

**Saving Space by
Incorporating Feed
Water Tank and Feed
Water Pump into Boiler**



Feed Water Tank

Feed Water Pump

SAMSOLUTION

For a sustainable future of energy and food

SAMSOLUTION BOILER SYSTEM
TU Series **OIL**

Made in Japan
since 1945

Option

Safety during earthquake

**Equipped with
Earthquake Detector**

When detecting the earthquake with a seismic intensity of 5 lower, it stops the boiler automatically and prevents the secondary disaster.



Boiler is always kept in the best condition.

Concentrated Blow is available.*

Controller operates concentrated blow automatically depending on operating conditions of the boiler. Optimum timing of overall blow is informed by lamp indication. As a result, all the boilers are kept in the best condition.

*TU-500R includes as standard.

Water Treatment Equipment High-quality water is the basis for boilers.

Water Softener



SS series

**Chemical Injection
Equipment**



CP-X series

Boiler Chemicals



SAMCLEAN S-125
Category Code : G6, G7
NSF Registration No. 166985

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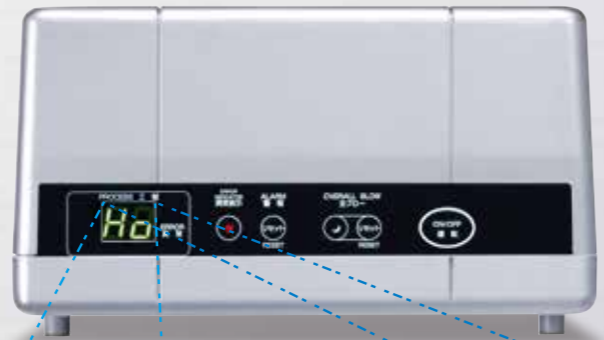
TURBO
TU-100R/200R/300R/500R

TURBO

Turbo series is renewed, featuring Easy Operation, Reliable Safety and High Performance inherited from the previous series.

Newly developed control panel pursues the customer's convenience.

All of the boiler control is displayed on the control panel. Easy and quick judgement of all trouble becomes possible so that working loss can be minimized.



The number of functions to be displayed
23
in total

operation indication 8 items
check indication 3 items
error indication 12 items

Monitor indication example
Press indication changeover switch
Monitor Display at error occurrence (example)

When error occurrence indication is lighting, if you press "changeover switch", more detailed description is indicated. Indicated number represents the required repair work.

Dry Steam of High Quality Is Useful for Saving Energy

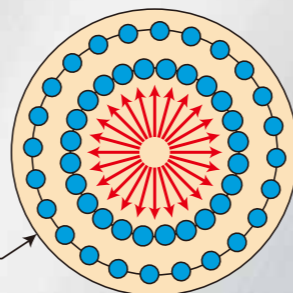
Such problems as "Product quality changes", "Pressure reducing valve and trap often produce trouble", and "Heating efficiency is quite low" result from the poor quality of steam. SAMSON Boiler can produce constantly high-dryness steam by our original "Water Level in Alignment Control Technology".

Durable Round Shape Boiler Body Structure is tough for long use

Boiler Body is round shape structure, and water tubes are arranged cylindrically in the boiler. Combustion flame contacts each water tube equally and there is no need to worry about the partial heating on tubes. Consequently more durability and longer life can be achieved.

Boiler body structure (sectional drawing)

Flame contacts each tube equally.



Note: This drawing shows a structure of TU-500R



TU Series

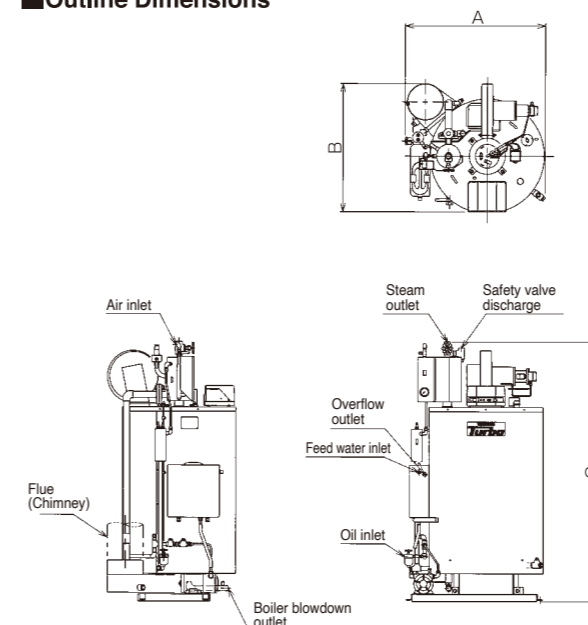
OIL

Item	Unit	TU-100R	TU-200R	TU-300R	TU-500R	
Type of Boiler	—	Once-Through Boiler				
Max. Pressure	MPa	0.69	0.98			
Working Pressure Range	MPa	0.39~0.59	0.39~0.88			
Hydraulic Testing Pressure	MPa	1.2	1.58			
Equivalent Evaporation	kg/h	100	200	300	500	
Heat Output	kW(kcal)	62.7(53,900)	125(108,000)	188(162,000)	313(270,000)	
Boiler Efficiency	%	87			85	
Heating Surface Area	m ²	2.75	3.89	4.95	4.98	
Holding Water Volume	L	38	53	63	82	
Type of Burner	—	Forced Draft, Pressure Spray				
Combustion Control	—	ON-OFF				
Feed Water Control	—	ON-OFF				
Ignition	—	AC Spark Ignition				
Dry Weight	kg	250	370	470	560	
Weight in Operation	kg	290	425	535	645	
Fuel Consumption	Kerosene	L/h	7.5	14.9	22.4	38.2
	Heavy Oil A	L/h	—	14.1	21.2	36.2
Power Supply	—	AC100V 1φ (50/60Hz)*	AC200V 3φ (50/60Hz)*			
Available Electricity	Kerosene	kW	0.37	1.00	1.70	
	Heavy Oil A	kW	—	1.05	1.75	
Total Electric Capacity	Kerosene	kVA	0.75	1.89	2.76	
	Heavy Oil A	kVA	—	1.94	2.81	
Description	Fan Motor	kW	0.07	0.4	0.75	
	Feed Water Pump Motor	kW	0.20	0.4	0.75	
	Nozzle Heater (A only)	kW	—	0.05		
	For Control	kW	0.1	0.2		
Main Wire Size	mm ²	2				
Power Breaker Capacity	A	15		20		

1. The above specifications are based on the following standard values in Japan.
Steam pressure 0.49 MPa (5 kgf/cm²)
Feed water temp. 15°C
Feed air temp. 35°C
Lower heating value Kerosene: 34.8 MJ/L (8,310 kcal/L)
Heavy Oil A: 36.7 MJ/L (8,770 kcal/L)

2. The following allowance is considered as unavoidable measurement error:
○Measurement error in boiler efficiency ±2%
○Measurement error in combustion (input) ±3.5%
3. The above Available Power is value when Feed Water Pump is installed.
4. Specifications are subject to change without prior notice.
* 200~480V can be available by transformer.

Outline Dimensions



The shape of boiler is different depending on Model and Specification. This drawing is TU-300R.

	TU-100R	TU-200R	TU-300R	TU-500R
A	790	935	965	1,029
B	621	777	896	1,063
C	1,604	1,644	1,805	1,936
Feed water inlet	Normal Temperature:15A(G1/2) High Temperature:20A(Rc3/4)			Normal Temperature : 20A(G3/4) High Temperature : 20A(Rc3/4)
Oil inlet	8A (R1/4)			15A (R1/2)
Steam outlet	20A (Rc3/4)	25A (Rc1)		32A (Rc1-1/4)
Safety valve discharge	20A (Rc3/4)		25A (Rc1)	32A (Rc1-1/4)
Boiler blowdown outlet	25A (Rc1)			
Air inlet	15A (Rc1/2)			
Overflow outlet	20A (Rc3/4)			25A (Rc1)
Chemical dosing inlet	15A (Rc1/2)			
Flue(Chimney)	Φ 150	Φ 200	Φ 250	