# **CLARKSON** PORTED SLIDE GATE VALVES

FIGURE 955/956

Mounting instructions for F738 pneumatic cylinder to DN 250 - 750 (NPS 10 - 30) F955 ported slide gate valves and F956 dual gland ported slide gate valves

## MOUNTING INSTRUCTIONS

1. Ensure pipeline is not pressurized and any hazardous medium is drained away.
2. Remove clevis split pins (19) and clevis pins (18).
3. Remove upstand bolts (12) and washers (13) and (14).
4. Remove upstand (8).
5. Remove handwheel and spindle assembly.
6. Relocate the upstand (8) and replace upstand bolts (12) and washers (13) and (18).
7. Remove port plugs from cylinder (5) and fully extend piston rod, either manually or pneumatically.
8. Locate the cylinder (5) on the upstand (8), loosely fit the four mounting screws (20) and washers (21) through the upstand into the base of the cylinder (5).
9. Locate piston rod over the gate (2) and insert clevis split pins (19) and clevis pins (18).
10. Before operating valve, check alignment and tighten mounting screws (20 ).
11. Open and close valve to ensure it operates correctly.

## ALIGNMENT

For correct valve operation, it is important that the valve gate is correctly aligned and seating in the valve, and that the cylinder stroking movement is correctly aligned to the valve gate. Prior to fitting cylinder, check:

**Valve:**

Check gate alignment (gate closed).
If correctly fitted and aligned;

- Gate and gland box will be approximately centerd with the valve body viewed from front and sides.
- Gate will be true and parallel to valve body axis viewed from the side.

**Actuator:**

After fitting cylinder to closed valve and before stroking cylinder;

- With cylinder rod fully extended, viewing from the side of the valve, check that the center line of the cylinder and it's extended rod are directly in line with valve blade axis and the valve body axis. Then check center line alignment of valve and cylinder and rod viewing from the front of the valve. If either check reveals an out of alignment, then cylinder is not mounted squarely onto the valve and adjustment is necessary.

## STORAGE

1. All air line and electrical cable entries should be plugged. If cylinders are not fitted to a valve, they should be stored with the piston rod fully retracted.
2. Cylinders are assembled with a light coating of grease on internal components.

## GENERAL NOTES

1. A filter (5 micron), lubricator, regulator set is recommended to be fitted to incoming air lines (and prior to any control valve).
2. Where speed control is required, the speed control valves should be fitted to control the air exhausting from the cylinder (meter out control). These can be fitted in the lines adjacent to the cylinder ports. If the control lines are relatively short they can be fitted to the exhaust ports of the directional valve.

## CAUTION

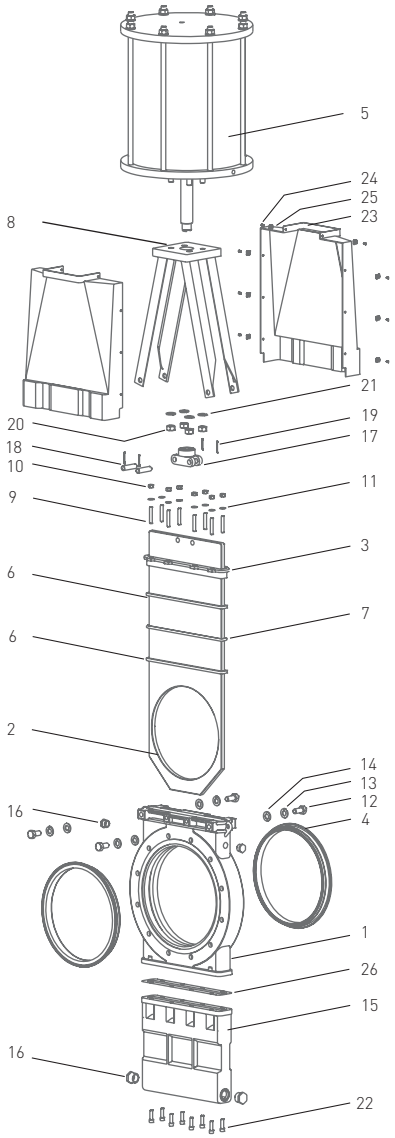
*Some combinations of knife gate valves and pneumatic cylinders are only suitable for operation at low air line pressures and pipe line pressures. Do not exceed operating conditions on valve and cylinder tags otherwise damage may occur.*

## ACTUATED VALVE GUIDELINES AND RECOMMENDATIONS

Cylinder actuated valves tend to be large and heavy and consideration must be given to adequately supporting both the actuated valve and adjoining pipe work particularly where light weight pipe or tube is being used. Heavy cylinder actuated valves mounted in other than the vertical position can also cause the pipeline to twist.
Where possible, the cylinder actuated valves should be mounted in the vertical position with the cylinder uppermost to prevent gate misalignment and possible structural damage to the valve assembly.
If mounted in any other position (angled, horizontal etc.), the cylinders should be properly supported by a suitable structure. Contact your nearest Emerson sales office for further information.

**NOTE**

To minimize risk to personnel, Emerson recommend the use of purpose built guards and shrouds.
Refer to the Emerson data sheet or consult factory for details.




**Note:** DN 250 - 750 (NPS 10 - 30) F955 valve illustrated.