

Specifications

*Advanced Steam Boiler Technology
that is Safe, Efficient and Reliable*

CLAYTON STEAM GENERATORS OFFER:

- **COMPACT SIZE**

Clayton steam generators will normally fit in any available area while also reducing construction costs on new building installations.

- **FUEL EFFICIENT**

High efficiency which is inherent with the clayton design translates into lower operating costs and improved overall system operation

- **RESPONSIVE**

Very rapid response to changing steam loads. Clayton steam generator will automatically modulate to match your steam load profile while maintaining system steam pressure

- **SAFE**

Our once through design eliminates the possibility of a steam or water side explosion. The Clayton steam generator is simply the safest steam boiler on the market.

- **LESS WATER WASTE**

Clayton's design concentrates TDS blow down significantly which reduces wasted fuel, water and chemical costs.

- **FAST START**

Full steam pressure and output in minutes from a cold start-up saves fuel and labor cost over conventional designs. Eliminates wasted fuel from idling.

- **AUTOMATIC**

Operation is automatically controlled and the Clayton steam generator can be started from a single switch or remotely using an automatic start option.

- **LOW WEIGHT**

The relatively light weight means that all sizes of Clayton steam generators can be easily moved and installed even in areas with limited structural support.

- **RELIABLE**

Reliability of the Clayton steam generator is field proven and unsurpassed. This results in greatly reduced maintenance and attendance.

- **HIGH QUALITY STEAM**

Steam Quality in excess of 99.5% dry is assured at all times. This is the highest steam quality of any competitive design. Less water and impurities further increase your energy efficiency.

MODEL E1104 STEAM GENERATOR 1,100 BHP



Clayton
INNOVATIVE STEAM SOLUTIONS

Standard and FMB Burners

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SPECIFICATIONS

MODEL E1104

		MODEL E1104 Standard	MODEL SE1104 with Super Economizer	MODEL EG1104-FMB with Low NOx Burner	MODEL SEG1104-FMB with Low NOx Burner and Super Economizer
BOILER HORSEPOWER		1100	1100	1100	1100
HEAT INPUT, BTU/hr.	Oil	44,364,458	42,816,860	NA	NA
	Gas	44,905,488	43,320,588	45,459,877	43,320,588
NET HEAT OUTPUT, BTU/hr.		36,822,500	36,822,500	36,822,500	36,822,500
EQUIVALENT OUTPUT (from and at 212°F feedwater and 0 PSIG steam)		37,950 lb/hr.	37,950 lb/hr.	37,950 lb/hr.	37,950 lb/hr.
DESIGN PRESSURE (see note 1)		65 - 500 psig	65 - 500 psig	65 - 500 psig	65 - 500 psig
STEAM OPERATING PRESSURE (determined by design pressure)		60 - 450 psig	60 - 450 psig	60 - 450 psig	60 - 450 psig
OIL CONSUMPTION		316 gph	306 gph	N/A	N/A
at maximum steam output (see note 2)					
GAS CONSUMPTION		44,905 cfh	43,321 cfh	45,460 cfh	43,321 cfh
at maximum steam output (see note 3)					
BURNER CONTROLS					
modulating		5 to 1 Turndown	5 to 1 Turndown	4 to 1 Turndown	4 to 1 Turndown
EFFICIENCY					
oil-fired efficiency %		83%	86%	NA	NA
gas-fired efficiency %		82%	85%	81%	85%
ELECTRIC MOTORS, HP (see note 4)					
design pressure 15-300 psig	Blower	75	Blower	125	Blower
design pressure 301-500 psig	Pump	125	Pump	125	Pump
		150		150	
ELECTRIC FLA, based on 460 V (see note 5)					
design pressure 15-300 psig		292		382	
design pressure 301-500 psig		322		396	
GAS SUPPLY PRESSURE REQUIRED		5 to 10 psig	5 to 10 psig	5 to 10 psig	5 to 10 psig
ATOMIZING AIR REQUIRED (see note 6)					
Capacity		30 scfm	30 scfm	N/A	N/A
Minimum pressure		70 psig	70 psig	N/A	N/A
AIR SUPPLY REQUIRED (FMB -see note 7)		N/A	N/A	5 scfm @ 3 to 150 psig	5 scfm @ 3 to 150 psig
WATER SUPPLY REQUIRED		5,830 gph	5,830 gph	5,830 gph	5,830 gph
HEATING SURFACE		2,890 sq.ft.	3,655 sq.ft.	2,890 sq.ft.	3,655 sq.ft.
EXHAUST STACK CONNECTION, o.d.		44 in.	44 in.	44 in.	44 in.
APPROXIMATE OVERALL DIMENSIONS					
Steam Generator					
length		183 in.	183 in.	206 in.	206 in.
width		115 in.	115 in.	115 in.	115 in.
height		206 in.	248 in.	206 in.	248 in.
installed weight- wet		53,200 lbs.	55,700 lbs.	53,200 lbs.	55,700 lbs.
shipping weight		47,500 lbs	50,000 lbs.	47,500 lbs	50,000 lbs.
Pump Skid					
length		103 in.	103 in.	103 in.	103 in.
width		32 in.	32 in.	32 in.	32 in.
height		35 in.	35 in.	35 in.	35 in.
shipping weight - FW pump skid		3,200 lbs	3,200 lbs	3,200 lbs	3,200 lbs

1) Design pressures are available up to 3000 psig. Consult factory for details.

2) Based on No. 2 fuel oil with a High Heat Value (HHV) of 140,600 BTU/Gal.

3) Based on Natural Gas with a High Heat Value (HHV) of 1,000 BTU/Ft.³

4) Main FW Pump HP depends on type of pump used - Oil fired units also use a separate motor driven fuel oil pump - 3/4 HP

5) Continuous running. For 575 V multiply by 0.8; for 380 V multiply by 1.1; for 230 V multiply by 2.0; for 208 V multiply by 2.2.

6) Atomizing air required for oil burner.

7) Compressed air required for FMB.

The description and specifications shown were in effect at the time this publication was approved for printing. Clayton Industries, whose policy is one of continuous improvement, reserves the right to discontinue models, or change specifications or design, without notice.



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