

a bit of history...

For more than a century, since 1906, Dunham-Bush Inc. Corporation has been providing innovative solutions in the Heating, Ventilation and Air-Conditioning needs of its customers. This legacy of innovation continues with cutting edge technology leading the way to new opportunities by meeting customer demands for performance, quiet operation, energy efficiency and service excellence.

Today as one of the World's largest manufacturers of HVAC equipment we remain at the front of design and technology while creating comfort environments for millions of people worldwide. With many manufacturing facilities, offices and representation globally we are able to meet and exceed the needs of our customers in all aspects of customer service, reliability, spares back-up, stock holding and cost effectiveness.

With this philosophy in mind, Dunham-Bush Inc. has re-invested directly in Africa with the know-how and support of a global infrastructure.

Dunham-Bush International (Africa) (Pty) Ltd. heads up all African operations with its Head Office in South Africa and various offices and representation throughout Africa.

Today, Dunham-Bush offers our renowned high quality products with the benefit of local technical, engineering and sales support incorporating a large multi-million stock holding of air-conditioning equipment and spares to ensure fast, effective service and product availability. Many South African Medical Institutions, Shopping Centres, telecommunications, Post Offices, Fitness Clubs, Educational facilities, Hospitals, Mines, Various manufacturing industries and Private residences have, and are enjoying the Dunham-Bush experience and peace of mind comfort.

Products that perform ...
by people who care.

DUNHAM-BUSH
AIR CONDITIONERS
Since 1906

Frequently asked questions

What does the system cost?

Heat pump water heaters typically have higher initial costs than conventional water geysers. The operating cost is, however, considerably lower. In the medium term the saving on operating costs surpasses the initial higher price. Capital invested could be recovered within 12 - 18 months.

What energy saving can I expect?

Extensive testing shows a saving up to 70% on the running cost of conventional water geysers.

Is weather an issue?

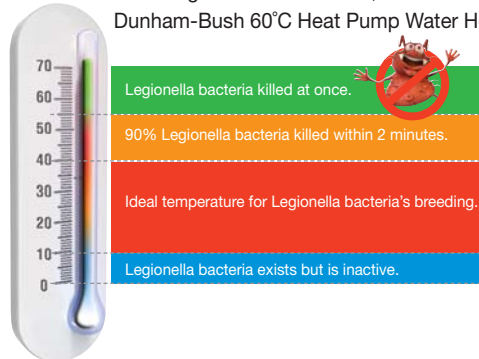
No! The system can operate day and night under all types of weather. The operating range is from a minimum of -7°C to a maximum of $+45^{\circ}\text{C}$.

Is the system environmentally friendly?

Yes! By using the latest R410a and R134a refrigerant gases that are zero ozone depleting, we are helping to save the planet.

Why must I insist on a 60 Degree Water Heater?

The potentially deadly Legionella bacteria dies instantly above $55,1^{\circ}\text{C}$. Do not expose yourself and your family to this Legionnaires disease, be safe! Insist on the Dunham-Bush 60°C Heat Pump Water Heater.



Call **0861 HOT WATER** for more information


DUNHAM-BUSH
AIR CONDITIONERS

Dunham-Bush International (Africa) (Pty) Ltd
57 Sovereign Drive | Route 21 Corporate
Park | Irene | SOUTH AFRICA
Tel: +27 12 345 4202
0861 HOT WATER
Fax: +27 12 345 4203 | PO Box 1431
Wingate Park | 0153 | SOUTH AFRICA
e-mail: info@dunham-bush.co.za

Over 100 Years of Quality

0861
HOT WATER

Heat Pump Water Heater

60°C


DB
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AIR CONDITIONERS

How it works

A heat pump is essentially a vapor compression cycle, similar to an air conditioning unit. However, instead of the cycle being used for air cooling purposes with the associated heat as a by-product, a heat pump utilizes the heat generated in the cycle to heat your water.

In brief, energy is extracted from the ambient air using a finned-coil exchanger, also known as an evaporator, using a refrigerant as the working fluid inside the tubes. This refrigerant is then compressed to a high pressure and temperature by a compressor. The high pressure refrigerant is then circulated through a refrigerant-to-water heat exchanger, also known as a condenser. Here energy is exchanged with water thereby heating the water to a temperature of 60°C.

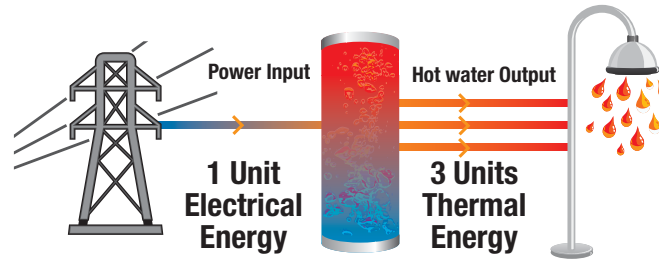
This cycle typically consumes 1 unit of electrical energy for every 3 units of heating produced, i.e. only 1 kW/h electricity is used to produce 3 kW/h heat in your water. Therefore, on average, two thirds (67%) of the electrical energy consumption can be saved when compared to conventional geysers.

Features

- Saves up to 70% on electricity used to generate hot water
- Lowers CO₂ emissions. (Carbon footprint)
- Can be connected to current hot water geyser
- Easy installation – no structural changes
- Adjustable up to 60 degrees Celsius
- Keypad controlled with timer function
- Environmentally friendly refrigerant
- Low maintenance
- Can run off small standby generator



High efficiency



Types of units

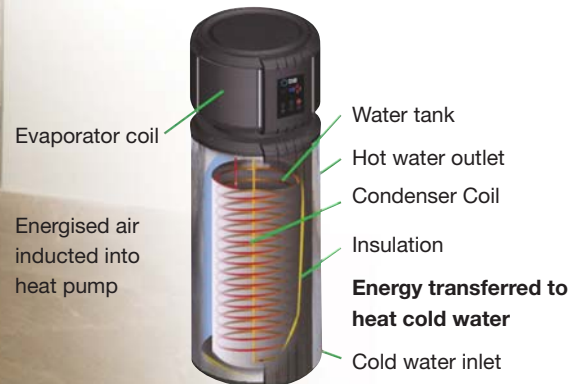
There are two types of units available, depending on the use:

1. Combination type Water Heater

Dunham-Bush combination heat pump provides hot water at 60°C. It is innovatively designed to integrate the heat pump main unit and hot water tank. This type of unit can be utilized **at new developments** and for **replacements of existing geysers**.

It can conveniently be installed indoors or outdoors, in a ceiling, on a balcony or even in the garage. This versatile unit can be used in homes, town houses and offices, in fact, anywhere there is a need for hot water. The unit is available in various sizes ranging from 1.5 kW to 2.6 kW (heating capacity).

And best of all, the refrigerants used in the units are environmentally friendly R134a, which is a CFC -free, non-flammable, biodegradable refrigerant.



2. Split type Water Heater

Dunham-Bush's split type water heater is designed to offer sanitary hot water for the home and business and for any application where hot water is required. It offers hot water up to 60°C, with efficiency 3 times higher than that of conventional electric geysers.

This type of unit is designed to be used **in conjunction with existing electric geysers**.

The outdoor unit adopts a very compact design, similar to a traditional air conditioner. An added benefit is the extreme ease of installation and maintenance.

Included integrated pump for efficient water circulation.

The unit is available in a variety of sizes ranging from 3 kW to 7.2 kW (heating capacity), with water capacity from 100L to 500L.



Typical Installation

