

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 E354 STEAM GENERATOR 350 BHP



S
A
V
E
S

F
U
E
L

*

S
A
V
E
S

S
P
A
C
E

*

S
A
V
E
S

T
I
M
E

*

S
A
V
E
S

M
O
N
E
Y

SPECIFICATIONS

MODEL E354

| | MODEL E354 Standard | MODEL SE354 with Super Economizer | MODEL E354-FGR with Flue Gas Recirculation | MODEL SE354-FGR with Flue Gas Recirculation and Super Economizer |
|---|------------------------|--------------------------------------|---|--|
| BOILER HORSEPOWER | 350 | 350 | 350 | 350 |
| HEAT INPUT, BTU/hr | | | | |
| Oil | 14,115,964 | 13,623,547 | 14,115,964 | 13,623,547 |
| Gas | 14,288,110 | 13,783,824 | 14,288,110 | 13,783,824 |
| NET HEAT OUTPUT, BTU/hr | 11,716,250 | 11,716,250 | 11,716,250 | 11,716,250 |
| EQUIVALENT OUTPUT (from and at 212°F feedwater and 0 PSIG steam) | 12,075 lbs/hr | 12,075 lbs/hr | 12,075 lbs/hr | 12,075 lbs/hr |
| DESIGN PRESSURE (see note 1) | 15 - 500 psig | 15 - 500 psig | 15 - 500 psig | 15 - 500 psig |
| STEAM OPERATING PRESSURE (determined by design pressure) | 13 - 450 psig | 13 - 450 psig | 13 - 450 psig | 13 - 450 psig |
| OIL CONSUMPTION | 100.4 gph | 96.9 gph | 100.4 gph | 96.9 gph |
| at maximum steam output (see note 2) | | | | |
| GAS CONSUMPTION | 14,288 cfh | 13,784 cfh | 14,288 cfh | 13,784 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% | 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 | 25 15 | 25 15 | 25 15 5 | 25 15 5 |
| design pressure 301-500 psig | 25 20 | 25 20 | 25 20 5 | 25 20 5 |
| ELECTRIC FLA, based on 460 V (see note 5) | | | | |
| design pressure 15-300 psig | 67 | 67 | 75 | 75 |
| design pressure 301-500 psig | 74 | 74 | 82 | 82 |
| 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 | 25 scfm | 25 scfm | 25 scfm | 25 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 | 1,855 gph | 1,855 gph | 1,855 gph | 1,855 gph |
| HEATING SURFACE | 594 sq.ft. | 796 sq.ft. | 594 sq.ft. | 796 sq.ft. |
| EXHAUST STACK CONNECTION, o.d. | 24 in. | 24 in. | 24 in. | 24 in. |
| APPROXIMATE OVERALL DIMENSIONS | | | | |
| length | 114 in. | 114 in. | 160 | 160 |
| width | 104 in. | 104 in. | 116 | 116 |
| height | 114 in. | 137 in. | 138 | 161 |
| WEIGHT | | | | |
| installed - wet | 10,566 lbs | 12,297 lbs | 10,766 lbs | 12,497 lbs |
| shipping | 9,140 lbs | 10,530 lbs | 9,340 lbs | 10,730 lbs |
| FW pump skid | 1,150 lbs | 1,150 lbs | 1,150 lbs | 1,150 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 - 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.

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.



World Headquarters
17477 Hurley Street
City of Industry, CA 91744
800.423.4585 tel • 626.435.0180 fax
email: sales@claytonindustries.com
www.claytonindustries.com

Europe, Africa & Middle East Headquarters
Rijksweg 30 • B-2880 Bornem, Belgium
32.3.890.5700 tel • 32.3.890.5701 fax
email: sales@clayton.be

Latin America Headquarters
Manuel L. Stampa 54 • Nueva Industrial Vallejo
Mexico D.F., 07700 Mexico
Toll Free: 01.800.888.4422 • (55)55.86.51.00 tel
(55)55.86.23.00 fax • email: claytonmexico@clayton.com.mx
www.claytonmexico.com.mx

ATLANTA • BOSTON • CHICAGO • CINCINNATI • CLEVELAND • DALLAS • DETROIT • KANSAS CITY • NEW YORK/NEW JERSEY • SAN FRANCISCO

Clayton Deutschland GmbH
Clayton Thermal Products Ltd (UK)

Clayton Scandinavia A.S.
Clayton Nederland B.V.

Clayton de France S.A.R.L.
Clayton Sales & Service Canada

World Leaders in Precision Steam Generators, Fluid Heaters, Heat Recovery Systems and Customer Service