



PROCOL

MONITORING AND DIRECTIONAL CONTROL OF SOLIDS

ROTARY VALVES

COMPACT BLOWING SEALS

HEAVY DUTY BLOWING SEALS



THE DOWSON GROUP

FABRICATED ROTARY VALVES

Procol standard Fabricated Rotary Valves are designed for use with low density products such as wood shavings, wood dust and textile

fibres. They provide an economic solution for applications which require high feed rates of low density products.

The valve body is fabricated from sheet steel and fitted with a 6 blade rotor having replaceable polyurethane or insertion rubber blades.

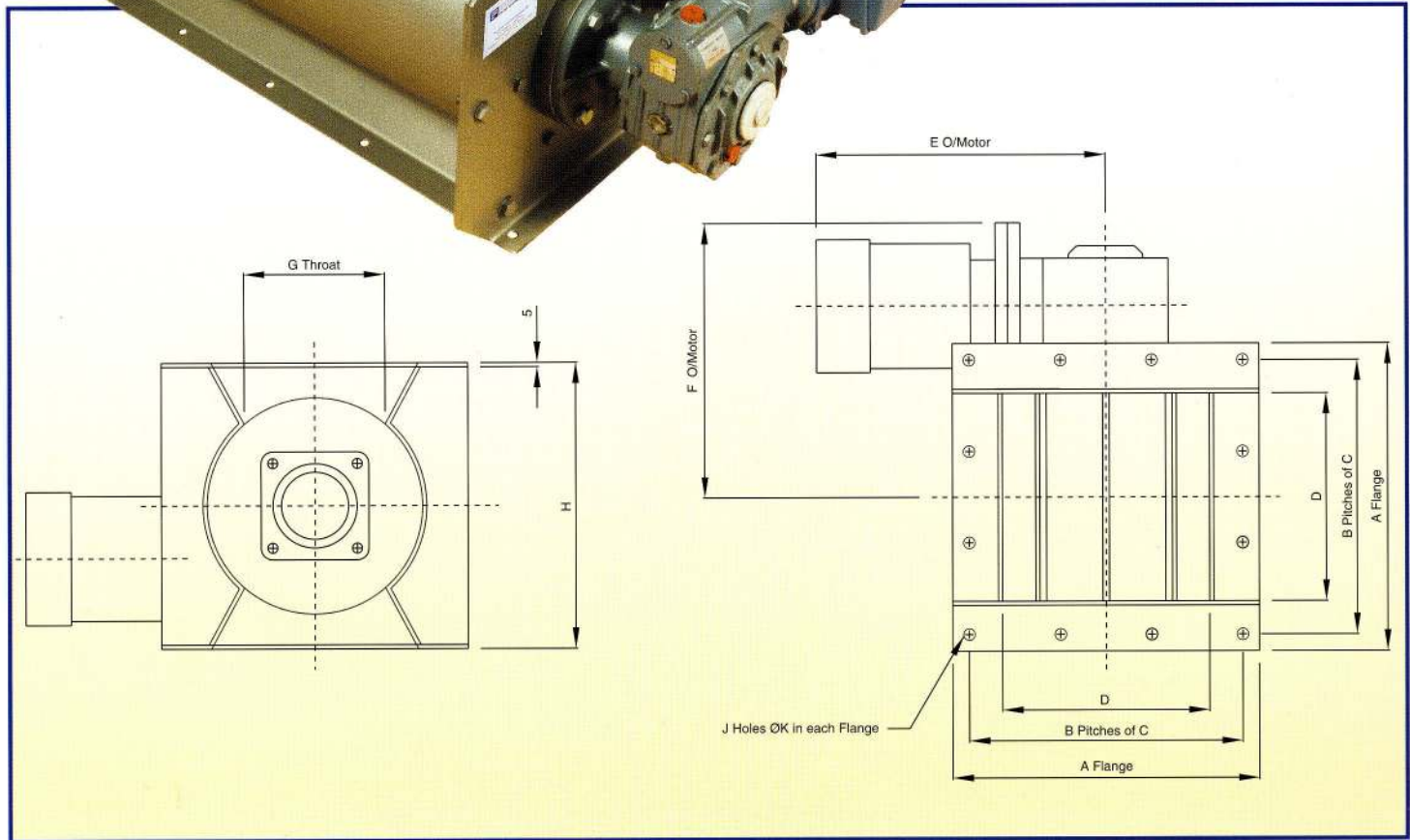
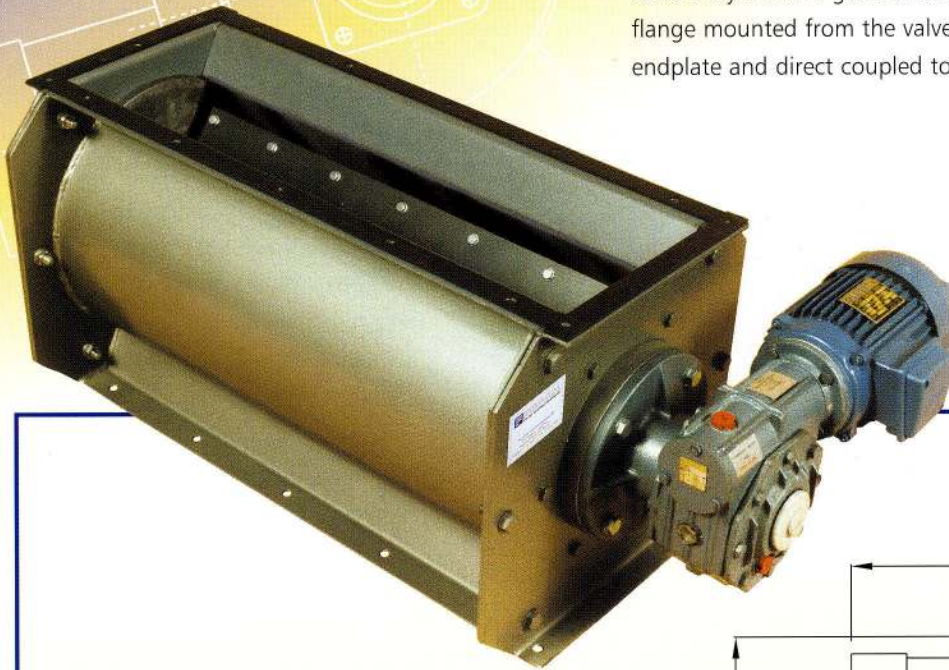
Drive is by a worm geared motor flange mounted from the valve endplate and direct coupled to the

rotor drive shaft.

Capacities for standard Fabricated Rotary Valves are identical to the equivalent cast Rotary Valve.

Special valves are available for use with moderately aggressive products such as fibreglass strands or filled PVC granules. For these applications the valve body is fabricated from abrasion resistant steel and the rotor has special rubber blades.

Fabricated Rotary Valves are available in standard sizes as shown in the data sheet and also in none standard sizes up to a maximum rotor size of Ø1000mm x 2500mm long.



Valve Size	A	B	C	D	E	F	G	H	Drive Kw	Weight Kg
125	225	2	93	125	310	230	86	210	0.37	40
150	250	2	105	150	310	240	100	240	0.37	50
200	320	2	140	200	310	265	140	298	0.37	65
250	370	3	110	250	350	330	170	344	0.75	95
300	420	3	126	300	350	355	200	450	0.75	125
350	490	3	146	350	350	380	240	500	0.75	150
400	540	4	122	400	370	425	280	550	1.1	200
500	640	4	147	500	440	500	350	650	1.5	275
600	750	4	170	600	440	560	410	600	2.2	350





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VALVE SELECTION

Various factors affect the actual feed rate of Rotary Valves and Blowing Seals. These factors include but are not limited to:

- Flow characteristics of the material.
- Bulk density of the material.
- Pressure differential across the valve.
- Design of ancillary equipment.
- Air leakage through the valve.

Whilst the following formula may be used to determine the valve size for a particular application the selection should be confirmed by our technical department.

The valve capacity based on 100% rotor fill may be obtained from the capacity chart below.

$$\text{Valve Speed} = \frac{\text{Required Feed Rate (Kg/hr)}}{\text{Loose Bulk Density of Product (Kg/m}^3\text{) x Valve Capacity (m}^3\text{/hr/rpm) x Filling Efficiency}}$$

VALVE CAPACITY CHART

Rotary Valve	Capacity		Blowing Seal	Capacity	
	m ³ /hr/rpm	ft ³ /hr/rpm		m ³ /hr/rpm	ft ³ /hr/rpm
125	0.076	2.40	0.1	0.170	6.00
150	0.137	4.80	0.2	0.339	12.00
200	0.360	12.72	200	0.360	12.30
250	0.713	25.20	240	0.481	16.98
300	1.224	43.20	280	0.921	32.52
350	1.974	69.60	360	1.869	66.00
400	2.880	102.00	450	3.398	120.00
500	5.940	210.00			
600	9.840	347.00			