

Water Source Heat Pumps



Dependable

You can depend on our heat pump systems to provide year round heating and cooling to the occupants of your apartments and condominiums. Simply set the desired temperature and the heat pump will maintain it.

Serviceability

Each HRP unit has its own compressor and fan which are easily accessible through the return air panel. If repairs are required, a spare chassis can be inserted into the unit, allowing it to continuously operate while the damaged chassis is repaired offsite.

Energy Efficient

Unlike fan coil systems, the HRP system has the ability to transfer energy from one zone to another. During moderate weather, the sunny side of a building may require cooling while the shady side requires heating. When approximately one third of the units operate in cooling mode, no external heat is required.

Quiet:

The entire Omega Gold & Silver Series HRP product line has been developed to provide one of the quietest vertical stacking water source heat pump in the industry. Thousands of installed units prove this fact. Our units, when properly applied and installed, easily meet NC-36-37 within the suite.

Elegant

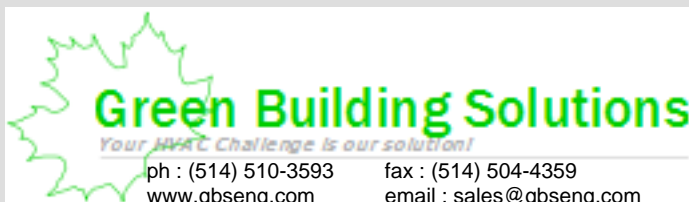
HRP units are simple to install. Installation progresses perfectly with the phases of building construction. When construction is complete, the unit becomes a seamless part of the room.

Custom

Our units can be customized to meet the specific requirements of any project. Some options include: variable height dimensions, choice of supply air discharge locations and sizes, ultra quiet return air panel, and remote thermostat control.

Quality

Each Omega Gold & Silver Series unit is tested to the strictest standards to maintain the highest level of quality control. Each unit is checked in a state of the art test facility before it is shipped to the job site. Large scale production accommodates short lead-times and economies of scale enable low costs without sacrificing quality.



Energy Efficient Design

- High efficiency compressors
- Optimum circuited air to refrigerant coils
- Custom sized thermal expansion systems
- High efficiency blower motors
- Low pressure drop water coaxial coils
- COP/EER meets or exceeds ASHRAE 90.1

Space Considerations

- Quiet operation
- Mould resistant insulation
- Heavy duty cabinet for vibration free operation
- Architecturally pleasing covers and grilles
- Elastomer vibration isolators on compressors
- High quality gasket on chassis
- Air filter
- Choice of air openings
- Riser flexibility

Acoustics

- Gold design available for acoustically sensitive applications
- Silver design for standard application

Service

- Easy slide out chassis removal and replacement
- Allows spare chassis to be kept in stock for instant replacement
- Controls components in one location
- Plug-in controls
- Service handles on chassis
- Low clog coaxial coil design
- Quick disconnecting water connections
- Schraeder connections for refrigerant monitoring and servicing

Reliability

- Spot welded centrifugal blower
- Rotary or scroll compressors by major manufacturers

Environment

- Environmentally friendly refrigerants
- All materials used in the unit are recyclable

Phases of Construction



Casing and Plenum
During the initial stages of construction, the outer casing and plenum are installed.



Furring and Chassis

The final chassis does not have to be installed until the majority of the construction is complete. This helps to prevent damage and allows the contractors to better allocate their workforce.



Walls and Instalation
As the construction progresses, the casing and plenum become part of the interior wall structure.



Completion

When the construction is complete, the HRP unit becomes an integrated part of the room, providing both quiet and reliable comfort to occupants.



EP3090681

**CANADIAN ENERGY
PERFORMANCE
VERIFIED
RENDEMENT
ENERGETIQUE
VERIFIED**



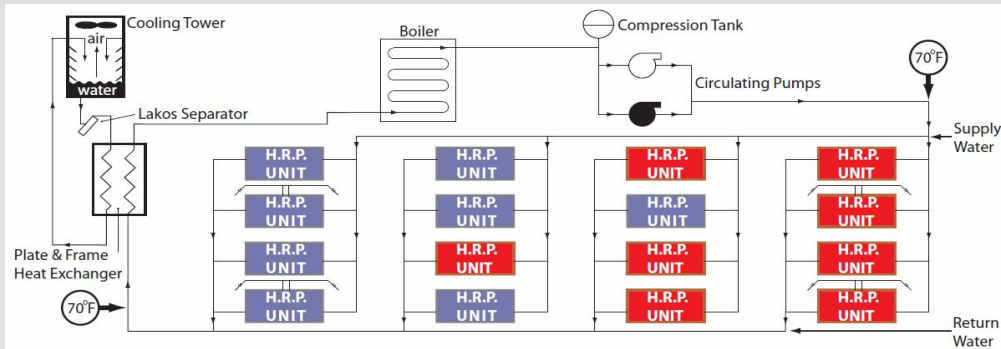
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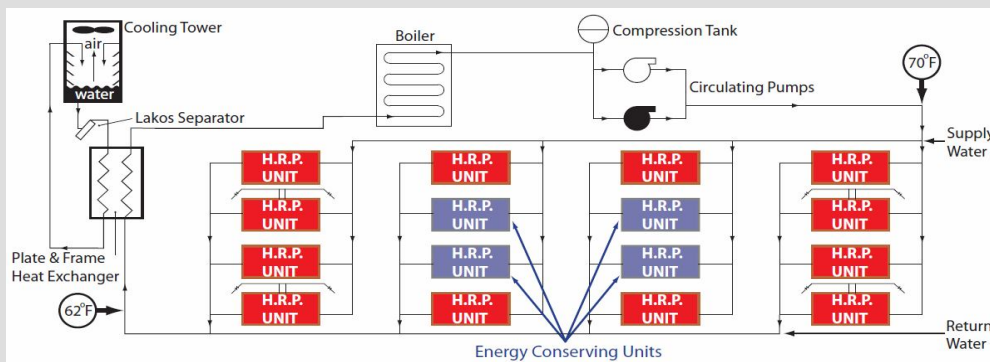
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MEA
Accepted for use
City of New York
Department of Buildings
MEA No. 18-06-E
HTS Engineering Ltd.
ETL Listing 30717

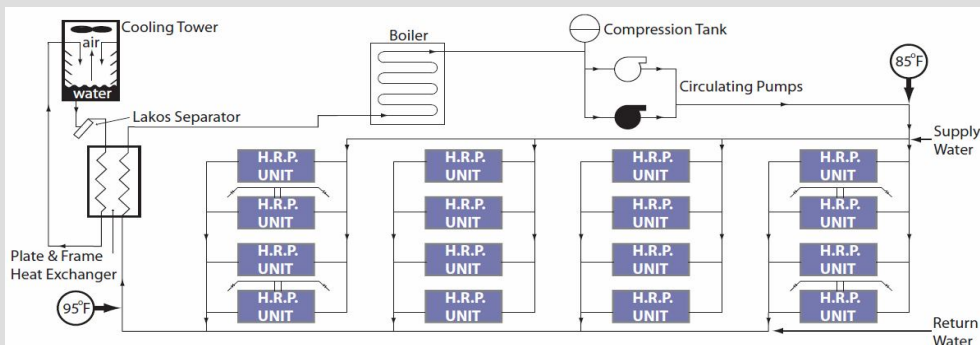
Omega Series Heat Pumps are listed by ETL as complying with nationally recognized safety standards for heat pump units.



Consider a two-pipe closed loop water circuit, through which non-refrigerated water is circulated continuously throughout the building. In moderate weather, units serving the shady side of a building are often heating, while those serving the summer are cooling. When approximately one third of the units in operation are cooling, they add sufficient heat to the water loop so that it is not required to add or remove heat from the water loop.



When heating is required, the heat pumps will absorb heat from the loop circuit, whereas when cooling is required, the heat pump will reject heat to the loop circuit. Only in very cold weather (with most or all units heating) is it necessary to add heat to the water with a water heater. This is done when the temperature of the water loop falls to 65°F (18°C). The amount of this heat is reduced any time one or more units are operating on cooling. The central water heater is never larger than two thirds the size required in other systems but is usually less because of diversity.

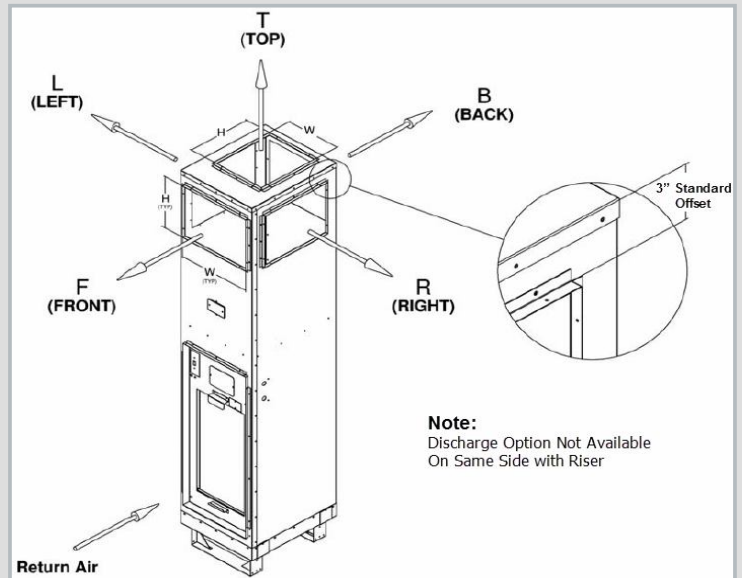
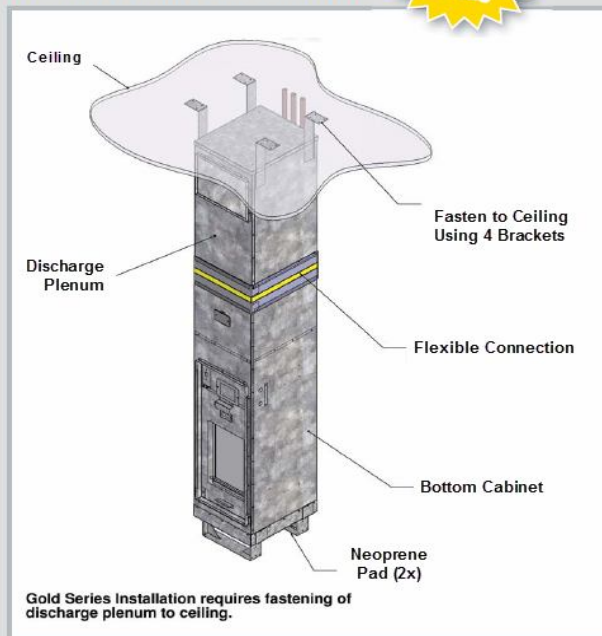


A vertical stacking heat pump provides the essential benefits of a centralized system but gives the individual choice of heating or cooling. Additionally, the occupant may select heating, cooling, or may shut off the unit without affecting conditions maintained in other spaces. During hot weather with most or all units cooling, heat removed from the air is transferred to the water loop. A cooling tower rejects the excess heat outdoors to maintain a maximum water temperature of approximately 95°F.

The water loop provides both a source and a sink of energy. You can conserve energy by effectively pumping heat from the warm areas of the building to the cold ones.

Dimensional Drawings

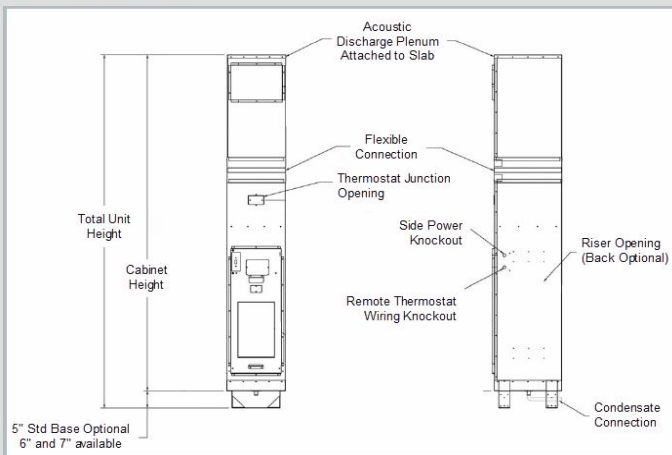
Installation Details for Gold Unit



Note:
Discharge Option Not Available
On Same Side with Riser

Dimensional Drawings

Notes for Gold Series Units



Gold Series:

- Temporary riser supports provided. (Contractor to supply riser clamps to support risers in multi-storey applications).
- Return air opening is on the front of the unit, rear right hand unit shown.
- Unit includes hose kits and shut off valves.
- Optional risers are made with type M copper, expanded connections are provided.
- Contractor to provided couplings where the piping is not swagged.
- Gold Series includes flexible attenuation system to provide the quietest operation available

Silver Series:

- Temporary riser supports provided. (Contractor to supply riser clamps to support risers in multi-storey applications).
- Return air opening is on the front of the unit, rear right hand unit shown.
- Unit includes hose kits and shut off valves.
- Risers are made with type M copper, expanded connections are provided.
- Contractor to provided couples where the piping is not swagged.

Dimensional Drawings

Notes for Silver Series Units

