

Canada Product Catalog



January 2021



A WORLD LEADER IN TANKLESS WATER HEATERS, COMBI-BOILERS AND BOILERS



Innovation,
advanced technology
and solutions for
a greener world



Navigating, Energy and Environment

Three words from which the company name was created.

Mission

To provide customers with the ultimate comfortable living environment through energy efficient products by using innovative technology to create a healthier environment for our future generations.

Global vision

Navien retains the largest market share for condensing gas water heaters in North America; is ranked top in technology patents; and is the largest exporter of boilers from Korea. Navien proudly exports that leadership in dependability, design, green technology, social responsibility and customer service to over 30 countries.

A world leader in energy efficient technology

Navien was an early leader in developing condensing technology for boilers and water heaters. Condensing technology maximizes energy by using heat emitted from flue gasses. As a result, energy consumption and green house gases are reduced.

Advanced technology for a cleaner world

Navien's high efficiency and eco-friendly technology has reduced energy consumption by 20% and cut down the emissions of green house gases. Our condensing tankless gas water heaters achieved the industry's highest energy factor, 0.97 UEF, setting the standard for the rest of the world.





Solutions to control Navien products from anywhere in the world

NaviLink™ Wi-Fi remote control system. This add-on accessory enables customers with smart phones and tables to control their units remotely.

NPE Series

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NPE

NCB-E Series

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NCB-E

NFC Series

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NFC

NHB Series

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NHB

NFB Series

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NFB

NFB-C Series

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NFB-C

NPE NAVIEN PREMIUM EFFICIENCY CONDENSING TANKLESS WATER HEATERS

Navien NPE Series is the best selling*, most advanced condensing tankless water heater in the industry

Navien makes it easy to go tankless

Navien NPE-A and NPE-S units replace inefficient tank heaters, saving water, natural gas and electricity with added benefits of endless supply of hot water, lower maintenance costs and longer product life.



- Exclusive ComfortFlow® internal recirculation pump and buffer tank
- Earn up to 3 LEED points with recirculation
- Lower the HERS home index score
- Wi-Fi enabled with Navilink® add-on
- Optional HotButton™ on demand control kit
- Optional Ready-Link manifold system simplifies side-by-side wall mounted applications, side-by-side rack mounted applications or floor mounted back-to-back applications

*Navien NPE Series is the best selling condensing tankless water heater according to BRG.

ComfortFlow® exclusive built-in recirculation system included on all NPE-A models. Navien ComfortFlow® is the first to incorporate a built-in insulated buffer tank and recirculation pump. The buffer tank eliminates the “cold water sandwich” effect and issues of minimum flow rates commonly found in other tankless water heaters. The recirculation pump saves on water bills by reducing the time to get hot water.



ComfortFlow® recirculates hot water through supply lines, eliminating wait time for hot water.



NPE-A HotButton™ optional hot water activation system.

At the push of a button, the HotButton hot water system activates the internal recirculation pump and gas fired burner to heat water in the supply lines to provide hot water only when it's needed.



2" PVC VENTING
UP TO 60 FT

1/2" GAS CAPABILITY
UP TO 24 FT

CASCADE UP TO
16 UNITS

DUAL STAINLESS
STEEL HEAT EXCHANGERS

NG OR LP FIELD GAS
CONVERTIBLE

OPTIONAL
Navilink
WI-FI CONTROL

AHR EXPO 2016
NPE-A
WINS AHR
INNOVATION
AWARD

AHR EXPO 2016
NPE-S
WINS AHR
INNOVATION
AWARD



NPE-Advanced



NPE-Standard



The H2Air Kit utilizes the NPE-A pump to circulate the hot water for the hydronic air handler. This removes the need to purchase an additional circulator for the heating system. Designed for retrofit and new construction, the Navien H2Air Kit™ includes an add-on controller to integrate space heating and DHW between any NPE-A Series tankless water heater and a hydronic air handler.



2" PVC venting up to 60 feet. Low exhaust gas temps allows use of PVC, CPVC, System 636 and polypropylene vent systems, saving time and money.



Dual stainless steel heat exchangers resist corrosion better than copper to provide longer life.



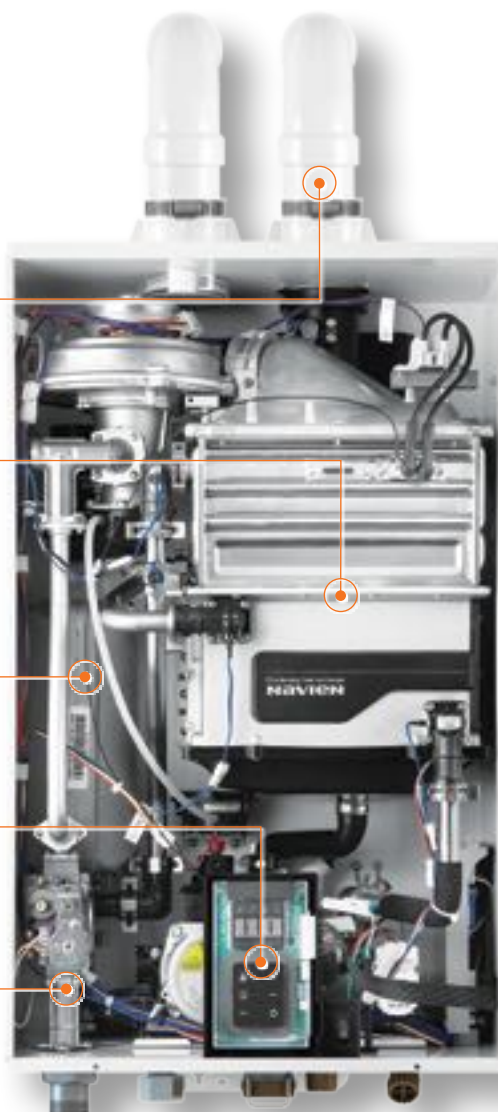
NPE ComfortFlow patented internal recirculation system includes built-in recir pump and insulated buffer tank. No need for costly external parts, no more "cold water sandwich" effect and no minimal flow rate issues.



User-friendly, advanced controls. Easy set up diagnostic control system displays temperature, water flow rate, cascading operations and much more.



1/2" gas pipe capability up to 24' (subject to local codes). Cuts installation time, no need to install new gas lines for retrofit applications.





NPE-Advanced

NPE-Standard

NPE-Advanced NPE-Standard

NAVIEN PREMIUM EFFICIENCY CONDENSING TANKLESS WATER HEATERS

Ready-Link®

Manifold system for mounting on wall or rack

- Simply no waiting for factory racks
- Simply easy to install... same day
- Simply more profitable
- Simply visit your local Navien wholesaler and pick up everything you need



NaviCirc™

Recirculation valve for NPE-A tankless

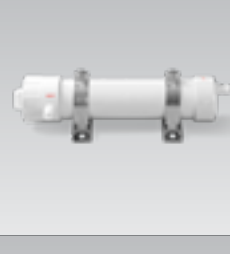
Designed for recirculation of domestic hot water in applications where a dedicated return line is not available.








NPE Series water heater accessories

Water Heater Accessory	Description	Part Number
	NaviLink™ Wi-Fi Control	PBCM-AS-001
	H2Air™ Kit AHU Optimizer	PNBD-000001
	Remote Controller	300009757A
	Plumb Easy Valve 3/4" with Relief Valve	30009323A
	Plumb Easy 3 Valve Set for NPE-A	30022163A
	Plumb Easy Valve 3/4" with Relief Valve Designed to work with pipe cover	30012581A
	NaviCirc™ Recirculation Valve for NPE-A	NaviCirc™ PFFW-SXX-001 NaviCirc Kit 30022965A

NPE Series water heater accessories

Water Heater Accessory	Description	Part Number
	HotButton™ Control Kit Includes Push Button and Wall Plate	HotButton™ Control Kit PZZZ-00046 Wall Plate GXXX001427 Push Button GXXX001426
	Residential Neutralizer	Residential Neutralizer 1 unit GXXX001322 Residential Replacement Media GXXX001323
	Light Commercial Neutralizer Up to 6 units	Light Commercial Neutralizer GXXX001324 Light Commercial Replacement Media GXXX001328
	Commercial Neutralizer Up to 16 units	Commercial Neutralizer GXXX001325 Commercial Replacement Media GXXX001329
	2" and 3" Wall Flange and Vent Terminator Kit	2" Kit 30010747A 3" Kit 30003873B
	PeakFlowE™ Anti-scale System	PeakFlowE™ System GXXX001725 PeakFlowE™ Replacement Media GXXX001726 PeakFlow™ Replacement Media GXXX001327

Water Heater Accessory	Description	Part Number
	Common Vent Collar Kit	Common Vent Collar Kit 30014367A Includes Cascade Cable GXXX000546
	Cascade Cable and External Pump Wire	Cascade Cable GXXX000546 External Pump Wire GXXX001319
	Vent Cap NPE Series	30010604A
	Pipe Cover NPE Series	Pipe Cover 30012634A Use with Isolation Valves 30012581A
	Ready-Link® Rack Base (V3) and Add-on Rack(s)	Base (V3) GFFMKDIZUS-005 Add-on (V3) GFFMKDIZUS-006



NPE-Advanced

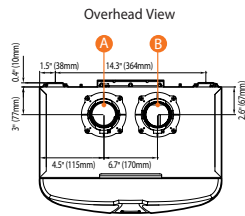
NPE-Standard

NPE-AAdvanced NPE-SStandard

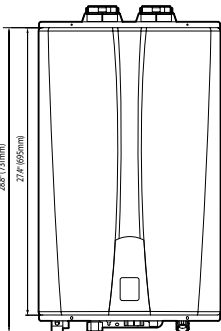
NAVIEN PREMIUM EFFICIENCY CONDENSING TANKLESS WATER HEATERS

NPE Series

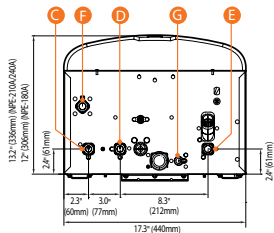
Specifications



Front View



Supply Connections



Connection Size

- A Air Intake \varnothing 2"
- B Exhaust Gas Vent \varnothing 2"
- C Hot Water Outlet \varnothing 3/4"
- D Recirculation Inlet (A model) \varnothing 3/4"
- E Cold Water Inlet \varnothing 3/4"
- F Gas Inlet \varnothing 3/4"
- G Condensate Drain \varnothing 1/2"

Item		Model						
		NPE-150S	NPE-180A	NPE-180S	NPE-210A	NPE-210S	NPE-240A	NPE-240S
Heat capacity (input)	Natural gas	18,000–120,000 (BTU/H)	15,000–150,000 (BTU/H)		19,900–180,000 (BTU/H)		19,900–199,900 (BTU/H)	
	Propane gas							
Efficiency ratings	UEF (NG & LP)	0.96	0.96	0.97	0.96	0.97	0.96	0.97
Flow rate (DHW)	35°F (19°C) temp rise	6.8 GPM (26 L/m)	8.4 GPM (32 L/m)		10.1 GPM (38 L/m)		11.2 GPM (42 L/m)	
	45°F (25°C) temp rise	5.3 GPM (20 L/m)	6.5 GPM (25 L/m)		7.8 GPM (30 L/m)		8.7 GPM (33 L/m)	
	67°F (36°C) temp rise	3.2 GPM (12 L/m)	4.3 GPM (16 L/m)	4.2 GPM (16 L/m)	5.0 GPM (19 L/m)	5.2 GPM (20 L/m)	5.6 GPM (21 L/m)	5.7 GPM (22 L/m)
Dimensions		17.3" W x 27.4" H x 13.2" D						
Weight		55lbs (25kg)	75lbs (34kg)	67lbs (30kg)	82lbs (37kg)	75lbs (34kg)	82lbs (37kg)	75lbs (34kg)
Installation type		Indoor or outdoor wall-hung						
Venting type		Forced draft direct vent						
Ignition		Electronic ignition						
Water pressure		15–150 PSI						
Natural gas supply pressure (from source)		3.5"–10.5" WC						
Propane gas supply pressure (from source)		8"–13" WC						
Natural gas manifold pressure (min-max)		-0.04" WC to -0.38" WC	-0.04" WC to -0.84" WC		-0.05" WC to -0.36" WC		-0.05" WC to -0.58" WC	
Propane gas manifold pressure (min-max)		-0.04" WC to -0.42" WC	-0.05" WC to -0.50" WC		-0.10" WC to -0.66" WC		-0.10" WC to -0.78" WC	
Minimum flow rate		0.5 GPM (1.9 L/m), < 0.01 GPM (0.04 L/m) option for "A" models*						
Connection sizes	Cold water inlet	3/4" NPT						
	Hot water outlet	3/4" NPT						
	Gas inlet	3/4" NPT						
Power supply	Main supply	120V AC, 60 Hz						
	Maximum power consumption	200W (max 2A), 350W (max 4A) with external pump connected						
Materials	Casing	Cold rolled carbon steel						
	Heat exchangers	Primary heat exchangers: stainless steel, secondary heat exchangers: stainless steel						
Venting	Exhaust	2" or 3" PVC, CPVC, PP, SS / 2" or 3" special gas vent type BH (Class II, A/B/C)						
	Intake	2" or 3" PVC, CPVC, PP, SS / 2" or 3" special gas vent type BH (Class II, A/B/C)						
	Vent clearances	0" to combustibles						
Safety devices		Flame rod, APS ignition operation detector, water temperature high limit switch, exhaust temperature high limit sensor, power surge fuse						

*Available for "A" models configured in an optional ComfortFlow recirculation mode. Additional energy use will occur when using recirculation.

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

Please refer to NavienInc.com to verify you have the most current information.

Navien certification summary (Note: all NPE models are field convertible from NG to LP gas)

Model	Product Approvals						Efficiency Ratings*		Annual Energy Consumption* (Residential)		
	CSA	NSF (Standard 5)	Low Lead (<0.25%)	SCAQMD 1146.2 (NOx, <20ppm)	AHRI Number	Energy Star	Uniform Energy Factor (UEF)	Max GPM (67°F Rise)	Natural Gas (Therms/Year)	Propane (Gallons/Year)	Estimated Operating Cost**
NPE-180A-NG	Yes	Yes	Yes	Yes	6678380	Yes	0.96	4.3	176		\$192
NPE-180A-LPG	Yes	Yes	Yes	Yes	6678380	Yes	0.96	4.3		193	\$465
NPE-210A-NG	Yes	Yes	Yes	Yes	6678381	Yes	0.96	5.0	176		\$192
NPE-210A-LPG	Yes	Yes	Yes	Yes	6678381	Yes	0.96	5.0		193	\$465
NPE-240A-NG	Yes	Yes	Yes	Yes	6678382	Yes	0.96	5.6	176		\$192
NPE-240A-LPG	Yes	Yes	Yes	Yes	6678382	Yes	0.96	5.6		193	\$465
NPE-150S-NG	Yes	Yes	Yes	Yes	8235610	Yes	0.96	3.2	115		\$125
NPE-150S-LPG	Yes	Yes	Yes	Yes	8235610	Yes	0.96	3.2		126	\$304
NPE-180S-NG	Yes	Yes	Yes	Yes	6478771	Yes	0.97	4.2	175		\$191
NPE-180S-LPG	Yes	Yes	Yes	Yes	6478771	Yes	0.97	4.2		192	\$463
NPE-210S-NG	Yes	Yes	Yes	Yes	6478772	Yes	0.97	5.2	175		\$191
NPE-210S-LPG	Yes	Yes	Yes	Yes	6478772	Yes	0.97	5.2		192	\$463
NPE-240S-NG	Yes	Yes	Yes	Yes	6478773	Yes	0.97	5.7	175		\$191
NPE-240S-LPG	Yes	Yes	Yes	Yes	6478773	Yes	0.97	5.7		192	\$463

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

**Based on a national average natural gas cost of \$1.09/therm, propane cost of \$2.41/gallon.



Temperature rise (maximum output)

Temp rise (°F)	150S GPM	180 Series GPM	210 Series GPM	240 Series GPM
35	6.8	8.4	10.1	11.2
40	5.9	7.4	8.8	9.8
45	5.3	6.5	7.8	8.7
50	4.8	5.9	7.1	7.8
55	4.3	5.3	6.4	7.1
60	4.0	4.9	5.9	6.5
65	3.7	4.5	5.4	6.0
70	3.4	4.2	5.0	5.6
75	3.2	3.9	4.7	5.2
80	3.0	3.7	4.4	4.9
85	2.8	3.5	4.2	4.6
90	2.6	3.3	3.9	4.4
100	2.4	2.9	3.5	3.9
110	2.2	2.7	3.2	3.6
120	2.0	2.5	2.9	3.3
130	1.8	2.3	2.7	3.0
140	1.7	2.1	2.5	2.8

*Max temperature setting is 182°F (83°C).

DHW capacity

Models	Natural gas (BTU/H)	Propane Gas (BTU/H)
NPE-150S	18,000–120,000	18,000–120,000
NPE-180 A/S Series	15,000–150,000	15,000–150,000
NPE-210 A/S Series	19,900–180,000	19,900–180,000
NPE-240 A/S Series	19,900–199,900	19,900–199,900

Lower HERS home index score

Operating cost

Navien Tankless	175 therms	\$191*
Other tankless	209 therms	\$228*
50 gallon tank	269 therms	\$293*

*Based on Energy Guide cost estimates using \$1.09 per therm of natural gas. Cost is in US dollars.

U.S. Green Building Council LEED points

Water heater	Location	Recirculation
1 Point	2 Points	3 Points

Warranty

	Application	Labor	Parts	Heat Exchanger
Residential	Standard or controlled recirculation ²	1 year	5 years	15 years
	Uncontrolled recirculation ³	1 year	3 years	5 years
Commercial or Combi ¹	Standard or controlled recirculation ² for units produced on or after Jan. 1, 2016	1 year	5 years	8 years
	Standard or controlled recirculation ² for units produced before Jan. 1, 2016	1 year	3 years	10 years
	Uncontrolled recirculation ³	1 year	3 years	3 years

¹Combi refers to a combination potable water and space heating application. Water heaters cannot be used in space heating only applications.

²Controlled-Recirculation: Recirculation through the water heater is controlled by either the water heater, a timer or an external aquastat.

³Uncontrolled-Recirculation: External pumps configured to circulate continuously through the water heater are subject to the uncontrolled recirculation warranty terms. An aquastat is the minimum pump control requirement for DHW or storage tank recirculation in order to maintain the full controlled recirculation warranty.

For complete details please refer to the full warranty at NavienInc.com.



NCB-E NAVIEN HIGH EFFICIENCY TANKLESS CONDENSING COMBI-BOILERS

The undisputed industry sales leader* in residential combi-boilers

NCB-E Series compact combi-boiler supports heating and DHW for the whole house

Navien NCB-E is the first high efficiency condensing combination boiler with the capacity to supply both heat and domestic hot water for larger homes — enough hydronic heat for a whole house, plus hot water to run two showers and a dishwasher all at the same time, in most applications.

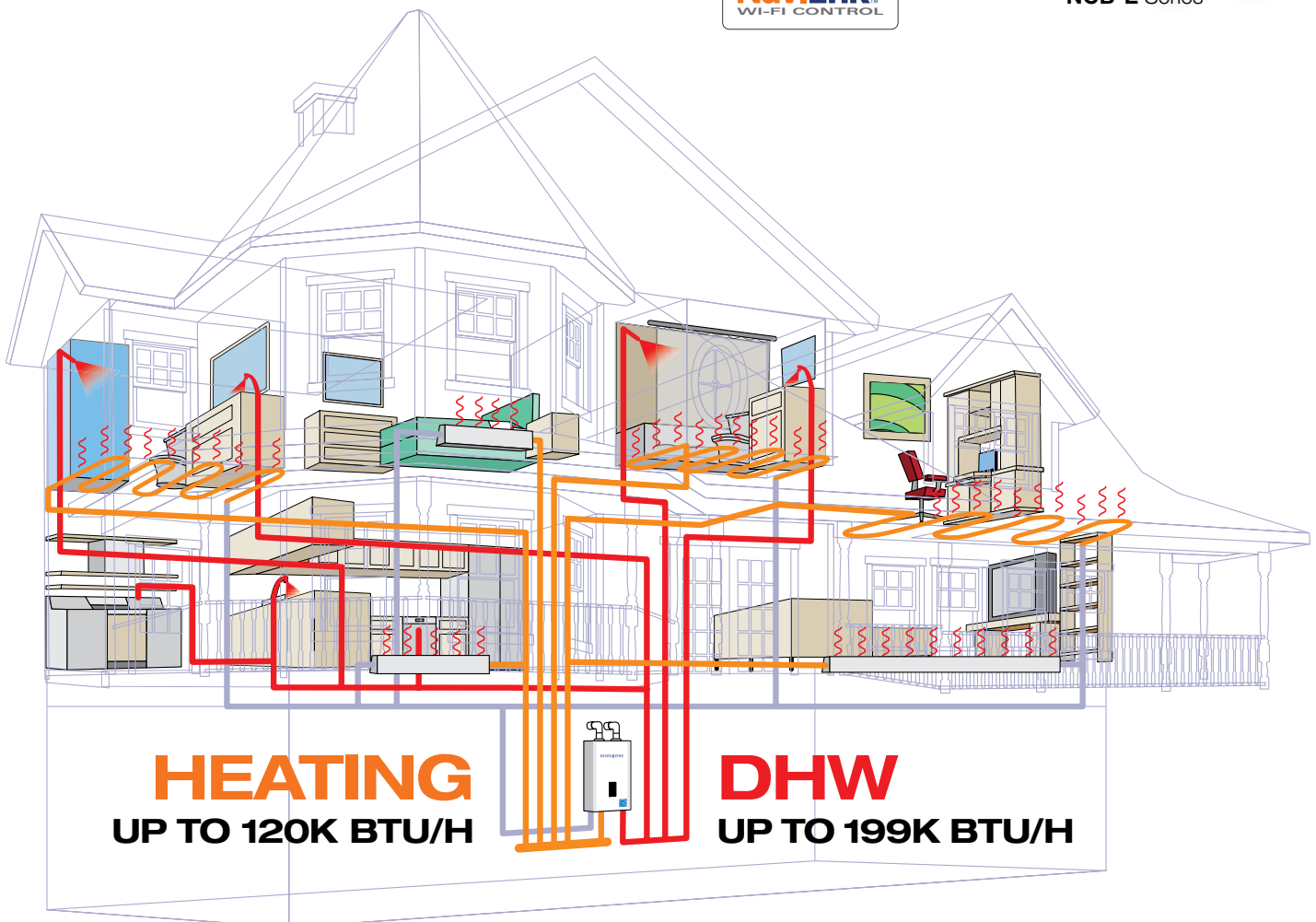
- Durable dual stainless steel heat exchanger for space heating
- Separate stainless steel heat exchanger for domestic hot water
- TDR up to 7:1 for heating and 10:1 for DHW
- AFUE 95.0%

*Navien NCB-E is the best-selling combi-boiler series according to BRG.

- AFUE 95.0%
- DUAL STAINLESS STEEL HEAT EXCHANGERS
- 2" PVC VENTING UP TO 60 FT
- 1/2" GAS CAPABILITY UP TO 24 FT
- AUTOMATIC WATER FILLING SYSTEM
- NG OR LP FIELD GAS CONVERTIBLE
- OPTIONAL NavLink™ WI-FI CONTROL



NCB-E Series

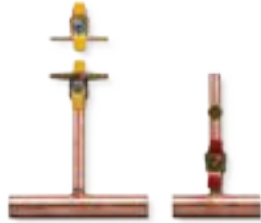


A WORLD LEADER IN TANKLESS WATER HEATERS, COMBI-BOILERS AND BOILERS

Manifold kits for faster installations



**NCB Series
Primary Manifold Kit**
GFFM-MCOZUS-001

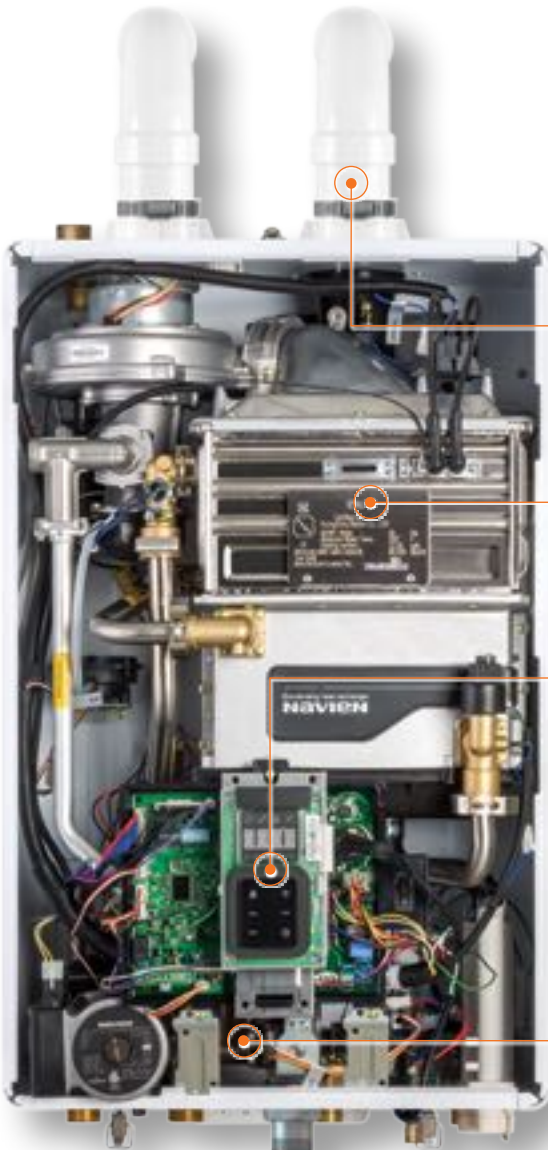


**NCB-E Series
Secondary Manifold Kit**
GFFM-SKTZUS-001

Navien's done a major part of the piping work for you. Both primary and secondary manifold kits are system matched for all NCB-E models for easy, efficient installations.



NCB-E



PVC venting. Low exhaust gas temperatures allows use of PVC, CPVC, ULC S636 and polypropylene vent systems, reducing installation time and costs. System can use 2" venting for up to 60', or up to 150' with 3" venting.



Dual stainless steel heat exchangers resist corrosion better than copper to provide longer life.



Advanced integrated control. This user-friendly control makes set up, temperature adjustments, system status and troubleshooting an easy task.



4.5 GPM@77° temperature rise for domestic hot water. Separate stainless steel flat plate heat exchanger for DHW creates a high flow rate.



NCB-E

NCB-E Series

NAVIEN HIGH EFFICIENCY CONDENSING COMBI-BOILERS



Innovation that saves space and energy

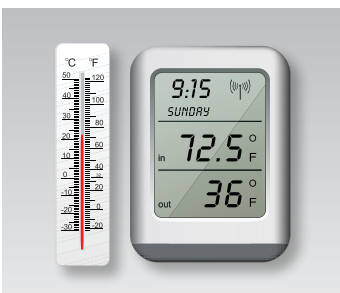


Before



After

The NCB-E takes up to 80% less space than a traditional floor standing boiler and tank water heater. Customer's now have more room, save energy and enjoy all the hot water they need whenever they want it.



Turndown ratio of 6:1 for heating and 11:1 for DHW.

The sophisticated gas flow control system provides a high turndown ratio, reducing energy waste and excessive boiler cycling and enhances temperature control for DHW.



Dual inputs of up to 120k BTU/H for heating and 199k BTU/H for DHW

supplies all the heat and domestic hot water that most houses require.



Low noise levels. Installations in or near media rooms, recreation rooms or any living areas of the house are possible with the quiet running NCB-E combi-boilers.








Linkability for extraordinarily large domestic hot water flow demand, the NCB-E can be cascaded with our NPE units.

A WORLD LEADER IN TANKLESS WATER HEATERS, COMBI-BOILERS AND BOILERS



NCB-E Series combi-boiler accessories

Boiler Accessory	Description	Part Number
	Zone 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	NaviLink™ PBCM-AS-001 Expansion Cable GXXX001659
	NCB Series Primary Manifold Kit	GFFM- MCOZUS-001
	NCB-E Series Secondary Manifold Kit	GFFM- SKTZUS-001
	PeakFlowE™ Anti-scale System	PeakFlowE™ System GXXX001725 PeakFlowE™ Replacement Media GXXX001726 PeakFlow™ Replacement Media GXXX001327

Boiler Accessory	Description	Part Number
	Plumb Easy Valve Set	1" Standard 30010950A 3/4" Standard with Relief Valve 30009323A
	Light Commercial Neutralizer Up to 6 units	Light Commercial Neutralizer GXXX001324 Light Commercial Replacement Media GXXX001328
	Residential Neutralizer	Residential Neutralizer 1 unit GXXX001322 Residential Replacement Media GXXX001323
	Cascade Cable	GXXX000546
	Outdoor Sensor and Wire	30012950A



NCB-E

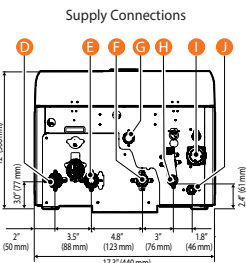
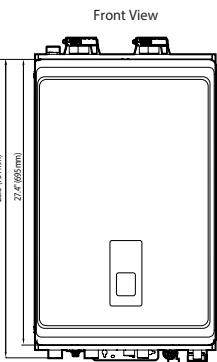
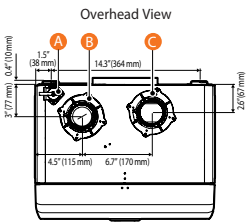
NCB-E Series

NAVIEN HIGH EFFICIENCY CONDENSING COMBI-BOILERS



NCB-E Series

Specifications



- Connection Size**
- A Pressure Relief Valve Adapter \varnothing 3/4"
 - B Air Intake \varnothing 2"
 - C Exhaust Gas Vent \varnothing 2"
 - D Heating Supply Outlet \varnothing 1"
 - E Heating Return Inlet \varnothing 1"
 - F DHW Hot Water Outlet \varnothing 3/4"
 - G Gas Supply Inlet \varnothing 3/4"
 - H DHW Cold Water Inlet \varnothing 3/4"
 - I Condensate Outlet \varnothing 1/2"
 - J Auto Feeder Inlet \varnothing 1/2"

		Specifications			
Item		NCB-150E	NCB-180 / NCB-180E	NCB-210 / NCB-210E	NCB-240 / NCB-240E
Gas input	Space heating	12,000–60,000 (BTU/H)	14,000–80,000 (BTU/H)	18,000–100,000 (BTU/H)	18,000–120,000 (BTU/H)
	Domestic hot water	12,000–120,000 (BTU/H)	14,000–150,000 (BTU/H)	18,000–180,000 (BTU/H)	18,000–199,900 (BTU/H)
Flow rate (DHW)	77°F (43°C) Temp Rise	2.6 GPM (9.8 L/m)	3.4 GPM (12.9 L/m)	4.0 GPM (15.1 L/m)	4.5 GPM (17.0 L/m)
Dimensions		17"(W) x 28"(H) x 12"(D)	17"(W) x 28"(H) x 12"(D)	17"(W) x 28"(H) x 12"(D)	17"(W) x 28"(H) x 12"(D)
Weight		66 lbs (30kg)	74 lbs (34kg)	84 lbs (38kg)	84 lbs (38kg)
Installation type		Indoor wall-hung			
Venting type		Forced draft direct vent			
Ignition		Electronic ignition			
Water pressure (Hydronic / DHW)		12–30 PSI / 15–150 PSI			
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 (min/max)		-0.08" WC / -0.34" WC	-0.07" WC / -0.66" WC	-0.05" WC / -0.36" WC	-0.06" WC / -1.20" WC
Propane gas manifold pressure (min/max)		-0.08" WC / -0.30" WC	-0.07" WC / -0.62" WC	-0.10" WC / -0.66" WC	-0.03" WC / -0.98" WC
Minimum flow rate (DHW)		0.5 GPM (1.9 L/m)			
Connection sizes	Heating supply/return	1" NPT			
	DHW inlet/outlet	3/4" NPT			
	Gas inlet	3/4" NPT			
	Auto feeder	1/2" NPT			
	Condensate outlet	1/2" NPT			
Power supply	Main supply	120V AC, 60Hz			
	Maximum power consumption	200W (up to 2 amperes)			
Materials	Casing	Cold rolled carbon steel			
	Heat exchangers	Primary/secondary heat exchanger: stainless steel DHW heat exchanger: stainless steel			
Venting	Exhaust	2" or 3" PVC, CPVC, PP, SS 2" or 3" special gas vent type BH (Class II, A/B/C)			
	Intake	2" or 3" PVC, CPVC, PP, SS 2" or 3" special gas vent type BH (Class II, A/B/C)			
	Vent clearances	0" to combustibles			
Safety devices		Flame rod, APS ignition operation detector, water temperature high limit switch, exhaust temperature high limit sensor			

Navien reserves the right to change specifications at any time without prior notice.
Please refer to NavienInc.com to verify you have the most current information.



Ratings

Model Number ¹	Navien Combination Boiler Space Heating Ratings					Other Specifications	
	Heating Input, MBH		Heating Capacity ² , MBH	Net AHRI Rating, Water ³ , MBH	AFUE ² , %	Water Pressure	Water Connection Size (Supply, Return)
	Min	Max					
NCB-150E	12	60	56	49	95.0	12-30 psi	1" NPT
NCB-180E	14	80	75	65	95.0		
NCB-210E	18	100	94	82	95.0		
NCB-240E	18	120	112	97	95.0		

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

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

³The 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.



Navien certification summary

	Model			
	NCB-150E	NCB-180E	NCB-210E	NCB-240E
Product Approvals				
CSA	Yes	Yes	Yes	Yes
SCAQMD 1146.2 (NOx, <20 ppm)	Yes	Yes	Yes	Yes
Low lead (<0.25%, DHW only)	Yes	Yes	Yes	Yes
ASME	Yes "H" stamp	Yes "H" stamp	Yes "H" stamp	Yes "H" stamp
AHRI Number	8580769	8580770	8580771	8580772
Energy Star	Yes	Yes	Yes	Yes

Gas input ranges

Model	Heating (BTU/H)	DHW (BTU/H)
NCB-150E	12,000–60,000	12,000–120,000
NCB-180E	14,000–80,000	14,000–150,000
NCB-210E	18,000–100,000	18,000–180,000
NCB-240E	18,000–120,000	18,000–199,900

Applications

Air Handler	Closed Loop Hydronic Heating Systems
For NCB/NCB-E technical drawings of specific installations and requirements, please visit NavienInc.com.	

Warranty

Type	Labor	Parts	Heat Exchanger
Residential single family use only	1 year	5 year*	10 year

*Includes DHW flat plate HX.

For complete details please refer to the full warranty at NavienInc.com.



NFC NAVIEN FIRE TUBE CONDENSING COMBI-BOILERS

The ultimate heating and DHW comfort package

More features, more benefits, more extras and more value...all in one package

Now the innovator in high efficiency condensing tankless water heaters and fire tube boilers puts it all together in one amazing combi-boiler.

- 5 modes of external domestic recirculation control built-in (Always on, Intelligent, Scheduling, HotButton, Aquastat)
- TDR 11:1 for heating and domestic hot water
- Approved venting: 2" up to 60' or 3" up to 150' PVC/CPVC/PP/SS
- Heating and domestic hot water up to 199k BTU/H
- AFUE 95.0%

TDR UP TO 11:1 HTG/DHW

AFUE 95.0%

2"-3" VENTING LONG DISTANCES

NG OR LP FIELD GAS CONVERTIBLE

ADVANCED INTUITIVE CONTROLS

1/2" GAS CAPABILITY UP TO 24 FT

OPTIONAL NavLink WI-FI CONTROL



NFC Series

Patented stainless steel fire tube heat exchanger

Navien's advanced in-house design/built patented stainless steel heat exchanger design is ASME-Certified, "H" Stamped, and reduces high stress point weld failures common on other combi-boilers.

Low profile burner removes easily and improves serviceability, unlike other's bulky cylindrical burners.

Innovative heat exchanger design allows water to fill to the top eliminating extra combustion chamber insulation and improving durability.

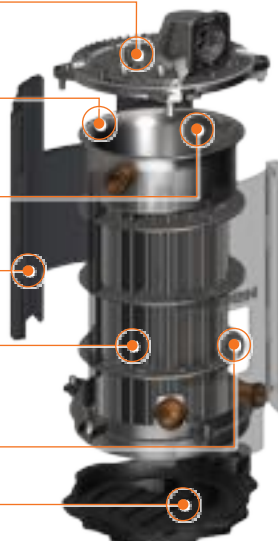
One-piece combustion chamber minimizes number of weld points prone to corrosion.

EPP exterior insulation reduces heat loss and increases efficiency.

Turbulators inside the tubes increase structural strength and create a cyclone effect of flue gases maximizing heat transfer and efficiency.

New diaphragm design optimizes water flow and improves performance.

Non-metallic drain pan prevents corrosion caused by acidic condensate, unlike competitor's metal pans.



Built-in DHW module now with advanced performance

Navien's innovative DHW heat exchanger generates enough hot water to run up to 3 showers and a dishwasher, all at the same time (@67°F temperature rise).

Integrated boiler pump for hydronic space heating and domestic hot water. No need for an external pump saving installation time, space and costs.

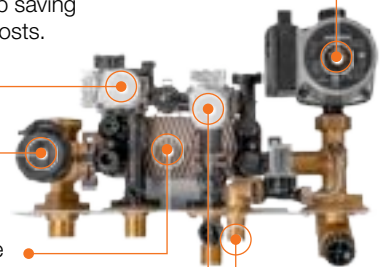
New mixing valve.

New easy access 3-way valve.

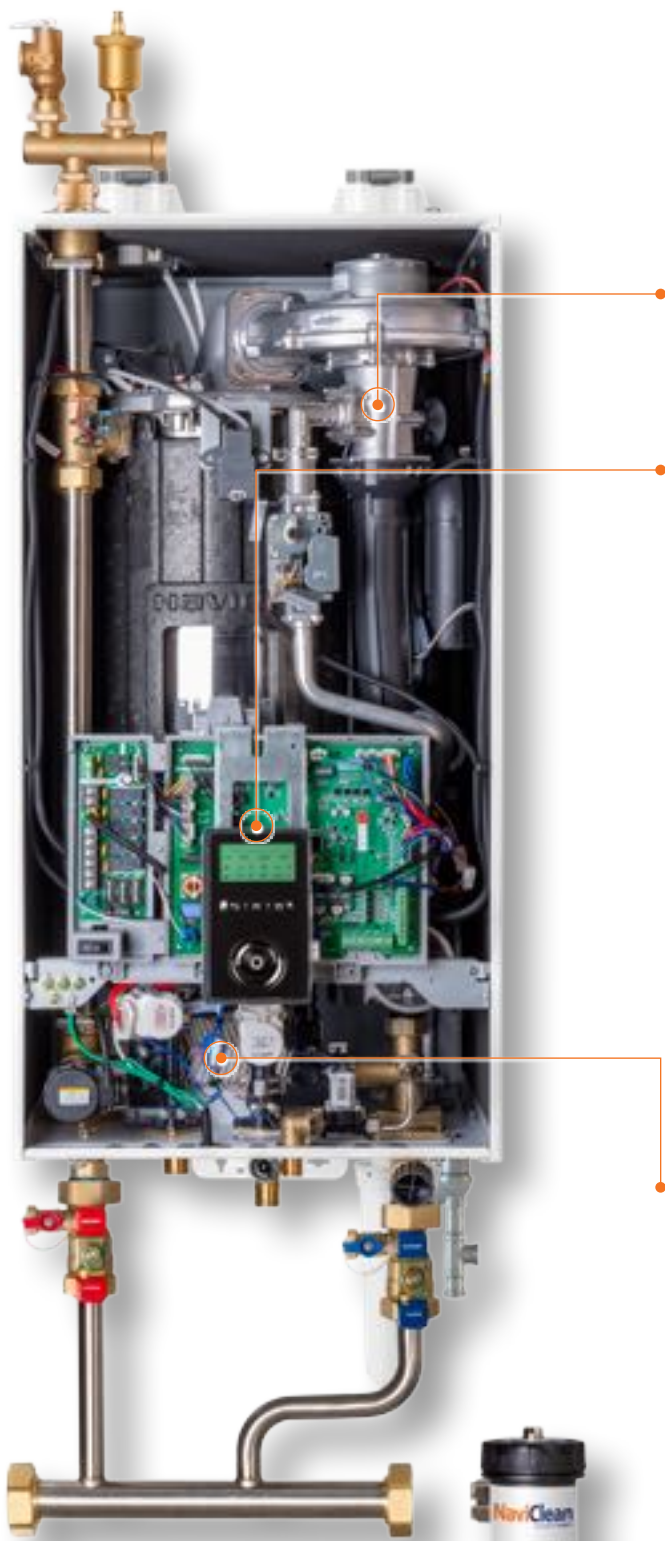
DHW stainless steel flat plate heat exchanger 5.4 GPM @ 67°F temperature rise. One of the highest flow rates in the industry.

New flow adjustment valve.

Water feed valve.

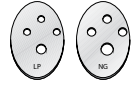


A WORLD LEADER IN TANKLESS WATER HEATERS, COMBI-BOILERS AND BOILERS



Dual Venturi and field gas convertibility.

Dual Venturi system creates better combustion control and turndown ratio. Orifice conversion kit for easy field gas convertibility from NG to LP is included with every NFC Series combi-boiler.



Advanced user interface, control and circuitry.

Navien's new backlit control panel uses simple, intuitive color-coded text and an innovative "command dial" click wheel for easy information input. Built-in three zone pump control allows for quick and easy system integration.

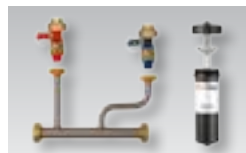


NFC



5.4 GPM @ 67° temperature rise for DHW.

Separate stainless steel flat plate heat exchanger for DHW creates one of the highest flow rates for any combi-boiler in the industry.



The NFC comes with 16 extras

including a primary manifold kit, heating isolation valve kit and NaviClean™ magnetic filtration system...all part of the NFC combi-boiler package.

NaviClean™ optional magnetic boiler filter.

The NaviClean™ is designed to work with Navien NFC, NCB-E, NHB and NFB Series boilers. Works with flow rates up to 21 GPM. It features a powerful permanent magnet mounted inside a nylon housing.





NFC

NFC Series

NAVIEN CONDENSING FIRE TUBE COMBI-BOILERS

Best combi package on the market



Space heating up to 199k BTU/H

DHW up to 199k BTU/H

Best choice for small or large homes and businesses

The NFC is designed for residential and commercial applications small or large. You can easily expand a system by cascading the NFC combi-boiler with additional NPE series tankless water heaters for higher DHW flow capability.

Best value

Every Navien NFC combi-boiler comes with accessories to reduce installation time including the primary manifold kit, isolation valve kit, outdoor temperature sensor and the NaviClean magnetic filtration system.

Best technology

Navien advanced high efficiency condensing tankless water heater technology has taken the industry by storm. Combined with the patented fire tube boiler design, the NFC combi-boiler is the perfect option.



Cascade up to 16 units.

1 NFC combi-boiler and 15 NPE tankless water heaters.

Common vent up to 8 units.






1 NFC combi-boiler and 7 NPE tankless water heaters.





NFC Series fire tube combi-boiler accessories

Boiler Accessory	Description	Part Number
	Zone 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	NaviLink™ PBCM-AS-001 Expansion Cable GXXX001659
	Common Vent Collar Kit	Common Vent Collar Kit 30014367A Includes Cascade Cable GXXX000546
	NFC Series Secondary Manifold Kit	GFFM- SKTZUS-001
	PeakFlowE™ Anti-scale System	PeakFlowE™ System GXXX001725 PeakFlowE™ Replacement Media GXXX001726 PeakFlow™ Replacement Media GXXX001327

Boiler Accessory	Description	Part Number
	Commercial Neutralizer Up to 16 units	Commercial Neutralizer GXXX001325 Commercial Replacement Media GXXX001329
	Light Commercial Neutralizer Up to 6 units	Light Commercial Neutralizer GXXX001324 Light Commercial Replacement Media GXXX001328
	Residential Neutralizer	Residential Neutralizer 1 unit GXXX001322 Residential Replacement Media GXXX001323
	Cascade Cable	GXXX000546
	Universal Temperature Sensor	GXXX001769





NFC

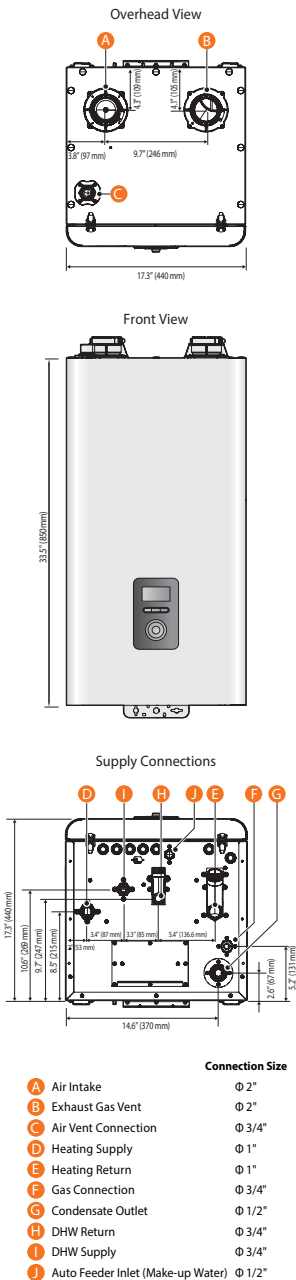
NFC Series

NAVIEN CONDENSING FIRE TUBE COMBI-BOILERS



NFC Series

Specifications



Item	Model	
	NFC-175	NFC-200
Dimensions	17.3" W x 17.3" D x 33.5" H	
Boiler weight	145 lb (66 kg)	
Boiler weight with water	183 lb (83 kg)	
Installation type	Indoor wall-hung	
Venting type	Forced draft direct vent	
Ignition	Electronic ignition	
Natural Gas supply pressure (from source)	3.5" to 10.5" WC	
Propane Gas supply pressure (from source)	8.0" to 13.5" WC	
Natural Gas manifold pressure	-0.05" to -0.47" WC	-0.05" to -0.20" WC
Propane Gas manifold pressure	-0.10" to -0.45" WC	
Gas connection size	3/4" NPT	
Power supply	Main supply	120V AC, 60Hz
	Maximum power consumption	Less than 15 amperes
Materials	Casing	Cold-rolled carbon steel
	Heat exchangers	Stainless steel
Venting	Exhaust	2" or 3" PVC, CPVC, PP and SS 2" or 3" special gas vent type BH, (Class III, A/B/C)
	Intake	2" or 3" PVC, CPVC, PP and SS 2" or 3" special gas vent type BH, (Class III, A/B/C)
	Vent clearance	0" to combustibles
Safety devices	Flame rod, APS ignition operation detector, water temperature high limit switch, exhaust temperature high limit sensor, water pressure sensor	

NFC-175 and NFC-200 Series	
Temp. Rise °F (°C)	Flow Rate GPM (L/m) ¹
35 (19)	10.4 (39.5)
40 (22)	9.0 (34.1)
45 (25)	7.9 (30.0)
50 (28)	7.2 (27.3)
55 (31)	6.6 (25.0)
60 (33)	6.0 (22.7)
67 (37)	5.4 (20.4)
70 (39)	5.1 (19.3)
77 (43)	4.7 (17.8)
80 (44)	4.5 (17.0)
85 (47)	4.2 (15.9)
90 (50)	4.0 (15.1)
100 (56)	3.6 (13.6)

¹Max GPM based on installation conditions.

Navien reserves the right to change specifications at any time without prior notice. Please refer to www.NavienInc.com to verify you have the most current information.





Ratings

Navien Combination Condensing Boiler Space Heating Ratings					Other Space Heating Specifications			
Model Number ¹	Heating Input (BTU/H)		Heating Capacity ² (MBH)	Net AHRI Rating Water ³ (MBH)	AFUE ² (%)	Water Pressure	Water Connection Size (Supply, Return)	Water Volume
	Min	Max						
NFC-175	18,000	175,000	161	140	95	12–80 psi	1" NPT	4.5 gallon
NFC-200	18,000	199,900	183	159	95			

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

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

³The 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.



Navien Combination Condensing Boiler Domestic Hot Water Ratings			Other Domestic Hot Water Specifications				
Model Number	Input Ratings (BTU/H)		Water Pressure	Minimum Flow Rate	Flow Rate 45°F (25°C) Temp Rise	DHW Supply Connection Size	DHW Return Connection Size
	Min	Max					
NFC-175	18,000	199,900	15–150 psi	0.5 GPM (1.9 L/m)	7.9 GPM	3/4" NPT	3/4" NPT
NFC-200	18,000	199,900					

Navien certification summary

	Model	
	NFC-175	NFC-200
	Product Approvals	
CSA	Yes	Yes
SCAQMD 1146.2 (NO _x , <20 ppm)	Yes	Yes
Low lead (<0.25%, DHW only)	Yes	Yes
ASME	Yes "H" stamp	Yes "H" stamp
AHRI Number	202245848	202245849
Energy Star	Yes	Yes

Applications

Air Handler	Closed Loop Hydronic Heating Systems
For NFC technical drawings of specific installations and requirements, please visit NavienInc.com	

Gas input ranges

Model	Heating (BTU/H)	DHW (BTU/H)
NFC-175	18,000–175,000	18,000–199,900
NFC-200	18,000–199,900	18,000–199,900

Temperature setting ranges

Item	Temperature Setting Range	
Space Heating	Supply	77–194°F (25–90°C)
	Return	68–158°F (20–70°C)
DHW	89–140°F (30–60°C)	

Warranty

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

*Applies to single family residential locations.

For complete details please refer to the full warranty at NavienInc.com.

NHB NAVIEN WATER TUBE CONDENSING HEATING BOILERS

Navien innovation in a compact high efficiency wall-hung boiler

The NHB Series: Industry's highest TDR at 15:1

As the leader in condensing technology, Navien reinvented the water heating industry with the award-winning NPE tankless water heaters and the NCB-E combi-boilers. Our tradition of innovation continues with the NHB Series high efficiency condensing boilers. All NHB boilers have Navien's advanced burner system, an AFUE of 95.0% and industry-leading turndown ratios up to 15:1. The NHB boiler is available in four sizes: 55 MBH, 80 MBH, 110 MBH and 150 MBH.

- Dual stainless steel heat exchangers last longer than copper
- SCH 40, 2" PVC venting up to 60 feet
- 1/2" gas pipe up to 40 feet (subject to local codes)

TDR UP TO 15:1

AFUE 95.0%

2" - 3" VENTING
LONG DISTANCES

NG OR LP FIELD GAS
CONVERTIBLE

ADVANCED
BOILER CONTROL

OPTIONAL
NaviLink™
WI-FI CONTROL



NHB Series

Before

After



Sleek wall-hung design uses up to 80% less space than other boilers.



NHB 110 and 150: Common vent up to 8 units and cascade up to 16 units

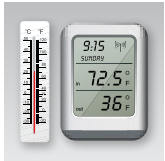




Low exhaust gas temperatures allow use of PVC, CPVC, polypropylene (rigid and flexible) and stainless steel venting, reducing installation time and costs. System can use 2" venting for up to 60', or up to 150' with 3" venting.



The condensing technology in the stainless steel heat exchangers of the NHB boilers saves energy, reduces green house gasses.

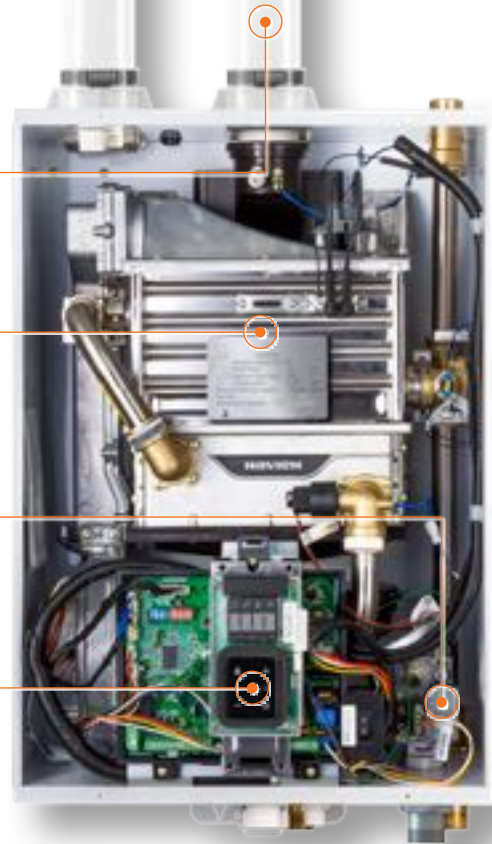


Turndown ratio up to 15:1 on NHB. The sophisticated gas flow control system provides a high turndown ratio which reduces energy waste and excessive boiler cycling.



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

- Adjustable heat capacity
- Temperature boost for outdoor reset control
- Adjustable anti-cycle timer
- Freeze protection
- Pressure LWCO with manual reset
- Adjustable minimum burner time setting
- Outdoor reset and domestic hot water priority
- Adjustable outdoor temperature reset curves
- Field gas convertible



NHB



With Navien's cascading technology, when a unit gets up to capacity determined by the supply and return temperatures, the next unit will start to help meet the hydronic space heating requirements.



NHB

NHB Series

NAVIEN WATER TUBE CONDENSING HEATING BOILERS



Navien NHB system matched manifold kits

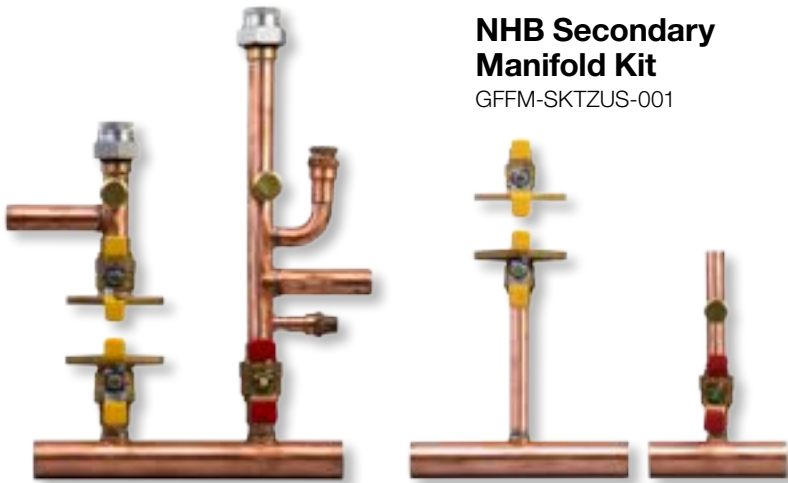
NHB Primary Manifold Kit

GFFM-MSOZUS-001

NHB Secondary Manifold Kit

GFFM-SKTZUS-001

Navien has 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.



Advanced filtration for hydronic heating systems

NaviClean™ magnetic boiler filter

NaviClean™ is designed to work with Navien NCB-E, NHB and NFB Series boilers. Works 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, 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





NHB Series boiler accessories

Boiler Accessory	Description	Part Number
	Zone 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	NaviLink™ PBCM-AS-001 Expansion Cable GXXX001659
	Common Vent Collar Kit	Common Vent Collar Kit 30014367A Includes Cascade Cable GXXX000546
	Plumb Easy Valve Set 1" Standard	BCSA056
	System Supply & Return Sensors Sold in pairs	GXXX001417
	Universal Temperature Sensor	GXXX001769

Boiler Accessory	Description	Part Number
	Commercial Neutralizer Up to 16 units	Commercial Neutralizer GXXX001325 Commercial Replacement Media GXXX001329
	Light Commercial Neutralizer Up to 6 units	Light Commercial Neutralizer GXXX001324 Light Commercial Replacement Media GXXX001328
	Residential Neutralizer	Residential Neutralizer 1 unit GXXX001322 Residential Replacement Media GXXX001323
	Ready-Link® Rack Base (V3) and Add-on Rack(s)	Base (V3) GFFMKDIZUS-005 Add-on (V3) GFFMKDIZUS-006

NHB



NHB

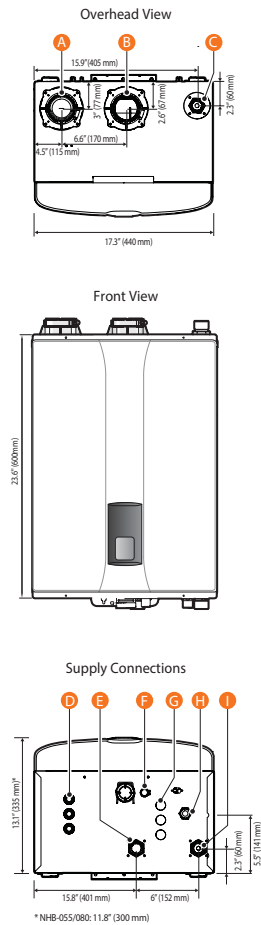
NHB Series

NAVIEN WATER TUBE CONDENSING HEATING BOILERS



NHB Series

Specifications



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, 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 ignition operation detector, water temperature high limit switch, exhaust temperature high limit sensor			

Navien reserves the right to change specifications at any time without prior notice. Please refer to NavienInc.com to verify you have the most current information.

- 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 Knock Out Hole Ø 3/4"
 - H Gas Connection Ø 3/4"
 - I Space Heating Supply Ø 1"





Ratings

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

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

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

³The 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.



Navien certification summary

	Model			
	NHB-55	NHB-80	NHB-110	NHB-150
	Product Approvals			
CSA	Yes	Yes	Yes	Yes
SCAQMD 1146.2 (NO _x , <20 ppm)	Yes	Yes	Yes	Yes
ASME	Yes "H" stamp	Yes "H" stamp	Yes "H" stamp	Yes "H" stamp
AHRI Number	7501495	7501496	7501497	7501498
Energy Star	Yes	Yes	Yes	Yes

Gas input ranges

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

Warranty

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

*Applies to single family residential locations.

For complete details please refer to the full warranty at NavienInc.com.



NFB NAVIEN CONDENSING WALL HUNG FIRE TUBE BOILERS

The high-efficiency fire tube boiler built smarter from start to finish

Navien NFB Series totally reinvents fire tube technology

Navien's advanced patented stainless steel heat exchanger design is ASME-Certified, "H" Stamped, and reduces high stress point weld failures common on other boilers. This compact, in-house designed and manufactured heat exchanger uses the latest automated laser welding technology to deliver superior product quality.

- 10:1 turndown ratio
- Cascading and common venting capable
- Optional NaviLink Wi-Fi remote control
- AFUE 95.0%

PATENTED
STAINLESS STEEL
FIRE TUBE HX

TDR 10:1
HEATING

AFUE 95.0%

ADVANCED
INTUITIVE
CONTROLS

RESIDENTIAL &
COMMERCIAL

1/2" GAS CAPABILITY
UP TO
24 FT

OPTIONAL
NaviLink
WI-FI CONTROL



NFB Series

Patented compact stainless steel fire tube heat exchanger

Navien's advanced in-house design/built patented stainless steel heat exchanger design is ASME-Certified, "H" Stamped, and reduces high stress point weld failures common on other boilers.

Low profile burner removes easily and improves serviceability, unlike other's bulky cylindrical burners.

Innovative heat exchanger design allows water to fill to the top eliminating extra combustion chamber insulation and improving durability.

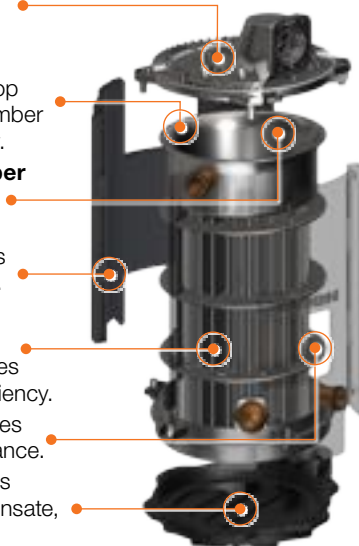
One-piece combustion chamber minimizes number of weld points prone to corrosion.

EPP exterior insulation reduces heat loss and increases efficiency.

Turbulators inside the tubes increase structural strength and create a cyclone effect of flue gases maximizing heat transfer and efficiency.

New diaphragm design optimizes water flow and improves performance.

Non-metallic drain pan prevents corrosion caused by acidic condensate, unlike competitor's metal pans.



Advanced user interface, control and built-in hardware



User friendly smart control system. 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 for all information input.



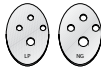
Built-in circuitry to connect a boiler pump, 3 zone pumps or 3 zone valves. With Navien's new PCB design you now have the ability to connect a boiler pump, 3 zone pumps or 3 zone valves, all integrated in the unit. No need to add extra zone panels.



Multiple venting options. Low exhaust gas temperatures allow use of PVC, CPVC, polypropylene (rigid and flexible) and stainless steel venting reducing installation time and costs. System can use 2" venting for up to 60', or up to 150' with 3" venting.



Dual Venturi and field gas convertibility. Dual Venturi system creates better combustion control and turndown ratio. Orifice for easy field gas convertibility from NG to LP. Conversion kit included with every NFB Series boiler.



Low gas pressure operation. Negative pressure regulating gas valve ensures maximum performance all the way down to 3.5" of water column on natural gas and 8" of water column on propane gas.



Space saving and lighter weight design. The sleek wall-hung design uses much less space and is substantially lighter than traditional floor standing boilers, making installations a lot easier.



Common vent up to 8 units and cascade up to 16 units

With Navien's cascading technology, when a unit gets up to capacity determined by the supply and return temperatures, the next unit will start to help meet the hydronic space heating requirements. This boiler sequence 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 NFB is dual certified for direct and non-direct venting applications.



NFB



NFB

NFB Series

NAVIEN WALL HUNG CONDENSING FIRE TUBE **BOILERS**

Navien NFB Series condensing boilers deliver cost effective solutions to a wide variety of applications



Before



After



- Single family residences
 - Multi family and condominiums
 - Office complexes
- Commercial buildings
 - Warehouses
- Restaurants and lodging



NFB Series fire tube boiler accessories

Boiler Accessory	Description	Part Number
	Zone 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	NaviLink™ PBCM-AS-001 Expansion Cable GXXX001659
	Common Vent Collar Kit	Common Vent Collar Kit 30014367A Includes Cascade Cable GXXX000546
	NFB Primary Manifold Kit	GFFM-MSOZUS-002
	Universal Temperature Sensor	GXXX001769
	Cascade Cable	GXXX000546
	Outdoor Sensor and Wire	30012950A

Boiler Accessory	Description	Part Number
	Commercial Neutralizer Up to 16 units	Commercial Neutralizer GXXX001325 Commercial Replacement Media GXXX001329
	Light Commercial Neutralizer Up to 6 units	Light Commercial Neutralizer GXXX001324 Light Commercial Replacement Media GXXX001328
	Residential Neutralizer	Residential Neutralizer 1 unit GXXX001322 Residential Replacement Media GXXX001323
	NaviClean™ Magnetic Filter for Boilers	GXXX001727
	Ready-Link® Rack Base (V3) and Add-on Rack(s)	Base (V3) GFFMKDIZUS-005 Add-on (V3) GFFMKDIZUS-006



NFB Series

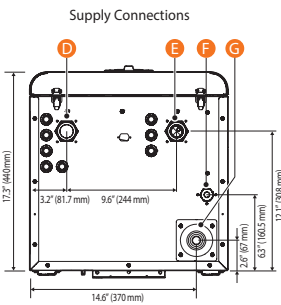
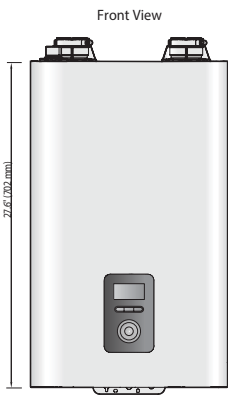
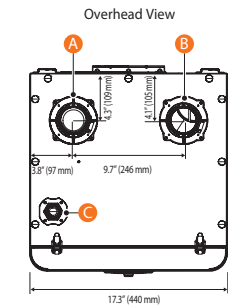
NAVIEN WALL HUNG CONDENSING FIRE TUBE BOILERS

NFB



NFB Series

Specifications



- Connection Size**
- A Air Intake \varnothing 2"
 - B Exhaust Gas Vent \varnothing 2"
 - C Air Vent Connection \varnothing 3/4"
 - D Heating Supply \varnothing 1-1/4"
 - E Heating Return \varnothing 1-1/4"
 - F Gas Connection \varnothing 3/4"
 - G Condensate Outlet \varnothing 1/2"

Item	Model	
	NFB-175	NFB-200
Dimensions	17.3" W x 17.3" D x 27.6" H	
Weight	123 lb (56 kg)	
Installation type	Indoor wall-hung	
Venting type	Forced draft direct vent	
Ignition	Electronic ignition	
Natural Gas supply pressure (from source)	3.5" to 10.5" WC	
Propane Gas supply pressure (from source)	8.0" to 13.5" WC	
Natural Gas manifold pressure	-0.05" to -0.70" WC	-0.05" to -0.20" WC
Propane Gas manifold pressure	-0.10" to -0.68" WC	-0.10" to -0.45" WC
Gas connection size	3/4" NPT	
Power supply	Main supply	120V AC, 60Hz
	Maximum power consumption	Up to 15 amperes
Materials	Casing	Cold-rolled carbon steel
	Heat exchangers	Stainless steel
Venting	Exhaust	2" or 3" PVC, CPVC, PP and SS 2" or 3" special gas vent type BH (Class III, A/B/C)
	Intake	2" or 3" PVC, CPVC, PP and SS 2" or 3" special gas vent type BH, (Class III, A/B/C)
	Vent clearance	0" to combustibles
Safety devices	Flame rod, APS ignition operation detector, water temperature high limit switch, exhaust temperature high limit sensor, water pressure sensor	

Navien reserves the right to change specifications at any time without prior notice.
Please refer to www.NavienInc.com to verify you have the most current information.



A WORLD LEADER IN TANKLESS WATER HEATERS, COMBI-BOILERS AND BOILERS



Ratings

Model Number ¹	Navien Condensing Boiler Space Heating Ratings					Other Specifications	
	Heating input (MBH)		Heating capacity ² (MBH)	Net AHRI rating water ³ (MBH)	AFUE ² (%)	Water pressure ⁴	Water connection size (supply, return)
	Min	Max					
NFB-175	17.5	175	161	140	12–80 psi	1-1/4" NPT	
NFB-200	19.9	199	183	159			

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

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

³The 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.

⁴30 psi water pressure relief valve is included as standard.



Navien certification summary

	Model	
	NFB-175	NFB-200
Product Approvals		
CSA	Yes	Yes
SCAQMD 1146.2 (NO _x , <20 ppm)	Yes	Yes
ASME	Yes "H" stamp	Yes "H" stamp
AHRI Number	10579977	201786061
Energy Star	Yes	Yes

Gas input ranges

Model	Range (BTU/H)	TDR
NFB-175	17,500–175,000	10:1
NFB-200	19,900–199,900	10:1

Warranty

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

*Applies to single family residential locations.

For complete details please refer to the full warranty at NavienInc.com.



NFB-C NAVIEN CONDENSING COMMERCIAL FIRE TUBE BOILERS

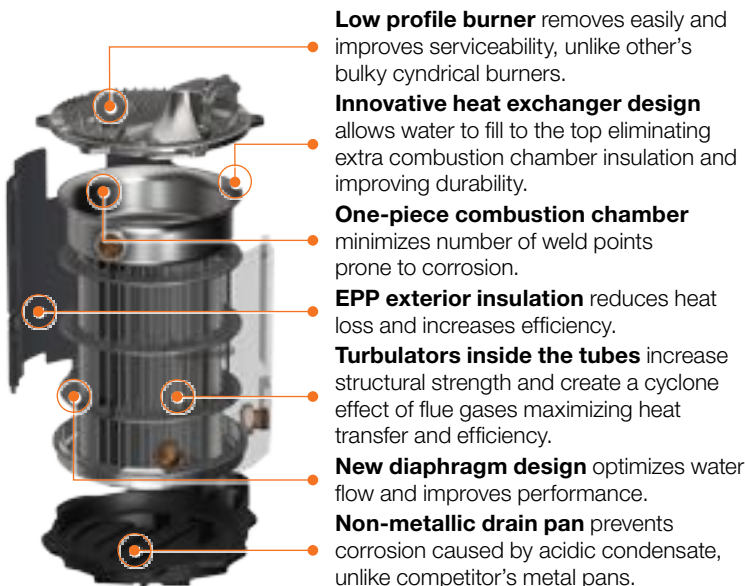
Navien's high efficiency fire tube condensing technology makes NFB-C hard to beat and the easy choice for today's commercial boiler installs

Human innovation meets robotic precision

- Robotic and automated manufacturing technology for unmatched quality control
- In-house designed and built components, for system matched compatibility...unlike most competitors who use the same out-sourced parts to build their boilers
- Lower installation costs with our innovative engineered compact wall hung design, intuitive controls, top or bottom piping connections and flexible venting options
- Lower operating costs with the industry's leading thermal efficiency at TE 97.5%...Energy Star approved
- Best-in-class training and technical support
- One of the industry's best warranties

Patented stainless steel fire tube HX

Navien's ASME-certified, "H" stamped stainless steel fire tube heat exchangers are in-house designed and built by the latest in robotic and automated technology, reducing high stress point weld failures common on other boilers.



TE 97.5%

FIRE TUBE STAINLESS STEEL HEAT EXCHANGER

TDR UP TO 15:1

BACNET/LONWORKS BMS COMMUNICATION CAPABLE

160 PSI ASME WORKING PRESSURE

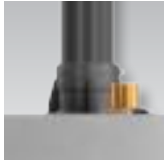
TOP & BOTTOM PIPING

OPTIONAL NavLink WI-FI CONTROL



NFB Series





Multiple venting options. Low exhaust gas temperatures allow use of PVC, CPVC, polypropylene (rigid and flexible) and stainless steel venting reducing installation time and costs. System can use 3" venting for up to 60', or up to 150' with 4" venting.



Dual Venturi and field gas convertibility. Dual Venturi system creates better combustion control and turndown ratio. Orifice for easy field gas convertibility from NG to LP. Conversion kits included with every NFB-C series boiler.



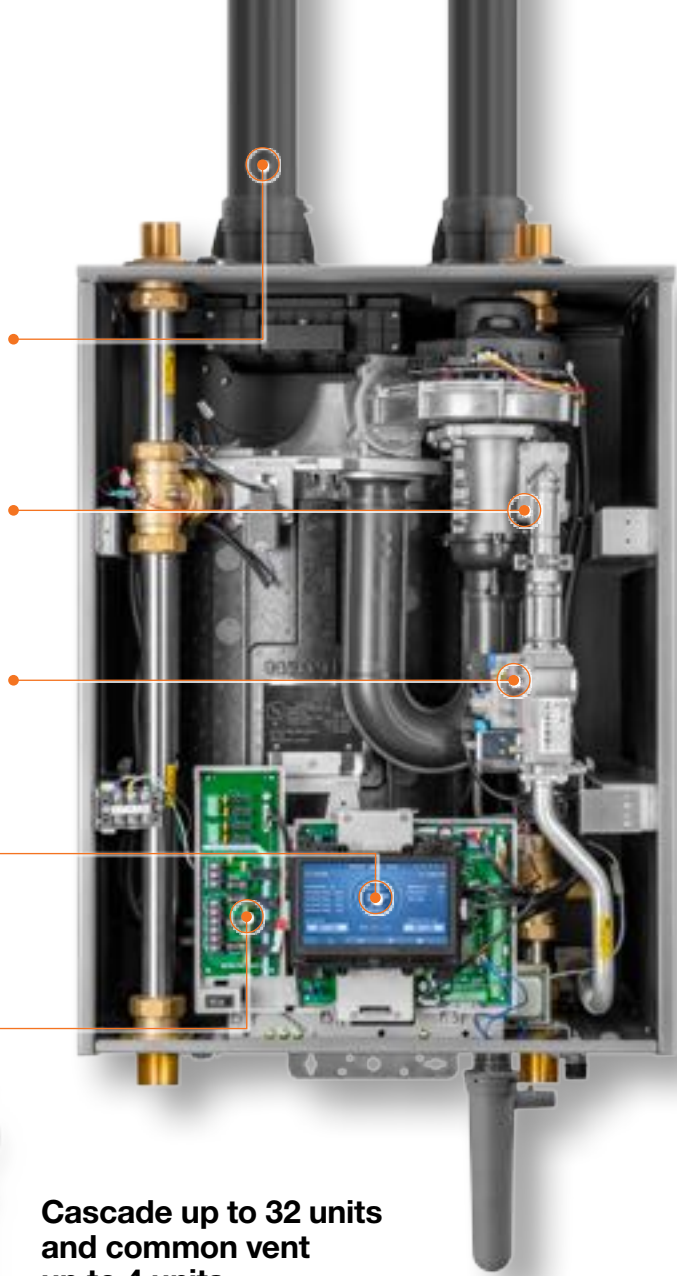
Low gas pressure operation. Negative pressure regulating gas valve ensures maximum performance all the way down to 3.5" of water column on natural gas and 8" of water column on propane gas.



Advanced controls. All system setup, operations and troubleshooting available at your fingertips with the 7" color display panel. Intuitive text information makes everything easier.



Built-in hardware connects boiler pump & 3 zone pumps. All integrated into the NFB-C circuit board. Also includes a DHW priority zone.



Cascade up to 32 units and common vent up to 4 units

With our cascading technology, when a unit gets up to capacity the next unit will start to help meet the hydronic heating requirements. This boiler sequence will continue until all units are generating the needed hydronic heat. The Navien cascading system also balances out the workload of each unit for longer life.





NFB-C

NFB-C Series

NAVIEN CONDENSING FIRE TUBE BOILERS COMMERCIAL

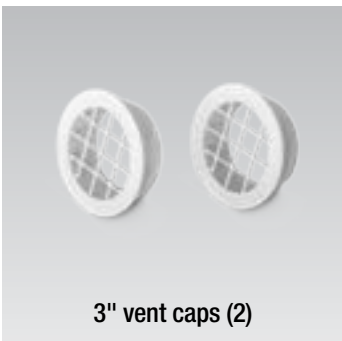
Every Navien NFB-C boiler comes with all these extra components... right in the box



Caps with gaskets



Double nipple
(3/4" to 3/4")



3" vent caps (2)



3" wall flanges (4)



Air vent



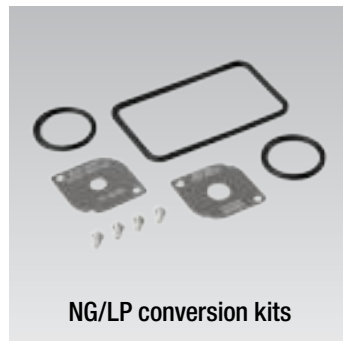
Wall mounting bracket



Tapping screws & anchors



50 PSI pressure relief valve



NG/LP conversion kits



Outdoor temp sensor & cable



PRV and air vent
adapter & clip



Condensate trap



Universal temp sensor & clip



Air vent bushing
(1-1/2" to 3/4")

NFB-C Series fire tube commercial boiler accessories

Boiler Accessory	Description	Part Number
	Zone 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	NaviLink™ PBCM-AS-001 Expansion Cable GXXX001659
	NFB-C Common Vent Collar Kit Required for cascade/common vent installations	30022799A Includes cascade cable GXXX000546 and common vent collar damper
	Pressure Relief Valves	75 PSI GXXX001931 150 PSI GXXX001946
	Universal Temperature Sensor	GXXX001769
	Cascade Cable	GXXX000546

Boiler Accessory	Description	Part Number
	Commercial Neutralizer Up to 16 units	Commercial Neutralizer GXXX001325 Commercial Replacement Media GXXX001329
	Light Commercial Neutralizer Up to 6 units	Light Commercial Neutralizer GXXX001324 Light Commercial Replacement Media GXXX001328
	Modbus/BACnet Gateway & Power Adaptor	GXXX001932
	LonWorks Gateway & Power Adaptor	GXXX001933
	Ready-Link® Commercial Rack System Base and add-on will include pipe support brackets	Base GFFM-KDIZUS-007 Add-on GFFM-KDIZUS-008



NFB-C

NFB-C Series

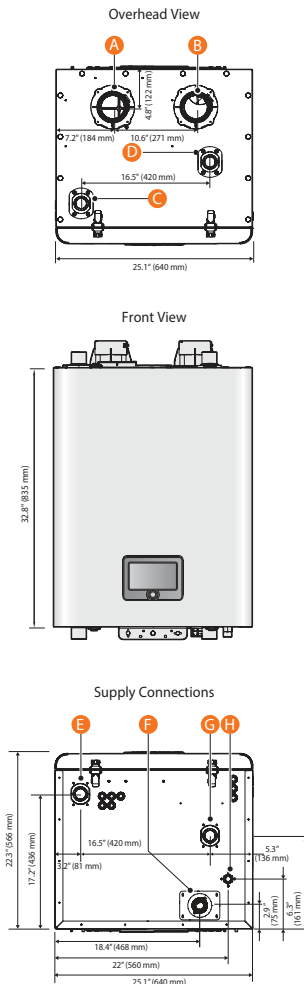
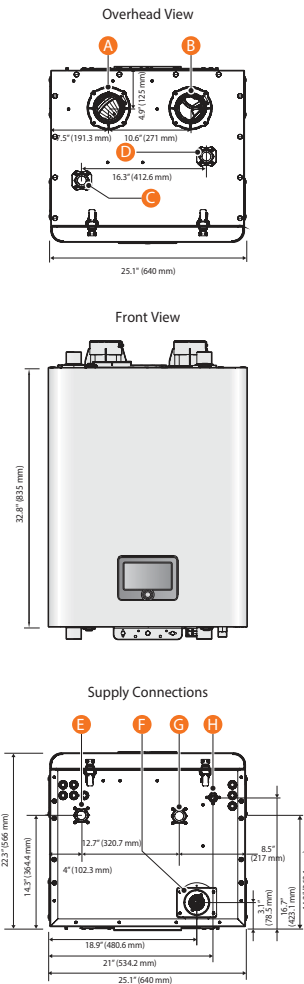
NAVIEN CONDENSING FIRE TUBE BOILERS COMMERCIAL



NFB-301C

NFB-399C

Specifications



Item	Model	
	NFB-301C	NFB-399C
Dimensions	25.1" W x 22.3" D x 32.8" H	
Boiler weight	Empty	243 lb (110 kg)
	With water	307 lb (139 kg)
Installation type	Indoor wall-hung	
Venting type	Forced draft direct vent and non-direct vent (single pipe)	
Ignition	Electronic ignition	
Natural Gas supply pressure (from source)	3.5" to 10.5" WC	
Propane Gas supply pressure (from source)	8.0" to 13.5" WC	
Natural Gas manifold pressure	-0.06" to -0.87" WC	-0.03" to -1.85" WC
Propane Gas manifold pressure	-0.01" to -0.92" WC	-0.01" to -0.90" WC
Gas connection size	3/4" NPT	
Power supply	Main supply	120V AC, 60Hz
	Maximum power consumption	Less than 12 amperes
Materials	Casing	Cold-rolled carbon steel
	Heat exchangers	Stainless steel
Venting	Exhaust	3" or 4" PVC, CPVC, PP and SS 3" or 4" special gas vent type BH (Class III, A/B/C)
	Intake	3" or 4" PVC, CPVC, PP and SS 3" or 4" special gas vent type BH (Class III, A/B/C)
	Vent clearance	0" to combustibles
Safety devices	Flame Rod, APS, LWCO, water temperature high limit switch, exhaust temperature high limit sensor, water pressure sensor	

Navien reserves the right to change specifications at any time without prior notice. Please refer to www.NavienInc.com to verify you have the most current information.

Connection Size NFB-301C

- A Air Intake ϕ 3"
- B Exhaust Gas Vent ϕ 3"
- C PVR-Air Vent Connection (Optional Heating Supply) ϕ 1-1/4"
- D Optional Heating Supply Return ϕ 1-1/4"
- E Heating Supply ϕ 1-1/4"
- F Condensate Outlet ϕ 3/4"
- G Heating Return ϕ 1-1/4"
- H Gas Connection ϕ 3/4"

Connection Size NFB-399C

- A Air Intake ϕ 3"
- B Exhaust Gas Vent ϕ 3"
- C PVR-Air Vent Connection (Optional Heating Supply) ϕ 1-1/2"
- D Optional Heating Supply Return ϕ 1-1/2"
- E Heating Supply ϕ 1-1/2"
- F Condensate Outlet ϕ 3/4"
- G Heating Return ϕ 1-1/2"
- H Gas Connection ϕ 3/4"





Ratings

Navien Commercial Condensing Boiler Space Heating Ratings					Other Specifications			
Model Number ¹	Heating input (MBH)		Heating capacity ² (MBH)	Net AHRI rating water ³ (MBH)	Thermal Efficiency ² (%)	Boiler water content (gallons)	Water pressure (PSI)	Water connection size (supply, return)
	Min	Max						
NFB-301C	20	301	293	255	97.5	7.6	12-160	1-1/4 in NPT
NFB-399C	26	399	389	338	97.5	9.6		1-1/2 in NPT

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.



Navien certification summary

	Model	
	NFB-301C	NFB-399C
Product Approvals		
CSA	Yes	Yes
SCAQMD 1146.2 (NOx <20 ppm)	Yes	Yes
ASME	Yes "H" stamp	Yes "H" stamp
AHRI Number	201925233	201928625
Energy Star	Yes	Yes

Gas input ranges

Model	Heating (MBH)	TDR
NFB-301C	20–301	15:1*
NFB-399C	26–399	15:1*

*15:1 single boiler; 10:1 individual boilers when cascaded.

Temperature setting range

Item	Temperature Setting Range	
Space Heating	Supply	77–194°F (25–90°C)
	Return	68–158°F (20–70°C)

Warranty

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

*12 years full plus 3 years prorated.

For complete details please refer to the full warranty at NavienInc.com.



GLOBAL Technology LOCAL Solutions

Contact your local Navien representative to learn how Navien technology is bringing the most energy efficient hot water and heating solutions to homes and businesses in North America. Besides supplying these innovative systems, Navien provides extensive field support, webinars and training events to builders, architects and contractors



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A WORLD LEADER IN TANKLESS WATER HEATERS, COMBI-BOILERS AND BOILERS