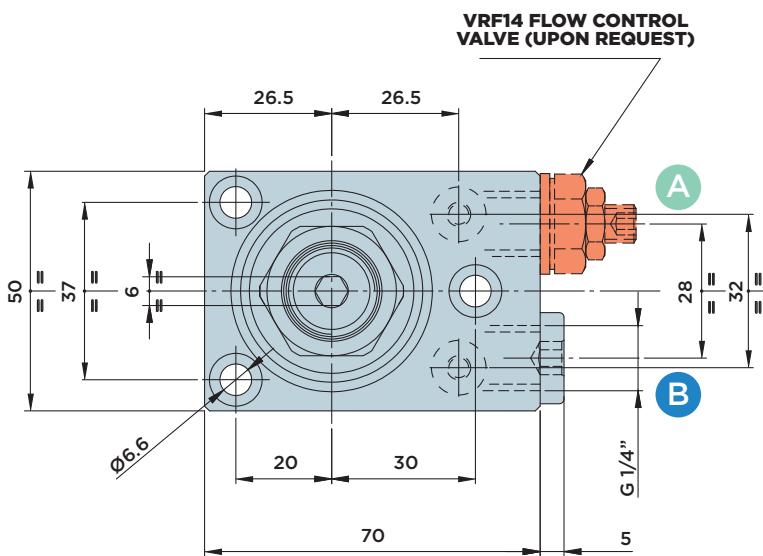
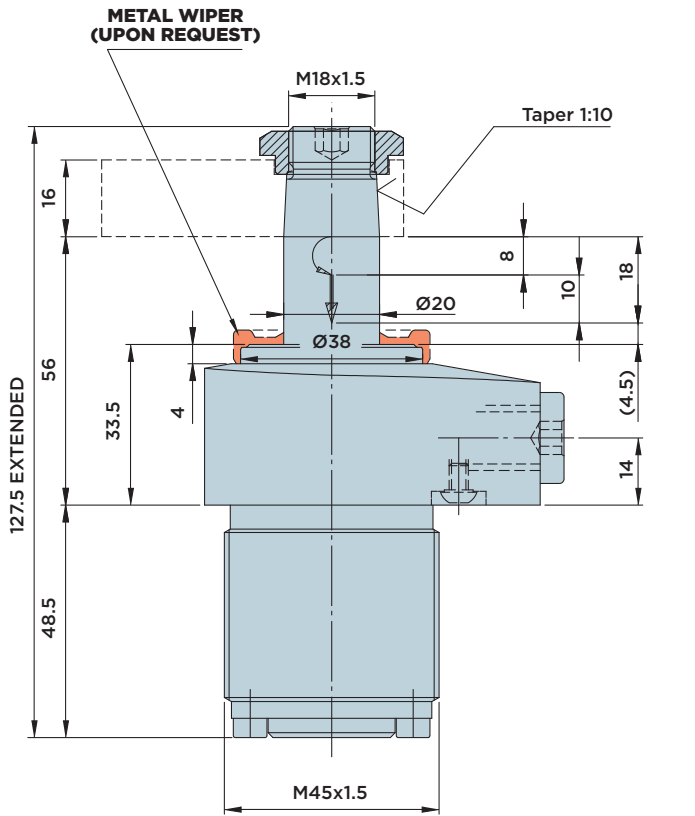
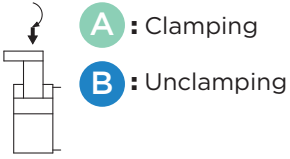


# SR20.0 FD

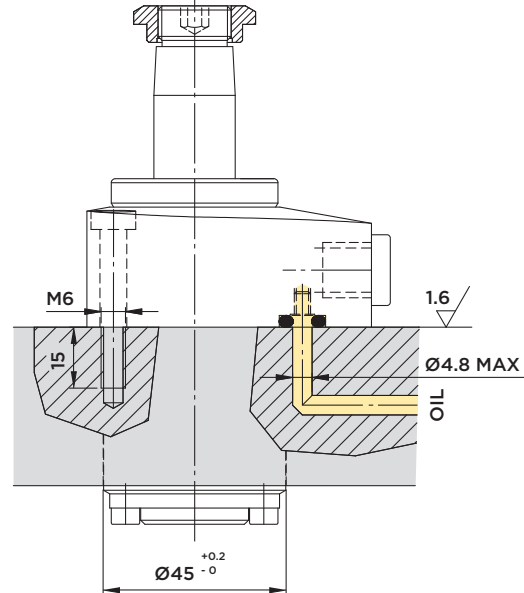


DOUBLE-ACTING SWING CLAMP CYLINDER WITH **UPPER FLANGE**

MAX. OPERATING PRESSURE = 500BAR



## INSTALLATION DIMENSIONS WITH O-RING CONNECTION



### Included in the scope of supply:

- Mounting screws M6x30 DIN 912/12.9 grade
- O-Rings Ø4.34x3.53

### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

### Overload clutch as standard equipment

### Note:

- Order code, see page 38
- Clamp arms, see page 144
- Clamping force diagram, see page 144

STROKE mm	EFFECTIVE PISTON AREA		TOTAL OIL VOLUME	
	Cm <sup>2</sup>		Cm <sup>3</sup>	
<b>TOTAL</b>	18	CLAMP. UNCLAMP.	CLAMP. UNCLAMP.	
SWINGING	8	1.76	4.9	3.2
CLAMPING	10			8.8



HYDROBLOCK

# SR20.59 FD

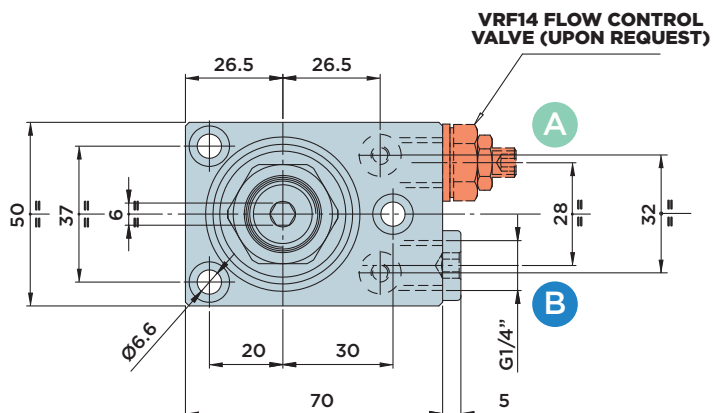
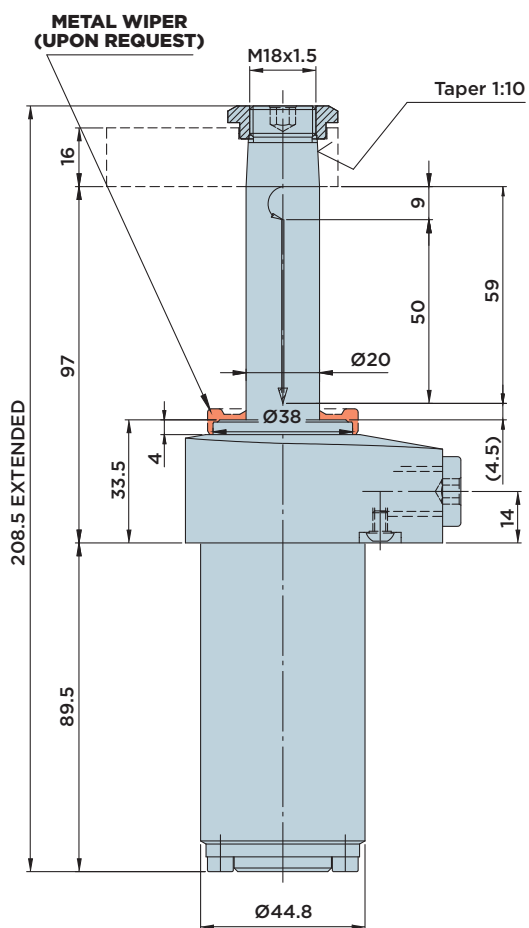


DOUBLE-ACTING SWING CLAMP CYLINDER WITH **UPPER FLANGE**

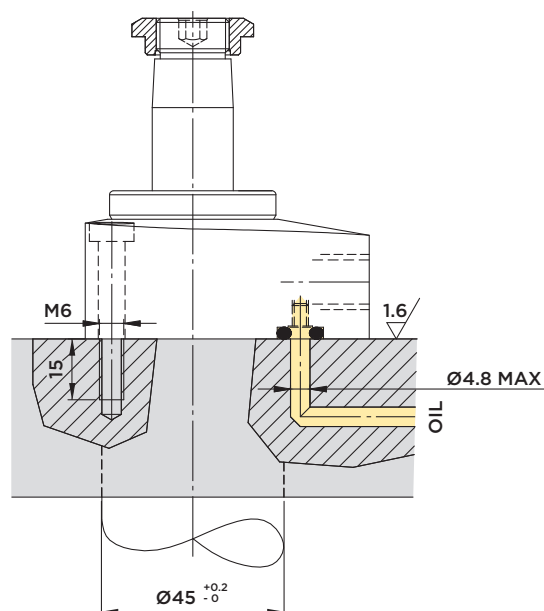
MAX. OPERATING PRESSURE = 500BAR

**A** : Clamping

**B** : Unclamping



## INSTALLATION DIMENSIONS WITH O-RING CONNECTION



### Included in the scope of supply:

- Mounting screws M6x30 DIN 912/12.9 grade
- O-Rings Ø4.34x3.53

### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

**Overload clutch as standard equipment**

**Cylinder with COMPENSATION SYSTEM**

### Note:

Order code, see page 38  
 Clamp arms, see page 144  
 Clamping force diagram, see page 144

STROKE mm	EFFECTIVE PISTON AREA		TOTAL OIL VOLUME	
	Cm <sup>2</sup>		Cm <sup>3</sup>	
<b>TOTAL</b>	<b>59</b>	<b>CLAMP. UNCLAMP.</b>	<b>CLAMP. UNCLAMP.</b>	<b>CLAMP. UNCLAMP.</b>
SWINGING	9			
		1.76	4.9	10.4 28.9
CLAMPING	50			



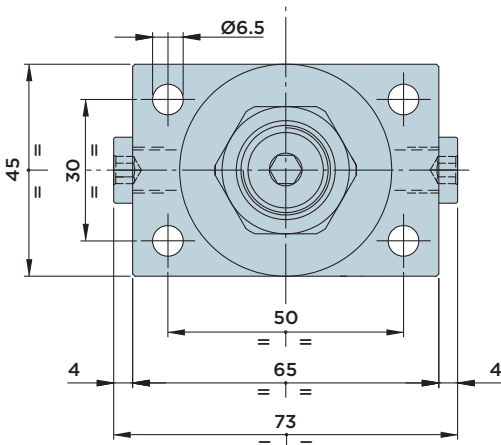
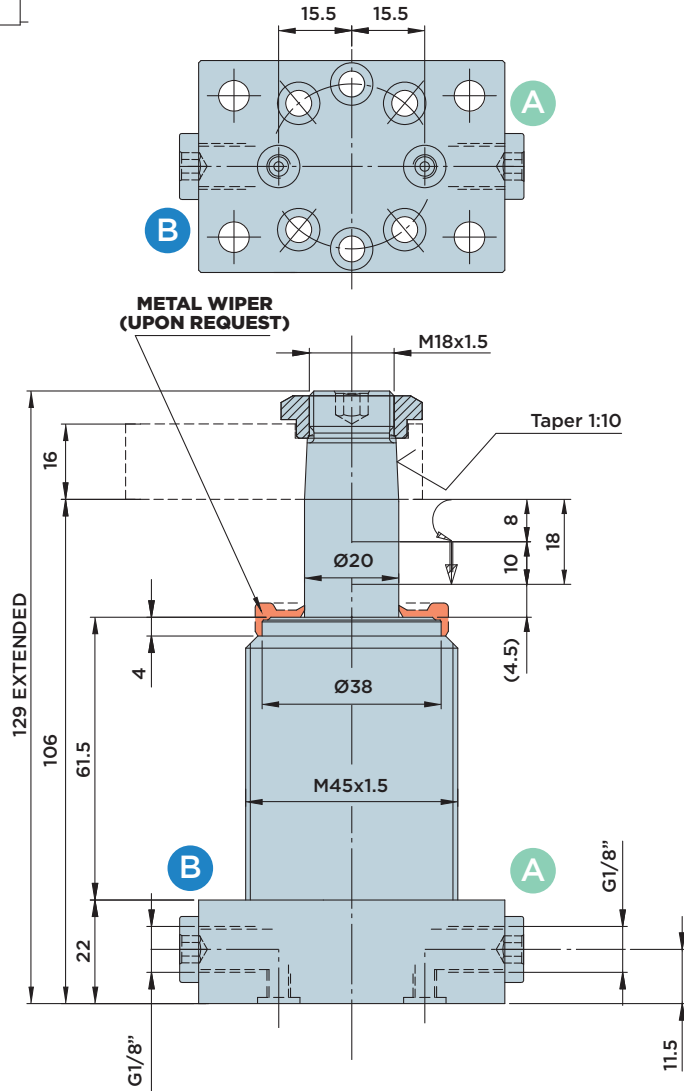
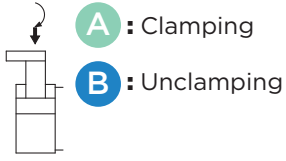
**HYDROBLOCK**

# SR20.1 PD

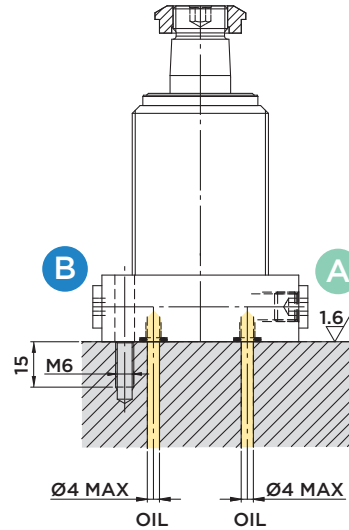


DOUBLE-ACTING SWING CLAMP CYLINDER WITH **LOWER FLANGE**

MAX. OPERATING PRESSURE = 500BAR



## INSTALLATION DIMENSIONS WITH O-RING CONNECTION



### Included in the scope of supply:

- Mounting screws M6x35 DIN 912/12.9 grade
- O-Rings Ø6.07x1.78

### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

### Overload clutch as standard equipment

### Note:

Order code, see page 38  
 Clamp arms, see page 144  
 Clamping force diagram, see page 144

STROKE mm	EFFECTIVE PISTON AREA		TOTAL OIL VOLUME	
	Cm <sup>2</sup>		Cm <sup>3</sup>	
<b>TOTAL</b>	18	CLAMP. UNCLAMP.	CLAMP. UNCLAMP.	
SWINGING	8	1.76	4.9	3.2
CLAMPING	10			8.8



HYDROBLOCK

# SR20.0 CDB

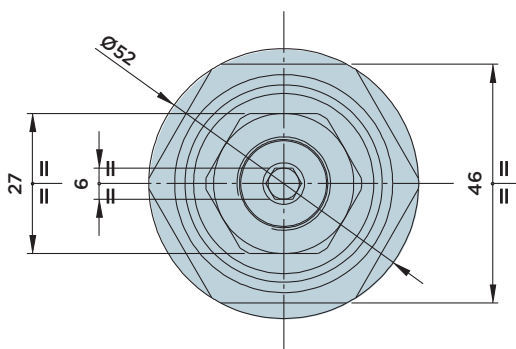
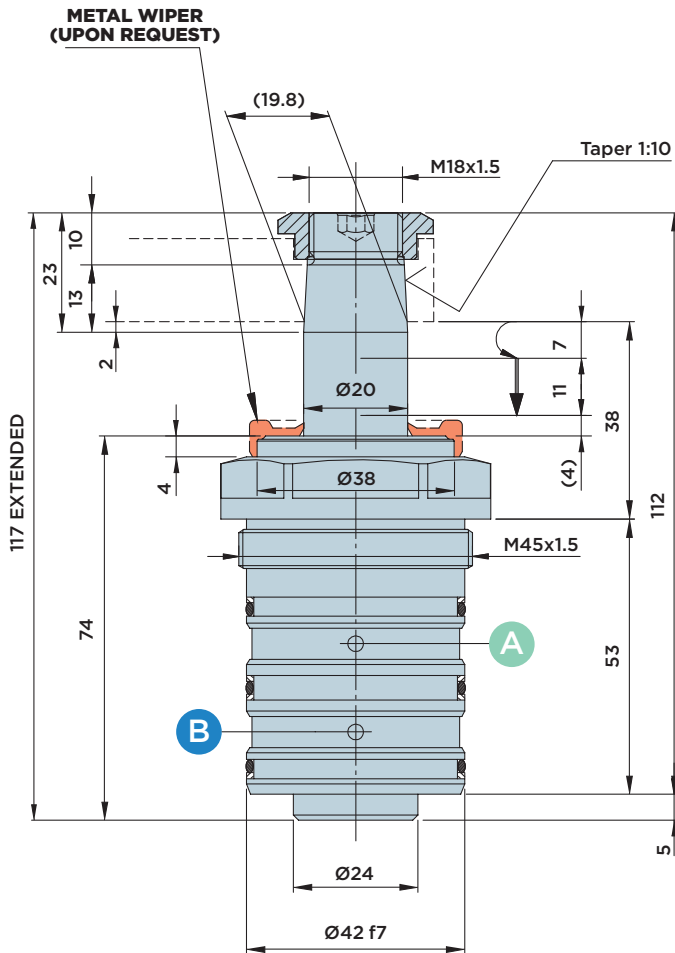


DOUBLE-ACTING SWING CLAMP CYLINDER WITH **CARTRIDGE BODY**

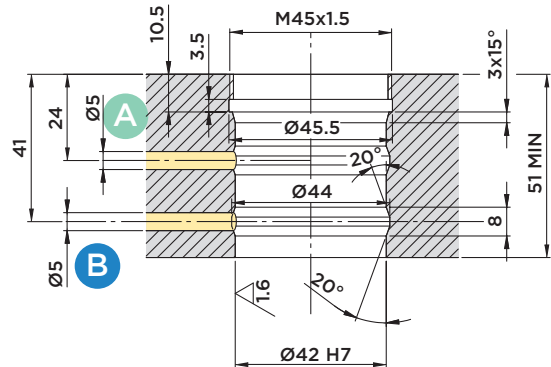
MAX. OPERATING PRESSURE = 500BAR

**A** : Clamping

**B** : Unclamping



## INSTALLATION DIMENSIONS



### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

**Overload clutch as standard equipment**

### Note:

- Order code, see page 38
- Clamp arms, see page 144
- Clamping force diagram, see page 144

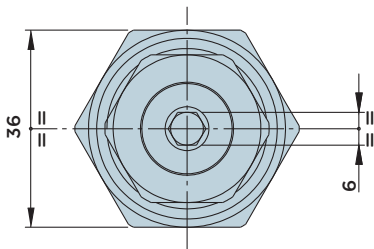
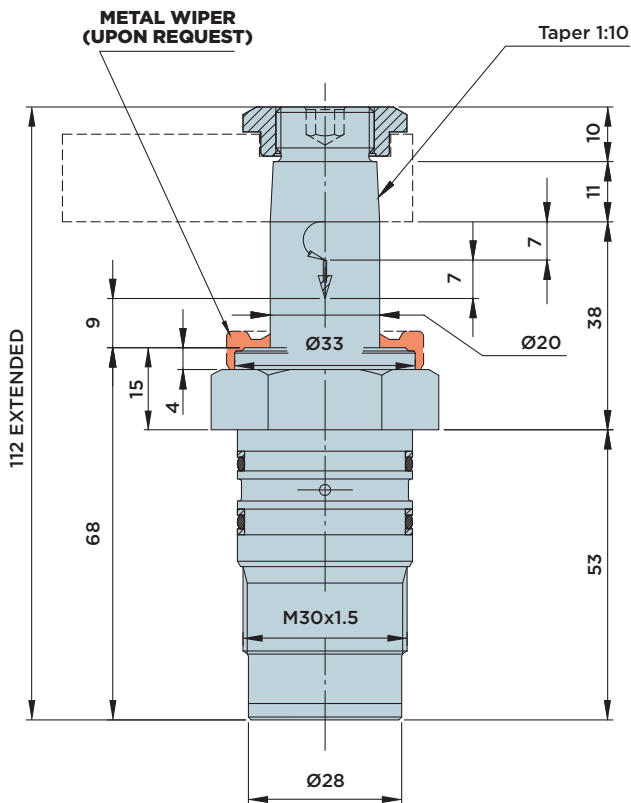
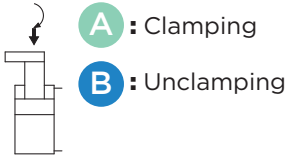
STROKE mm	EFFECTIVE PISTON AREA		TOTAL OIL VOLUME		
	Cm <sup>2</sup>		Cm <sup>3</sup>		
<b>TOTAL</b>	18	CLAMP. UNCLAMP.	CLAMP. UNCLAMP.		
SWINGING	7	1.76	4.9	3.2	8.8
CLAMPING	11				

# SR20.0 CD

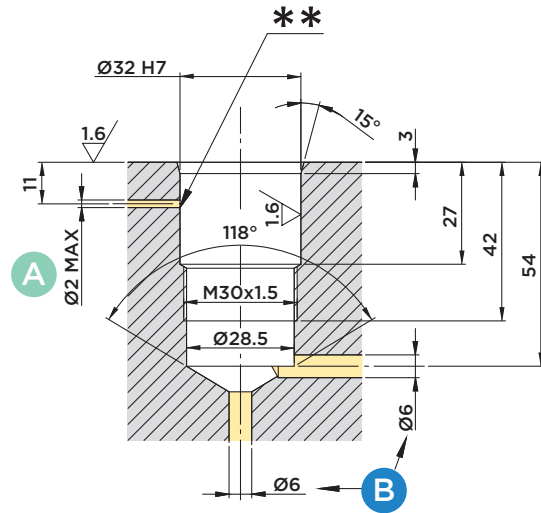


DOUBLE-ACTING SWING CLAMP CYLINDER WITH **CARTRIDGE BODY**

MAX. OPERATING PRESSURE = 500BAR



## INSTALLATION DIMENSIONS



\*\* Debur and round off any edges

### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

**Overload clutch as standard equipment**

### Note:

- Order code, see page 38
- Clamp arms, see page 144
- Clamping force diagram, see page 145

	STROKE mm	EFFECTIVE PISTON AREA		TOTAL OIL VOLUME	
		Cm <sup>2</sup>		Cm <sup>3</sup>	
<b>TOTAL</b>	14	CLAMP.	UNCLAMP.	CLAMP.	UNCLAMP.
SWINGING	7	1.01	4.15	1.4	5.8
CLAMPING	7				

# SR20.0 CS

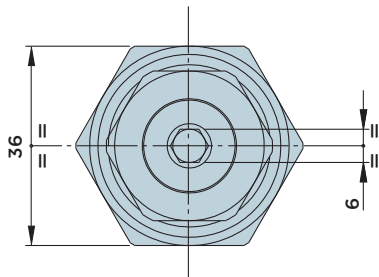
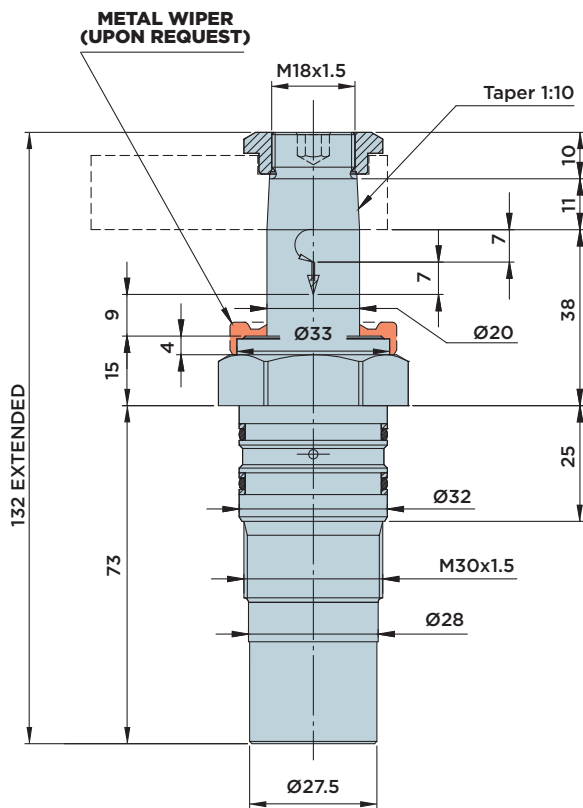


SINGLE-ACTING SWING CLAMP CYLINDER WITH **CARTRIDGE BODY**

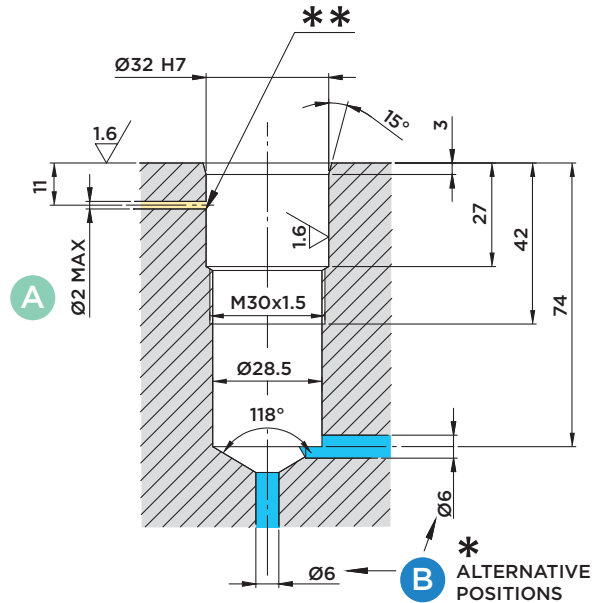
MAX. OPERATING PRESSURE = 500BAR

**A** : Clamping

**B** : Venting



## INSTALLATION DIMENSIONS



\* In order to ensure correct cylinder operation in the long run, the vent hole must be provided with a vent pipe leading into an area that is free from fluids and chips.

\*\* Deburr and round off any edges

### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

**Overload clutch as standard equipment**

### Note:

Order code, see page 38  
Clamp arms, see page 144  
Clamping force diagram, see page 145

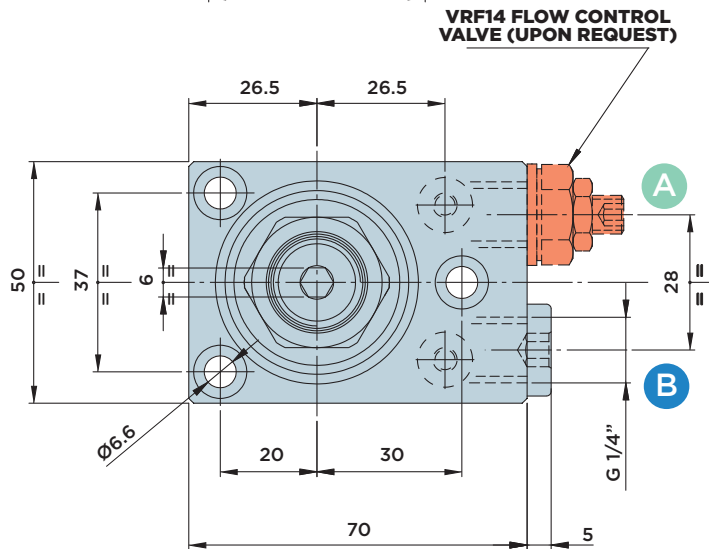
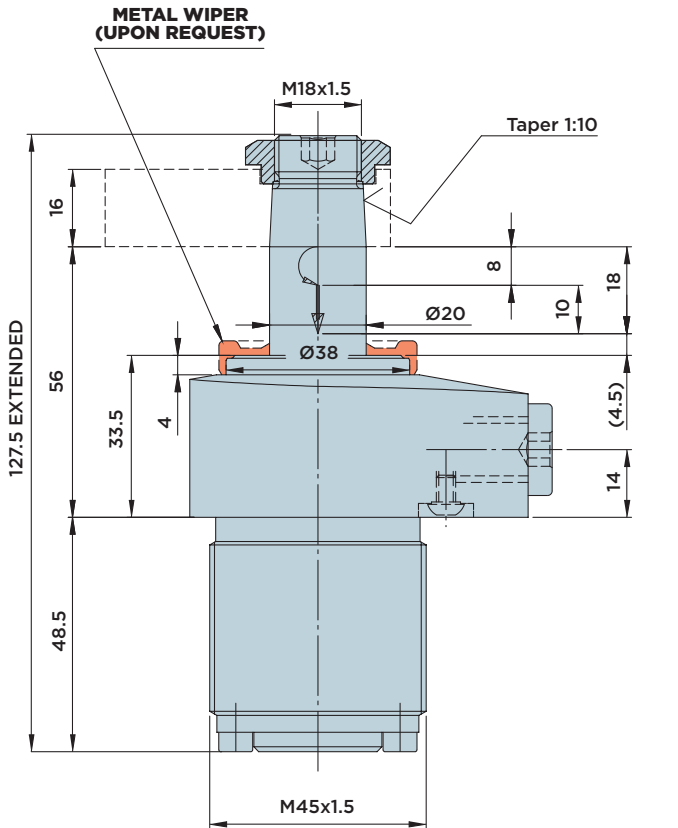
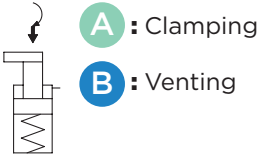
	STROKE mm	EFFECTIVE PISTON AREA	TOTAL OIL VOLUME
		Cm <sup>2</sup>	Cm <sup>3</sup>
<b>TOTAL</b>	14	CLAMP.	CLAMP.
SWINGING	7	1.01	1.4
CLAMPING	7		

# SR20.0 FS



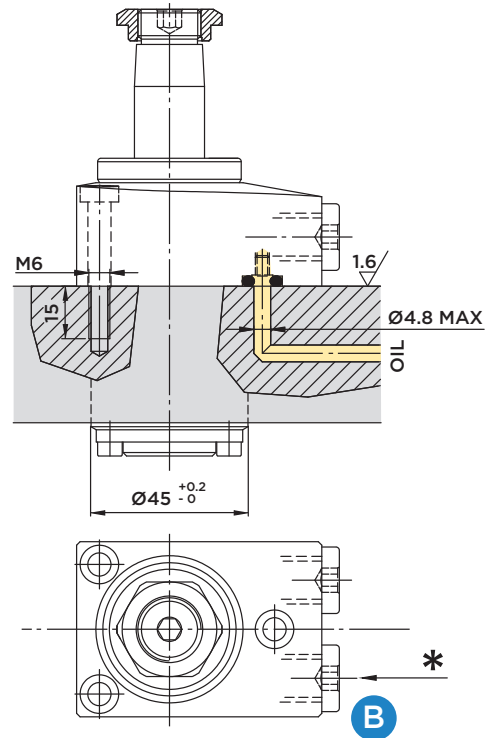
SINGLE-ACTING SWING CLAMP CYLINDER WITH **UPPER FLANGE**

MAX. OPERATING PRESSURE = 500BAR



**Note:**  
 Order code, see page 38  
 Clamp arms, see page 144  
 Clamping force diagram, see page 144

## INSTALLATION DIMENSIONS WITH O-RING CONNECTION



\* When the external vent port is used, a vent pipe must be connected that leads into an area that is free from liquids and chips.

### Included in the scope of supply:

- Mounting screws M6x30 DIN 912/12.9 grade
- O-Rings Ø4.34x3.53

### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

### Overload clutch as standard equipment

	STROKE mm	EFFECTIVE PISTON AREA	TOTAL OIL VOLUME
		Cm <sup>2</sup>	Cm <sup>3</sup>
<b>TOTAL</b>	18	CLAMP.	CLAMP.
SWINGING	8	1.76	3.2
CLAMPING	10		

# SR20.1 PS

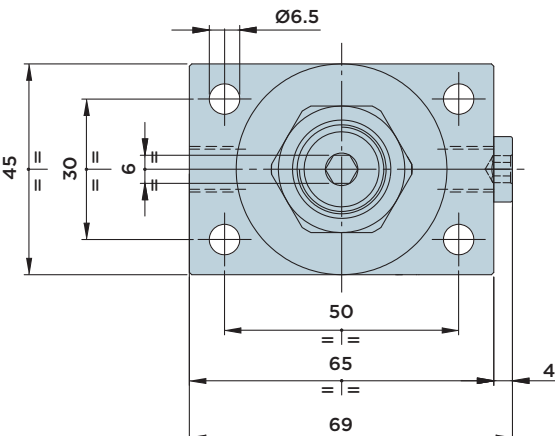
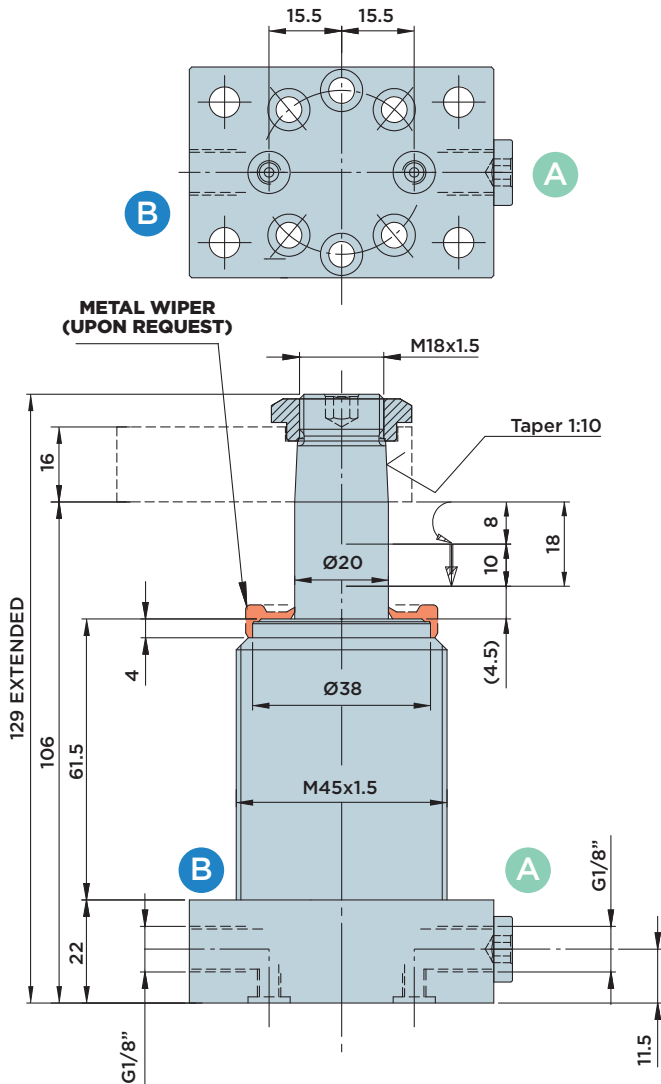


SINGLE-ACTING SWING CLAMP CYLINDER WITH **LOWER FLANGE**

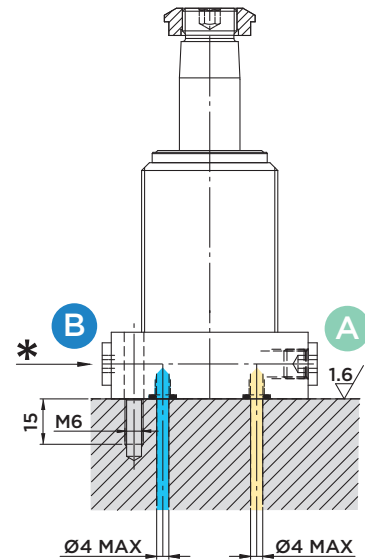
MAX. OPERATING PRESSURE = 500BAR

**A** : Clamping

**B** : Venting



## INSTALLATION DIMENSIONS WITH O-RING CONNECTION



\* When the external vent port is used, a vent pipe must be connected that leads into an area that is free from liquids and chips.

### Included in the scope of supply:

- Mounting screws M6x35 DIN 912/12.9 grade
- O-Rings Ø6.07x1.78

### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

**Overload clutch as standard equipment**

### Note:

Order code, see page 38

Clamp arms, see page 144

Clamping force diagram, see page 144

	STROKE mm	EFFECTIVE PISTON AREA	TOTAL OIL VOLUME
		Cm <sup>2</sup>	Cm <sup>3</sup>
<b>TOTAL</b>	18	CLAMP.	CLAMP.
SWINGING	8	1.76	3.2
CLAMPING	10		



HYDROBLOCK



# SR20.20 PS



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## OPTIMIZED 3-BALL-ROTATION AND REINFORCED RETURN SPRING:

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This swing clamp cylinder has been designed with a new 3-ball guiding system, the balls of which are arranged over a large diameter at an angle of 120° each. This solution enhances the mechanical resistance of the cylinder and makes it suitable for long operating times under extreme conditions, e.g. with clamp arms of high inertia. Thanks to the force distribution along three rotation paths positioned over a large diameter, the narrow rototranslational clearance is maintained in the long run. In addition, the cylinder has been equipped with a reinforced return spring system combined with a bearing to facilitate operation. This solution ensures reliable re-opening even with heavy clamp arms. The installation dimensions remained unchanged and correspond to the SR20.1 PS model, i.e. only the height of the open/closed clamp arm has been increased by some millimetres. Provided with an adequate clamp arm profile, these swing clamp cylinders are interchangeable.



# SR20.20 PS

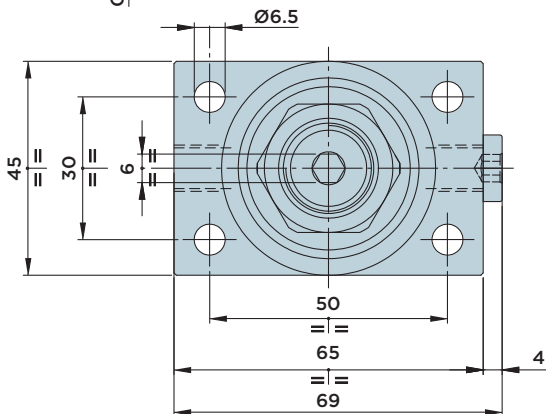
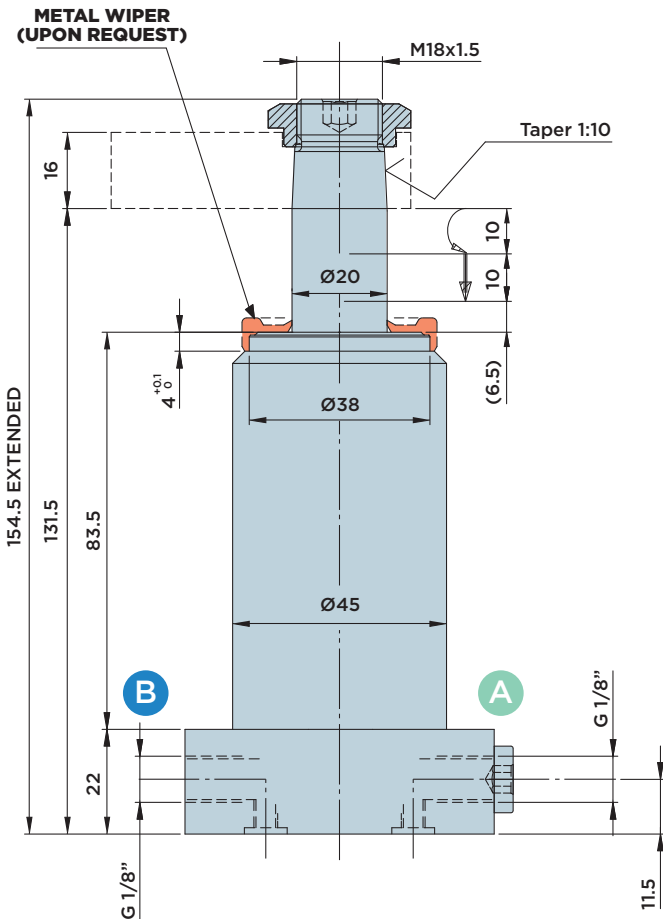
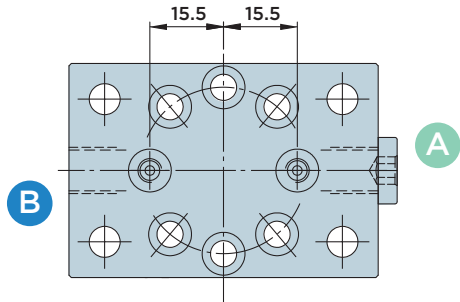


SINGLE-ACTING SWING CLAMP CYLINDER WITH **LOWER FLANGE**

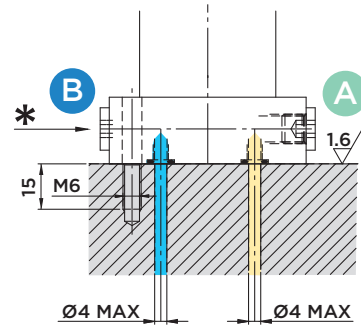
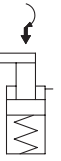
MAX. OPERATING PRESSURE = 500BAR

**A** : Clamping

**B** : Venting



## INSTALLATION DIMENSIONS WITH O-RING CONNECTION



\* When the external vent port is used, a vent pipe must be connected that leads into an area that is free from liquids and chips.

### Included in the scope of supply:

- Mounting screws M6x35 DIN 912/12.9 grade
- O-Rings Ø6.07x1.78

### Material:

- Piston/rod: Case-hardened steel, ground
- Body: Free machining steel, nitrocarburized

### Note:

Order code, see page 38  
 Clamp arms, see page 144  
 Clamping force diagram, see page 144

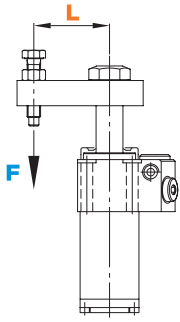
	STROKE mm	EFFECTIVE PISTON AREA	TOTAL OIL VOLUME
		Cm <sup>2</sup>	Cm <sup>3</sup>
<b>TOTAL</b>	20	CLAMP.	CLAMP.
SWINGING	10	1.76	3.5
CLAMPING	10		



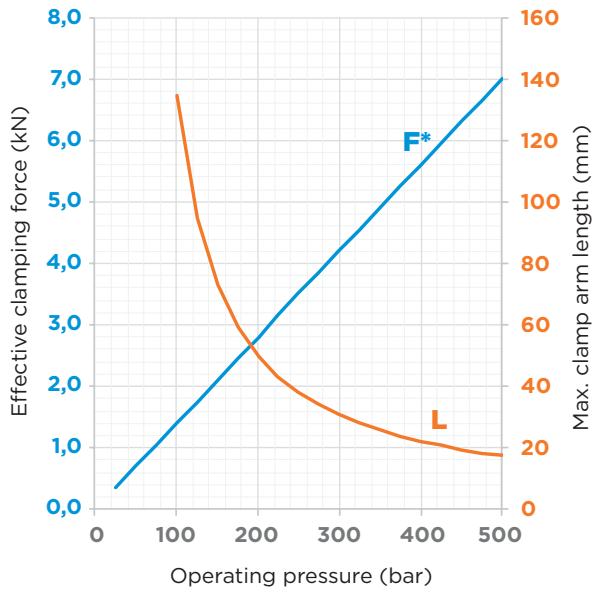
# SR20 SERIES

- ACCESSORIES
- EFFECTIVE CLAMPING FORCE

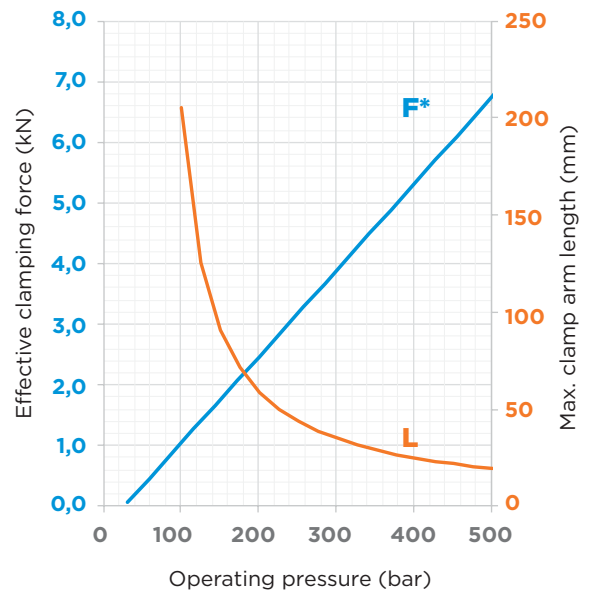
## Effective clamping force



### SR20 FD/PD/CDB

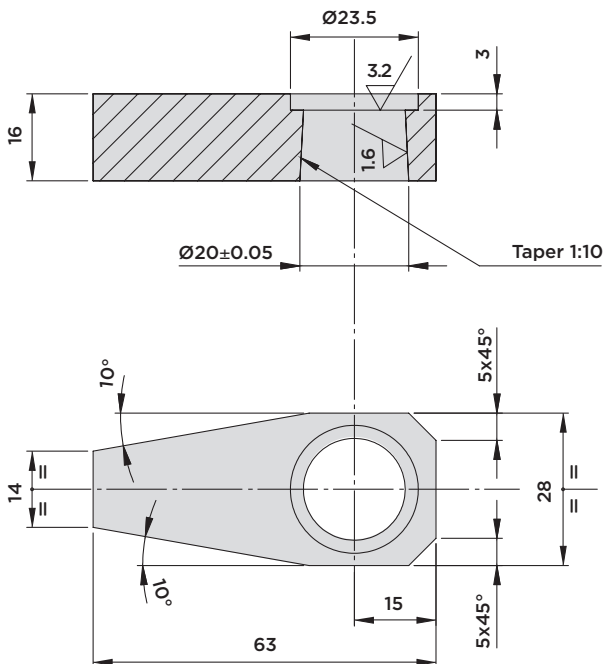


### SR20 FS/PS

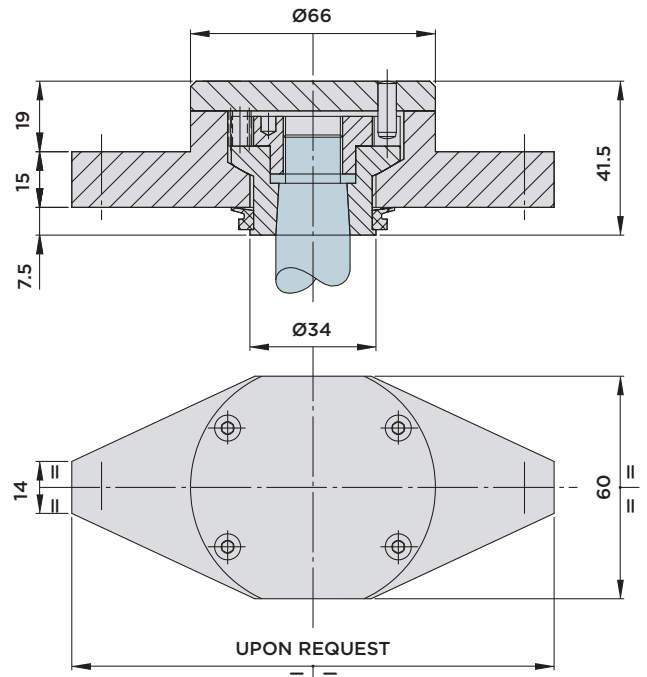


\* = The effective clamping force  $F$  in the above diagram was determined using the standard clamp arms of type O1 and O4.

### CLAMP ARM O1.20



### CLAMP ARM O3.20



Material: C45

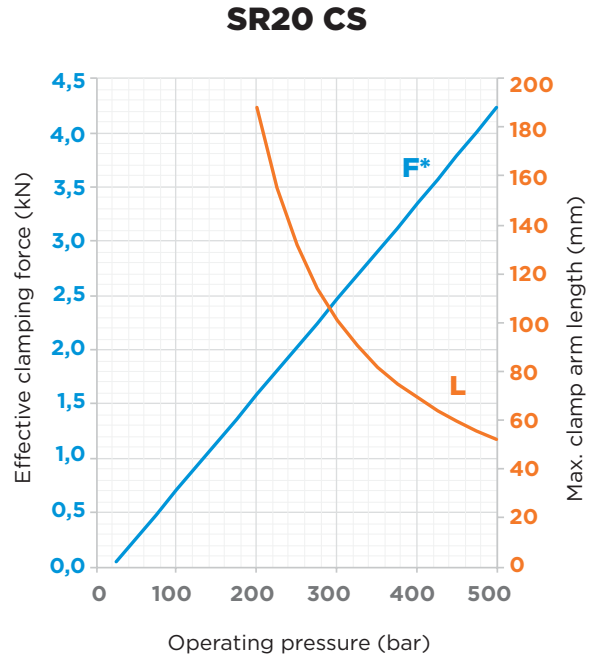
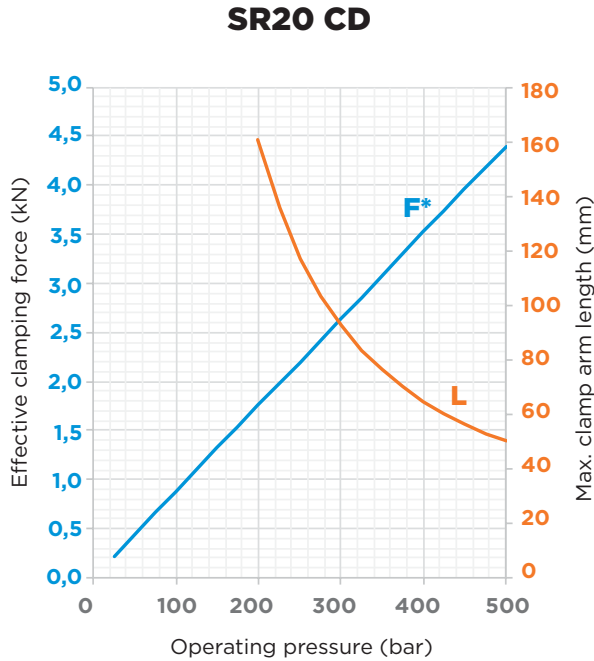


HYDROBLOCK

# SR20 SERIES

- ACCESSORIES
- EFFECTIVE CLAMPING FORCE

## Effective clamping force



\* = The effective clamping force  $F$  in the above diagram was determined using the standard clamp arms of type O1 and O4.

## Swing times

### SR20

