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ELECTRO-LINE

May 2010

Providing Comfort Through Efficient Energy Solutions

Electro Industries Launches the NorthStar Series **Geothermal Heat Pump**



In July 2009 Electro Industries Inc. purchased Northern Heat Pump (NHP) of Winkler, Manitoba Canada. After many years of providing OEM components for other Geo manufacturers, the time was right to start manufacturing our own. Instead of starting from below the ground and up, it made sense to take the proven NHP mechanical design and add Electro's unique WarmFlo and dual fuel controls to create a Geo product unlike any other on the market today.

Our integrated EZGEO control allows you to use a basic 4-wire 1H/1C thermostat. The control, using both a duct sensor and an outdoor sensor, will determine when the compressor is in first or second stage for heating and cooling as well as staging in optional auxiliary strip heat. Onboard dials will provide boost heat adjustment for improved comfort, outdoor temperature switchover, and thermostat time-out to back up for units installed on dual fuel applications. Connections are provided for a 4-wire thermostat, gas furnace, or air handler when applicable, along with controls for utility off-peak conditions. Front panel status LED's will offer quick diagnostic reference for homeowners and technicians.

The NHP North Star Series has many standard and unique features:



- » *All stainless steel construction with lifetime cabinet warranty*
- » *ECM blower for ultra quiet operation*
- » *Copeland Scroll compressor (industry standard)*
- » *R-410A refrigerant*
- » *Permanent washable filter*
- » *Desuperheater*
- » *Copper and Cupronickel heat exchanger options*
- » *EZGEO control board*
- » *Electro Industries and Northern Heat Pump unparalleled customer support*

Together these features, backed by 30 years of Electro "know how", provide a reliable, competitively priced Geothermal heat pump that will provide many years of service to satisfied contractors and homeowners.

NORTHERN
HEATPUMP



PRINTED ON RECYCLED PAPER

NEW PRODUCT ANNOUNCEMENT

**AVAILABLE
NOW!**



New High Temperature Mini-Boiler™

We are proud to introduce our new high temperature Mini-Boiler, model number EMB-H. This new boiler can be used in applications requiring 180° F supply water, such as baseboard heating, indirect domestic hot water, or in lower temperature applications such as floor heat and anything in between.

The EMB-H is based upon the design of our current Mini-Boiler, the EMB-S. The difference between these two models is in how we control the first stage heating element and temperature range. The EMB-H fully modulates the first stage heating element, whereas the EMB-S is not fully modulated but staged, and intended for use in low to mid temperature applications.

Features/Updates

- Built-in temperature/pressure gauge
- Built-in temperature sensor
- Built-in Square D circuit breaker
- Temperature dial on front cover
- Indicator lights
- Easy access control board
- Compact design, 10-1/2"W x 8-5/8"D x 25"H

Standard Equipment

- Control wiring terminals
- DC power relays
- Hi-limits: 1st - automatic reset, 2nd - manual reset
- Circulator switching relay - 10-amp maximum
- Thermostat or end switch connection (R and W)
- Load management control provisions
- Heavy duty sheet metal enclosure
- 1 gal. steel vessel, ASME "H" Stamp (20-year warranty)
- Safety relief valve (30 PSI)
- Low watt density heating elements (20-year warranty)
- 2-year parts warranty
- Temperature range 90° F to 180° F
- ASME/CSA listings
- Made in the USA

Model	Volts	Watts	Amps	kW	Phase	Btu/h	CB
EMB-H-5	240	4,500	18.75	4.5	1-60	15,358	30A
EMB-H-7	240	7,000	29.17	7	1-60	23,891	45A
EMB-H-9	240	9,000	37.5	9	1-60	30,717	60A

Minnkota-NMPA PowerSavers Rebate

Minnkota Power and Northern Municipal Power Agency has released a new rebate program which includes a \$500 rebate for modulating plenum heaters installed with an air source heat pump (ASHP). Qualification highlights for this rebate include:

- Modulating plenum heater
- Must operate the ENERGY STAR rated ASHP down to 5° F and be on load control
- Equipment must be new and installed in a residence served by one of the participating municipal or cooperative utilities
- Projects must be implemented by December 31, 2010

This is a great opportunity for you to sell plenum heater/ASHP installations this summer. For details regarding which utilities are offering this program as well as requirement details please visit www.electromn.com and click on the Minnkota-NMPA PowerSavers rebate form link under New Items.

New Price Sheets Effective May 1, 2010

New prices, new products, and extensive part replacement price lists are just a few of the reasons for you to get updated price and product information. All of these pricing tools are available on the XL012 Information CD. To request a CD go to www.electromn.com and click "Request" under New Items. If you prefer hard copies of the price sheets, XL053 Price Booklet may also be requested at the link listed above.

The Technician's Corner

The Technician's corner is intended to bring new product updates and common troubleshooting scenarios to your attention to help keep you on top of your Electro Industries game and abreast of all things Electro Industries.

Existing Product Updates

WF-ANZ7

The Electro Industries WarmFlo Analyzer now includes a CFM Calculator for WarmFlo plenum heater forced air systems. Simply dial in your return air temperature and your plenum heater kW and hit calculate. The WF-ANZ7 will instantaneously display real time system CFM. This can be helpful with troubleshooting, system analysis, and final checkout. It can be used for system analysis in the cooling mode as well. If your Analyzer has been in service for more than one year and you'd like to get it updated to include this feature, call the factory for quote or just send it in marked UPDATE!

New Outdoor Sensor (Enclosure)

Electro Industries has released a new outdoor sensor design which is now in production. We have improved the aesthetics and installation of our new sensor by utilizing a small potted enclosure that is weather resistance and durable. These changes will eliminate sensor failures due to water damage, which means less call backs for you and a happier customer. Note: The sensor itself has not changed on a component level, therefore retrofit and part replacement will be a breeze.

EB-Z*A-1 Electro Zone Controller Priority Extension

As the Electro Industries' zone controller increases in popularity and is exposed to new applications, the need for longer priority timeout has become evident. Therefore Electro Industries has made the necessary updates to accommodate these requirements. The first update involves

increasing the standard priority zone 1 timeout of 60 minutes to 90 minutes. Secondly, we've added the option of a 4-hour priority for applications where a 90 minute timeout is not acceptable. This is achieved by adjusting a jumper selector on the control board.

Calls from the Field

Outdoor Sensor Proper Installation

This past heating season we fielded boiler and plenum heaters calls where the root cause of failure was the outdoor sensor was mounted upside down. The correct installation of the outdoor sensor entails mounting such that the sensor wire is facing down and the sensor cap is facing up. This will ensure no moisture can seep its way into the sensor enclosure and damage the electronic sensor component.

WarmFlo Select Field Setup Issues

A huge benefit of the WarmFlo Select plenum heater is that you can select your application in the field. The small downside to this is that you have to remember to select your application. Upon initial design of the WarmFlo Select plenum heaters, the decision had to be made: what application is going to be factory default? Looking at probable application as well as target audience, the decision was made to ship the WarmFlo Select plenum heaters factory default of heat pump (DUAL). This being the case, it is critical that in non-heat pump applications, the plenum heater be setup for non-heat pump (ST & OT or ST modes) to ensure the homeowner has heat above the outdoor temperature of 50° F. This is a common warm weather troubleshooting call.

2010 PHOTO CONTEST

WIN A WARMFLO® ANALYZER, CABELA'S GIFT CARD, OR MINNESOTA TWINS TICKETS!

Send us your Electro product installation photos for a chance to win a WarmFlo Analyzer, a \$100 Cabela's gift card, or 4 lower level tickets to a Twins game. Photos will be judged based on quality of installation and creativity.



WF-ANZ7
VALUED AT \$229!

Email your photos to sales@electromn.com no later than July 1, 2010. The winner will be announced in our summer newsletter.

UPCOMING TRAINING

Web Training Seminars

Electro Industries will continue to offer live Web training seminars every other Friday throughout the spring/summer. 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. It's fast, it's easy and best of all, it's free!

- May 14** WarmFlo Select SL2 Series
- May 28** WarmFlo Select SLC Series
- June 11** WarmFlo Select SLT Series
- June 25** Plenum Htr Troubleshooting - Previous Generations
- July 9** Plenum Htr Troubleshooting - Current Models
- July 23** Hydronic Options for Adding Electric Heat
- August 6** Electro-Boiler Industrial Series
- August 20** Electro-Boiler Troubleshooting
- Sept. 3** Boiler Mechanical Installation
- Sept. 17** Load Shed, EM-LS-NC/WarmFlo Select/EZ-Mate
- Oct. 1** Electro Industries' Electric Furnace
- Oct. 15** Air Make-Up Heaters

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.

RETURN SERVICE REQUESTED

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