

UPW/HP SERIES

COMMERCIAL & INDUSTRIAL NON-REVERSING GROUND SOURCE HEAT PUMPS

FEATURES:

- 4 through 120 tons of mechanical cooling
- 2,000 to 12,000 CFM air volumes scheduled, higher air volumes available
- Custom units for non-catalogued capacities
- Multiple independent compressor circuits



APPLICATIONS:

Controllability of equipment is the key to a successful HVAC system. Engineered Air Heat Pump operation is all about control. We provide the following benefits:

- Variety of energy recovery components available to enhance efficiency
- Interface with BMS system controls
- 100% outside air and modulating mixed air applications
- Operation for high and low ambient temperatures
- 100% Modulating hot gas reheat on demand
- Humidification control
- Equipment designed for ease of access and service
- Customized components for retrofit applications



Engineered Air's FW/HP Series can operate with closed loop glycol (or water) heat pump systems.

The efficiency of a ground source heat pump system is measured by the coefficient of performance (COP). This is the ratio of work, or useful output, to the amount of energy input required to drive the compressor, fan, and pump for the ground loop.

Increased unit COP and output efficiencies can be obtained by incorporating Engineered Air's energy recovery devices, such as the energy recovery wheel, heat pipe coil, or the air to air plate heat exchanger.



Compressor Service Vestibule



Control Panel

During low temperatures in winter days, auxiliary heating systems can be included to raise ventilation air temperatures as required. Engineered Air provides a variety of auxiliary heating options: high efficient indirect fired gas heaters, electric heat coils, hot water heating coils, and modulating variable condenser reheat coils.

Available Features

(**s** = Standard Features, **o** = Optional Features)

CASING

- s** 18 ga painted galvaneal
- s** 1" insulation
- o** 2" insulation
- o** Solid or perforated liners
- o** Galvanized
- o** Aluminum
- o** Stainless steel
- o** 14 or 16 gauge

FINISHES

- s** Air dry gray enamel
- o** Special colours
- o** Corrosion protection
 - Heresite
 - Epoxy

ACCESS

- s** Camlock handles
- s** Hinged doors
- s** Lined doors
- o** Leverlock handles
- o** Lockable handles
- o** Service vestibule

COOLING

- s** Packaged cooling with air cooled condenser
- s** R-410A or R-407C refrigerant
- o** R-134a refrigerant
- o** Variable condenser reheat
- o** Evaporative condensing section
- o** Water cooled condenser

CONTROLS

- s** Dedicated logic controller
- o** BACnet
- o** Modbus
- o** H-TRAC

FILTERS

- s** MERV 8 pleated
- o** Replaceable media
- o** 1", 2", 4" or 12" as required
- o** HEPA
- o** Chemical filtration
- o** TRIMED

GAS TRAINS

- o** FM
- o** GAP (formerly IRI)
- o** DG Series up to 20:1 turndown
- o** DJ Series up to 15:1 turndown

HEAT RECLAIM

- o** QDT heat pipe
- o** Recovery Air heat wheel
- o** TRP Air to Air Plate
- o** Glycol Run Around
- o** Energy saver coil

FANS

- s** Forward curved
- s** Backward inclined
- o** Airfoil
- o** Plenum

MOTORS

- s** High Efficiency ODP
- o** High Efficiency TEFC
- o** Variable Speed Drives
- o** Two speed

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ENGINEERED AIR®

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Manufacturing Facilities:

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FORM FWHPSEP11

www.engineeredair.com