

# Eclipse Cross-Flow Recuperators

Model CFR048

Version 1

Parameter		Specification*
Recuperator	Maximum Input	5.0 MM BTU/hr (1465 kW)
	Maximum Exhaust Temperature with No Combustion Air	1800°F (1000°C)
	Maximum Exhaust Temperature with 1,500 scfh Combustion Air	2100°F (1150°C)
	Air Pressure Drop at Maximum Input	6" w.c. (15 mbar)
	Exhaust Pressure Drop at Maximum Input	0.7" w.c. (1.7 mbar)
	Weight of Recuperator	600 lbs (270 kg)
Eductor	Suction at Maximum Input at Eductor Inlet	0.8" w.c. (2 mbar)
	Entrainment Air Volume at Maximum Input	40,000 scfh (1125 Nm <sup>3</sup> /hr)
	Entrainment Air Pressure at Eductor Inlet at Maximum Input	20" w.c. (50 mbar)
	Weight of Eductor	243 lbs (110 kg)

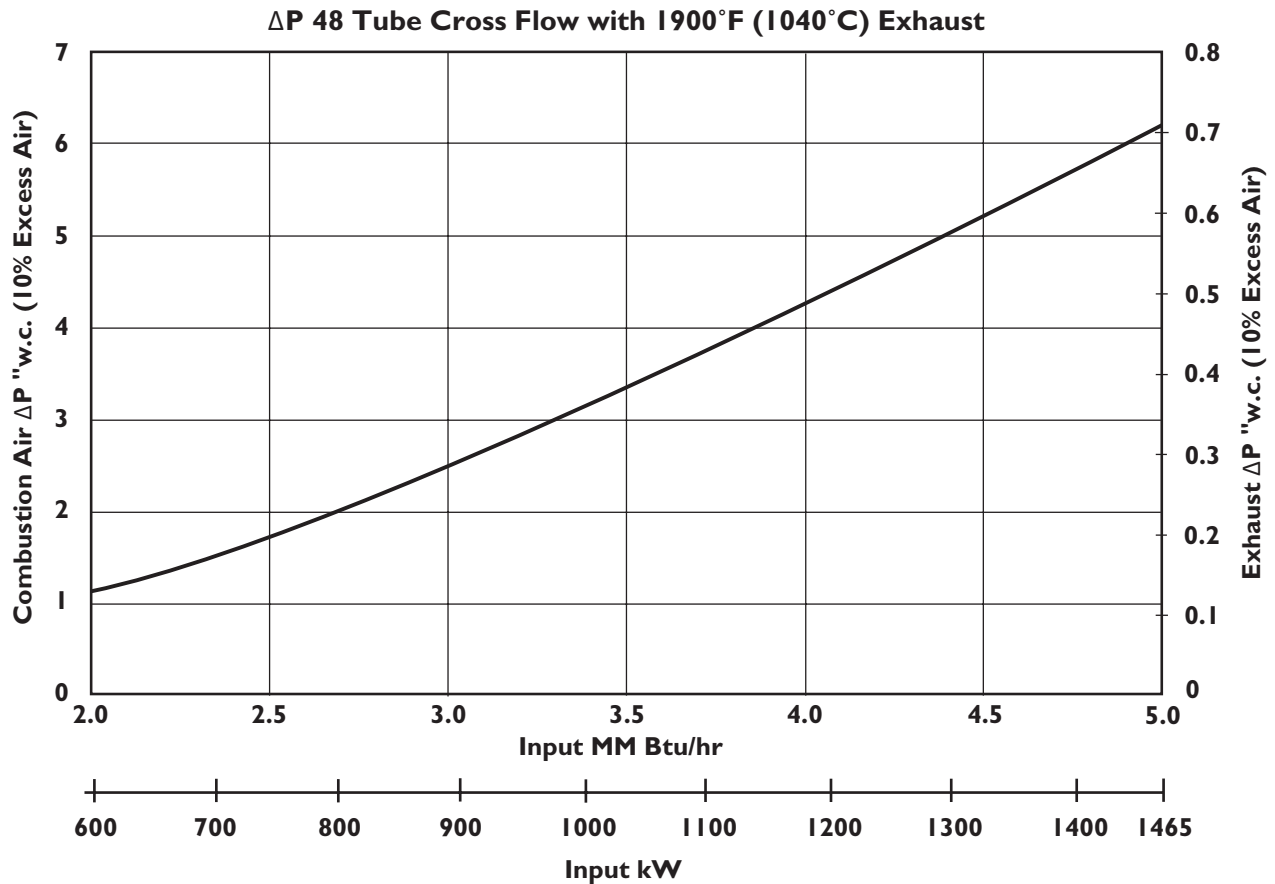
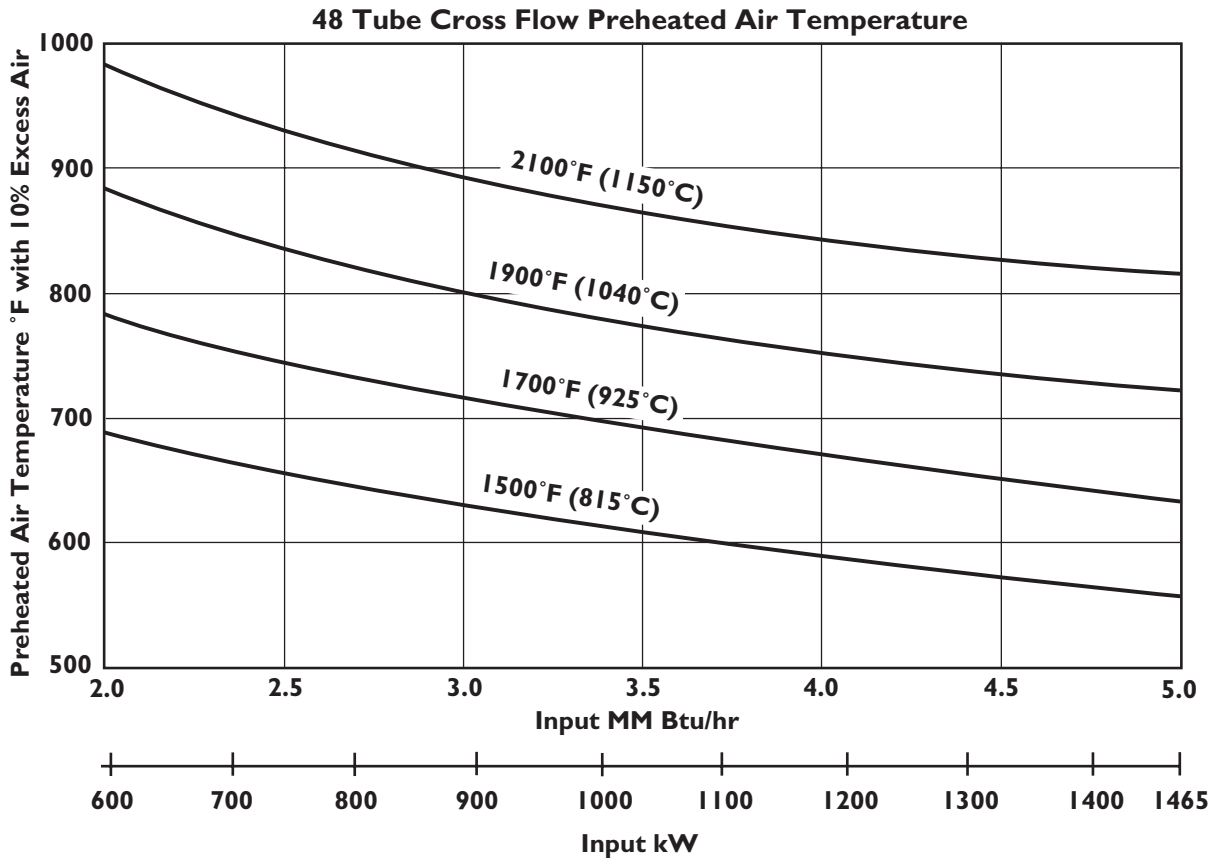
\* See Design Guide 530 for application specific operational limitations.

- All inputs based upon gross calorific values.
- Eclipse reserves the right to change the construction and/or configuration of our products at any time without being obligated to adjust earlier supplies accordingly.

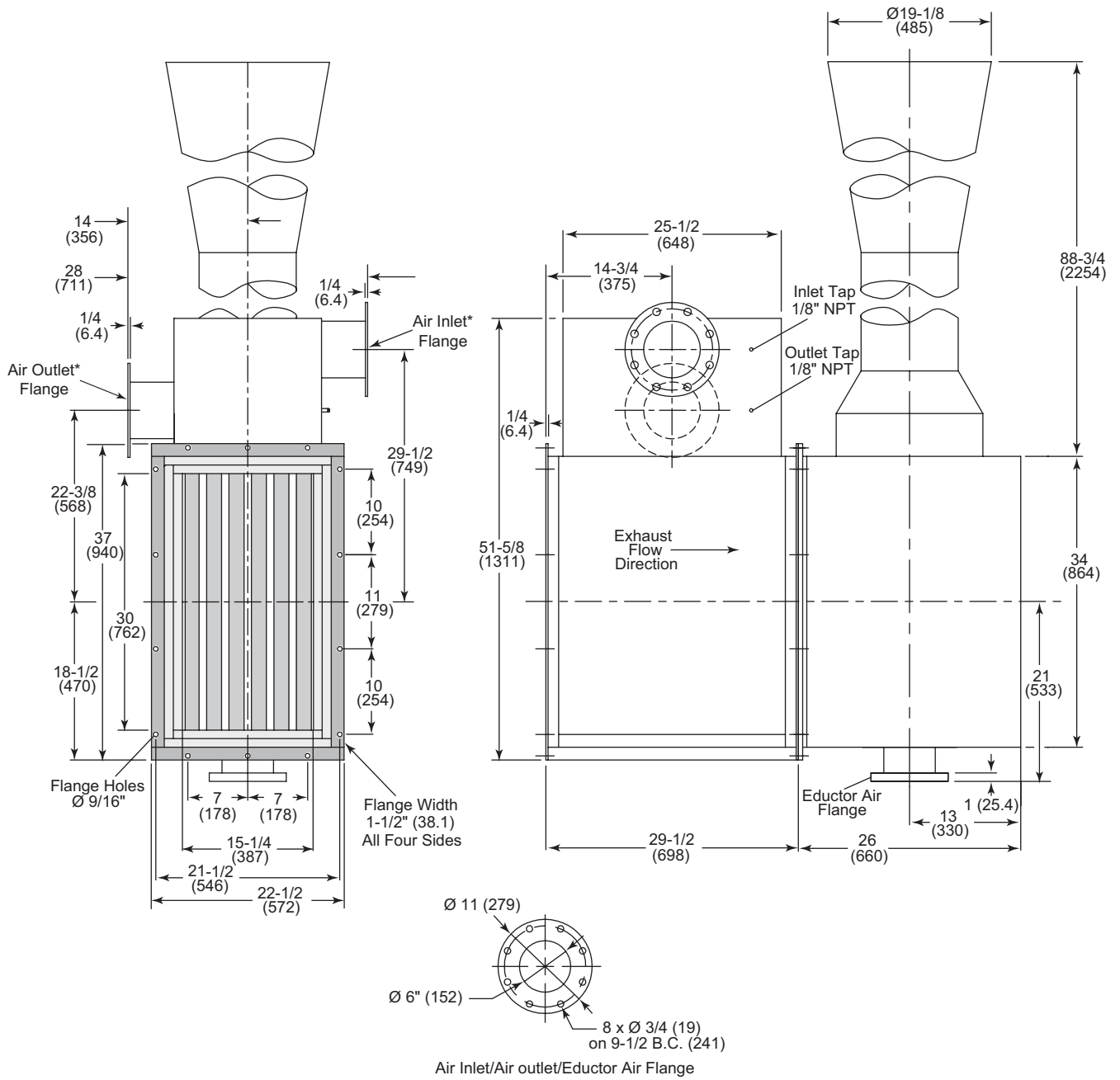
Percent Fuel Savings at Given Furnace Exhaust Temperatures  
and Combustion Air Preheat Temperatures (10% Excess Air)

Furnace Exhaust Temperature °F (°C)	Preheated Air Temperature, °F (°C)				
	700 (370)	800 (425)	900 (480)	1000 (540)	1100 (590)
2400 (1315)	29%	32%	35%	38%	41%
2200 (1200)	26%	29%	31%	34%	36%
2000 (1090)	23%	26%	28%	31%	33%
1800 (980)	21%	23%	26%	28%	31%
1600 (870)	19%	22%	24%	26%	28%
1400 (760)	18%	20%	22%	24%	26%
1200 (650)	17%	19%	21%	23%	25%
1000 (540)	15%	18%	20%	-	-

Specifications



Dimensions in inches (mm)



\* NOTE: The air inlet and outlet can be relocated to the opposite side by reversing the CrossFlow recuperator. This will not affect the recuperator performance.



**Offered By:**

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