

GTU-10

TYPE 0

Code:

9.GTU.10000

Price:



Dati tecnici - Technical data

Ratio 1:1	ISO/BT40 3.8 Kg
Rpm 6.000	Ø 10
N 250	M 8
Nm 10	ER16 Ø1/10



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

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

Dotazione Standard
Standard Equipment

Opzioni - Options

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

IMBALLO & PESO

PACK & WEIGHT: Max. Kg



USCITA
OUTPUT
Weldon Max Ø10

optional








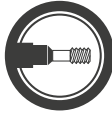

SPINA POSIZIONE RAPIDA
QUICK POSITIONING PIN
Angolazioni personalizzate
Customized angles

optional

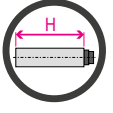


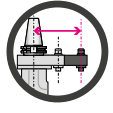
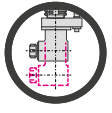

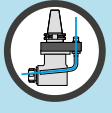
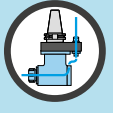
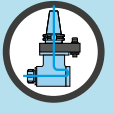

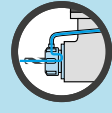
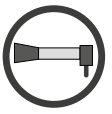

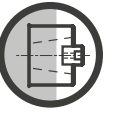
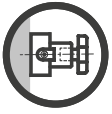


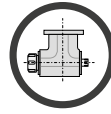


ALTA VELOCITÀ
HIGH SPEED
8.000 Rpm

SIMBOLOGIA DATI TECNICI TECHNICAL DATA LOGOS

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

INDICE OPZIONI OPTIONS INDEX

OPZIONI OPTIONS							
	Prolunga per mandrino ad angolo Extension for angular chuck	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) ROTAZ. a SECCO DRY RUNNING ✓	Perno » Distrib » Utensile Pin » Distributor » Tool 10bar ROTAZ. a SECCO DRY RUNNING ✓	Cono » Distrib » Utensile Shank » Distributor » Tool 30 / 40 / 70bar ROTAZ. a SECCO DRY RUNNING NO	Distributore » Utensile Distributor » Tool 10bar ROTAZ. a SECCO DRY RUNNING ✓	Perno » Ghiera » Utensile Pin » Distrib » Tool ReCool NUT		
USCITA OUTPUT							
	Mandrino ad angolo Angular chuck	Uscita HSK HSK output	Uscita ISO ISO output	Uscita portafresa Toolholder output	Uscita WELDON WELDON output	Uscita C. C. output	Doppia uscita Double output

ATC SERIES AUTOMATIC TOOL CHANGE

1

INGRANAGGI GEARS



Ingranaggi Gleason con evolvente rettificato: massime performances e minori vibrazioni

Gleason ground spiral bevel gears maximum performances and minimum vibration

STOP BLOCK

con bussola cementata e guarnizione

with case hardened bushing and gasket



CUSCINETTI - BEARINGS



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

Angular contact preloaded ball bearings of precision class ABEC 9

DESIGN

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

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

Albero integrale con cono cementato, temprato, rettificato

Integral case hardened and ground shank and shaft

Gruppo antirotante modulare

Modular antirotation group

Anello graduato

Graduated ring

USCITE - OUTPUTS:

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

Perno di riferimento con sbloccaggio automatico del porta utensile

Positioning pin with automatic tool release

Passaggio refrigerante 10BAR attraverso il perno

Standard 10BAR coolant through the pin

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

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



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

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.

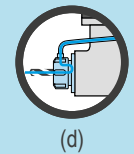
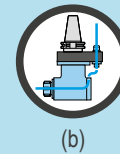
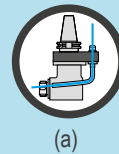
INTEGRAL
Shank & Shaft



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.



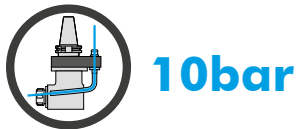
Extension

OPZIONE REFRIGERANTE INTERNO INTERNAL COOLANT OPTION

Opzione B
B option

Opzione RI
RI option

Opzione Re-Cool
Re-Cool option



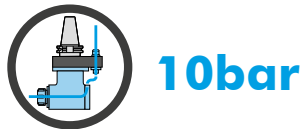
10bar



Perno » Utensile
Positioning Pin » Tool

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

ROTAZIONE A SECCO - DRY RUNNING
POSSIBILE - POSSIBLE



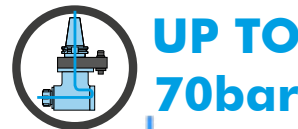
10bar



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

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

ROTAZIONE A SECCO - DRY RUNNING
POSSIBILE - POSSIBLE



UP TO 70bar



Cono » Distributore » Utensile
Shank » Rotating Distributor » Tool

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

ROTAZIONE A SECCO - DRY RUNNING
NON POSSIBILE - NOT POSSIBLE



10bar

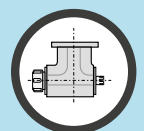


Perno » Ghiera ReCool » Utensile
Positioning Pin » ReCool Nut » Tool

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

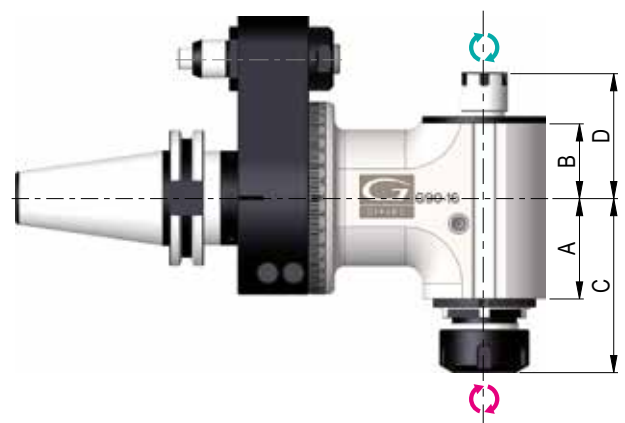
PAG. 1.87 - PAG. 1.87

OPZIONE DOPPIA USCITA DOUBLE OUTPUT OPTION



Disponibile per i modelli - Available for following types:

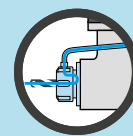
MODELLO MODEL	USCITA OUTPUT	A	B	C	D
GL90-7	ER-11	20	20	38	34
G90-5 / G90-7 / G90-7L	ER-8 MINI				
GL90-10	ER-16	37	28	52	44,5
G90-10 / G90-10L	ER-11 MINI				
GL90-16	ER-25	47	35	81,5	58,5
G90-16 / G90-16L	ER-16 MINI				
G90-20 / G90-20L	ER-32	66	46	103,5	72,5
G90-30 / G90-30L	ER-40				
	ER-25 MINI	79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



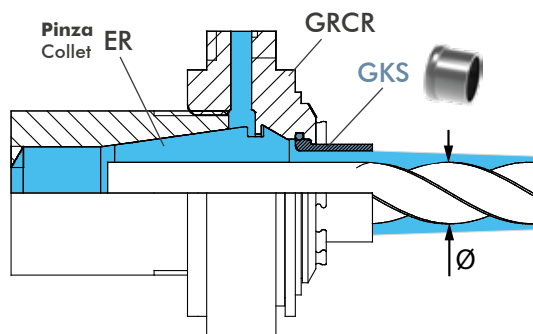
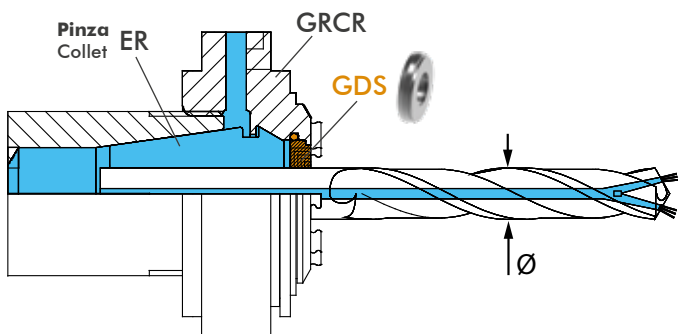
Teste angolari ATC doppia uscita
Double output ATC angle heads

GHIERE ER ReCool ReCool ER NUTS

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



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



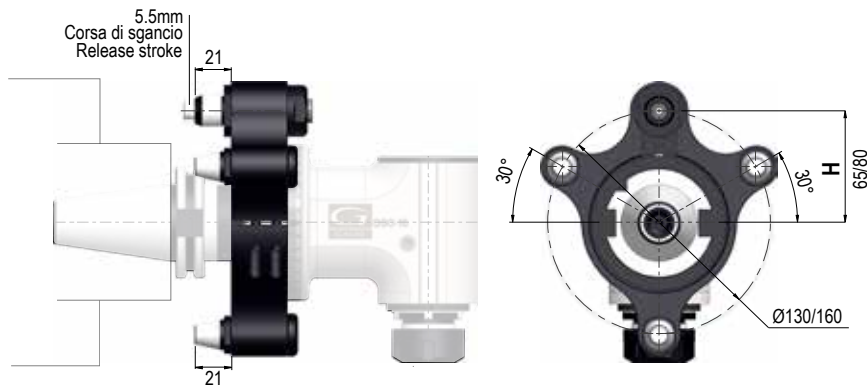
Tipo di ghiera Nut type	≤3000 Rpm	≤6000 Rpm	≤9000 Rpm	≤12000 Rpm
GRCR16	5 bar	7,5 bar	10 bar	15 bar
GRCR20	5 bar	7,5 bar	10 bar	15 bar
GRCR25	5 bar	7,5 bar	10 bar	15 bar
GRCR32	5 bar	10 bar	15 bar	20 bar
GRCR40	5 bar	10 bar	-	-

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)

SISTEMA ANTIROTANTE MULTIPOINT MULTIPOINT ANTIROTATION SYSTEM



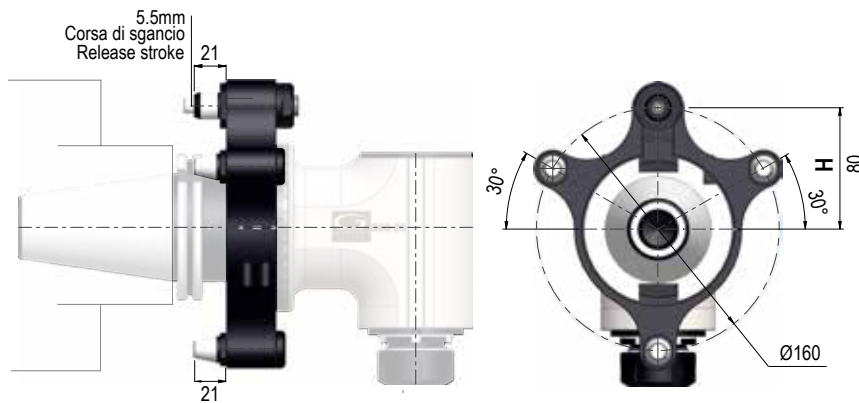
TYPE 1

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

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

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

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



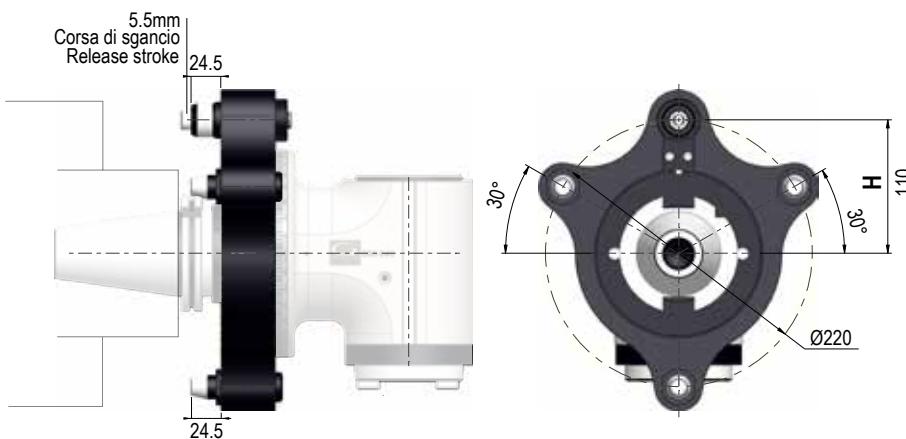
TYPE 2

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

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

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

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



TYPE 3/4

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

Code 9.G90.S40T0/...*

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

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

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

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

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

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

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



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

ESEMPIO di MONTAGGIO SERIES ATC

ATC SERIES MOUNTING EXAMPLE

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

1) STOP-BLOCK GIÀ PRESENTE SUL MANDRINO MACCHINA

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

STOP-BLOCK ALREADY MOUNTED ON THE MACHINE SPINDLE

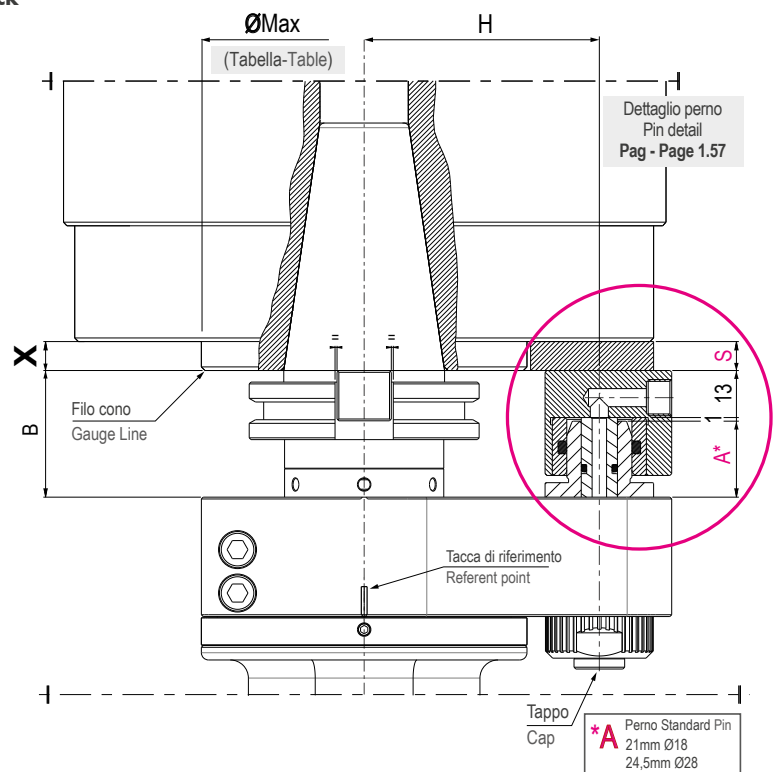
- For Gerardi items, please indicate the type of Angle Head, the H dimension, the pin diameter and height.
- For non-Gerardi items, please send us the stop-block and the machine spindle drawings in order to design the right pin. If possible, we suggest you to use Gerardi standard stop block, taking off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

2) NESSUNO STOP-BLOCK MONTATO SUL MANDRINO MACCHINA

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

NO STOP-BLOCK MOUNTED ON THE MACHINE SPINDLE

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



$$S = X + B - 35$$

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

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

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

X	B
12mm	35mm (SK40)

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

Esempio di calcolo spessore distanziale
Example of calculation for spacer thickness

ESEMPIO di MONTAGGIO SERIE ATC

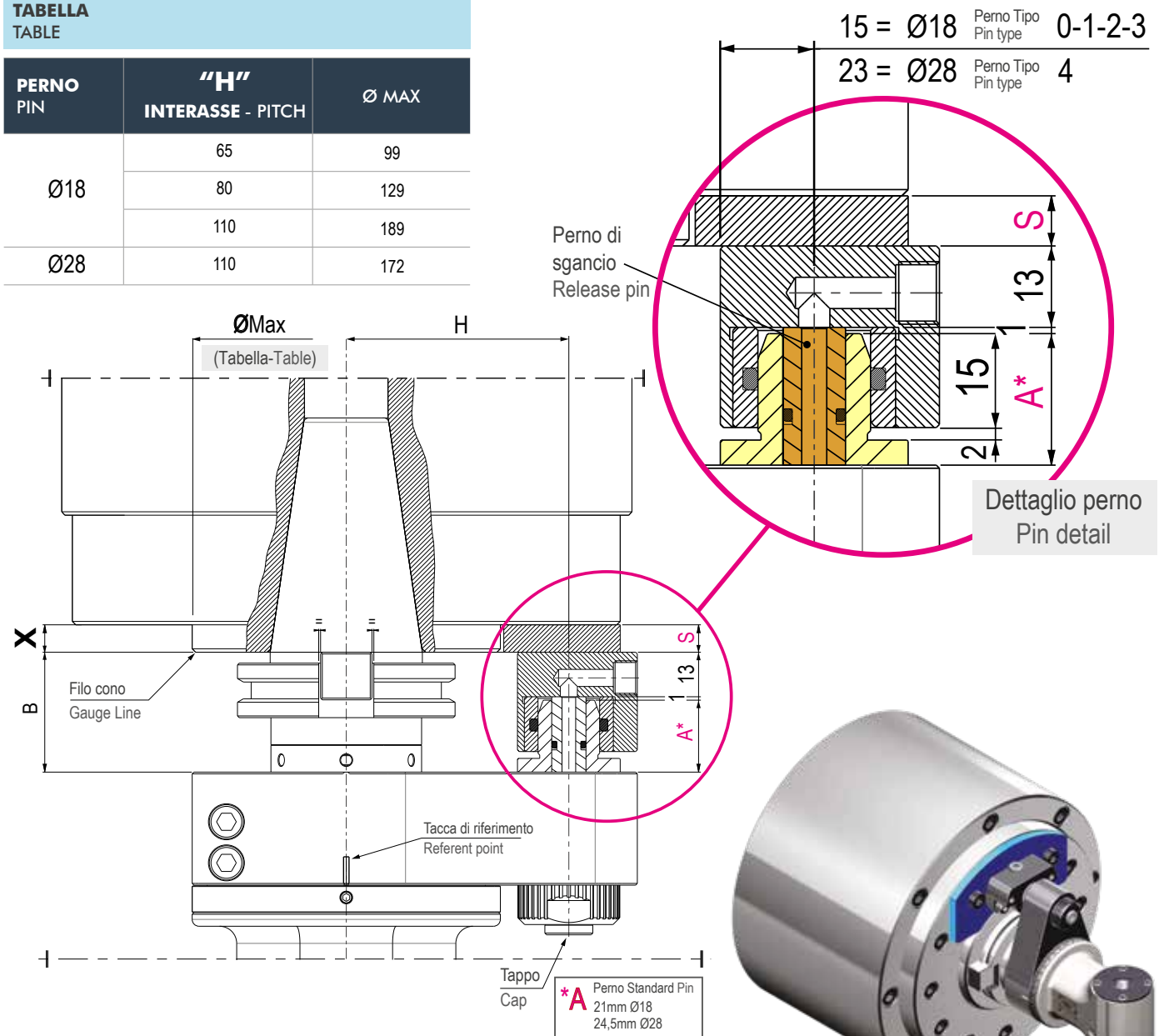
ATC SERIES MOUNTING EXAMPLE

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

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

TABELLA
TABLE

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



ATTENZIONE - ATTENTION

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

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

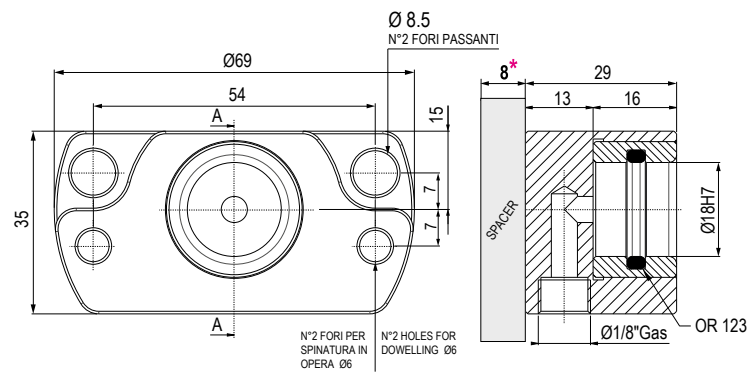
STOP-BLOCK Standard



Ø18

Con bussola temprata - with hardened bushing

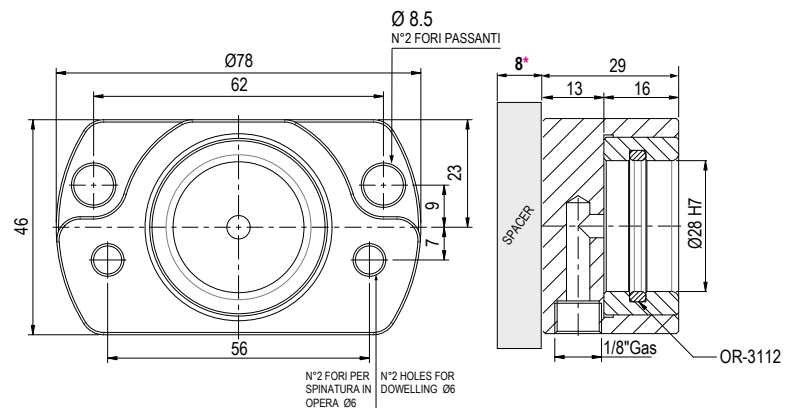
STOP BLOCK Code	
9.INDEX.18	
NO STOP BLOCK INCLUDED	
BUSHING Code	
9.G18.INDEX.2	



Ø28

Con bussola temprata - with hardened bushing

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



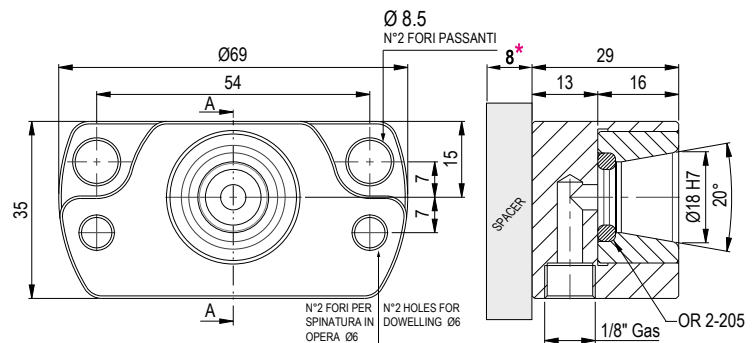
STOP-BLOCK Conico - Conical



Ø18

Con bussola temprata - with hardened bushing

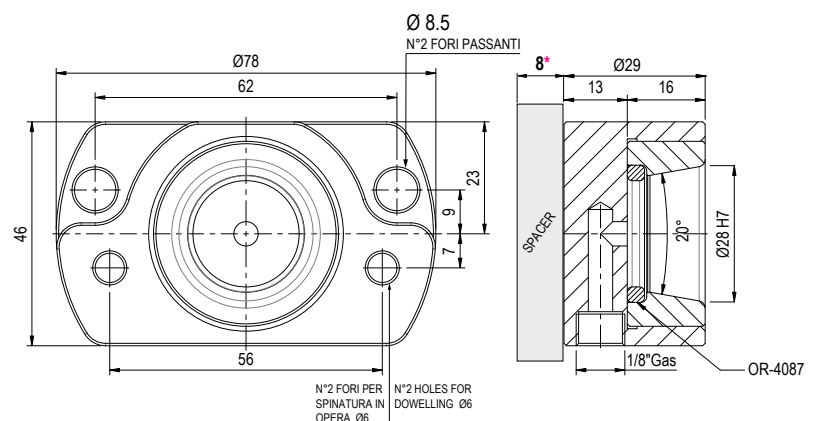
STOP BLOCK Code	
9.INDEX.18C	
NO STOP BLOCK INCLUDED	
BUSHING Code	
9.G18.INDEX.2C	



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

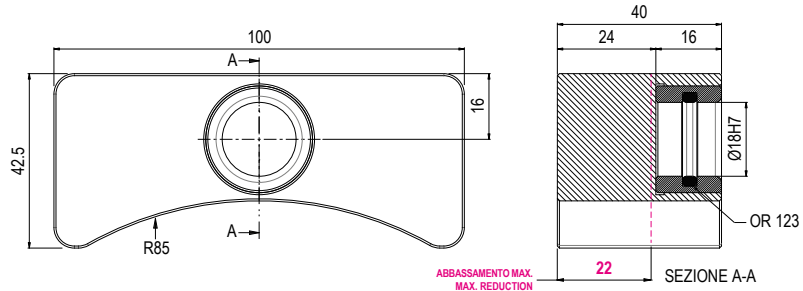
STOP BLOCK Code

9.G18.INDEX

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2



Ø28

Con bussola temprata - with hardened bushing

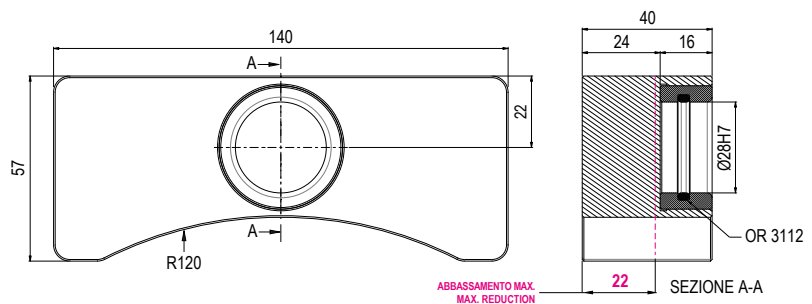
STOP BLOCK Code

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

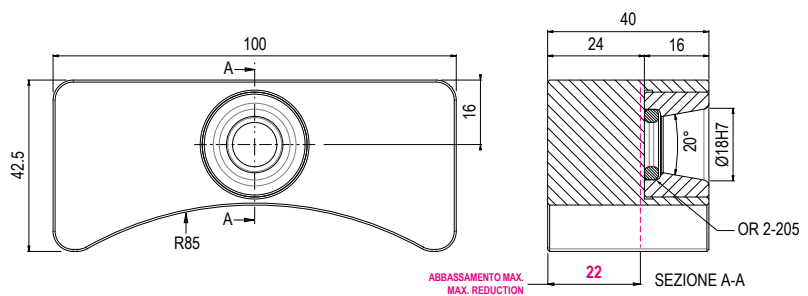
STOP BLOCK Code

9.G18.INDEXC

NO STOP BLOCK INCLUDED

BUSHING Code

9.G18.INDEX.2C



Ø28

Con bussola temprata - with hardened bushing

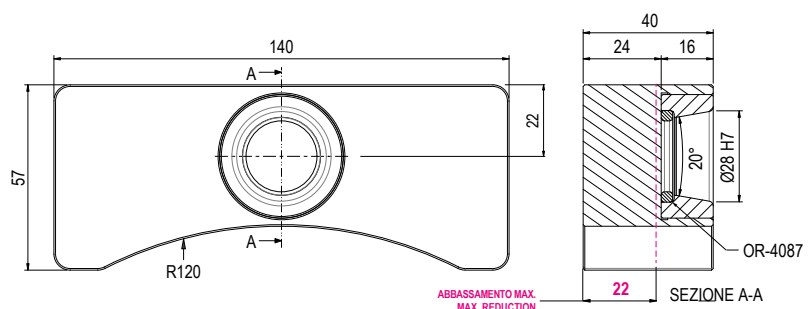
STOP BLOCK Code

9.G28.INDEXC

NO STOP BLOCK INCLUDED

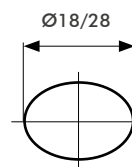
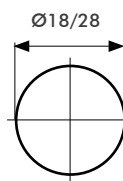
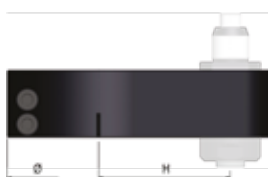
BUSHING Code

9.G28.INDEX.2C



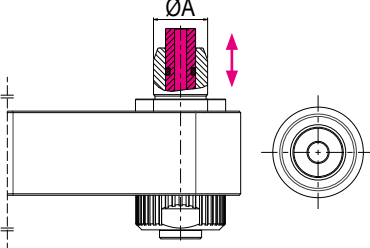
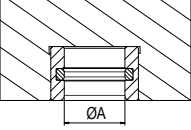
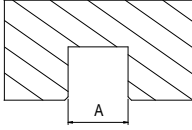
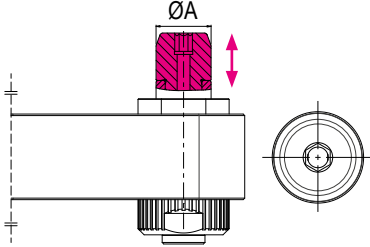
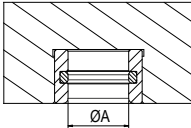
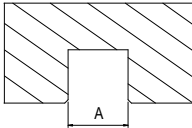
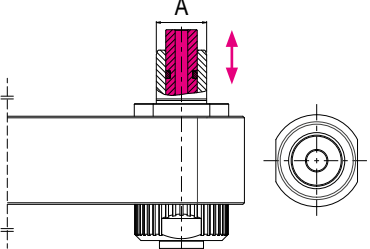
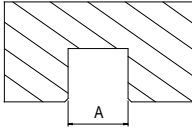
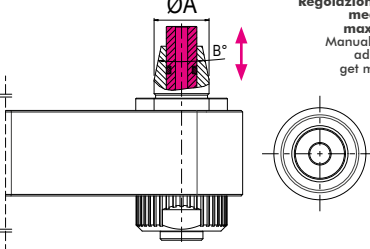
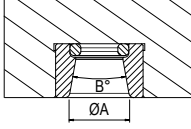
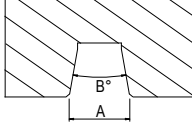
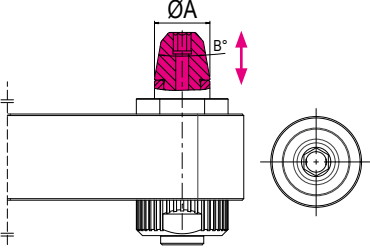
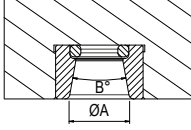
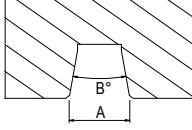
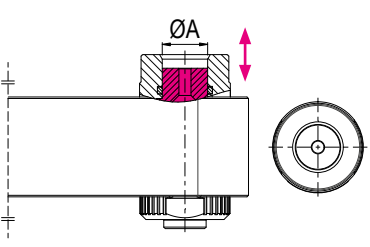
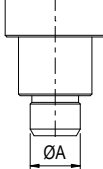
** A richiesta
** On request

GRUPPO ANTIROTANTE ANTI-ROTATION GROUP



TESTA ANGOLARE ANGLE HEADS		GRUPPO ANTIROTANTE ANTI-ROTATION GROUP		FLANGIA INTEGRALE INTEGRAL FLANGE			STANDARD 2 AXIS	ON REQUEST 1 AXIS	GRUPPO PERNO PIN GROUP		
MODELLO Model	TIPO Type	Code		Code	Ø	H	PERNO CILINDRICO CYLINDRICAL PIN	PERNO ELLITTICO ELLIPTIC PIN	P	L	
GL90-7 GL90-10 GL90-16 GTU-10	0 Ø73	9.GMU.13050C/i65		9.GMU.13030/i65		65		9.GMU.130	Ø18	21	
		9.GMU.13050C/i80									
		9.GMU.13050C/i110		9.GMU.13030/i80	Ø73	80		9.GMU.1307	Ø18	35	
		9.GMU.13050/i65		9.GMU.13030/i110		110	9.GMU.1307		Ø18	21	
GMU 13 / 13L		9.GMU.13050/i80					9.GMU.1307		Ø18	35	
		9.GMU.13050/i110							Ø18	35	
G90-5 G90-7 / 7L G90-7 / 7L 2U G90-10 / 10L G90-10 / 10L 2U G90-16 / 16L G90-16 / 16L 2U GMU-16 GR90-5 GR90-10 GR90-16	1 Ø90	9.G90.16050/i65		9.G90.16030/i65		65					
								9.G90.16071C		Ø18	21
		9.G90.16050/i80		9.G90.16030/i80	Ø90	80					
		9.G90.16050/i110		9.G90.16030/i110		110	9.G90.16071C		Ø18	35	
G90-20 / 20L G90-20 / 20L 2U GMU 20	2 Ø110	9.G90.20050/i80		9.G90.20030/i80		80					
		9.G90.20050/i110		9.G90.20030/i110	Ø110	110	9.G90.16071C		Ø18	21	
G90-30 / 30L G90-30 / 30L 2U	3 Ø140	9.G90.30050/i110		9.G90.30030/i110	Ø140	110	9.G90.16071C		Ø28	35	
G90-S40 G90-S40L GR90-S40	4 Ø170	9.G90.S4050/i110		9.G90.S4023/i110	Ø170	110	9.G90.16072C		Ø28	24,5	

GRUPPO PERNO SPECIALE SPECIAL PIN GROUP

FORMA Shape	TIPI DI PERNI Pin Types		TIPI DI STOP-BLOCK Stop-block Types	
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			Bussola conica Conic bushing 	Prismatico conico Conic prismatic 
Conico flottante Floating conical E			Bussola conica Conic bushing 	Prismatico conico Conic prismatic 
Cilindrico femmina Female cylindrical F			Cilindrico maschio Cylindric male 	

* Extra prezzo perno speciale
* Extra price special pin