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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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The Best Partner of  
Energy, Water and Environment

# MIURA

## Once-Through Steam Boiler

# EI OIL

1500 FH • 1500 FS • 2000 FS



**Best  
Seller  
Models**

# 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 EI 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

#### Space Saving

Being once-through boilers, the Miura EI 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 Efficiency

The Miura EI 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.

#### Quite Operation

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



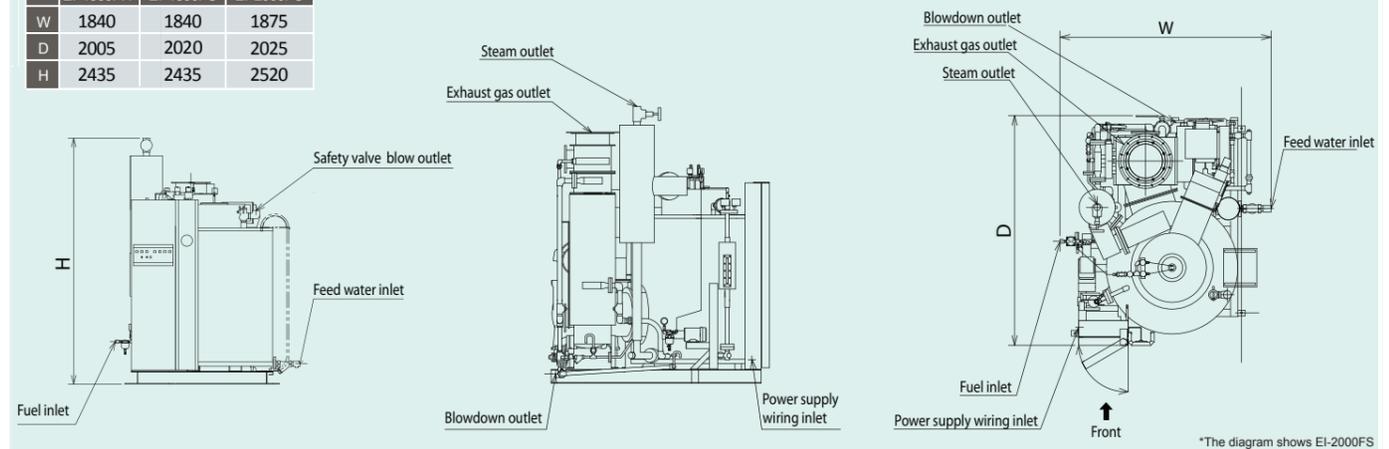
\* Front View EI EI-1500FH

### Basic Specification

| MIURA TYPE                              |                 | EI-1500FH                    | EI-1500FS | EI-2000FS | REMARKS       |       |             |
|---|-----------------|------------------------------|-----------|-----------|---------------|-------|-------------|
| ITEM                                    | UNIT            | Oil (Kerosene / Heavy Oil A) |           |           |               |       |             |
| <b>Main Unit</b>                        |                 |                              |           |           |               |       |             |
| 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                           | 95        |           | *2            |       |             |
| Water Content                           | L               | 151                          |           | 144       |               |       |             |
| Power Supply                            | ----            | AC 380 V 50 Hz 3 phase       |           |           |               |       |             |
| Fuel Consumption                        | Oil             | Kerosene                     | L/h       | 108.0     | 102.4         | 136.5 | *1, *2, *10 |
|   |                 |                              | kg/h      | 86.4      | 81.9          | 109.2 |             |
|   |                 | 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      |               |       |             |
| <b>Connection Diameter</b>              |                 |                              |           |           |               |       |             |
| Steam Outlet                            |                 | 65                           |           |           |               |       |             |
| Safety Valve Outlet                     |                 | 50                           |           |           | *5            |       |             |
| Feed Water Inlet                        |                 | 32                           |           | 40        | *4            |       |             |
| Boiler Blowdown Outlet                  | A               | 25                           | [25]      |           | *8            |       |             |
| Fuel Inlet                              |                 | 20                           |           |           |               |       |             |
| Inspection Port                         |                 | 50                           |           |           |               |       |             |
| Surface Blowdown Outlet                 |                 | 10                           | [10]      |           | *8            |       |             |
| Dew Drain Outlet                        | ----            | 50                           |           |           |               |       |             |
| Stack Diameter                          | φ mm            | 360                          | 300       | 300 (400) | *12           |       |             |

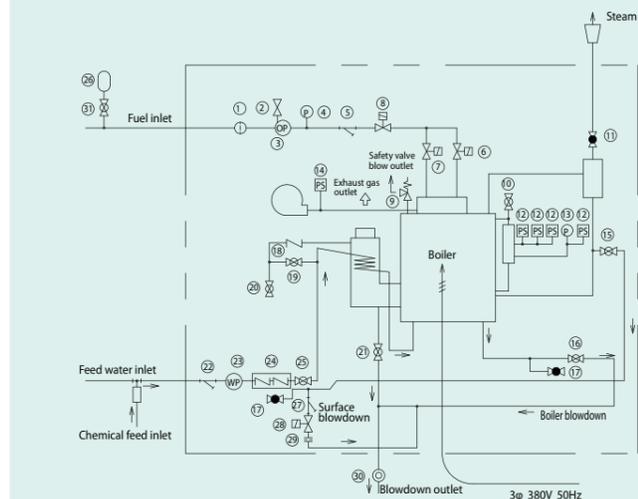
#### Overall Dimensions [EI 1500FH - EI 1500FS - EI 2000FS]

|   | EI-1500FH | EI-1500FS | EI-2000FS |
|---|-----------|-----------|-----------|
| W | 1840      | 1840      | 1875      |
| D | 2005      | 2020      | 2025      |
| H | 2435      | 2435      | 2520      |



\*The diagram shows EI-2000FS

#### Flow Sheet [EI 1500FH - EI 1500FS - EI 2000FS]



- |                             |                                    |
|-----------------------------|------------------------------------|
| 1 Oil strainer              | 21 Soot blow drain valve           |
| 2 Oil air vent valve        | 22 Y-type strainer                 |
| 3 Oil pump                  | 23 Feed water pump                 |
| 4 Oil pressure gauge        | 24 Check valve                     |
| 5 Y-type strainer           | 25 Feed water stop valve           |
| 6 Solenoid valve(low fire)  | 26 Accumulator                     |
| 7 Solenoid valve(high fire) | 27 Y-type strainer                 |
| 8 Shutoff solenoid valve    | 28 Surface blowdown solenoid valve |
| 9 Safety valve              | 29 Orifice                         |
| 10 Air vent valve           | 30 Sight glass                     |
| 11 Main steam valve         | 31 Ball 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     |                                    |

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

\*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/cm <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  
Feed water temperature: 15°C  
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 the elbow that 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 blowdown 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 φ400. 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.