

EN- Technical data sheet

Two-way valve with flap seal, 60°, manually operated

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Article code

20	2	1	13520
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①

Diameter

10	DN 100
12	DN 120
15	DN 150
...	
40	DN 400

②

Thickness

2	2.0 mm
3	3.0 mm

③

Surface

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

④

Article group

13520	Two-way valve with flap seal, 60°, manually operated, asymmetrical
13620	Two-way valve with flap seal, 60°, manually operated, symmetrical

1 Technical data

Area of application and use	Dust-tight deflection of dry, non-abrasive bulk materials in conveyor systems. With the flap seal intact, there is no risk of mixing. Flap seal replaceable. Only suitable for pressureless conveying. Adjustment only in the event of interrupted product flow.
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Connection	All sides with flanged edges (<i>lips</i>) for clamping ring connections.
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Materials	
Case	According to article number 1.0330 (DC01) or 1.4301 (X5CrNi18-10) in specified material thickness
Flap	Made of 1.0038 (S235JR) or 1.4301 (X5CrNi18-10) in thickness $t = 3 \text{ mm}$
Flap seal	Flat seal made of silicone, transparent, $60 \pm 5 \text{ Shore A}$
Shaft seal	Silicone profile seal, transparent, $60 \pm 5 \text{ Shore A}$
Shaft sealing ring	Flat sealing ring made of silicone, transparent, $60 \pm 5 \text{ Shore A}$

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: $30 - 60 \mu\text{m}$	Average layer thickness: $45 - 55 \mu\text{m}$	Surface roughness $R_a: 1.3 \mu\text{m}$
Ambient temperature	-20°C to $+120^\circ\text{C}$ (from $+80^\circ\text{C}$ impairment of the appearance is to be expected)	-20°C to $+80^\circ\text{C}$ (possible for short periods up to max. $+120^\circ\text{C}$)	-20°C to $+200^\circ\text{C}$
Product temperature*	-20°C to $+120^\circ\text{C}$ (from $+80^\circ\text{C}$ impairment of the appearance is to be expected)	-20°C to $+80^\circ\text{C}$ (possible for short periods up to max. $+120^\circ\text{C}$)	-20°C to $+200^\circ\text{C}$

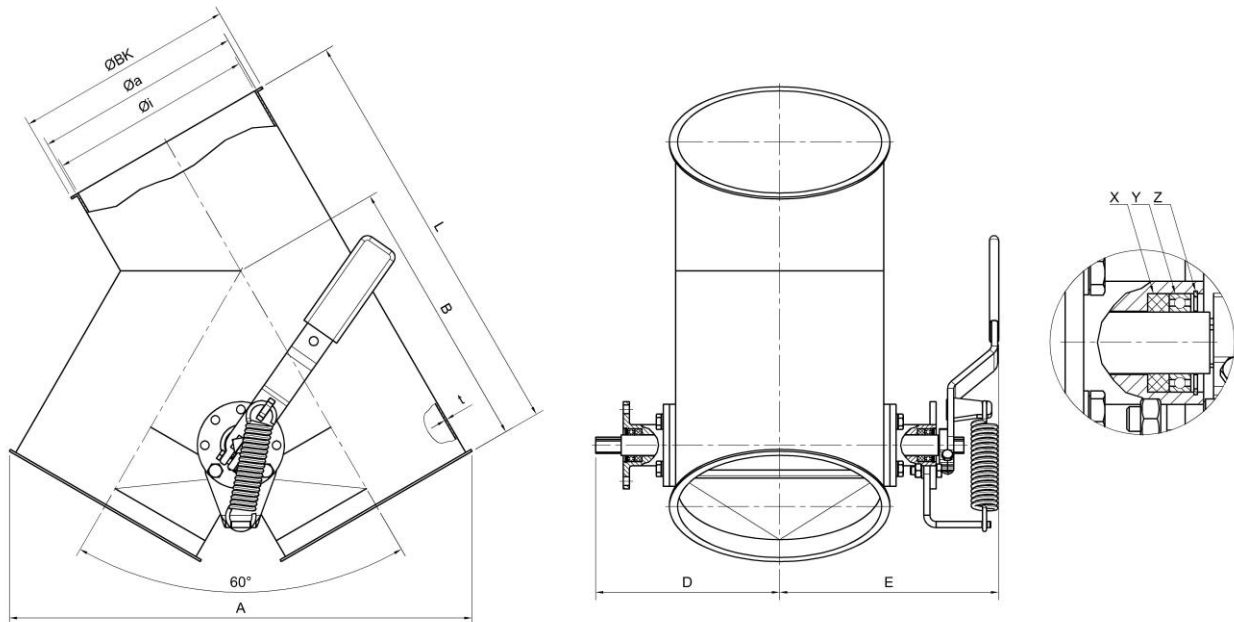
Actuation	Hand lever with spring for manual operation
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**Note: If product temperatures exceed 50°C , the manual control or drive must be insulated against heat conduction on site.*

2 Dimensions

Dimension table: 45°, asymmetrical

pictured version: DN 200



X= Silicone shaft sealing ring
 Y= Deep groove ball bearings
 Z= Retaining ring

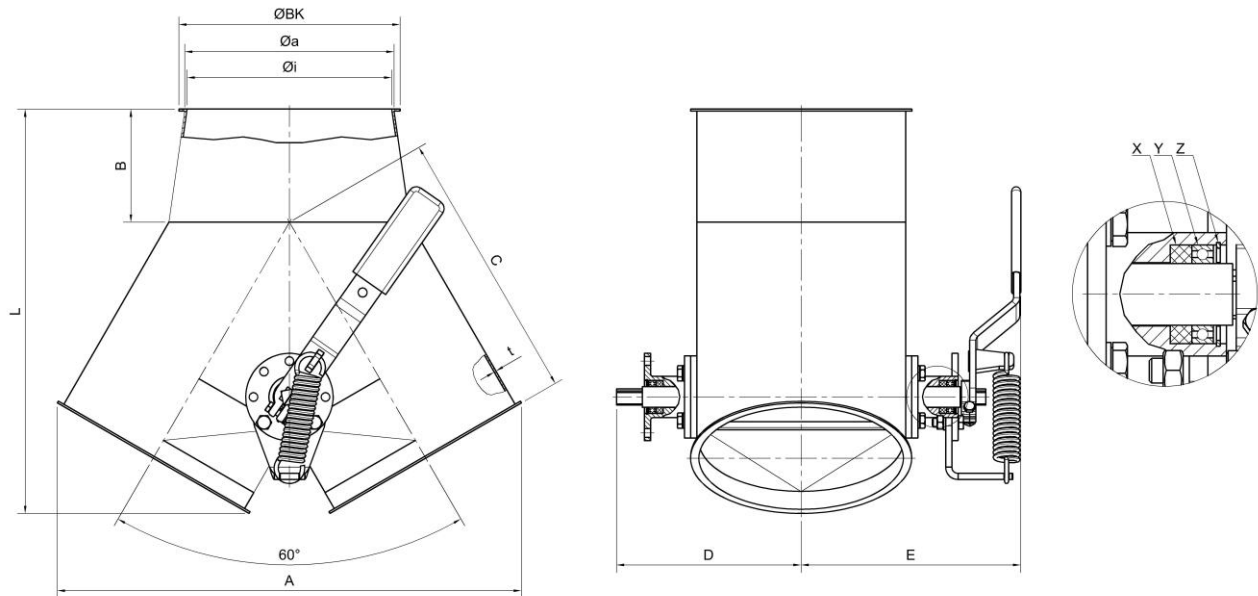
DN	t [mm]	Øi [mm]	Øa [mm]	ØBK [mm]	A [mm]	B [mm]	C [mm]	D [mm]	L [mm]	m [kg]
100	2	99	200	212	236	135	127,5	163,1	200	5,6
120		119	240	252	279	160	137,5	173,1	230	6,3
150		149	300	312	345	200	152,5	188,6	300	8,9
175		174	350	362	384	218	165	201,1	308	9,9
200		199	400	412	453	265	177,5	213,6	410	12,2
250		249	500	512	536	305	202,5	238,6	460	16,4
300		299	600	612	660	385	227,5	263,6	575	21,5
350		349	700	712	751	435	252,5	288,6	670	28,1
400		399	800	812	844	485	277,5	313,6	750	34

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**Two-way valve with flap seal,
 60°, manually operated**

NORO
 SOLIDLY CONNECTED

Dimension table: 45°, symmetrical

pictured version: DN 200



X= Silicone shaft sealing ring
 Y= Deep groove ball bearings
 Z= Retaining ring

DN	t [mm]	Øi [mm]	Øa [mm]	ØBK [mm]	A [mm]	B [mm]	C [mm]	C [mm]	D [mm]	L [mm]	m [kg]
100	2	99	200	212	236	50	135	127,5	163,1	196	5,5
120		119	240	252	279	50	160	137,5	173,1	223	6,2
150		149	300	312	345	80	200	152,5	188,6	294	8,8
175		174	350	362	384	63	218	165	201,1	300	9,7
200		199	400	412	453	110	265	177,5	213,6	393	11,9
250		249	500	512	536	115	305	202,5	238,6	445	16
300		299	600	612	660	145	385	227,5	263,6	557	21
350		349	700	712	837	105	435	252,5	288,6	647	26
400		399	800	812	941	105	485	277,5	313,6	711	31

Tolerances

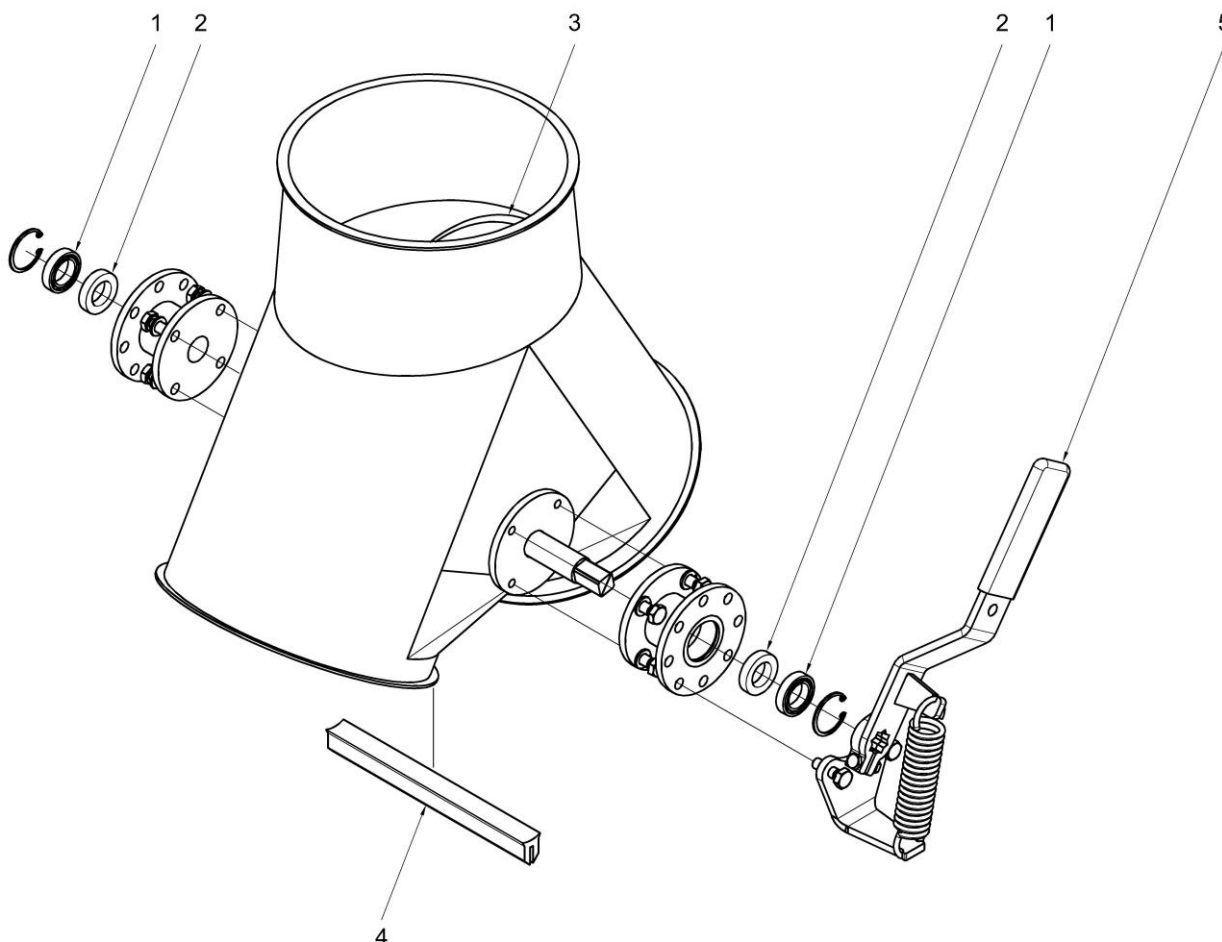
Pipe diameter and roundness according to DIN EN 10296-1:2004
 Length and angular dimensions according to DIN ISO 2768-v (very coarse)
 Lips: 6 mm ± 1 mm

3D-Models

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

3 Spare parts list

Exploded view



N0.	Naming	Quantity	DN 100 – DN 400	
			1.0330	1.4301
1	Deep groove ball bearings <i>(for shaft diameter 20 mm)</i>	2	SO0128616	SO0118470
2	Shaft sealing ring <i>(for shaft diameter 20 mm)</i>	2	SO0118471	
3	Flap seal		<i>(see table, p. 6)</i>	
4	Shaft seal	1	SO0107217	
5	DN 80 – DN 120: Manual operation	1	SO0118697	
5	DN 150 – DN 400: Manual operation	1	SO0117147	

Flap seal (Item No.: 3)		
DN	Quantity	Article
100	1	SO0121224
120		SO0130289
150		SO0130290
175		SO0130291
200		SO0129784
250		SO0127348
300		SO0129516
350		SO0130298
400		SO0125185