

# OPERATING & MAINTENANCE INSTRUCTIONS FOR SLIMSLIDE

BULK HANDLING SPECIALISTS www.ROTOLOK.com





# **OPERATING & MAINTENANCE INSTRUCTIONS FOR** SLIMSLIDE



Indicates relevance to Manual operation

Indicates relevance to Pneumatic operation

### **Description**

Slimslide valves are used in the bulk handling field to isolate the flow of powder, pellets or granules between two sections of a process. Primarily designed for use in gravity feed applications; there is gland type seal that the slide plate passes through which has felt packing as standard. This is not a dust tight seal, but is designed to minimise dust escapement.

Slimslide valve could be used with a differential pressure without damage, though it is possible that excessive dust and air leakage could occur across the slide plate and/or into the rear chamber through the gland, possibly causing environmental dust issues and problems with the efficiency of the valve actuation. The Rotolok Slimslide valve body is a cast construction, slide plate running on machined rollers.

The unit is suitable for both manual and pneumatic operation as standard.

# Construction

Cast Aluminium. Body: Slide Plate: Stainless Steel

Supports: Nvlon or Gland Packing: Felt.

Actuation: Manual, Leadscrew or

VDMA Air cylinder with a five port two way,

spring return single solenoid valve

Limit Switches: Mechanical roller.

Alternatives to suit application

# **Actuation**



Manual operation is via a simple push pull movement or a leadscrew



The pneumatic operation is via a double acting VDMA air cylinder is connected to the slide plate by a rod clevis and is supplied with a single solenoid spring return valve and nylon piping. Limit switches are fitted and positioned to indicate open/closed conditions. Air supply pressure for effective actuation should be 80 psi and a filter/lubricator/drain is recommended.

### Group Accounts/Sales/Purchasing:

Rotolok Ltd. 1 Millennium Place, Tiverton Business Park, Tiverton, Devon. EX16 6SB. Telephone: Central Switchboard: 01884 232232 Fax: 01884 232200.

Email: sales@rotolok.co.uk web: www.rotolok.co.uk.

Registered in England No. 2050400 Registered Office 1 Millennium Place, Tiverton Business Park, Tiverton, Devon. EX16 6SB





## **Installation & Operation**

The valve is normally supplied ready for bolting directly to mating flanges, which need to be flat and true to avoid distortion of the valve body. Any mating flange distortions must be accommodated with suitable gaskets to avoid dust contamination to the environment and flange bolts not over tightened, inducing unwanted stress.



Once securely and safely installed, the air supply should be connected to the solenoid valve. Ensuring nothing can inadvertently be put into the cavity, the upper cover plate should be removed so that the movement of the slide plate can be observed to ensure it is running freely.

It is important to ensure that the valve internals and the cavity underneath the cover plates are free from product and any tramp materials before first operation and any subsequent reset or maintenance.

The valve pushes and pulls the slide plate across the valve opening, and through the seal, to block off or open the body inlet. Product then falls under gravity through the inlet and valve body.

## Maintenance

Ensure the valve is completely empty of product prior to carrying out any maintenance. Isolate the valve electrically and pneumatically prior to carrying out any maintenance.

The maintenance requirements are minimal on a Slimslide valve as the only moving internal part is the slide plate. Depending on the valve usage, product handled, actuation time and frequency the preventative maintenance schedule should be determined by on-site conditions and experience.

As a minimum it is recommended that the slide plate support rollers are checked at three month intervals for general wear and to make sure they are working freely. The rear chamber in the body should be checked at least once a month and cleaned out, if necessary, to prevent dust and product buildup. At the same time it is advisable to check for seal wear, and if necessary replace it.

When carrying out any maintenance including seal replacement it will require removing the valve from the production line.

Once removed split the body into two parts, the old gland packing can now be replaced with new seal material ensuring the ends are cut long allowing for the gland nipper bars to be replaced when the valve is re-assembled. At this point it is advisable to check and if required place the internal rollers. The valve can now be re-assembled.



Check the cylinder movement is smooth at twelve monthly intervals, more frequently if the atmosphere is dusty or at an elevated temperature. Check at six monthly intervals that the actuation arm strikes the limit switches to ensure that

Group Accounts/Sales/Purchasing:

Rotolok Ltd. 1 Millennium Place, Tiverton Business Park, Tiverton, Devon. EX16 6SB. Telephone: Central Switchboard: 01884 232232 Fax: 01884 232200.







the switches are not being overloaded by over travel.

# **Recommended Spares**

When spare parts are required, always quote the valve serial number.

Gland Packing Support Rollers Roller Pin

# **Handling**

Lift valves from under the base of the unit. Avoid lifting from the cylinder(s). If fork trucks are used to move the valves, take care to prevent damage to the underneath parts. Improper handling can cause distortion, misalignment and breakage, particularly on flange corners.

# <u>Safety</u>

In addition to standard safety regulations, the operator and maintenance personnel should be instructed to observe the following safety rules with pneumatically actuated Slimslide valves.

- 1. Ensure the valve cannot be operated remotely before removing any guards or performing any maintenance.
- 2. Ensure adequate guarding of all exposed moving parts.
- 3. Isolate the valve electrically and pneumatically prior to any maintenance.
- 4. Do not put body parts or tools inside the valve while in operation.
- 5. Ensure a continuous and suitable electrical earth connection is fitted to the threaded stud provided and tested for grounding.

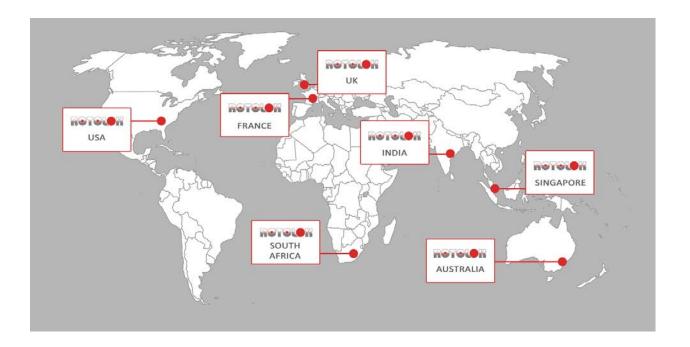
Ignoring the safety rules could result in serious injury.







### **ROTOLOK Worldwide**



### **ROTOLOK UK**

1 Millennium Place Tiverton Business Park Tiverton Devon EX16 6SB United Kingdom

Tel: +44 (0) 1884 232232 Fax: +44 (0) 1884 232200

www.rotolok.co.uk sales@rotolok.co.uk

### **ROTOLOK SOUTH AFRICA**

3 The Triangle Maraisburg 1709 Republic of South Africa

Tel: +27 (0) 11 674 1166/7 Fax: +27 (0) 11 674 4372

www.rotolok.co.za sales@rotolok.co.za

### **ROTOLOK USA**

Industrial Ventures II 2711 Gray Fox Road Monroe North Carolina 28110 United States of America

Tel: +1 (704) 282 4444 Fax: +1 (704) 282 4242

www.rotolok.us sales@rotolok.us

### **ROTOLOK AUSTRALIA**

Unit 1 6 Bonz Place Seven Hills Sydney NSW2147 Australia

Tel: +61 2 9620 4735 Fax: +61 2 9620 4751

www.rotolok.com.au sales@rotolok.com.au

### **ROTOLOK SINGAPORE**

7 Mandai Link #10 - 11 Mandai Connection Singapore 728653

Tel: +65 6744 6415 Fax: +65 6744 6425

www.rotolok.sg sales@rotolok.sg

### **ROTOLOK INDIA**

1375 Jeedi Drive, Sector 28 Sri City, Sathyavedu mandal Chittoor District, AP - 517588

Tel: +91 (0) 8099 454384

www.rotolok.in sales@rotolok.in

### **ROTOLOK FRANCE**

Z 1 Les Jalassieries CD18 13510 Eguilles France

Tel: +33 (0) 4 42 95 44 00 Fax: +33 (0) 4 4220 76 27

www.rotolok.fr sales@rotolok.fr



