

MiURA

LX-Series Gas-Fired
Low NOx Steam Boiler

LX



MANUFACTURED IN
THE USA



Proudly Manufactured in our
Rockmart, Georgia Headquarters.

*"Miura aims to be
your best partner for
energy, water and environment."*

Global Leader in Modular, On-Demand Steam Technology

Miura



Since 1927, Miura has revolutionized steam generation with uncompromising focus on safety, efficiency, and reliability. Introduced to North America in 1989, our innovative technology is built in our facility in Rockmart, Georgia, with a best-in-class safety record: zero catastrophic incidents in 60 years of production.

Every UL-listed, ASME-certified boiler features pressure vessels manufactured in-house with American-made tubes. Each unit passes rigorous multi-point inspection and operational testing before delivery, ensuring reliable performance from day one. Our commitment extends beyond manufacturing to protecting operators and the environment while maximizing efficiency and minimizing emissions.

Miura's Complete Steam Solutions include water treatment, advanced monitoring, support, and maintenance contracts for reliable long-term service. We're setting a new standard for steam generation in the USA.



Product
Sales

Complete
Solution Selling
&
Life-cycle
Partnerships

Miura offers the gold standard of an all encompassing package that not only keeps your facility operating at peak efficiency, but also helps to manage the items surrounding the boiler room.

React
&
Repair

Predict
&
Prevent

HIGH EFFICIENCY, LOW NO_x

LX-SERIES STEAM BOILER



Miura's modular LX-Series delivers safe, reliable, and energy-efficient steam with the flexibility to grow alongside your operation. With rapid 5-minute startup and true on-demand performance, you run only what you need, when you need it.

The compact watertube design saves floor space, reduces risk, and has a proven record of zero catastrophic failures. Ultra-Low NO_x models are available with emissions **as low as 5 ppm**, helping you meet even the strictest environmental regulations.

Experience smarter steam, lower emissions, and the assurance of performance when it matters most.



LX-SERIES STEAM BOILER



PRESSURE OPTIONS

Standard Pressure

Horsepower: 50 - 300 BHP
Steam Output: 1,725 - 10,350 LB/HR
Operating Pressure Range: 70 - 150 PSI
Efficiency: Up to 87%
Fuel Type: Natural Gas or Propane
Emissions: As low as 5 ppm NOx

High Pressure

Horsepower: 200 - 300 BHP
Steam Output: 1,725 - 10,350 LB/HR
Operating Pressure Range: 70 - 315 PSI
Efficiency: Up to 86%
Fuel Type: Natural Gas or Propane
Emissions: As low as 9 ppm NOx*
**9 ppm NOx capable with some limitations*

Low Pressure

Horsepower: 50 - 200 BHP
Steam Output: 1,725 - 6,900 LB/HR
Operating Pressure Range: 7 - 13 PSI
Efficiency: 85%
Fuel Type: Natural Gas or Propane
Emissions: As low as 9 ppm NOx

Need More Steam Output?

Miura boilers are designed for multiple installations (MI System), offering true scalability by adding or removing units. This design also provides enhanced reliability with inherent backup (see page 8 for more info).

Multiple Installation (MI) Boiler System

(5) 300 HP Boilers = 1500HP Capacity





BREAKTHROUGH HEAT EXCHANGER DESIGN

The LX-Series features Miura's patented compact pressure vessel with advanced finned tube configurations that maximize heat transfer while minimizing water content. This revolutionary design delivers industry-leading performance: ultra-fast 5-minute startup, true on-demand steam, and exceptional thermal efficiency with minimal stress on components.



PROVEN SAFETY RECORD

With over 150,000 units in service worldwide and zero catastrophic failures, Miura's once-through watertube design sets the safety standard. Low water content dramatically reduces stored energy risk, while our innovative tube layout minimizes operational hazards. The compact, accessible design ensures safer, simpler maintenance for your operators.



INTELLIGENT MODULAR SYSTEM

Miura's modular architecture delivers full steam capacity in under 5 minutes and enables rapid ON/OFF cycling with minimal purge time. Run only what you need, when you need it, dramatically reducing energy consumption and operating costs. Add Miura's BP Panel for seamless monitoring and management of multiple units with complete system control.

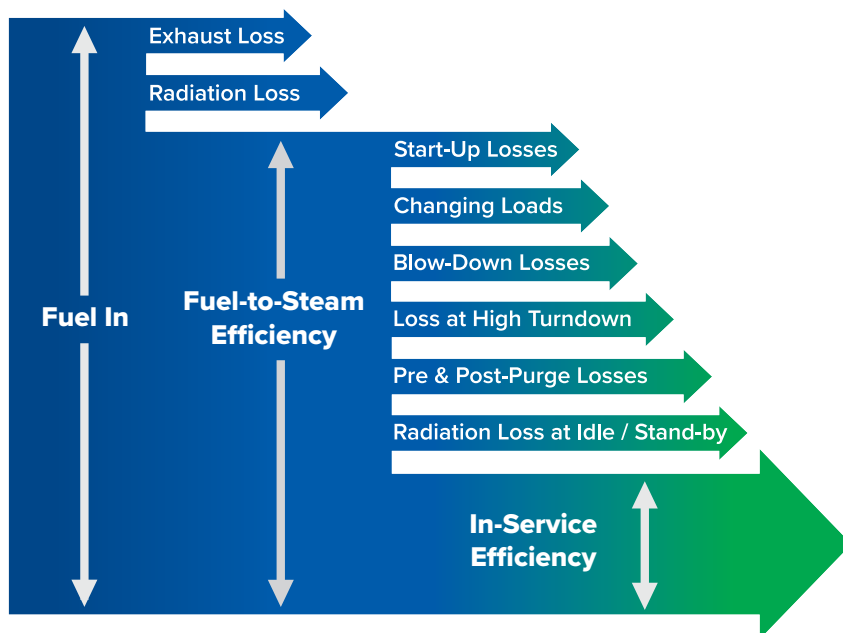


Miura 1200HP Modular Boiler Solution



MAXIMUM IN-SERVICE EFFICIENCY

Real-world performance matters. The LX-Series maximizes in-service efficiency, or the energy actually converted to usable steam under your operating conditions:



① Rapid Start-Up = Reduced Energy Waste

Low water content and compact design require minimal energy to reach steam-ready status, eliminating start-up losses.

② Smart Load Management

Modular design fires boilers only when needed, maintaining peak efficiency even during fluctuating demand.

③ Minimal Purge Loss

Short cycling and reduced purge requirements retain more heat energy between firing cycles.

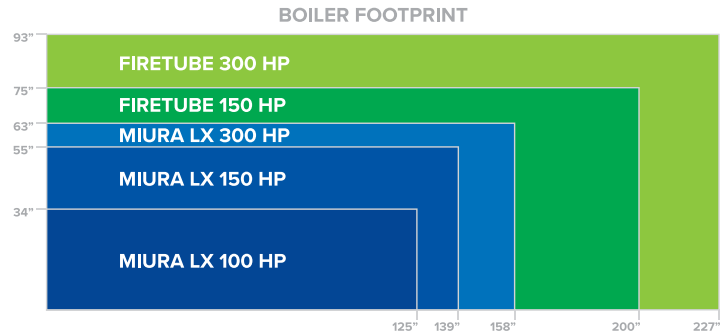
④ Lower Standby Loss

Smaller footprint and ability to shut down idle units reduces radiation loss compared to traditional high-turndown systems running 24/7.



COMPACT FOOTPRINT

Deliver the same steam output as traditional firetube boilers while using up to 50% less floor space. Save on construction costs, simplify installation, and maximize your facility's efficiency.



MAINTENANCE MADE SIMPLE

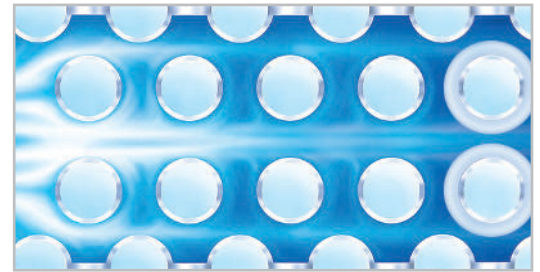
Keep operations running during service with true modular reliability. One boiler can be serviced while others continue to meet steam demand. Most maintenance tasks require only basic tools, reducing labor time, cost, and risk.

For added convenience, Miura Care is available as a premium maintenance program. It offers expert support, scheduled service, and greater peace of mind (ideal for teams that prefer to focus on operations, not boiler upkeep).



GREENER, CLEANER OPERATIONS

Reduce your environmental impact while improving efficiency. Lower fuel consumption cuts both CO₂ emissions and operating costs. The optimized flat burner design and engineered flame path deliver consistently low NOx emissions: standard models achieve under 20 ppm, while Ultra-Low NOx models reach under 5 ppm. Meet the strictest regulations while demonstrating environmental leadership.



Pressure Vessel Flame Path



BUILT-IN ECONOMIZER

Every LX-Series boiler includes a heat recovery economizer that preheats incoming feedwater as standard equipment. This integrated efficiency feature reduces fuel consumption beyond what competitive boilers can achieve, maximizing your return on investment.



INTELLIGENT BL CONTROLLER

The BL Controller continuously monitors hundreds of data points to ensure safe, optimal operation. Yellow "caution" lights with LCD fault codes guide operators through maintenance, while backup operation mode prevents unexpected shutdowns during critical situations. Red "alarm" lights clearly indicate when shutdown is required. Remote connectivity allows Miura technicians and your personnel to monitor performance data for complete peace of mind.



POWER IN NUMBERS:

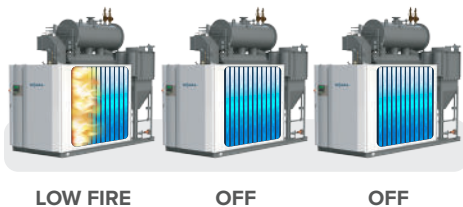
BENEFITS OF MODULAR DESIGN



ON-DEMAND STEAM: Boiler Turns On Only When Necessary

Miura's modular LX-Series boilers deliver optimized efficiency and flexibility with rapid start-up and compact design. Multiple units share the steam load, adjusting firing rates or cycling on/off to match demand within seconds. This on-demand system reduces fuel consumption and emissions by operating only when needed, unlike traditional systems that must stay warm or idle continuously. Operators can run partial systems during low demand periods, maximizing savings in time, fuel, and emissions.

LOW STEAM DEMAND

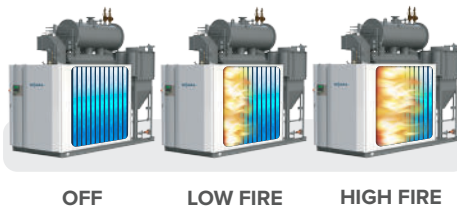


LOW FIRE

OFF

OFF

MEDIUM STEAM DEMAND

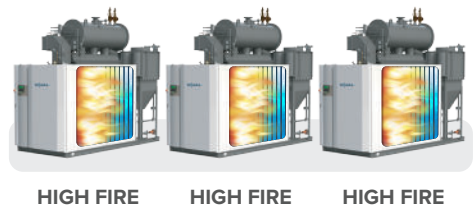


OFF

LOW FIRE

HIGH FIRE

HIGH STEAM DEMAND



HIGH FIRE

HIGH FIRE

HIGH FIRE

FLEXIBLE STEAM OPERATIONS: Long-Term Scalability

Miura's modular design provides expandable steam solutions that grow with your business. Easily add units as production increases or shut down units during slower periods, delivering unmatched flexibility without space constraints. The compact design doubles steam output within the same footprint, enabling seamless capacity adjustments without major construction projects. It's the only system engineered to adapt to your evolving steam requirements over time.

INITIAL INSTALLATION - 600 HP



LX-300

LX-300

OPEN

DEMAND INCREASES - 900 HP

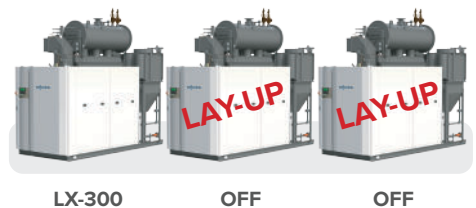


LX-300

LX-300

LX-300

DEMAND DECREASES - 300 HP



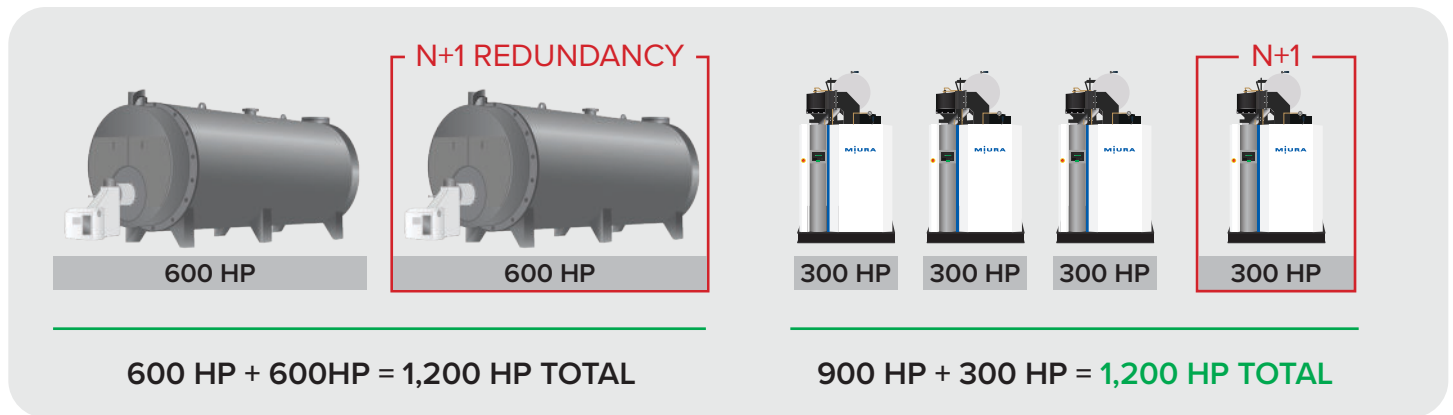
LX-300

OFF

OFF

PLANNED RELIABILITY: N+1 Redundancy = N+1 Resiliency

In a modular steam system, risk is distributed across multiple units, maximizing reliability. During maintenance, other boilers seamlessly take over steam production, eliminating shutdown risks. Instead of one large boiler with an emergency backup, modular systems deploy multiple compact units with an extra for resiliency, saving both money and space.



As you can see, with Miura's LX-Series modular, on-demand boilers, there is power in numbers. It's a modern steam generation system that provides flexibility, scalability, and reliability you can trust.

TRADITIONAL BOILER CHALLENGES

VS.

MIURA MODULAR SOLUTIONS

How can we increase steam capacity for use when production demand increases?

Large firetube boilers are sized for maximum demand, creating space constraints for additional units. Supplemental boilers must remain idle to handle demand spikes

VS.

Miura's LX-Series modular boilers easily expand with production needs. Their compact design allows for easy addition of units, which automatically turn on/off based on demand, saving energy by operating only during peak loads.

Is it possible to avoid production interruption during planned maintenance and yearly inspections?

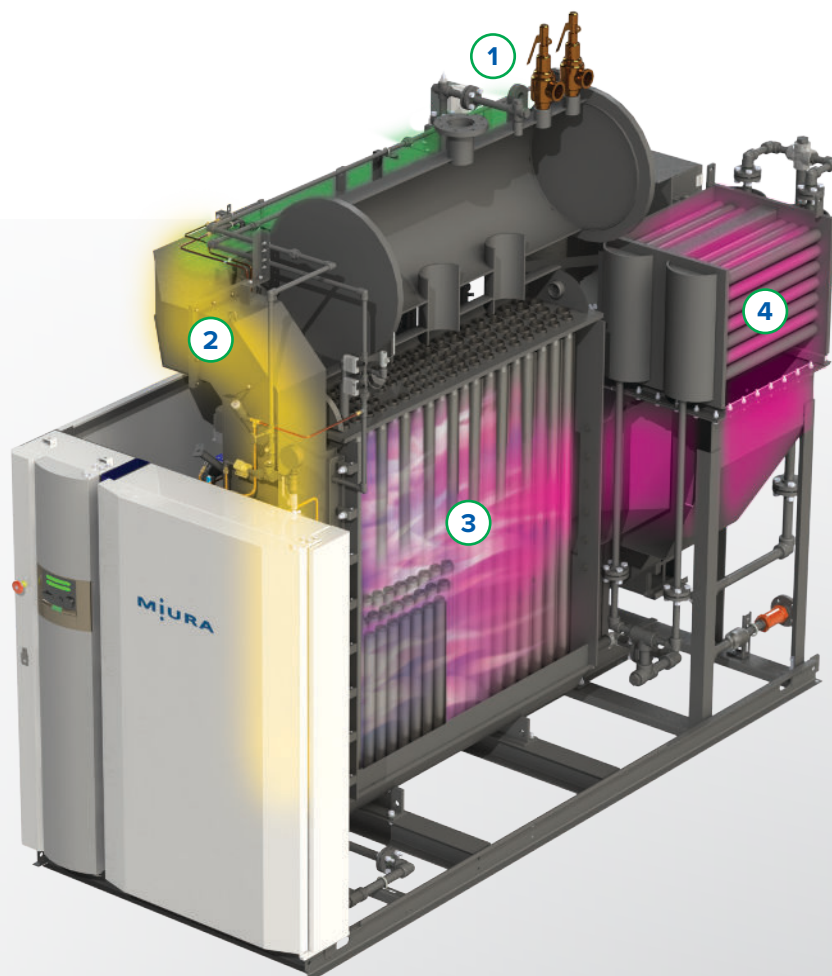
Firetube boilers require complex inspections and maintenance, causing 2-3 days of production downtime for cooling, disassembly, inspection, reassembly, filling, and heating.

VS.

Miura boilers prevent production interruptions by allowing operators to inspect and maintain smaller units one at a time, avoiding shutdowns.

COMBUSTION SEQUENCE: Efficiency in Action

Miura's once-through watertube design delivers rapid steam generation and exceptional fuel efficiency by maximizing heat transfer through finned tubes. This reduces energy waste, cuts emissions, and lowers operating costs. Steam is ready in minutes, improving response time and system performance.



1 Air Intake

Ambient air pulled through replaceable filters mounted on the air box and propelled into the wind box by a blower.

2 Air and Fuel Mixing

Combustion air mixes with fuel gas in the gas chamber and flows into the wind box. Then, the mixture passes through the burner and ignited.

3 Combustion / Heat Exchanger

The corrugated burner produces a large flame in the heat exchanger, where combustion and heat transfer occur simultaneously. Finned tubes in the low-temperature zone optimize heat transfer.

4 Heat Recovery

The combustion exhaust exits through the heat recovery economizer that uses exhaust heat to preheat the incoming feed water.

WATER JOURNEY: Max Output, Minimal Waste

Miura's watertube design optimizes the flow from feedwater to steam, conserving water and energy at every step. Integrated sensors monitor the entire process for efficient, reliable performance. The result is lower operating costs and a more sustainable steam system.



5 Economizer Feed Water Preheat

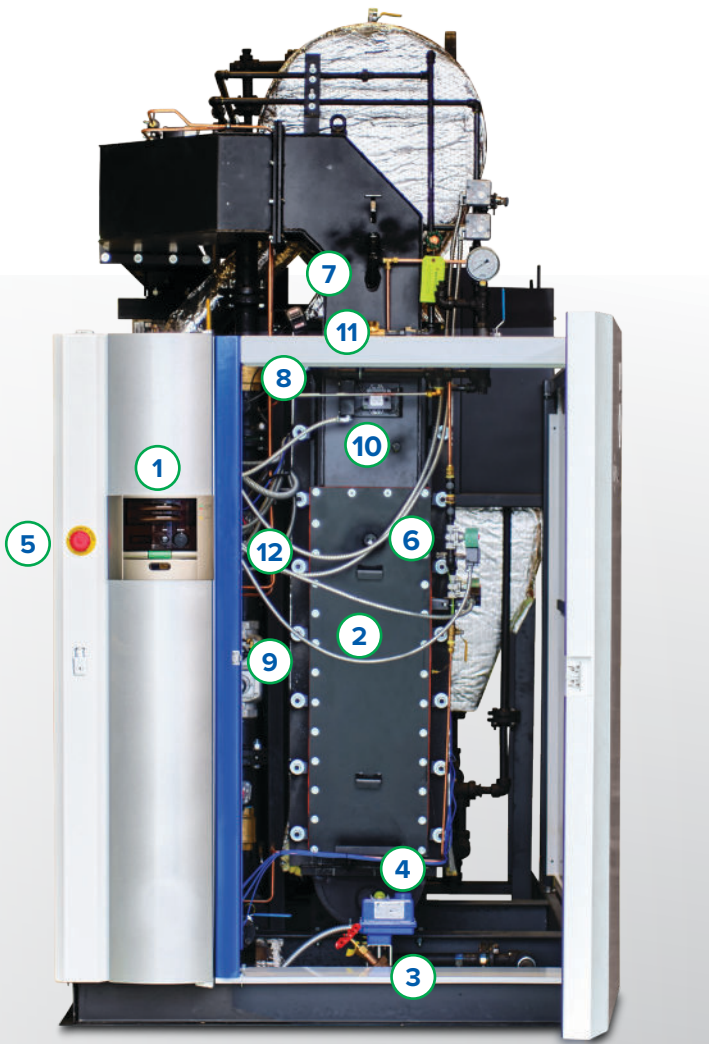
Incoming feed water is routed through a heat recovery economizer to increase the efficiency of the boiler.

6 Main Pressure Vessel

Water fills the tubes from the bottom of the pressure vessel and receives heat from combustion gas. It turns into steam and flows upward.

7 Steam Separator

The steam separator allows the dry steam to exit to the process equipment and recirculates the moisture back to the pressure vessel.



1. **BL Controller:** Boiler main control panel for start/stop, alarm/caution insight and setting adjustments
2. **Low Temperature Burner:** Miura burner design allows for low flame temperature and low NOx
3. **Bottom Blow Down Valve:** Used to drain pressure vessel water
4. **Inspection Plug:** Used to access lower pressure vessel for inspection
5. **Emergency Shut-Off:** Shut off button in case of an emergency
6. **Flame Sight Glass:** Port to see main flame
7. **Pilot Sight Glass:** Port to see pilot flame
8. **Gas Shut-Off Valve:** Manual gas train valve
9. **Fuel Regulator:** Proportional regulator/actuator combo unit
10. **Ignition Transformer:** Creates the spark to ignite the pilot flame
11. **Flame Sensor:** Flame detection sensor
12. **Gas Pressure Switch:** Low and High gas cut off

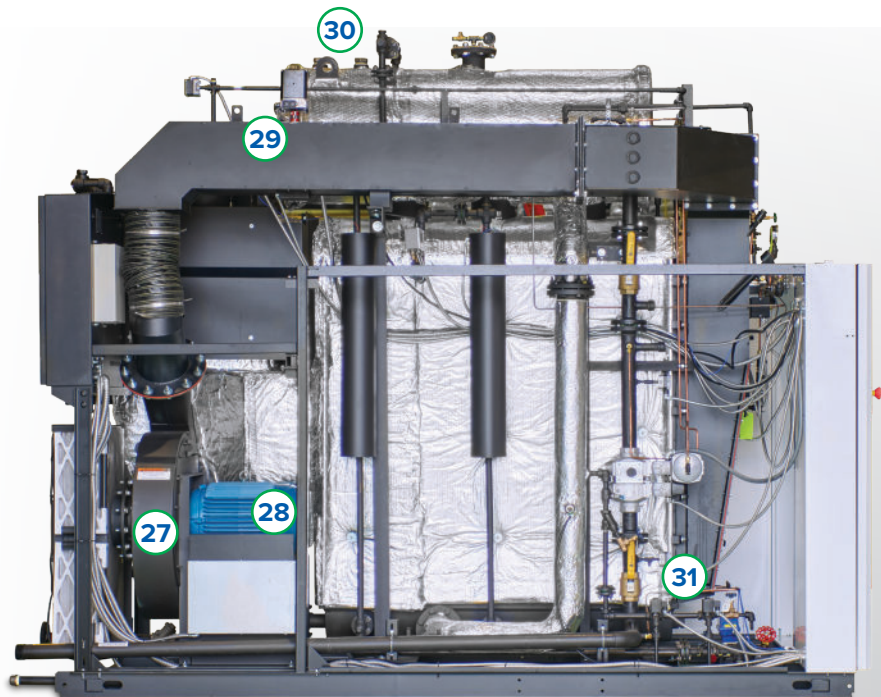
13. **Pressure Vessel:** Miura “Once-Through” floating header pressure vessel
14. **Overheat Monitor:** Thermocouple to monitor pressure vessel temperature
15. **Scale Monitor:** Thermocouple to monitor scale induced temperature increases
16. **Economizer:** Heat recovery device that utilizes exhaust heat to preheat incoming feed water
17. **Lifting Points:** Designed for moving the boiler
18. **Exhaust Outlet:** Duct for expulsion of exhaust gas
19. **Economizer Water Inlet:** Feed water piping to enter the economizer
20. **Steam Separator:** Unique design provides dry steam to process equipment





- 21. Blower Motor VFD:** Variable frequency drive (VFD) modulates blower motor speed (*only available on LX 250/300*)
- 22. Air Intake Box:** Pulls air through replaceable air filters and channels to combustion zone
- 23. Boiler Feed Water Shut-Off:** Controls water supply to boiler
- 24. Feed Water Connection Point:** Connection for incoming feed water supply
- 25. Blow Down Piping:** Piping to channel blow down water from pressure vessel
- 26. Gas Piping:** Connection point for gas line into the boiler

- 27. Blower:** Fan that pulls air from outside and propels into combustion chamber
- 28. Blower Motor:** Three-Phase motor to turn impeller
- 29. Air Damper:** Controls airflow into the boiler
- 30. Safety Relief Valves:** ASME Section I rated safety relief valves
- 31. Surface Blow Down:** Piping to control concentration of boiler water. Control built in to BL controller



DIMENSIONS

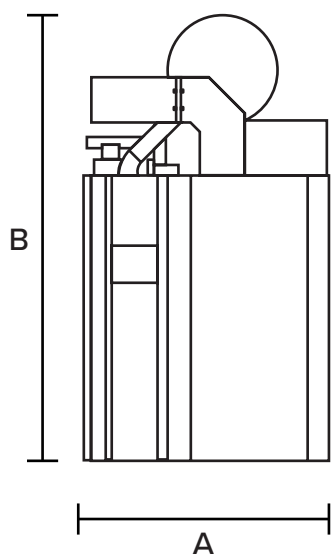


Figure 1 - Front View

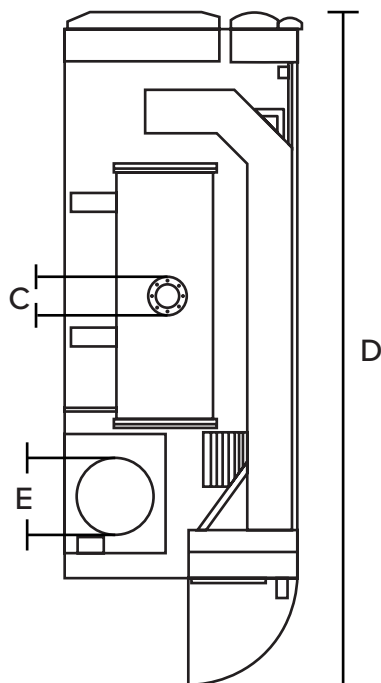


Figure 2 - Top View

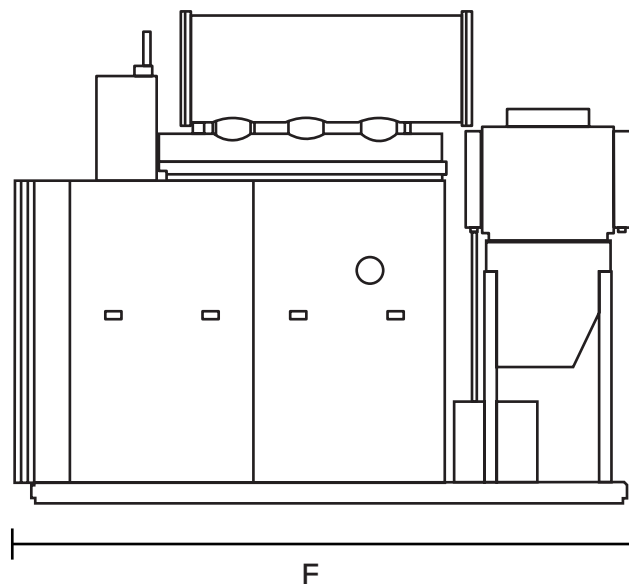


Figure 3 - Side View

FOR REFERENCE ONLY!
NOT FOR ENGINEERING PURPOSES.
 Contact your sales representative for latest drawings and data.

Pressure Option	Model Number	Width (A)	Height (B)	Steam Outlet (C)	Door Open (D)	Chimney Outlet (E)	Length (F)	Shipping Weight	Operation Weight
	UNIT	Min IN.	IN.	IN.		IN.	Min IN.	LBS	LBS
Standard Pressure	LX-50	33 7/8"	101 5/8"	2"	127 3/4"	12" OD	96 7/8"	4,200	4,600
	LX-100		110 3/4"		156"		125 1/8"	6,000	6,600
	LX-150	54 5/8"	125 5/8"	3"	169"	20" OD	138 3/4"	8,000	8,800
	LX-200								
	LX-250	63"	127"	4"	216 3/4"	20" OD	157 7/8"	11,500	12,700
	LX-300								
Ultra Low NOx	LX-100-SGN	33 7/8"	110 3/4"	2"	156"	12" OD	140 5/8"	6,000	6,600
	LX-150-SGN	54 5/8"	125 5/8"	3"	169"	20" OD	154 3/4"	8,000	8,800
	LX-200-SGN								
	LX-250-SGN	63"	127"	4"	216 3/4"	20" OD	157 7/8"	11,500	12,700
	LX-300-SGN								
NEW!	LXN-300SG-A	65"	130"	4"	229 5/8"		170 3/4"	12,500	13,900
High Pressure	LXH-200	54 5/8"	125 3/8"	3"	205 5/8"	20" OD	155 5/8"	8,200	9,100
	LXH-250	63"	127"	4"	216 3/4"		156 1/4"	11,800	13,000
	LXH-300							12,000	13,200
	LXH-300-350P								
Ultra Low NOx	LXH-200SGN	54 5/8"	125 3/8"	3"	205 5/8"	20" OD	175 3/8"	8,200	9,100
	LXH-250SGN	63"	127"	4"	216 3/4"		156 1/4"	11,800	13,000
	LXH-300SGN							12,000	13,200
	LXH-300SGN-350P								
Low Pressure	LXL-50	49 7/8"	146 5/8"	4"	149 5/8"	12" OD	118 3/4"	4,700	5,100
	LXL-100	50 7/8"	160 1/4"	6"	185 5/8"	12" OD	154 3/4"	7,000	7,500
	LXL-150	74 5/8"	131 "	8"	171 3/4"	20" OD	137 7/8"	9,000	9,700
	LXL-200								
Ultra Low NOx	LXL-100SG	66 1/4"	160 1/4"	6"	185 5/8"	12" OD	154 3/4"	7,000	7,500
	LXL-150SG	90"	131 "	8"	171 3/4"	20" OD	137 7/8"	9,000	9,700
	LXL-200SG								

SPECIFICATIONS

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Contact your sales representative for latest drawings and data.

Pressure Option	Model	BHP	MAWP	Steam Output	Heat Output	Efficiency	NOx	Fuel	Power Supply	Gas Pressure	Water Content												
	UNIT	BHP	PSIG	LB/HR	MMBTU/HR		PPM			PSIG	GAL												
Standard Pressure	LX-50	50	170	1,730	1.675	85%	20	Natural Gas & Propane	575,460,380,230, or 208V, 3 Phase, 60Hz	3-5 PSIG	45												
	LX-100	100		3,450	3.348						60												
	LX-150	150		5,180	5.022						95												
	LX-200	200		6,900	6.695						116												
	LX-250	250		8,630	8.369	87%					115												
	LX-300	300		10,350	10.043						60												
Ultra Low NOx	LX-100SGN	100	170	3,450	3.348	85%	9				NG & P	575,460,380,230, or 208V, 3 Phase, 60Hz	3-5 PSIG	95									
	LX-150SGN	150		5,180	5.022									115									
	LX-200SGN	180		6,210	6.026									110									
	LX-250SGN	250		8,630	8.369									87%	167								
	LX-300SGN	300		10,350	10.043	86%									100								
	LXN-300SG-A	300					5							NG	140								
High Pressure	LXH-200	200	300	6,900	6.696	84%	20	NG & P						575,460,380,230, or 208V, 3 Phase, 60Hz	3-5 PSIG	135							
	LXH-250	250		8,630	8.370	86%										100							
	LXH-300	300		10,350	10.043											85%	140						
	LXH-300-350P	300	350															NG	135				
Ultra Low NOx	LXH-200SGN	180	300	6,210	6.026	84%	9*									NG & P	575,460,380,230, or 208V, 3 Phase, 60Hz	3-5 PSIG	100				
	LXH-250SGN	250			8.370	86%													140				
	LXH-300SGN	300		10,350	10.043	85%					NG								135				
	LXH-300SGN-350P	300	350																				
Low Pressure	LXL-50	50	15	1,730	1.675	85%	20				NG & P								575,460,380,230, or 208V, 3 Phase, 60Hz	3-5 PSIG	40		
	LXL-100	100		3,450	3.348																60		
	LXL-150	150		5,180	5.022																100		
	LXL-200	200		6,900	6.695																95		
Ultra Low NOx	LXL-100SGN	100	15	3,450	3.348	85%	9	NG & P													575,460,380,230, or 208V, 3 Phase, 60Hz	3-5 PSIG	60
	LXL-150SGN	150		5,180	5.022																		100
	LXL-200SGN	200		6,900	6.026																		95
* 9 PPM NOx capable with some limitations																							

* 9 PPM NOx capable with some limitations

Notes:

Serving Industries Across America



"When we built the facility, every piece of equipment we looked at had to be **easy-to-use, easy-to-maintain, and completely reliable**. After doing our research, asking questions and looking at all the options, we purchased two Miura LX-Series steam boilers. **The boilers addressed all our needs**, and after about a year they continue to perform exceptionally well. **They have never let us down.**"

-Chief Engineer | *Large Laundry Operation*



"While planning for the brewery, it was quickly evident that space would be at a premium. The Miura LX-200 we chose would require less space than a traditional boiler and provide additional capacity beyond the initial steam load. The brewery would be able to grow without adding additional boilers."

-Brew Master | *Craft Brewery*



"One of the many advantages of Miura boilers was their on-demand steam capabilities. The company claims to produce full steam in less than five minutes, I timed it. The steam we needed was there in four minutes. That impressive feature saved us time and labor costs, while allowing us to be more productive."

-Facilities Engineer | *Industrial Manufacturing*



"I've been in this industry for over 45 years and have researched—or worked with—all the major boiler companies. None of them were able to offer an energy-efficient package to meet our sustainability and production needs like Miura."

-Facilities Director | *Food Production Facility*



ON-DEMAND STEAM SOLUTIONS



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