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Product upgrades may be made without notice.  
Please address any enquiries concerning this brochure  
to your nearest Miura distributor or sales office.

**Safety Precautions** In order to use the product safely, please read the Instruction Manual first.

©Export Precautions: Products in this brochure which fall under the export controls in the Foreign Exchange and Foreign Trade Act require a license from the Japanese government for export outside of Japan. If you are considering export, please consult your Miura Sales Representative.



# The EX Models are fully equipped with all of the functions Demanded by a Boiler

The EX Series of gas-fired steam boilers is the culmination of considerable research using the expertise and maintenance data that Miura has accumulated over many years. Establishes new standards of style, safety and durability.

## Features

### Reliable control for safe operation

#### Water Tube Temperature Sensor

Constant sensor monitoring of water tube temperature. If a water tube exceeds the prescribed temperature, combustion will be stops automatically.

#### Blowdown Alarm Timer

Blowdown alarm timer for conducting boiler water blowdown at appropriate times. Notification of blowdown time based on boiler combustion time (high fire conversion time).

#### Concentration (Conductivity) Sensor

Constant sensor monitoring of boiler water concentration. Supplies high-quality steam as water concentration is kept constantly through automatic discharge of water from the bottom of separator if the set concentration is exceeded.

### Higher fuel economy and longer service

#### Twin Water Level Control

Utilizes twin water level control to prevent thermal stress and alkaline corrosion at the top of the water tubes. As well as typical water level control, it directly detected the water level inside the tubes with a compensation electrode and undertakes compensation control of the water level at start up and at low operating loads.

#### Header Separator and Cyclone Separator

Primary steam separation with Miura's proprietary separator inside the header. Secondary separation of the steam with the cyclone separator provides high-quality steam. Carry over due to sudden load variations can be firmly controlled with the two separators.

[ EX-500GH FRONT & SIDE VIEW ]

[ EX-750GH FRONT & SIDE VIEW ]

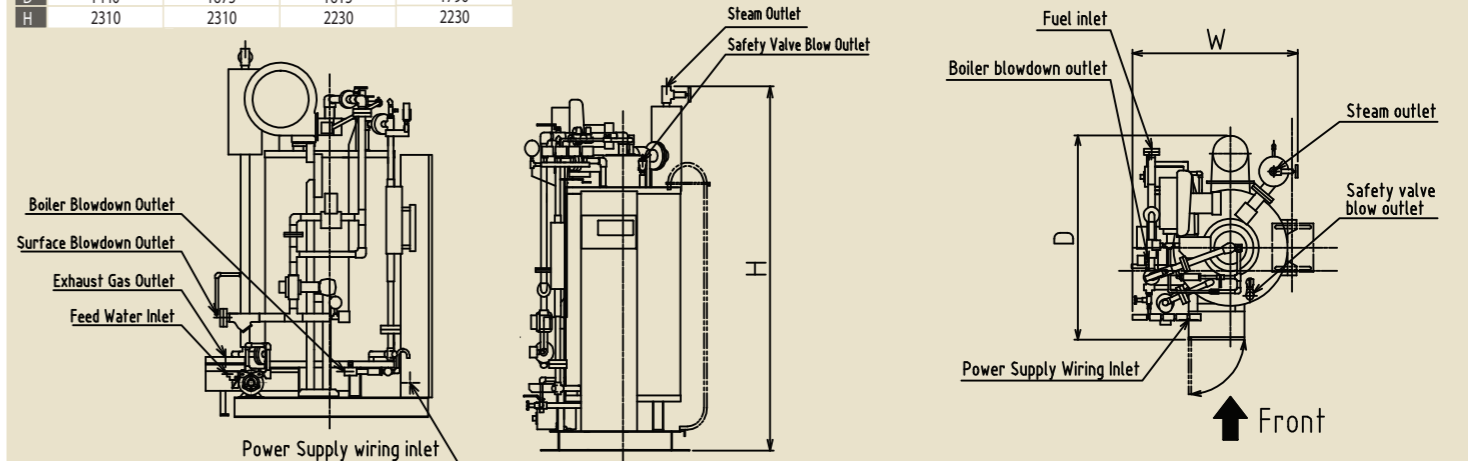


## Basic Specification

MIURA TYPE		EX - 500GH	EX - 500GS	EX - 750GH	EX - 750GS	REMARK		
ITEM	UNIT							
<b>MAIN UNIT</b>								
Boiler Type	—	Once-through steam boiler						
Working Pressure	MPa	0.49-0.88				*9, *10		
Equivalent Output	kg/h	500	500	750	750			
Actual Output	kg/h	419	419	629	629	*3		
Heat Output	kW {kcal/h}	313 {269500}	313 {269500}	470 {404300}	470 {404300}			
Boiler Efficiency	%	90	94	90	94	*2		
Water Content	L	73	73	107	107			
Fuel Consumption	Natural Gas (13A)	Nm <sup>3</sup> /h	30.8	29.5	46.3	44.3	*1, *2, *6	
		kg/h	13.3	12.8	20.0	19.2		
	LPG	(Propane)	kg/h	27.0	25.8	40.5		38.8
		(Butane)	Nm <sup>3</sup> /h	10.5	10.0	15.8		15.1
		kg/h	27.4	26.2	41.1	39.4		
Power Supply	—	AC 380 V 50 Hz 3 phase						
Required Wire Diameter for Power Supply	mm <sup>2</sup>	2				*7		
Power Circuit Breaker Capacity	A	15	15	20	20	*4, *8		
Rated Power Consumption	kW	1.7	1.7	3.2	3.2	*4		
Max. Electrical Consumption 50Hz	kVA	3.7	3.65	5.7	5.80	*4		
Product Weight	kg	820	970	1120	1320			
<b>Connection Diameter</b>								
Steam Outlet	A	32	32	40	40			
Safety Valve Outlet		40				*5		
Feed Water Inlet		25				*4		
Boiler Blowdown Outlet		25						
Fuel Inlet		40						
Inspection Port		50						
Surface Blowdown Outlet		[10]						
Stack Diameter	φ mm	250	250	290	250			

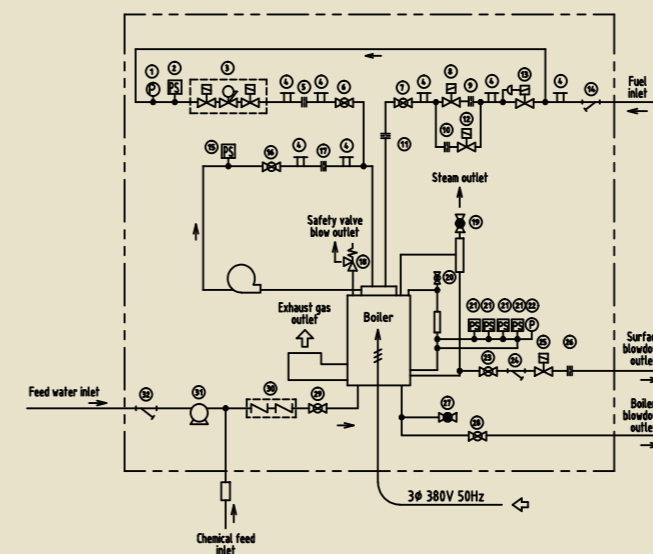
## Overall Dimensions [ EX-500GH - 500GS - 750GH - 750GS ]

	EX-500GH	EX-500GS	EX-750GH	EX-750GS
W	1185	1185	1375	1375
D	1440	1675	1615	1790
H	2310	2310	2230	2230



\*The diagram shows EX-500GH

## Flow Sheet [ EX-500GH - 500GS - 750GH - 750GS ]



1	Micro pressure gauge	18	Safety valve
2	Gas pressure switch	19	Main steam valve
3	Pilot gas solenoid valve	20	Air vent valve
4	Pressure test port	21	Steam pressure switch
5	Pilot gas orifice	22	Steam pressure gauge
6	Pilot gas valve	23	Surface blowdown valve
7	Main gas valve	24	Y-type strainer
8	Main gas solenoid valve	25	surface blowdown solenoid valve
9	Main gas orifice (high fire)	26	Orifice
10	Main gas orifice (low fire)	27	Water sampling port
11	Main gas orifice	28	Boiler blowdown valve
12	Main gas solenoid valve	29	Feed water stop valve
13	Emergency shutoff valve	30	Check valve
14	Gas strainer	31	Feed water pump
15	Air pressure switch	32	Y-type strainer (high temperature water)
16	Pilot air control valve		
17	Pilot air orifice		

\*The diagram shows EX-500GH for normal temperature water specifications

\*1. The following values are used for the heat output of the fuel.

Fuel type	Lower heating value
Natural Gas (13A)	40.6 MJ/m <sup>3</sup> N
(Propane)	93.7 MJ/m <sup>3</sup> N (46.4 MJ/kg)
(Butane)	118.9 MJ/m <sup>3</sup> N (45.7 MJ/kg)

\*2. (1) Boiler efficiency is based on the following.

Operating conditions: Operating pressure 0.49 MPa (5 kgf/cm<sup>2</sup>),  
Feed water temperature: 15°C  
supply air temperature: 35°C

Land boilers - Heat balancing: JIS B 8222

(2) The error has the following tolerances.

Error for boiler efficiency ±1%, error for fuel consumption ±3.5%

\*3. Actual output evaporation is based on feed water temperature 15°C, and steam pressure 0.49 MPa.

\*4. If the feed water temperature is 85°C or higher, the high temperature water specification must be used.

\*5. The safety valve outlet shows the diameter of the elbow that connects to the outlet of the safety valve.

\*6. The gas supply pressure should be set within the appropriate range as shown below. (Applicable both during operation and when stopped).

Model	Natural Gas (13A)	LPG
EX - 500GH	1.96 ± 0.49 kPa	2.75 ± 0.49 kPa
EX - 500GS		
EX - 750GH		
EX - 750GS		

\*7. Required wire diameter for power supply indicates the wire diameter of crosslinked polyethylene insulated PVC sheathed cable (CV).

\*8. The Power circuit breaker must be an earth leakage circuit breaker (with overcurrent protection).

\*9. Install a pressure reducing valve or equivalent when the steam lower than the working pressure range is required.

\*10. If the pressure exceeds the working pressure range, steam leak or blowout from the safety valve may occur.  
Contact your local Miura Office when the steam pressure setting of the boiler exceeds the working pressure range.