



Specification:

LXH-200-07

ITEM	UNITS	Standard	Ultra Low NOx
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Boiler Output

Boiler Type	-	Multiple water tube, once through, forced flow, steam boiler	
Maximum Allowable Working Pressure	PSIG	300	
Recommended Operational Range	PSIG	170 - 270	
Boiler Heating Surface Area	ft ²	402	
Boiler Horsepower Rating	BHP	200	180
Equivalent Output ⁱ	lb/hr	6,900	6,210
Maximum Heat Output	MMBtu/hr	6.695	6.026
Turn-Down	-	3:1 (33%)	2.7:1 (37%)

Trim Selection

Integral Economizer (S)	Yes / No	Yes	Yes
Fuel Selection (G)	Gas	Gas	Gas
Low NOx Option (N)	Yes / No / NA	No	Yes
Boiler Trim	-	LXH-200 SG	LXH-200 SGN

Air and Fuel Requirements

Fuel Supply Pressure	PSIG	3-5 PSIG (Natural Gas or Propane)	
Heat Input	MMBtu/hr	7.971	7.971
Efficiency ⁱⁱ	%	84%	84%
Flue Gas Excess Oxygen	%	5.0%	7.0%
Flue Gas Temperature ⁱⁱ	°F	300	270
NG/LPG Fuel Consumption ⁱⁱⁱ	SCFH / GPH	7,810 / 87.1	7,810 / 87.1
Required Air Volume	SCFH	75,020	112,800
Flue Gas Volume - Wet	SCFH	82,830	120,610
Flue Gas Volume - Dry ^{iv}	SCFH	69,430	104,390
Flue Gas Velocity	ft/s	15.8	22.0

Emissions

NOx Emission NG/LPG ^v	ppm (lbs/Mmbtu)	20/25 (0.0243 / 0.0304)	12/16 (0.0146 / 0.0195)
CO Emission NG&LPG ^v	ppm (lbs/Mmbtu)	100 (0.0739)	50 (0.0370)
CO ₂ Emission NG/LPG ^v	lbs/Mmbtu	117.6 / 136.6	
VOC Emission NG&LPG ^v	lbs/Mmbtu	0.00539	
SO ₂ Emission NG/LPG ^{vi}	lbs/Mmbtu	0.00588 / 0.00547	
PM Emission NG&LPG ^v	lbs/Mmbtu	0.00745	

Weights & Capacities

Shipping Weight	lbs	8,200	8,200
Operational Weight	lbs	9,100	9,100
Operational Water Content	Gal	100	100
Fully Flooded Water Content	Gal	200	200

Inlet & Outlet Connections

Economizer Drain (If Equipped)	in	2" npt
Main Steam Outlet	in	3" flg 300#
Safety Valve ^{vii}	in	2-1/2" npt
Drip Pan Elbow Vent	in	4"
Drip Pan Elbow Drain	in	3/4" npt
Feedwater Inlet	in	1" npt
Fuel Gas Inlet	in	2" npt
Automatic "Surface" Blowdown	in	3/8" npt
Bottom Blow-Off	in	1" npt
LVC Blow-Off	in	1" npt
Chimney Diameter	in	20" OD

Electrical Components & Controls

Power Supply	-	575, 460, 380, 230 or 208 Volts, 3 Phase, 60 Hz
Max. Electrical Consumption ^{viii}	kVA	28.2
Blower Motor	HP	15
Water Pump Motor ^{viii}	HP	15
Control Power Transformer	kVA	0.5
Combustion Control	-	3 Position Step Burner (High - Low - Off)
Combustion System	-	Forced Draft Burner
Ignition System	-	Electric Spark Ignited, Interrupted Gas Pilot
Flame Safeguard	-	Miura BL Microcontroller with Miura ZUV Flame Sensor
Low Water Protection	-	Primary and Secondary Low Water Cutoff Electrodes
Miura Online Maintenance (M.O.M)	-	Analog Phone Line

NOTES:

- i) Equivalent Output is calculated based on conversion of 212°F feedwater to 212°F steam.
- ii) Flue gas temperatures and efficiencies are based on 68°F feedwater and 80°F combustion air and calculated using the higher heating value
- iii) Fuel consumption for NG and LPG is based on a higher heating value of 1,020 Btu/SCF and 91,500 Btu/Gal respectively
- iv) Dry flue gas volume is based on F-Factor of 8710 SCF/MMbtu and corrected for the operating O₂ percentage
- v) NO_x and CO emissions are based on empirical test data corrected to 3% excess oxygen, all others are calculated using EPA factors.
- vi) SO₂ factor assumes 0.2 grains per scf for NG and 0.5 grains per scf for LPG
- vii) Boiler Safety Valve Outlet size may increase if set pressure is below 300 PSIG
- viii) Water pump output may vary by feedwater piping options