

Atlantic MD250

Atlantic Water Gardens MD250 Pump Instruction Manual

Model: MD250

Energy Efficient Water Feature and Fountain Pump, 250 GPH

PRODUCT OVERVIEW

The Atlantic Water Gardens MD-Series magnetic induction pumps are engineered for optimal performance in small water features and fountains, particularly those with low head heights. These submersible pumps are constructed for durability and energy efficiency, featuring a robust design suitable for demanding conditions.

Key components include removable pre-filters for easy cleaning, oversized ceramic shafts for extended wear resistance, and replaceable impeller assemblies to ensure long-term operation. Each pump is equipped with a 20-foot power cord for flexible placement and comes with a five-year limited warranty, reflecting its quality and reliability.

MD-Series pumps are also compatible with TidalWave Fountain Heads, allowing for enhanced aesthetic possibilities in your water garden. Understanding the pump's capabilities, especially its Total Dynamic Head (TDH), is crucial for selecting the correct model for your specific pond, waterfall, or fountain application.

FEATURES

- **Magnetic Induction Technology:** Provides years of reliable service in challenging small pond, waterfall, and fountain environments.
- **Improved Performance:** Offers better flow rates at higher head heights compared to previous designs.
- **Enhanced Serviceability:** Designed for easier maintenance and longer operational life.
- **Less Restrictive Connections:** Features male threads on both inlet and outlet for higher flow efficiency.
- **Rotatable Volute:** Allows for maximum adaptability to suit various pump orientations and installation requirements.
- **Easy Impeller Access:** A quarter-turn of the volute provides tool-free access to the impeller assembly for periodic cleaning.
- **Durable Shaft:** Equipped with an oversized ceramic shaft that resists wear more effectively than steel, contributing to a longer service life.
- **Quick Impeller Replacement:** Impeller assembly can be replaced quickly and easily, ensuring the pump continues to run for years.

- **Removable Pre-filter:** Includes a pre-filter that can be easily removed for cleaning, reducing maintenance frequency.
- **Extended Power Cord:** All models come with a 20-foot power cord for convenient placement.
- **Five-Year Limited Warranty:** Backed by a comprehensive warranty for peace of mind.

MD-SERIES PUMP FEATURES:

1. Oversized male threaded inlet and outlet for less restriction and greater flow.
2. Rotating volute provides maximum adaptability for any installation.
3. Quarter twist volute provides access to the impeller assembly without the use of tools.
4. Large, stable base is removable for added versatility.
5. Removable pre-filter provides increased surface area and reduces maintenance.
6. Tapered outlet fittings accept a wide array of tubing sizes.
7. MD1000 – MD1500 include a 1½" adapter for use with the Triton Check Valve and Fountain Basin Plumbing Kits (not shown).



Figure 1: Detailed diagram highlighting the key features of the Atlantic MD-Series pump, including its oversized male threaded inlet/outlet, rotating volute, quarter-twist volute access, large stable base, removable pre-filter, and tapered outlet fittings. A 5-year warranty is also noted.

SETUP AND INSTALLATION

Proper setup is essential for the optimal performance and longevity of your Atlantic MD250 pump. Follow these general guidelines for installation:

1. **Placement:** Position the submersible pump at the lowest point in your water feature or fountain basin, ensuring it is fully submerged in clean water.
2. **Tubing Connection:** Connect appropriate tubing to the pump's male threaded outlet. The rotatable volute allows for flexible tubing routing. Ensure all connections are secure to prevent leaks and maintain optimal flow.
3. **Pre-filter Installation:** Ensure the removable pre-filter is securely attached to the pump's inlet. This filter protects the impeller from debris.
4. **Electrical Connection:** Route the 20-foot power cord safely to a grounded electrical outlet. Avoid kinks or damage to the cord. Ensure the outlet is protected by a Ground Fault Circuit Interrupter (GFCI) for safety.
5. **Initial Priming:** As a submersible pump, it will self-prime once submerged and powered on. Ensure the pump is completely underwater before activating.



Figure 2: The Atlantic Water Gardens MD250 Energy Efficient Water Feature and Fountain Pump, showcasing its compact design and threaded outlet for easy hose connection.

OPERATING INSTRUCTIONS

The MD250 pump is designed for continuous operation in water features and fountains. Once properly installed and submerged, simply plug the pump into a grounded GFCI-protected outlet to begin operation. The pump will immediately start circulating water.

For optimal performance and energy efficiency, ensure the water level in your feature remains adequate to keep the pump fully submerged. Running the pump dry can cause damage and void the warranty.

The MD250 is specifically suited for small water features and fountains with low head heights. For applications requiring higher flow rates or greater vertical lift, refer to the pump selection guide to ensure the correct model is used.



Figure 3: An example of a small rock fountain with water gently flowing, illustrating a typical application for the MD250 pump.

MAINTENANCE

- **Pre-filter Cleaning:** Periodically remove and clean the pre-filter to prevent clogging and maintain optimal water flow. The frequency depends on the amount of debris in your water feature.
- **Impeller Inspection:** If flow decreases or the pump becomes noisy, inspect the impeller assembly for debris or wear. The impeller can be accessed with a quarter-turn of the volute and is replaceable.
- **Shaft Inspection:** Check the oversized ceramic shaft for any signs of wear or damage during impeller inspection.
- **Winterization:** In freezing climates, remove the pump from the water feature before the first hard freeze. Clean the pump thoroughly and store it in a frost-free location, submerged in a bucket of water to keep seals moist.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump does not run.	No power to pump; GFCI tripped; Impeller jammed.	Check power connection and GFCI; Clear any debris from impeller.
Low water flow.	Clogged pre-filter; Kinked or obstructed tubing; Worn impeller.	Clean pre-filter; Check and clear tubing; Inspect/replace impeller.

Problem	Possible Cause	Solution
Pump is noisy.	Debris in impeller; Pump running dry; Worn bearings.	Clean impeller; Ensure pump is fully submerged; Contact support if noise persists.

SPECIFICATIONS

- **Model:** MD250
- **Brand:** Atlantic Water Gardens
- **Power Source:** Corded Electric
- **Voltage:** 115V
- **Max Flow:** 250 GPH (Gallons Per Hour)
- **Watts:** 15W
- **Item Weight:** 1.5 Pounds
- **Product Dimensions:** 4.5 x 3.5 x 5 inches
- **Material:** Plastic (Housing)
- **Shaft Material:** Oversized Ceramic
- **Power Cord Length:** 20 feet
- **Warranty:** Five-year limited warranty
- **UPC:** 727429003626

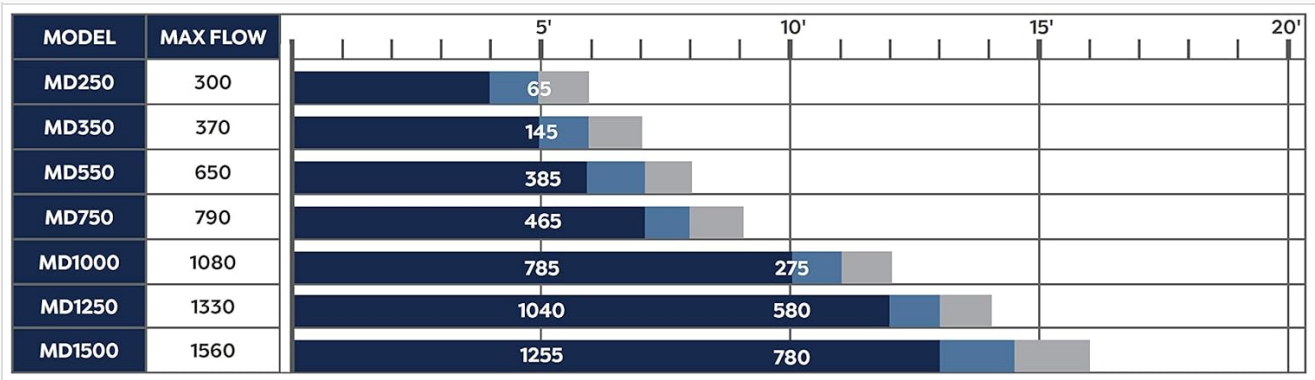


Figure 4: Total Dynamic Head (TDH) chart for various Atlantic pump models, including the MD-Series, showing maximum flow rates and performance across different head heights. This chart helps in selecting the appropriate pump for specific water feature requirements.

PUMP SELECTION GUIDE VIDEO

For detailed guidance on choosing the perfect pump for your water feature by calculating Total Dynamic Head (TDH), please watch the official Atlantic Water Gardens video below. This video provides a comprehensive explanation of how to determine the right pump for your specific application, ensuring optimal performance and efficiency.

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Video 1: "Choosing The Perfect Pump By Calculating Total Dynamic Head" - An official guide from Atlantic Water Gardens explaining how to select the correct pump for your water feature based on flow requirements and head height calculations.

WARRANTY AND SUPPORT

The Atlantic Water Gardens MD250 pump comes with a **five-year limited warranty**. For warranty claims, technical

support, or further assistance, please contact Atlantic Water Gardens directly through their official website or customer service channels.

Visit the [Atlantic Store on Amazon](#) for more products and information.