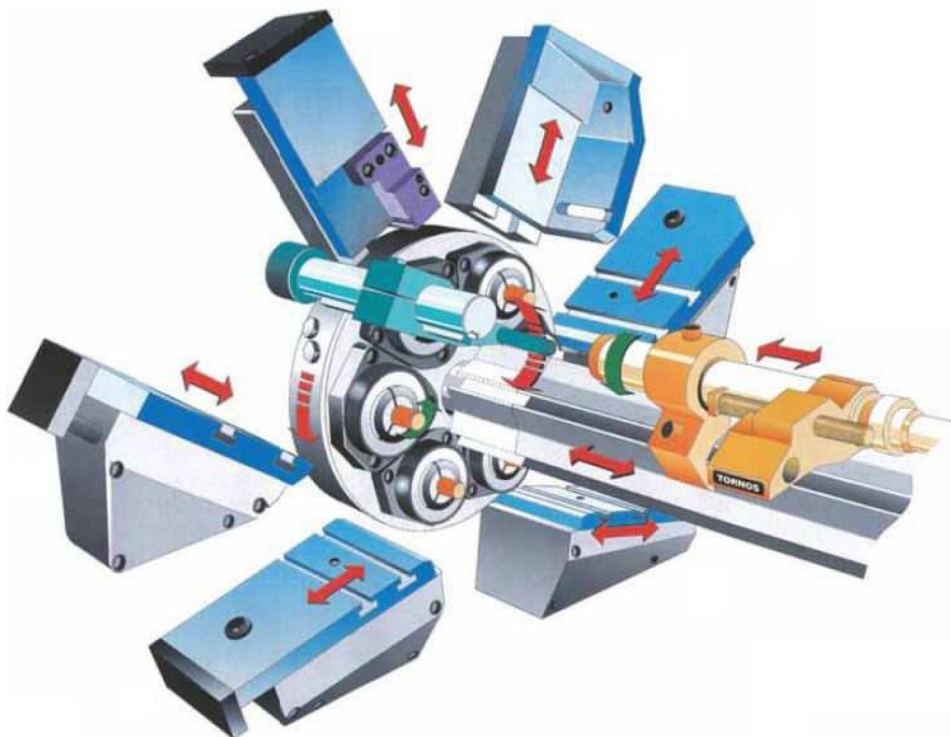


**SPARE PARTS AND ATTACHMENT  
FOR MULTISPINDLE MACHINES**

**TORNOS AS14  
TORNOS SAS16**



## STANDARD CAMS AND MACHINE GEARS



Speed gears



Feed gears



Threading gears

**FRONTAL DRILL-HOLDERS**



drill-holder

- AS27/3 collet-pince: W12 pos.1-2-3-4-5-6 (R1X100)
- AS27/29 collet-pince: W20 pos.1-2-3-4-5-6 (R1X400)
- AS27/26 collet-pince: ESX16 pos.1-2-3-4-5-6 (R1X300)
- AS27/3-1 collet-pince: ESX25 pos.1-2-3-4-5-6 (R1X200)



AS31/26



BS31/1



AS31/4



AS31/1



AS31/2

Independent non-rotating spindle

- AS27/8 collet - pince: ESX16 pos.3-4-5-6 (R1E100)
- AS27/8 collet - pince: ESX25 pos.3-4-5-6 (R1E200)
- AS27/8 collet - pince: ESX32 pos.3-4-5-6 (R1E300)
- AS27/36 collet - pince: ESX16 pos.1-2 (R1E400)



Forks for non-rotating spindles

WE CAN BUILD FIX OR ROTATING SPINDLE  
BASED ON CUSTOMER'S DRAWING

## ROTATING DRILL-HOLDERS

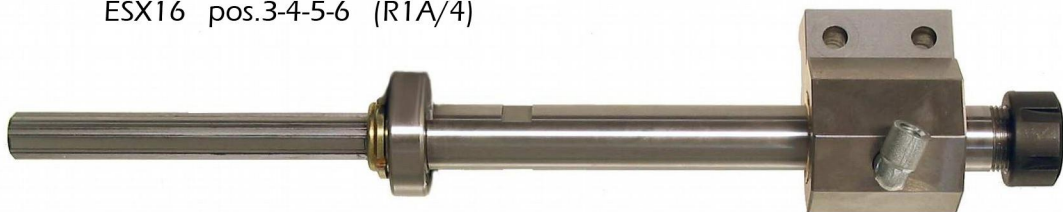


AS27/2 Rotating spindle on centre block

ESX16 pos.3-4-5-6

AS27/1 Independent rotating spindle

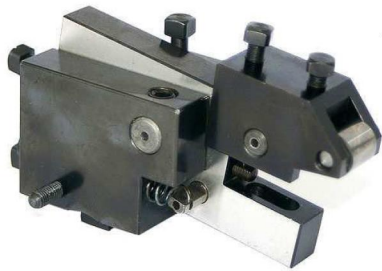
ESX16 pos.3-4-5-6 (R1A/4)



Forks for rotating spindles



**SHAVING TOOL-HOLDERS**



AS30/16  
pos.5



AS30/27  
pos.3-4



AS30/24  
pos.2

**UNIVERSAL TOOL-HOLDERS**



AS30/81  
Pos. 1-2-3-4



AS30/80  
Pos. 1-2-3-4



AS30/26  
Pos. 3-4-5

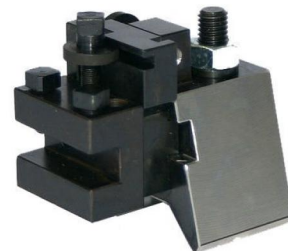


AS30/25  
Pos. 1-2

**TOOL-HOLDERS**

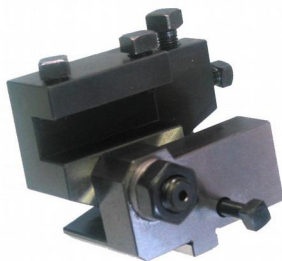


AS30/92  
Pos. 1-2-3-4-5

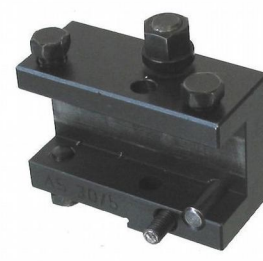


AS30/93  
Pos. 1-2-3-4-5

**TOOL-HOLDERS**



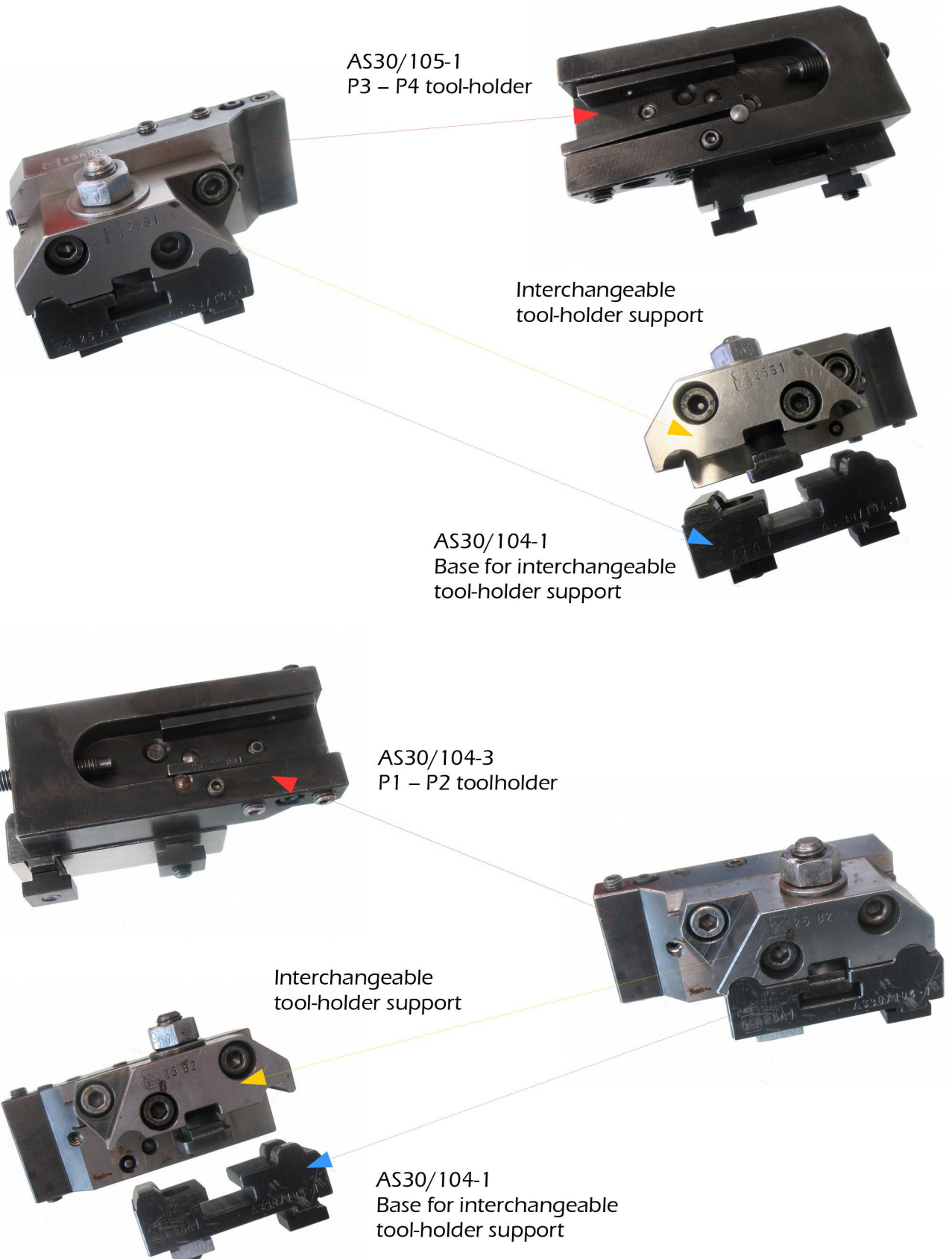
AS30/3  
Pos. 5



AS30/5  
Pos. 6

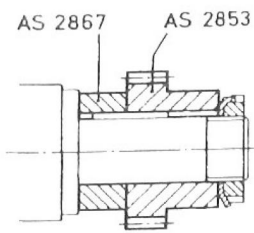
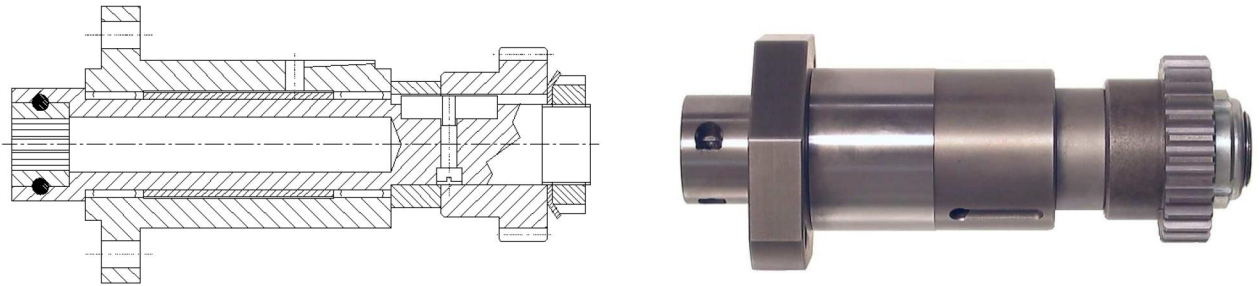
**TOOL-HOLDERS**

**INTERCHANGEABLE TOOL-HOLDERS**

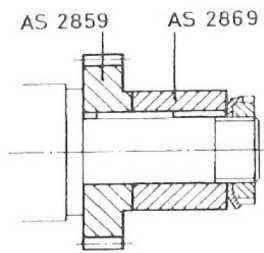


**DRIVING QUILLE**

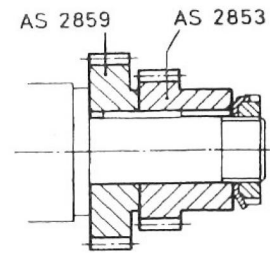
AS 28/1A



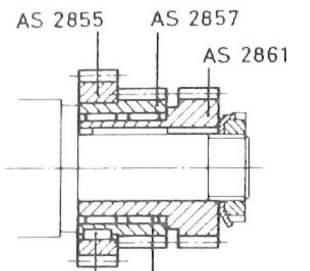
AS 28/1B



AS 28/1C

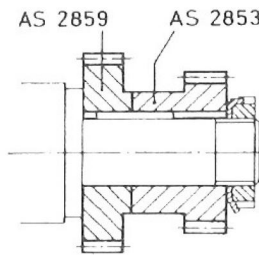


AS 28/1D

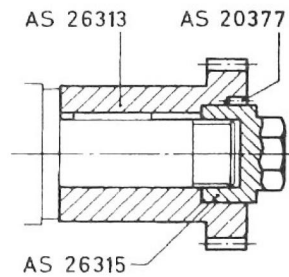


AS 2865 INA-K.36\*42\*16

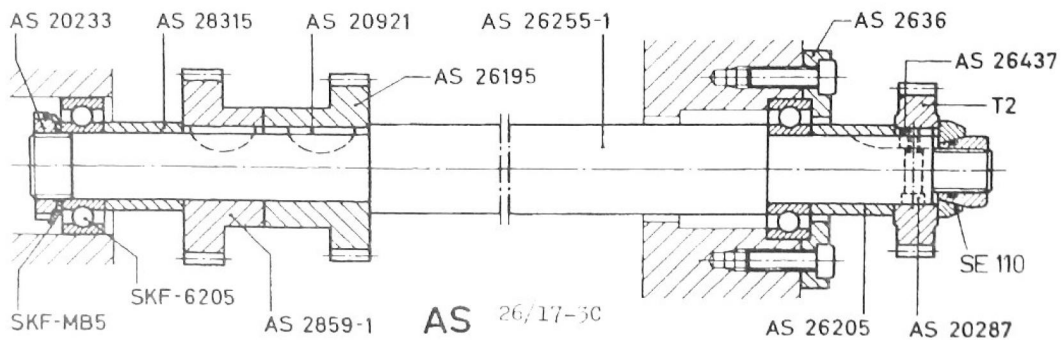
AS 28/1E



AS 28/1F



AS 28/1H

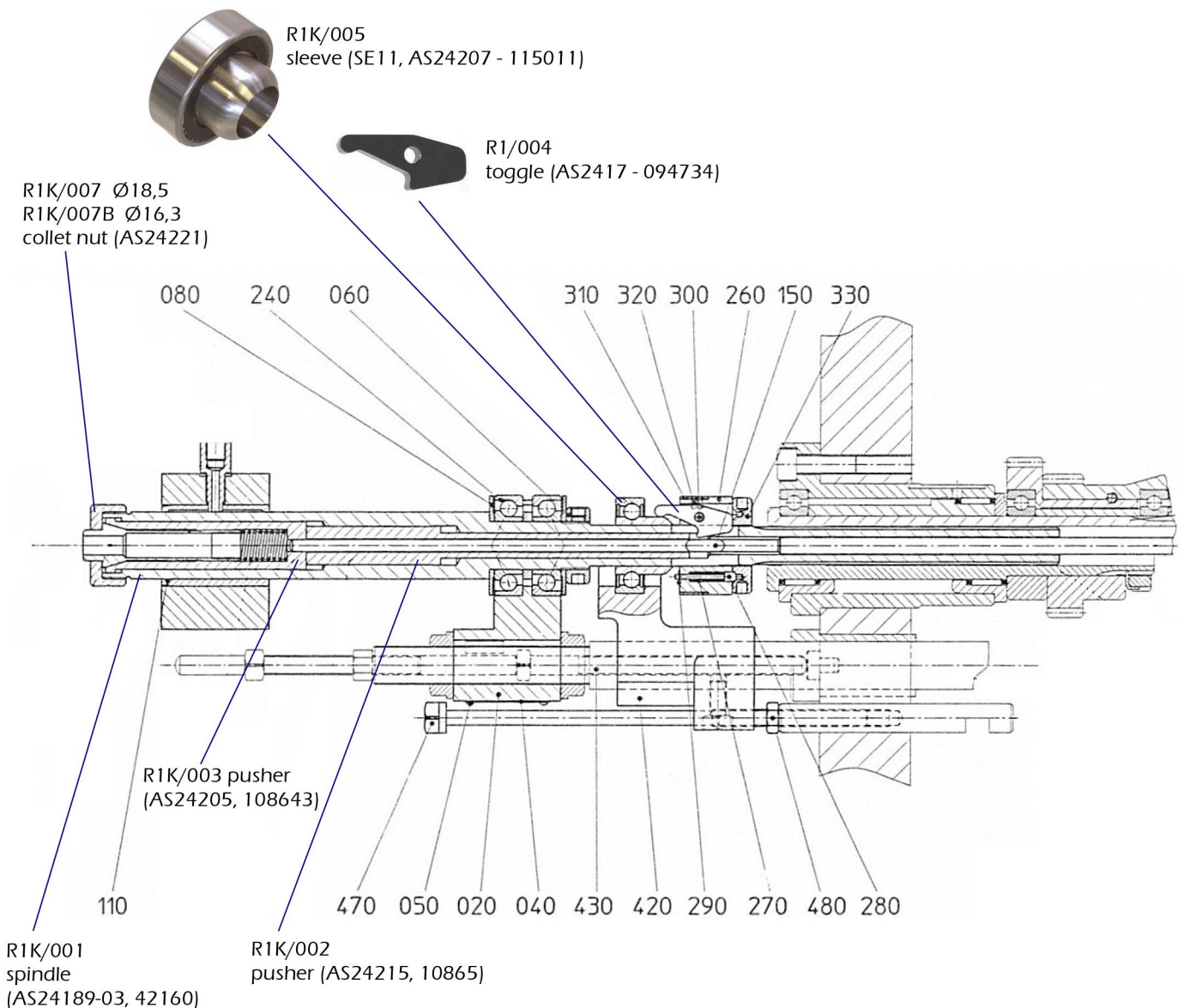


AS 26/17-50



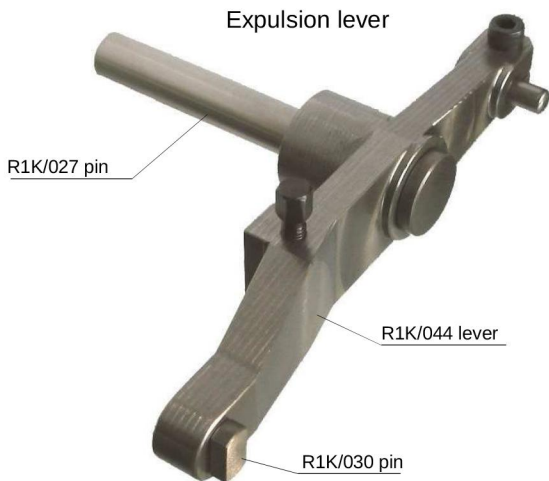
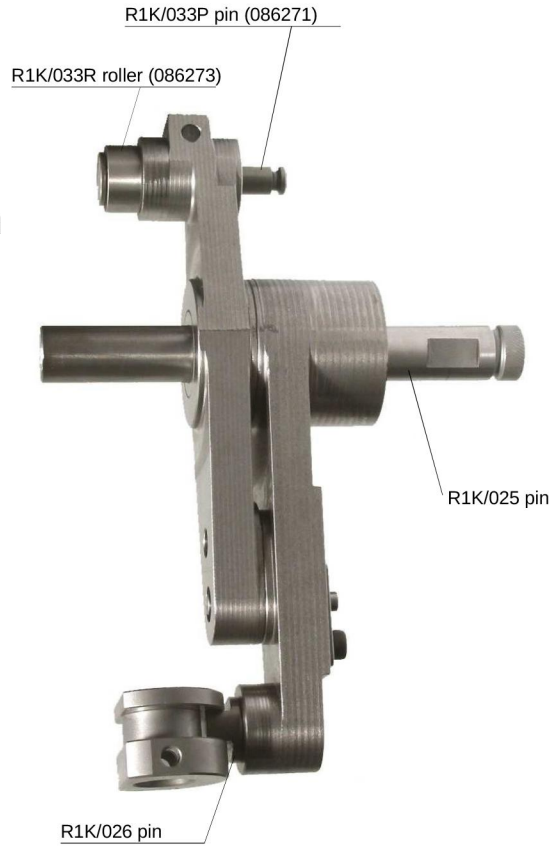
## AS24/3 PICK-UP ATTACHMENT

The pick-up attachment is used on cutting-off position frontally. Its spindle rotates at the same speed than the bar, its collet clamps the part during the cutting-off. Still with part in the collet, it goes backward, allowing the positioning of the reprise tool-holder in front. Going forward against the reprise tool it makes the finishing of the part on the back side. The last phase is the opening of the collet and the expulsion of the part.



**AS24/3 PICK-UP ATTACHMENT**

Spindle moving back and forward  
double lever with safety pin



AS2422  
R1K/300 tool-holder support

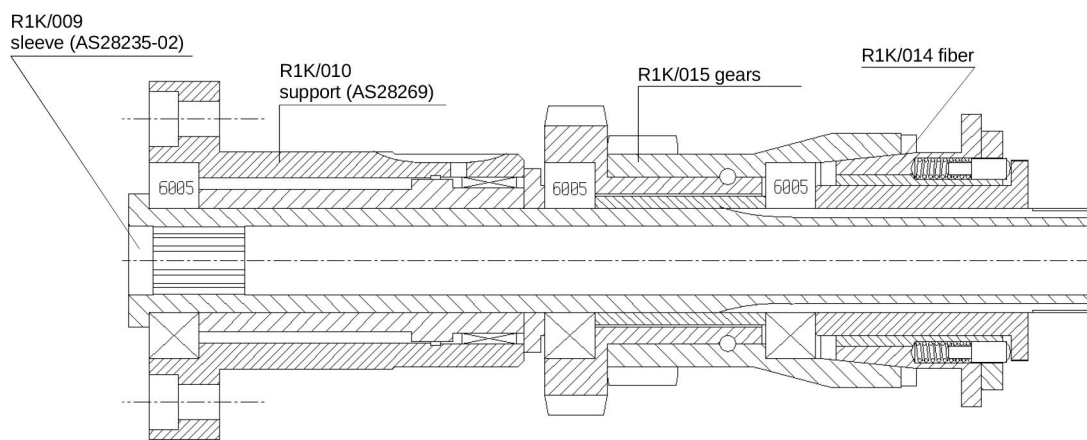


10888  
AS24399 tool-holder

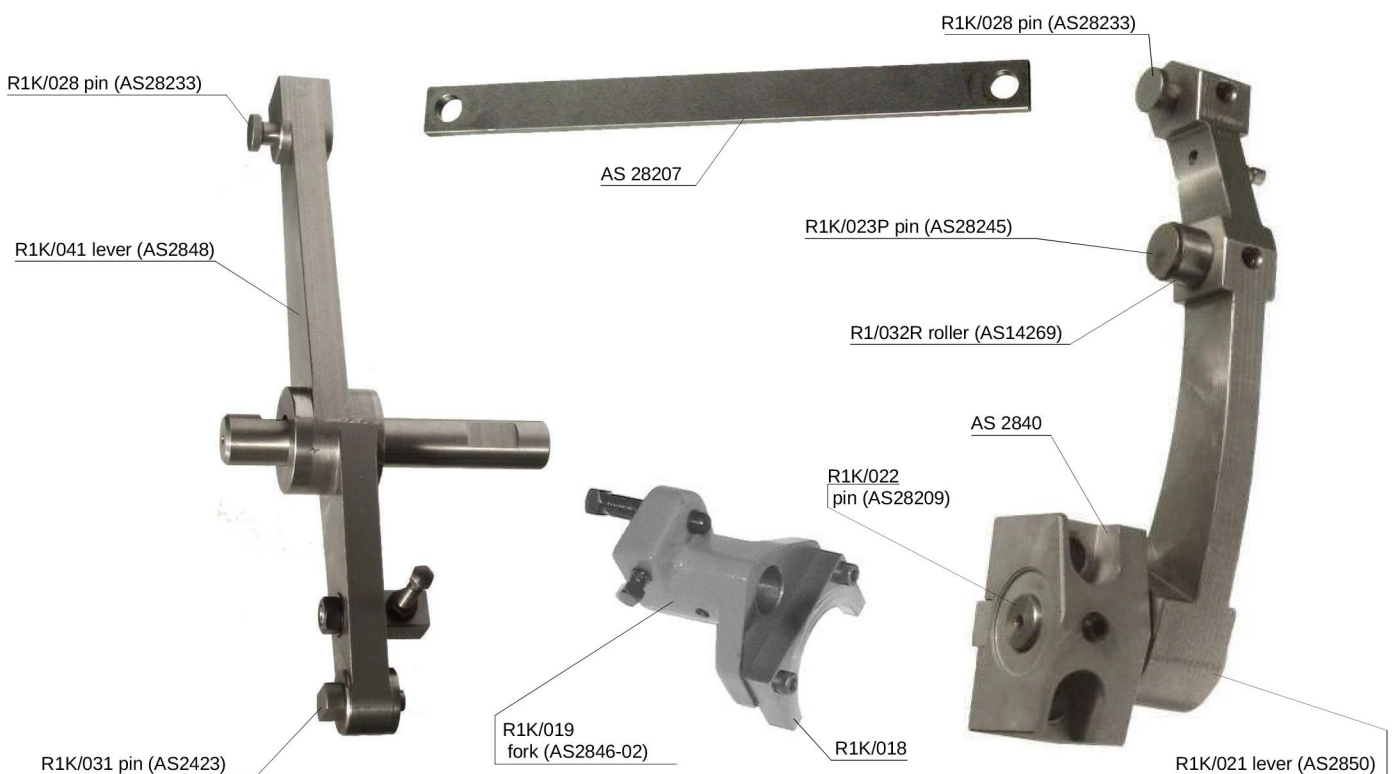
AS2910 28930  
R1K/052 bar-stop lever



## AS28/26 PICK-UP DRIVING WITH BRAKE

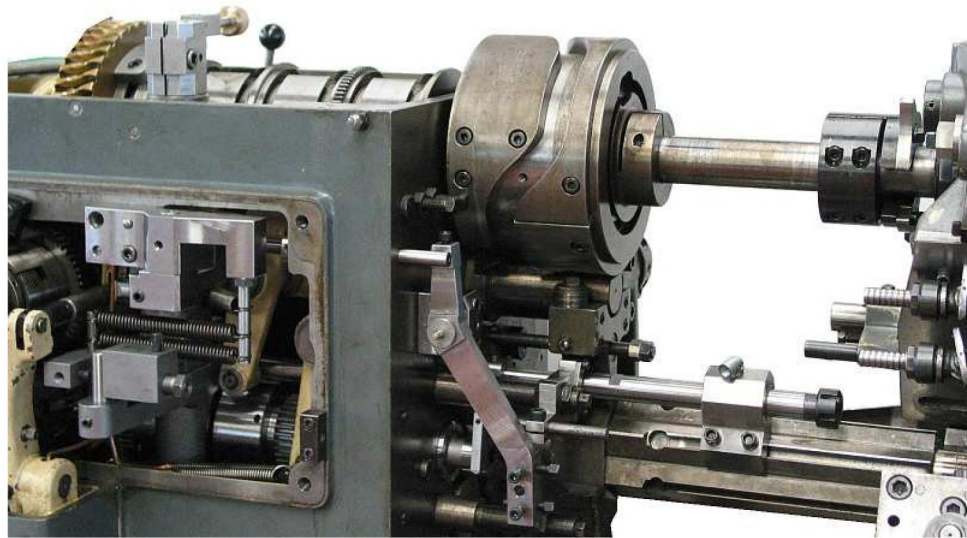
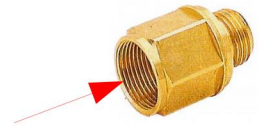


This driving unit is designed to stop the rotation of the pick-up spindle just before the expulsion of the component, in order to avoid any damage to the same component. Otherwise it could hit some part of the machine at a very high speed. This is possible thanks to a mechanical fiber clutch that disconnects the driving and allows the brake to stop the spindle.

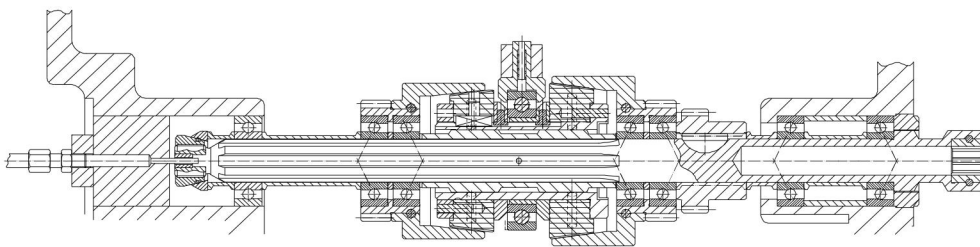




**FULL THREADING ATTACHMENT**



This attachment is used to make internal threads by a tap or external threads by a die. We supply it complete with everything necessary (clutches, shafts, gears, threading spindle, cams, ratio gears, safety micros, instruction book). Its design is based on the original attachment, AS26/18 so we can even supply our parts like spares for your original attachment.



AS 26/18-2  
Driving Shaft with threading clutches on to fit in pos.4



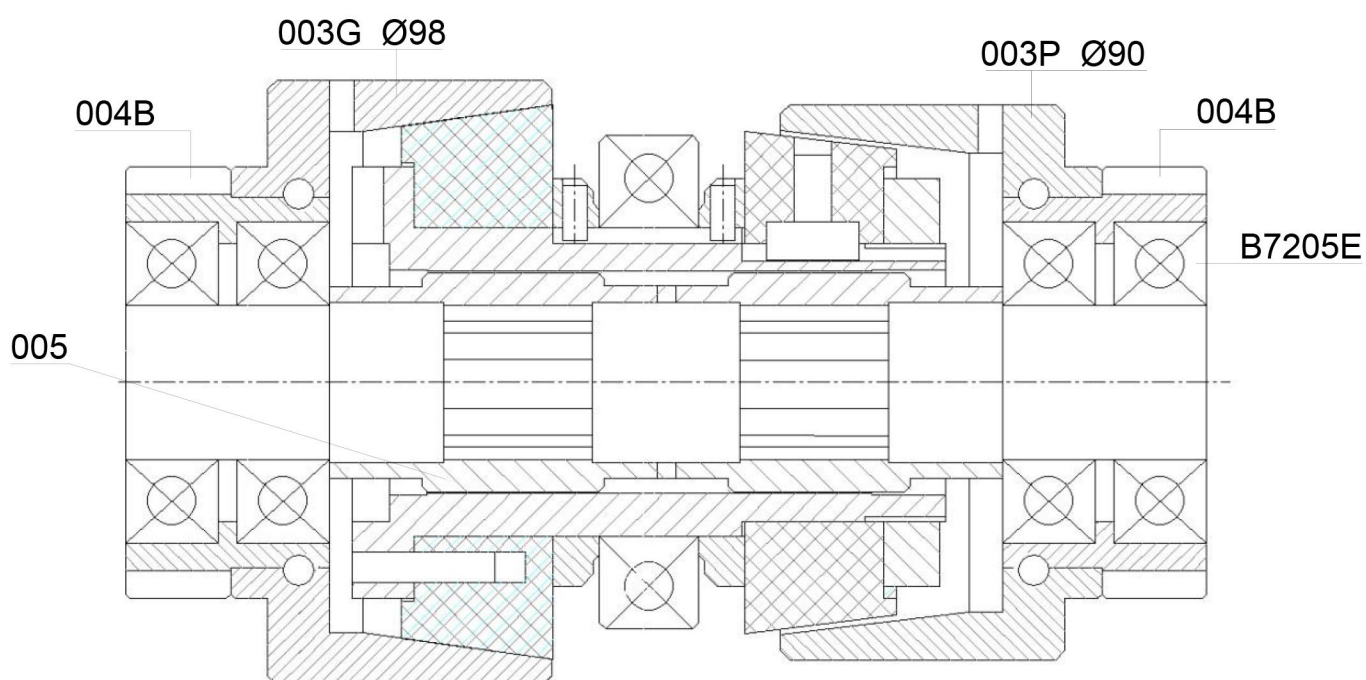
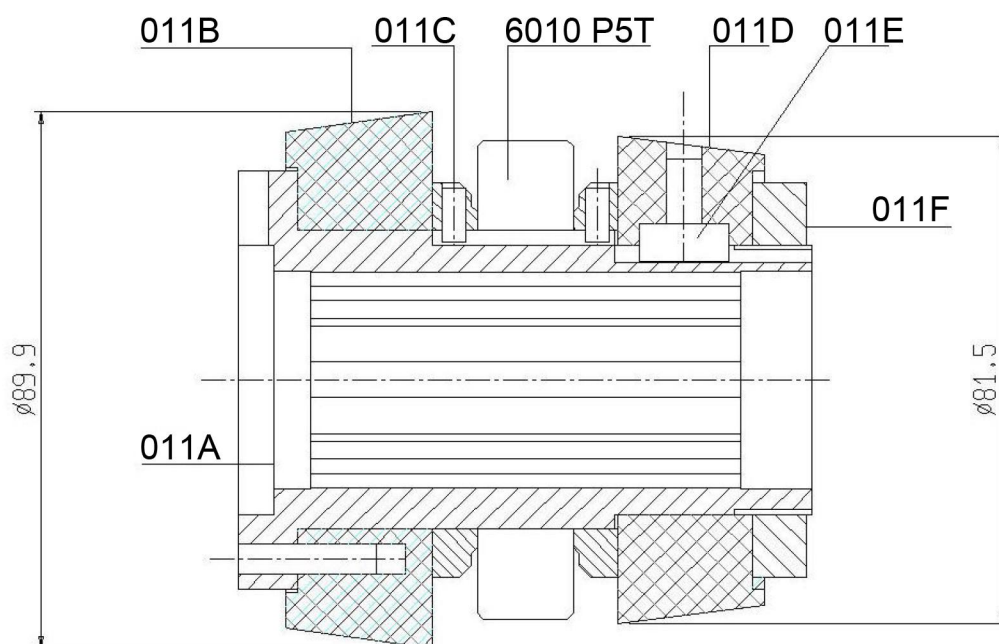
Mid-Shaft for off-speed



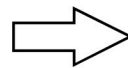
Mid-Shaft for in-speed



**FULL THREADING ATTACHMENT**



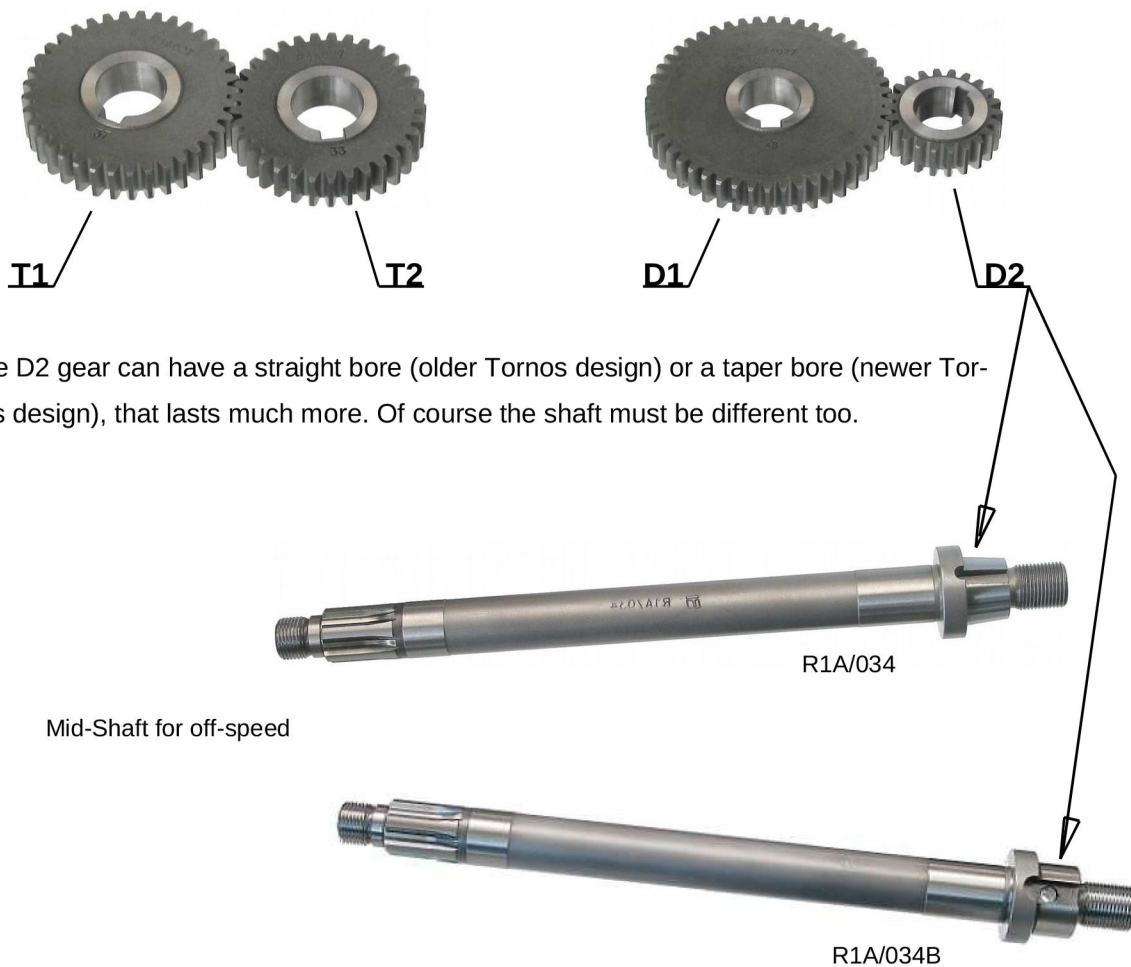
**SINGLE PARTS OF THE THREADING ATTACHMENT**



## SINGLE PARTS OF THE THREADING ATTACHMENT

Standard Threading Ratio Gears are available

IN-SPEED					OFF-SPEED				
ratio	right		left		ratio	right		left	
	T1	T2	T1	T2		D1	D2	D1	D2
2	30	40	48	22	2	48	22	30	40
4	37	33	46	24	4	46	24	37	33
6	39	31	45	25					
9	40	30	44	26					



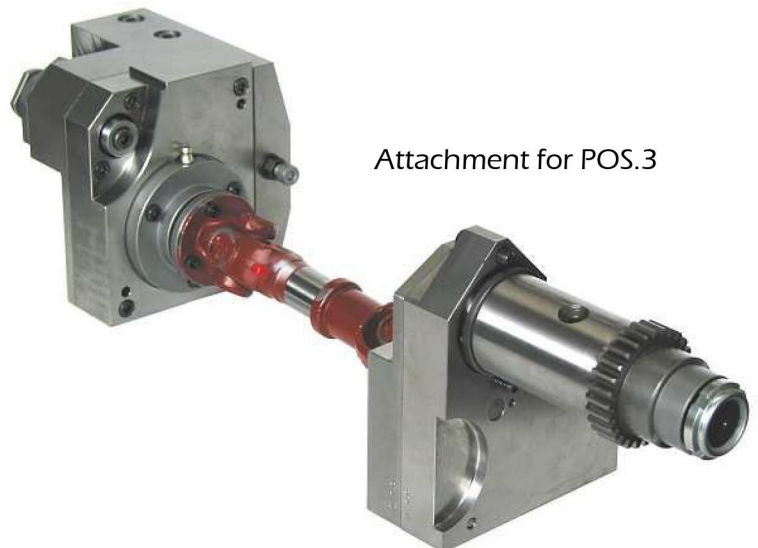
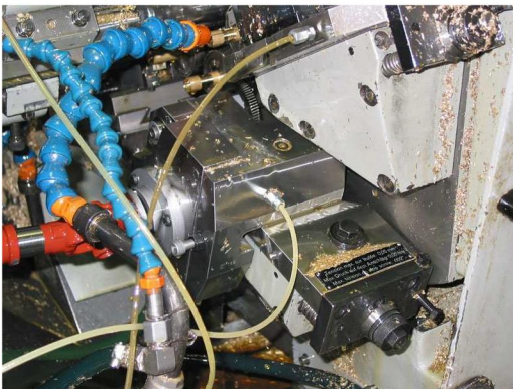
The D2 gear can have a straight bore (older Tornos design) or a taper bore (newer Tornos design), that lasts much more. Of course the shaft must be different too.



## POLYGON-GENERATING AND THREAD-MILLING ATTACHMENT



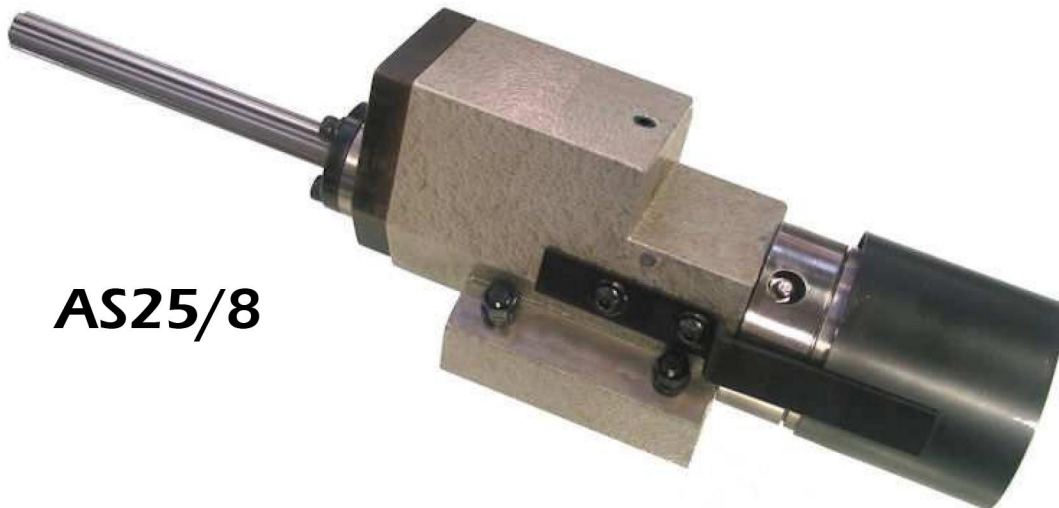
This attachment is designed to mill flats (polygons) with a ratio speed of 1:2, or threads with a ratio speed of 1:1, on the external side of the component. You can change the ratio speed by replacing a couple of gears inside the Driving Gear-Box.





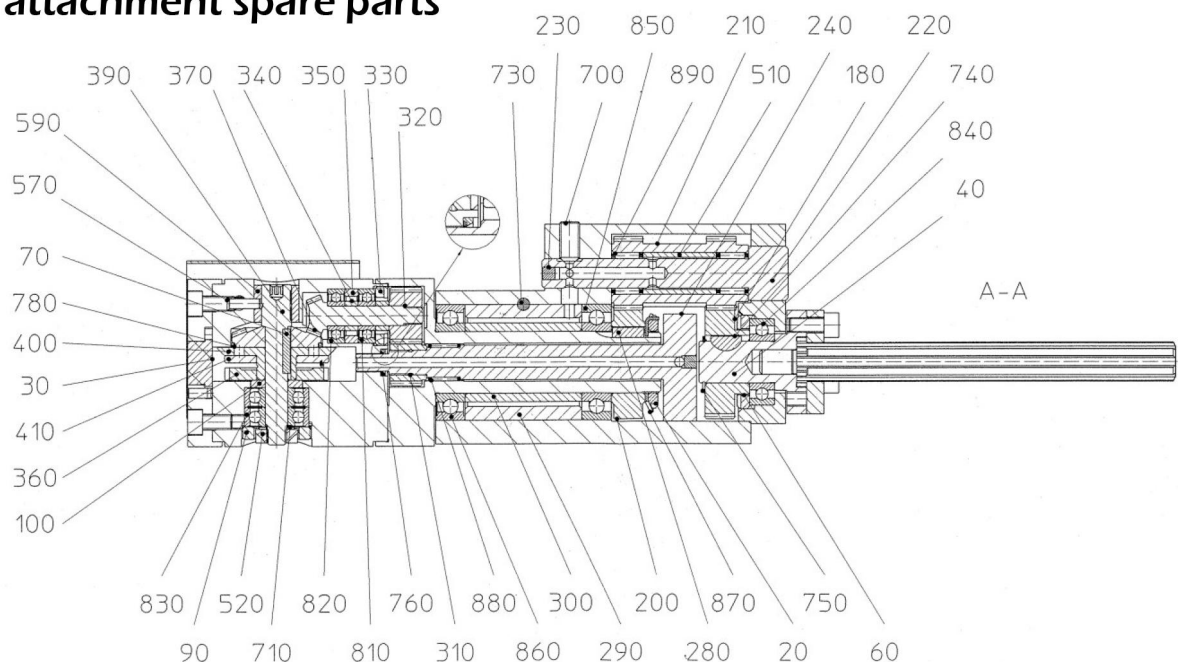
**SYNCHRO FRONTAL MILLING ATTACHMENT**

The attachment head rotates at the same speed of the bar.  
 So the milling disk has always the same orientation compared to component.  
 When the tool touches the component, it can make a slot in centre (for screwdriver)  
 or off-centre, or it can make an external flat.  
 Using two milling disks it makes two slots or even two external flats (for key).



**AS25/8**

**attachment spare parts**



**RECESSING ATTACHMENT**



**AS32/7**

**General spare part**

R1/091 (086578)  
Return block



R1/004 (AS2417)  
Pick-Up Toggle



R1/090 (086232)  
Feed block



R1K/005  
Pick-up sleeve  
(SE11, AS24207, 115011)



R1/053  
Pulley shaft



R1/031R  
Roller (AS1365)



R1K/026  
Pin



R1/031P  
Pin (AS1311)



R1K/033P  
Pin (086271)



R1K/030  
Pin



R1K/028  
Pin (AS28233)



R1K/023P  
Pin (AS28245)



R1/032R  
Roller (AS14269)



R1K/031  
Pin (AS2423)



**General spare part**

R1/001  
Toggle Sleeve  
(AS12185-1)



R1/011  
Toggle holder



R1/003  
Toggle  
(AS12149)



R1/018  
Bush



R1/040P  
Pin (AS11339)



R1/040R  
Roller (AS11337)



R1/050  
Centre Shaft



AS12583  
spindle gear



AS12191-1  
Centre gear

R1/180  
Spindle





**General spare part**



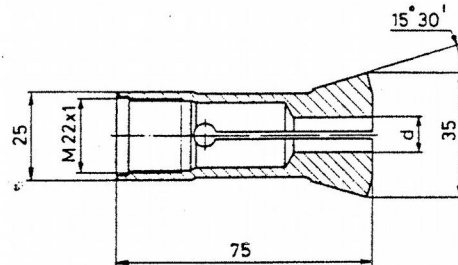
R1/012D



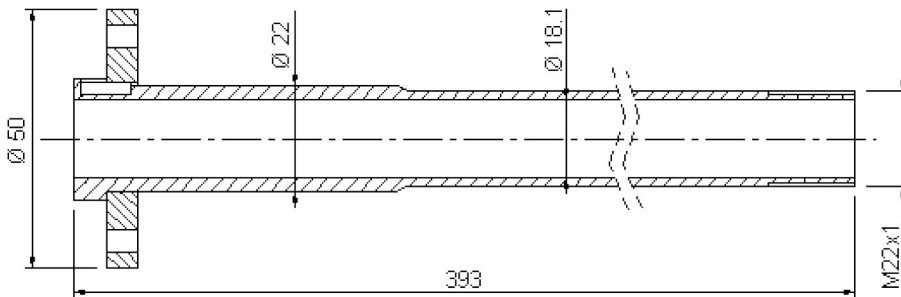
R1/012C

Ring and tooth for AS12/10-4 feed tube

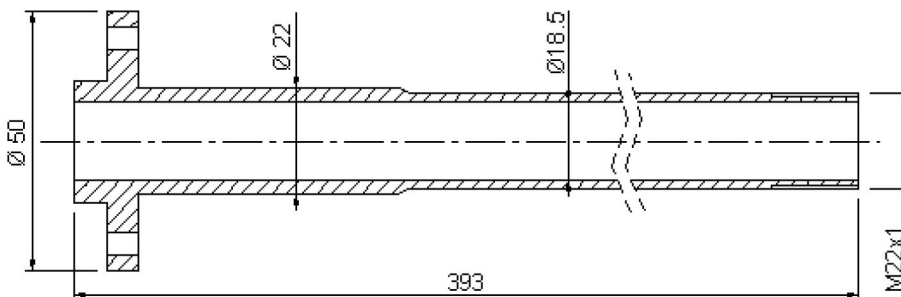
AS12115 collet - pince



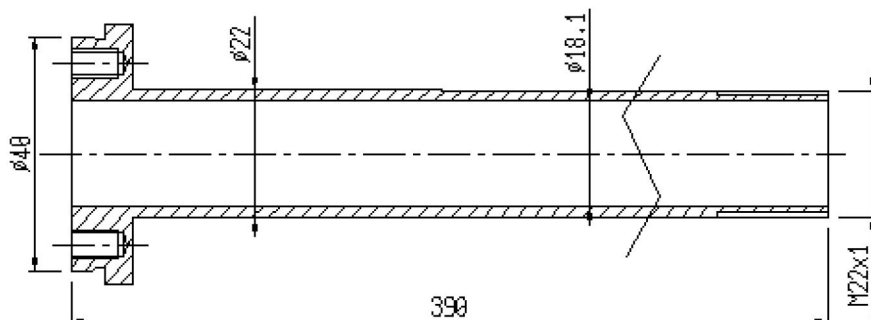
Collet tube



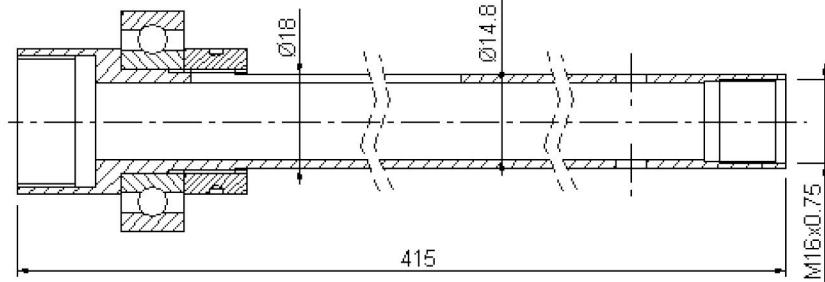
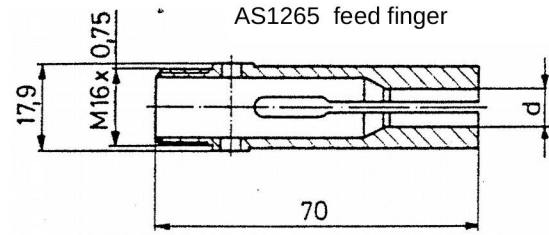
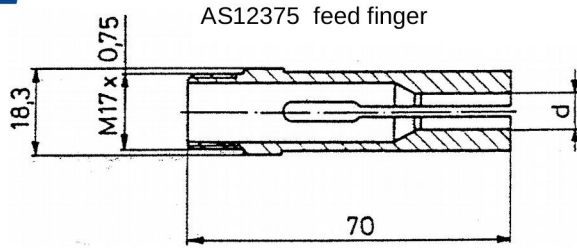
R1/010B (AS12/10-1)  
Standard collet tube



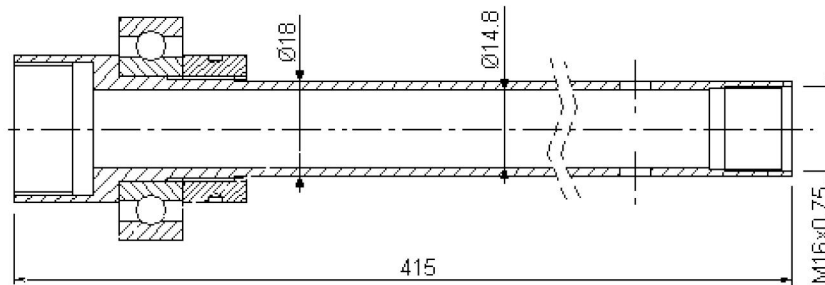
R1/010V (AS12/10-2)  
Collet tube for max 15mm dia. bar



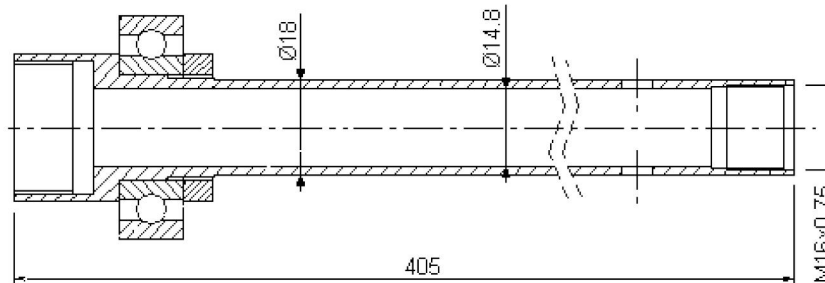
R1/010L  
Collet tube



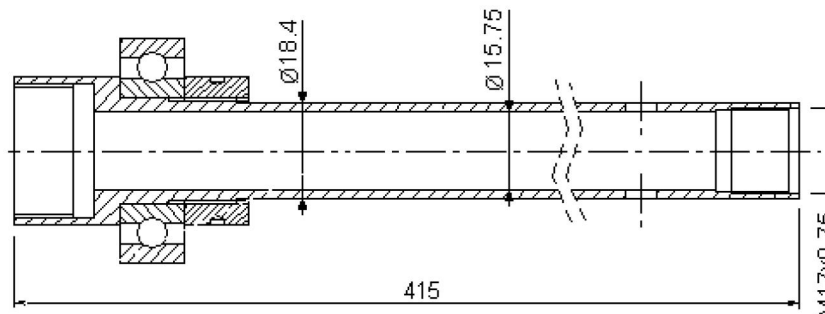
R1/012 (AS12/10-4)  
Phaseable Feed tube - with slot



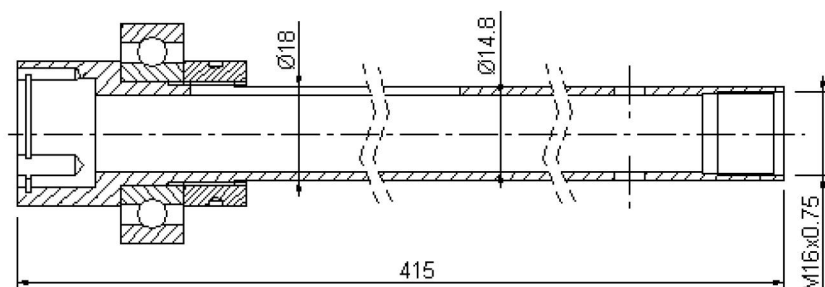
R1/012B (AS12/10-3)  
Feed tube



R1/012E (AS12/10-6)  
Feed tube for 85mm stroke

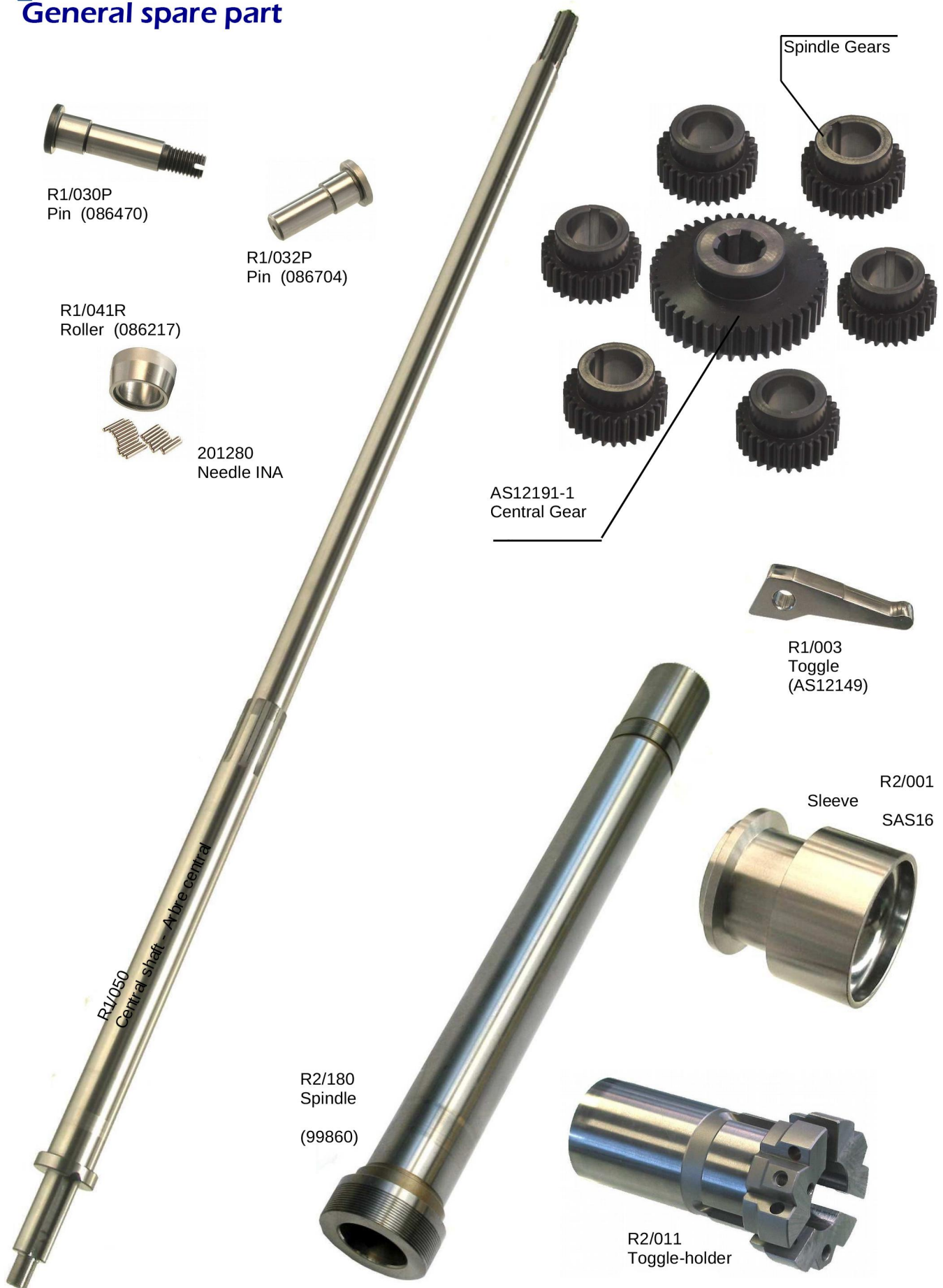


R1/012V (AS12/10-5)  
Feed tube



R1/012L  
Phaseable Feed tube - with slot  
without back thread

**General spare part**



R1/030P  
Pin (086470)

R1/032P  
Pin (086704)

R1/041R  
Roller (086217)

201280  
Needle INA

Spindle Gears

AS12191-1  
Central Gear

R1/003  
Toggle  
(AS12149)

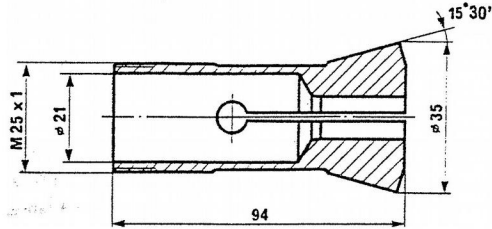
R2/001  
Sleeve  
SAS16

R1/050  
Central shaft - Arbre central

R2/180  
Spindle  
(99860)

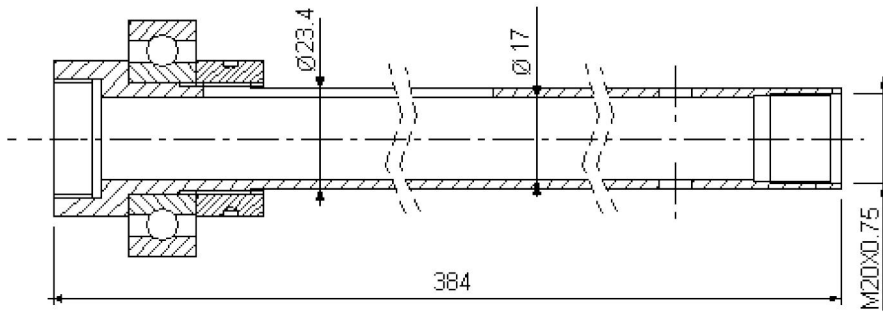
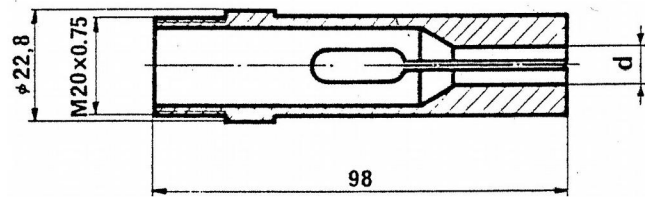
R2/011  
Toggle-holder

General spare part

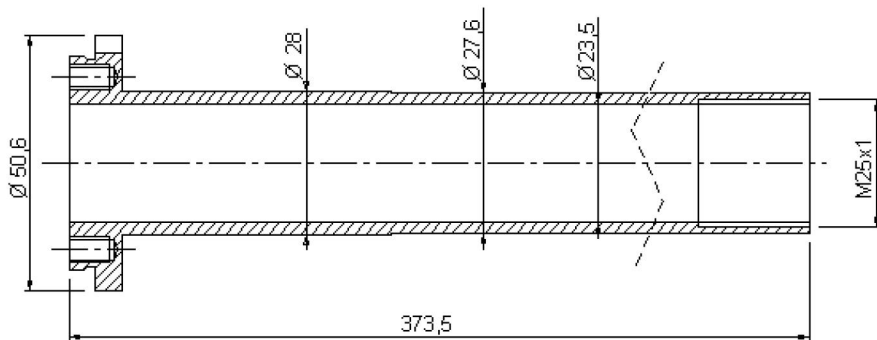


AS12607 collet

AS12611  
feed finger



R2/012 (AS15/11-32)  
Standard feed tube

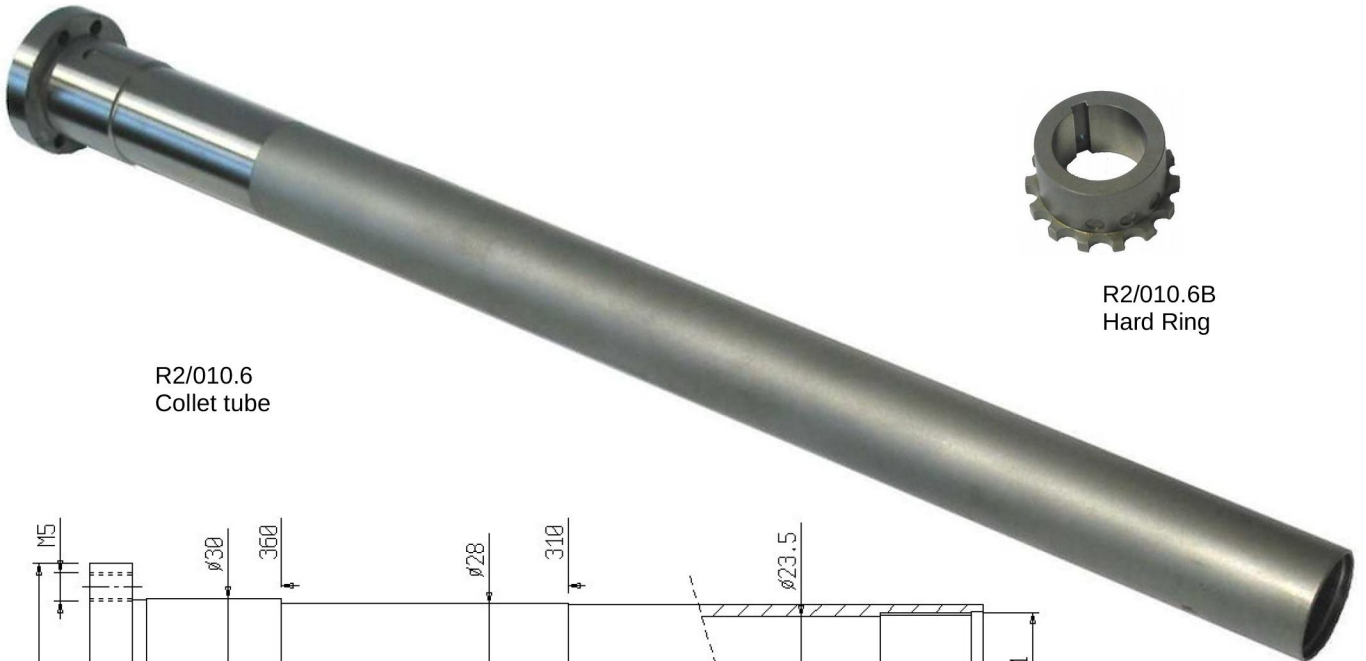


R2/010 (AS15/11-26)  
Collet tube for max 16mm dia. bar



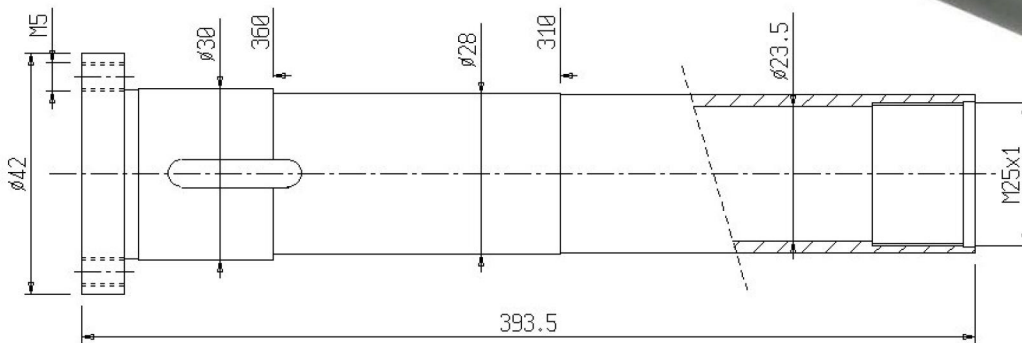
R2/012C  
Ring set to phase the feed tube



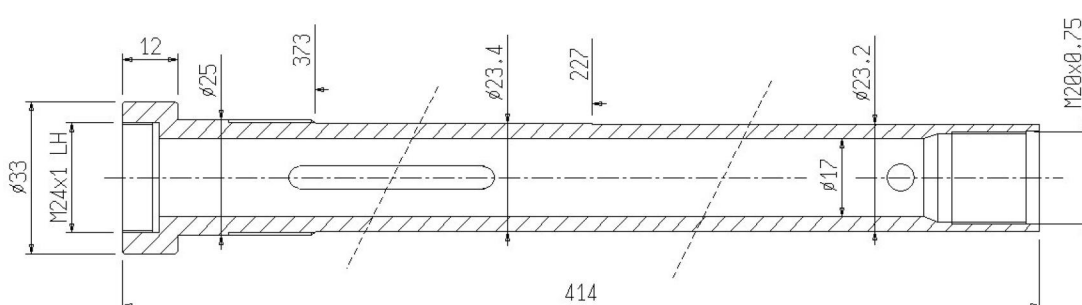


R2/010.6  
Collet tube

R2/010.6B  
Hard Ring



R2/012.6  
Feed tube



**Second-hand occasions**

We work together with many machine dealers,  
therefore we have the chance to supply second-hand equipments in good conditions.



AS25/8  
Slotting attachment

AS27/2  
Rotating spindle fixed on centre block

