



Classic Line TESTE ANGOLARI - ANGLE HEADS



MADE IN ITALY



1

INDICE - INDEX

1.11 - 1.14

series
LIGHT

1.15 - 1.29

series
STD 90°

ATC - AUTOMATIC TOOL CHANGE

GL90-7	G90-5	G90-30 / 30L
GL90-10	G90-7 / 7L	G90-20L/272
GL90-16	G90-10 / 10L	G90-S40/280
GTU-10	G90-16 / 16L	G90-S40 / S40L
	G90-20 / 20L	

1.47 - 1.57

series
STD 90°

1.58 - 1.62

series
XL

MTC - MANUAL TOOL CHANGE

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

1.76 - 1.85

ACCESSORIES

ATC - AUTOMATIC TOOL CHANGE

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

1.30 - 1.33

series
GMU

1.34 - 1.39

series
DOUB2E

1.40 - 1.43

series
OFFSET



ATC - AUTOMATIC TOOL CHANGE

GMU-13	G90-16 2U	G90-30L 2U	GR90-5
GMU-13L	G90-16L 2U		GR90-10
GMU-16	G90-20 2U		GR90-16
GMU-20	G90-20L 2U		GR90-S40
	G90-30 2U		

1.63 - 1.67

series
GMU

1.68 - 1.73

series
DOUB2E



MTC - MANUAL TOOL CHANGE

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

1.86 - 1.89

ACCESSORIES

1.90 - 1.91

MTC - AUTOMATIC TOOL CHANGE

ATC & MTC

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

1 Linea Classic

Teste Angolari Integrali

Le teste angolari Gerardi della nuovissima Linea Classic nascono da solide basi tecniche e dall'esperienza maturata in oltre 40 anni trascorsi al fianco dei nostri clienti durante i quali abbiamo risolto i problemi più variegati cercando la soluzione migliore e garantendo sempre l'elevata qualità ed affidabilità dei nostri prodotti.

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

Cono & Albero
INTEGRALI

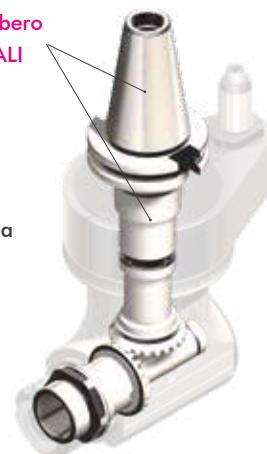
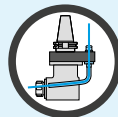


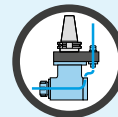
Fig. 1

Caratteristiche tecniche principali:

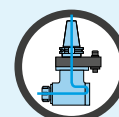
- 1- Corpo in acciaio sabbiato e cromato ad alta resistenza
- 2- **Albero con cono di attacco integrale (cementato, temprato e rettificato) per garantire la massima rigidità**
- 3- Ciascun albero di trasmissione è supportato da una coppia di cuscinetti a contatto obliquo, precaricati in classe di precisione ABEC 9 e lubrificati con grasso a vita.
- 4- Ingranaggi conici spiroidali in materiale ad alta resistenza, rettificati per garantire minore riscaldamento e rumorosità ed elevato numero di giri. Calcolo computerizzato della coppia conica degli ingranaggi (gleason): più denti in presa, più coppia in uscita, maggior numero di ore di lavorazione, rumorosità quasi assente.
- 5- Pesì e ingombri ridotti rispetto ai modelli corrispondenti della linea Evolution.
- 6- Doppia tenuta anteriore (labirinto + tenuta).
- 7- Adduzione refrigerante esterno tramite perno e pressurizzazione interna compresa nel prezzo (a)
- 8- Opzione adduzione refrigerante interno attraverso l'utensile:
 - 10 bar tramite distributore rotante (b)
 - Da **30 a 70 bar** tramite mandrino macchina, rotazione a secco non possibile (c)
 - Ghiere speciali ReCool per ottenere il passaggio refrigerante tramite utensile anche su teste che non prevedono questa opzione. (d)
- 9- Alta velocità fino a 10.000 giri.
- 10- Compatibilità con le teste da sempre installate (perno anti-rotazione e stop block identici).
- 11- 100% Made in Italy, le teste angolari Gerardi Classic Line sono progettate ed interamente realizzate in Italia e sono coperte da 1 anno di garanzia.



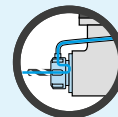
(a)



(b)



(c)



(d)

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

Serie ATC

da pag 1.9 a 1.43



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

Quando la testa non è in posizione di lavoro, un sistema di aggancio impedisce la rotazione del cono rispetto al corpo testa.

Una caratteristica primaria delle teste Classic - ATC è l'albero centrale realizzato in un solo pezzo con il cono di attacco, per offrire la massima rigidità. (FIG.1)

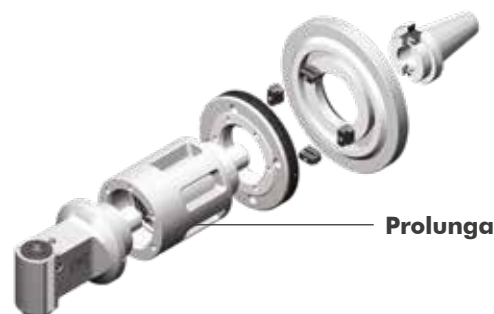
Recentissima novità è il perno di fermo intercambiabile.

Serie MTC

da pag 1.45 a 1.73



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



Prolunga

Classic Line

Integral Angle Heads

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

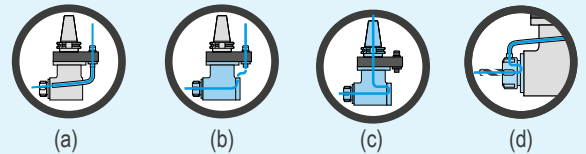
INTEGRAL
Shank & Shaft



Pic.1

Main Technical features:

- 1- Minimum thermal expansion and high corrosion resistant treated steel body
- 2- Main shaft is one solid piece with the drive input taper, case hardened and ground, to ensure maximum rigidity
- 3- Shafts supported by sets of super precision pre-loaded angular contact bearings with Long Life grease lubrication and ABEC 9 accuracy rating
- 4- Ground spiral bevel gears in the highest performance materials able to guaranteed less warming and noise and the highest Rpm. Computerized computation of the data of the set gears more than one tooth working during mesh, more power transmitted, longer gear life, almost no noise
- 5- New types of longer angular heads with reduced weights and overall dimensions
- 6- Double seals on the front (mechanical seal + gasket)
- 7- External coolant through the pin and internal air pressure included as a standard option. (a)
- 8- Internal coolant feed through the tool options:
 - 10 bar through rotating distributor (b)
 - From **30 to 70 bar** through machine spindle, dry running not possible (c)
 - Special ReCool nuts to get the internal coolant through the tool even on angle heads that aren't fitted for this option. (d)
- 9- High speed until 10.000 rpm
- 10- 100% compatibility with heads installed during the last 40 years (same anti-rotation/arrester pin and stop block dimensions)
- 11- GERARDI Classic angle heads have been designed and are manufactured in Italy. They are covered by 1 year warranty.



For technical features, performances and standard equipment, please refer to the following pages.

ATC Series

From page 1.9 to 1.43



This range of heads is designed to be used on machining centres and can be automatically transferred from the tool magazine to the machine spindle and back. The orientation ring and the arrester arm, which carries the arrester pin, can both be rotated through 360°.

This allows easy adjustment of the drive taper and head relative to arrester block mounted on the front of the machining centres' spindle housing.

When the head is unloaded from the machine spindle, a safety latch prevents the drive taper from rotating.

A major feature of the Classic ATC heads is the main input shaft which is integral with the drive taper to ensure maximum rigidity. (PIC.1)

The last news is the interchangeable positioning pin.

MTC Series

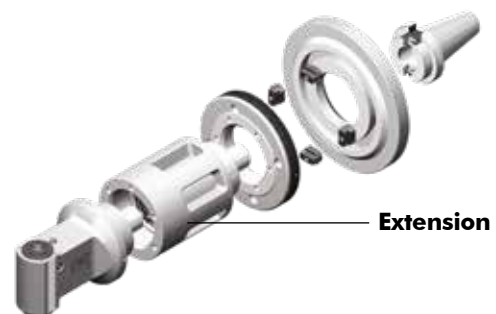
From page 1.45 to 1.73



This is a range of heads for traditional machine tools with flange attachment.

The T-slot on the universal flange facilitates positioning the head 360° around its vertical axis. The modular system makes it possible to extend the length of the body by adding a spacer.

The extension spacer, drive tapers and universal flange are modular and therefore interchangeable among all the heads of similar size.



Extension

NOVITÀ CLASSIC LINE

EVOLUTION CLASSIC NEWS



- Testa LIGHT GTU 0°-360°
- Angle head LIGHT GTU 0°-360°

series
LIGHT

Pag - Page
1.14



La nuova testa GTU permette lavorazioni sotto squadra impossibili prima d'ora su normali teste ATC

The new GTU head allows to perform works undercut, which were impossible before with standard ATC heads.



- Teste Angolari GMU-L
- GMU-L Angle Heads

series
GMU

Pag - Page
1.31



La serie di teste angolari con angolazione regolabile da 0 a 90°. NUOVA lunghezza disponibile.

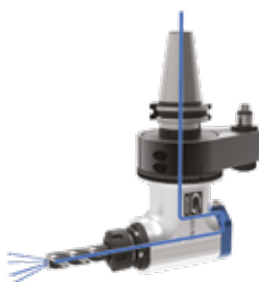
Angle heads series with adjustable angle from 0 to 90°. NEW lenght available.



- Refrigerante 70 BAR
- Internal Coolant 70 BAR

series
STD 90°

Pag - Page
1.22 - 1.29



Passaggio refrigerante interno diretto all'utensile fino a 70bar e dal mandrino e attraverso il distributore rotante.

Internal coolant through the tool up to 70bar directly from the main spindle and through the rotating distributor.



- Teste disassate GR90
- Offset Angle head GR90

series
OFFSET

Pag - Page
1.40 - 1.43



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

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



- Testa G90-5
- Angle heads G90-5

series
STD 90°

Pag - Page
1.15



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



- Teste con DOPPIA USCITA
- Angle heads with DOUBLE OUTPUT

series
DOUB2E

Pag - Page
1.34 - 1.39











Nuova gamma di teste con doppia uscita simmetrica.



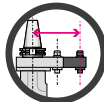
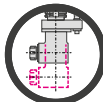

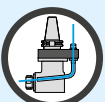
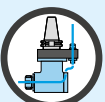
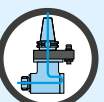

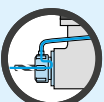

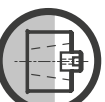
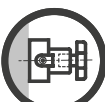


New double symmetric output heads range.



SIMBOLOGIA DATI TECNICI TECHNICAL DATA LOGOS

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

INDICE OPZIONI OPTIONS INDEX

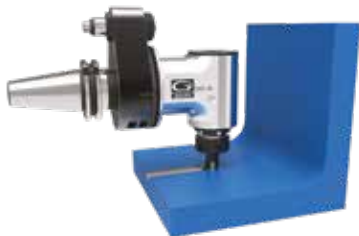
OPZIONI OPTIONS					
	Alta velocità High speed	Spina per posizionamento rapido Quick positioning pin	Interasse speciale Special pitch	Lunghezze speciali Special length	Flangia Multipoint Multipoint flange
PASSAGGIO REFRIGERANTE COOLANT					
	Attraverso il perno Through the Pin 10bar (standard) ROTAX, a SECCO DRY RUNNING ✓	Perno » Distrib » Utensile Pin » Distributor » Tool 10bar ROTAX, a SECCO DRY RUNNING ✓	Cono » Distrib » Utensile Shank » Distributor » Tool 30 / 40 / 70bar ROTAX, a SECCO DRY RUNNING NO	Distributore » Utensile Distributor » Tool 10bar ROTAX, a SECCO DRY RUNNING ✓	Perno » Ghiera » Utensile Pin » Distrib » Tool ReCool NUT
USCITA OUTPUT					
	Uscita HSK HSK output	Uscita ISO ISO output	Uscita portafresa Toolholder output	Uscita WELDON WELDON output	Uscita C. C. output

SERIE ATC - CAMBIO UTENSILE AUTOMATICO

ATC SERIES - AUTOMATIC TOOL CHANGE

- Serie G90
- G90 Series

series
STD 90°



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

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

- Serie G90L
- G90L Series

series
STD 90°



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

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

- Serie G90 RI
- G90 RI Series



series
COOLANT



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

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

- Serie GMU
- GMU Series



series
GMU



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

Nuova testa GMU-13L

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

New angle heads GMU-13L

- Serie G90 2U
- G90 2U Series



series
DOUB2E



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

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

- Serie GR90
- GR90 Series



series
OFFSET



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

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

ATC SERIES AUTOMATIC TOOL CHANGE

1

INGRANAGGI GEARS



Ingranaggi Gleason con evolvente rettificato: massime performances e minori vibrazioni

Gleason ground spiral bevel gears maximum performances and minimum vibration

CUSCINETTI - BEARINGS



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

Angular contact preloaded ball bearings of precision class ABEC 9

STOP BLOCK

con bussola cementata e guarnizione

with case hardened bushing and gasket



DESIGN

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

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

Albero integrale con cono cementato, temprato, rettificato

Integral case hardened and ground shank and shaft

Gruppo antirotante modulare

Modular antirotation group

Anello graduato

Graduated ring

**USCITE
OUTPUTS:**

- Portapinza ER std
- Weldon
- Portafresa
- Speciale
- ER collet (standard)
- Weldon
- Tool holder
- Special

Perno di riferimento con sbloccaggio automatico del porta utensile

Positioning pin with automatic tool release

Passaggio refrigerante 10BAR attraverso il perno

Standard 10BAR coolant through the pin

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

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



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

series

LIGHT



Serie LIGHT

da pag 1.11 a 1.14

Caratteristiche tecniche principali:

- Design ottimizzato per un miglior rapporto qualità prezzo.
- Corpo in alluminio.
- Riduzione significativa del peso.
- Perno di posizionamento conico.

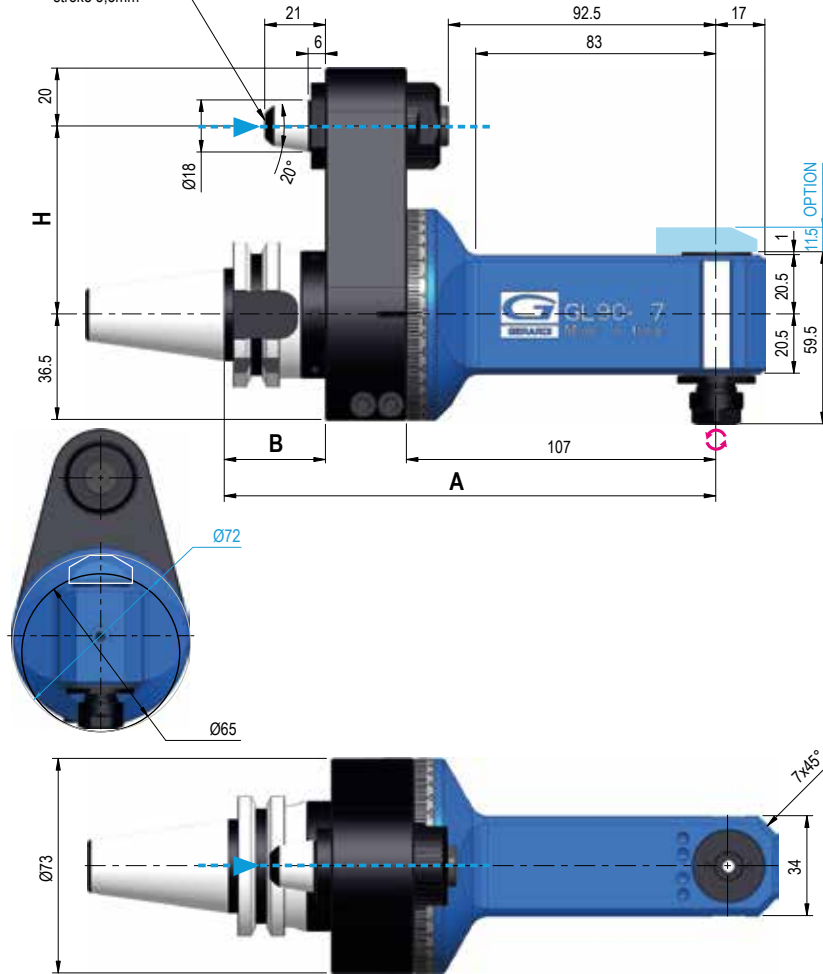
LIGHT Series

from page 1.11 to 1.14

Main technical features:

- Design studied for a best price-quality ratio.
- Aluminum body.
- Weight reduction.
- Tapered positioning pin.

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



GL90-7

TYPE 0

Code:

9.GL9.07000

Price:



Dati tecnici - Technical data



Ratio
1:1



ISO/BT30
2,2 Kg
ISO/BT40
2,7 Kg



Rpm
10.000



Ø 7



N 120



M 6



Nm 5



ER11
Ø17



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

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893
Grandezza - Size	30 40	40	30 40	63
Prezzo EXTRA Price €	std std	std	std std	optional
H	Standard	65 / 80	65 / 80	65 / 80
	Optional 110 EXTRA Price €	optional	optional	optional
A	150	150	145 150	157
B	35	35	30 35	42

Dotazione Standard Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED
10.000 Rpm

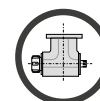
Included !!



REFR. DAL PERNO
COOLANT PIN THROUGH
DRY RUNNING POSSIBLE

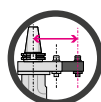
Max 10 bar

optional



DOPIA USCITA
DOUBLE OUTPUT
ER 11 / ER 8M

optional



INTERASSE SPECIALE
SPECIAL PITCH

optional



USCITA
OUTPUT
Weldon Max Ø 6

optional

GL90-10

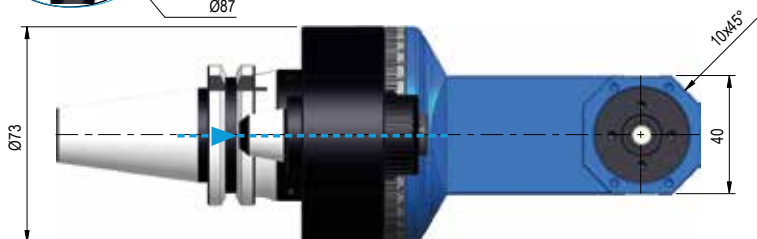
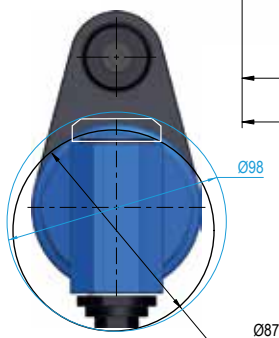
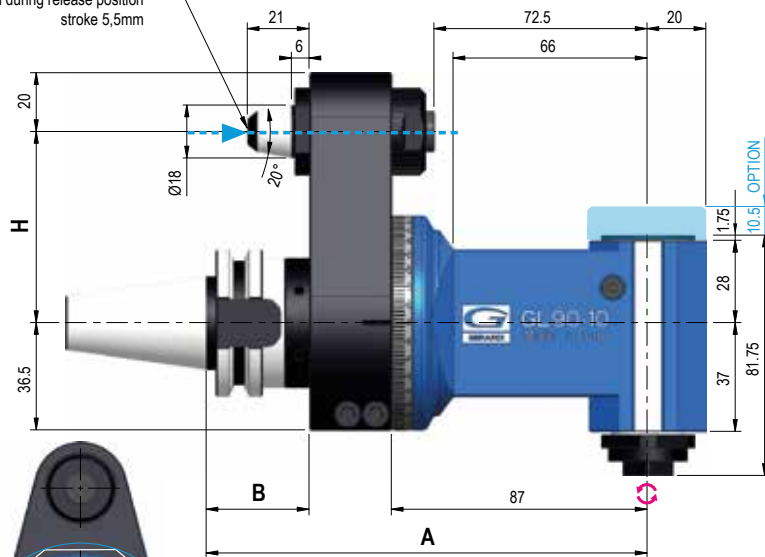
TYPE 0

Code: **9.GL9.10000**

Price:



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



Dati tecnici - Technical data



Ratio
1:1



ISO/BT30
2,4 Kg
ISO/BT40
2,9 Kg



Rpm
10.000



Ø 10



N 250



M 8



Nm 10



ER16
Ø1/10



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

Coni Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893	
Grandezza - Size	30	40	40	30	40	63		
Prezzo EXTRA Price €	std	std	std	std	std	optional		
H	65 / 80		65 / 80		65 / 80		65 / 80	
	optional		optional		optional		optional	
A	150		150	145	150	157		
B	35		35	30	35	42		

Dotazione Standard Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

10.000 Rpm

Included !!

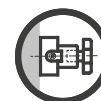


REFR. DAL PERNO
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

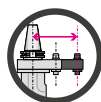
optional



DOPPIA USCITA
DOUBLE OUTPUT

Portafresa - Toolholder Ø13

optional



INTERASSE SPECIALE
SPECIAL PITCH

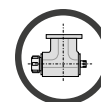
optional



USCITA
OUTPUT

Weldon Max Ø10

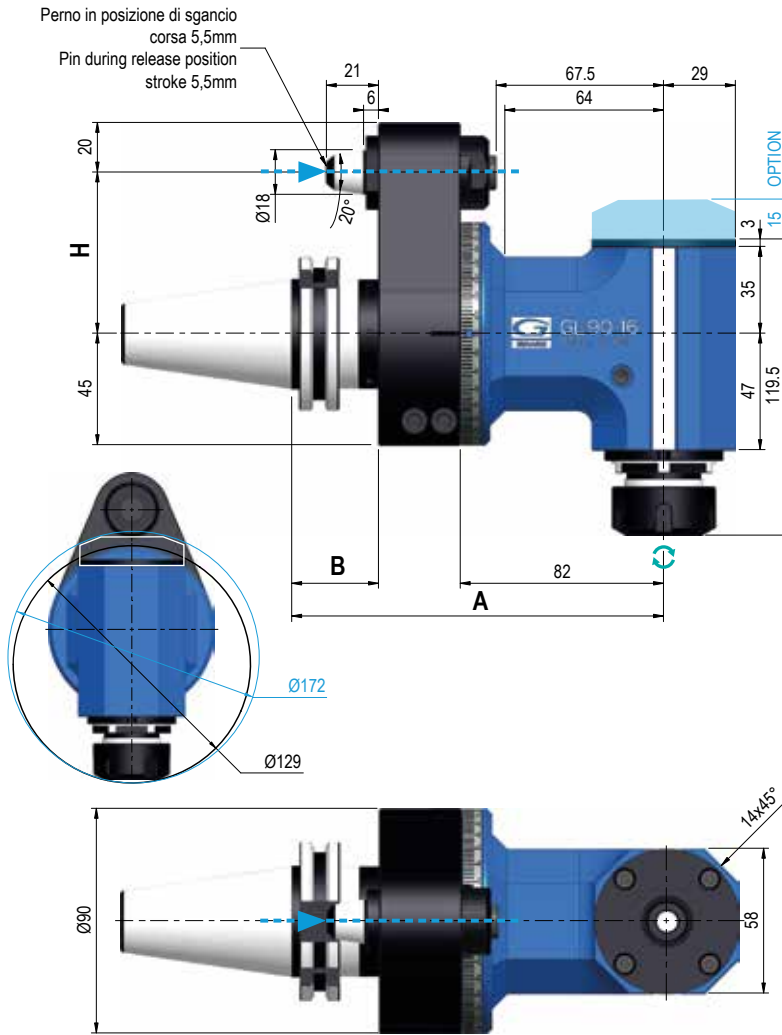
optional



DOPPIA USCITA
DOUBLE OUTPUT

ER16 - ER11M

optional



GL90-16

TYPE 1

Code:

9.GL9.16000

Price:



Dati tecnici - Technical data

	Ratio 1:1		ISO/BT40 5,1 Kg ISO/BT50 7,2 Kg
	Rpm 8.000		Ø 16
	N 510		M 12
	Nm 24		ER25 Ø1/16



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

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

Dotazione Standard Standard Equipment

Opzioni - Options

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

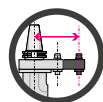
IMBALLO & PESO

PACK & WEIGHT: Max. Kg



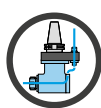
ALTA VELOCITÀ
HIGH SPEED
8.000 Rpm

Included !!



INTERASSE SPECIALE
SPECIAL PITCH

optional



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

optional



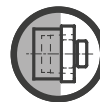
REFR. DAL CONO
COOLANT THROUGH SHANK
DRY RUNNING NOT POSSIBLE
Max 40 bar

optional



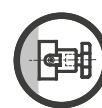
USCITA OUTPUT
Weldon max Ø16

optional



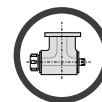
USCITA OUTPUT
HSK 32

optional



USCITA OUTPUT
Portafresa
Toolholder 16

optional



DOPIA USCITA
DOUBLE OUTPUT

ER25 - ER16M

optional

GTU-10

TYPE 0

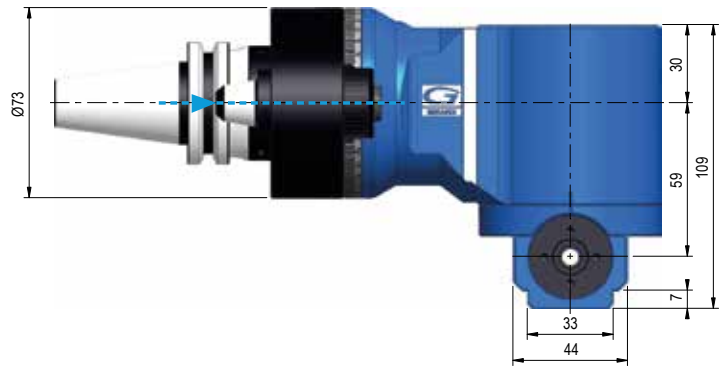
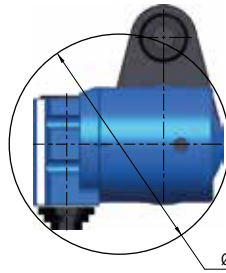
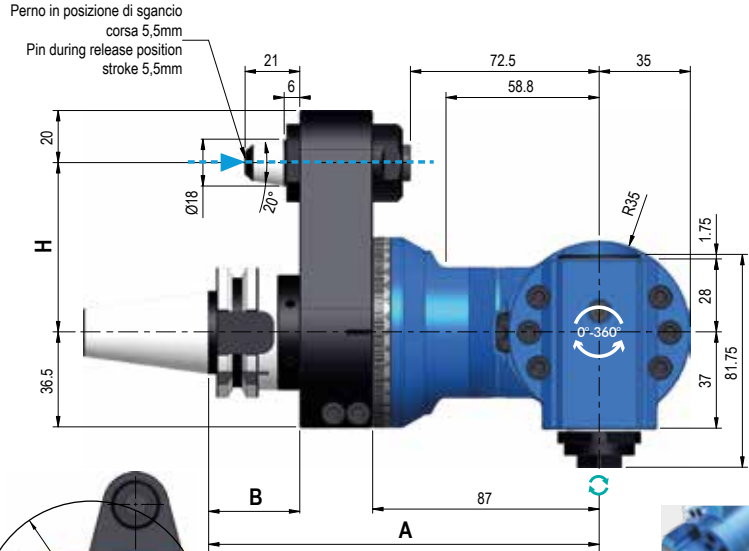
Code: **9.GTU.10000**

Price:



Dati tecnici - Technical data

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



0°-360°



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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

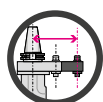
8.000 Rpm



USCITA
OUTPUT

Weldon Max Ø10

optional



INTERASSE SPECIALE
SPECIAL PITCH

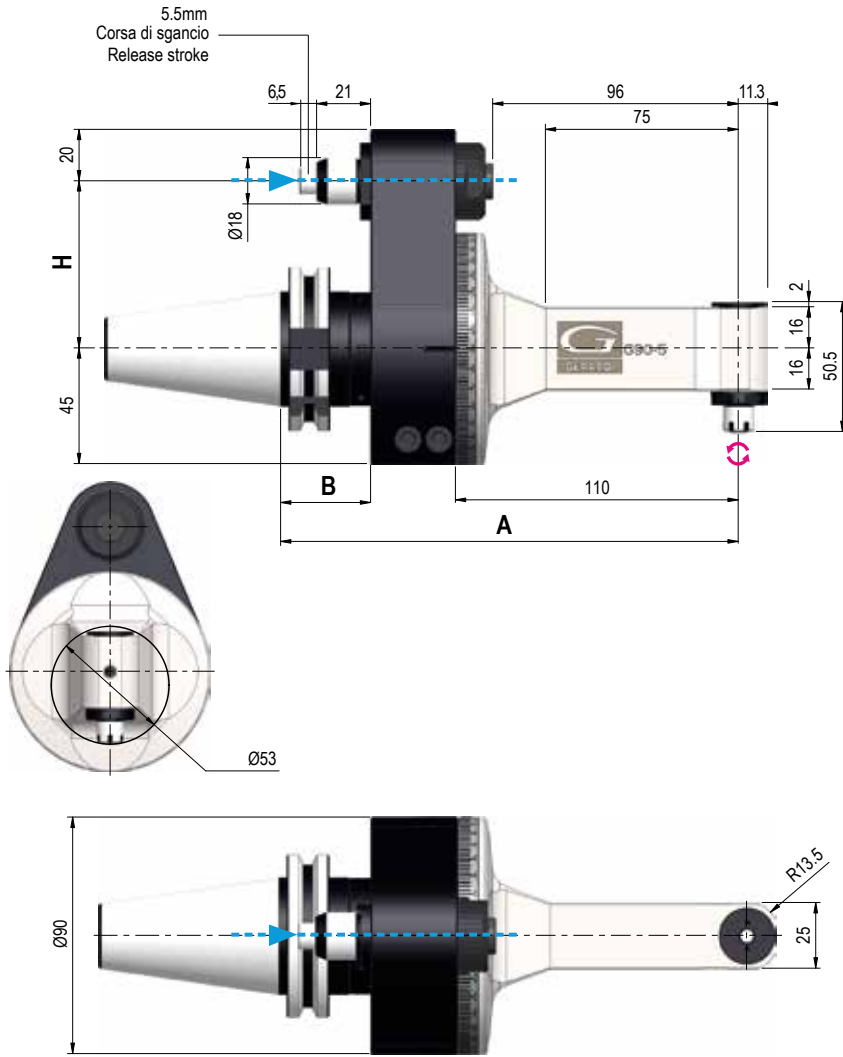
optional



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles

optional



G90-5

TYPE 1

Code:

9.G90.05000

Price:



Dati tecnici - Technical data

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



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

Coni Shanks	SK DIN 69871			CAT ANSI B5.50			BT MAS 403			HSK DIN 69893			C. ISO 26623		
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size															
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	opt.	opt.	opt.	optional			
H Standard	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80
H Optional 110 EXTRA Price €	optional			optional			optional			optional			optional		
A	178			178			173	178	184	185		188	181		183
B	35			35			30	35	41	42		45	38		40

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

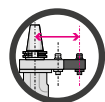
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

10.000 Rpm

Included !!



INTERASSE SPECIALE
SPECIAL PITCH

optional



USCITA
OUTPUT

Weldon Max Ø 6

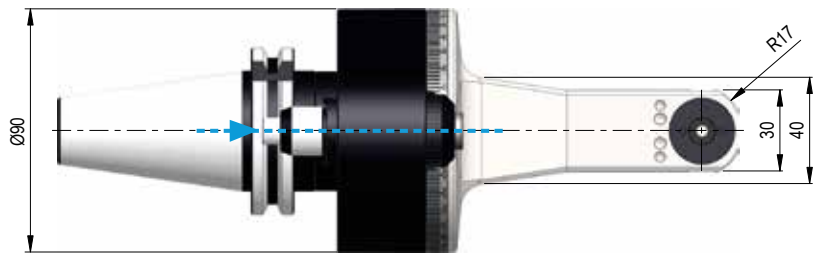
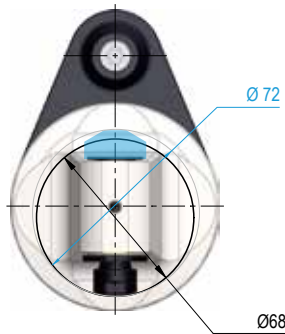
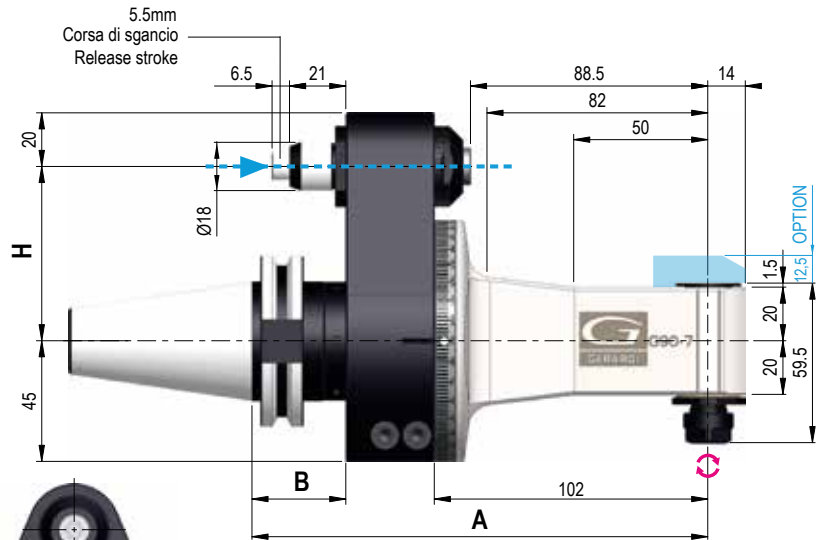
optional

G90-7

TYPE 1

Code: **9.G90.07000**

Price:



Dati tecnici - Technical data

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



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

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

Dotazione Standard Standard Equipment

Opzioni - Options

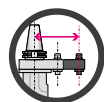
Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. 9 Kg



ALTA VELOCITÀ
HIGH SPEED
10.000 Rpm

Included !!



INTERASSE SPECIALE
SPECIAL PITCH

optional



REFR. DAL PERNO
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

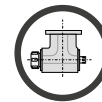
optional



USCITA
OUTPUT

Weldon Max Ø 8

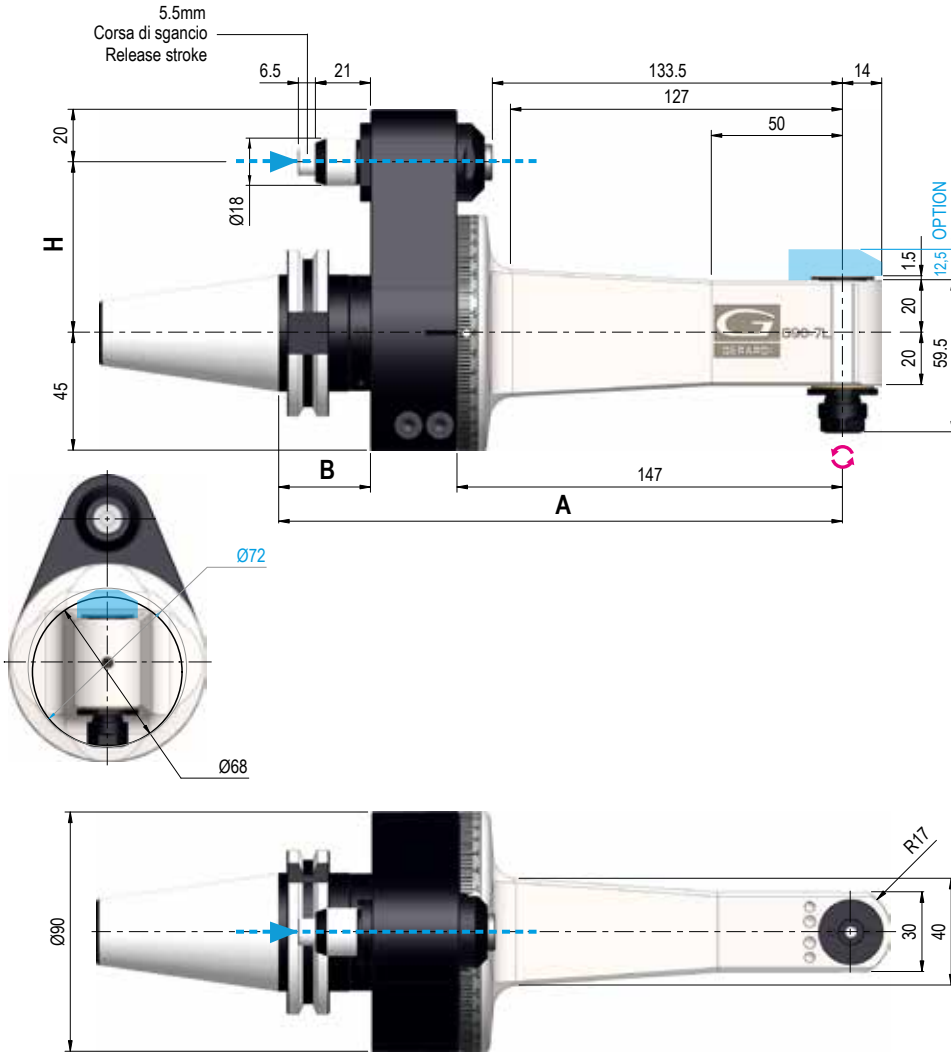
optional



DOPPIA USCITA
DOUBLE OUTPUT

ER 11 / ER 8M

optional



G90-7L

TYPE 1

Code:

9.G90.07L00

Price:



Dati tecnici - Technical data

- Ratio 1:1
- Kg 4,3
- Rpm 10.000
- Ø7
- N 120
- M6
- Nm 5
- ER11 Ø17



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

Coni Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size															
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	opt.	opt.	opt.	optional			
H Standard	65 / 80		80	65/80	80	65 / 80		80	65 / 80		80	65 / 80			80
H Optional 110 EXTRA Price €	optional			optional		optional			optional			optional			
A	215			215	210	215	221	222	225	225	218	220			
B	35			35	30	35	41	42	45	45	38	40			

Dotazione Standard
Standard Equipment

Opzioni - Options

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

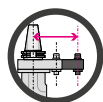
IMBALLO & PESO
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

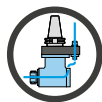
10.000 Rpm

Included !!



INTERASSE SPECIALE
SPECIAL PITCH

optional



REFR. DAL PERNO
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

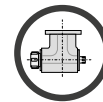
optional



USCITA
OUTPUT

Weldon Max Ø 8

optional



DOPIA USCITA
DOUBLE OUTPUT

ER 11 / ER 8M

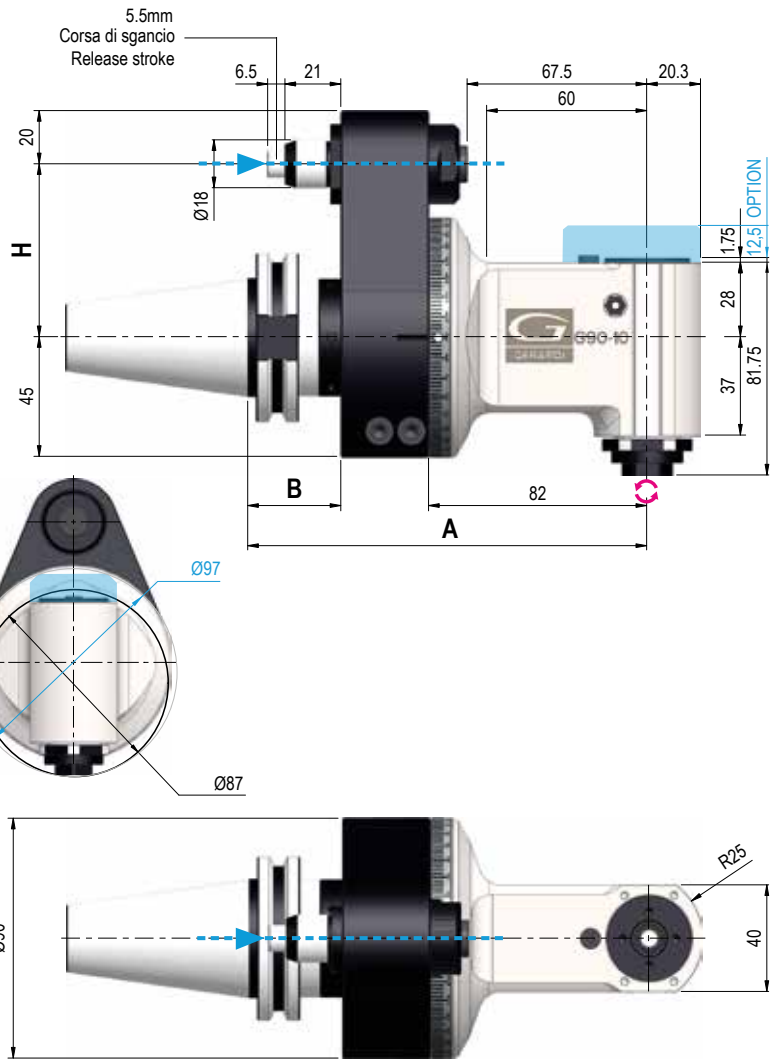
optional

G90-10

TYPE 1

Code: **9.G90.10000**

Price:



Dati tecnici - Technical data

	Ratio 1:1		Kg 4,3
	Rpm 10.000		Ø 10
	N 250		M 8
	Nm 10		ER16 Ø1/10



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

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

Dotazione Standard Standard Equipment

Opzioni - Options

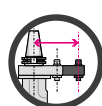
Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO
PACK & WEIGHT: Max. Kg



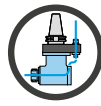
ALTA VELOCITÀ
HIGH SPEED
10.000 Rpm

Included !!



INTERASSE SPECIALE
SPECIAL PITCH

optional



REFR. DAL PERNO
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar
optional



REFR. DAL CONO
COOLANT THROUGH SHANK

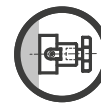
DRY RUNNING NOT POSSIBLE

Max 40 bar
optional



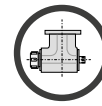
USCITA
OUTPUT
Weldon Max Ø10

optional



USCITA
OUTPUT
Portafresa
Toolholder Ø03

optional



DOPPIA USCITA
DOUBLE OUTPUT

ER16 - ER11 M

optional

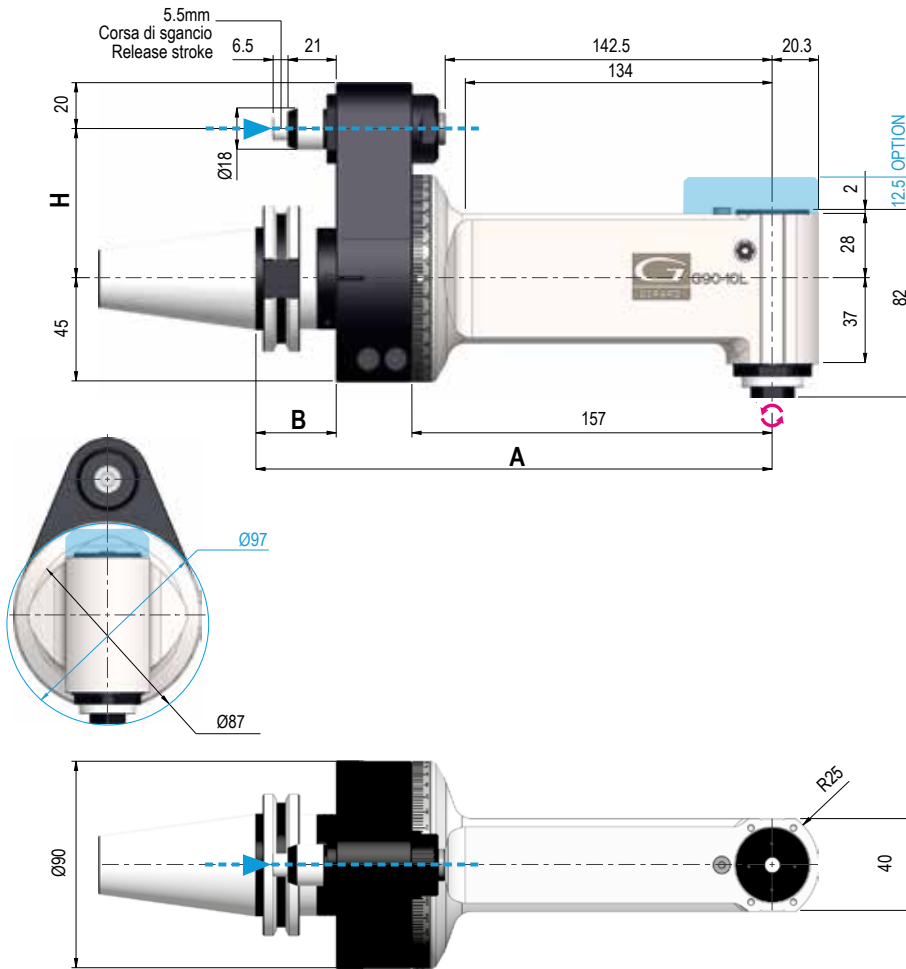
G90-10L

TYPE 1

Code:

9.G90.10L00

Price:



Dati tecnici - Technical data

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



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

Coni Shanks	SK DIN 69871			CAT ANSI B5.50		BT MAS 403			HSK DIN 69893			C. ISO 26623			
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size															
Prezzo EXTRA Price €	opt.	std	std	std	std	opt.	std	std	opt.	opt.	opt.	optional			
H Standard	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80
H Optional 110 EXTRA Price €	optional			optional		optional			optional			optional			
A	225			225		220	225	231	232		235	228		230	
B	35			35		30	35	41	42		45	38		40	

Dotazione Standard Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

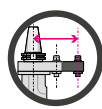
PACK & WEIGHT: Max. 10,5 Kg



ALTA VELOCITÀ
HIGH SPEED

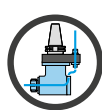
10.000 Rpm

Included !!



INTERASSE SPECIALE
SPECIAL PITCH

optional



REFR. DAL PERNO
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

optional



REFR. DAL CONO
COOLANT THROUGH SHANK

DRY RUNNING NOT POSSIBLE

Max 40 bar

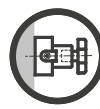
optional



USCITA
OUTPUT

Weldon Max Ø10

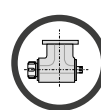
optional



USCITA
OUTPUT

Portafresa
Toolholder Ø13

optional



DOPPIA USCITA
DOUBLE OUTPUT

ER16 - ER11 M

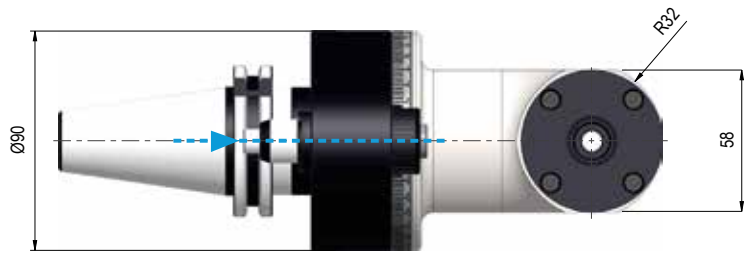
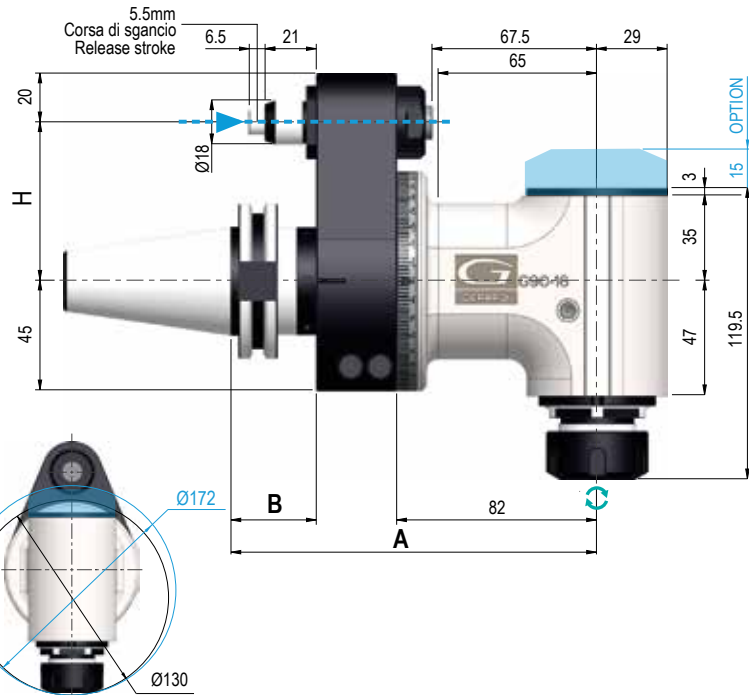
optional

G90-16

TYPE 1

Code: **9.G90.16000**

Price:



Dati tecnici - Technical data

Ratio 1:1	Kg 5,4
Rpm 8.000	Ø 16
N 510	M 12
Nm 24	ER25 Ø1/16



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

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

Dotazione Standard Standard Equipment

Opzioni - Options

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

IMBALLO & PESO
PACK & WEIGHT: Max. 11 Kg



ALTA VELOCITÀ
HIGH SPEED
8.000 Rpm

Included !!



INTERASSE SPECIALE
SPECIAL PITCH

optional



REFR. DAL PERNO
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar
optional



REFR. DAL CONO
COOLANT THROUGH SHANK

DRY RUNNING NOT POSSIBLE

Max 40 bar
optional



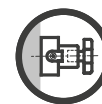
USCITA OUTPUT
Weldon Max Ø16

optional



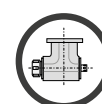
USCITA OUTPUT
HSK 32

optional



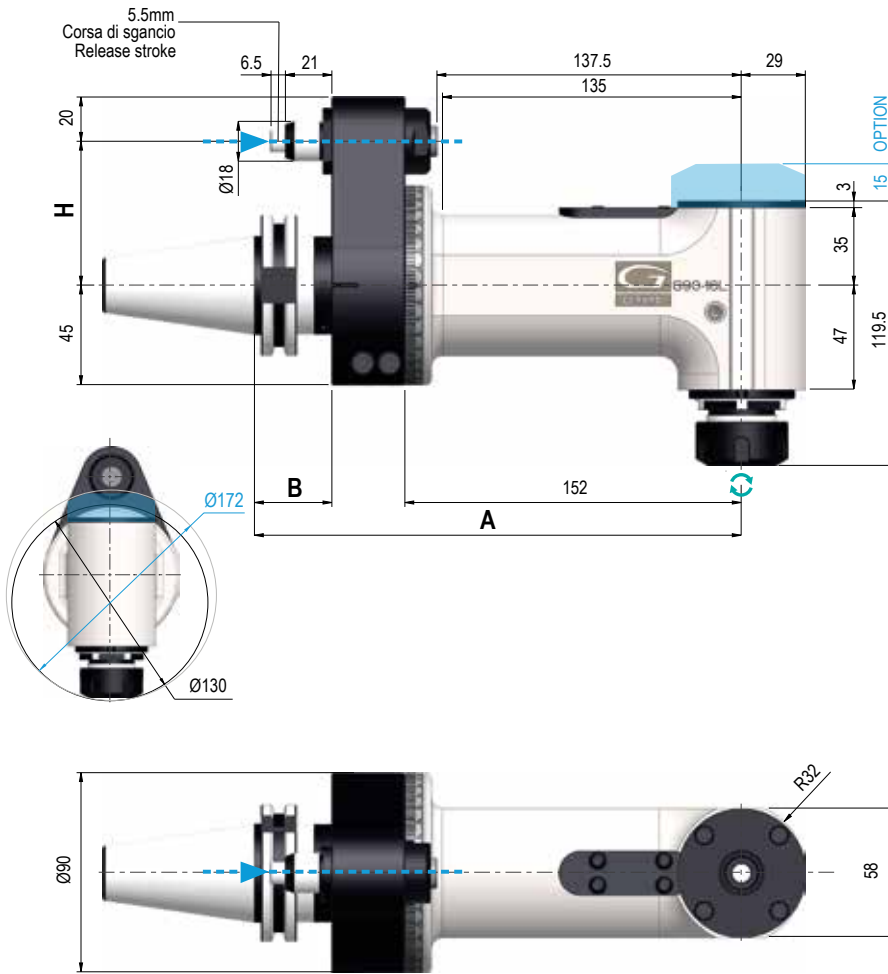
USCITA OUTPUT
Portafresa
Toolholder Ø16

optional



DOPPIA USCITA
DOUBLE OUTPUT

ER25 - ER16M
optional



G90-16L

TYPE 1

Code:

9.G90.16L00

Price:



Dati tecnici - Technical data

	Ratio 1:1		Kg 6,7
	Rpm 8.000		Ø 16
	N 510		M 12
	Nm 24		ER25 Ø1/16



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

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

Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



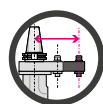
Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

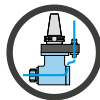
8.000 Rpm

Included !!



INTERASSE SPECIALE
SPECIAL PITCH

optional



REFR. DAL PERNO
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

optional



REFR. DAL CONO
COOLANT THROUGH SHANK

DRY RUNNING NOT POSSIBLE

Max 40 bar

optional



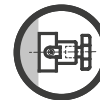
USCITA OUTPUT
Weldon Max Ø16

optional



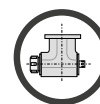
USCITA OUTPUT
HSK 32

optional



USCITA OUTPUT
Portafresa
Toolholder Ø16

optional



DOPPIA USCITA
DOUBLE OUTPUT

ER25 - ER16M

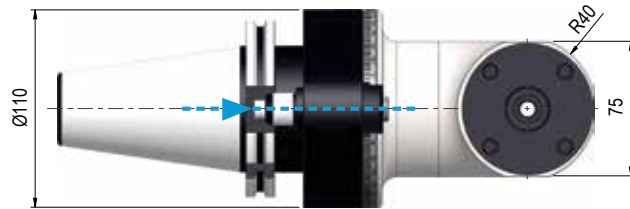
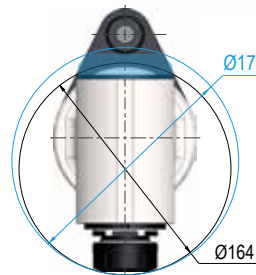
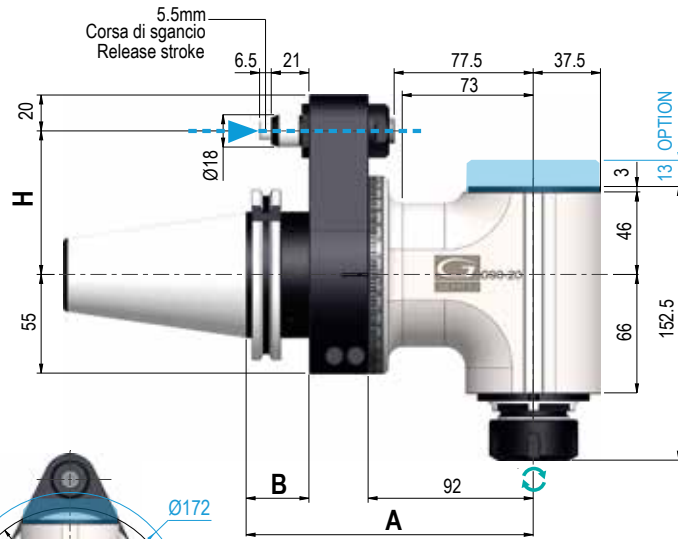
optional

G90-20

TYPE 2

Code: **9.G90.20000**

Price:



Dati tecnici - Technical data

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



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

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

Dotazione Standard Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ HIGH SPEED 6.000 Rpm optional	REFR. DAL PERNO COOLANT PIN THROUGH DRY RUNNING POSSIBLE Max 10 bar optional	USCITA OUTPUT Weld on Max Ø20 optional	USCITA OUTPUT Portafresa Toolholder Ø22 optional	USCITA OUTPUT C4 optional
INTERASSE SPECIALE SPECIAL PITCH G90-20/20L optional	REFR. DAL CONO COOLANT THROUGH SHANK DRY RUNNING NOT POSSIBLE 40 bar 70 bar opt. opt.	USCITA OUTPUT HSK 40 optional	USCITA OUTPUT ISO/CAT/ BT 30 optional	DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20M optional

G90-20L

TYPE 2

Code:

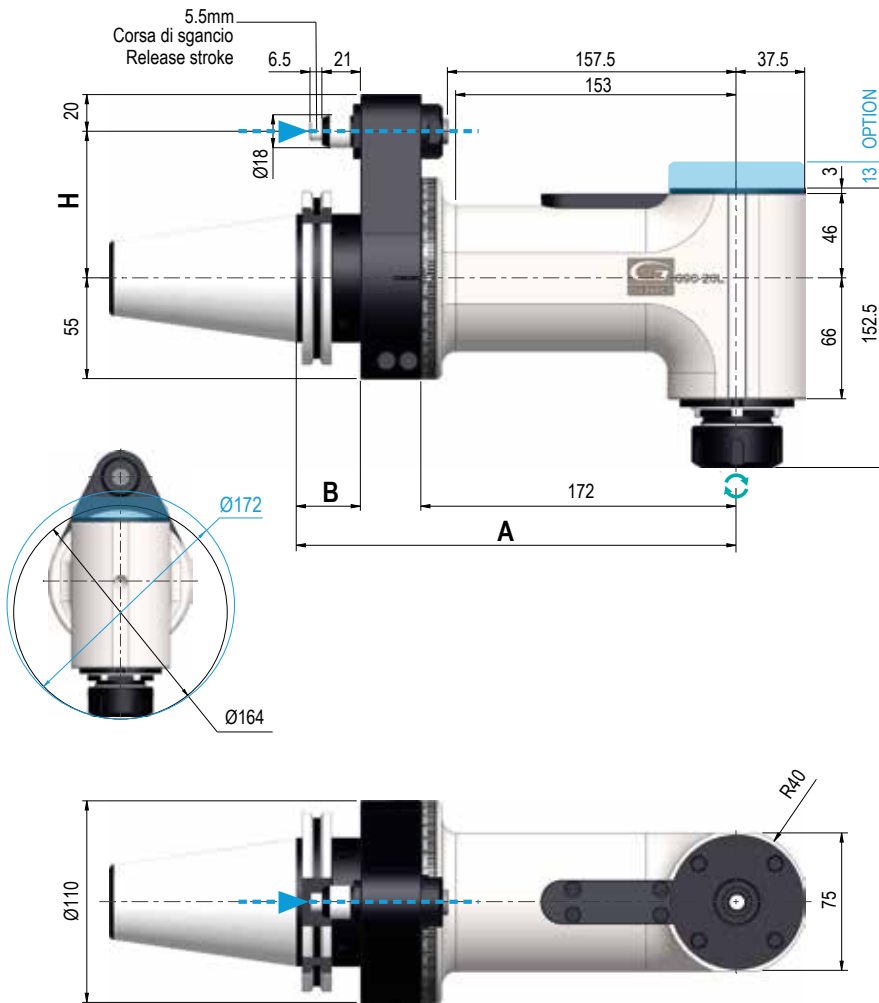
9.G90.20L00

Price:



Dati tecnici - Technical data

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



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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



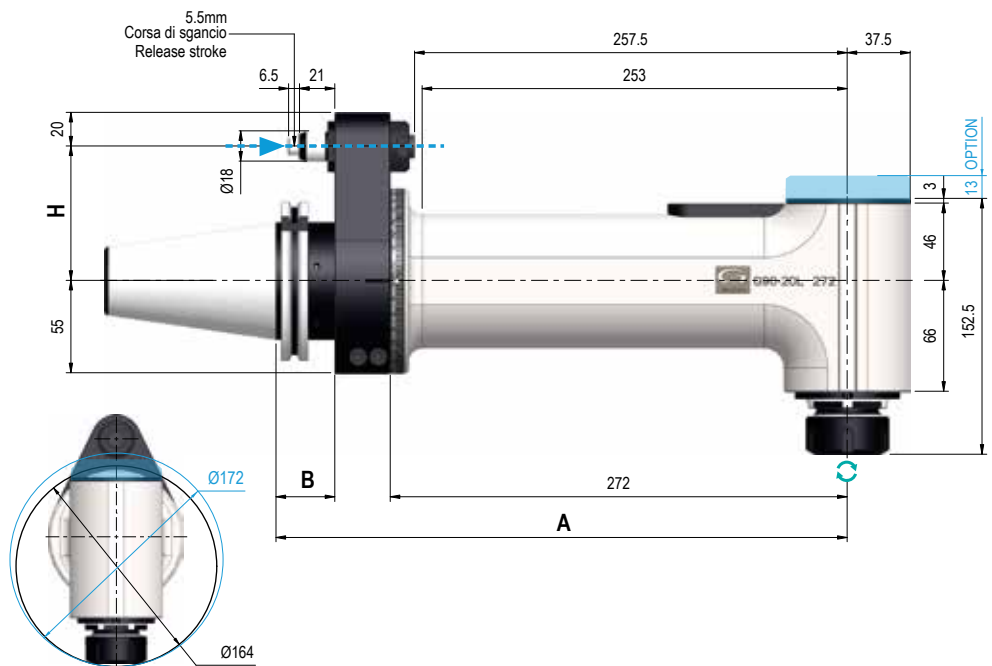
	ALTA VELOCITÀ HIGH SPEED 6.000 Rpm optional		REFR. DAL PERNO COOLANT PIN THROUGH DRY RUNNING POSSIBLE Max 10 bar optional		USCITA OUTPUT Weldon Max Ø20 optional		USCITA OUTPUT Portafresa Toolholder Ø22 optional		USCITA OUTPUT C4 optional
	USCITA OUTPUT G90-20/20L ER40 optional		REFR. DAL CONO COOLANT THROUGH SHANK DRY RUNNING NOT POSSIBLE 40 bar 70 bar opt. opt.		USCITA OUTPUT HSK 40 optional		USCITA OUTPUT ISO/CAT/ BT 30 optional		DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20M optional

G90-20L/272 TYPE 2

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

Price:

NEW



Dati tecnici - Technical data



Ratio
1:1



Kg 17



Rpm
4.000



Ø 20



N 1.250



M 16



Nm 40



ER32
Ø2/20



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

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

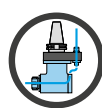
Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



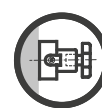
REFR. DAL PERNO
COOLANT PIN
THROUGH
DRY RUNNING POSSIBLE
Max 10 bar
optional



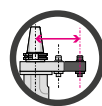
USCITA
OUTPUT
C4
optional



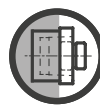
USCITA
OUTPUT
Weldon Max Ø20
optional



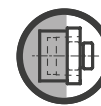
USCITA
OUTPUT
Portafresa
Toolholder Ø22
optional



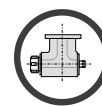
INTERASSE SPECIALE
SPECIAL PITCH
optional



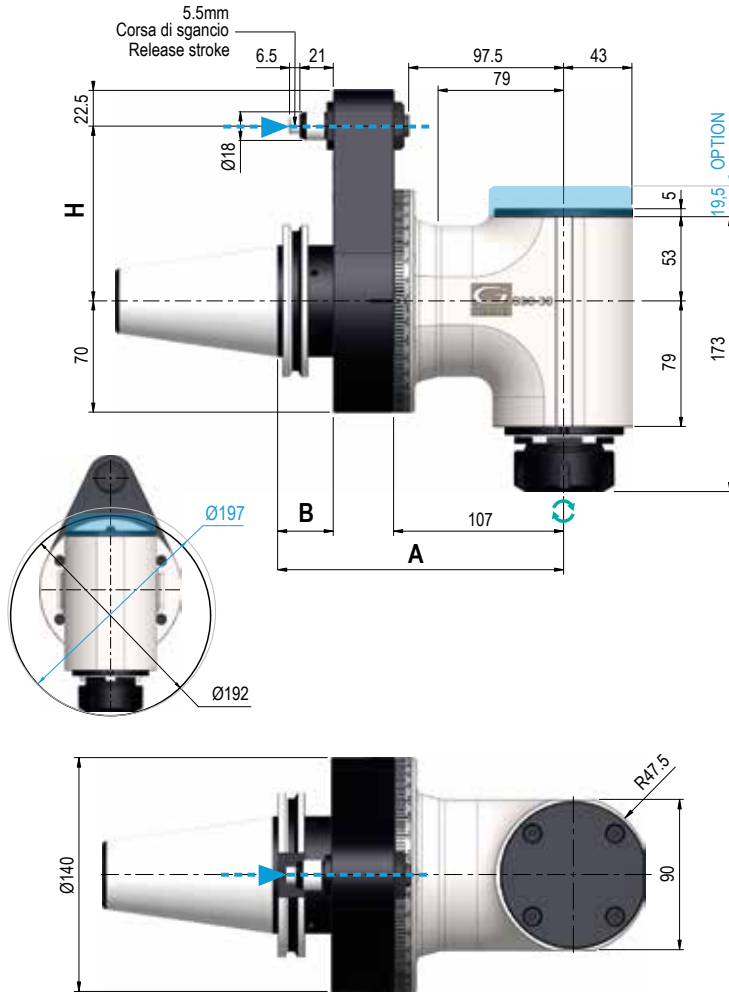
USCITA
OUTPUT
HSK 40
optional



USCITA
OUTPUT
ISO/CAT/
BT 30
optional



DOPPIA USCITA
DOUBLE OUTPUT
ER32 - ER20M
optional



G90-30

TYPE 3

Code:

9.G90.30000

Price:



Dati tecnici - Technical data

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



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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



- ALTA VELOCITÀ HIGH SPEED
6.000 Rpm
optional
- REFR. DAL PERNO COOLANT PIN THROUGH
DRY RUNNING POSSIBLE
Max 10 bar
optional
- USCITA OUTPUT
Weldon
Max Ø25
optional
- USCITA OUTPUT
Portafresa
Toolholder Ø27
optional
- USCITA OUTPUT
ISO 30
optional
- INTERASSE SPECIALE SPECIAL PITCH
optional
- REFR. DAL CONO COOLANT THROUGH SHANK
DRY RUNNING NOT POSSIBLE
30 bar 70 bar
opt. opt.
- USCITA OUTPUT
HSK 40
optional
- USCITA OUTPUT
DOPPIA USCITA DOUBLE OUTPUT
ER40 - ER25M
optional
- USCITA OUTPUT
C4
optional

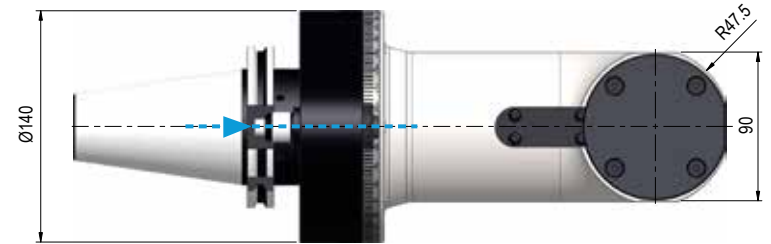
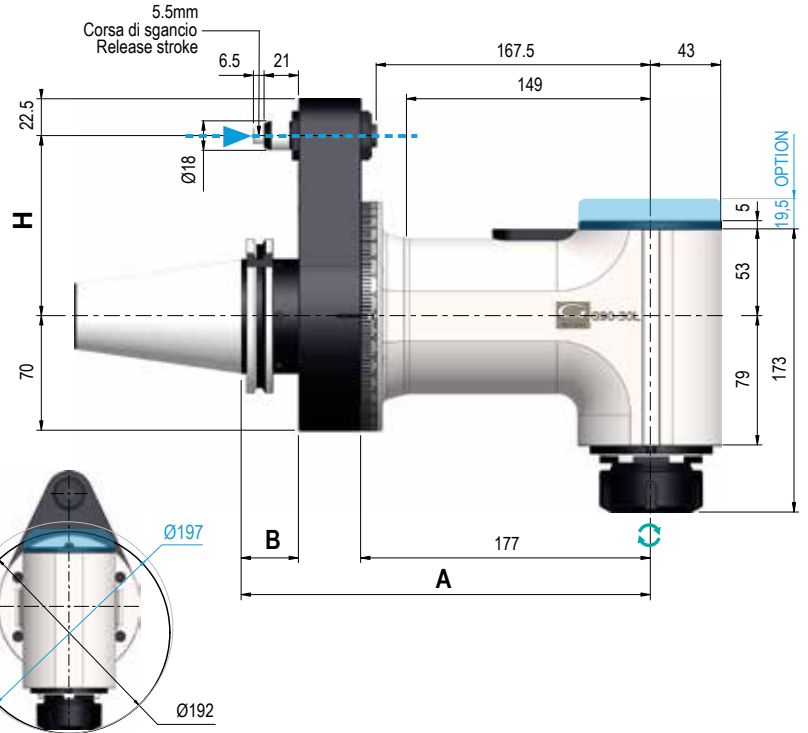
G90-30L

TYPE 3

Code:

9.G90.30L00

Price:



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 UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
H Standard Ø18	110	110	110	110	110	110
A	250	250	256	257	260	255
B	35	35	41	42	45	40

Dotazione Standard
Standard Equipment

Opzioni - Options

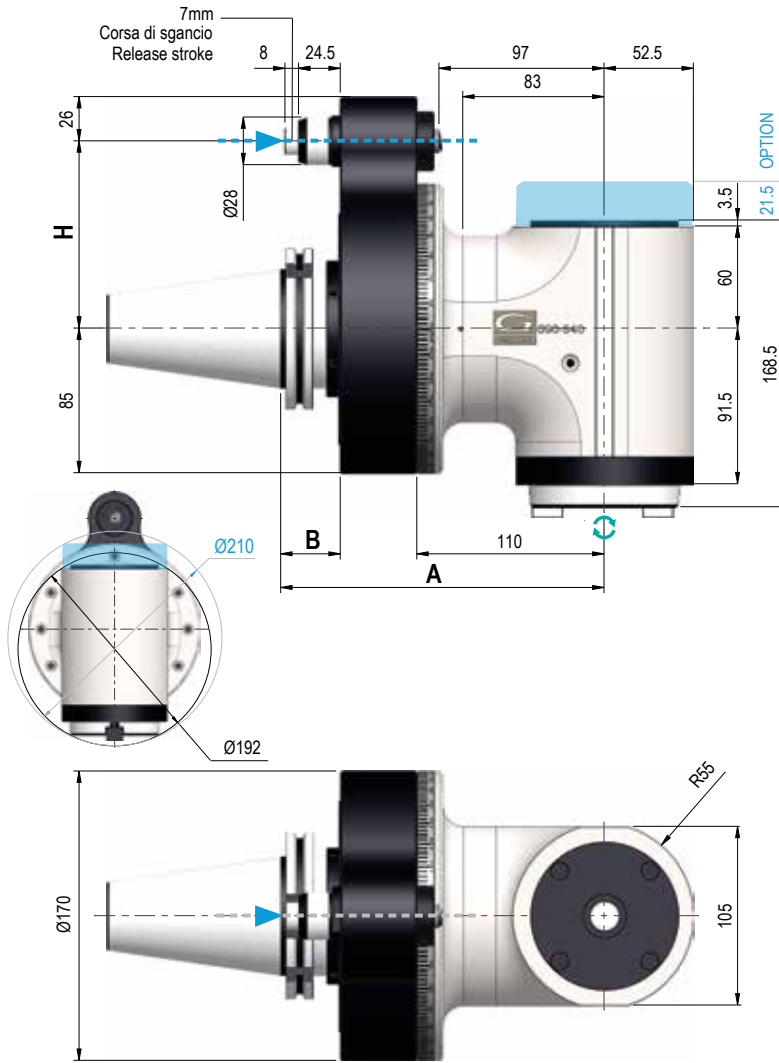
Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ HIGH SPEED 6.000 Rpm optional	REFR. DAL PERNO COOLANT PIN THROUGH DRY RUNNING POSSIBLE Max 10 bar optional	USCITA OUTPUT Weldon Max Ø25 optional	USCITA OUTPUT Portafresa Toolholder Ø27 optional	USCITA OUTPUT ISO 30 optional
INTERASSE SPECIALE SPECIAL PITCH optional	REFR. DAL CONO COOLANT THROUGH SHANK DRY RUNNING NOT POSSIBLE 30 bar 70 bar opt. opt.	USCITA OUTPUT HSK 40 optional	USCITA OUTPUT DOPPIA USCITA DOUBLE OUTPUT ER40 - ER25M optional	USCITA OUTPUT C4 optional



G90-S40

TYPE 4

Code:

9.G90.S4000

Price:



Dati tecnici - Technical data

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



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

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
H Standard Ø28	110	110	110	110	110	110
A	190	190	196	197	200	195
B	35	35	41	42	45	40

Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



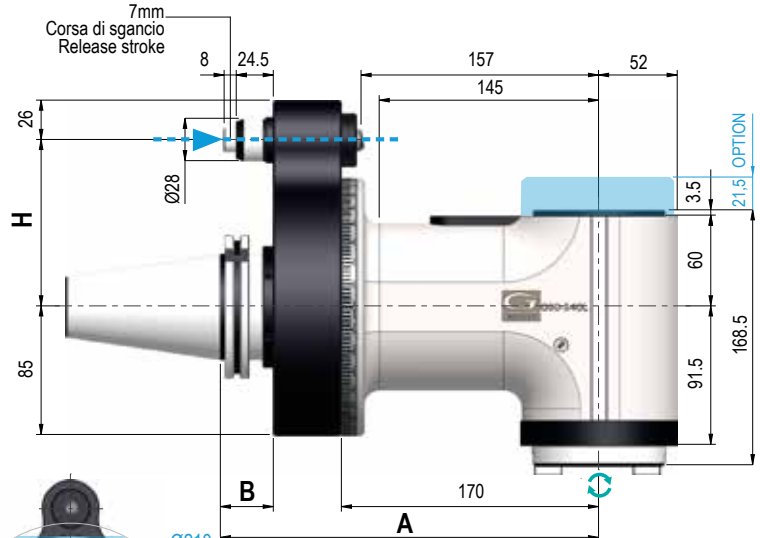
Opzioni - Options

ALTA VELOCITÀ HIGH SPEED 5.000 Rpm optional	REFR. DAL PERNO COOLANT PIN THROUGH DRY RUNNING POSSIBLE Max 10 bar optional	USCITA OUTPUT Weldon Max Ø26 optional	USCITA OUTPUT Portafresa Toolholder Ø32 optional
INTERASSE SPECIALE SPECIAL PITCH optional	REFR. DAL CONO COOLANT THROUGH SHANK DRY RUNNING NOT POSSIBLE 30 bar 70 bar opt. opt.	USCITA OUTPUT HSK 63 optional	USCITA OUTPUT C4 C5 opt. opt.

G90-S40L

TYPE 4

Code: **9.G90.S40L00**
Price:



Dati tecnici - Technical data

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



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

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
H Standard Ø28	110	110	110	110	110	110
A	190	190	196	197	200	195
B	35	35	41	42	45	40

Dotazione Standard Standard Equipment

Opzioni - Options

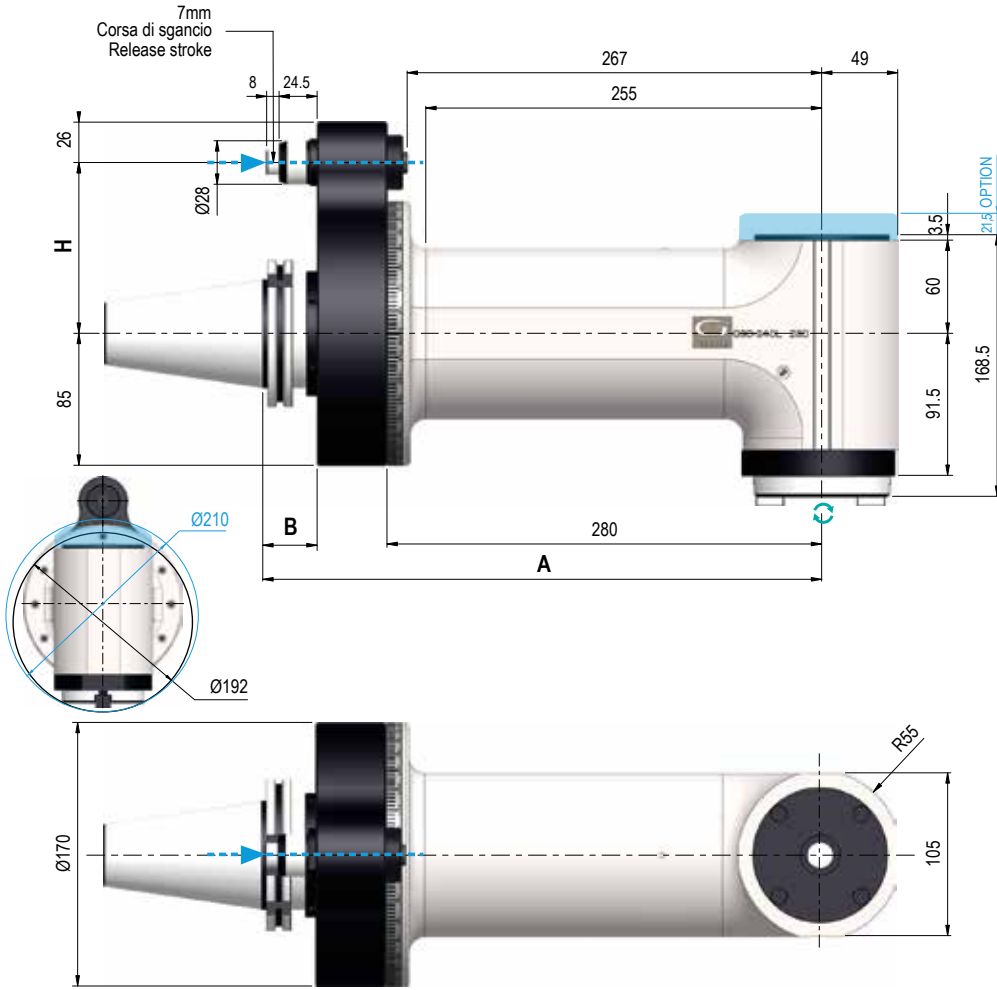
Cassa in legno - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni
Wood box - Stop-block - ER nut - Wrenches - Grease tube - Instruction book

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ HIGH SPEED 5.000 Rpm optional	REFR. DAL PERNO COOLANT PIN THROUGH DRY RUNNING POSSIBLE Max 10 bar optional	USCITA OUTPUT Weldon Max Ø26 optional	USCITA OUTPUT Portafresa Toolholder Ø32 optional
INTERASSE SPECIALE SPECIAL PITCH optional	REFR. DAL CONO COOLANT THROUGH SHANK DRY RUNNING NOT POSSIBLE 30 bar 70 bar opt. opt.	USCITA OUTPUT HSK 63 optional	USCITA OUTPUT C4 C5 € 480 € 590



G90-S40L/280 TYPE 4

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

Price:



Dati tecnici - Technical data

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



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

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	100	C8
Prezzo EXTRA Price €	std	std	std	optional	optional
H Standard Ø28	110	110	110	110	110
A	360	360	366	370	365
B	35	35	41	45	40

Dotazione Standard
Standard Equipment

Opzioni - Options

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

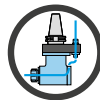
IMBALLO & PESO

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED
5.000 Rpm

optional



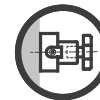
REFR. DAL PERNO
COOLANT PIN THROUGH
DRY RUNNING POSSIBLE
Max 10 bar

optional



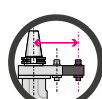
USCITA
OUTPUT
Weldon
Max Ø26

optional



USCITA
OUTPUT
Portafresa
Toolholder Ø32

optional



INTERASSE SPECIALE
SPECIAL PITCH

optional



REFR. DAL CONO
COOLANT
THROUGH SHANK
DRY RUNNING NOT POSSIBLE

30 bar 70 bar
opt. opt.



USCITA
OUTPUT
HSK 63

optional



USCITA
OUTPUT
C4 C5

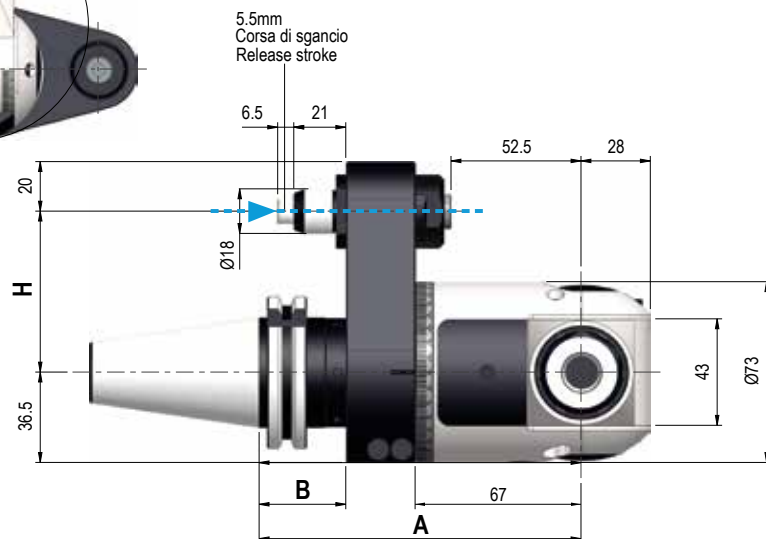
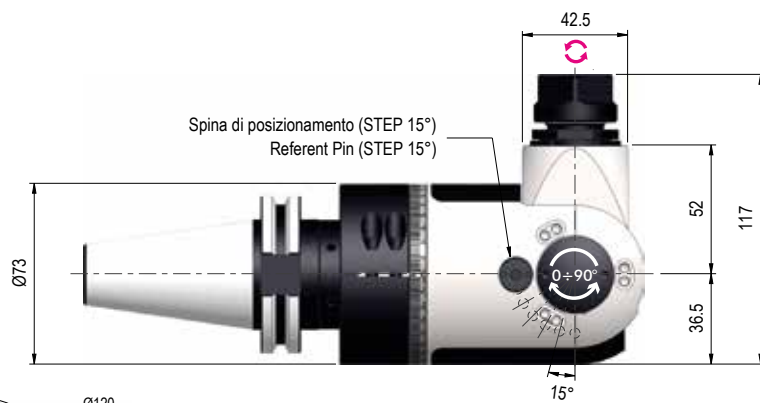
opt. opt.

GMU-13

TYPE 0

Code: **9.GMU.13000**

Price:



Dati tecnici - Technical data

	Ratio 1:1		Kg 4.20
	Rpm 4.000		Ø 13
	N 450		M 10
	Nm 6		ER-20 Ø1/13



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

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

Dotazione Standard Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

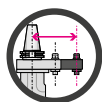
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

8.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

optional



USCITA
OUTPUT

Weldon Max Ø 16

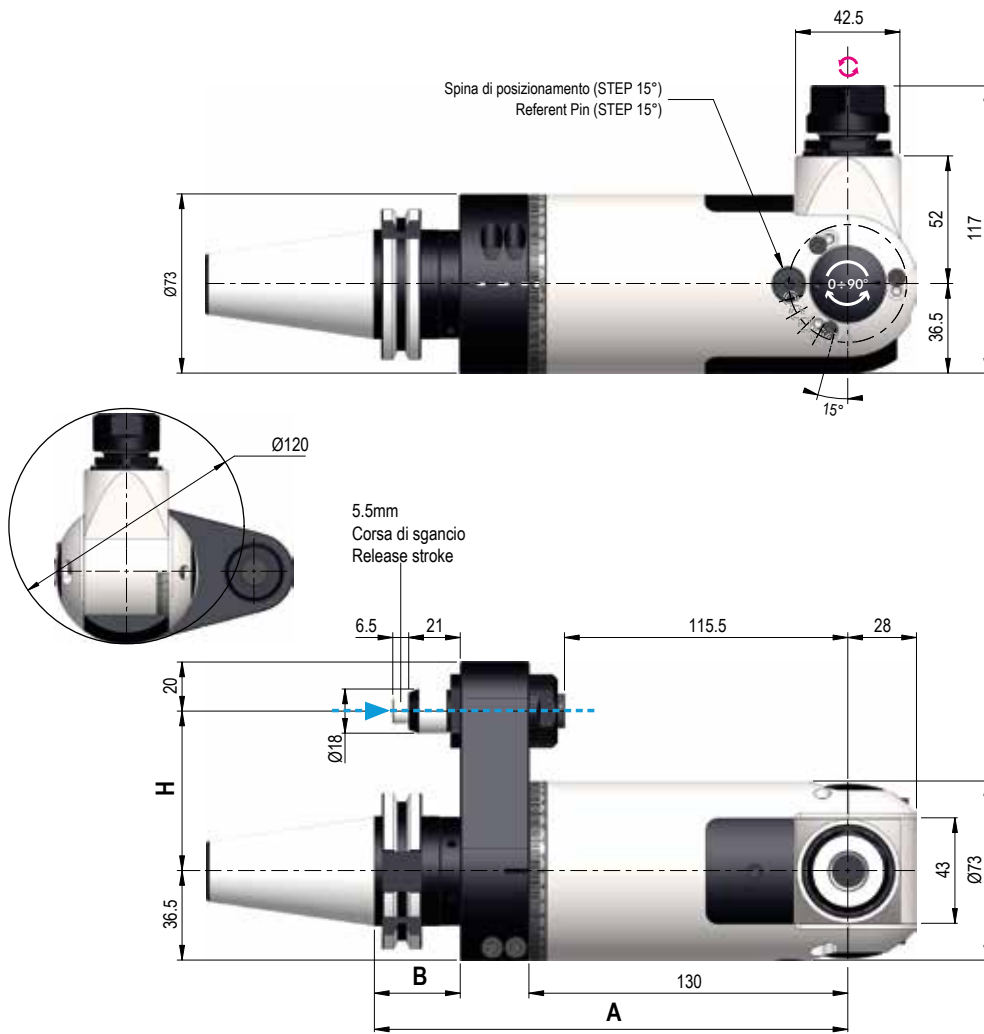
optional



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles

optional



GMU-13L

TYPE 0

Code:

9.GMU.13L00

Price:



Dati tecnici - Technical data

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



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

Coni Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623		
	40	50	40	50	40	50	63	80	100	C5	C6	C8
Grandezza -Size												
Prezzo EXTRA Price €	std		std		std		opt.	opt.	opt.	optional		
H												
Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		80
Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	193		193		188	193	199	200	203	196		198
B	35		35		30	35	41	42	45	38		40

Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



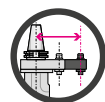
Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

8.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

optional



USCITA
OUTPUT

Weldon Max Ø20

optional



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles

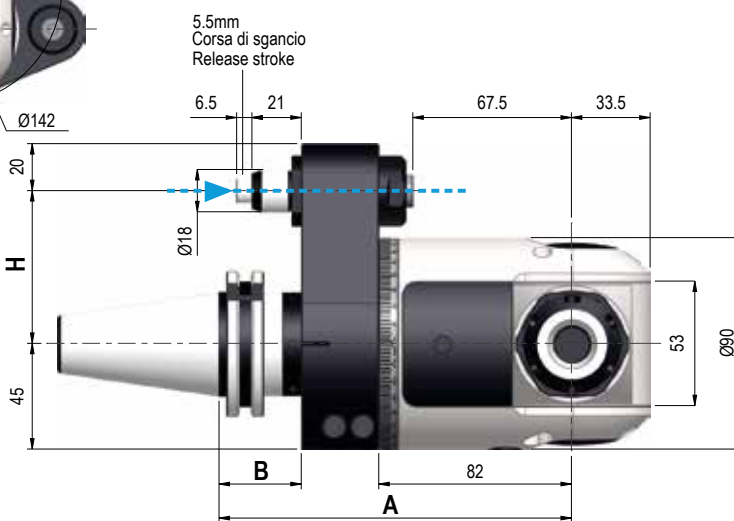
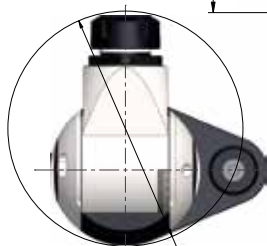
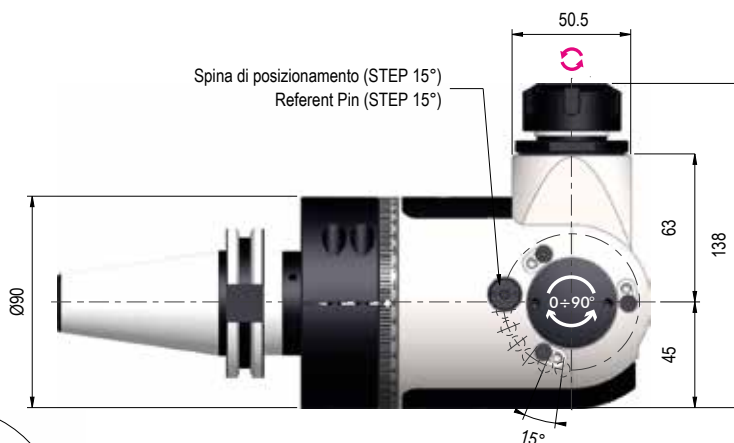
optional

GMU-16

TYPE 1

Code: **9.GMU.16000**

Price:



Dati tecnici - Technical data

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



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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

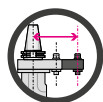
PACK & WEIGHT: Max.12,5 Kg



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

optional



USCITA
OUTPUT

Weldon Max Ø 16

optional



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles

optional

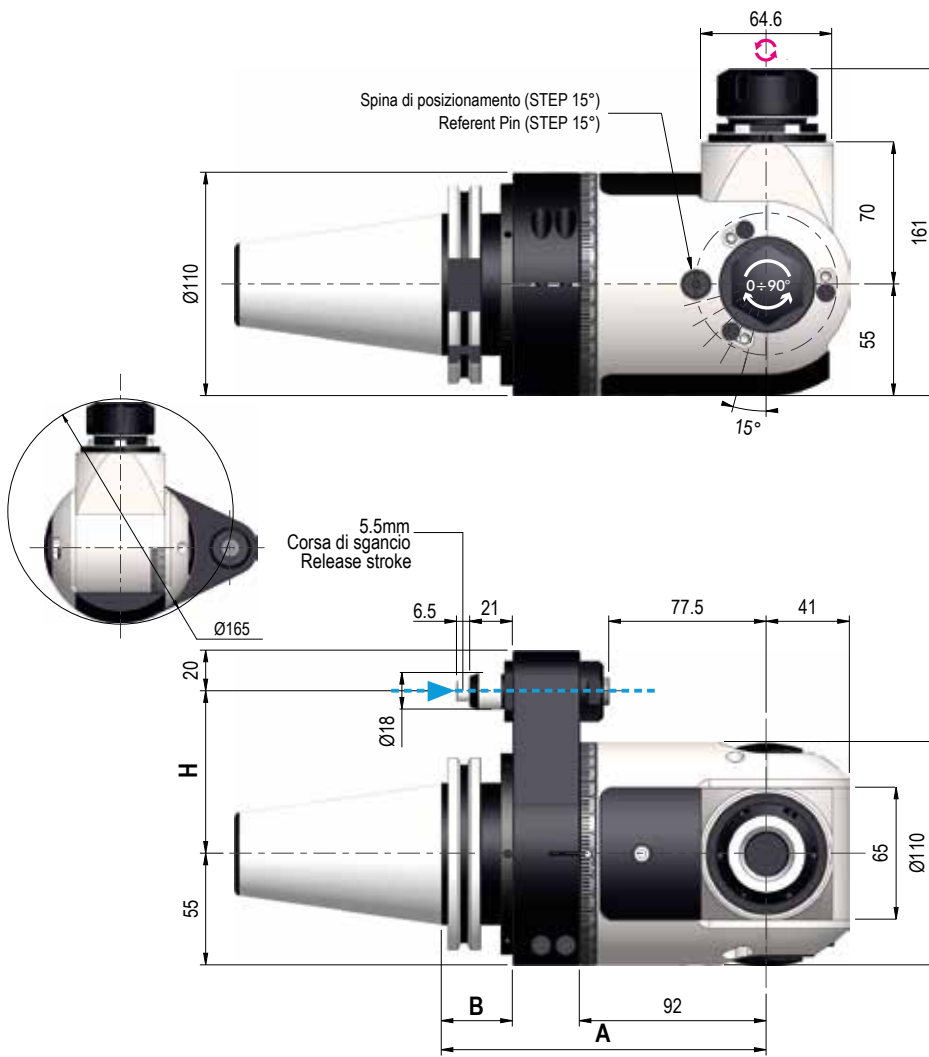
GMU-20

TYPE 2

Code:

9.GMU.20000

Price:



Dati tecnici - Technical data

- Ratio 1:1
- Kg 13
- Rpm 4.000
- Ø 20
- N 715
- M 16
- Nm 32
- ER-32 Ø2/20



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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

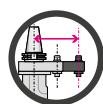
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

optional



USCITA
OUTPUT

Weldon Max Ø20

optional



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles

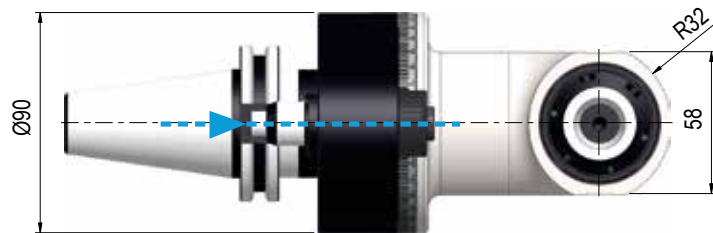
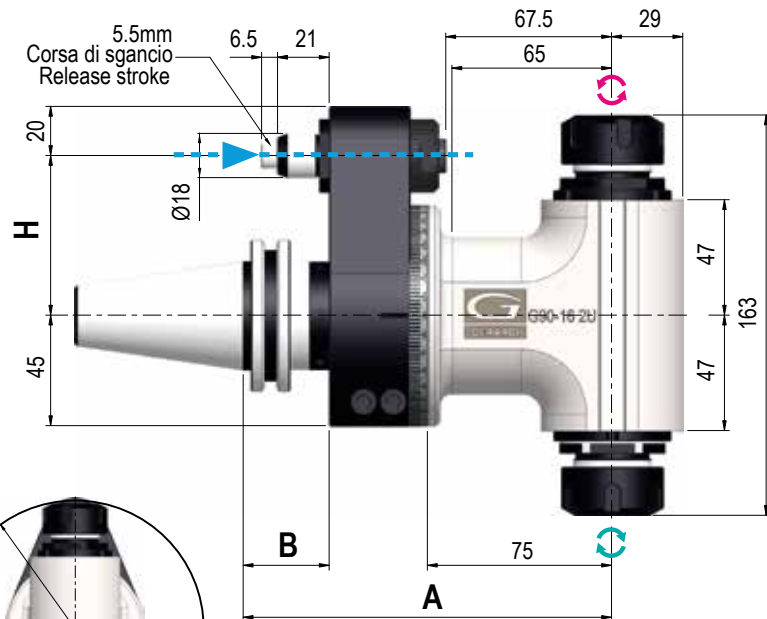
optional

G90-16-2U

TYPE 1

Code: 9.G90.162U0

Price:



Dati tecnici - Technical data

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

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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

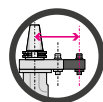
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

8.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

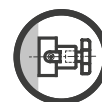
optional



USCITA
OUTPUT

Weldon Max Ø16 (X2)

optional



USCITA
OUTPUT

Portafresa
Toolholder Ø16 (X2)

optional

G90-16L-2U

TYPE 1

Code:

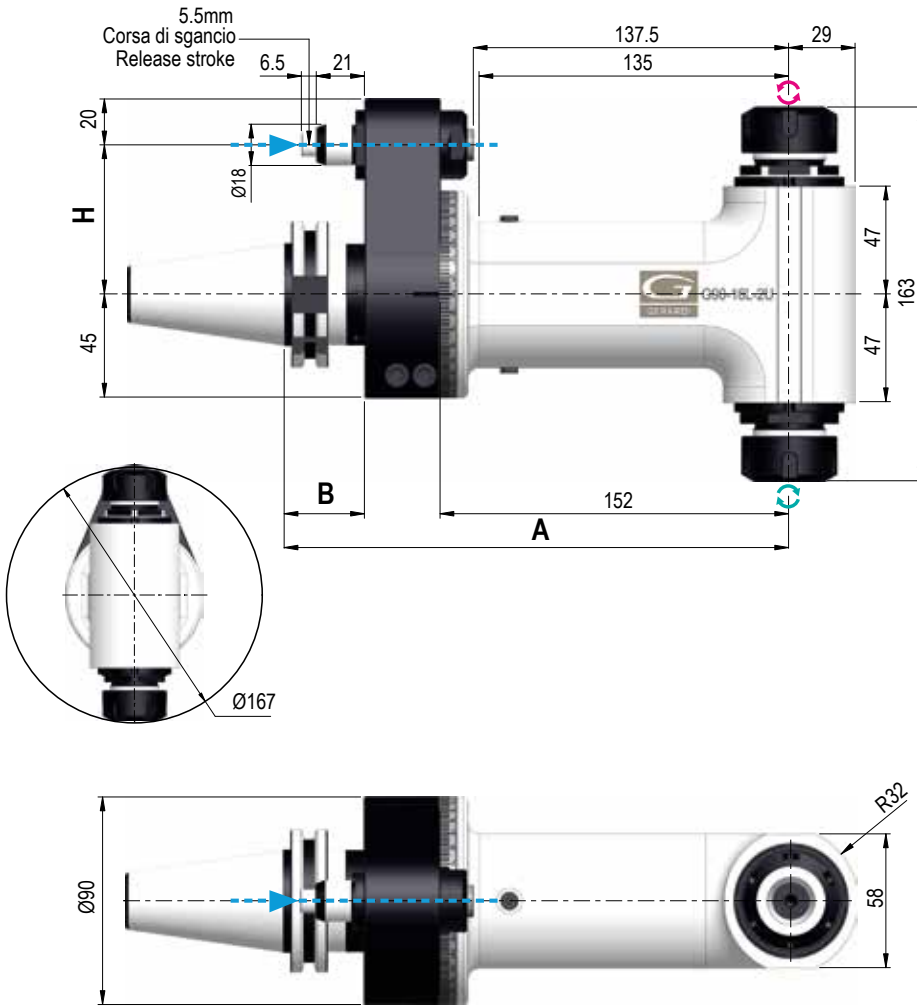
9.G90.16L2U0

Price:



Dati tecnici - Technical data

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



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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

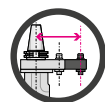
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

8.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

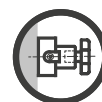
optional



USCITA
OUTPUT

Weldon Max Ø16 (X2)

optional



USCITA
OUTPUT

Portafresa
Toolholder Ø16 (X2)

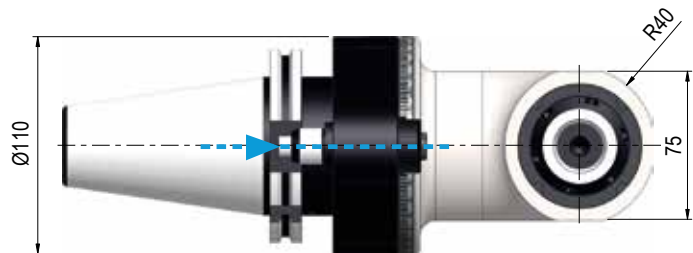
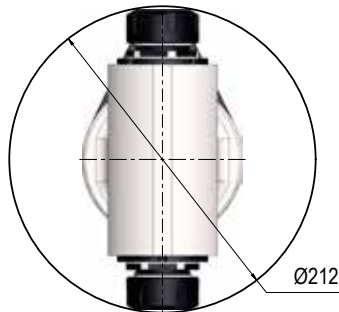
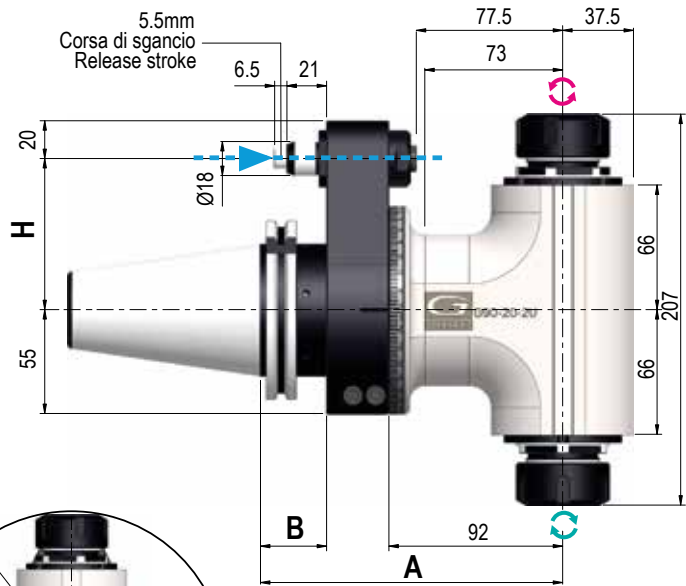
optional

G90-20-2U

TYPE 2

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

Price:



Dati tecnici - Technical data

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

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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

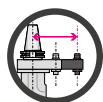
IMBALLO & PESO
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

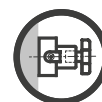
optional



USCITA
OUTPUT

Weldon Max Ø20 (X2)

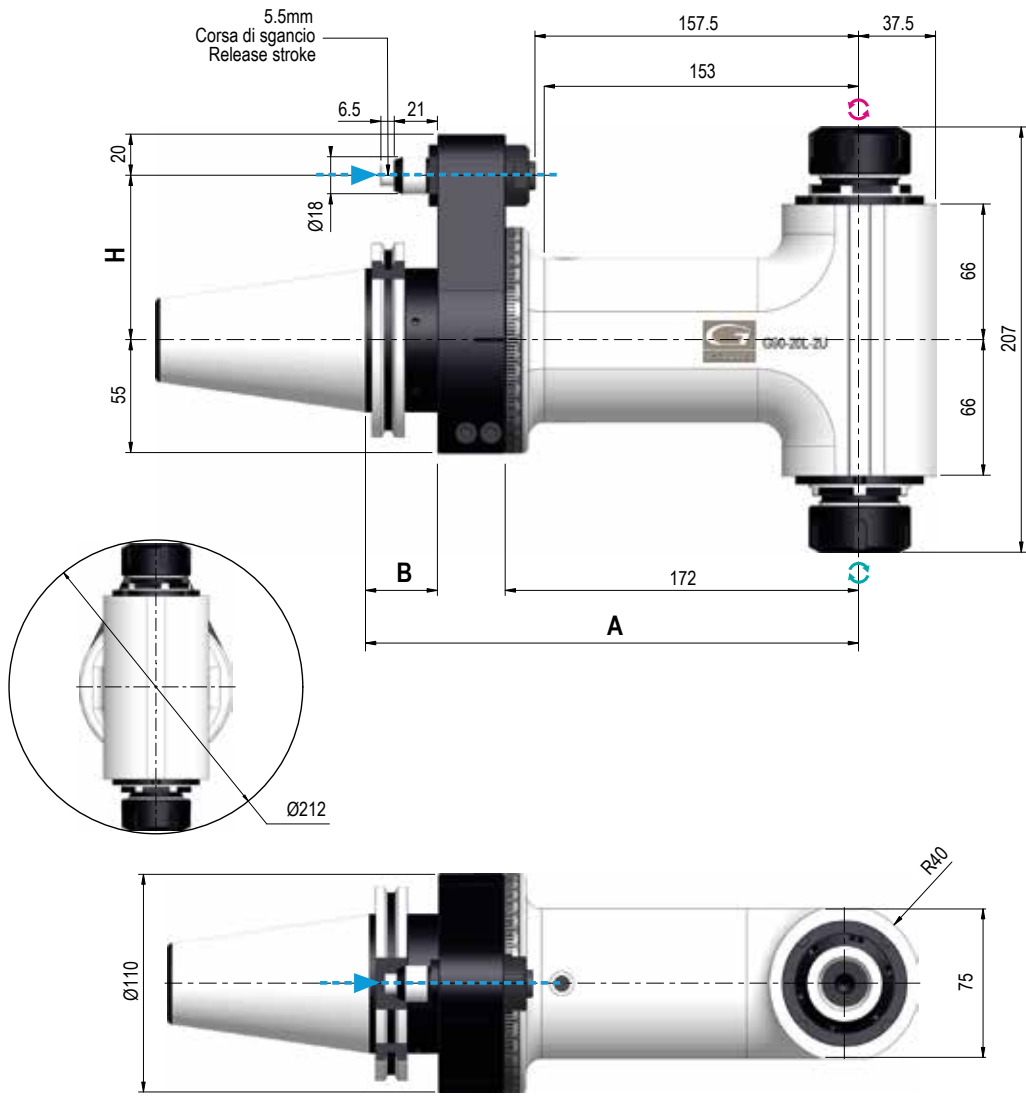
optional



USCITA
OUTPUT

Portafresa
Toolholder Ø27 (X2)

optional



G90-20L-2U

TYPE 2

Code:

9.G90.20L2U0

Price:



Dati tecnici - Technical data



Ratio
1:1



Kg 15,5



Rpm
4.000



Ø 20



N 1.250



M 16



Nm 40



ER-32
Ø2/20



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

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

Dotazione Standard Standard Equipment

Opzioni - Options

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



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional

INTERASSE SPECIALE
SPECIAL PITCH

optional

USCITA
OUTPUT

Weldon Max Ø20 (X2)

optional

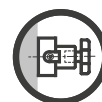
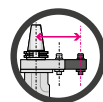
USCITA
OUTPUT

Portafresa
Toolholder Ø27 (X2)

optional

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



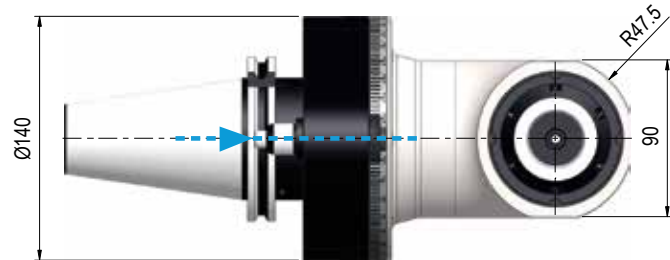
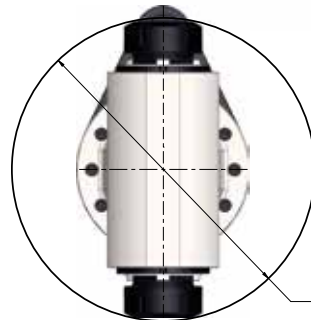
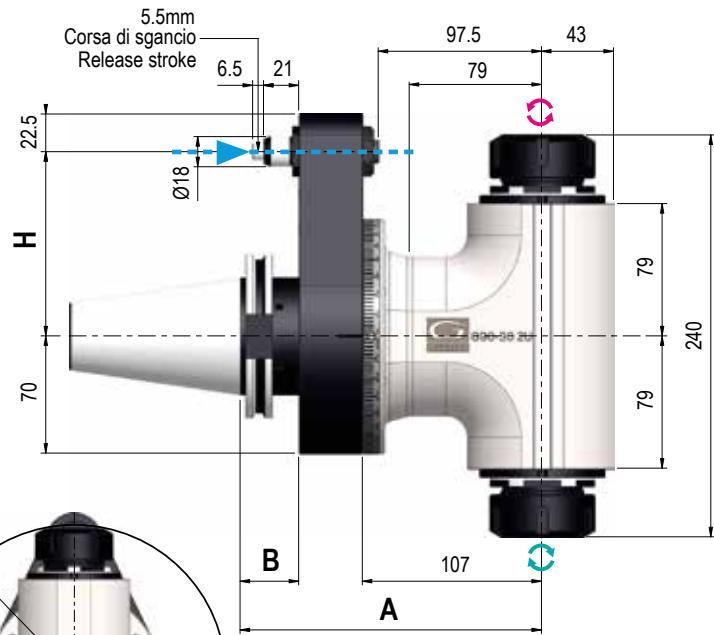
G90-30-2U

TYPE 3

Code: 9.G90.302U0

Price:

NEW



Dati tecnici - Technical data

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

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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

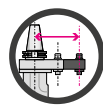
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

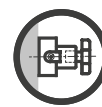
optional



USCITA
OUTPUT

Weldon Max Ø25 (X2)

optional



USCITA
OUTPUT

Portafresa
Toolholder Ø27 (X2)

optional

G90-30L-2U

TYPE 3

Code:

9.G90.30L2U0

Price:



Dati tecnici - Technical data



Ratio
1:1



Kg 23



Rpm
4.000



Ø 30



N 1.750



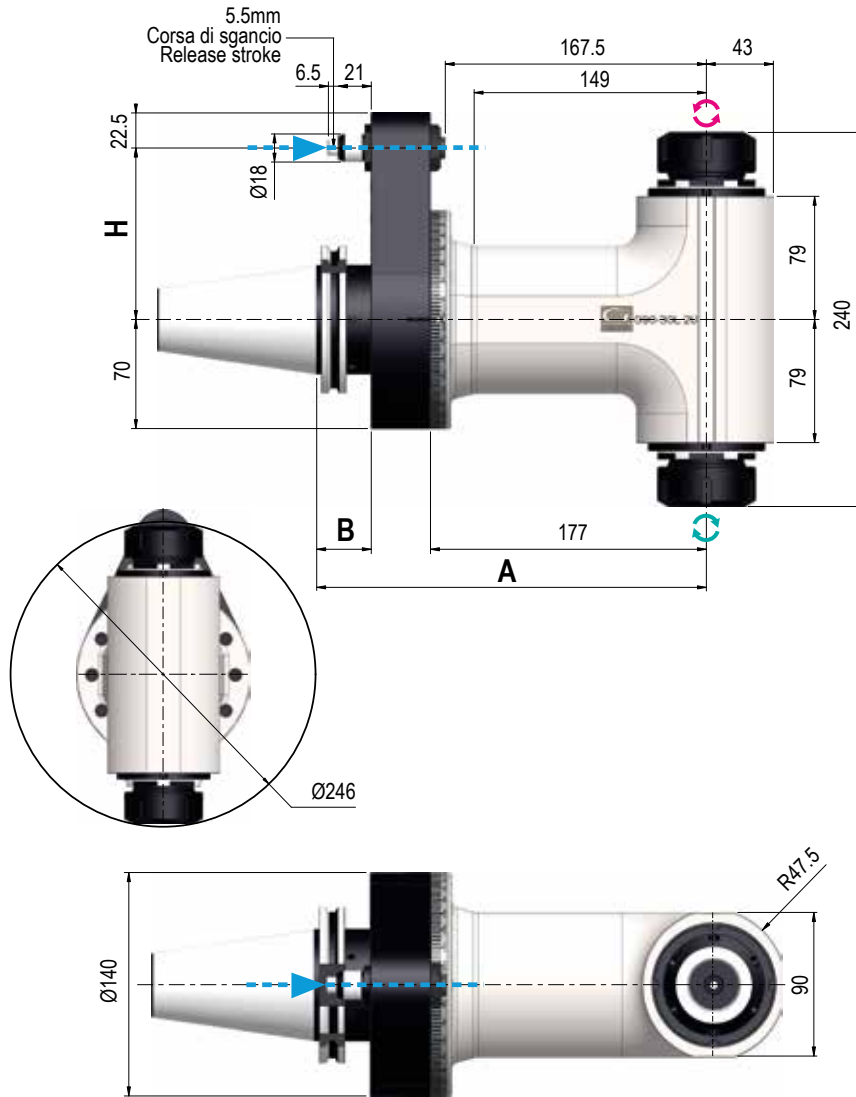
M 20



Nm 75



ER-40
Ø3/30



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

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623	
Grandezza - Size	50	50	50	80	100	C8
Prezzo EXTRA Price €	std	std	std	optional	optional	optional
H Standard Ø18	110	110	110	110	110	110
A	250	250	256	257	260	255
B	35	35	41	42	45	40

Dotazione Standard Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

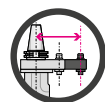
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional



INTERASSE SPECIALE
SPECIAL PITCH

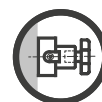
optional



USCITA
OUTPUT

Weldon Max Ø25 (X2)

optional



USCITA
OUTPUT

Portafresa
Toolholder Ø27 (X2)

optional

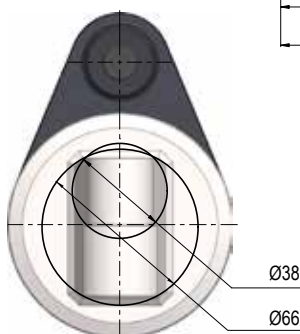
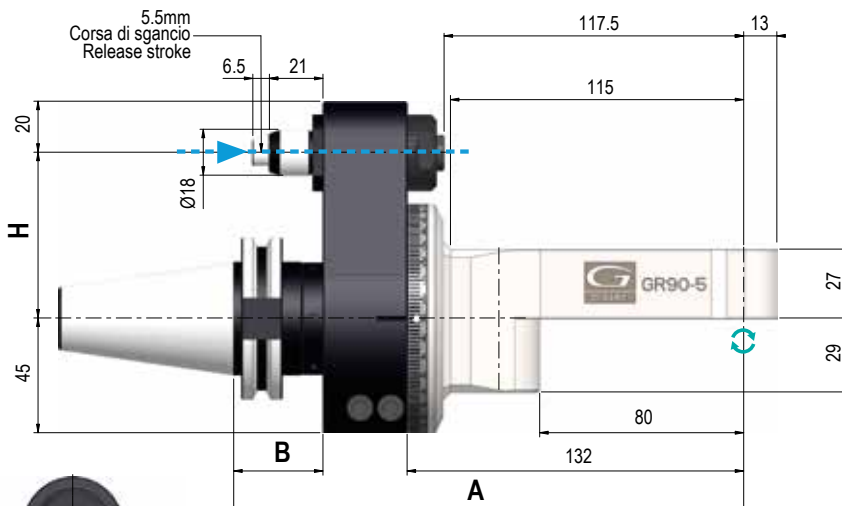
GR90-5

TYPE 1

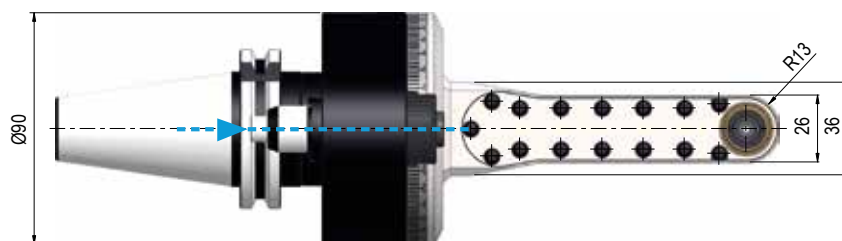
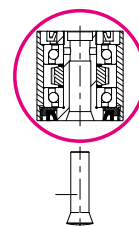
Code: **9.GR9.05000**

Price:

NEW



Pinza / Collet
SCHAUBLIN P6



Dati tecnici - Technical data



Ratio
1:1



Kg 4,7



Rpm
8.000



Ø 4,5



N 140



M 4



Nm 9



SCHAUBLIN P6
Ø0.3/5



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

Coni Shanks	SK DIN 69871			CAT ANSI B5.50			BT MAS 403			HSK DIN 69893			C. ISO 26623		
	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Grandezza - Size	30	40	50	40	50	30	40	50	63	80	100	C5	C6	C8	
Prezzo EXTRA Price €	90	std	std	std	std	90	std	std	opt.	opt.	opt.	optional			
Standard	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80	65 / 80		80
H Optional 110 EXTRA Price €	optional			optional			optional			optional			optional		
A	200			200			195	200	206	207	210	203		205	
B	35			35			30	35	41	42	45	38		40	

Dotazione Standard
Standard Equipment

Opzioni - Options

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

INTERASSE SPECIALE
SPECIAL PITCH

USCITA
OUTPUT

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Schaublin



optional

Page 1.90

GR90-10

TYPE 1

Code:

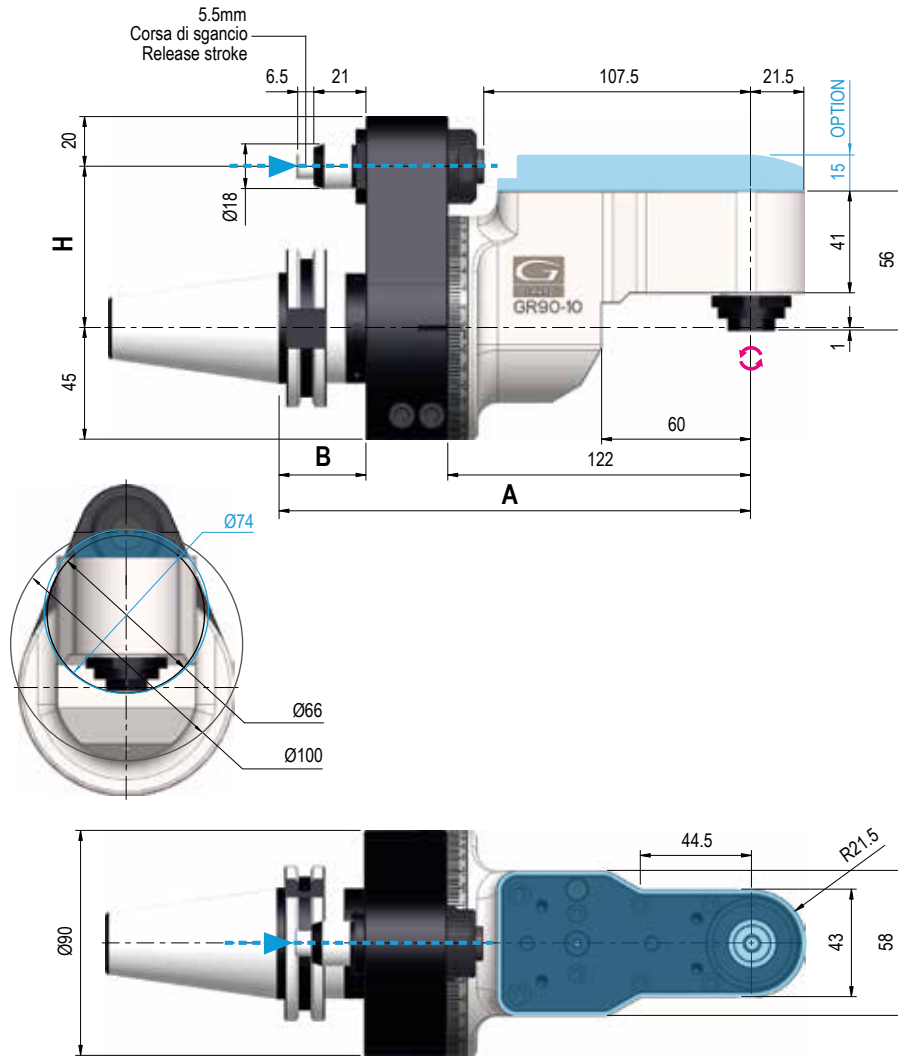
9.GR9.10000

Price:



Dati tecnici - Technical data

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



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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

8.000 Rpm

optional



INTRASSE SPECIAL
SPECIAL PITCH

optional



USCITA
OUTPUT

Weldon Max Ø10

optional



REFR. DAL CONO
COOLANT THROUGH SHANK

DRY RUNNING NOT POSSIBLE

Max 70 bar

optional



USCITA
OUTPUT

Toolholder Ø13

optional

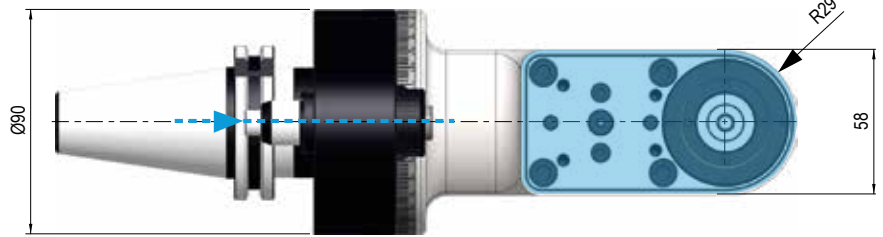
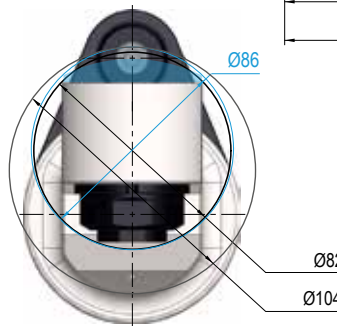
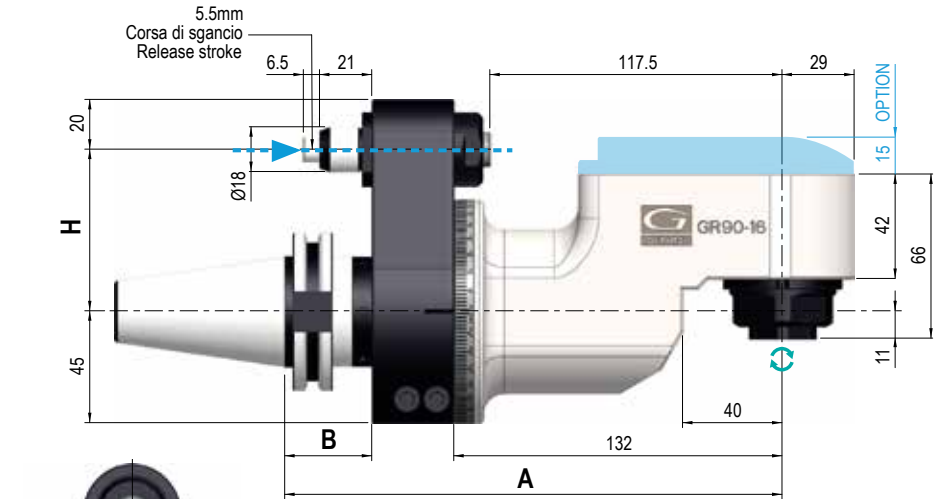
GR90-16

TYPE 1

Code:

9.GR9.16000

Price:



Dati tecnici - Technical data

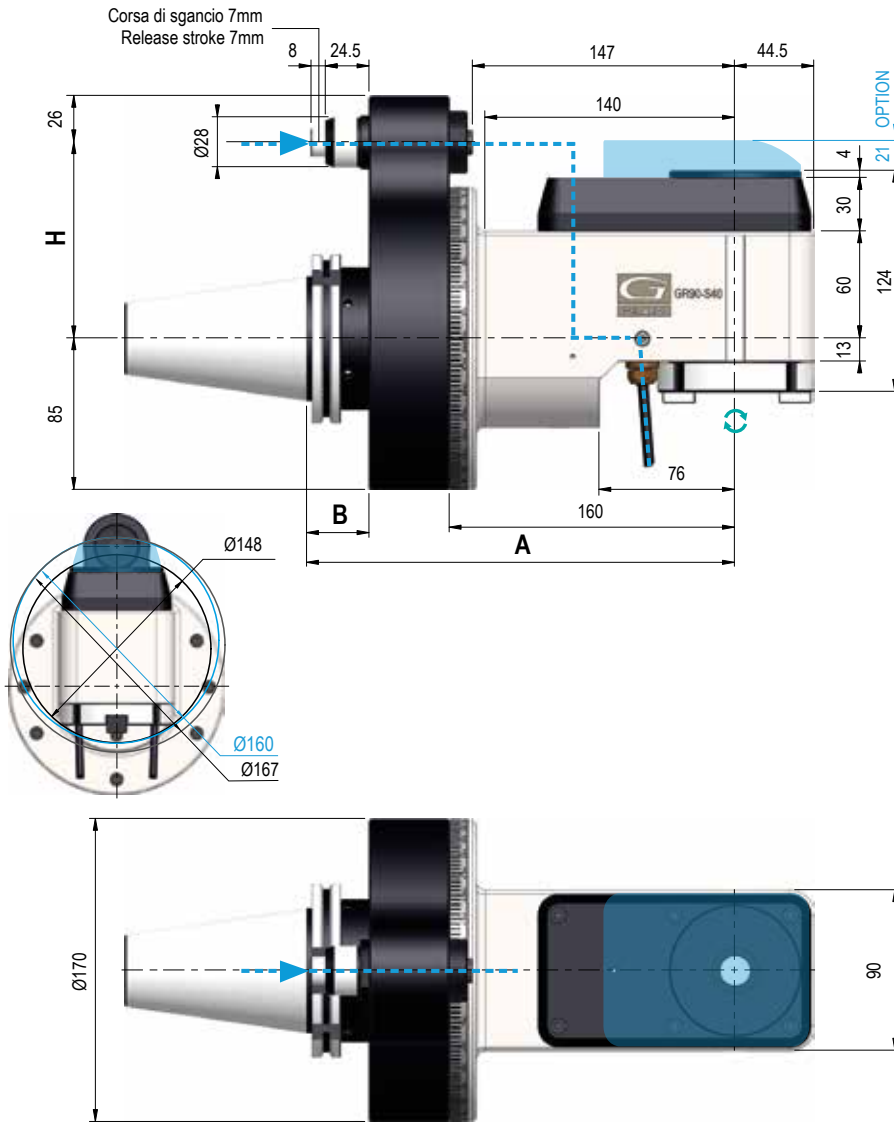
Ratio 1:1	Kg 6
Rpm 4.000	Ø 16
N 620	M 12
Nm 20	ER-25 Ø1/16

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

Coni Shanks	SK DIN 69871		CAT ANSI B5.50		BT MAS 403		HSK DIN 69893			C. ISO 26623		
Grandezza - Size	40	50	40	50	40	50	63	80	100	C5	C6	C8
Prezzo EXTRA Price €	std	std	std	std	std	std	opt.	opt.	opt.	optional		
H Standard	65 / 80	80	65 / 80	80	65 / 80	80	65 / 80		80	65 / 80		
Optional 110 EXTRA Price €	optional		optional		optional		optional			optional		
A	200		200		200		206		207		210	
B	35		35		35		41		42		45	

DOTAZIONE STANDARD STANDARD EQUIPMENT | **OPZIONI - OPTIONS**

Valigetta - Stop-block - Ghiera ER - Chiavi di servizio - Tubetto di grasso - Libro istruzioni Special bag - Stop-block - ER nut - Wrenches - Grease tube - Instruction book IMBALLO & PESO: PACK & WEIGHT: Max. Kg 	ALTA VELOCITÀ HIGH SPEED 8.000 Rpm optional	REF. DAL CONO COOLANT THROUGH SHANK DRY RUNNING NOT POSSIBLE Max 70 bar optional	USCITA OUTPUT Portafresa Toolholder Ø16 optional
	INTERASSE SPECIALE SPECIAL PITCH optional	USCITA OUTPUT Weldon Max Ø 16 optional	USCITA OUTPUT HSK 32 std



GR90-S40

TYPE 4

Code:

9.GR9.S4000

Price:



Dati tecnici - Technical data

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



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

Coni Shanks	SK DIN 69871	CAT ANSI B5.50	BT MAS 403	HSK DIN 69893	C. ISO 26623
Grandezza - Size	50	50	50	100	C8
Prezzo EXTRA Price €	std	std	std	optional	optional
H Standard Ø28	110	110	110	110	110
A	240	240	246	250	245
B	35	35	41	45	40

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

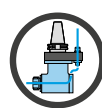
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

5.000 Rpm

optional



REFR. DAL PERNO
COOLANT PIN THROUGH

DRY RUNNING POSSIBLE

Max 10 bar

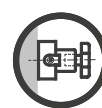
optional



USCITA OUTPUT
Weldon

Max Ø26

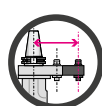
optional



USCITA OUTPUT
Portafresa

Toolholder Ø32

optional



INTERASSE SPECIALE
SPECIAL PITCH

optional



REFR. DAL CONO
COOLANT THROUGH SHANK

DRY RUNNING NOT POSSIBLE

Max 70 bar

optional



USCITA OUTPUT
HSK 63

optional



USCITA OUTPUT
C4 C5

opt. opt.

SERIE MTC - CAMBIO UTENSILE MANUALE

MTC SERIES - MANUAL TOOL CHANGE

- Serie G90
- G90 Series

series
STD 90°

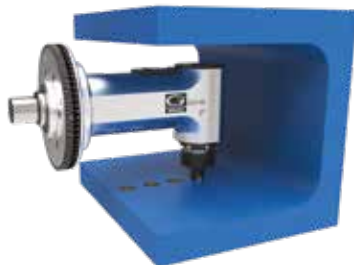


La serie ideale per fresature, forature e maschiature a $\pm 90^\circ$

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

- Serie G90L
- G90L Series

series
STD 90°



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

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

- Serie GMU
- GMU Series

series
GMU



La serie di teste angolari con angolazione regolabile da 0 a 90° .

Angle heads series with adjustable angle from 0 to 90° .

- Serie GMU
- GMU Series

series
GMU



La serie di teste angolari con angolazione regolabile da 0 a 360° .

Angle heads series with adjustable angle from 0 to 360° .

- Serie G90 2U
- G90 2U Series

series
DOUB2E



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

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

INGRANAGGI GEARS



Ingranaggi Gleason con evolvente rettificato: massime performances e minori vibrazioni

Gleason ground spiral bevel gears maximum performances and minimum vibration



CUSCINETTI - BEARINGS

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

Angular contact preloaded ball bearings of precision class ABEC 9

DESIGN

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

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



Anello graduato
Graduated ring

Flangia universale
Universal flange

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

USCITE OUTPUTS:

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

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

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

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

PROLUNGHE MTC

MTC EXTENSIONS



Prolunghe MTC

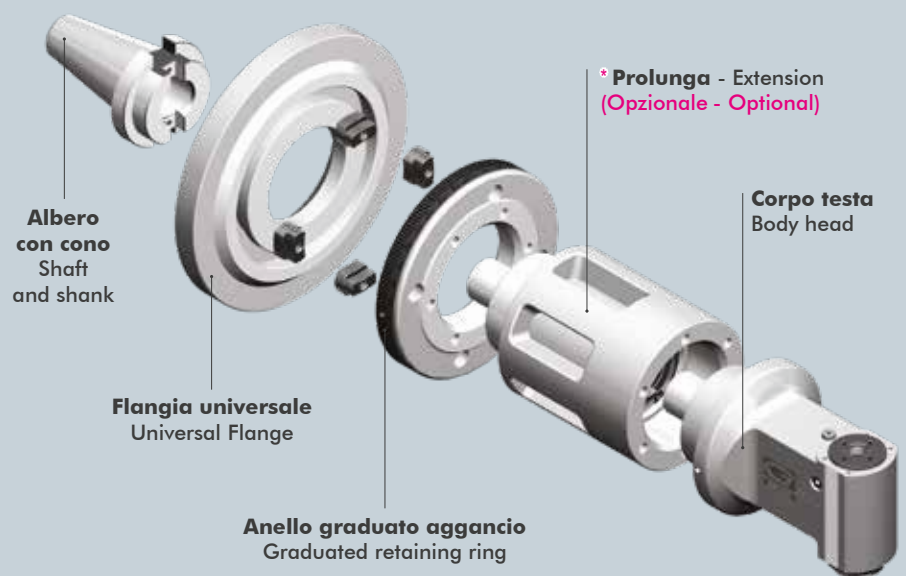
pag 1.87

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

MTC Extension

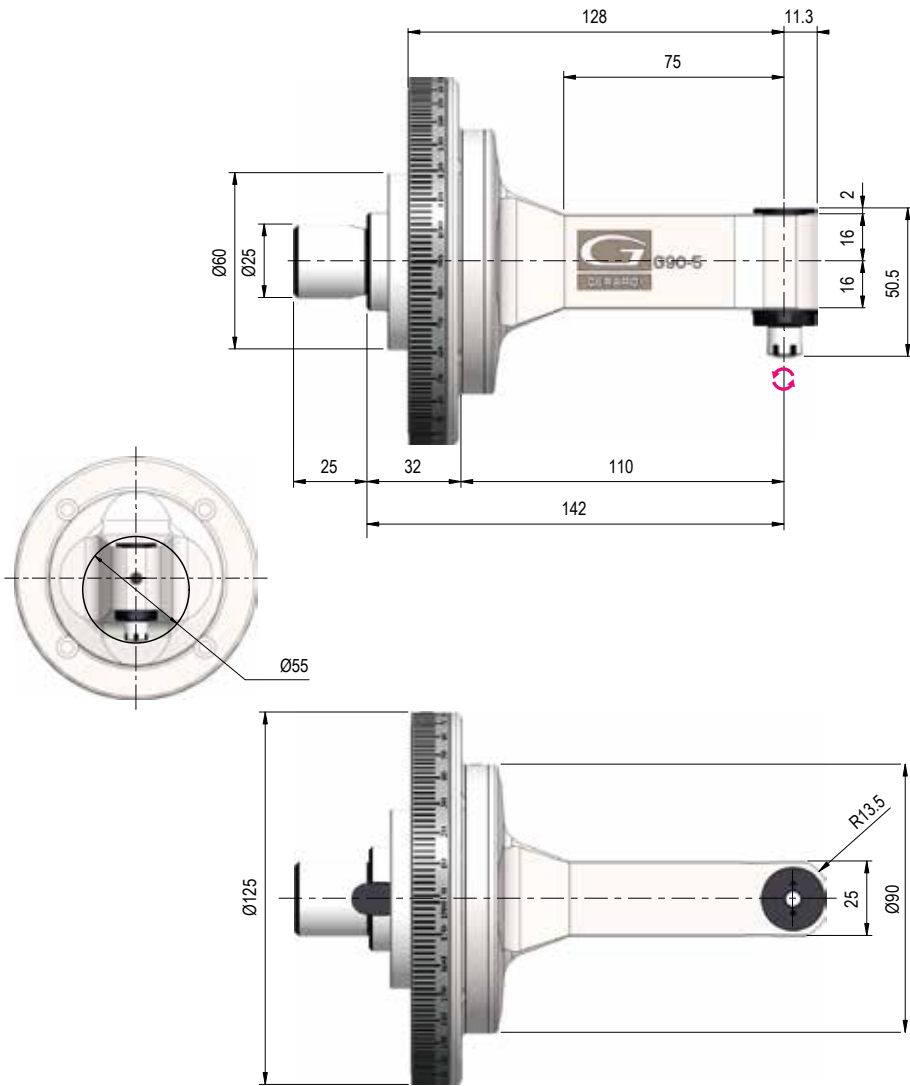
pag 1.87

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



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

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



G90-5

TYPE 1

Code:

9.G90.05001

Price:



Dati tecnici - Technical data

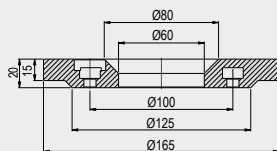
- Ratio 1:1
- Kg 4
- Rpm 10.000
- Ø 5
- N 60
- M 4
- Nm 4
- ER-8 Ø0,5/5



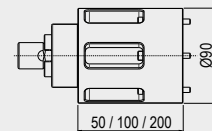
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO:

PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

10.000 Rpm

Included !!



USCITA
OUTPUT

Weldon Max Ø6

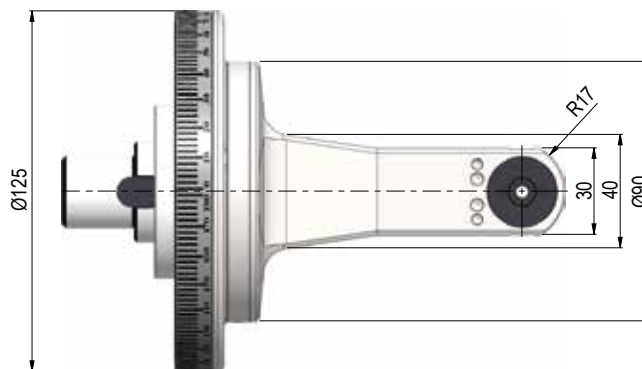
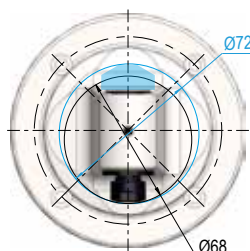
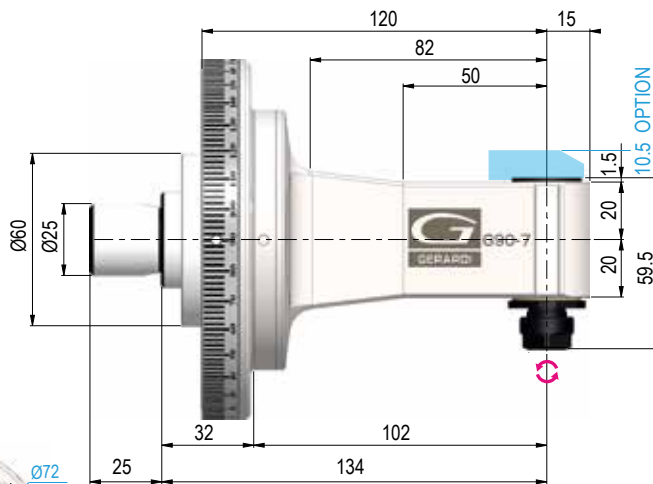
optional

G90-7

TYPE 1

Code: 9.G90.07001

Price:



Dati tecnici - Technical data

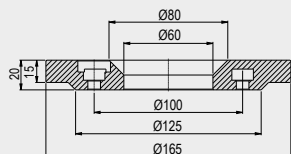
	Ratio 1:1		Kg 3,7
	Rpm 10.000		Ø 7
	N 120		M 6
	Nm 5		ER-11 Ø17



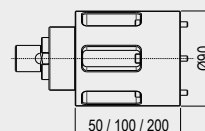
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale Universal Flange TIPO - TYPE 1



Prolunga Extension TIPO - TYPE 1



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

10.000 Rpm

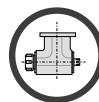
Included !!



USCITA
OUTPUT

Weldon Max Ø8

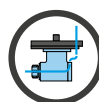
optional



DOPPIA USCITA
DOUBLE OUTPUT

ER11 - ER8 M

optional



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

Max 10 bar
optional

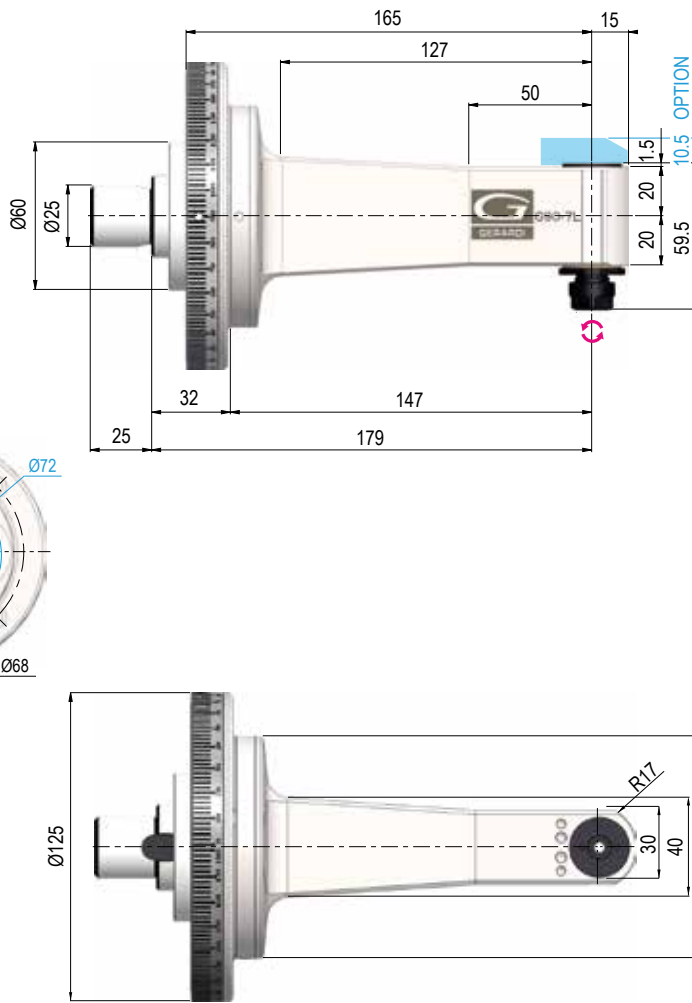
G90-7L

TYPE 1

Code:

9.G90.07L01

Price:



Dati tecnici - Technical data

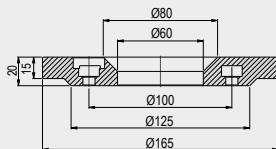
- Ratio 1:1
- Kg 4
- Rpm 10.000
- Ø 7
- N 120
- M 6
- Nm 5
- ER-11 Ø17



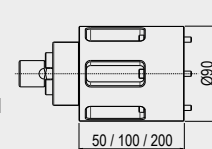
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

10.000 Rpm

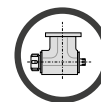
Included !!



USCITA
OUTPUT

Weldon Max Ø8

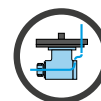
optional



DOPPIA USCITA
DOUBLE OUTPUT

ER11 - ER8 M

optional



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

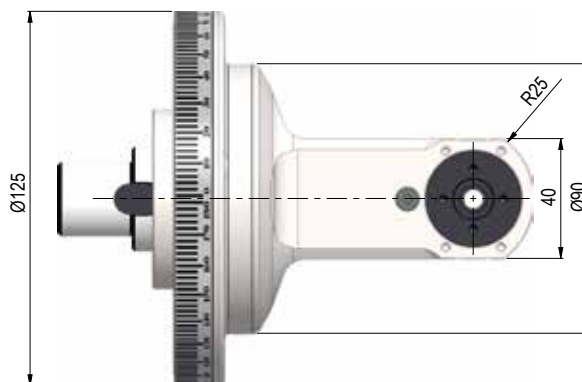
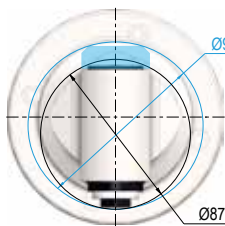
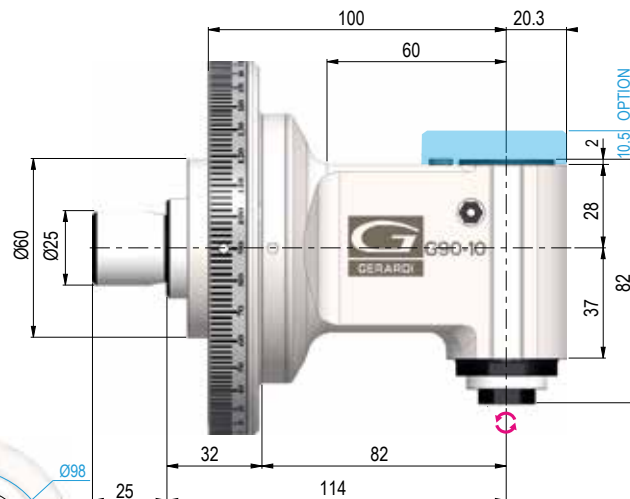
Max 10 bar
optional

G90-10

TYPE 1

Code: 9.G90.10001

Price:



Dati tecnici - Technical data

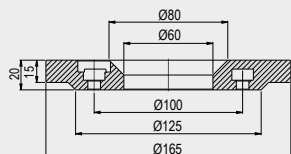
	Ratio 1:1		Kg 4,3
	Rpm 10.000		Ø 10
	N 250		M 8
	Nm 10		ER-16 Ø1/10



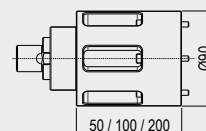
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale Universal Flange TIPO - TYPE 1



Prolunga Extension TIPO - TYPE 1



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max.9,5 Kg



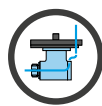
Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

10.000 Rpm

Included !!



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING
DISTRIBUTOR

DRY RUNNING POSSIBLE
Max 10 bar

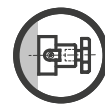
optional



USCITA
OUTPUT

Weldon Max Ø10

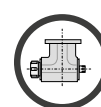
optional



USCITA
OUTPUT

Portafresa - Toolholder
Ø13

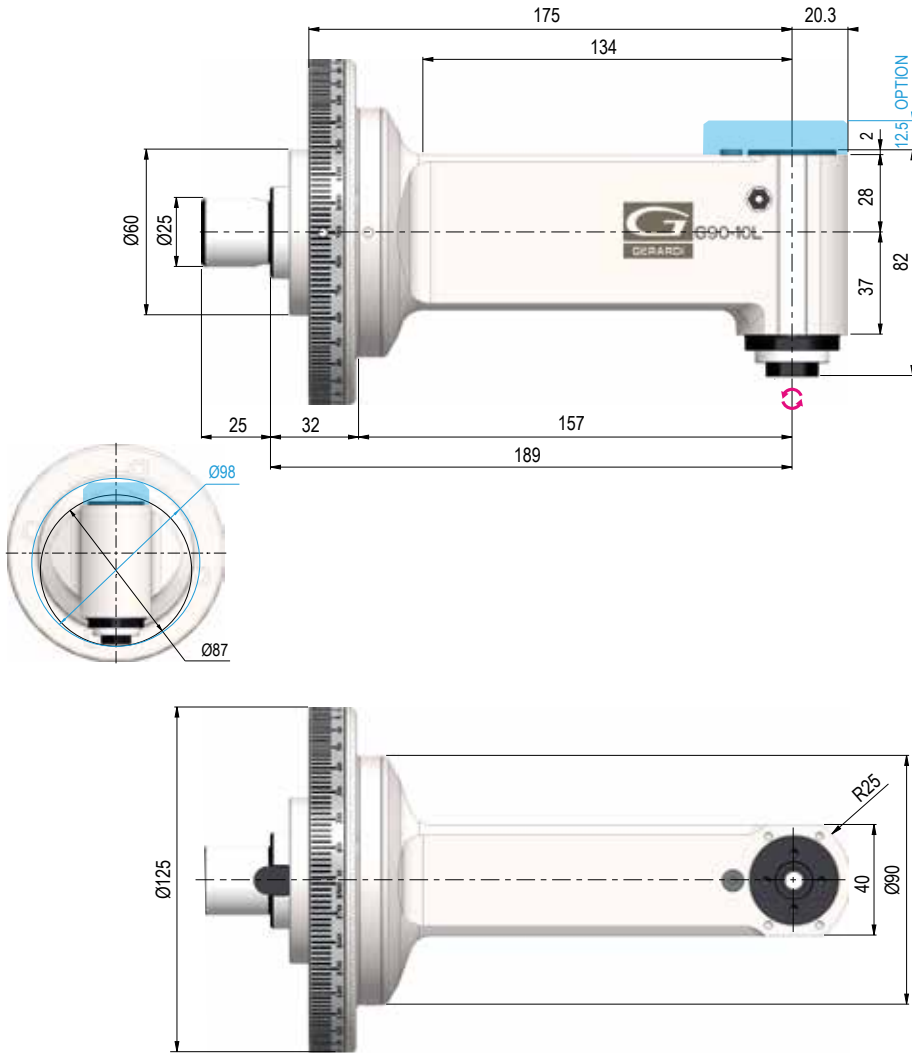
optional



DOPPIA USCITA
DOUBLE OUTPUT

ER 16 / ER 11 M

optional



G90-10L

TYPE 1

Code:

9.G90.10L01

Price:



Dati tecnici - Technical data

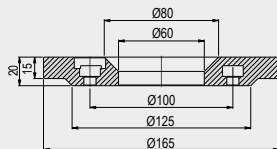
	Ratio 1:1		Kg 6
	Rpm 10.000		ER 16
	N 250		M 8
	Nm 10		ER-16 Ø1/10



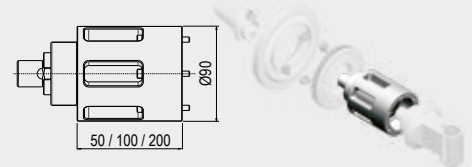
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



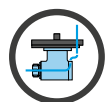
Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

10.000 Rpm

Included !!



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING
DISTRIBUTOR

DRY RUNNING POSSIBLE | DRY RUNNING NOT POSSIBLE
Max 10 bar | Max 40 bar

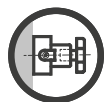
optional



USCITA
OUTPUT

Weldon Max Ø10

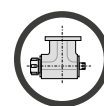
optional



USCITA
OUTPUT

Portafresa - Toolholder
Ø13

optional



DOPPIA USCITA
DOUBLE OUTPUT

ER 16 / ER 11 M

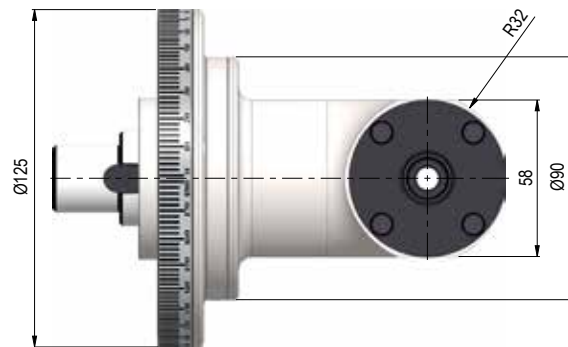
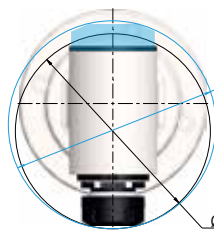
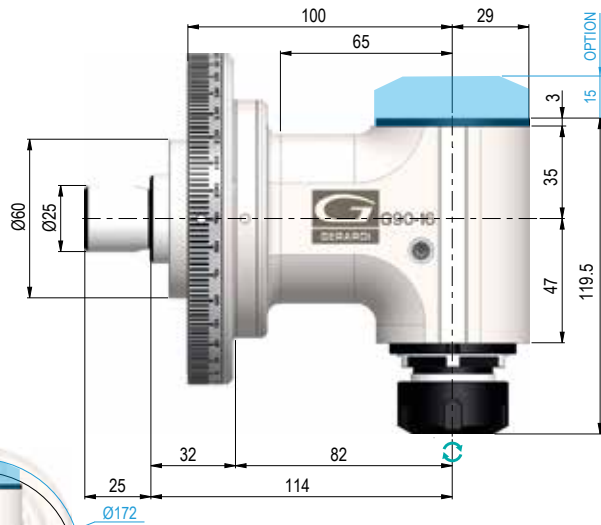
optional

G90-16

TYPE 1

Code: 9.G90.16001

Price:



Dati tecnici - Technical data

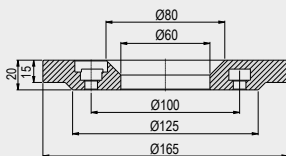
	Ratio 1:1		Kg 4,5
	Rpm 8.000		Ø 16
	N 510		M 12
	Nm 24		ER-25 Ø1/16



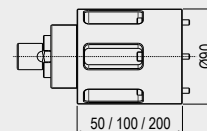
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

Flangia Universale Universal Flange TIPO - TYPE 1



Prolunga Extension TIPO - TYPE 1



Dotazione Standard Standard Equipment

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

IMBALLO & PESO
PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED
8.000 Rpm

Included !!

REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING
DISTRIBUTOR

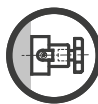
DRY RUNNING POSSIBLE
Max 10 bar

optional



USCITA OUTPUT
Weldon Max Ø16

optional



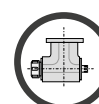
USCITA OUTPUT
Portafresa - Toolholder
Ø16

optional



USCITA OUTPUT
HSK 32

optional



DOPPIA USCITA
DOUBLE OUTPUT

ER 25 / ER 16 M

optional

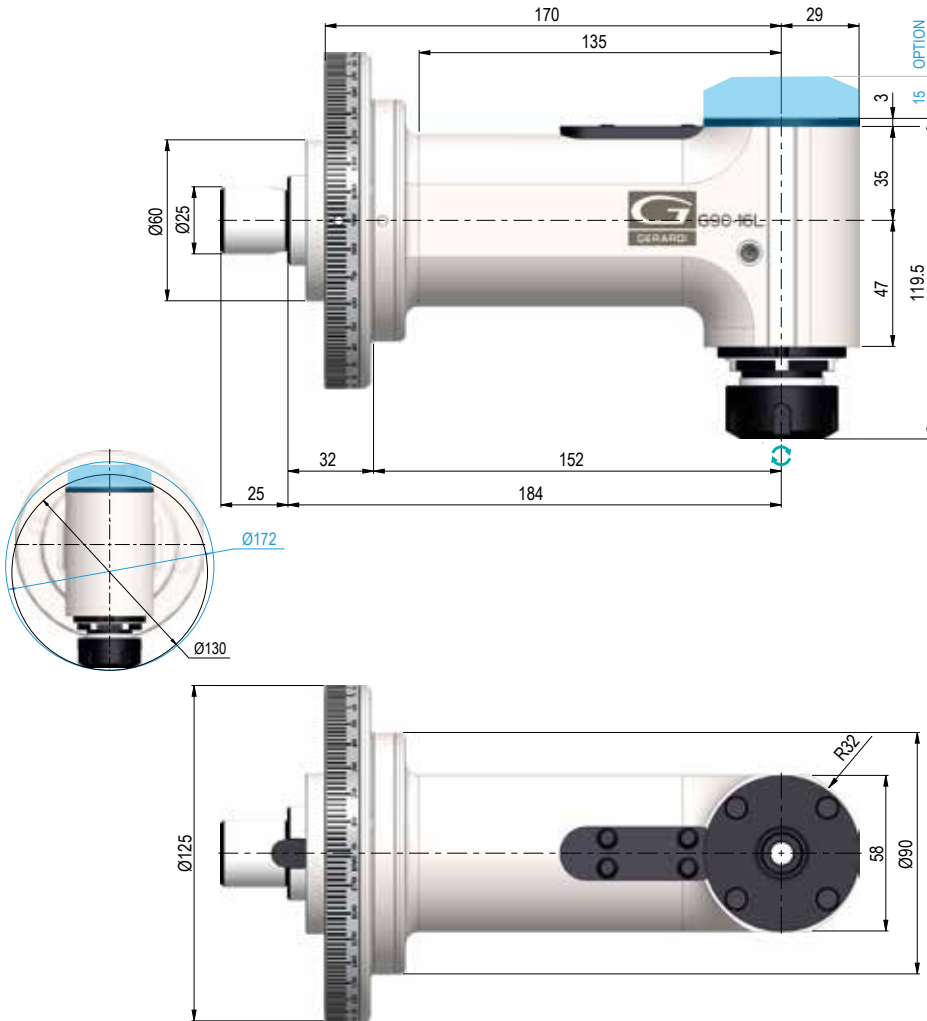
G90-16L

TYPE 1

Code:

9.G90.16L01

Price:



Dati tecnici - Technical data

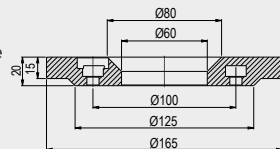
- Ratio 1:1
- Kg 6,1
- Rpm 8.000
- Ø 16
- N 510
- M 12
- Nm 24
- ER-25 Ø1/16



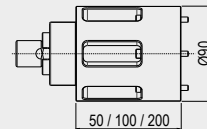
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



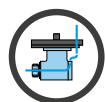
Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

8.000 Rpm

Included !!



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING
DISTRIBUTOR

DRY RUNNING POSSIBLE | **DRY RUNNING NO POSSIBLE**
Max 10 bar | Max 40 bar

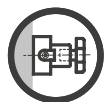
optional



USCITA OUTPUT

Weldon Max Ø16

optional



USCITA OUTPUT

Portafresa - Toolholder
Ø16

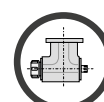
optional



USCITA OUTPUT

HSK 32

optional



DOPPIA USCITA
DOUBLE OUTPUT

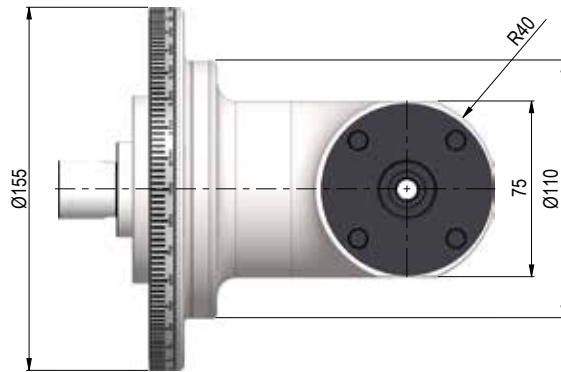
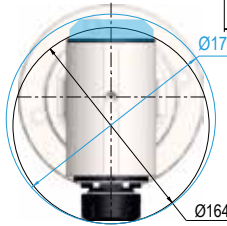
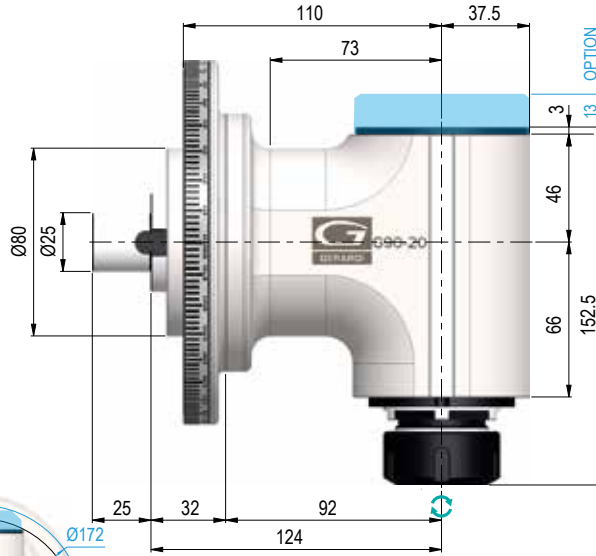
ER 25 / ER 16 M

optional

G90-20

TYPE 2

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



Dati tecnici - Technical data

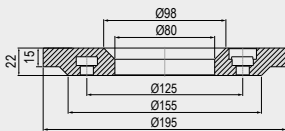
Ratio 1:1	Kg 10
Rpm 4.000	Ø 20
N 1.250	M 16
Nm 40	ER-32 Ø2/20



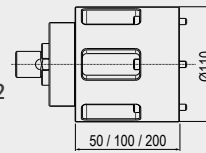
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 2



Prolunga
Extension
TIPO - TYPE 2



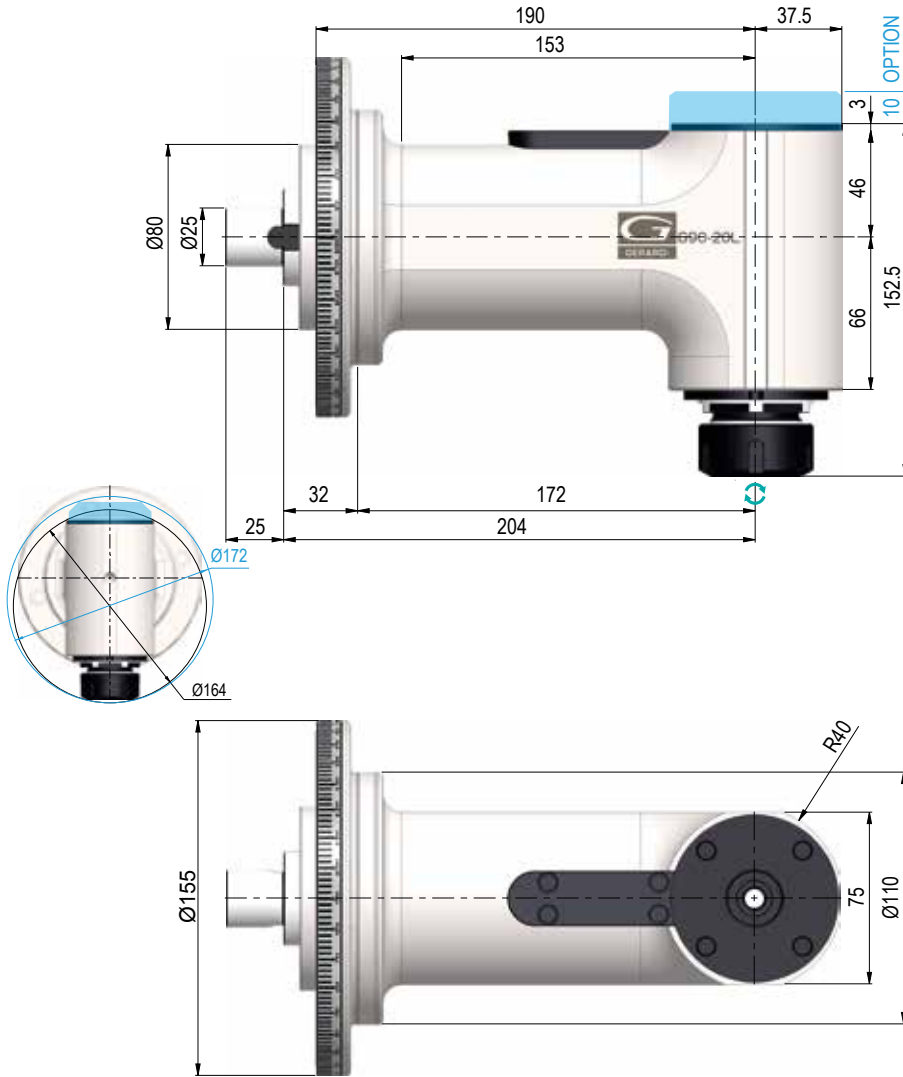
Dotazione Standard
Standard Equipment

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



Opzioni - Options

ALTA VELOCITÀ HIGH SPEED 6.000 Rpm optional	REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR DRY RUNNING POSSIBLE MAX 10bar optional	USCITA OUTPUT Weldon Max Ø20 optional	USCITA OUTPUT Portafresa Toolholder Ø22 optional	DOPPIA USCITA DOUBLE OUTPUT ER32 - ER20 M optional
USCITA OUTPUT C4 € 480	REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR DRY RUNNING NOT POSSIBLE MAX 40bar € 460	USCITA OUTPUT HSK 40 € 445	USCITA OUTPUT ISO/CAT/ BT 30 optional	



G90-20L

TYPE 2

Code:

9.G90.20L01

Price:



Dati tecnici - Technical data

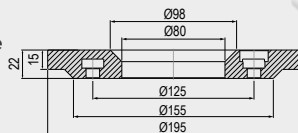
Ratio 1:1	Kg 12,2
Rpm 4.000	Ø 20
N 1.250	M 16
Nm 40	ER-32 Ø2/20



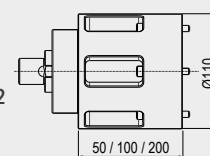
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 2



Prolunga
Extension
TIPO - TYPE 2



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options

ALTA VELOCITÀ
HIGH SPEED
6.000 Rpm
optional

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

USCITA OUTPUT
Weldon
Max Ø20
optional

USCITA OUTPUT
Portafresa
Toolholder Ø22
optional

DOPPIA USCITA
DOUBLE OUTPUT
ER32 - ER20 M
optional

USCITA OUTPUT
C4
optional

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

USCITA OUTPUT
HSK 40
optional

USCITA OUTPUT
ISO/CAT/
BT 30
optional

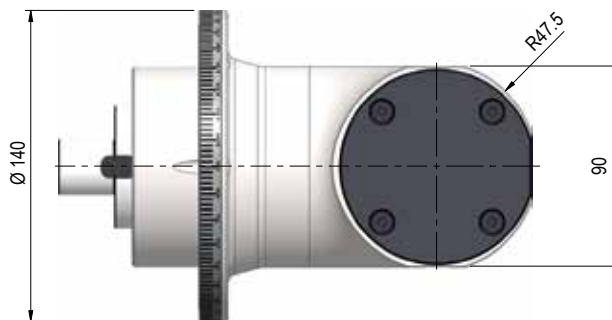
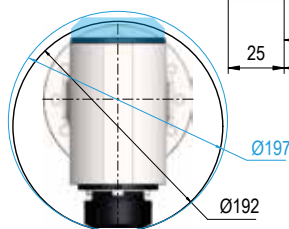
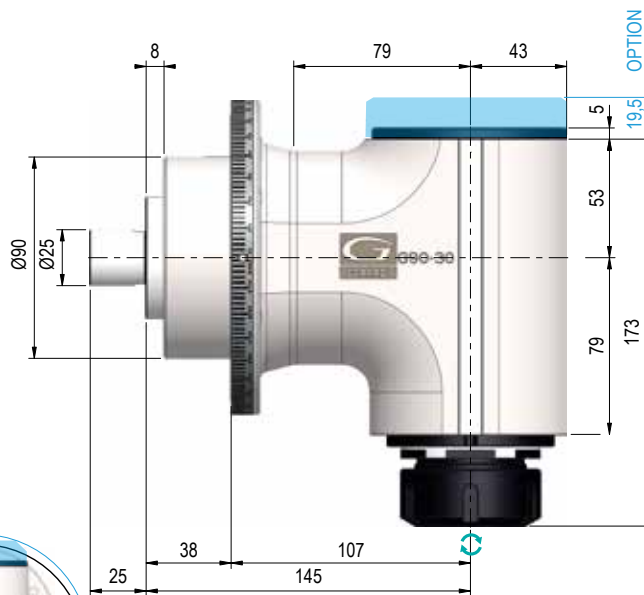
G90-30

TYPE 3

Code: **9.G90.30001**

Price:

NEW



Dati tecnici - Technical data

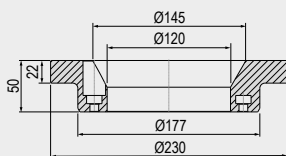
- Ratio 1:1
- Kg 17
- Rpm 4.000
- Ø30
- N 1.750
- M20
- Nm 75
- ER-40 Ø3/30



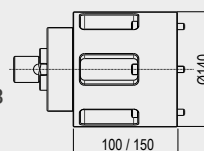
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

Flangia Universale Universal Flange TIPO - TYPE 3



Prolunga Extension TIPO - TYPE 3



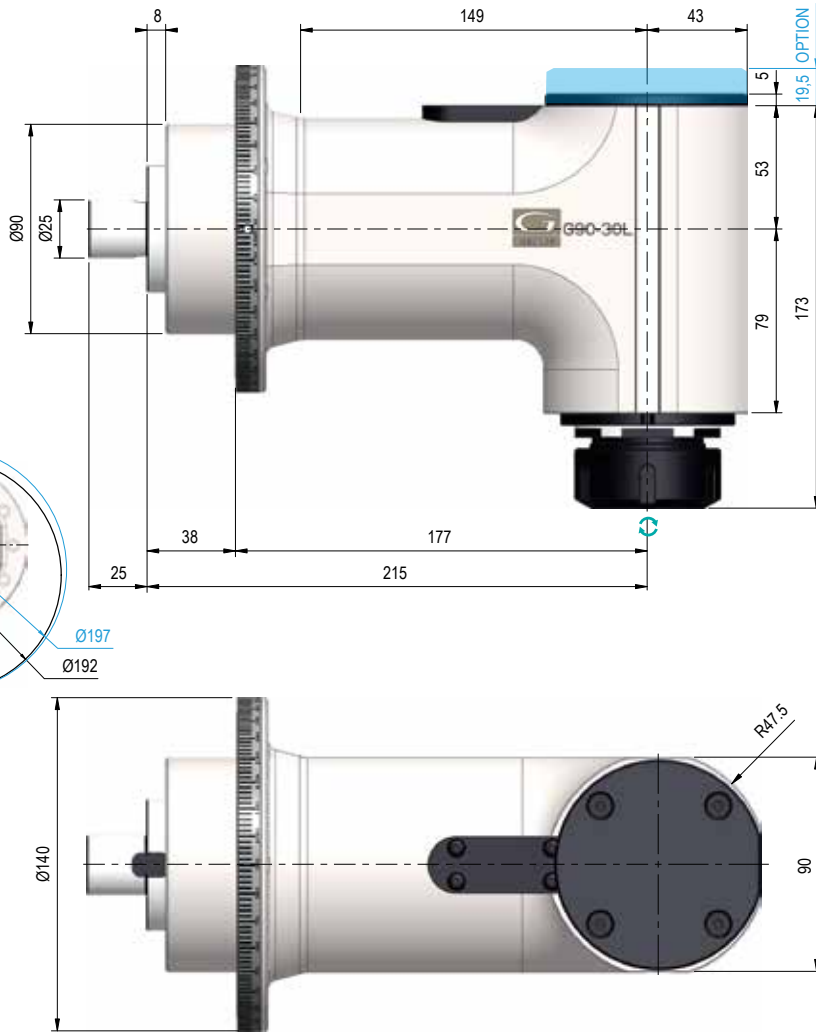
Dotazione Standard Standard Equipment

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



Opzioni - Options

- ALTA VELOCITÀ HIGH SPEED
6000 Rpm
optional
- REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR
MAX 10bar
optional
- USCITA OUTPUT
Weldon Max Ø25
optional
- USCITA OUTPUT
Portafresa Toolholder Ø27
optional
- DOPPIA USCITA DOUBLE OUTPUT
ER40 - ER25M
optional
- REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR
MAX 30bar
optional
- USCITA OUTPUT
HSK 40
optional
- USCITA OUTPUT
C4
optional
- USCITA OUTPUT
ISO 30
optional



G90-30L

TYPE 3

Code:

9.G90.30L01

Price:



Dati tecnici - Technical data

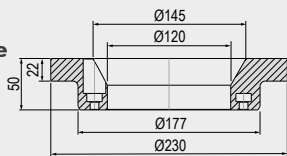
	Ratio 1:1		Kg 20
	Rpm 4.000		Ø30
	N 1.750		M20
	Nm 75		ER-40 Ø3/30



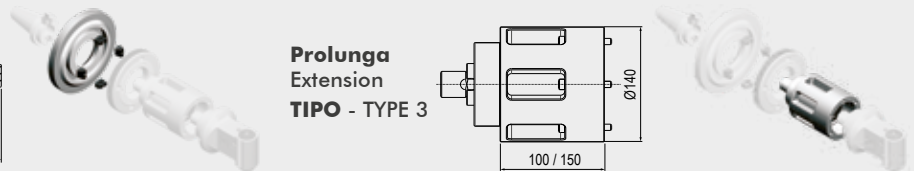
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 3



Prolunga
Extension
TIPO - TYPE 3



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO
PACK & WEIGHT:



Opzioni - Options

	ALTA VELOCITÀ HIGH SPEED 6000 Rpm optional		REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR DRY RUNNING POSSIBLE MAX 10bar optional		USCITA OUTPUT Weldon Max Ø25 optional		USCITA OUTPUT Portafresa Toolholder Ø27 optional		USCITA OUTPUT ISO 30 optional
	DOPPIA USCITA DOUBLE OUTPUT ER40 - ER25M optional		REFR. DAL DISTRIBUTORE COOLANT THROUGH ROTATING DISTRIBUTOR DRY RUNNING NOT POSSIBLE MAX 30bar optional		USCITA OUTPUT HSK 40 optional		USCITA OUTPUT C4 optional		

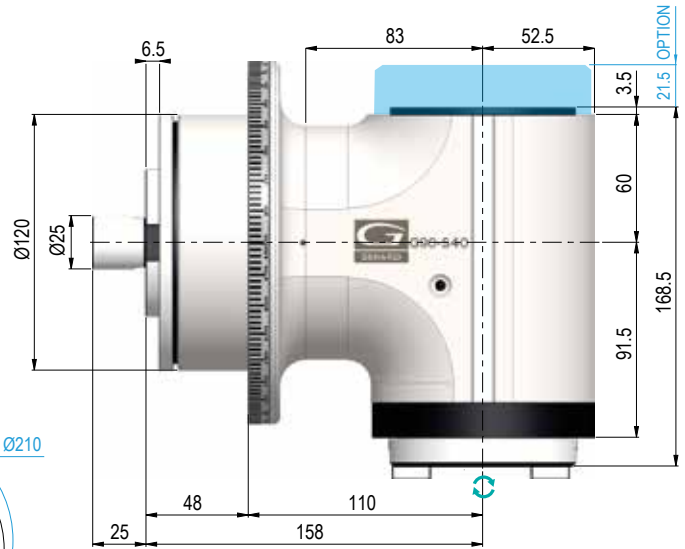
G90-S40

TYPE 4

Code:

9.G90.S4001

Price:


Dati tecnici - Technical data

 Ratio
1:1


Kg 22


 Rpm
4.000


Ø26



N 1.800



M20

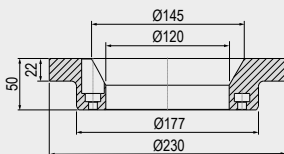


Nm 140


 ISO /
CAT / BT
40


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

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

Flangia Universale
 Universal Flange
TIPO - TYPE 4

Dotazione Standard
 Standard Equipment

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

IMBALLO & PESO

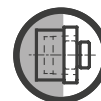
PACK & WEIGHT: Max. Kg


Opzioni - Options

 ALTA VELOCITÀ
 HIGH SPEED

5.000 Rpm

optional


 USCITA
 OUTPUT

HSK 63

optional


 REFR. DAL DISTRIBUTORE
 COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

DRY RUNNING NOT POSSIBLE

Max 10 bar

Max 30 bar

optional


 USCITA
 OUTPUT

 C4
 optional

 C5
 optional

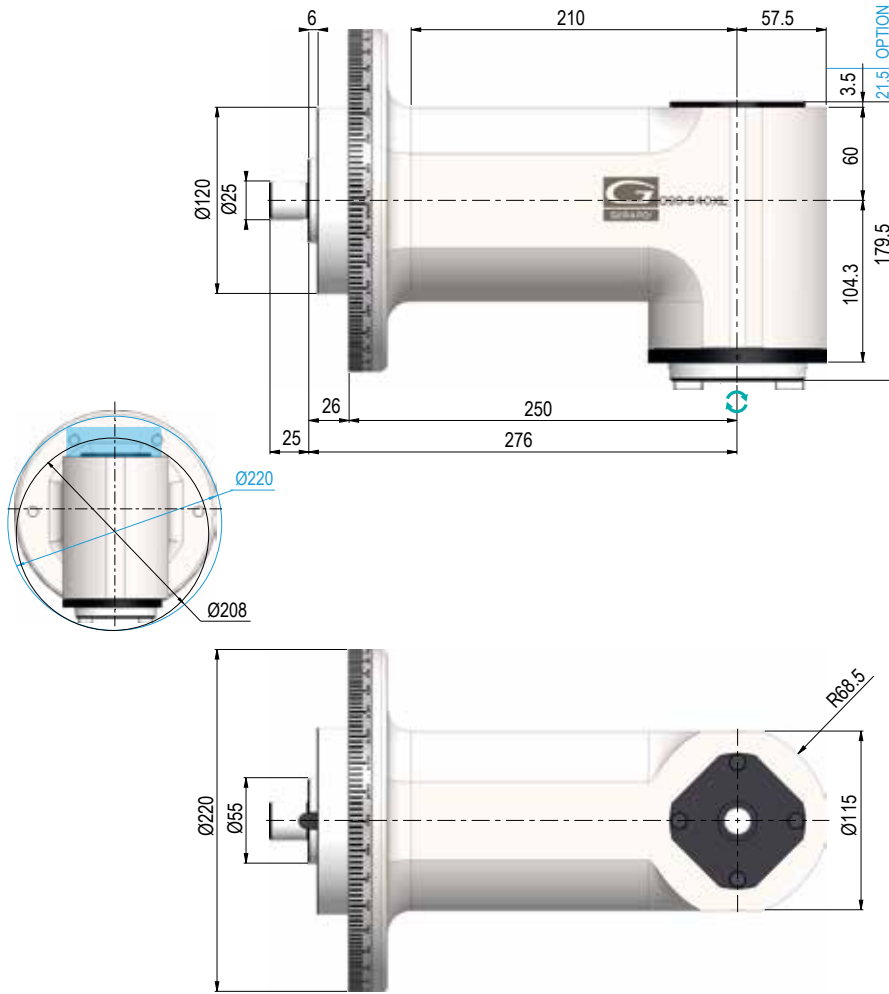
G90-S40XL

TYPE 5

Code:

9.G90.S40XL1

Price:



Dati tecnici - Technical data

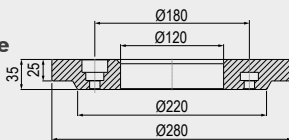
	Ratio 1:1		Kg 32,5
	Rpm 4.000		Ø30
	N 2.400		M22
	Nm 140		ISO / CAT / BT 40



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

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

Flangia Universale Universal Flange TIPO - TYPE 5



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max.70 Kg



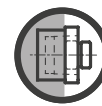
Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

5.000 Rpm

optional



USCITA
OUTPUT

HSK 63

optional



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

DRY RUNNING NOT POSSIBLE

Max 10 bar

Max 30 bar

optional



USCITA
OUTPUT

C4

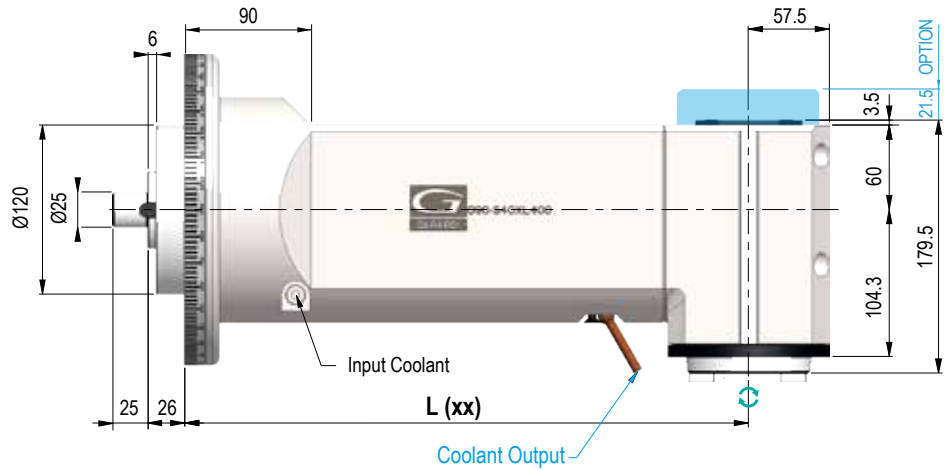
optional

C5

optional

G90-S40XL xx
TYPE 5

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


Dati tecnici - Technical data

 Ratio
 1:1

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

 Rpm
 4.000


Ø30



N 2.400



M22

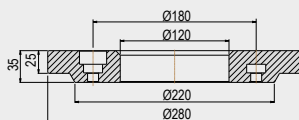


Nm 140


 ISO / CAT
 / BT40


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

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

Flangia Universale
 Universal Flange
TIPO - TYPE 5

Dotazione Standard
 Standard Equipment

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

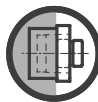
IMBALLO & PESO

PACK & WEIGHT: Max. Kg

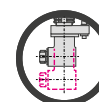

Opzioni - Options

 ALTA VELOCITÀ
 HIGH SPEED
 5.000 Rpm

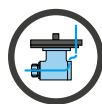
optional


 USCITA
 OUTPUT
 HSK 63

optional


 LUNGHEZZE SPECIALI
 SPECIAL LENGTH

on request


 REFR. DAL DISTRIBUTORE
 COOLANT THROUGH ROTATING
 DISTRIBUTOR

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

optional


 USCITA
 OUTPUT

 C4
 opt.

 C5
 opt.

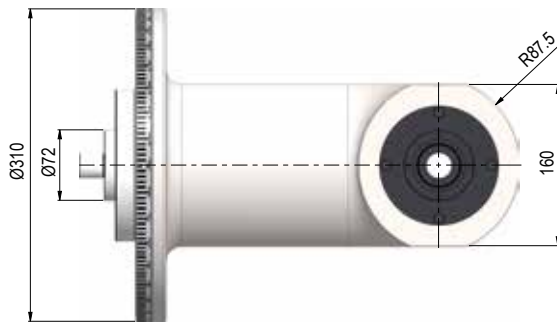
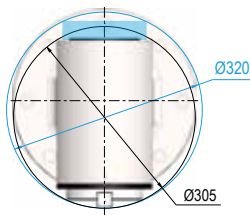
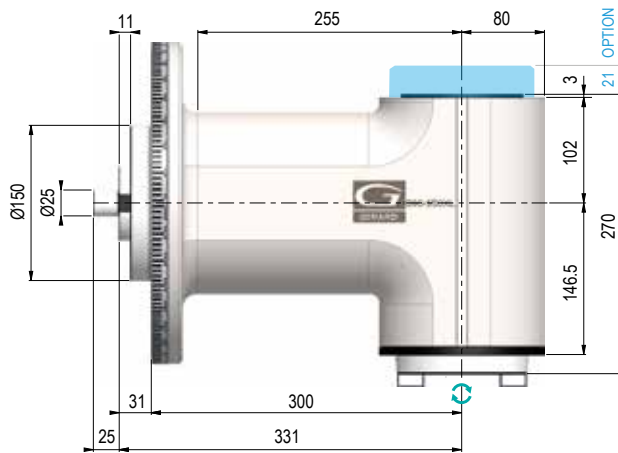
G90-S50

TYPE 6

Code:

9.G90.S5001

Price:



Dati tecnici - Technical data



Ratio
1:1



Kg 77



Rpm
3.000



Ø45



N 3.300



M36



Nm 400



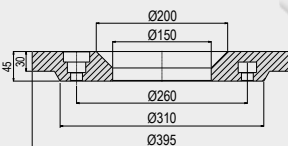
ISO /
CAT / BT
50



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

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

Flangia Universale Universal Flange TIPO - TYPE 6



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



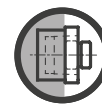
Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

4.000 Rpm

optional



USCITA
OUTPUT

HSK 63

optional



REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

DRY RUNNING NOT POSSIBLE

Max 10 bar

Max 30 bar

optional



USCITA
OUTPUT

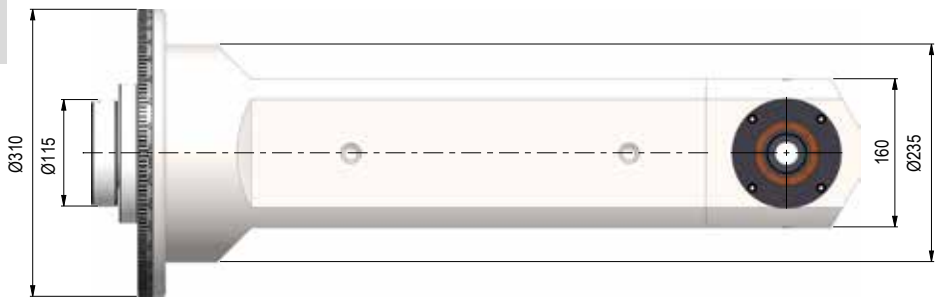
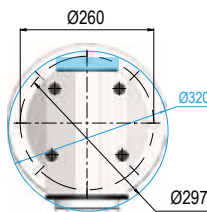
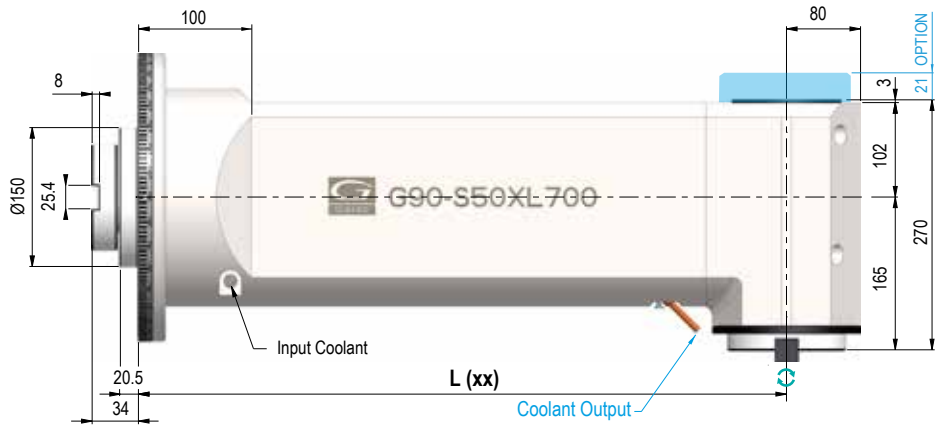
C6

C8

on request

G90-S50XL xx
TYPE 6

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


Dati tecnici - Technical data

 Ratio
1:1

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

 Rpm
3.000


Ø45



N 3.300



M36

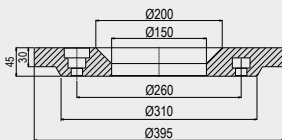


Nm 400


 ISO /CAT
BT 50


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

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

Flangia Universale
 Universal Flange
TIPO - TYPE 6

DOTAZIONE STANDARD
 STANDARD EQUIPMENT

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg


OPZIONI - OPTIONS

 ALTA VELOCITÀ
HIGH SPEED

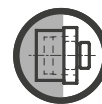
4.000 Rpm

optional


 REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING
DISTRIBUTOR

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

optional


 USCITA
OUTPUT

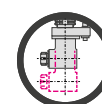
HSK 63

optional

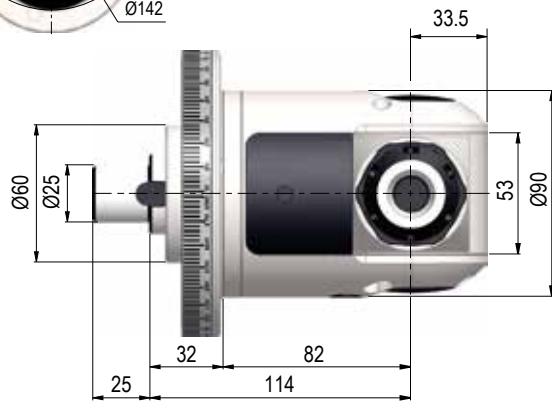
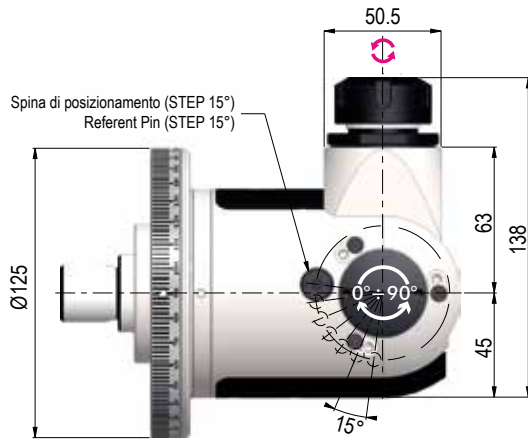

 USCITA
OUTPUT

C6 C8

on request


 LUNGHEZZE SPECIALI
SPECIAL LENGTH

on request



GMU-16

TYPE 1

Code:

9.GMU.16001

Price:



Dati tecnici - Technical data



Ratio 1:1



Kg 6,3



Rpm 4.000



Ø16



N 480



M14



Nm 18



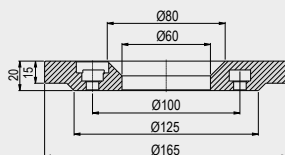
ER-25 Ø1/16



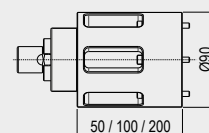
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

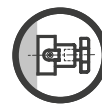
optional



USCITA
OUTPUT

Weldon Max Ø16

optional



USCITA
OUTPUT

Portafresa
Toolholder Ø16

optional



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN
Angolazioni personalizzate
Customized angles

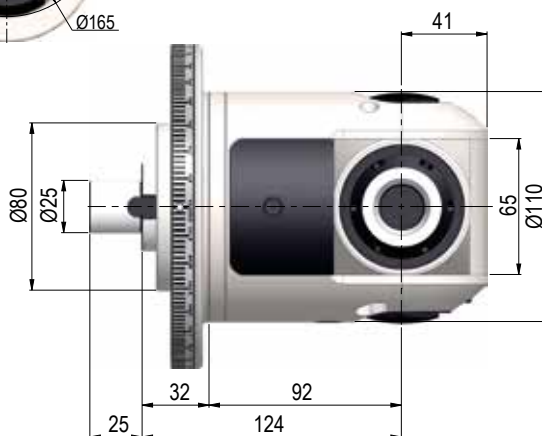
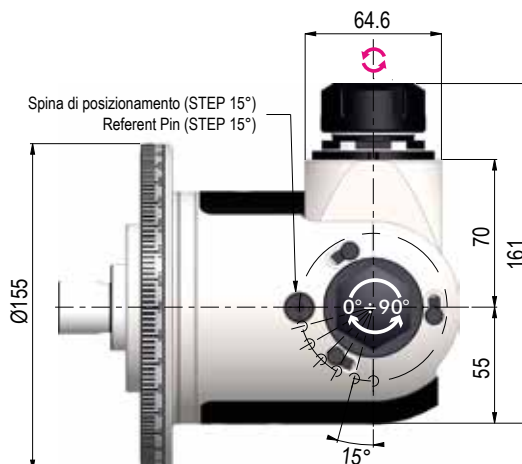
optional

GMU-20

TYPE 2

Code: **9.GMU.20001**

Price:



Dati tecnici - Technical data



Ratio
1:1



Kg 13



Rpm
4.000



Ø20



N 715



M16



Nm 32



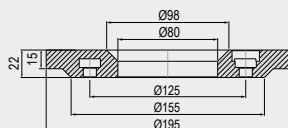
ER32
Ø2/20



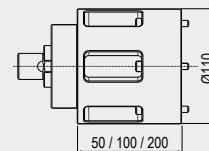
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale Universal Flange TIPO - TYPE 2



Prolunga Extension TIPO - TYPE 2



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional



USCITA
OUTPUT

Weldon Max Ø20

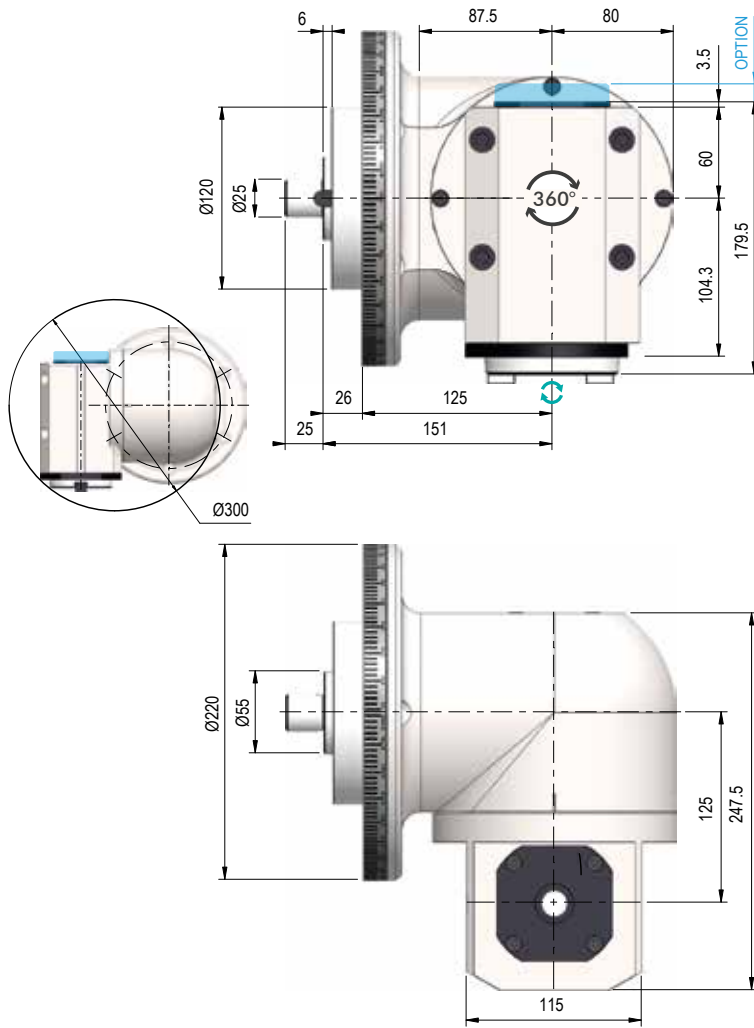
optional



SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN

Angolazioni personalizzate
Customized angles

optional



GMU-S40-125 TYPE 6

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

Price:



Dati tecnici - Technical data

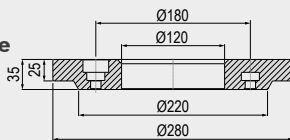
	Ratio 1:1		Kg 59,3
	Rpm 3.000		Ø30
	N 2.400		M22
	Nm 100		ISO /CAT BT 40



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

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

Flangia Universale
Universal Flange
TIPO - TYPE 6



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

4.000 Rpm

optional

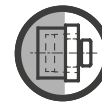


REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

Max 10 bar

optional



USCITA
OUTPUT

HSK 63

optional



USCITA
OUTPUT

C4

optional

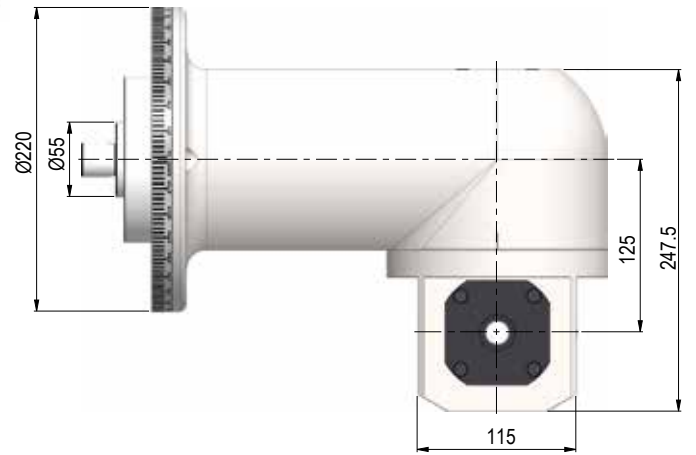
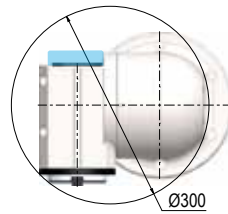
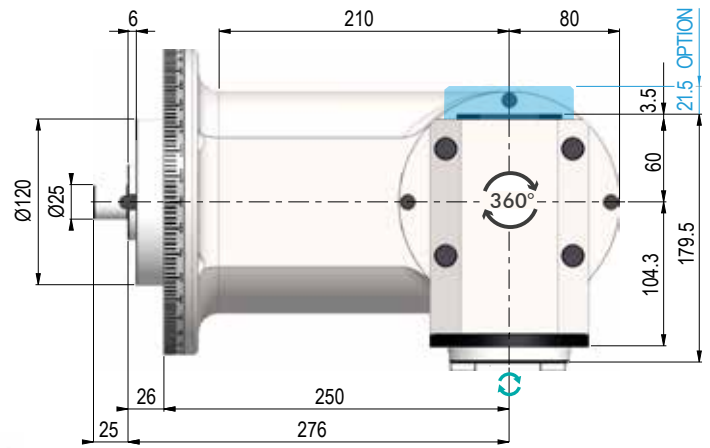
GMU-S40

TYPE 5

Code:

9.GMU.S4001

Price:



Dati tecnici - Technical data



Ratio
1:1



Kg 49,5



Rpm
3.000



Ø 30



N 2.400



M 22



Nm 100



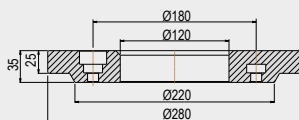
ISO /CAT
BT 40



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

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

Flangia Universale Universal Flange TIPO - TYPE 5



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

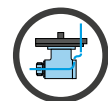
PACK & WEIGHT: Max. Kg



ALTA VELOCITÀ
HIGH SPEED

4.000 Rpm

optional

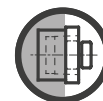


REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

Max 10 bar

optional



USCITA
OUTPUT

HSK 63

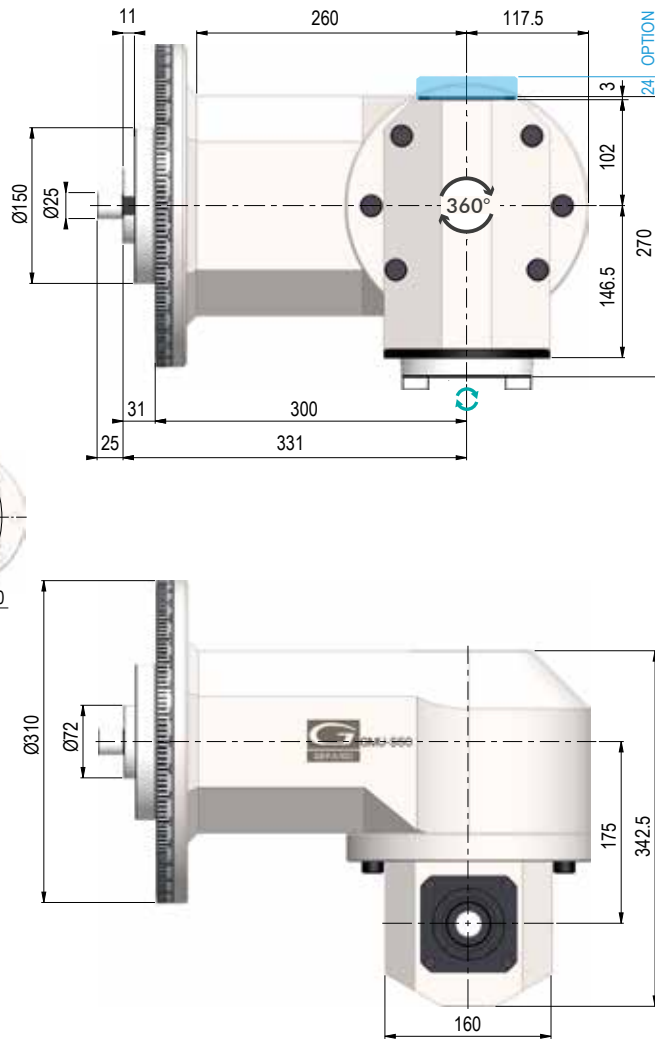
optional



USCITA
OUTPUT

C4

optional



GMU-S50

TYPE 6

Code:

9.GMU.S5001

Price:



Dati tecnici - Technical data



Ratio
1:1



Kg 121



Rpm
3.000



Ø45



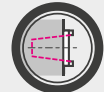
N 3.300



M36



Nm 220



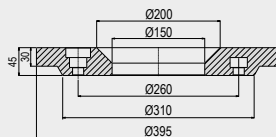
ISO /CAT
BT 50



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

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

Flangia Universale Universal Flange TIPO - TYPE 6



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



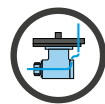
Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

4.000 Rpm

optional

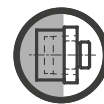


REFR. DAL DISTRIBUTORE
COOLANT THROUGH ROTATING DISTRIBUTOR

DRY RUNNING POSSIBLE

Max 10 bar

optional



USCITA
OUTPUT

HSK 63

optional



USCITA
OUTPUT

C6

optional

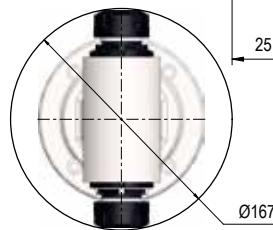
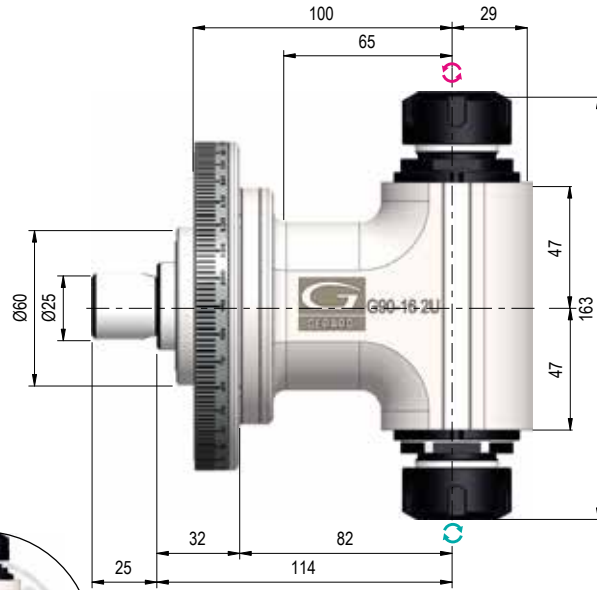
G90-16 2U

TYPE 1

Code:

9.G90.162U01

Price:



Dati tecnici - Technical data



Ratio
1:1



Kg 5,6



Rpm
4.000



Ø 16



N 510



M 12



Nm 24



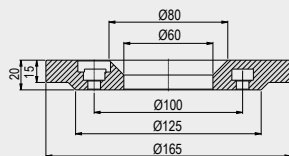
ER-25
Ø1/16



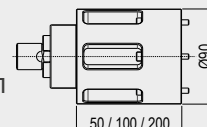
SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale Universal Flange TIPO - TYPE 1



Prolunga Extension TIPO - TYPE 1



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

8.000 Rpm

optional



USCITA
OUTPUT

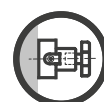
Weldon Max Ø16 (X2)

optional



USCITA
OUTPUT

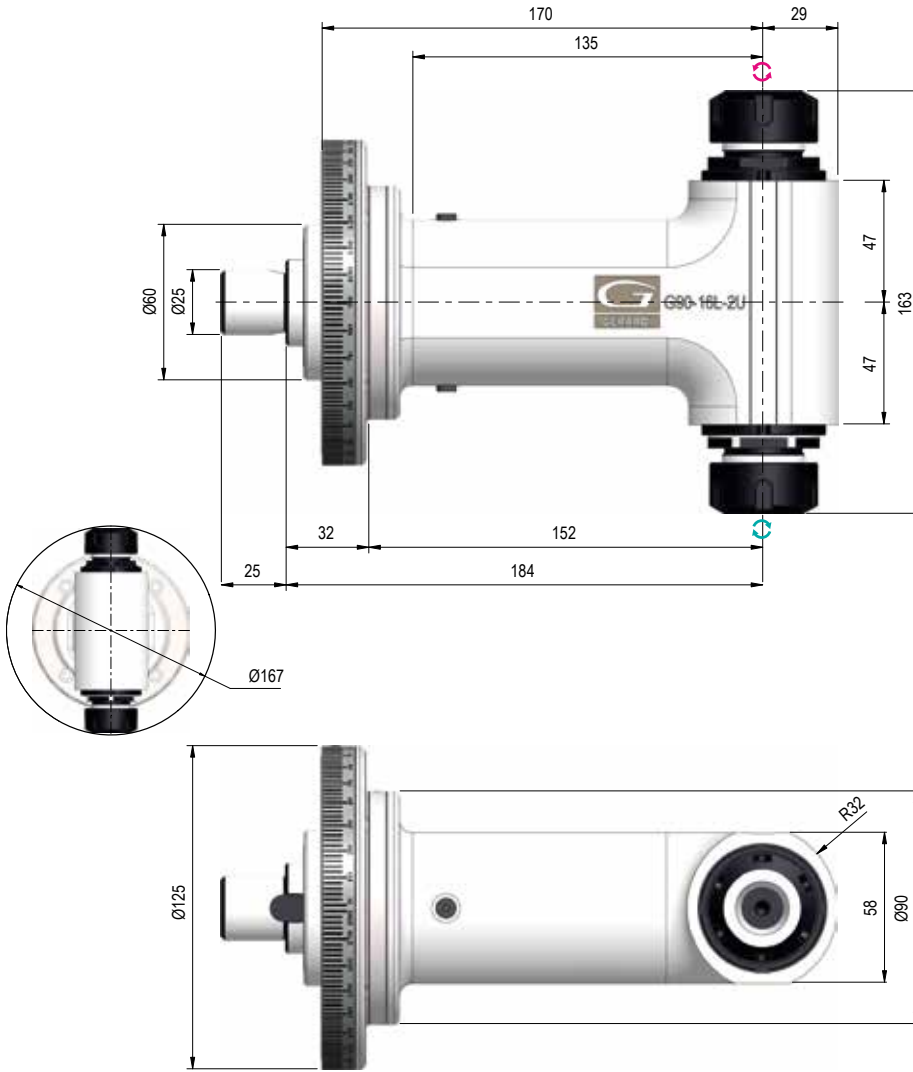
HSK 32 (X2)



USCITA
OUTPUT

Portafresa
Toolholder Ø16 (X2)

optional



G90-16L 2U

TYPE 1

Code:

9.G90.16L2U1

Price:



Dati tecnici - Technical data

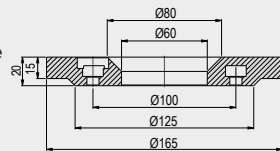
	Ratio 1:1		Kg 6,1
	Rpm 4.000		Ø 16
	N 510		M 12
	Nm 24		ER-25 Ø1/16



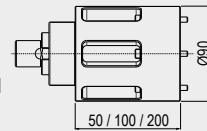
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 1



Prolunga
Extension
TIPO - TYPE 1



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

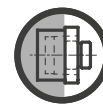
8.000 Rpm

optional



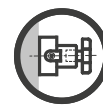
USCITA OUTPUT
Weldon Max Ø16 (X2)

optional



USCITA OUTPUT

HSK 32 (X2)



USCITA OUTPUT
Portafresa
Toolholder Ø16 (X2)

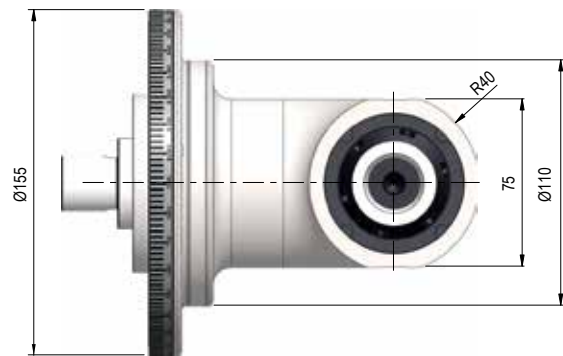
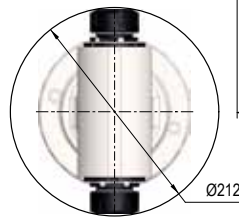
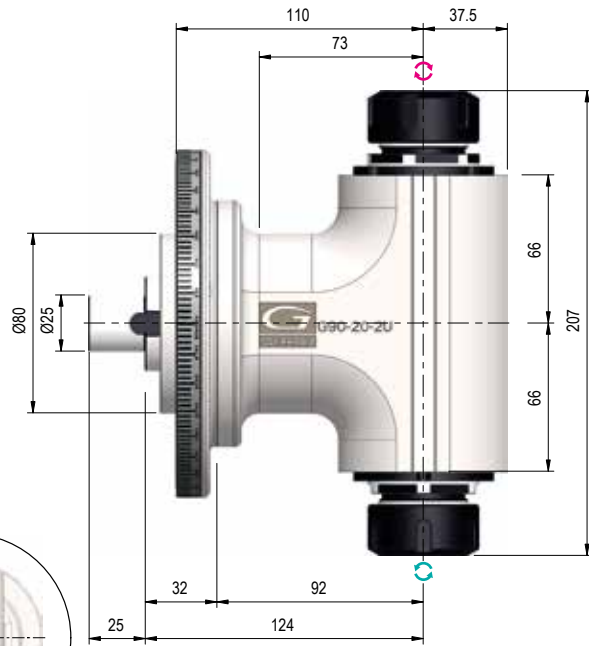
optional

G90-20 2U

TYPE 2

Code: 9.G90.202U01

Price:



Dati tecnici - Technical data

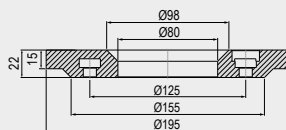
Ratio 1:1	Kg 14
Rpm 4.000	Ø 20
N 1.250	M 16
Nm 40	ER-32 Ø2/20



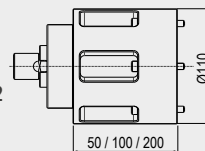
SENDO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENDO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale Universal Flange TIPO - TYPE 2



Prolunga Extension TIPO - TYPE 2



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional



USCITA
OUTPUT

Weldon Max Ø20 (X2)

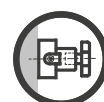
optional



USCITA
OUTPUT

HSK 40 (X2)

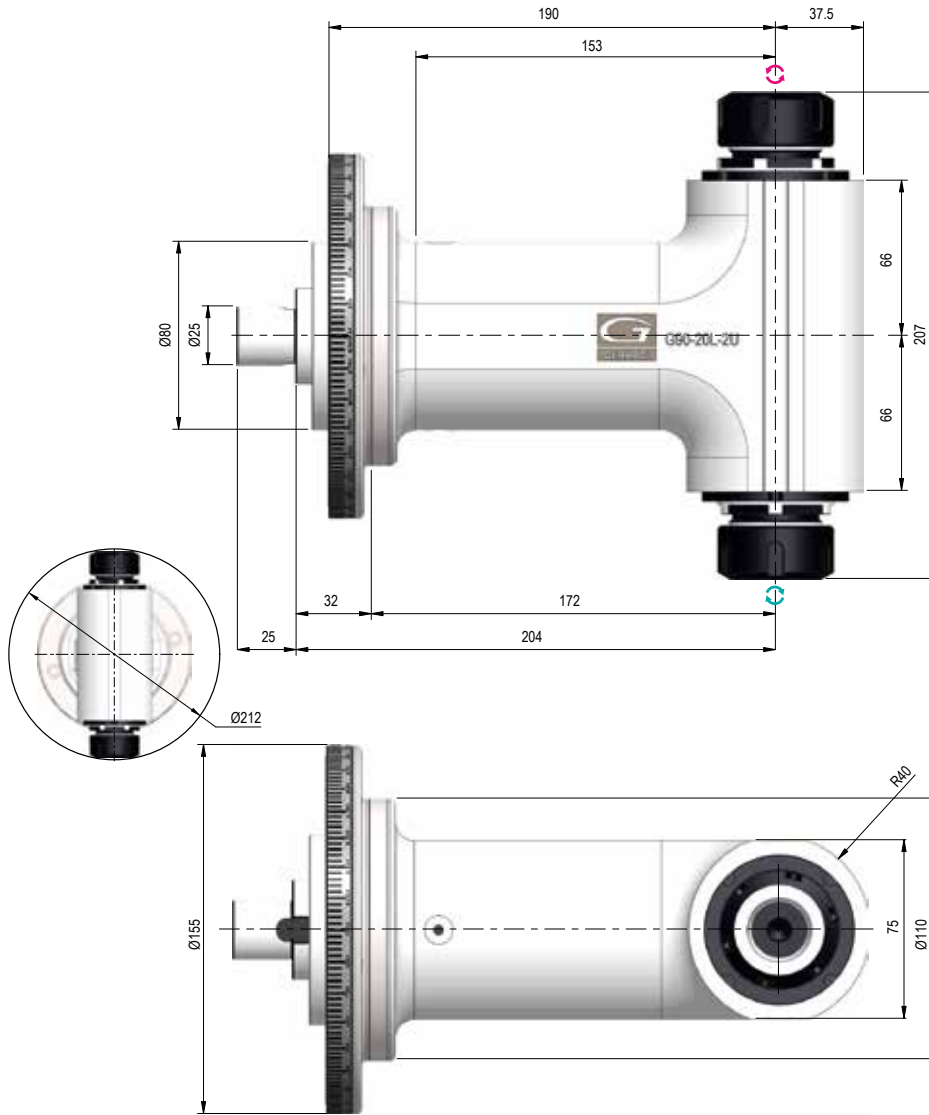
optional



USCITA
OUTPUT

Portafresa
Toolholder Ø20 (X2)

optional



G90-20L 2U

TYPE 2

Code:

9.G90.20L2U1

Price:



Dati tecnici - Technical data

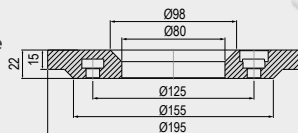
	Ratio 1:1		Kg 15,5
	Rpm 4.000		Ø 20
	N 1.250		M 16
	Nm 40		ER-32 Ø2/20



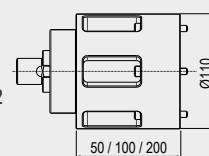
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 2



Prolunga
Extension
TIPO - TYPE 2



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

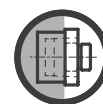
optional



USCITA
OUTPUT

Weldon Max Ø20 (X2)

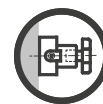
optional



USCITA
OUTPUT

HSK 40 (X2)

optional



USCITA
OUTPUT

Portafresa
Toolholder Ø22 (X2)

optional

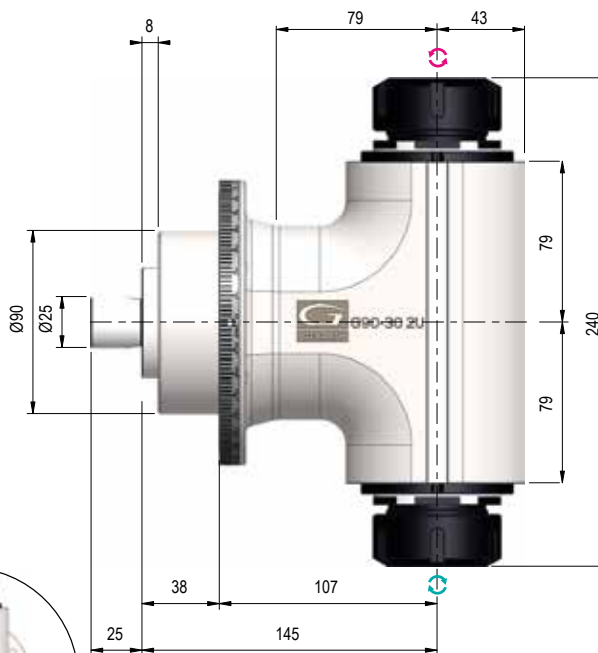
G90-30 2U

TYPE 3

Code: **9.G90.302U01**

Price:

NEW



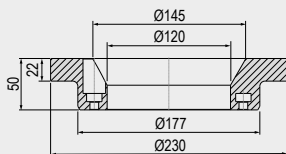
Dati tecnici - Technical data

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

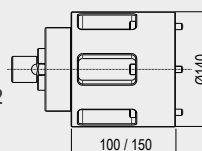
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale Universal Flange TIPO - TYPE 3



Prolunga Extension TIPO - TYPE 2



Dotazione Standard Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

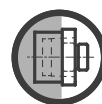
optional



USCITA
OUTPUT

Weldon Max Ø25 (X2)

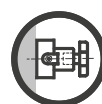
optional



USCITA
OUTPUT

HSK 40 (X2)

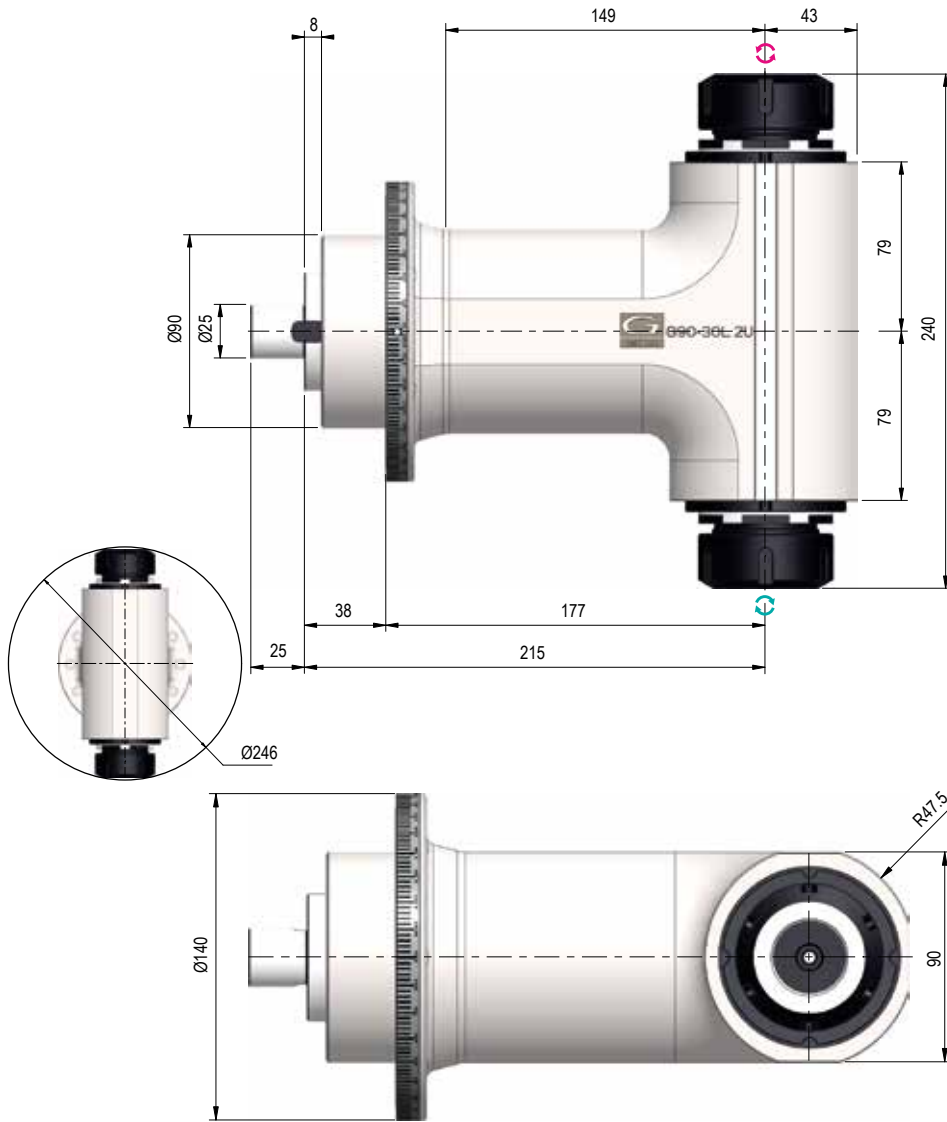
optional



USCITA
OUTPUT

Portafresa
Toolholder Ø27 (X2)

optional



G90-30L 2U

TYPE 3

Code:

9.G90.30L2U1

Price:



Dati tecnici - Technical data

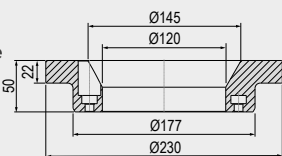
	Ratio 1:1		Kg 23
	Rpm 4.000		Ø 30
	N 1.750		M 20
	Nm 75		ER-40 Ø3/30



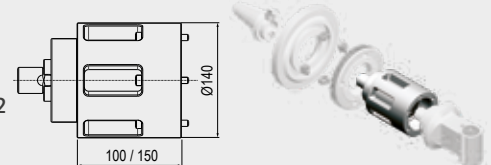
SENSO DI ROTAZIONE UGUALE AL MANDRINO - DIRECTION OF ROTATION SAME AS MACHINE SPINDLE
SENSO DI ROTAZIONE CONTRARIO AL MANDRINO - DIRECTION OF ROTATION OPPOSITE TO THE MACHINE SPINDLE

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

Flangia Universale
Universal Flange
TIPO - TYPE 3



Prolunga
Extension
TIPO - TYPE 2



Dotazione Standard
Standard Equipment

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



Opzioni - Options



ALTA VELOCITÀ
HIGH SPEED

6.000 Rpm

optional



USCITA OUTPUT
Weldon Max Ø25 (X2)

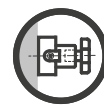
optional



USCITA OUTPUT

HSK 40 (X2)

optional



USCITA OUTPUT
Portafresa
Toolholder Ø27 (X2)

optional

ACCESSORI ATC & MTC

ATC & MTC ACCESSORIES

1



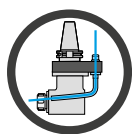
OPZIONE REFRIGERANTE INTERNO

INTERNAL COOLANT OPTION

Opzione B
B option

Opzione RI
RI option

Opzione Re-Cool
Re-Cool option



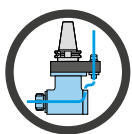
10bar



Perno » Utensile
Positioning Pin » Tool

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

ROTAZIONE A SECCO - DRY RUNNING
POSSIBILE - POSSIBLE



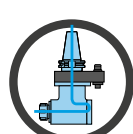
10bar



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

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

ROTAZIONE A SECCO - DRY RUNNING
POSSIBILE - POSSIBLE



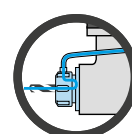
UP TO 70bar



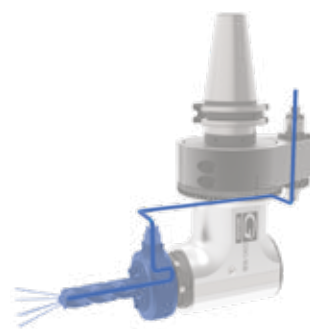
Cono » Distributore » Utensile
Shank » Rotating Distributor » Tool

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

ROTAZIONE A SECCO - DRY RUNNING
NON POSSIBILE - NOT POSSIBLE



10bar



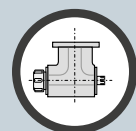
Perno » Ghiera ReCool » Utensile
Positioning Pin » ReCool Nut » Tool

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

PAG. 1.77 - PAG. 1.77

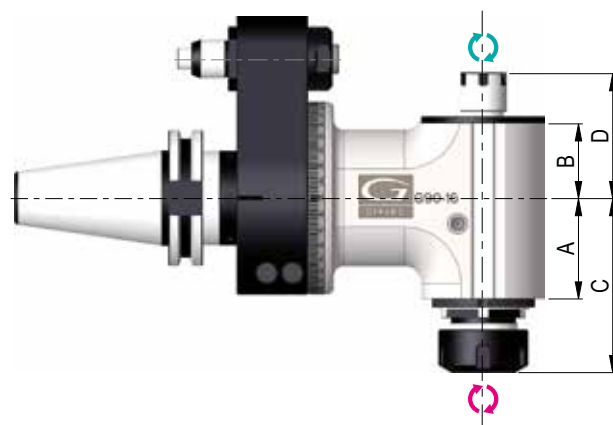
OPZIONE DOPPIA USCITA

DOUBLE OUTPUT OPTION



Disponibile per i modelli - Available for following types:

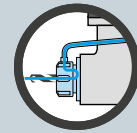
MODELLO MODEL	USCITA OUTPUT	A	B	C	D
GL90-7	ER-11	20	20	38	34
G90-5 / G90-7 / G90-7L	ER-8 MINI				
GL90-10	ER-16	37	28	52	44,5
G90-10 / G90-10L	ER-11 MINI				
GL90-16	ER-25	47	35	81,5	58,5
G90-16 / G90-16L	ER-16 MINI				
G90-20 / G90-20L	ER-32	66	46	103,5	72,5
G90-30 / G90-30L	ER-40				
	ER-25 MINI	79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



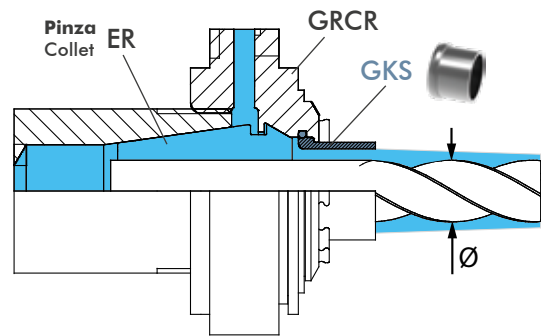
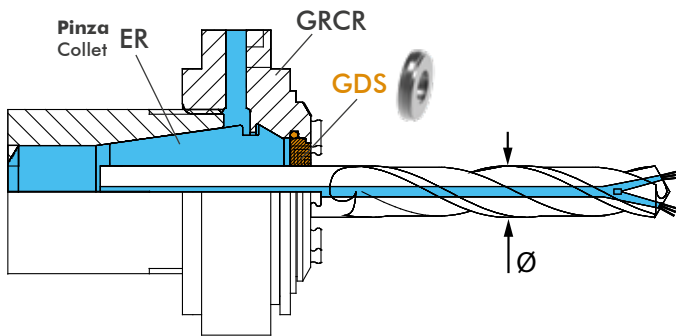
Teste angolari ATC doppia uscita
Double output ATC angle heads

GHIERE ER ReCool ReCool ER NUTS

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



1



GRCR
(Ghiera / Nut)



GDS
(Disco di tenuta / Sealing ring)



GKS
(Disco di tenuta / Sealing ring)



AX (EXTRA)

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

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

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

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

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

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

Dotazione Standard Standard Equipment



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



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

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

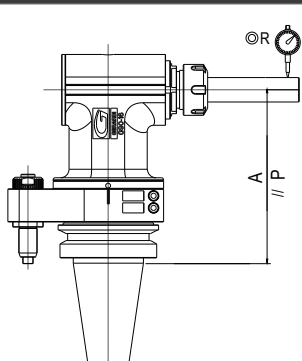
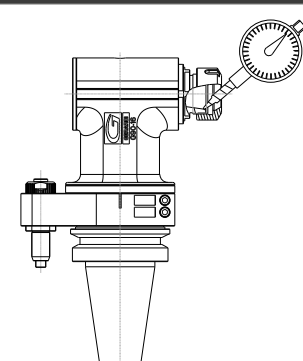
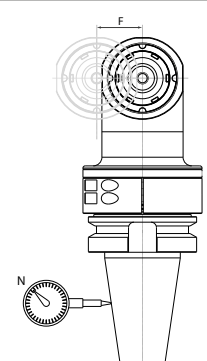
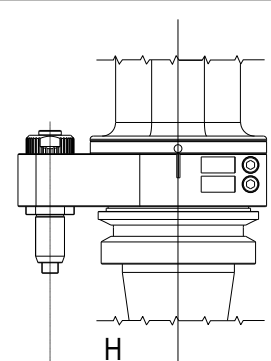
The supplied hose and fittings are designed and tested for maximum coolant pressure of 58 bar / 840 PSI.
Higher coolant pressure on request.

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

ESEMPIO SCHEDA DI COLLAUDO

INSPECTION SHEET EXAMPLE

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

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

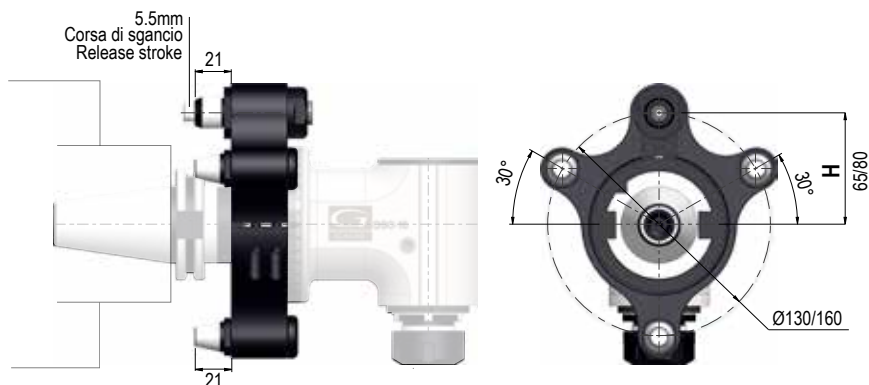
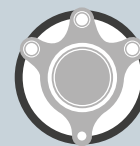
Revisioni - Revisions

Timbro - Stamp

Data - Date

Firma - Signature

SISTEMA ANTIROTANTE MULTIPOINT MULTIPOINT ANTIROTATION SYSTEM



TYPE 1

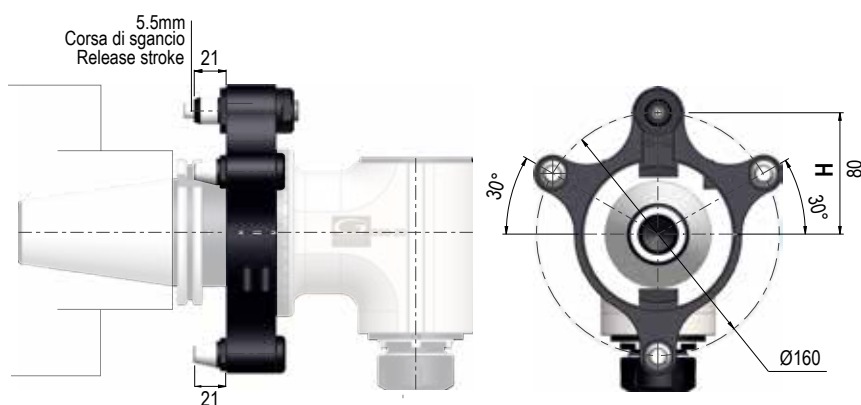
Code 9.G90.16T00/...*

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

Prezzo Extra €
Extra Price €

Solo flangia A richiesta
Only flange** On request

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



TYPE 2

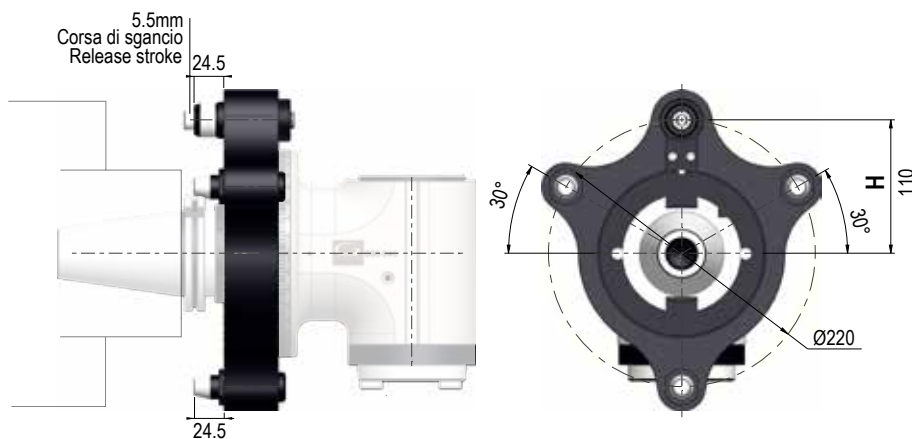
Code 9.G90.20T00/...*

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

Prezzo Extra €
Extra Price €

Solo flangia A richiesta
Only flange** On request

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



TYPE 3/4

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

Code 9.G90.S40T0/...*

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

Prezzo Extra €
Extra Price €

Solo flangia A richiesta
Only flange** On request

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

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

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

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

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



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

ESEMPIO di MONTAGGIO SERIES ATC

ATC SERIES MOUNTING EXAMPLE

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

1) STOP-BLOCK GIÀ PRESENTE SUL MANDRINO MACCHINA

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

STOP-BLOCK ALREADY MOUNTED ON THE MACHINE SPINDLE

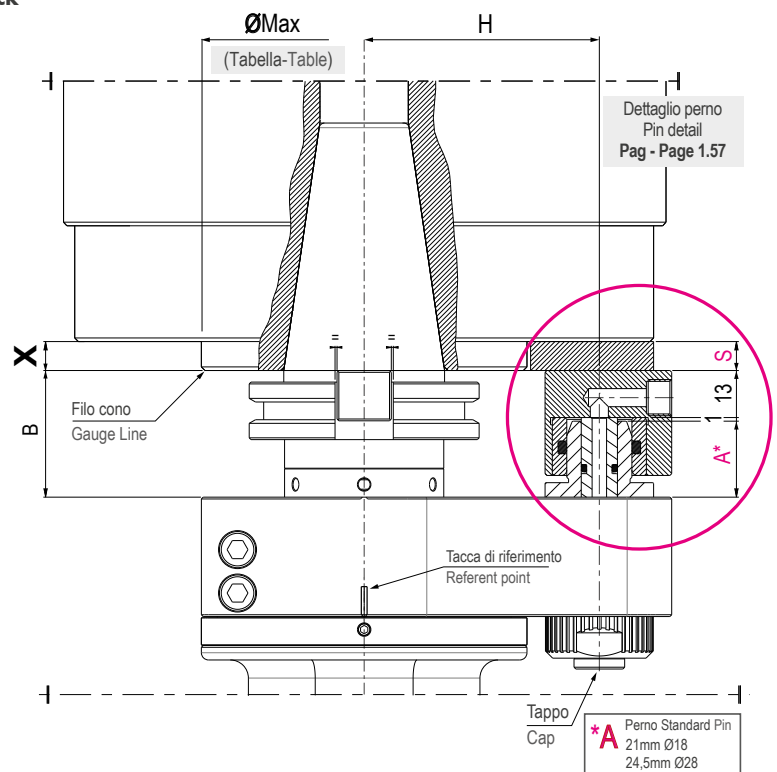
- For Gerardi items, please indicate the type of Angle Head, the H dimension, the pin diameter and height.
- For non-Gerardi items, please send us the stop-block and the machine spindle drawings in order to design the right pin. If possible, we suggest you to use Gerardi standard stop block, taking off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

2) NESSUNO STOP-BLOCK MONTATO SUL MANDRINO MACCHINA

Rilevare la quota X sul mandrino della macchina e mediante la seguente formula calcolare lo spessore del distanziale. In caso di spessori inferiori a 8 mm è possibile richiedere un apposito stop-block con base lavorabile (Pag. 3.25)

NO STOP-BLOCK MOUNTED ON THE MACHINE SPINDLE

Please check the X dimension on the machine spindle and calculate the width of the spacer through the following formula. In case of widths of less than 8 mm, a special stop block with machineable base can be ordered (Pag. 1.83)



$$S = X + B - 35$$

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

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

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

X	B
12mm	35mm (SK40)

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

Esempio di calcolo spessore distanziale
Example of calculation for spacer thickness

ESEMPIO di MONTAGGIO SERIE ATC

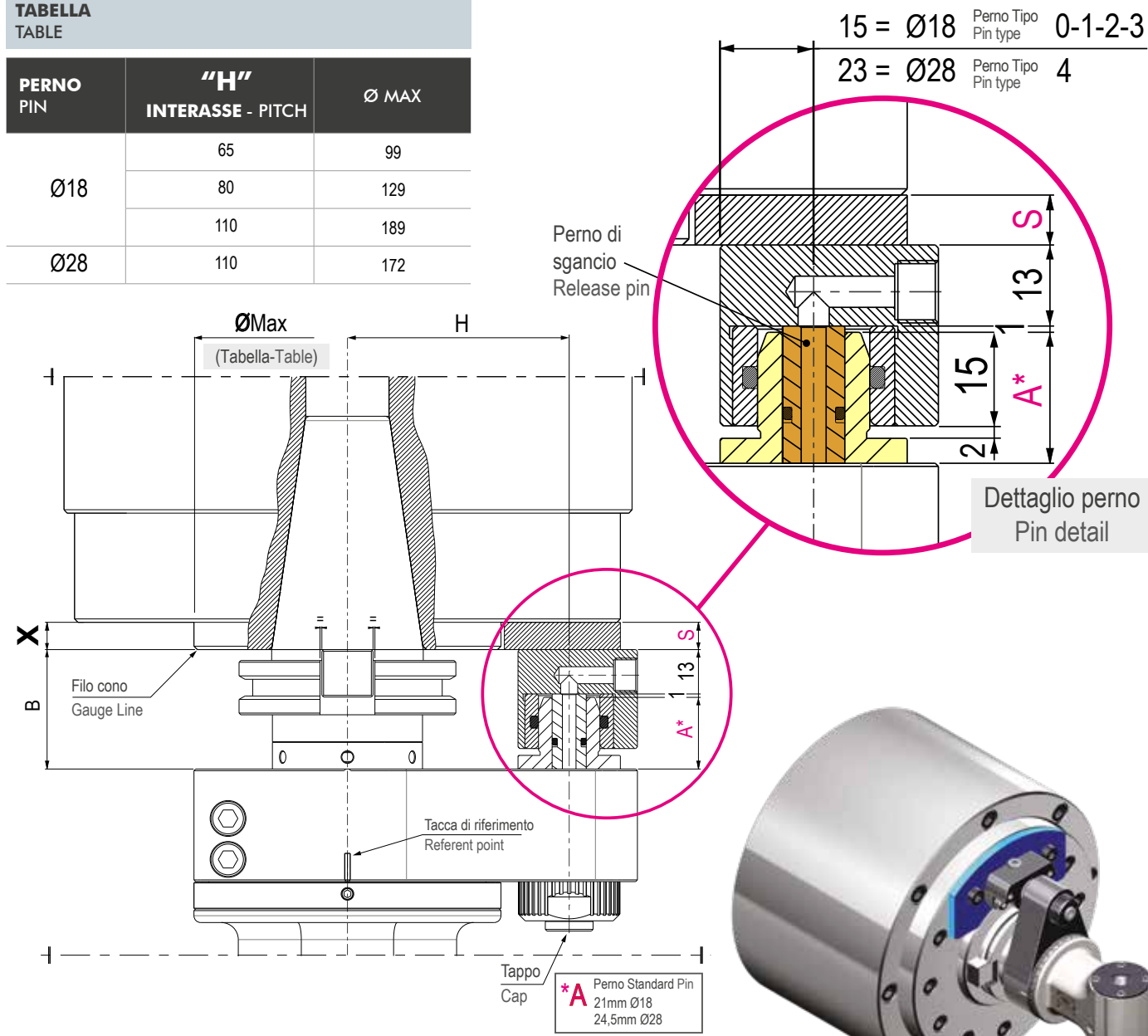
ATC SERIES MOUNTING EXAMPLE

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

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

TABELLA
TABLE

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



ATTENZIONE - ATTENTION

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

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

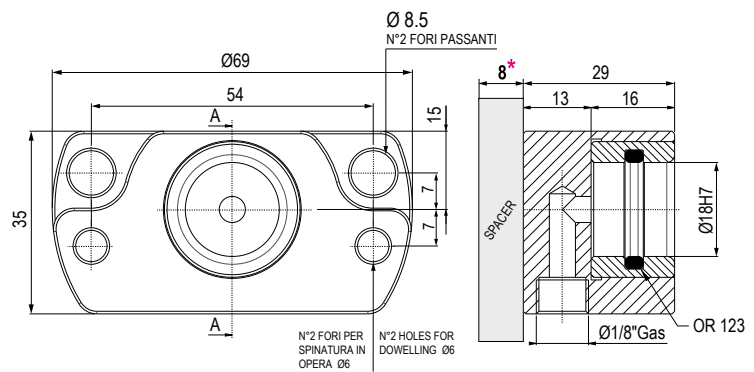
STOP-BLOCK Standard



Ø18

Con bussola temprata - with hardened bushing

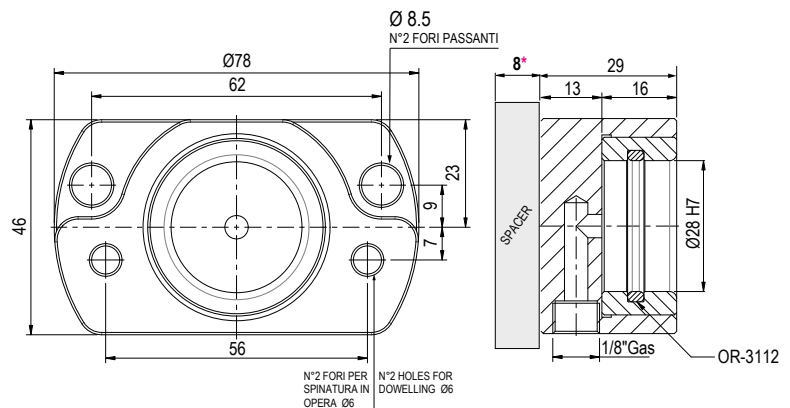
STOP BLOCK Code	
9.INDEX.18	
NO STOP BLOCK INCLUDED	
BUSHING Code	
9.G18.INDEX.2	



Ø28

Con bussola temprata - with hardened bushing

STOP BLOCK Code	
9.INDEX.28	
NO STOP BLOCK INCLUDED	
BUSHING Code	
9.G28.INDEX.2	



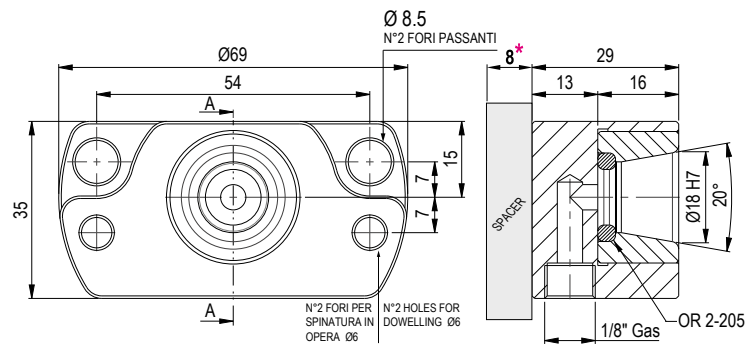
STOP-BLOCK Conico - Conical



Ø18

Con bussola temprata - with hardened bushing

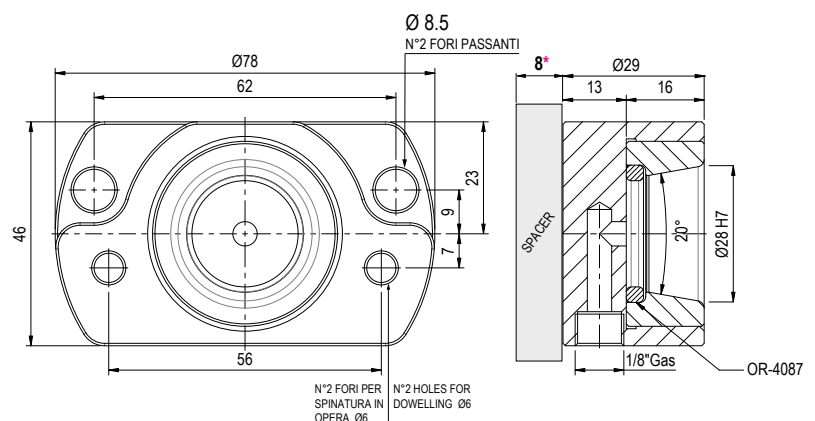
STOP BLOCK Code	
9.INDEX.18C	
NO STOP BLOCK INCLUDED	
BUSHING Code	
9.G18.INDEX.2C	



Ø28

Con bussola temprata - with hardened bushing

STOP BLOCK Code	
9.INDEX.28C	
NO STOP BLOCK INCLUDED	
BUSHING Code	
9.G18.INDEX.2C	



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

STOP-BLOCK Lavorabile** - Machineable**



Ø18

Con bussola temprata - with hardened bushing

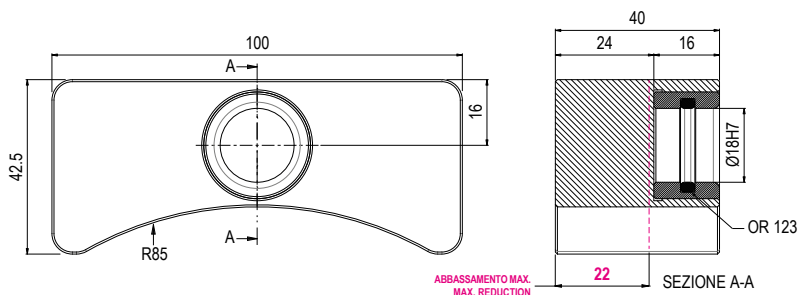
STOP BLOCK Code

9.G18.INDEX

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2



Ø28

Con bussola temprata - with hardened bushing

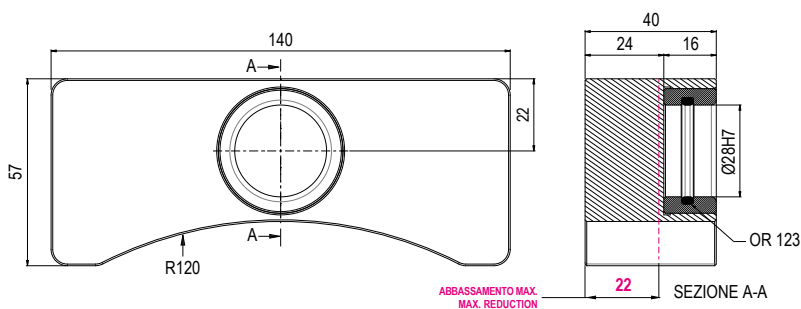
STOP BLOCK Code

9.G28.INDEX

NO STOP BLOCK INCLUDED

BUSHING Code

9.G28.INDEX.2



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



Ø18

Con bussola temprata - with hardened bushing

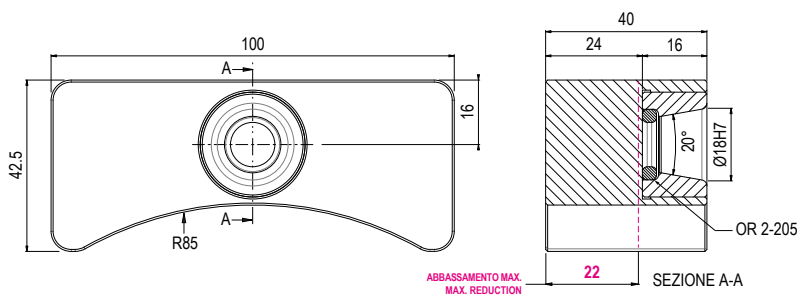
STOP BLOCK Code

9.G18.INDEXC

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2C



Ø28

Con bussola temprata - with hardened bushing

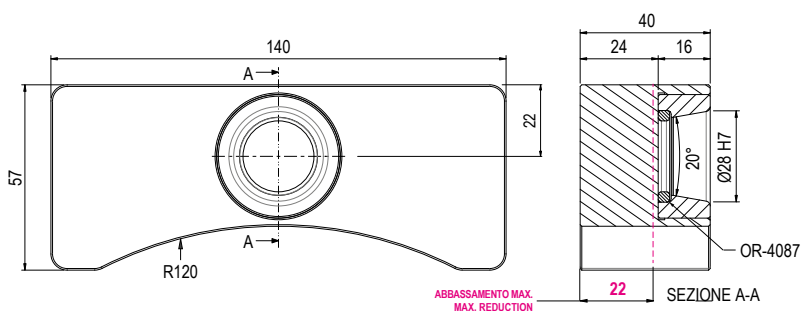
STOP BLOCK Code

9.G28.INDEXC

NO STOP BLOCK INCLUDED

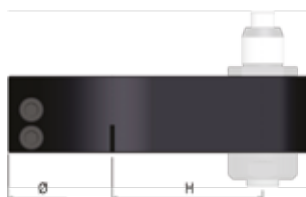
BUSHING Code

9.G28.INDEX.2C



** A richiesta
** On request

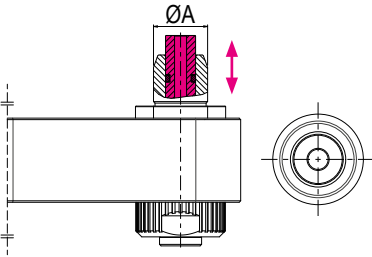
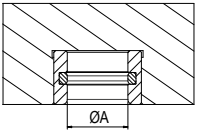
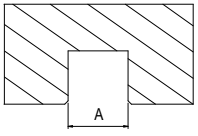
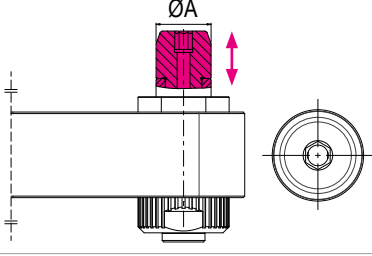
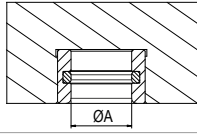
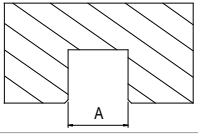
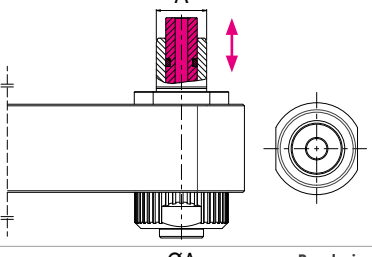
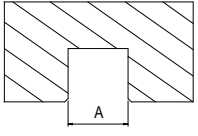
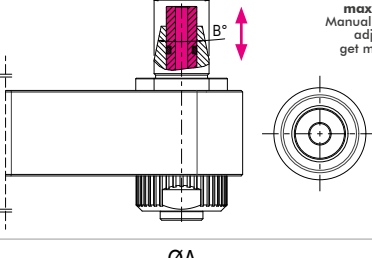
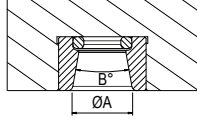
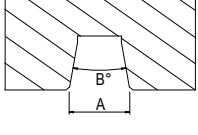
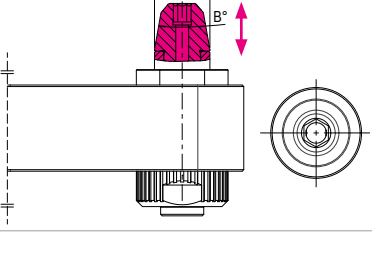
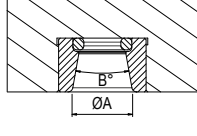
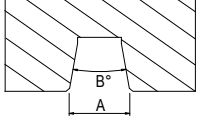
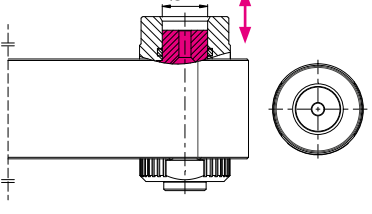
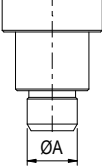
GRUPPO ANTIROTANTE ANTI-ROTATION GROUP



TESTA ANGOLARE ANGLE HEADS		GRUPPO ANTIROTANTE ANTI-ROTATION GROUP		FLANGIA INTEGRALE INTEGRAL FLANGE			GRUPPO PERNO PIN GROUP					
MODELLO Model	TIPO Type	Code		Code	Ø	H		Code	FORMA Shape	P	L	
GL90-7		9.GMU.13050C/65		9.GMU.13030/65		65		9.GMU.13070/E12	E	Ø18	21	
GL90-10		9.GMU.13050C/80										
GL90-16		9.GMU.13050C/110						9.GMU.13070/E13	E	Ø18	35	
GTU-10	0 (Ø73)	9.GMU.13050/65		9.GMU.13030/80	(Ø73)	80		9.GMU.13070/A12	A	Ø18	21	
GMU 13 / 13L		9.GMU.13050/80		9.GMU.13030/110		110		9.GMU.13070/A13	A	Ø18	35	
		9.GMU.13050/110										
G90-5												
G90-7 / 7L		9.G90.16050/65		9.G90.16030/65		65						
G90-7 / 7L 2U								9.G90.16070/A12	A	Ø18	21	
G90-10 / 10L												
G90-10 / 10L 2U	1 (Ø90)											
G90-16 / 16L		9.G90.16050/80		9.G90.16030/80	(Ø90)	80						
G90-16 / 16L 2U												
GMU-16												
GR90-5												
GR90-10		9.G90.16050/110		9.G90.16030/110		110		9.G90.16070/A13	A	Ø18	35	
GR90-16												
G90-20 / 20L	2 (Ø110)	9.G90.20050/80		9.G90.20030/80		80						
G90-20 / 20L 2U					(Ø110)							
GMU 20		9.G90.20050/110		9.G90.20030/110		110		9.G90.16070/A24	A	Ø28	24,5	
G90-30 / 30L	3 (Ø140)											
G90-30 / 30L 2U		9.G90.30050/110		9.G90.30030/110	(Ø140)	110		9.G90.16070/A23	A	Ø28	35	
G90-S40	4 (Ø170)							9.G90.S4070/A24	A	Ø28	24,5	
G90-S40L		9.G90.S4050/110		9.G90.S4023/110	(Ø170)	110						
GR90-S40								9.G90.S4070/A23	A	Ø28	35	

* Con l'acquisto della flangia universale il kit di 4 dadi è già incluso nel prezzo
 * The nuts kit is just included in the price of the flange purchase

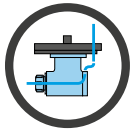
GRUPPO PERNO SPECIALE SPECIAL PIN GROUP

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

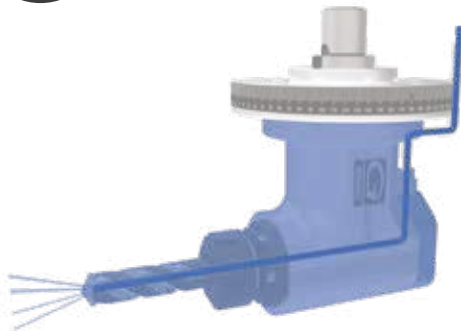
* Extra prezzo perno speciale
* Extra price special pin

OPZIONE REFRIGERANTE INTERNO INTERNAL COOLANT OPTION

Opzione B
B option



Up to 40bar



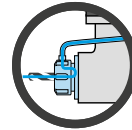
Mandrino macchina » Distributore » Utensile
Machine spindle » Rotating Distributor » Tool

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

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

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

Opzione Re-Cool
Re-Cool option



10bar

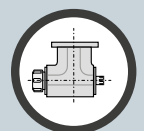


Perno » Ghiera ReCool » Utensile
Positioning Pin » ReCool Nut » Tool

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

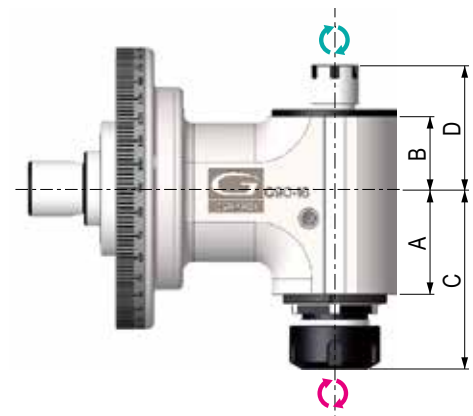
PAG. 1.77 - PAG. 1.77

OPZIONE DOPPIA USCITA serie MTC DOUBLE OUTPUT OPTION MTC series

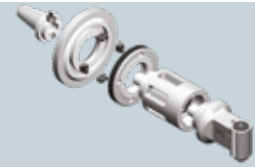


Disponibile per i modelli - Available for following types:

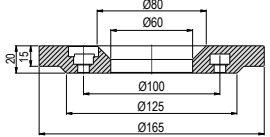
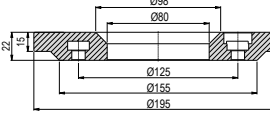
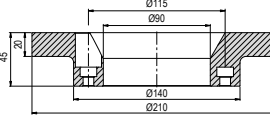
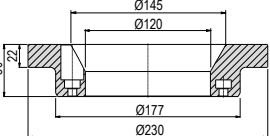
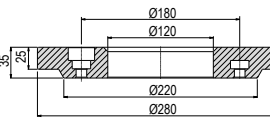
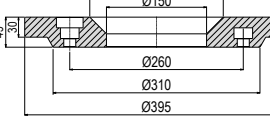
MODELLO MODEL	USCITA OUTPUT	A	B	C	D
G90-5 / G90-7 / G90-7L	ER-11 ER-8 MINI	20	20	38	34
G90-10 / G90-10L	ER-16 ER-11 MINI	37	28	52	44,5
G90-16 / G90-16L	ER-25 ER-16 MINI	47	35	81,5	58,5
G90-20 / G90-20L	ER-32 ER-20 MINI	66	46	103,5	72,5
G90-30 / G90-30L	ER-40 ER-25 MINI	79	53	120	82



Teste angolari MTC doppia uscita
Double output MTC angle heads



CONI / FLANGE / PROLUNGHE SHANKS / FLANGES / EXTENSIONS

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

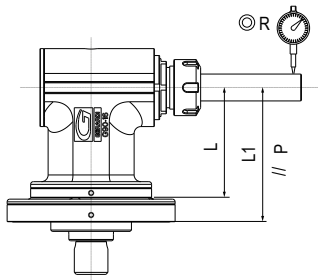
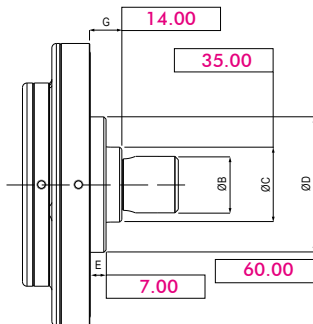
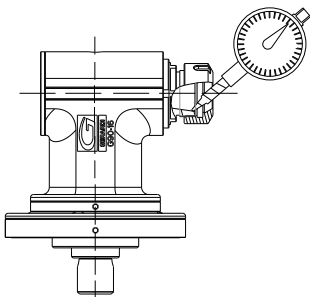
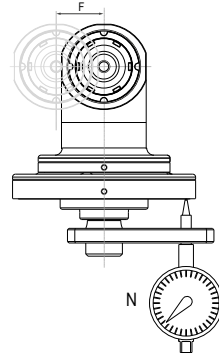


Senza cono -100 €
No shank -100 €

ESEMPIO SCHEDA DI COLLAUDO

INSPECTION SHEET EXAMPLE

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

TIPO DI CONTROLLO Test type	RAFFIGURAZIONE Drawing	ERRORE Error	TIPO DI CONTROLLO Test type	RAFFIGURAZIONE Drawing	ERRORE Error
<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>Ammesso Allowed A = ±0,03 R = ±0,025 P = ±0,015/100</p> <p>Rilevato Checked</p> <p>L = +0,020 L1 = +0,010 R = 0,025 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>Ammesso Allowed E/G = 0,1/-0,5 C/D = +0/-0,03</p> <p>Rilevato Checked</p> <p>B = 25h7 ok E = -0,100 G = -0,150 C = -0,020 D = -0,030</p>
<p>Oscillazione mandrino porta utensile.</p> <p>Runout in cutter spindle.</p>		<p>Ammesso Allowed 0,010</p> <p>Rilevato Checked</p> <p>0,008</p>	<p>Perpendicolarità e disassamento tra gli assi principali.</p> <p>Perpendicularity and offset between main axes.</p>		<p>Ammesso Allowed F = ± 0,020 N = 0,010/100</p> <p>Rilevato Checked</p> <p>F = 0,015 N = 0,010/100</p>

RODAGGIO TESTA - RUN-IN

RPM in entrata RPM	Durata Time	Temperatura Ambiente Room Temperature	Temperatura Sonda Sensor Temperature	Note Notes
1000	00:10:00	20°	28°	
2000	00:10:00		37°	
3000	00:05:00		41°	
4000	00:05:00		48°	
5000				
6000				

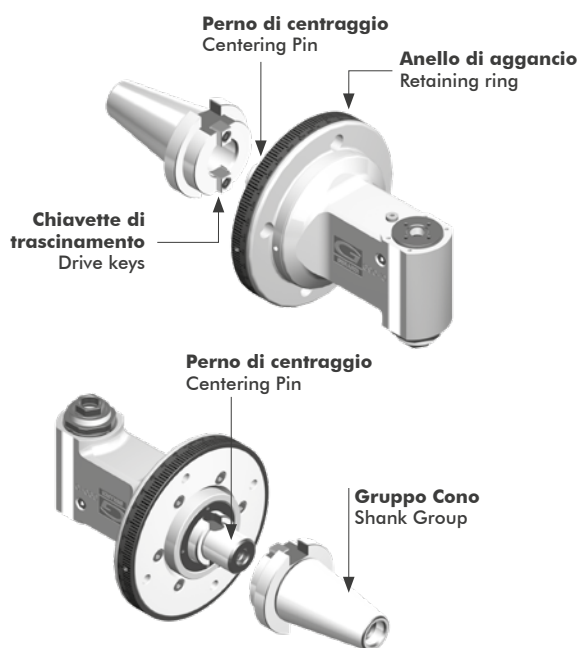
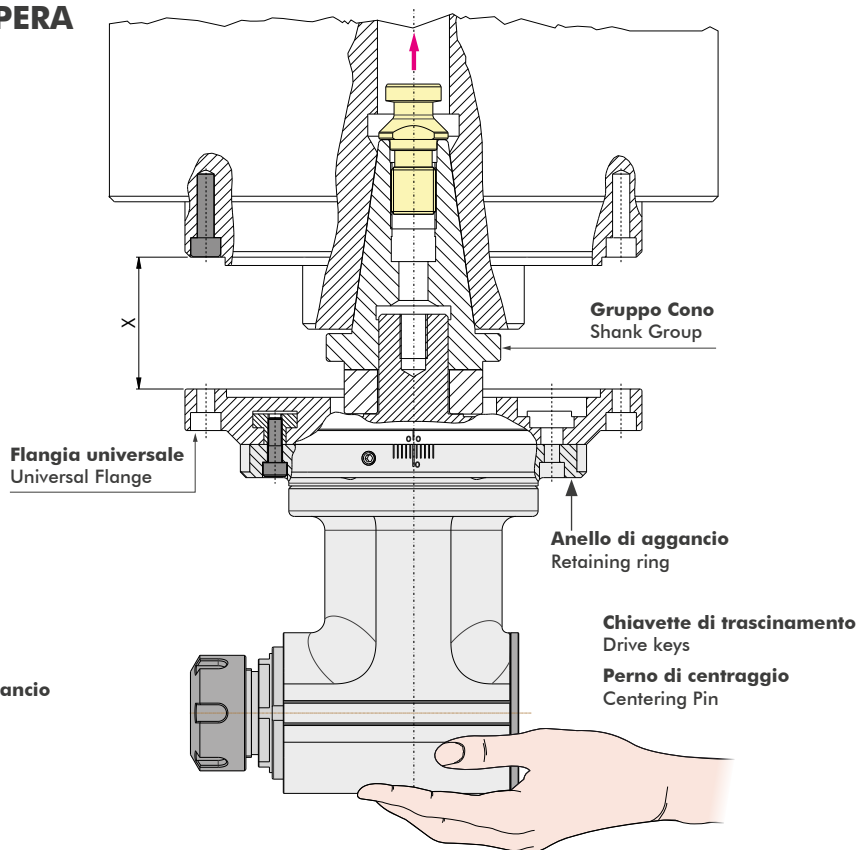
Revisioni - Revisions	Timbro - Stamp	Data - Date
		Firma - Signature

ESEMPIO di MONTAGGIO MOUNTING EXAMPLE

DISTANZIALE REALIZZATO IN OPERA SPACER TO BE MADE

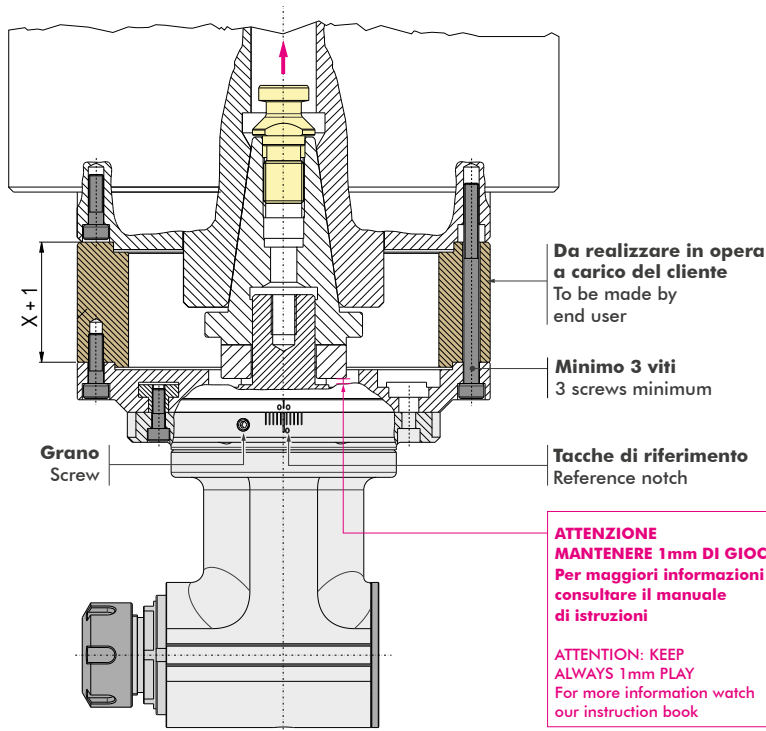
FASE 1 - STEP 1

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



FASE 2 - STEP 2

- Realizzare un distanziale con spessore $X + 1$ mm
- Rimontare il tutto in macchina.
- Orientare e posizionare correttamente la testa angolare
- Azzerare l'anello graduato tramite il grano e le tacche di riferimento
- Make a spacer with $X + 1$ mm thickness.
- Reassemble the Head on the machine.
- Turn the angle head in the correct position.
- Set the graduated ring by rotating the screw to the 0 position.



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

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

PINZE - COLLETS

SCHAUBLIN



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

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

ER-DIN 6499

Foratura-fresatura / drilling-milling


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

Maschiatura / tapping


PINZA ET1 (compensate) COLLET ET1 (compensation)	Code
-	-
-	-
-	-
ET 1-16 (M2 - M8)	9.ET.16000
-	-
-	-
ET 1-25 (M2 - M12)	9.ET.25000
-	-
-	-
ET 1-32 (M3,5 - M16)	9.ET.32000
-	-
-	-

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

WP= Resistenza all'acqua
 WP= Waterproof

GHIERE - NUTS

ES - STD

CHIAVI - WRENCHES

ES - STD

1

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

CHIAVI WRENCHES	Code	
-	-	
-	-	



MODELLO MODEL	GHIERA NUT	Code	COPPIA SERRAGGIO CLAMPING FORCE (Nm)	
G90-5	ER8	9.ER.080ES	5 (6)	
GL90-7 G90-7 / 7L	ER11 ES	9.ER.110ES	12 (15)	
GL90-7B G90-7B/ 7LB	ER11 ES	9.ER.110ES	12 (15)	
GTU 10 GL90-10 G90-10 / 10L GR90-10	ER16 ES	9.ER.170ES/C	24 (30)	
GL90-10B G90-10B / 10LB G90-10RI / 10LRI GR90-10RI	ER16 ES	9.ER.160ES	24 (30)	
GMU-13	ER20 STD	9.ER.20STD	28 (35)	
	ER20 AX	9.ER.200AX	52	
GL90-16 G90-16 / 16L GMU-16 GR90-16 G90-16 / 16L 2U	ER25 STD	9.ER.25STD	32 (40)	
	ER25 AX	9.ER.250AX	80	
GL90-16B / RI G90-16B / 16LB G90-16RI / 16LRI GR90-16RI	ER25 STD	9.ER.25STD	32 (40)	
G90-20 / 20L G90-20L/272 GMU-20 G90-20 / 20L 2U	ER32 STD	9.ER.32STD	136 (70)	
	ER32 AX	9.ER.320AX	104	
G90-20B / 20LB G90-20L/272B G90-20RI 20LRI	ER32 STD	9.ER.32STD	136 (70)	
G90-30 / 30L G90-30 / 30L 2U	ER40 STD	9.ER.40STD	176 (220)	
G90-30B 30LB G90-30RI 30LRI	ER40 STD	9.ER.40STD	176 (220)	

CHIAVI WRENCHES	Code	
CH-8 STD	9.CH.08STD	
CH-21 ES	9.CH.210ES	
CH-17 ES	9.CH.170ES	
CH-27 ES	9.CH.270ES	
CH-17 ES	9.CH.170ES	
CH-27 ES	9.CH.270ES	
CH-17 ES	9.CH.170ES	
CH-32 ES	9.CH.320ES	
CH-17 ES	9.CH.170ES	
CH-32 ES	9.CH.320ES	
CH-32 ES	9.CH.320ES	
CH-20 STD	9.CH.20STD	
CH-20 AX	9.CH.200AX	
CH-39 ES	9.CH.390ES	
CH-25 STD	9.CH.25STD	
CH-44 ES	9.CH.440ES	
CH-25 AX	9.CH.250AX	
CH-39 ES	9.CH.390ES	
CH-25 STD	9.CH.25STD	
CH-46 ES	9.CH.460ES	
CH-32 STD	9.CH.32STD	
CH-32 AX	9.CH.320AX	
CH-46 ES	9.CH.460ES	
CH-32 STD	9.CH.32STD	
CH-59-ES	9.CH.590ES	
CH-40STD	9.CH.40STD	
CH-59-ES	9.CH.590ES	
CH-40STD	9.CH.40STD	

1

SIRINGA PER INGRASSAGGIO SYRINGE FOR GREASING



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

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

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

CAMBI RAPIDI MODULARI MODULAR QUICK CHANGE ADAPTORS



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

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

**TEMPI di INSTALLAZIONE
RIDOTTI e POSSIBILITÀ
di PRE-SETTING A
BORDO MACCHINA**

**REDUCE SET-UP TIME
and ALLOW OFFLINE
TOOL PRESETTING !**



Sono un facile e veloce sistema modulare per il cambio rapido delle diverse tipologie di portautensili con la sede dell'utensile per pinza ER (DIN6499).

Idonei a refrigerazione esterna o interna mantenendo il presetting precedentemente realizzato.

They are a modular toolholder system for the fitting of toolholders in a spindle unit with ER collets (DIN6499) outputs. All Adaptors are suitable for external and internal coolant supply and keep the presetting already done.

Filetto Interno
Internal thread



Filetto Esterno
External thread



Preparazione della Testa Angolare

Preparing the Angle Heads

- 1- **Rimuovere pinza e ghiera di serraggio** / Remove collet and clamping nut
- 2- **Introdurre il cambio rapido** / Introduce the quick change adaptor
- 3- **Stringere la ghiera del cambio rapido** / Lock the quick change nut.

