



Quality products  
and services you  
can count on.

## Culligan's Hi-Flo® 22 Automatic Water Softener and Filter

### Options

- **Dubl-Safe™** Brine System for softeners—Positive overflow protection. Automatic refill control is backed up by shutoff float valve to minimize chance of overflow.
- **Patented Progressive Flow – Culligan's MVP™** Control can monitor flow demands bringing additional softening tanks on-line or off-line as flows increase or decrease.
- **Patented Aqua-Sensor®** Control – Initiates regeneration only when needed based upon water hardness. Automatically adjusts to changes in raw water hardness and water consumption - softener only.
- **Pressure Differential Switch** for filters.
- **Bypass valve.**

### Warranty

Culligan's Hi-Flo® 22 water softeners and filters are backed by a limited 1-year warranty against defects in materials, workmanship, and corrosion. The plastic conditioner tank has a 5-year warranty. See printed warranty for details.\*

Some localities have corrosive water. A softener cannot correct this condition, so its printed warranty disclaims liability for corrosion of plumbing lines, fixtures, or water-using equipment. If you suspect corrosion, your independently operated Culligan® dealer has equipment to control the problem.

\*See printed warranty for details. Culligan will provide a copy of the warranty upon request.



### Culligan Hi-Flo® 22 Automatic Water Softener and Filter

### Softener Specifications

Pipe Size, All Units:	1.5"
Pressure:	20 – 125 psig 135 – 860 kPa
Power:	24 Volts 50/60hz <sup>1</sup>
Power Consumption:	3/100 Watts Min/Max
Vacuum:	None <sup>2</sup>
Temperature:	33–120°F 0 – 48°C
Turbidity:	5 NTU, max. <sup>3</sup>
Chlorine:	1 mg/L, max. <sup>3</sup>
Iron:	5 mg/L

<sup>1</sup>120 Volt/24 Volt CUL/UL listed Transformer Included.  
<sup>2</sup>Tank warranty is void if subject to vacuum  
<sup>3</sup>See media specification for details

Model	Resin Qty. (Ft <sup>3</sup> )	Flow Rates (gpm)		Tank Size <sup>4</sup>	
		Continuous <sup>1</sup>	Peak <sup>2</sup>	Softener	Brine <sup>5</sup>
WS-060	2	29	37	14 x 47	18 x 38
WS-090	3	29.5	38	16 x 53	24 x 40
WS-120	4	27	35	16 x 65	24 x 40
WS-150	5	33.5	45	21 x 54	24 x 48
WS-210	7	33	42	21 x 69	24 x 48

- 1 Flow rate at a 15 psi pressure loss.
  - 2 Flow rate at a 25 psi pressure loss.
  - 4 Dimensions are diameter by tank height.
  - 5 Brine systems are optional. Size shown is size most commonly selected.
- Flow rates shown are per tank. Low flow channeling (flow rates less than 0.5 gallons per minute per cubic foot of resin) may cause hardness leakage into effluent.  
Valve only flow rate is 42 gpm @ 15 psi and 53 gpm @ 25 psi.

### Filter Specifications

Pipe Size, All Units:	1.5"
Pressure:	20 – 125 psig 135 – 860 kPa
Power:	24 Volts 50/60hz <sup>1</sup>
Power Consumption:	3/100 Watts Min/Max
Vacuum:	None <sup>2</sup>
Temperature:	33 – 120°F 0 - 48°C

<sup>1</sup>120 Volt/24 Volt CUL/UL listed Transformer Included.  
<sup>2</sup>Tank warranty is void if subject to vacuum

	Model	Organics Removal		Dechlorination		Backwash Flow Rate (GPM)
		Flow Rate (GPM)	Pressure Loss (PSI)	Flow Rate (GPM)	Pressure Loss (PSI)	
Carbon Filters	CF-12	4	0.5	8	1	8
	CF-14	5	1	11	2	10
	CF-16	7	1	14	2	15
	CF-21	11	2	22	6	25
		Normal		Peak		
Depth Filters	DF-12	8	2	12	4	10
	DF-14	11	3	16	5	15
	DF-16	14	3	21	6	20
	DF-21	22	6	33	11	30

All pressure drop figures are based on new filter media and a water temperature of 60°F. Depth filters are capable of 10 micron effluent water quality, whereas all other filter types are capable of 40 micron effluent water quality.



better water. pure and simple.™

www.culligan.com  
www.culligancommercial.com  
1-800-CULLIGAN

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Aqua-Sensor Patent # US 5,699,272  
Progressive Flow Patent # US 5,060,167, # US 5,351,199

The contaminants or other substances removed or reduced by this water treatment device are not necessarily in your water.

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## New and Improved Commercial Softener and Filter



**Expandable** - Additional tanks can be easily added. As many as 6 controls may be linked together allowing for simple, future expansion.

**Progressive Flow** - Culligan's patented feature permits smaller systems to provide greater flow rates and treatment capacities by taking tanks on-line or off-line based on system flow rate.

**Brine Reclaim** - Optional feature allows system to recycle a portion of regeneration water. The system not only conserves water, but also makes your water softener more environmentally friendly.

**Electronics** - State-of-the-art 24 VAC solid state electronics allow the controller to be used as a simple timer or a more complex system integrator. Can be regenerated based on time or volume. Configuration settings are accessed from a user-friendly programmable interface.

**Diagnostics** - The controller provides sophisticated diagnostics which allows for easy system analysis.

**Wide Range of Capacities and Flow Rates** - Softeners available with capacities ranging from 60,000 grains to 210,000 grains per tank. Peak flow rates from 37 gpm to 45 gpm per tank.

- ✓ Local Water Expertise
- ✓ Trusted Leader for Over 70 Years
- ✓ Certified Sales, Installation and Service Professionals
- ✓ 100% Satisfaction Guarantee
- ✓ Full Service (salt delivery, filter changes and more)
- ✓ Affordable Water Solutions for Home and Business



# The Best Choice Is Culligan®!

## Culligan's MVP™ Designed With The Ease of 24-volt Operation.

Discover all the benefits ...

- assisted living facilities
- cafeterias
- casinos
- corporate campuses
- educational facilities
- food service
- grocery
- hotel/hospitality
- institutions
- laundry
- theme parks
- vehicle wash

Culligan has been a premier provider of quality water treatment products and services for over 70 years. When it comes to providing commercial and industrial water treatment solutions no one is better positioned than Culligan to deliver results with your needs in mind.

## Culligan's Hi-Flo® 22 Automatic Water Softener and Filter

### Standard Features

- **24 Volt MVP™ Controller** — Field programmable with a back-lit LCD display and UL listed 120v/24v transformer.
- **Single, Duplex, Triplex, or Quad Softener Configurations** — Hardness removal capacities up to 210,000 grains per tank, and continuous flow rates up to 33 gpm per tank.
- **Regeneration Cycle** — Standard flow meter starts cycle after preset volume of water has been softened. Flow meter is accurate down to 0.5 gpm.
- **Corrosion Resistant Tanks** — Made from fiberglass reinforced polyester. Additional reinforcement from continuous fiberglass overwrap. Underdrain design maximizes softener's capacity, reduces pressure loss.
- **Corrosion Resistant Positive Motor-Driven Regeneration Valve** — Motor driven piston is reliable under severe water conditions, resists dirt, iron, turbidity.
- **Choice of Granular Activated Carbon** or mixed media depth filters.
- **NSF 61 Rating**

### Applications and Benefits

- **RO/DI Pretreatment**
- **Apartment buildings, assisted living facilities and hotels** — Quality water for laundry, dishwashers, boilers.
- **Office buildings** — For heating plant pretreatment, tenant convenience, general housekeeping.
- **Restaurants** — For dishwashing, cleaning material savings, scale reduction, superior taste and increased cost savings.
- **Car washes** — Quality results, detergent and water heating savings, scale reduction, turbidity reduction.
- **Light industry** — For process and make-up water, boiler and cooling system pretreatment, general housekeeping.
- **Drinking Water** — Reduces turbidity and chlorine; improves taste and clarity.



**Time of Day**  
Displays time in 12 hour (AM/PM) or 24 hour formats.

**EEPROM**  
Saves programmed and statistical functions.

**One-Touch Program Update**  
Update multiple controls through the touch of a button on the primary control.

**Lock/Unlock**  
Allows the control to be easily locked out from inadvertent program changes or abuse.

**Screen Blanking**  
Allows the screen to go blank once programming is complete (After 5 minutes of no keypad activity).

**Power Source**  
Electrical power required for the control is 24-volt 50/60 Hz AC current. A plug-in transformer (120v/24v) is provided.

**Program Beeper**  
Emits an audible beep when key pads are depressed to help identify valid (short beep) or invalid (3 short beeps) key pad touches. Can be enabled or disabled as desired.

**Multi-Unit Communication Input/Output (RS485)**  
The communication input/output feature routinely recognizes when another controller within a multiple controller system is in a regeneration sequence, prohibiting the chance of multiple units regenerating simultaneously.

**Setting Time Of Day**

1. Press status until 'tod' is displayed.
2. Use the '+' and '-' keys to adjust minutes.
3. Press regen once then adjust hours.
4. Continue to press status to exit menu & save.

### Additional MVP™ Features

- **Battery Backup** - The optional battery backup will maintain the time of day for a minimum of 4 weeks using a 3.6V 1/2AA-lithium type battery as supplied by Culligan.
- **Regeneration Start Delay** - A user determined number of hours (up to 9) can be input for the purpose of increasing time between multiple regeneration initiations.
- **Progressive Flow Trip Point** - Use of this patented feature allows multiple tank systems operating with water meters to be brought online or offline as facility flow demands increase or decrease.
- **Flow Meter/Sensor Input** - Built-in flow sensor can be used to measure the amount of treated water provided and initiate a regeneration sequence.
- **Segmented Brine Draw/Rinse Cycle - Brine Reclaim Capability** - allows the user to configure the system for brine reclaim with a minimum of additional valves and/or other types of hardware.
- **Auxiliary Input** - capable of accepting a remote signal from a dry contact device such as an operator push-button for the purpose of initiating the regeneration sequence.
- **Auxiliary Outputs** - Two auxiliary outputs can be programmed to be active or inactive at any point of the regeneration process.