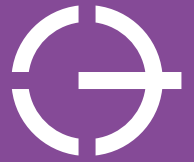


A.R.I. D-26



Wastewater

Combination Air Valve for Wastewater

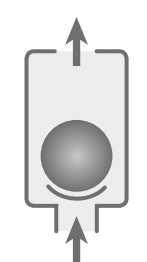
Description

A.R.I. D-26 is a full-bore, Combination Air Valve installed on a wastewater transmission systems. The Air Valve is designed to improve hydraulic operation by protecting the pipeline, increasing pipeline efficiency, and reducing energy requirements. The unique body shape of the valve, enables a continuous air gap that separates the wastewater from the sealing mechanism and helps to avoid deposits or blockage.

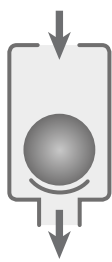
Installation

- Wastewater & water treatment plants
- Wastewater and effluent water transmission lines

Operation



Air Discharge



Air Intake



Automatic
Air Release



One Way Out



One Way In



Non Slam

Features and Benefits

Conical body shape & unique design	maximum air gap / minimum body length
Continuous air gap	separates the liquid from the sealing mechanism
Float assembly and sealing mechanism linkage	free movement, turbulence will not unseal the sealing mechanism
Funnel-shaped lower body	residue matter falls back into the system pipeline
All parts are suitable for corrosive liquid and environment	non-corrosive and durable
Spray Guard®	flow enhancer, prevents spraying from valve outlet
Drainage tap	releases pressure and drains valve prior to maintenance
Flow cross-sections equal or greater than port area	maximum flow
 ATEX certified air valves	certification is conditional on the customer connecting the designated part on the product to a dedicated ground connection point.

Technical Specifications

Size Range	2" - 8"			
Sealing pressure range	2"	0.02 -10 bar (PN 10)	0.1-16 bar (PN 16)	
	3"	0.02 -10 bar (PN 10)	0.1-16 bar (PN 16)	0.2 -25 bar (PN 25)
	4" - 8"		0.1-16 bar (PN 16)	
	Testing pressure: 1.5 times maximum working pressure			
Temperature	Maximum working temperature: 60° C Maximum intermittent temperature: 90° C			
Valve coating	Fusion bonded epoxy coating in compliance with standard DIN 30677-2 (applied on Cast Steel and Cast Ductile Iron valves)			
Upon ordering, please specify: model, size, working pressure, thread / flange standard and type of liquid				

Valve Selection Options

Valve Connection	Threaded BSP/NPT or flanged ends to meet various requested standards
Optional Covers (for air discharge direction and for add-on components)	2" models - two-directional cover is standard 3" models - optional one directional or two-directional covers 4" models - one-directional elbow for horizontal discharge can be removed to allow for vertical discharge 6"-8" models - vertical or horizontal discharge outlets
Optional Add-on Components (2", 3", 4" sizes only)	One-way, Out-only attachment - allows for air discharge only, prevents air intake. Vacuum Breaker, In-only attachment - allows for air intake only, prevents air discharge. Non-Slam discharge-throttling attachment, allows for free air intake, throttles air discharge.
Additional Product Configurations	Model D-26 NS with a built-in Non-slam Disc (6" & 8" sizes only) SB Underground Air Valve System

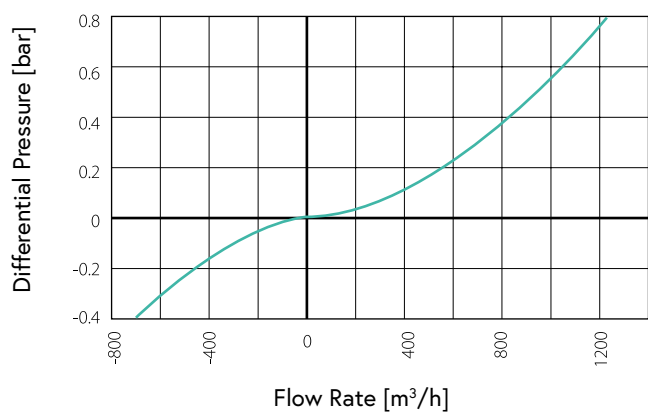
Non-Slam Add-on Component Data Table for Variable Orifices

Size	Number of orifices	Discharge orifice (mm)	Total NS area (mm ²)	NS orifice (mm)	Switching point (bar)	Flow at 0,4 bar (m ³ /h)
2" (50mm)	1 orifice	50	15.9	4.5	Spring loaded normally closed	23
	2 orifices	50	31.8	6.4		32
	3 orifices	50	47.7	7.8		40
3" (80mm)	1 orifice	75	50.3	8	Spring loaded normally closed	65
	2 orifices	75	100.5	11.3		88
	3 orifices	75	150.8	13.9		106
4" (100mm)	1 orifice	100	78.5	10	Spring loaded normally closed	150
	2 orifices	100	157	14.1		190
	3 orifices	100	235.5	17.3		233
6" (150mm)	1 orifice with graduated closure	150	706.9	30	0.025	1580
8" (200mm)		200	1641.3	45.7	0.025	1890

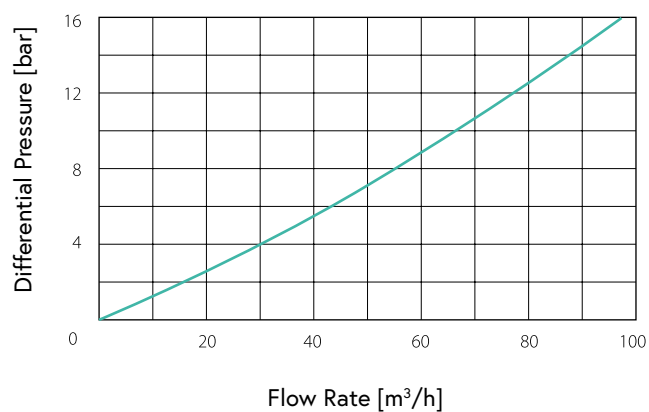
Flow Charts

D-26 2"

Air & Vacuum Flow Rate

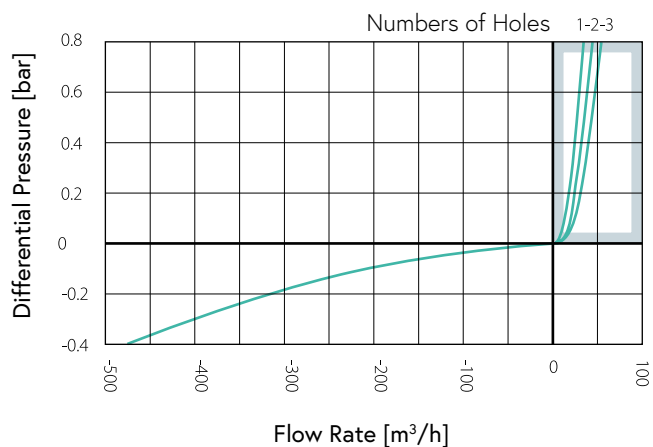


Automatic Air Release Flow Rate

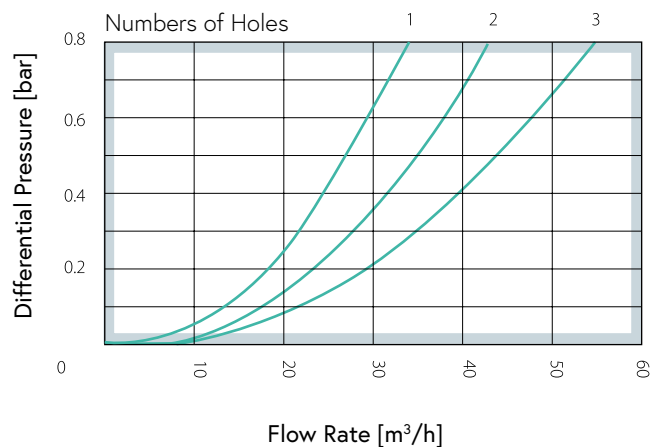


D-26 NS 2"

Adjustable NS Check Valve



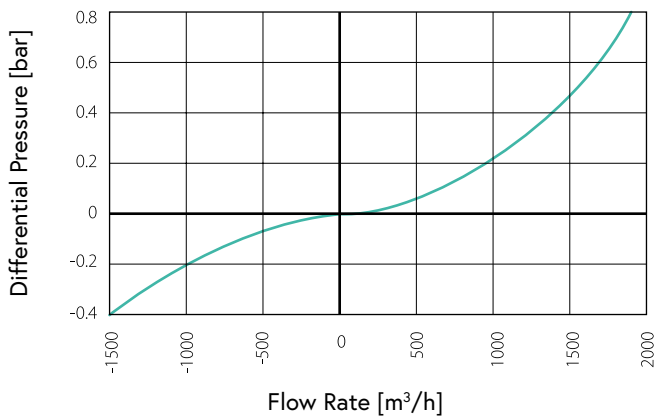
Adjustable NS Check Valve



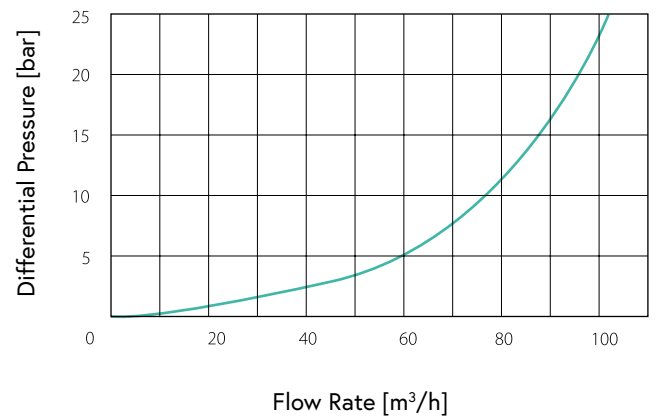
Flow Charts

D-26 3"

Air & Vacuum Flow Rate

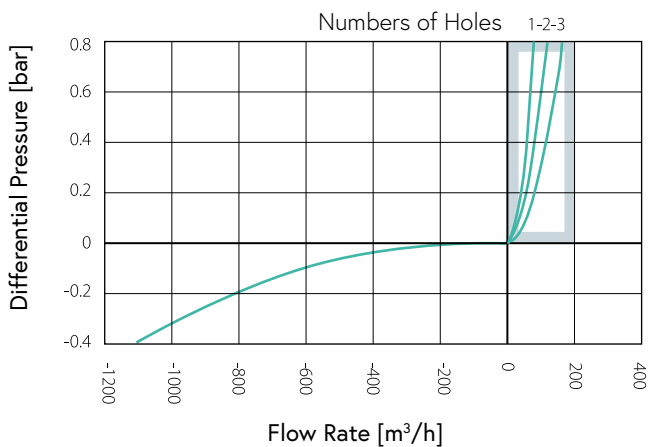


Automatic Air Release Flow Rate

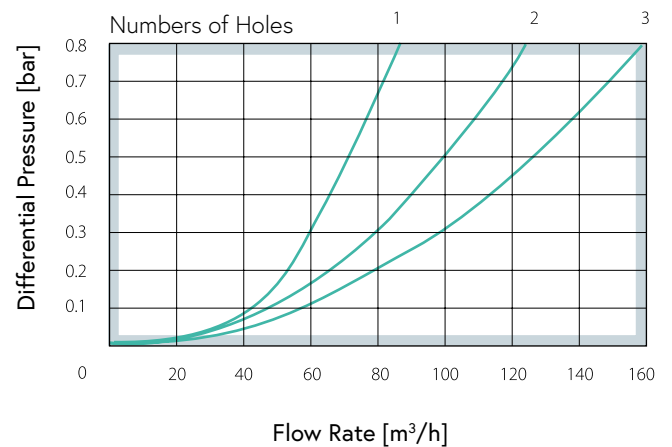


D-26 NS 3"

Adjustable NS Check Valve



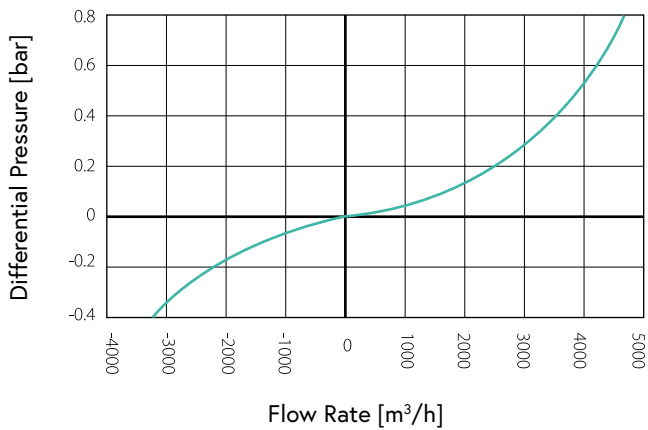
Adjustable NS Check Valve



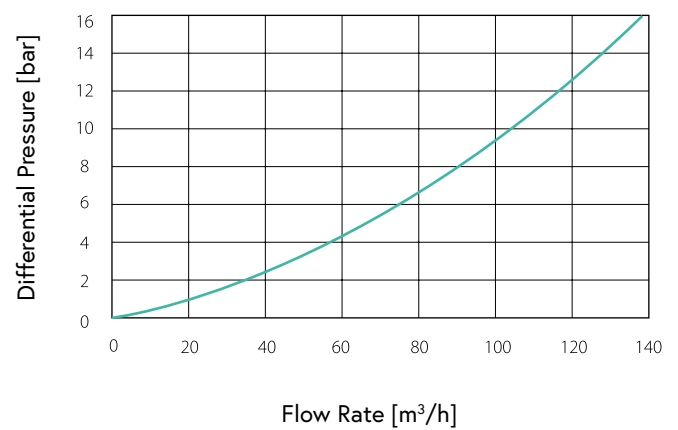
Flow Charts

D-26 4"

Air & Vacuum Flow Rate

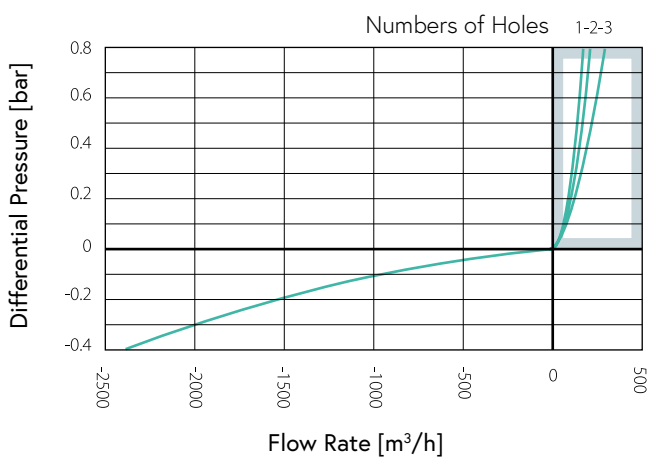


Automatic Air Release Flow Rate

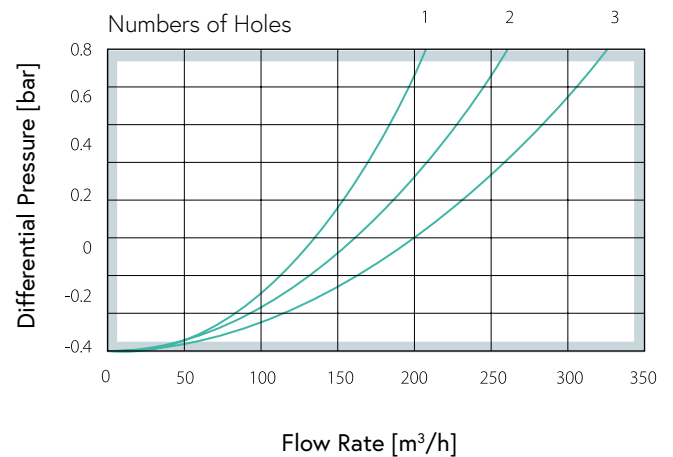


D-26 NS 4"

Adjustable NS Check Valve



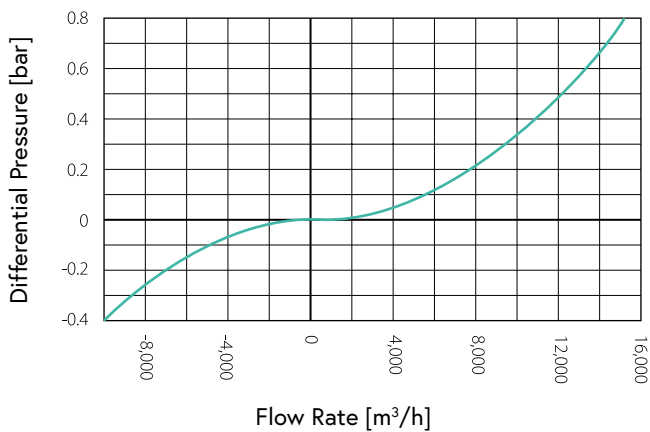
Adjustable NS Check Valve



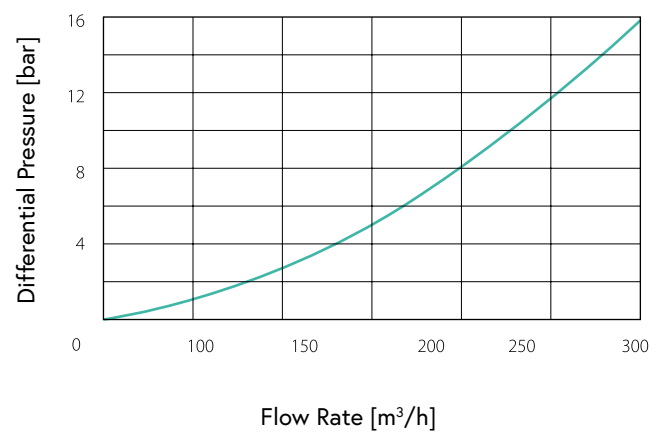
Flow Charts

D-26 6"

Air & Vacuum Flow Rate

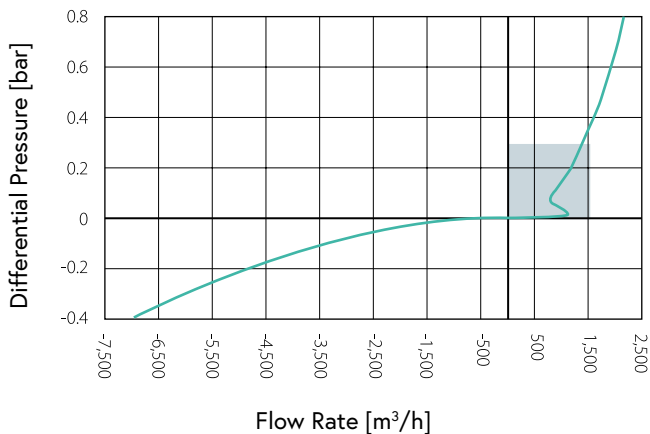


Automatic Air Release Flow Rate

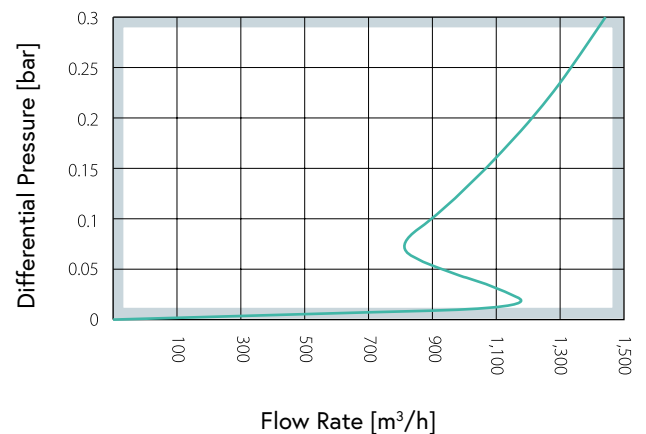


D-26 NS 6"

Air & Vacuum Flow Rate



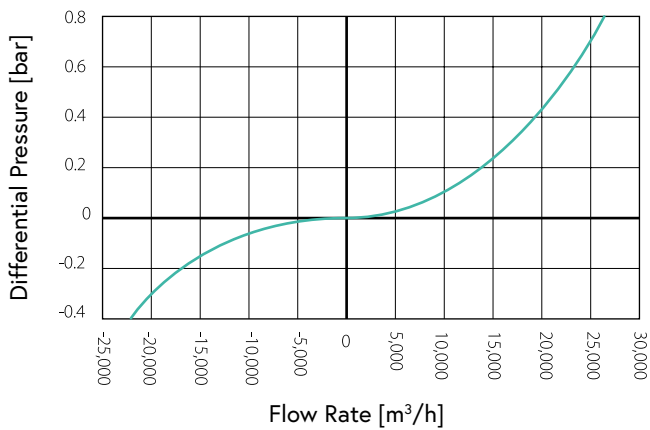
Air Discharge Switching Region



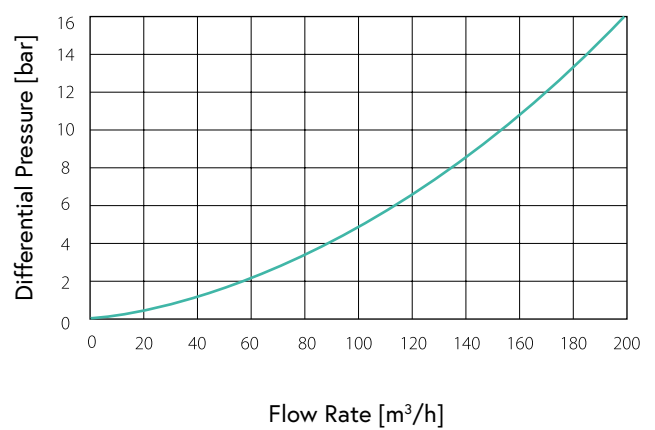
Flow Charts

D-26 8"

Air & Vacuum Flow Rate

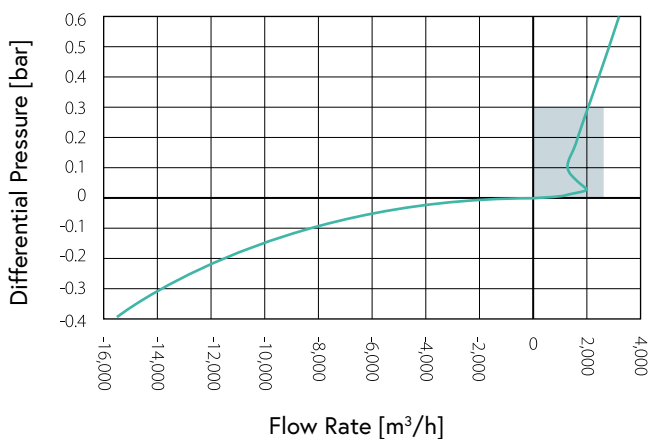


Automatic Air Release Flow Rate

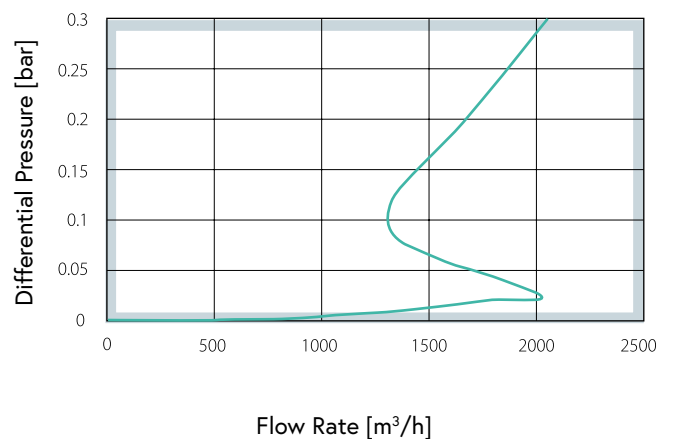


D-26 NS 8"

Air & Vacuum Flow Rate



Air Discharge Switching Region





FL - Flanged
 THR - Threaded
 RN - Reinforced Nylon
 DI - Ductile Iron

Dimensions and Weight

Model	Dimensions (mm)		Connections	Weight (kg)		Orifice Area (mm ²)	
	A	B		RN	ST ST	A / V	Auto.
D-26 2" (50 mm) THR	258	547	2" BSP / NPSM Female	8.1	13.2	1963	8.6
D-26 2" (50 mm) FL	258	554	2" BSP / NPSM Female	8.5	16.1	1963	8.6
D-26 NS 2" (50 mm) THR	330	547	2" BSP / NPSM Male	8.3	13.6	1963	8.6
D-26 NS 2" (50 mm) FL	330	554	2" BSP / NPSM Male	8.7	16.5	1963	8.6
One-directional cover				Cast Steel	ST ST		
D-26 3" (80 mm) THR	526	580	3" BSP / NPSM Female	21.0	21.6	5024	15.7
D-26 3" (80 mm) FL	526	580	3" BSP / NPSM Female	21.6	24.6	5024	15.7
D-26 NS 3" (80 mm) THR	548	580	3" BSP / NPSM Male	21.8	22.5	5024	15.7
D-26 NS 3" (80 mm) FL	548	580	3" BSP / NPSM Male	24.7	25.5	5024	15.7
Two-directional cover				Cast Steel	ST ST		
D-26 3" (80 mm) THR	495	620	3" BSP / NPSM Female	21.8	22.5	5024	15.7
D-26 3" (80 mm) FL	495	620	3" BSP / NPSM Female	24.2	25.0	5024	15.7
D-26 NS 3" (80 mm) THR	605	620	3" BSP / NPSM Male	22.7	23.4	5024	15.7
D-26 NS 3" (80 mm) FL	605	620	3" BSP / NPSM Male	24.7	25.4	5024	15.7
Two-directional cover (RN)				RN			
D-26 3" (80 mm) THR	350	613	3" BSP / NPSM Female	14.6	-	5024	15.7
D-26 3" (80 mm) FL	350	625	3" BSP / NPSM Female	15.4	-	5024	15.7
D-26 NS 3" (80 mm) THR	436	613	3" BSP / NPSM Male	15.4	-	5024	15.7
D-26 NS 3" (80 mm) FL	436	625	3" BSP / NPSM Male	16.1	-	5024	15.7
				DI	ST ST		
D-26 4" (100 mm) FL	420	830	4" Flanged BSP / NPSM F	43.6	45	7854	31.14
D-26 NS 4" (100 mm) FL	607	849	4" Flanged BSP / NPSM F	48.5	50	7854	31.14
Vertical Cover				DI	ST ST		
D-26 6" (150 mm) FL	497	827	6" Flanged / Grooved	93.4	97.5	17671	31.14
D-26 8" (200 mm) FL	617	1081	8" Flanged / Grooved	148.8	156.5	31400	31.14
Horizontal Cover				DI	ST ST		
D-26 6" (150 mm) FL	532	942	6" Flanged / Grooved	99.9	105.7	17671	31.14
D-26 8" (200 mm) FL	646	1242	8" Flanged / Grooved	158.4	163.9	31400	31.14

NOTE

The cover assembly with the discharge elbow can be set in four directions.
 Dimension A in the picture and in the table shows the maximum product width.
 This width can be reduced by changing the direction.

All product weights and dimensions are approximate, due to the differences in flange standards, materials and variable accessories

Parts List and Specifications

Part	Material
1. Cover Assembly	
1a. Orifice Plug	Polypropylene
1b. Cover	Stainless Steel 316
1c. Bolt Assembly	Stainless Steel 316 + Reinforced Nylon
1d. Non-Slam Component (optional)	Reinforced Nylon / Polypropylene + Stainless Steel
2. Seal Assembly	
2a. Disc Arm	Cast Stainless Steel
2b. Air & Vacuum Disc	Cast Stainless Steel / Reinforced Nylon
2c. Air & Vacuum Seal	EPDM
2d. Air Release Seal & Seat	EPDM & Reinforced Nylon
2e. Seal Cover	Reinforced Nylon
3. Body Assembly	
3a. O-Ring	BUNA-N
3b. Spray Guard®	Polypropylene
3c. Body	Reinforced Nylon
4. Float Assembly	
4a. Domed Nut	Stainless Steel 316
4b. Stopper	Polypropylene
4c. Spring	Stainless Steel 316
4d. Float & Rod	Polypropylene + Stainless Steel 316
5. Base Assembly	
5a. O-Ring	BUNA-N
5b. Clamp Assembly	Cast Stainless Steel + Stainless Steel 316
5c. Base	Reinforced Nylon
5d. Tap	Brass / Stainless Steel



One-directional cover Models

Parts List and Specification

Part	Material
1. Cover Assembly	
1a. Orifice Plug	Polypropylene
1b. Cover	Ductile Iron
1c. Bolt Assembly	Stainless Steel 316 + Reinforced Nylon
1d. Orifice Seat	Stainless Steel 316
1e. Non-Slam Component (optional)	Reinforced Nylon / Polypropylene + Stainless Steel
2. Seal Assembly	
2a. Disc Arm	Cast Stainless Steel
2b. Air & Vacuum Disc	Cast Stainless Steel / Reinforced Nylon
2c. Air & Vacuum Seal	EPDM
2d. Air Release Seal & Seat	EPDM & Reinforced Nylon
2e. Seal Cover	Reinforced Nylon
3. Float Assembly	
3a. Domed Nut	Stainless Steel 316
3b. Stopper	Polypropylene
3c. Spring	Stainless Steel 316
3d. Float & Rod	Polypropylene + Stainless Steel 316
4. Body Assembly	
4a. Spray Guard®	Polypropylene
4b. O-Ring	Polypropylene
4c. Body	Cast Steel / Stainless Steel 316
4d. Ball Valve	Brass, Chrome Coated / Stainless Steel 316



Two-directional cover Models

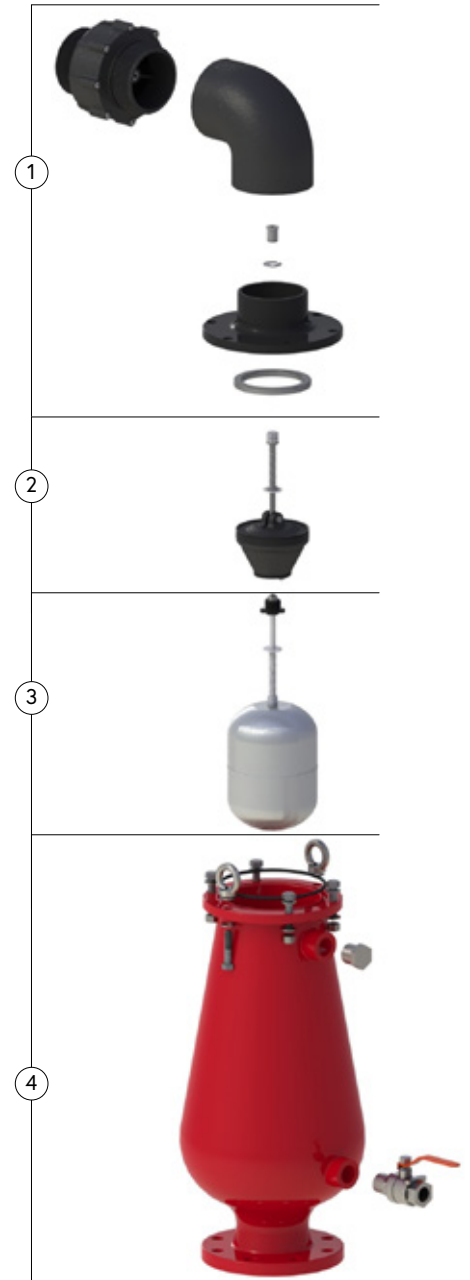
Parts List and Specification

Part	Material
1. Cover Assembly	
1a. Orifice Plug	Polypropylene
1b. Cover	Stainless Steel 316
1c. Bolt Assembly	Stainless Steel 316 + Reinforced Nylon
1d. Non-Slam Component (optional)	Reinforced Nylon / Polypropylene + Stainless Steel
2. Seal Assembly	
2a. Disc Arm	Cast Stainless Steel
2b. Air & Vacuum Disc	Cast Stainless Steel / Reinforced Nylon
2c. Air & Vacuum Seal	EPDM
2d. Air Release Seal & Seat	EPDM & Reinforced Nylon
2e. Seal Cover	Reinforced Nylon
3. Float Assembly	
3a. Domed Nut	Stainless Steel 316
3b. Stopper	Polypropylene
3c. Spring	Stainless Steel 316
3d. Float & Rod	Polypropylene + Stainless Steel 316
4. Body Assembly	
4a. Spray Guard®	Polypropylene
4b. O-Ring	BUNA-N
4c. Body	Cast Steel / Stainless Steel 316
4d. Ball Valve	Brass, Chrome Coated / Stainless Steel 316



Parts List and Specification

Part	Material
1. Cover Assembly	
1a. Non-Slam Component (optional)	Reinforced Nylon / Polypropylene + Stainless Steel
1b. Discharge Elbow	PVC
1c. Cover	Ductile Iron / Stainless Steel 316
1d. Orifice Seat	Stainless Steel 316
2. Seal Assembly	
2a. Guide Rod Assembly	Stainless Steel 316 + Acetal
2b. Air & Vacuum Disc	Reinforced Nylon / Reinforced Polypropylene
2c. Air & Vacuum Seal	EPDM
2d. Air Release Seal & Seat	EPDM & Reinforced Nylon
2e. Seal Cover	Reinforced Nylon
2f. Flow Enhancer	ABS
3. Float Assembly	
3a. Domed Nut	Stainless Steel 316
3b. Stopper	Polypropylene
3c. Spring	Stainless Steel 316
3d. Float & Rod	Stainless Steel 316
4. Body Assembly	
4a. O-Ring	BUNA-N
4b. Body	Ductile Iron / Stainless Steel 316
4c. Plug	Stainless Steel 316
4d. Ball Valve	Brass, Chrome Coated / Stainless Steel 316



Parts List and Specification

No.	Parts	Material
1	Discharge Assembly	
1a	Flange seal (optional)	NBR
1b	Grooved flange (optional)	Ductile Iron / Stainless Steel 316
1c	"Horizontal discharge / Vertical discharge"	Ductile Iron / Stainless Steel 316
2	Non-slam Disc - Optional	Ductile Iron / Stainless Steel 316
3	Cover Assembly	
3a	O-Ring	EPDM
3b	Cover	Ductile Iron / Stainless Steel 316
3c	Orifice Seat	Stainless Steel 316
4	Seal Assembly	
4a	Guide Rod Assembly	Stainless Steel 316 + Acetal
4b	Air & Vacuum Disc	Reinforced Nylon / Reinforced Polypropylene
4c	Air & Vacuum Seal	EPDM
4d	Air Release Seal & Seat	EPDM & Reinforced Nylon
4e	Seal Cover	Reinforced Nylon
5	Float Assembly	Stainless Steel 316
5a	Domed Nut	Stainless Steel 316
5b	Stopper	Stainless Steel 316
5c	Spring	Stainless Steel 316
5d	Float & Rod	Stainless Steel 316
6	Body Assembly	
6a	O-ring	NBR
6b	Body	Ductile Iron / Stainless Steel 316
6c	Plug	Stainless Steel 316
6d	Ball Valve	Brass, Chrome Coated / Stainless Steel 316

