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Press Release 5/2019

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- **Sturdy, compact and high load capacity: the new block cylinder S**
- **Suitable for operating pressure up to 500 bar and operating temperature of 200 °C**

*Laubach, 27 May 2019.* The new block cylinder S – as "strong" – from ROEMHELD is specially designed for use in forming technology, including punching. The very sturdy and extremely compact cylinder is a further development of the proven ROEMHELD block cylinder. It is hydraulically double-acting and universally applicable for all linear movements with high force requirements. The block cylinder S can withstand high mechanical and thermal loads and is suitable for operating pressures up to 500 bar and operating temperatures up to 200 °C. Versions up to 250 °C are available on request.

### **Block cylinder S absorbs high loads and side loads**

The block cylinder S shows its strengths in particular where high loads and side loads are to be expected, for example on punches, presses, trimming, bending and stamping machines as well as in joining and press-in devices. All designs are equipped with piston and rod guide rings which absorb side loads between the moving components. These also prevent direct metal contact between piston and cylinder housing, minimising mechanical wear. The operating pressure of the block cylinder S must be limited to 250 bar for these applications because of the very high loads during punching due to the cutting impact.

### **Many application possibilities**

Thanks to numerous variants and small dimensions, the block cylinder S can also be used for a wide range of applications. For example, core pullers and sliders can be operated in mould making. It can also be used in fully automatic production systems with very short cycle times thanks to its high load capacity. Inductive stroke end controls are provided for optional position monitoring.



### **Five designs: different piston diameters, strokes, sealing systems**

Five sizes with piston diameters from 32 to 80 mm and four stroke lengths from 25 to 100 mm are available. If required, the standard stroke can be shortened by 5 to 29 mm by means of a shrunk-on distance bushing. Piston variants with internal or external thread are available.

Five different sealing systems are available depending on the application conditions. By combining different sealing materials, the sealing system can be optimally adapted to the respective operating pressure, operating temperature and hydraulic fluid. This ensures that the piston moves constantly and smoothly even at low speeds, i.e. without a stick-slip effect.

### **High load capacity, protected against dirt, variable connections**

To meet the high mechanical and thermal requirements, the threaded bushing, cylinder housing and internal piston stops of the block cylinder S have been reinforced. The rod seals with minimum leakage ensure clean operation. The newly designed dirt wiper prevents the penetration of coarse dirt or swarf. It is countersunk to such an extent that the sealing lip is largely protected.

The block cylinder can be fixed in various ways. For this purpose, bore holes are available on the broad side, the rod side and the bottom side. There is also a whole range of different connecting options for hydraulics by means of pipe or flange, all with generously dimensioned diameters for high flow rates.

### **Load diagrams help to select the correct model**

The selection of the correct model variant is facilitated by a series of clear diagrams which show the customer the respective load limits for all possible operating conditions. At a glance, the admissible side loads as a function of the piston stroke, the permitted piston speeds in relation to the fixed mass and the appropriate seal combinations for the respective application can be seen.



## **About ROEMHELD:**

Whether for aircraft, automobiles, machine tools or cases for smartphones: technologies and products of the ROEMHELD Group have been used to manufacture numerous industrial commodities and goods for end users for more than 60 years.

Efficient clamping technology solutions for workpieces, as well as for dies in forming technology and plastics processing, form the core of our ever-increasing portfolio. This is supplemented with components and systems for assembly and handling technology, drive technology and locking mechanisms for rotors on wind energy systems.

As well as a wide range of approximately 20,000 catalogue items, the ROEMHELD Group is also specialised in the development and realisation of customised solutions and is internationally respected as one of the market leaders for quality today.

Innovation through tradition: ROEMHELD was established in 1707 with a foundry in Friedrichshütte, which still belongs to the ROEMHELD Group today and counts as one of the oldest active industrial businesses in Germany.

The owner-managed group of companies employs approximately 560 workers in its three locations of Laubach, Hilchenbach and Rankweil/Austria, and is represented in over 50 countries by service and sales organisations. With customers from the mechanical engineering sector, as well as the automobile, aviation and agricultural industries, the ROEMHELD Group generates an annual turnover of more than 100 million Euro.



**Photos:**



Photo 1:

The block cylinder S is available in five sizes with piston diameters from 32 to 80 mm, four stroke lengths from 25 to 100 mm and five different sealing systems. (Photo: ROEMHELD).

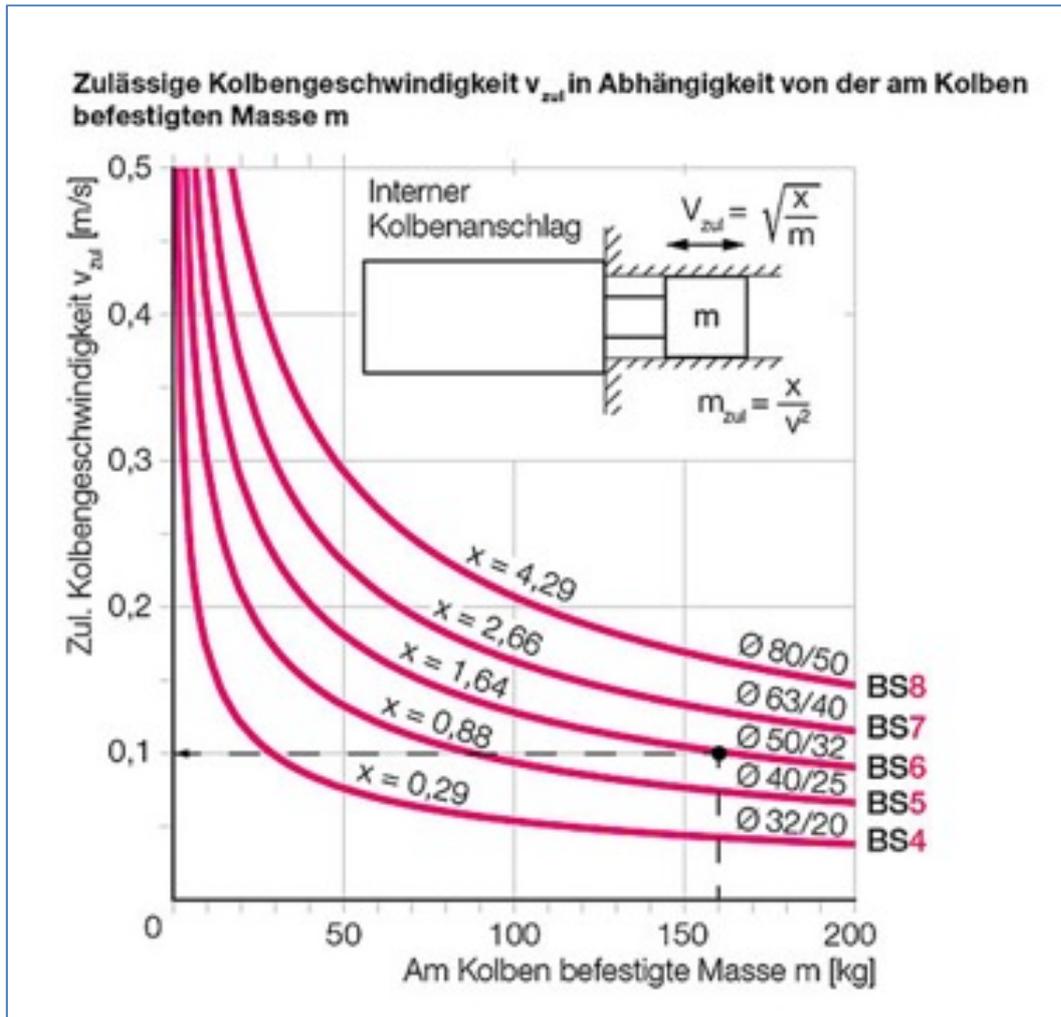


Photo 2:

The selection of the correct model variant is facilitated by a series of clear diagrams which show the customer the respective load limits for all possible operating conditions. (Photo: ROEMHELD).