• Rotary Airlocks
• Conveying Diverters
• Double Dumps
• Blowing Seals
• Fabricated Slides
• Slim Slides
• Rotoslides
• Rotoflex Valves
• Slimflex Valves
• Butterfly Dampers
• Weigh Valves
• Plug Diverters
• Screw Conveyors
• Gravity Diverters
• Rotospeed Switch
• Level Lok
• Pipe Couplings
• Ni Hard Bends
• Special Designs

Rotolok Ltd
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Tiverton, Devon EX16 6SB
Tel: 01884 232232  Fax: 01884 232200
e-mail: sales@rotolok.co.uk
website: www.rotolok.co.uk

everything under control...
Suitable for discharging dry dust, powder, granules and fibrous materials from cyclones, filters, hoppers etc., whilst maintaining an effective gas seal.

The valve consists of two flaps connected by counterweights or spring loaded spindles, which are operated by means of a motor driven cam. The cam alternately opens each flap allowing material to pass through the separate chambers in batch form and thereby ensuring a gas seal.

After cam release, the counterweights (or springs), return each flap to the horizontal (sealed) position and are designed and sized so that a clapping action at the flaps is obtained, aiding material flow and preventing build up at the seal plate.

The unit is suitable for pressure differentials of up to 500mm W.G. This can be increased with special features.

OPERATION

Units can be adapted for use on simple cyclone discharge systems. These are single flap counterweighted but non-motorized types. Product builds up on the flap until a sufficient head overcomes the counterweight. Discharge then commences and continues whilst material head exceeds counterweight and vacuum effects. Seal is partially maintained by product during discharge.

CAST SQUARE VERSION

Sizes available: 150, 200, 250 and 300mm as standard with square or round inlets. Larger sizes can be accommodated.

Rotolok makes a full range of fabricated types in mild steel and stainless steel, with specials up to a maximum of 750mm.

FABRICATED SQUARE VERSION

Drillings are Rotolok standards. Variations can be made.

CAST ROUND VERSION

Sizes available: 150, 200, 250 and 300mm as standard with square or round inlets. Larger sizes can be accommodated.

FABRICATED ROUND VERSION

Dimensions subject to change without notice.

INTRODUCTION

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CAST DOUBLE DUMP

CAST SQUARE VERSION

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All dimensions in mm.

Dimensions subject to change without notice.

FABRICATED DOUBLE DUMP

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All dimensions in mm.

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CAST ROUND VERSION

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All dimensions in mm.

Dimensions subject to change without notice.

DOUBLE DUMPS

Drillings are Rotolok standards. Variations can be made.
everything under control...

DOUBLE PLUG AIRLOCK
INTRODUCTION

The Double Plug Airlock (DDA) is a development of our popular Double Flap Valves, specifically designed for discharging 'problem' (abrasive, free flowing & flushing) materials, whilst maintaining higher-pressure differentials (up to 25 psig).

The Valve consists of two Plug Airlock Modules connected via a charge hopper. The upper airlock is opened for a duration to fill the charge hopper, and then closed. The lower airlock is then opened to empty the charge hopper, and then closed. This constitutes one cycle of the valve.

Each airlock is operated (via a PLC) to open & close in a pre-programmed sequence. Unlike cam operated systems, the open, close & dwell cycle is fully adjustable to suit product flow characteristics and maximise throughput efficiency. This represents a major advance in material delivery adjustment, control & metering. The modular construction and adjustable PLC control also provide a simple facility for increasing the volume of product handled per cycle. A suitably flanged spool piece can be fitted between the upper airlock and the charge hopper to suit a particular application.

APPLICATIONS

Standard Temperature Range =10° to +80°C (up to 150°C can be accommodated). Standard Units operate within pressure differentials up-to 25psig. Higher pressures can be achieved using a system that allows pressure to be equalised above & below the active plug airlock module before opening.

Single plug airlocks modules are available for use in flow control applications. With the use of an appropriate manifold, Airlock Valve Modules can be configured as conveying diverters & distribution nodes that can be operated under pressurised & full flow conditions.

KEY FEATURES

- PROBLEM MATERIALS
- HIGH PRESSURE DIFFERENTIALS
- FULL CYCLE CONTROL & ADJUSTMENT
- CONDITION MONITORING OPTIONS
- SIMPLE SEAL SERVICING
- ROBUST CONSTRUCTION

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Capacities: @ 10 cycles/min

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Theoretical maximum with standard Charge Hopper

RANGE

Sizes available: 150, 200, 250 & 300mm as standard with round inlet/outlet. Square inlet & larger charge hoppers can be accommodated. Single Plug Valve Modules can also be supplied for positive shut off applications.
The Company

Since its formation in 1973 Rotolok, by its continuing policy of reinvestment through profit regeneration, has quickly established itself as a market leader in many of its range of products.

Initially formed to manufacture Rotary Airlocks, Rotolok has broadened its base in complementary areas of powder and bulk solids handling technology, so much so that it is now a highly respected supplier of a wide range of equipment to markets both in the UK and overseas.

Introduction

The fabricated range of Rotolok Butterfly Dampers are used extensively in the air and dust handling industries generally in ten systems.

They are normally operated remotely by air cylinders, electric or pneumatic actuators although manual versions through the customary hand lever, handwheel and reduction gearboxes can also be accommodated.

Specification

Construction is generally from Mild or Stainless Steel with the body of the valve formed from rolled steel angles or channels dependant on the size.

The damper itself is formed from two plates which sandwich, if required, a felt seal or alternatively it can be a single blade machined for closed fitment to the valve body. The type selected is dependent on the amount of air leakage that can be accepted.

The split spindle mounting system minimizes turbulence within the air stream and these spindles are mounted on either two or four bolt flanged mounted sealed for life ball bearings.

Seals can be fitted if required through a simple ‘O’ ring or, on high temperature applications, the conventional stuffing box is utilised.

The type of actuator, to suit the clients requirements or specification, can be added, and on pneumatic versions, limit switches and single solenoid spring return valves are standard inclusions.
Range

With fabrication, practically any size can be accommodated to suit the duct size with flanges also made to suit designers needs.

The range starts at 350mm dia and extends to 1500mm dia. Standard sizes are as shown in the chart below. Square units can also be designed.

Important Note

On valve size selection it is important to ensure that the ducting size is equal to or slightly larger than the valve. This is to prevent any possible interference during the damper operation in the area where the blade enters the ducting, or should there be any misalignment between the components on assembly.

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All dimensions in mm