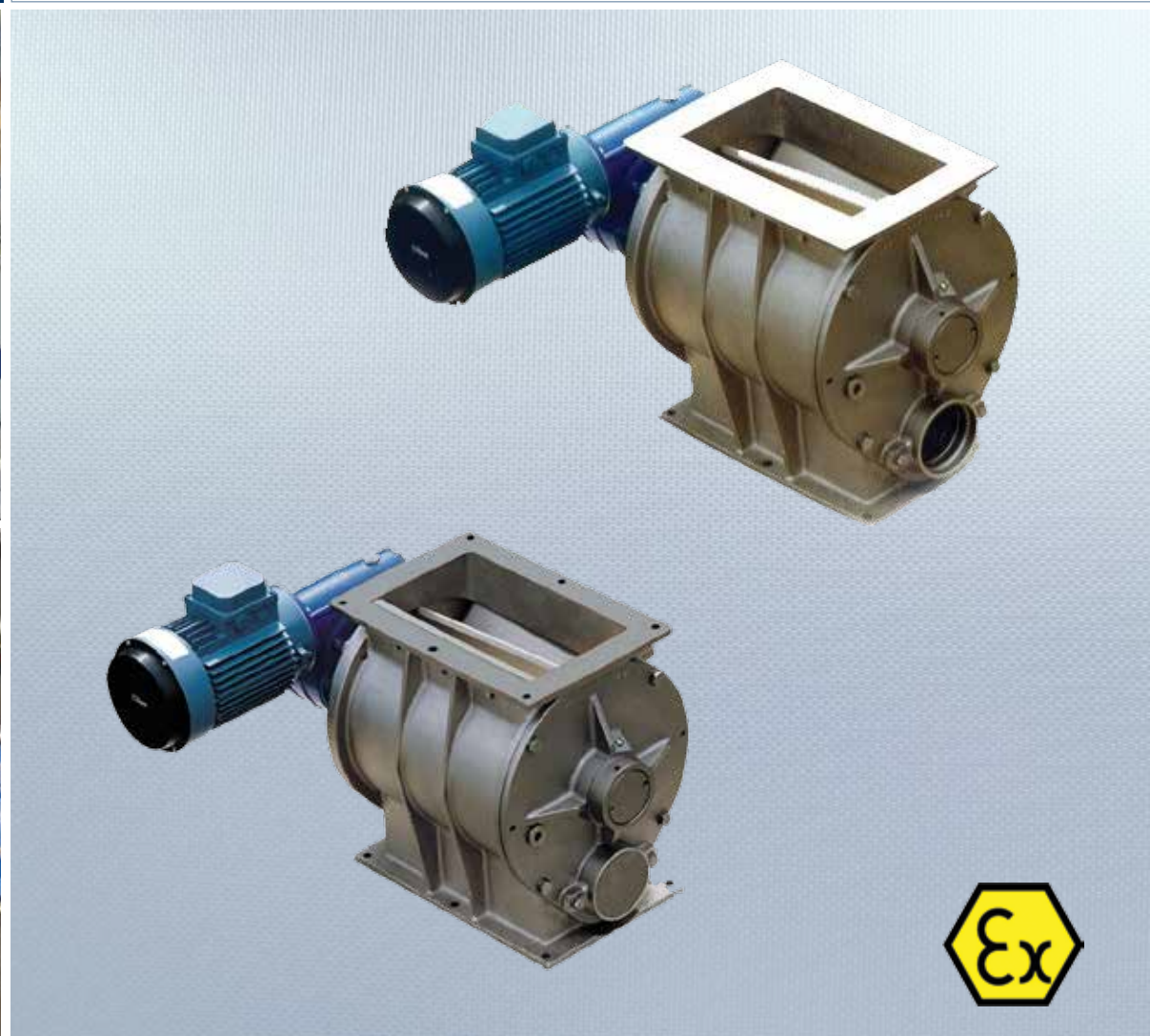


Blow-Through Rotary Valves RVS

Drop-Through Rotary Valves RVC



HIGH FILLING EFFICIENCY AND PRECISE METERING IN GRAVITY FEEDING AND PNEUMATIC CONVEYING OF POWDERS AND GRANULES

RVS Blow-Through Rotary Valves have two compartments at a time of the continuously turning rotor filled up with material through the inlet at the top. After less than half a turn the material is conveyed into an air stream of a pneumatic conveying pipe passing through the bottom of the rotary valve.

With RVC Drop-Through Rotary Valves, which have a similar design, the material falls out through the bottom outlet by gravity into a container, a conveyor or pneumatic conveying system.

Features

- Capacity: 5 – 10 – 15 – 20 – 38 – 78 litres per revolution (0.17 – 0.35 – 0.52-0.7 – 1.23 – 2.82 cu ft/rev)
- Working temperature: from -40 °C up to 220°C
- Working pressure: from – 0.5 bar up to 0.8 bar
- Material: cast iron or 304 stainless steel



ATEX Certification

RVS – RVC... X

ATEX 20/22 Certified

CE II 1D/3D c T135°C
0948
Cert.No.EX5 07 01 61456 002

ATEX Rotary Valves

ATEX rotary valves are designed and tested for use in potentially explosive zones classified as ZONE 22 or non-classified zones and with process atmospheres (inside the valve) classified as ZONE 20 in accordance with Directive 94/9/EC and 1999/92/EC.

Usage Limits

Ambient temperature: from -10°C to + 40°C
Process temperature (material): from – 20°C to + 60°C
Atmospheric pressure: from 0.8 to 1.1 bar
Maximum rotor speed: 30 rpm
Minimum ignition energy: mie > 3 mJ

RVC...E

ATEX 20/22 Certified

CE II 1D/3D c T135°C
0948

CE D St2
0948

EC Type Cert.FTŻU14 ATEX 0053X
EN 15089:2009 - Explosion Protection Device

Flame Proof and Explosion Protection Device

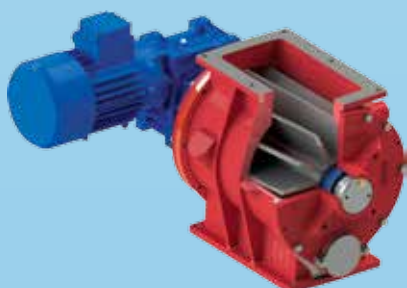
The RVC...E explosion protection device are ATEX certified for zone 20/22 and are used as a protective and dust explosion-flame proof system up to 6 bar.

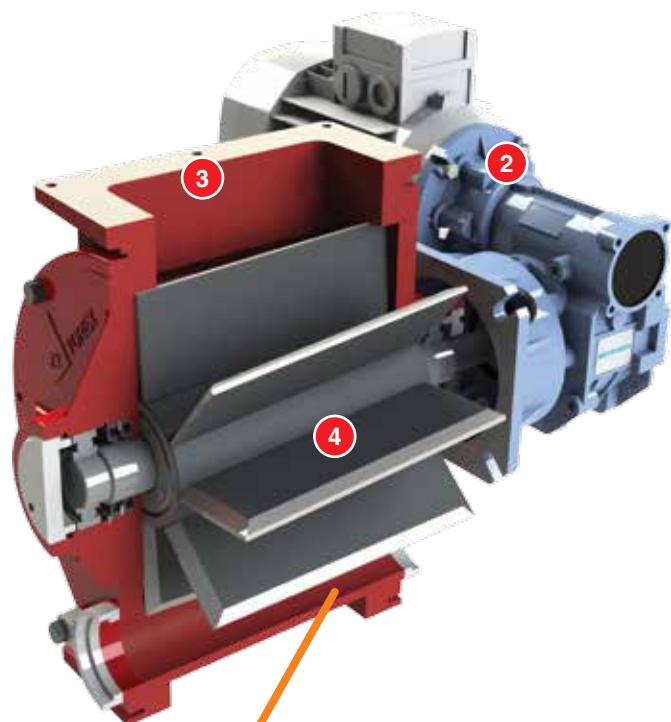
Suitable to be used under silo, hoppers, dust filters, cyclones, product separators, pneumatic conveying and dosing systems within the following conditions:

Ambient temperature: from -10°C to + 40°C
Process temperature (material): from – 20°C to + 60°C
Atmospheric Pressure: from 0.8 to 1.1 bar
Maximum rotor speed: 30 rpm
Minimum Ignition Energy: mie > 3 mJ
Maximum pressure differential between top and bottom flange: 0.7 bar (recommended)
Maximum Explosion Pressure: 6 bar

Features

- Suitable for application in hazardous area
- Stop flame and sparks passage from one flange to the other in both directions.
- Provide the maximum overpressure up to 6 bar.
- ATEX zone 20/22 certification included
- Thanks to the 10 rotor blades (RVC05) and 12 rotor blades (RVC 10-15-20-35) execution is suited for protective system and explosion barrier





2 Drive Unit



Bare Shaft



Direct Drive (20-30 rpm)



Direct Pre-Torque Gear Motor (10 rpm)

3 Casing



Internally Chrome-Plated
Used for abrasive materials



Completely Nickel-Plated
Used for corrosive materials or as a substitute of stainless steel for food applications if accepted.
Rotor and end flanges are completely nickel-plated too



Internally Teflon®-Coated
Used for sticky materials
Rotor and end flanges are Teflon®-coated too.

1

1 Bottom Outlet



Streamlined entry and discharge of air conveyed through valve

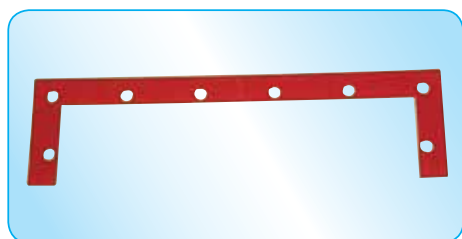
- Introduces high pressure conveying air through the valve casing and rotor pockets, ensuring high efficiency throughput with a low pressure drop
- Reduced overall height
- Pipe connections included bolted on both sides of the end plates

4 Rotor

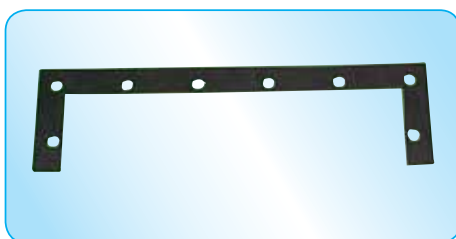


Standard Version with Chamfered Rotor Blades

Accessories



Vulkollan®



Viton®



Teflon®



Mechanical Variable Speed Drive
(from 4 to 20 rpm)



Chain Transmission (10-20-30 rpm)



Coated
als.
are



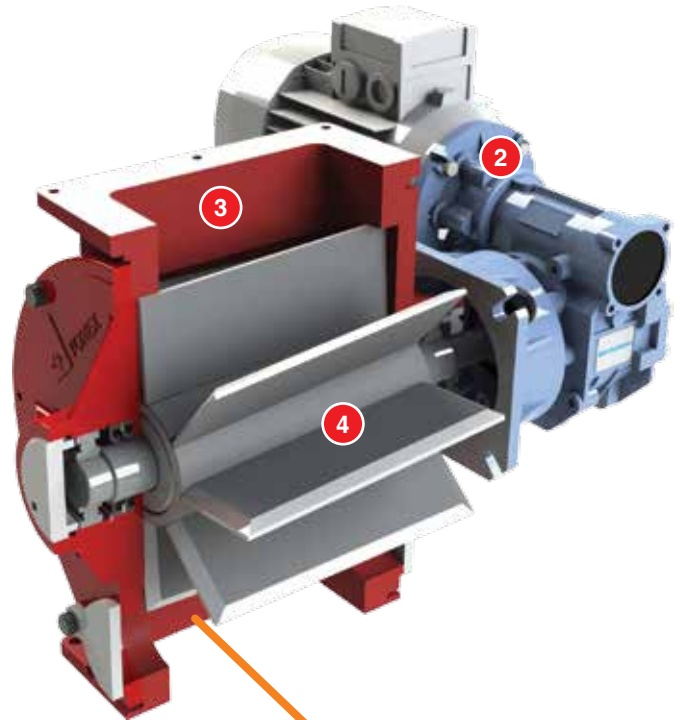
**Tungsten Carbide
Anti-wear treatment**
Used for erosive
and abrasive wear
applications



**Completely 304 Stainless
Steel Cast**
Used for food applications.
Rotor and end flanges are
manufactured from 304
stainless steel too.



**Lateral air venting
bores as standard**
Used for:
- extracting excess air
from rotor pockets
- decreasing air
pressure inside the
casing
- increasing
throughput



1



Rotor with Replaceable Tips

1 Bottom Outlet



Large open bottom outlet to freely discharge material under gravity flow

- Suitable for both gravity and pneumatic conveying system
- In case of installation in pneumatic conveying system, a drop box custom made can be fitted to suit all pipe diameters (not provided by TOREX®)
- Identical inlet/outlet flange dimensions enable easy connection



Air-Purged Seals



External bearing
- packing gland seals
- suitable for temperature up to 220°C
- suitable for extremely fine powders



Rotation Indicator



Scraper

Applications



Benefits

- ✓ RVS with rectangular inlet flange and two lateral pipe connections on bottom outlet;
 - ✓ RVC with rectangular inlet/outlet flange;
 - ✓ Open rotor with bevelled edges as standard (except RVC/S 80);
 - ✓ Sturdy compact structure;
 - ✓ Drive unit mounted on rotor shaft without further bearing assembly or coupling;
 - ✓ Easy access to internal mechanical parts;
 - ✓ Various materials and treatments available depending on material handled;
- ATEX 20/22 version available.**



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