



Quick Facts

NFB700-C Series

Commercial Condensing Fire Tube Boilers

Product Features



Advanced patented stainless steel fire tube heat exchanger.



Capable of cascading up to 8 boilers and common venting up to 4 boilers.



Smart controls with 10.1" color touch display and built-in Wi-Fi connectivity.



Low NOx at less than 20ppm.



NG to LP field convertible and dual Venturi for consistent air-to-gas ratio.



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.

Patented 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.

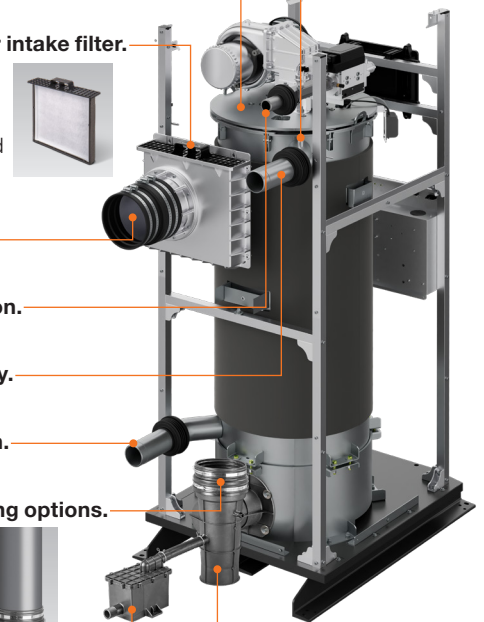
Heating supply.

Heating return.

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

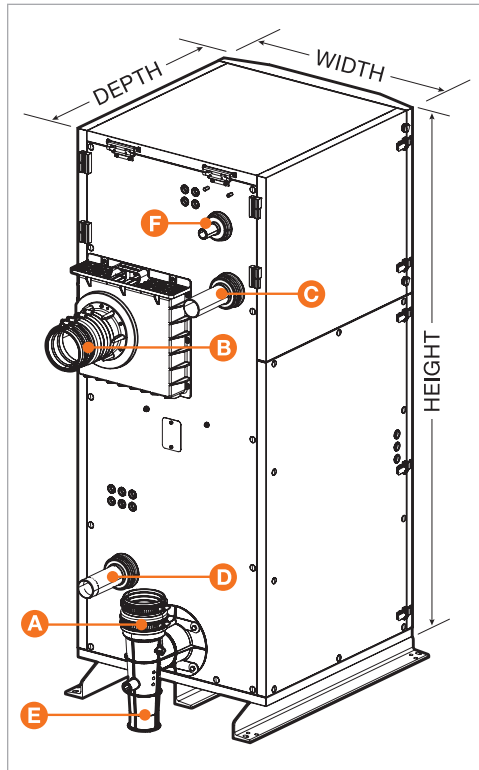
Factory-supplied condensate trap kit.

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) |



Temperature Setting Range

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

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.

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 |

Space Heating Specifications

| Model number ¹ | Navien Commercial Condensing Boiler Space Heating Ratings | | | | Thermal efficiency ² (%) | Boiler water content (Gal) | Water pressure (PSI) | Water connection size Min. Max (Supply return) |
|---------------------------|---|------|---------------------------------|--|-------------------------------------|----------------------------|----------------------|--|
| | Heating input (MBH) | | Gross output ² (MBH) | Net AHRI rating water ³ (MBH) | | | | |
| | 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 | | |
| 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.

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.

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 |

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 www.navieninc.com or contact your local Navien representative.

We are @Navieninc everywhere



Navien, Inc. www.navieninc.com 800-519-8794
20 Goodyear, Irvine, CA 92618

Navien Canada, Inc. www.navieninc.ca 800-519-8794
555 Hanlan Rd., Unit 7, Vaughan, ON L4L 4R8

