



Threaded-Body Work Supports
max. operating pressure 500 bar

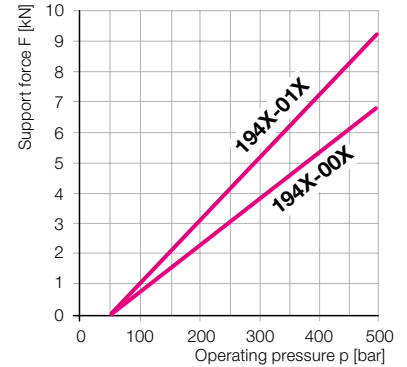


General technical data

Plunger Ø	[mm]	16
Stroke	[mm]	8 (15)
Adm. support force at 500 bar		
194X-00X	[kN]	6.5
194X-01X	[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

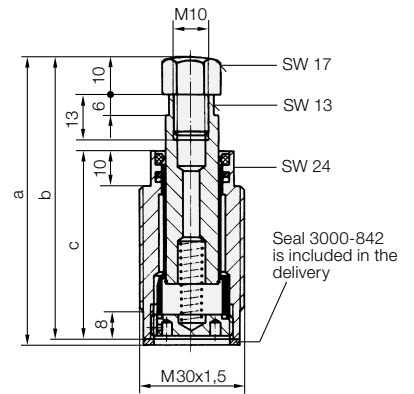
Admissible load F as function of the operating pressure p



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.		1940-000	1940-010



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.

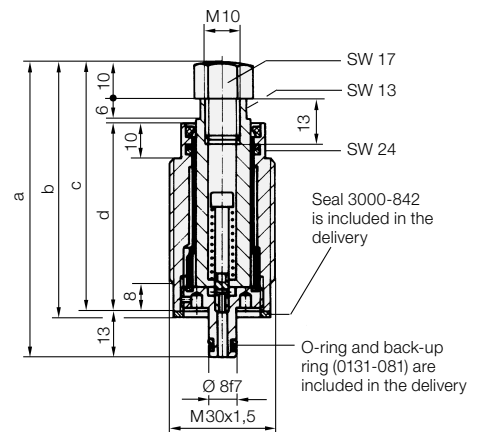
There are three variations of plunger actuation:

- 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.

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.		1941-000	1941-010



Combination possibilities

The work supports 194X-01X can be combined with the swing clamps as per data sheet B 1.891. (Example see reverse page).

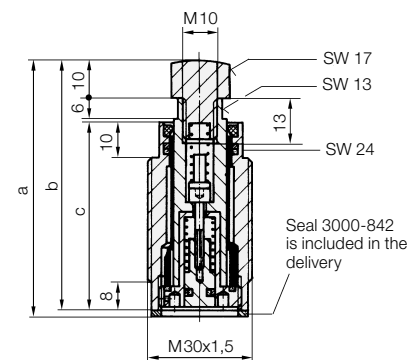
Important notes!

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

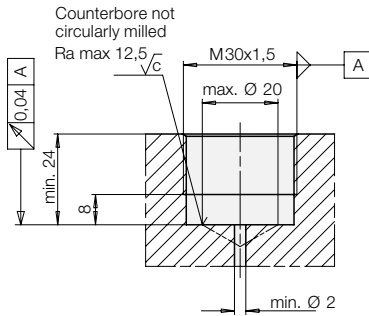
Contact by oil pressure



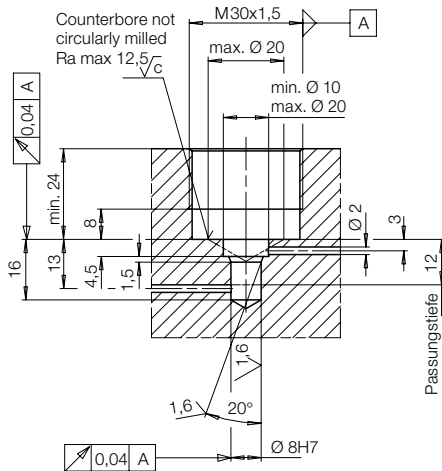
Stroke	[mm]	8	15	8	15
a	[mm]	72,5	79,5	82,5	89,5
b	[mm]	71	78	81	88
c	[mm]	54	61	64	71
Spring force					
min./max.	[N]	10/23		10/23	
Max. oil flow rate					
	[cm³/s]	25		25	
Part no.	Stroke	8	1942-000	1942-010	
	Stroke	15	1942-005	1942-015	



Installation dimensions 1940-0X0/1942-0X0

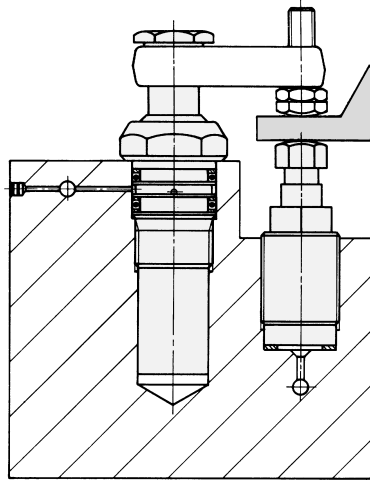


Installation dimensions 1941-0X0



Combination possibility

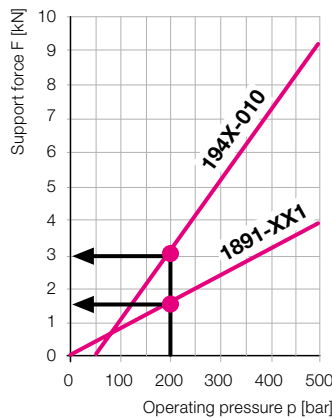
Threaded-body work support with threaded-body swing clamps as per data sheet B 1.891



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

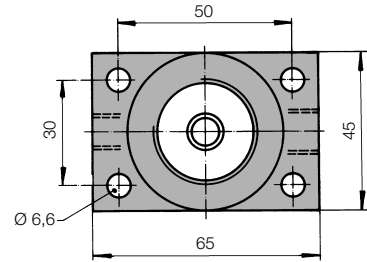
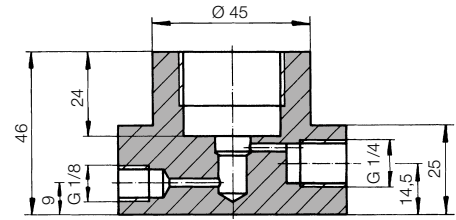
Swing clamp 1891-XX1 clamps against threaded-body work support 194X-010. Operating pressure 200 bar.

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

Accessories

Mounting body **Part no. 3467-086** as per data sheet B 1.460 or

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



Installation example

