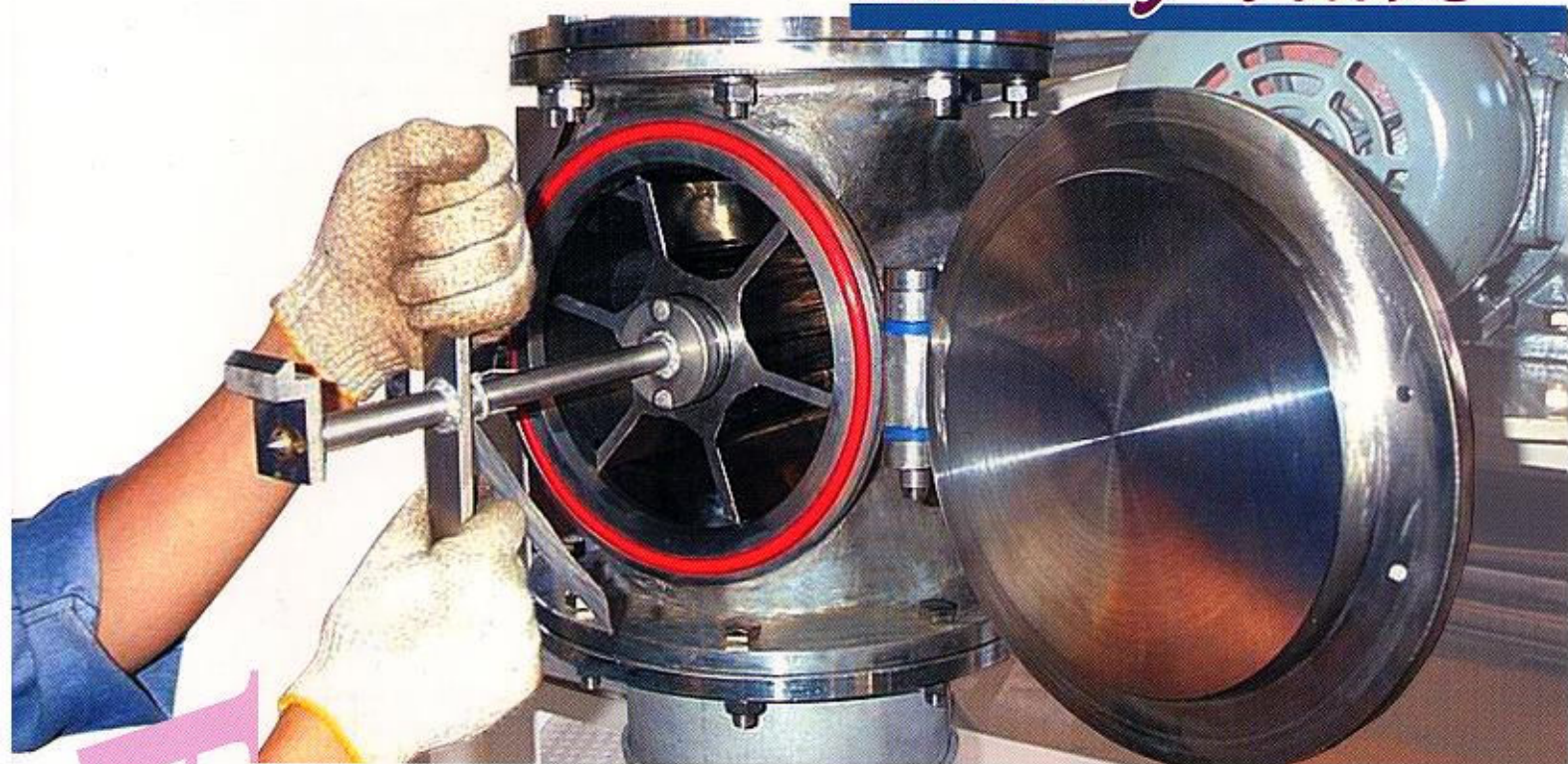


Rotary Valve



DAEGA



Established in 1970

Powder Engineering & Chemical world
DAEGA POWDER SYSTEMS CO., LTD.

GENERAL

DAEGA ROTARY AIRLOCK VALVES basically comprise a housing and side plates, bearings supporting a rotor with blades, shaft seals and a drive part. Generally when in operation, a motor and drive-chain turn the rotor shaft, spinning the rotor inside the housing and side plates. As the blades rotate, a fixed volume of material passes through the material into to the rotor pocket (the spaces between adjacent blades) and is carried in the pockets toward the material outlet.

FUNCTION

This valve can be used as an airlock, a feeder, or as a combination of both a feeder and airlock.

This valve can be used as an airlock unit, which does not control the flow of material, but acts as an air seal only, and a feeder unit that controls the flow of material. With no significant pressure difference, a combination feeder & airlock function unit that acts as an air seal and controls the flow of material.

APPLICATION

Generally the valves are installed below the equipment, i.e., hoppers, silos, bag house, cyclones, filter, receiver, screw conveyor, dryer, mixer, tank, vacuum line, pressure line for pneumatic conveying system, etc.





STANDARD FEATURES

- Minimum clearance between rotor tips and sides with body.
- Good through opening at valve entry allowing high pocket filling efficiency.
- Large diameter solid shaft which minimizes deflection.
- Outboard bearings for non-contamination.
- Packing gland-type seals.
- Precision machining of composition.

SPECIFICATION

- Body: Cast iron, Stainless steels, Mild steels, etc.
- Rotor: Mild steels, Stainless steels, etc.
- Bearing: Generally sealed-for-life-ball type bearing.
- Shaft seal: Gland type with PTFE packing, Purge type with lantern ring, etc.
- Drive: Geared motor, variables speed motor, etc.

TYPE OF ROTOR

- Standard type
- Standard type with replaceable tips.
- Scalloped rotor.
- Straight chambered blades.





Standard Type

The **DAEGA** standard type combines many essential features that help to maximize the performance and dependability of our pneumatic conveying system.

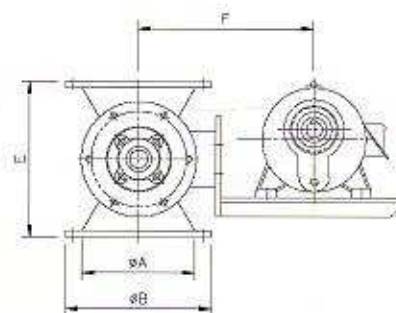
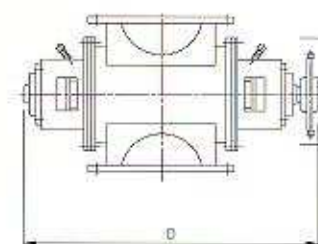
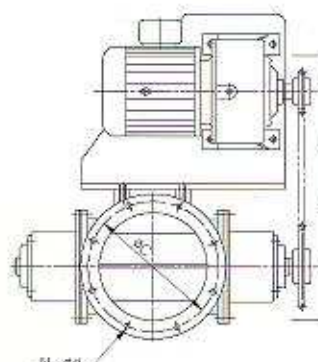
It can be furnished with either a closed- or open-end rotor.

The inlet and outlet are angled to induce a shearing action for smoother operation.

The in-outlet flange is easily adapted to a square or standard circular type (ANSI, DIN, JIS, KS, etc).

All rotors have from six (6) to twelve (12) with minimum of three (3) vane, maximum four (4) vane sealing at all times to minimize leakage.

The packing type supply lantern rings, packing gland and outboard bearing.



SPEC MODEL	A	B	C	D	E	F	N-Ød	MAIN DRIVE	WEIGHT (Kg)
DGRV - 15	150	255	210	540	280	300	8-Ø14	1HP	110
DGRV - 20	200	290	260	588	310	350	8-Ø14	1HP	125
DGRV - 25	250	406	362	750	394	400	12-Ø18	2HP	200
DGRV - 30	300	480	400	770	450	430	12-Ø18	2HP	270
DGRV - 35	350	490	445	847	500	455	12-Ø18	3HP	360
DGRV - 40	400	560	510	980	550	510	16-Ø18	3HP	450
DGRV - 45	450	605	555	1260	700	570	16-Ø18	5HP	600



Pneumatic Type

DAEGA pneumatic type help feed a fine, light weight granular material or sticky material into high or low velocity & positive or negative pressure pneumatic conveying systems.

Your handling material enters the housing top and the conveying air passes through the bottom rotor packets to blow out the material.

It may be furnished with open end rotor for blowing.

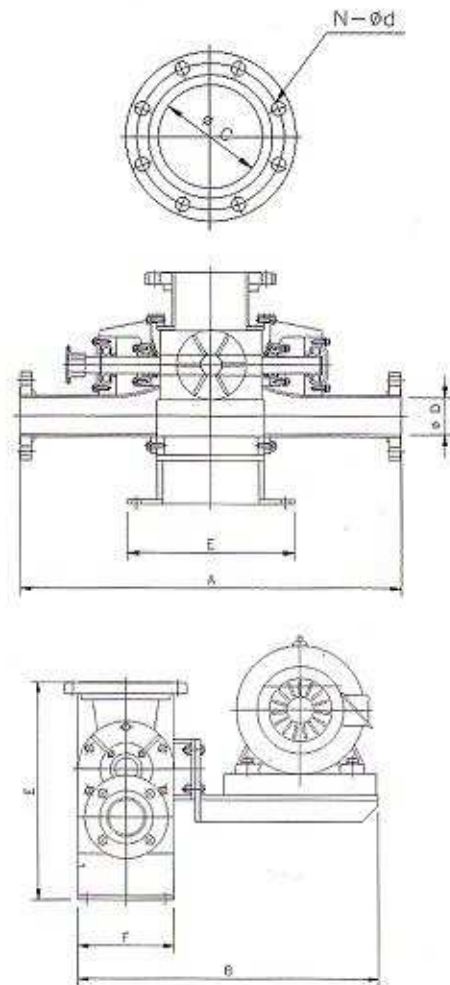
The inlet is angled to induce a shearing action for smoother operation.

The outlet is connected with the selected conveying duct by flange or coupling.

The in-outlet flange easily adapted to a square or standard circular type (ANSI, DIN, JIS, KS, etc.).

All rotors have from six (6) to twelve (12) with minimum of three (3) vane sealing at all times to minimize leakage.

The packings are provided to permit use of purge air when handling fine powdery material to prevent contamination of shaft packing. So packing type supply lantern rings, packing gland and outboard bearing.



SPEC MODEL	A	B	C	D	E	F	N-Ød	MAIN DRIVE	WEIGHT (Kg)
DGPNRV - 15	810	690	170	3B	360	220	8-Ø14	1HP	120
DGPNRV - 20	850	720	200	3~4B	410	300	8-Ø14	1HP	135
DGPNRV - 25	940	800	250	4~5B	480	350	12-Ø18	2HP	185
DGPNRV - 30	1100	850	300	4~5B	560	410	12-Ø18	2HP	240
DGPNRV - 35	1260	970	350	5~6B	640	480	12-Ø18	3HP	330
DGPNRV - 40	1450	1050	400	5~6B	760	540	16-Ø18	3HP	410





Sanitary Type (Easy Cleaning)

DAEGA sanitary type help clean inside very easily when frequent internal cleaning of valve is necessary. Disassembly and re-assembly may be carried out by plant operator without tools and specific fitting skills.

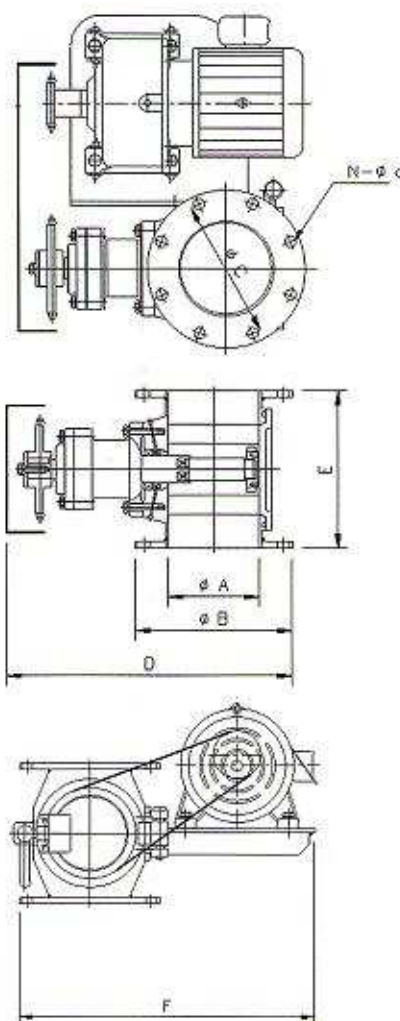
If you have to change your handling powder and material, you can easily clean of rotor and insides of housing. Specially, in case of you have deal with sticky material that it have to clean easily available to meet stringent hygienic requirement and sanitary.

It can be furnished with close end rotor for minimize leakage. We can supply seal case type with adjustable liner (shoulder) for seal. The inlet is angled to induce a shearing action for smoother operation.

The in-outlet flange easily adapted to a square or standard circular type (ANSI, DIN, JIS, KS, etc.).

All rotors have from six (6) to twelve (12) vane sealings, with a minimum of three (3), and a maximum of six (6) vane sealings at all times to minimize leakage.

Packing is provided to permit use of purge air when handling fine powdery material to prevent contamination of shaft packing. So the packing type supplies lantern rings and packing gland.



SPEC MODEL	A	B	C	D	E	F	N-Ød	MAIN DRIVE	WEIGHT (Kg)
DGRV - 15S	150	250	210	460	260	520	8-Ø14	1HP	80
DGRV - 20S	200	320	280	520	320	635	8-Ø14	1HP	105
DGRV - 25S	250	400	355	650	370	720	12-Ø18	2HP	140
DGRV - 30S	300	480	440	760	480	790	12-Ø18	2HP	175
DGRV - 35S	350	520	485	820	550	850	12-Ø18	3HP	230
DGRV - 40S	400	550	490	880	630	930	16-Ø18	3HP	290



Technical Data

$$\text{Through put (kg/hr)} = \text{Bulk Density of Product (kg/m}^3\text{)} \\ \times \text{Volumetric Capacity (l/rotation)} \\ \times \text{Max. speed rate. (rpm)} \times \text{Filling Efficiency}$$

PRODUCT \ RPM	Very flowing	Flowing	Not flowing	Very difficult flowing
< 10	90%	80%	70%	60%
10 ~ 20	80%	70%	60%	50%
21 ~ 30	70%	60%	50%	40%
> 30	60%	50%	40%	35%

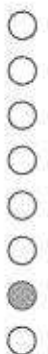
1. Very free flowing solids either aided or unaffected by leakage of air, (e.g. sand, some metal oxides, dense plastic granules, etc)
2. Flowing solids often aided by leakage air due to fluidization. (e.g. cement, PFA, etc.)
3. Non flowing materials (sluggish and light materials usually where leakage of air tends to oppose flow. (e.g. plastic powder, resin, powder, milk powder, etc.)
4. Very difficult and light materials either where leakage air oppose solids flow or where bulk density greatly reduced by aeration, (e.g. most light fibrous materials, flour, carbon block, cork granules, etc.)

OPTIONS

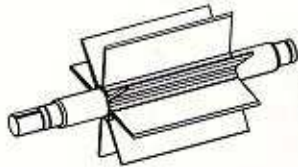
1. Dust box (Vent Box)
2. Air unit set for shaft purge (air filter, air regulator)
3. Feeder baffle plate
4. High temperature design
5. Mechanical shaft seal
6. Adjustable shoulder (wear) for reducing leakage
7. Vent hole
8. Variable speed for motor
9. Variable rotor tips (PTFE, Polyurethane, etc)
10. Limit switch for safety

*NOTE

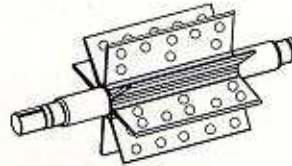
1. Our technical team will be pleased to give the informations concerning our products.
2. We measures rights to change designs or dimensions without prior notice.
3. These measures might change according to the type of the motors.



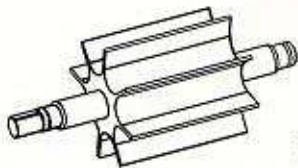
TYPICAL ROTOR CONFIGURATIONS



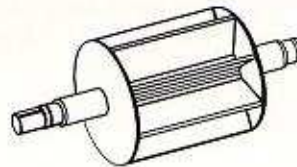
Standard Rotor
(open type)



Standard Rotor
with replaceable Tips
(open type)

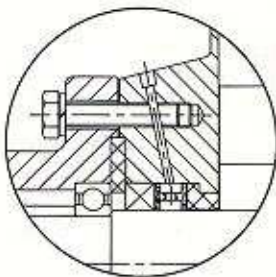


Scalloped Rotor
(open type)

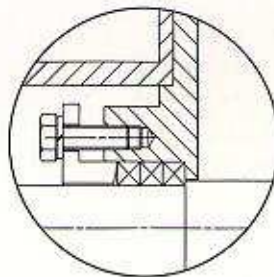


Straight chambered
blades Rotor
(close end type)

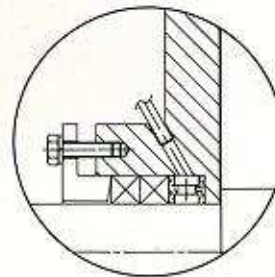
SHAFT SEALING



(oil seal + lantern ring + seal)



(packing gland)



(packing gland + lantern ring)



Established in 1970

Powder Engineering & Chemical World

DAEGA

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