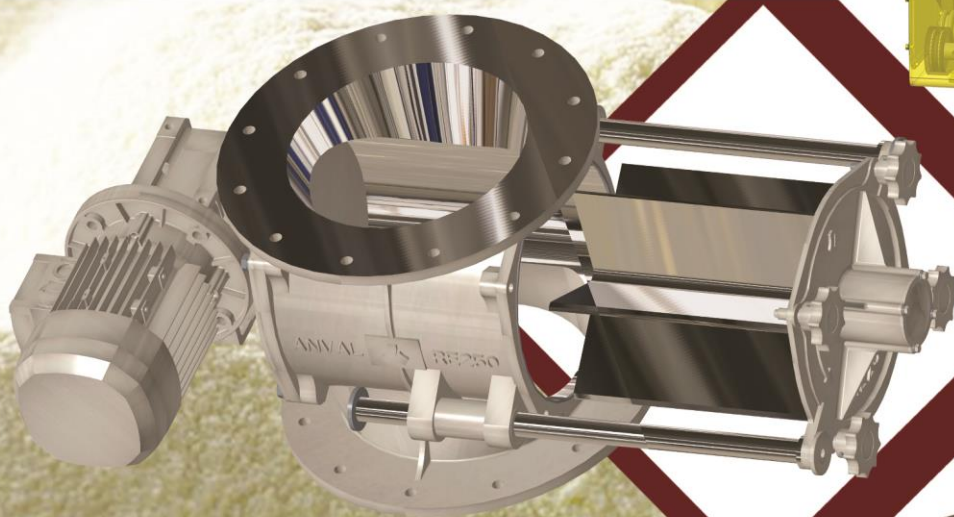
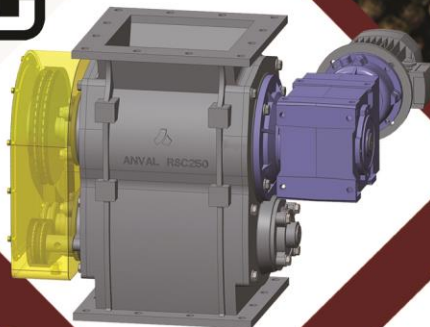




FEEDING & AIRLOCKING MADE EASY



Milk Powder

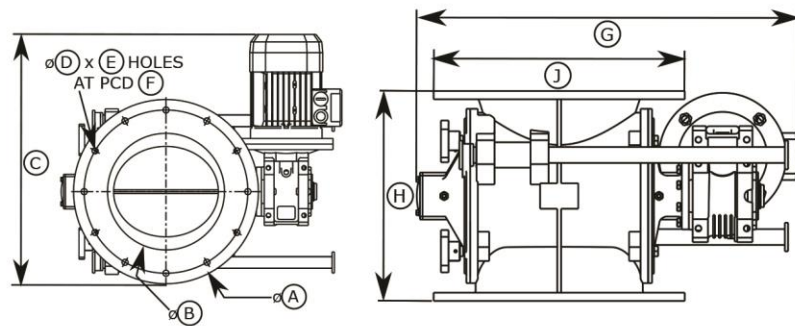


THE QUICK AND EASY CLEAN

RE SERIES | Rotary Easy-Clean Airlock Valves

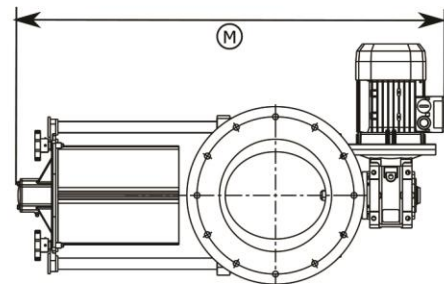
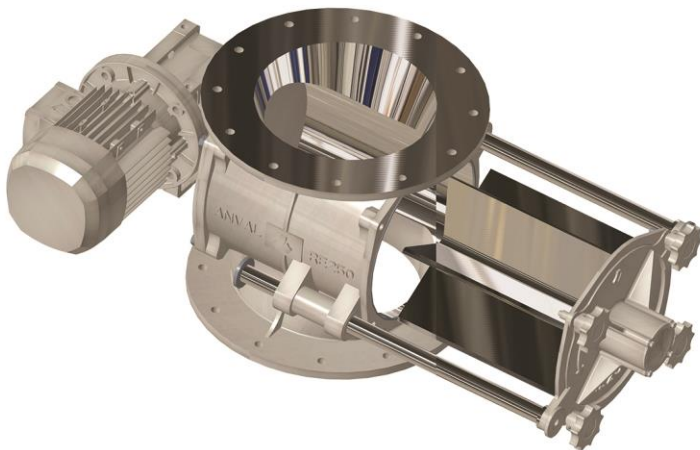
Anval RE Series which was designed specifically in hygienic and food applications where frequent removal of the rotary valve internals is necessary for cleaning and refitting. Anval RE Series Rotary valves permits safe, tool-less removal of the rotor and end plate in a shortest time span. RE Series valves are specifically suited for food, pharma, mineral, plastics and chemical applications.

- Investment casting for excellent surface finish
- Easy opening, cleaning and re-assembly
- "Labyrinth Seals" for leak free operation
- Mirror finish internals
- Single piece cast construction
- Direct drive construction
- Comes in opening sizes from Ø150 to Ø 300
- Minimal maintenance
- ATEX version is also available

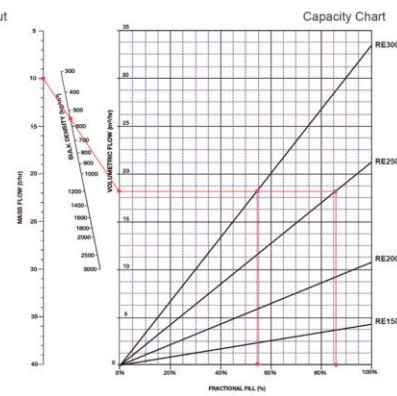
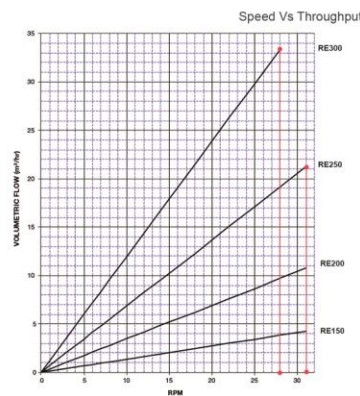


NAME	RE 150	RE200	RE250	RE300
A	250	305	395	480
B	150	200	250	300
C#	430	460	540	575
D	13	13	13	17.5
E	8	8	12	12
F	240	295	350	400
G	360	480	600	720
H	210	270	330	400
J	250	305	395	480
M	700	805	950	1060
NET WEIGHT	54	72	95	108
GROSS WEIGHT	80	110	140	160

All Dimensions in MM. Weight in Kgs



“With the mirror finish internals; these valves are ideal for Sticky, Cloggy, and Hygroscopic applications. Easy-Clean Valves are also available in compliant with the requirement of ATEX Directive.”



• 14 RPM DEFAULT FOR DIRECT (D)
 • 20 RPM DEFAULT FOR INLINE DRIVE (I)
 • RPM NOT REQUIRED FOR BARE SHAFT (B)

NOTE: THIS CHART IS PREPARED FOR THE GUIDANCE PURPOSE ONLY, CONSIDERING 100% FILLING CAPACITY.

EXAMPLE: A MATERIAL WITH A BULK DENSITY OF 550(Kg/m³) AND REQUIRED CAPACITY OF 10(m³/hr) CAN BE ACHIEVED BY RE250 AT 80% FILLING CAPACITY WITH 31 RPM AND ALSO BY RE300 AT 54% FILLING CAPACITY WITH 28 RPM.

NOTE: THIS CHART IS PREPARED FOR THE GUIDANCE PURPOSE ONLY, CONSIDERING 100% FILLING CAPACITY.

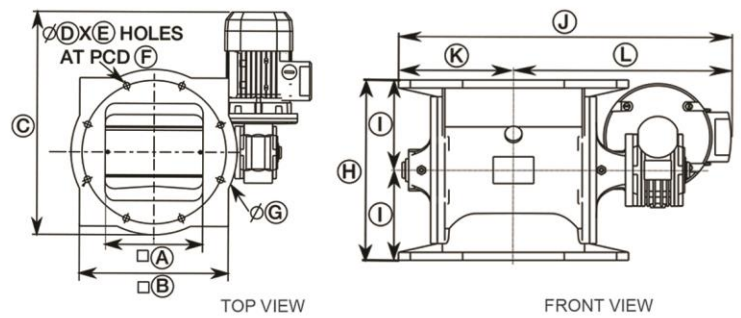
THE CORROSION RESISTANT VALVES

RS SERIES | Rotary Airlocks & Feeders

Anval RS series rotary valves are in complete cast Stainless Steel construction with internal surfaces machined to high precision. These valves are ideally suited for handling powder, chips, grains, granules of food and pharma applications. to counter corrosion rust or stain problems.

- Minimal maintenance
- Equipped with replaceable "Labyrinth Seals"
- Mirror finish internals
- Single piece cast construction
- Can be customised to specific requirements
- Comes in opening sizes from Ø150 to Ø 300
- Wide selection of rotors
- ATEX version is also available

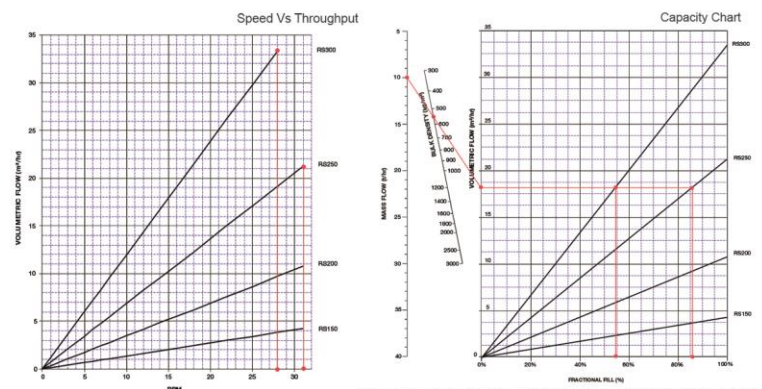
“These valves are manufactured to robust design standards and an efficacious Quality Management System that enables the valve to operate under even the toughest conditions with minimal maintenance.”



LEGENDS	RS 150	RS 200	RS 250	RS 300
A	150	200	250	300
B	250	305	360	400
C*	430 OA	460 OA	540 OA	575 OA
D	13	13	13	17.5
E	8	8	12	12
F	240	295	350	400
G	280	340	406	455
H	210 OA	270 OA	330 OA	400 OA
I	105	135	165	200
J*	445 OA	495 OA	580 OA	635 OA
K	140	170	203	227.5
L*	305	325	377	407.5
NET WEIGHT	28	48	65	93
GROSS WEIGHT	33	57	90	118

ALL DIMENSIONS IN MM, WEIGHT IN KGS.

* APPROXIMATE DIMENSION ONLY. VARIES WITH MOTOR SIZE AND GEARBOX VARIATION.



• 14 RPM DEFAULT FOR DIRECT (D) AND CHAIN (C) DRIVE
 • 20 RPM DEFAULT FOR INLINE DRIVE
 • RPM NOT REQUIRED FOR BARE SHAFT

NOTE: THIS CHART IS PREPARED FOR THE GUIDANCE PURPOSE ONLY, CONSIDERING 100% FILLING CAPACITY.

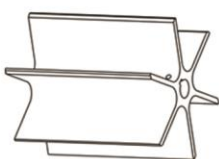
EXAMPLE: A MATERIAL WITH A BULK DENSITY OF 550(Kg/m³) AND REQUIRED CAPACITY OF 100(m³/hr) CAN BE ACHIEVED BY RS250 AT 80% FILLING CAPACITY WITH 31 RPM AND ALSO BY RS300 AT 54% FILLING CAPACITY WITH 29 RPM.

NOTE: THIS CHART IS PREPARED FOR THE GUIDANCE PURPOSE ONLY, CONSIDERING 100% FILLING CAPACITY.

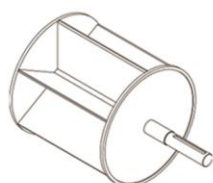
ROTORS & TIPS

The standard RS Series rotor is open-end style, the most common rotor assembly design. Open rotors refers to the open pocket at each end of the rotor. Default design comes with 6 vanes. Rotor is perfectly designed and manufactured to have a close radial and axial clearance of 0.20 mm (max.). Adjustable rubber tipped rotors may be used where required. The rubber tip is reversible so it can be turned over for a new surface.

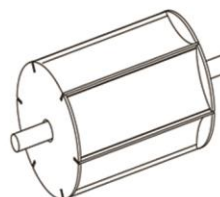
Also available in Closed rotor, Scalloped rotor, Reduced pocket open rotor of fabricated types.



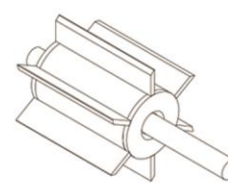
Open Rotor Casted



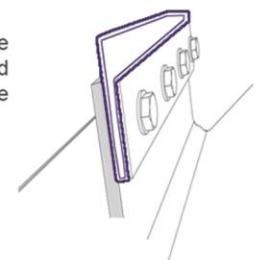
Closed Rotor Fabricated



Scalloped Rotor Fabricated



Reduced Pocket Open Rotor Fabricated



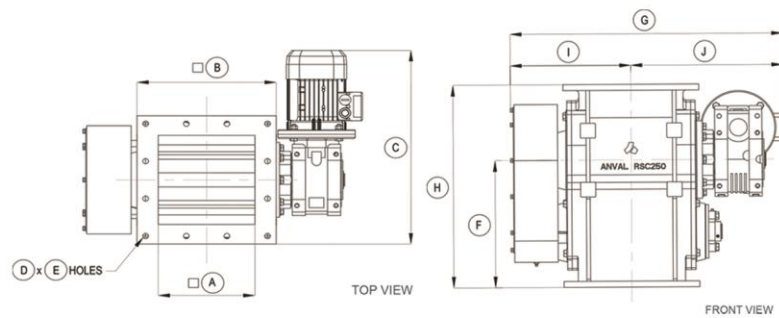
Typical Tipped Rotor Blade

STICKY, VISCOUS AND NON-FREE FLOWING MATERIALS MADE-EASY

RSCSERIES | Self Cleaning Rotary Airlocks & Feeders

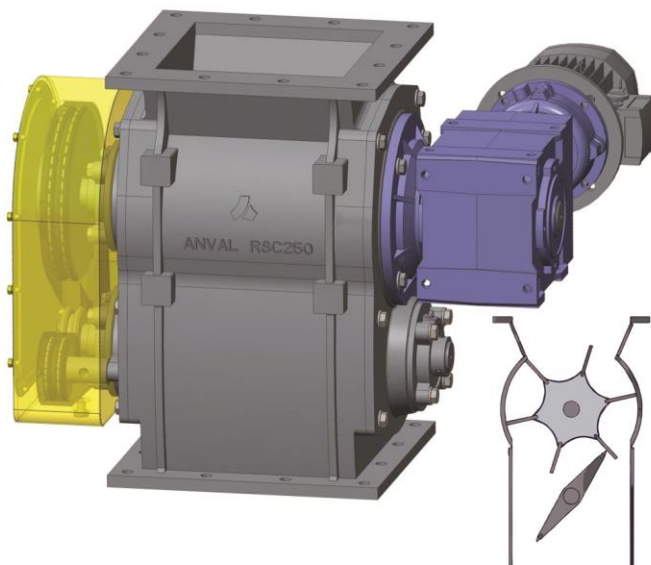
Anval RSC Series are specifically designed and well-suited to handle any high-moisture or sticky product application. Mechanically well synchronised secondary rotor does the self cleaning function by emptying out the pockets of the primary rotor and ensures easy flow of material.

- Equipped with replaceable “Labyrinth Seals”
- Mirror finish internals
- Comes in various opening sizes
- Minimal maintenance
- Excellent airlock performance
- ATEX version is also available

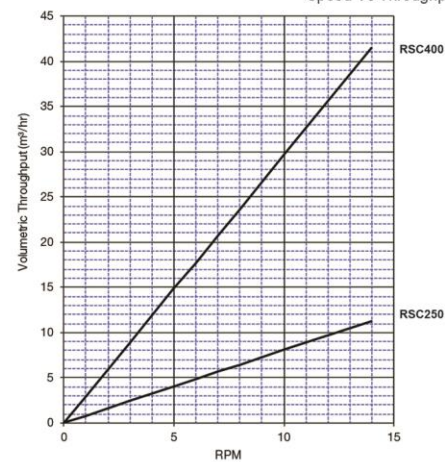


NAME	RSC 250	RSC 400
A	+ 250	+ 400
B	360	530
C ^a	543	770
D	12	20
E	∅ 15	∅ 15
F	345	550
G	723	1047
H	550	890
I	320	426
J ^a	403	621
NET WEIGHT	250	450
GROSS WEIGHT	310	550

ALL DIMENSIONS IN MM, WEIGHT IN KGS.



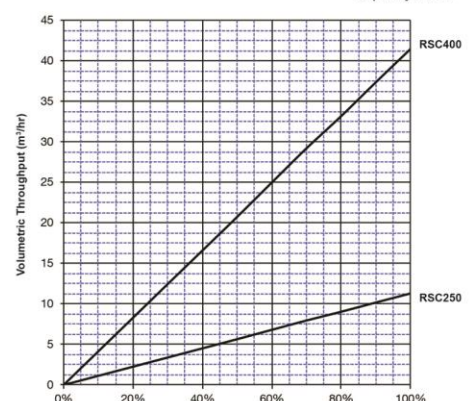
Speed Vs Throughput



• 14 RPM DEFAULT FOR DIRECT (D)
• RPM NOT REQUIRED FOR BARE SHAFT

NOTE: THIS CHART IS PREPARED FOR THE GUIDANCE PURPOSE ONLY, CONSIDERING 100% FILLING CAPACITY.

Capacity Chart



NOTE: THIS CHART IS PREPARED FOR THE GUIDANCE PURPOSE ONLY, CONSIDERING 100% FILLING CAPACITY.

“RSC Series Rotary Valves are in complete Stainless Steel construction with internal surfaces machined to high precision, ideally suited for semi solid materials, clay, starch, active ingredients, fertilizer, pulp, fibers, sludge, salt and so on.”

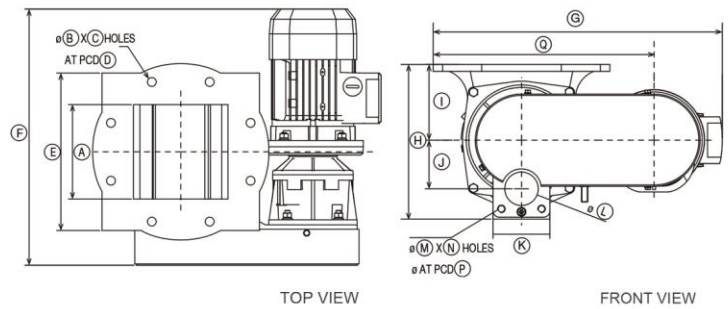
THE CORROSION RESISTANT BLOW SEALS

BS SERIES | Rotary Blow Through Valves

Anval BS series rotary valves are in complete cast Stainless Steel construction with internal surfaces machined to high precision. These valves are ideally suited for pneumatic conveying of powders, chips, grains, granules, flour-mills and other food & pharma industries to counter corrosion rust or stain problems. Comes in varied sizes from 150 mm to 300 mm as standard and customisable in larger sizes.

- Designed for pneumatic conveying systems
- Easy to install and maintain
- Equipped with replaceable "Labyrinth Seals"
- Mirror finish internals
- Single piece cast construction
- Comes in varies opening sizes
- ATEX version is also available

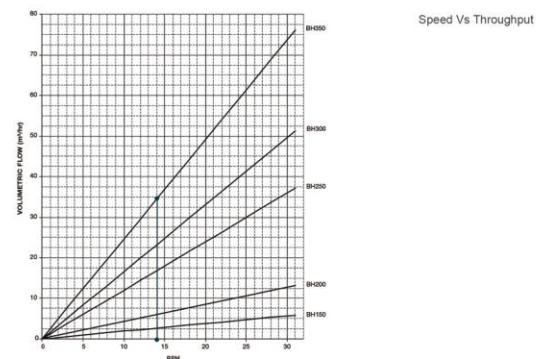
“BS Series construction is fully cast on a single piece reducing the number of seams for wear. In addition, as all of the components are manufactured from Stainless Steel, providing superior corrosion resistance, better wear properties and thermal stability.”



NAME	BH 150	BH 200	BH 250	BH 300
A	150 x 150	202 x 202	255 x 255	300 x 300
B	14	14	22	17.5
C	8	8	8	12
D	240	295	350	400
E	250 x 250	305 x 305	360 x 360	400 x 400
F ¹	407	442	473	473
G ²	458	528	607	673
H	245	320	405	470
I	120	165	205	235
J	77	96	120	140
K	90 x 90	110 x 110	150 x 150	180 x 180
L	53	63	103	125
M	M12	M16	M16	M16
N	4	4	4	4
P	90	115	165	195
Q	350	420	508	558
NET WEIGHT	39	65	115	150
GROSS WEIGHT	48	78	128	169

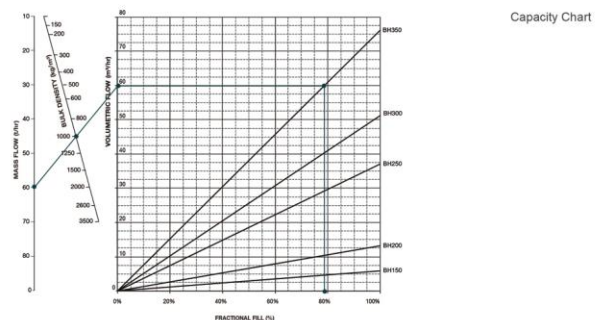
ALL DIMENSIONS IN MM, WEIGHT IN KGS.

¹APPROXIMATE DIMENSION ONLY. VARIES WITH MOTOR SIZE AND GEARBOX VARIATION.



* 14 RPM DEFAULT FOR BH 150 / 200 / 250 / 300 / 350

NOTE: THIS CHART IS PREPARED FOR THE GUIDANCE PURPOSE ONLY, CONSIDERING 100% FILLING CAPACITY.



EXAMPLE: A MATERIAL WITH A BULK DENSITY OF 1000 (kg/m³) AND REQUIRED CAPACITY OF 60 (t/hr) CAN BE ACHIEVED BY BH 350 AT 78% FILLING CAPACITY WITH 31 RPM.

NOTE: THIS CHART IS PREPARED FOR THE GUIDANCE PURPOSE ONLY, CONSIDERING MAX. RPM

APPLICATION CASE STUDIES



Spice Processing

Universal Grinding

Particle Size

<4 mm

Abrasiveness

Medium

Material

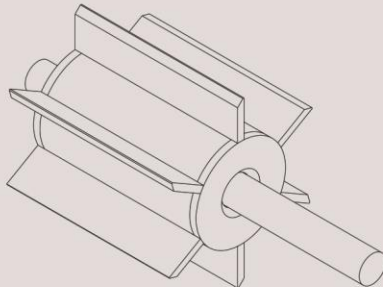
Spice Granules

Pressure

5KPa

Temperature

Ambient



Inconsistent Grinding

Varied Particle Size

High Material Rejection

Client

Our client is the world's largest provider of powder and particle processing equipments. Their products and technologies are used in numerous process stages including comminution, mixing, drying, agglomeration, classification, weighing and metering.

Anval were approached to provide solution for the material overload or accumulation issues which further leads to inconsistencies in grinding.

Anval's RS valves designed with reduced pocket rotor to deliver non-oscillating flow of materials for accurate metering. The drive system selected for proper metering on speed reduced overload current drawn by the motor of comminution system.

Downtime

With the use of reduced pocket rotor design, delivers accurate flow rate and avoids material accumulation

Process Efficiency

Material wastage almost reduced to zero and in turn improved the efficiency

Rejection Rate

Uniform material flow to the grinding system avoided inconsistent grinding

OPEX

Drastic reduction in ^{RS} valve related OPEX as the highly durable requires little attention once installed



Wheat Flour

Pneumatic Conveying



Wastage



Minimise accumulation of food particles in the vane corners which causes high level of degradation

Low Clearance Requirement

Air Seal Critical

Severe Leakage Issues

Client

Our client is a premier producer of wheat flour and pasta products for international consumption. The client has state of the art food manufacturing facilities and extremely high quality standards that all potential suppliers must adhere to.

Material

Wheat Flour

Particle Size

<100 Micron

Abrasiveness

Low

Pressure

15KPa

Anval were approached to provide a solution to a high leakage situation that was causing significant blockages.

Footprint



Plant design meant that Anval had to accommodate required throughput and eliminate existing problems with limited valve footprint

Plant Output



Significantly decreasing inlet system leakage, leading to higher overall plant output

Airlocking



The design has minimal clearance meaning a 30% reduction in pressure requirement from previous valve



Our high efficiency Blow Through Valves are designed for a variety of applications including food, flour, grains, plastic, chemicals, pharma and milling industries.

This "Single Piece" cast design reduces the number of seams that become wear points and have a compact and robust design.





Wheat Flour

Cyclone Collector



Wheat Flour

Low Clearance Requirement

Air Seal Critical

Severe Leakage Issues

Client

Our client is a premier producer of wheat flour and pasta products for international consumption. The client has state of the art food manufacturing facilities and extremely high quality standards that all potential suppliers must adhere to.

Material

Wheat Flour

Particle Size

<100 Micron

Abrasiveness

Low

Pressure

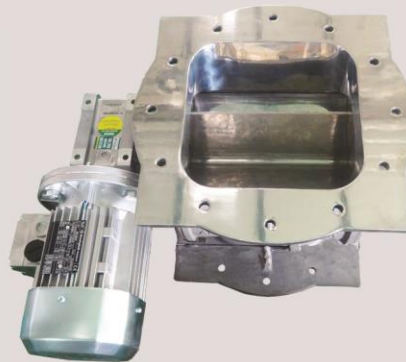
10 KPa

Wastage

Minimise accumulation of food particles in the vane corners which causes high level of degradation

Plant Output

Significantly decreasing inlet system leakage, leading to higher overall plant output



Our high efficiency R Series Rotary Valves are designed for a variety of applications including food, flour, grains, plastic, chemicals, pharma and milling industries.

Sealing

Anval uses a unique Labyrinth Seal on the R Series that virtually eliminates shaft leakage

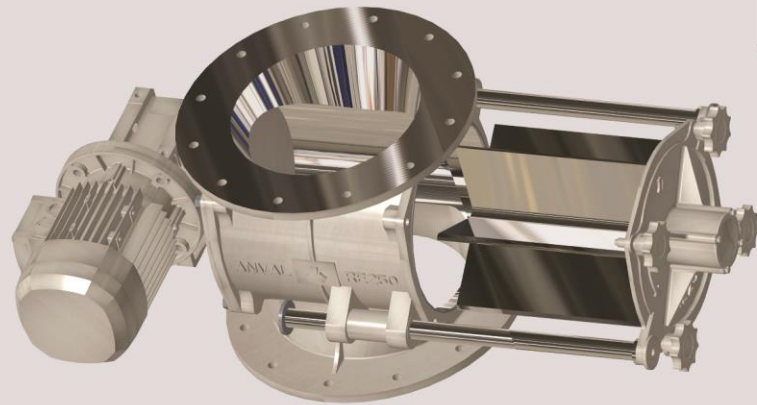
Leakage

Drastic reduction in leakage with the use of closed clearance between the rotor and body.

This "Single Piece" cast design reduces the number of seams that become wear points and have a compact and robust design.

Milk Powder Processing

Feeding & Conveying



Frequent Rotor Jamming

Sealing Critical

Severe Leakage Issues

Plant Output

Hygiene

Minimise accumulation of food particles in the vane corners which causes high level of degradation

Tool less

Reduced cleaning time with tool less assembly and reassembly

Significantly decreasing inlet system leakage, leading to higher overall plant output



Client

Our client is a specialist in designing and supplying of equipment that are widely used in chemical, food & beverage and dairy industries, which are highly reliable and superior in quality.

Anval were approached to provide a solution to a high leakage situation that was causing significant blockages along with the frequent jamming of rotor in conveying milk powder at 80°C temperature.

Our high efficiency Rotary Easy Clean Valve built on "Single Piece" Cast Stainless Steel construction helps the client to overcome all their existing issues and achieve optimal solution in their milk powder conveying process.

Material

Milk Powder

Particle Size

<100 Micron

Abrasiveness

Low

Pressure

5KPa



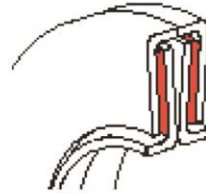
80°C Fluid Handling System

Cleaning Time

Material Clogging Issues

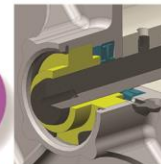
UNIQUE PRODUCT FEATURES

LABYRINTH SEALS



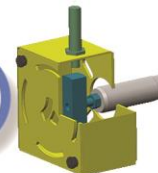
Labyrinth Seal is composed of many threads or grooves that are tightly fit inside the casing, thus making difficult for the dust to pass through a long and difficult path.

PURGE SEALING



Air or other Gases can be used to purge the seal, so all dust particles or product gases are flushed back into the product stream.

PROXIMITY SENSOR



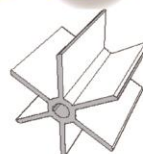
Underspeed sensors can be supplied and fitted to monitor the rotor movements.

MIRROR FINISH

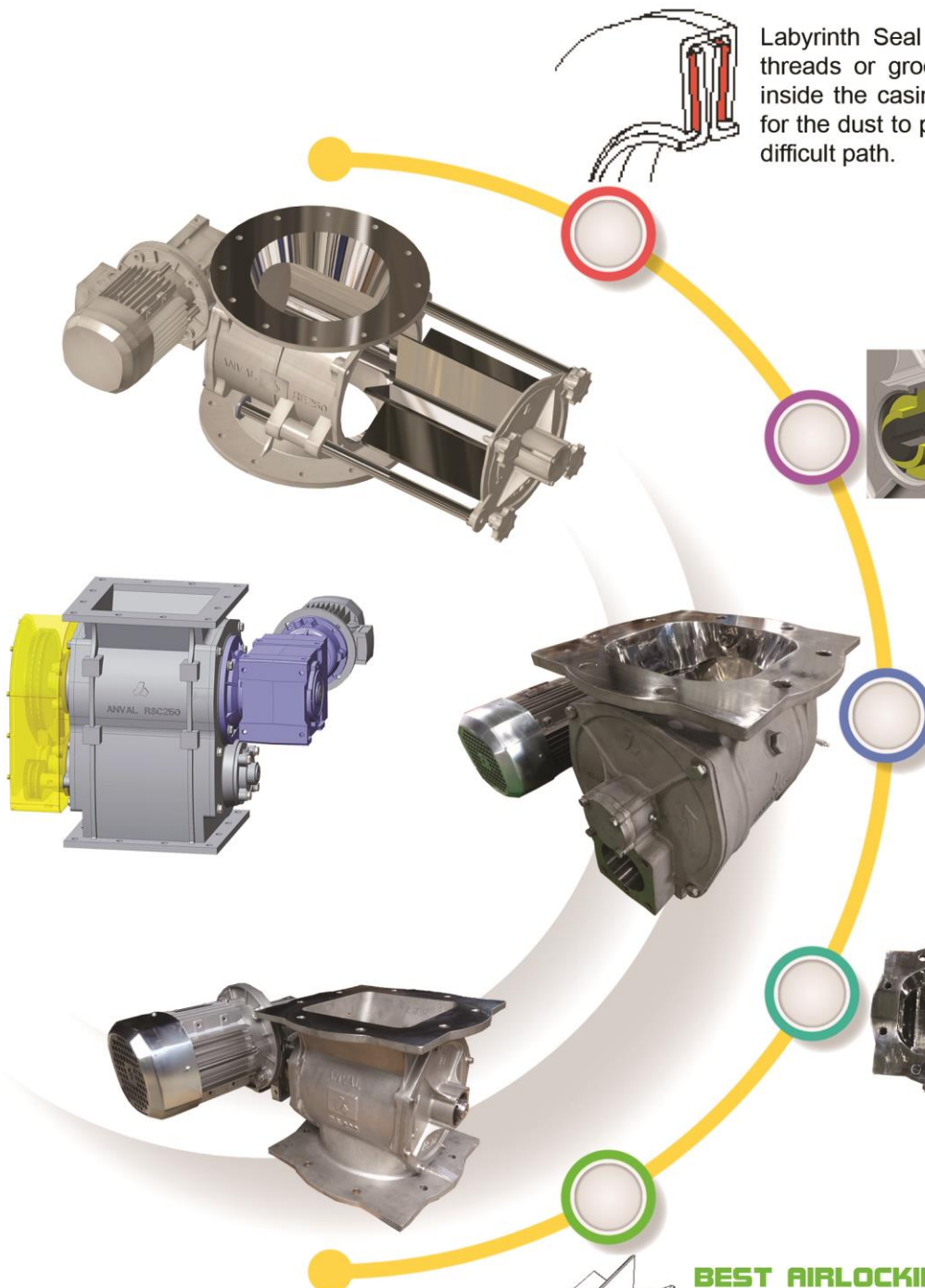


Single piece Stainless Steel Cast construction with mirror finish internals to prevent stain and / or stranding of food particles.

BEST AIRLOCKING PERFORMANCE



Rotors are precision machined to have a close radial and axial clearance of 0.20 mm (max.).





For any queries, please contact info@anval.net



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