

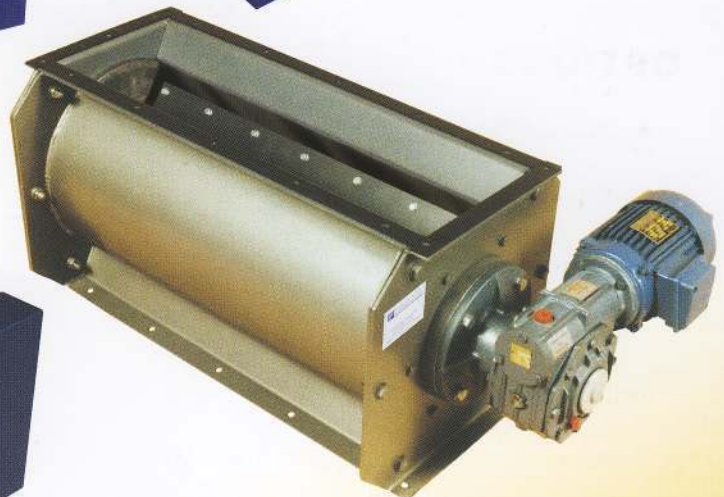
PROCOL

MONITORING AND DIRECTIONAL CONTROL OF SOLIDS

ROTARY VALVES

COMPACT BLOWING SEALS

HEAVY DUTY BLOWING SEALS



THE DOWSON GROUP

ROTARY VALVES

Procol Rotary Valves are designed to transfer dry granular solids and powders in gravity, pressure or vacuum systems. They are able to operate under adverse conditions whilst maintaining high sealing and feeding efficiencies.

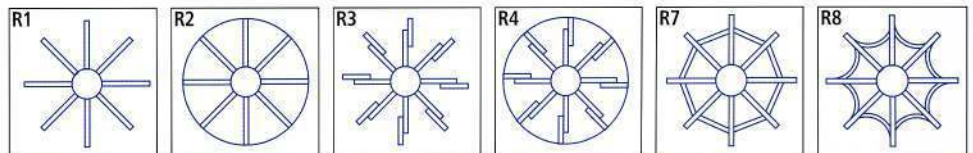
The valves are robustly constructed with body stiffening ribs to prevent

distortion, integral shear planes in the valve inlet to reduce product shearing loads and large capacity rotors with heavy duty shafts to withstand high differential pressures across the valve.

Rotors are supported in sealed ball bearings outrigged from the valve endplates to prevent bearing contamination. Rotor shafts are sealed by packing glands with adjustable seal followers.

Procol standard Rotary Valves incorporate a geared motor mounted from the valve body on a fabricated baseplate with adjustment for the fully guarded drive chain.

Whilst our standard valves are suitable for the majority of applications we offer a wide variety of interchangeable components to enable Procol Rotary Valves to handle almost any product.

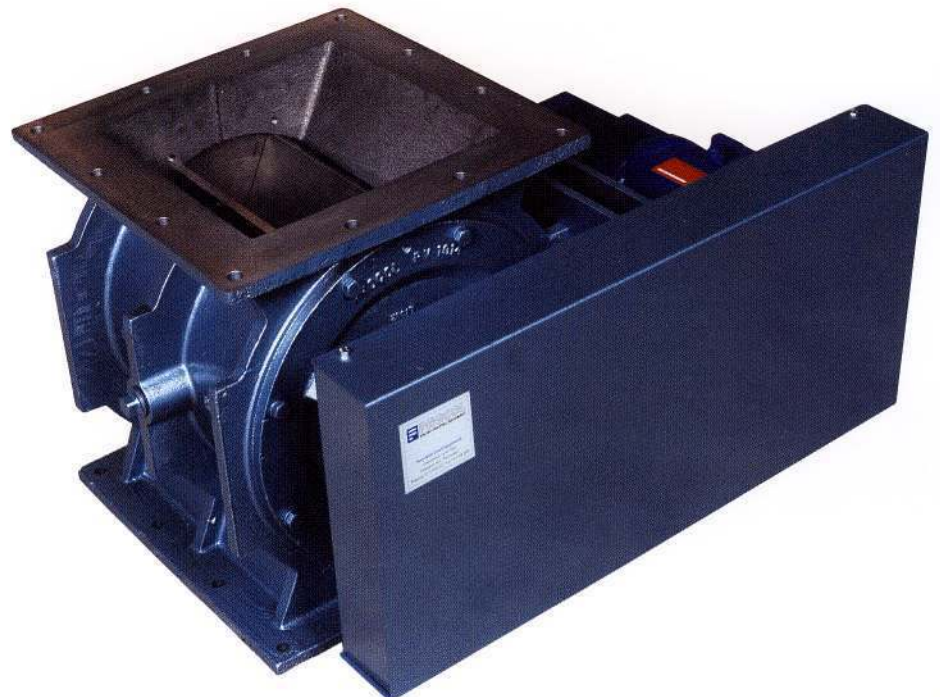


ROTOR OPTIONS

R1	Fixed Blade Open Rotor	General purpose rotor fitted to the majority of valves. Suitable for none or mildly abrasive products.
R2	Fixed Blade Closed End Rotor	Similar to R1. The end discs reduce valve endplate wear. Suitable for low or moderately abrasive products.
R3	Tipped Blade Open Rotor	Blades fitted with adjustable, replaceable stainless steel tips. Suitable for use with abrasive products.
R4	Tipped Blade Closed End	Similar to R3. the end discs reduce valve endplate wear. Suitable for use with very abrasive products.
R7	Reduced pocket Rotor	Reduces the valve capacity but maintains a large inlet and outlet. Suitable for materials which flow sluggishly.
R8	Scalloped Pocket Rotor	Provides a rounded pocket base to encourage material discharge. Suitable for use with 'sticky' materials. May be PTFE coated to aid discharge.

OPTIONS

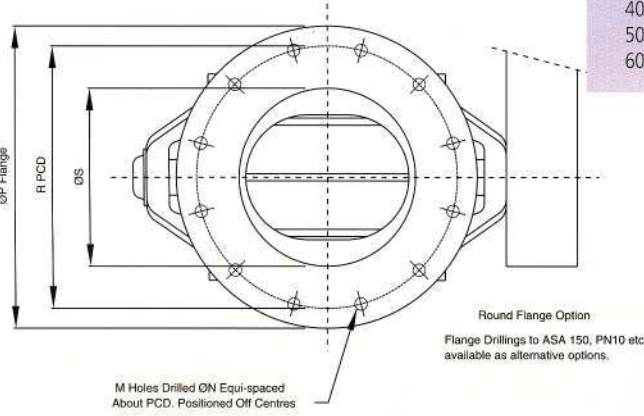
- ▶ Air Purged Shaft Seals
- ▶ High Temperature Bearings.
- ▶ Quick Release Rotor Assembly.
- ▶ Variable Speed Drives.
- ▶ Rotation Monitors.
- ▶ Flameproof, Explosion Proof Motors.
- ▶ Tungsten Carbide Coated Internal Surfaces.
- ▶ Electroless Nickel Plating.



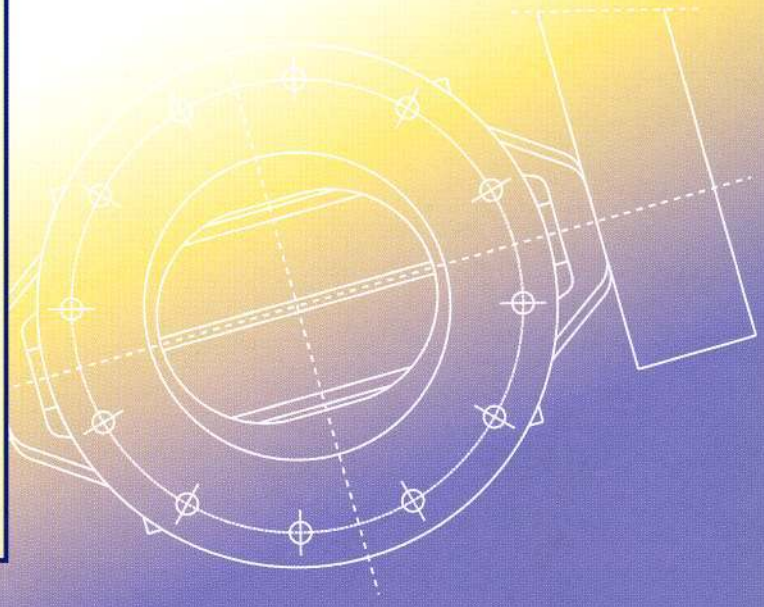
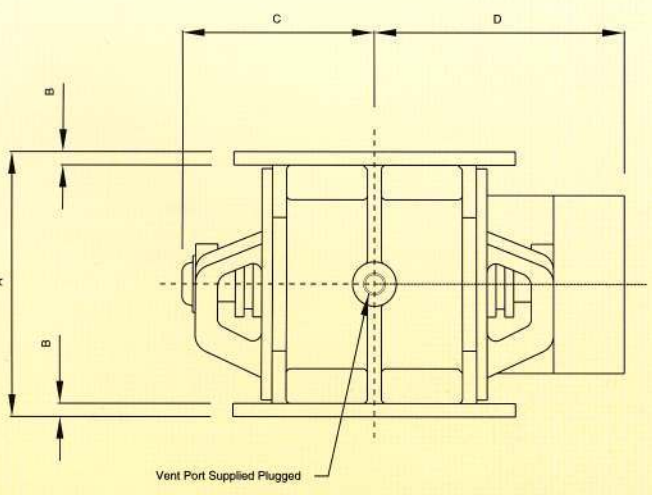
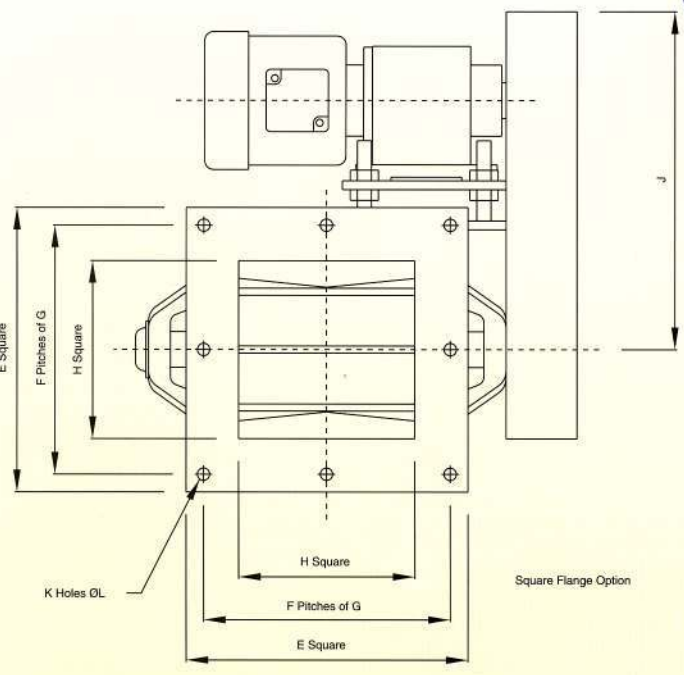
Valve

Drive Weight

Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	Kw	Kg
125	210	12	170	230	-	-	-	-	235	-	-	8	12	250	210	125	0.37	60
150	240	12	180	240	250	2	105	150	250	8	12	8	12	285	240	150	0.37	75
200	298	15	215	285	320	2	140	200	275	8	14	12	14	340	295	200	0.37	100
250	344	15	245	320	370	3	110	250	325	12	14	12	14	405	355	250	0.75	150
300	450	15	285	355	420	3	126	300	375	12	14	12	14	460	410	300	0.75	200
350	500	20	310	390	490	3	146	350	395	12	18	12	18	520	470	350	0.75	350
400	550	20	340	420	540	4	122	400	420	16	18	8	22	580	525	400	1.1	400
500	650	20	390	465	640	4	147	500	505	16	18	8	22	716	650	500	1.5	550
600	765	25	485	570	750	4	170	600	560	16	18	-	-	-	-	-	2.2	850



Round Flange Option
Flange Drillings to ASA 150, PN10 etc available as alternative options.





THE DOWSON GROUP

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			