

MIURA LX GAS/LOW NOx SERIES

High or Low Pressure Steam Boiler



MADE IN CANADA

NEW



XJ1
*Micro Computer
Boiler Control
System*

*The most
versatile
industrial
steam
boiler in
the world*



*The intelligent boiler
that works with you*

MIURA
...Setting New Standards in Boiler Technology

MIURA LX GAS/LOW NO_x SERIES

High or Low Pressure Steam Boiler

*Revolutionary Design Produces
Revolutionary Results*

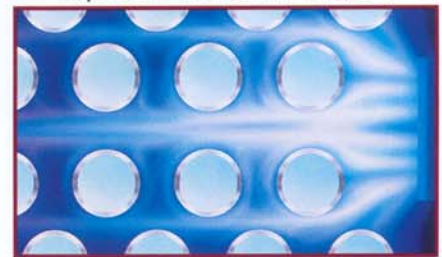
The Design:

MIURA's exclusive "low water content, watertube" design is the most versatile boiler available in the marketplace today. A once-through, forced circulation steam boiler producing steam in just 5 minutes while maintaining an 85% fuel-to-steam efficiency.

The MIURA LX SERIES design consists of rows of vertical tubes sandwiched between two rectangular headers. Both headers are encased in a castable refractory with only the tubes exposed to flame and/or combustion gases. The upper header is attached to the lower header only by the tubes; as the tubes expand and contract, the headers float up and down accordingly.

This 'floating header' concept greatly reduces stress and allows for the use of cold feedwater without the fear of significant thermal shock. The 'leaky tube' problems associated with firetube and bent watertube designs have been eliminated.

Top view of Flame Pattern



Burner Head

Low NO_x "No Furnace" Boiler

Cool, soft flame wraps around the tubes from a flame spread over a large surface area. This naturally controlled burn results in unbelievably low NO_x, compact size and high efficiency.

Full Steam Output Within Five Minutes

Floating headers mean fast start-up. MIURA boilers produce fast steam in 5 minutes or less from a cold start-up. Standard firetubes require from 1 to 1.5 hour start-up times. MIURA's unique design yields significant time and fuel savings.

Smaller is Better

MIURA's LX Series boilers occupy 50% less floor space than typical firetubes, and do not require tube pull space. Double capacity in the same space, or reduce space requirements by half for new construction. MIURA's compact design means much smaller radiation losses and larger fuel savings.



Standard Firetube/Watertube Technology

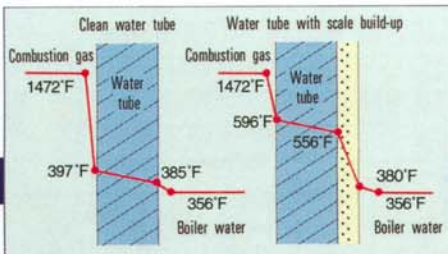
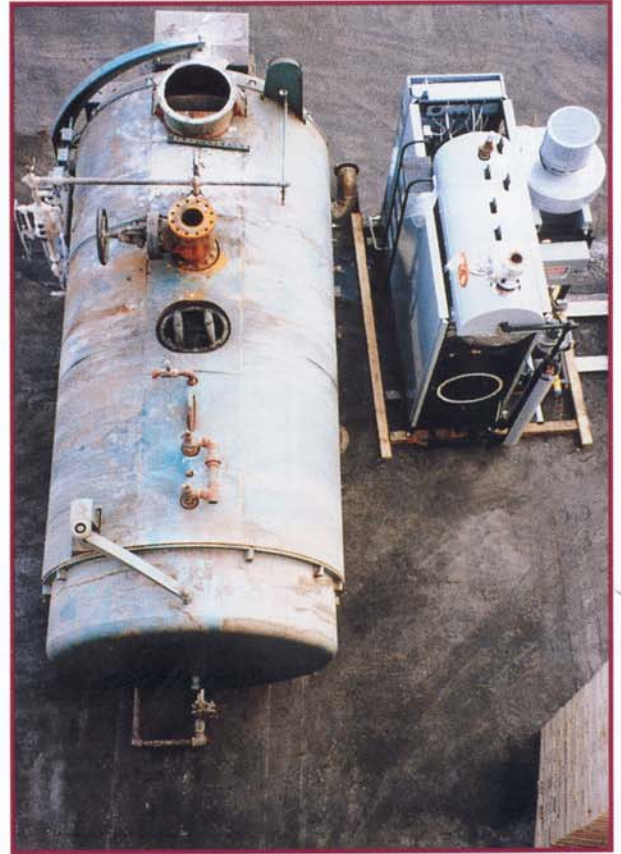


MIURA's Revolutionary Technology

Compare operational water content...

200 BHP MIURA boiler = less than 75 Imp. gallons

200 BHP Standard Firetube boiler = 2,000 gallons



Early Warning Scale Monitor

Scale is a problem all boilers have to deal with. Scale forms when boiler feedwater is not properly treated. Advanced scale formation acts as an insulator; only an eggshell thickness of scale results in a 10% efficiency loss, higher fuel bills and possible damage to the boiler system.

As standard equipment, all MIURA LX models are equipped with a thermocouple attached directly to a tube. Should scale begin to form, the MIURA boiler will alert the operator - allowing the operator to trace and repair the source of the water hardness. The scale can be removed to restore the boiler to its original efficiencies - saving tens of thousands of dollars in wasted fuel and repair bills.

Unbeatable In-Service Efficiencies

MIURA's computer-aided design results in optimal heating surface transfer with minimal water content for fuel-to-steam efficiencies of 85%. Typical firetube designs can deliver up to 83% fuel-to-steam efficiencies. However, in actual use, MIURA averages 10 to 40% fuel savings over standard firetube designs.

How does a 2% difference in fuel-to-steam efficiencies translate into a 10 to 40% ACTUAL FUEL SAVINGS? Contact your local MIURA representative for details.

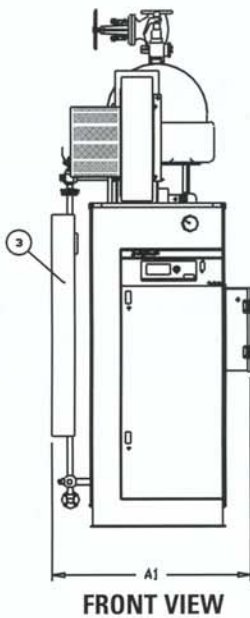


Dimensions

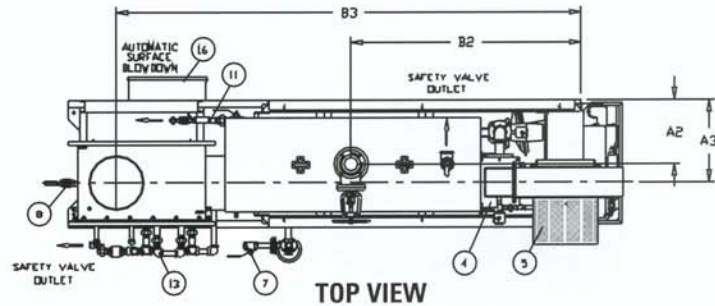
(Inches)

	A1	A2	A3	B1	B2	B3	H1	H2	h
LX-50 SG	42½	15½	22½	108½	49½	86	105½	74½	80
LX-100 SG	43	15½	22½	140	71½	117	108½	77	80
LX-150 SG	48½	16½	21½	150½	60	121	125½	77	85
LX-200 SG	48½	16½	21½	155½	65	132½	125½	85	85
LX-300 SG	81	22	22	152	82½	116	138	80	84½

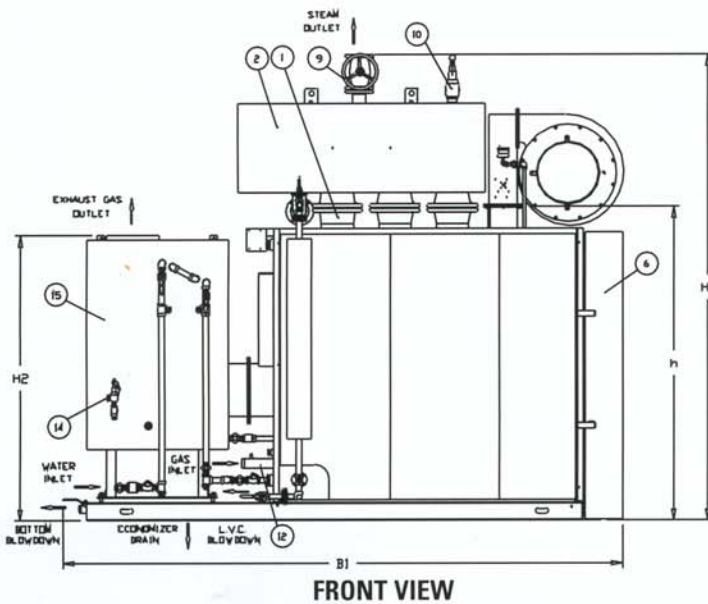
*The drawing illustrated is LX-150 SG



FRONT VIEW



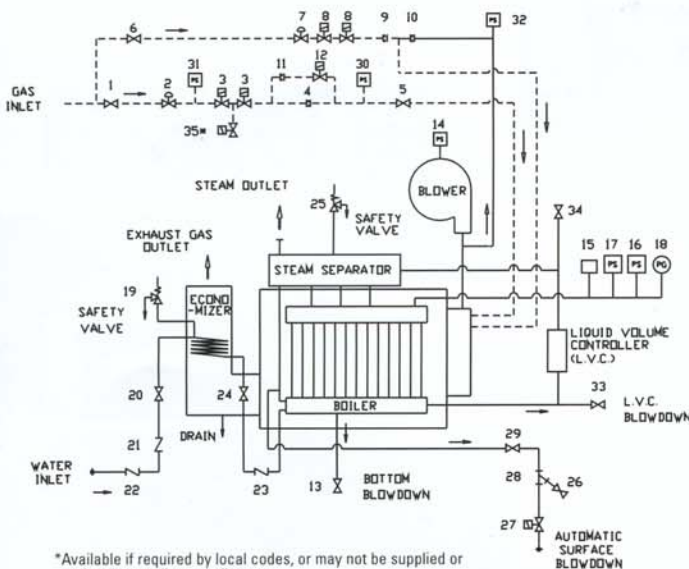
TOP VIEW



FRONT VIEW

NO.	NAME OF PART
1	BOILER VESSEL
2	STEAM SEPARATOR
3	LIQUID VOLUME CONTROLLER
4	WIND BOX
5	BLOWER
6	CONTROL BOX
7	MANUAL BLOWDOWN VALVE
8	MANUAL BLOWDOWN VALVE
9	STEAM OUTLET VALVE (OPTION)
10	MAIN SAFETY VALVE
11	AUTOMATIC BLOWDOWN
12	MAIN GAS TRAIN
13	FEEDWATER PIPING
14	ECONOMIZER SAFETY VALVE
15	ECONOMIZER
16	POWER BOX

Schematic View (Standard)



NO.	NAME OF PART	NO.	NAME OF PART
1	MAIN GAS VALVE	19	SAFETY VALVE
2	MAIN GAS REGULATOR	20	VALVE
3	GAS CONTROL VALVE	21	CHECK VALVE
4	MAIN GAS ORIFICE (LOW)	22	CHECK VALVE
5	TEST FIRING VALVE	23	CHECK VALVE
6	PILOT GAS VALVE	24	WATER VALVE
7	PILOT GAS REGULATOR	25	SAFETY VALVE
8	PILOT GAS CONTROL VALVE	26	SAMPLE WATER VALVE
9	PILOT GAS ORIFICE	27	BLOWDOWN CONTROL VALVE
10	PILOT AIR ORIFICE	28	BLOWDOWN STRAINER
11	MAIN GAS ORIFICE (HIGH)	29	SURFACE BLOWDOWN VALVE
12	HIGH-LOW CONTROL VALVE	30	GAS PRESSURE SWITCH
13	BOTTOM BLOWDOWN VALVE	31	GAS PRESSURE SWITCH
14	PRESSURE SWITCH	32	AIR PRESSURE SWITCH
15	PRESSURE SENSOR	33	L.V.C. BLOWDOWN VALVE
16	STEAM PRESSURE SWITCH	34	AIR VENT VALVE
17	STEAM PRESSURE SWITCH	35	GAS VENT VALVE*
18	PRESSURE GAUGE		

*Available if required by local codes, or may not be supplied or optional according to boiler type.

**Numerous options are available upon request.

LX Series Specifications

ITEM	LX(L)-50 SG	LX(L)-100 SG	LX-150 SG	LX(L)-200 SG	LX-300 SG
Utilization Horsepower (*1)	50HP	100HP	150HP	200HP	300HP
Maximum Pressure	170 PSIG MAWP, 150 PSIG Maximum Operating (15 PSIG MAWP)				
Equivalent Output (*2)	1,725 LB/HR	3,450 LB/HR	5,175 LB/HR	6,900 LB/HR	10,350 LB/HR
Heat Output	1,674,000 BTU/HR	3,348,000 BTU/HR	5,022,000 BTU/HR	6,695,000 BTU/HR	10,050,000 BTU/HR
Efficiency (fuel to steam) (*3)	85% (80% without Economizer)				
Heating Surface Area	177 FT ²	248 FT ²	397 FT ²	397 FT ²	794 FT ²
Operational Weight	4,070 LBS	6,070 LBS	9,600 LBS	10,000 LBS	13,200 LBS
Shipping Weight	3,840 LBS	5,470 LBS	8,950 LBS	9,200 LBS	12,200 LBS
Dimensions Given are Approximate					
Width	42.5 in. (64 in.)	43 in. (72 in.)	48.5 in.	48.5 in. (71 in.)	81 in.
Length	108.5 in.	140 in.	150.5 in.	155.5 in.	152 in.
Height	105.5 in. (147 in.)	108.5 in. (159 in.)	125.5 in.	125.5 in. (190 in.)	138 in.
Combustion System	Proprietary Forced Draft, Step Fired Modulation Hi-Low-Off				
Ignition System	Electric Spark Ignited, Interrupted Gas Pilot				
Power Supply	230, 460, 575 V, 3 PHASE, 60 HZ				
Max. Electrical Consumption	7.0 KVA (5.1 KVA)	13 KVA (12.3 KVA)	19.2 KVA	19.2 KVA (15.9 KVA)	31.6 KVA
Fuel Type (*4)	Natural Gas or Propane (3-5 PSIG)				
Gas Consumption (*5)	1,960 SCFH	3,920 SCFH	5,880 SCFH	7,850 SCFH	11,770 SCFH
Gas Supply Pressure	3-5 PSIG Natural Gas or Propane				
Main Steam Outlet Valve	2 in. (4 in.)	2 in. (6 in.)	3 in. (8 in.)		4 in.
Safety Valve Outlet	One 1 1/2 in.	One 2 in.	One 2 1/2 in.		Two 2 1/2 in.
Main Water Inlet	3/4 in.	1 in.		1 1/2 in.	
Fuel Gas Inlet	1 1/2 in.	2 in.		2 1/2 in.	
Automatic Surface Blowdown	One 3/4 in.				Two 3/4 in.
Manual Blowdown	Two 1 in.				One 1 in. & One 1 1/2 in.
Chimney Diameter (ID)	12 in.	14 in.	20 in.	26 in.	
Flame Detector	Ultraviolet Flame Eye Sensor				
Pressure Control	Adjustable Pressure Transducer and Switch				
Liquid Volume Control	Electrolytic Conductive Type				
Overheat Protection	Low Water Cut Off & Thermocouple				

"S" - Economizer

"G" - Natural Gas or Propane Fired

"(L)" - Low Pressure

Note:

- 1 Available 49 and 199 BHP rating.
- 2 Equivalent output calculated from and at 212°F (100°C) feed water at 212°F (100°C) steam.
- 3 Thermal Efficiencies are based on high heating values of fuels at 68°F (20°C) feed water.
- 4 UL and CGA/CSA approved for Natural Gas or Propane.
- 5 Gas consumption based on natural gas with high heating 1004 BTU/SCF.
- 6 All MIURA steam boilers are fully packaged and test fired at factory.
- 7 Built to meet or exceed UL & ASME standards in U.S.A.; CGA/CSA & B-51 standards in CANADA.
- 8 Low pressure steam is available in 50, 100 and 200HP only.

Patented in the U.S.A.



MIURA Visit our web page at www.miuraboiler.com

MIURA Boiler Co., Ltd.
 8 Copernicus Boulevard
 Brantford, Ontario
 N3P 1Y4 Canada
 Tel: (519) 758-8111
 Fax: (519) 758-5294
 e-mail: miurasal@bis.on.ca

MIURA Boiler West, Inc. (L.A.)
 1945 South Myrtle Av.
 Monrovia, CA
 91016-4854
 Tel: (626) 305-6622
 Fax: (626) 305-6624
 e-mail: LA@miuraboiler.com

Distributed By:

MIURA Boiler Co., Ltd.
 6315 Shawson Dr., Unit 17
 Mississauga, Ontario
 Canada L5T 1J2
 Tel: (905) 564-9199

MIURA Boiler West, Inc. (Chicago)
 600 Northgate Parkway, Suite M
 Wheeling, IL
 60090-3201
 Tel: (847) 465-0001
 Fax: (847) 465-0011
 e-mail: chicago@miuraboiler.com

The descriptions and specifications are approximate. Specifications subject to change to incorporate engineering advances. Manufacturer reserves the right to change specifications and dimensions at any time without liability for equipment previously or subsequently sold.