

SECTION 2

Residential Water Softeners



WATER QUALITY PRODUCTS
Catalog 10

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Whole House Water Quality Problems

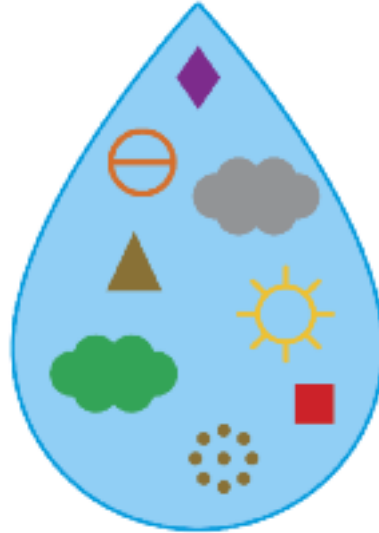
Hardness

Iron/HS

Manganese

Arsenic

Tanin



Bad tastes

Foul odors

Chlorine and harmful chlorine by-products

Turbidity

Acidic water

The continuous water cycle . . .

Nature intended us to have high quality water. This is why we have the continuous water cycle, whereby water from our oceans, rivers, lakes and streams falls to the ground as rain or snow and becomes filtered as it seeps through the earth's surface. As the water works its way through the ground, however, it picks up minerals by dissolving limestone, causing water hardness. Water may also come into contact with Iron, Manganese, Arsenic and other contaminants, which cause additional water treatment problems.

The chart below lists typical whole house water quality problems and indicates which equipment effectively corrects any problems you may have in your home.

Water Quality Problems	Symptoms	Recommended Equipment
Hardness	Mineral deposits on dishes & glassware; stiff, dingy laundry; high soap usage and need for fabric softeners; dry, itchy skin and scalp; unmanageable hair; extra work removing soap curd on tubs and showers; high energy costs due to scale build-up in pipes and on appliances.	Water softener.
Chlorine, foul odors & tastes	Chlorine taste foul odors damage to hair itchy skin.	Activated carbon.
Hydrogen Sulfide	Rotten egg odors.	Filox filter.
Iron & Manganese	Unpleasant metallic tastes; rust particles; staining on plumbing fixtures; red water; odors.	Iron filter.
Turbidity	Cloudy water sediment, sand, silt & rust particles.	Media filter.
Acidic water (low pH)	Green stains on bathroom sinks and other porcelain surfaces blue green water. (Acidic water may cause corrosion of pipes & plumbing fixtures.)	Acid neutralizer using Calcite.
Tannin	Brownish, tea colored water musty odors.	Tannin filter.
Arsenic	A naturally occurring element found in ground water, Arsenic is a carcinogen at high concentrations, and the EPA reports Arsenic may cause adverse health effects in low concentrations. Testing for Arsenic is highly recommended.	Arsenic Reduction System.

Watts® Softeners with Cutting Edge Features

Designed to improve performance and increase efficiency!

Advantages

- Metered control valve and “smart brining” conserves salt and water.
- Resin tanks use the patented Vortech™ distribution system to conserve water by reducing backwash duration
- Systems come with safety float valves to prevent brine water overflow
- Full product line for a wide range of flow rates and requirements



Two Step Water Treatment

◀ Step #1 Removes

- Chlorine
- Tastes
- Odors
- Organics

◀ Step #2 Removes

- Calcium
- Magnesium
- Iron*

* Some pre-treatment may be required.

**Featuring Watts
1000 Control Valves
With “Smart Brining”**



Watts® 1000 Control Valves

Softeners with Watts proprietary valves are now available, offering unsurpassed performance and greater efficiency.

- Regenerates based on water usage.
- Smart brining
- Less salt!
- Less water!
- Continuous flow rates to 21 GPM.
- Peak flow rates to 27 GPM.
- LED status lights.
- Advanced diagnostics.
- Ideal for tanks up to 16".



Standard Softeners

Model Number	Valve Type	Capacity	Resin (Cu. Ft.)	Carbon (Cu. Ft.)	Tank (Vortech)	Tank Color	By Pass	Brine Tank	Safety Float Valve
WWS100	Metered	30,000	1	None	9x48	Black	Yes	18x36	Yes
WWS150	Metered	45,000	1.5	None	10x54	Black	Yes	18x36	Yes
WWS200	Metered	60,000	2	None	12x52	Black	Yes	18x36	Yes

Dual Media Softeners & Filters (Resin and GAC)

Model Number	Valve Type	Capacity	Resin (Cu. Ft.)	Carbon (Cu. Ft.)	Tank (Vortech)	Tank Color	By Pass	Brine Tank	Safety Float Valve
WWSDC100-50	Metered	30,000	1	0.5	10x54	Black	Yes	18x36	Yes
WWSDC150-100	Metered	45,000	1.5	1	13x54	Black	Yes	18x36	Yes
WWSDC150-150	Metered	45,000	1.5	1.5	13x65	Black	Yes	18x36	Yes

Dual Media Softeners & Filters (Resin and Catalytic Carbon For Chloramines)

Model Number	Valve Type	Capacity	Resin (Cu. Ft.)	Carbon (Cu. Ft.)	Tank (Vortech)	Tank Color	By Pass	Brine Tank	Safety Float Valve
WWSDC100-50C	Metered	30,000	1	0.5	10x54	Black	Yes	18x36	Yes
WWSDC150-100C	Metered	45,000	1.5	1	13x54	Black	Yes	18x36	Yes

Watts® Water Softeners with Vortech® Tanks

“Hard” water is not considered unhealthy; however, hard water problems end up costing you money through increased soap usage, reliance on water softening products and shorter life for appliances due to scale build-up in pipes and other factors.

To correct water hardness, we offer a wide range of water conditioning systems designed to improve water quality throughout your entire household.

Features & Benefits

- Spot-free glassware and dishes.
- No mineral deposits on bathtubs and shower stalls.
- Brighter, softer laundry.
- Less reliance on water softening products.
- Dramatic reduction in soap usage.
- Manageable hair because shampoo works better.
- Pipes remain free of calcium scale build-up.
- Extended life of appliance and reduced energy costs because scale is virtually eliminated.
- Spot-free car wash (if softened water is used).



Metered Valve For Greater Efficiency

Clack® Metered valves are metered for greater efficiency and reduced salt usage, because regeneration of the softener resin is based on water consumption. Push button settings provide ease-of-use.

Model selection is typically based on water hardness, water usage, water source and other factors.



Complete System

The models listed below are complete systems including:

- CK-10 high flow, metered valve
- Vortech® mineral tank (no gravel needed)
- 18" x 36" black brine tank
- Float valve to prevent brine overflow
- By-pass valve

Models (With CK-10 Metered Valves, By-Pass And Safety Float Valves)

Model Number	Capacity (Grains)	Media Cu.Ft.	Valve Type	Connection	Mineral Tank Size	Brine Tank Size	Safety Float Valve
M3011-W100SM	30,000	1.0	Metered	1"	9"x48"	18"x36"	Yes
M3013-W100SM	45,000	1.5	Metered	1"	10"x54"	18"x36"	Yes
M3015-W100SM	60,000	2.0	Metered	1"	12"x52"	18"x36"	Yes
M3017-W100SM	90,000	3.0	Metered	1.25" - 1.5"	13"x65"	18"x36"	Yes
M3019-W100SM	120,000	4.0	Metered	1.25" - 1.5"	16"x65"	21"x41"	Yes
M3021-W100SM	210,000	7.0	Metered	1.25" - 1.5"	21"x62"	24"x41"	Yes

NOTE: Brine tanks come with safety float valve.

CK10 Water Softeners with Standard Tanks

“Hard” water is not considered unhealthy; however, hard water problems end up costing you money through increased soap usage, reliance on water softening products and shorter life for appliances due to scale build-up in pipes and other factors.

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- Less reliance on water softening products.
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- Spot-free car wash (if softened water is used).



Metered Valve For Greater Efficiency

Clack® Metered valves are metered for greater efficiency and reduced salt usage, because regeneration of the softener resin is based on water consumption. Push button settings provide ease-of-use.



Complete System

The models listed below are complete systems including Vortech mineral tank, resin, metered control valve, by-pass valve and fully assembled brine tank, with safety float valve to prevent brine water overflow.

Model selection is typically based on water hardness, water usage, water source and other factors.

Models (With Clack Metered Valves, By-Pass And Safety Float Valves)

Model Number	Capacity (Grains)	Media Cu.Ft.	Valve Type	Connection	Mineral Tank Size	Brine Tank Size	Safety Float Valve
M3011-CK10SM	30,000	1.0	Metered	1"	9"x48"	18"x36"	Yes
M3013-CK10SM	45,000	1.5	Metered	1"	10"x54"	18"x36"	Yes
M3015-CK10SM	60,000	2.0	Metered	1"	12"x52"	18"x36"	Yes

NOTE: Brine tanks come with safety float valve.

7000 Series Softeners With 1" - 1-1/2" Control Valves



Your Best Option for Large Homes

7000 series softeners are our fastest growing line of residential softeners because they appeal to consumers who own and builders who build larger homes, requiring 1"-1-1/2" pipe size.

Specifications

Valve	Fleck 7000 with SE electronics
Valve body	Glass reinforced Noryl® (1-1/4")
Valve type	Electronic - metered
Pipe size	1" - 1-1/2"
Bypass	Bypass included (MNP)
Mineral tanks	Corrosion resistant FRP. NSF.
Brine tanks	Polyethylene; fully assembled
Media	Cation resin; high capacity

Features & Benefits

- 1-1/4" valve for high flow / backwash rates.
- Easy to program Fleck 7000 valves.
- Variable brining is standard.
- Variable reserve is standard.
- Quick connect fittings (some connections).
- Models for capacities to 210,000 grains.
- Top quality components are used.
- Brine tanks with grid plate for maximum saturation of brine.
- 1-1/4" distribution system (standard).
- Safety brine valve with air check.
- Reliable optical electronics eliminates micro switch positioning.

Easy To Program!

7000 Series electronic softeners are easy to program and are highly reliable, plus manual operation is possible should power be disrupted!



7000 Series Models

Part Number	Capacity (Max.)	Pipe Size (In.)	Mineral Tank			Brine Tank		Flow Rate & Pressure Drop			Shipping Weight (Lbs.)
			Size	Resin Cubic Ft.	Gravel #20 (Lbs.)	Size	Salt Fill (Lbs.)	Service Flow (GPM)	Drop (PSI)	Back Wash (GPM)	
M3011-70	30,000	1"-1-1/2"	9x48	1	10	18x40	400	15.2	15	2	110
M3013-70	45,000	1"-1-1/2"	10x54	1.5	15	18x40	400	16.4	15	2.4	130
M3015-70	60,000	1"-1-1/2"	12x52	2	30	18x40	400	20.5	15	3.5	190
M3017-70	90,000	1"-1-1/2"	14x65	3	60	18x40	400	21.9	15	5	240
M3019-70	120,000	1"-1-1/2"	16x65	4	80	18x40	400	23.4	15	7	320
M3021-70	210,000	1"-1-1/2"	21x62	7	100	24x41	700	25.0	15	11	585

Note: Brine tanks and mineral tanks are standard. Other options are available. Please specify when ordering. Connectors available: 1", 1-1/4", 1-1/2", NPT.

Water Softeners with Fleck 5600 Valves



Our Most Economical Models!

Water softeners with Fleck 5600 control valves are our best selling softeners because they are built right and priced right. Check out the specifications, Features & benefits described below.

Specifications

Valve	Fleck 5600 top mount valve
Valve body	Glass reinforced Noryl®
Pipe Size	¾"
Types	Time clock and metered
Bypass	Included (stainless steel)
Mineral Tank	Corrosion resistant FRP. NSF
Brine Tank	Polyethylene; fully assembled
Media	High capacity cation resin

Features Benefits

- Economical pricing!
- Top quality components.
- Fully assembled, ready for installation.
- Models for capacities to 60,000 grains.
- User friendly Fleck 5600 control valves.
- Brine tanks with grid plate for maximum saturation of brine.
- Stainless steel by-pass valve is included.
- Safety brine valve with air check.

Time Clock Models (FT5600 valve)

Part Number	Capacity (Max)	Pipe Size (In.)	Mineral Tank			Brine Tank		Flow Rate & Pressure Drop			Ship Wt. (Lbs.)
			Size	Resin Cubic Ft.	Gravel #20 (Lbs.)	Size	Salt Fill (Lbs.)	Service Flow (GPM)	Drop (PSI)	Back Wash (GPM)	
M1248	22,500	¾"	8x44	0.75	5	14x34	225	5-6	7-8	1.5	70
M2010	30,000	¾"	9x48	1	10	18x40	400	15-20	9-11	2.2	110
M2012	45,000	¾"	10x54	1.5	15	18x40	400	18-23	10-13	2.7	130
M2014	60,000	¾"	12x52	2	30	18x40	400	19-25	10-13	4.0	190

Metered Models (FM5600 valve)

Part Number	Capacity (Max)	Pipe Size (In.)	Mineral Tank			Brine Tank		Flow Rate & Pressure Drop			Ship Wt. (Lbs.)
			Size	Resin Cubic Ft.	Gravel #20 (Lbs.)	Size	Salt Fill (Lbs.)	Service Flow (GPM)	Drop (PSI)	Back Wash (GPM)	
M3011	30,000	¾"	9x48	1	10	18x40	200	15-20	9-11	2.2	110
M1286	30,000	¾"	10x35	1	10	Cabinet	225	15-20	10-13	2.7	110
M3013	45,000	¾"	10x54	1.5	15	18x40	400	18-23	10-13	2.7	130
M3015	60,000	¾"	10x52	2	30	18x40	400	19-25	10-13	4.0	190

Stocked Softeners for Same Day Shipment



Our Most Popular Models, Stocked For Immediate Shipment

Model Number	Type	Capacity	Valve	Mineral Tank		Brine Tank	
				Color	Size	Color	Size
M2010-SD	Time clock	30,000	5600	Blue	9x48	Blue	18x40
M3011-SD	Metered	30,000	5600	Blue	9x48	Blue	18x40
M1286	Cabinet (M)	30,000	5600	Brown, tan	Cabinet	Brown, tan	Cabinet

Note: Softeners listed above are assembled and include by-pass valve and safety float valve to prevent brine overflow.

Ready To Ship Models With Fleck 5600 Time Clock Valves

Model Number	Capacity (Grains)	Mineral Tank (Size)	Mineral Tank (Color)	Brine Tank (Size)	Brine Tank (Color)	By-Pass Valve	Float Valve
WSFTC075-1	22,500	8X44	Black	14x14x34	Black	No	No
WSFTC100-1	30,000	9X48	Black	14x14x34	Black	No	No
WSFTC100-5	30,000	9X48	Almond	14x14x34	Almond	No	No
WSFTC100-8	30,000	9X48	Almond	14x14x34	Almond	Yes	Yes
WSFTC150-4	45,000	10X54	Black	14x14x34	Black	Yes	Yes

Ready To Ship Models With Fleck 5600 Metered Valves

Model Number	Capacity (Grains)	Mineral Tank (Size)	Mineral Tank (Color)	Brine Tank (Size)	Brine Tank (Color)	By-Pass Valve	Float Valve
WSFMT100-4	30,000	9X48	Black	14x14x34	Black	Yes	Yes
WSFMT100-8	30,000	9X48	Almond	14x14x32	Almond	Yes	Yes
WSFMT150-12	45,000	10X54	Black	18x36	Black	Yes	Yes

Ready To Ship Models With CK10 Metered Valves

Model Number	Capacity (Grains)	Mineral Tank (Size)	Mineral Tank (Color)	Brine Tank (Size)	Brine Tank (Color)	By-Pass Valve	Float Valve
WSCMT100-12	30,000	9X48	Black	18x36	Black	Yes	Yes
WSCMT100-13	30,000	9X48	Black	18x36	Black	Yes	Yes
WSCMT150-12	45,000	10X54	Black	18x36	Black	Yes	Yes

LCTA-75 & LCTA-100 Twin Alternating Tank Softeners



Ideal Softeners When Soft Water Is Required 24 / 7, Without Interruption.

Suitable for light commercial applications ranging from 20,000 to 120,000 grains of hardness removal capacity, at flow rates to 24 GPM.

Specifications

Valve	Fleck 9000 SE
Valve body	Brass
Pipe sizes	3/4" and 1"
Types	Metered
By-pass	Additional (LCTA-75 included)
Mineral tanks	Corrosion resistant FRP. NSF.
Brine tanks	Polyethylene; fully assembled
Media	Cation resin; high capacity

Features & Benefits

- Economical pricing!
- Top quality components
- Models for capacities to 120,000 grains
- Fleck 9000 SE control valves with "SE" electronics
- Brine tanks with grid plate for maximum saturation of brine
- Stainless steel by-pass valve is for LCTA-75 only
- Safety brine valve with air check.

LCTA-75 Twin Tank Softeners With FM9000SE Metered Control Valves

Part Number	Capacity (Max.)	Pipe Size (In.)	Mineral Tank			Brine Tank		Flow Rate & Pressure Drop			Shipping Weight (Lbs.)
			Size	Resin Cubic Ft.	Gravel #20 (Lbs.)	Size	Salt Fill (Lbs.)	Service Flow (GPM)	Drop (PSI)	Back Wash (GPM)	
M2058-SE	30,000	3/4"	9x48	1	15	18x40	400	13-19	15-25	2	230
M2059-SE	45,000	3/4"	10x54	1.5	20	18x40	400	14-21	15-25	2.4	290
M2060-SE	60,000	3/4"	12x52	2	30	18x40	400	15-21	15-25	3.5	420
M2063-SE	75,000	3/4"	13x54	2.5	45	18x40	400	15-21	15-25	4	460
M2066-SE	90,000	3/4"	14x65	3	60	18x40	400	17-22	15-25	5	500
M2069-SE	120,000	3/4"	16x65	4	80	18x40	400	17-24	15-25	7	650

LCTA-100 Twin Tank Softeners With Metered FM9000SE Control Valves

Part Number	Capacity (Max.)	Pipe Size (In.)	Mineral Tank			Brine Tank		Flow Rate & Pressure Drop			Shipping Weight (Lbs.)
			Size	Resin Cubic Ft.	Gravel #20 (Lbs.)	Size	Salt Fill (Lbs.)	Service Flow (GPM)	Drop (PSI)	Back Wash (GPM)	
M2058B-SE	30,000	1"	9x48	1	15	18x40	400	13-19	15-25	2	230
M2059B-SE	45,000	1"	10x54	1.5	20	18x40	400	14-21	15-25	2.4	290
M2060B-SE	60,000	1"	12x52	2	30	18x40	400	15-21	15-25	3.5	420
M2063B-SE	75,000	1"	13x54	2.5	45	18x40	400	15-21	15-25	4	460
M2066B-SE	90,000	1"	14x65	3	60	18x40	400	17-22	15-25	5	500
M2069B-SE	120,000	1"	16x65	4	80	18x40	400	17-24	15-25	7	650

Twin Water Softeners with Fleck 9100 Valves

Our Most Efficient Models

Water softeners with Fleck 9100 control valves offer twin-alternating meter initiated operation, resulting in 24/7 soft water capability. Check out the features, specifications, benefits and options described below.



Specifications

Valve	Fleck 9100 mechanical or digital valve
Electrical	120 Volt 60 Hz standard
Valve body	Xyron
Distributor	1.05" O.D.
Types	¾" meter immediate initiated
Connection	¾" MNPT Noryl® Standard
Mineral Tank	Corrosion resistant FRP
Brine Tank	Fully assembled polyethylene
Media	High capacity cation resin

Features & Benefits

- High efficiency, no reserve capacity required.
- Top quality components.
- Up to 5 CF fully assembled, ready for installation.
- Capacities up to 120,000 grains per regeneration.
- Digital SE version includes attached 24V transformer.
- Decorative mineral tank jacket options available.
- Multiple brine tank options available.
- Multiple ¾" to 1¼" bypass and connection options.
- Safety brine valve with air check included.

Meter Initiated Models

Part Number	Resin Cu. Ft.	App. GPG Capacity @ 4 lb CF	App. GPG Capacity @ 15 lb CF	Mineral Tank Size	Brine Tank Size	Dry Salt Lbs.	Estimated Peak GPM	Rec. GPM Range	App. Height Inch	Ship Wt. (lbs)
M2058-91	2	16,000	30,000	(2)9x48	14x14	200	13	1.3-8	60	180
M2059-91	3	24,000	45,000	(2)10x54	14x14	200	14	1.6-10	66	250
M2060-91	4	32,000	60,000	(2)12x52	15x17	250	15	2.3-15	64	330
M2066-91	6	48,000	90,000	(2)14x65	18x40	350	15	3.2-15	76	470
M2069-91	8	64,000	120,000	(2)16x65	24x40	600	15	4.2-15	76	625

Water Softeners



Water Softeners With Fleck 2510 Time Clock Valves

Part Number	Capacity	Resin (Cu. Ft.)	Pipe Size	Mineral Tank (Size)	Mineral Tank (Color)	Brine Tank (Size)	Brine Tank (Color)	Ship Wt. (Lbs.)
M2012D	45,000	1.5	0.75"	10" x 54"	Almond	18" x 40"	Almond	135
M2012D-1	45,000	1.5	1"	10" x 54"	Almond	18" x 40"	Almond	135
M2014D	60,000	2	0.75"	12" x 52"	Almond	18" x 40"	Almond	195



Twin Alternation Softeners With Fleck 9000 Brass Valves

Part Number	Capacity	Resin (Cu. Ft.)	Pipe Size	Mineral Tank (Size)	Mineral Tank (Color)	Brine Tank (Size)	Brine Tank (Color)	Ship Wt. (Lbs.)
M2055	15,000	0.5	0.75"	8" x 35"	Blue	18" x 40"	Blue	175
M2056	25,000	0.75	0.75"	10" x 35"	Blue	18" x 40"	Blue	220
M2058	30,000	1	0.75"	9" x 48"	Almond	18" x 40"	Almond	230
M2059	45,000	1.5	0.75"	10" x 54"	Almond	18" x 40"	Almond	290
M2060	60,000	2	0.75"	12" x 52"	Almond	18" x 40"	Almond	400



Our Most Popular Softeners Assembled in Brea, CA (with stainless steel jackets)

Part Number	Capacity	Resin (Cu. Ft.)	Pipe Size	Mineral Tank (Size)	Mineral Tank (Color)	Brine Tank (Size)	Brine Tank (Color)	Ship Wt. (Lbs.)
WST-S5610MWQA	45,000	1.5	3/4"	10" x 54"	Almond	18" x 40"	Black	135
WST-S5610MWQA1	45,000	1.5	1"	10" x 54"	Almond	18" x 40"	Black	135
WST-S5610MWQAW	45,000	2	3/4"	10" x 54"	Almond	18" x 40"	Black	200

WATER SOFTNER LIMITED WARRANTY

This product shall be free from defects in material and workmanship at the time of installation, where originally installed. The warranty period begins on the installation date, but shall not begin later than six (6) months from the date of manufacture. Components showing unmistakable signs of defects in materials or workmanship will be repaired or replaced without charge and returned, freight prepaid. The Distributor does not accept any liability, or warranty related issues for this equipment due to misapplication, the lack of/or incorrect pretreatment.

There is a 10-year warranty on fiberglass tanks up to 13" in diameter, 5-year on 14" and larger, 2-year on vinylester tanks; 1-year on steel tanks; 5-year on salt tank; 5-year on control valve; 1-year on valve nest and controls; 1-year on component material and workmanship. Water softener resins subjected to iron, manganese, and chlorine levels greater than 1 ppm are expressly not covered by this warranty. Manganese greensand media and expendable medias such as, activated carbon, Filox™ and neutralizing media are not covered by this warranty.

Filters, membrane elements and flow restrictors that become fouled or plugged due to excessive turbidity, dissolved solids, or microorganisms are not covered by this warranty or any other implied or expressed warranty.

Labor and site visits are not included. Warranty is limited to repair or replacement of defective part (manufacturer's choice). Freight and shipping are not covered by this warranty. Return Goods Authorization (RGA) required for all returns. Collect freight returns will not be accepted.

This limited warranty does not cover failure in service due to fire, freezing, abuse, shipping damages, misapplication, water hammer, sunlight damage, high temperature failure (i.e. hot water back up), improper electrical connection or hi/low voltage, nor does it extend to consequential damages such as water damage, or salt damage.

Softener/Filter: _____

Model Number: _____

Serial Number: _____

Dealer: _____

Address: _____

City/Town: _____ **State:** _____ **Zip:** _____

Date of Purchase: _____

Date Installed: _____