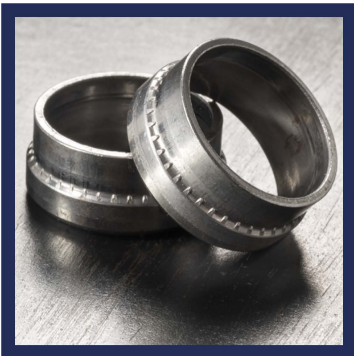


# LINEA SPINDLE



# CONTENTS

## HYDRAULICS



## AUTOMOTIVE



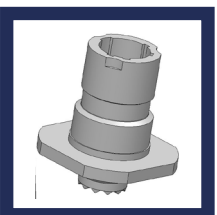
## VALVES



## GAS VALVES



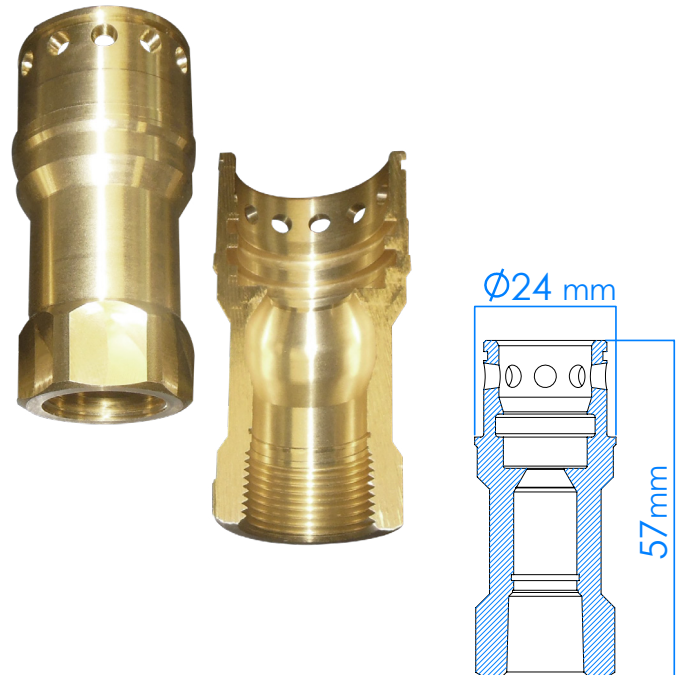
## AEROSPACE



## FISHERIES



<b>RAW PART</b>	round bar
<b>MATERIAL</b>	brass CDA 360
<b>PRODUCTIVITY</b>	22 sec/piece
	163 pieces/h

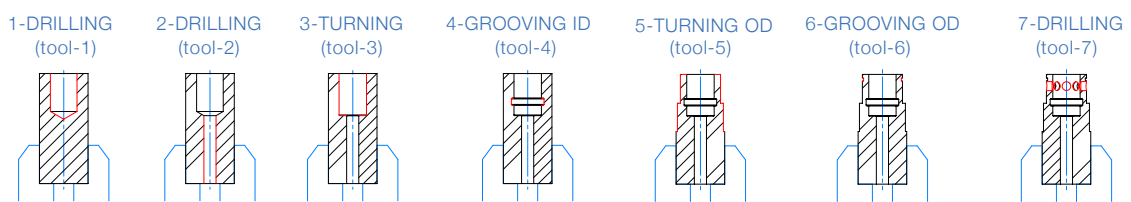


### DESCRIPTION

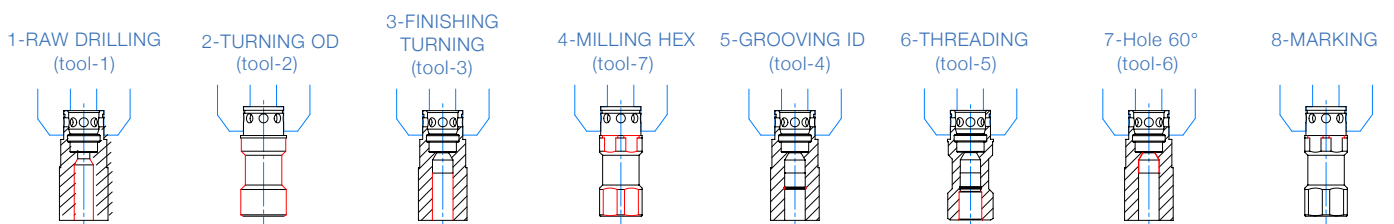
Quick-release couplings. Connection by direct pushing of the plug into the fitting: no need for screwing one part with the other.

### MACHINING CYCLE

#### STATION 1



#### STATION 2



<b>RAW PART</b>	round bar
<b>MATERIAL</b>	Aisi 12L14
<b>PRODUCTIVITY</b>	23 sec/piece
	156 pieces/h

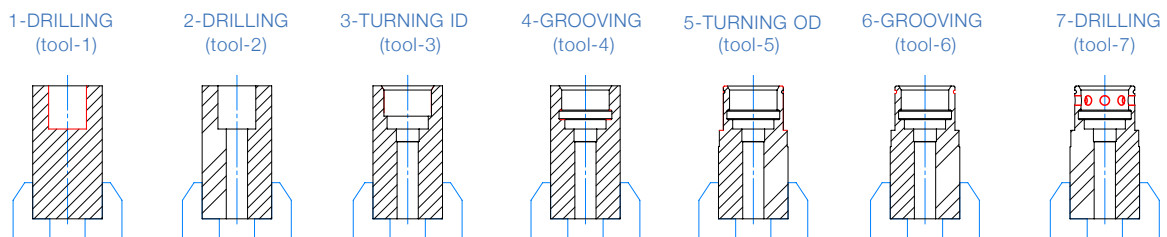


### DESCRIPTION

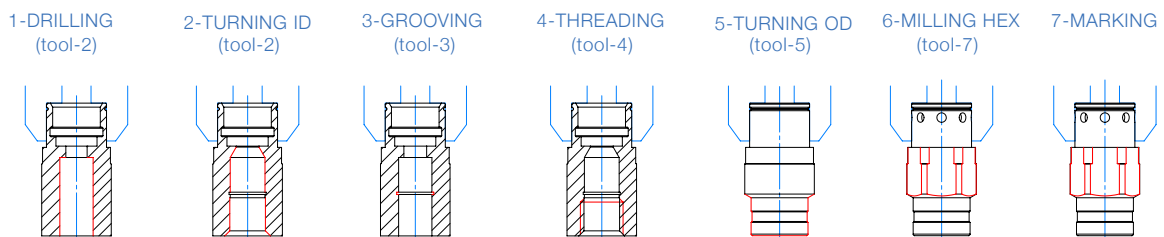
Quick-release couplings. Coupling by direct pushing of the plug into the fitting: no need for screwing one part with the other.

### MACHINING CYCLE

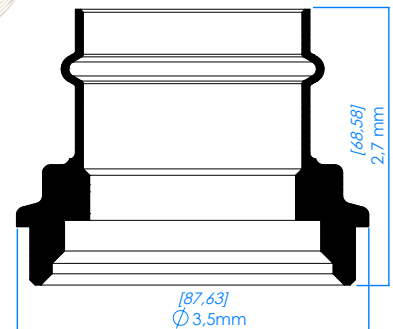
#### STATION 1



#### STATION 2



<b>RAW PART</b>	forged part
<b>MATERIAL</b>	low lead brass C27451
<b>PRODUCTIVITY</b>	12 sec/piece
	300 pieces/h

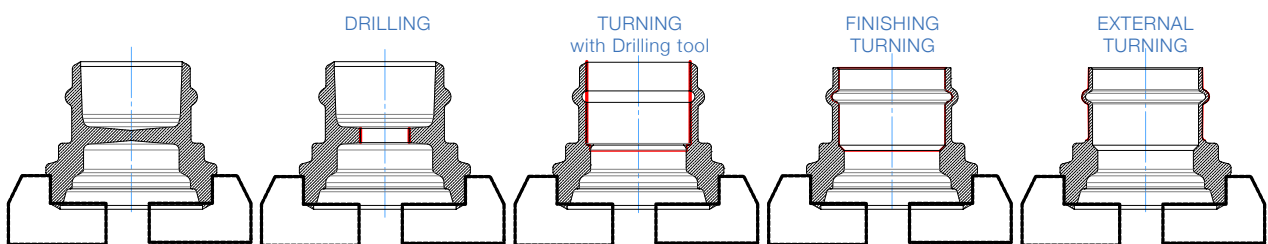


## DESCRIPTION

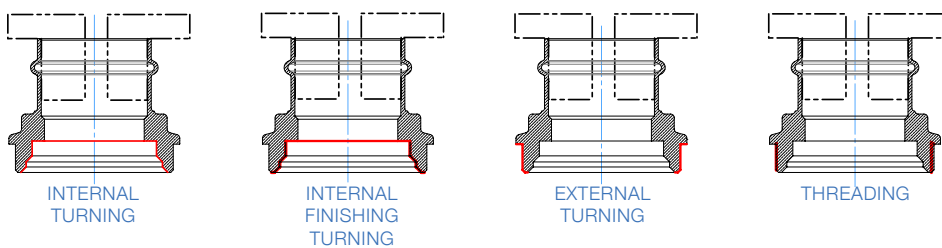
Hydraulic pipe fitting's component: seal is guaranteed by the deformation of the part in contact with the pipe.

## MACHINING CYCLE

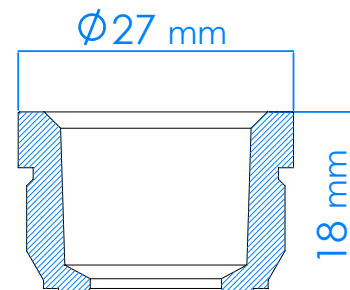
### STATION 1 External clamp



### STATION 2 Internal clamp



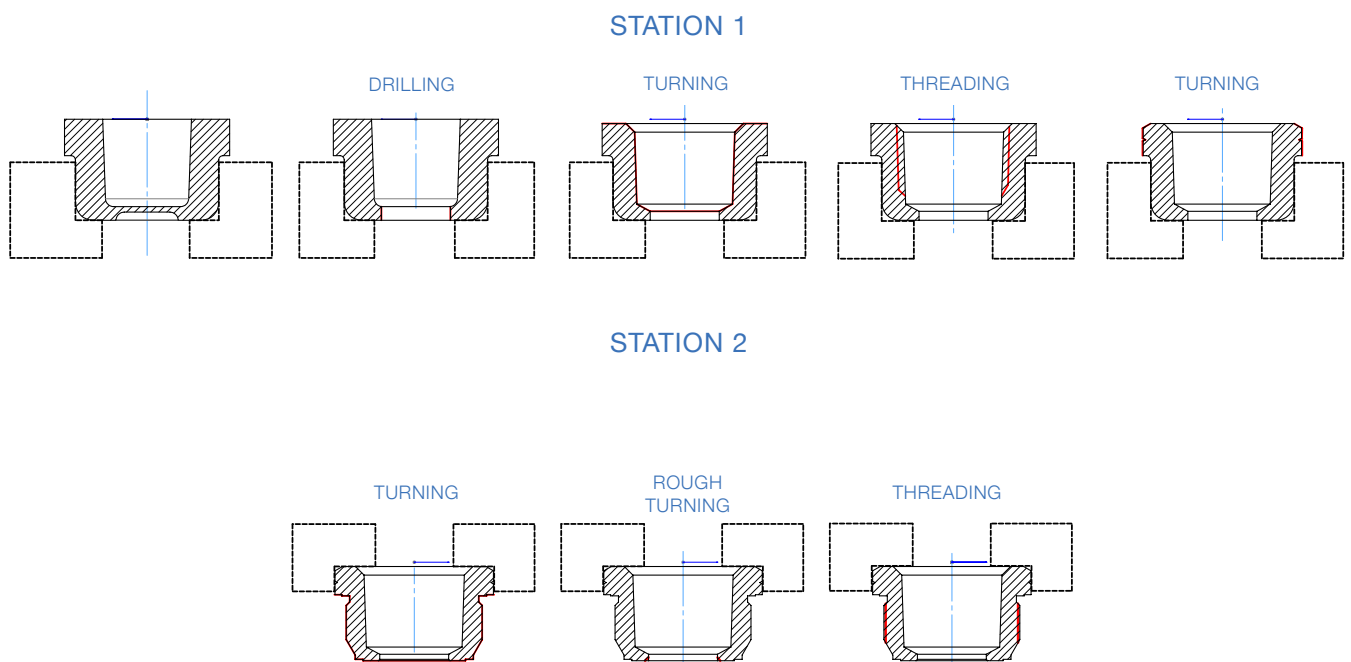
<b>RAW PART</b>	forged part
<b>MATERIAL</b>	low lead brass C27451
<b>PRODUCTIVITY</b>	7 sec/piece
	514 pieces/h



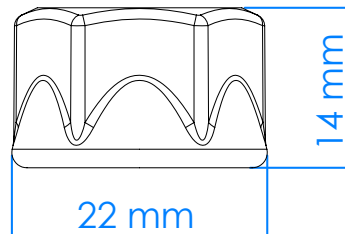
## DESCRIPTION

Hydraulic fitting's component.

## MACHINING CYCLE



<b>RAW PART</b>	forged part
<b>MATERIAL</b>	Steel 1.0214
<b>PRODUCTIVITY</b>	3 sec/piece
	1200 pieces/h

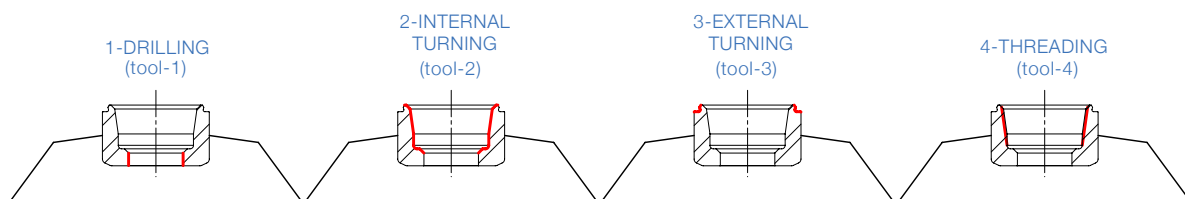


## DESCRIPTION

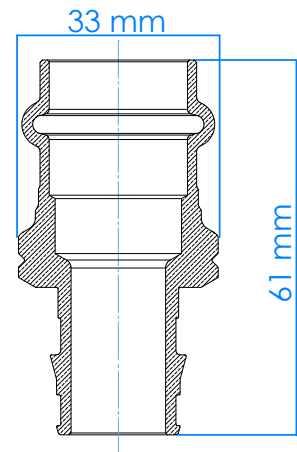
Nut for hydraulics connections.

## MACHINING CYCLE

### STATION 1



<b>RAW PART</b>	forged part
<b>MATERIAL</b>	brass CW511L
<b>PRODUCTIVITY</b>	8,7 sec/piece
	413 pieces/h



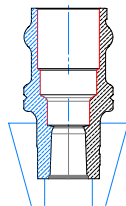
## DESCRIPTION

Hydraulic hose fitting's component. Seal is guaranteed by the deformation of the part in contact with the hose.

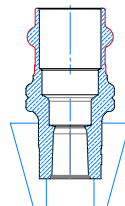
## MACHINING CYCLE

### STATION 1-4

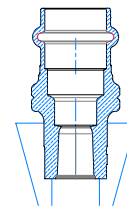
1- INTERNAL DRILLING  
(tool-1)



2-TURNING OD finishing  
(tool-2)

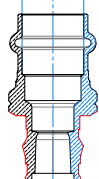


3- GROOVING  
(tool-3)

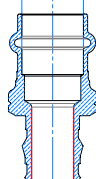


### STATION 2-3

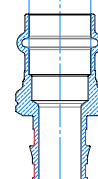
1-TURNING OD  
(tool-1)



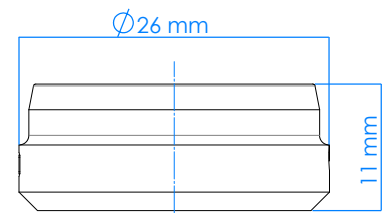
2- INTERNAL DRILLING  
(tool-2)



3-TURNING OD finishing  
(tool-3)



<b>RAW PART</b>	forged part
<b>MATERIAL</b>	steel 1.4571
<b>PRODUCTIVITY</b>	3,1 sec/piece
	1161 pieces/h

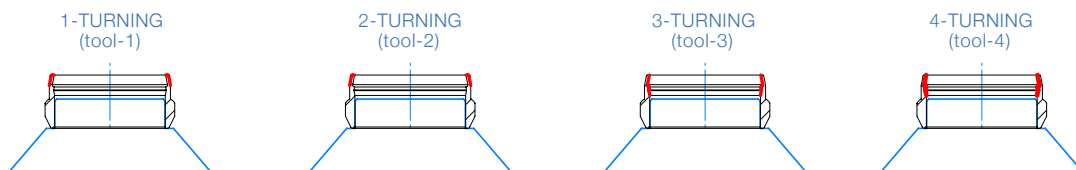


## DESCRIPTION

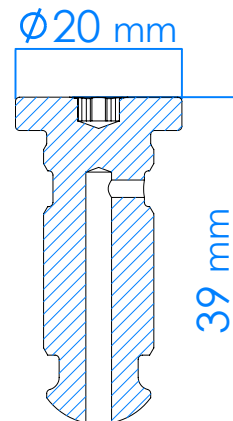
Ring for hydraulic fitting. It ensures hose connection and seal, thanks to the ring compression on pipe.

## MACHINING CYCLE

### STATION 1



<b>RAW PART</b>	forged part
<b>MATERIAL</b>	steel C45
<b>PRODUCTIVITY</b>	21 sec/piece
	171 pieces/h



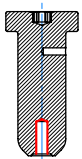
**DESCRIPTION**

Rocker arm position adjustment screw.

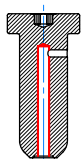
**MACHINING CYCLE**

**STATION 1**

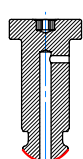
1-DRILLING  
(tool-2)



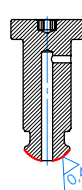
2-DRILLING  
(tool-3)



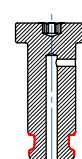
3-ROUGH  
TURNING  
(tool-5)



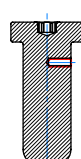
4-FINISHING  
TURNING  
(tool-6)



5-GROOVING  
(tool-4)

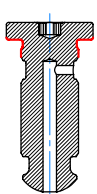


6-DRILLING  
(tool-1)

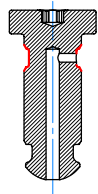


**STATION 2**

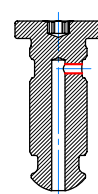
1-GROOVING  
(tool-7)



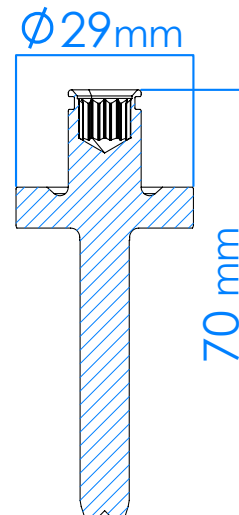
2-GROOVING  
(tool-8)



3-DEBURRING  
(tool-9)



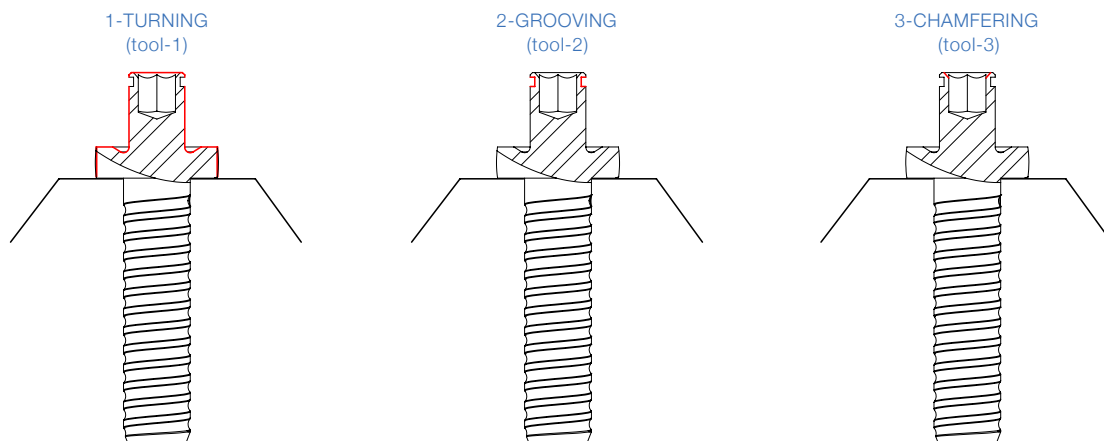
<b>RAW PART</b>	forged part
<b>MATERIAL</b>	steel 1,0833
<b>PRODUCTIVITY</b>	3 sec/piece
	1200 pieces/h



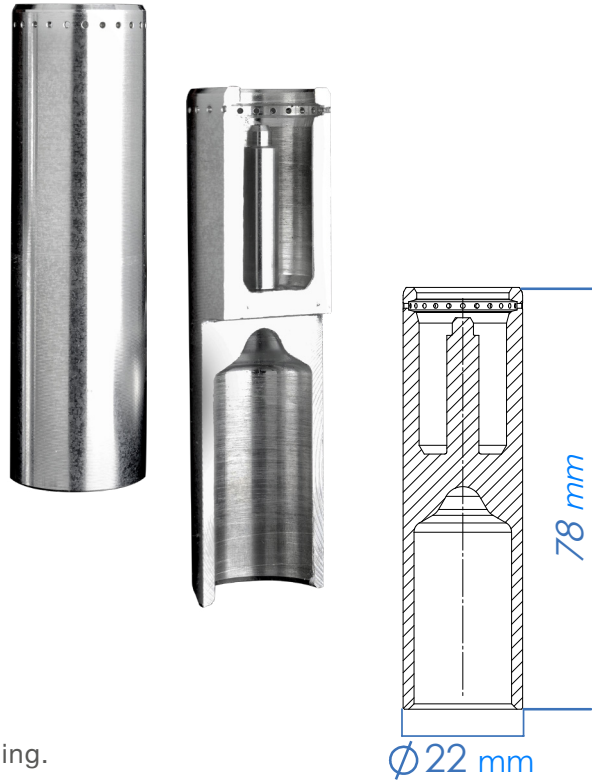
**DESCRIPTION**

Ball screw. Parking brake servo unit.

**MACHINING CYCLE**



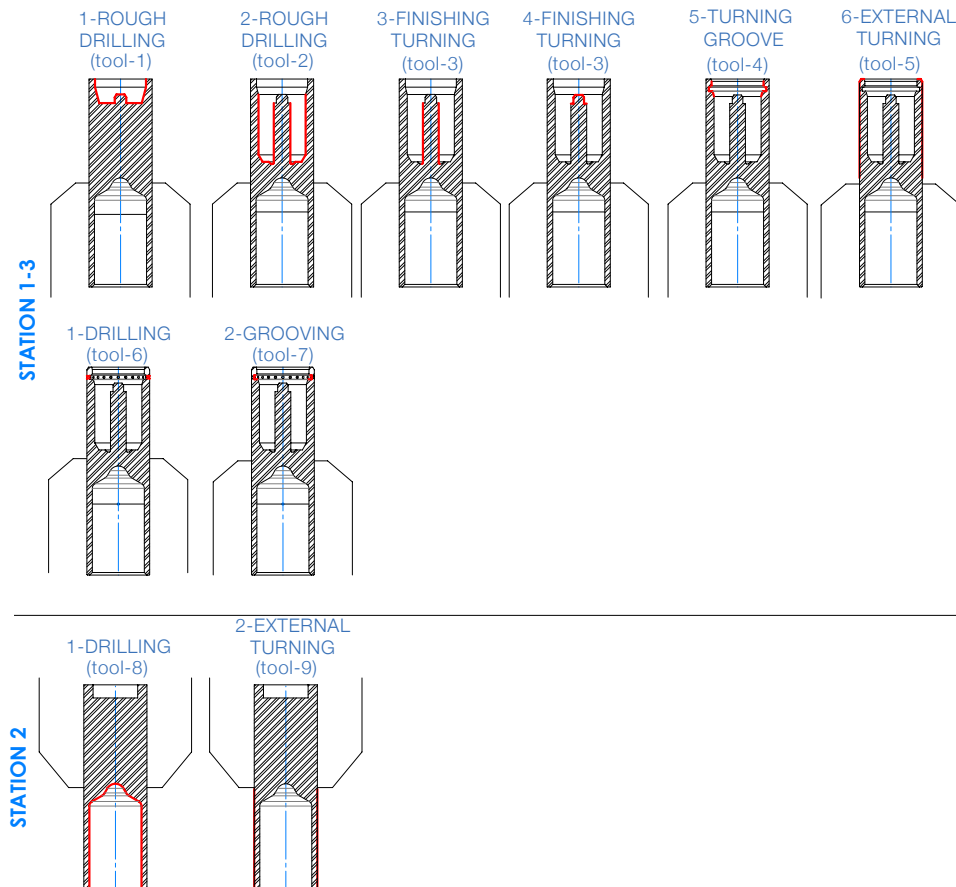
<b>RAW PART</b>	forged part
<b>MATERIAL</b>	aluminium
<b>PRODUCTIVITY</b>	11 sec/piece
	327 pieces/h



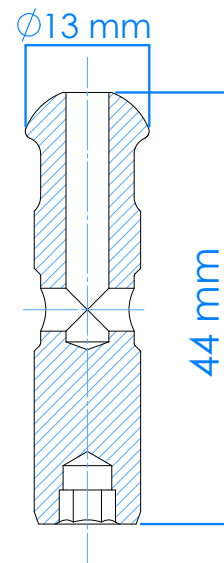
**DESCRIPTION**

Brake servo unit's master cylinder.  
Complete external and internal cylinder's machining.

**MACHINING CYCLE**



<b>RAW PART</b>	round bar
<b>MATERIAL</b>	steel 42CrMo4
<b>PRODUCTIVITY</b>	13 sec/piece
	276 pieces/h

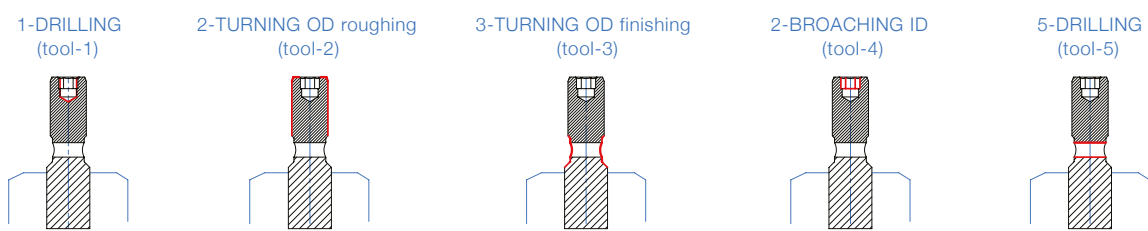


**DESCRIPTION**

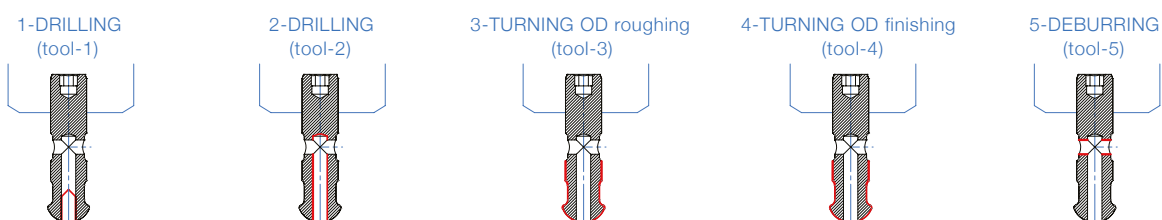
Rocker arm position adjustment screw.

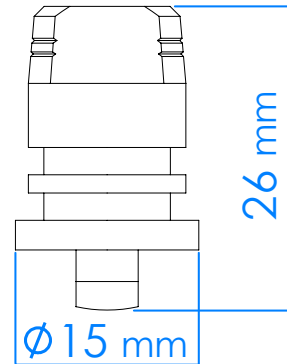
**MACHINING CYCLE**

**STATION 1-3**



**STATION 2-4**





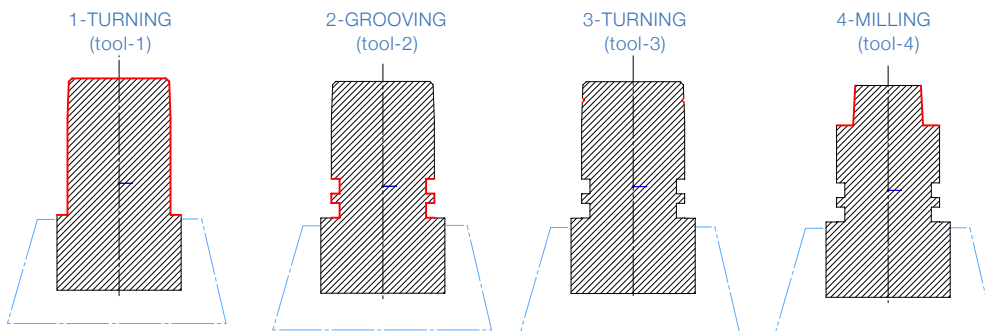
<b>RAW PART</b>	round bar
<b>MATERIAL</b>	Brass C83600
<b>PRODUCTIVITY</b>	6 sec/piece
	600 pieces/h

**DESCRIPTION**

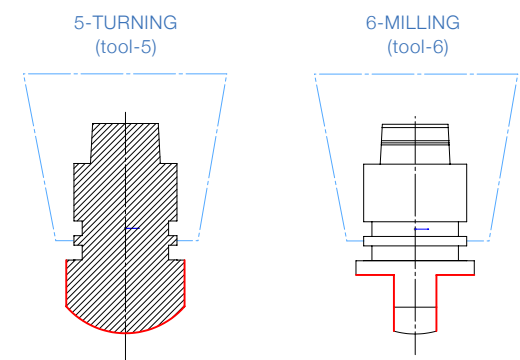
Actuating (opening/closing) pin for ball valves. It connects the internal ball to the external operating component.

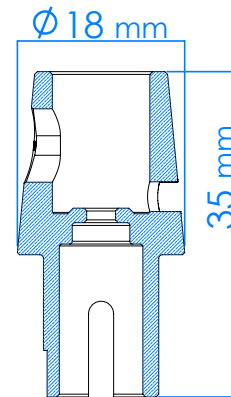
**MACHINING CYCLE**

STATION 1



STATION 2





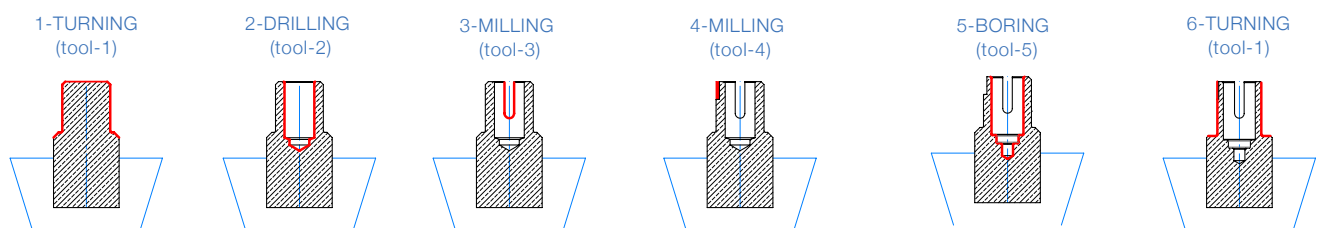
<b>RAW PART</b>	round bar
<b>MATERIAL</b>	brass C3600
<b>PRODUCTIVITY</b>	14 sec/piece
	257 pieces/h

## DESCRIPTION

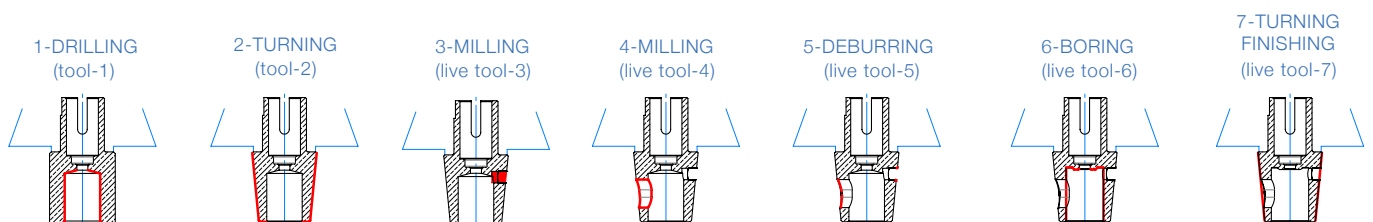
Gas valve's component. Surface finish of the conical section by diamond tool ensures contact sealing.

## MACHINING CYCLE

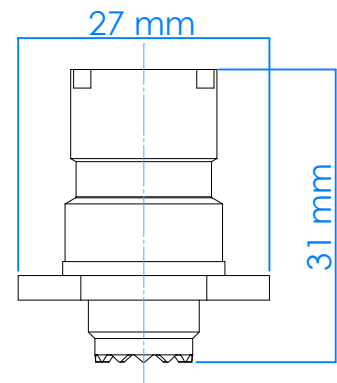
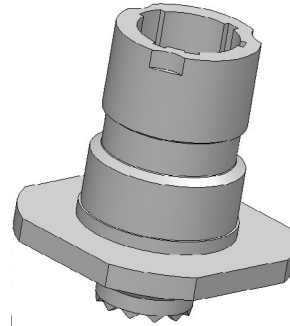
### STATION 1-4



### STATION 2-3



<b>RAW PART</b>	round bar
<b>MATERIAL</b>	aluminium AMS 4150
<b>PRODUCTIVITY</b>	24 sec/piece
	150 pieces/h

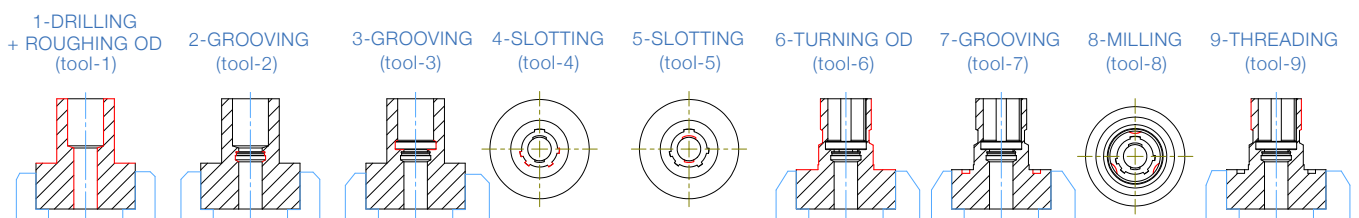


### DESCRIPTION

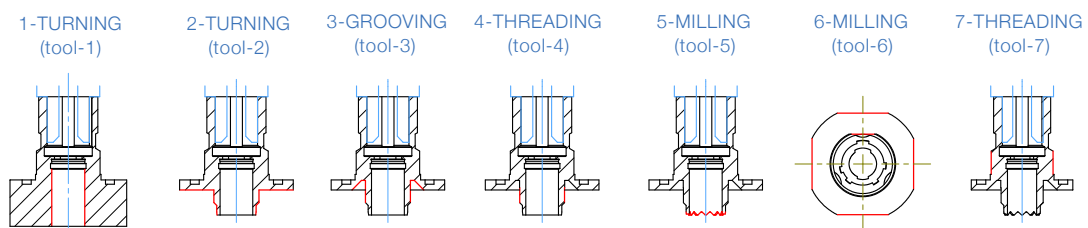
Electric connector used to electrically connect two components solely by mechanical operations.

### MACHINING CYCLE

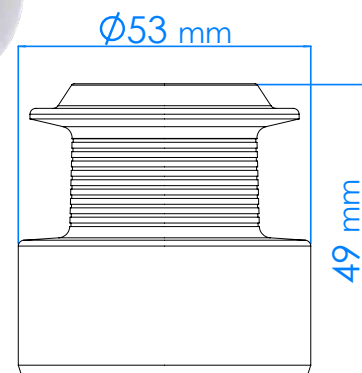
#### STATION 1-4



#### STATION 2-3



<b>RAW PART</b>	forged part
<b>MATERIAL</b>	aluminium AL3333
<b>PRODUCTIVITY</b>	12 sec/piece
	300 pieces/h

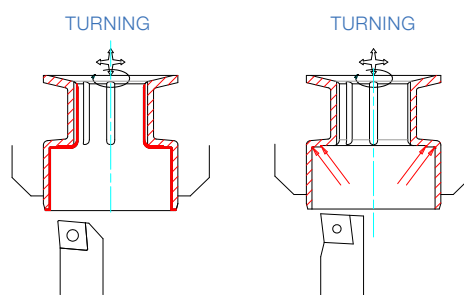


**DESCRIPTION**

Fishing rod reel. Precision machining of the mating parts and aesthetic finishing of the visible parts.

**MACHINING CYCLE**

STATION 1



STATION 2

