

**GAS-FIRED  
CONDENSING  
CAST IRON  
BOILERS**



**KN-2**



**KN-4**

**KN-SERIES**  
*HydroTherm*<sup>®</sup>

# KN-2/4 SERIES FEATURES

**A NEW ADDITION TO THE KN-SERIES FAMILY OF BOILERS, PROVIDING TOLERANCE, RELIABILITY, EASE OF INSTALLATION AND SERVICE.**

**FEATURING:**

- High efficiency – AFUE 92.7% (DOE seasonal efficiency)
- 5:1 continuous turndown
- Environmentally-friendly – low emissions for CO<sup>2</sup>, NO<sub>x</sub> and sound
- Compact footprint to accommodate smaller mechanical rooms
- Cast iron heat exchanger accepts 10:1 range of water flows
- 100 PSI maximum working pressure
- Maximum load matching in modular applications with boilers installed in banks



**Commercial Radiant Heat & Snow Melt**

By far, this is one of the fastest growing segments for the hydronic heating industry. Engineers, contractors and building owners are demanding the quiet, even and economical benefits of radiant heating systems. The KN Series is a perfect fit everywhere radiant heat is desired, indoor and outdoor.

Radiant heating has become popular in manufacturing plants, commercial buildings, ski lodges, and condominiums. Also, anywhere ice and snow are a fact of life, this is the perfect way to melt snow on driveways, parking lots, walkways and stairs.



**Retro-Fit Application**

While ideal for new construction, KN-2 and KN-4 Series boilers are also ideally suited to retrofit applications. The vent is so small on these units, you can remove older style boilers and use the existing vent as a chase for the new installations.

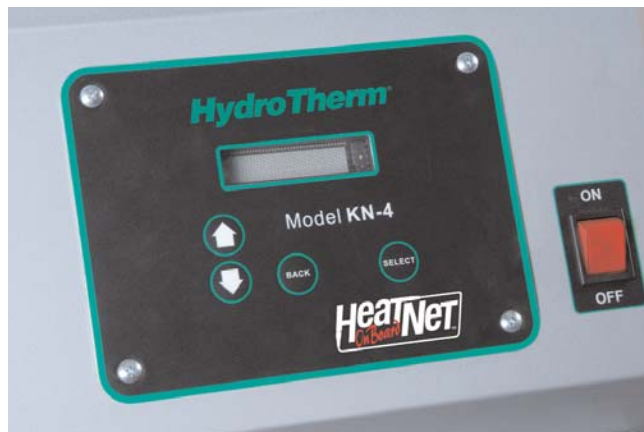
With the Category II venting capabilities of the KN's, often the common venting of multiple units will keep venting costs to a minimum and require only a single roof penetration.

# CONTROL TECHNOLOGY

## 'On Board' control integrated with Building Management Systems



HeatNet controls are built into each KN-Series boiler to enhance efficiency and provide constant communication with the Building Management System (BMS). 'On board' in every KN boiler, HeatNet eliminates the need for bulky, wall-mounted control panels. HeatNet maximizes operating efficiency and turndown rates to create substantial energy savings for KN-Series boiler plants. The control provides flexible operation in a variety of set-up configurations – as a stand-alone boiler; a boiler in a Master/Member network using HeatNet protocol, or as a member in a system for up to 16 boilers. HeatNet provides a higher level of control precision, repeatability and feedback with digital communications control, featuring four (4) temperature sensor inputs: outside air, supply (outlet) temperature, return (inlet) temperature and header temperature. HeatNet is fully compatible with

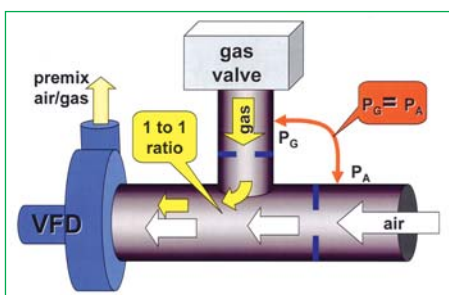


Modbus Building Management System (BMS) protocol. An optional 'ProtoCessor' board can also be installed for compatibility with BACnet and LonWorks BMS protocols with no redesign of the HeatNet control.

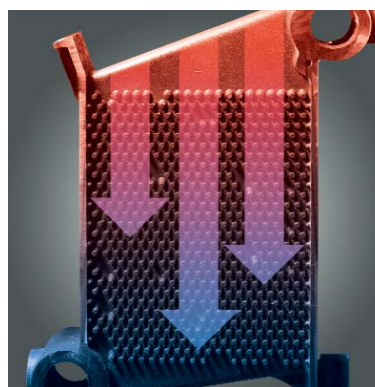
# KN-SERIES FEATURES

## High performance and tolerance

KN-Series boilers are designed to burn clean and efficient under all operating conditions. Tru-Flow™ air-fuel coupled control ensures the proper fuel-air mixture at all firing rates. The combustion air is constantly measured to fine-tune the fuel gas flow through the gas valve. KN-Series boilers have no inlet water temperature limitations. Not only are KN-Series boilers up to 99% efficient, they also have extremely low dB levels during ignition and operating cycles.



*Tru-Flow™ control is inherently clean burning*



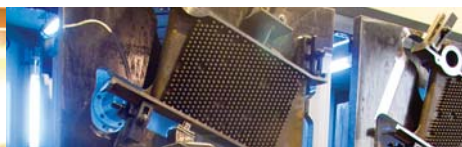
As condensate is formed, it is blown off the heat exchanger pins, collected in a corrosion-proof container, drained through a trap and removed from the system. Acidic concentration has no opportunity to form since re-evaporation does not occur, minimizing corrosion.

concentration has no opportunity to form since re-evaporation does not occur, minimizing corrosion.

## Made in the USA



From raw materials through the final digital control system quality checks, the KN is born from the generations of foundry and



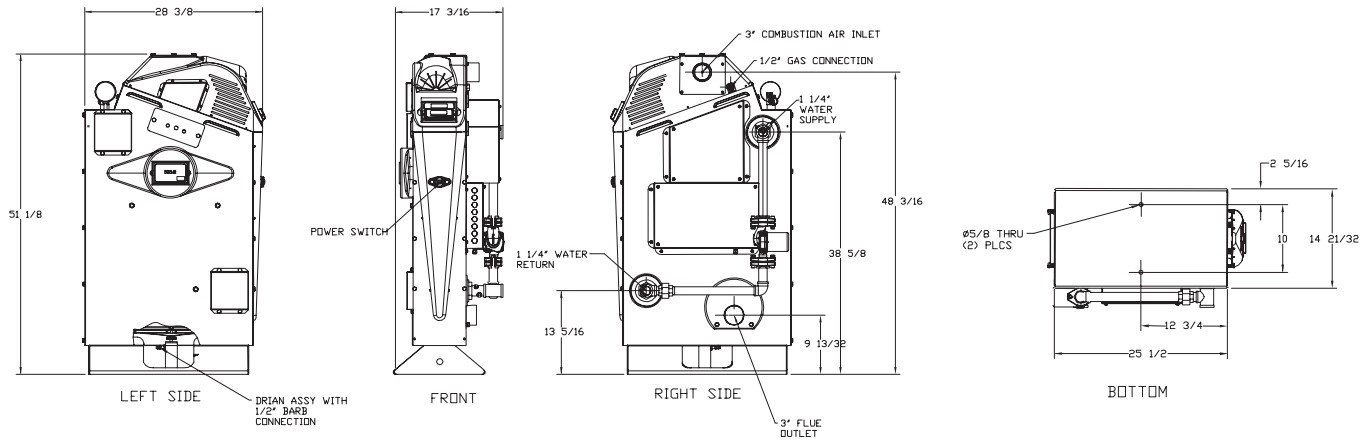
manufacturing expertise of Hydrotherm's facility in Boyertown, Pennsylvania. Our people know how to cast, machine, assemble, and wire a



final product that's second to none. Every one of them stands behind what they do. And they stand behind the KN series.

# KN-2/4 DIMENSIONS

## KN-2

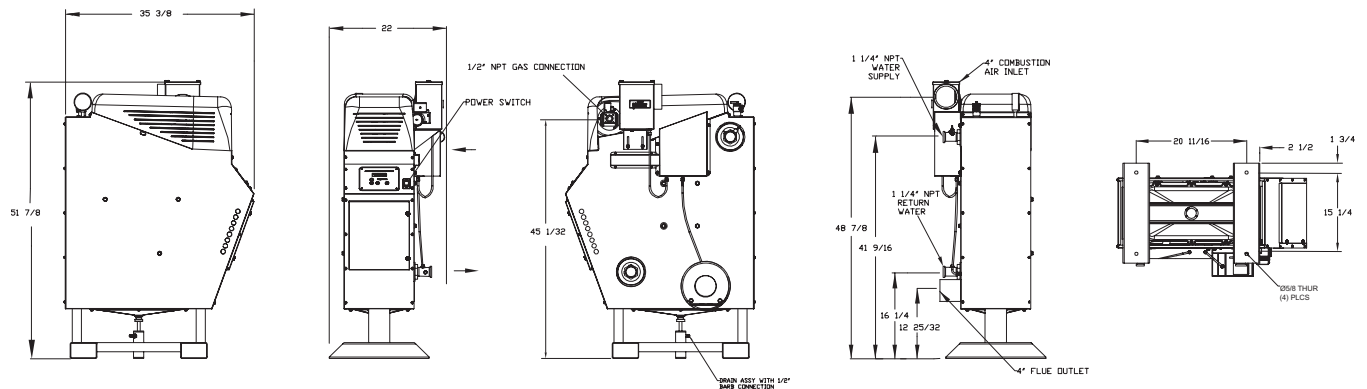


## SPECIFICATIONS

Model	Input MBH	Output MBH	Gas Pressure (W.C.)		Voltage	Flow GPM		Temp. Rise (°F)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)		Water Volume (Gal.)	Flue Dia.	Current FLA (Amps)	Boiler HP
			Min	Max		Min	Max	Min	Max	Min	Max	Min	Max				
KN-2	199	184	2"	14"	120VAC/60Hz/1Ph	2**	36	20	100	0	100	0	100	3	3"	2.75	5.3
KN-4	399	349	2"	14"	120VAC/60Hz/1Ph	4**	72	20	100	0	100	0	100	4.5	4"	5	10.6

\*\* At 100% Input

## KN-4



NYC  
MEA

**HydroTherm**®

A MESTEK COMPANY

[www.hydrothermkn.com](http://www.hydrothermkn.com)

260 North Elm St., Westfield, MA 01085  
Tel: (413) 564-5515 Fax: (413) 568-9613  
7555 Tranmere Drive, Mississauga, ONT. L5S 1L4 Canada  
Tel: (905) 672-2991 Fax: (905) 672-2883

In the interest of product improvement, we reserve the right to make changes without notice.

KN2/4-1