



Hot water fired



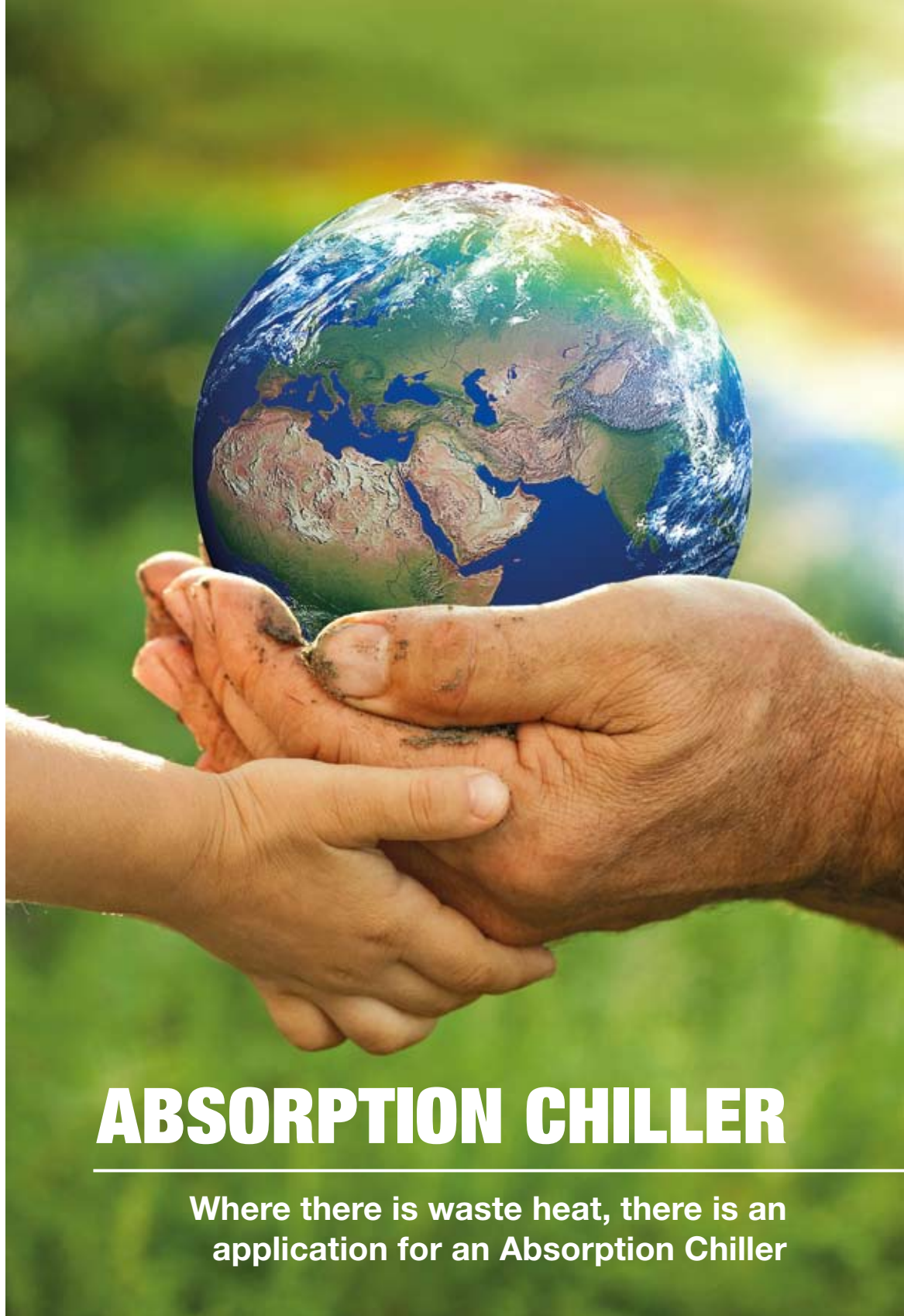
Natural gas fired
Chillers/Heaters



Exhaust gas (Multi energy)
Chillers/ Heaters



Steam fired



ABSORPTION CHILLER

Where there is waste heat, there is an application for an Absorption Chiller

What is an Absorption Chiller?

An absorption chiller is a non-electric chiller that uses primary heat (fuel or waste heat) to produce chilled water for the cooling systems. Absorption Chillers consume a fraction of the electricity as compared to conventional electrical chillers to produce chilled water, and therefore lead to considerable savings in primary energy consumption.

Powered by waste heat sources such as exhaust gases, flash steam or hot water these chillers are a popular alternative to regular compressor chillers where electricity can be unreliable, costly, or unavailable, or where noise from the compressor is problematic. Absorption Chillers can also be powered by Natural Gas being fired directly into the chiller, or by a mixture of the above sources.

Features of Shuangliang Absorption Chillers

- Powered by cleaner energy sources than conventional chillers.
- Lower Energy Consumption
- Absorption Chillers increase NABERS and green star rating
- Uses water as refrigerant, so no ozone depletion potential
- Easy to connect to any building automation system for remote monitoring and control
- Auto purging system
- Auto de-crystallisation system
- Factory insulated
- Low maintenance

Applications for Absorption Chillers and Trigeneration

- Commercial and Residential buildings: Comfort cooling or heating – Shopping centres, offices, hospitals, universities, airports, auditoriums, factories etc.
- Industries: Process cooling or heating - Cooling or heating of product such as beverages or chemicals. Cooling in manufacturing applications such as injection moulding machines – Plastics, brewery, printing pulp mills.
- Inlet air cooling for engines or gas turbines – Used to cool the inlet air going to engines or gas turbines to improve the efficiency during hot ambient conditions.

Simons Green Energy offer a packaged Trigeneration system

What is Trigeneration?

Trigeneration is the combination of a Cogeneration system and an Absorption Chiller which converts gas into electricity, heating and cooling. The waste heat from the Cogeneration system is converted into chilled water for air conditioning, refrigeration or other cooling purposes.

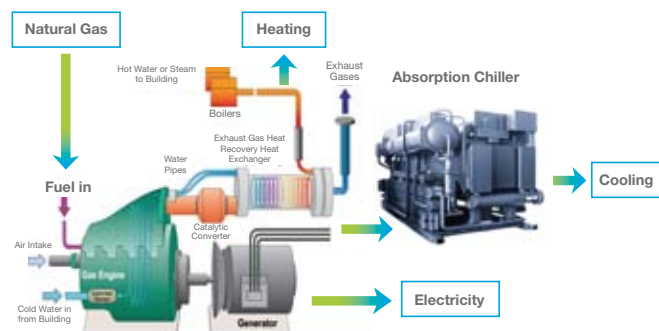


Diagram: Trigeneration system

Absorption Chiller Range

SHUANGLIANG

Shuangliang manufactures Lithium Bromide Absorption Chillers ranging from 100kW_r - 6,950kW_r in the following configurations:



Hot water fired

HOT WATER & STEAM CHILLER

Single and double effect

- Capacities – 200kW to 5230kW
- Efficiency: COP up to 1.37
- Hot water temperatures: 95°C to 68°C (double effect 180°C to 165°C)
- Capacity adjustable from 20 to 100%
- Lowest chilled water temperature: 5°C



Natural gas fired Chillers/Heaters

NATURAL GAS CHILLER

Single and double effect

- Capacities – 200kW to 6980kW
- Efficiency: COP up to 1.43
- Steam pressure: 0.1 – 0.8 MPA
- 100% condensate recovery
- Capacity adjustable from 20 to 100%
- Lowest chilled water temperature: 5°C



Exhaust gas (Multi energy) Chillers/ Heaters

MULTI ENERGY CHILLER

Firing combinations available

- Exhaust gas & hot water
- Exhaust gas, hot water & natural gas
- Exhaust gas & steam
- Exhaust gas & natural gas
- Exhaust gas only
- Exhaust gas temperature range 430°C to 520°C, exit temperature of flue - 170°C
- Hot water temperature range 78°C to 99°C
- Capacity adjustable from 20 to 100%
- Lowest chilled water temperature: 5°C
- Heating hot water temperature available: 56 – 60°C



Steam fired

STEAM CHILLER

Single and double effect

- Capacities – 200kW to 5230kW
- Efficiency: COP up to 1.37
- Hot water temperatures: 95°C to 68°C (double effect 180°C to 165°C)
- Capacity adjustable from 20 to 100%
- Lowest chilled water temperature: 5°C



About Shuangliang

In the past 25 years, Shuangliang has installed over **20,000 units worldwide**. This has not only resulted in significant savings in electrical supply – the **equivalent of saving investment on 15 X 600MW thermal power plants** – but also annual savings of 22.5 million tons of standard coal, reducing CO2 emissions in the tune of 57.6 million tons and SO2 emissions in tune of 85,000 tons. This is equivalent to planting 160,000 hectares of forest every year.

With the responsibility to achieve energy-saving, emission reduction, and environment-friendly, Shuangliang A C has devoted constantly in exploration and innovation since the founding, to provide world-leading central air conditioning system to industrial fields such as aviation, electricity, nuclear energy, oil, metallurgical, chemical, textile, and civil fields such as hotel, shopping mall, office building, transport facility.

Shuangliang A C has devoted constantly in exploration and innovation since the founding.

Shuangliang

- Complies with ISO9001, ISO14001
- Holds Occupational Health and Safety System Certification
- Holds a National Industry Products Manufacturing License
- Conforms of Machinery Safety, perfecting the System of Inspection Measurement and Test, ASME, CE, Chinese Energy Saving Product, etc.



About Simons Green Energy

Simons Green Energy, as part of the Simons Group, are leaders in efficient distributed energy, water heating and cooling as well as steam equipment in Australia. With over 80 years of experience in the field of thermal engineering, we provide solutions to our customer's needs with reliable products, technology and service quality. This leads to a meaningful contribution in improving the environment and our customers' profitability.

The company is made up of a team of qualified engineers, a service and installations department, factory technicians, sales and marketing specialists as well as executive and support staff. With offices in Sydney and Melbourne, we also have an extensive network of distributors and service agents throughout Australia

Simons Green Energy

- Complies with ISO9001
- Simons Green Energy's Integrated Management System complies with Australian Safety, Quality and Environmental standards for the Design, Fabrication, Testing, Sales, Installation and Service of Steam and Hot Water Boilers, Cogeneration and Trigenation Systems and ancillary equipment.



Specialists in energy systems for over 80 years

HEAD OFFICE Sydney - 755 Botany Road, Rosebery NSW 2018 | Australia | **T** 61 2 8338 8660
Melbourne - 34 Strong Avenue Thomastown VIC 3074 | Australia | **T** 61 3 9462 6700
E info@simonsgreenenergy.com.au
www.simonsgreenenergy.com