HYDROMAX

Hot Water Makers

Efficiency at its Best
Amtrol’s invention of the indirect-fired water heater, nearly four decades ago, represented an innovative solution to providing fast, efficient and reliable hot water. In the years since, Amtrol has been dedicated to the continuous improvement of Hot Water Maker® performance and longevity. HydroMax®, with its unique features and appliance-like appearance, is the next generation of Amtrol Hot Water Makers. Made in the USA at our ISO9001:2008 registered facilities, HydroMax is Hydronic Efficiency to the Max™!
A Change for the Better.

Appliance-Like Appearance
Finally, an indirect-fired water heater that looks as good as the fixtures it supplies. HydroMax® is a revolution in modern design and technology.

Easy to Install and Operate
Every aspect of HydroMax is designed to simplify installation and improve user satisfaction.

Energy Efficiency at its Best
HydroMax is engineered to save energy without sacrificing comfort. Intelligent control technology and a unique tank design work together to provide the best of both worlds.

Reliable - No Call Backs
Amtrol believes that an indirect water heater is an integral part of a home’s heating system. HydroMax incorporates modern materials and proprietary design features to ensure years of trouble-free service.
Copper Rough-In Piping
• No threaded fittings required.
• Factory installed Type M copper.

Aquastat Option
• Fast-acting dial control.
• 8 foot universal 10K Ohm temp sensor integrates boiler controls.

Triple-Shell Construction
Deep Drawn Steel
• Offers twice the strength of traditional construction.
• Tuf-Kote™ HG finish withstands damp and harsh environments.

Urethane Insulation
• Reaction Injection Molded (RIM) to eliminate gaps and voids.
• Form-fitting clamshell design minimizes heat loss.

Bi-Modal HDPE Poly Bottle
• Corrosion-proof material is impervious to chlorides, scale and aggressive water.
• High Density Polyethylene (HDPE) bottle for clean, fresh water.
• Advanced high-temp polymer rated to 180°F.

Pre-Installed Drain Valve
• Bottom mount completely empties tank.
• Sediment trap captures and flushes debris.

Flexible Warranty Protection Plan
• 7 Year Warranty with Limited Lifetime option.
• Consumer upgrade kit included in every carton.
**Full Access Housing**
- Enclosed piping for safety and appearance.
- Two piece snap-fit design for easy access.

**Integrated Heat Trap**
- Keeps stored water in the tank.
- Patented soft-seat design.

**Hi-Delta Heat Exchanger**
- Removable for cleaning without draining tank.
- Optimal coil spacing for superior performance.
- Energy efficient and scale resistant.

**Turbulator™ Inlet Distributor**
- Agitates water to reduce sediment buildup.
- High velocity spray action cleans coil to maintain peak performance.

**T & P Blowdown Tube**
- Pre-bent tube is ready to install.
- Pre-cut to proper length to meet plumbing codes.

**DuraBase™ Composite Stand**
- Rugged material withstands rough handling.
- Place HydroMax directly on floor to eliminate need for cement blocks.
- Engineered for strength; tested to withstand over 2,500 lbs.

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**Ener-G-NET™ Digital Control**

**Instantaneous Indirect Technology™**

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**User Modes**
- **Standard**
  - Traditional operating mode.
  - Provides maximum hot water availability.
- **Efficiency**
  - Reduces boiler cycling during idle periods.
  - Senses demand to deliver hot water when it's needed.
- **Vacation**
  - Standby setting for extended periods of inactivity.
  - One-touch restores normal operation.

**Installer Settings**
- **Temperature**
  - Accurate within 1°F.
- **Differential**
  - Set as narrow as 5°F for constant temperature.
- **Post Purge**
  - Captures waste boiler heat for added savings.
- **Priority**
  - Maximizes hot water availability.

**Heat Transfer Display**
- Displays real-time BTU transfer.

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**Built-in Diagnostics**
Error codes quickly identify potential problems and provide an audible alert before damage occurs.

- **Er1**: Sensor Error
- **Er2**: Overheating
- **Er3**: Slow Heating

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## Specifications & Sizing

### Models & Specifications

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Capacity (gallons)</th>
<th>Height (inches)</th>
<th>Diameter (inches)</th>
<th>Shipping Weight (lbs.)</th>
<th>Control Type</th>
<th>Domestic Water</th>
<th>Boiler Supply/Return</th>
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<tbody>
<tr>
<td>HM-41Z</td>
<td>41</td>
<td>55</td>
<td>22</td>
<td>124</td>
<td>Mechanical</td>
<td>3/4&quot; Sweat</td>
<td>3/4&quot; Sweat</td>
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<tr>
<td>HM-80Z</td>
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<td>180</td>
<td>Mechanical</td>
<td>3/4&quot; Sweat</td>
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### Residential Sizing

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<thead>
<tr>
<th>Boiler BTU Rating</th>
<th>1 - 1½</th>
<th>2 - 3</th>
<th>4 - 5</th>
<th>6+</th>
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<tbody>
<tr>
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<td>140,000</td>
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**Consult Amtrol for heavy demands; including large whirlpool tubs, multi-head showers and other dump load applications.**

### Hot Water Performance

<table>
<thead>
<tr>
<th>Boiler Net Output (BTU per Hour)</th>
<th>HM-41 Models</th>
<th>HM-80 Models</th>
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<tr>
<td></td>
<td>First Hour Rating (90°F Rise)</td>
<td>Continuous Flow (70°F Rise)</td>
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<td>140,000</td>
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</table>
The Best Solution.

There are many choices for heating water but only one provides the best combination of performance and efficiency: an Indirect-Fired Water Heater. Using the home’s existing boiler energy minimizes fuel use and maximizes hot water output. See how HydroMax® surpasses all other water heater technologies in comfort and fuel savings.

Residential Water Heater Comparison

- **HydroMax**
  - Utilizes existing boiler energy to heat water.
  - Best hot water output.
  - Highest overall efficiency.
  - Insulated storage for peak demands.
  - Installs almost anywhere. No flame, flue or fuel lines.
  - Non-metallic water reservoir for long life and cleaner water.
  - Instantaneous Indirect Technology™ reduces unwanted cycling and provides endless hot water.
  - Removable heat exchanger can be easily cleaned.

- **Tankless Wall-Hung**
  - Water is heated as it flows through unit.
  - Small footprint.
  - Good firing efficiency.
  - No storage. Simultaneous demands often exceed heater capacity.
  - Requires dedicated flue.
  - Gas supply line often needs to be upsized.
  - Delayed start extends wait time for hot water.
  - Can take over 20 years to achieve payback.
  - Sensitive to scale buildup.

- **Conventional Gas-Fired**
  - Natural Gas or LP flame heats stored water.
  - Better hot water output than electric.
  - Popular replacement for many homes.
  - May take over an hour to reheat.
  - Conventional models offer poor efficiency.
  - Heat loss typically high during idle periods.

- **Conventional Electric**
  - Electric elements heat stored water.
  - Least expensive to purchase and install.
  - Simple hookup, no flue or fuel lines.
  - Poor hot water recovery performance.
  - Electricity is typically the most expensive water heating method.
  - Heating elements and anode rod often require service.

Data based on published manufacturer ratings for high-output models.
Heat Input: Indirect 140,000 BTUH; Tankless 199,000 BTUH; Gas 70,000 BTUH; Electric 5500W

Costs based on US Department of Energy (DOE) guidelines for a four person household.
Energy Factor (EF/CAE): Boiler/Indirect .85, Tankless .82, Gas .59, Electric .92

Data based on published manufacturer ratings for high-output models.
Whenever you choose Amtrol, you’re getting more than just a great product. The Amtrol Advantage combines the Industry’s best brands with world class customer service and valuable installer initiatives.

- Amtrol Rewards™ Installer Points Program
- Tanks on Tour™ Mobile Training Vehicle
- Amtrol Racing Team