

# Control Valves, Fittings and Accessories

## INTERNATIONAL



**WS2CI/QC\***  
473 lpm  
28.4 m<sup>3</sup>/h  
125 gpm



**WS2EI/QC\***  
**WS2SP/QC\***  
473 lpm  
28.4 m<sup>3</sup>/h  
125 gpm



**WS2H**  
473 lpm  
28.4 m<sup>3</sup>/h  
125 gpm



**WS3**  
946 lpm  
56.8 m<sup>3</sup>/h  
250 gpm



**WS1.5CI**  
246 lpm  
14.7 m<sup>3</sup>/h  
65 gpm



**WS1.5EI**  
**WS1.5SP**  
246 lpm  
14.7 m<sup>3</sup>/h  
65 gpm



**WS2CI**  
435 lpm  
26.1 m<sup>3</sup>/h  
115 gpm



**WS2EI**  
**WS2SP**  
435 lpm  
26.1 m<sup>3</sup>/h  
115 gpm



**WS1.25\***  
129 lpm  
7.7 m<sup>3</sup>/h  
34 gpm



**WS1.25CI\***  
129 lpm  
7.7 m<sup>3</sup>/h  
34 gpm



**WS1.25EI\***  
**WS1.25SP\***  
129 lpm  
7.7 m<sup>3</sup>/h  
34 gpm



**WS1.25TC\***  
129 lpm  
7.7 m<sup>3</sup>/h  
34 gpm



**WS1\***  
102 lpm  
6.1 m<sup>3</sup>/h  
27 gpm



**WS1CI\***  
102 lpm  
6.1 m<sup>3</sup>/h  
27 gpm



**WS1EI\***  
**WS1SP\***  
102 lpm  
6.1 m<sup>3</sup>/h  
27 gpm



**WS1TC\***  
102 lpm  
6.1 m<sup>3</sup>/h  
27 gpm

\*valves shown with optional accessories

# 1" WATER SPECIALIST VALVE SPECIFICATIONS

**INTERNATIONAL**

**Clack**® 



## SPECIFICATIONS

**WS1**

**WS1CI**

<b>Service @ 1 bar/15 psi drop</b>	102 lpm, 6.1 m <sup>3</sup> /h (includes meter and bypass)	102 lpm, 6.1 m <sup>3</sup> /h (includes meter and bypass)
<b>Backwash @ 1.7 bar/25 psi drop</b>	102 lpm, 6.1 m <sup>3</sup> /h (includes bypass)	102 lpm, 6.1 m <sup>3</sup> /h (includes bypass)
<b>Tank Applications:</b>		
<b>Softener</b>	6" - 21" diameter	6" - 21" diameter
<b>Filter (1)</b>	6" - 21" diameter	6" - 21" diameter
<b>Inlet/Outlet Fitting Connections</b>	3/4" - 1.25" Male BSPT 3/4" - 1.5" Sweat 3/4" - 1.5" Solvent	3/4" - 1.25" Male BSPT 3/4" - 1.5" Sweat 3/4" - 1.5" Solvent
<b>Valve Material</b>	Noryl (2)	Noryl (2)
<b>Cycles</b>	Up to 6	Up to 9
<b>Regeneration</b>	Downflow/Upflow	Downflow/Upflow
<b>Operating Pressures</b>	1.4 - 8.6 bar	1.4 - 8.6 bar
<b>Operating Temperatures</b>	4° - 43° C	4° - 43° C
<b>Meter:</b>		
<b>Flow Rate Range</b>	.95 - 102 lpm	.95 - 102 lpm
<b>Volume Range (cubic meters)</b>	.07 - 189m <sup>3</sup>	.10 - 2000.0m <sup>3</sup>
<b>Totalizer</b>	Yes	Yes
<b>Distributor Pilot</b>	1.050 O.D. Pipe	1.050 O.D. Pipe
<b>Drain Line Connection</b>	3/4" Male NPT Standard 1" Male NPT Optional	3/4" Male NPT Standard 1" Male NPT Optional
<b>Brine Line Connection</b>	3/8" or 1/2" O.D. Poly Tube Compression	3/8" or 1/2" O.D. Poly Tube Compression
<b>Mounting Base Options</b>	2 1/2" - 8 NPSM	2 1/2" - 8 NPSM
<b>Height From Top of Tank</b>	187mm	187mm
<b>Shipping Weight</b>	2 Kg	2 Kg
<b>Electrical:</b>		
<b>Supply Voltage</b>	230V AC	230V AC
<b>Supply Frequency</b>	50 Hz	50 Hz
<b>Output Voltage</b>	12V AC	12V AC
<b>Output Current</b>	500 mA	500 mA

1. Filter tank size calculated @ 407 lpm per m<sup>2</sup> of bed area/10 gpm of backwash per square foot of bed area
2. Noryl is a trademark of Sabic Innovative Plastics IP B.V. Company

# 1" WATER SPECIALIST VALVE SPECIFICATIONS



**WS1EI  
WS1SP**

**WS1TC**

<p><b>102 lpm, 6.1 m<sup>3</sup>/h</b> (includes meter and bypass)  <b>102 lpm, 6.1 m<sup>3</sup>/h</b> (includes bypass)</p>	<p><b>102 lpm, 6.1 m<sup>3</sup>/h</b> (includes meter and bypass)  <b>102 lpm, 6.1 m<sup>3</sup>/h</b> (includes bypass)</p>
<p><b>6" - 21" diameter</b>  <b>6" - 21" diameter</b></p>	<p><b>6" - 21" diameter</b>  <b>6" - 21" diameter</b></p>
<p><b>3/4" - 1.25" Male BSPT</b>  <b>3/4" - 1.5" Sweat</b>  <b>3/4" - 1.5" Solvent</b></p>	<p><b>3/4" - 1.25" Male BSPT</b>  <b>3/4" - 1.5" Sweat</b>  <b>3/4" - 1.5" Solvent</b></p>
<p><b>Noryl (2)</b>  <b>Up to 6</b>  <b>Downflow</b></p>	<p><b>Noryl (2)</b>  <b>Up to 6</b>  <b>Downflow</b></p>
<p><b>1.4 - 8.6 bar</b>  <b>4° - 43° C</b></p>	<p><b>1.4 - 8.6 bar</b>  <b>4° - 43° C</b></p>
<p><b>.95 - 102 lpm</b>  <b>.02 - 5700m<sup>3</sup></b>  <b>Yes</b></p>	<p><b>Not</b>  <b>Applicable</b></p>
<p><b>1.050 O.D. Pipe</b></p>	<p><b>1.050 O.D. Pipe</b></p>
<p><b>3/4" Male NPT Standard</b>  <b>1" Male NPT Optional</b></p>	<p><b>3/4" Male NPT Standard</b>  <b>1" Male NPT Optional</b></p>
<p><b>3/8" or 1/2" O.D.</b>  <b>Poly Tube Compression</b></p>	<p><b>3/8" or 1/2" O.D.</b>  <b>Poly Tube Compression</b></p>
<p><b>2 1/2" - 8 NPSM</b></p>	<p><b>2 1/2" - 8 NPSM</b></p>
<p><b>187mm</b></p>	<p><b>187mm</b></p>
<p><b>2 Kg</b></p>	<p><b>2 Kg</b></p>
<p><b>230V AC or 6AA NMHB</b>  <b>50 Hz</b>  <b>12V AC</b>  <b>500 mA</b></p>	<p><b>230V AC</b>  <b>50 Hz</b>  <b>12V AC</b>  <b>500 mA</b></p>

Valves shown with optional bypass.

# 1.25" WATER SPECIALIST VALVE SPECIFICATIONS

**INTERNATIONAL**



## SPECIFICATIONS

### WS1.25

### WS1.25CI

<b>Service @ 1 bar/15 psi drop</b>	129 lpm, 7.7 m <sup>3</sup> /h (includes meter and bypass)	129 lpm, 7.7 m <sup>3</sup> /h (includes meter and bypass)
<b>Backwash @ 1.7 bar/25 psi drop</b>	121 lpm, 7.3 m <sup>3</sup> /h (includes bypass)	121 lpm, 7.3 m <sup>3</sup> /h (includes bypass)
<b>Tank Applications:</b>		
<b>Softener</b>	6" - 21" diameter	6" - 21" diameter
<b>Filter (1)</b>	6" - 24" diameter	6" - 24" diameter
<b>Inlet/Outlet</b>		
<b>Fitting Connections</b>	3/4" - 1.25" Male BSPT 3/4" - 1.5" Sweat 3/4" - 1.5" Solvent	3/4" - 1.25" Male BSPT 3/4" - 1.5" Sweat 3/4" - 1.5" Solvent
<b>Valve Material</b>	Noryl (2)	Noryl (2)
<b>Cycles</b>	Up to 6	Up to 9
<b>Regeneration</b>	Downflow	Downflow
<b>Operating Pressures</b>	1.4 - 8.6 bar	1.4 - 8.6 bar
<b>Operating Temperatures</b>	4° - 43° C	4° - 43° C
<b>Meter:</b>		
<b>Flow Rate Range</b>	.95 - 129 lpm	.95 - 129 lpm
<b>Volume Range (cubic meters)</b>	.500 - 250.0m <sup>3</sup>	.10 - 2000.0m <sup>3</sup>
<b>Totalizer</b>	Yes	Yes
<b>Distributor Pilot</b>	32mm O.D. Pipe	32mm O.D. Pipe
<b>Drain Line Connection</b>	3/4" Male NPT Standard 1" Male NPT Optional	3/4" Male NPT Standard 1" Male NPT Optional
<b>Brine Line Connection</b>	3/8" or 1/2" O.D. Poly Tube Compression	3/8" or 1/2" O.D. Poly Tube Compression
<b>Mounting Base Options</b>	2-1/2" - 8 NPSM	2-1/2" - 8 NPSM
<b>Height From Top of Tank</b>	187mm	187mm
<b>Shipping Weight w/Meter</b>	2 Kg	2 Kg
<b>Electrical:</b>		
<b>Supply Voltage</b>	230V AC	230V AC
<b>Supply Frequency</b>	50 Hz	50 Hz
<b>Output Voltage</b>	12V AC	12V AC
<b>Output Current</b>	500 mA	500 mA

1. Filter tank size calculated @ 407 lpm per m<sup>2</sup> of bed area/10 gpm of backwash per square foot of bed area

2. Noryl is a trademark of Sabic Innovative Plastics IP B.V. Company

# 1.25" WATER SPECIALIST VALVE SPECIFICATIONS






**WS1.25EI  
WS1.25SP**

**WS1.25TC**

129 lpm, 7.7 m <sup>3</sup> /h (includes meter and bypass) 121 lpm, 7.3 m <sup>3</sup> /h (includes bypass)	129 lpm, 7.7 m <sup>3</sup> /h (includes meter and bypass) 121 lpm, 7.3 m <sup>3</sup> /h (includes bypass)
6" - 21" diameter 6" - 24" diameter	6" - 21" diameter 6" - 24" diameter
3/4" - 1.25" Male BSPT 3/4" - 1.5" Sweat 3/4" - 1.5" Solvent	3/4" - 1.25" Male BSPT 3/4" - 1.5" Sweat 3/4" - 1.5" Solvent
Noryl (2) Up to 6 Downflow	Noryl (2) Up to 6 Downflow
1.4 - 8.6 bar 4° - 43° C	1.4 - 8.6 bar 4° - 43° C
.95 - 129 lpm .02 - 5700m <sup>3</sup> Yes	Not Applicable
32mm O.D. Pipe	32mm O.D. Pipe
3/4" Male NPT Standard 1" Male NPT Optional	3/4" Male NPT Standard 1" Male NPT Optional
3/8" or 1/2" O.D. Poly Tube Compression	3/8" or 1/2" O.D. Poly Tube Compression
2-1/2" - 8 NPSM	2-1/2" - 8 NPSM
187mm	187mm
2 Kg	2 Kg
230V AC or 6AA NMHB 50 Hz 12V AC 500 mA	230V AC 50 Hz 12V AC 500 mA





Valves shown with optional bypass.

# 1.5" WATER SPECIALIST VALVE SPECIFICATIONS

		
SPECIFICATIONS	WS1.5CI	WS1.5EI WS1SP
<b>Service @ 1 bar/15 psi drop</b> <b>Backwash @ 1.7 bar/25 psi drop</b>	246 lpm, 14.7 m <sup>3</sup> /h 208 lpm, 12.4 m <sup>3</sup> /h	246 lpm, 14.7 m <sup>3</sup> /h 208 lpm, 12.4 m <sup>3</sup> /h
<b>Tank Applications:</b> <b>Softener</b> <b>Filter (1)</b>	12" - 24" diameter 12" - 30" diameter	12" - 24" diameter 12" - 30" diameter
<b>Inlet/Outlet</b> <b>Fitting Connections</b>	1.5" Female BSPT or NPT	1.5" Female BSPT or NPT
<b>Valve Material</b> <b>Cycles</b> <b>Regeneration</b>	Lead Free Brass Up to 9 Downflow	Lead Free Brass Up to 6 Downflow
<b>Operating Pressures</b> <b>Operating Temperatures</b>	1.4 - 8.6 bar 4° - 43° C	1.4 - 8.6 bar 4° - 43° C
<b>Meter:</b> <b>Flow Rate Range</b> <b>Volume Range</b> <b>Totalizer</b>	2 - 284 lpm 0.02 - 5700 m <sup>3</sup> Yes	2 - 284 lpm 0.02 - 5700 m <sup>3</sup> Yes
<b>Distributor Pilot</b>	50mm O.D. or 1.90" O.D. Pipe	50mm O.D. or 1.90" O.D. Pipe
<b>Drain Line Connection</b>	1.25" Female NPT with 3/4" Male NPT Standard 1" Male NPT Optional	1.25" Female NPT with 3/4" Male NPT Standard 1" Male NPT Optional
<b>Brine Line Connection</b>	3/4" Female NPT 1/2" O.D. Poly Tube Compression	3/4" Female NPT 1/2" O.D. Poly Tube Compression
<b>Mounting Base Options</b>	4" - 8 UN	4" - 8 UN
<b>Height From Top of Tank</b>	191mm	191mm
<b>Shipping Weight w/Meter</b>	9.5 Kg	9.5 Kg
<b>Electrical:</b> <b>Supply Voltage</b> <b>Supply Frequency</b> <b>Output Voltage</b> <b>Output Current</b>	230V AC 50 Hz 12V AC 500 mA	230V AC or 6AA NMHB 50 Hz 12V AC 500 mA




1. Filter tank size calculated @ 407 lpm per m<sup>2</sup> of bed area/10 gpm of backwash per square foot of bed area
2. Noryl is a trademark of Sabic Innovative Plastics IP B.V. Company

## 2" WATER SPECIALIST VALVE SPECIFICATIONS

			
<b>WS2CI</b>	<b>WS2CI/QC</b>	<b>WS2EI WS2SP</b>	<b>WS2EI/QC WS2SP/QC</b>
435 lpm, 26.1 m <sup>3</sup> /h 303 lpm, 18.2 m <sup>3</sup> /h	473 lpm, 28.4 m <sup>3</sup> /h 322 lpm, 19.3 m <sup>3</sup> /h	435 lpm, 26.1 m <sup>3</sup> /h 303 lpm, 18.2 m <sup>3</sup> /h	473 lpm, 28.4 m <sup>3</sup> /h 322 lpm, 19.3 m <sup>3</sup> /h
12" - 48" diameter 12" - 36" diameter	12" - 48" diameter 12" - 36" diameter	12" - 48" diameter 12" - 36" diameter	12" - 48" diameter 12" - 36" diameter
2" Female BSPT or NPT	2" Female BSPT or NPT	2" Female BSPT or NPT	2" Female BSPT or NPT
Lead Free Brass Up to 9 Downflow	Lead Free Brass Up to 9 Downflow	Lead Free Brass Up to 6 Downflow	Lead Free Brass Up to 6 Downflow
1.4 - 8.6 bar 4° - 43° C	1.4 - 8.6 bar 4° - 43° C	1.4 - 8.6 bar 4° - 43° C	1.4 - 8.6 bar 4° - 43° C
5.7 - 568 lpm 0.02 - 5700 m <sup>3</sup> Yes	5.7 - 568 lpm 0.02 - 5700 m <sup>3</sup> Yes	5.7 - 568 lpm 0.02 - 5700 m <sup>3</sup> Yes	5.7 - 568 lpm 0.02 - 5700 m <sup>3</sup> Yes
50mm O.D. or 1.90" O.D. Pipe	63mm O.D. or 2.375" O.D. Pipe	50mm O.D. or 1.90" O.D. Pipe	63mm O.D. or 2.375" O.D. Pipe
1.5" Female NPT	1.5" Female NPT	1.5" Female NPT	1.5" Female NPT
1" Male NPT elbow 3/4" x 1" Solvent elbow 1/2" O.D. Poly Tube Compression	1" Male NPT elbow 3/4" x 1" Solvent elbow 1/2" O.D. Poly Tube Compression	1" Male NPT elbow 3/4" x 1" Solvent elbow 1/2" O.D. Poly Tube Compression	1" Male NPT elbow 3/4" x 1" Solvent elbow 1/2" O.D. Poly Tube Compression
4" - 8 UN	Quick Disconnect 4" - 8 UN 6" Flange or Side Mount	4" - 8 UN	Quick Disconnect 4" - 8 UN 6" Flange or Side Mount
216mm	with 4" - 8 UN QC Base is 284.5mm with 6" Flange QC Base is 287mm	216mm	with 4" - 8 UN QC Base is 284.5mm with 6" Flange QC Base is 287mm
13 Kg	14 Kg	13 Kg	14 Kg
230V AC 50 Hz 12V AC 500 mA	230V AC 50 Hz 12V AC 500 mA	230V AC or 6AA NMHB 50 Hz 12V AC 500 mA	230V AC 50 Hz 12V AC 500 mA

Valves shown with optional accessories.

# 2" & 3" WATER SPECIALIST VALVE SPECIFICATIONS

		
SPECIFICATIONS	WS2H	WS3
<b>Service @ 1 bar/15 psi drop</b> <b>Backwash @ 1.7 bar/25 psi drop</b>	473 lpm, 28.4 m <sup>3</sup> /h (includes meter) 473 lpm, 28.4 m <sup>3</sup> /h	946 lpm, 56.8 m <sup>3</sup> /h 833 lpm, 50.0 m <sup>3</sup> /h
<b>Tank Applications:</b> <b>Softener</b> <b>Filter (1)</b>	18" - 63" diameter 18" - 48" diameter	18" - 96" diameter 18" - 63" diameter
<b>Inlet/Outlet</b> <b>Fitting Connections</b>	2" Female BSPT or NPT/ 2.5" Groove Lock	3" Female BSPT or NPT
<b>Valve Material</b> <b>Cycles</b> <b>Regeneration</b>	Lead Free Brass Up to 9 Downflow	Lead Free Brass Up to 9 Downflow
<b>Operating Pressures</b> <b>Operating Temperatures</b>	1.4 - 8.6 bar 4° - 43° C	1.4 - 8.6 bar 4° - 43° C
<b>Meter:</b> <b>Flow Rate Range</b> <b>Volume Range</b> <b>Totalizer</b>	5.7 - 473 lpm 38 - 3796.2 liters x 1000 Yes	13 - 1,325 lpm 38 - 3796.2 liters x 1000 Yes
<b>Distributor Pilot</b>	63mm O.D. or 2.375" O.D. Pipe	90mm or 3.5" O.D. Pipe 3" NPS
<b>Drain Line Connection</b>	2" Female NPT or BSPT 2.5" Groove Lock	3" Female NPT or BSPT
<b>Brine Line Connection</b>	1" Male NPT elbow 3/4" x 1" Solvent elbow	1" Male NPT elbow 3/4" x 1" Solvent elbow
<b>Mounting Base Options</b>	Quick Disconnect 4" - 8 UN 6" Flange Side Mount	Quick Disconnect 6" Flange Side Mount
<b>Height From Top of Tank</b>	with 4" - 8 UN QC Base is 292mm with 6" Flange QC Base is 294.6mm	with 6" Flange QC Base is 318mm
<b>Shipping Weight w/Meter</b>	22.7 Kg	25.9 Kg
<b>Electrical:</b> <b>Supply Voltage</b> <b>Supply Frequency</b> <b>Output Voltage</b> <b>Output Current</b>	230V AC 50 Hz 24V AC 750 mA	230V AC 50 Hz 24V AC 750 mA

1. Filter tank size calculated @ 407 lpm per m<sup>2</sup> of bed area/10 gpm of backwash per square foot of bed area
2. Noryl is a trademark of Sabic Innovative Plastics IP B.V. Company



# 1" & 1.25" Control Valve Fittings and Accessories



# 1" & 1.25" Control Valve Fittings and Accessories

**3/4" Plastic Male BSPT Assembly**



**Order No. V3007-14**

**3/4" John Guest QC Elbow Assembly**



**Order No. V3007-15**

**1" PVC Male BSPT Elbow Assembly**



**Order No. V3007-16**

**Bypass**



**Order No. V3006**

**1" Straight DLFC w/Silencer**



**Order No. V3008-02**

**1" Straight DLFC without Silencer**



**Order No. V3008-04**

**Vertical 90° Adapter Kit**



**Order No. V3191-01**

**Auxiliary Microswitch Kit**



**Order No. V3009**

**WS1 Series Microswitch Assembly**



**Order No. V3014**

**WS2 Auxiliary Switch Kit**



**Order No. V3017**

**Weather Covers**



**Order No. V3175WC-W • White**  
**Order No. V3175WC-A • Almond**

**Wrench**



**Order No. V3193-02**

# 1" & 1.25" Control Valve Fittings and Accessories

**1" & 1.25"  
Motorized Alternating Valve**



**Order No. V3069FF • F x F**

**1" & 1.25"  
No Hard Water Bypass Valve**



**Order No. V3070FF • F x F**

**1" & 1.25"  
Motorized Alternating Valve**



**Order No. V3069MM • M x M**

**1" & 1.25"  
No Hard Water Bypass Valve**



**Order No. V3070FM • F x M**

# 1.5" and 2"

## Control Valve Accessories

**1.5"**  
**Motorized Alternating Valve**



**Order No. V3071 • NPT**  
**Order No. V3071BSPT • BSPT**

**1.5"**  
**No Hard Water Bypass Valve**



**Order No. V3097 • NPT**  
**Order No. V3097BSPT • BSPT**

**2.0"**  
**Motorized Alternating Valve**



**Order No. V3076 • NPT**  
**Order No. V3076BSPT • BSPT**

**2.0"**  
**No Hard Water Bypass Valve**



**Order No. V3098 • NPT**  
**Order No. V3098BSPT • BSPT**

# 3" Control Valve Accessories

**3"**  
**Motorized Alternating Valve**



**Order No. V3083 • NPT**  
**Order No. V3083BSPT • BSPT**

**3"**  
**No Hard Water Bypass Valve**



**Order No. V3099 • NPT**  
**Order No. V3099BSPT • BSPT**

