

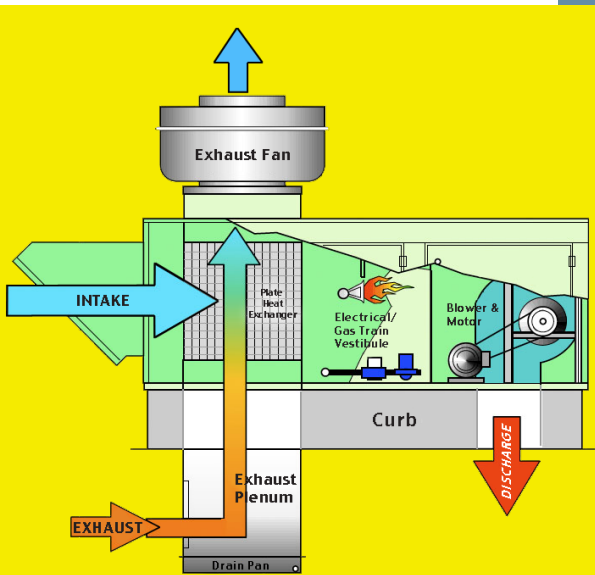


# Heat Recovery

## Energy Recovery Units

### Air to Air Heat Exchanger

- Completely cleanable air channels.
- Modulating freeze protection.
- Condensate drain located in heated building.
- Certified performance by independent test lab.
- ASHRAE / IESNA 90.1 energy standard compliance.
- Standard operating temperatures from -40°F to 220°F.
- Low pressure drop reduces motor energy consumption.
- Optional materials and coatings for special requirements.



State-of-the-Art, Air-to-Air Exchanger Design, Combined with High Efficiency Direct Fired Air Make-Up Heater.

### Direct Fired Air Make-Up Heating Systems

Air Make-Up Systems incorporate the advanced components necessary for energy efficient, long-term indoor air quality. The direct fired burner offers 100% thermal efficiency - as opposed to 80% [nominal] efficiency for an indirect fired air make-up heater. The turndown ratio for direct fired units is much greater than common indirect fired units. This means better control of discharge air temperatures and better use of fuel energy to heat the air as it moves across the burner. Coupling a direct fired air make-up unit with an efficient and easily cleaned/maintained heat exchanger, provides the ideal industrial heating and ventilating system.



*Heat Recovery System currently being used at GFS' corporate headquarters in Osseo, WI.*



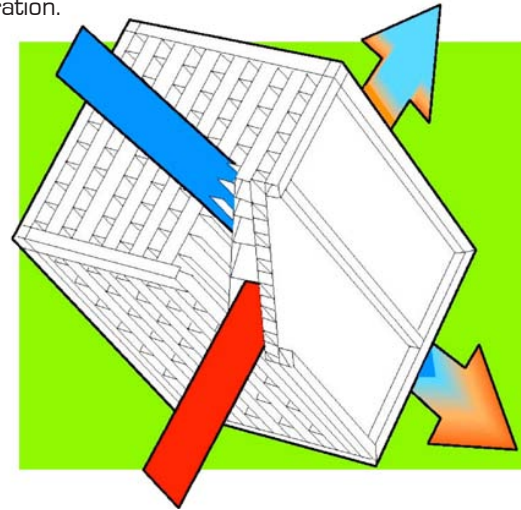
# Heat Recovery

## Energy Recovery Units



### State-of-the-Art Air to Air Heat Exchanger Design

- Effectiveness ranges from 50% to 60% dependent upon face velocity and plate spacing.
- Independent plate spacing for each airflow path.
- Certified performance by independent test lab.
- Low initial cost (vs. heat wheel or heat pipe).
- Simple and reliable operation.
- Low operating costs.



### Units available in the following configurations :

- 100% outside air supply for constant exhaust volume applications\*.
- Modulating outside air / recirculated room air (AR/80) for variable exhaust volume applications\*.
- Variable air volume supply via VFD (Demand Air) for variable exhaust volume applications\*.
- Custom configurations including diagonal heat exchanger.
- ETL listed heating and cooling equipment available without a direct fired burner.
- Payback periods as low as 18 months, dependent upon climate, hours of operation per day and other factors.

\* Optional cooling coil sections available.



ETL listed heat recovery systems coupled with a direct-fired burner