

LIST PRICE SHEET

Effective September 1, 2017

FREE FLEX CONDENSING BOILERS

Hot Water • Natural Gas¹ • 95% Thermal Efficiency • Max 160 PSI / 210°F
ASME Section IV Approved, ETL Certified and ASME CSD-1 Compliant

Model Sizes	Input (MBH)	Gross Output (MBH)	Thermal Efficiency	Standard Gas Pressure			Supply & Return Connections	Standard Vent Size/Equiv. Ft.	Standard Air Intake Size/Equiv. Ft.	Shipping Weight (lbs)	List Price
				NG (Min)	LP (Min)	(Max)					
FF-1000	1,000	950	95.0%	4.0" wc	TBD ¹	14.0" wc	3" Victaulic	6" / 100 ft	6" / 100 ft	1,620	\$19,692
FF-1500	1,500	1,425	95.0%	7.0" wc	TBD ¹	14.0" wc	3" Flanged	8" / 100 ft	8" / 100 ft	2,560	\$27,625
FF-2000	2,000	1,900	95.0%	7.0" wc	TBD ¹	14.0" wc	3" Flanged	8" / 100 ft	8" / 100 ft	2,560	\$31,875
FF-2500	2,500	2,375	95.0%	7.0" wc	TBD ¹	14.0" wc	3" Flanged	10" / 100 ft	10" / 100 ft	3,060	\$40,375
FF-3000	3,000	2,850	95.0%	7.0" wc	TBD ¹	14.0" wc	3" Flanged	10" / 100 ft	10" / 100 ft	3,060	\$46,750

1. Available with Natural Gas only. LP gas-firing to be determined - Consult Factory.

BOILER OPTIONS			
Description		Part Number	List Price
• Reverse Construction (FF-1500 - 3000 only).....			\$449
• <u>Knockdown Configurations</u> :	- KD-1 - Ships with jacket, flue collector/heat exchanger and base in separate cartons.		\$2,833
(FF-1500 - 3000 only)	- KD-2 - Ships with jacket, flue collector, tubes, burner, stack, lower tube rail, and base in separate cartons.		\$3,542
	- KD-3 - Configured to suit job application		Consult Factory
→ Boilers are fully assembled, firetested, then disassembled per the knockdown configuration above.			
→ KD-1 & KD-2, add 1 week on lead-time and add 2 weeks on more than 3 units. KD-3 consult factory.			
OPTIONAL EQUIPMENT (Shipped Loose Unless Otherwise Noted)			
Description		Part Number	List Price
• EMS Signal Converter	- Converts BMS signal (0-10v) to 4-20mA, Shop Mounted & Wired	107183-01	\$438
• Alarm Buzzer with Silencing Switch (24v), Shop Mounted & Wired		107216-01	\$207
• <u>Communications Gateway</u> :	- BACnet IP, BACnet MS/TP, Metasys N2 Open	106432-02	\$904
	- LonWorks	106433-02	\$904
→ One (1) Universal Communications Gateway can be used on multiple boilers; Up to 8 units.			
• Condensate Neutralizer Kit	- 1,200 MBH Capacity	107860-01	\$139
	- 2,000 MBH Capacity	107860-02	\$185
	- 4,000 MBH Capacity	107860-03	\$254
• <u>Sensors</u> :	- Remote System Header Sensor, Direct Immersion	101935-01	\$89
	- Remote System Header Sensor, Well-Mounted	105685-01	\$33
	- Well, Brass 1/2" NPT (System Header Sensor)	105684-01	\$21
	- Outdoor Air Sensor	801SOL0012	\$89
	- *Outdoor Air Sensor Kit, Wireless	106035-01	\$259
* Wireless required if using remote header sensor on (1) Free Flex boiler; only one wired connection for both functions			
• <u>Motorized Isolation Valves</u> :	- 2" (FF-1000)	107351-01	\$1,708
	- 3" (FF-1500 - 3000)	107351-02	\$1,757
• Grooved Fitting-to-Flange Transition Piece (FF-1000 Return/Supply Connections), Shop Mounted		107522-01	\$145
• <u>Tube Replacement Tools</u> :	- Tube Puller	106019-02	\$184
	FF-1000		
	FF-1500 - 3000	106019-06	\$280
	- Tube Driver	106019-01	\$67
	FF-1000		
	FF-1500 - 3000	106019-05	\$115
→ Sledgehammer to be used shall be approx. 3 lbs steel head			

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STANDARD BOILER EQUIPMENT

PRESSURE VESSEL DESIGN

ASME certified stainless steel heat exchanger
ASME Section IV-certified, "H" Stamp
MAWP 160 PSIG & max temp 210°F
Ten Year limited heat exchanger warranty
Lifetime thermal shock warranty

ELECTRICAL DESIGN

120v/60hz/1ph power supply
208-240v/60hz/1ph power supply (1500 to 3000)
208-240-460v/60hz/3ph power supply (2000 to 3000)
24v low voltage control

COMBUSTION DESIGN

Stainless steel mesh pre-mix burner
Low NOx emissions capable
Full modulation, 5:1 turndown
Natural gas (consult factory on LP gas)
4" wc to 14" wc inlet gas pressure
Direct spark ignition system/UV scanner
Hi/Lo gas pressure switches, man. reset (CSD-1)
Variable speed combustion blower
Air proving switch

VENTING/AIR INTAKE

Air intake – ducted or room air
Category IV venting w/ engineered vent system
Category II common venting w/ engineered vent system

BOILER EQUIPMENT

Concert Boiler Control™ (24 Vac)
High limit safety temp control, manual reset (CSD-1)
Low water cutoff, manual reset (CSD-1)
Water flow switch
Supply & return water temperature sensors
Flue gas temperature sensor
Air vent valve
Condensate trap
Blocked Condensate Switch
Blocked Vent Air Switch
Pressure & temperature gauge
ASME safety relief valve 50 psig
(optional 30,60,75,100,125, or 150 psig)

STANDARD CONCERT CONTROL FEATURES



Dashboard - Color Touchscreen Display, 7.0"

- Intuitive Icon Navigation
- "Quick" Setup Menus
- *Real Time BTU/H Display

Two (2) Temperature Demand Inputs

- Outdoor Air Reset Curve for Each Input
- Time of Day Setback Capability
(Enviracom Thermostat must be installed)

Three (3) Pump Control

- Boiler Pump With On/Off or Variable Speed Control
- Domestic Hot Water (DHW) Pump
- System Pump
- Alternative Control to Isolation Valve, Combustion Air Damper or Standby Loss Damper
- Pump Overrun for Heat Dissipation
- Pump Exercise
- Pump Rotor Seizing Protection

Peer-to-Peer Boiler Communications

- Multiple Size Boiler Sequencing Up to 8 Units
- *Two (2) Boiler Start/Stop Trigger
- Lead Boiler Automatic Rotation

* Unique to Bryan Boilers

Energy Management System (EMS) Interface

- *Firing Rate and Water Temperature Based Algorithms for Multiple Boilers; loss of EMS signal defaults to local boiler settings
- 4-20mAdc Input/Output (0-10Vdc Optional Converter)
- ModBus Input/Output (BACnet or LonWorks Optional Gateway)
- Simultaneous Interface with Peer-to-Peer

* USB Data Port Transfer

- Upload Settings Between Boilers
- Download Parameters for Troubleshooting
- Import Data into .CRV Formatted Files for Performance Analysis

Unmatched Archives

- Historical Trends - Collects Up to 4 months Data
- Event History - Up to 3000 Alarms, Lockouts & Cycle / Run Times
- Alarm - Limit String Faults, Holds, Lockouts and Others
- Cycle & Run Time - Boilers & Pumps
- Resettable (Lockouts/Alarms/Cycles & Run Time)

Domestic Hot Water Priority

- DHW Tank Piped With Priority in the Boiler Loop
- DHW Tank Piped as a Zone in the System With the Pumps Controlled by the Concert Control
- DHW Modulation Limiting
- Status Screens
- Sensor Monitoring and Control

Energy Efficiency Enhancer

- Anti-Cycling Technology
- Multiplier boiler base load common rate
- Outdoor Air Temperature Reset Curve
- Warm Weather Shutdown
- Boost Temperature & Time
- Ramp Delay
- Over-Temperature Safeguarding

Self-Guiding Diagnostics

- Identifies Fault
- Describes Possible Problems
- Provides Corrective Actions
- *Time/Date Stamp on Alarms & Lockouts

Other Features

- *Factory Default Settings
- Three Level Password Security
- Frost Protection
- Contractor Contacts (Up to 3)
- Low Water Flow Control & Indication
- Proportion Integral Derivative (PID) Parameters for Central Heat, DWH, Sequencer and Fan
- Built-in Brown-Out Protection