



# Control Valves, Fittings and Accessories

INTERNATIONAL



**WS1EI TWIN ALTERNATING CONTROL VALVE**  
106 lpm • 6.36 m<sup>3</sup>/h • 28 gpm



**WS1CI TWIN ALTERNATING CONTROL VALVE**  
106 lpm • 6.36 m<sup>3</sup>/h • 28 gpm



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



**WS2EI/QC\***  
**WS2SQ/QC\***  
473 lpm • 28.4 m<sup>3</sup>/h  
125 gpm



**WS2HF**  
624 lpm • 37 m<sup>3</sup>/h  
165 gpm



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



**WS1.5PCI**  
227 lpm • 13.6 m<sup>3</sup>/h  
60 gpm



**WS1.5PEI**  
227 lpm • 13.6 m<sup>3</sup>/h  
60 gpm



**WS1.5CI**  
265 lpm • 15.9 m<sup>3</sup>/h  
70 gpm



**WS1.5EI**  
**WS1.5SQ**  
265 lpm • 15.9 m<sup>3</sup>/h  
70 gpm



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



**WS2EI**  
**WS2SQ**  
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\***  
**WS1.25SQ\***  
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\***  
**WS1SQ\***  
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" & 1.25" WATER SPECIALIST VALVE SPECIFICATIONS



SPECIFICATIONS	WS1* WS1, CI, EI, SQ, TC	WS1TT CI, EI, SQ	WS1.25* WS1, CI, EI, SQ, TC
<b>Service @ 1 bar/15 psi drop</b>	102 lpm, 6.1 m <sup>3</sup> /h (includes meter and bypass)	106 lpm, 6.36 m <sup>3</sup> /h (includes meter and bypass)	129 lpm, 7.7 m <sup>3</sup> /h (includes meter, bypass, and 1.25" fitting kit)
<b>Backwash @ 1.7 bar/25 psi drop</b>	102 lpm, 6.1 m <sup>3</sup> /h (includes bypass)	57 lpm, 3.4 m <sup>3</sup> /h (includes bypass)	121 lpm, 7.3 m <sup>3</sup> /h (includes bypass)
<b>Tank Applications: Softener Filter (1)</b>	6" - 21" diameter 6" - 21" diameter	6" - 21" diameter 6" - 16" diameter	6" - 21" diameter 6" - 24" diameter
<b>Inlet/Outlet Fitting Connections (2)</b>	¾" - 1.25" Male BSPT	¾" - 1.25" Male BSPT	¾" - 1.25" Male BSPT
<b>Valve Material Cycles Regeneration</b>	Fiber Reinforced Composite Up to 6 Downflow/Upflow	Fiber Reinforced Composite Up to 6 Downflow/Upflow	Fiber Reinforced Composite Up to 6 Downflow/Upflow
<b>Operating Pressures Operating Temperatures</b>	1.4 - 8.6 bar 4° - 43° C	1.4 - 8.6 bar 4° - 43° C	1.4 - 8.6 bar 4° - 43° C
<b>Meter: Flow Rate Range</b>	.95 - 102 lpm	.95 - 102 lpm	.95 - 129 lpm
<b>Distributor Pilot</b>	1.050" O.D. Pipe ¾" NPS	1.050" O.D. Pipe ¾" NPS	1.32" O.D. Pipe, 32mm O.D. 1" NPS
<b>Drain Line Connection</b>	¾" Male NPT Standard 1" Male NPT Optional	¾" Male NPT Standard 1" Male NPT Optional	¾" Male NPT Standard 1" Male NPT Optional
<b>Brine Line Connection</b>	⅜" Brine QC Fitting ½" O.D. Poly Tube Compression	⅜" Brine QC Fitting ½" O.D. Poly Tube Compression	⅜" Brine QC Fitting ½" O.D. Poly Tube Compression
<b>Mounting Base Options</b>	2½" - 8 NPSM	2½" - 8 NPSM	2½" - 8 NPSM
<b>Height From Top of Tank</b>	187mm	187mm	187mm
<b>Shipping Weight</b>	2 kg	7.25 kg	2 kg
<b>Certifications and Optional Third-Party Testing</b>	NSF/ANSI 44 NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP54 IP55 with Weather Cover	NSF/ANSI 44 NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP54 IP55 with Weather Cover	NSF/ANSI 44 NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP54 IP55 with Weather Cover

1. Filter tank size calculated @ 10 gpm of backwash per square foot of bed area
  2. See pages 10 and 11 for all available fittings for WS1, WS1TT, and WS1.25
- Valves shown with optional bypass.  
\* Optional mixing valve available.

# 1.5" & 2" WATER SPECIALIST VALVE SPECIFICATIONS

			
<b>WS1.5P</b> CI, EI, SQ	<b>WS1.5</b> CI, EI, SQ	<b>WS2</b> CI, EI, SQ	<b>WS2QC</b> CI, EI, SQ
227 lpm (13.6 m <sup>3</sup> /h) (includes meter)	265 lpm (15.9 m <sup>3</sup> /h) (includes meter)	435 lpm (26.1 m <sup>3</sup> /h) (includes meter)	473 lpm (28.4 m <sup>3</sup> /h) (includes meter)
163 lpm (9.8 m <sup>3</sup> /h)	197 lpm (11.8 m <sup>3</sup> /h)	303 lpm (18.2 m <sup>3</sup> /h)	322 lpm (19.3 m <sup>3</sup> /h)
12" - 24" diameter 12" - 24" diameter	12" - 24" diameter 12" - 30" diameter	12" - 48" diameter 12" - 36" diameter	12" - 48" diameter 12" - 36" diameter
QC to 1.5" BSPT or NPT	1.5" Female BSPT or NPT	2" Female BSPT or NPT	2" Female BSPT or NPT
Fiber Reinforced Composite Up to 6 Downflow/Upflow	Lead Free Brass Up to 9 Downflow/Upflow	Lead Free Brass Up to 6 Downflow/Upflow	Lead Free Brass Up to 6 Downflow/Upflow
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
2 - 284 lpm	2 - 284 lpm	5.7 - 568 lpm	5.7 - 568 lpm
50mm O.D. or 1.90" O.D. Pipe	50mm O.D. or 1.90" O.D. Pipe	50mm O.D. or 1.90" O.D. Pipe	63mm O.D. or 2.375" O.D. Pipe
QC to 1.25" NPT Elbow QC to 1.5" NPT Straight	1.25" Female NPT with ¾" Male NPT Standard 1" Male NPT Optional	1.5" Female NPT	1.5" Female NPT
¾" Female NPT ½" O.D. Poly Tube Compression	¾" Female NPT ½" O.D. Poly Tube Compression	1" Male NPT and BSPT elbow ¾" x 1" Solvent elbow ½" O.D. Poly Tube Compression	1" Male NPT and BSPT elbow ¾" x 1" Solvent elbow ½" O.D. Poly Tube Compression
4" - 8 UN	4" - 8 UN	4" - 8 UN	Quick Disconnect 4" - 8 UN 6" Flange Side Mount
191mm	191mm	191mm	with 4" - 8 UN QC Base is 284.5mm with 6" Flange QC Base is 287mm
4.1 kg	9.5 kg	13 kg	14 kg
NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP54 IP55 with Weather Cover	NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP54 IP55 with Weather Cover	NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP54 IP55 with Weather Cover	NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP54 IP55 with Weather Cover

# 2" & 3" WATER SPECIALIST VALVE SPECIFICATIONS



SPECIFICATIONS	WS2HF	WS3
<b>Service @ 1 bar/15 psi drop</b> <b>Backwash @ 1.7 bar/25 psi drop</b>	624 lpm, 37 m <sup>3</sup> /h (includes meter) 662 lpm, 39 m <sup>3</sup> /h	946 lpm, 56.8 m <sup>3</sup> /h (includes meter) 833 gpm, 50.0 m <sup>3</sup> /h
<b>Tank Applications:</b> <b>Softener</b> <b>Filter (1)</b>	18" - 63" diameter 18" - 54" diameter	18" - 96" diameter (1) 18" - 63" diameter
<b>Inlet/Outlet</b> <b>Fitting Connections</b>	2" Female BSPT or NPT	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>	5.68 - 568 lpm	13 - 1,325 lpm
<b>Distributor Pilot</b>	63mm or 2.375" O.D. Pipe	90mm or 3.5" O.D. Pipe
<b>Drain Line Connection</b>	2" Female BSPT or NPT	3" Female BSPT or NPT
<b>Brine Line Connection</b>	1" Male NPT and BSPT elbow 3/4" x 1" Solvent elbow	1" Male NPT and BSPT 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 287.02mm with 6" Flange QC Base is 289.56mm	with 6" Flange QC Base is 318mm
<b>Shipping Weight with Meter</b>	22.7 kg (No Meter)	25.9 kg
<b>Certifications and</b> <b>Optional Third-Party Testing</b>	NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP52	NSF/ANSI/CAN 61 NSF/ANSI/CAN 372 IP52

1. 18" - 63" diameter with standard injectors, to 96" with Brine Pump

# SOLAR / BATTERY POWERED VALVES



**WS1 SQ**



**WS1TT SQ**



**WS1.25 SQ**



**WS1.5 SQ**



**WS2 SQ**



**WS2QC SQ**

**SQ**



Note: Battery pack can be either color

**AA Rechargeable  
Battery Pack**

**BATTERY SPECIFICATIONS**

6 AA nickel metal hydride batteries rechargeable for SQ model  
Note: When disposing of batteries follow local and state regulations.

**SQ RECHARGING OPTIONS**



**DC Power Supply**



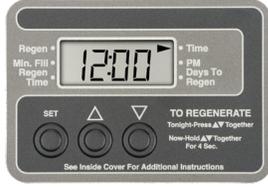
**Solar Panel**

**SQ CHARGING SPECIFICATIONS**

**2 OPTIONS FOR OPERATION**

- Amorphous silicon solar panels capable of three tilt angles
- DC power supply with 15VDC output 500mA

# CLACK CONTROLLER SPECIFICATIONS



SPECIFICATIONS	WS1	TC	CI	EI
<b>WS Valves Available</b>	WS1, WS1.25	WS1, WS1.25	WS1, WS1.25, WS1.5P, WS1.5, WS2, WS2QC, WS1TT	WS1, WS1.25, WS1.5P, WS1.5, WS2, WS2QC, WS1TT
<b>Display Type</b>	LCD	LCD	LCD	LCD
<b>Volume Range</b> Liters m <sup>3</sup> Gallons	20 - 50,000	N/A	.02 - 5,700	.02 - 5,700
<b>Diagnostics/History</b>	Yes	No	Yes	Yes
<b>Data Extraction</b>	No	No	No	No
<b>Comm. Cable Port</b>	No	No	1	1
<b>Cycle Codes</b>	Created Based on Programming	Yes P0 - P9	No	No
<b>Cycle Times Adjustable</b>	No	No	Yes	Yes
<b>DP Input</b>	No	Yes	Yes	Yes
<b>Motor Drive Output</b>	No	No	1	1
<b>"Relay Driver or Relay Output"</b>	No	No	No	1 - Relay Driver
<b>Remote Communications</b>	No	No	No	No
<b>External Programming</b>	Configurator	Configurator	Configurator	Configurator
<b>Data Extraction</b>	No	No	No	No
<b>Electrical Supply Voltage</b>	200 to 240VAC	200 to 240VAC	200 to 240VAC	200 to 240VAC
<b>Supply Frequency</b>	50/60Hz	50/60Hz	50/60Hz	50/60Hz
<b>Voltage Output</b>	15VDC	15VDC	15VDC	15VDC
<b>Current Output</b>	500 mA	500 mA	500 mA	500 mA
<b>Systems Types</b>				
<b>Single</b>	Yes	Yes	Yes	Yes
<b>Alternate</b>	No	No	2 Valves or SC	2 Valves or SC
<b>Random</b>	No	No	2 Valves or SC	2 Valves or SC
<b>Series</b>	No	No	2 Valves or SC	2 Valves or SC
<b>Progressive Flow</b>	No	No	System Controller	System Controller

# CLACK CONTROLLER SPECIFICATIONS



SQ	WS2HF & WS3			System Controller (SC)
	Pod	Main Board	Relay Expansion Board	
WS1, WS1.25, WS1.5, WS2, WS2QC, WS1TT	WS2HF, WS3			WS1, WS1.25, WS1.5P, WS1.5, WS2, WS2QC
LCD	Monochrome Graphics	N/A	N/A	LCD Backlit
.02 - 5,700	50 - 5,000,000 10 - 999,000			N/A
Yes	Yes			Yes
No	Yes			Yes
1	N/A	RJ45 Input & Output	1	6
No	No			N/A
Yes	Yes			N/A
Yes	N/A	Yes	No	Yes
1	N/A	1	1	No
1 - Relay Driver	N/A	Add Relay Expansion Board (Max - 2 Boards)	2 - Relays per board	2 - Relays
No	Modbus-TCP/IP			ModBus-TCP/IP
Configurator	Flash Drive (update only)			Flash Drive (update only)
No	Yes			Yes
6 AA Rechargeable Nickel Metal Hydride Batteries 50/60Hz 15VDC 500 mA	240VAC 50/60Hz 24VDC 800 mA			200-240VAC 50/60Hz 15VDC 0.5A
Yes No 2 Valves 2 Valves No	N/A	Yes 2-16 Valves 2-16 Valves 2-16 Valves 2-16 Valves	N/A	Water Monitor 2 - 6 Valves 2 - 6 Valves 2 - 6 Valves 2 - 6 Valves

# Inline Flow Meters

**1.0" Plastic Meter**



Order No. V3039 or V3039-15

**1.5" Plastic Meter**



Order No. V3045 or V3045-15  
Order No. V3045BSPT or V3045BSPT-15

**1.5" Plastic Meter QC**



Order No. V3045QC or V3045QC-15

**2.0" Plastic Meter**



Order No. V3048 or V3048-15  
Order No. V3048BSPT or V3048BSPT-15

**2.0" Plastic Meter QC**



Order No. V3048QC or V3048QC-15

**1.5" Stainless Steel Meter**



Order No. V3040 • 28" meter cable  
Order No. V3040-15 • 15' meter cable  
Order No. V3040BSPT • 28" meter cable  
Order No. V3040BSPT-15 • 15' meter cable

**2.0" Stainless Steel Meter**



Order No. V3094 • 28" meter cable  
Order No. V3094-15 • 15' meter cable  
Order No. V3094BSPT • 28" meter cable  
Order No. V3094BSPT-15 • 15' meter cable

**3.0" Stainless Steel Meter**



Order No. V3095 • 48" meter cable  
Order No. V3095-15 • 15' meter cable  
Order No. V3095BSPT • 48" meter cable  
Order No. V3095BSPT-15 • 15' meter cable

**WS15/2/2H Meter Comm Asy 28"**



Order No. V3003-02

**WS3 Meter Asy 4'**



Order No. V4039

**WS Remote Meter Asy 15'**



Order No. V3221

# Drain Line Flow Controls

WS1 3/4" DRN ELB&RETAIN WO/SIL ASY



Order No. V3962  
0.7 to 10.0 GPM  
1 - 3/4" Flow Washer

WS1 3/4" DRN ELBOW&RETAIN W/SIL ASY



Order No. V4057  
0.7 to 10.0 GPM  
1 - 3/4" Flow Washer

WS1 1" DRN ELB&RETAIN



Order No. V4429  
0.7 to 10.0 GPM  
1 - 3/4" Flow Washer

WS1 FTG DRAIN 1 STRT WO/SIL



Order No. V3008-04  
9.0 to 25.0 GPM  
1 - 1" Flow Washer

WS1 FTG DRAIN 1 STRAIGHT W/SIL



Order No. V3008-02  
9.0 to 25.0 GPM  
1 - 1" Flow Washer

WS2 DRN ELB 3/4 MALENPT NO SIL



Order No. V3158-04  
0.7 to 10.0 GPM  
1 - 3/4" Flow Washer

WS2 DRN FTG 1 MALE NPT WO/SIL



Order No. V3008-05  
9.0 to 25.0 GPM  
1 - 1" Flow Washer

1.25" DLFC



Order No. V3079 • NPT | V3079BSPT • BSPT  
9.0 to 85.0 GPM  
Up to 6 - 3/4" & 1 - 1" Flow Washers

1.5" DLFC



Order No. V3080 • NPT | V3080BSPT • BSPT  
9.0 to 85 GPM  
Up to 6 - 3/4" & 1 - 1" Flow Washers

2" DLFC



Order No. V3051 • NPT | V3051BSPT • BSPT  
7.0 to 150 GPM  
Up to 5 - 3/4" & 4 - 1" Flow Washers

3" DLFC



Order No. V3764 • NPT | V3764BSPT • BSPT  
9.0 to 225 GPM  
Up to 9 - 1" Flow Washers

## 3/4" Flow Washers

- V3162-007 WS1 DLFC 0.7 gpm
- V3162-010 WS1 DLFC 1.0 gpm
- V3162-013 WS1 DLFC 1.3 gpm
- V3162-017 WS1 DLFC 1.7 gpm
- V3162-022 WS1 DLFC 2.2 gpm
- V3162-027 WS1 DLFC 2.7 gpm
- V3162-032 WS1 DLFC 3.2 gpm
- V3162-042 WS1 DLFC 4.2 gpm
- V3162-053 WS1 DLFC 5.3 gpm
- V3162-065 WS1 DLFC 6.5 gpm
- V3162-075 WS1 DLFC 7.5 gpm
- V3162-090 WS1 DLFC 9.0 gpm
- V3162-100 WS1 DLFC 10.0 gpm

## 1" Flow Washers

- V3190-090 WS1 DLFC 09.0 gpm
- V3190-100 WS1 DLFC 10.0 gpm
- V3190-110 WS1 DLFC 11.0 gpm
- V3190-130 WS1 DLFC 13.0 gpm
- V3190-150 WS1 DLFC 15.0 gpm
- V3190-170 WS1 DLFC 17.0 gpm
- V3190-200 WS1 DLFC 20.0 gpm
- V3190-250 WS1 DLFC 25.0 gpm

# 1" & 1.25" Control Valve Fittings and Accessories



# 1" & 1.25" Control Valve Fittings and Accessories



# Control Valve Accessories

1.5"

WS1.5P QC x 1.5" Stainless Steel



Order No. V4430-11 • NPT  
Order No. V4430-12 • BSPT

WS1.5P QC x 1.5"



Order No. V4430-01 • NPT  
Order No. V4430-02 • BSPT

WS1.5P QC x QC



Order No. V4430-03

WS1.5P Elbow QC x 1.5"



Order No. V4430-07 • NPT  
Order No. V4430-08 • BSPT

WS1.5P Elbow QC x QC



Order No. V4430-09

2.0"

WS2P QC x 2" Stainless Steel



Order No. V4460-11 • NPT  
Order No. V4460-12 • BSPT

WS2P QC x 2"



Order No. V4460-01 • NPT  
Order No. V4460-02 • BSPT

WS2P QC x QC



Order No. V4460-03

WS2P Elbow QC x NPT or BSPT



Order No. V4460-04 • NPT  
Order No. V4460-05 • BSPT

WS2P Elbow QC x QC



Order No. V4460-06

# Control Valve Accessories



# Control Valve Accessories

**WS1 Adapter Australian - Outdoor**



**Order No. V3186AUS-05OD**

**WS1 Adapter European**



**Order No. V3186EU-06**

**WS1 Adapter European - Outdoor**



**Order No. V3186EU-05OD**

**WS1 Adapter United Kingdom**



**Order No. V3186UK-06**

# Control Valve Accessories

Auxiliary Microswitch Kit



Order No. V3009

WS1 Series Microswitch Assembly



Order No. V3014

WS2 Auxiliary Switch Kit



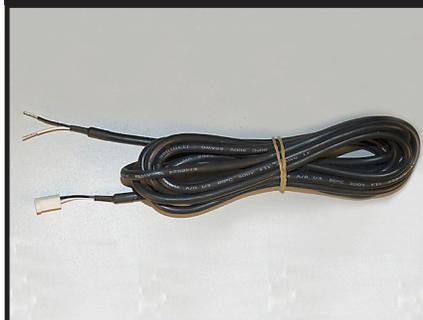
Order No. V3017

Cat 5e Cable



Order No. V4470-15

8' DP Wire Harness



Order No. V3473

16' DP Wire Harness



Order No. V3473-01

8' Alternator/Communication Cable



Order No. V3474

12' Communication Cable



Order No. V3475-12

24' Communication Cable



Order No. V3475-24

36' Communication Cable



Order No. V3475-36

15' Power Cord



Order No. V4276-15

36' Power Cord



Order No. V4276-36

# Control Valve Accessories

**WS1 Service Spanner Wrench**



**Order No. V3193-02**

**WS1 Stack Puller**



**Order No. V3022**

**WS1.25/WS1.5 Stack Puller**



**Order No. V3022-15**

**WS1 - WS1.25 - WS1.5P - Weather Covers**



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

**WS1.5 Weather Covers**



**Order No. V3974WC-W • White**  
**Order No. V3974WC-A • Almond**

**WS2 / WS2QC Weather Covers**



**Order No. V3783WC-W • White**  
**Order No. V3783WC-A • Almond**

**WS2H / WS3 Weather Covers**



**Order No. V4051WC**

# 1" & 1.25"

## Control Valve Accessories

1" & 1.25"  
Motorized Alternating Valve



Order No. V3069FF-01 • 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-01 • M x M

1" & 1.25"  
No Hard Water Bypass Valve



Order No. V3070FM • F x M

# 1.5"

## Control Valve Accessories

1.5" Plastic  
Motorized Alternating Valve



Order No. V3034

1.5" Plastic  
No Hard Water Bypass Valve



Order No. V3035

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" Control Valve Accessories

2" Plastic  
Motorized Alternating Valve



Order No. V3036

2" Plastic  
No Hard Water Bypass Valve



Order No. V3037

2"  
Motorized Alternating Valve



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

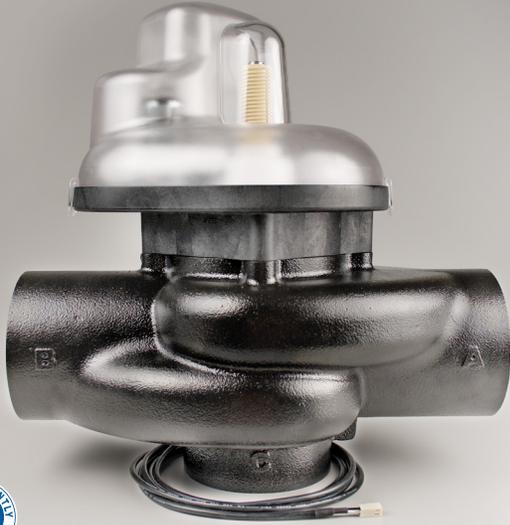
2"  
No Hard Water Bypass Valve



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



