The Hardy Design

The Hardy Outside coal burning heater is designed to be located next to your coal storage for convenient loading, normally twice a day. This removes the fire danger from your home and keeps smoke and ashes out of your home.

The Hardy heater does not require special equipment to transport or relocate. The heater firebox is constructed of 14 and 16 gauge 304 stainless steel for the best heat transfer possible. The heat transfer efficiency is three times better with 16 gauge 304 stainless steel than with 3/8” carbon steel. The all stainless steel firebox also resists rusting and burnout that occurs in standard carbon steel. The insulated all stainless steel firebox door and ash door holds the heat in and resists burnout and corrosion. The firebox comes standard with thick heavy cast iron shaker grates and firebricks that are placed around the top of the shaker grate frame.

The use of chemicals inside the water tank is not necessary because of the corrosion resistance of 304 stainless steel. Since hot water evaporates, Hardy invented a condenser stack located on the rear of the heater that condenses the steam and returns it to the water tank. The water tank is vented to the atmosphere to eliminate the safety hazards common with a pressurized boiler.

Standard features on the Hardy C3 & C5 are an adjustable aquastat, combustion blower for damper control, 4 GPM at 20 feet of head stainless steel circulator pump with on/off control relay, low water indicator, shaker grates, and firebricks. The Hardy provides hot water for hot air duct systems, water baseboard, radiant floor heat, unit heaters, and other existing hydronic systems.

The outside cover is constructed of 24 gauge 304 stainless steel to give you years of maintenance-free service. The stainless steel cover will not fade, needs no painting and does not require any weather protection.

The primary Hardy design goal is to give years of good service and make it easy to maintain.
The Hardy Design

The Hardy Outside coal burning heater is designed to be located next to your coal storage for convenient loading, normally twice a day. This removes the fire danger from your home and keeps smoke and ashes out of your home.

The Hardy heater does not require special equipment to transport or relocate. The heater firebox is constructed of 14 and 16 gauge 304 stainless steel for the best heat transfer possible. The heat transfer efficiency is three times better with 16 gauge 304 stainless steel than with 3/8” carbon steel. The all stainless steel firebox also resists rusting and burnout that occurs in standard carbon steel. The insulated all stainless steel firebox door and ash door holds the heat in and resists burnout and corrosion. The firebox comes standard with thick heavy cast iron shaker grates and firebricks that are placed around the top of the shaker grate frame.

The use of chemicals inside the water tank is not necessary because of the corrosion resistance of 304 stainless steel. Since hot water evaporates, Hardy invented a condenser stack located on the rear of the heater that condenses the steam and returns it to the water tank. The water tank is vented to the atmosphere to eliminate the safety hazards common with a pressurized boiler.

Standard features on the Hardy C3 & C5 are an adjustable aquastat, combustion blower for damper control, 4 GPM at 20 feet of head stainless steel circulator pump with on/off control relay, low water indicator, shaker grates, and firebricks. The Hardy provides hot water for hot air duct systems, water baseboard, radiant floor heat, unit heaters and other existing hydronic systems.

The outside cover is constructed of 24 gauge 304 stainless steel to give you years of maintenance-free service. The stainless steel cover will not fade, needs no painting and does not require any weather protection.

The primary Hardy design goal is to give years of good service and make it easy to maintain.
Typical Hardy Installations

**Forced Air System**

A hot water heating coil is installed in the supply side of your new or existing air handler and ductwork. A new wall thermostat which regulates the heat from the Hardy heater performs two functions: when it senses your need for heat according to your temperature setting, it turns the water pump on to circulate the hot water through the coil and secondly turns on the blower inside your central unit to force air across the hot water coil. This forces hot air into your central duct system. Your existing heater can serve as a backup heating source.

**Hydronic System**

The Hardy heater can be connected directly to a new or existing boiler heating system. The Hardy circulating pump supplies the flow of hot water. The existing pump, zone valves, and baseboard radiation transfer the heat through the house. The existing boiler system can serve as a backup heating source. The Hardy can be connected to any existing hydronic heating system that operates at 170 degrees Fahrenheit or less.

**Radiant Floor Heating**

The Hardy heater can supply the necessary hot water to provide heating comfort for your hydronic radiant floor system. The water circulates from the Hardy heater through tubing inside concrete or wood floor construction. With the Hardy hookup, the system temperature can be controlled on a room-by-room basis. Energy is spent only when and where needed. Strategically placed thermostats recognize the deviation in temperature and react promptly with efficient and economical Hardy heat. Areas of the house not used can be set back to conserve energy.

**Water Heater**

Heating domestic hot water on the model C3 or C5 can be achieved by adding a plate heat exchanger and pump. This is a great option for unlimited and economical heating of your domestic water with your Hardy.

**Bath, Shower, Kitchen & Laundry**

The Hardy provides hot water for your kitchen and laundry from hot water stored in the water heater preheated by the heat exchanger on the Hardy heater.

**Swimming Pools**

The Hardy can heat your swimming pool with a heat exchanger swimming pool kit option which includes a pool pump, pool thermostat, and low limit sensor to provide the most effective and efficient way to heat your swimming pool.

**Dairies and Shops**

The Hardy provides hot water for your dairy and shop from the hot water stored in the water heater preheated by the heat exchanger on the Hardy heater. The shop can be heated by a hydronic or forced air system.

**Fan Coil Unit**

Homes without existing ductwork can enjoy the advantages of Hardy heat with the Hardy Fan Coil Unit. The fan coil unit can be located central to the areas to be heated. Water is circulated from the Hardy heater through the fan coil unit in your home.

The fan coil unit forces air across the hot water coil sending hot air into the area to be heated. The temperature of your home is regulated by a thermostat mounted on an electrical outlet adjacent to the fan coil unit.

**Ratings and Specifications**

**Type of fuel - Coal**

*For outdoor use only*

- **Electrical Rating**: 115 VAC / 60 HZ / 1P
  - MFS-15 AMP, MCA-15 AMP
- **Clearance to Combustibles**
  - Top, Rear, Sides: 48"
  - Chimney Connector: 48"
  - Front: 48"
  - Flooring: Non Combustible
- **Water Capacity**
  - C3: Holds Approximately 100 Gallons of Water
  - C5: Holds Approximately 130 Gallons of Water

UL safety test, however verify and comply with any applicable local, state and federal codes and regulations.

**Heater Dimensions**

<table>
<thead>
<tr>
<th>Description</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3 - 120,000 BTU</td>
<td>30&quot;</td>
<td>52 1/2&quot;</td>
<td>59 1/2&quot;</td>
<td>820 lbs.</td>
</tr>
<tr>
<td>C5 - 180,000 BTU</td>
<td>40&quot;</td>
<td>52 1/2&quot;</td>
<td>59 1/2&quot;</td>
<td>967 lbs.</td>
</tr>
</tbody>
</table>

**Firebox Sizes**

<table>
<thead>
<tr>
<th>Description</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3 - 120,000 BTU</td>
<td>24&quot;</td>
<td>32&quot;</td>
<td>36&quot; + 8&quot; for Grates</td>
</tr>
<tr>
<td>C5 - 180,000 BTU</td>
<td>34&quot;</td>
<td>32&quot;</td>
<td>36&quot; + 8&quot; for Grates</td>
</tr>
</tbody>
</table>

**Door Opening**

<table>
<thead>
<tr>
<th>Description</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3 - 120,000 BTU</td>
<td>16&quot;</td>
<td>NA</td>
<td>16&quot;</td>
</tr>
<tr>
<td>C5 - 180,000 BTU</td>
<td>16&quot;</td>
<td>NA</td>
<td>16&quot;</td>
</tr>
</tbody>
</table>

Use of wood in the appliance, except for coal ignition purposes, is prohibited by law.
Rear electrical and plumbing on model C5

Shaker grates & firebricks on model C3

Manufactured by
HARDY MANUFACTURING CO., INC.
12345 Road 505 * Philadelphia, MS 39350
(601) 656-5866 * Fax (601) 656-4559
Sales Information 1-800-5HARDY5 (542-7395)
www.hardyheater.com