Want to learn more? Phone *Bonaire* on 13 22 88.

Bonaire is the number one brand of ducted evaporative air conditioning in Australia, having kept Australians cool for over 50 years. We offer a range of cooling options for just about any home, from whole-of-home ducted evaporative air-conditioning to stand-alone room cooling units. We also offer one of the widest ranges of controller options, including Standard Manual Control, Electronic Programmable Control, revolutionary Touch pad programmable Control and our Radio Frequency Remote Programmable Control.

AUSTRALIAN MADE

Quality System
Quality Endorsed Company
ISO 9001

IA6131

The *ins* *outs* of air conditioning.

BONAIRE

What you need to consider before choosing an *air conditioning* system.

Thinking of buying an air conditioner? It pays to understand your options before you visit the showroom. This brochure will give you a better understanding of the designs, components, and operating principles of today's air conditioning systems. By taking a few minutes now to master the "ins and outs" of home cooling, you could save yourself considerable time and expense further down the track.

The first thing to *consider* in home cooling is your home.

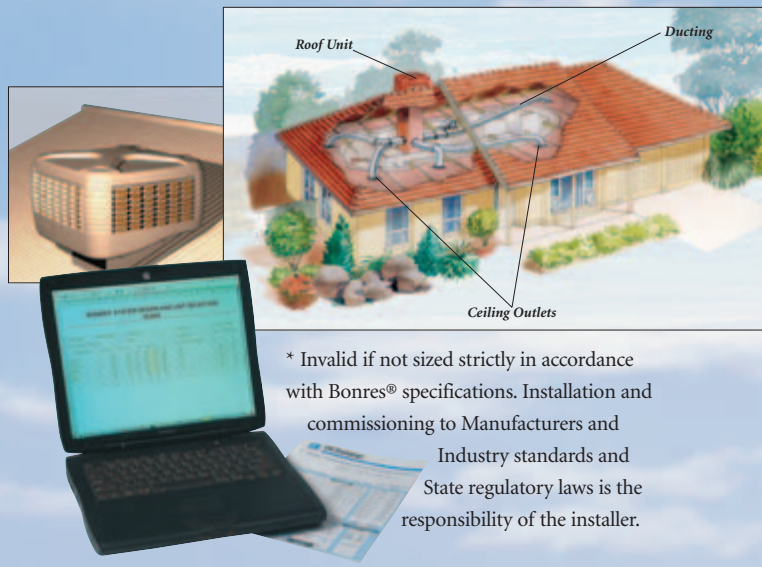
Choosing the correct air conditioner for your home depends a lot on where your home is located and how it is constructed. Here are a few of the most essential things you need to know about your home when considering an air conditioning system:

- Are you in a warm or cool climate?
- Do you need whole house or single room air conditioning?
- How are your walls constructed?
- Is your ceiling insulated?
- How many sunlit glassed areas are in your home?
- Do you already have gas heating?

The Bonres®* Selection System makes it *easy*.

Bonaire offers a special service to customers called the Bonres®* fresh-air cooling Selection System.

We factor in the specific details of your home which impact the operation of an evaporative cooling-system and generate a computer printout that enables you to design a cooling system specially suited to your home.



* Invalid if not sized strictly in accordance with Bonres® specifications. Installation and commissioning to Manufacturers and Industry standards and State regulatory laws is the responsibility of the installer.

Evaporative versus *refrigerative* cooling.

There are two types of air-conditioning that you can choose from to cool your home.

Refrigerative circulates dry, artificially cooled air and requires closed doors and windows for maximum efficiency.

Evaporative draws fresh air from outside your home, filters it, cools it and then circulates it through your home, forcing out hot, stale air through open doors and windows.

How they *work.*

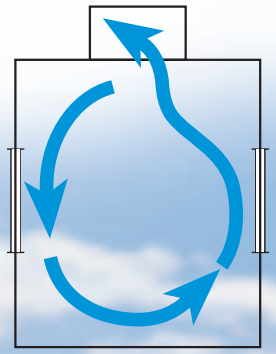
Evaporative coolers work by combining the natural process of evaporation with a simple fan system. The fresh outside air is filtered through filters saturated with water and cooled by the process of evaporation. A fan blows the cool outside air into the building and the warm inside air is then forced out. Which is why you need to leave windows opened part way while operating an evaporative cooler.

A refrigerative system works much like your home refrigerator by means of a cold indoor coil (the evaporator) and a hot outdoor coil (the condenser) surrounded by aluminium fins.

A pump (the compressor) moves refrigerant fluid between the evaporator and the condenser.

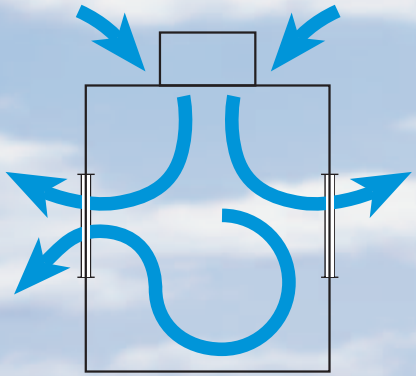
The refrigerant evaporates in the indoor evaporator coil, pulling heat out of indoor air and thereby cooling the home.

The hot refrigerant gas is pumped outdoors into the condenser where it reverts back to a liquid giving up its heat to the air flowing over the condenser's metal tubing and fins.



Refrigerated cooling airflow

Areas best suited to evaporative cooling



Evaporative cooling airflow

Which is more comfortable?

While a refrigerative system can create extremely cold conditions, both systems provide comfortably cool air. An evaporative cooler will nearly always deliver air up to 14 degrees cooler than outside and the constant air movement further lowers the ambient temperature by 4 to 6 degrees.

And while some cooling systems blow hot air for up to 5 minutes, a Bonaire pre-cooled system delivers cool air as soon as you turn it on. This cool air is continually circulated through your home every 1-2 minutes bringing quick relief from the summer heat.

This continual air change offers important health benefits over refrigerated systems. Because it circulates only clean fresh air, it reduces the spread of air-borne infections and provides relief to asthma and allergy sufferers. The water is constantly moving and drained, preventing buildup of any bacteria. And because evaporative systems maintain the natural humidity level of the air, plants, furniture and your skin won't dry out as they do with refrigerated systems.

Evaporative Cooling. Naturally cooled, fresh air circulates throughout your entire home. Hot, stale air is forced out.

HOW THEY COMPARE

Evaporative	*Refrigerative*
Especially suited to hot, dry climates.	*Suited to most climates.*
Circulates only fresh, clean air.	*Recirculates conditioned air.*
Gentle on noses, eyes and skin.	*Can cause dehydration.*
Reduces the spread of air-borne infections and provides relief to allergy and asthma sufferers.	*As windows and doors must be closed to maintain maximum efficiency, air-borne germs and particles remain in the air.*
Indoor plants thrive.	*Plants can suffer from drying effects.*
Up to 50% cheaper to buy and install and up to 80% cheaper to operate.	*The hotter it gets, the harder refrigerated units need to work, increasing power usage.*

Which system is the most *affordable* to buy and install?

Evaporative systems consist of a cooler (which is usually roof mounted) and ducting. Refrigerative systems are either a ***split-system*** or ***packaged unit***. In a ***split-system central air conditioner***, an outdoor metal cabinet contains the condenser and compressor, and an indoor cabinet contains the evaporator. In a ***packaged central air conditioner,*** the evaporator, condenser, and compressor are all located in one cabinet, which usually is placed on a roof or on a concrete slab next to the house's foundation.

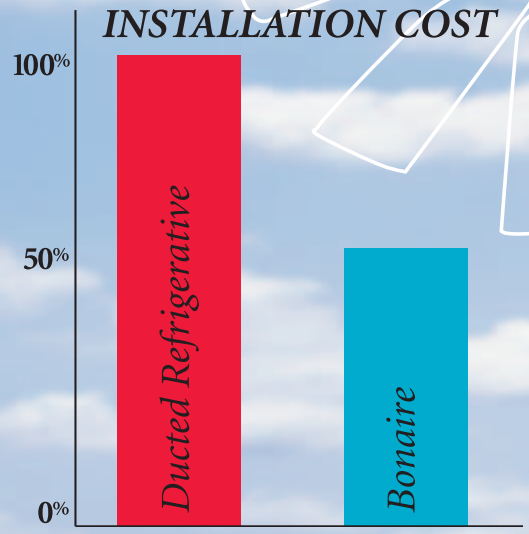
Because of their relative simplicity and ease of installation, a ducted evaporative air conditioning system can ***save you up to 50% on purchase and installation*** compared with a ducted refrigerated system.

LOW WATER CONSUMPTION

A Bonaire EAC VSM65 evaporative cooler uses considerably less water than other common household activities. Here's a ranking of common activities, from highest water consumption to lowest.

Ranking table developed using South East Water, Victoria, annual water usage figures. VSM65 operating on Bonres WDRV2.

1. *Watering garden by hand*
2. *Showering*
3. *Watering gardens by sprinkler*
4. *Flushing the toilet*
5. *Automatic clothes washer*
6. *Dishwasher*
7. *Bath*
8. *Bonaire EAC VSM65*
9. *Washing dishes by hand*
10. *Washing car by hose*
11. *Laundry trough*



Which system is the most economical to run and maintain?

Evaporative coolers use about one-fifth as much energy as refrigerative systems. In fact, Bonaire ducted evaporative air conditioning can cool your home over summer for as little as $50 compared to around $250 for an equivalent refrigerated system.

One of the reasons for this is that evaporative coolers are most effective during the hottest time of the day, whereas refrigerative coolers have to work harder (and use more energy) the hotter it gets.

Maintenance issues.

While it's commonly thought that evaporative systems require more frequent maintenance than refrigerative systems, Bonaire is relatively easy to maintain compared to other brands. That's because Bonaire does not rely on the belts and pulleys of a centrifugal fan. In addition, Bonaire's unique water distribution system delivers water evenly to the filters via a single point delivery, eliminating the need for maintenance to the water distribution system.

Because refrigerated air conditioning systems use a special refrigerant gas, any refrigerant leaks require a technician to repair and recharge. Regular maintenance also includes cleaning filters, coils and fins.