



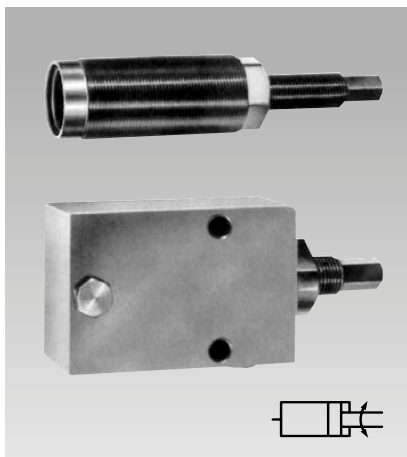
ROEMHELD
HILMA ■ STARK

Issue 2-97 E

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Screw Pump

max. operating pressure 500 bar



Application

The screw pump is especially suited as a pressure source for very small clamping fixtures, which must be independent of an external pressure source.

Important notes

In connection with a clamping cylinder a closed system can be built-up, for which the following has to be considered:

The clamping cylinder used must be leak tight under static pressure, which is the case for all Römheld clamping cylinders.

Because of leakage during piston stroking and because of oil compressibility (1 % at 140 bar pressure rise) only 60 – 70% of pump displacement should be utilized.

Air in oil increases compressibility considerably. The system must be absolutely purged from air. An air bleed screw at the highest point of the system, is essential.

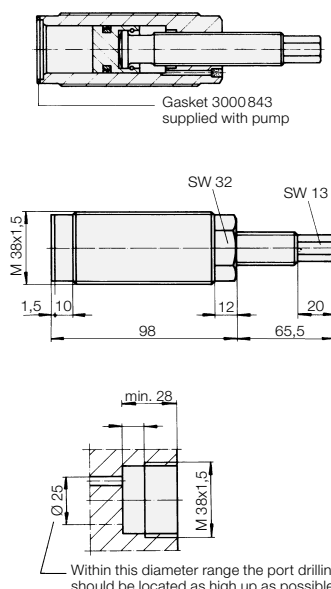
There oil can be added to the system, too, after the pump piston is returned. Piping and drilled passages are to be arranged such, that forming of air pockets is prevented.

Precise control of the clamping force is possible with a monitoring gauge only, since closed systems cannot contain a relief valve within the system.

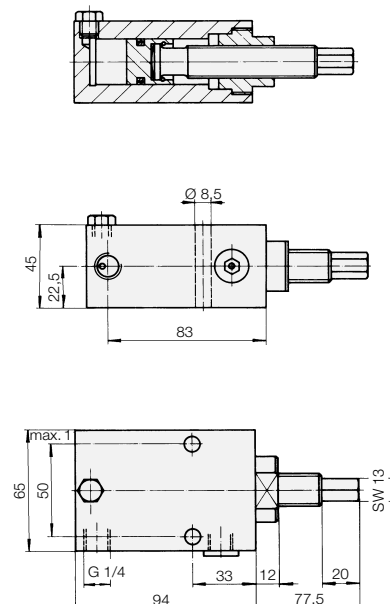
The use of a pneumatic torquing wrench can provide torque limitation for the pump screw. Nevertheless, a gauge will be required for calibration and monitoring.

A pressure transducer can also be used, or a spring preloaded pin, the position of which can be monitored by limit switches e.g. at various stations in a production process, when used with workholding pallets.

Threaded-body type



Block-body type



Part no.

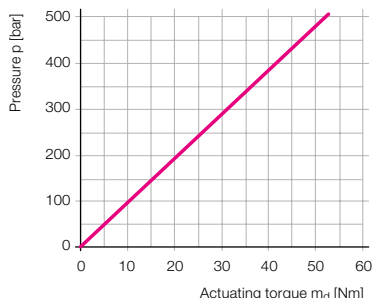
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Part no.

8819001

Technical data

Piston Ø	25 mm
Stroke	43 mm
Displacement	21 cm ³
Displacement/revolution	0,98 cm ³
Mounting torque for threaded-body type	80 Nm
Mounting position	horizontal as shown above



Hydraulic circuit diagram

