

# ***IVT Heat Pumps***







# A Leading Energy and Environmental Company

**IVT** is one of the leading heat pump manufacturers and energy solution designers in Europe. Our work is based on creating a better future for ourselves, our children and our grandchildren. This is why we focus on developing and manufacturing heat pumps that provide the optimal system with respect to the environment and heat economy. A large part of production is shipped for export markets.

## LARGE RESOURCES

We have been developing heat pump technology for 30 years. During this time more than 250.000 IVT heat pumps have been installed. We decided at an early stage to refine the business, which has led to great success. Today IVT has a workforce of 300 employees an annual turnover of 80 million Euro and a production capacity of more than 25.000 heat pumps per year.

## COMPLETE ASSORTMENT

IVT's heat pumps utilise heat from the ground, rock, water, outdoor air and exhaust air. Our complete assortment gives us the possibility to offer a solution irrespective of the size and location of the building. The heat pumps are designed to withstand the tough Nordic climate and provide heat even when it is well below freezing.

## RESEARCH AND DEVELOPMENT

Many years' investment in research and development for the tough Nordic market, together with close co-operation with leading partners enables us to provide products with leading-edge technology.

## MODERN PRODUCTION

IVT owns two state-of-the-art production plants in southern Sweden, one in Katrineholm and one in Tranås. We have built a production concept with focus on the future.

## EXPERTS

Our Company group possesses unique knowledge of heat pump technology and its possibilities. We combine our experience with inquisitiveness and the will to always seek new solutions. This ensures that IVT has all the requirements for staying at the top of future developments.

*Johnny Wärnelöv, Group Chief Executive IVT Industrier*

# ***We extract natural heat from soil, rock, water, outdoor air or ventilation exhaust air***

**IVT has the widest assortment of heat pumps on the market. Stored solar energy is converted from nature or from ventilation exhaust air into new heating and domestic hot water at the highest output. This enables us to provide a solution that offers great savings no matter how big the house is, where it is located, how it is currently heated or if it is newly built.**

## **IVT SURFACE GROUND HEAT**

This utilises the solar energy stored at about a one metre depth. A hose is buried filled with a non-toxic liquid that warms up a few degrees by the surrounding ground. Compaction of the liquid in the heat pump raises the temperature and the heat is then used for heating and domestic hot water. A plot of about 250-400 square metres is normally required.

## **IVT ROCK HEAT**

If there is rock at a reasonable depth (0-20m) then we recommend IVT Rock heat. The technique is the same as ground heat, the only difference is that heat is extracted from an energy well in the rock. Rock heat hardly affects the plot and drilling only takes a day or so.

## **IVT LAKE HEAT**

If there is a lake or large watercourse close by

then IVT Lake heat is a good alternative. The heat in the water, even during cold winter days, is utilised. Collector hoses are placed on the lakebed with weights. The only digging required is from the water to the house.

## **IVT EXHAUST AIR HEAT**

Recycles the heat from the air that is otherwise just ventilated out of the house and produces heating and domestic hot water. Provides a pleasant and healthy indoor climate. Compared with ordinary exhaust air heat pumps the new IVT 495 TWIN combines exhaust air heat with ground heat to provide double output.

## **IVT OUTDOOR AIR HEAT**

Utilises the heat in the outdoor air. Supplies the house with both heating and domestic hot water. An excellent and efficient solution when there is no possibility to utilise ground, rock and lake heat.

## **IVT NATURAL COOLING**

For just a small investment IVT rock heat provides you with efficient air conditioning in the summer at very low operational costs. The cold in the borehole provides pleasant air conditioning during the summer with the help from a fan radiator. **Active cooling** means that the heat pump works together with the cooling unit to produce energy saving and effective cooling. The excess heat returns to the bore hole and improves the energy output for the winter.

IVT Greenline can be used with other sources of energy, e.g. solar energy (panels).



Ground



Rock



Lake



Exhaust air + ground



Air

# Choose from the largest assortment on the market

IVT offers a complete assortment of leading products with a variety of heat pumps and system solutions to suit all types of properties. The control unit is easily adapted to communicate with several different languages.



IVT Greenline is available in twelve output sizes 4-65kW.

## Liquid/water heat pumps

### IVT GREENLINE

Converts heat from ground, rock or lakes. Available in output sizes to suit both small houses and larger properties. Can be used as a total solution for both heating and domestic hot water or coordinated with existing oil, electric, firewood, or pellets-fired boiler. Without a waterborne heating system the IVT Greenline is connected to a mini-water system and fan radiator. Also available in High Temperature version – Greenline HT.



IVT Optima is available in five output sizes 4-13kW.

## Air/water heat pumps

### IVT OPTIMA

Utilises the heat in the outdoor air and connects it to the existing waterborne system. Together with IVT CombiCompact provides a complete solution for both heating and domestic hot water. Can also be coordinated with existing oil, electric, firewood or pellets-fired boiler. Also very effective for houses without a waterborne heating system, together with a mini-water system and fan radiator.



IVT 490 and 495 TWIN are available in four models.

## Exhaust air heat pumps

Offers a complete solution for heating and ventilation. IVT takes care of the planning and CAD drawings.

### IVT 495 TWIN

The unique heat pump that utilises both exhaust air and ground heat. Gives double output. A complete solution for heating, domestic hot water and ventilation. Provides a healthy indoor climate. Most suitable for newly built houses or when replacing old exhaust air pumps.

### IVT 490/665

Our best selling exhaust air heat pump. Utilises ventilation air for heating and domestic hot water. Provides a healthy indoor climate. Suitable for new buildings. Available with additional heat from electric or gas boiler.



IVT's heat pumps come complete with everything built in from the factory, which means quick and easy installation.

### Property heat pumps

IVT's new generation of property heat pumps extracts energy from the ground, rock, lakes, ground water, industrial processes and exhaust air. Available in output sizes 14-65kW. Several units can be parallel connected for larger output requirements. Everything is built in and tested at the factory to ensure quick, trouble-free installation and great reliability. Newly developed computerised control unit offering advanced control and monitoring functions.



IVT Greenline is available in stainless, white, ice blue, champagne and sea green.



IVT is one of Europe's leading manufacturers of heat pumps. We operate on several markets together with retailers and in partnership with leading energy companies.

## **World leading partners**

IVT has partnership agreements with a host of leading companies that also develop technology advanced systems and components. We benefit from each other's areas of expertise, and are therefore always first with respect to economically and ecologically advanced technology and solutions.



One good example is our excellent partnership with Carrier, world leader in air conditioning, heating and refrigeration systems.

Another example is Japanese Sharp, who develop new solutions in partnership with IVT.

The new IVT Sharp Nordic Inverter air-air heat pump is an outstanding example of our joint development work.

We also cooperate with leading building companies to create economical and environmental living comfort as an integrated solution.

## **We train for future needs**

At IVT we gladly share our knowledge and experience. This is why we have developed our University of Energy, a centre of knowledge to which we invite players within the business. Guest lecturers and specialists provide us with the latest energy and environmental developments. We also train our retailers and partners so they can provide their customers with the best solutions.



Head office/Production plant, Tranås



Production plant, Katrineholm



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