



Vent-Tech
Combination Sewage Air Relief Valve
SWG-B Series



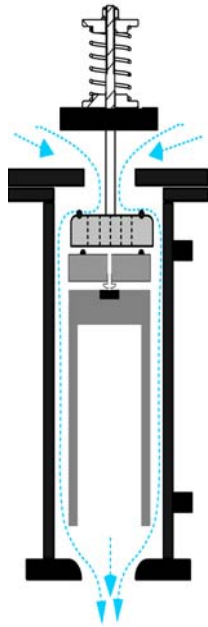
- Air Release
- Vacuum Protection
- Surge Control



**High Air Flow Intake and Controlled Air Out
Bias Orifice**

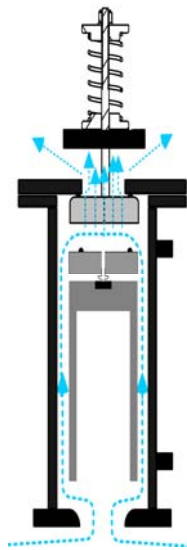
Vent-Tech
 SWG-B Series – High Air Flow Intake and Controlled Air Out
Operating Description

1. AIR INTAKE



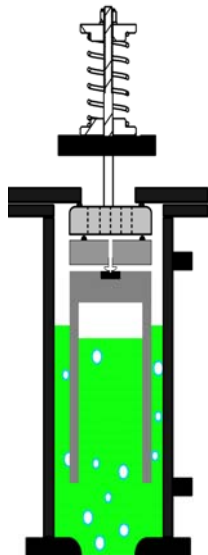
- Pump stops operating and the check valve closes (See Installation Recommendations)
- Negative pressure created by draining fluid seats the Surge and Nozzle Floats against the Control Float
- Large orifice available for air intake prevents negative pressure damage
- Air/gas flows into the Valve annulus and exits into the pipeline

2. PUMP START UP



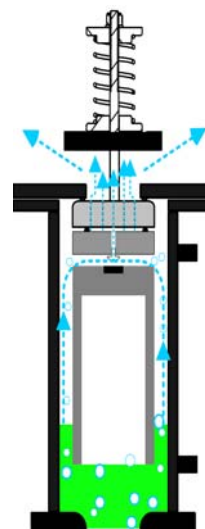
- At start up, approaching fluid pushes air/gas to the Valve Inlet.
- Multi-orifice Surge Float closes the large orifice
- Creates back pressure and slows fluid, arresting transients and check valve damage

3. VALVE CLOSED AND PRESSURIZED



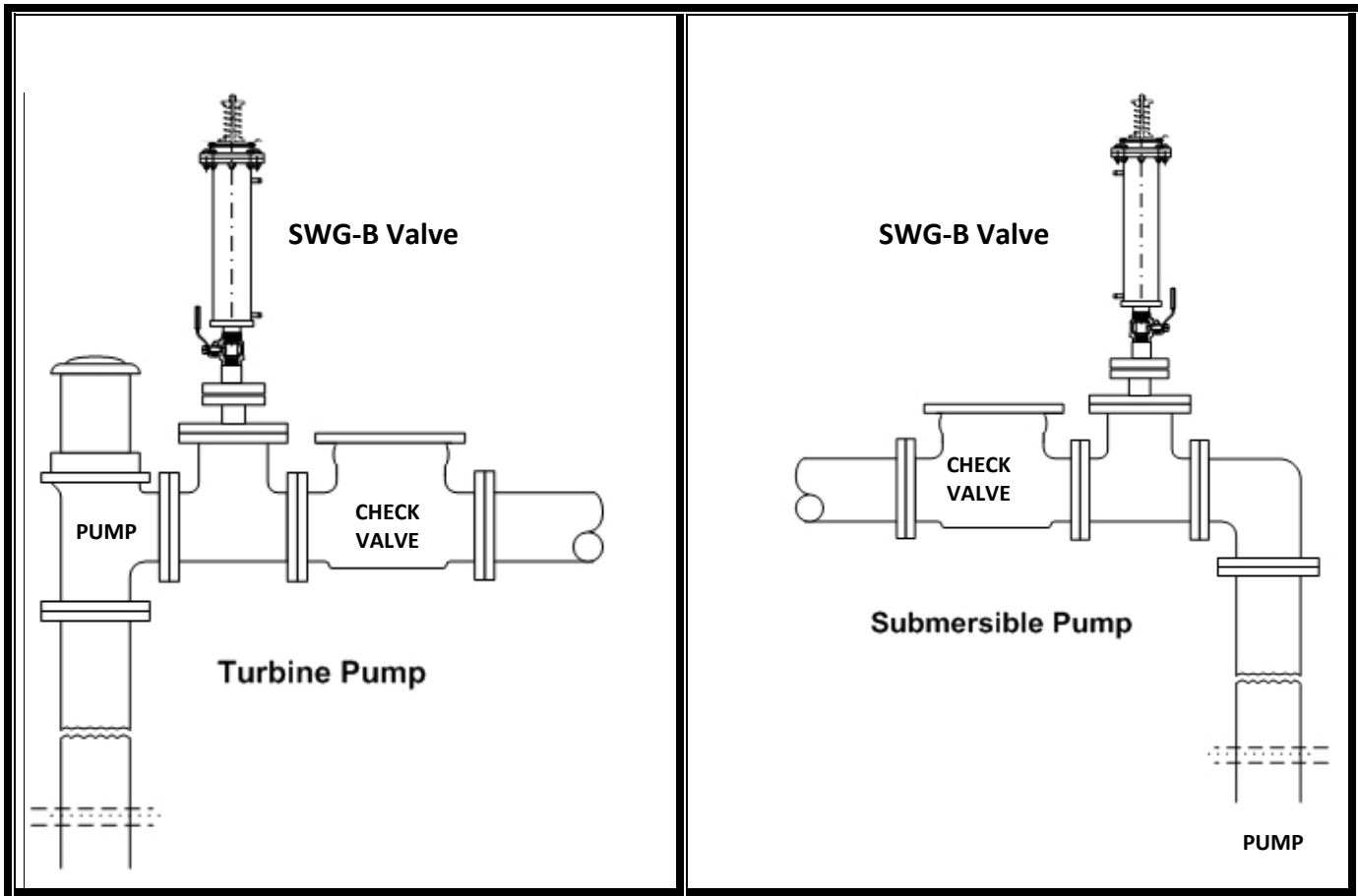
- Valve is charged with fluid
- Control Float is buoyant and seats Surge Float and Nozzle Float against the Flange
- Closes the Valve

4. PRESSURIZED PIPELINE



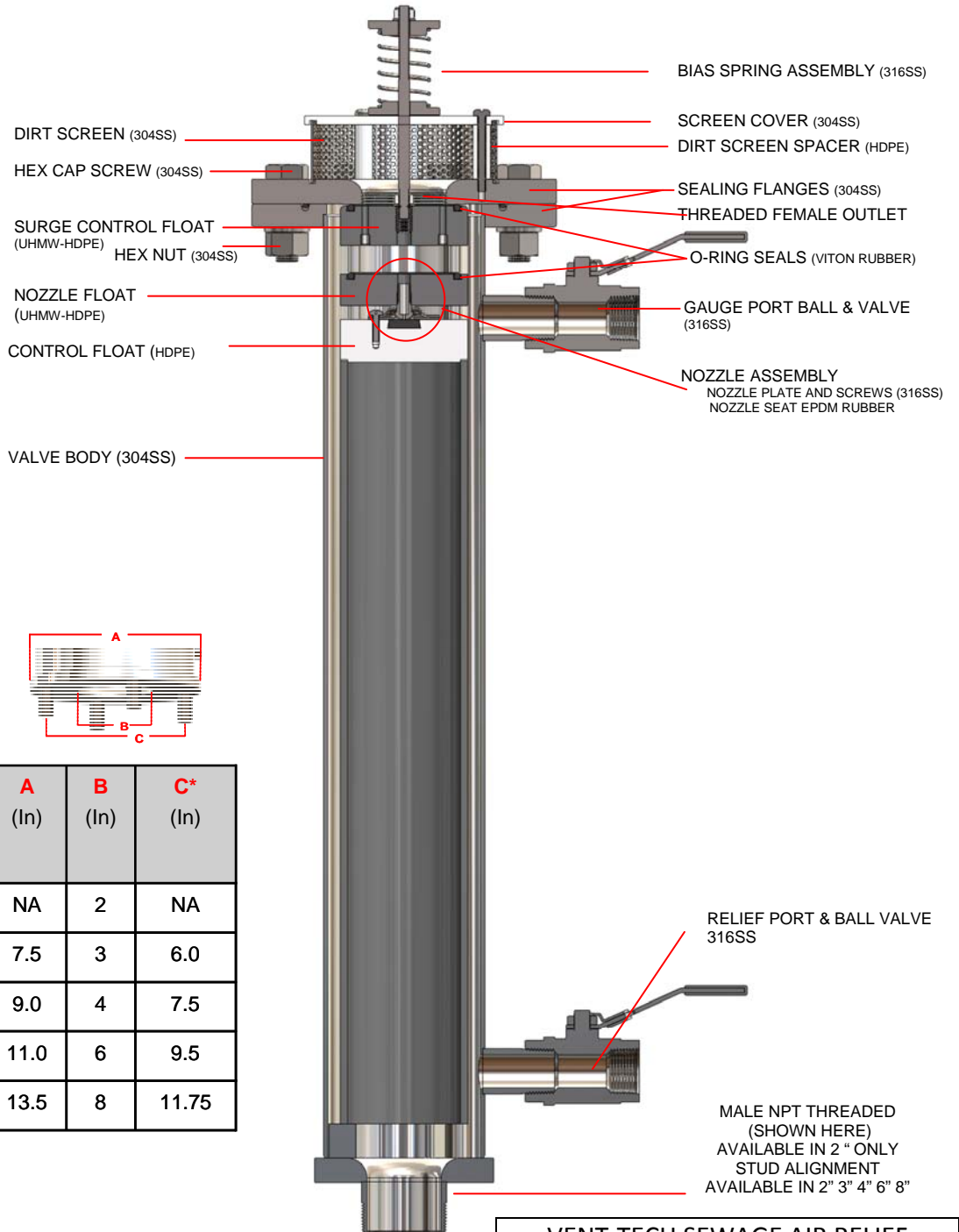
- Air/gas accumulates in the Valve, displacing fluid
- Control Float loses buoyancy and drops away from Nozzle Float
- Nozzle Float activated until pressure equalized, at which time, Valve closes again

Vent-Tech
SWG-B Series – High Air Flow Intake and Controlled Air Out
Installation Examples

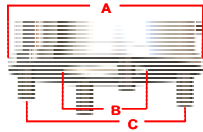


NOTE: Vent-Tech's SWG-B Series is specifically designed to take in high volume of air and control air discharge in circumstances when valve timing is critical. Examples of turbine and submersible pump installations are shown above. In addition, field conditions often necessitate the placement of an air release valve in close proximity to a check valve or pump station. In these circumstances, Vent-Tech's SWG-B Series with its controlled air out valve, helps to prevent damage of check valves and pumps, by slowing high velocity fluid flow.

Vent-Tech
 SWG-B Valve STANDARD BODY
Material Specifications



STUD ALIGNMENT



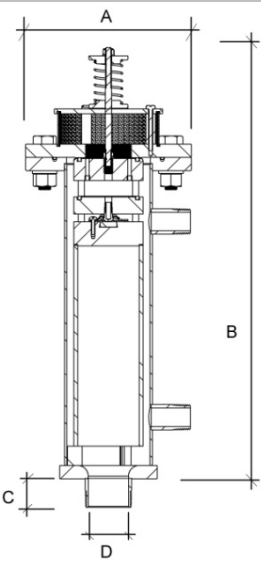
Valve size (In)	DN (mm)	Bar	A (In)	B (In)	C* (In)
2	050	10	NA	2	NA
3	080	10	7.5	3	6.0
4	100	10	9.0	4	7.5
6	150	10	11.0	6	9.5
8	200	10	13.5	8	11.75

*ANSI B16.5 Class 150

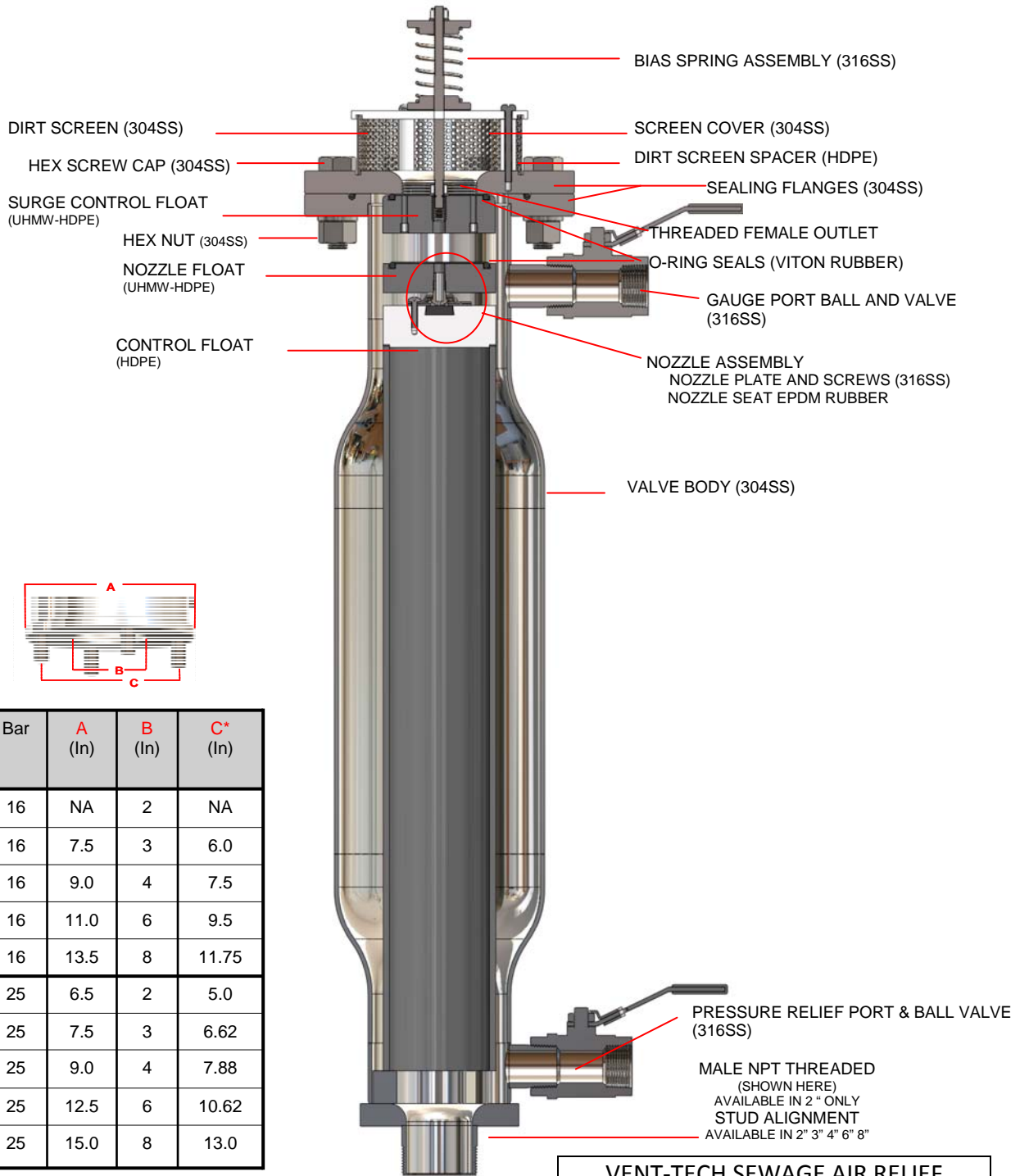
INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE

VENT-TECH SEWAGE AIR RELIEF VALVE	
Series:	Size:
SWG-B	2" 3" 4" 6" 8"
	Date: 6-2010
MATERIAL SPECIFICATIONS	

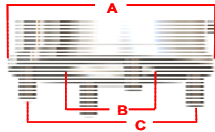
Vent-Tech
 SWG-B Valve STANDARD BODY
General Specifications

VALVE TYPE	<u>HIGH AIR FLOW INTAKE AND CONTROLLED AIR OUT (BIAS ORIFICE)</u> <u>STANDARD SWG-B Series</u>						
	VALVE OPERATIONS: <ol style="list-style-type: none"> 1. High volume air intake while pipeline fills 2. Controlled air/gas discharge at pump start up 3. Discharge of air/gas from pressurized pipeline 4. Surge abatement for high velocity start up conditions, column separation and fluid oscillation 						
VALVE SIZES	2-3-4-6-8 (inches) 10-12 inch available with special order						
STANDARD OPERATING PRESSURES	10 Bar: 3 to 147 (psi)						
VALVE CONNECTIONS	INLET:	<ul style="list-style-type: none"> • Male NPT threaded 2" only • 3" to 8" studded for ANSI B16.5 Class 150 • Number of Flange Screw Studs (4 to 8) 					
	OUTLET	<ul style="list-style-type: none"> • Swivel flanges available • Female connection 					
MATERIAL SPECIFICATIONS	ANSI B16.5 CLASS 150, EXCEEDS AWWA C 512 304SS, 316SS, HDPE, UHMW-HDPE, Viton, EPDM						
VALVE TESTS	<ul style="list-style-type: none"> • Leak test up to 1.5 valve rated pressure • Pressurized air release • Low pressure leak test 						
DIMENSIONS (INCHES) WEIGHTS (LBS)	SIZE	MODEL	A	B	C	D	WT.
	2	02SWG10TBS	8.66	33.5	1.66	2	41
	3	03SWG10SBS	11.25	33.7	2.125	3	83
	4	04SWG10SBS	11.25	33.7	2.125	4	81
	6	06SWG10SBS	15.5	48.4	2.125	6	185
	8	08SWG10SBS	17.5	48.4	2.125	8	229

**Vent-Tech
SWG-B Valve HIGH PRESSURE BODY
Material Specifications**



STUD ALIGNMENT



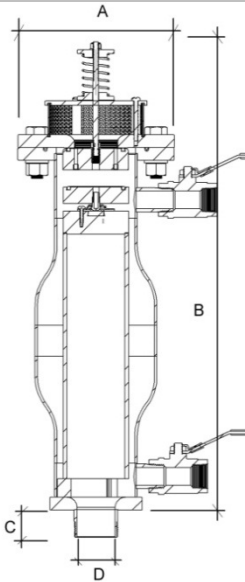
Valve size (In)	DN (mm)	Bar	A (In)	B (In)	C* (In)
2	050	16	NA	2	NA
3	080	16	7.5	3	6.0
4	100	16	9.0	4	7.5
6	150	16	11.0	6	9.5
8	200	16	13.5	8	11.75
2	050	25	6.5	2	5.0
3	080	25	7.5	3	6.62
4	100	25	9.0	4	7.88
6	150	25	12.5	6	10.62
8	200	25	15.0	8	13.0

*16 Bar: ANSI 16.5 Class 150
25 Bar: ANSI 16.5 Class 300

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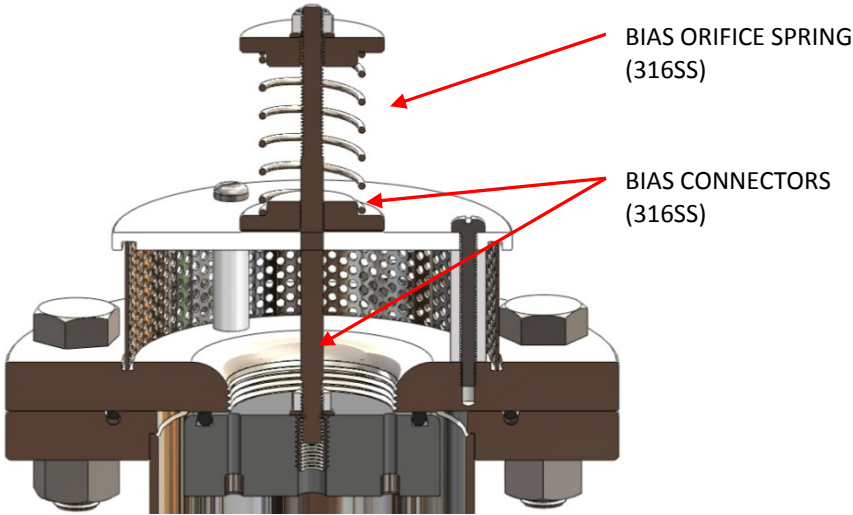
VENT-TECH SEWAGE AIR RELIEF VALVE	
Series:	Size:
SWG-B	2" 3" 4" 6" 8"
HP	Date: 6-2010
MATERIAL SPECIFICATIONS	

Vent-Tech
 SWG-B Valve HIGH PRESSURE BODY
General Specifications

VALVE TYPE	HIGH AIR FLOW INTAKE AND CONTROLLED AIR OUT (BIAS ORIFICE) HIGH PRESSURE SWG-B Series						
	VALVE OPERATIONS: <ol style="list-style-type: none"> 1. High volume air intake while pipeline fills 2. Controlled air/gas discharge at pump start up 3. Discharge of air/gas from pressurized pipeline 4. Surge abatement for high velocity start up conditions, column separation and fluid oscillation 						
VALVE SIZES	2-3-4-6-8 (inches) 10-12 inch available with special order						
STANDARD OPERATING PRESSURES	16 BAR: 7 to 232 psi 25 BAR: 7 to 363 psi						
VALVE CONNECTIONS	INLET: BAR 16:	<ul style="list-style-type: none"> • Male NPT threaded 2" available • 3" to 8" studded ANSI B16.5 Class 150 • Number of Flange Screw Studs (4 to 8) 					
	INLET: BAR 25	<ul style="list-style-type: none"> • 2" to 8" Studded ANSI B16.5 Class 300 • Number of Flange Screw Studs (8 to 12) 					
	OUTLET	<ul style="list-style-type: none"> • Swivel flanges available • Female connection 					
MATERIAL SPECIFICATIONS	ANSI B16.5 CLASS 150 and 300 EXCEEDS AWWA C 512 304SS, 316SS, HDPE, UHMW-HDPE, Viton, EPDM						
VALVE TESTS	<ul style="list-style-type: none"> • Leak test up to 1.5 valve rated pressure • Pressurized air release • Low pressure leak test 						
DIMENSIONS (INCHES) WEIGHTS (LBS)	SIZE	MODEL	A	B	C	D	WT.
	2	02SWG16TBS	8.66	33.5	1.66	2	53
	3	03SWG16SBS	11.25	33.7	2.125	3	93
	4	04SWG16SBS	11.25	33.7	2.125	4	92
	6	06SWG16SBS	15.5	48.4	2.125	6	200
	8	08SWG16SBS	17.5	48.4	2.125	8	247
	2	02SWG25SBS	8.66	33.5	2.125	2	54
	3	03SWG25SBS	11.25	33.7	2.125	3	96
	4	04SWG25SBS	11.25	33.7	2.125	4	95
	6	06SWG25SBS	15.5	48.7	2.125	6	204
	8	08SWG25SBS	17.5	48.7	2.125	8	242

Vent-Tech
SWG-B Valve
Cap and Top Details

BIASED SPRING CAP



TEE TOP

