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**ELECTRO-LINE**

September 2008

Providing Comfort Through Efficient Energy Solutions



## HABITAT FOR HUMANITY - ELECTRO-BOILER INSTALLATIONS

Habitat for Humanity is a nonprofit, ecumenical Christian housing ministry that seeks to eliminate poverty housing and homelessness from the world. Since 1976, Habitat for Humanity has built more than 250,000 houses around the world, providing more than 1 million people in more than 3,000 communities with safe, decent, affordable shelter.

Electro Industries graciously accepted the opportunity this year to donate boiler equipment for two Habitat homes - the Gomez home, located in our home town of Monticello, MN and the Pinegar Home located in Springfield, MO. Both of these homes incorporated in-floor hydronic heating in an effort to increase both the home's efficiency and comfort.

It's exciting to note that the Pinegar home has also achieved Platinum LEED certification. This is the first Habitat home in the nation to receive Platinum certification, and it is the 37<sup>th</sup> Platinum LEED certified home in the country. This energy efficient, sustainable Habitat house has proved that sustainability can be achieved in an affordable manner, and Electro Industries is proud to offer equipment that can be used to increase a home's overall efficiency.



← MONTICELLO, MN  
HABITAT HOUSE

SPRINGFIELD, MO →  
HABITAT HOUSE



## MAKE MORE MONEY BY REDUCING YOUR CUSTOMERS' HEATING BILLS

It's pretty clear in most customers' minds that heating their homes this winter is going to cost a lot. There are many cases where people aren't sure how they are even going to pay their heating bills this year. Make it your responsibility this heating season to teach your customers that there are cost saving alternatives for heating their homes. We have a number of tools available to show your customers what their potential

cost savings will be by installing a plenum heater or electric boiler in their home this year. This can be accomplished by using a simple chart shown here, or by using one of our energy comparison calculators that are available on our Web site or in CD form. For more information on these tools, please contact one of our representatives today.

### WHEN IS ELECTRIC HEAT COMPETITIVE?

Rate (¢/kWh)	LP, Std (\$/Gal)	LP, 90+ (\$/Gal)	Fuel Oil (\$/Gal)	NG, 90+ (\$/Therm)
3.5	0.56	0.85	0.81	0.92
4.0	0.64	0.97	0.91	1.05
4.5	0.72	1.09	1.11	1.19
6.0	0.97	1.40	1.47	1.49
7.0	1.41	1.69	1.72	1.85

The kWh rate relates to one gallon, liquid fuel, at appropriate furnace type.

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## NEW Industrial Electro-Boiler

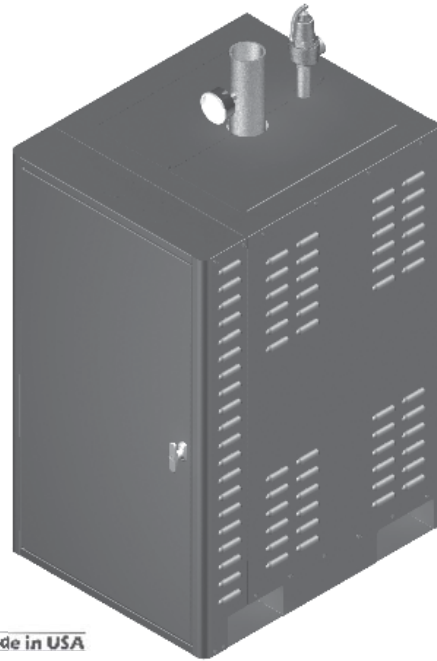
Electro Industries' Industrial boilers are a very compact and an effective solution to retrofitting old, inefficient fossil fuel boilers, or for use in new installations. These boilers are available in both basic and deluxe versions. The basic has all the same features and vessel equipment as the deluxe models, minus the Bender ground fault monitor and Honeywell T775R.

Safety is one major benefit of these boilers. Several state electrical jurisdictions are requiring the Bender Insulation Monitor device (ground fault) for increased operating safety, personal protection and reliability of the boiler. Secondly, there are individual circuit breakers for each heating element, further increasing the safety and reliability of our boilers.

Each boiler also includes built-in digital supply and return temperature sensors, enabling you to internally set and maintain the correct system design temperature, simplifying the installation process.

### Features & Benefits

- Pressure vessel built in accordance with the requirements of the ASME Boiler and Pressure Vessel Code
- Compact, can easily fit through service doors
- High efficiency electric boiler with no combustion waste
- No minimum return water temperature required
- Bender Insulation and Fault Monitoring Device
- Individual circuit breakers for each heating element
- All boilers come fully assembled; the control box is pre-wired and can be installed remotely or directly on the boiler
- Built-in digital temperature sensing; adjustable desired temperature allows the user to set the boiler to operate at a specific supply temperature
- Outdoor reset (Deluxe)
- All operator alarm monitor and control functions including manual resets are in the control box
- All parts within the boiler are rated for 85° C
- Optional remote display - water temperature, set point, percent on, alarm status, estimated GPM. In addition, design includes provisions for phone dialer, Web controller, etc.



### Standard Equipment

- Circuit breakers, each stage
- Auto reset limit control
- Low water cut-off with manual reset
- ASME pressure relief valve, 30 psi
- Pressure/temperature gauge
- Drain pipe
- 3" NPT inlet and outlet, with inspection opening
- Incoloy sheathed heating elements, vessel top screw-in
- Built-in load management controls
- Staging indicator lights, at contactor
- Main supply circuit lugs
- Manual reset hi-limit
- Safety door interlock and lockable door latch

### Model Numbers

Model	Volts	kW	Btu/h Output
EB-NB-60-208	208	60	205,463
EB-NB-60-240	240	60	204,780
EB-NB-75-208	208	75	255,975
EB-NB-75-240	240	75	255,975
EB-N*-80-480	480	80	273,040
EB-N*-105-208	208	105	358,365
EB-N*-105-240	240	105	358,365
EB-N*-120-480	480	120	409,560
EB-N*-150-208	208	150	511,950
EB-N*-150-240	240	150	511,950
EB-N*-160-480	480	160	546,080
EB-N*-180-208	208	180	614,340
EB-N*-180-240	240	180	614,340
EB-N*-200-480	480	200	682,600
EB-N*-240-480	480	240	819,120
EB-N*-300-480	480	300	1,023,900

\*D = Deluxe B = Basic



CONTACT YOUR SALES REPRESENTATIVE  
FOR MORE INFORMATION

## WarmFlo® Select Plenum Heater

Our new WarmFlo Select plenum heater makes ordering and installing a WarmFlo plenum heater easier than ever. We have integrated the control and interface modules into one discrete system which includes all of the features and flexibility of our current WarmFlo plenum heaters.

### Features/Updates

- No chip code selection required
- Application selection dial – HP or non-HP
- No separate interface, all-inclusive controls, can be used with either heat pump or air conditioning



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FOR MORE INFORMATION

## Web Updates

In an effort to better serve your needs, we have recently updated our Web site to include installation manuals as well as energy cost comparison calculators for our products. Please visit [www.electromn.com](http://www.electromn.com) and simply click on ([Product Support](#)). This will bring you to a new page containing the links to our installation manuals and the energy cost comparison calculators.

We also encourage you to check out all of the other great tools available in our Product Support section. For example, the Parts Book is a document containing exploded diagrams of our products along with part number call-outs. This book is perfect if you are in need of a replacement part but you have no idea what the part number is or if you are troubleshooting a product and you are not quite sure where a specific component is located.

## Technical Updates & Information

### Two-Stage Interface Modules

WF-DFHP2/WF-HP2 part number clarification - in recent months we have seen some confusion in the field regarding the correct application of interface part numbers WF-DFHP2 and WF-HP2. We'd like to take this opportunity to clearly define the differences between these two modules.

**WF-HP2** - this interface module is used in applications which include a 2-stage heat pump, fossil fuel furnace (1 or 2-stage), and a WarmFlo II Plenum Heater. This interface is similar to the WF-EZ3 or WF-LGR4 except for 2-stage heat pump equipment.

**WF-DFHP2** - this interface module is used in applications which include a 2-stage heat pump and a fossil fuel furnace (1 or 2-stage) only. This interface is **not** used for systems that include a WarmFlo II plenum heater.

### Zone Controllers, EB-Z\*A-1 & EB-Z\*S-1

Recent findings have indicated a problem exists when using the priority function with 4-wire zone valves. Priority can only be interrupted (60-minute timeout) when zone valve end switch makes on zones 2, 3 or 4. Since stat inputs are ignored during priority, no call is sent to the zone valve, the end switch cannot make and thus the 60-minute timeout is not activated.

A function known as “sequence evaluation” has been added to the software which will cause the zone controllers to look for stat inputs from zones 2, 3 and 4 after 60 minutes during a priority call. If a zone is calling, priority will be interrupted, allowing the other zones to come back online. If no zone other than priority is calling, it will continue to operate until it is interrupted. Affected models:

- EB-ZTA-1, version 3.35, 07-14-08
- EB-ZTS-1, version 3.23, 07-14-08
- EB-ZTA-1 (4-hour priority), version 3.36, 07-14-08

### Electric Furnace

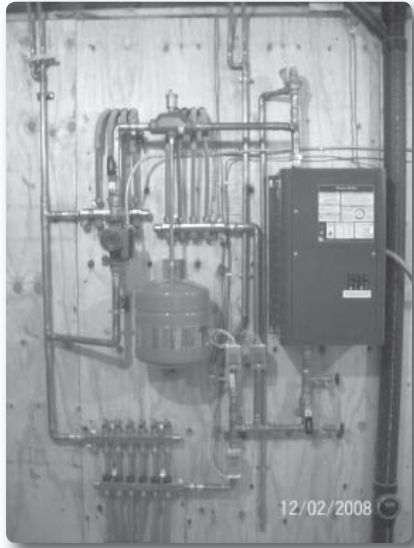
HE-A-\*\*-21 electric furnaces CANNOT be used in heat pump applications (see HE-H-\*\*-21 below), when installing the HE-A-\*\*-21, verify that thermostat type jumper peg located next to the thermostat wiring terminals is in the (Heat/ Cool) position. If the jumper peg is in the HP position, this will potentially cause the electric furnace to heat during cooling mode.

Factory default has been changed on all WarmFlo electric furnaces to (Heat/ Cool).

- Heat pump applications – use HE-H-\*\*-21, with HP stat
- Non-heat pump applications – use HE-A-\*\*-21, with conventional stat

## Photo Contest Winner

The winner of our 2008 Product Installation Photo Contest was Sam Hendrickson Plumbing & Heating - Dassel, MN.



Special thanks to everyone who submitted a photo. We look forward to seeing more of your photos in next year's contest.

## Upcoming Training

### Web Training Seminars

Electro Industries will be offering live Web training seminars every other Friday throughout the fall/winter. Join us as we cover a wide range of topics designed to help our customers better understand the whole range of Electro products. For more information contact Jason at [jbecker@electromn.com](mailto:jbecker@electromn.com). It's fast, it's easy and best of all, it's free!

- Sept. 19** New Mini-Boiler
- Oct. 3** Electro-Boiler Options for Hydronic Heating
- Oct. 17** Zone Controller Basics & Wiring
- Oct. 31** Electro-Boiler Troubleshooting
- Nov. 14** Boiler Plumbing Techniques
- Nov. 26** Basic Storage Concept
- Dec. 12** Electro Industries' Electric Furnace
- Dec. 24** Air Make-Up Heaters
- Jan. 9** Forced Air Options for Adding Electric Heat

Also, contact Jason to include an Electro representative via live Webinar at your next sales/training meeting or for more information on personalized Webinars for your group.

**Stop by and see us at our booth for the ISH  
Show in Atlanta on October 1-3, 2008**

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