BUSH & WILTON

PARALLEL BORE ROTARY AIRLOCK

MULTIPLEX RANGE MODEL MSR 'P' SERIES

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THE INNOVATIVE VALVE SPECIALISTS

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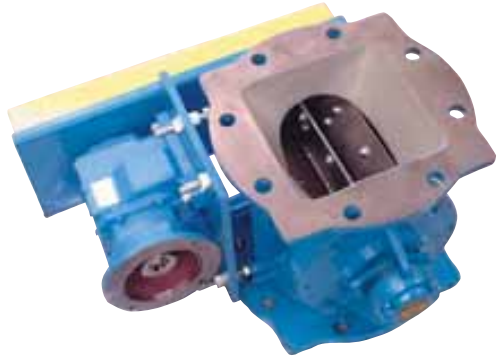


INTRODUCTION

The prime function of a rotary valve is to regulate the flow from one chamber to another while maintaining a good airlock condition. The product is mainly in dry powder or granular form.

In the dust filtration field good airlocks are essential on cyclone and bag filter applications in order that the manufacturer's quoted high dust collection efficiencies can be maintained. Airlocks are also important in the pneumatic conveying industry, where the product is regulated into a high pressure conveying line while minimising air leakage.

With Bush & Wilton there are no double standards, all our standard valves are precision machined for close tolerances and minimal eccentricities. Pressure differentials to 20psi and temperatures to 750ºF.

We have made specials to handle temperatures covering 2200ºF and pressures to 350psi.

STANDARD FEATURES

- Maximum number of blades in contact with body at one time without affecting throughput.
- Good throat opening at valve entry allowing high pocket filling efficiency.
- Minimum clearance at rotor tips and sides with body.
- Robust body adequately stiffened to prevent distortion.
- Heavy shaft diameters minimising deflection.
- Outboard bearings for non-contamination.
- Packing gland type seals.
- Maximising valve speed to 25 rpm - prolonging life, ensuring good throughput.
- Design eliminates transition.
- Precision machining of components.

All add up to BUSH & WILTON standards.

SR SERIES

The Bush & Wilton 'SR' range of Rotary Valves has been designed so that they can, dependant on flange drilling, be installed on either square or round flanges without transitions.
The 'SR' valve is manufactured in six sizes 6", 8", 10", 12", 14" and 16".

SPECIFICATION

Bodies Cast Iron, Stainless Steel or Aluminum precision bored.

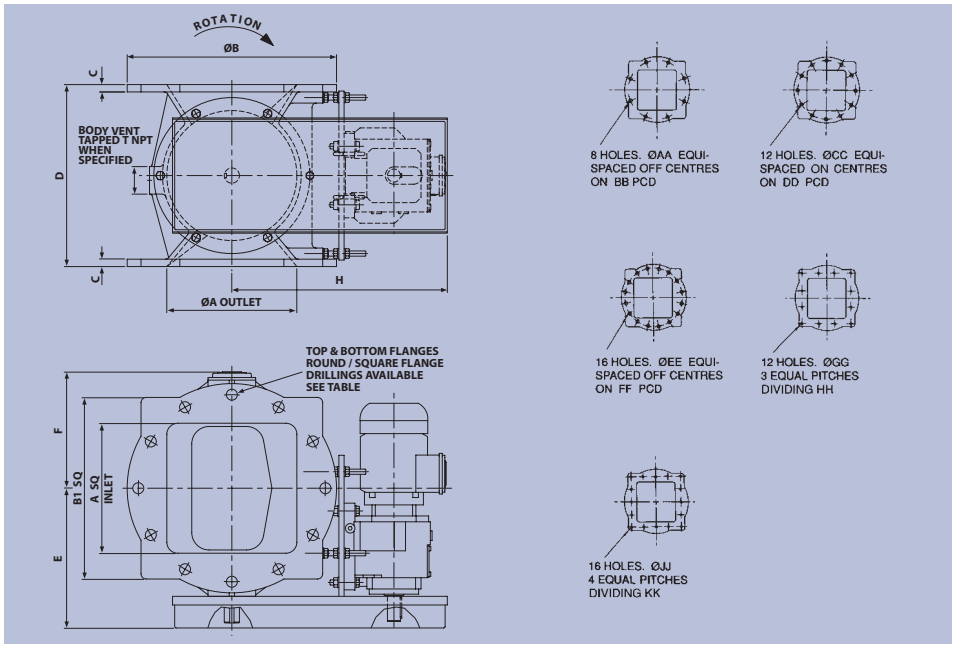
End Covers Cast Iron, Stainless Steel or Aluminum spigot located in body for concentricity.

Rotor Fabricated Mild or Stainless Steel.

Bearings Sealed for life ball type rigged outboard or high temperature above 482º F.

Shaft Seal Gland type with PTFE packing.

Drive TEFC geared motor unit side wall mounted to valve body and complete with taper lok sprockets chain drive all in an enclosed guard.



OPTIONS

- Quick Release Rotors
- Direct Coupled Drives
- Air Purge Glands
- Body Vents
- Vent Boxes
- Dropout Boxes
- V.S. Drives
- Speed Switches
- Flameproof Motors
- Shear Plate Deflectors
- Electroproof Nickel Plating
- Tungsten Carbide Internals etc.

VALVE SELECTION

Please refer to our chart within the binder which gives an example.

The chart gives theoretical and practical throughput on the basis of rotor speeds.

The theoretical efficiency is seldom achieved in practice as density, product characteristics pressure differentials, feeding methods etc., all affect valve throughput.

On this basis the practical figures are assessed and are more acceptable for correct valve selection.

e.g. Select a valve to handle 7 tons/hr of product at a bulk of 35 lbs / cubic foot.
Volume of valve required = 7 x 2000 ÷ 35 = 400 cu ft/hr.

Two valves economically achieve this 10" @ 26 RPM and 12"mm @ 12 RPM (refer to chart).

Valve Size	ØA	ØB	B1sq	C	D	E	F	H	T	ASA150 AA	BB	CC	DD	EE	FF	SQUARE GG	HH	JJ	KK	Wt LBS	HP
MSRP15	6	11	9 1/2	1/2	10 3/4	10	7 5/8	15	3/4 NPT	7/8	9 1/2					9/16	8 1/4			176	1/2
MSRP20	8	13 1/2	11 1/2	1/2	12 5/8	11	8 5/8	16	3/4 NPT	7/8	11 3/4					9/16	10			220	1/2
MSRP25	10	16	14 1/4	1/2	15	12 1/2	9 5/8	19	1 NPT			1	14 1/4			9/16	12 1/2			320	1/2
MSRP30	12	19	16 1/2	1/2	16 5/8	13	10 5/8	19 1/2	1 NPT			1	17					9/16	14 1/2	430	1
MSRP35	14	21	18	3/4	19 3/4	15	11 5/8	23	1 1/2 NPT			1 3/16	18 3/4					9/16	16 1/2	585	1
MSRP40	16	23 1/2	20 3/4	7/8	21 5/8	16 1/2	13 1/2	24 5/8	1 1/2 NPT					1 3/16	21 1/4			9/16	18 3/4	740	1 1/2

Throughput
Certain products when fluidised can greatly exceed the conservative rating and on application, e.g. cement, 100% pocket fillage has been known to occur - similarly light products up to 15lb/cu.ft.the opposite effect can happen.

Temperature
Note: On any application above ambient (70ºF) it is important to specify operating temperatures so rotor compensation for expansion can be adjusted as necessary.

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