Data 530-1
5/2/2011

Eclipse Cross-Flow Recuperators

Model CFR021

Version 1

Parameter		Specification*
Recuperator	Maximum Input	2.0 MM BTU/hr (585 kW)
	Maximum Exhaust Temperature with No Combustion Air	1800°F (1000°C)
	Maximum Exhaust Temperature with 500 scfh Combustion Air	2100°F (1148°C)
	Air Pressure Drop at Maximum Input	13" w.c. (33 mbar)
	Exhaust Pressure Drop at Maximum Input	1.75" w.c. (4.3 mbar)
	Weight of Recuperator	310 lbs (140 kg)
Eductor	Suction at Maximum Input at Eductor Inlet	1.75" w.c. (4.44 mbar)
	Entrainment Air Volume at Maximum Input	24,000 scfh (670 Nm^3/hr)
	Entrainment Air Pressure at Eductor Inlet at Maximum Input	20" w.c. (50 mbar)
	Weight of Eductor	113 lbs (51.3 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%	-	-

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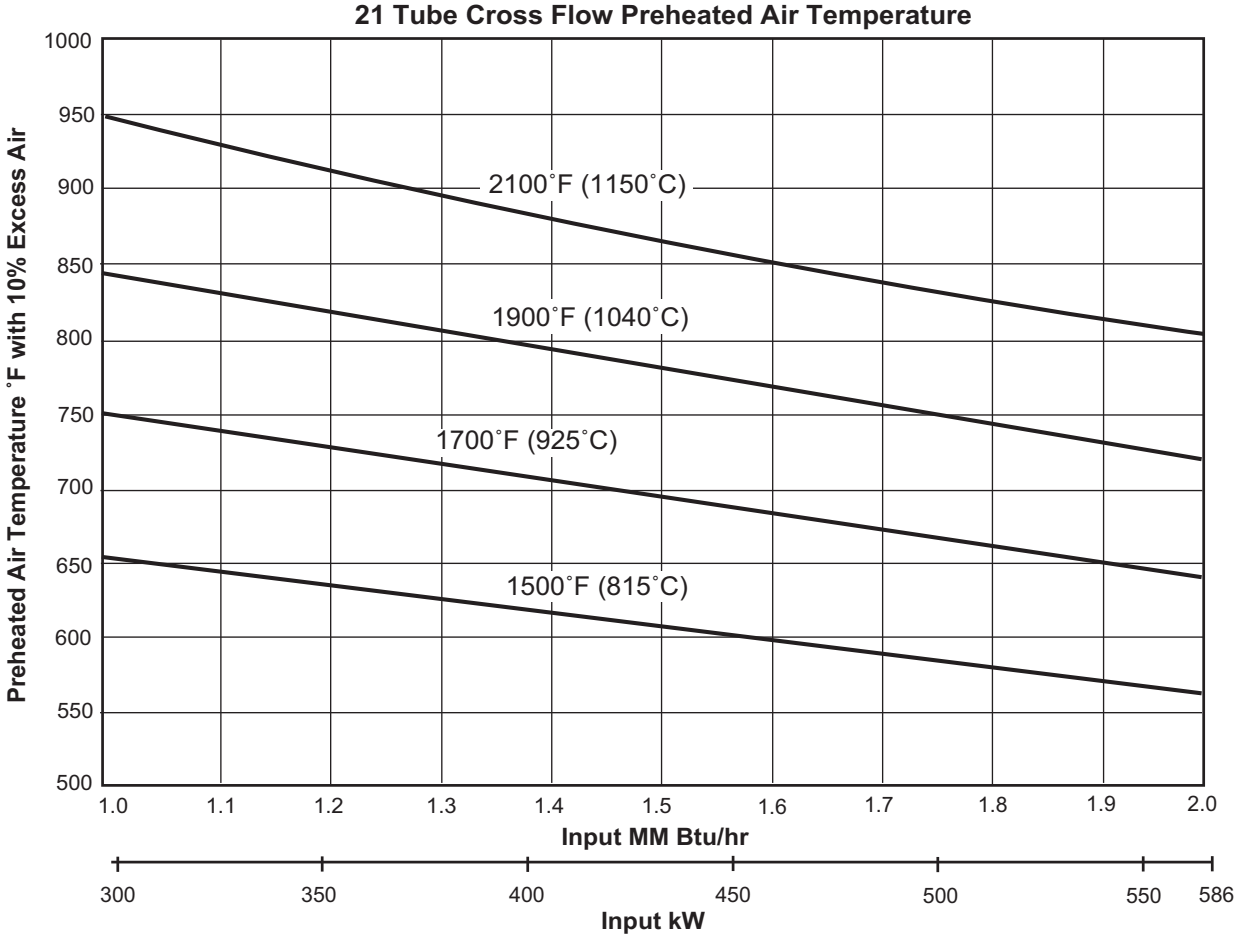
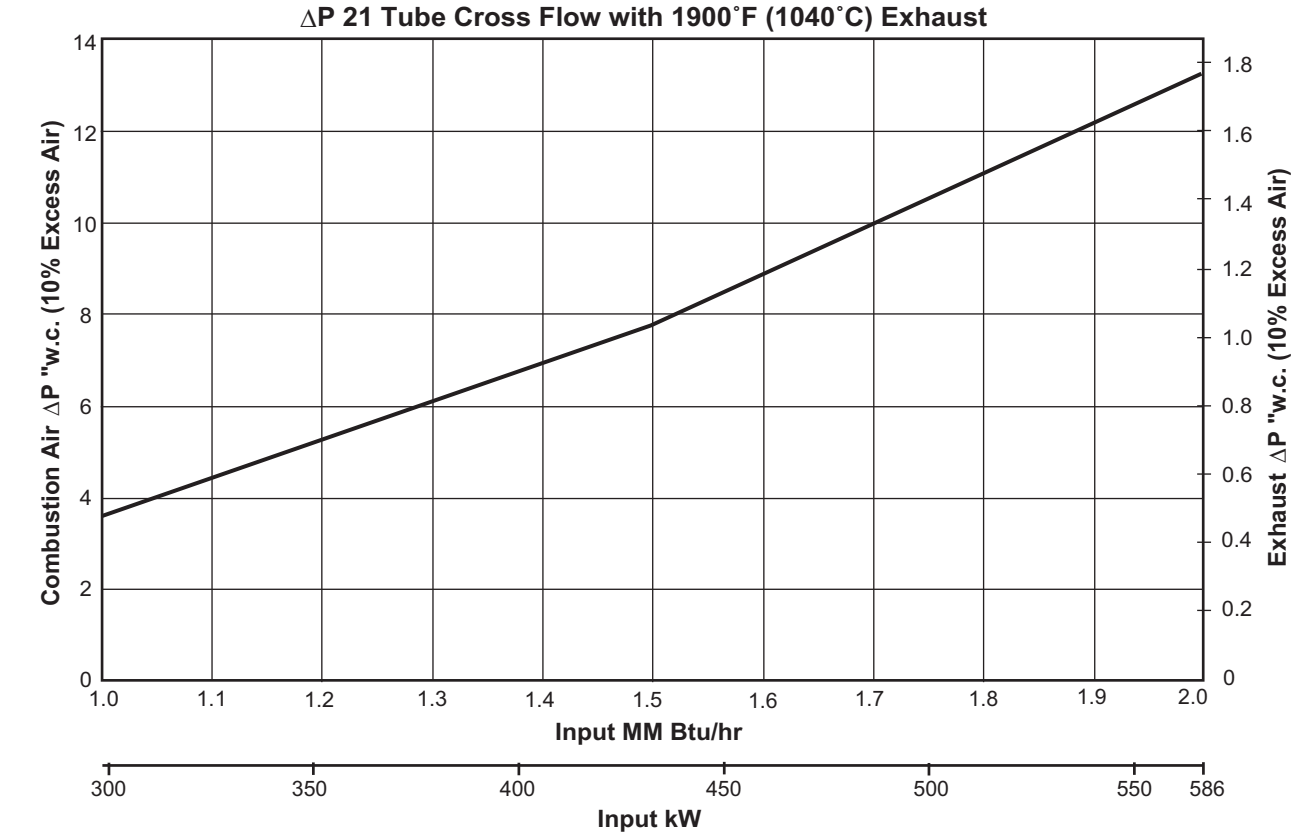
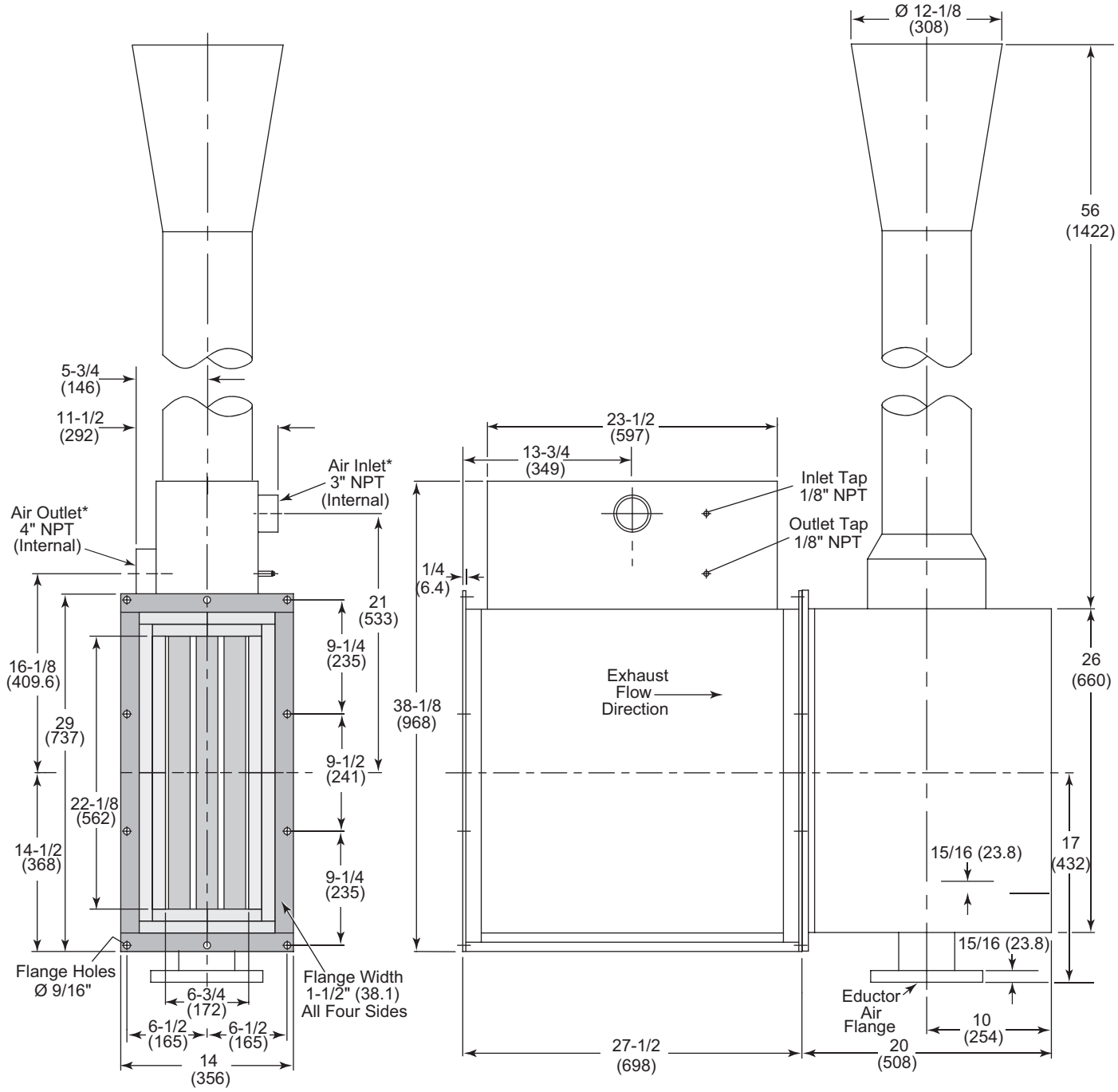
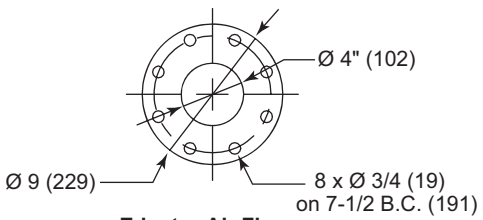
Specifications





Dimensions in inches (mm)





Eductor Air Flange

* 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.

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