



# Osmonics®

## Autotrol® Product Specifications

# 255/440i

### Flow Rates (Valve Only)

- Service @ 15 psi (1.03 bar) drop .....15.5 gpm (58 Lpm)
- Backwash @ 30 psi (2.07 bar) drop.....6.5 gpm (24.6 Lpm)
- Service.....Cv = 3.99 (Kv = 3.35)
- Backwash .....Cv = 1.20 (Kv = 1.02)

Tested with a 3/4-inch Brass Manifold

### Control Operation

- Timer Configuration .....Time Clock, 7 or 6 Day
- Cycles: Length: (Standard)
- Backwash .....13 Minutes
- Brine/Slow Rinse.....52 Minutes
- Fast Rinse.....6 Minutes
- Brine Refill.....9 Minutes

### Valve Connections/Dimensions

- Tank Thread .....2 1/2 inches - 8, Male
- Inlet/Outlet Manifold (Brass or Noryl\*).....1-inch NPT or 1-inch BSPT, Female  
.....3/4-inch NPT or 3/4-inch BSPT, Female
- Brine Line .....1/4-inch NPT, Male
- Distributor Tube Diameter .....1.050 inches (27 mm) or 13/16 inch (20.6 mm)
- Distributor Tube Length .....1 1/8 ± 1/8 inches (29 mm ± 3 mm) Above Tank

### Design Specifications/Ratings

- Valve Body .....Glass-Filled Noryl
- Rubber Components .....Compounded for Cold Water
- Weight (Valve with Control).....4 lbs (1.8 kg)
- Transformer Output.....12VAC 400 mA
- Transformer Input.....115V 50/60 Hz, 230V 50/60 Hz  
.....100V 50/60 Hz
- Recommended Operating Pressure.....20-120 psi (1.38-8.27 bar)  
.....Canada .....20-100 psi (1.38-6.89 bar)
- Water Temperature.....35°-100°F (2°-38°C)

### Options

- Bypass Valve .....Noryl, 1/2-inch NPT Male, Drain
- Bypass Inlet/Outlet Fitting Kits:  
Copper, Sweat Tube Adapter.....1 inch or 3/4 inch or 28 mm or 22 mm  
CPVC, Solvent Weld Tube Adapter.....1 inch or 3/4 inch or 25 mm  
Plastic NPT or BSPT Pipe Adapter .....1-inch Male or 3/4-inch Male  
Brass NPT or BSPT Pipe Adapter .....1-inch Male or 3/4-inch Male
- Brine Refill Controls .....1-10 lbs (0.45-4.5 kg)  
.....3-19 lbs (1.3-8.6 kg)

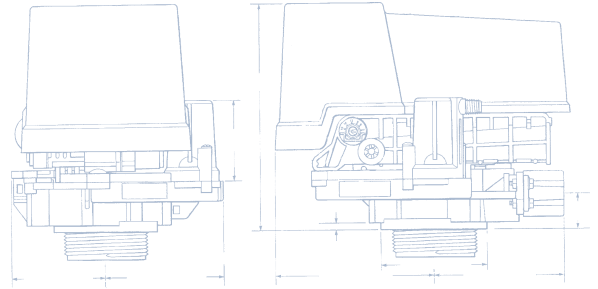
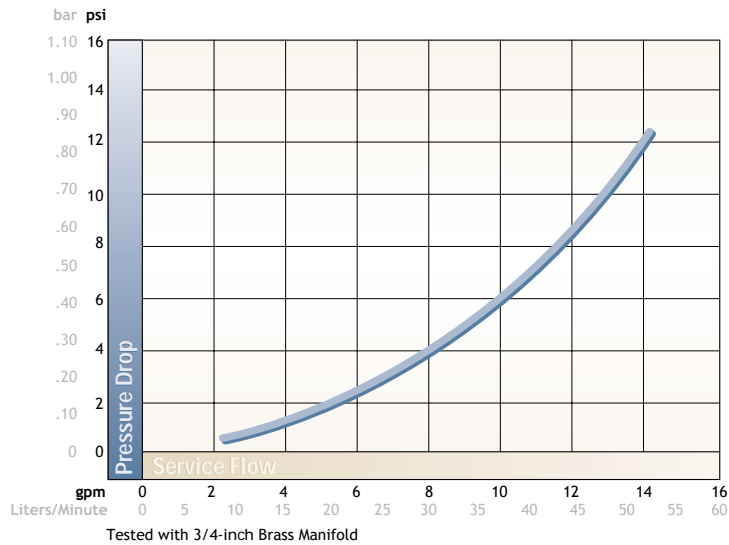
### Backwash Flow Control Table

Backwash Number**	7	8	9	10	12	13	14
Tank Diameter (inches/mm)	7/186	8/210	9/235	10/260	12/305	13/334	14/369
Flow Rate (gpm)	1.3	1.7	2.2	2.7	3.4	4.5	5.3
Flow Rate (Lpm)	4.9	6.4	8.3	10.2	12.9	17.0	20.0

\*Noryl is a trademark of General Electric Company.

\*\*Backwash flow controls sized for 5.0 gpm/ft<sup>2</sup>.

## ■ Pressure Loss Characteristics



## ■ Injector Flow Rate Chart (gpm)

"A" Injector with #7 Backwash Control				"B" Injector with #8 Backwash Control			"C" Injector with #10 Backwash Control		
psi	Draw	Motive	Rinse	Draw	Motive	Rinse	Draw	Motive	Rinse
20	0.15	0.22	0.24	0.17	0.41	0.46	0.20	0.64	0.69
30	0.20	0.27	0.27	0.23	0.48	0.53	0.28	0.69	0.76
50	0.26	0.33	0.33	0.29	0.63	0.66	0.36	0.87	0.91
70	0.32	0.38	0.37	0.37	0.75	0.75	0.41	1.00	1.00
90	0.35	0.42	0.42	0.41	0.83	0.83	0.41	1.13	1.17
120	0.39	0.48	0.48	0.43	0.94	0.93	0.42	1.30	1.32

## ■ Injector Flow Rate Chart (Lpm)

"A" Injector with #7 Backwash Control				"B" Injector with #8 Backwash Control			"C" Injector with #10 Backwash Control		
bar	Draw	Motive	Rinse	Draw	Motive	Rinse	Draw	Motive	Rinse
1.38	0.56	0.83	0.91	0.64	1.55	1.74	0.75	2.42	2.87
2.08	0.75	1.02	1.02	0.87	1.82	2.00	1.06	2.61	2.87
3.46	0.98	1.25	1.25	1.09	2.38	2.50	1.36	3.29	3.44
4.85	1.21	1.44	1.40	1.40	2.84	2.84	1.55	3.78	3.78
6.24	1.32	1.59	1.59	1.55	3.14	3.14	1.55	4.28	4.16
8.32	1.47	1.81	1.81	1.62	3.56	3.52	1.59	4.92	4.99

Note: Injector tested on an empty tank (no resin). Actual injector performance is dependent on type of resin, tank geometry and drain line configuration. Motive flow rate indicates feedwater (excluding brine) through the injector nozzle during the brine draw cycle. Rinse flow rate indicates flow through the injector after closure of the air check.

Call (719) 264-3937 for additional information, (800) 605-6698 in the U.S., or visit [www.osmonics.com](http://www.osmonics.com)



# OSMONICS

### Corporate Headquarters

5951 Clearwater Drive  
 Minnetonka, MN  
 55343-8995  
 USA  
 (952) 933-2277 Phone  
 (952) 933-0141 Fax

### Milwaukee Operations

5730 North Glen Park Road  
 Milwaukee, WI  
 53209-4454  
 USA  
 (262) 238-4400 Phone  
 (262) 238-4402 Fax

### Euro/Africa Operations

230 rue Robert Schuman  
 ZA des Uselles  
 F-77350 Le Mée sur Seine  
 FRANCE  
 +33 1 64 10 2000 Phone  
 +33 1 64 10 3747 Fax

### Asia/Pacific Operations

1044/8 SOI 44/2  
 Sukhumvit Road Prakanong  
 Bangkok 10110  
 THAILAND  
 +66 2 38 14213 Phone  
 +66 2 39 18183 Fax