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› Wellmate WM-35 / WM0450 Classic Fiberglass Tank User Manual

## Wellmate WM-35

# Wellmate WM-35 / WM0450 Classic Fiberglass Tank User Manual

Model: WM-35 / WM0450

## INTRODUCTION

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This manual provides essential information for the installation, operation, and maintenance of your Wellmate WM-35 / WM0450 Classic Fiberglass Tank. Please read this manual thoroughly before attempting any installation or operation to ensure safe and efficient use of the product.

The Wellmate WM-35 / WM0450 is a durable fiberglass tank designed for residential and commercial applications. Its composite construction offers superior resistance to rust and corrosion compared to traditional steel tanks, ensuring a long service life and minimal maintenance.

## PRODUCT OVERVIEW

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Figure 1: Front view of the Wellmate WM-35 / WM0450 Classic Fiberglass Tank. This image shows the full tank with the Wellmate logo, highlighting its sleek, cylindrical design and gray finish.



Figure 2: Cutaway diagram illustrating the internal components of the Wellmate WM-35 / WM0450 tank. This diagram highlights the durable interior air cell, seamless inner shell of high-density polyethylene, outer shell of continuous fiberglass strands sealed with epoxy resin, sturdy molded polymeric base, and the bottom inlet/outlet one-piece drain made of high-impact PVC.

The WM-35 / WM0450 tank features a robust construction designed for longevity and performance. Key components include:

- **Durable Interior Air Cell:** Fully replaceable and constructed of heavy-gauge engineered polymer.
- **Seamless Inner Shell:** Molded from premium, high-density polyethylene.

- **Outer Shell:** Composite of continuous fiberglass strands sealed with high-grade epoxy resin.
- **Sturdy Polymeric Base:** Corrosion and impact proof.
- **Bottom Inlet/Outlet Drain:** One-piece, custom molded of high-impact PVC.

## SPECIFICATIONS

**Table 1: Wellmate WM-35 / WM0450 Key Specifications**

Feature	Detail
Model Number	WM-35 / WM0450
Tank Volume	119.7 gallons (453 liters)
Material	Fiberglass Composite
Special Features	Durable, Lightweight, Corrosion-Resistant, Maintenance-Free
Color	Gray
Manufacturer	Wellmate

**WM Series Classic Performance Data**

Model Number	Capacity gal / liter	Maximum Operating Pressure psi / kPa / Bar	Drawdown 30/50 Setting** gal / liter	Diameter* inch / cm	Overall Height* inch / cm	Height* inlet/outlet to floor inch / cm	System Connection	Assembly Weight* lb / kg	Pallet QTY.
WM-4 / WM0060 C	14.5 / 55	125 / 862 / 8.6	4.5 / 17.0	16 / 41	26 / 66	1 3/4 / 4.4	1" male NPT	14.5 / 6.6	9
WM-6 / WM0075 C	19.8 / 75	125 / 862 / 8.6	6.1 / 34.4	16 / 41	32 / 81	1 3/4 / 4.4	1" male NPT	17.75 / 8.1	9
WM-9 / WM0120 C	29.5 / 112	125 / 862 / 8.6	9.1 / 34.4	16 / 41	44 / 112	1 3/4 / 4.4	1" male NPT	24.75 / 11.2	9
WM-12 / WM0150 C	40.3 / 153	125 / 862 / 8.6	12.5 / 47.3	16 / 41	57 / 145	1 3/4 / 4.4	1" male NPT	65.7 / 29.8	9
WM-14WB / WM0180 C	47.1 / 178	125 / 862 / 8.6	14.6 / 55.3	21 / 53	41.3 / 105	2 1/4 / 5.7	1 1/4" male NPT	50 / 22.7	4
WM-20WB / WM0235 C	60.0 / 227	125 / 862 / 8.6	18.5 / 70.0	24 / 61	41.5 / 105	2 1/4 / 5.7	1 1/4" male NPT	72.75 / 33.0	4
WM-23 / WM0300 C	79.6 / 301	125 / 862 / 8.6	24.6 / 93.1	21 / 53	62 / 157	2 1/4 / 5.7	1 1/4" male NPT	43 / 19.5	4
WM-25WB / WM0330 C	86.7 / 328	125 / 862 / 8.6	26.8 / 101.5	24 / 61	55 1/4 / 140	2 1/4 / 5.7	1 1/4" male NPT	72.75 / 33.0	4
WM-35WB / WM0450 C	119.7 / 453	125 / 862 / 8.6	37.0 / 140.1	24 / 61	74 1/4 / 189	2 1/4 / 5.7	1 1/4" male NPT	102 / 46.4	N/A

Note: Maximum external operating temperature 120°F (49°C). Maximum internal operating temperature 100°F (38°C). Minimum operating temperature 40°F (4°C).

\* Diameter, height and weight may vary slightly without notice.

\*\* In keeping with current industry standards, drawdown factors are based on Boyle's law. Actual drawdowns will vary depending upon system variables, including the accuracy and operation of the pressure switch and gauge and operating temperature of the system.

Figure 3: Performance data table for Wellmate WM Series Classic tanks, including the WM-35 / WM0450. This table provides detailed specifications such as capacity, maximum operating pressure, drawdown, diameter, overall height, inlet/outlet connection height, system connection type, and assembly weight for various models in the series.

## SETUP AND INSTALLATION

Proper installation is crucial for the optimal performance and longevity of your Wellmate tank. It is recommended that installation be performed by a qualified professional.

### Safety Precautions:

- Always depressurize the system before beginning any work.

- Wear appropriate personal protective equipment (PPE).
- Ensure the installation area is well-ventilated.

## Installation Steps:

1. **Site Selection:** Choose a level, stable surface capable of supporting the full weight of the tank when filled with water. The location should be protected from freezing temperatures and direct sunlight.
2. **Unpacking:** Carefully remove the tank from its packaging. Inspect for any shipping damage.
3. **Plumbing Connections:** Connect the tank to your plumbing system using appropriate fittings. Ensure all connections are watertight. The WM-35 / WM0450 typically uses a 1 1/4" male NPT system connection.
4. **Air Charge (if applicable):** Verify the factory air charge. If adjustment is needed, use a pressure gauge and air pump. Refer to system specifications for correct pressure.
5. **System Fill:** Slowly fill the tank with water, allowing air to escape. Check for leaks at all connections.
6. **System Pressurization:** Once filled, gradually pressurize the system to the desired operating pressure.

## OPERATING INSTRUCTIONS

The Wellmate WM-35 / WM0450 tank operates as a pressure vessel within your water system. Its primary function is to maintain system pressure and provide water storage, reducing pump cycling.

### Normal Operation:

- The tank will automatically fill and discharge water as demand dictates, regulated by your system's pressure switch.
- Monitor system pressure periodically to ensure it remains within the recommended operating range.

### Operating Parameters:

- Maximum Operating Pressure: 125 psi (8.6 bar)
- Maximum Operating Temperature: 120°F (49°C)
- Minimum Operating Temperature: 40°F (4°C)

*Note: Exceeding these parameters can damage the tank and void the warranty.*

## MAINTENANCE

Wellmate tanks are designed for minimal maintenance. However, periodic checks are recommended to ensure continued optimal performance.

### Annual Checks:

- **Air Charge Verification:** Annually check the tank's air charge. Depressurize the system, drain the tank, and then check the air pressure at the air valve. Adjust if necessary to match your system's cut-in pressure (typically 2 psi below the pump's cut-in pressure).
- **Visual Inspection:** Inspect the tank for any signs of external damage, leaks, or corrosion.
- **Connection Integrity:** Check all plumbing connections for tightness and signs of leaks.

### Cleaning:

Clean the exterior of the tank with a mild soap and water solution. Avoid abrasive cleaners or solvents that could damage the finish.

## TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your Wellmate WM-35 / WM0450 tank.

**Table 2: Common Troubleshooting Guide**

Problem	Possible Cause	Solution
Pump short cycling (frequent on/off)	Low or no air charge in tank; Waterlogged tank; Pressure switch malfunction.	Check and adjust air charge (see Maintenance); Inspect tank for internal damage; Check and adjust/replace pressure switch.
No water pressure	Pump not running; System leak; Closed valve.	Check power to pump; Locate and repair leaks; Ensure all valves are open.
Water leaking from tank	Loose connections; Damaged tank.	Tighten plumbing connections; If tank is damaged, replacement may be necessary.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact a qualified service technician.

## WARRANTY AND SUPPORT

For specific warranty information regarding your Wellmate WM-35 / WM0450 Classic Fiberglass Tank, please refer to the warranty card included with your purchase or visit the official Wellmate website. Keep your proof of purchase for warranty claims.

For technical support, replacement parts, or service inquiries, please contact Wellmate customer service or an authorized Wellmate dealer. Contact information can typically be found on the manufacturer's website or on your purchase documentation.

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