

# 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.

## SIGMA-FIRE SF25/35 STEAM GENERATOR 25/35 BHP

*Clayton*   
**SigmaFire™**



*Clayton*  
INNOVATIVE STEAM SOLUTIONS

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# SPECIFICATIONS

MODEL SF25 / SF35		MODEL SF25 Standard	MODEL SF25-SE with Super Economizer	MODEL SF35 Standard	MODEL SF35-SE with Super Economizer
<b>BOILER HORSEPOWER</b>		25	25	35	35
<b>HEAT INPUT, BTU/hr</b>	Oil	1,008,283	973,110	1,411,596	1,362,355
	Gas	1,020,579	984,559	1,428,811	1,378,382
<b>NET HEAT OUTPUT, BTU/hr</b>		836,875	836,875	1,171,625	1,171,625
<b>EQUIVALENT OUTPUT (from and at 212°F feedwater and 0 PSIG steam)</b>		863 lbs/hr	863 lbs/hr	1,208 lbs/hr	1,208 lbs/hr
<b>DESIGN PRESSURE (see note 1)</b>		15 - 500 psig	15 - 500 psig	15 - 500 psig	15 - 500 psig
<b>STEAM OPERATING PRESSURE (determined by design pressure)</b>		13 - 450 psig	13 - 450 psig	13 - 450 psig	13 - 450 psig
<b>OIL CONSUMPTION at maximum steam output (see note 2)</b>		7.2 gph	6.9 gph	10.0 gph	9.7 gph
<b>GAS CONSUMPTION at maximum steam output (see note 3)</b>		1,021 cfh	985 cfh	1,429 cfh	1,378 cfh
<b>BURNER CONTROLS</b>		100% / 50% / Off	100% / 50% / Off	100% / 50% / Off	100% / 50% / Off
<b>EFFICIENCY</b>					
oil-fired efficiency %		83%	86%	83%	86%
gas-fired efficiency %		82%	85%	82%	85%
<b>ELECTRIC MOTORS, HP (see note 4)</b>		Blower   Pump	Blower   Pump	Blower   Pump	Blower   Pump
design pressure 15-300 psig		2   1.5	2   1.5	3   1.5	3   1.5
design pressure 301-500 psig		2   2	2   2	3   2	3   2
<b>ELECTRIC FLA, based on 460 V (see note 5)</b>					
design pressure 15-300 psig		9.0	9.0	11.0	11.0
design pressure 301-500 psig		10	10	11	11
<b>GAS SUPPLY PRESSURE REQUIRED</b>		2 psig	2 psig	2 psig	2 psig
<b>WATER SUPPLY REQUIRED</b>		135 gph	135 gph	189 gph	189 gph
<b>HEATING SURFACE</b>		88.7 sq.ft.	118.6 sq.ft.	118.6 sq.ft.	148.5 sq.ft.
<b>EXHAUST STACK CONNECTION, o.d.</b>		8 in.	8 in.	10 in.	10 in.
<b>APPROXIMATE OVERALL DIMENSIONS</b>					
length		58 in.	58 in.	58 in.	58 in.
width		56 in.	56 in.	56 in.	56 in.
height		71 in.	83 in.	83 in.	94 in.
<b>WEIGHT</b>					
installed - wet		2,012 lbs	2,187 lbs	2,187 lbs	2,362 lbs
shipping		1,920 lbs	2,070 lbs	2,070 lbs	2,220 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.<sup>3</sup>

4) Oil fired units also use a separate motor driven fuel oil pump - 1/2 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.

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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