

Datasheet

solids - Rotary Valve / Protective System

SRVP - Hygienic-Wet



Operating conditions:

Maximum pressure: 0,9 bar absolute up to <1,5 bar g.

Product temperature from -20°C up to 120°C with corresponding clearance for constant operating temperature.

Bulk solid data:

Powder form, up to medium hardness.

Free flowing up to limited flowing products.

Referencia	Entrada / Salida	Altura	V / vuelta	Peso
SRVP1504Y01B	Ø 150 mm	320 mm	5 dm ³	130 kg
SRVP2007Y01B	Ø 200 mm	375 mm	9,5 dm ³	165 kg
SRVP2515Y01C	Ø 250 mm	450 mm	19 dm ³	220 kg

*) Flange-outside-Ø and holes acc. to PN10 DIN2576

Basical version:

According to EHEDG-guidelines type EL-Class II, machinery directive 2006/42/EC, DIN EN ISO 14159 (hygienic requirements), DIN EN 1672-2 (food machinery) and GMP/FDA-requirements.

Housing: casted stainless steel 1.4408 (DIN) / CF-8M (AISI).

Rotor: welding construction – stainless steel 1.4307 (DIN) / 304L (AISI). 8 rounded pockets, rotor extensible without leading rails.

Outside bearings.

Shaft seal: radial shaft sealing rings FDA-approved with sealing/purge air connection.

Pneumatic installation for sealing / purge air, consisting of 2/2-way solenoid valve, pressure regulator and nozzles.

Hygienic design for food, pharma, cosmetics and chemistry.

Easy to dismantle, easy to clean, free of dead zones and free of gaps, possibility to CIP.

In contact with product (inside) surface quality Ra < 0,8 µm.

Weldings free of gaps. and polished Ra < 0,8 µm

Corners and edges with wide radius.

Gapfree connection between housing and bearing shield.

Shock pressure proof 10 bar, flame propagation proof

Drive: direct.

Motor: three-phase gearboxmotor, manufacturer: SEW, Separately specified.

Form: slip on gear with torque arm.



Shown with options 1 and 3



Rotor with rounded pockets:



Preliminary Modifications reserved

approval:	MIGSA	SST			
Date:	06.04.20	Sign:	Date:	6.4.20	Sign:
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- Bearing of the rotor in the shield with bearing bushings (1)

Advantage:

When pulling the rotor out the sealings remain intact, because the bearing bushing stay in the shield

- Double bearing (2) of the rotor shaft in the bearing bushing

Advantage:

Exact radial fixing and absorbing of high bending moments due to pressure differences

- Sealing of the bearing and the rotor shaft against the product zone by use of a co-rotating seal disc (3) and a circular flushing chamber (4) with purge air / gas

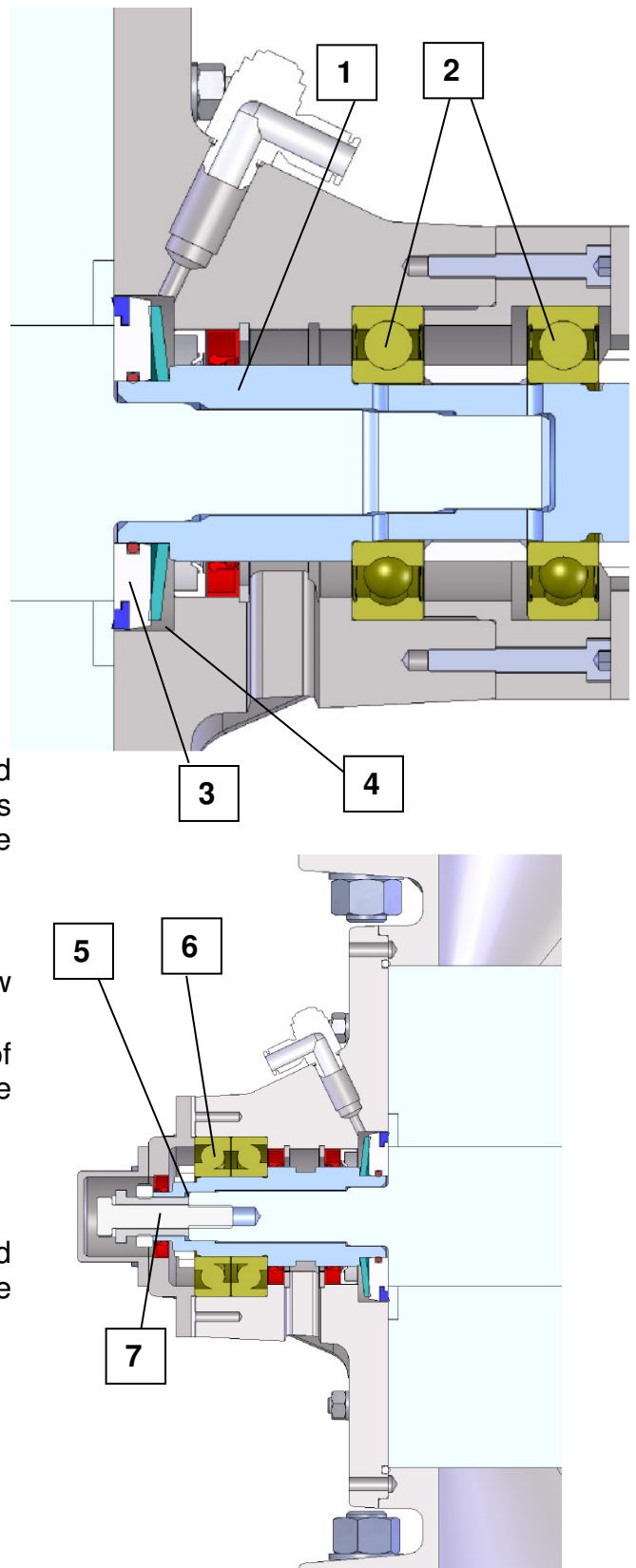
Advantage:

The area of the bearing need not to be cleaned during CIP-cleaning the purge air / gas prevents the entry of the cleaning fluid into the area of the bearing

- Axial centering device with adjustable screw socket and fixed stop (5)
- Axial free of clearance rotor bearing by use of suitable ball bearings (6) and axial fixing of the bearing bushing
- Fixing of the rotor with only one bolt (7)

Advantage:

Simple and time saving disassembly and assembly of the rotor without adjustment of the gap between rotor and housing



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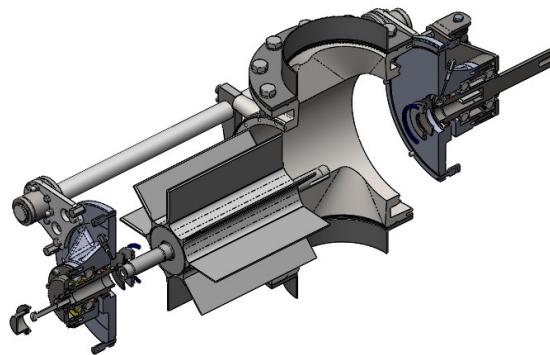
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Wet cleaning CIP

1. Rotor remains assembled
2. Washing the valve with cleaning liquid when the rotor is rotating and purge of the shaft throughput with compressed air
3. Drying, analog washing
4. If necessary after the CIP-cleaning the rotor will be pulled out and the cleanness of the critical points will be checked and secondary cleaned. During validation of the CIP-cleaning the additional actions (inspection, cleaning) will be defined.
5. Rotor push in again



Protective system:

Shock pressure proof 10 bar, flame propagation proof.

Suitable for zone 20 inside and protective system category 1 acc. ATEX 2014/34/EU.

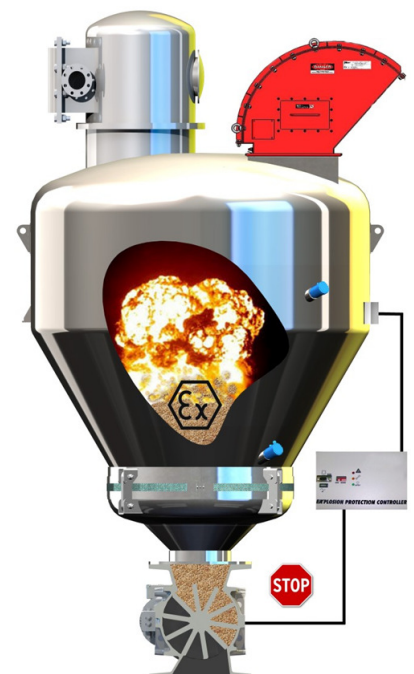
Without sensoric and control.

For dust explosions grade St1 and St2, Kst value from 0 to 300 bar x m x s⁻¹.

With type examination test by a notified body. Certificate number FTZÚ 18 ATEX 0126X.

With water pressure test for housing with bearing shields.

Maximum 20 turn/min. due to type examination.



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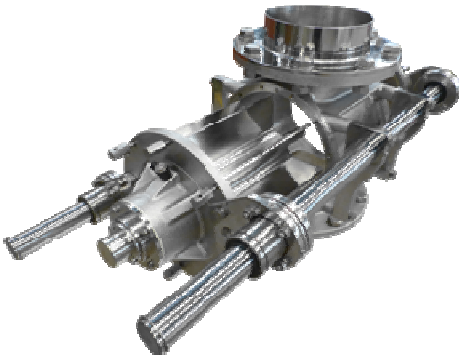
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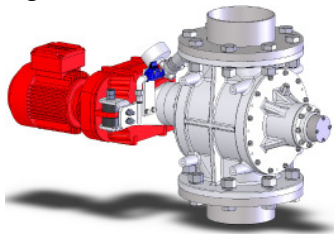


Options:

1. Pull out device with leading rails.



2. Electropolished, incl. leakage air collector / granule inlet / blowing shoe.
3. Inlet and outlet with centering flange and connection pipe plain. Pressure shock resistant. Hygienic-design. In contact with product, inside, surface quality $R_a < 0,8 \mu\text{m}$, outside $< 3,0 \mu\text{m}$. Incl. connection parts for assembling.

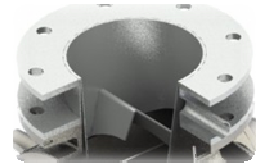


4. Granule inlet for grain size $> 500 \mu\text{m}$ cubic up to 10 mm, made of stainless steel 1.4307 (DIN) / 304L (AISI).



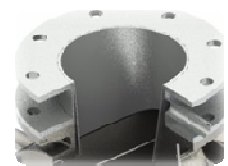
Pressure shock resistant. Hygienic-design. In contact with product, inside, surface quality $R_a < 0,8 \mu\text{m}$, outside $< 3,0 \mu\text{m}$. Incl. connection parts for assembling.

5. Leakage air collector with granule inlet made of stainless steel 1.4307 (DIN) / 304L (AISI).



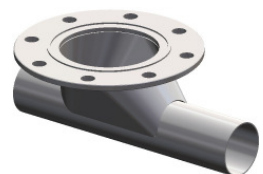
Pressure shock resistant. Hygienic-design. In contact with product, inside, surface quality $R_a < 0,8 \mu\text{m}$, outside $< 3,0 \mu\text{m}$. Incl. connection parts for assembling.

6. Leakage air collector for powders made of stainless steel 1.4307 (DIN) / 304L (AISI).



Pressure shock resistant. Hygienic-design. In contact with product, inside, surface quality $R_a < 0,8 \mu\text{m}$, outside $< 3,0 \mu\text{m}$. Incl. connection parts for assembling.

7. Blowing shoe for pneumatic conveying made of stainless steel 1.4307 (DIN) / 304L (AISI).



Pressure shock resistant. Hygienic-design. In contact with product, inside, surface quality $R_a < 0,8 \mu\text{m}$, outside $< 3,0 \mu\text{m}$. Pipeline connection without flange. Incl. connection parts for assembling.

8. Casted parts made of 1,4408 (DIN) / CF-8M (AIS), rest 1.4404 (DIN) / 316L (AISI), incl. leakage air collector / granule inlet / blowing shoe.

9. Casted parts made of 1,4408 (DIN) / CF-8M (AIS), rest 1.4571 (DIN) / 316Ti (AISI), incl. leakage air collector / granule inlet / blowing shoe.



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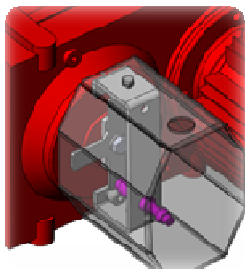
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10. Standstill monitoring with star and sensor



11. Protective system, shock pressure proof 13 bar for dust explosion class St 1 and St 2, Kst-value 0 up to 300 bar x m x s⁻¹, maximum explosion pressure 13 bar, rotor with 10 rounded pockets made of stainless steel 1.4307 (DIN) / 304L (AISI), reinforced design. Certificate number BVS 10 ATEX H 014 X N1.

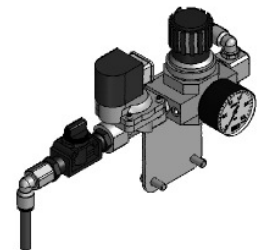
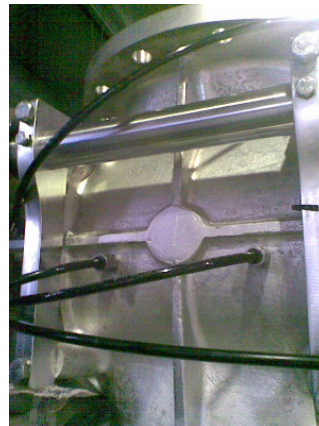
Type	V / turn
SRVP1504Y01B	3,6 dm ³
SRVP2007Y01B	6,7 dm ³
SRVP2515Y01C	15,5 dm ³

12. Protective system, shock pressure proof 10 bar for dust explosion class St 3, Kst-value >300 bar x m x s⁻¹, maximum explosion pressure 10 bar, rotor with 10 rounded pockets made of stainless steel 1.4307 (DIN) / 304L (AISI), reinforced design. Certificate number BVS 10 ATEX H 014 X N1.

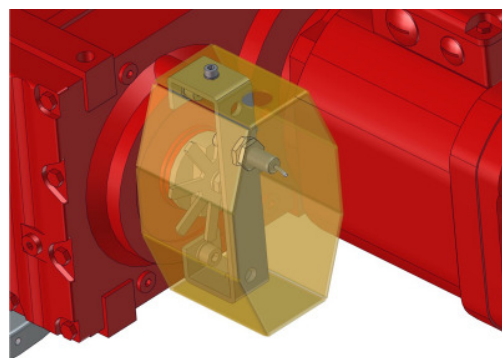
Type	V / turn
SRVP1504Y01B	3,6 dm ³
SRVP2007Y01B	6,7 dm ³
SRVP2515Y01C	15,5 dm ³

13. Blowing shoe for pneumatic conveying made of stainless steel 1.4307 (DIN) / 304L (AISI). Pressure shock resistant. Hygienic-design. In contact with product, inside, surface quality Ra < 0,8 µm, outside < 3,0 µm. Pipeline connection with clamp. Incl. connection parts assembled.

14. Pneumatic discharge of the pockets for cohesive products, incl. pneumatic installation.



15. Dosing-stop by switching-off-positioning of the rotor with 8 or 10-finger-star (depending on the selected rotor) and sensor.



16. Electrical parts outside, suitable for zone 2/22.

17. Electrical parts outside, suitable, for zone 1/21.



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18. **Nitriding** thermic treatment by absorption for wear protection in housing, caps and rotor. Penetrates until 50 μm . Obtained hardness: between 600 and 1000 HV.

Related documents:

3D-Part: Type.step (example : **SRVP15005Y01**. Step)
2D-planning drawing: Type.dxf (example: **SRVP15005Y01**. dxf)
Selection criteria: SG- ZRS-SRV-DBS
Pricelist: PL-SRVP-Hygienic
List of drawing numbers: Draw-No-List_SRVP-Hygienic



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