NFB700-C Series

NAVIEN

NEW NFB700-C Commercial Condensing FireTube Boilers

High capacity, energy-efficient
heating solutions for commercial applications



NFB700-C commercial fire tube boilers

VISION AWARDS 2026 WINNER facilitiesnet

The NFB700-C combines advanced fire tube, stainless steel heat exchanger technology, with robust safety and flexible installation features. It's durable, eco-friendly design is a smart, cost-effective choice for large scale heating applications.

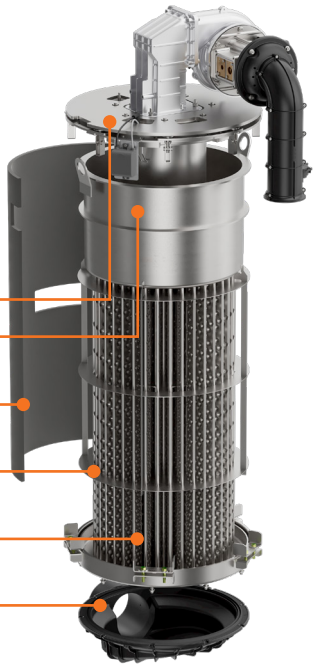


- TE 97.5% — Lower operating costs with outstanding thermal efficiency of 97.5%*.
- UP TO 15:1 TDR — Advanced gas control system reduces energy waste and excessive boiler cycling.
- Advanced stainless steel fire tube heat exchanger.
- Smart controls with 10.1" color touch display and built-in Wi-Fi connectivity.
- NG to LP field convertible and dual Venturi for consistent air-to-gas ratio.
- Capable of cascading up to 8 boilers and common venting up to 4 boilers.
- NOx — Low NOx at less than 20ppm.
- 1M BTU H — Proven controls and technology in boiler capacity up to 1,000 MBH.

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

Stainless steel fire tube heat exchanger

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 to maximize quality.



Pre-mix burner, easy to remove and service.

Advanced heat exchanger design transfers heat evenly from top to bottom, reducing hot spots.

Included insulation on the heat exchanger exterior to reduce thermal loses and improve efficiency.

New diaphragm design optimizes water flow and improves performance.

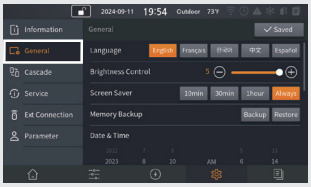
Dimpled fire tubes increase structural strength and enhances heat transfer rates.

Non-metallic drain pan prevents corrosion from acidic condensate.

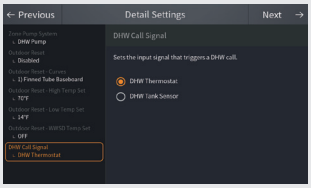
10.1" touchscreen control panel with intuitive setup software



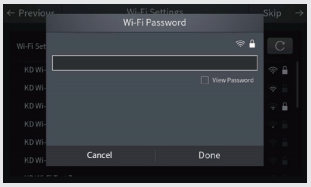
Navien Startup Wizard makes navigating through the setup operations and troubleshooting simple.



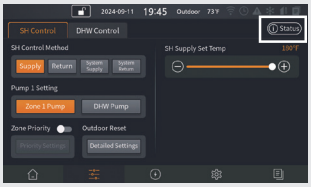
Set your language, date, time, and temperature easily with a tap on the screen.



Customize your system with pump settings, outdoor reset/curves, outdoor high/low temperature and WWSD functions.



WiFi mobile app, and QR code for registration are all built into the system.



The extensive clear text service feedback also helps troubleshoot most issues.

An inside look at the NFB700-C

Hinged side and top access panels. Time-saving serviceability without the hassle of removing and replacing panel screws.

Navien's advanced combustion system offers a consistent burn across a wide range of gas pressures, resulting in maximum performance down to 3.5" of water column on natural gas, and 8" on propane.

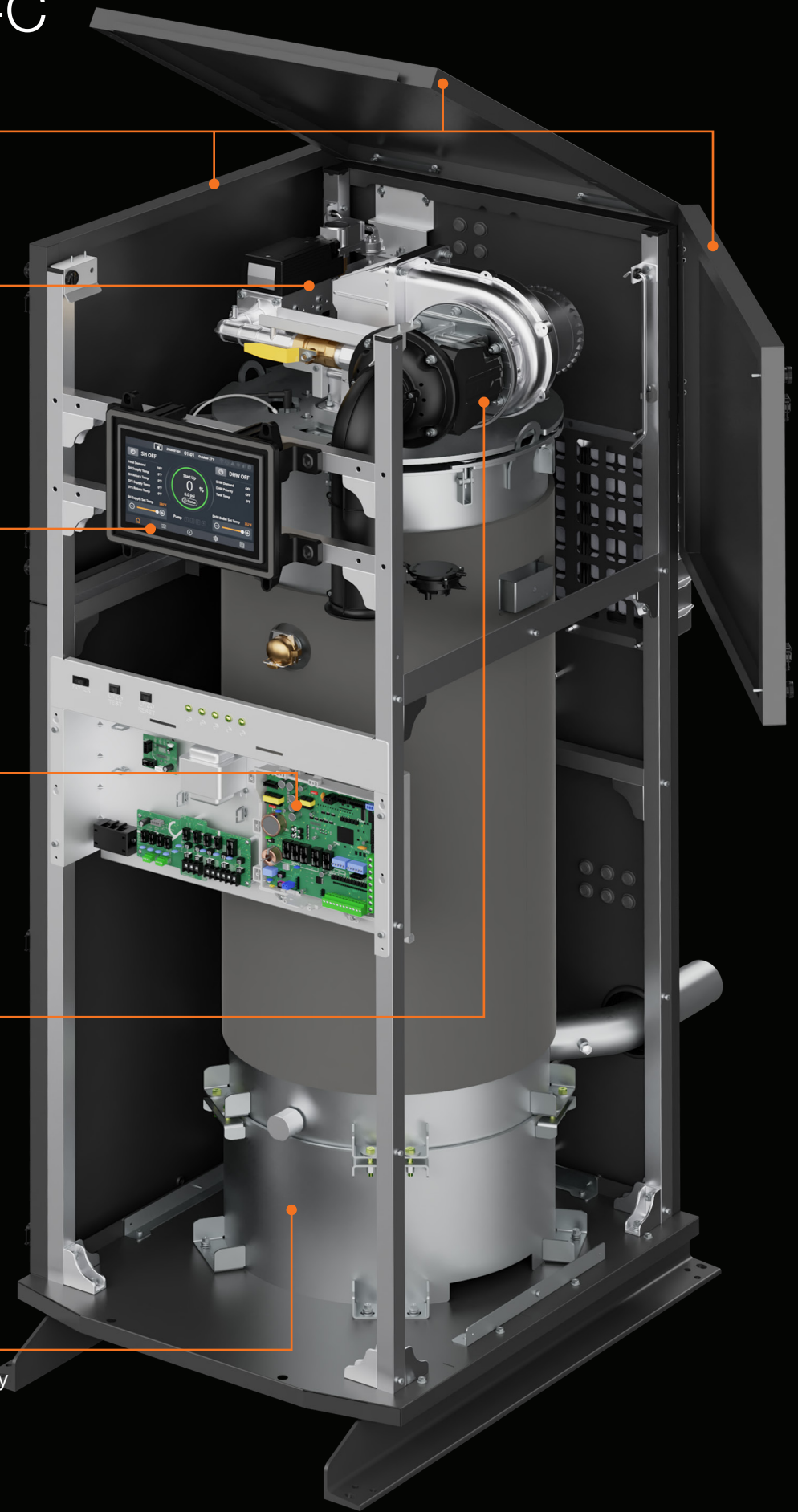
Smart controls. All system setup, operations and troubleshooting available at your fingertips with the 10.1" color display panel, intuitive text information makes everything easier.

Built-in hardware connections for a boiler pump and 4 zone pumps. All integrated into the NFB700-C circuit board, including DHW priority zone and air handler. Connections for BMS systems using the gateway accessory.

Dual Venturi and field gas convertibility. Dual Venturi system creates better combustion control and turn down ratio. Easy field gas convertibility from NG to LP and high altitude. Conversion kits included with every NFB700-C boiler.



Stainless steel heat exchanger. Navien designed and built with vertically integrated manufacturing for better quality control.



A great solution for new and retrofit

The NFB700-C boiler series is an extension of the Navien condensing high-efficiency commercial fire tube boiler lineup

These new compact high-performance models include 4 additional capacities, from 500 MBH up through 1,000 MBH in a single boiler. With capacity and installation flexibility on one or multiple units, these new boilers are the perfect solution for new construction and replacement applications in small and larger commercial buildings.

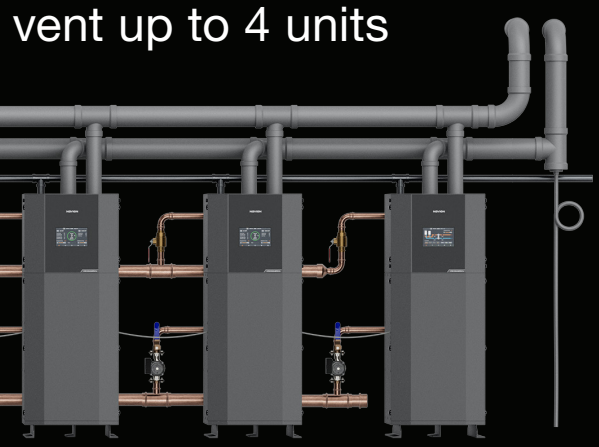






commercial heating applications

vent up to 4 units



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

Customer support and advanced training makes Navien a smart choice for your next commercial heating application

Besides supplying the most 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.





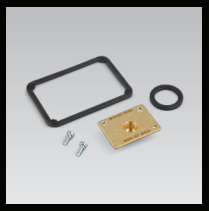
NFB700-C is the total package

Included parts


Air Vent


Pressure Relief Valve (50 psi)


Propane Conversion Kit for High Elevation


Natural Gas Conversion Kit for High Elevation


Universal Temperature Sensor & Bulbwell Kit


Outdoor Temperature Sensor and Cable


Temperature and Pressure Gauge


Vent Support Kit


Condensate Trap Kit


Flue Gas Vent Kit

Accessories


Universal Temperature Sensor
GXXX001769


Cascade Cable
GXXX000546


Common Vent Damper
4": GXXX002990
6": GXXX002991


Standard Commercial Condensate Neutralizer Tank
GXXX002366


Extra Large Condensate Neutralizer Tank for Cascade Systems
GXXX002367


Modbus/BACnet Gateway & Power Adapter
GXXX001932


LonWorks Gateway Power Adapter
GXXX001933


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

Navien certification summary

Product Approvals	NFB700-500C	NFB700-600C	NFB700-800C	NFB700-1000C
CSA	Yes	Yes	Yes	Yes
SCAQMD 1146.2 (NOx, <20 ppm)	Yes	Yes	Yes	Yes
ASME	Yes “H” stamp	Yes “H” stamp	Yes “H” stamp	Yes “H” stamp
AHRI number	217547744	217547745	217547746	217547747
Energy Star	Yes	Yes	Yes	Yes

NFB700-C is easy to install and easy to maintain

Built-in low water cutoff (LWCO) sensor prevents boiler operation when water level is insufficient, protecting heat exchanger from overheating.

Fully modulating metal fiber pre-mix burner.

Heavy duty air intake filter.
Easy access commercial grade air filter for cleaning and replacement.



Air intake.

Gas connection.

Heating supply.

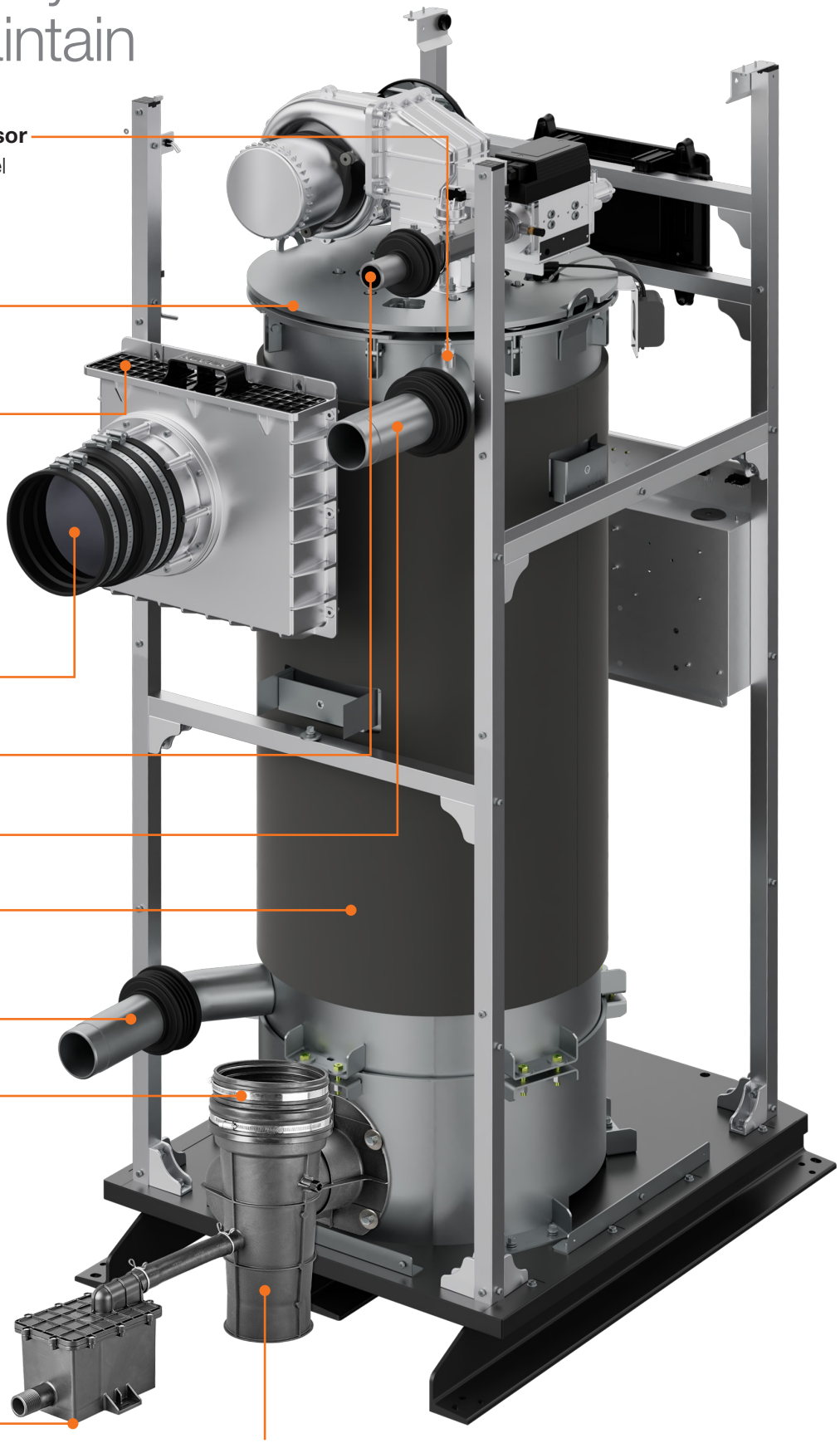
Stainless steel fire tube heat exchanger.

Heating return.

Multiple venting options.
Low exhaust gas temperatures allow use of PVC, CPVC, stainless steel, rigid/flexible polypropylene and venting, reducing installation time & costs.



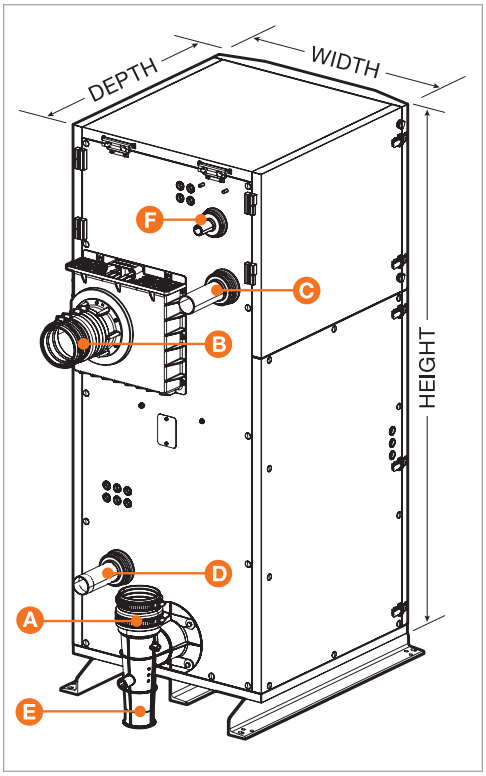
Factory-supplied condensate trap
with condensate hose, tapping screws and anchors.



Exhaust flue gas vent kit.
NFB700-500/600C units can use 4" venting up to 150'.
NFB700-800/1000C units can use 6" venting up to 150'.

Dimensions

Model	Depth in (mm)	Width in (mm)	Height in (mm)
NFB700-500C NFB700-600C	31.0 (787)	28.3 (719)	72.1 (1831)
NFB700-800C NFB7000-1000C	33.0 (838)	28.3 (719)	73.3 (1863)



Supply connections

Description		NFB700-500C NFB700-600C	NFB700-800C NFB700-1000C
A	Exhaust gas vent	4 in	6 in
B	Air intake	4 in	6 in
C	Heating supply	2 in	2.5 in
D	Heating return	2 in	2.5 in
E	Condensate outlet	1 in	1 in
F	Gas connection	1 in	1.25 in

Warranty

Coverage Table for Heat Exchanger & Parts Only	
Commercial	
Heat exchanger	10 years
Parts	3 years

Navien's warranty (which may be changed without prior notice) is subject to the terms and conditions found at www.navieninc.com/warranties.

Temperature setting range

Item		Temperature Setting Range	Remarks
Space heating	Supply	77–190°F (25–88°C)	Actual supply and return temperatures vary depending on the selected outdoor reset curve.
	Return	68–158°F (20–70°C)	

General specifications

Item		NFB700-500C	NFB700-600C	NFB700-800C	NFB700-1000C
Dimensions		28.3 in (W) x 31.0 in (D) x 72.1 in (H)		28.3 in (W) x 33.0 in (D) x 73.3 in (H)	
Boiler weight		622 lb (282 kg)		750 lb (340 kg)	
Boiler weight with water		843 lb (382 kg)		1059 lb (480 kg)	
Installation type		Floor standing			
Venting type		Forced draft direct vent			
Ignition		Electronic ignition			
Natural gas supply pressure (from source)		3.5 in-10.5 in WC			
Propane gas supply pressure (from source)		8.0 in-13.0 in WC			
Natural gas manifold pressure		-0.01 to -0.3 in WC		-0.01 to -0.5 in WC	
Propane gas manifold pressure		-0.01 to -0.3 in WC		-0.01 to -0.2 in WC	
Gas connection size		1 in NPT		1.25 in NPT	
Power supply	Main supply	120 V AC, 60 Hz			
	Maximum power consumption	Less than 12 amperes			
Materials	Casing	Cold-rolled carbon steel			
	Heat exchangers	Stainless steel			
Venting	Exhaust	4 in PVC, CPVC, approved polypropylene, approved stainless steel 4 in special gas vent Type BH (Class III, A/B/C)		6 in PVC, CPVC, approved polypropylene, approved stainless steel 6 in special gas vent Type BH (Class III, A/B/C)	
	Intake	4 in PVC, CPVC, polypropylene, stainless steel 4 in special gas vent Type BH (Class III, A/B/C)		6 in PVC, CPVC, polypropylene, stainless steel 6 in special gas vent Type BH (Class III, A/B/C)	
Safety devices		Flame rod, APS, ignition operation detector, water temperature high limit sensor, exhaust temperature high limit sensor, LWCO (low water cut off), high gas pressure switch, low gas pressure switch			
Certifications					

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.

Space heating specifications

Navien Commercial Condensing Boiler Space Heating Ratings							Other Specifications	
Model number[1]	Heating input (MBH)		Gross output[2] (MBH)	Net AHRI rating water[3] (MBH)	Thermal efficiency[2] (%)	Boiler water content (Gal)	Water pressure (PSI)	Water connection size Min. Max (Supply return)
	Min.	Max.						
NFB700-500C	40	499	487	423	97.5	26.5	12–160	2 in NPT
NFB700-600C	40	599	584	508				
NFB700-800C	66	799	779	677		37.0		2.5 in NPT
NFB700-1000C	66	999	974	847				

[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 system, etc.

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 or contact your local Navien representative.

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