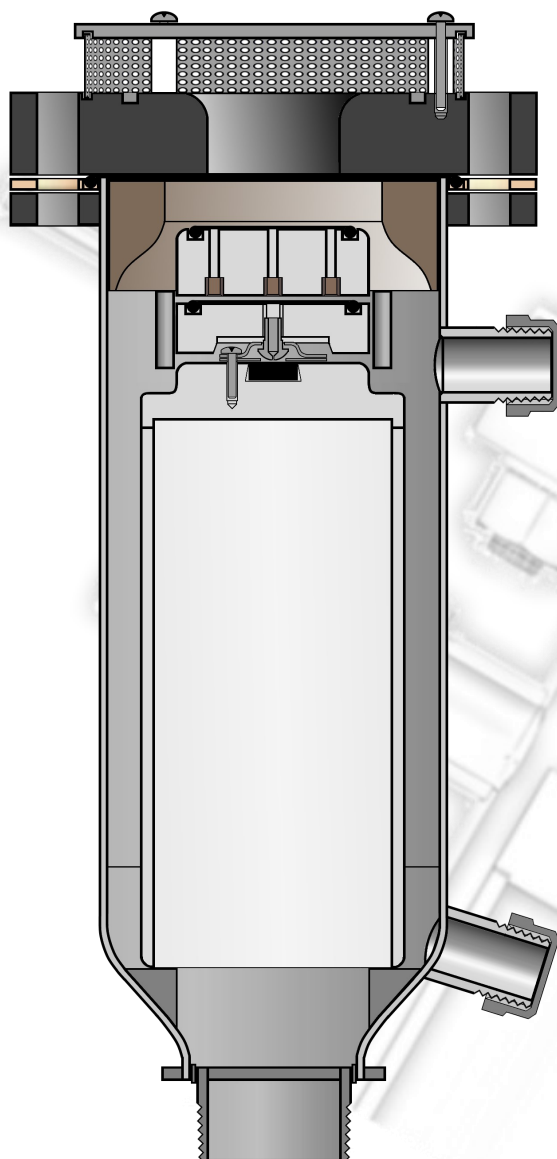


Vent-Tech Model SSG—Series C

145 psi (10 Bar) 232 psi (16 Bar)—Combination Air Valve for Wastewater

GENERAL SPECIFICATION

- Optimized for High Vacuum Flow
- Compact Design: < 25-inch installed height.
- 30% shorter than Model SWG™
- Vacuum Relief Capacity: 640 scfm
- Patented technology designed for Vent-Tech™ Z-Valves™



- 304 Stainless Steel Body
- Made in the U.S.A.
- ISO 9001: 2015 Certified QMS
- UL Inspected Facility
- 10-Year Warranty
- 50-Year Targeted Design Life

Model SSG Standard Water Valve—Overview

The **Vent-Tech Model SSG** sewer valve is essentially a shorter version of the Model SWG air/vacuum relief valve, but with improved flow performance, less weight and better self-cleaning. In applications where clearance height is ample or valve weight is not a factor, specify the Model SWG valve, otherwise we recommend specifying the Model SSG.

APPLICATION

- Waste Water Systems
- Force Mains
- High Points
- Lift Stations

FUNCTION

	Market Application	Large Air Release at Start-Up	Controlled Air Release at Start-Up	Air Release Under Pressure	Full Port Vacuum Relief	Surge Control
Series C	95%	X		X	X	X
Series B	5%		X	X	X	X
Series V	< 1%	X		X		X
Series N	< 1%				X	

PURPOSE

- Minimize pumping energy by removing air plugs
- Protect from pipeline collapse due to vacuum
- Control water hammer velocity
- Manage water column rejoining transients
- Internal anti-surge device

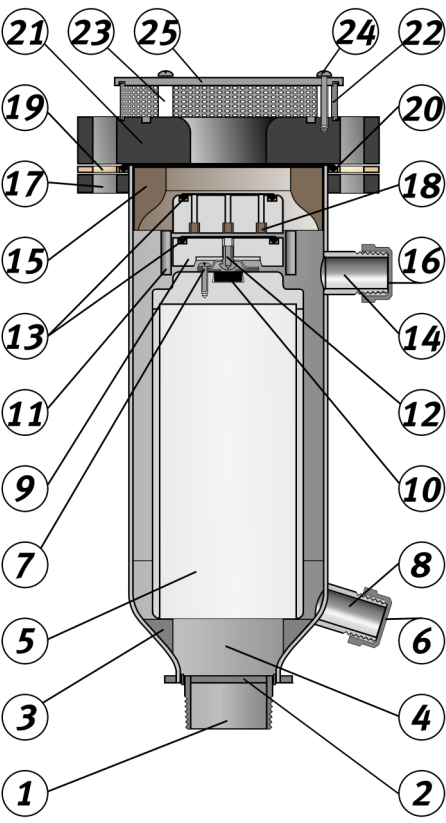
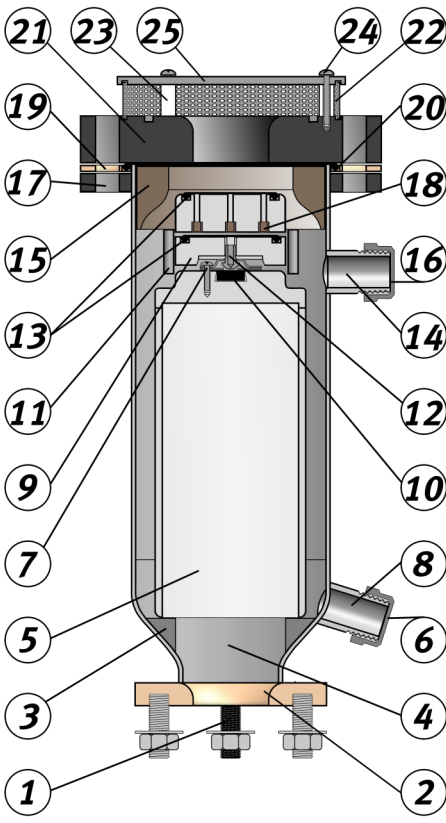
FEATURES

- Features
- Performance
- Designed and manufactured for wastewater applications.
- Reduced height versus full height flat float designs (e.g. 02SSG is 24.25-inches tall installed: 02SWG is 32-inches tall).
- Reduced weight versus other flat float designs (e.g. 02SWG is 48 lbs. while 02SSG is 37.5 lbs.).
- Manufactured in 304 and 316 Stainless Steel.
- Rated for pressures of 10 bar (145psi).
- Minimum sealing pressure at three (3) psi.
- Compact tubular design with direct acting floats.
- Includes two side ports.
- Self-flushing at pump shut-down and valve emptying.
- High efficiency screens prevent ingress of airborne debris and bugs.
- Available with connection to odor control units
- Inlets, outlets, and internal clearances have a cross-sectional area at least equal to that of the valve's nominal size.
- Valve flanges are designed to minimize energy losses at the transition to the valve body air passages.
- Composite or Polymer top flange improves balance and handling
- The anti-shock/surge floats automatically limit surge and transient pressure.
- Multi-orifice anti-shock/surge floats with evenly spaced orifices distribute pressurized air across the face of the float.
- The anti-shock/surge floats respond directly to any negative pressure by fully opening the large orifice of the valve.
- Orifices fitted with inserts protect from heat softening and abrasive wear.
- Performance verification by independent testing facility.

Made In the USA

Model SSG: Series C—Materials of Construction

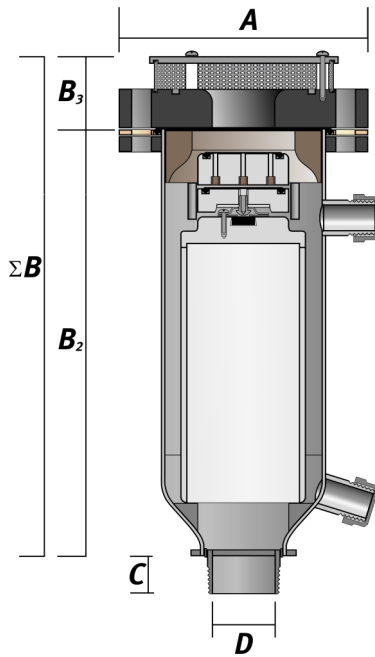
145 psi (10 Bar); 232 psi (16 Bar)

NPT Threaded Nipple		ANSI B16.5 Stud Pattern		No.	Description	304 SS
				1	Male NPT Nipple	304 SS
					ANSI B16.5 Stud Pattern	304 SS
				2	Wrenching Hex for NPT Connections	304 SS
				2	Streamlined Base Flange for Studded Connections	3104 SS
				3	Control Float Stand-Offs	304 SS
				4	Tubular Valve Body	304 SS
				5	Control Float	UHMW-PE
				6	Side Port Cap	3104 SS
				7	Nozzle Assembly	316 SS
				8	Lower Side Port	304 SS
				9	Nozzle Float	UHMW-PE
				10	Nozzle Seat	EPDM Rubber
				11	Guide Rail	304 SS
				12	Air Release Nozzle	316 SS
				13	Dynamic O-Ring Seal	Viton
				14	Upper Side Port Cap	Plastic (Temporary)
				15	Air Spacer	Nylon, UHMW-PE
				16	Upper Side Port Cap	Plastic (Temporary)
				17	Support Flange	Nylon
				18	Protected Orifice Insert	316 SS
				19	Body Flange	304 SS
				20	Static O-Ring Seal	Viton, Buna N
				21	Streamlined Sealing Flange	Nylon
				22	Punched Screen Guard	304 SS
				23	Screen Standoff Spacers	Polypropylene
				24	Screen Lid Fasteners	304 SS
				25	Screen Lid	UHMW-PE, HDPE
Information Subject to Change without Notice						
Body		Tubular, single chamber, short body capable of accepting a smooth bonded low density lining to minimize adhesion of fats and debris and manufactured of Type 304L (or optionally Type 316L) Stainless Steel. The valve body shall be internally constructed to provide an unobstructed circular space between the UHMW floats and inner valve body wall. Valves shall include an upper gauge port and lower flushing port and these ports shall be of the same material as the valve body. Designed with a minimum 6x safety factor per AWWA and ASME				
Operating Pressure	Minimum	< 1 psi (< 0.1 Bar)				
	Design	145 psi (10 Bar)				
	Test	150 %				
Maximum Temps	Operating	Exceeds 145° F (62° C)				
	Intermittent	180° F (82° C)				
Connections	Inlet (Upper)	Streamlined sealing flange with perforated Screen Guard				
	Inlet (Lower)	2-inch with optional adapter for customized discharge configurations				
Orifices	Large	Streamlined air flow design				
	Anti-Surge	At minimum, equal to the nominal diameter of the valve				
	Nozzle	Multiple tubular orifices to evenly distribute pressurized air across the face of the float				
Side Port Connections		316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear				
Isolation Valve		1.2 mm to 2.0 mm to match operating pressures				
Certifications / Registrations		Full port ball valves recommended. (Available on request.)				
AIS Compliant		Supplied by others (Full port ball valve recommended and available on request)				
Options		ISO 9001: 2015 Registered Management System				
		When specified, raw material is controlled for USA Country of Origin				
		Machining, fabrication, assembly, and coating always in USA				
Valve Tests	Each Unit	Side Port Ball Valve (s)—Code N (NN)		Custom Orifices—Code X		316L SS—Code 6
		Full Port Isolation Valve—Code B		AIS Compliant—Code A		
		Basic valve body can be pressure rated to 235 psi without changing the valve dimensions. Modified internal components may be required.				
Material Specs	Each Design	Leak test to 1.5x rated pressure		Pressurized air release (Drop Test)		Low Pressure Seal test
		Certified — Air Release		Certified - Pressurized Air-Release		Certified - Vacuum Relief
		Nozzle Orifice Flow Tested		Anti-Surge Activation (Switch Point)		CFD & Physically Flow Tested
304L SS, 316 L SS, HDPE, UHMW-PE, Viton, Buna-N						

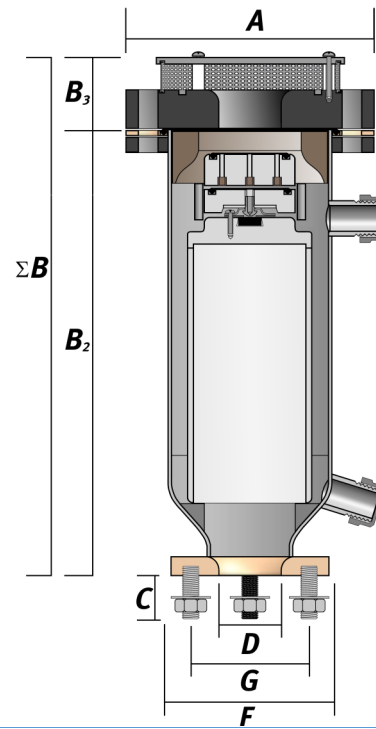
Model SSG: Series C—Dimensions

145 psi (10 Bar); 232 psi (16 Bar)

NPT Threaded Connection



ANSI B16.5 Studded Connection



Valve Part Number	Valve Size	Pressure Rating	Top Flange Dia.	Valve Height					Nipple or Stud Length	Base Flange Dia.	Stud Circle Dia.	# of Studs	Stud Size	Weight
	D			A	B ¹	B ²	B ³	ΣB						
	inch	psi	inch	inch	inch	inch	inch	inch	inch	inch	inch	each	inch	lbs.
NPT Threaded Connection														
12SSG10TCS	2	145	10	-	21	3 1/4	24 1/4	-	2	5	-	0	-	34
02SSG10TCS	2	145	10	-	21	3 1/4	24 1/4	-	2	7 1/8	-	0	-	34
12SSG16TCS	2	232	10	-	21	3 1/4	24 1/4	-	2	5	-	0	-	34
02SSG16TCS	2	232	10	-	21	3 1/4	24 1/4	-	2	7 1/8	-	0	-	34
ANSI B16.5 Studded Connection														
12SSG10SCS	2	145	10	-	21	3 1/4	24 1/4	-	2 1/4	5	4 3/4	4	5/8	34
02SSG10SCS	3	145	10	-	21	3 1/4	24 1/4	-	2 1/4	5	4 3/4	4	5/8	34
12SSG16SCS	2	232	10	-	21	3 1/4	24 1/4	-	2 1/4	5	4 3/4	4	5/8	34
02SSG16SCS	3	232	10	-	21	3 1/4	24 1/4	-	2 1/4	5	4 3/4	4	5/8	34

Model SSG: Series C—Flow Data

145 psi (10 Bar); 232 psi (16 Bar)

Valve Code	Pipe Connection*			Nom Valve Size	Operating Pressure Range	Small Nozzle Orifice Diameter	Anti-Surge Orifices†			Controlled Air Release Thru Anti-Surge Orifices ‡	Vacuum Relief Capacity §
							Count	Size	Single Hole Equivalent		
	code			inch	psi	mm	each	mm	mm	max. scfm	min. scfm
12SSG	T	S	R	2	< 1 - 232	1.5	1	4.5	4.5	68	149
02SSG	T	S	R	3	< 1 - 232	1.5	4	4.5	9	271	642

* T = Male NPT Thread, S = Studded Flange, R = Trophy Connection

† Quantity and sizes of orifices are customizable. Please contact factory for additional information

‡ At pressure of 145 psig

§ Standard cubic feet per minute (ft³/min) at 70° Fahrenheit, 14.7 psi absolute and 5.08 psi differential