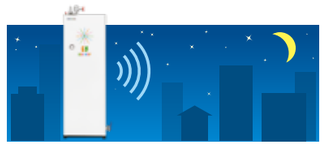
Reliable design for a variety of safety devices is realized, earthquake detector is equipped as standard device.

Various safety device, and fail safe in feed water and combustion control is strengthening the safety further.
Earthquake detector is provided as standard device. When the Japanese (seismic) scale is detected at a little under 5 seismic intensity, boiler is stopped automatically, and secondary disaster can be prevented.

Careful design for silent operation can realize the easy operation in night and early morning time.

Low noise fan mounted or noise absorbing structure employed are reducing the operation noise. Then you do not need to worry about complaining from neighborhood.



Invertor gets electric power saving

Invertor is provided as standard equipment. Therefore the revolution of blower motor is properly controlled and the electric consumption is reduced.

Anyone easy operation

Anyone can operate only to push start button !

ALL MODELS EASY TO OPERATE

Necessary and Auxiliary Equipment

WATER SOFTENER

Provides the boiler with the most suitable water after treatment by our water softener

SS series

Chemical Injection Equipment

Keeps boiler in good condition for a longer period by Chemical Injection

CP-W series
CP-X series

Boiler Chemicals

Multi-Functional Chemicals for protection against corrosion and scale sticking

*We might be unable to export due to the regulation of your country. Please contact us for confirmation.

SAMCLEAN S-125

Option

Boiler is always kept in the best condition

Concentrated Blow

Controller operates concentrated blow automatically depending on operating conditions of the boiler.
Optimum timing of overall blow is informed by lamp indication.
* EB-500N and EB-500PN include as a standard feature.

Saves Your Operation Work

Automatic Overall Blow Control

Controller signal instructs overall blow automatically, depending on operating conditions of the boiler.

Multi-Boilers Control System

Multi-Boilers Control Panel can control multi-boilers and maintain the best operating conditions.
Even if there is a sudden change in steam load and any trouble with boilers, it is possible to supply steam constantly.

SAMSON CO.,LTD.

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SAMSOLUTION INTERNATIONAL CO., LTD.

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WEB SITE	https://www.samson.co.jp/tw/

SAMSOLUTION

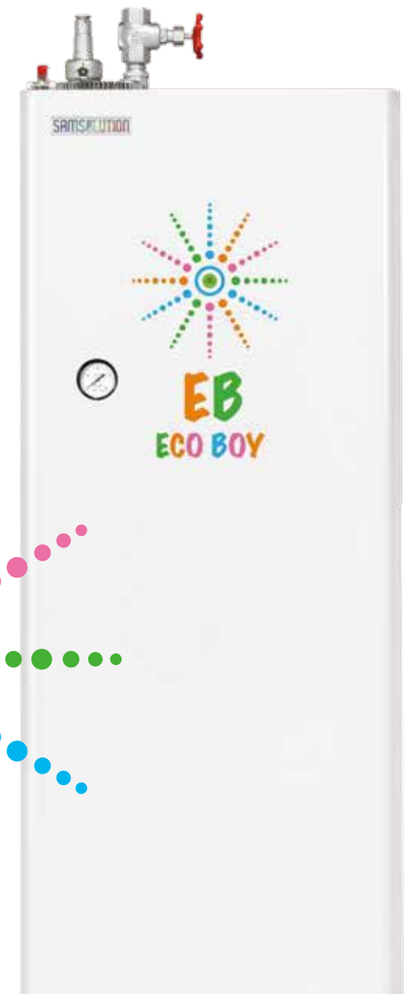
SAMSOLUTION BOILER SYSTEM

For a sustainable future of energy and food

EB Series GAS

Made in Japan since 1945

ECO BOY



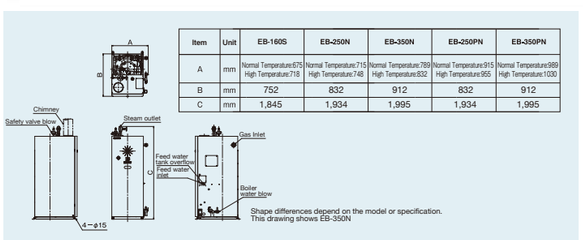
EB Series

EB-160S EB-250N EB-350N EB-500N
EB-250PN EB-350PN EB-500PN

Item		Unit	EB-160S	EB-250N	EB-350N	EB-500N	EB-250PN	EB-350PN	EB-500PN
Type of Boiler		—	Once-Through Boiler						
Max. Pressure		MPa(kgf/cm²)	0.69(7)	0.98(10)					
Working Pressure Range		MPa	0.39~0.59	0.39~0.88					
Hydraulic Testing Pressure		MPa(kgf/cm²)	1.19(12)	1.58(16)					
Equivalent Evaporation		kg/h	160	250	350	500	250	350	500
Heat Output		kW(kcal)	100(86,200)	157(135,000)	219(189,000)	313(270,000)	157(135,000)	219(189,000)	313(270,000)
Boiler Efficiency		%	90			85	96		
Heating Surface Area		m²	3.1	4.12	4.98	4.98	4.12	4.98	4.98
Holding Water Volume		L	40	52	66	82	52	66	82
Type of Burner		—	Blast						
Combustion Control		—	ON-OFF	3-Position(High-Low-OFF)					
Feed Water Control		—	ON-OFF						
Ignition		—	AC Spark Ignition						
Flame Detection		—	Flame Rod						
Weight		kg	330	430	530	655	560	720	850
Weight in Operation		kg	370	485	600	740	620	790	945
Fuel Consumption	13A	m³(N)/h	9.9	15.4	21.6	32.7	14.5	20.3	29.0
	LPG Propane	m³(N)/h	4.3	6.7	9.4	14.2	6.3	8.8	12.5
		kg/h	8.6	13.5	18.9	28.6	12.7	17.7	25.3
	LPG Butane	m³(N)/h	3.4	5.3	7.4	11.2	4.9	6.9	9.9
		kg/h	8.8	13.7	19.2	29.1	12.9	18.0	25.7
Supply gas pressure	13A	kPa (mmAq)	2.0±0.5(200±50)						
	LPG		2.8±0.5(280±50)						
Power Supply		—	AC200V 3φ(50/60Hz)*						
Available Electricity		kW	Normal Temperature:0.6 High Temperature:0.8	Normal Temperature:1.0 High Temperature:1.0	Normal Temperature:1.35 High Temperature:1.35	Normal Temperature:1.70 High Temperature:1.70	Normal Temperature:1.0 High Temperature:1.0	Normal Temperature:1.35 High Temperature:1.35	Normal Temperature:1.70 High Temperature:1.70
Total Electric Capacity		kVA	Normal Temperature:1.23 High Temperature:1.44	Normal Temperature:1.75 High Temperature:1.79	Normal Temperature:2.31 High Temperature:2.31	Normal Temperature:2.93 High Temperature:2.93	Normal Temperature:1.75 High Temperature:1.79	Normal Temperature:2.31 High Temperature:2.31	Normal Temperature:2.93 High Temperature:2.93
Main Wire Size		mm²	2						
Power Breaker Capacity		A	15						
Connection Dia.	Feed Water Inlet	—	Normal Temperature:15A High Temperature:20A			20A	Normal Temperature:15A	High Temperature:20A	20A
	Gas Inlet(13A)	—	25A		32A	40A	25A	32A	40A
	Gas Inlet(LPG)	—	25A			40A	25A		40A
	Steam Outlet	—	25A		32A		25A	32A	
	Safety Valve Blow	—	20A	25A		32A	25A		32A
	Boiler Water Blow	—	25A						
	Feed Water Tank Overflow	—	20A			25A	20A		25A
	Economizer Drain	—	—				25A		
	Air Inlet	—	10A			15A	10A		15A
	Chemical Inlet	—	15A						
	Chimney	mm	φ120	φ150	φ200	φ250	φ150		φ250

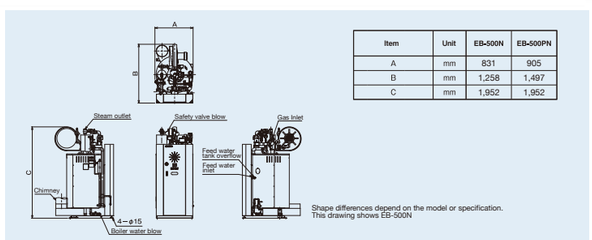
1. The above specifications are based on the following standard values in Japan.
   Steam pressure 0.49MPa(5kgf/cm²)
   Feed water temp. 15℃
   Feed air temp. 35℃
   Lower heating value 13A : 40.6 MJ/m³(N) (9,700 kcal/m³(N))
   Propane : 93.7 MJ/m³(N) (22,380 kcal/m³(N)), 46.4 MJ/kg (11,080 kcal/kg)
   Butane: 118.9 MJ/m³(N) (28,400 kcal/m³(N)), 45.7 MJ/kg (10,920 kcal/kg)
2. Please always supply with gas at the stable pressure within standard range at anytime of boiler stop, boiler operation and other equipment operation.
3. The following allowance is considered as unavoidable measurement error :
   Measurement error in boiler efficiency ±2%
   Measurement error in combustion (input) ±3.5%
4. Specifications are subject to change without prior notice.

＊ 200-480V can be available by transformer.



Item	Unit	EB-160S	EB-250N	EB-350N	EB-250PN	EB-350PN
A	mm	Normal Temperature:675 High Temperature:718	Normal Temperature:715 High Temperature:748	Normal Temperature:789 High Temperature:832	Normal Temperature:915 High Temperature:955	Normal Temperature:989 High Temperature:1030
B	mm	752	832	912	832	912
C	mm	1,845	1,934	1,995	1,934	1,995

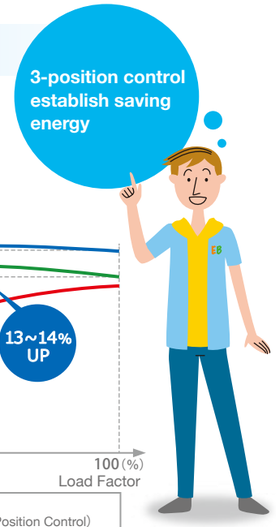
Shape differences depend on the model or specification.
This drawing shows EB-350N



Item	Unit	EB-500N	EB-500PN
A	mm	831	905
B	mm	1,258	1,497
C	mm	1,952	1,952

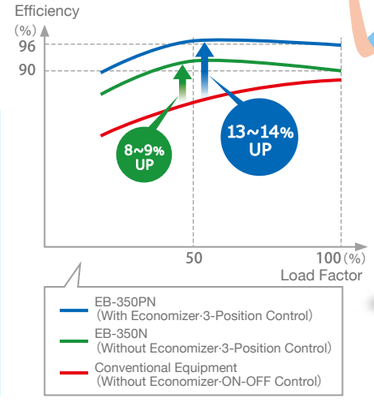
Shape differences depend on the model or specification.
This drawing shows EB-500N

Feature 1 Energy saving operation by 3-position control



In this capacity of boiler, we are the first manufacturer to provide 3-position control with all models. (Except for EB-160S)

ON-OFF control drop the operation efficiency as the consumption of steam is reduced. In case of ECO BOY employing 3-position control, it is continued to operate, even if the consumption of steam is reduced to a half. Consequently few number of ON-OFF control is operated and the operation efficiency is improved.



Low Fuel Consumption & CO2 Reduction

When the comparison is made between the former ON-OFF control and New EB-350N/PN employing 3-position control, you can find the following advantage in the fuel cost and the environmental CO2 reduction.

Fuel Reduction
- EB-350N ▸▸▸ ¥120.000/Year Reduction
- EB-350PN (With Economizer) ▸▸▸ ¥230.000/Year Reduction

CO_2 Reduction
- EB-350N ▸▸▸ 3.0t/Year Reduction
- EB-350PN (With Economizer) ▸▸▸ 5.8t/Year Reduction

Calculation Condition
- Equivalent Evaporation 350kg/h Boiler 1unit
- Operating Time 1,500Hours/Years (6Hours 250days)
- Average Load 50%
- Fuel Cost ¥90/m³N (13A)

Feature 2 High boiler efficiency establish high economical operation

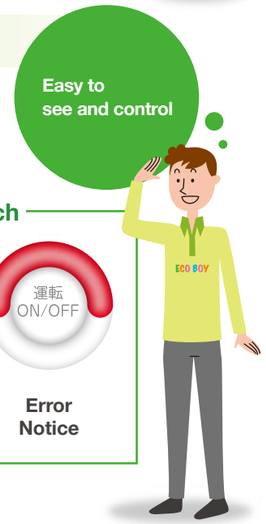
Efficiency is on a level with the best in the industry!
Boiler efficiency at rated operation is standardized as 90% except EB-500N. Furthermore, the efficiency of Boilers with economizer reach to high level as 96%.

In addition to energy saving operation by 3-position control, this become much more economical by reducing fuel at higher efficiency of boiler.

Boiler Efficiency	
96%	EB-250PN EB-350PN EB-500PN

Boiler Efficiency	
90%	EB-160S EB-250N EB-350N

Feature 3 Clear design establishes easy control



Front panel is clear design of One-button Design

It is easy to understand the operation condition of boiler by coloring on operation button, and simple to operate by one button control.

Boiler condition notice by Operating Switch