

CLACK WS1.5EE

WS1.5EE

WATER SPECIALIST CONTROL VALVE

NSF

Certified to NSF/ANSI 61 and 372.

- 1.5" top mount control valve suited for mid-size commercial/industrial applications
- Epoxy coated lead free brass valve body*
- Economical stainless steel optional meter assembly
- Service flow rate of 70 gpm, backwash 52 gpm
- Solid state microprocessor with easy access front panel settings
- Front panel display for time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer)
- Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential
- Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency
- Fully adjustable cycle times with 6-cycle control delivers controlled backwash, downflow brining or upflow brining, slow rinse, second backwash, fast rinse, refill and downflow service
- Coin Cell Lithium battery back-up with a 8 hour carry over
- Level VI 15-volt output DC power supply provides safe and easy installation
- Post treated water regenerant refill
- Patented one piece expanding seal spacer stack assembly U.S. Patent 6,402,944
- Patented linearly reciprocating piston operation U.S. Patent 6,444,127
- Reliable and proven DC drive



Optional 1.5" Meter



DUFF WATER CONDITIONING
Products for Quality Water

est. 1947

DUFFco.



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WATER SPECIALIST 1.5" EE CONTROL SPECIFICATIONS

Inlet/Outlet (1)	1.5" Female NPT
Cycles	Up to 6
Valve Material	Epoxy coated brass
Regeneration	Downflow

CONTROL VALVE FLOW RATES

Service @15 psi drop (includes meter).....	70 gpm
Backwash @ 25 psi drop	52 gpm
Cv Service	18.1
Cv Backwash	10.4

OPERATING PRESSURES

Minimum/Maximum	20 psi – 125 psi
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OPERATING TEMPERATURES

Minimum/Maximum	40° – 110° F
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METER SPECIFICATIONS

Accuracy	± 5%
Flow Rate Range.....	0.5 – 75 GPM
Gallon Range.....	20 – 1,500,000 gallons
Totalizer	1 – 9,999,000 gallons

DIMENSIONS & WEIGHT

Distributor Pilot	
Valve bodies with 1.5" Female NPT Inlet & Outlet	1.90" OD (1.5" NPS)
Drain Line Connection (2)	1.25" Female NPT
Adapter Included.....	¾" Male NPT Elbow
Brine Line Connection	¾" Female NPT
Adapter Included.....	½" OD Poly Tube Compression
Mounting Base	4" - 8 UN
Height From Top Of Tank.....	7.5"
Shipping Weight With Meter	21 lbs.

ELECTRICAL SPECIFICATIONS

POWER SUPPLY

	<u>U.S.</u>	<u>International</u>
Supply Voltage	100VAC to 120VAC	200VAC to 240VAC
Supply Frequency	50/60 Hz.....	50/60 Hz
Output Voltage	15VDC	15VDC
Output Current	500 mA.....	500 mA

TANK APPLICATIONS

Water Softener	12" – 30" diameter (4)
Water Filter (3).....	12" – 30" diameter

CYCLES OF OPERATION

	<u>Softener</u>	<u>Filter</u>
Cycle	Range of time in minutes	
1. Backwash 1 st (upflow)	1-95.....	Backwash 1-95
2. Regenerate Draw/Slow Rinse (downflow)	1-180	
3. Backwash 2 nd (upflow).....	1-95	
4. Fast Rinse (downflow)	1-95.....	Rinse 1-95
5. Regenerant Refill (in service with treated water).....	0.1-99.0 or off	
6. Service (downflow)		

Options: Backwash Filter, Weather Cover

Compatible with the following typical concentrations of regenerants or chemicals: Sodium chloride, potassium chloride, potassium permanganate, sodium bisulfite, chlorine and chloramines

- See Distributor Pilot.
- Casting comes with a 1.25" Female NPT drain connection. An adapter is provided to accept existing WS1 drain line ¾" Male NPT flow controls up to 10 gpm. Other drain line flow controls are available for flow rates above 10 gpm.
- Filter tank size calculated @ 10 gpm of backwash per square foot of bed area
- Requires a V3158-02 installed for a brine elbow on the control valve, use of a 454 controlled flow brine valve assembly H7070-36CF-5 or H7070-54CF-5 (designed with 5 gpm BLFC), 1" air check, or 494 brine valve assembly, and minimum ¾" hard pipe PVC brine line.