

## Clamping Elements and Work Supports with Self-Locking double acting, max. operating pressure 250 bar and 500 bar



Swing clamp with self-locking function

### Description

ROEMHELD has developed a new series of hydraulic clamping elements, which maintain the total clamping or supporting force by a patented self-locking device if hydraulic pressure is cut off or drops.

### Function - swing clamp

The swing clamp is double-acting and equipped with four hydraulic ports:

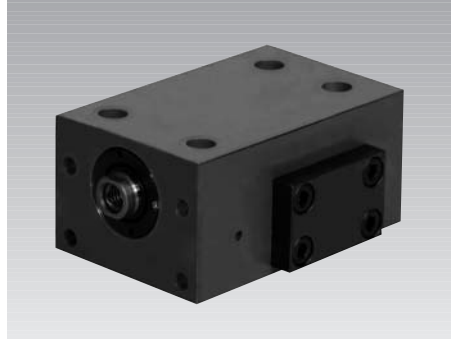
- Clamping
- Locking
- Unlocking
- Unclamping

Locking of the piston rod is made by a separately acting self-locking locking piston. Locking at the piston rod is positively.

In principle the swing clamp can be controlled by a double-acting clamping circuit.

By means of two additional sequence valves locking or release of locking can be activated.

Actually there are two sizes with optional inductive or pneumatic position monitoring.



Block cylinder with self-locking function

### Application

Clamping elements and work supports with self-locking are used on clamping fixtures, if it is not possible to maintain the hydraulic clamping pressure during machining or if the workpiece must remain safely clamped in case of a possible pressure drop, as e.g. on:

- Manufacturing systems with pallet store
- Indexing machines
- Special machine tools
- Transfer lines with workpiece carrier systems

### Function - block cylinder

The block cylinder is double-acting and equipped with three hydraulic ports:

- Extend
- Locking
- Unlocking and retract

Locking of the piston rod is made by a tangentially acting self-locking locking piston. Locking at the piston rod is positively.

In principle the block cylinder can be controlled by a double-acting clamping circuit.

By means of an additional sequence valve locking can be activated.

At the moment there are two sizes:

#### Size 1543:

Clamping force 15.7 kN at an operating pressure of 500 bar  
Stroke 20 mm

#### Size 1544:

Clamping force 22 kN at an operating pressure of 500 bar  
Stroke 20 mm



Work support with self-locking function

### Function - work support

Description of the self-locking work support see catalogue "Power Workholding" on data sheet B1.930.