

# ROTOLOK FIBC DISCHARGE UNIT

THE SIMPLE & EFFECTIVE SOLUTION FOR THE EMPTYING OF BULK BAGS



In tandem a pair of units with special paint finish, handling sugar and salt for a major snack food manufacturer.

**The cost effectiveness of the FIBC Discharge Unit is based around the use of a system of bolted and welded tubular mild steel modules. These form the main structural support and are sized to suit the popular range of Bulk Bags currently used across many industry sectors. Finish painted in a blue hammerite, the modules are designed for both ease of transport and simple installation. They are offered with a wide range of standard options to minimise cost yet enhance the selection procedure.**



Standard modules combined with bespoke equipment to provide a product specific discharge solution.



A standard deep dish with integral knives and dust seal for discharging single trip bags.

**ROTOLOK**

*everything under control...*

1 Millennium Place, Tiverton Business Park, Tiverton, Devon EX16 6SB

Tel: 01884 232232 Fax: 01884 232200

email: [sales@rotolok.co.uk](mailto:sales@rotolok.co.uk) website: [www.rotolok.co.uk](http://www.rotolok.co.uk)

**ROTOLIN**  
*everything under control...*



**FLEXIBLE SLEEVE VALVES**

# • FLEXIBLE SLEEVE VALVES •

## INTRODUCTION

The flexible sleeve valve has proved itself over a number of years as a simple, reliable isolation or variable feed control valve on applications in the powder or air handling industries - its simplicity being its major advantage.

The basic construction is a rubber sleeve that, with each end being held firmly to a circular shape on rotation through 180°, will completely seal against the very finest of powders and limited air pressure.

Partial rotation leads to partial opening and a multitude of different types of sleeve can be accommodated, the better type of sleeves are food quality nylon, impregnated cloth and wear resistant natural rubber. These types of sleeves are weighty, give the valve good full opening properties and are dust tight.

Rotolok manufacture two types of flexible sleeve valve for different applications.

- Rotoflex
- Slimflex

## INSTALLATION

The Rotoflex and Slimflex valve are immediately ready for installation, however it is essential that the mating flange is flat and true so as not to impart unwanted stresses into the casting causing warp and consequently difficult heavy duty loading on the rotary ring.

The other major consideration is to ensure on the tapped holes in the area of the slot that screws do not protrude into this area, preventing handle operation.

In some cases, if wear becomes a major problem it may be preferable to install a false sleeve, thereby protecting the sleeve and simplifying its replacement.

## ROTOFLEX

Cast in aluminium or stainless steel, it is a high duty, hand operated valve for fine powders on open discharge systems.

The Rotoflex lends itself particularly on filling applications. The sleeve is fixed with clamping rings.

It can also be used on in-line systems but care must be taken to ensure mating gasket or flange does not interfere with rotating clamping ring.

The main advantage of the Rotoflex is that it can be re-tensioned 'insitu'.



## SLIMFLEX

The Slimflex is a low cost alternative to the Rotoflex, designed primarily for the needs of the IBC market. It is manufactured from mild or stainless steel laser cut rings providing a robust, yet lower duty valve. Mild steel parts are zinc coated.

The advantage of Slimflex is that any size can be accommodated.

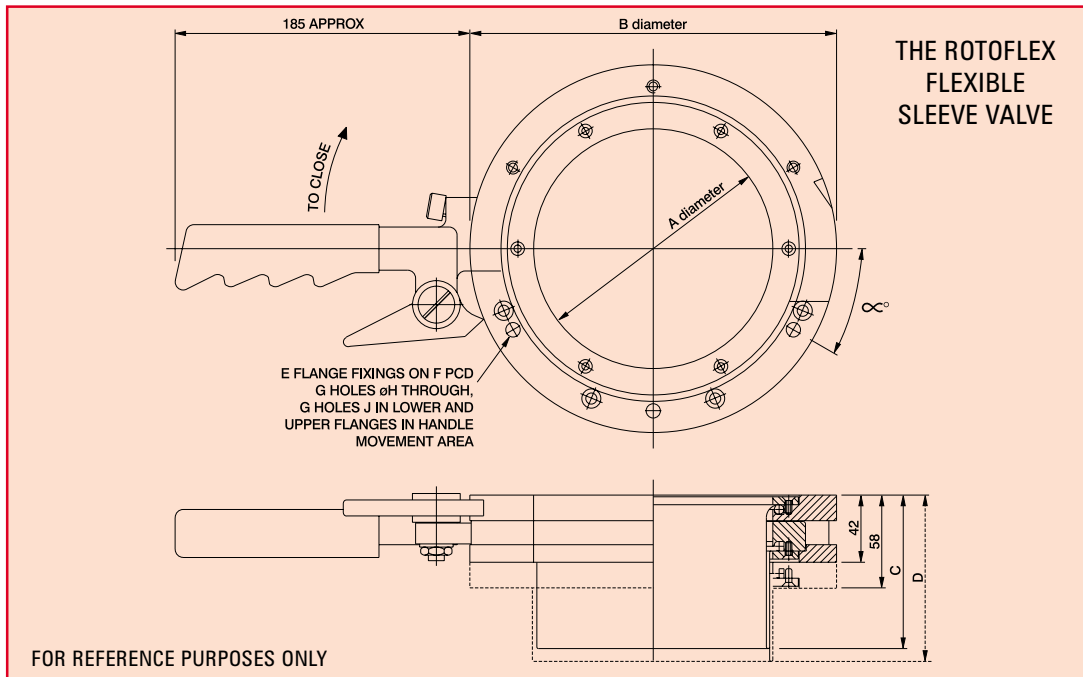
## DOUBLE SLEEVE OPTION

It is available on Rotoflex or Slim Flex. It gives the added advantage of complete sealing to the working components and is therefore in 'in-line' systems, completely dust tight which is a valuable aid with most

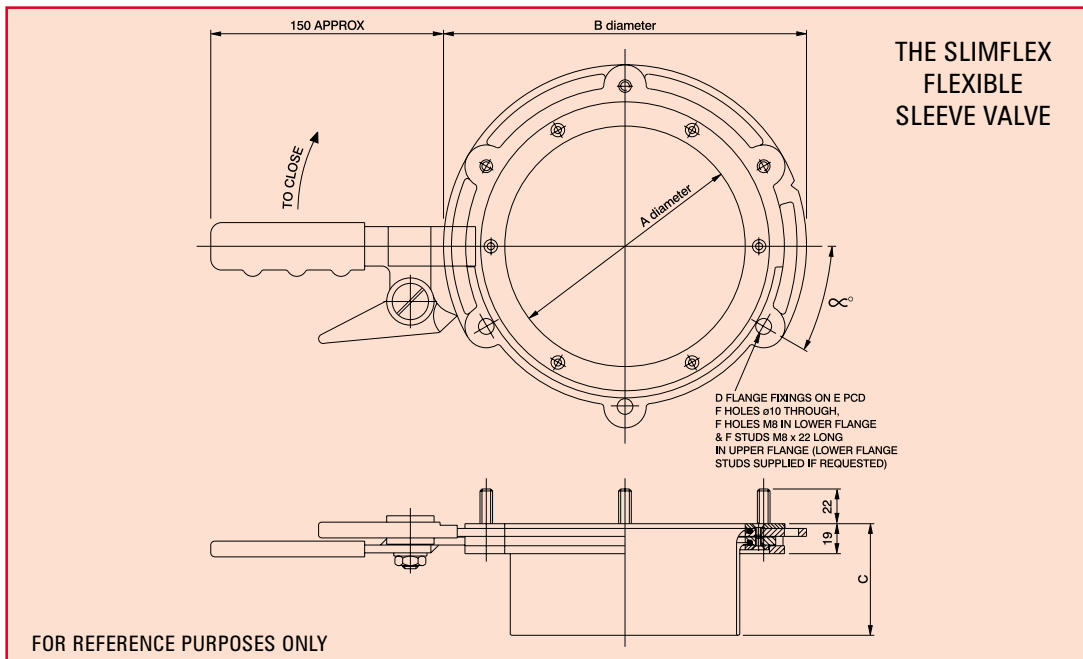



powder and air handling systems up to 28" w.g. The doubling effect of the sleeve gives good sealing properties.

# • FLEXIBLE SLEEVE VALVES •



VALVE SIZE	A	B	C	D	E	F	G	H	J	
150	150	230	96	104	6	203	3	9	M8	30°
200	200	280	121	129	6	254	3	9	M8	30°
250	250	350	146	154	8	327	4	11	M10	22.5°
300	300	400	171	179	8	378	4	11	M10	22.5°



VALVE SIZE	A	B	C	D	E	F	
150	152	230	86	6	203	3	30°
200	203	280	111	6	254	3	30°
250	254	350	137	8	327	4	22.5°
300	305	400	162	8	378	4	22.5°

With Slimflex any size can be accommodated

### **Introduction**

The Flexiscrew System comprises an Inlet Trough, Flexible Auger & Pipe, an Outlet Unit and a Drive Mechanism. The rotation of the Flexible Auger within the Pipe moves granular & powder materials along the Pipe.

The Inlet Trough can be connected to various inlet feed devices, simple bag dumping to calibrated feed rate devices. The Discharge Unit allows the material to exit the Pipe, and provides a mounting point for the Drive Mechanism.

The Flexiscrew can also be used for horizontal conveying, again the flexible nature of the tube & screw make the system ideal for installation around existing plant, or where a pneumatic conveyor would be inappropriate.

The Flexiscrew operates as a “plug” conveyor; the screw moves material through the tube as a continuous mass or “plug”. It is therefore essential that materials are flood fed to the inlet.

Unlike our competitors who use a round wire spiral, our standard auger is of a flat “blade” design. This offers higher conveying efficiency, lower material degradation, will handle “difficult” materials (free-flowing, light & fine), and has lower power consumption and overall running & maintenance costs compared to the round wire pattern.

### **Sizes available:**

Ø50mm (size 2)  
Ø75mm (size 3)  
Ø100mm (size 4)  
Standard Outlet Ø 200mm  
Standard Inlet Flange - 400 x 200mm  
Angle of incline 0° to 85°

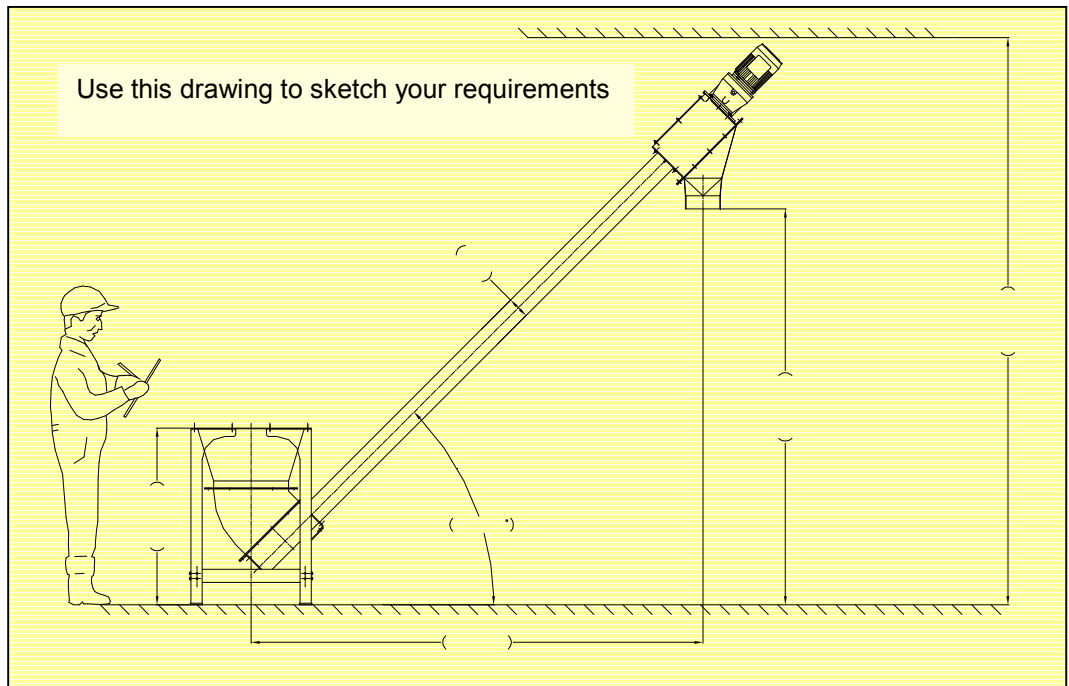
### **Capacities:**

Size	Horizontal		45° Incline	
	m <sup>3</sup> /hr	ft <sup>3</sup> /hr	m <sup>3</sup> /hr	ft <sup>3</sup> /hr
Size 2	0.7	20	0.5	14
Size 3	3.5	99	2.5	70
Size 4	9.1	258	6.5	185

These are estimated maximum capacities based on free flowing materials & flood feeding of the conveyor. Our extensive database of product characteristics gives a general assessment of flow capacities, although a specific material sample and test session would ensure an accurate flow rate.

### **Key Features:**

- High Efficiency screw design
- Lower power requirement than our competitors
- Low material degradation
- Suitable for free flowing, light and fine materials
- Lower running costs
- Robust Construction



### **Specification:**

Standard mild steel units are also available in stainless steel, with stainless steel augers & fittings.

Stainless Steel “Sanitary” units called “Super-Clean” can be made to special order; they have special seals on the drive mechanism, and are of a different overall design for easier clean down, with quick release, stainless steel augers and couplings.

Heavy duty & high temperature versions are available. Because performance and specification can be significantly different from the standard units, only the basic throughput calculations remain the same.