

TECHNICAL SPECIFICATIONS

CLAYTON HIGH TEMPERATURE FLUID HEATERS:

* **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 E254-DZ
FLUID HEATER
250 BHP

CLAYTON FLUID HEATER

SPECIFICATIONS

MODEL E254

	MODEL E254 Standard	MODEL SE254 with Super Economizer	MODEL EG254-FMB with Low NOx Burner	MODEL SEG254-FMB with Low NOx Burner and Super Economizer
BOILER HORSEPOWER	250	250	250	250
HEAT INPUT, BTU/hr	10,082,831	9,731,105	NA	NA
Oil	10,205,793	9,845,588	10,331,790	9,845,588
Gas	8,368,750	8,368,750	8,368,750	8,368,750
NET HEAT OUTPUT, BTU/hr				
EQUIVALENT OUTPUT (from and at 212°F feedwater and 0 PSIG steam)	8,625 lbs/hr	8,625 lbs/hr	8,625 lbs/hr	8,625 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 at maximum steam output (see note 2)	71.7 gph	69.2 gph	N/A	N/A
GAS CONSUMPTION at maximum steam output (see note 3)	10,206 cfh	9,846 cfh	10,332 cfh	9,846 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%	NA	NA
gas-fired efficiency %	82%	85%	81%	85%
ELECTRIC MOTORS, HP				
design pressure 15-300 psig	Blower 10 Pump 10	Blower 10 Pump 10	Blower 15 Pump 10 Cooling 5	Blower 15 Pump 10 Cooling 5
design pressure 301-500 psig	Blower 10 Pump 15	Blower 10 Pump 15	Blower 15 Pump 15 Cooling 5	Blower 15 Pump 15 Cooling 5
ELECTRIC FLA, based on 460 V (see note 4)				
design pressure 15-300 psig	33	33	41	
design pressure 301-500 psig	38	38	54	
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 5)				
Capacity	25 scfm	25 scfm	NA	NA
Minimum pressure	70 psig	70 psig	NA	NA
AIR SUPPLY REQUIRED (FMB -see note 6)	N/A	N/A	5 scfm @ 3 to 150 psig	5 scfm @ 3 to 150 psig
WATER SUPPLY REQUIRED	1,325 gph	1,325 gph	1,325 gph	1,325 gph
HEATING SURFACE	473 sq.ft.	610 sq. ft.	473 sq.ft.	610 sq. ft.
EXHAUST STACK DIAMETER, o.d.	23.88 in.	23.88 in.	23.88 in.	23.88 in.
APPROXIMATE OVERALL DIMENSIONS				
length	114 in.	114 in.	152 in.	152 in.
width	104 in.	104 in.	113 in.	113 in.
height	102 in.	120 in.	107 in.	124 in.
WEIGHT				
installed - wet	8,427 lbs	10,935 lbs	8,627 lbs	9,841 lbs
shipping	7,410 lbs	9,440 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.³

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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