MARLO INCORPORATED®

Quality Products for Quality Water

# 'MAT' Series Softener Systems

## Overview

The Marlo 'MAT' softener is a meter initiated twin-alternating softener that effectively reduces hard-water scale. This results in lower energy costs and longer equipment life.

The twin alternating design provides a continuous supply of softened water for critical applications, such as boiler feed, with a fully recharged tank always in standby.

## Standard Features

- Top-mounted, twin-tank control valve with integral brine injector
- High capacity, sodium form cation resin
- Water meter initiated regeneration
- Inlet/Outlet Sizes - 3/4", 1" or 1-1/2"
- NSF certified corrosion resistant pressure vessels
- Brine tank assembly with salt shelf and safety overflow valve
- Hardness test kit

## Materials of Construction

- Control Valve Body:
  Glass-filled Noryl - Fleck 9100, (3/4" and 1")
  Bronze - Fleck 9500, (1-1/2")
- Meter: Brass or glass filled Noryl
- Resin Tanks: FRP
- Internal Distributor: PVC/ABS
- Brine Tank: Corrosion resistent polyethylene

## Instrumentation / Controls

- Fleck SXT digital display electronic timer
- Meter initiated with override option
- Blue backlit LCD display
- Adjustable cycle times
- Service and diagnostic indicators

## Operating Parameters

- Flow Range: 2 gpm - 62 gpm
- Inlet Pressure: 30-125 psig
- Temperature: 40-100°F
- Electrical: 120VAC, 1-Ph, 60 Hz

## Options Available

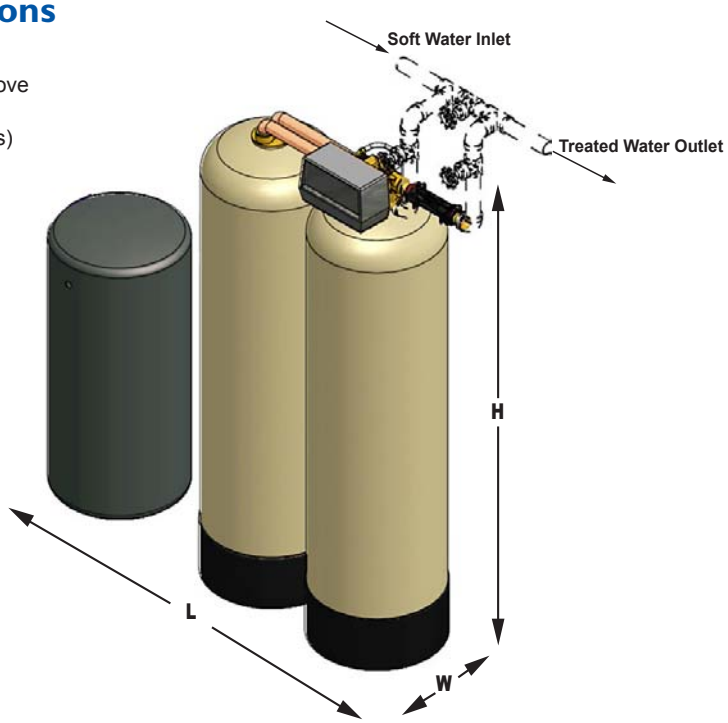
- Skid mounted, pre-piped, pre-loaded system
- Electromechanical controller
- XT electronic controller with resettable totalizer
- 220 VAC/50Hz electrical power
- Application specific resin
- Larger brine bank

# 'MAT' Series Specifications

| MODEL NUMBER | EXCHANGE CAPACITY (Grains)❶ | | FLOW RATES | | | PIPE SIZE | | RESIN PER TANK | TANK SIZES | | SALT STORAGE | # OF REGENS PER SALT REFILL | OVERALL DIMENSIONS (INCHES)❹ | | | APPROX SHIPPING WEIGHT (LBS)❺ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SERVICE | | BACK WASH | SERVICE | DRAIN | | SOFTENER | BRINE | | | | | | |
| | MAX. | MIN. | CONT. GPM ❷ | PEAK GPM ❸ | GPM | INCHES | INCHES | CU. FT. | INCHES | INCHES | LBS | MAX. | LENGTH | WIDTH | HEIGHT | SINGLE |
| MAT 15M-3/4 | 15,000 | 10,000 | 12 | 16 | 1.2 | ¾ | ½ | ½ | 7x44 | 18x33 | 300 | 40 | 38 | 18 | 52 | 130 |
| MAT 22M-3/4 | 22,000 | 15,000 | 13 | 17 | 1.6 | ¾ | ½ | ¾ | 8x44 | 18x33 | 300 | 27 | 40 | 18 | 52 | 165 |
| MAT 30M-3/4 | 30,000 | 20,000 | 14 | 19 | 2 | ¾ | ½ | 1 | 9x48 | 18x33 | 300 | 20 | 40 | 18 | 56 | 200 |
| MAT 45M-3/4 | 45,000 | 30,000 | 13 | 18 | 2.4 | ¾ | ½ | 1-½ | 10x54 | 18x33 | 375 | 17 | 45 | 18 | 62 | 265 |
| MAT 60M-3/4 | 60,000 | 40,000 | 14 | 19 | 3.5 | ¾ | ½ | 2 | 12x52 | 18x40 | 320 | 11 | 49 | 18 | 60 | 400 |
| MAT 60M-1 | 60,000 | 40,000 | 16 | 21 | 3.5 | 1 | ½ | 2 | 12x52 | 18x40 | 320 | 11 | 49 | 18 | 60 | 400 |
| MAT 60M-1-½ | 60,000 | 40,000 | 28 | 39 | 3.5 | 1-½ | 1 | 2 | 13x54 | 18x40 | 320 | 11 | 52 | 18 | 62 | 425 |
| MAT 90M-1 | 90,000 | 60,000 | 17 | 22 | 5 | 1 | ½ | 3 | 14x65 | 18x40 | 270 | 6 | 54 | 18 | 73 | 625 |
| MAT 90M-1-½ | 90,000 | 60,000 | 31 | 42 | 5 | 1-½ | 1 | 3 | 14x65 | 18x40 | 270 | 6 | 56 | 18 | 75 | 650 |
| MAT 120M-1 | 120,000 | 80,000 | 18 | 23 | 6 | 1 | ½ | 4 | 16x65 | 24x40 | 550 | 9 | 64 | 24 | 73 | 825 |
| MAT 120M-1-½ | 120,000 | 80,000 | 34 | 46 | 6 | 1-½ | 1 | 4 | 16x65 | 24x40 | 550 | 9 | 68 | 24 | 75 | 850 |
| MAT 150M-1-½ | 150,000 | 100,000 | 38 | 50 | 8 | 1-½ | 1 | 5 | 18x65 | 24x50 | 500 | 7 | 72 | 24 | 75 | 1,150 |
| MAT 210M-1-½ | 210,000 | 140,000 | 39 | 52 | 12 | 1-½ | 1 | 7 | 21x62 | 24x50 | 580 | 6 | 78 | 24 | 75 | 1,375 |
| MAT 240M-1-½ | 240,000 | 160,000 | 43 | 57 | 15 | 1-½ | 1 | 8 | 24x72 | 24x50 | 530 | 4 | 84 | 24 | 83 | 1,600 |
| MAT 300M-1-½ | 300,000 | 200,000 | 41 | 55 | 15 | 1-½ | 1 | 10 | 24x72 | 24x50 | 440 | 3 | 84 | 24 | 83 | 1,850 |
| MAT 450M-1-½ | 450,000 | 300,000 | 45 | 62 | 25 | 1-½ | 1 | 15 | 30x72 | 30x50 | 640 | 3 | 102 | 30 | 83 | 2,725 |

# 'MAT' Series Dimensions

**NOTE:**
Leave a minimum 24 inch clearance above the height of the unit for loading media. Installation piping (shown in broken lines) are provided by others.




# Notes

❶ Maximum capacity based on 30,000 grains per cubic foot of resin when regenerated with 15 lbs. salt . Minimum capacity based on 20,000 grains per cubic foot of resin when regenerated with 6 lbs. salt.

❷ At pressure loss not exceeding 15 psi.

❸ At pressure loss not exceeding 25 psi.

❹ Dimensions are estimate only.

❺ Shipping weights are estimate only. Weights include resin and support gravel.

2227 South Street • Racine, Wisconsin 53404 • 262.681.1300 • FAX 262.681.1318 • marlo-inc.com

MARLO INCORPORATED ®