

NHB-H Series



# NHB-H Condensing Boilers

Premium efficiency,  
performance and innovation  
packed into one lightweight,  
compact wall-hung boiler



# Introducing NHB-H condensing boilers

**DUAL** STAINLESS  
STEEL  
HEAT EXCHANGERS

ADVANCED  
USER INTERFACE

TDR **UP TO**  
**15:1**

**3 ZONES**  
VALVES or PUMPS

**2" VENT** & **3" VENT**  
UP TO 65 FEET & UP TO 150 FEET

 **AFUE**  
**95.0%**

**1/2" GAS** CAPABILITY  
UP TO 40 FT



Save installation time and costs  
with so much integrated technology

## **Built-in control for a boiler pump, 3 zone pumps or 3 zone valves**

The NHB-H boiler's PCB provides the ability to connect a boiler pump, 3 zone pumps or 3 zone valves, and to set temperatures independently in each zone (see NHB-H Installation Manual for details).

## **NHB-H outdoor reset control**

Available with 6 preset curves, an optional custom curve and the ability to run off supply or return water temperatures with a wide range of temperature options.

## **Advanced user-friendly interface control panel with built-in Setup Wizard software**

Navien's new backlit control panel is simple and intuitive to use with its plain text display and an innovative click wheel that improves usability.



# An inside look at the NHB-H

Featuring added durability, functionality and safety

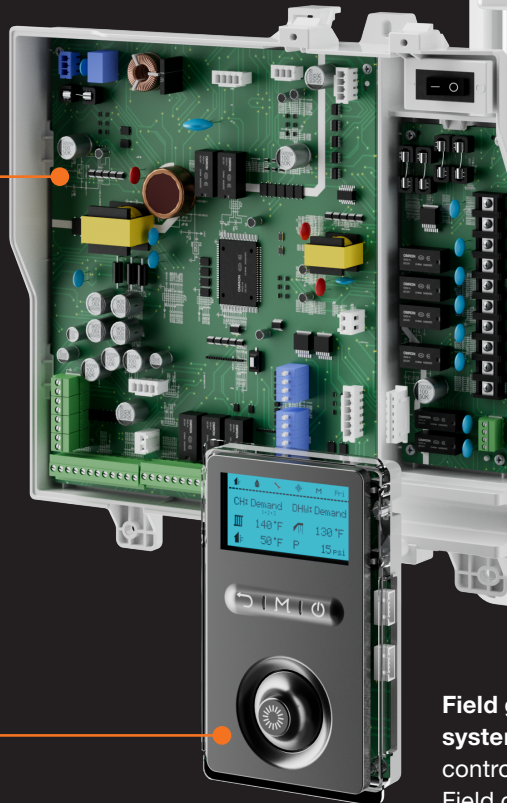
2" PVC venting up to 65', 3" up to 150'. Including economical schedule 40 PVC.

Vent Installation Detector (VID).

**Stainless steel burner.** Navien designed and built, fully modulating metal fiber premix burner system.

**Dual stainless steel heat exchangers for heating.** Stainless steel heat exchangers offer durability and added condensing performance.

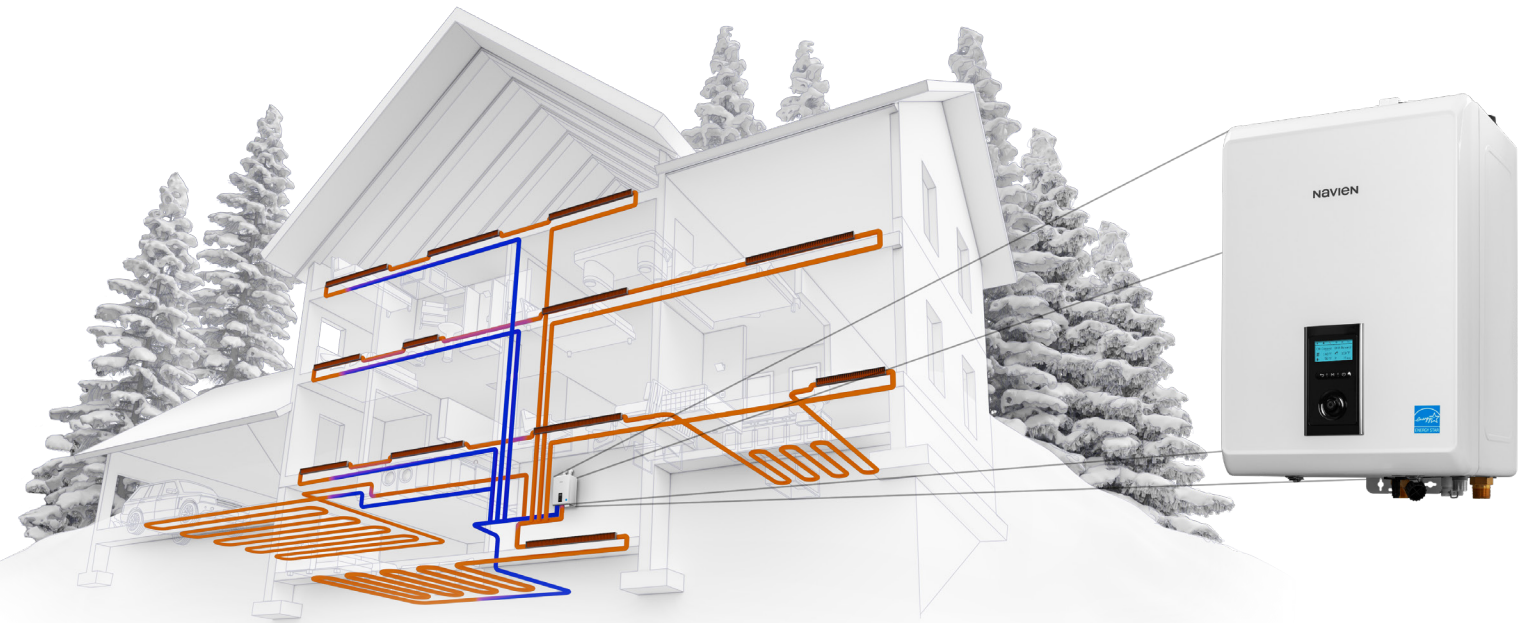
**Built-in Air Pressure Sensor (APS).** Monitors vent system for blockage, compensates for vent lengths and maintains proper air/gas ratio.



**Field gas convertibility and dual Venturi system.** Creates better combustion control and up to 15:1 turndown ratio. Field gas convertibility is easy with orifice conversion kits for natural gas high altitude (5,400–10,100 ft.) and liquid propane (up to 10,100 ft.) included with NHB-H series boilers.

**Negative pressure regulating gas valve.** Paired with the dual venturi the gas valve provides consistent control of the air/gas ratio. Negative regulation reduces issues on low gas pressure systems.

# Navien adds more innovation to its compact, high-efficiency wall-hung boiler



As a leader in condensing wall-hung boilers, Navien continues its tradition of innovation with the new NHB-H Series high-efficiency condensing boilers. All NHB-H boilers have Navien's advanced burner system, an AFUE of 95.0% and industry-leading turndown ratios up to 15:1.

The NHB-H boiler is available in four sizes: 55,000 BTU/h, 80,000 BTU/h, 110,000 BTU/h and 150,000 BTU/h.

## Optional NaviClean® magnetic boiler filtration

NaviClean® is designed to work with Navien boilers and combi-boilers with flow rates up to 21 GPM. It features a permanent magnet mounted inside the nylon housing.

- Powerful permanent magnet for removing higher levels of iron oxide, and large canister design for capturing sludge and debris
- 360° rotation allows flexibility of installation
- Inlet and outlet ports for rapid in-line installation
- Tool-free valve connection prevents cross threading
- Large canister and full flow valves result in minimal pressure drop and unrestricted flow
- Low profile drain valve makes installation and service easier
- High performance seals provide higher protection against leaks



**In minutes,  
the NaviClean® filter  
traps the debris,  
and water is clear**

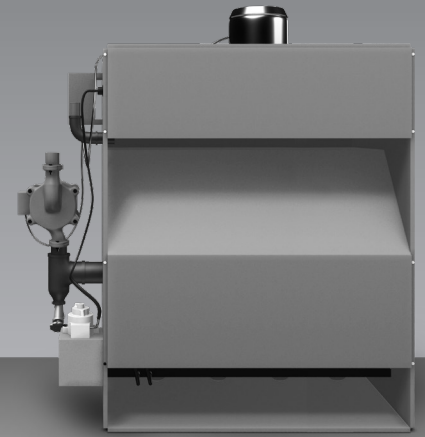




Commercial and residential



Up to 80%  
smaller than  
a traditional  
boiler



Space saving, lightweight design



NaviLink® optional WiFi remote control



Works with radiators, hydronic baseboard, fan coil  
and in-floor heating systems



Common vent up to 8 units and cascade up to 16 units (NHB-110H and NHB-150H models only)

# Accessories



For all optional accessories

Accessories and components are subject to change or Product availability and specifications subject to change. See back page for details.

**Plumb Easy Valve 1" (V2)**  
GXXX002983



**SmartZone+™ Pump Controller**  
2 Zones: PFMZ-02P-001  
3 Zones: PFMZ-03P-001  
4 Zones: PFMZ-04P-001  
6 Zones: PFMZ-06P-001

**NaviLink® Wi-Fi Control**  
PBCM-AS-001



**NaviLink® Lite Wi-Fi Control (1 Unit)**  
PBCM-AS-002



**Common Vent Collar Kit**  
30014367B  
(Includes Cascade Cable)



**Universal Temperature Sensor**  
GXXX001769

**Ready-Link® Communications Cable**  
GXXX000546



**LG Commercial Neutralizer**  
GXXX002367

**Large Commercial Replacement Media**  
GXXX002369



**Commercial Neutralizer**  
GXXX002366

**Commercial Replacement Media**  
GXXX002368



**Residential Neutralizer(V2)**  
GXXX002212

**Residential Replacement Media**  
GXXX001323

**ReadyLink® Rack**

**Base (V4)**  
GFFM-KDIZUS-009

**Add-on (V4)**  
GFFM-KDIZUS-010

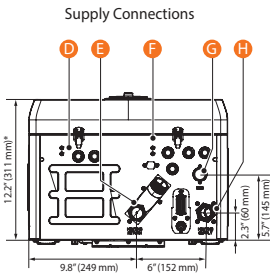
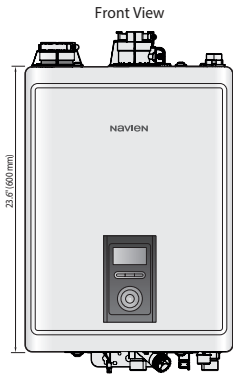
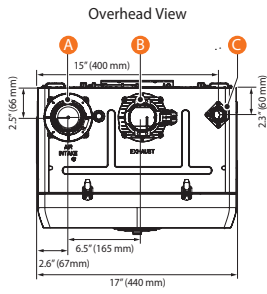


Base

Add-On

# Dimensions

## NHB-H Series



Connection	Connection Size
A Air Intake	Ø 2"
B Exhaust Gas Vent	Ø 2"
C Air Vent Connection	Ø 3/4"
D Rubber Grommet	Ø 1"
E Space Heating Return	Ø 1"
F Condensate Outlet	Ø 1/2"
G Gas Connection	Ø 3/4"
H Space Heating Supply	Ø 1"



## New NHB-H stainless steel manifold kit

### NHB-H Primary Manifold Kit GX0002396

This system-matched stainless steel manifold kit is another high-quality accessory to help make your installation faster and easier. The kit includes the space heating supply and return isolation valves, PRV/LWCO adapter tree, threaded connection adapter with clip, and LWCO plug.



## Customer support and advanced training makes Navien your best choice for condensing boilers

Besides supplying innovative and energy efficient systems for residential and commercial applications, Navien provides extensive field support, webinars and training events for builders, architects and contractors. Our full-time customer support network provides quick answers to installation and operational questions.

# Ratings & Specifications

Navien Condensing Boiler Space Heating Ratings					
Model Number <sup>1</sup>	Heating Input, BTU/h		Heating Capacity <sup>2</sup> BTU/h	Net AHRI Rating, Water <sup>3</sup> BTU/h	AFUE <sup>2</sup> Percentage
	Min	Max			
NHB-55H	8,000	55,000	51,000	44,000	95.0
NHB-80H	8,000	80,000	74,000	64,000	95.0
NHB-110H	10,000	110,000	102,000	89,000	95.0
NHB-150H	10,000	150,000	138,000	120,000	95.0

<sup>1</sup>Ratings are the same for Natural Gas models converted to Propane use.

<sup>2</sup>Based on U.S. Department of Energy (DOE) test procedures.

<sup>3</sup>The NET AHRI Water Ratings shown are based on a piping and pickup allowance of 1.15.

Consult Navien before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

Specifications					
Item		NHB-55H	NHB-80H	NHB-110H	NHB-150H
Dimensions		17.3" (W) x 12.8" (D) x 23.8" (H)			
Weight		73 lbs (33 kg)		80 lbs (36 kg)	
Installation type		Indoor wall-hung			
Venting type		Forced draft direct vent			
Ignition		Electronic ignition			
Natural gas supply pressure (from source)		3.5" – 10.5" WC			
Propane gas supply pressure (from source)		8.0" – 13.5" WC			
Natural gas manifold pressure		-0.11" WC	-0.17" WC	-0.26" WC	-0.40" WC
Propane gas manifold pressure		-0.11" WC	-0.17" WC	-0.25" WC	-0.41" WC
Gas connection size		3/4" NPT (male)			
Power supply	Main supply	120V AC, 60Hz			
	Maximum power consumption	Less than 10A			
Materials	Casing	Cold rolled carbon steel			
	Heat exchangers	Primary and secondary heat exchangers: stainless steel			
Venting	Exhaust	2" or 3" PVC, CPVC, PP, SS (see installation manual for more details) 2" or 3" special gas vent type BH (Class III, A/B/C)			
	Intake	2" or 3" PVC, CPVC, PP, SS 2" or 3" special gas vent type BH (Class III, A/B/C)			
	Vent clearances	0" to combustibles			
Safety devices		Flame rod, APS, gas valve operation detector, ignition operation detector, water temperature high limit switch, exhaust temperature high limit sensor, Vent Installation Detector (VID)			

Navien reserves the right to change specifications at any time without prior notice.

Please refer to [www.Navieninc.com](http://www.Navieninc.com) to verify you have the most current information.

## Gas Input Ranges

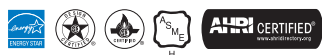
Model	Range	TDR
NHB-55H	8,000–55,000 BTU/h	7:1
NHB-80H	8,000–80,000 BTU/h	10:1
NHB-110H	10,000–110,000 BTU/h	11:1
NHB-150H	10,000–150,000 BTU/h	15:1

## Warranty

Type	Residential*	Commercial
Heat Exchanger	15 year limited warranty	10 year limited warranty
Parts	5 years	3 years
Labor	1 year	1 year

\*Applies to single family residential locations.

Navien's warranty (which may be changed without prior notice) is subject to the terms and conditions found at [www.Navieninc.com](http://www.Navieninc.com).



Accessories and components are subject to change or discontinuation without notice. Images are for illustrative purposes only and actual products may vary based on current vendor availability. Navien reserves the right to substitute equivalent accessories or components from alternative vendors as necessary. For the most up-to-date product information and current accessory availability, please visit [navieninc.com](http://navieninc.com) or contact your local Navien representative.

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