Water Source WS Series
Condensing gas absorption heat pump & Water source renewable energy for heating and cooling
- Efficiency up to 244%
- Almost total reduction in electrical power
- Free domestic hot water production in cooling mode operation

Advantages
- Efficiency levels of 244%.
- It does not require an external exchange source, thus reducing installation and running costs.
- It reduces electricity consumption to a minimum; thanks to the prevalent use of gas, to produce more than 13 kWt and 17 kWc, it consumes less than 0.5 kW of electricity.
- It uses traditional polypropylene flues, exploiting condensation. The high pressure of the combustion system (up to 60 Pa) enables the extension of the vent to more than 20 m. In the case of existing buildings, a configuration of a coaxial flue gas discharge is possible.

Chiller ACF with Heat Recover HR
Gas absorption chiller-heater for cooling with heat recovery for the production of hot water
- Efficiency up to 170%
- Almost total reduction in electrical power
- Free domestic hot water production in cooling mode operation

Advantages
- Production of hot water for free during cooling operation.
- Extremely low electricity consumption: saving up to 88% of electricity compared with a traditional electrical system, thus requiring neither additional energy nor upgrading or modification of the electrical cabin.
- Complete system flexibility and modularity, ensuring continuity of service and providing the cooling output according to seasonal demands (multiple links available on request).

Environmental Site Supplies (ESS) has been a UK distributor for Heat Pumps since 2000, assisting with the design and application of Heat Pumps including VR systems for commercial applications.
Since 2003, ESS has been the leading UK distributor and specialist for Gas Engine VR (Sanyo HP).
Robur acquired Gas Absorption technology from Servel in 1991 and has developed these original cooling only machines into highly efficient and effective heat pumps.
In 2012 ESS became the UK distributor for Robur and this partnership is pleased to bring the unique benefits of this technology to the UK market.

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High efficiency gas powered heating & cooling systems

**ROBUR ENVIRONMENTAL SOLUTIONS**

In a world where environmental awareness should be a priority, the Robur Range of Gas Absorption Heat pumps offers the ideal solution. Offering a range of products for air source, ground source and water source renewables for heating, the Robur range meets the most stringent building demands.

Manufactured in Italy to the highest quality control, the product is specifically designed for the UK and European requirements. Utilising a sealed Ammonia heat exchanger system as its heart, the Robur GSHP range performs all other forms of Gas Powered systems on the market.

**PARTNERSHIP WITH ESS**

ESS, the exclusive UK distributor and Robur from the perfect partnership. ESS has been in business since 2000 supplying the market with the very best in heating & cooling solutions and are well used to the needs and demands of the marketplace. ESS recognises that sound design and application is critical to any project and therefore this is at the forefront of ESS’s activities in addition ESS offers the best training and commissioning assistant that guarantees success.

**KEY PRODUCT FEATURES & BENEFITS**

- Single phase: Power Supply
- Heating, Cooling & DHW
- Air, Ground & Water Source
- MANNS Gas on LPG
- NO-FI.O: Zero Emission, GWP=1
- BREEDING CREDITS & PANT'L BENEFITS
- LOW CO2 & NOx EMISSIONS
- NO WATER UP TO 61°C, GWP MWTC
- CONTINUOUS HEATING DURING DEPRESSED
- CHILLED WATER AT 1°C
- DIGITAL CONTROL, EMS INTERFACE
- FACTORY ASSEMBLED LINKED SYSTEM

How to reduce operating costs with high efficiency systems: energy class A

Energy efficiency is cooking at its greatest! As highlighted by the latest regulations, Air Energy Certificates are mandatory documents establishing the energy efficiency of both new and existing buildings. It is to be expected that the catchphrase “well insulated house” is now a familiar sight on the doors of homes throughout the UK. The need for new buildings to meet the challenges of energy conservation and efficiency begins with the design of the building and the materials that will be used in its construction.

So far energy efficiency and certification of buildings has been receding for many years the increase in costs, energy certification is now introducing a tool for increasing the value of buildings.

Two emerging trends are to be expected in the building construction industry: on one hand the improvement of energy efficiency in buildings, on the other hand the increase in building costs. Actually, a different approach could be taken: a strong reduction in buildings, on the other hand the increase in building costs.

Actually, a different approach could be taken: a strong reduction in buildings, on the other hand the increase in building costs. Instead of reducing the building costs, the increase in the cost of energy is putting pressure on the price of buildings. The challenge is to find a balance between energy conservation and cost effectiveness.

This technology is already available on the market and provides efficiency by 4% higher when compared to the best condensing boilers.

**EFFICIENCY EVOLUTION**

The absorption heat pumps, gas fired and renewable energy driven, are the perfect combination between innovative research and planning and manufacturing capacity with new environmental impact.

The water-environment absorption technology, successfully developed by ROBUR for the manufacturing of water systems, is applied also to systems for the production of thermal energy. As a result, ROBUR Incorable heat pump can reach energy efficiencies up to 49% higher than the best boilers available on the market.

**Air Source Heat Pump A Series**

- Heating: 47kW, 35~65°C
- DHW: 70°C

**Ground Source GS Series**

Condensing gas absorption heat pump & ground source renewable energy for heating

- Efficiency up to 170%
- Almost total reduction in electrical power
- Exceeds peak efficiencies of 170%, guaranteeing up to 50% reductions in annual heating costs and in CO2 emissions compared to condensing boilers.
- Reduces the costs for gas boilers up to 50%.
- GWP impacts and NOx emissions reduced.
- Produces renewable energy.
- A series of traditional polypropylene flues, exploiting condensation. The high pressure of the condensation system up to 60 Pa enables the extension of the vent to more than 30 m, in the case of existing buildings, a configuration of a coaxial flue gas exchange is possible.
- The new boiler, in particular, is perfectly comparable to a traditional gas boiler, thanks to the presence of a flue to produce. To increase that of about 20% from the usual 80% to 90%.
- Reduces the electricity consumption to a minimum, thanks to the presence of a flue to produce.

**Air Source Heat & Cool AR Series**

High efficiency reversible gas absorption pump & air source renewable energy for heating & cooling

- Efficiency up to 150%
- Almost total reduction in electrical power

**Advantages**

- Designed to exceed peak efficiencies of 100%, guaranteeing up to 50% reductions in annual heating costs and in CO2 emissions compared to wood heating boilers.
- The most beneficial heating system to enhance the energy qualification of buildings, because it permits a considerable promotion of the building's energy classification with the consequent increase in the value of the building.
- Almost for heating purposes, using gas as fuel.
- Reduces electricity requirements up to 70% (5 kWe for 35.3 kW of heating capacity or 16.9 kW of cooling capacity) compared to traditional electrical systems, thanks to the presence of a flue to produce.
- Ensures efficiency levels in excess of 100% even at -20°C, so it is also used in especially cold climates.