Since 1995 National Equipment

An Introduction To

AIR SOURCE HEAT PUMP

CENTRALISED WATER HEATING SYSTEM, KNOWN OF POWER CONSERVATION

By

NATIONAL EQUIPMENT

Udupi, Karnataka

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PF Reg. No. - KNUDP 1845634000 | GSTIN : 29AOQPS2494Q1ZL

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We, here at **National Equipment**, Udupi, Karnataka State, provide Cooling and Heating solutions blended with the concept of Power Conservation.

The concept of hot water, by itself, seems to be a petty issue in general. But, over the years, it has become an integral part of the ever-growing industries like Hospitality, Healthcare, Real Estate, etc., On account of this; the amount of power that is being consumed for providing hot water is huge and ever increasing.

Facts about Solar Water Heating System: Solar water heating system is believed to be the solution for the above stated problem. But these water heaters come with a few drawbacks like its overall efficiency and particularly its inability of serving the purpose during rainy season. Anything that is believed to be an alternative cannot come at the cost of efficiency. That is why solar technology has never been able to replace electricity.

Air Source Heat Pump: Taking all these facts into account, we believe that, at present, the right 'Alternative' for electricity is its 'Conservation' itself. Considering this we have developed a Water Heater using Japanese Technology known as 'Air Source Heat Pump' wherein the major source of energy required to heat the water is atmospheric air. It is an age old technology invented in Japan and is popular in the USA and has flourished all over the world. Due to lack of awareness, the people of our country have not been benefitted by the same. We are the only manufacturers of this water heater in Karnataka along with a few outside Karnataka. But there are dealers who sell this product manufactured in China.

We are trying our best to make people aware of this technology. This system is not only capable of providing quality service but also saves a huge amount of power which is a National Saving.

Overall Benefits of this product:

- 24 hrs hot water at 55℃ temperature
- No expiry date for Heat Pump i.e. It can be repaired and re conditioned after any no. of years.

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- Lowest power consumption i.e. 7 units per hour. Also the Heat pump will run only for 6-8 Hrs a day depending on the water consumption. The insulated tank will provide temperature sustenance and keeps temperature stable even when the Heat Pump is off.
- The machine is fully automated, avoiding manual operation.
- You can keep note of power consumption with the help of pre-installed sub meter.

Benefits of Heat Pump against Electrical Geysers:

- You can avoid installing too many geyser points and generator backup for the same.
- For instance, a 25 litres electric geyser consumes 2 units of power per hour, whereas an Air Source Heat Pump consumes 0.25 unit of power per hour for the same.
- You can avoid the effort of manually operating the geysers, whereas with our product you just need to turn on the tap.

Benefits of Heat Pump against Diesel Boilers:

- Fuel prices are ever increasing in faster rate in our country. So our product comes with huge operating cost benefits when it comes to replacing it with diesel boilers. You can also avoid the cost of procurement, transportation, storage and handling of diesel.

Benefits of Heat Pump against Firewood boilers:

- Firewood involves huge purchasing cost as well as lot of manual work. By replacing it with our product you can avoid cost of procurement, transportation, storage and handling of firewood as well as the labour cost and the damage caused by the smoke.

Benefits of Heat Pump against Solar Water Heater:

- Solar is popular to be free of operating cost. But in reality it provides hot water when it is least required that is in the summer season but in rainy season when

hot water is required the most Solar Water Heater does not serve the purpose. As a backup there will be pre installed electronic coils in the tanks which consumes **48 units** of power in 8 hrs for heating 1000 litres of water.

- Whereas, the total power consumption of our product in the entire year is **lesser than** the power consumption of the electronic coils of solar heater in the rainy seasons.
- To avail the benefit you can either replace the entire solar water heating system with our product, **OR**, you can install it as a backup, replacing the electronic coils. Our automated machine will run only when the solar heater is unable to do the heating by the lack of sun light or other constraints.

Above are the few common problems encountered by the hot water users those who have adopted conventional hot water systems. We have strictly considered these problems during our R&D and have been successful in converting those problems as the benefits of our product. Kindly consider these facts and find one time solution to your hot water problems in the manner by adopting our Centralised Hot Water System.

Since past one and half year we have managed to provide Hot Water solutions to some prominent organizations. They are listed below,

#	Client's Name	Number Of Machines	Volume
1.	Sri Dharmasthala Manjunatheshwara Hospitals, Hostels, Guest House and Lodges at Dharmasthala, Udupi & Hasana	118	225500 Liters
2.	Shambhavi Builders 7th Heaven, Manipal	1	2000 Liters
3.	Ratna Guest House, Kollur	1	1500 Liters
4.	Abimon Residency, Kollur	1	1500 Liters
5.	Diana Hotel, Udupi	1	1000 Liters

6.	J. K. Bar & Restaurant, Goa	1	1000 Liters
7.	Kidiyoor Hotel Pvt. Ltd., Udupi	3	7000 Liters
8.	Chinmayi Hospital, Kundapura	2	4000 Liters
9.	Yenepoya University, Mangalore	4	10000 Liters
10.	Hotel Ashlesh, Manipal	2	3000 Liters
11.	S.C.S Hospital, Mangalore	1	2000 Liters
12.	Yathra Boarding & Lodging Kanyadi, Dharmasthala	6	7000 Liters
13.	Rathna Forever Family Restaurant, Nitte, Karkala	1	2000 Liters
14.	Premier Builders, Diana Circle, Udupi	1	2000 Liters
15.	Rohan Corporation, Managalore	1	1000 Liters
16.	Zulfas Reality Residency Apartment, Marnamikatte, MLR	2	4000 Liters
17.	Bhandary Builders, Mangalore	1	1000 Liters
18.	Ocean Pearl group of Hotels, Udupi	2	3000 Liters
19.	Gurukula Public School, Kundapura.	1	2000 Liters
20.	S.R Public School, Hebri	1	3000 Liters
21.	Excellent Science & Commerce P.U. College, Moodabidri	6	12000 Liters
22.	Kanachur Institute of Medical Science, Derlakatte, Mangalore	3	11000 Liters
23.	Sharadha Vidyalaya, K.C.Road, Talapady	8	15000 Liters
24.	Prasanna Education Trust, Belthangady.	2	3000 Liters
25.	Father Mullers Hospital, Kankanady, Mangalore.	2	5,000 Liters
26.	Mandovi Commercial, Manipal	1	1,000 Liters
27.	Hotel white lotus ,Ujwal Developers, Udupi	1	2,000 Liters
28.	K.V.G. Medical College & Hospitals, Sullia	7	10,000 Liters
29.	Manipal Inn, Legardo, Udupi	2	5000 Liters

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Cost Summary:

#	DESCRIPTION	AMOUNT
1.	**25 kW Air Source Heat Pump* - 1 Nos.** **+** **5000 Liters hot water tank - 1 No.** (Tank made up of 4 mm M.S. Sheet & 50 mm Rockwool/Glass wool insulation for maximum temperature sustenance. Man hole given for inner maintenance. Epilux coating inside the tank for tank protection and outer Aluminum Cladding.)	**7,25,000.00**

#	DESCRIPTION	AMOUNT
1.	**15 kW Air Source Heat Pump* - 1 Nos.** **+** **3000 Liters hot water tank - 1 No.** (Tank made up of 4 mm M.S. Sheet & 50 mm Rockwool/Glass wool insulation for maximum temperature sustenance. Man hole given for inner maintenance. Epilux coating inside the tank for tank protection and outer Aluminum Cladding.)	**4,35,000.00**

1. **Installation charges Extra**
2. **Packing, Forwarding & Transportation Charges Extra**
4. **GST @ 18% Extra**

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TERMS & CONDITIONS

SR NO.	DESCRIPTION OF ITEMS	SUPPLY PART
1.	Order Placement	Order to be placed on : **National Equipment**
2.	Taxes	G.S.T. @ 18% Excluded
3.	Transport charges	Excluded.
4.	Packing charging	Excluded.
5.	Transit Insurance	Extra ,if applicable
6.	Site Insurance / Contractors all risk policy	Extra ,if applicable
7.	Terms of Payment	70 % advance along with Order. 30% before delivery of material.
8.	Completion Period	1 months from date of purchase order
9.	Storage Space at site	To be provided by client Free of Cost
10.	Inspection	Visual Inspection at site only
11.	Approved make considered	Mentioned in technical Specification
12.	Validity of quotation	1 Month
13.	**Warranty**	**Warranty for the machines will be 12 months from the date of billing or 12 months from the date of commissioning whichever is earlier.**
14.	AMC	We also undertake AMC after completion of warranty period. (Terms and conditions apply)

14.	**Exclusions**	1. All civil work i.e. breaking and making of holes in structures for passage of Refrigerant Piping, Electrical cables, etc.
		2. Provision of adequate AC, 3-phase, 220/400 volts, including the supply of main switch board (if required), individual isolating switches and suitable earthing.
		3. Provisions of water supply from & till our tank.
		4. Canopy protection for Heat Pump Only.
		5. **Shifting and crane charges Extra.**

We also undertake AMC after completion of warranty period. (Terms and conditions apply)

Thanking You,

Yours Faithfully,

National Equipment,

Udupi.