

FREE FLEX

Ultra-High Efficiency Commercial Condensing Boilers

3500 - 6000 MBH



Free to Move

- **95% AHRI-Certified Efficiency**
- **Tru-0₂ High Turndown**
- **Fully Field Repairable**
- **Packaged or Knock-down**
- **Lifetime Thermal Shock Warranty**

BTM **BRYAN**[®]
BOILERS

Designed and Manufactured in the U.S.A.

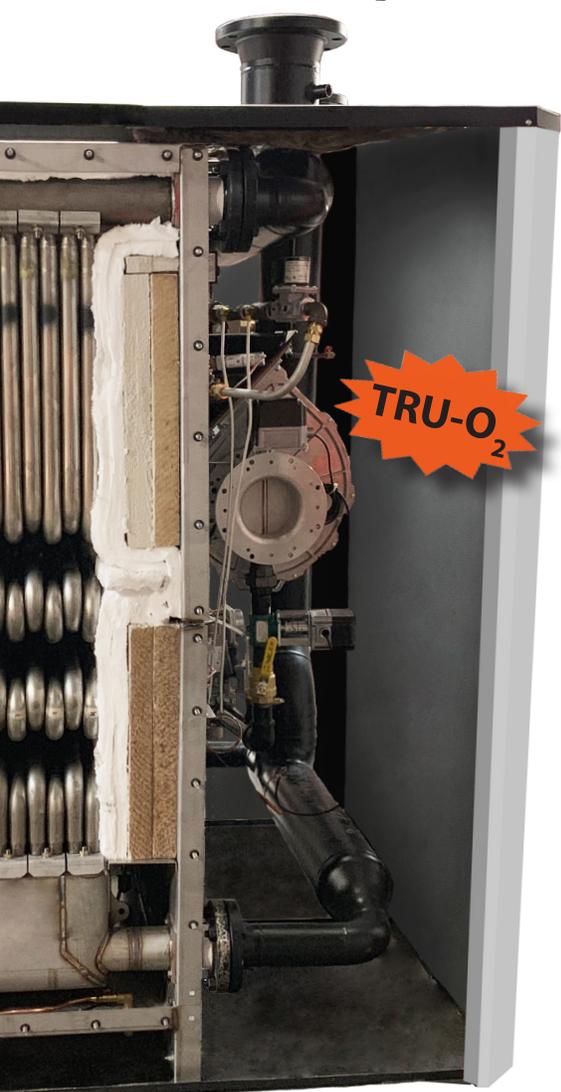


Reliability, and Serviceability.

... is... a LIFETIME. Our cornerstones of LONGEVITY, RELIABILITY, and SERVICEABILITY are part of every Bryan "Free Flex" replicas exhibiting endless welds and non-repairable or stationary tube sheets at odds with burner technology. The guarantee against thermal shock where no other competitive welded product dare go beyond 10 years. Our "Free Flex" allows for an industry first - field replacement of tubes and an optional knockdown configuration to go from a 20:1 turndown system up to 20:1.

FREE TO MOVE!

Our "Free Flex" boiler beats our exclusive flexible watertube. It is designed to handle temperature differentials and boilers operating at temperatures approaching 2000°F and drastically reduce thermal expansion by allowing for movement on welds to hold back this movement. Our inclined flex tubes allow for natural circulation, mixing of fluids, and separation of solids.



Lifetime Thermal Shock Guarantee

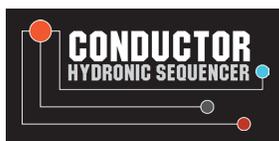
A swaged mechanical fit, free of welds, seals the tube to header allowing for simple and quick tube replacement should repairs ever be required. Not only is "Free Flex" the only repairable condensing boiler on the market, it is also backed by Bryan's Thermal Shock Lifetime Seal Guarantee. Only Bryan can provide this assurance because we know our seal has worked for a century.



State-Of-The-Art Control System

Whether it be stand-alone, sequencing multiple boilers and/or communicating with a building management system, the Concert™ Boiler Control "checks all the boxes" for today's needed control features and functions:

- Large 7" color touch screen display
- 20:1 Turndown
- Two (2) temperature demand inputs
- Three (3) pump control
- Up to 8 unit boiler sequencing
- BMS interface
 - 4-20mA standard / 0-10v optional
 - Modbus standard
 - BacNET, Lonworks & other optional protocols
- USB data sharing port
- Energy efficiency enrichment technology
- Built-in diagnostics
- Huge archive database
- Time/date stamp on alarms and lockouts
- Domestic water priority
- Factory default settings
- Three level password security
- Frost protection
- Boiler sensor monitoring and control
- Low water flow safety control and indication
- Proportion integral derivative (PID) parameters
- Brown-out protection



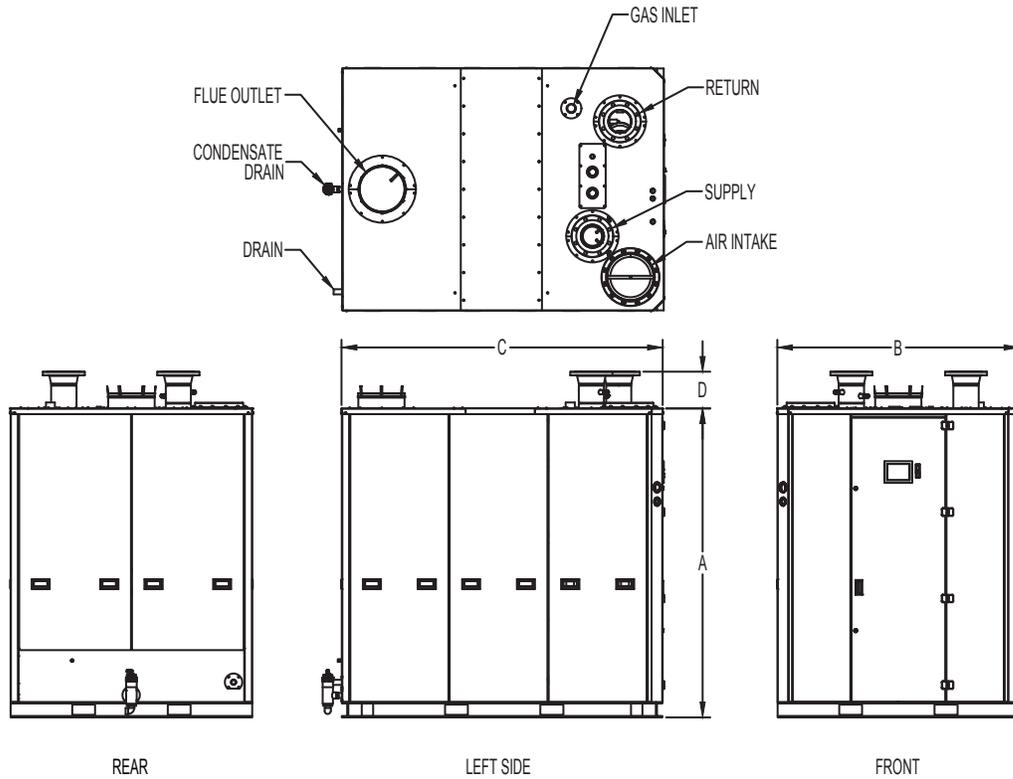
Harmonizing Boilers with Systems

Optional control panel integrates all makes of boilers (water or steam) for seamless, single-point connection with EMS. Improves efficiency and operation of condensing, non-condensing, hybrid or steam systems up to 8 units. "Smart Ops" select boiler type (condensing or non-condensing) based on load requirements and inputs of boilers of any size. Selectable Unison and/or Sequential modulation with base load ensures peak efficiency and maximum run time for all types of boiler technologies.



Bryan Free Flex

Ultra High Efficiency Commercial Condensing Boilers



Specifications, Dimensions, & Ratings

MODEL	RATINGS		THERM EFF. %	"A" HEIGHT (IN.)	"B" WIDTH (IN.)	"C" LENGTH (IN.)	"D" CONN. HEIGHT (IN.)	SUPPLY/ RETURN CONN. (IN.)	AIR INTAKE/ VENT DIA. (IN.)	CONDENSATE & BOILER DRAIN CONN. (IN.)	GAS CONN. (IN.)	APPROX. SHIPPING WEIGHT (LBS)
	MAX INPUT (MBH)	GROSS OUTPUT (MBH)										
FF-3500	3500	3325	95.0	81	64	84	10	6 Flange	12	1	2	4500
FF-4000	4000	3800	95.0	81	64	84	10	6 Flange	12	1	2	4500
FF-4500	4500	4275	95.0	81	64	102	10	6 Flange	14	1	2	5400
FF-5000	5000	4750	95.0	81	64	102	10	6 Flange	14	1	2	5400
FF-5500	5500	5225	95.0	81	64	102	10	6 Flange	14	1	2	5400
FF-6000	6000	5700	95.0	81	64	102	10	6 Flange	14	1	2	5400

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

COMBUSTION DESIGN

Stainless steel mesh pre-mix burner
Low NOx emissions
Full modulation, up to 20:1 turndown
Natural gas (consult factory on LP gas)
7" wc to 14" wc inlet gas pressure
Supervised ignition system/UV scanner
High & Low Gas Pressure Switches, Manual Reset
Variable speed combustion blower
Air proving switch

BOILER EQUIPMENT

Siemens LMV3 control system
High limit w/ manual reset safety temperature control
Low water cutoff, manual reset
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 (30, 50, 60, 75, 100, 125, or 150 psig)

VENTING

Air Intake - Ducted or Room Air
Category IV Individual Venting
Category II Common Venting with Engineered Vent System

ELECTRICAL DESIGN

24 VAC low voltage control power supply
208-240-460 VAC/60 Hertz/3 phase power supply (FFC3500-4000)
460 VAC / 60 Hertz / 3 phase power supply (FF4500+)

OPTIONS

Condensate neutralizer
Header sensor, direct immersion
Header sensor, well immersion (with well)
Outdoor air reset sensor
Knockdown configuration
Communication gateway
BMS signal converter kit
Motorized isolation valve
Hydronic kit - boiler pump and condensate neutralizer



©2025 Bryan Steam
783 N. Chili Ave., Peru, Indiana 46970 U.S.A.
PH:765-473-6651, Fax: 765-473-3074
www.bryanboilers.com
Email: inquiry@bryansteam.com