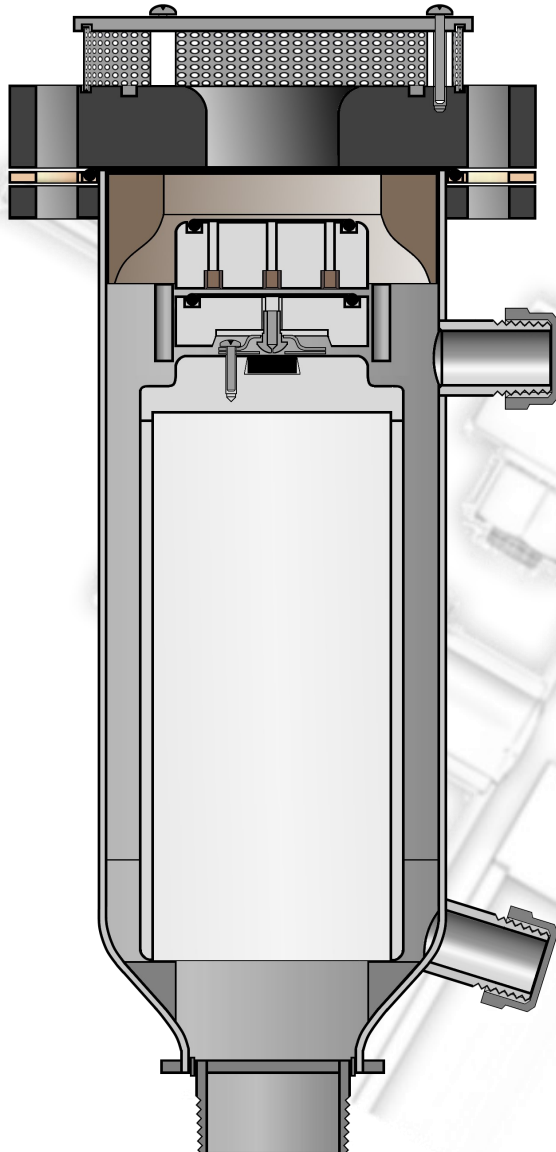


Vent-Tech Model SSG—Series C

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

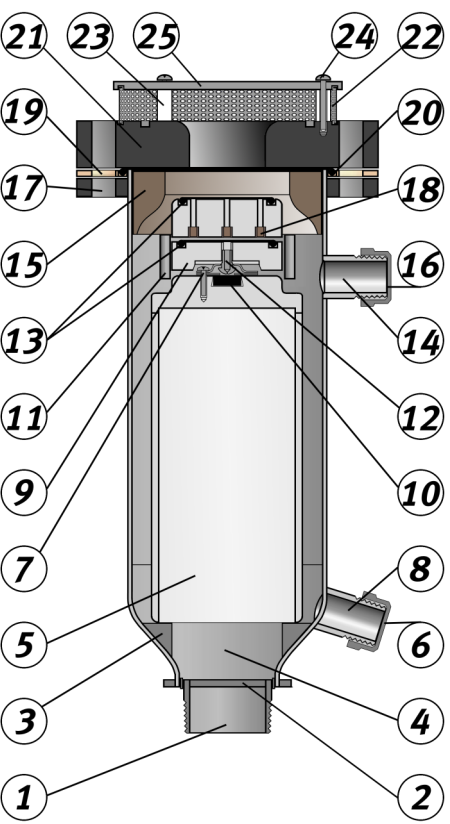
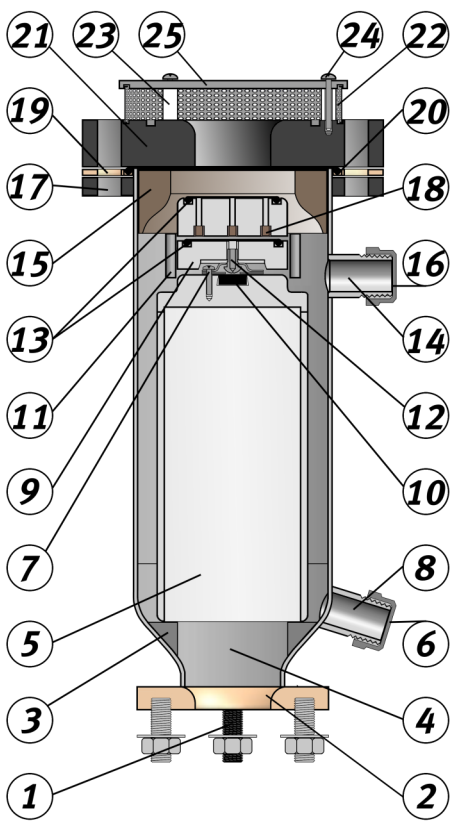
FEATURES

- 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 less than (1) 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 ingestion 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	Standard
				1	Male NPT Nipple	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

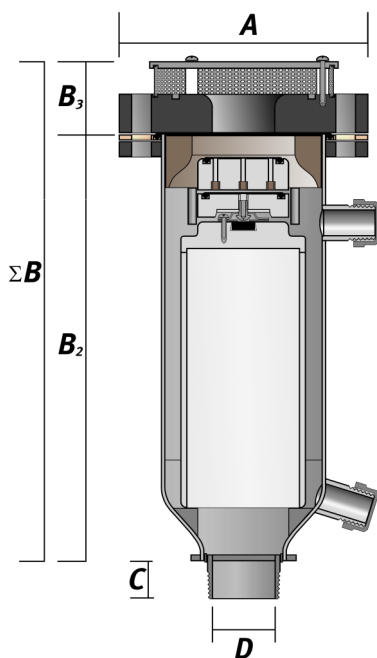
Information Subject to Change without Notice

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 Design	< 1 psi (< 0.1 Bar)	
	Test	145 psi (10 Bar); 232 psi (16 Bar)	
Maximum Temps	Operating Intermittent	Exceeds 145° F (62° C)	
		180° F (82° C)	
Connections	Inlet (Upper)	Streamlined sealing flange with perforated Screen Guard Code 12: 1¼-inch with optional adapter for customized discharge configurations Code 02: 2-inch with optional adapter for customized discharge configurations Code T: 2-inch with Male NPT threaded connection	
	Inlet (Lower)	Code S: 2-Inch ANSI B16.5 stud pattern Other connection types available on request including studded flange, trophy and cam/groove	
Orifices	Large	Streamlined air flow design	
	Anti-Surge	Code 12: Singular tubular orifice to evenly distribute pressurized air across the face of the float Code 02: Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifice (s) to protect against heat softening and abrasive wear	
	Nozzle	1.2 mm to 2.0 mm to match operating pressures	
Side Port Connections	Full port ball valves recommended. (Available on request.)		
Isolation Valve	Supplied by others (Full port ball valve recommended and available on request)		
Certifications / Registrations	ISO 9001: 2015 Registered Management System		
AIS Compliant	When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always in USA		
Options	Side Port Ball Valve (s)—Code N (NN)	Custom Orifices—Code X	
	Full Port Isolation Valve—Code B	AIS Compliant—Code A	316L SS—Code 6
	Basic valve body can be specified to 232 psi without changing the valve dimensions. Modified internal components may be required.		
Valve Tests	Each Unit	Leak test to 1.5x rated pressure	Pressurized air release (Drop Test) Low Pressure Seal test
	Each Design	Certified — Air Release Nozzle Orifice Flow Tested	Certified - Pressurized Air-Release Anti-Surge Activation (Switch Point) Certified - Vacuum Relief CFD & Physically Flow Tested
Material Specs	304L SS, 316 L SS, HDPE, UHMW-PE, Viton, Buna-N		

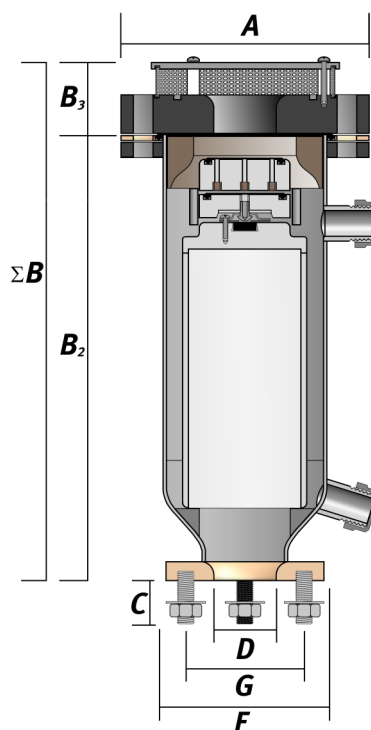
Model SSG: Series C—Dimensions

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

NPT Threaded Connection



ANSI B16.5 Studded Connection



Valve Part Number	Valve Size D inch	Pressure Rating psi	Top Flange Dia. A inch	Valve Height					Nipple or Stud Length C inch	Base Flange Dia. F inch	Stud Circle Dia. G inch	# of Studs	Stud Size inch	Weight lbs.
				B ¹ inch	B ² inch	B ³ inch	ΣB inch	H inch						
NPT Threaded Connection														
12SSG10TCS	2	145	10	-	21	3 1/4	24 1/4	-	2	-	-	0	-	34
02SSG10TCS	2	145	10	-	21	3 1/4	24 1/4	-	2	-	-	0	-	34
12SSG16TCS	2	232	10	-	21	3 1/4	24 1/4	-	2	-	-	0	-	34
02SSG16TCS	2	232	10	-	21	3 1/4	24 1/4	-	2	-	-	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	2	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	2	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 inch	Operating Pressure Range psi	Small Nozzle Orifice Diameter mm	Anti-Surge Orifices [†]			Controlled Air Release Thru Anti-Surge Orifices [‡] max. scfm	Vacuum Relief Capacity [§] min. scfm
	T	S	R				Count each	Size mm	Single Hole Equivalent mm		
12SSG	T	S	R	2	< 1 - 232	1.5	1	4.5	4.5	68	149
02SSG	T	S	R	2	< 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