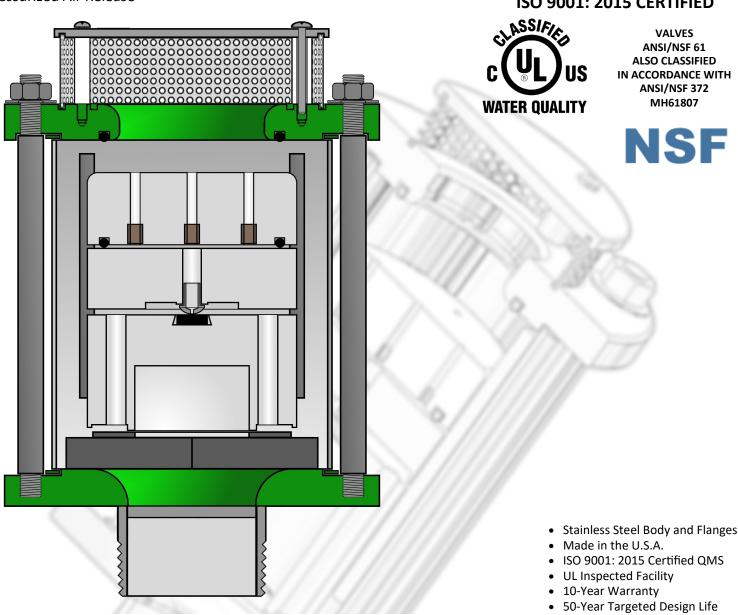


# Vent-Tech Model WTR—363 psi (25 Bar)

Series C—Combination Air Valve for Potable Water

## **GENERAL SPECIFICATION**

- The Original Flat Float Design—with over 30 improvements.
- Integral protection from water hammer and surge.
- Optimized for Low Pressure Sealing. Less than 3 psi.
- Full Port Vacuum Relief.
- Pressurized Air Release







**ISO 9001: 2015 CERTIFIED** 

### Model WTR Standard Water Valve—Overview

The Vent-Tech Model WTR clean water valve combines thirteen years of manufacturing experience with advanced Patent Pending flow designs. The Model WTR was engineered to expand and improve the technological advances of the flat float air/vacuum valve. Further advancements are incorporated in the Vent-Tech Model WTW providing improved functional valve area in the same or smaller valve footprint. For valve sizes 3-inch and larger, we recommend using the Model WTW.

#### APPLICATION

- Municipal Water Systems
- Water Mains
- High Points

#### **FUNCTION**

	Market Applica- tion	Large Air Release at Start-Up	Controlled Air Release at Start-Up	Air Release Under Pressure	Full Port Vacuum Re- lief	Surge Control
Series C	95%	Х		Х	X	Х
Series B	5%		X	Х	X	Х
Series V	< 1%	X		Х		Х
Series N	< 1%				X	
Series P	< 1%			Х		

#### PURPOSE

- Minimize pumping energy by removing air plugs
- Protect from pipeline collapse due to vacuum
- Control water hammer velocity

#### FEATURES

- Integral anti-shock/surge floats limit surge pressure.
- Recommended minimum sealing pressure at 3 psi.
- Rated for working pressures of 363 psi (25 bar). Optionally 232 or 580 psi.
- Inlets, outlets, and internal clearances have a cross-sectional area at least equal to that of the valve's nominal size.
- Orifices fitted with inserts protect from heat softening and abrasive wear.
- Multi-orifice anti-shock/surge floats to increase durability.
- Floats respond directly to negative pressure by fully opening the large orifice of the valve.
- Valve flanges are designed to minimize air flow energy losses.
- 304 and 316 Stainless Steel models.
- Tubular design with direct acting floats and two side ports
- Self-flushing at pump shut-down and valve emptying.
- High efficiency screens prevent ingression of airborne debris and bugs.
- Inter-changeability of valve inlet components allows for efficient conversion between valve and connection to ancillary pipework.
- Flow verification by independent testing facility.



- Manage water column rejoining transients
- Internal anti-surge device

Pump Stations

Wells

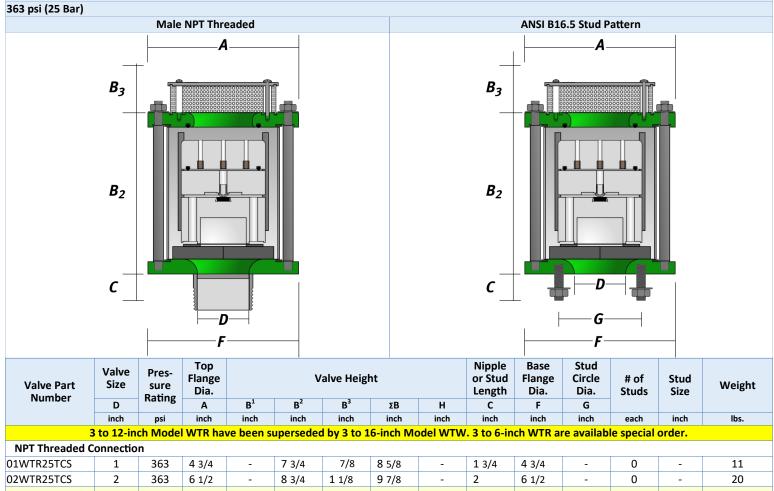
### International Valve / Vent-Tech

Model WTR: Series C—Materials of Construction	General and Material Specification—WTR	-C Se	eries	
363 psi (25 Bar)				

i     i	363 psi (25 Bar)	NDT Threaded		Dattora	No	Description	Standard AISI 304L SS	Upgraded AISI 316L SS				
A Mark Eds S such Pattern 304L SS 316 SS 3 Control Flore Stand-Offs 304L SS 304L SS 304L SS 3 Control Flore Stand-Offs 304L SS 304L SS 304L SS 3 Control Flore Stand-Offs 304L SS 304 SS 304L SS 304 S	Iviale	e NPT Inreaded	ANSI B16.5 Stud	Pattern	INO.	Description	-4	-6				
Ark Stal 5 Stud Pattern 3041 SS 340 55 3 Control Flash Stud Pattern 304 SS 340 55 3 Control Flash Stud Patter					1	Male NPT Nipple	304L SS	316 SS				
21     22     22     3     Control Float Stand Off. National All National					T	ANSI B16.5 Stud Patt	ern 304L SS	316 SS				
21     20     21     20 <td< td=""><td></td><td></td><td></td><td><math>\overline{)}</math></td><td>2</td><td>Toroidal Base Flange</td><td>304L SS</td><td>316 SS</td></td<>				$\overline{)}$	2	Toroidal Base Flange	304L SS	316 SS				
19     10 <td< td=""><td></td><td></td><td>22</td><td></td><td>3</td><td>Control Float Stand-</td><td>Offs 304L SS</td><td>316 SS</td></td<>			22		3	Control Float Stand-	Offs 304L SS	316 SS				
19     10 <td< td=""><td>(21)</td><td></td><td>20 21</td><td>/ 20</td><td>4</td><td>Fiber Gasket</td><td>Klingersil 4430</td><td>Klingersil 4430</td></td<>	(21)		20 21	/ 20	4	Fiber Gasket	Klingersil 4430	Klingersil 4430				
17     Week of (Not Shown)     304 SS     316 SS       13     14     15     14	$\simeq$	/			5	Tubular Valve Body	304L SS	304L SS				
1     1	(19)		<b>18 19</b>	<b>(18</b> )	6	Baffle Plate	304L SS	316 SS				
Image: Stream in the stream	$\leq$				7	Bleed Port (Not Show	vn) 304L SS	316 SS				
Image: Stream in the stream					0	Tie Rods	304L SS	316 SS				
13     15     33     15     33     15     33     15     33     15     33     15     33     15     33     15     33     15     33     15     33     15     33     15     33     15     33     16     55     31     16     16     14     14     16 <th< td=""><td>15</td><td></td><td></td><td></td><td>0</td><td>Control Float (1-4 ind</td><td>h) UHMW-PE</td><td>UHMW-PE</td></th<>	15				0	Control Float (1-4 ind	h) UHMW-PE	UHMW-PE				
1     1					9	Control Float (6-12 ir	nch) HDPE	HDPE				
1     1	13			12	10	Nozzle Button	EPDM	EPDM				
Perconduct United Percenduct United					11	Air Release Nozzle	316 SS	316 SS				
9     13     Nozzle Float     UHWW-PE     UHWW-PE       9     13     Nozzle Float     UHWW-PE     UHWW-PE       14     Toroidal Sealing Flange     304.55     316.55       15     Fordeted Orfice Inset     316.35     316.55       16     Guide Rai     044.55     316.55       17     Ant Surge Float     UHWW-PE     UHWW-PE       18     Tis Rod Fasteners     3041.55     316.55       19     Perforated Screen 04     3041.55     316.55       20     Screen Lid Standoff     Wylon     Nylon       13     Tis Rod Fasteners     3041.55     316.55       20     Screen Lid Standoff     Wylon     Nylon       14     Toroidal Sealing Flange     3041.55     316.55       20     Screen Lid Standoff     Wylon     Nylon       15     Standoff     Standoff     3041.55     316.55       16     Guide Rai     Standoff     3041.55     316.55       16     Guide Rai     Standoff     Standoff     3041.55     316.55       16     Guide Rai     Standoff     Standof	(11)			10	12	Dynamic O-Ring Seal						
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Signal	$\sim$											
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alve Operation     High Volume air evacuation while pipeline fills       High Volume air evacuation while pipeline fills     UHMW-PE       High Volume air evacuation while pipeline fills     High Volume vacuum relief during pump shut down       Distarge of air/gas from pressurized pipeline     Information Subject to Change without Notice       bdy     Surge abatement for high velocity start up conditions, column separation and fluid oscillation       compact single chamber tubular body consisting of a barrel and flanged ends secured by the rods and fasteners single chamber tubular body consisting of a barrel and flanged ends secured by the rods and fasteners single to provide a passageway with a cross sectional area which exceeds that of the valve's inlet and outlet connections for the unobstructed flow of air. Certified to twice the valves rated pressure. Body constructed with 6x safet yF (62° C); INTERMITENT: 15.9 x Rated Design Pressure       perating Pressure     MINIMUM: <3 psi (< 0.2 Bar); DESIGN: 363 psi (25 Bar); TEST: 1.5 x Rated Design Pressure. Body constructed with 6x safet yF (62° C); INTERMITENT: 180° F (62° C)	9/		$\smile$ $\smile$ /	2	-							
alve Operation     21 Screen Lid     UHMW-PE     UHMW-PE       alve Operation     High Volume air evacuation while pipeline fills     1     21 Screen Lid Fasteners     304L SS     316 SS       alve Operation     Discharge of air/gas from pressurized pipeline     Surge abatement for high velocity start up conditions, column separation and fluid oscillation     Compact single chamber tubular body consisting of a barrel and flanged ends secured by the rods and fasteners sized to provide a passageway with a cross sectional area which exceeds that of the valve's inlet and outlet connections for the unobstructed flow of air. Certified to twice the valves rated pressure. Body constructed with 6x safety factor.       perating Pressure     MINIMUM: <3 psi (< 0.2 Bar); DESIGN: 363 psi (25 Bar); TEST: 1.5 x Rated Design Pressure	(1)											
22   Screen Lid Fasteners   304L SS   316 SS     alve Operation   High Volume air evacuation while pipeline fills High volume vacuum relief during pump shut down Discharge of air/gas from pressure of pipeline Surge abatement for high velocity start up conditions, column separation and fluid oscillation Compact single chamber tubular body consisting of a barrel and flanged ends secured by the rods and fas- teners sized to provide a passageway with a cross sectional area which exceeds that of the valve's inlet and outlet connections for the unobstructed flow of air. Certified to twice the valves rated pressure. Body con- structed with 6x safety factor.     perating Pressure   MINIMUM: <3 psi (< 0.2 Bar); DESIGN: 363 psi (25 Bar); TEST: 1.5 x Rated Design Pressure	$\bigcirc$		<u> </u>				· · ·	-				
Information Subject to Change without Notice         alve Operation       High Volume air evacuation while pipeline fills         High volume vacuum relief during pump shut down Discharge of air/gas from pressurized pipeline       Surge abatement for high velocity start up conditions, column separation and fluid oscillation         ody       Compact single chamber tubular body consisting of a barrel and flanged ends secured by the rods and fas- teners sized to provide a passageway with a cross sectional area which exceeds that of the valve's inlet and outlet connections for the unobstructed flow of air. Certified to twice the valves rated pressure. Body con- structed with 6x safety factor.         perating Pressure       MININUMUN: 3 2 pi ( 6.22 Bar); DESIGN: 363 psi (25 Bar); TEST: 1.5 x Rated Design Pressure         awimm Temps       OPERATING: Exceeds 145° F (62° C); INTERMITTENT: 180° F (82° C)         Streamlined toroidal base flange transition 1-inch and 2-inch with female NPT threaded connection 1 thru 6-inch, see Model WTW         Streamlined toroidal base flange transition 1-inch and 2-inch with Female NPT threaded connection 3 thru 6-inch, see Model WTW         Streamlined toroidal transition to valve body At minimum, equal to the nominal diameter of the valve Att minimum, equal to the nominal diameter of the valve Att minimum, equal to the nominal diameter of the valve Att minimum, equal to the nominal diameter of the valve 3 for S wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear 3 for S swear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear 3 for S swear-resistant inserts in tubular orifices to protect against heat so												
alve Operation     High Volume vacuum relief during pump shut down Discharge of air/gas from pressurized pipeline Surge abatement for high velocity start up conditions, column separation and fluid oscillation       ody     Compact single chamber tubular body consisting of a barrel and flanged ends secured by tie rods and fasteners sized to provide a passageway with a cross sectional area which exceeds that of the valve's inlet and outlet connections for the unobstructed flow of air. Certified to twice the valves rated pressure. Body con- structed with 6x safety factor.       perating Pressure     MINIMUM: < 3 psi (< 0.2 Bar); DESIGN: 363 psi (25 Bar); TEST: 1.5 x Rated Design Pressure					22							
Iaximum Temps     OPERATING: Exceeds 145° F (62° C): INTERMITENT: 180° F (82° C)       Jupper     Streamlined toroidal sealing flange with WTR-CS Perforated Screen Guard       inch and 2-inch with fmale NPT threaded connection     1 thru 6-inch with fmale NPT threaded connection       stru 16-inch, see Model WTW     Streamlined toroidal sealing flange with WTR-CS Perforated Screen Guard       tower     Streamlined toroidal seal flange transition       1-inch and 2-inch with Female NPT threaded connection     3 thru 6-inch, see Model WTW       Streamlined toroidal base flange transition     1-inch and 2-inch with ANSI B16.5 Class 150 studded flange (Class 300 flange pattern available on request)       a thru 16-inch, see Model WTW     Streamlined toroidal transition to valve body       At minimum, equal to the nominal diameter of the valve     Streamlined toroidal transition to valve body       Att minimum, equal to the nominal diameter of the valve     Multiple tubular orifices to evenly distribute pressurized air across the face of the float       16 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear     1/2-inch Female NPT with Male NPT Hex Socket Plug       olation Vature     Supplied by others (Full port ball valvalve recommended and available on request)       ase Flow Data Table     ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       Is Compliance     When specified, raw material is controlled for USA	-		outlet connections for the unobstructed flow of air. Certified to twice the valves rated pressure. Body con- structed with 6x safety factor.									
upper       Streamlined toroidal sealing flange with WTR-CS Perforated Screen Guard 1-inch and 2-inch with female NPT threaded connection 1 thru 6-inch with connection points for 'Top Hat' adapter. 8 thru 16-inch, see Model WTW         ower       Streamlined toroidal base flange transition 1-inch and 2-inch with Female NPT threaded connection 3 thru 6-inch with ANSI B16.5 Class 150 studded flange (Class 300 flange pattern available on request) 8 thru 16-inch, see Model WTW         targe       Streamlined toroidal transition to valve body A thruinum, equal to the nominal diameter of the valve Ant-Surge       Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear Nozzle       Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear 317/2-inch Female NPT with Male NPT Hex Socket Plug 318 Streamlined toroidal trave recommended and available on request) 318 Compliance       Multiple tubular orifices to protect against heat softening and abrasive wear 319 Streamlined (PT all Valve (s)—Code N (NN)       Custom Orifices—Code X       Pressure Gage Assembly, and coating always performed in USA         optimal       Full Port Isolation Valve—Code B       AIS Compliant—Code A       All 316L SS—Code 6         origin alwest performed in USA       Full Port Isolation Valve—Code B			MINIMUM: < 3 psi (< 0.2 Bar); DE	SIGN: 363 psi (25	Bar	); <b>TEST:</b> 1.5 x Rated	Design Pressure					
upper     1-inch and 2-inch with female NPT threaded connection 1 thru 6-inch with connection points for 'Top Hat' adapter. 8 thru 16-inch, see Model WTW       streamlined toroidal base flange transition 1-inch and 2-inch with Female NPT threaded connection 3 thru 6-inch, see Model WTW       awer     Streamlined toroidal base flange transition 1-inch and 2-inch with Female NPT threaded connection 3 thru 6-inch, see Model WTW       arge     Streamlined toroidal transition to valve body At minimum, equal to the nominal diameter of the valve Ant-Surge       Nozzle     See Flow Data Table       ide Port Connections     1/2-inch Female NPT with Male NPT Hex Socket Plug Supplied by others (Full port ball valve recommended and available on request)       olation Valve     ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       pott Ball Valve (s) — Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Full Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       Class 300 Flange Pattern—Code K     Leak test to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       alve Tests     Free Air Release     Pressurized Air-Release     Vacuum Relief	/laximum Temp	)S										
onnections     1 thru 6-inch with connection points for 'Top Hat' adapter. 8 thru 16-inch, see Model WTW       Jower     Streamlined toroidal base flange transition 1-inch and 2-inch with Female NPT threaded connection 3 thru 6-inch, see Model WTW       Aut-Guine during the inch, see Model WTW     Streamlined toroidal transition to valve body A transition to valve body A transition to valve body       Ant-Surge     Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear 312-inch Female NPT with Male NPT Hex Socket Plug       iolation Valve     Supplied by others (Full port ball valve recommended and available on request)       solution Valve     Supplied by others (Full port ball valve recommended and available on request)       Nozzle     Supplied by others (Full port ball valve recommended and available on request)       solution Valve     Supplied by others (Full port ball valve recommended and available on request)       solution Valve     Supplied by others (Full port ball valve recommended and available on request)       solution Valve     Supplied by others (Full port ball valve (S)-Code X     Pressure Gage Assembly, and coating always performed in USA       solution Valve     Port Ball Valve (S)-Code N (NN)     Custom Orifices-Code X     Pressure Gage Assembly       solution Valve <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>												
onnections       8 thru 16-inch, see Model WTW         Streamlined toroidal base flange transition       1-inch and 2-inch with Female NPT threaded connection         1-inch and 2-inch with ANSI B16.5 Class 150 studded flange (Class 300 flange pattern available on request)       8 thru 16-inch, see Model WTW         arge       Streamlined toroidal transition to valve body       At minimum, equal to the nominal diameter of the valve         Art-Surge       Multiple tubular orifices to evenly distribute pressurized air across the face of the float         316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear         Nozzle       See Flow Data Table         ide Port Connections / Registrations       Supplied by others (Full port ball valve recommended and available on request)         solation Valve       Supplied by others (Full port ball valve recommended and available on request)         solation Valve       Supplied by others (Full port ball valve recommended and available on request)         IS Compliance       Vhen specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA         port Ball Valve (s)—Code N (NN)       Custom Orifices—Code X       Pressure Gage Assembly         full port Isolation Valve—Code B       AIS Compliant—Code A       All 316L SS—Code 6         class 300 Flange Pattern—Code K       Leak test to 1.5x rated pressu		Upper										
Streamlined toroidal base flange transition       Lower     Streamlined toroidal base flange transition       1-inch and 2-inch with Female NPT threaded connection     3 thru 6-inch with ANSI B16.5 Class 150 studded flange (Class 300 flange pattern available on request)       Mather Streamlined toroidal transition to valve body     Atr minimum, equal to the nominal diameter of the valve       Ant-Surge     Streamlined toroidal transition to valve body       Att Surge     Multiple tubular orifices to evenly distribute pressurized air across the face of the float       316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear       Nozzle     See Flow Data Table       ide Port Connections     1/2-inch Female NPT with Male NPT Hex Socket Plug       solation Valve     Supplied by others (Full port ball valve recommended and available on request)       ertifications / Registrations     ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       eptions     Full Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       eptions     Full Port Isolation Valve—Code B     AIS Compliant—Code A     AlI 316L SS—Code 6       Class 300 Flange Patterm—Code K     Each Unit												
Lower     3 thru 6-inch with ANSI B16.5 Class 150 studded flange (Class 300 flange pattern available on request) 8 thru 16-inch, see Model WTW       Artesurge     Large     Streamlined toroidal transition to valve body At minimum, equal to the nominal diameter of the valve       Ant-Surge     Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear Nozzle       See Flow Data Table     Supplied by others (Full port ball valve recommended and available on request)       oratifications / Registrations     Supplied by others (Full port ball valve recommended and available on request)       IS Compliance     MNSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Full Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       Class 300 Flange Pattern—Code K     Leak test to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       alve Tests     Free Air Release     Pressurized Air-Release     Vacuum Relief       Nozzle Orifice Flow     Anti-Surge Activation (Switch Point)     CFD & Physical Flow <td>onnections</td> <td></td> <td>Streamlined toroidal base flange</td> <td></td> <td></td> <td></td> <td></td> <td></td>	onnections		Streamlined toroidal base flange									
Ant-Surge     Arrub 6-inch with ANSI B16.5 Class 150 studged flange (Class 300 flange pattern available on request) 8 thru 16-inch, see Model WTW       Frifices     Large     Streamlined toroidal transition to valve body At minimum, equal to the nominal diameter of the valve       Ant-Surge     Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear       Nozzle     See Flow Data Table       iolation Valve     Supplied by others (Full port ball valve recommended and available on request)       ertifications / Registrations     ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Full Port Isolation Valve     All 316L SS—Code 6     Class 300 Flange Pattern—Code K       alve Tests     Each Unit     Leak test to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       alve Tests     Each Model     Free Air Release     Pressurized Air-Release     Vacuum Relief       Port Ball Valve (S)—Code Flow     Anti-Surge Activation (Switch Point)     CFD & Physical Flow		lower	1-inch and 2-inch with Female NPT threaded connection 3 thru 6-inch with ANSI B16.5 Class 150 studded flange (Class 300 flange pattern available on request)									
Image     Streamlined toroidal transition to valve body At minimum, equal to the nominal diameter of the valve       Ant-Surge     Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear       Nozzle     See Flow Data Table       ide Port Connections     1/2-inch Female NPT with Male NPT Hex Socket Plug       Supplied by others (Full port ball valve recommended and available on request)       olation Valve     Supplied by others (Full port ball valve recommended and available on request)       olation Valve     ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Pull Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       Class 300 Flange Pattern—Code K     Leak test to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       alve Tests     Free Air Release     Pressurized Air-Release     Vacuum Relief       Nozzle Orifice Flow     Anti-Surge Activation (Switch Point)     CFD & Physical Flow		Lower										
Large     At minimum, equal to the nominal diameter of the valve       Ant-Surge     Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear       Nozzle     See Flow Data Table       ide Port Connections     1/2-inch Female NPT with Male NPT Hex Socket Plug       solation Valve     Supplied by others (Full port ball valve recommended and available on request)       solation Valve     ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance     Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly, and coating always performed in USA       protions     Full Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       avertests     Fach Unit     Leak test to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       avertests     Free Air Release     Pressurized Air-Release     Vacuum Relief       Nozzle Orifice Flow     Anti-Surge Artivation (Switch Point)     CFD & Physical Flow												
Ant-Surge     Multiple tubular orifices to evenly distribute pressurized air across the face of the float 316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear       Nozzle     See Flow Data Table       ide Port Connections     1/2-inch Female NPT with Male NPT Hex Socket Plug       olation Valve     Supplied by others (Full port ball valve recommended and available on request)       ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       ptions     Port Ball Valve (s) — Code N (NN)     Custom Orifices — Code X     Pressure Gage Assembly       Port Isolation Valve     All 316 LSS — Code 6     Class 300 Flange Pattern — Code K     Pressurized air release (Drop Test)     Low Pressure Seal       Pathematical for the finance     Free Air Release     Pressurized Air-Release     Vacuum Relief       Post Ball Orifice Flow     Anti-Surge Activation (Switch Point)     CFD & Physical Flow		Large			V-1-	10						
Ant-Surge     316 SS wear-resistant inserts in tubular orifices to protect against heat softening and abrasive wear       Nozzle     See Flow Data Table       ide Port Connections     1/2-inch Female NPT with Male NPT Hex Socket Plug       solation Valve     Supplied by others (Full port ball valve recommended and available on request)       anti-Surge     ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Is death to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       Is alve Tests     Free Air Release	rifices											
NozzleSee Flow Data Tableide Port Connections1/2-inch Female NPT with Male NPT Hex Socket Plugcolation ValveSupplied by others (Full port ball valve recommended and available on request)ertifications / RegistrationsANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. SystemIS ComplianceWhen specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USAptionsPort Ball Valve (s)—Code N (NN)Custom Orifices—Code XPressure Gage AssemblyptionsFull Port Isolation Valve—Code BAIS Compliant—Code AAll 316L SS—Code 6alve TestsEach UnitFree Air ReleasePressurized air release (Drop Test)Low Pressure SealFree Air ReleasePressurized Air-ReleaseVacuum ReliefNozzle Orifice FlowAnti-Surge Activation (Switch Point)CFD & Physical Flow	inices	Ant-Surge						wear				
ide Port Connections     1/2-inch Female NPT with Male NPT Hex Socket Plug       solation Valve     Supplied by others (Full port ball valve recommended and available on request)       ertifications / Registrations     ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       apptions     Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       in Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       in Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       in Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       in Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       in Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       in Class 300 Flange Pattern—Code K     Each Unit     Leak test to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       in Port Isol Portifice Flow     Anti-Surge Activation (Switch Point)     CFD & Physical Flow		Nozzle										
ertifications / Registrations       ANSI/NSF 61, ANSI/NSF 372, ISO9001:2015 Registered Mgmt. System       IS Compliance       When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code A     All 316L SS—Code 6       Class 300 Flange Pattern—Code K     Each Unit     Leak test to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       Free Air Release       Pressurized Air-Release     Vacuum Relief       Nozzle Orifice Flow     Anti-Surge Activation (Switch Point)     CFD & Physical Flow	ide Port Conne		1/2-inch Female NPT with Male N									
IS Compliance     When specified, raw material is controlled for USA Country of Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Origin Machining, fabrication, assembly, and coating always performed in USA       Port Ball Valve (s)—Code N (NN)     Custom Origin Machining, fabrication, assembly, and All Stom Origin Machining, fabrication, assembly       Port Ball Valve (s)—Code N (NN)     Custom Origin Machining, fabrication, assembly, and All Stom Origin Machining, fabrication, assembly       Port Ball Valve (s)—Code N (NN)     Custom Origin Machining, fabrication, assembly       All Stom Origin Port Isolation Valve—Code B     All Scompliant—Code A     All Stom Origin Machining, fabrication, assembly       All Stom Origin Port Isolation Valve—Code B	olation Valve		Supplied by others (Full port ball	valve recommend	led a		uest)					
Instruction     coating always performed in USA       Instruction     Port Ball Valve (s)—Code N (NN)     Custom Orifices—Code X     Pressure Gage Assembly       Instruction     Full Port Isolation Valve—Code B     AIS Compliant—Code A     All 316L SS—Code 6       Instruction     Class 300 Flange Pattern—Code K     Instruction     Instruction       Instruction     Leak test to 1.5x rated pressure     Pressurized air release (Drop Test)     Low Pressure Seal       Instruction     Free Air Release     Pressurized Air-Release     Vacuum Relief       Nozzle Orifice Flow     Anti-Surge Activation (Switch Point)     CFD & Physical Flow	ertifications / F	Registrations						<u>_</u>				
Port Ball Valve (s)—Code N (NN) Custom Orifices—Code X Pressure Gage Assembly Full Port Isolation Valve—Code B AIS Compliant—Code A All 316L SS—Code 6 Class 300 Flange Pattern—Code K Pressurized air release (Drop Test) Low Pressure Seal Leak test to 1.5x rated pressure Pressurized Air-Release Vacuum Relief Nozzle Orifice Flow Anti-Surge Activation (Switch Point) CED & Physical Flow	IS Compliance				Cou	intry of Origin Mach	iining, fabrication, a	ssembly, and				
Putl Port Isolation Valve—Code B   AIS Compliant—Code A   All 316L SS—Code 6     Class 300 Flange Pattern—Code K   Each Unit   Each Unit   Each Unit     Free Air Release   Pressurized air release (Drop Test)   Low Pressure Seal     Free Air Release   Pressurized Air-Release   Vacuum Relief     Nozzle Orifice Flow   Anti-Surge Activation (Switch Point)   CFD & Physical Flow					es—	Code X F	ressure Gage Assen	nbly				
Image: Pressure alve Tests   Leak test to 1.5x rated pressure   Pressurized air release (Drop Test)   Low Pressure Seal     Image: Pressurized Air-Release   Pressurized Air-Release   Vacuum Relief     Image: Pressurized Air-Release   Vacuum Relief     Image: Nozzle Orifice Flow   Anti-Surge Activation (Switch Point)   CFD & Physical Flow			Full Port Isolation Valve—Code B	AIS Compliant								
Free Air Release   Pressurized Air-Release   Vacuum Relief     Nozzle Orifice Flow   Anti-Surge Activation (Switch Point)   CFD & Physical Flow	ptions											
Image: solution of the sector of th	ptions											
Each Model       Nozzle Orifice Flow       Anti-Surge Activation (Switch Point)       CFD & Physical Flow	ptions	Each Unit			r rele	ease (Drop Test)	ow Pressure Seal					
Point)	Options Valve Tests	Each Unit	Leak test to 1.5x rated pressure	Pressurized air								
	- 		Leak test to 1.5x rated pressure Free Air Release	Pressurized air Pressurized Air Anti-Surge Act	r-Re	lease \	acuum Relief					

#### International Valve / Vent-Tech General Specification—WTR—C Series

## Model WTR: Series C—Dimensions



01WTR25TCS	1	363	4 3/4	-	7 3/4	7/8	8 5/8	-	1 3/4	4 3/4	-	0	-	11
02WTR25TCS	2	363	6 1/2	-	8 3/4	1 1/8	9 7/8	-	2	6 1/2	-	0	-	20
03WTR25TCS	3	363	9	-	10	1 1/2	11 1/2	-	2 1/4	9	-	0	-	45
04WTR25TCS	4	363	9	-	10 5/8	2 3/8	13	-	2 1/4	9	-	0	-	44
ANSI B16.5 Class	ANSI B16.5 Class 150 Studded Connection													
01WTR25SCS	1	363	4 3/4	-	7 3/4	7/8	8 5/8	-	2 1/4	4 3/4	3 1/8	4	1/2	11
02WTR25SCS	2	363	6 1/2	-	8 3/4	1 1/8	9 7/8	-	2 1/4	6 1/2	4 3/4	4	5/8	20
03WTR25SCS	3	363	9	-	10	1 1/2	11 1/2	-	2 1/4	9	6	4	5/8	45
04WTR25SCS	4	363	9	-	10 5/8	2 3/8	13	-	2 1/4	9	7 1/2	8	5/8	44
06WTR25SCS	6	363	14 3/8	-	14 1/2	3 1/8	17 5/8	-	2 1/2	14 3/8	9 1/2	8	3/4	143
				8 to 12-i	nch Mode	l WTR hav	<mark>ve been su</mark>	perseded	by Mode	I WTW.				

See Model WTW

08WTR25SCS	8	
10WTR25SCS	10	
12WTR25SCS	12	

#### Model WTR Series C—Flow Data

		Dino		Nom Valve	Operating	Nozzle	An	ti-Surge Or	ifices†	Controlled Air	Vacuum Relief	
Valve Code	Con	Pipe Connection*		Size	Pressure Range	Diameter	Count	Size	Single Hole Equivalent	Release Thru Anti- Surge Orifices ‡	Capacity §	
		code	1	inch	psi	mm	each	mm	mm	max. scfm	min. scfm	
01WTR-C	Т	S	R	1	< 3.0 - 363	1.05	3	2.4	4.2	52	149	
02WTR-C	Т	S	R	2	< 3.0 - 363	1.2	4	4.5	9	271	676	
03WTR-C	Т	S	R	3	< 3.0 - 363	1.5	4	6.3	12.6	544	1,408	
04WTR-C	Т	S	R	4	< 3.0 - 363	1.5	7	6.3	16.7	951	1,887	
06WTR-C		S	R	6	< 3.0 - 363	2.4	4	12.7	25.4	2,208	4,741	
08WTR-C		S	R	8		· · · · ·						
10WTR-C		S	R	10	1			See N	1odel WTW			
12WTR-C		S	R	12	1							

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

A minimum of 3 separate wear protected orifices. Quantity and sizes of orifices are customizable. Please contact factory for additional information.

‡ At pressure of 145 psig. § Cubic feet per minute (ft3/min) at 70° Fahrenheit,14.7 psi absolute and 5.08 psi differential.

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