



## Threaded-Body Work Supports

max. operating pressure 500 bar

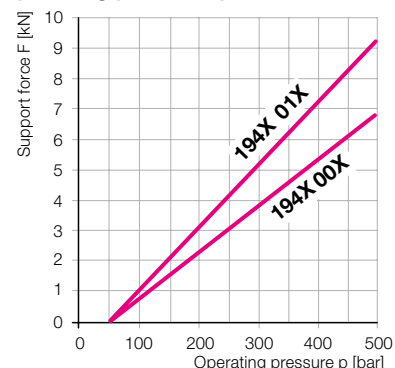


### General technical data

|                               |       |        |
|-------------------------------|-------|--------|
| 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

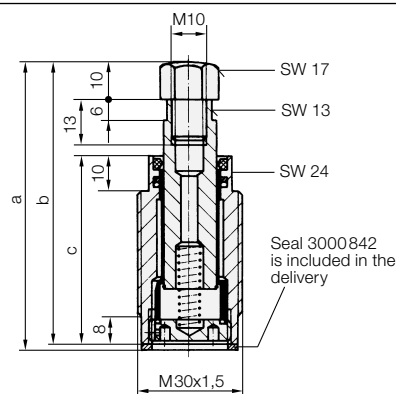


### Contact by spring force



|              |      |      |      |
|--------------|------|------|------|
| 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**



### 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.

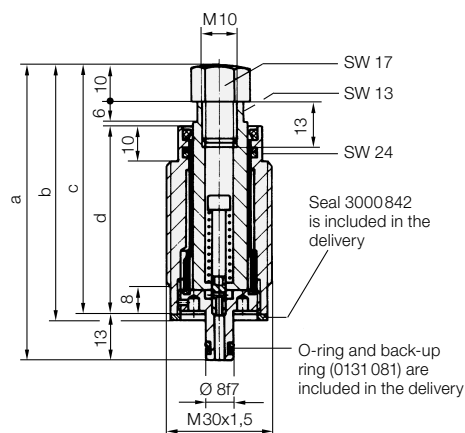
### Contact by air pressure



|              |      |       |       |
|--------------|------|-------|-------|
| 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. 1941000 1941010**



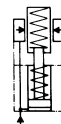
### Combination possibilities

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.

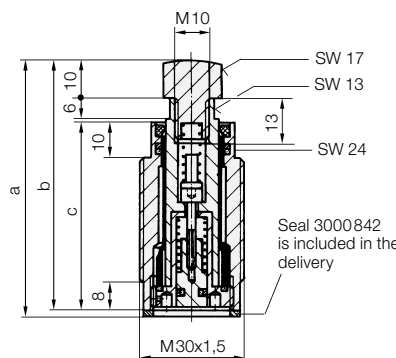
### Contact by oil pressure



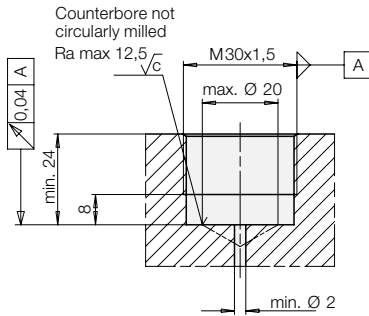
|              |      |       |       |       |       |
|--------------|------|-------|-------|-------|-------|
| Stroke       | [mm] | 8     | 15    | 8     | 15    |
| a            | [mm] | 72,5  | 79,5  | 82,5  | 89,5  |
| b            | [mm] | 71    | 78    | 81    | 88    |
| c            | [mm]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

Max. oil flow rate [cm<sup>3</sup>/s] 25 25

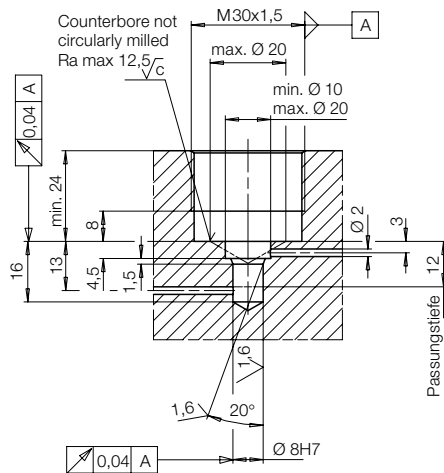
**Part no. Stroke 8 1942000 1942010**  
**Stroke 15 1942005 1942015**



**Installation dimensions 19400X0/19420X0**

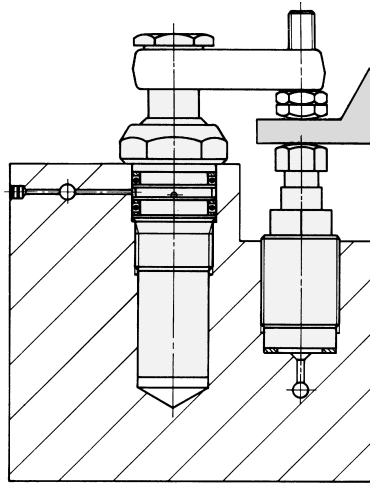


**Installation dimensions 19410X0**



**Combination possibility**

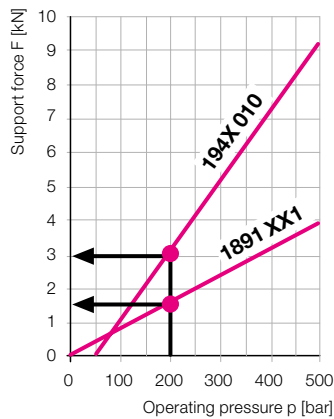
Threaded-body work support with threaded-body swing clamps as per data sheet B 1.891



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**

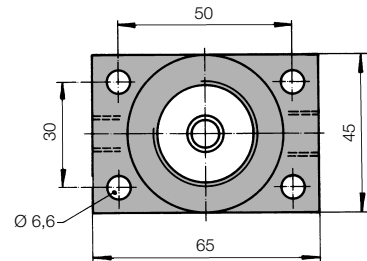
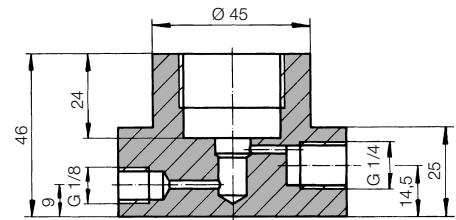
Swing clamp 1891 XX1 clamps against threaded-body work support 194X010.  
Operating pressure 200 bar.

|                           |        |
|---------------------------|--------|
| 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**

