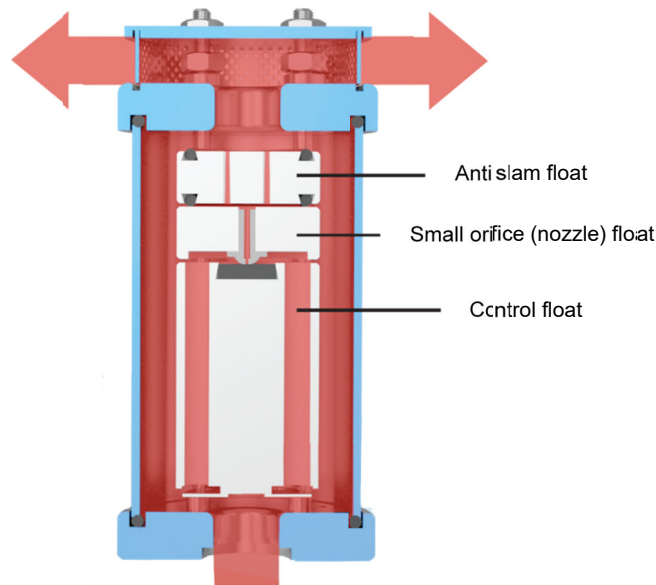


### ► Simple, Reliable and Accurate

#### 1 HIGH VOLUME AIR DISCHARGE

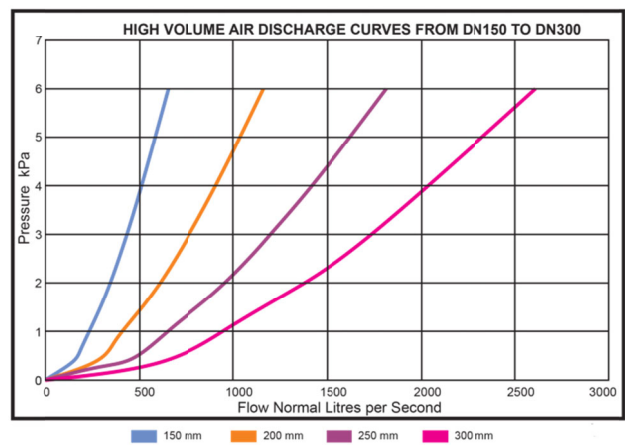
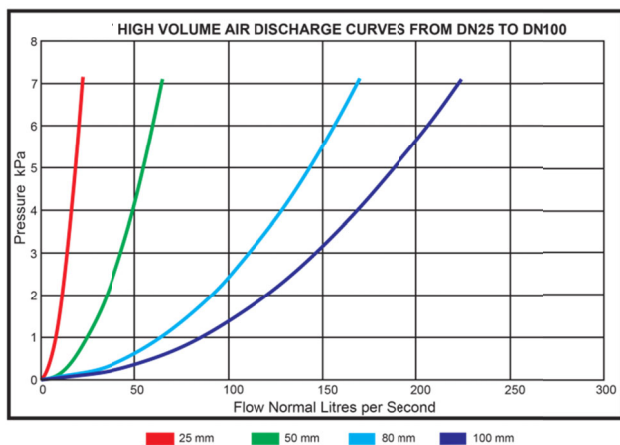
During filling of the pipeline, air passes through the air valve at the same flow rate as water in the pipeline, the floats remain in the open position allowing air to pass freely through the valve. When water enters the valve the floats are buoyed and the valve closes.



#### 1.1 HIGH VOLUME AIR DISCHARGE CAPACITY

Note:

1 kPa = 0.01 bar  $\approx$  0.1 mHd

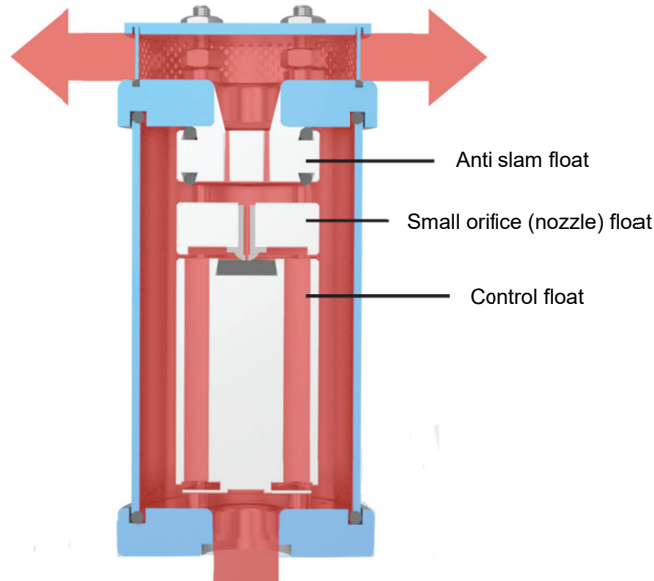


### 2 ANTI SLAM AIR DISCHARGE

During rapid filling, pump trip, rapid valve closure and other surge events. The valve will switch into anti slam mode. Switching from the larger orifice to a smaller anti slam orifice.

The smaller orifice will restrict the rate at which air can escape the pipeline and as a result slow the flowrate of water through the pipeline.

Air passes around the lower float and small orifice float through the anti slam orifice to atmosphere.

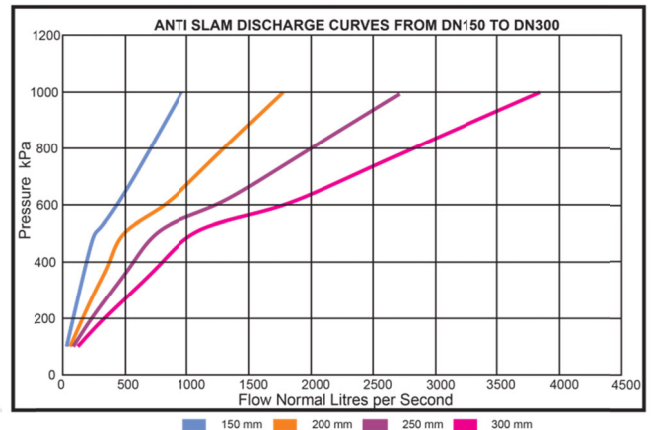
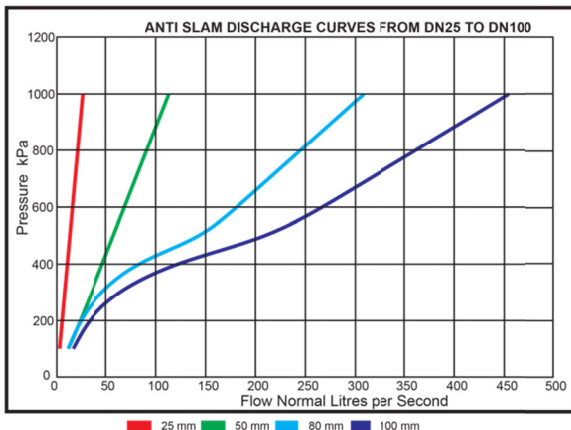


#### 2.1 ANTI SLAM AIR DISCHARGE CAPACITY

Anti Slam Switching Points & Input Data for Surge Programs						
Size (Rp or DN) [mm]	25	50	80	100	150	200
Anti shock orifice size [Ø (mm)]	4	9	14	17	25	34
Inlet size [Ø (mm)]	25	50	80	100	150	200
Outlet size [Ø (mm)]	25	50	80	100	150	200
Switching pressure max. [mHd]	0.7	0.7	0.7	0.7	0.6	0.6
Switching velocity [m/s]	45	33	34	34	37	37
Switching flow [l/s]	22	65	169	265	653	1160

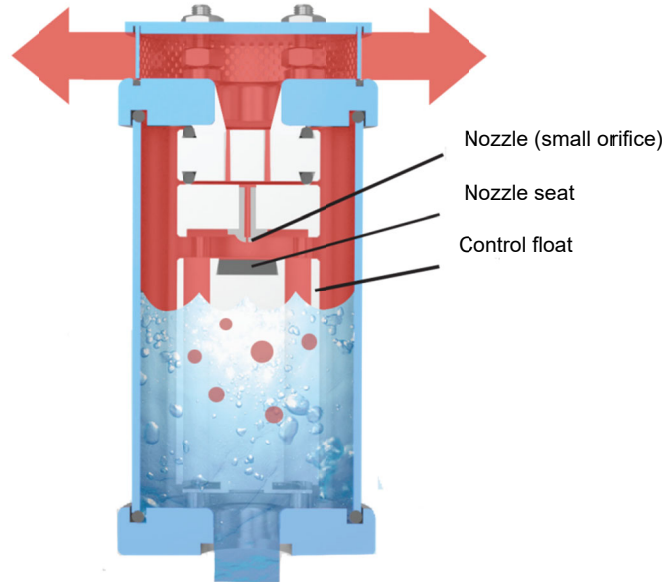
Note :

1 kPa = 0.01 bar  $\cong$  0.1 mHd



### 3 PRESSURISED AIR RELEASE

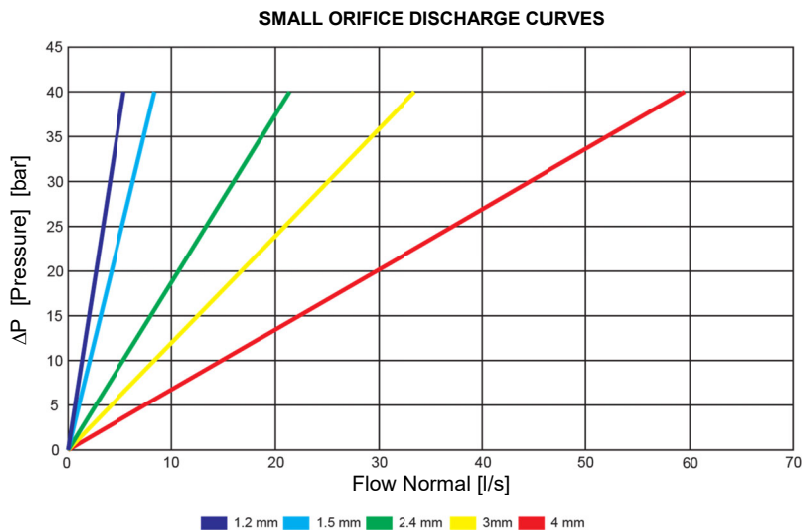
During normal operation, while the pipeline is fully charged, disentrained air will accumulate at many air valve locations. When the quantity of air is sufficient to displace the control float, the float will drop away from the small orifice (nozzle) and release the accumulated air. The control float will then buoy back into place and seal off the small orifice.



#### 3.1 SMALL ORIFICE AIR DISCHARGE CAPACITY AND SIZES

Note :

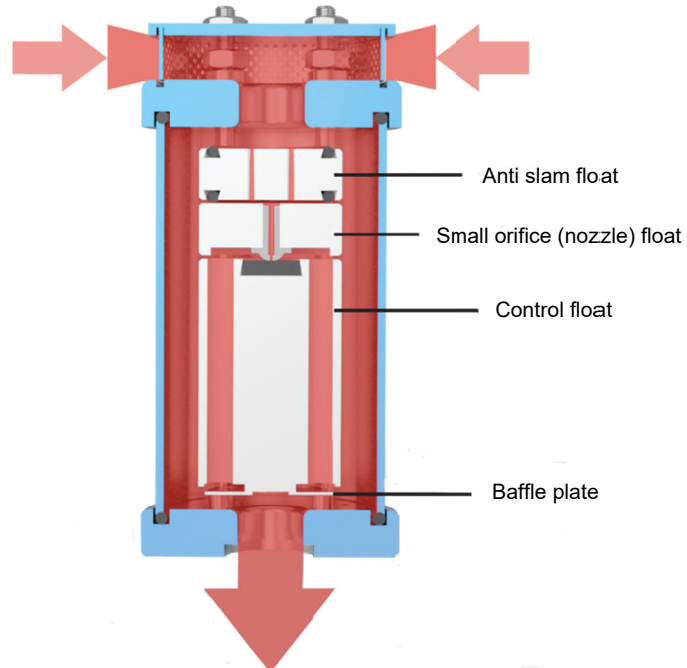
1 kPa = 0.01 bar  $\cong$  0.1 mHd



Small Orifice Sizes	
Valve Size [mm]	Small orifice size [∅ (mm)]
25	1.2
50	1.2
80	1.5
100	1.5
150	2.4
200	2.4

### 4 VACUUM BREAK

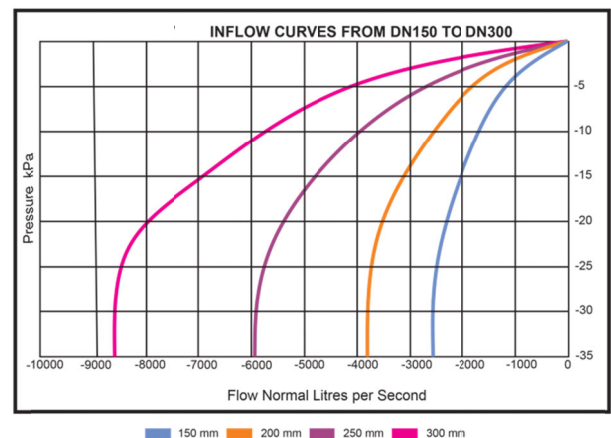
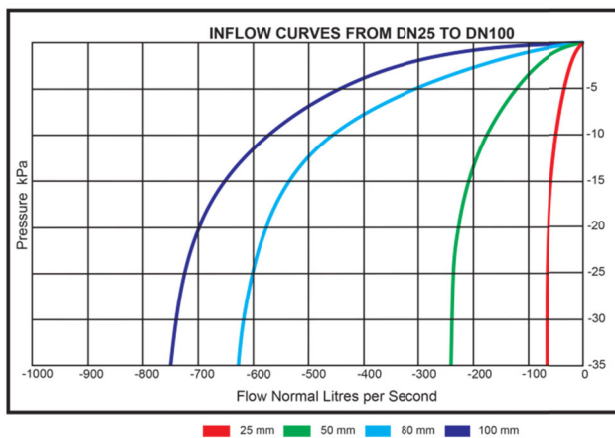
During the draining, pump stoppage or pump trip, the floats will gravitate towards the baffle plate. Air will travel through the large orifice, past the floats and through the intake orifice into the pipeline.



#### 4.1 VACUUM BREAK CAPACITY

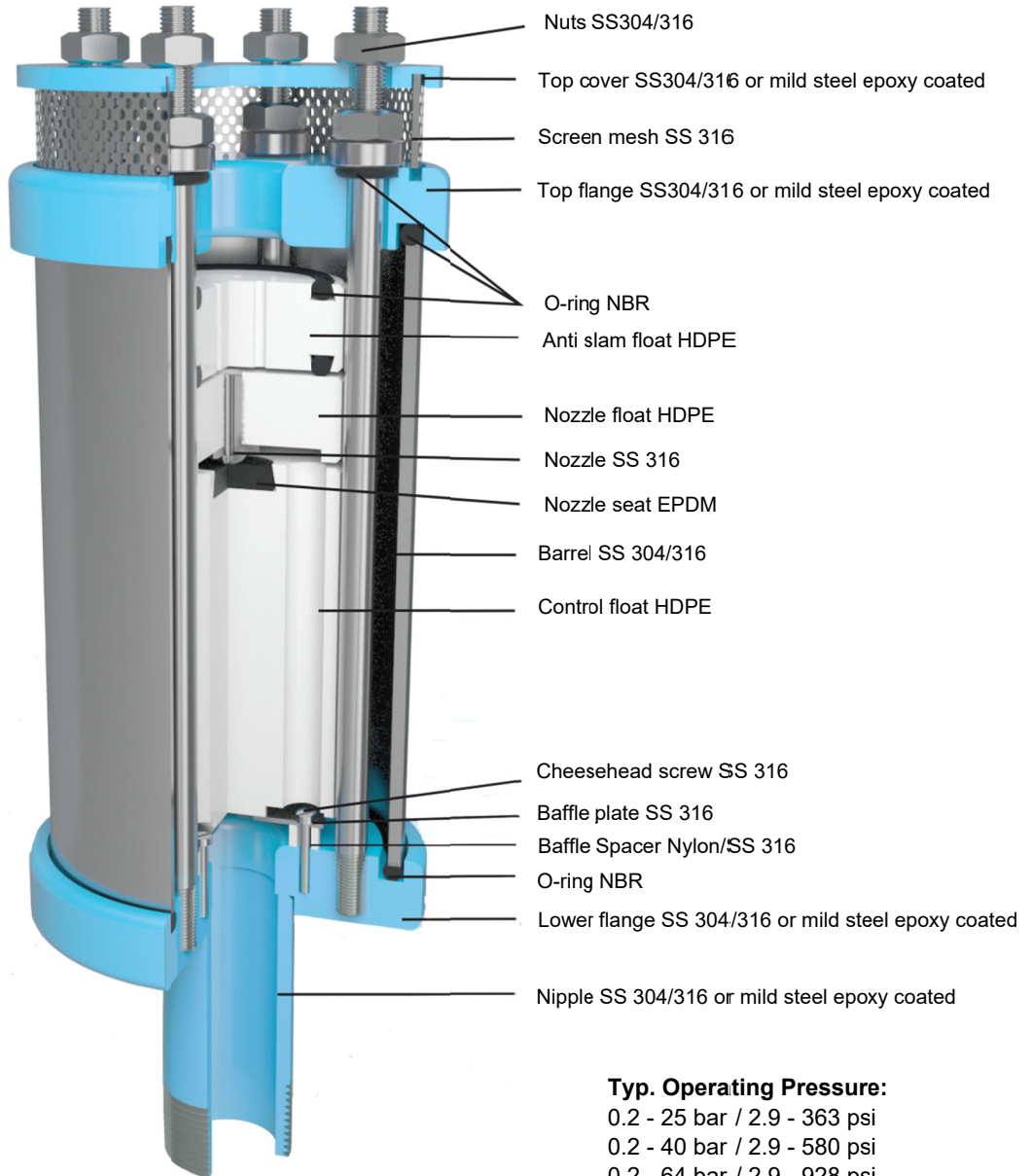
Note:

1 kPa = 0.01 bar  $\cong$  0.1 mHd



### 5 SIZES

#### 5.1 DN 25 & DN 50



**Typ. Operating Pressure:**  
 0.2 - 25 bar / 2.9 - 363 psi  
 0.2 - 40 bar / 2.9 - 580 psi  
 0.2 - 64 bar / 2.9 - 928 psi  
 0.2 - 100 bar / 2.9 - 1450 psi

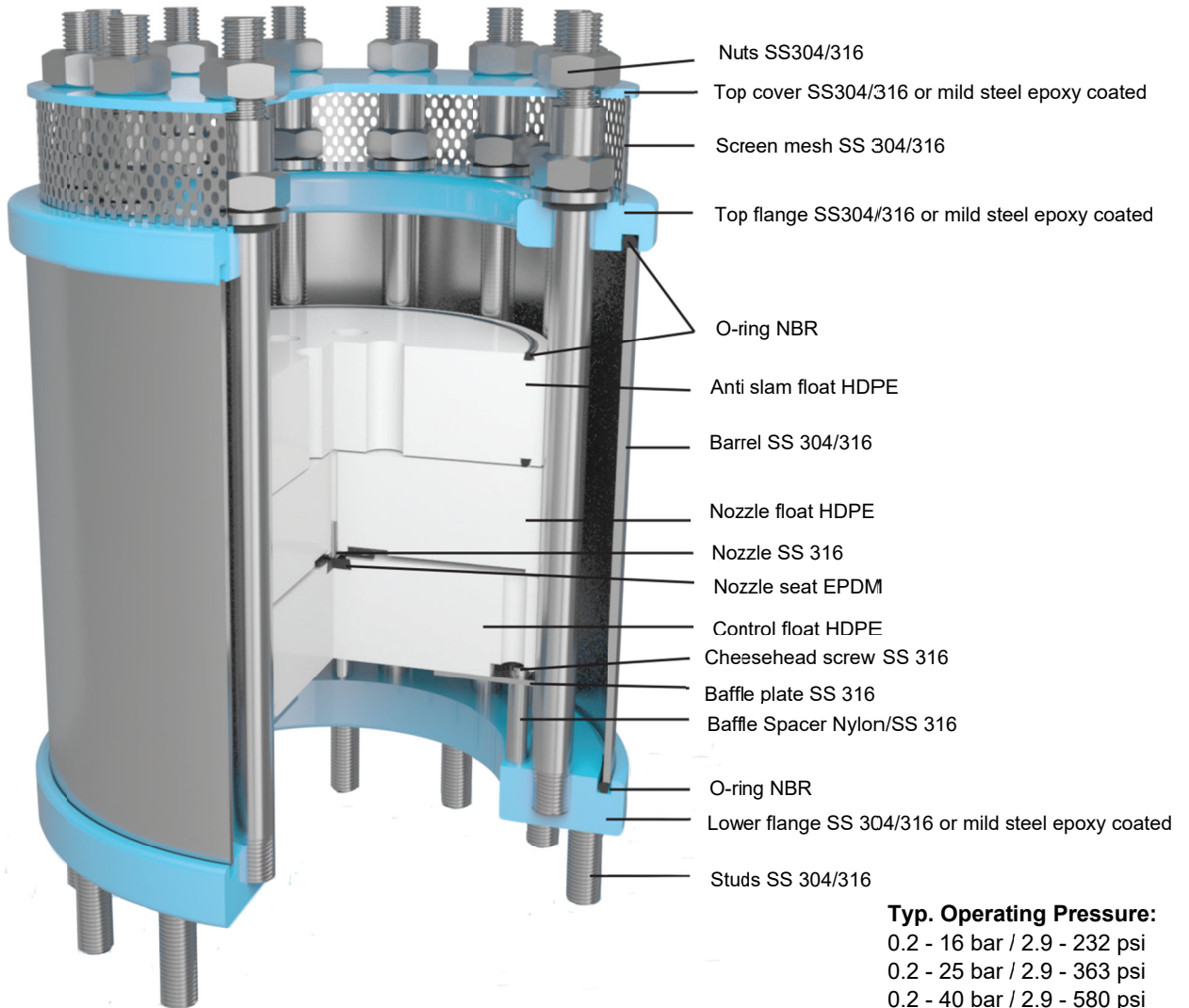
**End Connection Screwed:**  
 BSP/NPT

**Operating Temperatures:**  
 0 - 80°C / 0 - 176° F

Size	Pressure rating	Overall Height	Overall diameter	Weight
25 mm / 1"	25 bar / 363 psi	252 mm / 9.92"	100 mm / 4"	4.7 kg / 10.4 lb
	40 bar / 580 psi	302 mm / 11.88"	100 mm / 4"	4.9 kg / 10.8 lb
50 mm / 2"	25 bar / 363 psi	301 mm / 11.85"	130 mm / 5.12"	8.2 kg / 18 lb
	40 bar / 580 psi	351 mm / 13.81"	130 mm / 5.12"	8.4 kg / 18.51 lb



### 5.2 DN 80 TO DN 200



- Nuts SS304/316
- Top cover SS304/316 or mild steel epoxy coated
- Screen mesh SS 304/316
- Top flange SS304/316 or mild steel epoxy coated
- O-ring NBR
- Anti slam float HDPE
- Barrel SS 304/316
- Nozzle float HDPE
- Nozzle SS 316
- Nozzle seat EPDM
- Control float HDPE
- Cheesehead screw SS 316
- Baffle plate SS 316
- Baffle Spacer Nylon/SS 316
- O-ring NBR
- Lower flange SS 304/316 or mild steel epoxy coated
- Studs SS 304/316

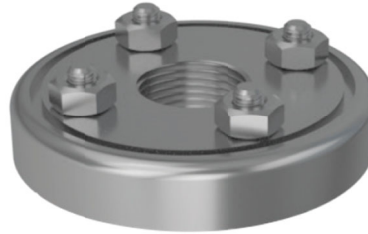
**End Connection:**  
Flange studded

**Typ. Operating Pressure:**  
 0.2 - 16 bar / 2.9 - 232 psi  
 0.2 - 25 bar / 2.9 - 363 psi  
 0.2 - 40 bar / 2.9 - 580 psi  
 0.2 - 64 bar / 2.9 - 928 psi  
 0.2 - 100 bar / 2.9 - 1450 psi  
**Operating Temperatures:**  
 0 - 80°C / 0 - 176° F

Size	Pressure rating	Overall Height	Overall diameter	Weight
80 mm / 3"	16 bar / 232 psi	284 mm / 11.2"	200 mm / 8"	19.5 kg / 43 lb
	25 bar / 363 psi	284 mm / 11.2"	200 mm / 8"	19.5 kg / 43 lb
	40 bar / 580 psi	317 mm / 12.5"	200 mm / 8"	30 kg / 66 lb
100 mm / 4"	16 bar / 232 psi	284 mm / 11.2"	235 mm / 9.25"	22.5 kg / 50 lb
	25 bar / 363 psi	284 mm / 11.2"	235 mm / 9.25"	22.5 kg / 50 lb
	40 bar / 580 psi	318 mm / 12.5"	235 mm / 9.25"	27 kg / 60 lb
150 mm / 6"	16 bar / 232 psi	464 mm / 18.27"	285 mm / 11.22"	46 kg / 102 lb
	25 bar / 363 psi	464 mm / 18.27"	285 mm / 11.22"	46 kg / 102 lb
	40 bar / 580 psi	464 mm / 18.27"	285 mm / 11.22"	46 kg / 102 lb
200 mm / 8"	16 bar / 232 psi	503 mm / 19.8"	340 mm / 13.4"	67 kg / 147 lb
	25 bar / 363 psi	503 mm / 19.8"	340 mm / 13.4"	67 kg / 147 lb
	40 bar / 580 psi	503 mm / 19.8"	340 mm / 13.4"	67 kg / 147 lb
250 mm / 10"	16 bar / 232 psi	573 mm / 22.56"	425 mm / 16.73"	110 kg / 243 lb
	25 bar / 363 psi	573 mm / 22.56"	425 mm / 16.73"	110 kg / 243 lb
300 mm / 12"	16 bar / 232 psi	625 mm / 24.6"	530 mm / 20.87"	160 kg / 353 lb
	25 bar / 363 psi	625 mm / 24.6"	530 mm / 20.87"	160 kg / 353 lb

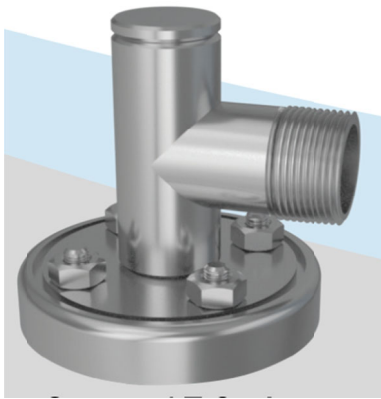
Larger sizes are available on request up to 450 NB / 18".

### 5.3 OUTLET CONNECTIONS (OPTION)



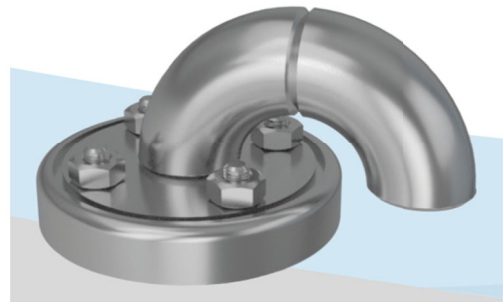
#### Screwed Outlet

The valve outlet is tapped to either BSP or NPT to allow connection to piping off systems.



#### Screwed T Outlet

The valve outlet is tapped to either BSP or NPT to allow connection to piping off systems, this type of connection can be used with controlled air release configuration.



#### Gooseneck Outlet

The valve outlet is fitted with a gooseneck. This is often requested in desert applications.



#### Swivel Outlets

Can be supplied in two formats T outlet and straight outlet to connect to desired flanged piping.

