



Bulk Solids Handling Equipment

Reg. No. 993360 England

VAT Reg. No. GB 2580681 45

Rota Val Ltd

Bumpers Way

Bumpers Farm Industrial Estate

Chippenham Wiltshire

England SN14 6LH

Tel:+ 44(0) 1249 651138

Fax:+ 44(0) 1249 657898

Fax (Sales): + 44(0) 1249 462054

E-mail: sales@rotaval.co.uk

Web site: www.rotaval.co.uk

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS TYPE 'BC' SQUARE SLIDE VALVE

'BC' Square Slide Valves are designed for a wide range of applications, from Food to Heavy Duty Industries including Cement, Chemicals, Mining, Sewage Treatment and many more.

HEALTH AND SAFETY

The valve contains moving parts that can be injurious, it is the responsibility of the system installer/user to ensure the safe installation and operation of the valve.

In particular it must be adequately protected and guarded
IN COMPLIANCE WITH YOUR LOCAL HEALTH AND SAFETY REGULATIONS.

The pneumatic and/or electrical control system must be isolated before any maintenance or adjustment is carried out.

Do not operate the valve with any part of it removed.

Only competent persons must be used to maintain the valve.

IT IS THE RESPONSIBILITY OF THE PURCHASER/USER OF THIS EQUIPMENT TO ENSURE THAT THESE HEALTH AND SAFETY INSTRUCTIONS ARE PASSED ON TO THOSE PERSONS LIKELY TO BE AT RISK.

IMPORTANT: ALWAYS QUOTE THE VALVE SERIAL No: IF FURTHER INFORMATION OR SPARE PARTS ARE REQUIRED.

RESIDUAL HAZARDS

The valve is intended for installation in fully enclosed pipework and must not be used whilst any of the connection ports remain unconnected.

NOISE

The operation of the valve results in a peak noise of 85dBA, (measured on 'A' weighted scale and 1 m from source). No account can be taken of the noise level associated with the conveying of product due to the variations in the applications and the number of products handled. For actual noise levels, measurement must be made on site, under operating conditions, in accordance with local Health and Safety guidelines.

HANDLING

The valve should remain in its packaging until ready for assembly into the system, as such; it may be moved using suitable handling equipment, for example pallet or fork lift trucks. Prior to installation remove all packaging. **DO NOT** lift using any pneumatic or electrical control equipment mounted directly on the valve.

STORAGE AND TRANSPORT

Special care should be taken of any attachments mounted onto the valve, such as solenoid valves, limit switches, positioners, etc, protect them from getting knocked and/or damaged, by placing suitable covers or wrapping materials around them to keep them safely cushioned.

The valve should be kept dust-free and clean at all times and dry paper should be used to cover the surface on the valve or plugs to protect the threaded holes, during long storage periods.

When the valves are stored in a damp environment for long periods of time, we recommend lubricating the movable parts.

If the recommendations are not followed correctly, there may be a risk of damaging the joints and preventing a complete seal during the operation of the valves.

DESCRIPTION OF THE PRODUCT

DESCRIPTION
BC 300mm SQUARE SLIDE VALVE

- ◆ Valve Weight 25kgs
- ◆ Mild steel slide plate (3)
- ◆ Fabricated mild steel square body (1).
- ◆ Simple felt seal (4)
- ◆ Operated by manual hand-wheel (11).
- ◆ Installation between flanges (see drawing for drilling detail).

INSTALLATION AND START UP

NOTE: THESE VALVES ARE DESIGNED TO BE INSTALLED BETWEEN OTHER EQUIPMENT IN THE HORIZONTAL POSITION WHERE THERE IS NO DIFFERENTIAL PRESSURE.

WARNING: ENSURE THAT THE SLIDE PLATE IS FREE OF OBSTRUCTIONS AT ALL TIMES DURING OPERATION, TESTING AND SERVICING.

This valve is not designed to be used as a support, therefore equipment either side of the valve should be supported independently.

If the valve has been in storage for a long period of time, take off all protectors and perform some test operations.

The valve is fitted with a label stamped with the valve serial number and with direction arrows, these arrows show the direction of flow.

Ensure mating flanges are flat. A soft gasket such as rubber should be used to take up irregularities in flanges with uneven surfaces. Valve must be mounted in the horizontal position. i.e. top flange horizontal. The valve should be fixed in place with suitably sized nuts and bolts.

The slide valves are tested at the works and the slide plate / insert clearance is set. Should the clearance need to be adjusted to suit product size and/or type, then the following procedure should be followed. The nuts securing the eccentric slide-plate supports (2) should be slackened allowing the supports to be turned to increase or decrease the clearance by turning the pin using a hexagon key. The nut is then re-tightened while holding the pin stationary. After prolonged periods wear will take place and cause the slide plate/insert clearance to increase. This can be reduced by adjustment as described above.

NOTE: MAKE SURE THE SYSTEM IS SWITCHED OFF AND SAFE BEFORE WORKING ON THE VALVE. THIS INCLUDES EMPTYING ANY HOPPERS ABOVE THE VALVE AND ISOLATING ANY EQUIPMENT BELOW THE VALVE.

MAINTENANCE

The main elements that require maintenance on the valve are the plate supports (2), the felt seal (4), the screw nut (6) and bearing (8). The amount of maintenance is directly proportional to the number of operations. Normally these valves are for isolation purposes, therefore only operate a few times a year. Based on this frequency a yearly check is sufficient, replacing worn parts as necessary.

To replace the packing:-

- ◆ Remove the cover (10).
- ◆ Fully open the valve.
- ◆ Remove the fixings from the bearing (8).
- ◆ The whole hand wheel assembly and slide plate can now be withdrawn from the seal housing.
- ◆ Remove the fixings from the seal housing (5).
- ◆ The felt seals (4) can now be removed and replaced.
- ◆ When replacing the seal housing (5) do not fully tighten at this stage, only a slight pressure to keep the new felt seal in place is required.
- ◆ The slide plate and hand wheel assembly can now be re-positioned and the bearing (8) re-fitted to the body.
- ◆ The seal housing (5) can now be evenly tightened until the felt is in contact with the slide plate.
- ◆ Re-fit the cover (10).
- ◆ The valve is now ready for operation.

DISPOSAL

The valve may be removed from its installed position using slings as specified in "Handling" section. For disposal purposes, see the parts list below which specifies material content, components may be recycled, reused or destroyed as dictated by local or national regulations.

ITEM	DESCRIPTION	MATERIAL
1	Valve Body	Mild Steel
2	Plate Supports	Nylon 66
3	Slide Plate	Mild Steel
4	Seal	Felt
5	Seal Housing	Mild Steel
6	Nut	Nylon 66
7	Screw	304 Stainless Steel
8	Bearing	Nylon 66
9	Thrust Washer	Nylon 66
10	Cover	Mild Steel
11	Hand Wheel	Plastic