Gas Fired Air Conditioning

How can you burn gas to generate cooling?

Well, with Robur's *Gas Absorption Chillers*, you can. Welcome to a new age of innovative heating and cooling systems that add convenience and reliability to providing cooling in a wide range of applications. Be it in the Home, Office, Hotel, Industry, Mall, Cold Room or other Cooling application.

Efficient Cooling all day, everyday

Gas Absorption Air Conditioning is particularly suited to countries such as Nigeria, where the power utility grid is not very reliable and power generation costs are high. Using direct primary energy through LPG or natural gas, Robur's award winning systems generate chilled water down to minus 10°C, which can be used for air conditioning or refrigeration

Reduce Power Consumption by 86%

At home, office, church, factory, hospital or hotel, gas Absorption Chillers cut electricity usage by 86% compared with traditional electrical driven chillers. This is suitable for new builds as well as refurbishments, especially where existing systems are chilled water based.

Available in a Range of Sizes

Below is a list of available Gas Fired Absorption Chillers.

Industrial Models	Cooling Capacity (kW)
RTCF 60-00 S CC	17.7
RTCF 120-00 S CC	35.4
RTCF 180-00 S CC	53.2
RTCF 240-00 S CC	70.9
RTCF 300-00 S CC	88.6
Largest Skid Modules	Approx 1,000

Robur Absorption Chillers are available for heat recovery, generating cold water down to 3°C and simultaneously hot water up to 80°C.

Cooling the Traditional Way

Traditional AC systems are cumbersome and difficult to install and maintain. Split unit systems, by virtue of their design are unable to cope with modern cooling demand. Users often install multiple units, which results in long cooling times and high energy demand. Banking halls, hotels and industry are prime examples of users with intermittent heavy cooling loads.

What is an Absorption Chiller?

Robur Absorption Chillers are: easy to install; they cool only when required, thus avoiding standby loss; and a single unit can handle large loads. They use available sources of heat energy to generate cooling. The cost of a gas Absorption Chiller is comparable to installing several conventional electric split or wall air conditioning units.

Advantages of Robur Gas Absorption Chillers:

- 86% lower electricity demand (can run off an inverter)
- Independent and Modular - precise control for comfort
- Quality Italian design and manufacturing
- Single refrigerant fill over the lifetime.
- Efficient cooling and only when it is needed.
- 20 Year Service Life!

Robur History and Experience

Robur has operated since 1956 and is renowned for the quality of its environmentally friendly products, which can be fired using LPG, natural gas or renewable energy. Robur's units are designed for longevity of 20 years, which is 5 times longer than traditional A/C systems! Asiko is extremely proud to be associated with Robur and to be introducing their eco friendly range of gas Absorption chillers to Nigeria.

Installation

It is vital that any Robur System is correctly sized by your local Asiko representative.

Contact Your Local Asiko Agent

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FREQUENTLY ASKED QUESTIONS.

1. Q. What sizes of Gas-fired chillers are available?

   A. One standard size with different versions suitable for hotels, cold rooms and residential buildings.

2. Q. What is the cooling medium?

   A. The cooling medium is fresh water cooled to a point of 3°C for Air conditioning and -10°C for cold rooms and refrigeration.

3. Q. Can the chillers also do Heating and Hot water?

   A. Yes, however this option available on clients requested for our ACF - Heat Recovery units.

4. Q. Do the chillers run on electricity?

   A. Yes, it only consumes 1.2Kw which is equivalent to cooling an entire 4 bed room home

5. Q. Do I need constant PHCN supply?

   A. No. The unit can be run off PHCN, solar, inverter etc but we advice you run the systems on an inverter so as to insulate them from power surges.

6. Q. Do I have to provide constant water supply for the chillers to run?

   A. No you don't. The water provided is in a closed loop and it circulates.

7. Q. What type of gas tanks can be used?

   A. We recommend a minimum of 200kg which can either be a combination of regular cylinder or bulk tanks. Exact tank requirements will be determined by the clients and our technicians.

8. Q. Do the chillers have a regulator that turns it on and off?

   A. Yes. It is fitted with a thermostat which monitors the chilled water return and supply temperature. If there is no demand for chilled air, it turns itself off.

9. Q. How often should I service the chillers?

   A. The chillers do not require servicing if properly operated. The refrigerant in the chillers is guaranteed for the life time of the product; which is 20 years. Regular refill and disposal of refrigerant is not required, unlike the regular electric chillers.

10. Q. How noisy is the chillers?

    A. Not so noisy, however, there are two versions:
    - Standard:- 54 decibels
    - Low noise:- 49 decibels
    In general, it is about the same noise as the evaporator of a single split unit air conditioner.

11. Q. Can I build a closure around the chillers or can it be left outdoor?

    A. The chillers are built to stay for outdoor operations. However, it is erosion resistant and internally protected by aluminium.

12. Q. How long does it take to install the chillers

    A. Technically, it takes our technicians between one to two weeks to install.