# Network



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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.

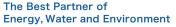
Safety Precautions

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

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## **Once-Through Steam Boiler**





# **Stable, High-Quality Steam Greater Boiler Efficiency Result In Reduced Running Costs**

Miura is recognized as the world's most reliable and respected brand of once-through boilers. Commanding the top share of the market for compact once-through boilers, we are proud of our boilers which demonstrate our commitment to quality and technical prowess, and we are delivering outstanding performance in a wide variety of industries. We know that the El series will fully satisfy our overseas customers in term of environmental friendliness, running cost, and steam quality.

### **Features**

### **Provide Stable And High-Quality Steam**

Miura developed a new feed water control method called the twin water level control method. This method is for keeping the best ebullition condition and the equalizing head effect in the water tubes by changing the water level automatically as the combustion load

### **Quite Operation**

The operating noise will not distrub the operator or any person working nearby in the morning or late at night.

### Space Saving

Being once-through boilers, the Miura El Series are more compact than former series. This compactness enables the user to make full use of limited space and renders the boiler room spacious.

### ω (omega) Flows Structure That Enhances Boiler Effciency

The Miura El 1500 - 2000 Series are composed of upper and lower headers and a group of vertically mounted water tubes which is wedged at both ends. This computer designed boiler result in a more spacious heat transfer area and heat absorption through the contract-heat transfer area is greatly enhanced. The combustion gas, flows into the chamber then spread out the left and right side of the chamber where water tubes are arranged uniformly.

### Steam Available Use Only 4 Or 5 Minutes After Ignition

It takes only 4 or 5 minutes after ignition to start producing steam at a predetermined pressure, which allows quickly get to work on operations.



## **Basic Specification**

Dasic		.011100	401011					
MIURA TYPE			EI-1500FH	EI-1500	S	EI-2000FS	REMARKS	
ITEM			UNIT	Oil (Kerosene / Heavy Oil A)				
Main Unit								
Boiler Type			Once-through steam boiler					
Working Pressure Range			MPa	0.49 - 0.88				
Equivalent Output			kg/h	1500			2000	
Heat Output			kW{kcal/h}	940{808500}				
			MW{kcal/h}	_			1.25{1078000}	
Boiler Efficiency			%	90 9		95		*2
Water Content			L	151			144	
Power Supply				AC 380 V 50 Hz			Hz 3 phase	
		Kerosene	L/h	108.0	102.4		136.5	*1, *2, *10
Fuel Consumption	Oil		kg/h	86.4	81.9		109.2	
ruei Consumption	Oil	Heavy Oil A	L/h	102.4	97.0		129.4	
			kg/h	88.1	83.5		111.3	
Required Wire Diameter for Power Supply			mm <sup>2</sup>	5.5				*6
Power Circuit Breaker Capacity			A	60				*4, *7
Rated Power Consumption			kW	10.2			10.3	*4
Max. Electrical Consumption 50Hz			kVA	13.5			13.7	*4
Product Weight			kg	2190	2440		2530	
Connection Diamete	r							
Steam Outlet					65			
Safety Valve Outlet				50			*5	
Feed Water Inlet				32		40	*4	
Boiler Blowdown Outlet		A	25 [25		[25]		*8	
Fuel Inlet					20			
Inspection Port				50 10 [10				
Surface Blowdown Outlet							*8	
Dew Drain Outlet						50		
Stack Diameter			φ mm	360	300		300 (400)	*12

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

Fuel type	Lower heating value	Density
Kerosene	43.5 MJ/kg	0.80 g/c m <sup>3</sup>
Heavy Oil A	42.7 MJ/kg	0.86 g/cm <sup>3</sup>

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

Operating conditions: Operating pressure 0.49 MPa

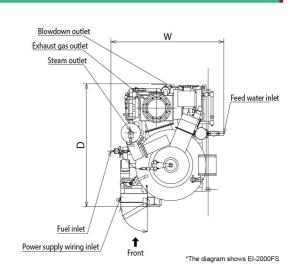
Charge air temperature: 35°C

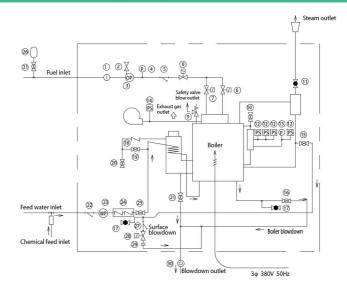
Land boilers - Heat balancing: JIS B 8222

- (2) The error has the following tolerances
- Error for boiler efficiency ±1%, error for fuel consumption ±3.5% \*3 Actual output 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
- connects to the outlet of the safety valve. \*6. Power supply wire diameter indicates the wire diameter of
- crosslinked polyethylene insulated PVC sheathed cable (CV). \*7. The power circuit breaker must be an earth leakage circuit breaker
- (with overcurrent protection) \*8. The connections with values in [ ] are connected to the soot blow
- drain outlet.
- \*9. Install a pressure reducing valve or equivalent when the steam lower than working pressure range is required.
- \*10. When using Heavy Oil A, JIS Class 1 No.1 is recommended. Sulfur contents in fuels and dew drops make the inside of the stack corrosive. In addition, when corrosive seatter, it may cause corrosion and contamination of roofs and other areas Therefore, JIS Class 1 No.1 such low sulfur is recommended.
- \*11. 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 \*12. With a single stack, select a diameter of \$\Phi400\$. With concentric
- stack, Φ300 mm is acceptable. Specification model is designed for use with feed water at a temperature of 55°C or higher. For the sake of safety, an earthquake detector should also be installed

EI-1500FH EI-1500FS EI-2000FS

W	1840	1840	1875	
D	2005	2020	2025	Steam outlet
Н	2435	2435	2520	
Euel inle				Exhaust gas outlet  Safety valve blow outlet  Feed water inlet  Blowdown outlet  Power supply wiring inlet





1	Oil strainer
2	Oil air vent valve
3	Oil pump
4	Oil pressure gauge
5	Y-type strainer
6	Solenoid valve(low fire)
7	Solenoid valve(high fire)
8	Shutoff solenoid valve
9	Safety valve
10	Air vent valve
11	Main steam valve
12	Steam pressure switch
13	Steam pressure gauge
14	Air pressure switch
15	Surface blowdown valve
16	Boiler blowdown valve
17	Water sampling port
18	Check valve
19	Soot blow valve
20	Leak detection valve

Soot blow drain valve Y-type strainer Feed water pump Check valve Feed water stop valve Accumulator Y-type strainer Surface blowdown solenoid valve Orifice Sight glass

\*The diagram shows El-2000FS for normal temperature water specifications