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# 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 E204 STEAM GENERATOR 200 BHP







MODEL E204									MODEL SEG204-FMB			
	ſ	MODEL E204		MODEL SE204		MODEL EG204-FMB			with Low NOx Burner			
		Standard		with Super	with Super Economizer		with Low NOx Burner			and Super Economizer		
BOILER HORSEPOWER		200		200		200			200			
EAT INPUT, BTU/hr Oil		8,066,265		7,784,884		NA		NA				
Gas		8,164,634		7,876,471		8,265,432		7,876,471				
NET HEAT OUTPUT, BTU/hr		6,695,000		6,695,000		6,695,000		6,695,000				
EQUIVALENT OUTPUT (from and at	212°F											
feedwater and 0 PSIG steam)		6,900 lbs/hr		6,900 lbs/hr		6,900 lbs/hr			6,900 lbs/hr			
ESIGN PRESSURE (see note 1)		15 - 500 psig		15 - 500 psig		15 - 500 psig			15 - 500 psig			
STEAM OPERATING PRESSURE		13 - 450 psig		13 - 450 psig		13 - 450 psig			13 - 450 psig			
(determined by design pressure)								•				
OIL CONSUMPTION		57.4 gph		55.4 gph		NA		NA				
at maximum steam output (see note 2)		51		J								
GAS CONSUMPTION		8,165 cfh		7,87	7,876 cfh		8,265 cfh		7,876 cfh			
at maximum steam output (see not	e 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% 82%		86% 85%		NA 81%		NA 85%				
gas-fired efficiency %												
ELECTRIC MOTORS, HP (see note 4	)	Blower	Pump	Blower	Pump	Blower	Pump	Cooling	Blower	Pum	p C	ooling
design pressure 15-300 psig	<i>'</i>	10	7.5	10	7.5	10	7.5	5	10	7.5		5
design pressure 301-500 psig		10	10	10	10	10	10	5	10	10		5
ELECTRIC FLA, based on 460 V (see	note 5)	•				,		ı		1		
design pressure 15-300 psig	ŕ	32		3	32		39		39			
design pressure 301-500 psig		35		35		42			42			
AS SUPPLY PRESSURE REQUIRED		5 to 10 psig		5 to 10 psig		5 to 10 psig			5 to 10 psig			
ATOMIZING AIR REQUIRED (see not	te 6)						•	•				
Capacity	,	25 scfm		25 scfm		NA NA			NA			
Minimum pressure		70 psig		70 psig		NA		NA				
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	<i>'</i>	1,060 gph		1,060 gph		1,060 gph		1,060 gph				
HEATING SURFACE		473 sq.ft.		610 sq.ft.		473 sq.ft.		610 sq.ft.				
EXHAUST STACK CONNECTION, o.	d.	18 in.		18 in.		18 in.		18 in.				
APPROXIMATE OVERALL DIMENSI												
length		114 in.		114 in.		114 in.		114 in.				
width		97 in.		97 in.		108 in.		108 in.				
height		102 in.		121 in.		110 in.		128 in.				
WEIGHT												
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 prossures are available un	1 0000						,	-		,,		

- 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 congrete mater driven fuel oil nump. 4/2 HI
- 4) Oil fired units also use a separate motor driven fuel oil pump 1/3 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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