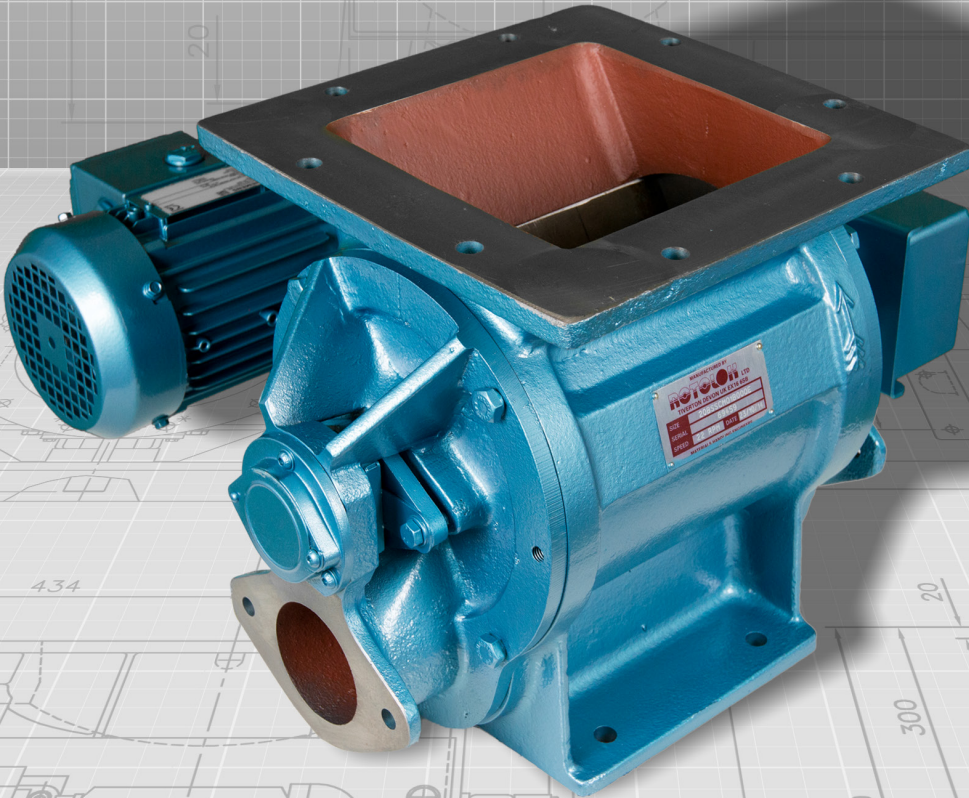


ROTOLOK

everything under control...



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BLOWING SEAL VALVES



INTRODUCTION

Blowing Seals were introduced to meet the specific needs of the pneumatic conveying industry and are a natural extension to the Rotary Airlock, both being used to regulate the flow of dry powder, dust or granular products while maintaining an airlock.

However the Blowing Seal has distinct advantages for the specialist as it introduces high pressure conveying air through the valve body and rotor pockets ensuring - HIGH EFFICIENCY THROUGHPUT WITH LOW EFFECTIVE PRESSURE DROP.

This is achieved by the fact that more blades are in contact for longer periods with the valve body, resulting in less air leakage and by blowing through the rotor, each rotor pocket is efficiently emptied.

The Rotolok range of Blowing Seals are robustly constructed with an emphasis on close tolerances and minimal eccentricities, making the units suitable for the majority of pneumatic conveying applications.

STANDARD FEATURES

- Maximum number of blades in contact with body at one time without affecting throughput
- Streamlined entry and discharge of conveying air through valve
- Good throat opening at valve entry allowing high pocket filling efficiency
- Compact design minimising headroom
- 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 - options for high temperature
- Packing gland type seals with air purging option
- Precision machining of components
- Abrasive duty types

SPECIFICATION

BODY

Cast Iron or Stainless Steel precision machined

END COVERS

Cast Iron or Stainless Steel spigot located in body

ROTOR

Fabricated Mild or Stainless Steel fixed bladed open type

BEARINGS

Ball type sealed for life - alternative high temperature to 750°F

SHAFT SEAL

Gland type with PTFE packing

DRIVE

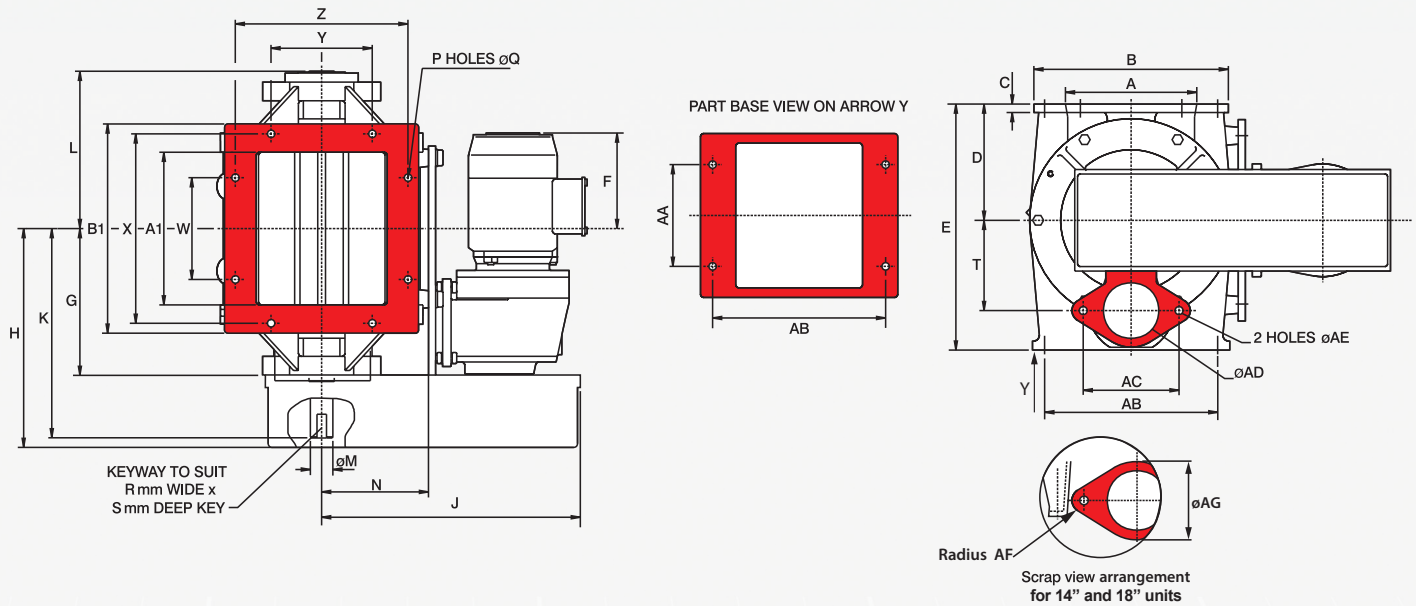
TEFC geared motor unit side wall mounted to airlock body and complete with taper lock chain drive in an enclosed guard.

OPTIONAL FEATURES

- Hard Chrome Internals
- Electro-less Nickel Plating
- Shear Plate Deflectors
- Direct Coupled Drives
- Explosion Proof Motors
- Replaceable Bladed Rotor
- Lip Seal Shaft Seals
- Blowthrough Spigots
- Air Purge Glands
- Speed Switch
- Body Vents
- Vent Boxes
- V.S. Drives

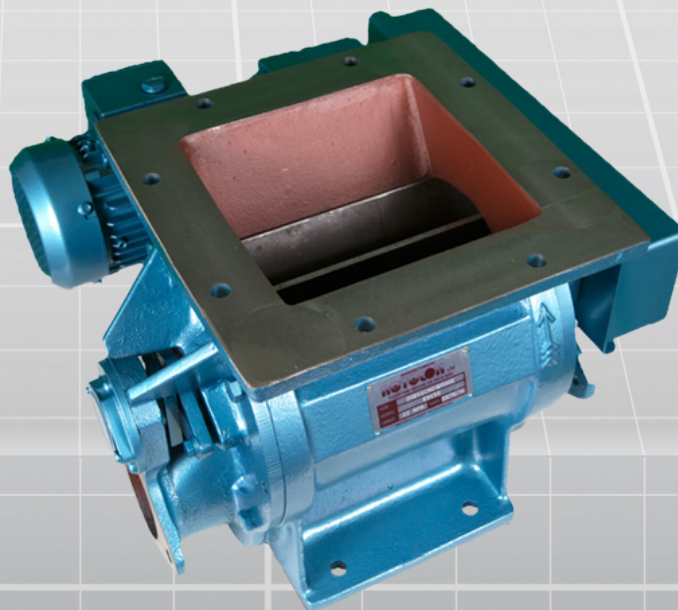


BLOWING SEAL - BSS



All dimensions are in inches unless stated otherwise

SIZE	A	A1	B	B1	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	H.P.	ft ³ /rev
5	5	5	8	8 ¹ / ₂	1/2	4	9 1/2	11 1/2	6 1/4	9 1/2	12 3/4	8 3/4	7 1/2	28	3 3/4	8	8	7	3 1/2	3 3/4	6 1/4	3 3/4	6 1/4	3 3/4	5	3 3/4	2	3/4	3/4	3 1/4	1/2	0.04	
8	8	8	11 1/4	11 1/4	1/2	6 1/4	13 3/4	11	7 7/8	11 1/4	13 3/4	10 1/4	8 3/4	28	5	8	8	7	4	5 1/2	10 3/4	5 1/2	10 3/4	5 1/2	7 1/2	5 1/2	3	3/4	4 3/4	1/2	0.21		
9	7	7 7/8	11	11	3/4	7 1/2	13 3/4	12	8 3/4	12 1/2	17 1/4	11 1/4	9 3/4	40	6 1/2	8	12	8	4 3/4	5 1/2	9 3/4	3 1/4	9 3/4	5 1/2	8 3/4	4 3/4	2 3/4	3/4	3 3/4	1	0.28		
11	8 3/4	10 3/4	13 3/4	14 3/4	3/4	8 3/4	17 1/4	11 3/4	10 3/4	14 3/4	18 1/4	12 3/4	11	40	7 1/2	8	12	8	6 1/4	7 1/4	13 3/4	7 1/4	12 3/4	7 1/4	12 3/4	6 1/4	3 3/4	3/4	5 1/4	1	0.54		
14	10	13 3/4	13 3/4	17 3/4	3/4	9 3/4	18 3/4	9	12 3/4	16 3/4	22 3/4	15 3/4	13 3/4	50	9	10	14	9	7 7/8	11 1/4	16 3/4	7 7/8	12 3/4	12 3/4	2@5 3/8	7 7/8	4 3/4	3/4	5 1/4	1 1/2	1.09		
18	12 1/4	15 3/4	16 1/2	20 1/2	3/4	11 3/4	19 3/4	7 3/4	13 3/4	18 3/4	24 3/4	16 3/4	14 1/2	50	10 3/4	10	14	9	9	12 3/4	18 3/4	8 1/4	14 1/4	15	2@5 3/8	7 7/8	4 3/4	3/4	6 1/4	1 1/2	2.47		



Dimensions are approximate and subject to change without notice
 Planning-in detail for general guidance only
 (To cover safety aspects ask for our safety leaflets)
 Drillings are Rotolok standards. Variations can be made.



VALVE SELECTION

The chart below gives theoretical and practical throughputs on the basis of rotor speed.

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

On these considerations the practical figures are assessed and are more acceptable for correct valve selection.

e.g. Select a valve to process 7 1/2 tons/hour of flour at 34lb/cu.ft.
Volume required = $7.5 \times 2200/34 = 485$ cu.ft/hr.

From the chart the 11" unit running at 18 rpm covers this requirement.

		CAPACITY CHART IN CUBIC FEET/HR												
VALVE SIZE		1	5	8	10	12	14	16	18	20	22	24	26	
		18"	149	743	1189	1487	1784	2082	2379	2676	2974	3271	3568	3866
		149	743	1130	1338	1570	1791	1998	2168	2320	2421	2533	2629	Practical
14"		65.2	326	521	652	782	912	1043	1173	1303	1434	1564	1694	100%
		65.2	326	495	587	688	784	876	950	1016	1061	1110	1152	Practical
11"		32.5	162	260	325	390	455	520	585	650	715	780	845	100%
		32.5	162	249	305	355	405	450	485	526	564	600	634	Practical
9"		17	85	136	170	204	238	272	306	340	374	408	442	100%
		17	85	130	160	184	212	235	254	275	295	313	331	Practical
8"		12.7	63	101	127	152	177	203	228	253	279	304	329	100%
		12.7	63	96	114	134	152	171	185	197	206	216	224	Practical
5"		2.8	14	23	28	34	39	45	51	56	62	68	73	100%
		2.8	14	22	25	30	34	38	41	44	46	48	50	Practical

NOTES:

THROUGHPUT

Certain products when fluidised can greatly exceed the conservative rating and on some applications, e.g. cement, 100% pocket fillage has been known to occur. Similarly light products, up to 10lb/cu.ft, the opposite can occur.

TEMPERATURE

On an application above ambient (70°F) it is important to specify operating temperatures so rotor compensation for expansion can be incorporated as necessary.

CONVERSIONS

Divide cubic feet/hr by 35.315 to obtain cubic metres/hour.

Theoretical capacity = 100% pocket fillage efficiency.

