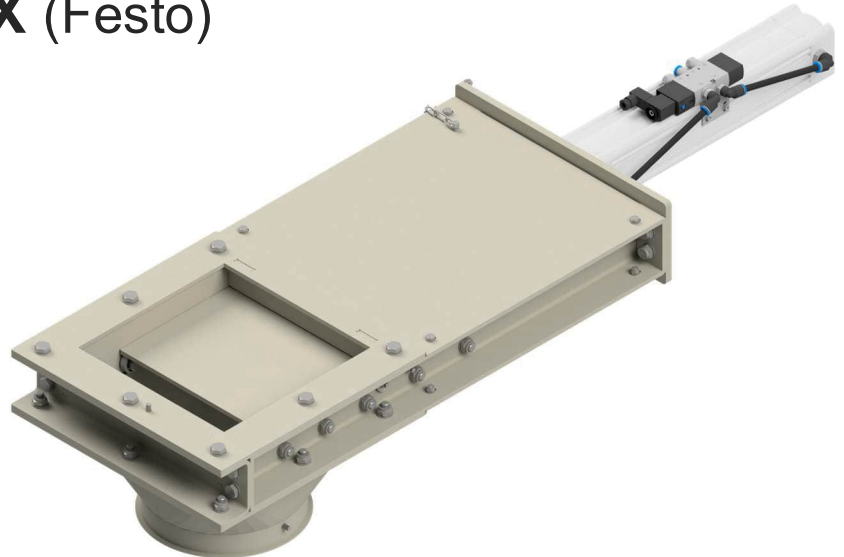


EN- Technical data sheet

Silo outlet gates, pneumatically operated, lifting cylinder, ATEX (Festo)

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Article code

20	2	1	775	/ATEX
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①

②

③

④

①

Diameter

15	DN 150
17	DN 175
20	DN 200
...	
30	DN 300

②

Thickness

2	2.0 mm
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③

Surface

1	1.0330, powder-coated
2	1.0330, hot-dip galvanized
3	1.4301, blasted

④

Article group

775	Silo outlet gates, pneumatic, lifting cylinder
7751	Silo outlet gates, pneumatic, lifting cylinder with transition piece

1 Technical data

Area of application and use	For the discharge of free-flowing, granular and powdery bulk materials from silo containers. Only suitable for pressureless conveying. The actuation time depends on the drive. <i>(see table 1.1 Actuation, pp. 4-5)</i>
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Connection	
Inlet	Customer-side counter flange required according to hole pattern <i>(see inlet flange dimension table, p.7)</i>
Outlet	With transition piece: One side with shaped flanged edge for clamping ring connection Without transition piece: Customer-side counter flange required <i>(see outlet flange dimension table, p.8)</i>

Materials	
Transition piece	According to article number 1.0330 (DC01) or 1.4301 (X5CrNi18-10) in specified material thickness
Case	Made of 1.0038 (S235JR) or 1.4301 (X5CrNi18-10) in thickness t = 5 mm
Gate and connection flanges	Made of 1.0038 (S235JR) or 1.4301 (X5CrNi18-10) in thickness t = 6 mm
Seal	1.0330: Sealing strip made of felt RG36, white 1.4301: Sealing strip made of silicone, 60 ±5 Shore A

Surfaces and temperature			
Surface treatment	Powder Coating (1.0330)	Hot-dip galvanizing (1.0330)	Stainless Steel Shot Blasting (1.4301)
	Standard colour: RAL 7032 ("pebble grey"); smooth, satin-gloss, electrostatically dissipative; Food physiologically harmless; Average layer thickness: 30 - 60 µm	Average layer thickness: 45 - 55 µm	Surface roughness Ra: 1.3 µm
Ambient temperature	-10°C to +60°C		
Product temperature*	-20°C to +80°C	-20°C to +80°C <i>(possible for short periods up to max. +120°C)</i>	-20°C to +100°C

ATEX approval	
Application	Group II, Category 3D Zone 22
Marking	 II 3 D c T 130°C
Equipotential bonding	with welded earthing bolts for on-site grounding

**Note: If product temperatures exceed 50°C, the manual control or drive must be insulated against heat conduction on site.*

1.1 Actuation

Pneumatic lifting cylinder, ATEX		
Diameter	DN 150 – DN 175	DN200
Make	Festo	
Type	DSBC-63-250-PPVA-N3EX4	DSBC-63-300-PPVA-N3EX4
Stroke	250 mm	300 mm
Piston diameter	63 mm	
Compressed air supply	5 bar	
Mode of action	double-acting	
Cushioning	Adjustable on both sides	
Air volume per double stroke	8.76 L	10.5 L
Actuation time (per stroke)	< 3 seconds	
Ambient temperature	-20° to +80°C	
ATEX approval	II 2G Ex h IIC T4 Gb II 2D Ex h IIIC T120°C Db	

Diameter	DN 250	DN 300
Make	Festo	
Type	DSBC-63-320-PPVA-N3EX4	DSBC-63-400-PPVA-N3EX4
Stroke	320 mm	400 mm
Piston diameter	63 mm	
Compressed air supply	5 bar	
Mode of action	double-acting	
Cushioning	Adjustable on both sides	
Air volume per double stroke	11.2 L	14.0 L
Actuation time (per stroke)	< 3 seconds	
Ambient temperature	-20° to +80°C	
ATEX approval	II 2G Ex h IIC T4 Gb II 2D Ex h IIIC T120°C Db	

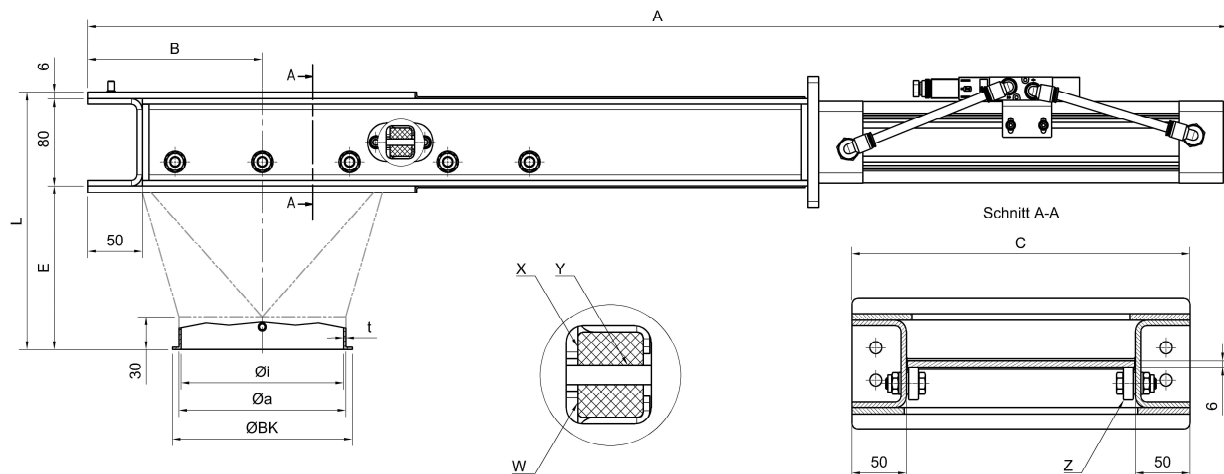
5/2-way solenoid valve, monostable	
Voltage	24V DC
Make	Festo
Type	VUVS-L20-M52-MD-G18-F7-1C1-EX2+GS
Number of spools	1 (monostable)
Flow	700 L/min
Appliance socket	MSSD-EB-M12-24VDC-SD-EX
Degree of protection	IP65
Ambient temperature	-10° to +60°C
ATEX approval	II 3G Ex ec IIC T4 Gc X II 3D Ex tc IIIC T115°C X Dc
Electrical Connection	Cable gland M12x1.5 Cable Diameter: 4–6mm
Pneumatic Connection	Push-in connection for 8 mm hose diameter

Proximity sensor	
Voltage	5 - 30V DC
Make	Festo
Type	CRSMT-8M-PS-24V-K-5,0-OE
Quantity	2 pieces (open / closed)
Output	PNP
Current	max. 100 mA
Degree of protection	IP65
Ambient temperature	-40°C to +85°C
ATEX approval	II 3G Ex ec IIC T4 Gc X II 3D Ex tc IIIC T120°C Dc X
Electrical Connection	Cable 5m, 3 wires with open end

2 Dimensions

Dimensions table Silo outlet gate

pictured version: DN 200



X= Sealing strip made of felt/silicone

Y= Gate

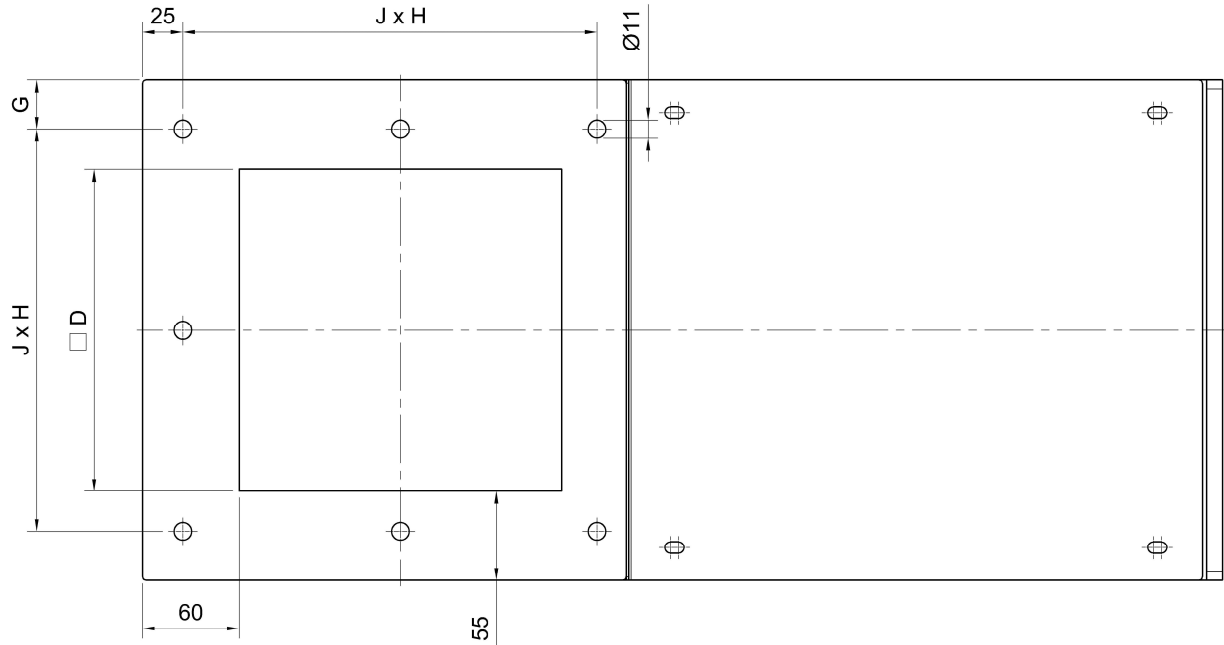
Z= Deep groove ball bearings

DN	t [mm]	Øi [mm]	Øa [mm]	ØBK [mm]	A [mm]	B [mm]	C [mm]	E [mm]	L [mm]	m* [kg]
150	2	149	153	165	1285	160	310	150	236	33,3
175		174	178	190	1285	160	310	150	236	33,1
200		199	203	215	1195	185	360	150	236	40,1
250		249	253	265	1305	210	410	150	236	46,1
300		299	303	315	1475	235	460	150	236	51,1

**Note: Weight indication including transition piece*

Inlet flange dimension table

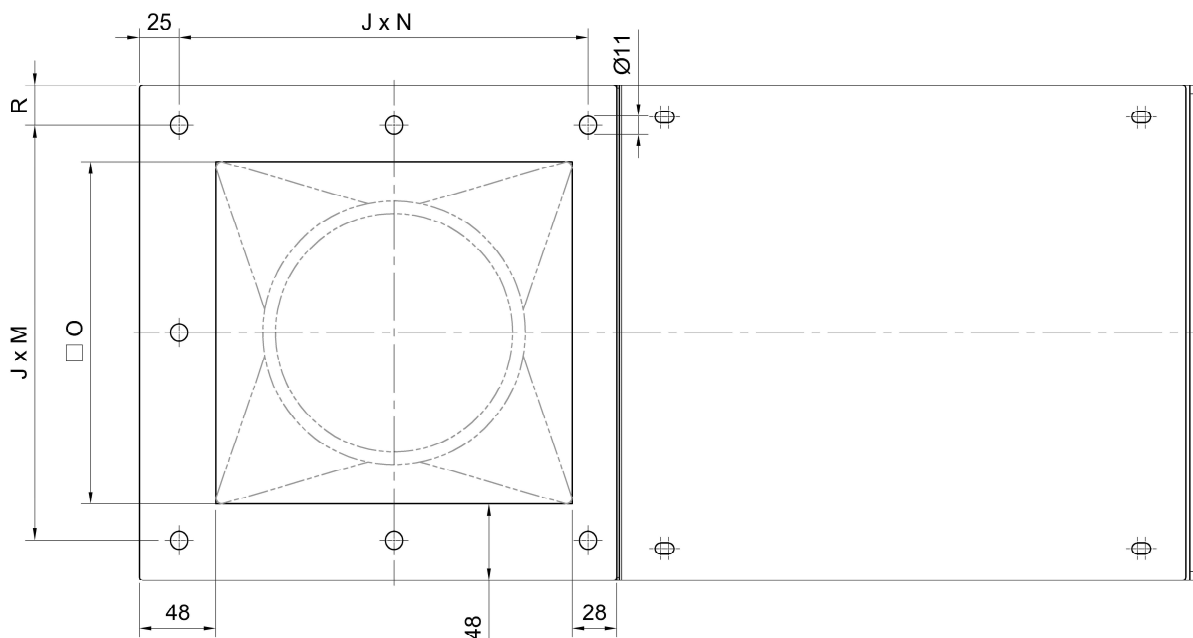
pictured version: DN 200



DN	t [mm]	D [mm]	G [mm]	J x H [mm]
150	6	200	25	2 x 125
175		200		2 x 125
200		250		2 x 150
250		300		3 x 116.6
300		350		4 x 102.5

Outlet flange dimension table

pictured version: DN 200



DN	t [mm]	O [mm]	R [mm]	J x M [mm]	J x N [mm]
150	6	214	25	2 x 130	2 x 115
175		214	25	2 x 130	2 x 115
200		264	25	2 x 155	2 x 140
250		314	20,5	3 x 123	3 x 106.6
300		364	25	4 x 102.5	4 x 102.5

Tolerances

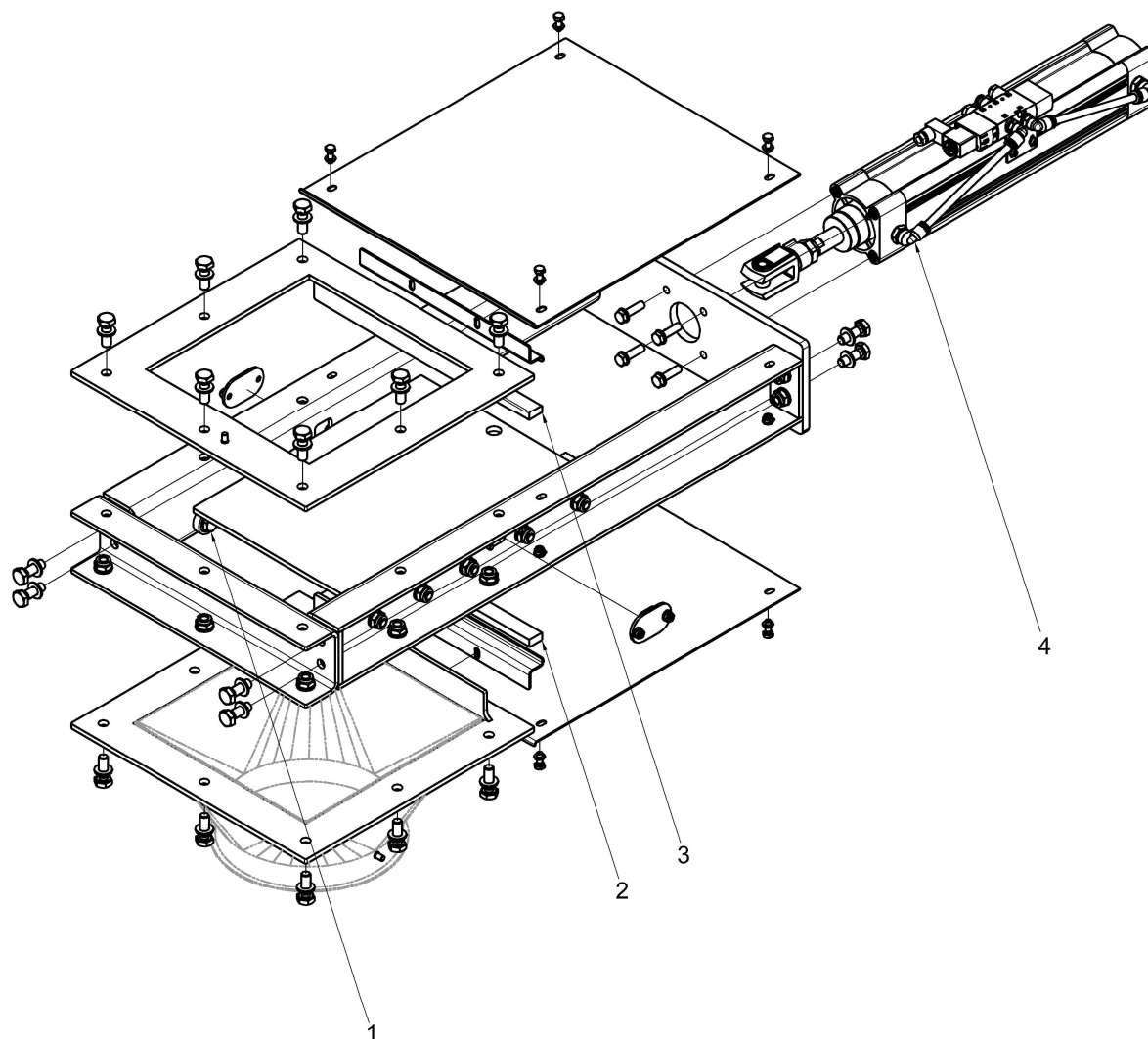
Pipe diameter and roundness according to DIN EN 10296-1:2004
Length and angular dimensions according to DIN ISO 2768-v (very coarse)
Lips: 6 mm ± 1mm

3D-Models

All 3D-models are available for download in our [CAD portal](#) in the common file formats.

3 Spare parts list

Exploded view



No.	Naming	Quantity	DN 150 – DN 300	
			1.0330	1.4301
1	DN 150 - DN 175: Deep groove ball bearings (SS-6200-2RS)	10	SO0131457	
1	DN 200 - DN 300: Deep groove ball bearings (SS-6200-2RS)	12	SO0131457	
2	Sealing strips <i>(made of felt/silicone)</i>	1	SO0111060	SO0131436
3	Sealing strips <i>(made of felt/silicone)</i>	1		SO0131435
4	Lifting cylinder	1	<u>(see table, p.10)</u>	

EN- Technical data sheet
**Silo outlet gate, pneumatically operated,
 lifting cylinder, ATEX (Festo)**



DN	Naming	Article
150	Lifting cylinder, ATEX (<i>DSBC-63-250-PPVA-N3EX4</i>)	On request
175		
200	Lifting cylinder, ATEX (<i>DSBC-63-300-PPVA-N3EX4</i>)	
250	Lifting cylinder, ATEX (<i>DSBC-63-320-PPVA-N3EX4</i>)	
300	Lifting cylinder, ATEX (<i>DSBC-63-400-PPVA-N3EX4</i>)	