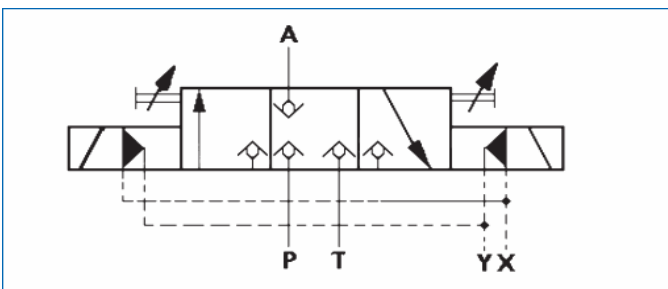


3/3 way pilot control seat valve

- Pilot-controlled seat valve
- Pilot-control by means of own medium
- Emergency manual operation
- Leakage-free sealing on the valve seat
- Force-controlled working piston
- Smooth switching, no pressure shocks
- Wear parts easy to access and fast to replace
- Control electromagnets protected against dirt and humidity
- Stroke limitation of pistons possible

Application

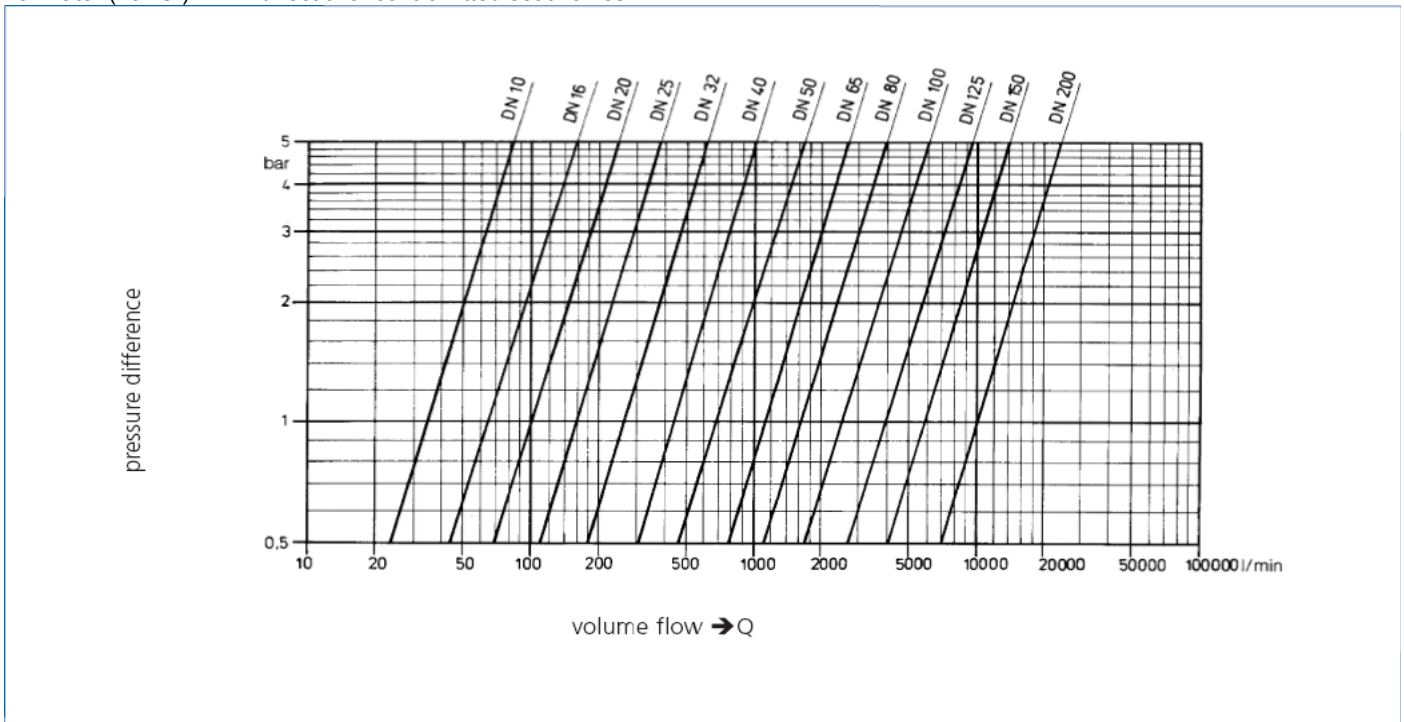
Rubber band presses
Press cylinder control
Electric arc furnaces
Fast stroke
Hot rolling mills
Roller application



Technical data

Construction type
Mounted seat valve
Pilot-control pressure
System pressure, 25 bar min.
Control medium
Own medium
Nominal width
NG 16 - NG 40
Pressure fluids
HFA 97% water and 3% additives Non-lubricated water (clear water)
Mineral oil acc. to DIN 51524 and 51525
Pilot-control pressure
See separate data sheets
Max. op. pressure
320 bar
Filtering
Main valve 100 µm, pilot-control 25 µm

Pressure difference and volume flow for water (20° C) in 2/2 directional control fitted seat valves

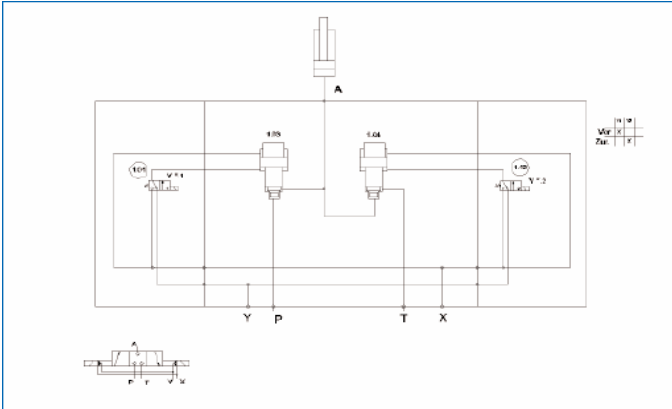


Special features

Due to the hydraulic force-control by means of the different size control surfaces of the piston rods, the piston rods cannot flutter. Closing springs are not required, thus there can be no uncontrolled piston position in the event of any spring fracture. The valves are insensitive against vibrations and pressure surges in the hydraulic system. Due to the extended piston guides, the pistons cannot be tilted by crossflow action. Depending on the version, the valves are kept closed by the applied system pressure. If the pilot-control medium or the electrical power fails, the valves will close. Therefore, hazardous uncontrolled load movements cannot occur.

The individual valve pistons are always fed through to the outside; this causes the open or closed valve positions to be visible from the outside. All valve components coming into contact with one another due to their movement are made of corrosion resistant materials. For aggressive media, the complete valve can be manufactured from appropriately selected stainless steels. The pilot-control valves are made completely of stainless materials. The emergency manual operations fitted as standard can be arrested and are protected against accidental activation.

Function description for the 3/3 directional control seat valve



Safety note

In order to avoid malfunctions, the two direction valves must not be switched at the same time.

Extend cylinder

By operating the direction valve 1.01 (Y1), the fitted seat valve 1.03 is opened. (Connection X - line to the lower larger piston surface 1.03) This applies "P" to the piston surface of the working cylinder. The movement "Extend cylinder" is initiated.

Retract cylinder

By operating the direction valve 1.02 (Y2), the fitted seat valve 1.04 is opened. (Connection X - line to the lower larger piston surface 1.04) This connects the piston surface of the working cylinder to the tank. The movement "Retract cylinder" is initiated.

Note

The cylinder can only be retracted by externally acting forces. The cylinder movement can be stopped at any point by cutting out the direction valves.