

# TECHNICAL SPECIFICATIONS

## CLAYTON STEAM GENERATORS:

- \* **SAVE FUEL**  
*The unique counter flow, controlled flow design provides higher fuel to steam efficiencies than traditional boilers.*
- \* **ARE SAFE FOR PERSONNEL & EQUIPMENT**  
*The Clayton units inherently eliminate the potential for hazardous steam explosions due to their smaller physical size and low water volume.*
- \* **PROVIDE RAPID RESPONSE**  
*With low water volume and physical size, Clayton units can respond very quickly to load changes*
- \* **PROVIDE FAST START-UP AND LOAD RESPONSE**  
*The units will provide full output from a cold start within ten minutes, without thermal stress.*
- \* **ARE COMPACT AND LIGHTWEIGHT**  
*The Clayton design typically occupies one-third of the floor space and is 75% lighter than a conventional boiler.*
- \* **ENSURE HIGH QUALITY STEAM**  
*Provide greater than 99.5% quality steam.*
- \* **AFFORD FUEL VERSATILITY**  
*Natural gas, propane, light or heavy oil burners are available or in combination.*
- \* **HAVE ADVANCED CONTROLS**  
*Programmable Logic Controllers (PLC) are standard for accurate and reliable operation.*
- \* **ARE AVAILABLE WITH LOW NOx**  
*Industry leading Low NOx burners are available to meet strict environmental regulations.*
- **ARE BACKED BY** *Fast, Expert Factory-Direct service that is available 24 hours per day throughout the U.S., Canada, Mexico, Europe, Asia and service distributors worldwide.*



MODEL E204  
STEAM GENERATOR  
200 BHP

# CLAYTON STEAM GENERATOR

# SPECIFICATIONS

## MODEL E204

	MODEL E204 Standard	MODEL SE204 with Super Economizer	MODEL EG204-FMB with Low NOx Burner	MODEL SEG204-FMB with Low NOx Burner and Super Economizer
<b>BOILER HORSEPOWER</b>	200	200	200	200
<b>HEAT INPUT, BTU/hr</b>				
Oil	8,066,265	7,784,884	NA	NA
Gas	8,164,634	7,876,471	8,265,432	7,876,471
<b>NET HEAT OUTPUT, BTU/hr</b>	6,695,000	6,695,000	6,695,000	6,695,000
<b>EQUIVALENT OUTPUT (from and at 212°F feedwater and 0 PSIG steam)</b>	6,900 lbs/hr	6,900 lbs/hr	6,900 lbs/hr	6,900 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>	57.4 gph	55.4 gph	NA	NA
<b>GAS CONSUMPTION at maximum steam output (see note 3)</b>	8,165 cfh	7,876 cfh	8,265 cfh	7,876 cfh
<b>BURNER CONTROLS</b>				
modulating	5 to 1 Turndown	5 to 1 Turndown	4 to 1 Turndown	4 to 1 Turndown
<b>EFFICIENCY</b>				
oil-fired efficiency %	83%	86%	NA	NA
gas-fired efficiency %	82%	85%	81%	85%
<b>ELECTRIC MOTORS, HP</b>				
design pressure 15-300 psig	Blower 10   Pump 7.5	Blower 10   Pump 7.5	Blower 15   Pump 7.5   Cooling 5	Blower 15   Pump 7.5   Cooling 5
design pressure 301-500 psig	Blower 10   Pump 10	Blower 10   Pump 10	Blower 15   Pump 10   Cooling 5	Blower 15   Pump 10   Cooling 5
<b>ELECTRIC FLA, based on 460 V (see note 4)</b>				
design pressure 15-300 psig	30	30	37	35
design pressure 301-500 psig	33	33	41	38
<b>GAS SUPPLY PRESSURE REQUIRED</b>	5 to 10 psig	5 to 10 psig	5 to 10 psig	5 to 10 psig
<b>ATOMIZING AIR REQUIRED (see note 5)</b>				
Capacity	25 scfm	25 scfm	NA	NA
Minimum pressure	70 psig	70 psig	NA	NA
<b>AIR SUPPLY REQUIRED (FMB -see note 6)</b>	N/A	N/A	5 scfm @ 3 to 150 psig	5 scfm @ 3 to 150 psig
<b>WATER SUPPLY REQUIRED</b>	1,060 gph	1,060 gph	1,060 gph	1,060 gph
<b>HEATING SURFACE</b>	473 sq.ft.	610 sq.ft.	473 sq.ft.	610 sq.ft.
<b>EXHAUST STACK DIAMETER, o.d.</b>	17.88 in.	17.88 in.	17.88 in.	17.88 in.
<b>APPROXIMATE OVERALL DIMENSIONS</b>				
length	114 in.	114 in.	140 in.	140 in.
width	93 in.	93 in.	113 in.	113 in.
height	102 in.	121 in.	107 in.	124 in.
<b>WEIGHT</b>				
installed - wet	8,427 lbs	9,641 lbs	8,627 lbs	9,841 lbs
shipping	7,410 lbs	8,390 lbs	7,610 lbs	8,590 lbs
FW pump skid	1,050 lbs	1,050 lbs	1,050 lbs	1,050 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) 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.

5) Atomizing air required for oil burner.

6) 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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