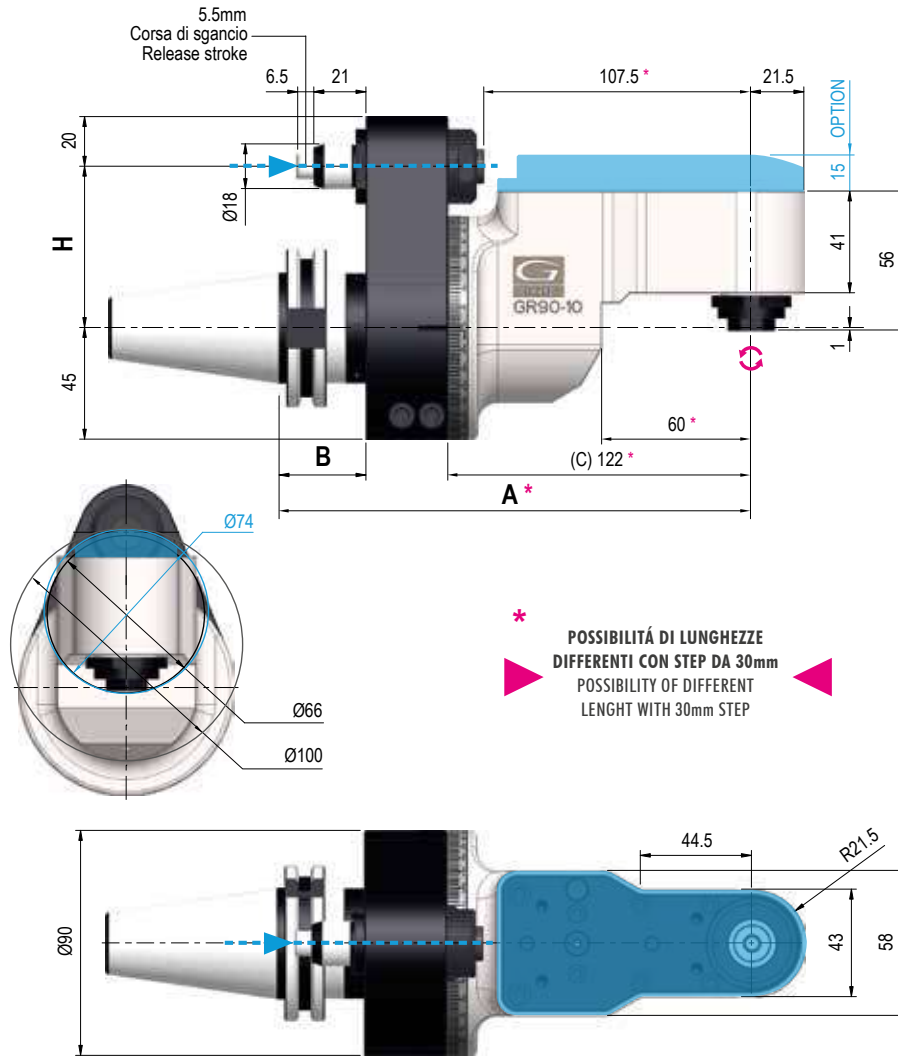
**COLLETS** - Pinza Schaublin P6 Ø1-1,9

**COLLETS** - Pinza Schaublin P6 Ø2-3,5

**COLLETS** - Pinza Schaublin P6 Ø4-5

### GR90-10

TYPE 1



\* POSSIBILITÀ DI LUNGHEZZE  
DIFFERENTI CON STEP DA 30mm  
POSSIBILITY OF DIFFERENT  
LENGHT WITH 30mm STEP



* mm	C
+ 30	152
+ 60	182
+ 90	212

#### Dati tecnici - Technical data



Ratio  
1:1,6



Kg 6,2



Rpm  
4.000



Ø 10



N 620



M 8



Nm 20



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			
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	
Dual contact (Optional)													
H	Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80	65 / 80	80	65 / 80	65 / 80	80
	Optional 110												
A *	190	190	190	190	190	196	197	197	200	193	193	195	
B	35	35	35	35	35	41	42	42	45	38	38	40	

#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 9,5Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 8000 Rpm - Internal coolant NO

REFR. - COOLANT - dal Cono - Through Shank 70bar - Dry running NO

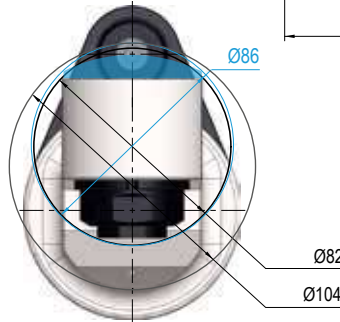
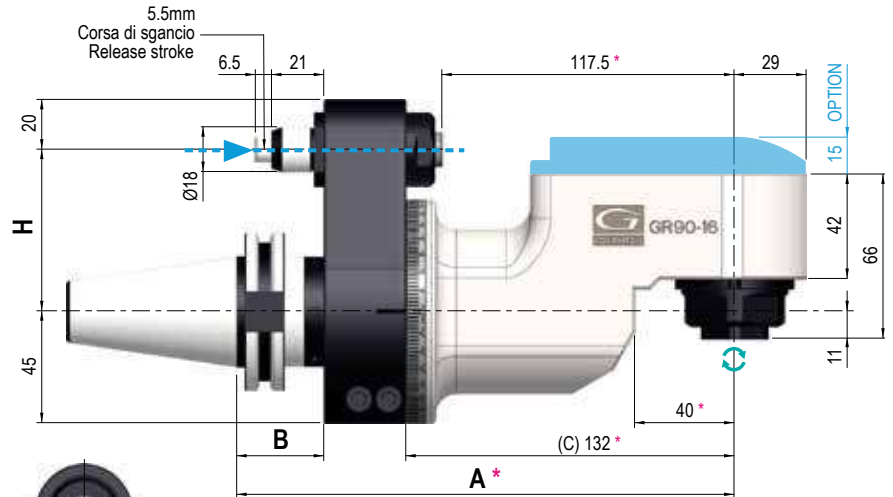
OUTPUT - Weldon Max Ø10

OUTPUT - Shell mill holder Ø13

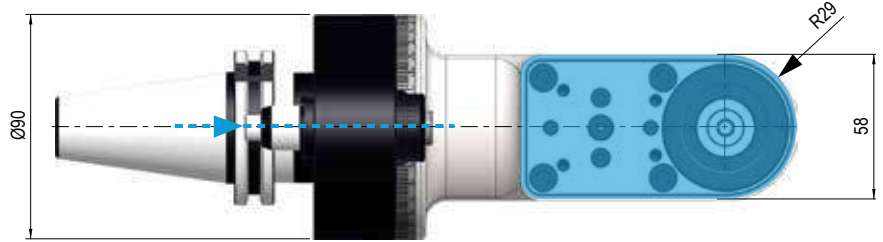
# GR90-16

TYPE 1

* mm	C
+ 50	182
+ 100	232



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


**Dati tecnici - Technical data**


Ratio 1:1



Kg 6



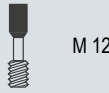
Rpm 4.000



Ø 16



N 620



M 12



Nm 20



ER-25 Ø1/16



Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

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

**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 10Kg


**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

**OPZIONI - OPTIONS**

HIGH SPEED - 8000 Rpm - Internal coolant NO

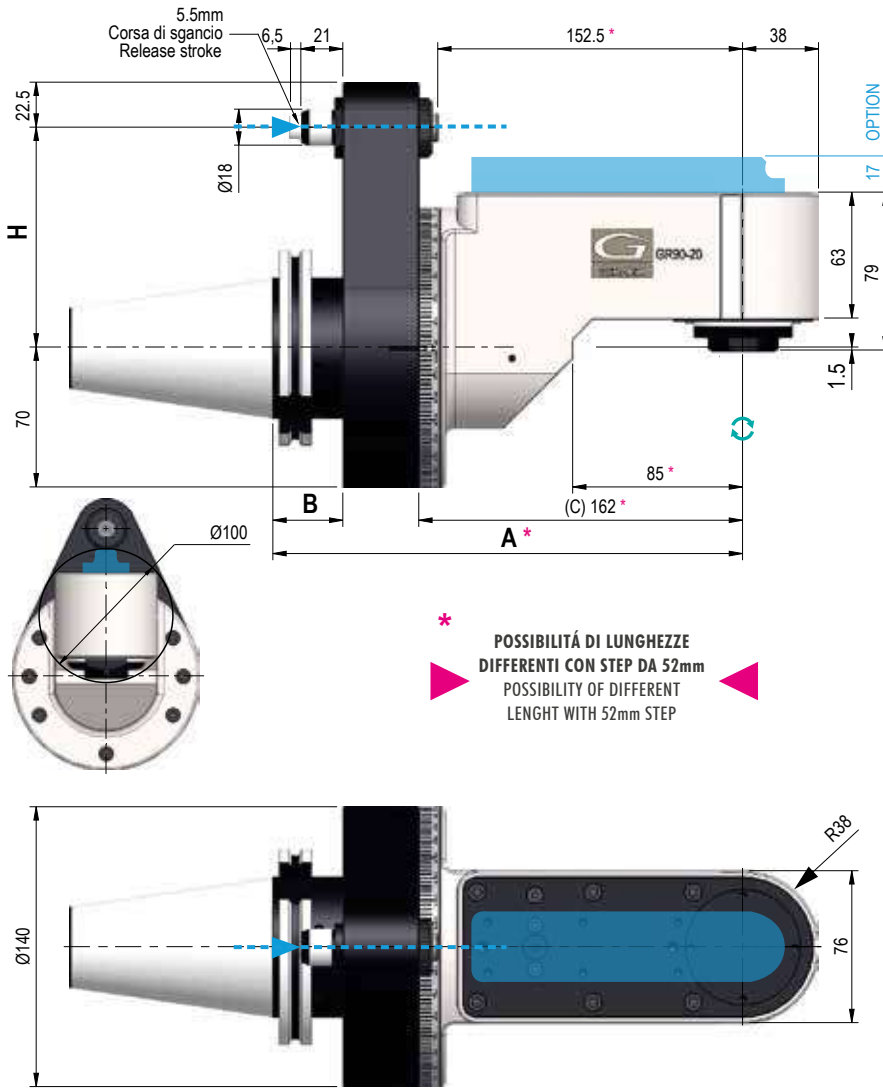
REFR. - COOLANT - dal Cono - Through Shank 70bar - Dry running NO

OUTPUT - Weldon Max Ø16

OUTPUT - Shell mill holder Ø16

### GR90-20

TYPE 3



* mm	C
+ 52	214
+ 104	266

#### Dati tecnici - Technical data



Ratio  
1:1



Kg 15,6



Rpm  
4.000



Ø 20



N 1.750



M 16



Nm 75



ER-32  
Ø2/20

Senso di rotazione Uguale al mandrino - Direction of rotation Same as 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	100	C8
Dual contact (Optional)					
<b>H</b> Standard Ø18	110	110	110	110	110
<b>A</b> *	235	235	241	245	240
<b>B</b>	35	35	41	45	40

#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 30Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm - **Internal coolant NO**

REFR. - COOLANT - dal Cono - Through Shank 70bar - **Dry running NO**

OUTPUT - Weldon Max Ø20

OUTPUT - Shell mill holder Ø16

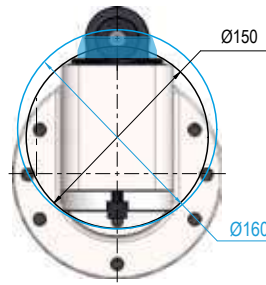
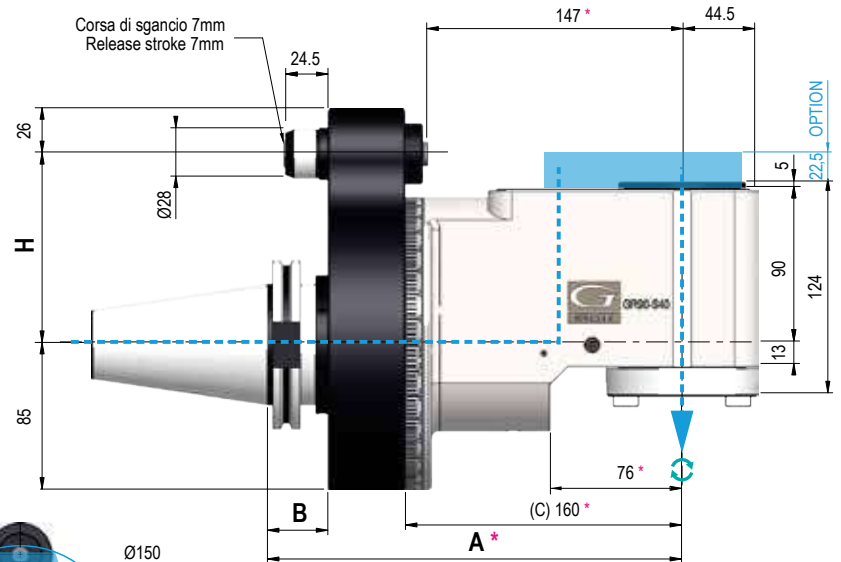
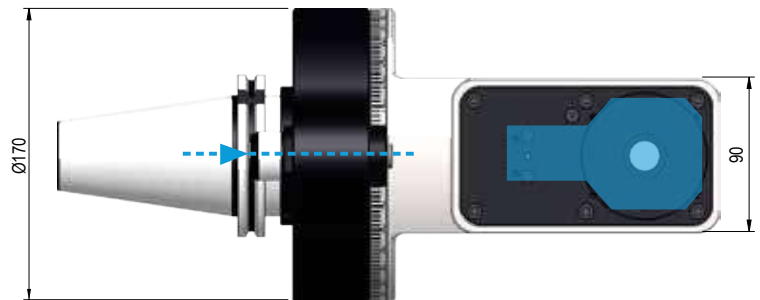
**GR90-S40**

TYPE 4

\* mm C

+ 68 228

+ 136 296


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

**Dati tecnici - Technical data**

 Ratio  
 1:1


Kg 22,6


 Rpm  
 4.000


Ø 26



N 1800



M 20



Nm 140


 ISO / CAT  
 / BT40


Senso di rotazione Uguale al mandrino - Direction of rotation Same as 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	100	C8
Dual contact (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

**IMBALLO & PESO - PACK WEIGHT:**

Cassa in Legno - Wooden Box 37Kg


**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

Cassa in Legno / Stop block / Ghiera ER / Chiavi di servizio

Tubetto di grasso / Libro istruzioni

Wooden Box / Stop block / ER nut / Wrenches / Grease tube / Instruction book

**OPZIONI - OPTIONS**

HIGH SPEED - 5000 Rpm - Internal coolant NO

REFR. - COOLANT - dal Cono - Through Shank Max 70bar - 4000Rpm - Dry running NO

OUTPUT - Weldon Max Ø26

OUTPUT - HSK 63

OUTPUT - Shell mill holder Ø27

OUTPUT - C4

OUTPUT - C5

# MTC SERIES MANUAL TOOL CHANGE



### INGRANAGGI - GEARS

Ingranaggi Gleason con evolvente rettificato massime performances e minori vibrazioni

Gleason ground spiral bevel gears maximum performances and minimum vibration



### CUSCINETTI - BEARINGS

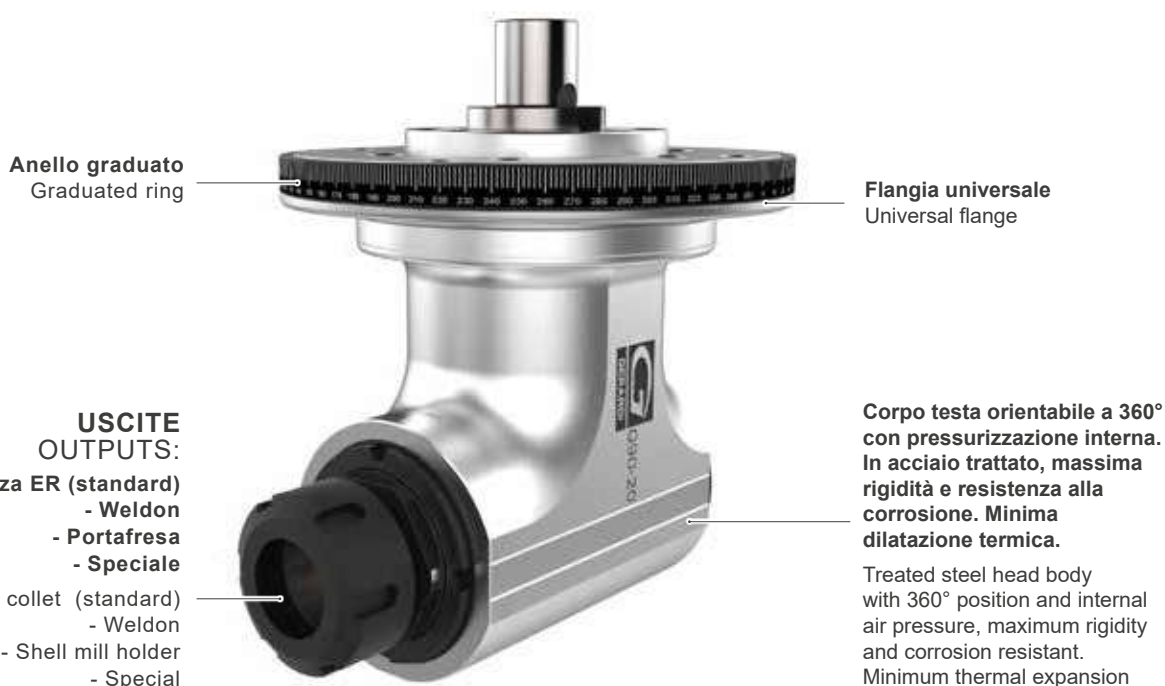
Cuscinetti a sfera a contatto obliquo in classe di precisione ABEC 9

Angular contact preloaded ball bearings of precision class ABEC 9

## DESIGN

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

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



## PROLUNGHE - EXTENSIONS

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

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



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

## Esempi applicativi / Applications examples

# Classic Line

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

Integral angle heads MTC series (Manual tool change)



**STD 90°** SERIES

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



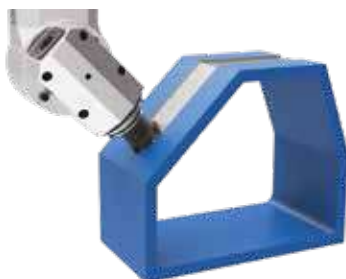
**STD 90°** SERIES

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



**GMU** SERIES

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



**GMU** SERIES

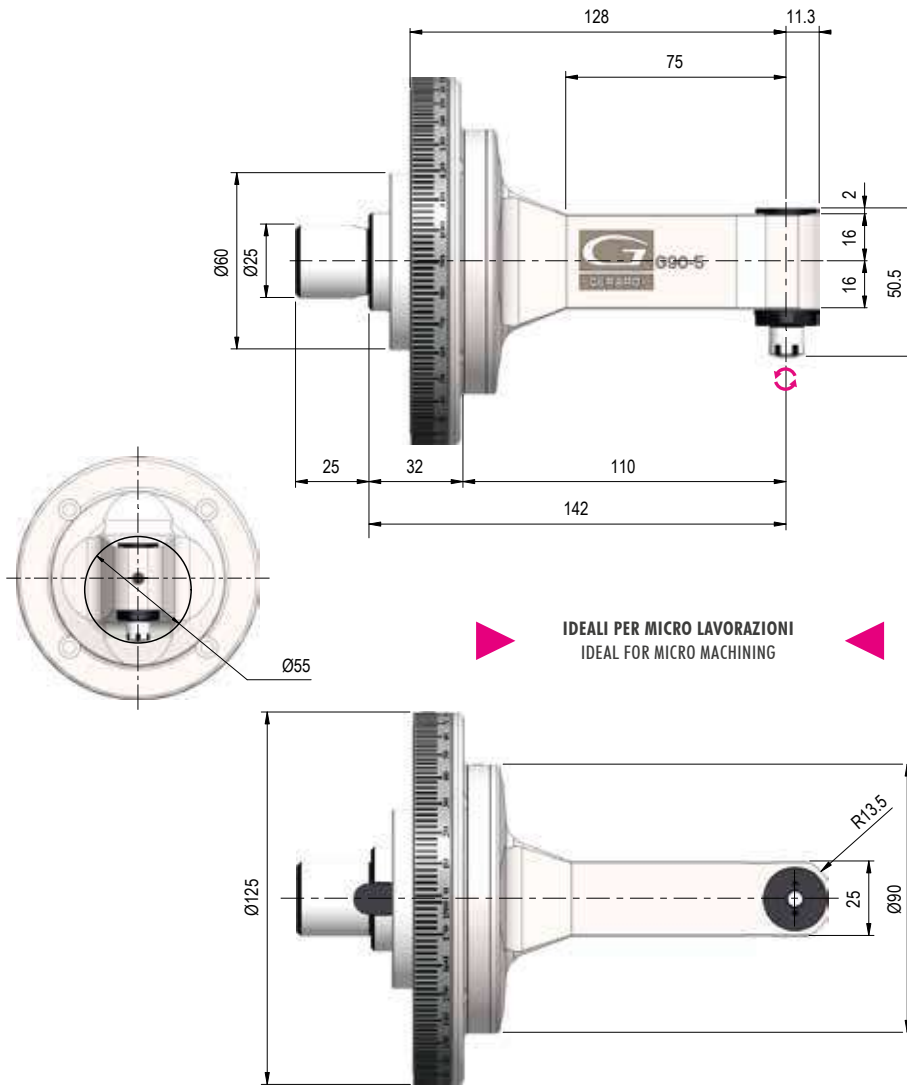
La serie di teste angolari con angolazione regolabile da 0 a  $360^\circ$ .  
Angle heads series with adjustable angle from 0 to  $360^\circ$ .



**DOUBLE** SERIES

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





IDEALI PER MICRO LAVORAZIONI  
IDEAL FOR MICRO MACHINING

### G90-5

TYPE 1



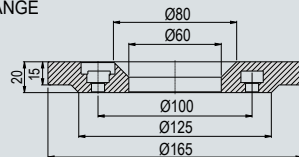
#### Dati tecnici - Technical data

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

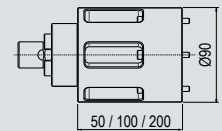
Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50
Grandezza - Size																

#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION TIPO - TYPE 1



IMBALLO & PESO - PACK WEIGHT:  
Valigetta - Bag 8Kg



#### DOTAZIONE STANDARD - STANDARD EQUIPMENT

Valigetta / Flangia Universale / Ghiera ER / Cono std / Chiavi di servizio  
Tubetto di grasso / Libro istruzioni

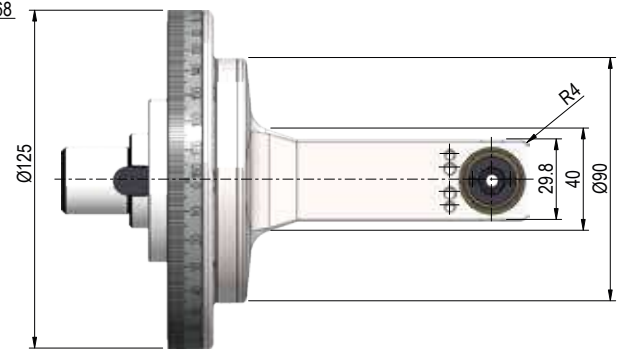
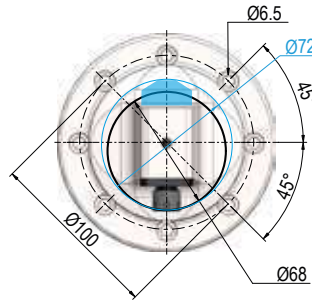
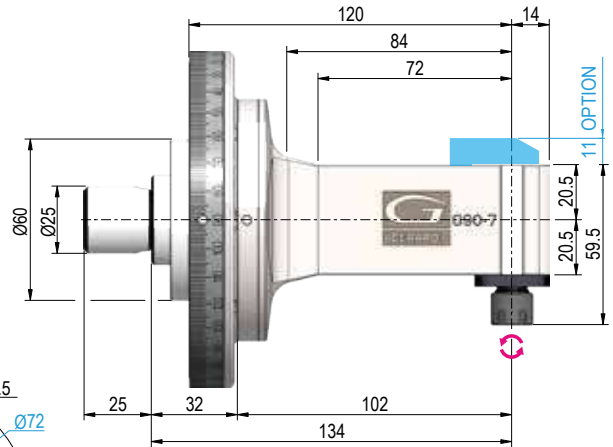
Special bag / Universal flange / ER nut / Shank / Wrenches / Grease tube / Instruction book

#### OPZIONI - OPTIONS

OUTPUT - Weldon Max Ø6

### G90-7

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 3,7



Rpm  
10.000



Ø 7



N 120



M 6



Nm 5



ER-11  
Ø17

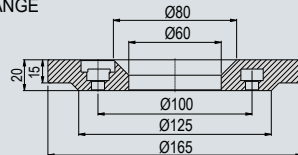


Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50

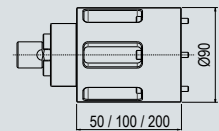
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 1



#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 8Kg



#### 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

#### OPZIONI - OPTIONS

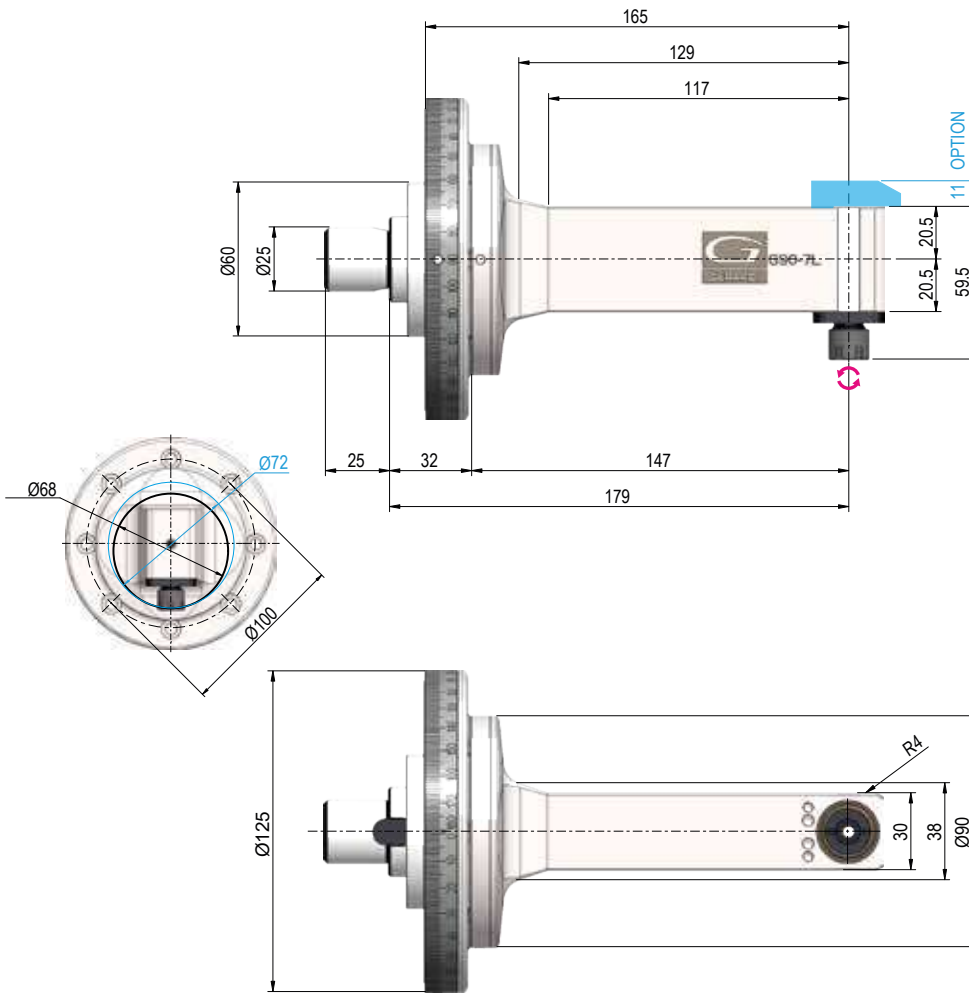
REFR. - COOLANT - dal Distr. - Through Distr. Max 10bar RPM 6000 - Dry running YES

OUTPUT - Weldon Max Ø8

DOUBLE OUTPUT - ER11 - ER 8M

### G90-7L

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 4



Rpm  
10.000



Ø 7



N 120



M 6



Nm 5

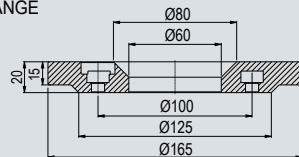


ER-11  
Ø17

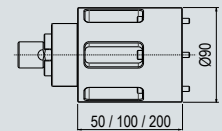
Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50
Grandezza - Size																

#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION TIPO - TYPE 1



**IMBALLO & PESO - PACK WEIGHT:**  
Valigetta - Bag 8,5Kg



#### 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

#### OPZIONI - OPTIONS

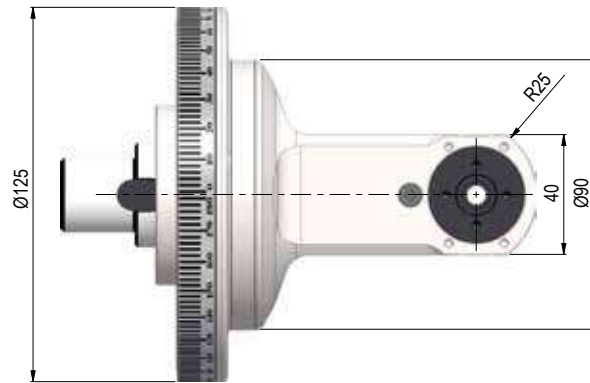
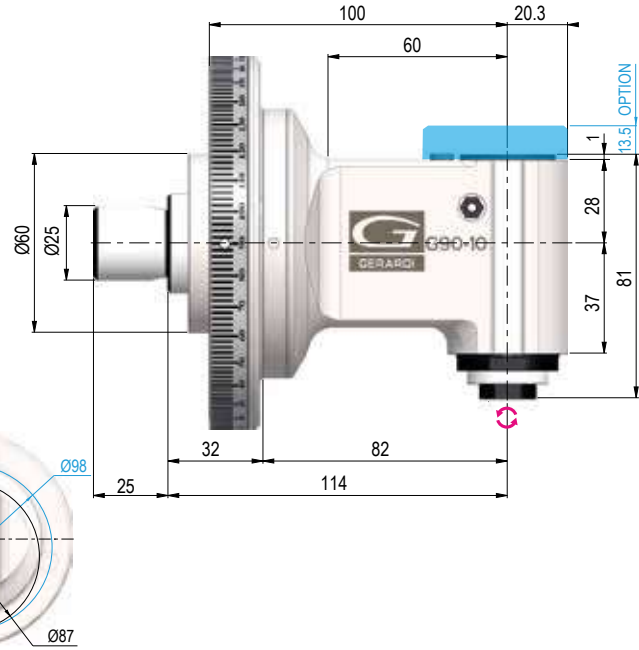
**REFR. - COOLANT** - dal Perno - Through Distr. Max 10bar - 6000Rpm - **Dry running YES**

**OUTPUT** - Weldon Max Ø8

**DOUBLE OUTPUT** - ER11 - ER 8M

### G90-10

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 4,3



Rpm  
10.000



Ø 10



N 250



M 8



Nm 10



ER-16  
Ø1/10

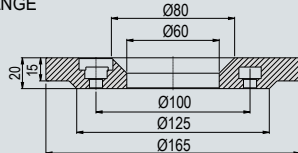


Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50

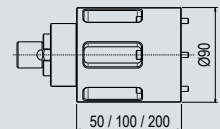
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 1



#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 9Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Distr. - Through Distr. Max 10bar RPM 4000 - **Dry running YES**

REFR. - COOLANT - dal Distr. - Through Distr. Max 40bar RPM 4000 - **Dry running NO**

DOUBLE OUTPUT - ER16 - ER 11M

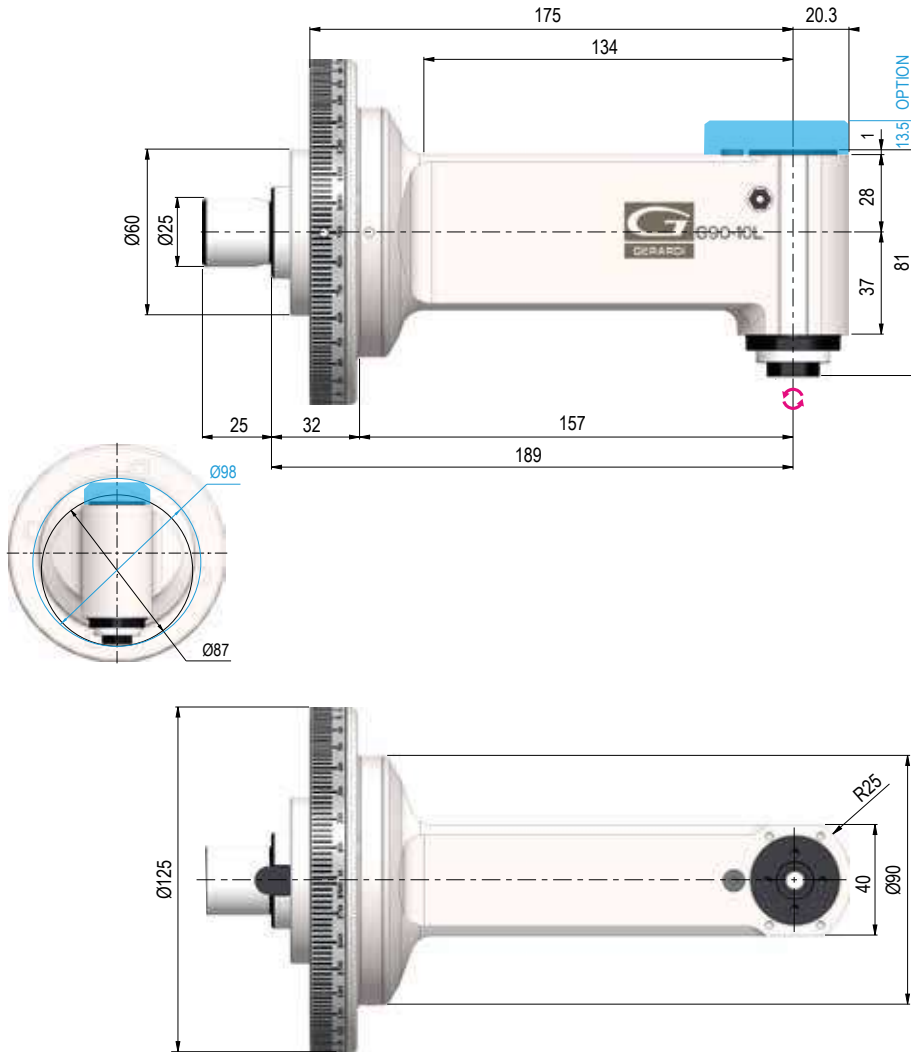
OUTPUT - Weldon Max Ø10

OUTPUT - Shell mill holder Ø13

OUTPUT - ER 20

### G90-10L

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 6



Rpm  
10.000



Ø 16



N 250



M 8



Nm 10

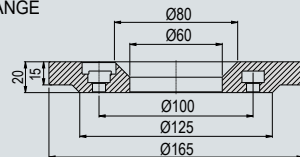


ER-16  
Ø1/10

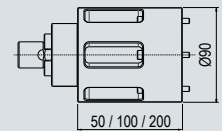
Senso di rotazione Contrario al mandrino - Direction of rotation Opposite to the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50
Grandezza - Size																

#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION TIPO - TYPE 1



#### IMBALLO & PESO - PACK WEIGHT: Valigetta - Bag 10,5Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Distr. - Through Distr. Max 10bar RPM 4000 - Dry running YES

REFR. - COOLANT - dal Distr. - Through Distr. Max 40bar RPM 4000 - Dry running NO

DOUBLE OUTPUT - ER16 - ER 11M

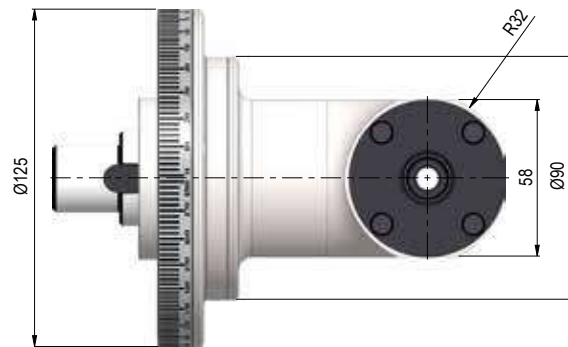
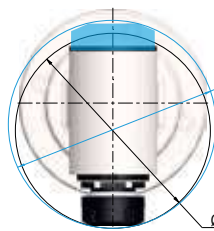
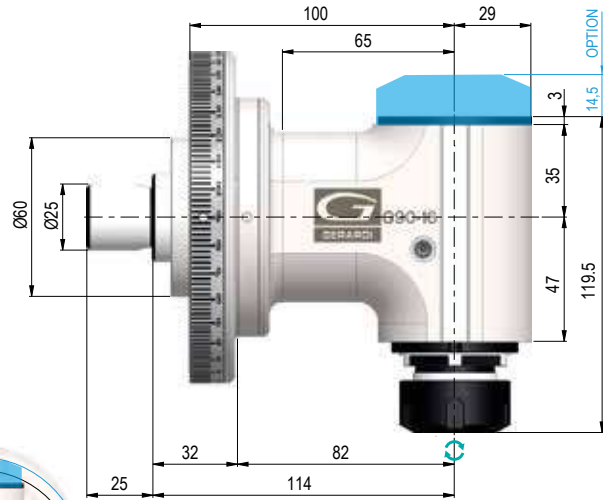
OUTPUT - Weldon Max Ø10

OUTPUT - Shell mill holder Ø13

OUTPUT - ER 20

### G90-16

TYPE 1



#### 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

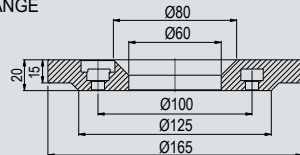


Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50
Grandezza - Size																

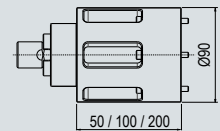
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 1



#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 9Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Distr. - Through Distr. Max 10bar RPM 4000 - **Dry running YES**

REFR. - COOLANT - dal Distr. - Through Distr. Max 40bar RPM 4000 - **Dry running NO**

DOUBLE OUTPUT - ER25 - ER 16M

OUTPUT - Weldon Max Ø16

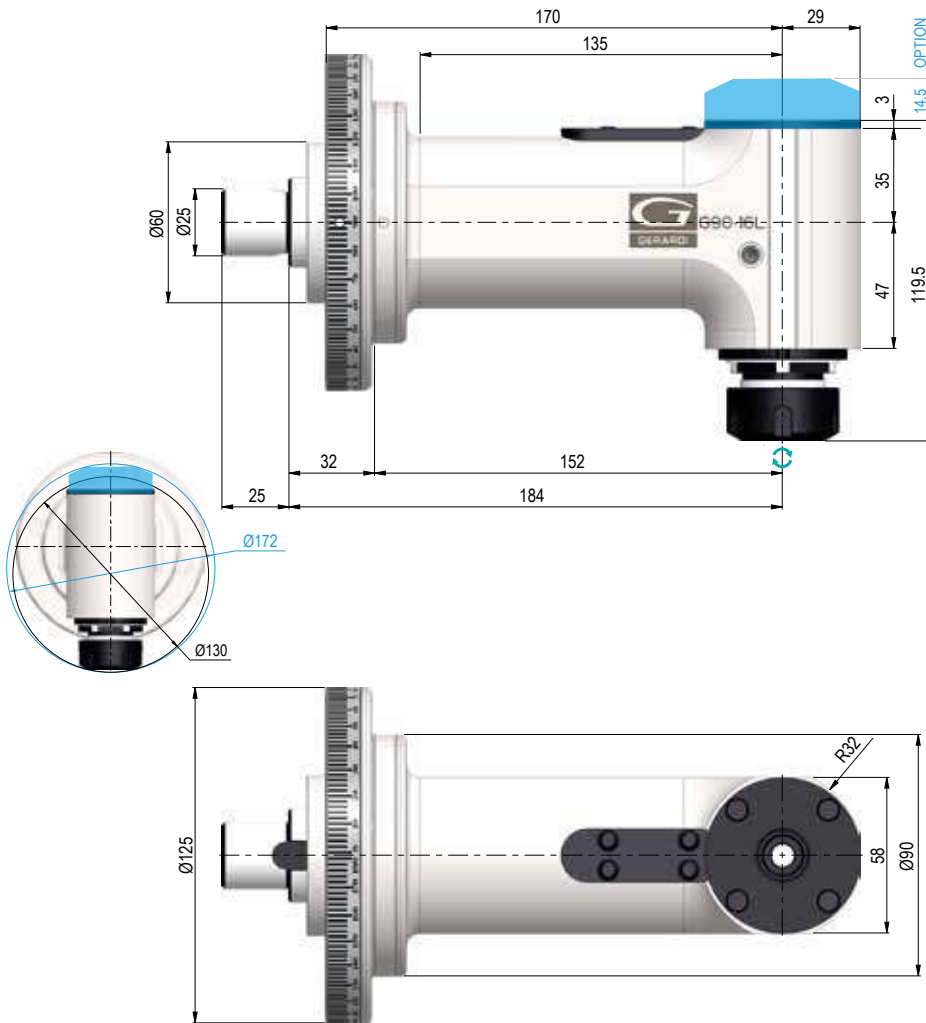
OUTPUT - Shell mill holder Ø16

OUTPUT - ER 32

OUTPUT - HSK 32

### G90-16L

TYPE 1



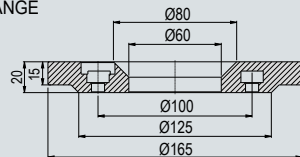
#### Dati tecnici - Technical data

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

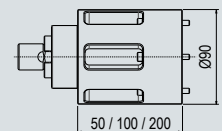
Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50

#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION TIPO - TYPE 1



#### IMBALLO & PESO - PACK WEIGHT: Valigetta - Bag 10,5Kg



#### 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

#### OPZIONI - OPTIONS

REFR. - COOLANT - dal Distr. - Through Distr. Max 10bar RPM 4000 - Dry running YES

REFR. - COOLANT - dal Distr. - Through Distr. Max 40bar RPM 4000 - Dry running NO

DOUBLE OUTPUT - ER25 - ER 16M

OUTPUT - Weldon Max Ø16

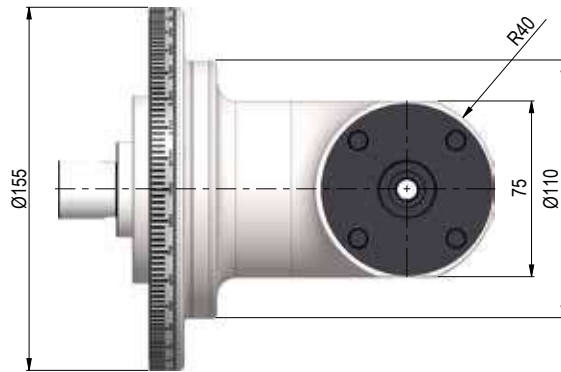
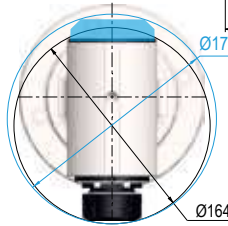
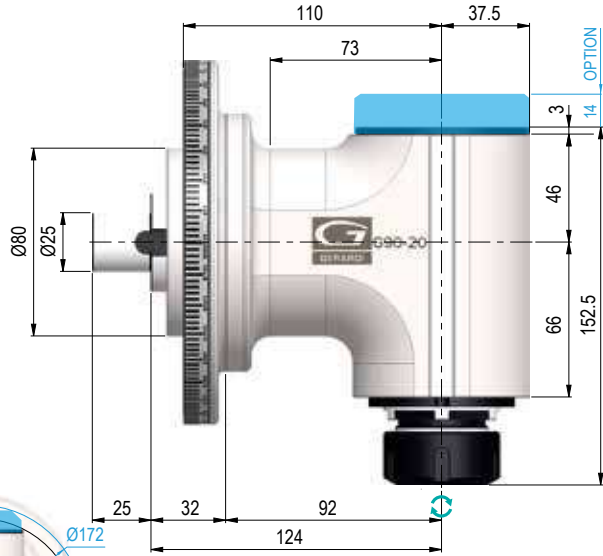
OUTPUT - Shell mill holder Ø16

OUTPUT - ER 32

OUTPUT - HSK 32

### G90-20

TYPE 2



#### 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

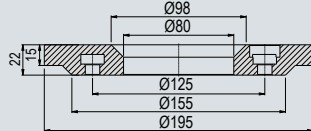


Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

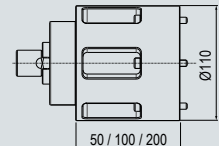
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 2 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 2



#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 15Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm - Internal coolant NO

REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - Dry running YES

REFR. - COOLANT - dal Distr. - Through Distributor - Max 40bar - Dry running NO

OUTPUT - Weldon Max Ø20

OUTPUT - HSK 40

OUTPUT - Shell mill holder Ø22

OUTPUT - ISO / CAT / BT 30

OUTPUT - C4

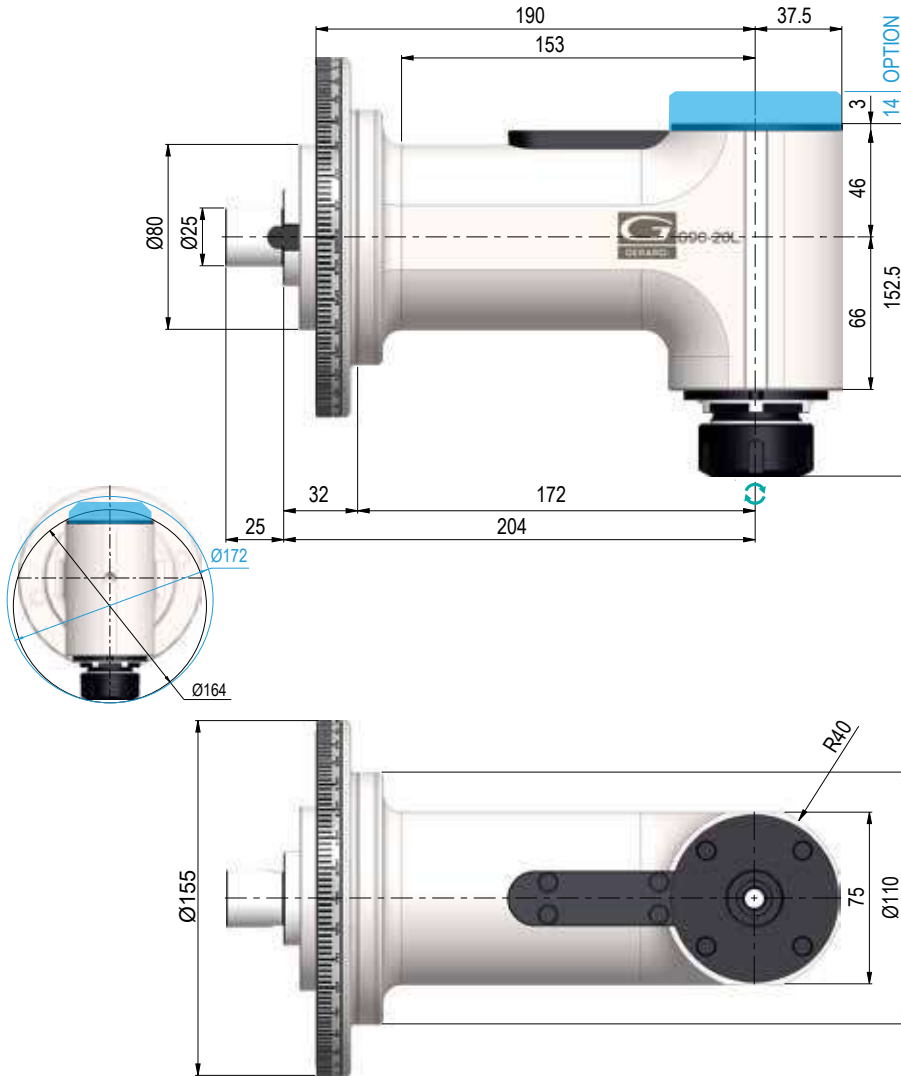
DOUBLE OUTPUT - ER32 - ER20M

OUTPUT - ER40



### G90-20L

TYPE 2



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 12,2



Rpm  
4.000



Ø 20



N 1.250



M 16



Nm 40



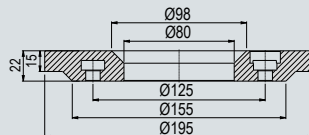
ER-32  
Ø2/20

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

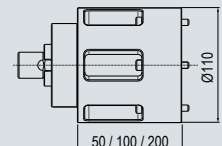
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 2 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 2



#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 17,5Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm - **Internal coolant NO**

REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - **Dry running YES**

REFR. - COOLANT - dal Distr. - Through Distributor - Max 40bar - **Dry running NO**

OUTPUT - Weldon Max Ø20

OUTPUT - HSK 40

OUTPUT - Shell mill holder Ø22

OUTPUT - ISO / CAT / BT 30

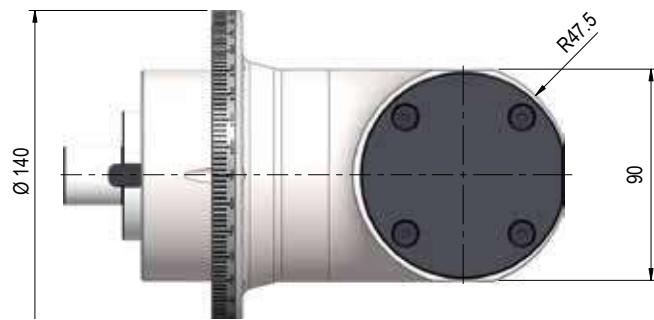
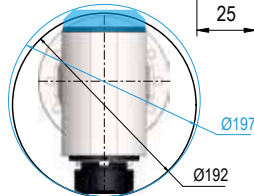
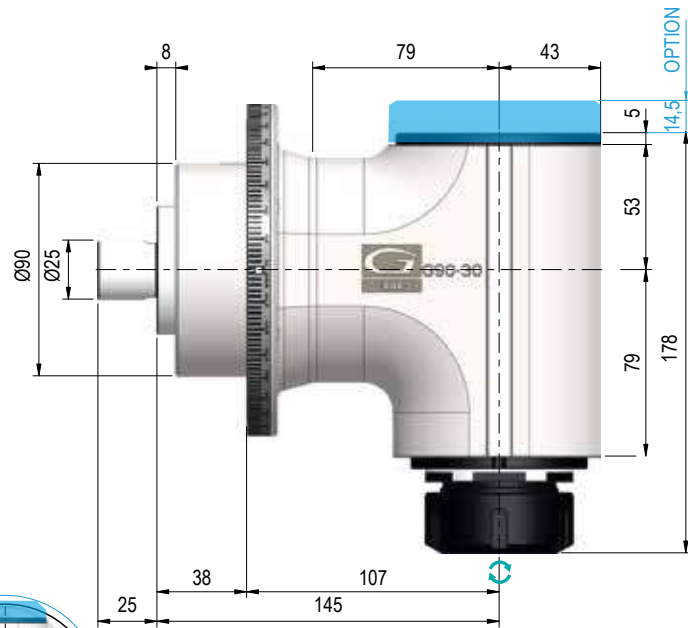
OUTPUT - C4

DOUBLE OUTPUT - ER32 - ER20M

OUTPUT - ER40

### G90-30

TYPE 3



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 17



Rpm  
4.000



Ø30



N 1.750



M 20



Nm 75



ER-40  
Ø3/30

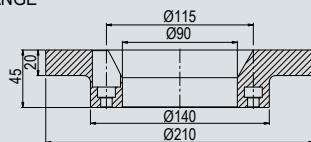


Senso di rotazione Uguaale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

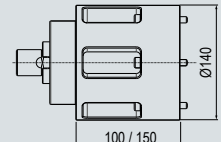
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 3 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 3



#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 32Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm - **Internal coolant NO**

REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - **Dry running YES**

REFR. - COOLANT - dal Distr. - Through Distributor - Max 30bar - **Dry running NO**

OUTPUT - Weldon Max Ø25

OUTPUT - HSK 40

OUTPUT - Shell mill holder Ø27

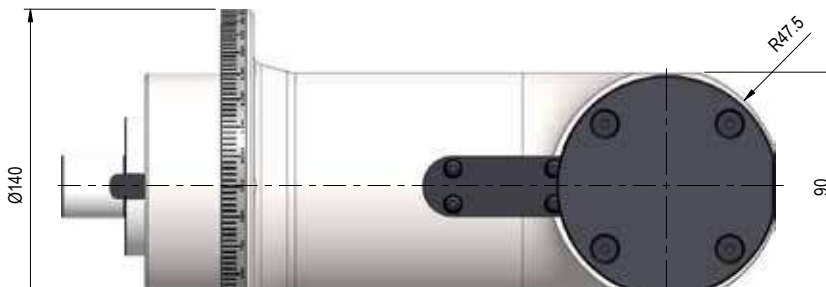
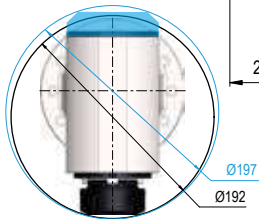
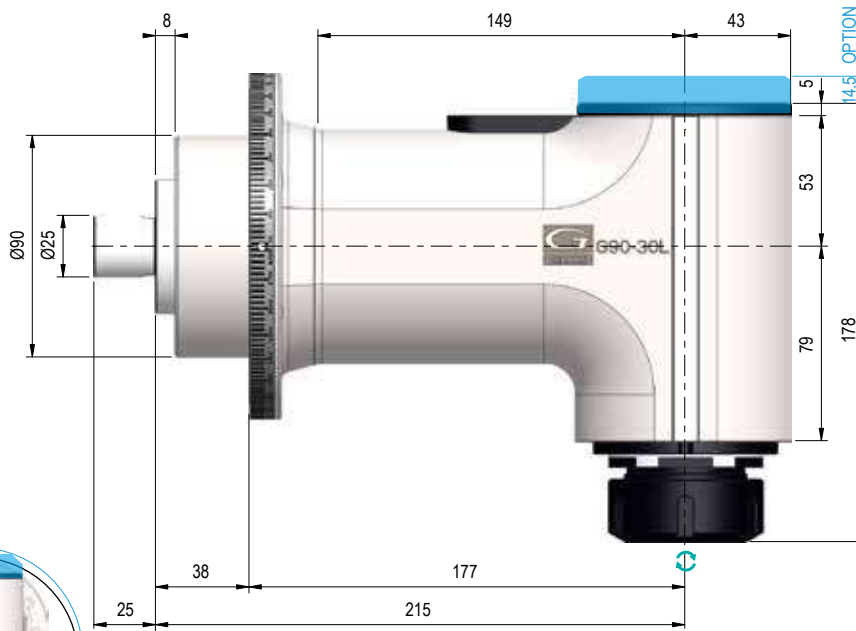
OUTPUT - ISO 30

OUTPUT - C4

DOUBLE OUTPUT - ER32 - ER20M

### G90-30L

TYPE 3



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 20



Rpm  
4.000



Ø30



N 1.750



M20



Nm 75

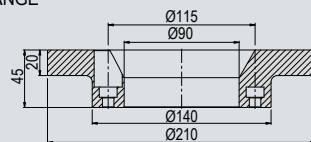


ER-40  
Ø3/30

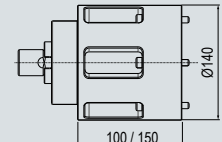
Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE TIPO - TYPE 3 (pag - page 1.97)



#### PROLUNGA - EXTENSION TIPO - TYPE 3



#### IMBALLO & PESO - PACK WEIGHT: Cassa in Legno - Wooden Box 35Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm - **Internal coolant NO**

REFR. - COOLANT - dal Distr. - Through Distributor- Max 10bar - **Dry running YES**

REFR. - COOLANT - dal Distr. - Through Distributor - Max 30bar - **Dry running NO**

OUTPUT - Weldon Max Ø25

OUTPUT - HSK 40

OUTPUT - Shell mill holder Ø27

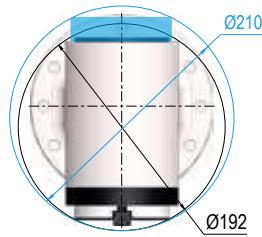
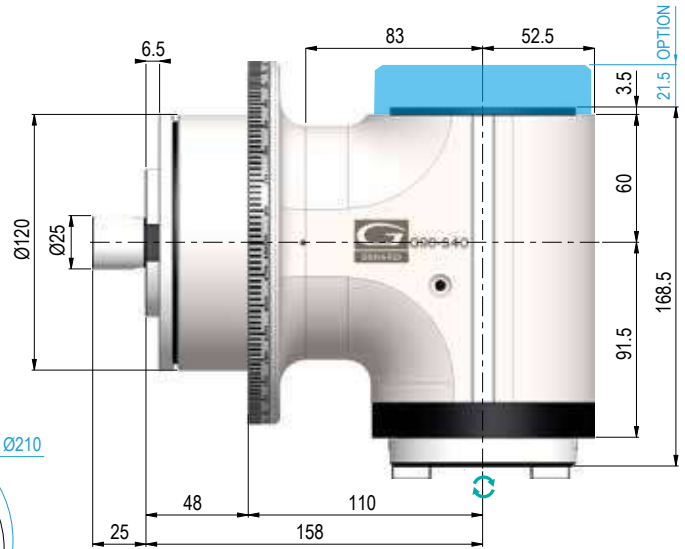
OUTPUT - ISO 30

OUTPUT - C4

DOUBLE OUTPUT - ER32 - ER20M

### G90-S40

TYPE 4



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 22



Rpm  
4.000



Ø26



N 1.800



M20



Nm 140



ISO/CAT  
/ BT40

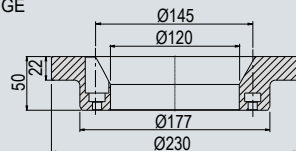


Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 4 (pag - page 1.97)



#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 37Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 5000 Rpm - Internal coolant NO

REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - Dry running YES

REFR. - COOLANT - dal Distr. - Through Distributor - Max 30bar - Dry running NO

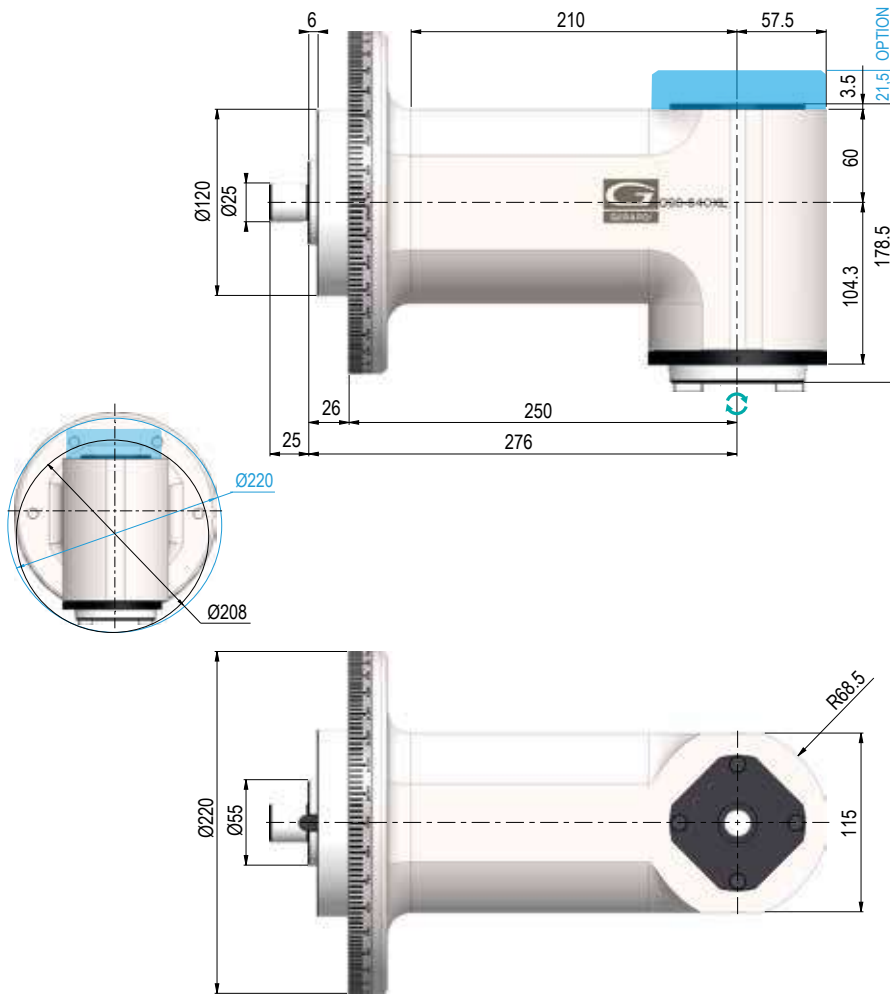
OUTPUT - HSK 63

OUTPUT - C4

OUTPUT - C5

**G90-S40XL**

TYPE 5


**Dati tecnici - Technical data**

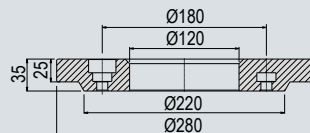
	Ratio 1:1		Kg 32,5
	Rpm 4.000		Ø30
	N 2.400		M22
	Nm 140		ISO/CAT / BT40

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**

TIPO - TYPE 5 (pag - page 1.97)


**IMBALLO & PESO - PACK WEIGHT:**

Cassa in Legno - Wooden Box 47Kg


**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

 Valigetta / Flangia Universale / Ghiera ER / Cono std / Chiavi di servizio  
 Tubetto di grasso / Libro istruzioni

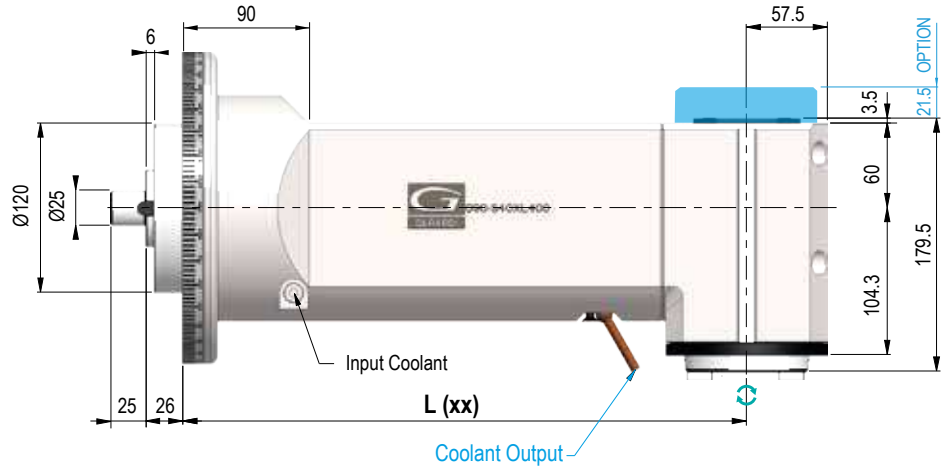
Special bag / Universal flange / ER nut / Shank / Wrenches / Grease tube / Instruction book

**OPZIONI - OPTIONS**
**HIGH SPEED - 5000 Rpm - Internal coolant NO**
**REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - Dry running YES**
**REFR. - COOLANT - dal Distr. - Through Distributor - Max 30bar - Dry running NO**
**OUTPUT - HSK 63**
**OUTPUT - C4**
**OUTPUT - C5**

**G90-S40XL xx**

TYPE 5

Lengths .400 .500 .600 .700


**Dati tecnici - Technical data**

 Ratio  
 1:1

 L400: Kg 57  
 L500: Kg 67  
 L600: Kg 78  
 L700: Kg 86

 Rpm  
 4.000


Ø30



N 2.400



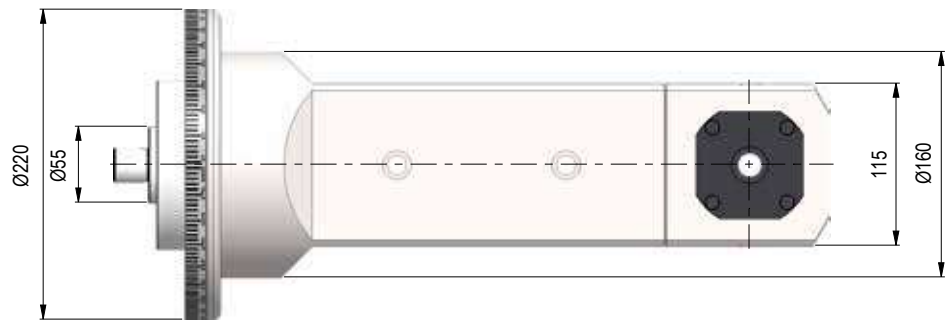
M22



Nm 140


 ISO / CAT  
 / BT40

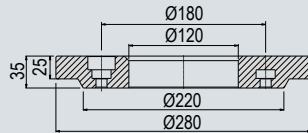

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle



Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**

TIPO - TYPE 5 (pag - page 1.97)


**IMBALLO & PESO - PACK WEIGHT:**

Cassa in Legno - Wooden Box Kg


**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

**OPZIONI - OPTIONS**

 HIGH SPEED - 5000 Rpm - **Internal coolant NO**

 REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - **Dry running YES**

 REFR. - COOLANT - dal Distr. - Through Distributor - Max 30bar - **Dry running NO**
**SPECIAL LENGHT**

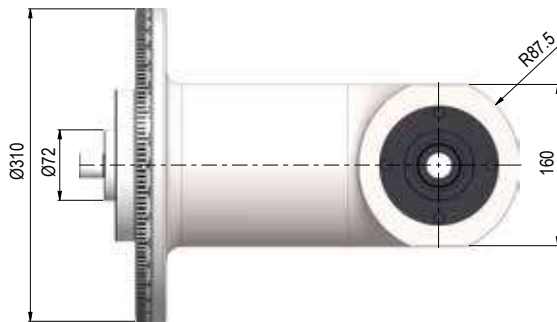
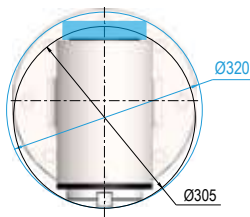
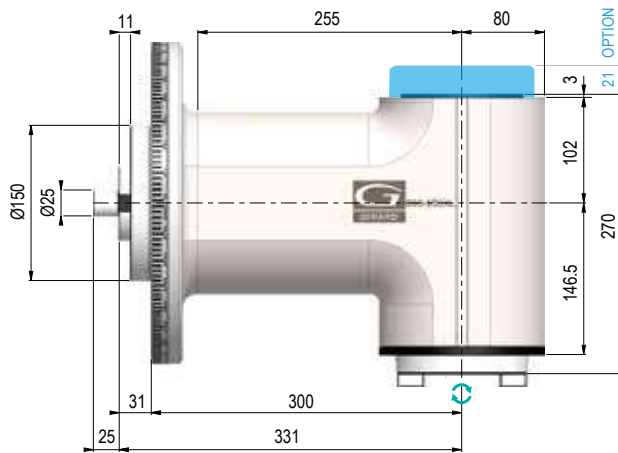
OUTPUT - HSK 63

OUTPUT - C4

OUTPUT - C5

**G90-S50**

TYPE 6


**Dati tecnici - Technical data**

 Ratio  
1:1


Kg 77


 Rpm  
3.000


Ø45



N 3.300



M36



Nm 400

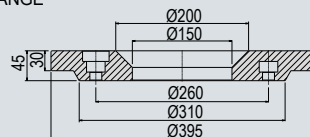

 ISO / CAT  
/ BT50

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 DIN2080	
	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50
Grandezza - Size														

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**

TIPO - TYPE 6 (pag - page 1.97)


**IMBALLO & PESO - PACK WEIGHT:**

Cassa in Legno - Wooden Box Kg


**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

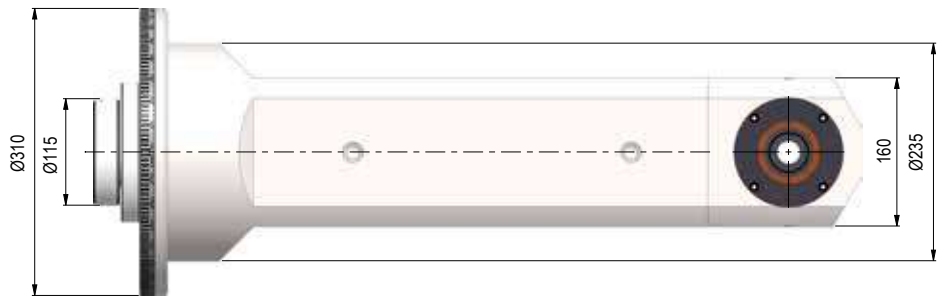
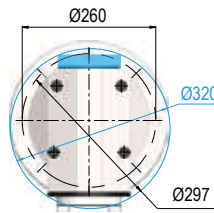
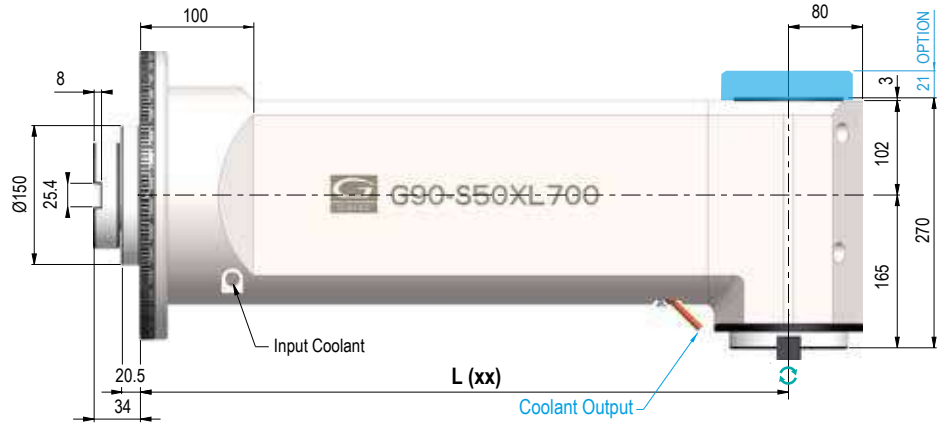
 Valigetta / Flangia Universale / Ghiera ER / Cono std / Chiavi di servizio  
 Tubetto di grasso / Libro istruzioni

Special bag / Universal flange / ER nut / Shank / Wrenches / Grease tube / Instruction book

**OPZIONI - OPTIONS**
**HIGH SPEED - 4000 Rpm - Internal coolant NO**
**REFR. - COOLANT - dal Distr. - Through Distributor- Max 10bar - Dry running YES**
**REFR. - COOLANT - dal Distr. - Through Distributor- Max 30bar - Dry running NO**
**OUTPUT - HSK 63**
**OUTPUT - C6**
**OUTPUT - C8**

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

Lengths .400 .500 .600 .700 .800


**Dati tecnici - Technical data**

 Ratio  
 1:1

 L400: Kg 149  
 L500: Kg 169  
 L600: Kg 190  
 L700: Kg 211  
 L700: Kg 231

 Rpm  
 3.000


Ø45



N 3.300



M36



Nm 400

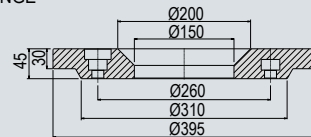

 ISO / CAT  
 / BT50


Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**

TIPO - TYPE 6 (pag - page 1.97)


**IMBALLO & PESO - PACK WEIGHT:**

Cassa in Legno - Wooden Box Kg


**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

**OPZIONI - OPTIONS**

HIGH SPEED - 4000 Rpm

REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - Dry running YES

REFR. - COOLANT - dal Distr. - Through Distributor - Max 30bar - Dry running NO

**SPECIAL LENGHT**

OUTPUT - HSK 63

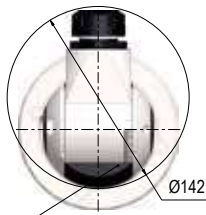
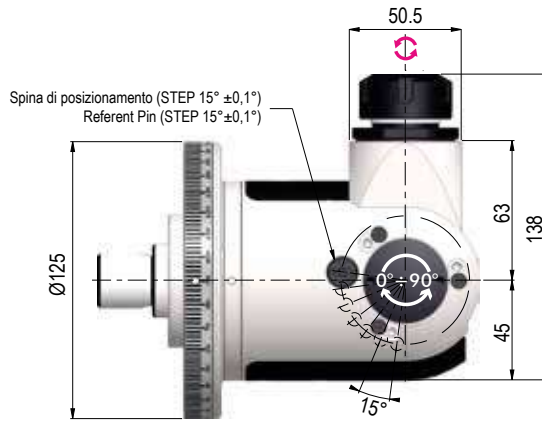
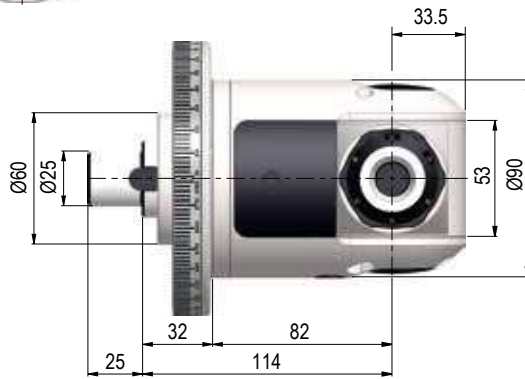
OUTPUT - C6

OUTPUT - C8



**GMU-16**

TYPE 1


 Scala Graduata  
 Graduated degree

**Dati tecnici - Technical data**

 Ratio  
 1:1


Kg 6,3


 Rpm  
 4.000


Ø16



N 480



M14

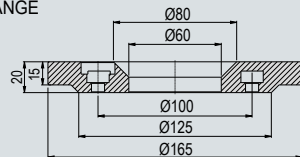
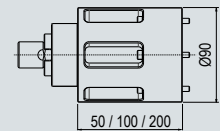


Nm 18


 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 DIN2080	
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50
Grandezza - Size																

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**  
 TIPO - TYPE 1 (pag - page 1.97)

**PROLUNGA - EXTENSION**  
 TIPO - TYPE 1

**IMBALLO & PESO - PACK WEIGHT:**  
 Valigetta - Bag 11,5Kg

**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

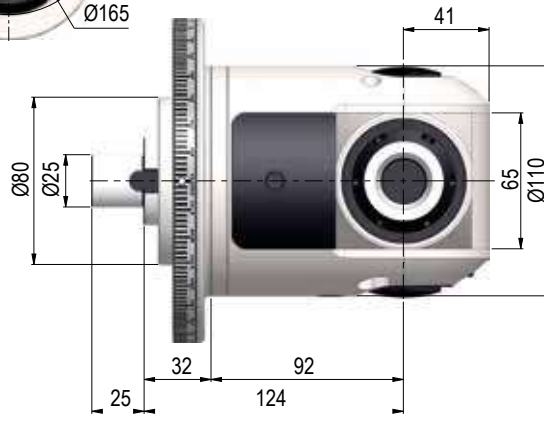
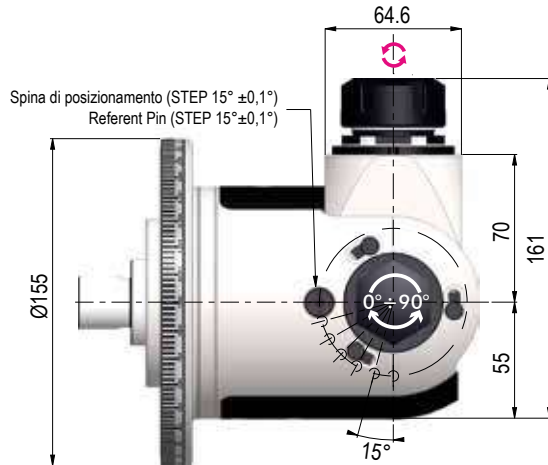
**OPZIONI - OPTIONS**
**OUTPUT** - Shell mill holder Ø16

**HIGH SPEED** - 6000 Rpm

**QUICK POSITIONING** - Portafresa Toolholder Ø16

# GMU-20

TYPE 2


**Dati tecnici - Technical data**

 Ratio  
 1:1


Kg 13


 Rpm  
 4.000


Ø20



N 715



M16



Nm 32

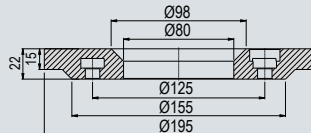

 ER-32  
 Ø2/20


Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

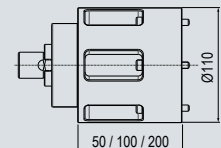
Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**

TIPO - TYPE 2 (pag - page 1.97)


**PROLUNGA - EXTENSION**

TIPO - TYPE 2


**IMBALLO & PESO - PACK WEIGHT:**

Valigetta - Bag 18Kg


**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

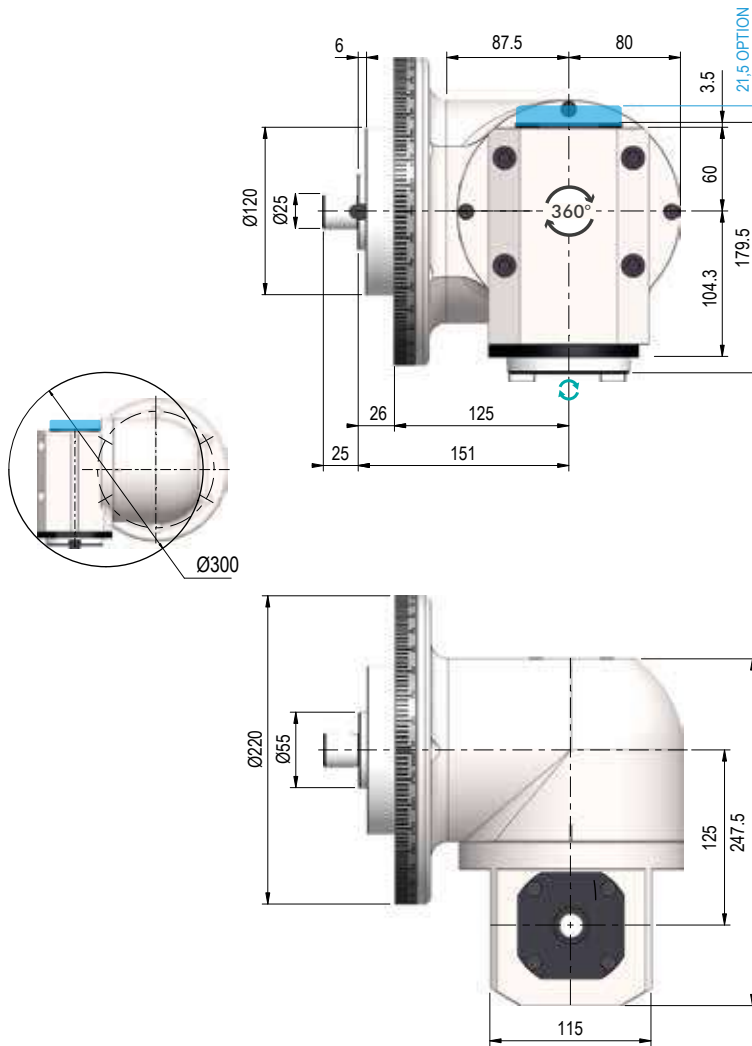
 Valigetta / Flangia Universale / Ghiera ER / Cono std / Chiavi di servizio  
 Tubetto di grasso / Libro istruzioni

Special bag / Universal flange / ER nut / Shank / Wrenches / Grease tube / Instruction book

**OPZIONI - OPTIONS**

HIGH SPEED - 6000 Rpm

QUICK POSITIONING - Portafresa Toolholder Ø16

**GMU-S40-125** TYPE 5

**Dati tecnici - Technical data**

 Ratio  
1:1


Kg 59,3


 Rpm  
3.000


Ø30



N 2.400



M22



Nm 100

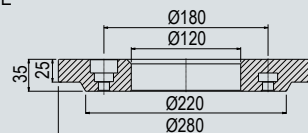

 ISO / CAT  
/ BT40

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 DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**

TIPO - TYPE 5 (pag - page 1.97)


**IMBALLO & PESO - PACK WEIGHT:**

Cassa in Legno - Wooden Box Kg


**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

**OPZIONI - OPTIONS**

HIGH SPEED - 4000 Rpm

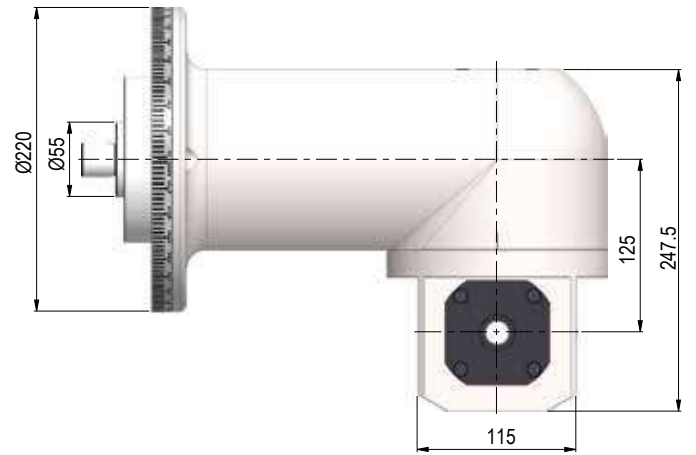
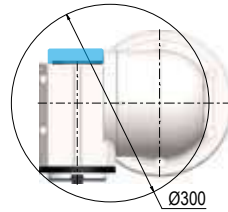
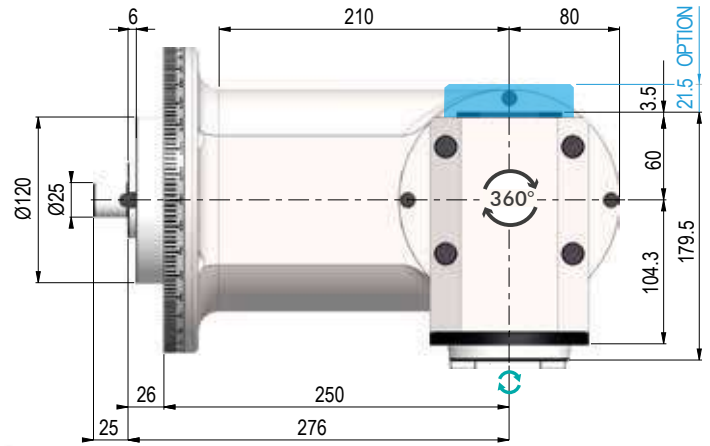
REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - Dry running YES

OUTPUT - HSK 63

OUTPUT - C4

# GMU-S40

TYPE 5


**Dati tecnici - Technical data**

 Ratio  
 1:1


Kg 49,5


 Rpm  
 3.000


Ø30



N 2.400



M22



Nm 100

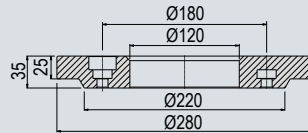

 ISO /CAT  
 BT 40


Senso di rotazione Uguaale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**

TIPO - TYPE 5 (pag - page 1.97)


**IMBALLO & PESO - PACK WEIGHT:**

Cassa in Legno - Wooden Box Kg


**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

**OPZIONI - OPTIONS**

HIGH SPEED - 4000 Rpm

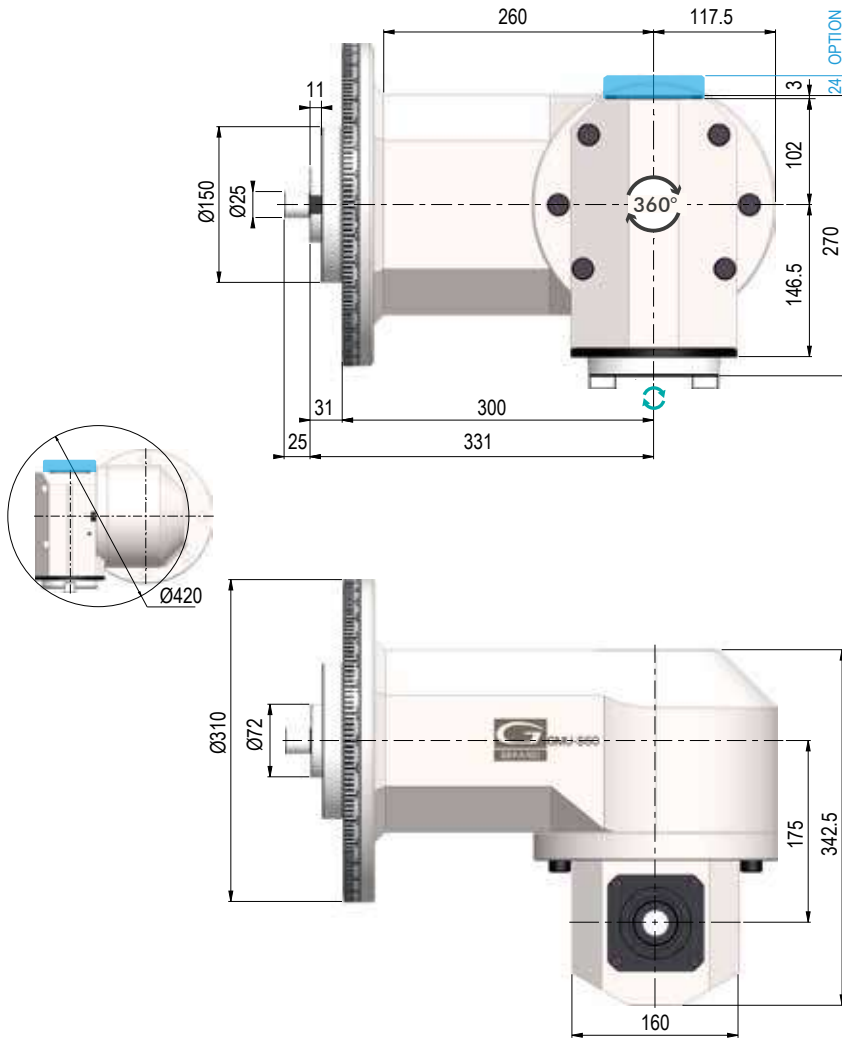
REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - Dry running YES

OUTPUT - HSK 63

OUTPUT - C6

**GMU-S50**

TYPE 6


**Dati tecnici - Technical data**

 Ratio  
1:1


Kg 121


 Rpm  
3.000


Ø45



N 3.300



M36



Nm 220

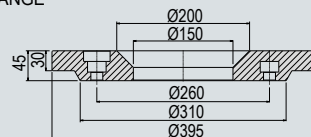

 ISO / CAT  
/ BT50

Senso di rotazione Uguale al mandrino - Direction of rotation Same as the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

**FLANGIA UNIVERSALE - UNIVERSAL FLANGE**

TIPO - TYPE 6 (pag - page 1.97)


**IMBALLO & PESO - PACK WEIGHT:**

Cassa in Legno - Wooden Box Kg


**DOTAZIONE STANDARD - STANDARD EQUIPMENT**

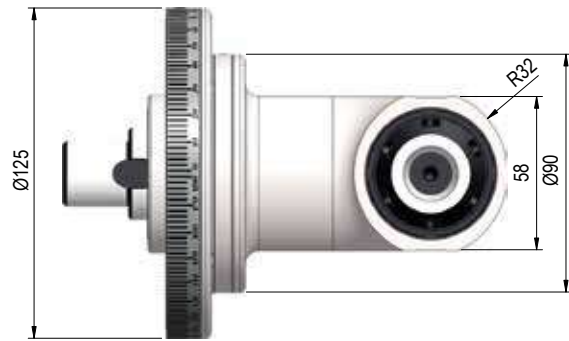
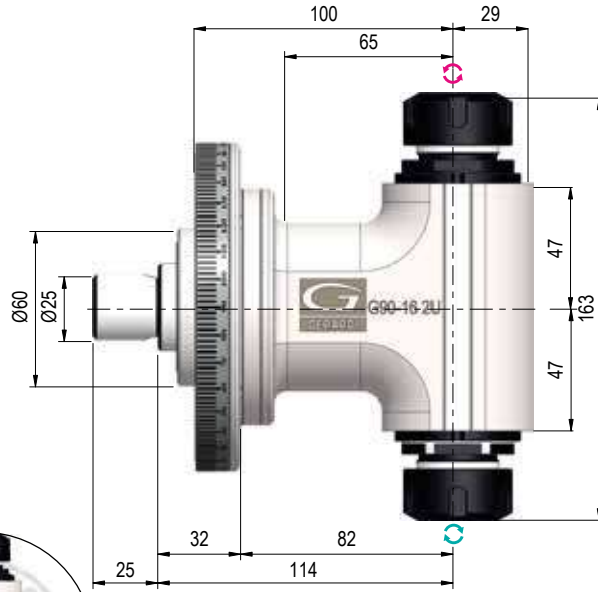
 Valigetta / Flangia Universale / Ghiera ER / Cono std / Chiavi di servizio  
 Tubetto di grasso / Libro istruzioni

Special bag / Universal flange / ER nut / Shank / Wrenches / Grease tube / Instruction book

**OPZIONI - OPTIONS**
**HIGH SPEED - 4000 Rpm**
**REFR. - COOLANT - dal Distr. - Through Distributor - Max 10bar - Dry running YES**
**OUTPUT - HSK 63**
**OUTPUT - C6**

### G90-16 2U

TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 5,6



Rpm  
4.000



Ø16



N 510



M12



Nm 24



ER-25  
Ø1/16

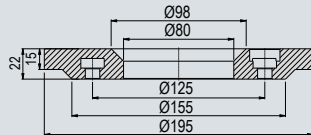


Senso di rotazione Ugual e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50

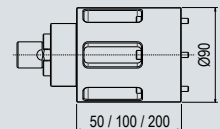
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 1



#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 11Kg



#### 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

#### OPZIONI - OPTIONS

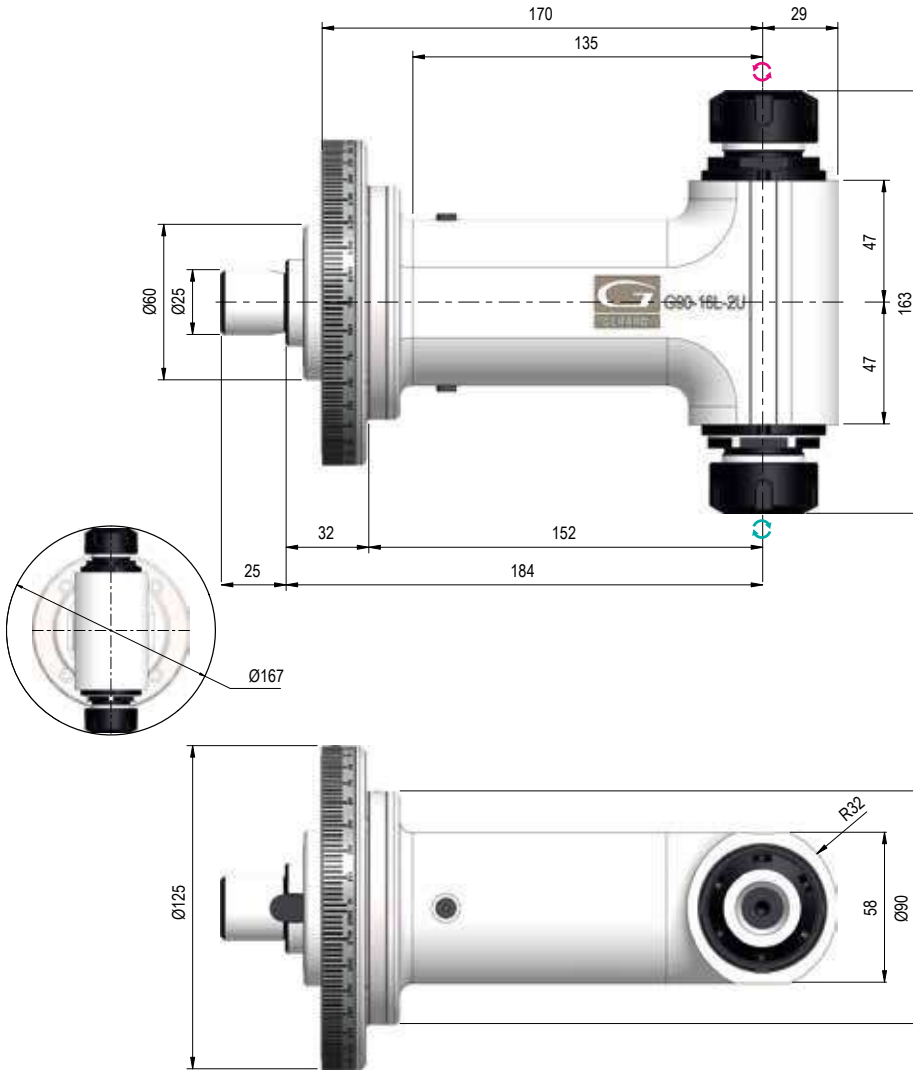
HIGH SPEED - 8000 Rpm

OUTPUT - Weldon Max Ø16 (X2)

OUTPUT - HSK 32 (X2)

OUTPUT - Shell mill holder Ø16 (X2)

### G90-16L 2U TYPE 1



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 6,1



Rpm  
4.000



Ø16



N 510



M12



Nm 24



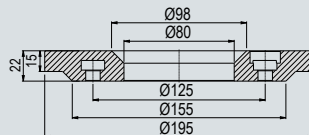
ER-25  
Ø1/16

Senso di rotazione UguaLe e ContraRio al mandrino - Direction of rotation Same & Opposite to the machine spindle

Coni - Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	40	50

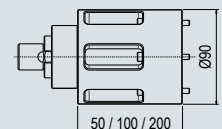
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 1 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 1



#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 12Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 8000 Rpm

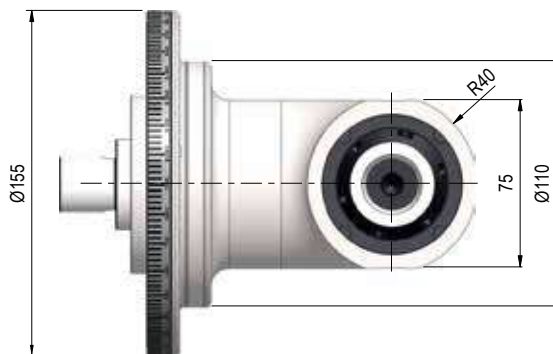
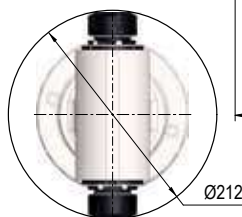
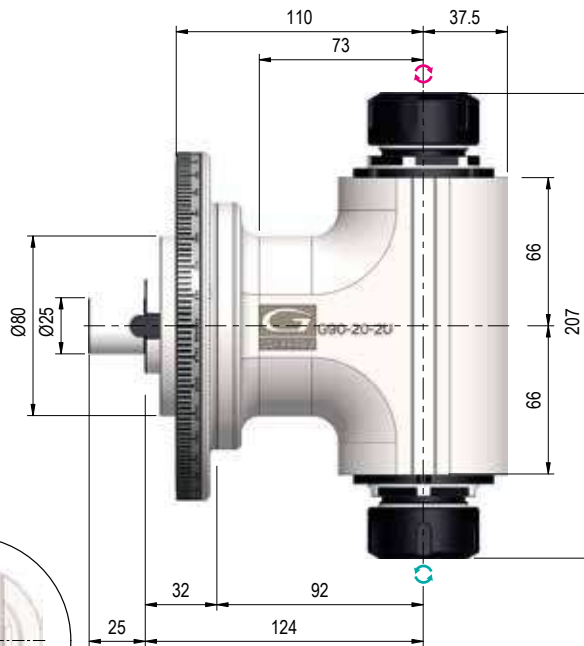
OUTPUT - Weldon Max Ø16 (X2)

OUTPUT - HSK 32 (X2)

OUTPUT - Shell mill holder Ø16 (X2)

### G90-20 2U

TYPE 2



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 14



Rpm  
4.000



Ø20



N 1.250



M16



Nm 40



ER-32  
Ø2/20

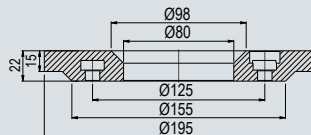


Senso di rotazione Ugual e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

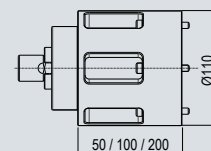
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 2 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 2



#### IMBALLO & PESO - PACK WEIGHT:

Valigetta - Bag 21Kg



#### 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

#### OPZIONI - OPTIONS

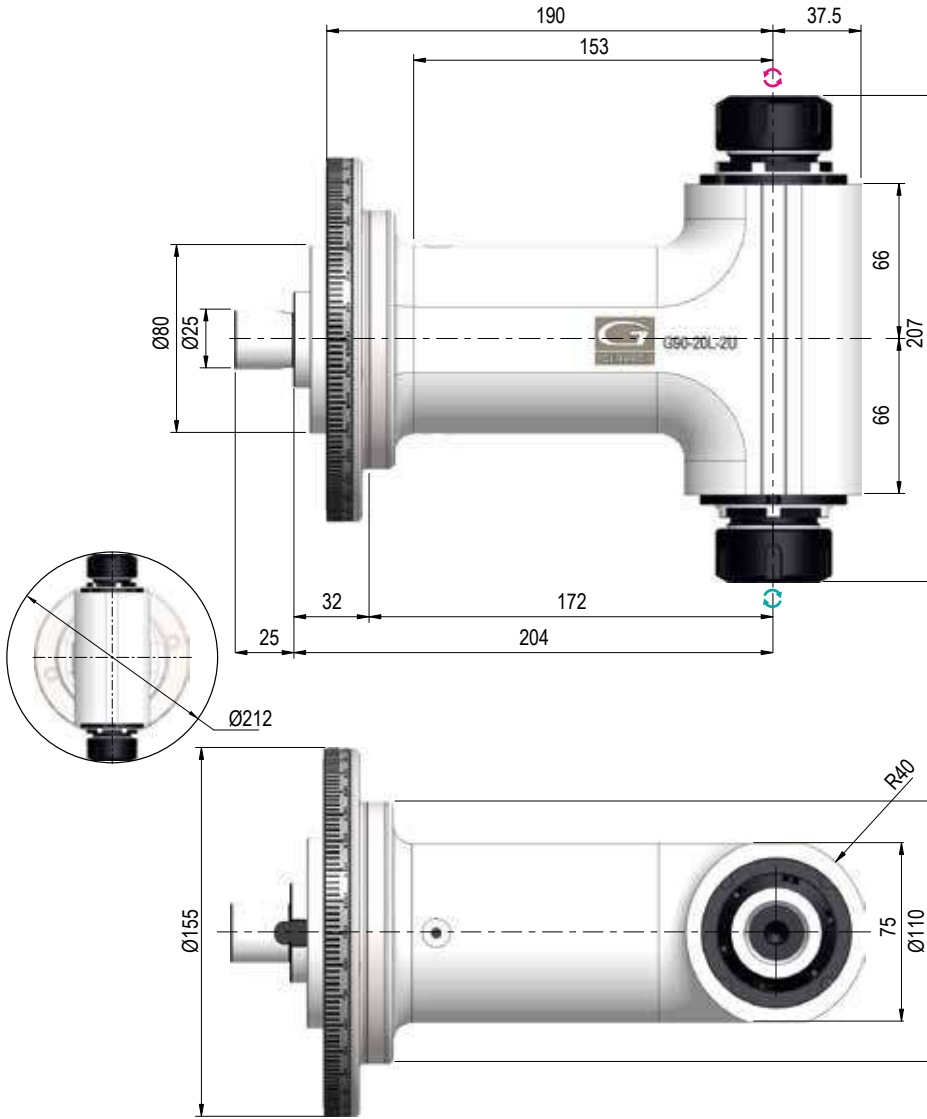
HIGH SPEED - 6000 Rpm

OUTPUT - Weldon Max Ø20 (X2)

OUTPUT - HSK 40 (X2)

OUTPUT - Portafresa Toolholder Ø20 (X2)





### G90-20L 2U

TYPE 2



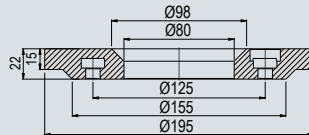
#### Dati tecnici - Technical data

	Ratio 1:1		Kg 15,5
	Rpm 4.000		Ø20
	N 1.250		M16
	Nm 40		ER-32 Ø2/20

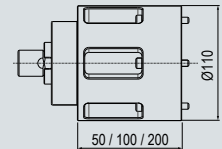
Senso di rotazione Uguaile e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE TIPO - TYPE 2 (pag - page 1.97)



#### PROLUNGA - EXTENSION TIPO - TYPE 2



#### IMBALLO & PESO - PACK WEIGHT: Cassa in Legno - Wooden Box 31Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm

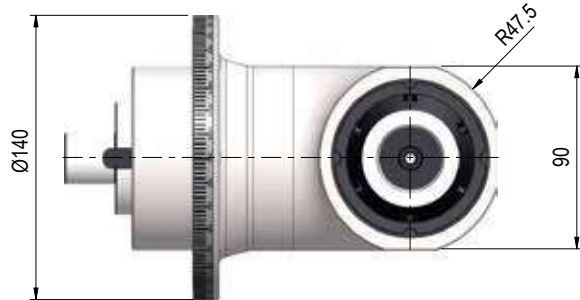
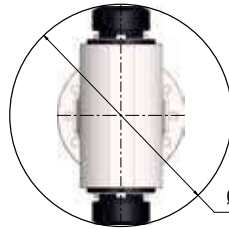
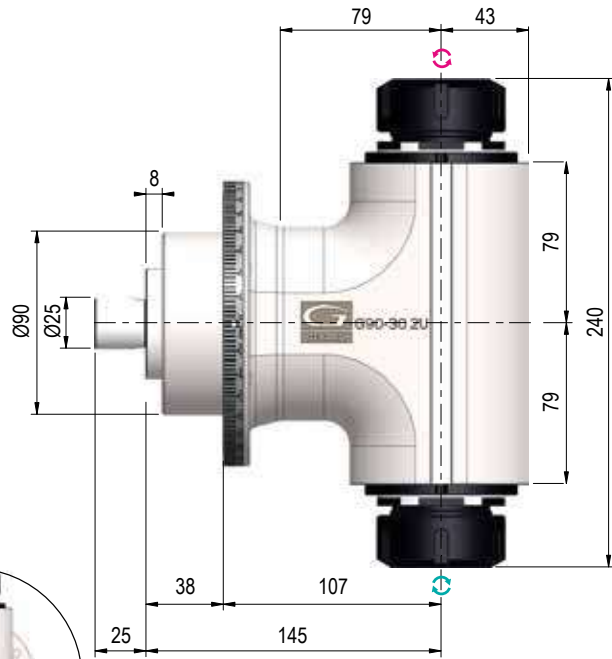
OUTPUT - Weldon Max Ø20 (X2)

OUTPUT - HSK 40 (X2)

OUTPUT - Shell mill holder Ø22 (X2)

### G90-30 2U

TYPE 3



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 20



Rpm  
4.000



Ø30



N 1.750



M20



Nm 75



ER-40  
Ø3/30

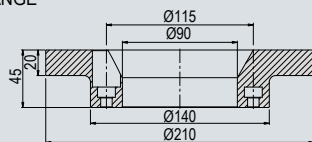


Senso di rotazione Uguali e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

Coni - Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623			ISO DIN2080	
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8	40	50

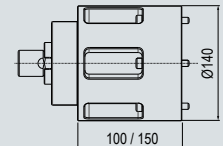
#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE

TIPO - TYPE 3 (pag - page 1.97)



#### PROLUNGA - EXTENSION

TIPO - TYPE 3



#### IMBALLO & PESO - PACK WEIGHT:

Cassa in Legno - Wooden Box 35Kg



#### 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

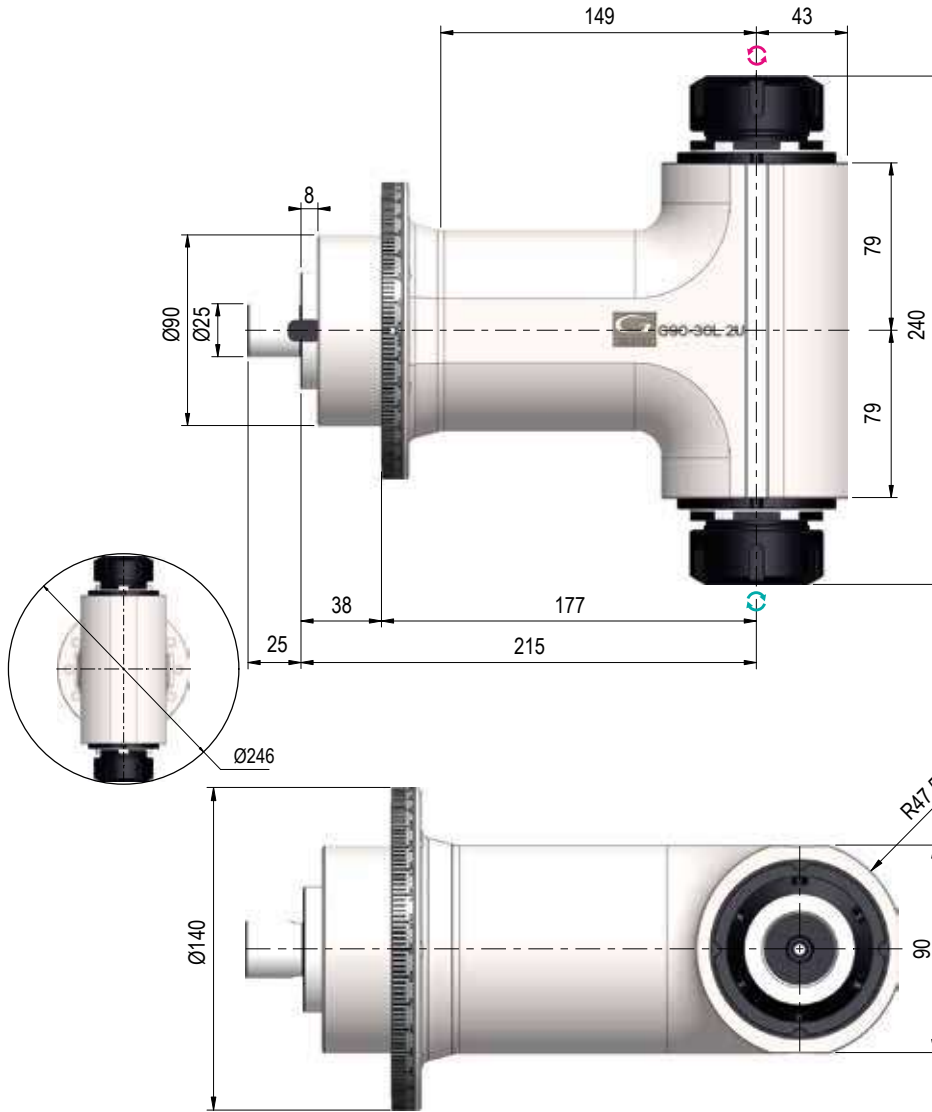
#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm

OUTPUT - Weldon Max Ø25 (X2)

OUTPUT - HSK 40 (X2)

OUTPUT - Shell mill holder Ø27 (X2)



### G90-30L 2U

TYPE 3



#### Dati tecnici - Technical data



Ratio  
1:1



Kg 23



Rpm  
4.000



Ø30



N 1.750



M20



Nm 75

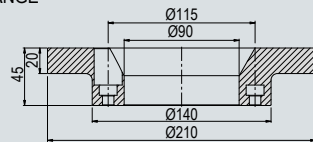


ER-40  
Ø3/30

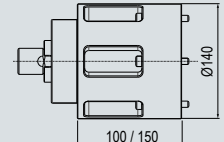
Senso di rotazione Uguale e Contrario al mandrino - Direction of rotation Same & Opposite to the machine spindle

Coni - Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	ISO DIN2080
Grandezza - Size	40 50	40 50	40 50	63 80 100	C5 C6 C8	40 50

#### FLANGIA UNIVERSALE - UNIVERSAL FLANGE TIPO - TYPE 3 (pag - page 1.97)



#### PROLUNGA - EXTENSION TIPO - TYPE 3



#### IMBALLO & PESO - PACK WEIGHT: Cassa in Legno - Wooden Box 38Kg



#### 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

#### OPZIONI - OPTIONS

HIGH SPEED - 6000 Rpm

OUTPUT - Weldon Max Ø25 (X2)

OUTPUT - HSK 40 (X2)

OUTPUT - Shell mill holder Ø27 (X2)

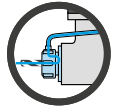
# Teste Angolari / Angle Heads ACCESSORIES

## Accessori Classic Line - Classic Line Accessories



Cambi rapidi Modulari  
Modular Quick Change

2.0



ReCool Nuts  
fino a / Up to

150 Bar

from 1.10 to 1.54

### SERIE ATC / ATC SERIES

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

This range of heads is designed to be used on machining centres and can be automatically transferred from the tool magazine to the machine spindle and back. Angle head body adjustable at 360° on SPINDLE AXIS. This allows easy adjustment of the drive taper and head relative to 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. The last news is the interchangeable positioning pin.

from 1.57 to 1.83

### SERIE MTC / MTC SERIES

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

This is a range of heads for traditional machine tools with flange attachment. The T-slot on the universal flange facilitates positioning the head 360° around its vertical axis. The modular system makes it possible to extend the 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.



from 1.92 to 1.93

### Stop-block per ATC Stop-block for ATC

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

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



from 7.4 to 7.6

### Pinze ER ER Collets

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

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



from 1.86 to 1.87

### Ghiere ReCool Re Cool nuts

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

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



from 7.12 to 7.15

### Cambi Rapidi Quick changes

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

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

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

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



SCAN IT TO WATCH THE



VIDEO PRESENTATION



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

### Prolunghe per MTC Extensions for MTC

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

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



# OPZIONE REFRIGERANTE INTERNO INTERNAL COOLANT OPTION

10bar	Opzione B - B Option 10bar	Opzione RI - RI Option UP TO 70bar	Opzione Re-Cool - Re-Cool Option UP TO 150bar
<b>Perno » Utensile</b> Positioning Pin » Tool	<b>Perno » Distributore » Utensile</b> Positioning Pin » Rotating Distributor » Tool	<b>Cono » Distributore » Utensile</b> Shank » Rotating Distributor » Tool	<b>Perno » Ghiera ReCool » Utensile</b> Positioning Pin » ReCool Nut » Tool
<b>Passaggio refrigerante esterno all'utensile 10bar</b> External coolant 10bar through the tool	<b>Passaggio refrigerante interno all'utensile 10bar dal perno attraverso distributore rotante</b> Internal coolant 10bar through the tool from positioning pin and through rotating distributor	<b>Passaggio refrigerante interno all'utensile da 30 a 70 bar dal cono e attraverso il distributore rotante</b> Internal coolant through the tool from 30 to 70 bar from the shank and through the rotating distributor	<b>Passaggio refrigerante interno l'utensile per mezzo della ghiera ReCool.</b> Internal coolant through the tool from the special nut ReCool
<b>ROTAZIONE A SECCO - DRY RUNNING POSSIBILE - POSSIBLE</b>	<b>ROTAZIONE A SECCO - DRY RUNNING POSSIBILE - POSSIBLE</b>	<b>ROTAZIONE A SECCO - DRY RUNNING NON POSSIBILE - NOT POSSIBLE</b>	<b>Vedi pagine - See Pages 7.16 - 7.18</b>

# OPZIONI DI USCITA SERIE ATC OUTPUT OPTIONS ATC SERIES

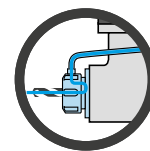


MODELLO	USCITA STD		HSK		ISO - CAT - BT		PORTAFRESA		WELDON		CAPTO		ER OPZIONE		DOPPIA	
	TIPO	C	TIPO	C	TIPO	C	TIPO	C	TIPO	C	TIPO	C	TIPO	C	TIPO	D
G90-5 / 5L	ER-8	32,5	-	-	-	-	-	-	Ø6	31	-	-	-	-	-	-
GL90-7 // G90-7 / 7L	ER-11	38	-	-	-	-	-	-	Ø8	36,3	-	-	-	-	ER-11 ER-8 MINI	34,2
GL90-10 // G90-10 / 10L / 10L.240	ER-16	49,5	-	-	-	-	Ø16	50	Ø10	63	-	-	-	-	ER-16 ER-11 MINI	45,5
GTU-10	ER-16	49,5	-	-	-	-	Ø16	50	Ø10	63	-	-	ER-20	63	ER-16 ER-11 MINI	45,5
GL90-16 // G90-16 / 16L 16L.270 // G90-16 2U / 16L 2U	ER-25	81,5	32	75,5	-	-	Ø16	63,5	Ø16	75	-	-	-	-	ER-25 ER-16 MINI	58,5
G90-20 / 20L / 20L.332 G90-20 2U / 20L 2U	ER-32	103,5	40	86,5	SK30	83,5	Ø22	83	Ø20	111	C4	90	ER-40	111	ER-32 ER-20 MINI	72,5
G90-30 / 30L / 30L.287 G90-30 2U / 30L 2U	ER-40	120	40	100	SK30	96,5	Ø27	101	Ø25	147	C4	95,5	*	*	ER-40 ER-25 MINI	82
G90-S40 / S40L / S40L.280	SK40	105	63	130	-	-	Ø27	132	Ø25	152	C4/C5	103 103	-	-	-	-

Teste angolari ATC opzioni uscita - Output Options ATC angle heads

# RE COOL NUTS

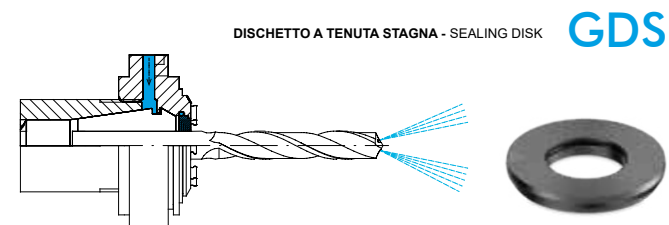
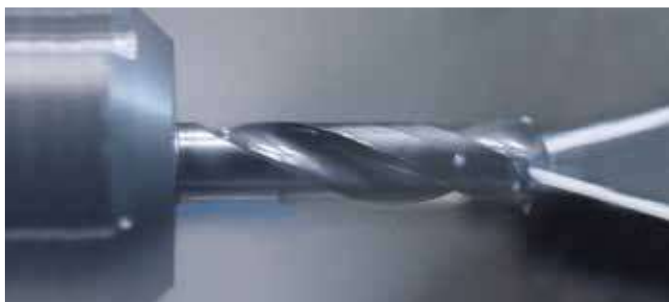
**NEW  
2024**



1

## DISCHETTI A TENUTA STAGNA PER GHIERE - SEALING DISKS FOR NUTS

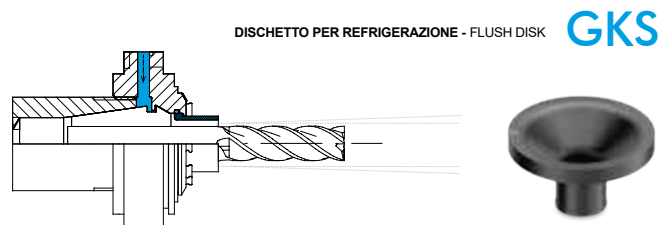
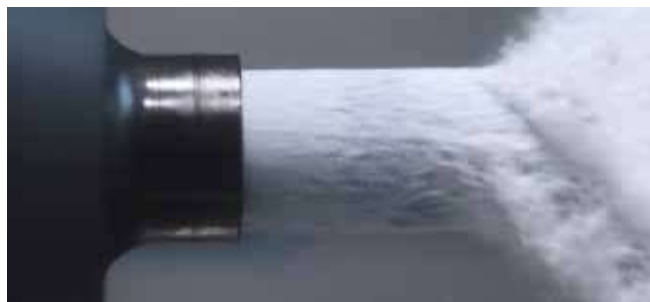
### REFRIGERAZIONE INTERNA - INTERNAL COOLANT



### CARATTERISTICHE PRINCIPALI - KEY FEATURES

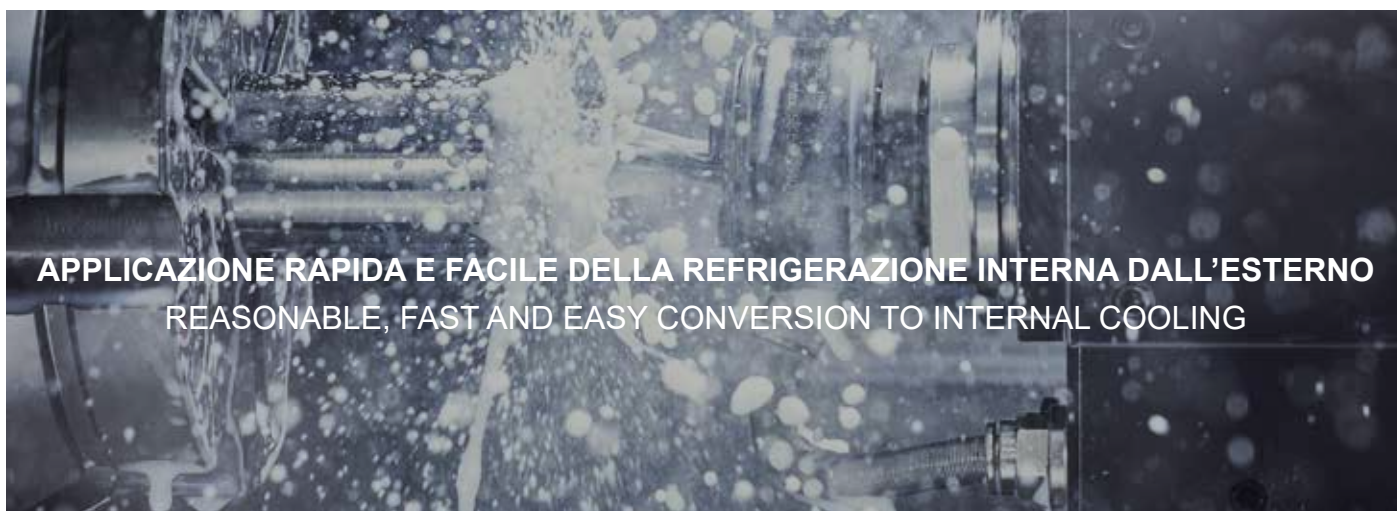
- Facile aggiunta della lubrorefrigerazione interna con Ghiera ReCool, con il dischetto a tenuta stagna GDS
- Precisa refrigerazione del tagliente e migliore asportazione di truciolo
- Ideale soprattutto per elevate profondità
- Lubrificazione e refrigerazione del tagliente
- Ottima finitura superficiale
- Achieve internal cooling with ReCool nuts and the use of our sealing disk GDS
- Precise cooling at the cutting edge and improved chip removal
- Particularly suitable for deep cavities
- Lubrication of cutting edge and cooling
- Best surface quality

### REFRIGERAZIONE PERIFERICA - PERIPHERAL COOLANT



### CARATTERISTICHE PRINCIPALI - KEY FEATURES

- Facile aggiunta della lubrorefrigerazione periferica con Ghiera ReCool, con il dischetto per refrigerazione GKS
- Applicabile su teste e motorizzati con refrigerante interno con apposita ghiera STDC - MINIC - AXC
- Lubrorefrigerante lungo l'utensile fino al tagliente
- Ideale per profondità medie
- Achieve peripheral cooling with ReCool nuts and the use of our coolant flush disk GKS
- Applicable on Angle Heads and Driven Tools with internal coolant through suitable nut STDC - MINIC - AXC
- Coolant is fed along the side of the tool to the cutting edge
- Can be used for moderate cavities



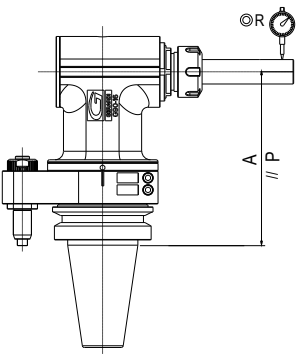
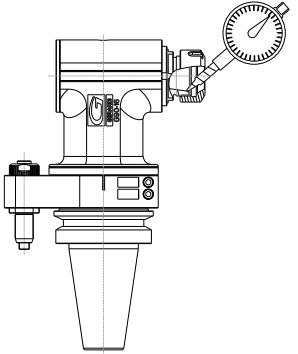
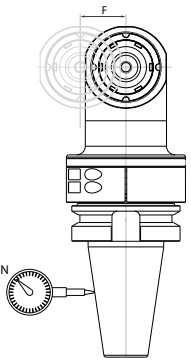
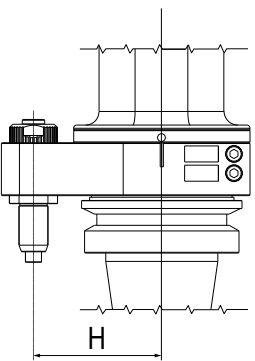
**APPLICAZIONE RAPIDA E FACILE DELLA REFRIGERAZIONE INTERNA DALL'ESTERNO**  
REASONABLE, FAST AND EASY CONVERSION TO INTERNAL COOLING

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

# ESEMPIO SCHEDA DI COLLAUDO

## INSPECTION SHEET EXAMPLE

<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  
Only flange\*\*

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

## TYPE 2

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

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

Solo flangia  
Only flange\*\*

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

## TYPE 3/4

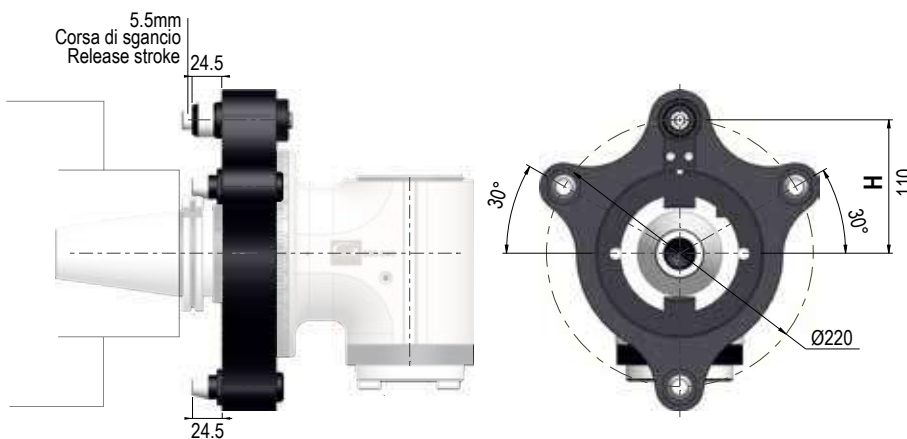
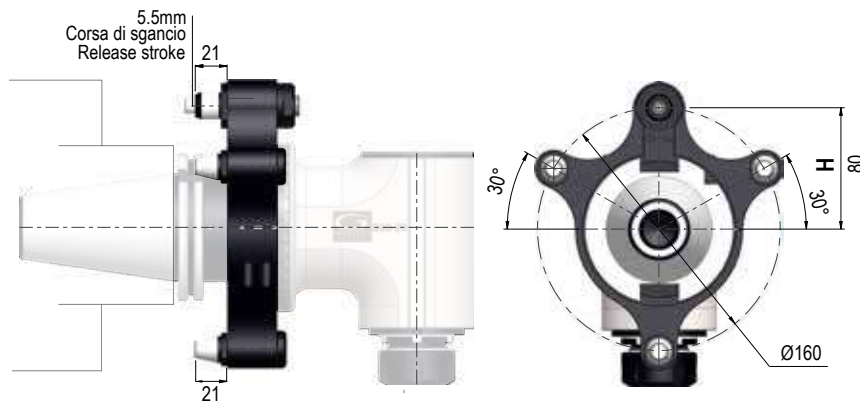
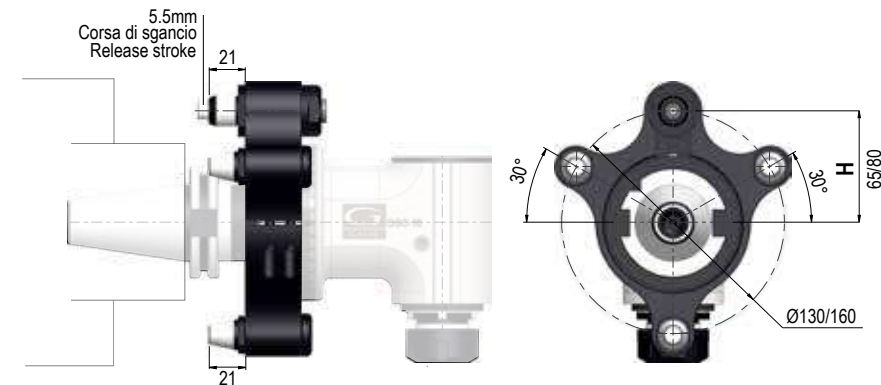
Code 9.G90.30T00/...\*

Code 9.G90.S40T0/...\*

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

Solo flangia  
Only flange\*\*

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



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

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

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

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



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

1

## ESEMPIO DI MONTAGGIO SERIES ATC ATC SERIES MOUNTING EXAMPLE

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

### 1) STOP-BLOCK GIÀ PRESENTE SUL MANDRINO MACCHINA

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

### STOP-BLOCK ALREADY MOUNTED ON THE MACHINE SPINDLE

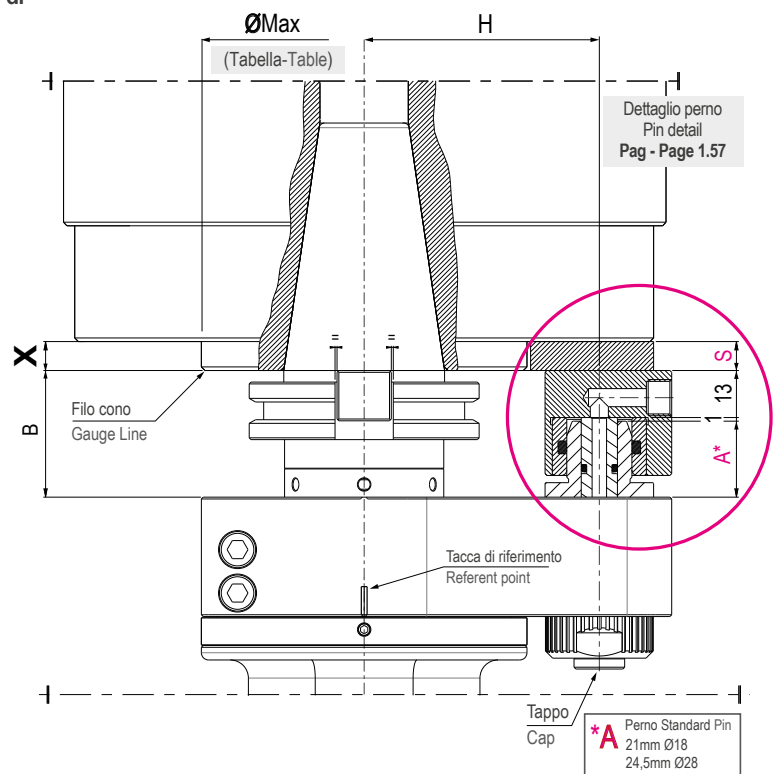
- For Gerardi items, please indicate the type of Angle Head, the H dimension, the pin diameter and height.
- For non-Gerardi items, please send us the stop-block and the machine spindle drawings in order to design the right pin. If possible, we suggest you to use Gerardi standard stop block, taking off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

### 2) NESSUNO STOP-BLOCK MONTATO SUL MANDRINO MACCHINA

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

### NO STOP-BLOCK MOUNTED ON THE MACHINE SPINDLE

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



$$S = X + B - 35$$

Se sei in possesso di una testa angolare con perno Ø18

If you have an Angle Head with pin Ø18

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

Se sei in possesso di una testa angolare con perno Ø28

If you have an Angle Head with pin Ø28

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

Esempio di calcolo spessore distanziale

Example of calculation for spacer thickness

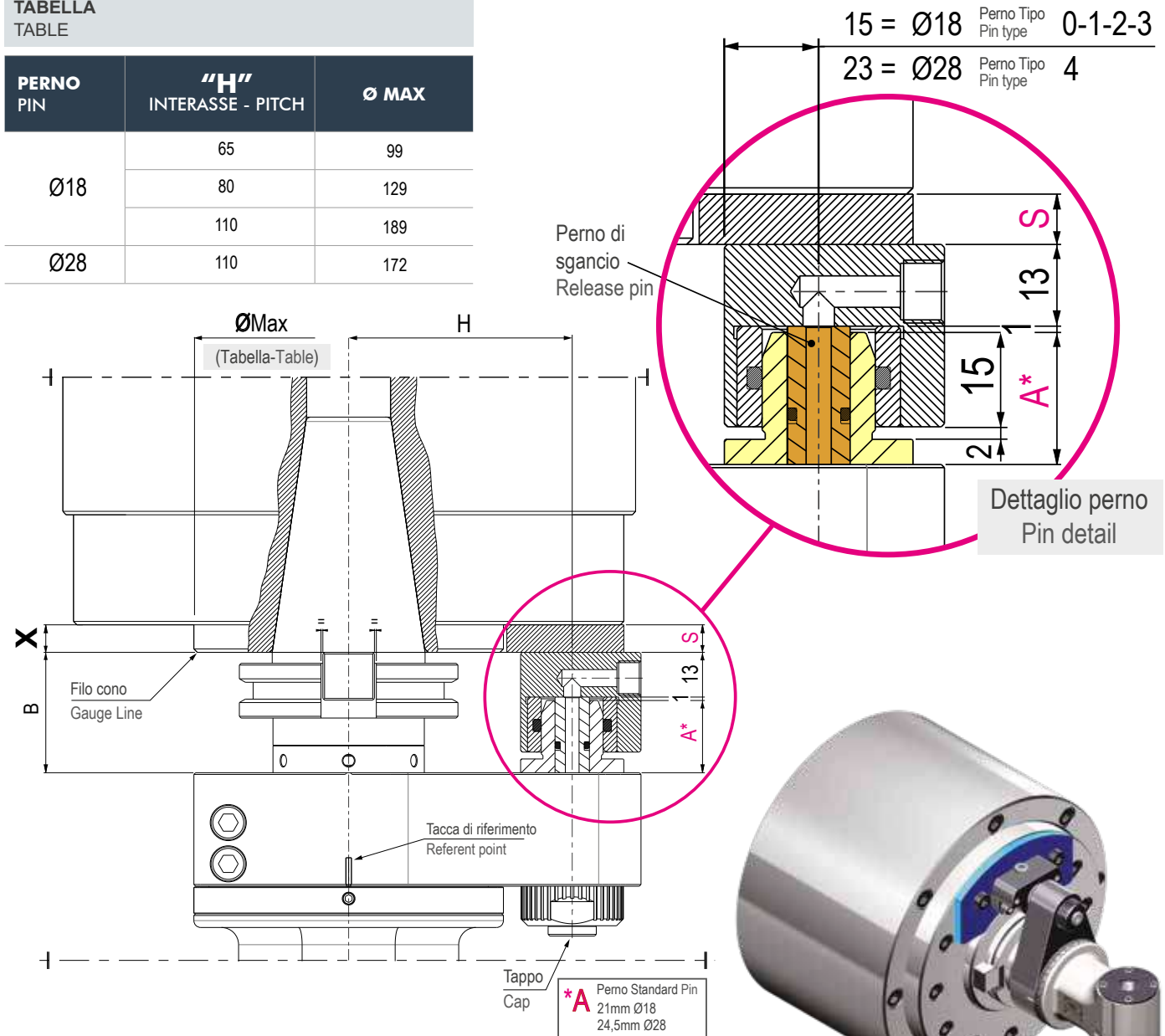
## ESEMPIO DI MONTAGGIO SERIE ATC ATC SERIES MOUNTING EXAMPLE

PER UN CORRETTO ORDINE VERIFICARE L'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.

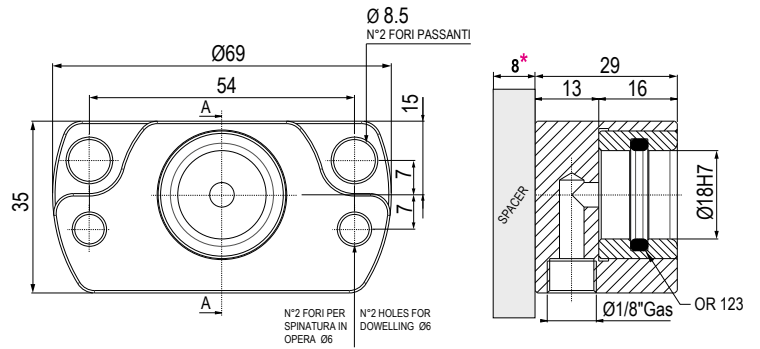
## STOP-BLOCK Standard



Ø18

Con bussola temprata - with hardened bushing

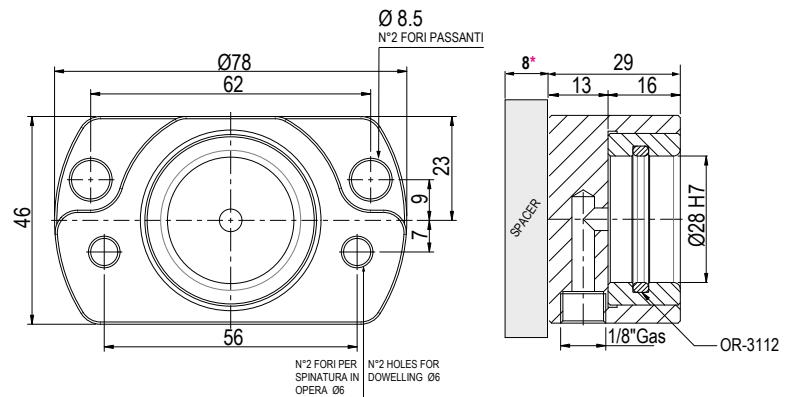
<b>STOP BLOCK Code</b>	
9.INDEX.18	
NO STOP BLOCK INCLUDED	
<b>BUSHING Code</b>	
9.G18.INDEX.2	



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	



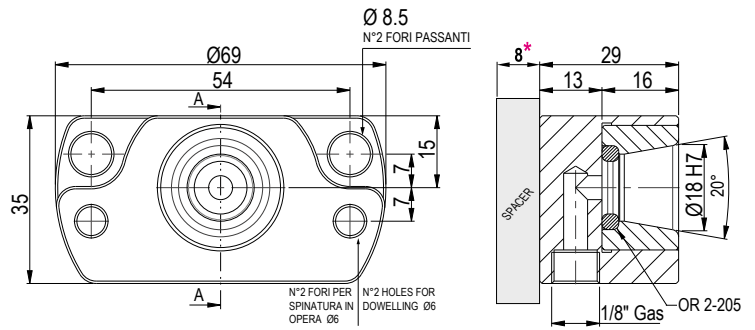
## STOP-BLOCK Conico - Conical



Ø18

Con bussola temprata - with hardened bushing

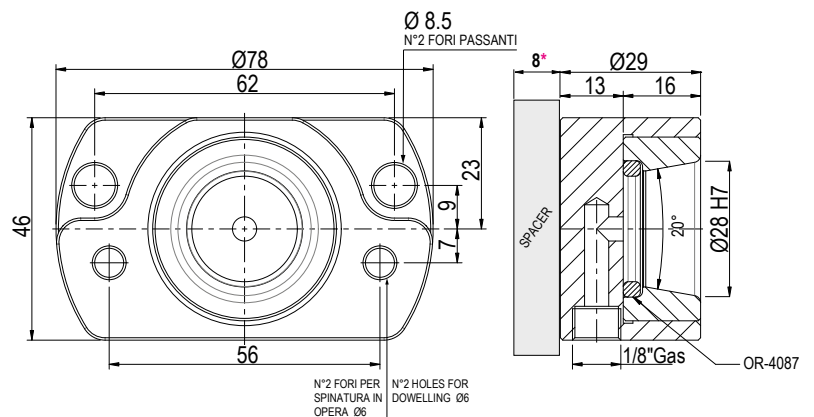
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9.INDEX.18C	
NO STOP BLOCK INCLUDED	
<b>BUSHING Code</b>	
9.G18.INDEX.2C	



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  
Spacer minimum dimension under this dimension it is necessary to use the machineable stop-block

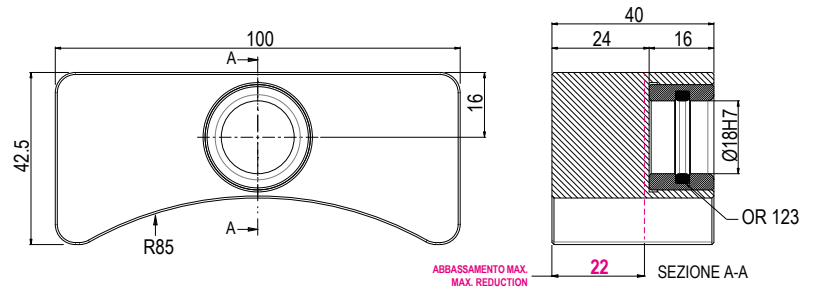
## STOP-BLOCK Lavorabile\*\* - Machineable\*\*



Ø18

Con bussola temprata - with hardened bushing

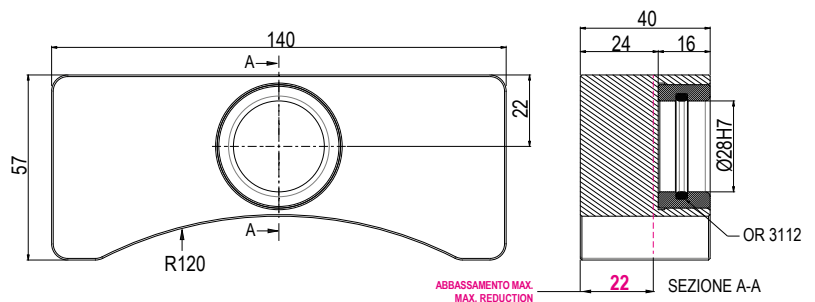
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9.G18.INDEX	
NO STOP BLOCK INCLUDED	
<b>BUSHING Code</b>	
9.G18.INDEX.2	



Ø28

Con bussola temprata - with hardened bushing

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



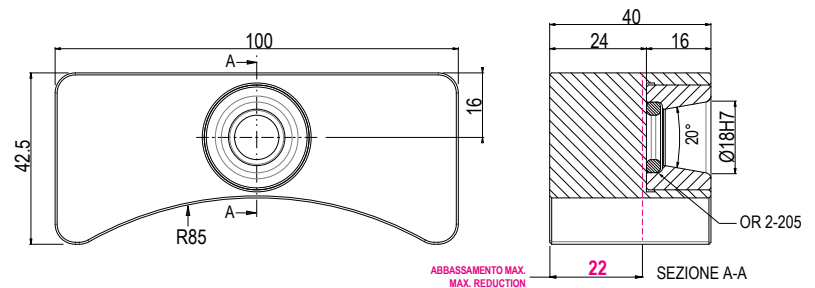
## STOP-BLOCK Lavorabile conico\*\* - Conic machineable\*\*



Ø18

Con bussola temprata - with hardened bushing

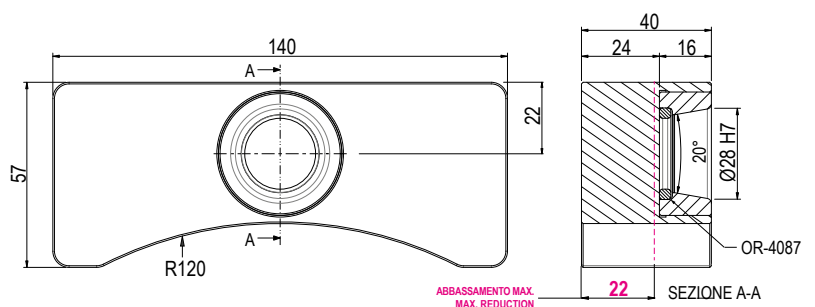
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9.G18.INDEXC	
NO STOP BLOCK INCLUDED	
<b>BUSHING Code</b>	
9.G18.INDEX.2C	



Ø28

Con bussola temprata - with hardened bushing

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

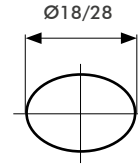
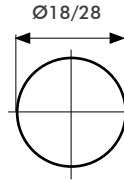
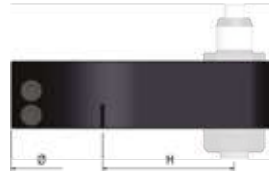


\*\* A richiesta - On request

# GRUPPO ANTIROTANTE ANTI-ROTATION GROUP



\*PERNO CONICO FLOTTANTE  
FLOATING CONICAL PIN

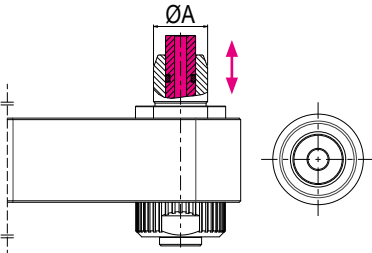
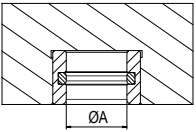
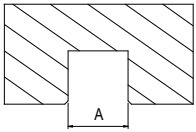
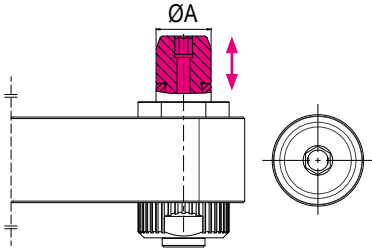
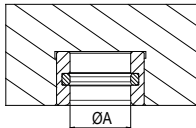
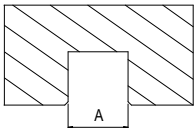
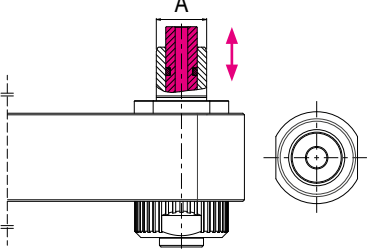
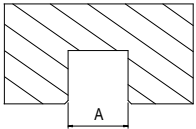
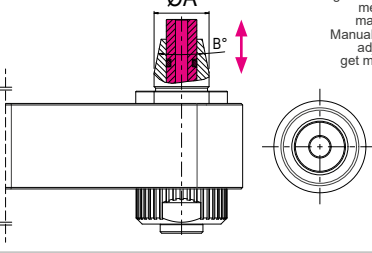
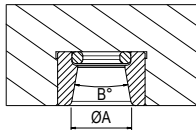
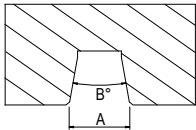
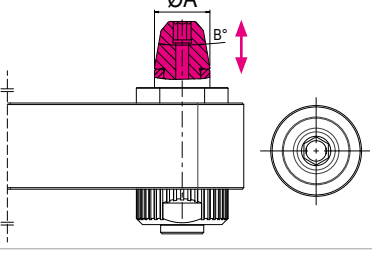
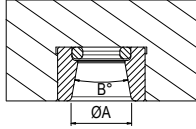
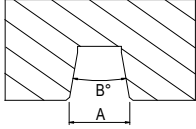
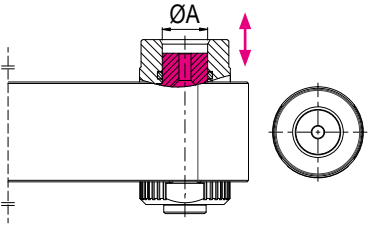
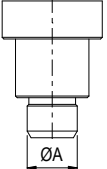


TESTA ANGOLARE ANGLE HEADS		GRUPPO ANTIROTANTE ANTI-ROTATION GROUP		FLANGIA INTEGRALE INTEGRAL FLANGE		STANDARD 2 AXIS		ON REQUEST 1 AXIS		GRUPPO PERNO PIN GROUP	
MODELLO Model	TIPO Type	Code		Code	Ø	H	PERNO CILINDRICO CYLINDRICAL PIN	PERNO ELLITTICO ELLIPTIC PIN	P	L	
GL90-7 GL90-10 GL90-16 GTU-10	<b>0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

Flangia ad interasse speciale

- Flange with special pitch

# GRUPPO PERNO SPECIALE SPECIAL PIN GROUP

FORMA Shape	TIPI DI PERNI Pin Types		TIPI DI STOP-BLOCK Stop-block Types	
<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>	 <small>Regolazione manuale meccanica per max precisione Manual mechanical adjustment to get max accuracy</small>		<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 cylindrical <b>F</b>			<b>Cilindrico maschio</b> Cylindric male 	

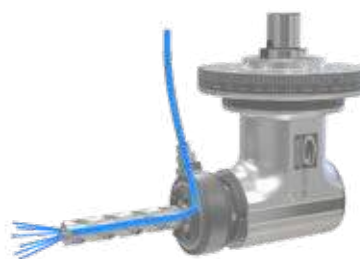
\* Extra prezzo perno speciale - \* Extra price special pin

# OPZIONE REFRIGERANTE INTERNO INTERNAL COOLANT OPTION

## Opzione B - B Option Up to 40bar



## Opzione Re-Cool - Re-Cool Option UP TO 150bar



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

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

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

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

Vedi pagine - See Pages 7.16 - 7.18

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

# OPZIONI DI USCITA SERIE MTC OUTPUT OPTIONS MTC SERIES



MODELLO	USCITA STD		HSK		ISO - CAT - BT		PORTAFRESA		WELDON		CAPTO		ER OPZIONE		DOPPIA	
	TIPO	C	TIPO	C	TIPO	C	TIPO	C	TIPO	C	TIPO	C	TIPO	C	TIPO	D
G90-5 / 5L	ER-8	32,5	-	-	-	-	-	-	Ø6	31	-	-	-	-	-	-
G90-7 / 7L	ER-11	38	-	-	-	-	-	-	Ø8	36,3	-	-	-	-	ER-11 ER-8 MINI	34,2
G90-10 / 10L	ER-16	49,5	-	-	-	-	Ø16	50	Ø10	63	-	-	-	-	ER-16 ER-11 MINI	45,5
GTU-10	ER-16	49,5	-	-	-	-	Ø16	50	Ø10	63	-	-	ER-20	63	ER-16 ER-11 MINI	45,5
G90-16 / 16L 16L.270 // G90-16 2U / 16L 2U	ER-25	81,5	32	75,5	-	-	Ø16	63,5	Ø16	75	-	-	-	-	ER-25 ER-16 MINI	58,5
G90-20 / 20L / G90-20 2U / 20L 2U	ER-32	103,5	40	86,5	SK30	83,5	Ø22	83	Ø20	111	C4	90	ER-40	111	ER-32 ER-20 MINI	72,5
G90-30 / 30L / G90-30 2U / 30L 2U	ER-40	120	40	100	SK30	96,5	Ø27	101	Ø25	147	C4	95,5	*	-	ER-40 ER-25 MINI	82
G90-S40 / S40XL	SK40	105	63	130	-	-	Ø27	132	Ø25	152	C4/C5	103 103	-	-	-	-
G90-S50 / G90-S50XL	-	-	-	-	SK50	165	-	-	-	-	C6/C8	163 163	-	-	-	-

Teste angolari MTC opzioni uscita - Output Options MTC angle heads



# CONI MODULARI MODULAR SHANKS

CONO MODULARE MODULAR SHANK	SK DIN 69871	BT MAS 403	CAT ANSI B5.50	ISO DIN 2080	HSK DIN 69893	C. ISO 26623
	30/40/50	30/40/50	40/50	30/40/50	63/80/100	C5/C6/C8
<b>Codes</b>	<b>Codes</b>	<b>Codes</b>	<b>Codes</b>	<b>Codes</b>	<b>Codes</b>	<b>Codes</b>
9.SK30.ISO	9.SK30.BT	9.SK40.CAT40	9.SK30.2080	9.HSK.63000	9.CPT.C5000	
9.SK40.ISO	9.SK40.BT	9.SK50.CAT50	9.SK40.2080	9.HSK.80000	9.CPT.C6000	
9.SK50.ISO	9.SK50.ISO		9.SK50.2080	9.HSK.10000	9.CPT.C8000	

# FLANGE / PROLUNGHE FLANGES / EXTENSIONS

Senza cono - No shank

TIPO TYPE	1	2	3	4	5	6
<b>MODELLO MODEL</b>	G90-5 G90-7 / 7L G90-10 / 10L G90-16 / 16L GMU-16 G90-16 2U / 16L 2U	G90-20 / 20L GMU-20 G90-20 2U / 20L 2U	G90-30 / 30L G90-30 2U / 30L 2U	G90-S40 / S40L	G90-S40XL G90-S40XLxx GMU-S40-125 GMU-S40	G90-S50 G90-S50XLxx GMU-S50
<b>FLANGE UNIVERSALI UNIVERSAL FLANGE</b>						
<b>Codes</b>	<b>Codes</b>	<b>Codes</b>	<b>Codes</b>	<b>Codes</b>	<b>Codes</b>	<b>Codes</b>
9.UF.00001	9.UF.00002	9.UF.00003	9.UF.00004	9.UF.00005	9.UF.00006	
NO FLANGE	NO FLANGE	NO FLANGE	NO FLANGE	NO FLANGE	NO FLANGE	

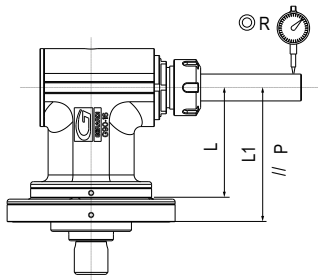
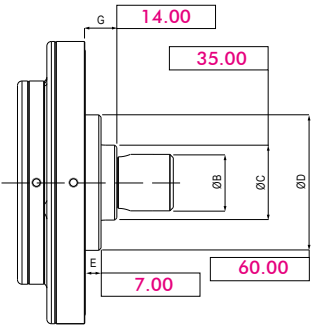
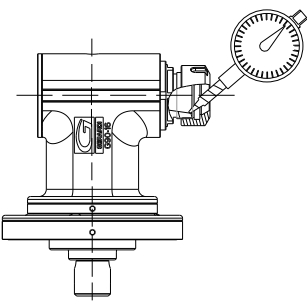
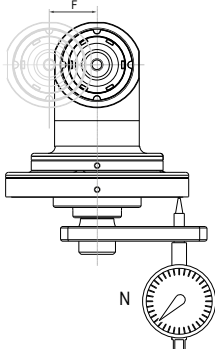
TIPO TYPE	1	2	3
<b>PROLUNGA EXTENSION</b>			
<b>H</b>	<b>Codes</b>	<b>H</b>	<b>Codes</b>
50	9.GEX.10050	50	9.GEX.20050
100	9.GEX.10100	100	9.GEX.20100
200	9.GEX.10200	200	9.GEX.20200
		250	9.GEX.20250
		450	9.GEX.20450



# 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>Quota e parallelismo da filo cono ad asse principale. Oscillazione asse utensile.</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</p> <p>L1 = +0,010</p> <p>R = 0,025</p> <p>P = 0,012/100</p>	<p>Verifica delle quote per l'attacco del cono e della flangia.</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></p> <p>E = -0,100</p> <p>G = -0,150</p> <p>C = -0,020</p> <p>D = -0,030</p>
<p>Oscillazione mandrino porta utensile.</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>Perpendicolarità e disassamento tra gli assi principali.</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</p> <p>N = 0,010/100</p>

### RODAGGIO TESTA - RUN-IN

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

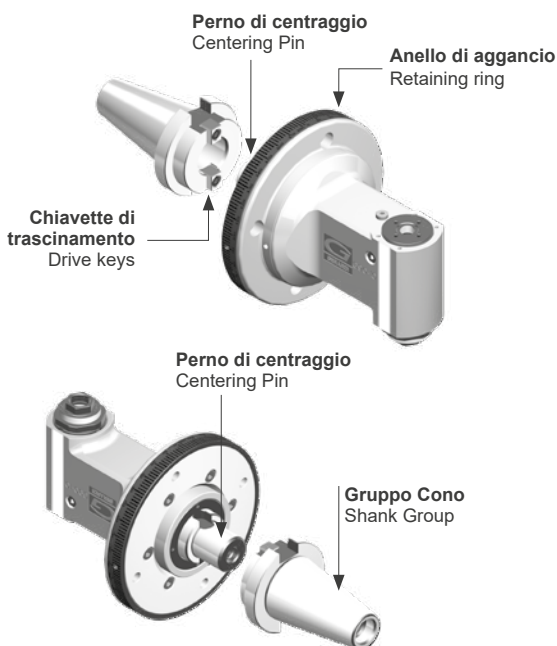
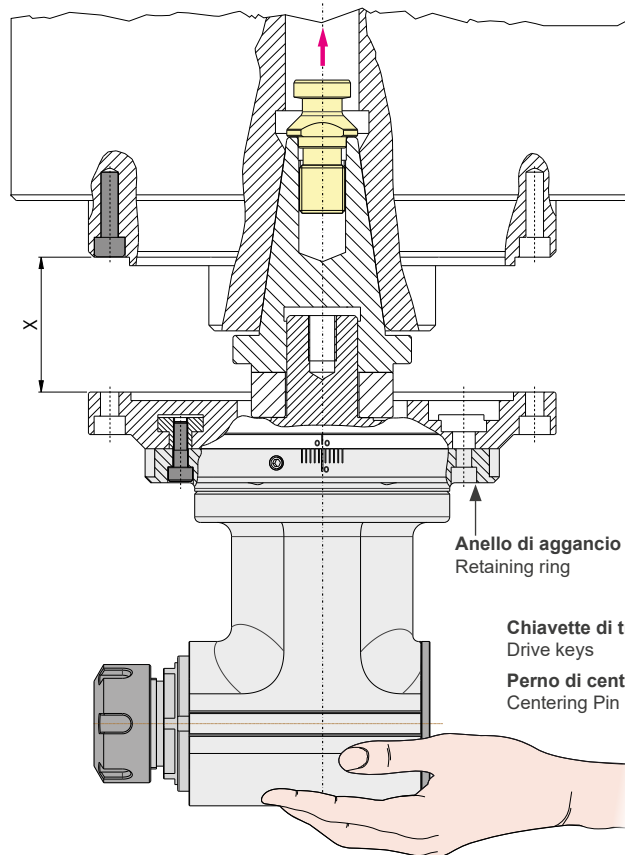
Revisioni - Revisions	Timbro - Stamp	Data - Date
		Firma - Signature

## ESEMPIO DI MONTAGGIO MOUNTING EXAMPLE

### DISTANZIALE REALIZZATO IN OPERA SPACER TO BE MADE

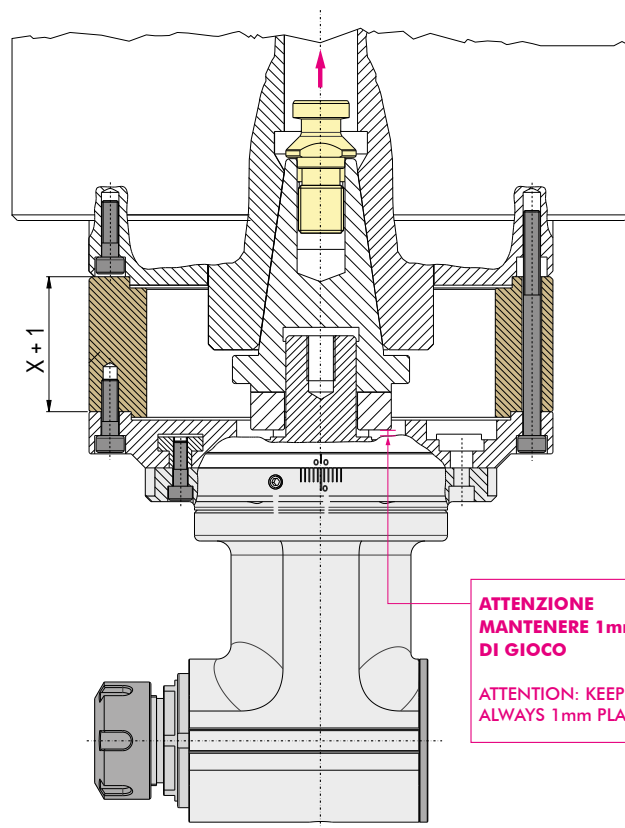
#### FASE 1 - STEP 1

- Montare l'anello di aggancio e la flangia universale sulla testa
- Applicare il cono alla testa
- Inserire la testa nel mandrino macchina.
- Rilevare la misura "X"
- Mount the retaining ring and the universal flange
- Mount the shank on the Head.
- Mount the head into the machine spindle.
- Check dimension "X"



#### FASE 2 - STEP 2

- Realizzare un distanziale con spessore X+1mm
- 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**

**ATTENTION: KEEP  
ALWAYS 1mm PLAY**

# PINZE

## COLLETS

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

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

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

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

## ER-DIN 6499

Foratura-fresatura / drilling-milling



Maschiatura / tapping



MODELLO MODEL	PINZA COLLET	Ø	Code	PINZA ET1 (compensate) COLLET ET1 (compensation)	Code
G90-5	ER8	0,5 / 5	9.ER.08000/...	-	-
GL90-7 G90-7 / 7L	ER11	1 / 7	9.ER.11000/...	-	-
GL90-7B G90-7B / 7LB	ER11 WP	3 / 7	9.ER.11WP0/...	-	-
GTU 10 GL90-10 G90-10 / 10L GR90-10	ER16	1 / 10	9.ER.16000/...	ET-1 / 16 (M1 - M6)	9.ET.16000/...
GL90-10B G90-10B / 10LB G90-10RI / 10LRI GR90-10RI	ER16 WP	1 / 10	9.ER.16WP0/...	-	-
GMU-13 / 13L	ER20	1/13	9.ER.20000/...	ET- 1/ 20 (M2 - M8)	9.ET.20000/...
GL90-16 G90-16 / 16L GMU-16 GR90-16 G90-16 / 16L 2U	ER25	1 / 16	9.ER.25000/...	ET-1 / 25 (M2 - M12)	9.ET.25000/...
GL90-16B / RI G90-16B / 16LB G90-16RI / 16LRI GR90-16RI	ER25 WP	1 / 16	9.ER.25WP0/...	-	-
G90-20 / 20L G90-20L/272 GMU-20 G90-20 / 20L 2U	ER32	2 / 20	9.ER.32000/...	ET-1 / 32 (M3,5 - M16)	9.ET.32000/...
G90-20B / 20LB G90-20L/272B G90-20RI 20LRI	ER32 WP	2 / 20	9.ER.32WP0/...	-	-
G90-30 / 30L G90-30 / 30L 2U	ER40	3 / 30	9.ER.40000/...	ET-1 / 40 (M6 - M16)	9.ET.40000/...
G90-30B 30LB G90-30RI 30LRI	ER40 WP	3 / 30	9.ER.40WP0/...	-	-

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

WP= Resistenza all'acqua - WP= Waterproof

## GHIERE NUTS



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

## CHIAVI WRENCHES



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



# MODULAR QUICK CHANGE ADAPTORS



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

## SISTEMA MODULARE MODULAR SYSTEM



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

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

## VANTAGGI ADVANTAGES



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

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

## ALTE PRESTAZIONI HIGH PERFORMANCE



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

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

## COMPATIBILITÀ COMPATIBILITY



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

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

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

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

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

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



Vedi Pagine 7.14 - 7.15 - See pages 7.14 - 7.15



ER OUTPUTS COMPATIBLE



2 YEARS GUARANTEED



100% MADE IN ITALY