



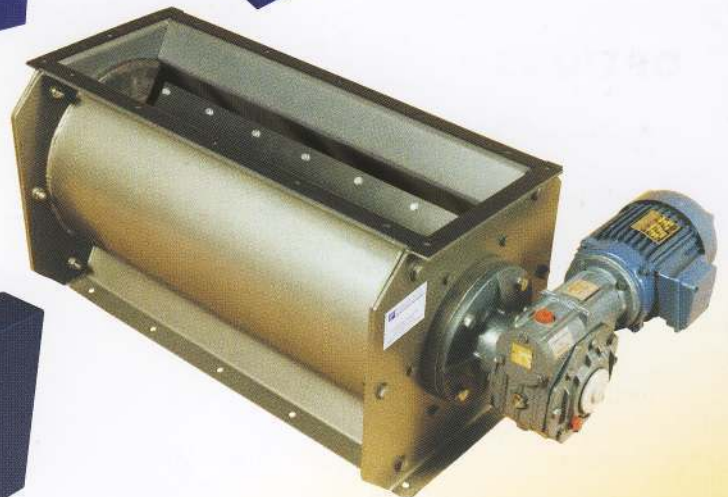
# PROCOL

MONITORING AND DIRECTIONAL CONTROL OF SOLIDS

**ROTARY VALVES**

**COMPACT BLOWING SEALS**

**HEAVY DUTY BLOWING SEALS**



THE DOWSON GROUP

## BLOWING SEALS

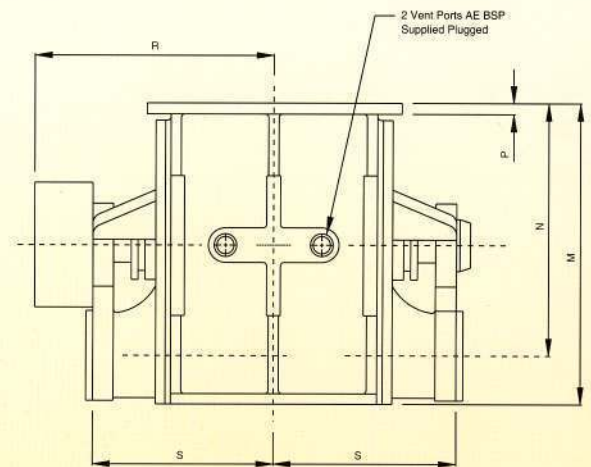
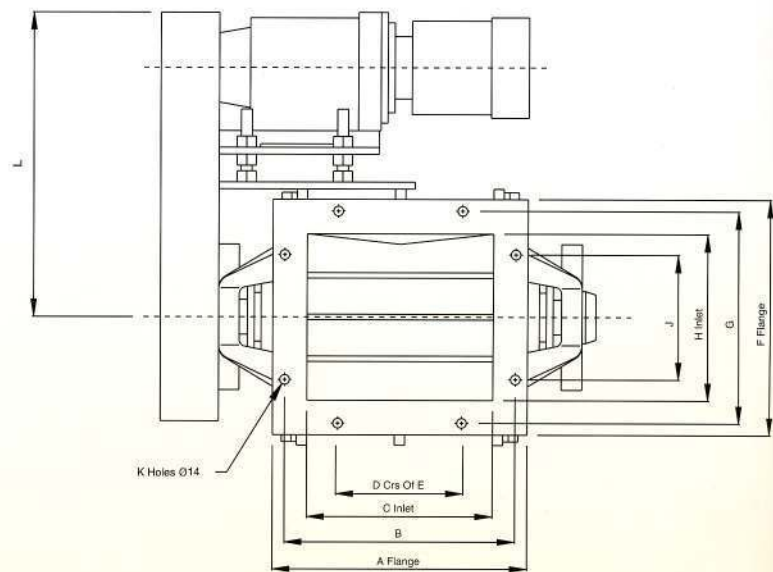
Procol Compact Blowing Seals were originally developed for use beneath flour silos where their compact size is an advantage when space is limited. Heavy duty versions suitable for handling most free flowing products have been developed and we are now able to offer two sizes in both light and heavy duty versions which complement our heavy duty valves.

### Heavy Duty Blowing Seals

Procol Heavy Duty Blowing Seals are designed to feed a wide range of dry granular solids and powders directly into pneumatic conveying systems. Blowing Seals are similar in construction to standard Rotary Valves but have an integral entrainment trough in the valve body and pipeline connection flanges in the valve endplates. This allows conveying air to pass through the Blowing Seal and ensures total product evacuation from the rotor pocket.

High sealing efficiencies ensure a low pressure drop across the valve and this feature allows the Procol Blowing Seals to handle low density products which may be easily fluidised.

The valve body incorporates body venting ports as standard for purging the rotor pockets. These are normally suitable for most products but where less dense materials are to be fed through the valve we recommend an integral vent which gives a more efficient method of rotor venting.



## STANDARD SPECIFICATION

### BODY

Cast Iron, LM25 Aluminium Alloy, 316 Stainless Steel.

### ENDPLATES

Cast Iron, LM25 Aluminium Alloy, 316 Stainless Steel.

### ROTOR

Mild Steel, 304 Stainless Steel, 316 Stainless Steel.

### BEARINGS

Sealed deep groove ball bearings, High temperature bearings (above 150°C)

### SHAFT SEALS

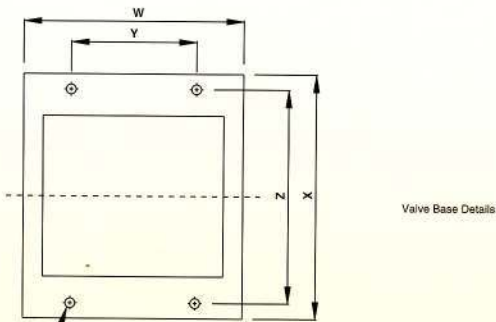
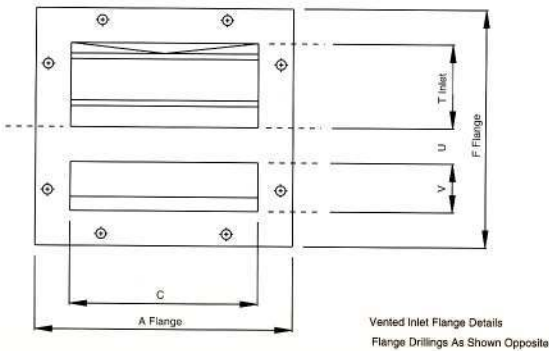
Acrylic PTFE gland packing

### DRIVE

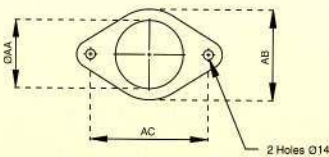
TEFC IP55 coaxial geared motor suitable for AC 415-3-50 supply.

### FINAL DRIVE

Fully guarded chain drive with Taperlock chain sprockets.

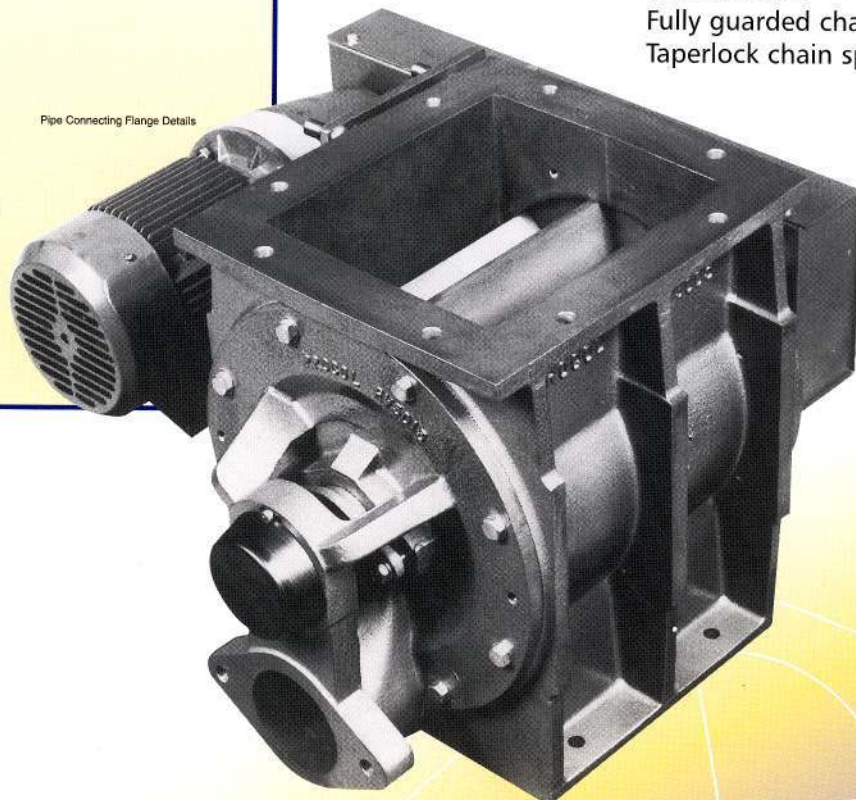


4 Holes Ø14



2 Holes Ø14

## HEAVY DUTY BLOWING SEALS



Valve Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	Drive Kw	Weight Kg
200	300	270	200	1	130	300	270	200	130	8	390	340	260	12	300	236	100	50	50	224	230	130	190	75	110	130	12	3/4"	0.37	100
240	300	270	200	1	130	280	250	180	100	8	420	370	290	12	300	236	90	45	45	224	265	100	225	75	110	130	12	3/4"	0.75	140
280	370	335	270	1	180	304	306	240	180	8	485	435	365	16	350	274	120	50	70	300	350	180	306	98	110	170	14	1"	0.75	180
360	450	420	350	2	150	350	320	255	220	10	560	510	440	16	390	327	125	50	80	380	360	300	320	100	130	170	14	1"	1.5	350
450	510	480	400	2	160	410	380	310	220	10	585	610	520	16	430	367	155	50	105	460	410	320	380	125	160	200	14	1"	1.5	490



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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 <sup>3</sup> /hr/rpm	ft <sup>3</sup> /hr/rpm		m <sup>3</sup> /hr/rpm	ft <sup>3</sup> /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			

 **PROCOL**  
PROCOL SALES

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