



## Threaded-Body Work Supports

max. operating pressure 500 bar

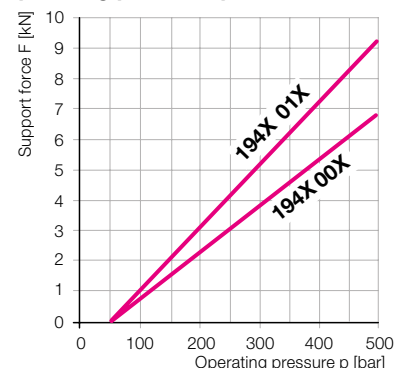


### General technical data

Plunger Ø	[mm]	16
Stroke	[mm]	8 (15)
Adm. support force at 500 bar		
194X00X	[kN]	6.5
194X01X	[kN]	9.5
Recom. minimum oil pressure	[bar]	100
Seating torque	[Nm]	60
Weight approx	[kg]	0.25

Mounting dimensions, accessories and application examples see reverse page

### Admissible load F as function of the operating pressure p



### Application

Hydraulic work supports are used to provide a self-adjusting rest for the workpiece during the machining operations. They compensate the workpiece surface irregularities, also deflection and vibration under machining loads. Two sizes are available. The threaded-body design of the elements allows direct installation in clamping fixtures, in horizontal or vertical mounting position, and thereby a space-saving arrangement. Hydraulic oil is fed through drilled channels in the fixture body. Hydraulic locking is made together with hydraulic clamping of the workpiece, or independently.

### There are three variations of plunger actuation:

- 1. Spring advanced;** plunger extended in off-position.
- 2. Air pressure advanced;** plunger retracted in off-position. The pneumatically-actuated plunger allows precise setting of the plunger contact force by means of a pressure reducing valve.
- 3. Hydraulic pressure and spring advanced;** plunger retracted in off-position. It moves forward with a light spring force against the workpiece, when hydraulic pressure is applied.

### Combination possibilities

The work supports 194X01X can be combined with the swing clamps as per data sheet B 1.891. (Example see reverse page).

### Important notes!

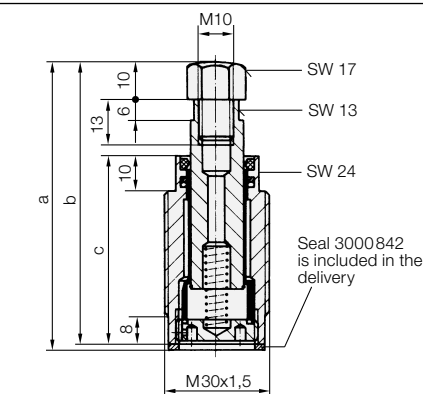
Work supports are not suitable to compensate side loads.  
 Operating conditions, tolerances and other data see data sheet A 0.100.

### Contact by spring force



a	[mm]	80.5	90.5
b	[mm]	79	89
c	[mm]	54	64
Spring force			
min./max.	[N]	8/13	8/13

**Part no. 1940000 1940010**



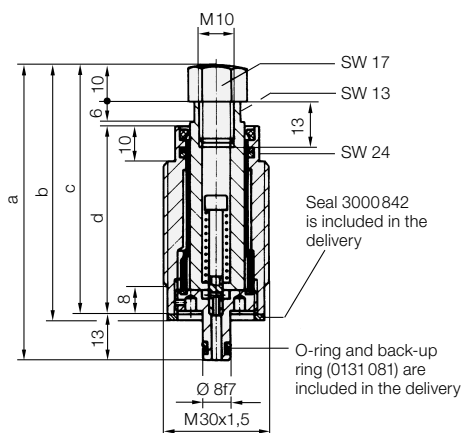
### Contact by air pressure



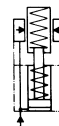
a	[mm]	84	94
b	[mm]	72.5	82.5
c	[mm]	71	81
d	[mm]	54	64
Spring force			
min./max.	[N]	20/30	20/30

Plunger contact force at 1 bar air pressure (deduct spring force if necessary) [N] 20 20

**Part no. 1941000 1941010**



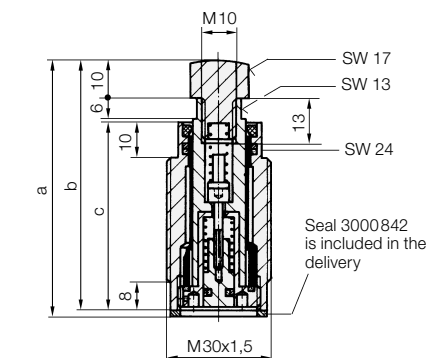
### Contact by oil pressure



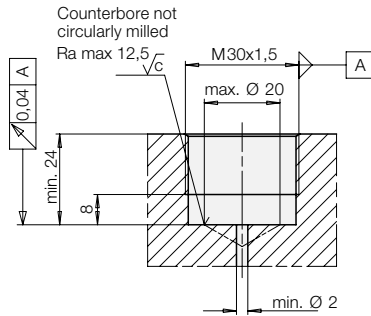
Stroke	[mm]	8	15	8	15
a	[mm]	72,5	79,5	82,5	89,5
b	[mm]	71	78	81	88
c	[mm]	54	61	64	71
Spring force					
min./max.	[N]	10/23	10/23	10/23	10/23

Max. oil flow rate [cm³/s] 25 25

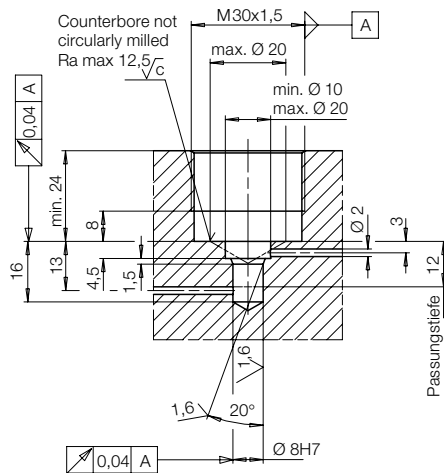
**Part no. Stroke 8 1942000 1942010**  
 Stroke 15 1942005 1942015



**Installation dimensions 19400X0/19420X0**

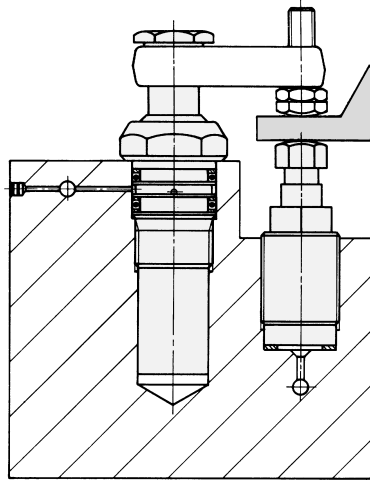


**Installation dimensions 19410X0**



**Combination possibility**

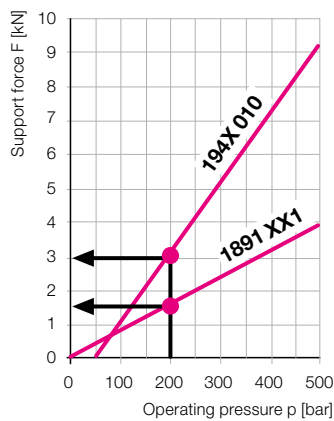
Threaded-body work support with threaded-body swing clamps as per data sheet B 1.891



Support and clamping forces have to be adapted to each other, so that there will be sufficient force reserve available for the threaded-body work support to absorb the machining forces.

Thumb rule: Support force  $\geq 2 \times$  opposing force  
The required minimum pressure is 200 bar.

The diagram below shows the graphs of the clamping and support forces for the 2 possible combinations.



**Example**

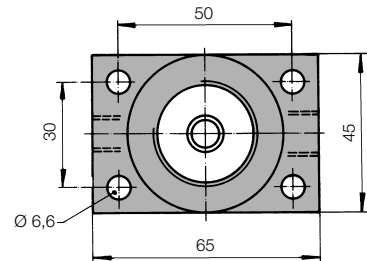
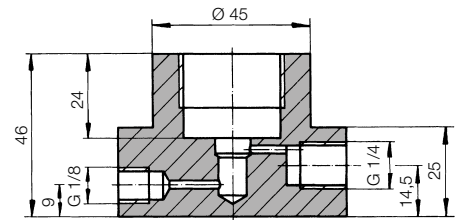
Swing clamp 1891 XX1 clamps against threaded-body work support 194X010.  
Operating pressure 200 bar.

Support force	3.0 kN
- Clamping force	1.5 kN
= possible opposing force	1.5 kN

**Accessories**

Mounting body **Part no. 3467086** as per data sheet B 1.460 or

body with pneumatic connection **Part no. 3467 112**



**Installation example**

