

GHP Related News

## Aisin's GHP in the U.S. and Europe

### The United States

Along with Multi-zone GHP systems, Aisin's NextAire offers an 11-ton package gas heat pump (PGHP). A 2010 National Society of Professional Engineers – Professional Engineers in Industry New Product Award winner, this unit is suited for retrofit and new construction applications for commercial structures. In 2011, IntelliChoice Energy was awarded the prestigious R&D 100 Awards for the 11-ton PGHP for its innovation in technology. The award, widely recognized as the 'Oscars of Innovation,' identifies and celebrates the top technology products of the year.

IntelliChoice Energy holds seminars with a specialized demonstration car equipped with the Multi-zone GHP as well as the PGHP so that people can see and experience the technologies first hand. IntelliChoice Energy conducts these

activities to introduce GHPs in the country and contribute to efficient energy use.

### Europe

In 2001, Aisin appointed Tecnocasa Climatizzazione as its sole distributor for GHP units in Europe. Having installed more than 3,500 units throughout Continental Europe, the Japanese manufacturer positions Europe as one of its most important overseas markets. The strong cooperation between the two companies has allowed Tecnocasa Climatizzazione to develop and patent an air-to-water (ATW) unit, the Yoshi AWS.

The latest models feature variable capacity and have built-in management capability (weekly timer, digital/analogue inputs/outputs, Modbus communication). The twin units allow the combination of the capacity of two GHPs in one ATW system, which results in reduced installation space and costs. The GHP can be converted into an ATW heat pump suitable for various kinds of water-distribution-based indoor systems (fan coil unit, air handling unit, under-floor heating, etc.) either newly designed or refurbished.



A specialized demonstration car equipped with GHP

## Panasonic Offers GHP Chillers for Cold Climate

Panasonic has introduced gas engine-driven heat pump (GHP) air conditioners to the market in 1985. The company has been expanding its GHP overseas business including Korea, Latin America and Europe ever since. Especially in Europe, as a pioneer of GHP with an experience of 10 years, Panasonic has been serving and secured firm foothold in this category.

In addition to GHP VRF systems, GHP chillers using water heat exchangers have been favorably accepted in the market.

For example, Panasonic's GHP chiller was adopted for a renewal project of a hotel in Hakone Town (Kanagawa, Japan) located in a cold highland district, 700 meters above the sea level.

After the several year's review of the running cost, energy saving performance, environmentally friendly features, cost performance and other factors, the hotel has finally chosen Panasonic's GHP chiller as a replacement for a heavy oil direct fired absorption chiller.

Panasonic's GHP chiller can utilize the existing piping and also waste heat, and retain a high level of heating capacity even when outside temperature is low.

In summer, it enables a drastic cutdown of electric consumption, leading to a whole year's reduction in running cost while ensuring a high level of comfort.

Now the hotel highly recognizes advantages of the GHP chiller and is enjoying the great benefit of its operation.



Panasonic GHP chiller for cold climate

## Yanmar Introduces Compact GHP Chiller

As an addition to its lineup of gas-engine heat pump (GHP) systems, Yanmar has introduced a compact air-to-water (ATW) chiller unit that allows the users of hydronic heating and cooling systems to benefit from the advantages offered by GHP technology. By operating with only a fraction of the electrical power consumed by electrically driven systems, these chiller systems reduce strain on electrical power grids and reduce associated infrastructure costs. These systems instead utilize high-efficiency Yanmar gas engines, which are powered directly by natural gas. By recovering heat from the gas engine, the chillers use energy more efficiently and heat pump operation is enhanced.

The chiller units are currently built in Japan, where Yanmar is based and has a top-level share in the VRF GHP air conditioning system market. Yanmar VRF GHP models are available with cooling outputs in the range of 14–85 kW and include models with a range of additional functions such as hot water output, electricity generation, and blackout start.

The GHP chiller is available as a reversible cycle system with 71 kW cooling capacity and 80 kW heat-

ing capacity. The unit also provides the option of an additional 30-kW hot water output in cooling mode. The outputs of multiple units can be easily combined for larger capacities, and the number of units can be controlled to maintain high efficiency even at partial load. With its fully integrated heat exchanger design, the chiller unit also features an integral refrigerant-to-water heat exchanger, giving the unit a smaller footprint and making it ideal for new and replacement projects. With many aging chillers in operation around the world in regions where the electricity supply is limited, the GHP chiller is expected to provide an efficient user-friendly solution.



Yanmar compact GHP chiller

## World Heat Pump Market 2014 from BSRIA



BSRIA launched a new series of reports covering the heat pump market in the major countries in North America, Europe and Asia.

Analysis of the 14 countries researched in 2013 provides a full understanding of the market. It covers ground and water-to-water, air-to-water (ATW), exhaust air and cylinder-integrated units. Additional research has been undertaken to cover the forced air heat pump market typical in the United States.

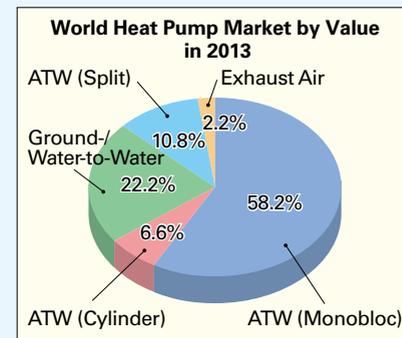
The world heat pump market increased 7.2% by volume in 2013 to almost 2 million units. The growth was driven by the strong progression of sales of heat pump water heater in the United States especially on the one hand, and the recovery of the European market on the other hand. However, in value terms, the market went down 6.9% in 2013 compared with 2012; the reason behind the drop is attributed to the decrease in sales of large output units as well as increasing competition among suppliers.

BSRIA Heat Pump studies analyze

the latest trend on the market in terms of sales developments, price evolution and the penetration of different product types. Each report provides an analysis of the route to the market, where products are sold to, for which application and which type of installation is carried out.

Forecasts are made based on drivers and obstacles identified among industry experts and based on market experts' experience. In addition, BSRIA provides recommendations on the potential challenges suppliers need to be aware of when making decision in their future business plan.

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Source: BSRIA