SERIES 2000

Single seated top guided control valve

INSTALLATION

General installation

The valve suitability to meet alternative service conditions can be determined by reference to the name-plate details and A. Hock MSR- and Electronic Service GmbH. Correct spares can similary be determined.
Before installing, inspect the valve and associated accessories for any damages caused or foreign material collected, due to transit or storage. Clean all pipe bores and faces ensuring all traces of pipe scale, chips, welding slag etc. are removed.
Excessive piping stresses, if transmitted to the valve body, may cause plug friction or other operation faults.
Every effort should be made to ensure a stressfree installation as far as possible.
Flow through the valve must be in the direction shown by the arrow of the body.
The normal flow direction is upwards towards the plug.

Install the valve (see Figure 1) using good piping practices. For flanged bodies, use a suitable gasket between the body and pipeline flanges.
Series 2000 valves can be installed in any position, but the normal methods recommended are:

a) Temperature up to 400˚C (750˚F):
Actuator vertically above valve body.
b) Temperature above 400°C (750 ˚F):
A**ctuator vertically below valve body if unlagged.**

If continous operation is required during maintenance and inspection, install a conventional four-valve by-pass around the conrtrol valve.
When the control valve is completely installed it should be checked for tightness of all connections and bolts, for correct travel, freedom from excessive friction and control action (air to open or air to close) to match the controlling instrument signal.

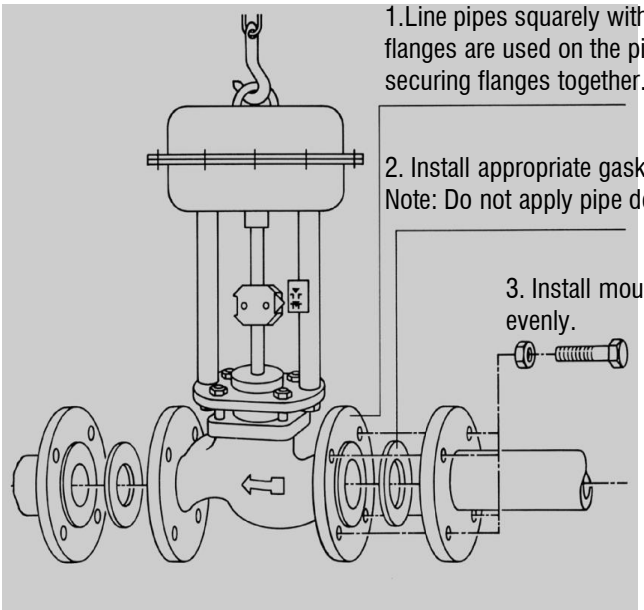


Fig. 1: Installed valve

Checking packing

All valves fitted with adjustable gland packing (Figure 2) are shipped with the packing in an uncompressed state. Prior to start-up tighten gland nuts at least finger-tight. After start-up the packing should be checked. If leakage occurs, tighten the packing flange nuts until the leakage stops..
Periodic tightening of these nuts is normally required on non-spring loaded packing.

Connection air supply

On valves wihout positioner, the control air signal line is connected directly to the appropriate actuator air chamber.
On a direct acting actuator (air –to-close), the control air line is connected to the upper, and on a reverse acting actuator (air-to-open) to the lower actuator chamber. On actuator with positioner the interconnecting piping between positioner and actuator is factory installed.
A suitable air suooly must be piped to the supply port of the positioner. If an airset is factory fitted the piping between airset and positioner supply port is factory installed and the air supply must be piped to the airset.
Air connections are 1/ inch NPT. Use of non-matching fittings may result in damaged threads and leaks.
Caution!
Do not tamper with pressure regulator adjustment. Reduced outlet pressure may be insufficient for valve operation, while increased pressure may damage the valve.
Pressure limits for the various valve-and-actuator combinations are listed in Specification Sheet.

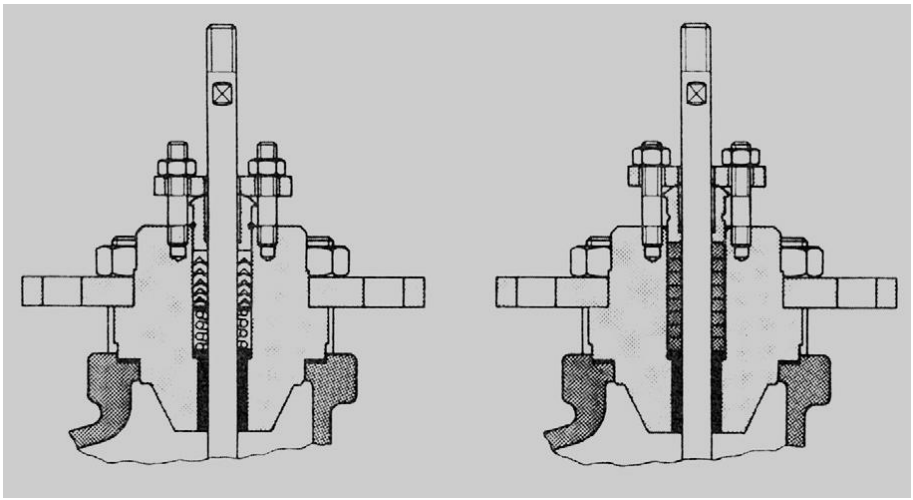
Checking operation

The valve is adjusted and tested at the factory before shipment and should require no further adjustment in the field.
After installation, use a regulated air supply to stroke the valve through several cycles to ensure that it operates smoothly.

Mounting actuator on valve in field

Normally, the valve and the actuator are factory assembled and adjusted before shipment.
However, the actuator can be mounted and adjusted in the field.

1. Push the valve stem down by hand to fully close the valve.
2. Replace the complete actuator, locating the actuator rods in the holes on the bonnet bridge piece and fit the hexagon nuts to the rods without completely tightening the nuts.
3. Connect the adjustable air supply to the actuator.
4. On direct acting actuator (Figure 3) apply sufficient air pressure to the actuator to fully stroke the actuator to nominal stroke plus 5%.
5. On reverse acting actuator (Figure 4) apply sufficient pressure to the actuator to start point (eg. 0,5 bar).
6. Attach the stem connector as this point making sure that the stroke indicating pointer faces the lowest making on the stroke indicator plate with the plug in the fully closed position. Tighten the stem clamp cap screws fully.
7. Completely tighten the actuator rod nuts securing the actuator firmly to the valve.
8. Fine adjustment may be made (with the plug off the seat) by slightly slackening the plug stem towards or away from actuator stem (Figure 5) using spanners fitted to the flats provided on both stems for this purpose.
9. Readjust the travel indicator plate as necessary.



PTFE –V-ring packing, self adjusting

Adjustable packing

Figure 2: Packing

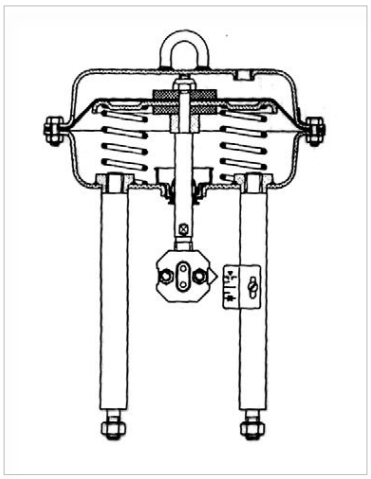


Figure 3: Direct acting actuator

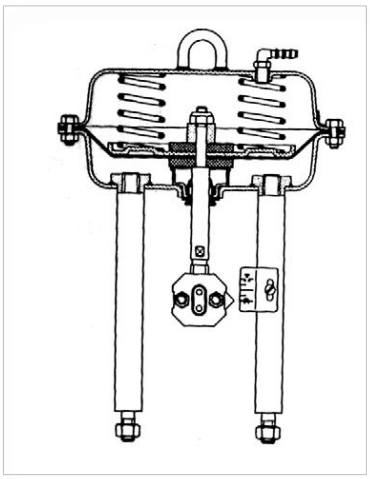


Figure 4: Reverse acting actuator

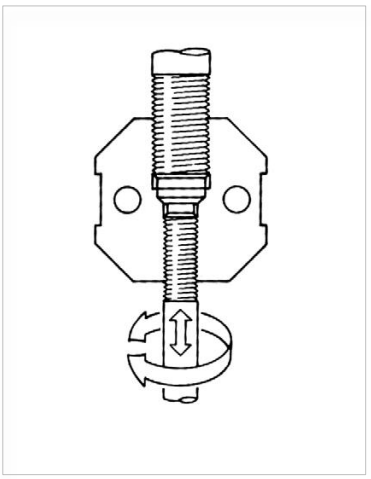


Figure 5: Stem clamp, connection between actuator and valve stem

A. Hock MSR- u. Electronic Service GmbH
Dr.-Konrad-Wiegand-Strasse 13
D-63939 Wörth am Main

Valve Division
Tel.: +49 (0) 9372 94 756 -12 Fax -22
info@ahock.com
www.ahock.com

Distributor:

Virago Valves
INDUSTRIAL VALVES

www.viragovalves.eu