

WEIGH VALVES

ROTOLOK

everything under control...

WEIGH VALVES

INTRODUCTION

The weigh valve is a natural development from the Rotolok series of Pneumatic Conveying Diverter Valves. It is primarily used in small bulk handling systems whereby a product is pneumatically conveyed to a hopper or bulk bin which is process weighed.

Initially the valve is positioned as per *Fig 1* showing the product being discharged into a bin whilst the air is exhausted. On the correct weight being designated the valve changes position by means of the single cylinder to the position as per *Fig 2*.

In this case the correct weight has been established and the product is then either sent to alternative weigh stations or conveyed back to its holding hopper. The valve has the same important design feature of the well established pneumatic conveying diverters.

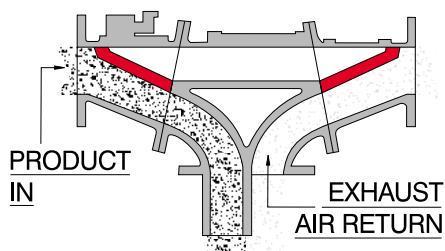


Fig 1

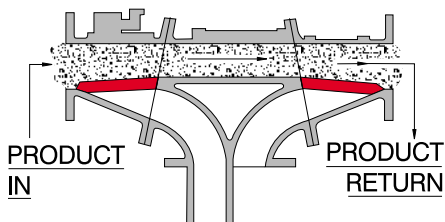


Fig 2

WEIGH VALVE

The Rotolok weigh valve consists of a robust body manufactured in three sections split at flanges giving direct access to the internal sealing flap.

By the special design cone transition the sealing areas within the cones form complete parabola and therefore an efficient internal seal can be maintained without resorting to ledges, increasing the conveying line pressure, the rubber wiper seals more effectively.

Internals are clean with no lodgement points and the transitional effects are gradual limiting turbulence and, therefore, pressure drop.

Choice of materials can cater for the majority of applications and by plating the body and internal components the semi abrasive fields can be covered.

Further demands of industry have led to the manufacture of two types of connections:

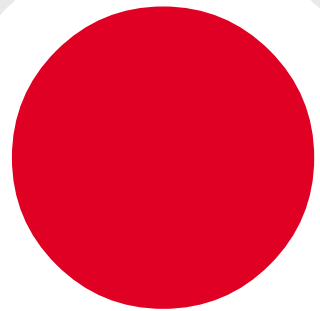
FLANGED

Simple and robust, bolt on flanged ends drilled to match various international standards.

SPIGOTTED

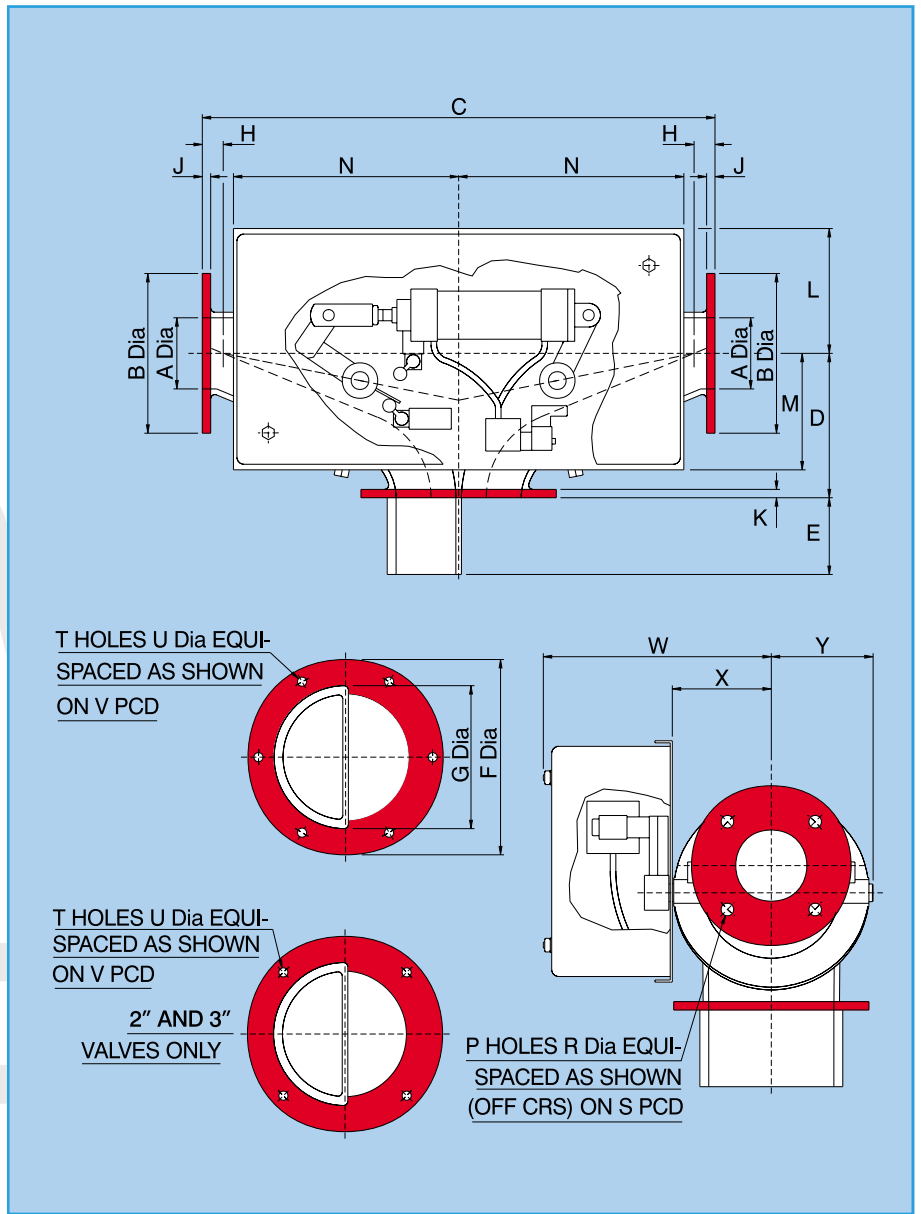
The spigotted ends are connected to pipework with "BLO-LINE" type couplings, facilitating quick access in case of blockages. It also gives flexibility in pipe length accuracies and misalignment variation. Furthermore, the Rotolok spigotted ends are not of cast fixed length, but bolted on and of variable length. This enables the end to be supplied to fit exactly to existing pipework.

- FLANGED
- SPIGOTTED



WEIGH VALVES

FLANGED STANDARD WEIGH VALVES



PLANNING-IN DETAIL FOR GENERAL GUIDANCE ONLY

Drillings are Rotolok standards. Variations can be made.

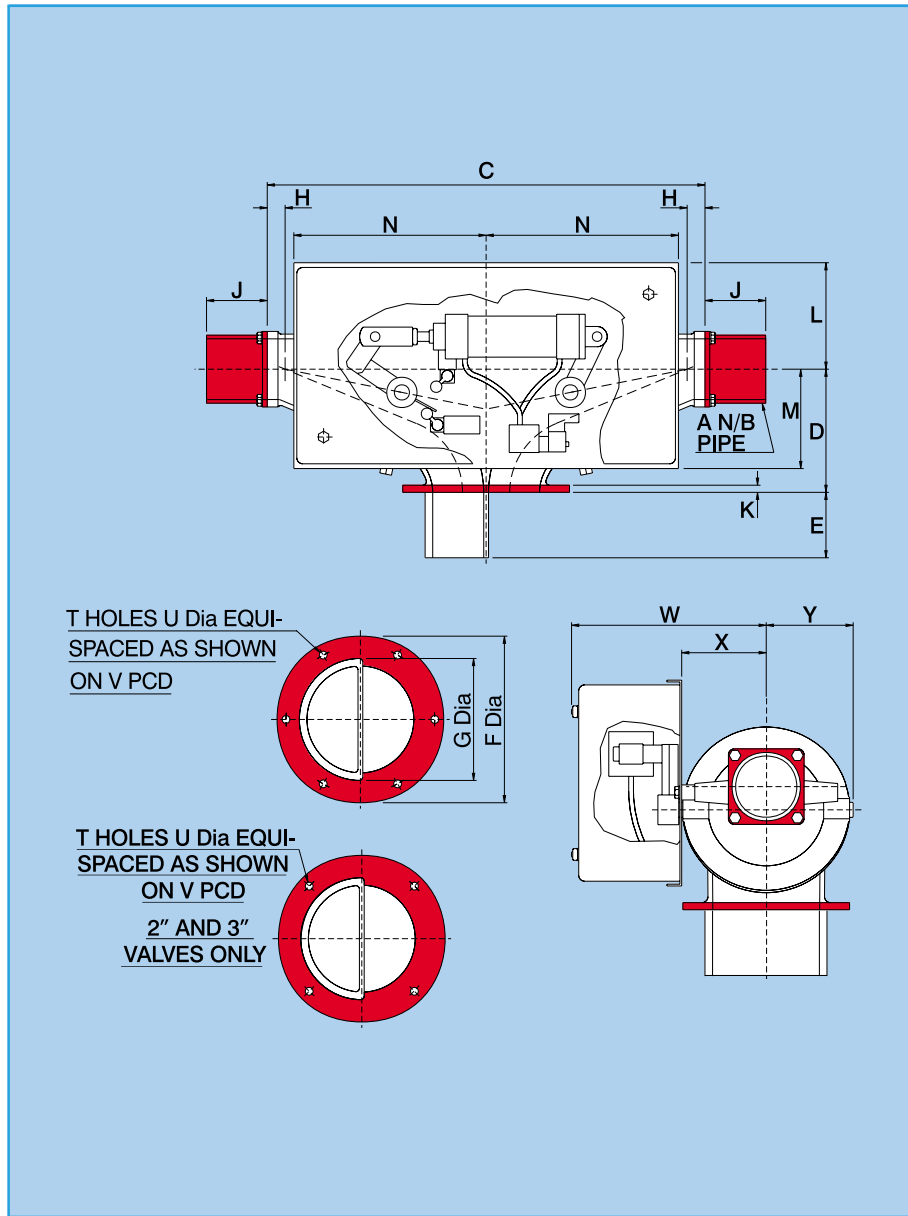
SIZE	øA	øB	C	D	E	øF	øG	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y
2	2	6	16 7/8	5 5/8	3 1/2	7	4 3/8	3/4	3/8	3/8	9 3/4	5	7 3/4	4	3/4	4 3/4	4	1/2	5 3/4	7 5/8	3 5/8	3 1/2
3	3	7 1/2	21 5/8	6 3/4	4	8 5/8	6 5/16	3/4	1/2	1/2	10 7/8	6 1/8	9 7/8	4	3/4	6	6	1/2	7 1/2	8 1/2	4 1/2	4 3/8
4	4	9	29	8 1/8	4 3/8	11	8 1/2	1 1/4	1/2	1/2	7 1/2	6 5/8	12 3/4	8	3/4	7 1/2	6	1/2	9 7/8	13 1/4	5 5/8	5 3/4
5	5	10	34 1/2	10	4 3/4	12 5/8	9 5/16	1 1/4	1/2	3/8	6 3/4	7	12 3/4	8	7/8	8 1/2	8	1/2	11 3/8	14	6 3/8	6 3/8
6	6 1/4	11	38	11 3/8	5 7/8	14 1/8	11 3/8	1 3/8	5/8	5/8	8 1/2	7 5/8	16 3/4	8	7/8	9 1/2	8	3/4	11 3/4	14 3/4	7 1/8	7
8	8	13 1/2	49 3/4	15	5 1/2	17	14 13/16	1 3/8	5/8	5/8	8	8 1/4	16 3/4	8	7/8	11 3/4	12	3/4	15 1/2	16 1/4	8 3/4	8 3/4

Dimensions in inches unless stated

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE

WEIGH VALVES

SPIGOTTED STANDARD WEIGH VALVES



PLANNING-IN DETAIL FOR
GENERAL GUIDANCE ONLY

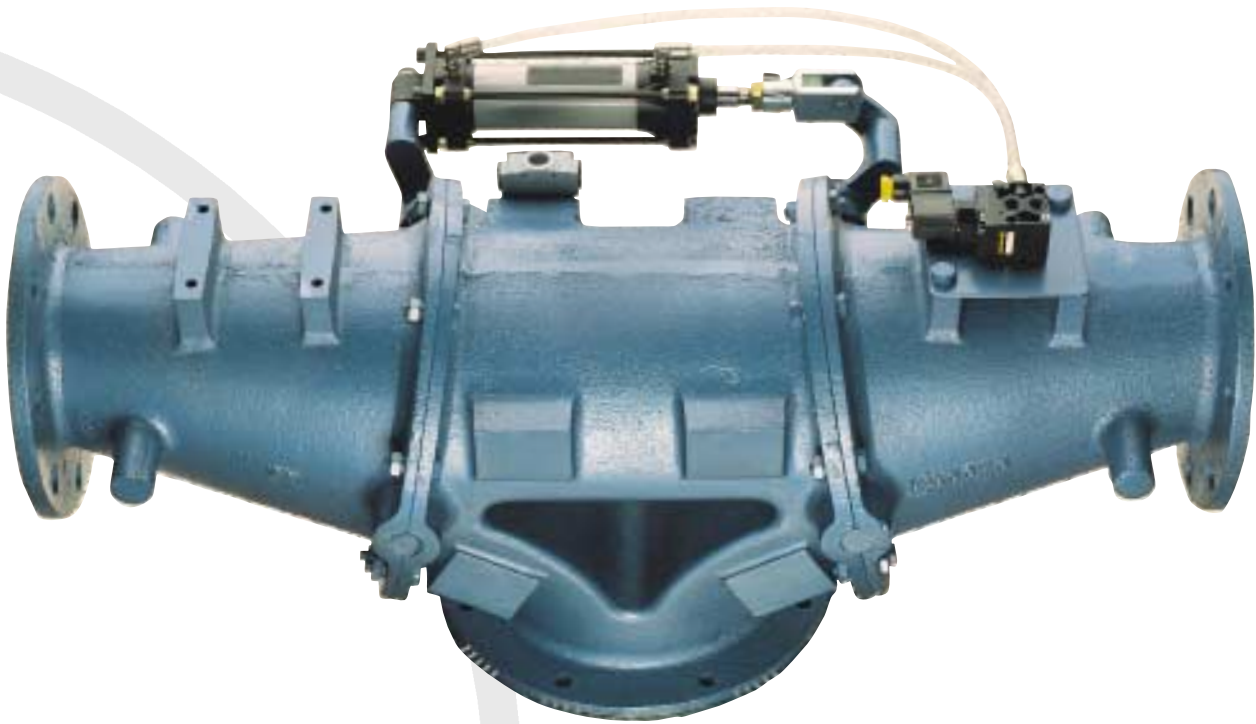
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SIZE	∅A	C	D	E	∅F	∅G	H	J	K	L	M	N	T	U	V	W	X	Y
2	2	16 7/8	5 5/8	3 1/2	7	4 3/8	3/4	4	3/8	9 3/4	5	7 3/4	4	1/2	5 3/4	7 5/8	3 5/8	3 1/2
3	3	21 5/8	6 3/4	4	8 5/8	6 5/16	3/4	4	1/2	10 7/8	6 1/8	9 7/8	6	1/2	7 1/2	8 1/2	4 1/2	4 3/8
4	4	29	8 1/8	4 3/8	11	8 1/2	1 1/4	4	1/2	7 1/2	6 5/8	12 3/4	6	1/2	9 7/8	13 1/4	5 5/8	5 3/4
5	5	34 1/2	10	4 3/4	12 5/8	9 5/16	1 1/4	4	3/8	6 3/4	7	12 3/4	8	1/2	11 3/8	14	6 3/8	6 3/8
6	6	38	11 3/8	5 7/8	14 1/8	11 3/8	1 3/8	4	5/8	8 1/2	7 5/8	16 3/4	8	3/4	11 3/4	14 3/4	7 1/8	7
8	8	49 3/4	15	5 1/2	17	14 13/16	1 3/8	4	5/8	8	8 1/4	16 3/4	12	3/4	15 1/2	16 1/4	8 3/4	8 3/4

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• WEIGH VALVES •



SPECIFICATION

Bodies

Cast Iron, Cast Aluminum or Stainless Steel.

Flap Plates and Spindles

Mild or Stainless Steel.

Wiper Seal

Polyurethane or food quality rubber.

Shaft Seal

Rubber 'o' rings.

Actuation

Air cylinder complete with five-port four-way single solenoid spring.

Limit Switches

Positioned and actuated to indicate valve condition.

IMPORTANT FEATURES

- Compact design.
- Small divert angle.
- Low pressure drop - minimal transition effect.
- Smooth internals - no lodgement points.
- Wide selection of materials.
- High sealing efficiencies - with line pressure increasing effectiveness.
- Dust tight enclosures to 20 p.s.i.
- Simple access and maintenance.
- One cylinder direct action operation.

Giving a virtually leakproof, non-contaminating unit ideally suitable for the food and chemical industries.

• OTHER ROTOLOK PRODUCTS •

- 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



CONVEYING DIVERTER



Rotolok Valves Inc
Industrial Ventures II, 2711 Gray Fox Road
Monroe, North Carolina, 28110
Tel: (704) 282-4444 Fax: (704) 282-4242
e-mail: sales@rotolok.com
website: www.rotolok.com