



QuickFacts

NFB700-C Series

Commercial Condensing Fire Tube Boilers

Product Features



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.



Low NOx at less than 20ppm.



Proven controls and technology in boiler capacity up to 1,000 MBH.



An Inside Look at the NFB700-C From the Front and the Back

Hinged side and top access panels for time-saving serviceability.

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

Smart intuitive controls. All system setup, operations and troubleshooting available at your fingertips with the 10.1" color display.

Built-in hardware connections and circuitry for a boiler pump and 4 zone pumps, including DHW priority zone and air handler. Connections for BMS using the gateway accessory.

Stainless steel heat exchanger with high-efficient insulated jacket. Navien designed and built with vertically integrated manufacturing for better quality control.

Dual Venturi and field gas convertibility creates better combustion control and turn down ratio. Easy field gas convertibility from NG to LP and high altitude with included conversion kits.



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

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.

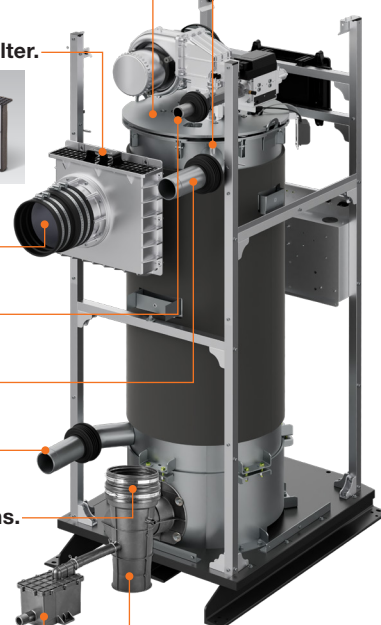
Heating return.

Multiple venting options.

Low exhaust temps allow PVC, CPVC, stainless steel, and rigid/flexible polypropylene venting.



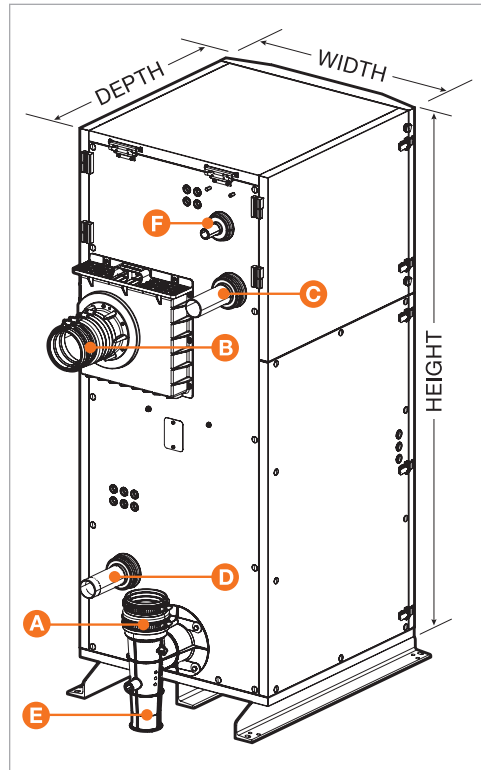
Factory-supplied condensate trap kit.



Exhaust fuel 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	31.0	28.3	72.1
NFB700-600C	(787)	(719)	(1831)
NFB700-800C	33.0	28.3	73.3
NFB7000-1000C	(838)	(719)	(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.

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.

We are @Navieninc everywhere



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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				
NFB700-1000C	66	999	974	847				

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 system, etc.

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