

Water Softener

for the treatment of hard water

APPLICATIONS

For residential and light commercial Water Softener/
Filtration applications

GENERAL INFO

Excessive hardness in water due to high levels of calcium carbonate will cause scale buildup on pipes and particularly water heating elements. There will also be a difficulty getting soap and detergents to lather. All these problems can be eliminated efficiently by installing an HRV Water Softener.

Water Softeners utilise the ion exchange process where the calcium is replaced with the more soluble sodium. This can now be done manually with a simple quick turn of the manual valve which simply allows the Water Softener resin bed to backwash and regenerate with a Brine solution (salt) that is stored in the Brine Tank.

The Manual Water Softener is simple to use, requires no power and operates with a very low on-going cost using salt for the regeneration process. Salt is added on an as required basis and this is subject to the levels of hardness in the water plus the overall volume that passes through the system.

FEATURES | BENEFITS

- ◆ High Grade Resin
- ◆ Manual Regeneration - No Power Required
- ◆ Easy to use manual valve for backwash operation
- ◆ Most reliable technology for removal of iron & manganese*
- ◆ Low requirement of salt for regeneration
- ◆ Consistent quality of softened water throughout service life
- ◆ Tank inner has unmatched strength and chemical resistance
- ◆ 10-year manufacturers warranty on the Tank inner
- ◆ Improve rich lathering, save on cleaning products
- ◆ Cleaner, shinier glass and silverware
- ◆ Cleaner, smoother, softer hair and skin
- ◆ Softer, brighter, longer lasting fabric, whites stay white
- ◆ Soft water preserves the life of coffee machines, ice makers, dishwashers, clothing washers and other water using appliances



Vessels tested and certified by the Water Quality Association (WQA) to NSF/ANSI Std. 44 for material safety and structural integrity requirements and St d. 372 for low lead compliance.



WAT SYS WHWS-1054SM

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WATER SOFTENERS			MEDIA QUANTITIES		
Code	Description - Tank Size Inches (DxH)	Typical Flow Rate	Inlet/Outlet	Coarse Salt for Water Softener Regeneration	Cation Softener Resin (Lt)
"POLYWOUND" TANKS			LITRES/MINUTE	MM	
WHWS-1054SM	"Manual Valve" - 10" x 54"	40	1"	50kg	45 litre

TANK & MANUAL HEAD	
Valve Body	Glass-filled thermoplastic - NSF listed material
Rubber Components	Compounded for cold water - NSF Listed material
Operating Pressure	20-120 psi (1.38-8.27 bar)
Hydrostatic Pressure	300 psi (20.69)
Water Temperature	2°-38°C
Ambient Temperature	2°-48.9°C
Tank Thread	2-1/2" - 8, male
Inlet/Outlet Threads	1-3/4"-12 UNC-2A male
Drain Line	3/3" NPT, male
Brine Line	3/8" NPT, male
Width x Height	37.8 cm x 21.5 cm
Riser Tube Dia.	27 mm
Riser Height Above top of tank	0.5" (+/- 0.5")
Service flow rate	5 psi (1.03 bar) drop 25.0 gpm (5.7 m3/h)
Backwash flow rate	25psi (1.72 Bar) drop 20.0 gpm (4.5 m3/h)
Service	Cv = 6.50 (Kv = 5.6)
Backwash	Cv = 4.00 (Kv = 3.5)

*Recommend use of outdoor cover for direct sunlight applications

MATERIAL OF CONSTRUCTION

- ◆ Inner shell of high-density polyethylene
- ◆ Threaded inlet available in various sizes: 2.5", 4", 4.5"

PENTAIR DESIGN PARAMETERS

- ◆ Safety factor - 4:1
- ◆ Minimum burst at 600 psi
- ◆ Tested to 250,000 cycles without leakage

NSF/ANSI STD. 44 DESIGN PARAMETERS

- ◆ Safety factor - 4:1
- ◆ Minimum burst at 600 psi
- ◆ Tested to 100,000 cycles without leakage

HOW IT WORKS

Softening your water has many great benefits. Soaps are easier to lather, scale build up will be reduced significantly, leaving your appliances functioning better...

Cation Softener Resin (Lt)



Coarse Salt for Water Softener Regeneration



OPERATING PARAMETERS

- ◆ Maximum operating pressure - 150 psi
- ◆ Maximum operating temperature - 120° F

TYPICAL INSTALLATION

