The induction system uses a simple to operate control with graphic guide to facilitate programming. Systems can be provided with or without recorder.

The induction power source is power efficient (more than 90%), reducing operating costs. Also, less heat is transferred to the outside air, improving the work environment.

Induction heating provides uniform heating around the pipe and through thickness. The surface of the pipe is not marred by localized conducted heat at higher than specified temperatures.

The induction system uses durable induction coils that can be easily moved or adjusted. The system is equipped with ground fault protection to prevent accidental shock hazards. Operator and nearby welder burns are significantly less because coils and connectors are not hot.

The reliable systems are tested to the same requirements as Miller welding equipment. In addition, the process is not subject to multiple heating units, where one unit could fail aborting the heat treat cycle.

Flexibility is provided by induction coils that can be easily moved or adjusted.

The portable induction system weighs less than 300 pounds and has a small footprint. The unit can be easily moved.

The induction heating systems provide uniform heating around the pipe and through thickness. The surface of the pipe is not marred by localized conducted heat at higher than specified temperatures. The insulations are reusable and may be used 50 times or more, reducing cost of disposal.

Applications
- Power Piping
- Petrochemical
- Shipbuilding
- Maintenance
- Construction

Process
- Induction
- Heating

Quick Specs

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- Petrochemical
- Shipbuilding
- Maintenance
- Construction

Process
- Induction
- Heating

Input Power (3-Phase)
- 5 kW: 230 or 460 VAC, 50/60 Hz
- 20 kW: 400 VAC, 50/60 Hz
- 25 kW: 460 VAC, 50/60 Hz

Rated Output
- 5 kW at 100% Duty Cycle
- 20 kW at 100% DC
- 25 kW at 100% DC, 60 Hz

Input Amps
- 5 kW: 24 A at 230 V, 15 A at 460 V
- 20 kW: 41 A
- 25 kW: 45 A

Pipe Size*
- 5 kW: 2.5 – 12 in
- 20 kW: 2.5 – 30 in
- 25 kW: 2.5 – 30 in

Dimensions** (shipping)
- H: 47-1/2 in (1206 mm)
- W: 27 in (688 mm)
- L: 44-1/2 in (1130 mm)

Weight**
- Net: 230 lb (104.3 kg)
- Ship: 285 lb (129.3 kg)
- Net: 240 lb (108.9 kg)
- Ship: 375 lb (170.1 kg)

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Induction Heating

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*Contact factory for other sizes.
**Power source, coolant system and cart.
**System Components**

### 5 kW System

**IHTS Temperature Recorder and Controller**

**Intellifire™ 204 Power Source**
See Lit. Index No. IN/6.0

**Intellifire™ 250 Power Source**
See Lit. Index No. IN/1.0

### Coolant System

See Lit. Index No. AY/7.2

**IHTS™ II 5KW Power Source**

This inverter-based, solid-state, high-frequency induction heating power source provides infinite control over a range of 0 to 5 kW. It combines flexibility, precision and reliability into a compact lightweight package that provides all the features required for consistent and efficient induction heating. The 5 kW, 100%-duty-cycle, air-cooled unit is perfect for heating operations—especially on medium-sized parts and less critical time-to-temperature applications.

### Coolant System and Portable Cart

The cooler is a compact, horizontal-design coolant system and is equipped with a power switch to turn the unit on and off at the front panel.

- 14,000 BTU/hour cooling capacity
- 3 gal (11.4 L) coolant tank
- Rustproof, polyethylene molding serves as the coolant tank, fan shroud, filler spout and lifting handles
- Coolant filler spout and coolant filter are easy-to-access at the front panel
- Efficient fin and tube heat exchanger
- “Paddle wheel” flow indicator
- Panel-mounted on/off switch

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### 20/25 kW System

**IHTS Temperature Recorder and Controller**

**Intellifire™ 204 Power Source**
See Lit. Index No. IN/6.0

**Intellifire™ 250 Power Source**
See Lit. Index No. IN/1.0

### Coolant System

See Lit. Index No. AY/7.2

**The Intellifire 20 and 25 kW Systems can be equipped with an optional lifting eye for moving the system at a construction site.**

**Intellifire™ 204 (20 kW)/250 (25 kW) Power Sources**

The Miller Intellifire™ units are inverter-based, solid-state, high-frequency induction heating power sources that provide infinite control over a range of 0 to 25 kW (0 to 20 kW for Intellifire 204). They combine flexibility, precision and reliability into compact lightweight packages that provide all the features required for reliable, consistent and efficient heating using the induction process. The 100%-duty-cycle, air-cooled units are perfect for heating operations—especially large diameter pipe, heavy wall steel plate and critical time-to-temperature applications.

### Coolant System

The coolant system conveniently mounts under the power source.

- 12,000 BTU/hour cooling capacity
- 2-1/2 gallon coolant tank
- Transformer provides power for power source, coolant system and controls
- Rustproof, polyethylene molding serves as coolant tank and easy-to-fill coolant spout
- Efficient fin and tube heat exchanger
- “Paddle wheel” flow indicator
- External filter can be quickly accessed for cleaning
System Components (Continued)

IHTS Controller — Recorder

![Control without recorder](image1)

![Control with digital recorder](image2)

Liquid-Cooled Heating Cables

The liquid-cooled heating cable provides the power to the part to be heated. The cable encloses a special copper conductor specifically designed for carrying high-frequency current to maximize efficiency. The cable also carries the coolant, which cools the conducting wire. The hose is reinforced for strength and durability.

Preheat cable covers are available to protect the heating cable from slag and molten metal created during welding. The preheat covers are easy to install and can withstand temperatures up to 650˚ F.

Power Extension Cable

The cable is equipped with Twist-Lock quick disconnects for easy removal and attachment. Liquid-cooled extension cables are available to remote the power source up to 50 feet from the work. The cables are flexible for ease of use.

Insulation

The insulation is designed for maximum temperature insulation, ease of use, durability and environmental friendliness.

- The insulation is designed to insulate the work for process efficiency and protect the liquid-cooled cable from high temperatures of stress relieving.
- The blankets are sized and stenciled for the pipe size to be treated.
- The insulation is sewn into a silica blanket, which provides high durability. 50 thermal cycles or more can be achieved with one blanket.
- The sewn blanket insulation does not create the dust and particulate associated with bulk insulation. This creates a friendlier environment for the heat-treaters and welders.

The IHTS Control is available in two configurations to meet your application requirements.

1. The IHTS Control is available without a temperature recorder. In this way, you can use your existing recorders or purchase an alternative recorder of your choice. The unit is equipped with a blank panel, which can be removed to install a 100 mm recorder.

2. The IHTS Control is available with a digital recorder. The recorder is built into the IHTS to provide six thermocouple inputs. The recorder is equipped with a touch-screen for simple programming and use. The color display permits clear monitoring of the heat treat process and provides alarms for process control. Data is stored on a floppy disc for printing, storage, or further analysis. The operating temperature range of the IHTS Recorder is 41˚ F to 104˚ F.

The IHTS Controller provides for simple to advanced thermal cycle programs. The control comes programmed with a typical thermal cycle for stress relief. This includes a step in temperature from ambient to critical temperature, controlled temperature rise to the holding temperature, a soak or dwell at stress relief temperature, a controlled cooling rate to critical temperature and air cool (see chart). The programming of the unit is facilitated with a graphical presentation of the heat cycle and corresponding controller program. The IHTS is equipped with a large run, hold and stop button for ease of use. The control also includes the coolant flow switch. This switch insures that proper coolant flow is being provided to the liquid-cooled heating cable. A coolant fault is indicated with a light on the face of the control.

Dimensions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td><strong>Shipping Dimensions:</strong></td>
</tr>
<tr>
<td>H: 10 in (254 mm)</td>
<td>H: 15 in (381 mm)</td>
</tr>
<tr>
<td>W: 11-3/4 in (298 mm)</td>
<td>W: 16-3/4 in (425 mm)</td>
</tr>
<tr>
<td>D: 14-1/2 in (368 mm)</td>
<td>D: 20 in (508 mm)</td>
</tr>
</tbody>
</table>

The insulation is designed for maximum temperature insulation, ease of use, durability and environmental friendliness.
## Ordering Information

<table>
<thead>
<tr>
<th>Equipment and Options</th>
<th>Stock No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 kW Induction Base System</td>
<td>#907 022</td>
<td>(230 or 460 VAC, 3-phase) includes power source, cooler, and cart</td>
</tr>
<tr>
<td>20 kW Induction Base System</td>
<td>#907 097</td>
<td>(400 VAC, 3-phase) includes power source, cooler, and cart</td>
</tr>
<tr>
<td>25 kW Induction Base System</td>
<td>#907 021</td>
<td>(460 VAC, 3-phase) includes power source, cooler, and cart</td>
</tr>
<tr>
<td>IHTS Temperature Controller</td>
<td>#194 916</td>
<td>Includes temperature controller, parameter display and flow switch</td>
</tr>
<tr>
<td>IHTS Temperature Controller and Digital Recorder</td>
<td>#194 916-01-1</td>
<td>Includes temperature controller, parameter display, flow switch  and digital (6 channel) temperature recorder</td>
</tr>
<tr>
<td>Lifting Eye Assembly</td>
<td>#204 231</td>
<td>For 20 kW and 25 kW systems</td>
</tr>
</tbody>
</table>

*Note: Select a heating cable, an insulation blanket, and an extension cable from below to complete the system.*

<table>
<thead>
<tr>
<th>Liquid-Cooled Induction Heating Cables</th>
<th>#194 909</th>
<th>30 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#194 867</td>
<td>40 ft</td>
</tr>
<tr>
<td></td>
<td>#194 910</td>
<td>50 ft</td>
</tr>
<tr>
<td></td>
<td>#194 943</td>
<td>60 ft</td>
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<tr>
<td></td>
<td>#194 907</td>
<td>70 ft</td>
</tr>
<tr>
<td></td>
<td>#194 908</td>
<td>80 ft</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Preheat Covers</th>
<th>#204 611</th>
<th>30 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#204 612</td>
<td>40 ft</td>
</tr>
<tr>
<td></td>
<td>#204 614</td>
<td>50 ft</td>
</tr>
<tr>
<td></td>
<td>#204 616</td>
<td>60 ft</td>
</tr>
<tr>
<td></td>
<td>#204 617</td>
<td>70 ft</td>
</tr>
<tr>
<td></td>
<td>#204 620</td>
<td>80 ft</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PWHT Insulation Blankets (1 in thick)</th>
<th>#194 947</th>
<th>For 2.5 in pipe (12” x 15”)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#194 948</td>
<td>For 4 in pipe (12” x 21”)</td>
</tr>
<tr>
<td></td>
<td>#194 949</td>
<td>For 6 in pipe (12” x 33”)</td>
</tr>
<tr>
<td></td>
<td>#194 950</td>
<td>For 8 in pipe (18” x 39”)</td>
</tr>
<tr>
<td></td>
<td>#194 951</td>
<td>For 10 in pipe (18” x 45”)</td>
</tr>
<tr>
<td></td>
<td>#194 952</td>
<td>For 12 in pipe (18” x 50”)</td>
</tr>
<tr>
<td></td>
<td>#194 953</td>
<td>For 14 in pipe (18” x 54”)</td>
</tr>
<tr>
<td></td>
<td>#194 954</td>
<td>For 16 in pipe (18” x 58”)</td>
</tr>
<tr>
<td></td>
<td>#194 955</td>
<td>For 18 in pipe (24” x 67”)</td>
</tr>
<tr>
<td></td>
<td>#194 956</td>
<td>For 20 in pipe (24” x 73”)</td>
</tr>
<tr>
<td></td>
<td>#194 957</td>
<td>For 22 in pipe (24” x 79”)</td>
</tr>
<tr>
<td></td>
<td>#194 958</td>
<td>For 24 in pipe (24” x 85”)</td>
</tr>
<tr>
<td></td>
<td>#195 502</td>
<td>For 26 in pipe (24” x 91”)</td>
</tr>
<tr>
<td></td>
<td>#194 998</td>
<td>For 28 in pipe (24” x 98”)</td>
</tr>
<tr>
<td></td>
<td>#207 817</td>
<td>For 30 in pipe (24” x 105”)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Preheat Insulation and Accessories</th>
<th>#204 609</th>
<th>Preheat insulation 1/2 in x 6 in x 89.5 in</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#204 669</td>
<td>Preheat insulation, woven silica, 1/2 in x 6 in x 120 in</td>
</tr>
<tr>
<td></td>
<td>#194 965</td>
<td>Rope, high temperature, 1 in wide, 50 ft roll</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extension Cables (Output Power)</th>
<th>#194 896</th>
<th>10 ft, liquid-cooled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#194 893</td>
<td>25 ft, liquid-cooled</td>
</tr>
<tr>
<td></td>
<td>#194 894</td>
<td>50 ft, liquid-cooled</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessories</th>
<th>#194 959</th>
<th>Welder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermocouple Attachment Unit</td>
<td>#194 999</td>
<td>Type K thermocouple wire, 500 ft</td>
</tr>
<tr>
<td>Thermocouple Connector (Type K)</td>
<td>#195 098</td>
<td>2-pin male, package of 10</td>
</tr>
<tr>
<td>Thermocouple Extension (Type K)</td>
<td>#194 968</td>
<td>Cable, 6 pair, 50 ft</td>
</tr>
</tbody>
</table>

**Date:**

**Total Quoted Price:**

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