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 E604 STEAM GENERATOR 600 BHP

Clayton
INNOVATIVE STEAM SOLUTIONS

SAVES FUEL * SAVES SPACE * SAVES TIME * SAVES MONEY

SPECIFICATIONS

MODEL E604

	MODEL E604 Standard	MODEL SE604 with Super Economizer	MODEL E604-FGR with Flue Gas Recirculation	MODEL SE604-FGR with Flue Gas Recirculation and Super Economizer
BOILER HORSEPOWER	600	600	600	600
HEAT INPUT, BTU/hr Oil	24,198,795	23,354,651	24,198,795	23,354,651
Gas	24,493,902	23,629,412	24,493,902	23,629,412
NET HEAT OUTPUT, BTU/hr	20,085,000	20,085,000	20,085,000	20,085,000
EQUIVALENT OUTPUT (from and at 212°F feedwater and 0 PSIG steam)	20,700 lbs/hr	20,700 lbs/hr	20,700 lbs/hr	20,700 lbs/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 at maximum steam output (see note 2)	172.1 gph	166.1 gph	172.1 gph	166.7 gph
GAS CONSUMPTION at maximum steam output (see note 3)	24,494 cfh	23,629 cfh	24,494 cfh	23,629 cfh
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%	83%	86%
gas-fired efficiency %	82%	85%	82%	85%
ELECTRIC MOTORS, HP (see note 4)	Blower / Pump	Blower / Pump	Blower / Pump / Cooling	Blower / Pump / Cooling
design pressure 15-300 psig	40 / 30	40 / 30	40 / 30 / 7.5	40 / 30 / 7.5
design pressure 301-500 psig	40 / 30	40 / 30	40 / 30 / 7.5	40 / 30 / 7.5
ELECTRIC FLA, based on 460 V (see note 5)				
design pressure 15-300 psig	111	111	122	122
design pressure 301-500 psig	111	111	122	122
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	30 scfm	30 scfm
Minimum pressure	70 psig	70 psig	70 psig	70 psig
AIR SUPPLY REQUIRED (FMB -see note 7)	N/A	N/A	N/A	N/A
WATER SUPPLY REQUIRED	3,180 gph	3,180 gph	3,180 gph	3,180 gph
HEATING SURFACE	1,253 sq.ft.	1,548 sq.ft.	1,253 sq.ft.	1,548 sq.ft.
EXHAUST STACK CONNECTION, o.d.	32 in.	32 in.	32 in.	32 in.
APPROXIMATE OVERALL DIMENSIONS				
length	129 in.	129 in.	129 in.	129 in.
width	138 in.	138 in.	148 in.	148 in.
height	181 in.	207 in.	185 in.	211 in.
WEIGHT				
installed - wet	21,448 lbs	27,230 lbs	21,748 lbs	27,530 lbs
shipping	17,980 lbs	23,170 lbs	18,280 lbs	23,470 lbs
FW pump skid	2,200 lbs	2,200 lbs	2,200 lbs	2,200 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) 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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World Leaders in Precision Steam Generators, Fluid Heaters, Heat Recovery Systems and Customer Service