

Eclipse Cross-Flow Recuperators

Model CFR080

Version 1

| Parameter | | Specification* |
|-------------|--|--|
| Recuperator | Maximum Input | 8.0 MM BTU/hr (2350 kW) |
| | Maximum Exhaust Temperature with No Combustion Air | 1800°F (1000°C) |
| | Maximum Exhaust Temperature with 2,500 scfh Combustion Air | 2100°F (1148°C) |
| | Air Pressure Drop at Maximum Input | 7" w.c. (18 mbar) |
| | Exhaust Pressure Drop at Maximum Input | 0.7" w.c. (1.7 mbar) |
| | Weight of Recuperator | 900 lbs (408 kg) |
| Eductor | Suction at Maximum Input at Eductor Inlet | 0.8" w.c. (2 mbar) |
| | Entrainment Air Volume at Maximum Input | 64,000 scfh (1800 Nm ³ /hr) |
| | Entrainment Air Pressure at Eductor Inlet at Maximum Input | 19" w.c. (48 mbar) |
| | Weight of Eductor | 302 lbs (137 kg) |

* See Design Guide 530 for application specific operational limitations.

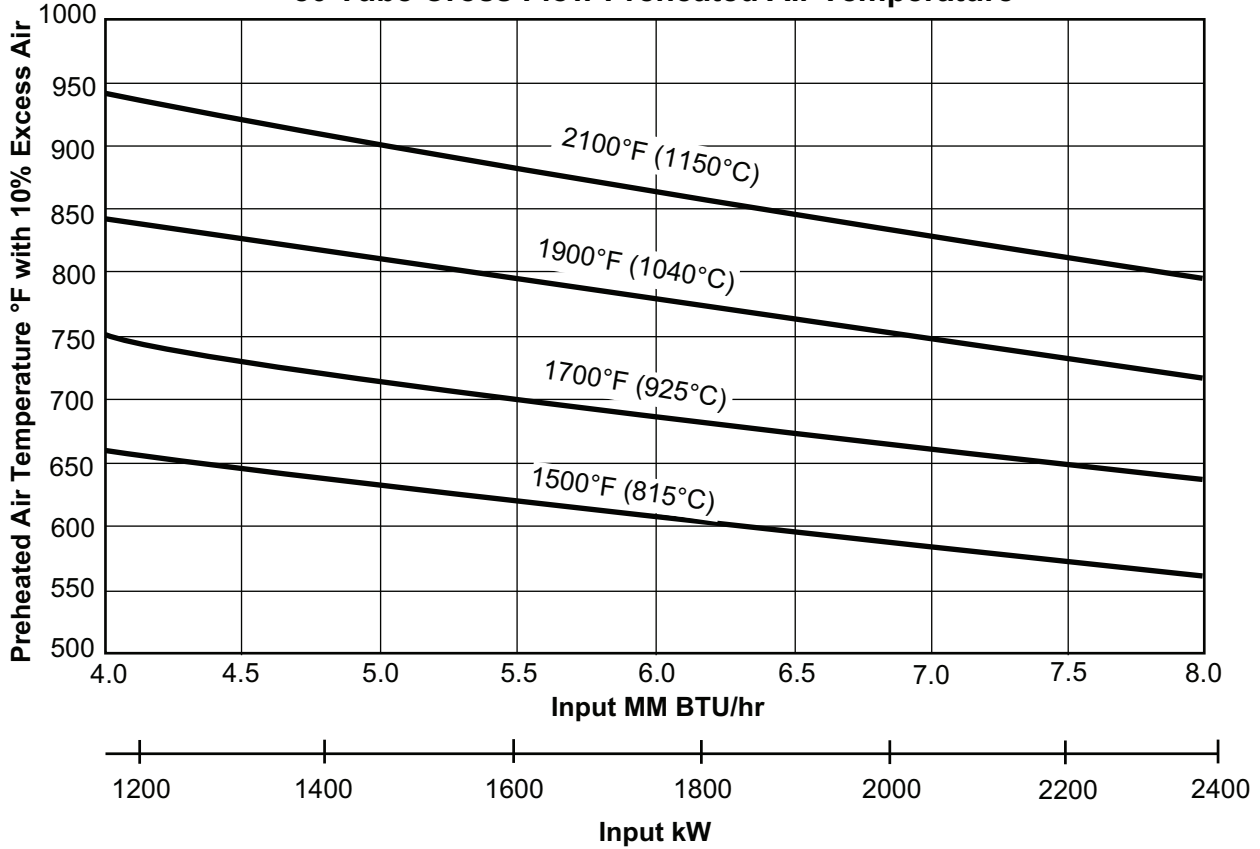
- All inputs based upon gross calorific values.
- Eclipse reserves the right to change the construction and/or configuration of our products at any time without being obligated to adjust earlier supplies accordingly.

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

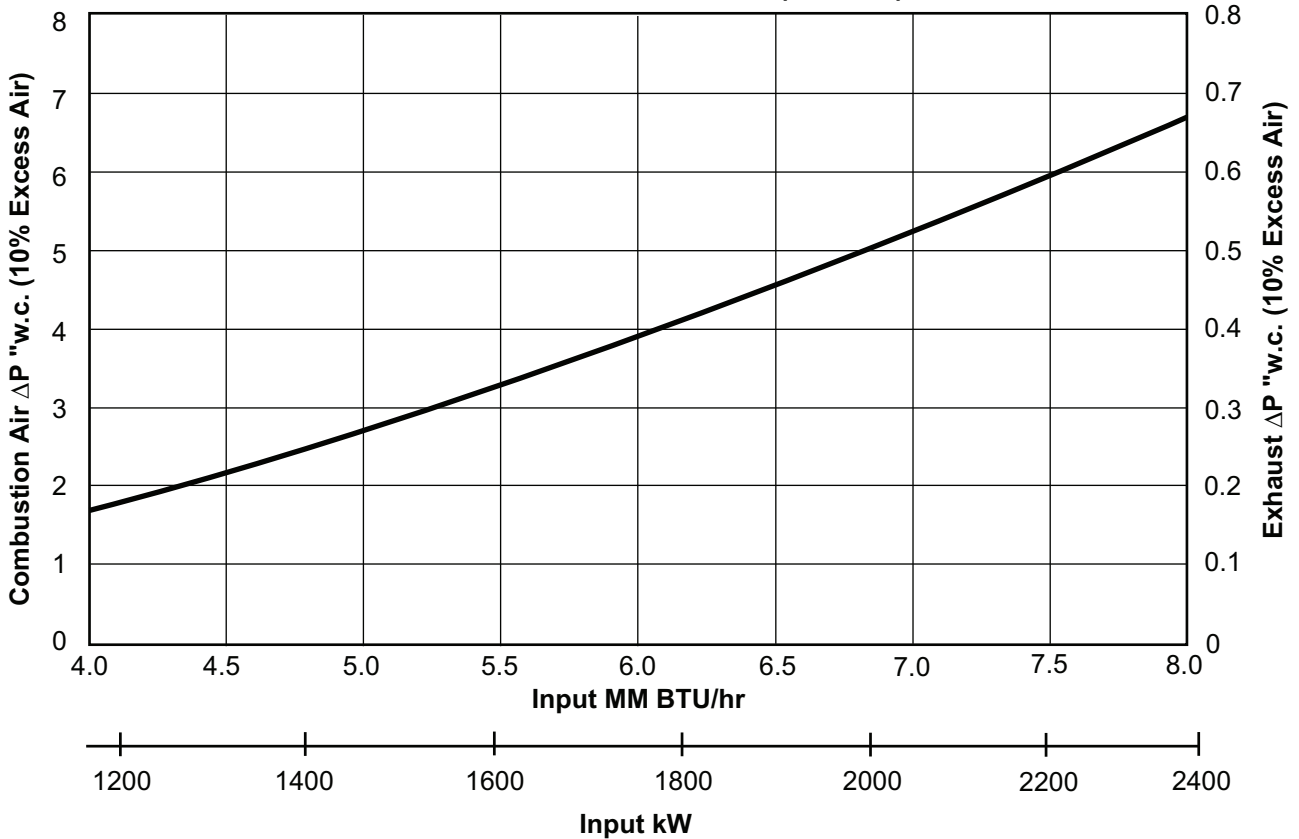
| Furnace Exhaust Temperature °F (°C) | Preheated Air Temperature, °F (°C) | | | | |
|--|------------------------------------|-----------|-----------|------------|------------|
| | 700 (370) | 800 (425) | 900 (480) | 1000 (540) | 1100 (590) |
| 2400 (1315) | 29% | 32% | 35% | 38% | 41% |
| 2200 (1200) | 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

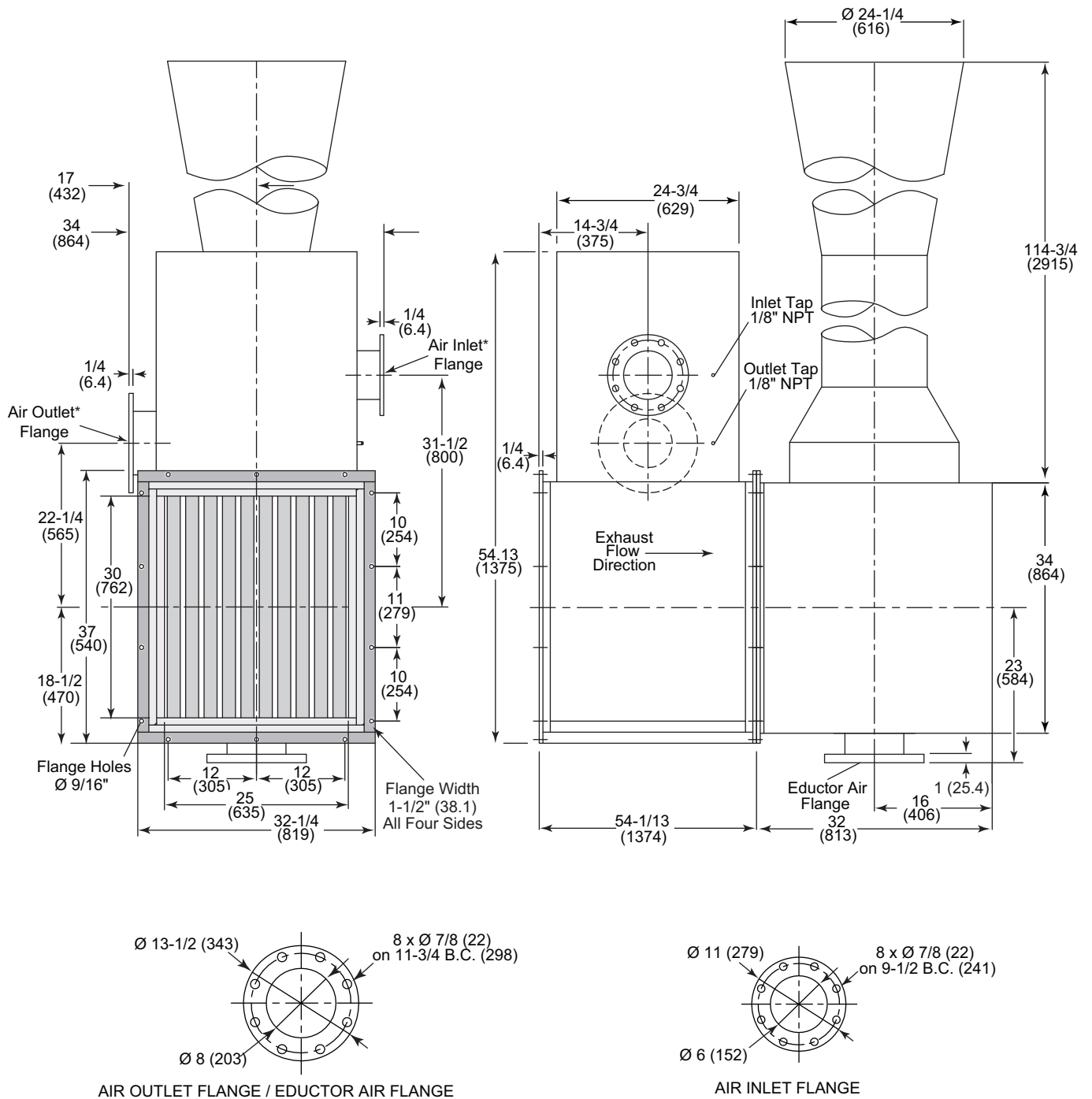
80 Tube Cross Flow Preheated Air Temperature



ΔP 80 Tube Cross Flow with 1900°F (1040°C) Exhaust



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.

