Steamgen & Co.

Steamgen Heat Pumps

- Homes
- Hotels
- Restaurant/Kitchens Institutional
- Barracks
- Fire Stations Industrial.
- Commercial Laundry Facility

BUREAU VERITAS

CE

STEAMGEN HEAT PUMPS

The heat pump water heater is an integrated system that utilizes the heat pump technology to provide more efficient way to heat water with electricity. it pulls heat from surrounding air and deposits the heat into the tank. The end result is very efficient production of hot water with cooler and dehumidified air as a welcome by-product.

The commercial heat pump water heater works great in applications where the need for hot water and space cooling occurs simultaneously. Both outputs are utilized efficiently and interchangeably to ensure maximum energy cost savings and the shortest payback periods. Applications requiring space cooling and significant hot water usage will maximize energy savings. Best of all, heat pump heaters are three times more efficient than standard electric water heaters and up to five times more efficient than conventional gas water heaters.

PRODUCT FEATURES :

1. Absorbs Environment heat and transfers it to the water, at the same time cooling and dehumidifying the ambient air.
2. "Environmental-friendly" R-410a refrigerant.
3. Multiple operating modes maximize efficiency & meet increasing hot water needs.
4. High capacity storage tank enables heat pump to operate more frequently than the heating elements. This provides higher efficiency & cover operating costs, saving money for the owner.

COST SAVING BY INSTALLING HEAT PUMPS (EXAMPLE 40 KW HEAT PUMP)

Fuel	PNG Boiler	HSD Boiler	Wood Chips Boiler	Heat Pump
GCV of Fuel	12500 Kcal/Kg	10000 Kcal/Kg	2500 Kcal/Kg	860 Kcal/KW
Fuel Consumption Per Hour	20-22 kg/hr	22-24 kg/hr	100-105 kg/hr	35 KW/hr
Costing	INR 754/hr	INR 1704/hr	INR 735/Hr	INR 385/hr

OTHER BENEFITS OF HEAT PUMP.

- An energy saving device that saves energy cost by over 65%.
- Allowed 80% DEPRECIATION under Income-tax Act.1961
- Easy to install and occupies less floor space.
- Environment-friendly as there is no carbon emission.
- Low maintenance cost.
- Heat pump system can provide hot water temperature up to 80°C.
- Caters to any capacity needs.
- Heat Pump is a fully automatic machine.

APPLICATIONS

- **Swimming Pools**
- **Homes**
- **Hotels**
- **Hostels**
- **Hospitals**
- **Restaurant/Kitchens**
- **Barracks**
- **Fire Stations .**
- **Commercial Laundry Facility**

WHY ARE HEAT PUMP WATER HEATERS AN ENVIRONMENTALLY FRIENDLY CHOICE:

- High efficiency with coefficient of performance (COP) up to 4.2.
- No fossil fuels are used or burned at the source.
- Ozone layer-friendly, thanks to the R-410a refrigerant.
- Uses less electricity than standard electric water heaters.
- Contributes to room cooling at the same time.
- Taps into heat sources typically discarded by other units for peak efficiency.

HEAT PUMP COMPONENTS

Professional compressor for heat pump water heater: Adopt Copeland or Panasonic top quality scroll compressor specially for heat pump water heater, with much wider operation range for different ambient temperature. Special design for high suction & exhaust temperature, and system high condensing temperature & pressure, Higher efficiency, Lower noise, Higher reliability, Longer service life.

Large air volume, low noise fan motor: Use airfoil shape, large chord, space distortion alloy blade, efficient internal rotor motor; High efficiency and compact.

Wifi function for option(Control by Apps on mobile phone).

High efficiency shell & tube heat exchanger: Adopt high efficiency internal thread copper coil, which heating area is 3.6 times than ordinary smooth coil, larger diameter water loop design to make water flow smoothly, energy efficiency is superior.

Stainless steel 304 material for side cover of finned tube heat exchanger, for all fastener and other important parts, not easy to rust and corrosion, more durable.

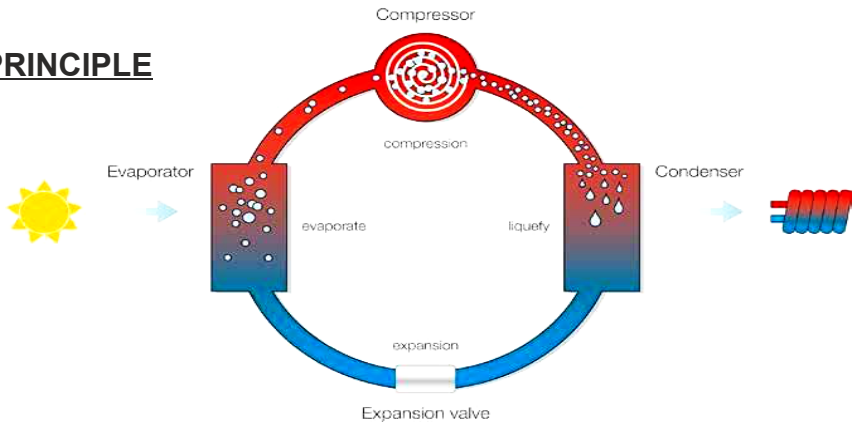
Low ODP refrigerant: R410a for HotSpring series and R134a for Volcano series.

High precision electronic expansion valve: use electronic expansion valve for controlling, reach 500 steps adjustment, adjust super heat degrees accurately, achieve high efficiency operation system.

Controller: Adopt famous master chip, ensure stable running.
With lot of protection functions: High & low pressure protection, anti-freezing protection, high temperature protection, overload protection, lack phase and reverse phase protection, and so on.
Modular control for at most 16 heat pumps, can be combined freely according to the required capacity.

The blue hydrophilic aluminum foil fin heat exchanger adopts cross-type multi-flow path design to make the heat exchange more uniform; the internal thread copper tube design has higher heat transfer efficiency; at the same time, the hydrophilic fins are not easy to form water droplets, Spreading into a uniform water film completely on the surface of fins, eliminates the generation of water bridges, which greatly improves the heat exchange capacity and heat exchange efficiency between the aluminum foil and the flowing air.

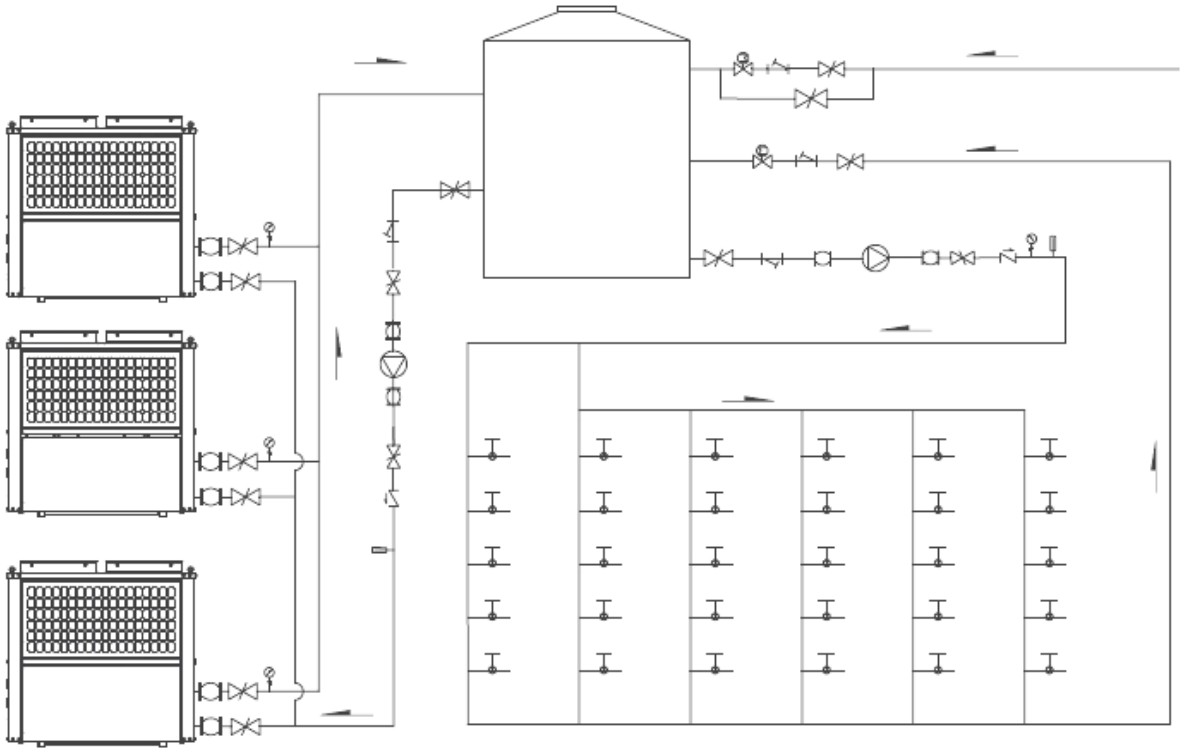
HEAT PUMP WORKING PRINCIPLE



FOR PRODUCT ORDERING

Product Name	Product Code	Description	Quantity	Price (INR/USD)

Running Chart



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