

NHB Condensing Boilers

Navien
innovation.

Now available in
a space-saving
wall-hung boiler.



New NaviLink Wi-Fi remote control system...
Now available as an add-on accessory.

Navien NHB condensing boilers



As the leader in condensing technology, Navien has already

reinvented the water heating industry with the award-winning NPE tankless water heaters and the NCB combi-boilers. The new NHB boiler series is the next in line of innovations from Navien. All NHB boilers have Navien's advanced burner system, an industry-leading AFUE of 95.0% and turn down ratios up to 15:1. The NHB boiler is now available in four sizes: 55 MBH, 80 MBH, 110 MBH and 150 MBH.

Space saving



The sleek wall-hung design uses much less space than traditional floor standing boilers.

Easy to install



1/2" gas connections and 2" PVC venting help reduce installation time.

Total control



All system setup, operations and troubleshooting available at your fingertips.

TDR UP TO 15:1

Industry's largest turn down ratio providing high operational efficiencies through multiple zones.

AFUE 95.0%

Recognized as the most efficient in 2016 by Energy Star.

2"-3" VENTING LONG DISTANCES

2" or 3" PVC, CPVC, approved polypropylene (see installation manual for more details).
2" or 3" special gas vent type BH (Class III, A, B, C).

ADJUSTABLE DELTA T RANGES

Gives the installer the ability to maximize boiler performance and temperature control.

CASCADE UP TO 16 UNITS

The cascading feature for 150 and 110 models will enable 1-16 units based on demand and balance workload for longer life.

NHB CONTROL

The smart integrated control provides industry-leading options and features in the boiler operation parameters, including:

- Adjustable heat capacity
- A timed hydronic supply water boost feature
- Adjustable anti-cycle timer
- Freeze protection
- Pressure LWCO with manual reset
- Adjustable minimum burner time setting
- Adjustable turn down ratio timing
- Outdoor reset and domestic hot water priority
- Adjustable outdoor temperature reset curves
- Field gas convertible

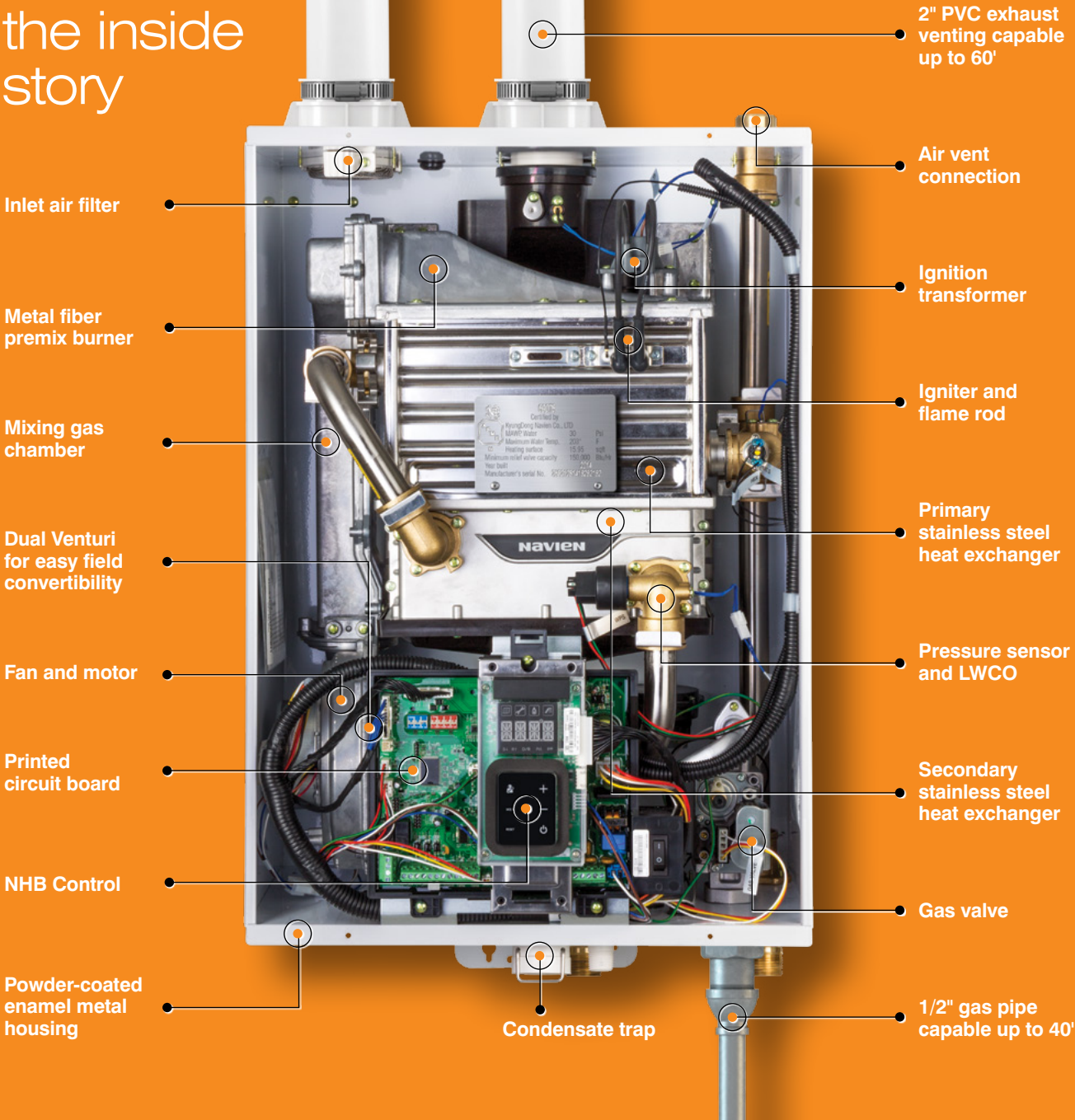
Before



After



NHB: the inside story



Gas input ranges

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

Warranty

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

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THE LEADER IN CONDENSING TECHNOLOGY

Common venting up to 8 units and
cascade capable up to 16 units

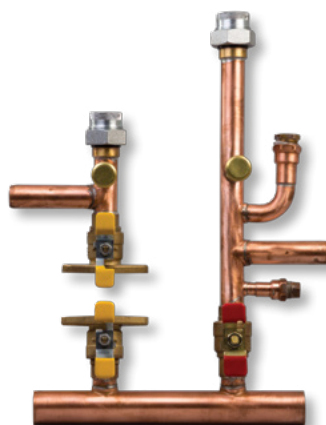


Navien's two largest condensing boilers, NHB-110 and NHB-150, can be cascaded and common vented

With our cascading technology, when a unit gets up to 70% capacity determined by the supply and return temperatures, the next unit will enable to help meet the hydronic space heating requirements. This hydronic space heating requirement and demand ratio will continue until all units are generating the needed hydronic space heat up to the maximum cascaded capacity. The Navien cascading system also balances out the workload of each unit for longer life. The NHB is dual certified for single and 2-pipe venting applications.

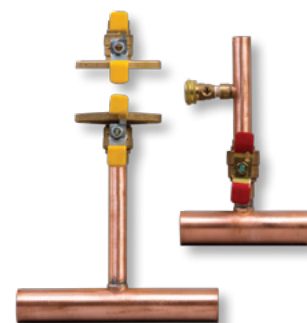
Manifold Kits

Navien's Manifold kits are ideal for hydronic space heating applications. With these manifolds, we have done the piping work for you. Both primary and secondary loop manifold kits are designed to work on all NHB models for fast and clean installations. All you need to add is your own appropriately sized pump.



NHB Primary Manifold Kit

GFFM-MSOZUS-001



NHB Secondary Manifold Kit

GFFM-SKTZUS-001

Accessories



NaviLink™ Wi-Fi Control

This add-on accessory will enable customers with smartphones and tablets to control temperatures remotely, access usage data and receive diagnostic notifications on all Navien products (NPE-A, NPE-S, NCB-E, NHB).

PBCM-AS-001



SmartZone+ Pump Controller

Zone pump controller designed to work with NHB series units allowing control from 2 to 6 zone pumps.

2 Zones: PFMZ-02P-001
3 Zones: PFMZ-03P-001
4 Zones: PFMZ-04P-001
6 Zones: PFMZ-06P-001



System Supply & Return Sensors

Designed to sense supply and return temperature of your hydronic heating system. Works with all NHB series boilers. (Sold in pairs.)

GXXX001417



Common Vent Collar kit

Required for cascade/common vent installations with NHB series units produced on or after September 15, 2016. Includes cascade cable.

30014367A

Cascade Cable

GXXX000546



Ready-Link® Rack Base

The free standing rack system is designed for infield assembly and indoor installation only. Base rack allows installation for up to 2 units back to back.

GFFM-KDIZUS-001

Ready-Link® Rack Add-on

Designed to expand the base rack system allowing up to 16 units back to back.

GFFM-KDIZUS-002



Commercial Neutralizer

Designed to neutralize the condensate of up to 16 NHB series units.

GXXX001325

Light Commercial Neutralizer

Designed to neutralize the condensate of up to 6 NHB series units.

GXXX001324

Replacement Media

Commercial: GXXX001329
Light Comm: GXXX001328



Residential Neutralizer Kit, Single Unit

Residential condensate neutralizer for NHB series units designed to neutralize the condensate of one unit.

GXXX001322

Replacement Media for Residential Neutralizer

GXXX001323



Plumb Easy Valve Set, 1"

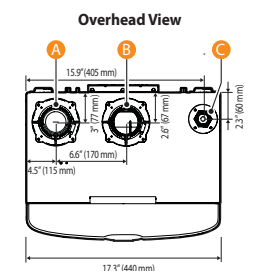
1" isolation valves without relief valve designed to work on NHB series units. Allows for easy and quick servicing of hydronic space heating systems.

30010950A

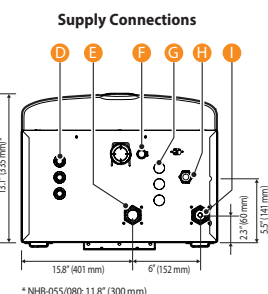
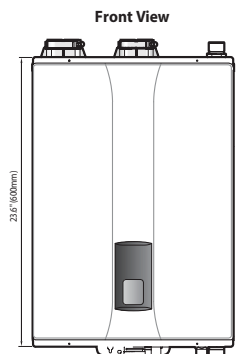
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T H E L E A D E R I N C O N D E N S I N G T E C H N O L O G Y

Dimensions



- Connection Size**
- A Air Intake Φ 2"
 - B Exhaust Gas Vent Φ 2"
 - C Air Vent Connection Φ 3/4"



- Connection Size**
- D Rubber Grommet Φ 1"
 - E Space Heating Return Φ 1"
 - F Condensate Outlet Φ 1/2"
 - G Knock Out Hole Φ 3/4"
 - H Gas Connection Φ 3/4"
 - I Space Heating Supply Φ 1"

Ratings & specifications

Navien Condensing Boiler Space Heating Ratings					
Model Number ¹	Heating Input, MBH		Heating Capacity ² , MBH	Net AHRI Rating, Water ³ , MBH	AFUE ² , %
	Min	Max			
NHB-55	8	55	51	44	95.0
NHB-80	8	80	74	64	95.0
NHB-110	10	110	102	89	95.0
NHB-150	10	150	138	120	95.0

¹ Ratings are the same for Natural Gas models converted to Propane use.

² Based on U.S. Department of Energy (DOE) test procedures.

³ 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-55	NHB-80	NHB-110	NHB-150
Dimensions		24" (H) x 17" (W) x 12" (D)		24" (H) x 17" (W) x 13" (D)	
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		-0.03" WC	-0.08" WC	-0.10" WC	-0.40" WC
Propane gas manifold pressure		-0.03" WC	-0.07" WC	-0.09" WC	-0.30" WC
Gas connection size		3/4" NPT (female)			
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, approved polypropylene (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, polypropylene 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				



NHB-BR002-1701
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