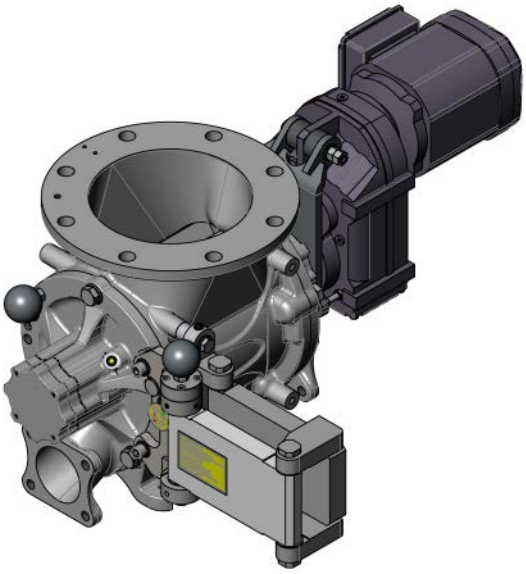
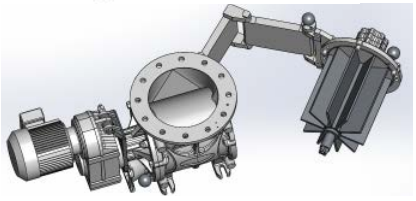
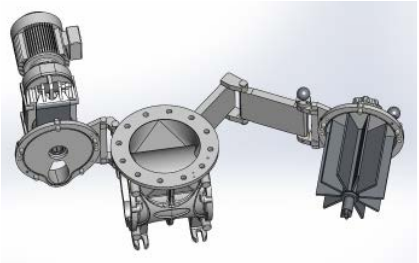
Application

The Coperion ZXD Hygienic (Blow-Through Premium) rotary valve is specially designed for sanitary, pharmaceutical, food and chemical applications where contamination is a constant concern, and frequent disassembly and cleaning is required. The ZXD Hygienic includes full access extraction system and a large inlet for high filling efficiency. Without removing the valve from the system, the ZXD Hygienic can be easily disassembled, cleaned and reassembled. The full access extraction system fully supports the rotor as it is removed for cleaning, making it an ideal method for facilitating endplate and rotor removal. The blow-through conveying configuration enhances rotor cleanout while conveying and makes installation in tight quarters possible. The entire unit is specially designed to avoid contamination with product contact surfaces constructed from DIN 1.4404 [AISI 316L] stainless steel. The ZXD Hygienic is designed according to EHEDG guidelines with pressure differentials up to 1.5 bar(g) [21 psi(g)] and temperatures up to 100°C [212°F].





Standard: ZXD Hygienic with FXS-1 extraction device



Option: ZXD Hygienic with FXS-2 extraction device

Design

- Explosion pressure shock proof: 10 bar(g) [145 psi(g)], due to heavy duty design
- Large round inlet: Without restriction of the cross section for highest capacities
- Patented blow-through channel: for optimal pocket sweeping with minimal pressure drop, suitable for conveying lines diameters of +/- one nominal size
- Outboard bearings with lifetime seal: Separated from product by purged seal arrangement and drop out opening
- Rotor: 10 blades, open-end, rounded pockets, chamfered blades
- Extraction device: FXS-1 (= rotor can be swiveled aside) with quick disassembling coupling on drive side
- Mating flanges with drilling to match rotary valve for field weld to convey line (does not include the pipe or tube stub), material stainless steel (2 pcs.), includes silicone gaskets (food grade) and bolts for attachment to blow-through channel. (Mating flanges with stub adapters to convey line are optional.)
- Seal purge gas unit (completely mounted): incl. plastic tubing, solenoid valve 24 VDC, 8 W DC, filter regulator, gauge

Technical Data

Standard Mechanical Specifications

- Inlet flange: round, drilled acc. to DIN PN 10 or ANSI 150 lbs
- Material of construction: stainless steel DIN 1.4404 [AISI 316L]
- Shaft sealing: two EPDM lip seals (FDA compliant) with diffuser / labyrinth ring, prepared for seal purge
- Material contact surfaces polished 0.8 Ra [150 grit] to [180 grit]
- CE compliant (standard configuration)

Drive

- Direct drive + parallel shaft gear motor: SEW, TEFC inverter duty rated for a 5:1 turndown. Food grade gear oil.
  US Voltage 230/460 V, 3 Phase, 60 Hz
  EU Voltage 230/400 V, 3 Phase, 50 Hz

Options

Executions

- USDA compliant

Coating

- Chrome
- PTFE

Polish

- For further polishes: consult factory

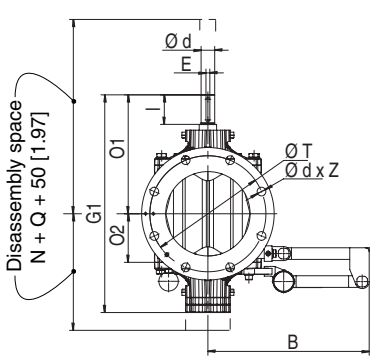
Hazardous Location Options

- Consult factory for NEC or ATEX classifications
- Washdown duty motors
- Protection systems (flameproof for dust ST2) available and consult factory for NFPA type applications or requirements

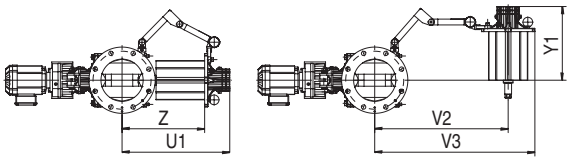
Accessories

- Mating flange with stub adapters to convey line
- Rotation sensor / Speed monitor
- Tool and holder for easy opening of the side plates
- Extraction device FXS-2 (= rotor + drive can be swiveled aside)

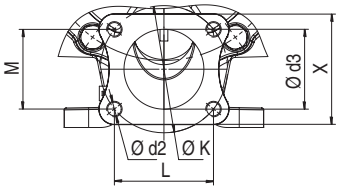
Dimensions of ZXD Hygienic Rotary Valve mm [in]



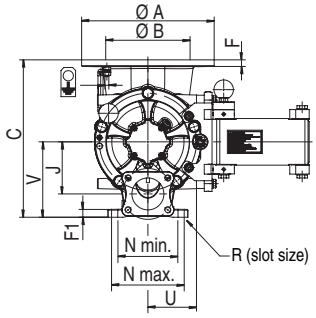
View without motor

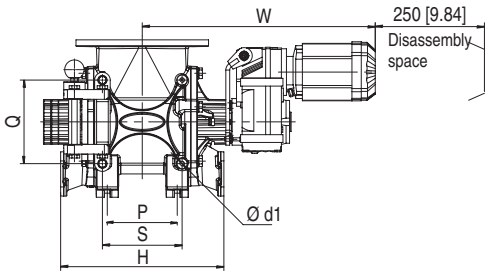


FXS-1 extraction device



Inlet / Outlet Conveying Gas





		DIN		ANSI								
Model	**Displacement dm³/rev. [ft³/rev.]**	**Ø d x Z**	**T ±0.3 [0.012]**	**Ø d x Z**	**T ±0.3 [0.012]**	**ØA**	**ØB**	**C -0.5 [-0.02]**	**F**	**F1**	**H**	**J**
150	3.1 [0.11]	22 [0.87] x 8	240 [9.45]	22.2 [0.87] x 8	241.3 [9.5]	284 [11.18]	168 [6.61]	350 [13.78]	15 [0.59]	20 [0.79]	366 [14.41]	128 [5.04]
200	6.5 [0.23]	22 [0.87] x 8	295 [11.61]	22.2 [0.87] x 8	298.5 [11.75]	341 [13.43]	217 [8.54]	405 [15.94]	17 [0.67]	20 [0.79]	420 [16.54]	134 [5.28]
250	13 [0.46]	22 [0.87] x 12	350 [13.78]	25.4 [1] x 12	362 [14.25]	412 [16.22]	272 [10.71]	445 [17.52]	18 [0.71]	20 [0.79]	504 [19.84]	158 [6.22]
300	26 [0.92]	22 [0.87] x 12	400 [15.75]	25.4 [1] x 12	431.8 [17]	482 [18.98]	322 [12.68]	560 [22.05]	18 [0.71]	25 [0.98]	580 [22.83]	193 [7.6]

Model	**Ø K**	**L ±0.2 [0.008]**	**M ±0.2 [0.008]**	**Ø d2**	**Ø d3**	**N min.**	**N max.**	**P**	**R**	**S 0.3 [0.012]**	**Q 0.3 [0.012]**	**Ø d1**	**G1**	**O1**
150	-	90 [3.54]	65 [2.56]	M16	69.4 [2.73]	112 [4.41]	140 [5.51]	140 [5.51]	7 [0.28]	160 [6.3]	185 [7.28]	M12	499 [19.65]	270.5 [10.65]
200	-	102 [4.02]	82 [3.23]	M16	82.2 [3.24]	154 [6.06]	186 [7.32]	180 [7.09]	7 [0.28]	205 [8.07]	215 [8.46]	M12	560 [22.05]	306 [12.05]
250	-	120 [4.72]	100 [3.94]	M16	107.3 [4.22]	168 [6.61]	220 [8.66]	225 [8.86]	9 [0.35]	270 [10.63]	250 [9.84]	M16	669 [26.34]	367 [14.45]
300	210 [8.27]	-	-	M16	131.5 [5.18]	220 [8.66]	300 [11.81]	275 [10.83]	9 [0.35]	335 [13.19]	300 [11.81]	M16	751 [29.57]	414 [16.30]

Model	**O2**	**V**	**X**	**Ø d h6**	**I**	**E P9**	**U**	**W (max.)****	**B**	**U1**	**V2**	**V3**
150	100 [3.94]	181 [7.13]	98 [3.86]	30 [1.18]	65 [2.56]	8 [0.31]	665 [6.4]	665 [26.18]	350 [13.78]	512.5 [20.18]	580 [22.83]	690.5 [27.19]
200	125 [4.92]	194 [7.64]	114 [4.49]	35 [1.38]	76 [2.99]	10 [0.39]	725 [10.33]	725 [28.54]	415 [16.34]	553 [21.77]	687 [27.05]	824 [32.44]
250	155 [6.10]	230.7 [9.08]	133 [5.24]	40 [1.57]	95.5 [3.76]	12 [0.47]	789.5 [15.75]	789.5 [31.08]	490 [19.29]	668.5 [26.32]	825 [32.48]	989 [38.94]
300	190 [7.48]	287.5 [11.32]	181 [7.13]	40 [1.57]	100 [3.94]	12 [0.47]	912 [25.59]	912 [35.91]	540 [21.26]	781 [30.75]	900 [35.43]	1106 [43.54]

			Weights kg [lb]*		
Model	**Y1**	**Z**	**SS**	**CC**	**AC**
150	327 [12.87]	385.5 [15.18]	68 [150]	64 [141]	44 [97]
200	378 [14.88]	425 [16.73]	103 [227]	100 [220]	67 [148]
250	456 [17.95]	561 [22.09]	160.2 [353]	153.2 [338]	103.2 [228]
300	526 [20.71]	625 [24.61]	251.7 [555]	238.7 [526]	148.7 [328]

NOTES:
* Valve weights shown DO NOT include drive or modifications.
** Dimensions of motor may change. For details refer to order.

Caution: Measurements are for general reference only. Please consult dimensional drawing for exact measurements.