



# SHREE RAM ENGINEERS

## AC&R SOLUTIONS

### SRE Air source Heat Pump Hot Water System

The **SRE Air source Heat Pump Hot Water System** brings advanced, energy-saving water heating technology to India. By harnessing renewable heat energy from the ambient air, these systems deliver reliable hot water **24/7, throughout the year**, with significantly lower electricity consumption compared to conventional electric water heaters.

The **SRE Air source Heat Pump Hot Water System** is highly energy efficient, as most of the heating energy comes from the external environment and only a fraction from electricity. For every 1 kW of electricity consumed, up to 4 kW of heat energy can be generated under standard operating conditions (COP up to 4)

The **SRE Air source Heat Pump Hot Water System**, designed for commercial and domestic hot water applications, combine high performance, long service life, and low operating cost making them an ideal solution for hotels, hospitals, hostels, restaurants, industries, and institutional buildings.

#### Estimate for heating 1,000 liters of water daily from 25°C to 55°C.

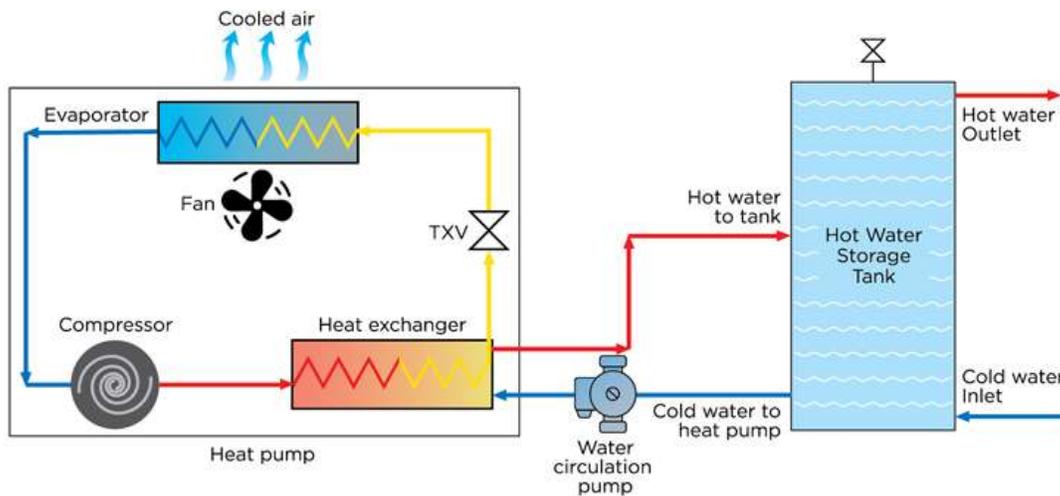
Considered commercial tariff is ranging from ₹8.55 to ₹12.15 per unit

Technology	Estimated Annual Operating Cost (₹)	Annual Savings (vs. Electric)	ROI / Payback Period
Electric Boiler	₹1,50,000 - ₹2,20,000	-	N/A
Gas Boiler (LPG/Diesel)	₹90,000 - ₹1,30,000	~40%	1.5 - 2 Years
Heat Pump	₹40,000 - ₹60,000	~70% - 75%	2 - 3 Years
Solar Water Heater	₹5,000 - ₹15,000	~90% - 95%	3 - 4 Years

**Note:** - Operating costs are indicative estimates based on average Indian commercial conditions and may vary depending on location, inlet water temperature, usage pattern, ambient conditions, and electricity tariffs.

**How It Works**

The **SRE Air source Heat Pump Hot Water System** extracts heat from the surrounding air and transfers it to water using a highly efficient heat pump system. Since most of the heating energy comes from the environment, only a small amount of electricity is required to operate the compressor and fans.



## Key Benefits

- ✓ **Up to 70-80% energy savings**
- ✓ **High Coefficient of Performance (COP up to 4)**
- **Reduced electricity bills**
- **Lower carbon footprint**
  
- ✓ **Uses renewable ambient air energy**
- ✓ **High efficiency with low power consumption**
- ✓ **Continuous hot water availability**
- ✓ **Environment-friendly and sustainable**
- ✓ **Safe operation with no direct electric heating**
- ✓ **Suitable for large and continuous hot water demand**
- ✓ **Long service life with minimal maintenance**

## ➤ Applications Area

- Hotels & Resorts
- Hospitals & Healthcare Facilities
- Restaurants & Commercial Kitchens
- Industrial Process Hot Water
- Apartments & Residential Complexes
- Swimming pool

## Technical Data Sheet

<b>Parameter</b>	<b>Specification</b>
System Type	Air Source Heat Pump Hot Water System
Heat Source	Ambient Air
Power Supply	230 V / 415 V AC, 50 Hz
Heating Capacity	1.2 kW to 220 kW (model dependent)
Hot Water Output	100 LPH to 5000 LPH
COP	Up to 4.0
Operating Ambient Temperature	5°C to 45°C
Hot Water Outlet Temperature	Up to 70°C
<b><u>Water Storage Tank</u></b>	
Capacity	100 L to 5000 L (customizable), assembled at site
Type	Square type
Tank body	SS 304, 1.5mm and above (as per tank capacity )
Insulation	60mm /80mm thickness RPUF Insulation with PCGI skin on both sides
<b><u>Refrigeration System</u></b>	
Refrigerant	R407C / R134A / R32 (model dependent - eco-friendly refrigerants)
Compressor Type	Hermetic Scroll / Hermetic Rotary
Heat Exchanger	High-efficiency Copper / SS
Noise Level	Low noise operation
Safety Features	High & Low Pressure Cut-off, Thermal Protection, Voltage Preventer, High/Low Voltage Cut-off

We manufacture and market a wide range of HVAC&R solutions including Pre-Fabricated PUF Panels, Cold Rooms, Freezer Rooms, Packaged Air Conditioning Systems, Pre-Cooling Chambers, Blast Chillers & Freezers, Ripening Chambers, Clean Rooms, Chilling Plants, and Air Source Heat Pump Hot Water Systems under the brand name **SHREE RAM ENGINEERS**.

In addition, we provide installation services, after sales services and also undertake annual maintenance contract services.



**SHREE RAM ENGINEERS**  
AC&R SOLUTIONS

160, Pappammal Illam, S. Alwarpet, Coonoor-643101 The Nilgiris Tamilnadu  
8903589499, 7010910844 [shreeramengrsarul@gmail.com](mailto:shreeramengrsarul@gmail.com) [www.srecoldrooms.com](http://www.srecoldrooms.com)

Hyderabad Office:- 12-2-417/a/24, LIC colony, Jayanagar,  
Gudimalkapur, Hyderabad- 500028 9849894282

Vizag Office:- #8-62, Gokuldharm colony, Purushothapuram,  
Sujathanagar post, Pendurthy, Vizag-531173 8019553777