

CASE STUDY

Four Bedroom Kaiapoi Home



A new home in Kaiapoi utilising green and efficient heating from an air-to-water heat pump.

System Description

An air-to-water heat pump situated outside the kitchen heats an underfloor central heating system.

Requirements

With insulation up to building standard code and the addition of thermally broken windows and doors, the home provided an ideal environment for efficient central heating.

Solution

1000 metres of pipe used in this home make up 13 in-slab pipe loops, each one heating a different region of the floor (see image at right). A 14kW heat pump provides the right amount of energy to heat the system effectively without drawing too much electricity and

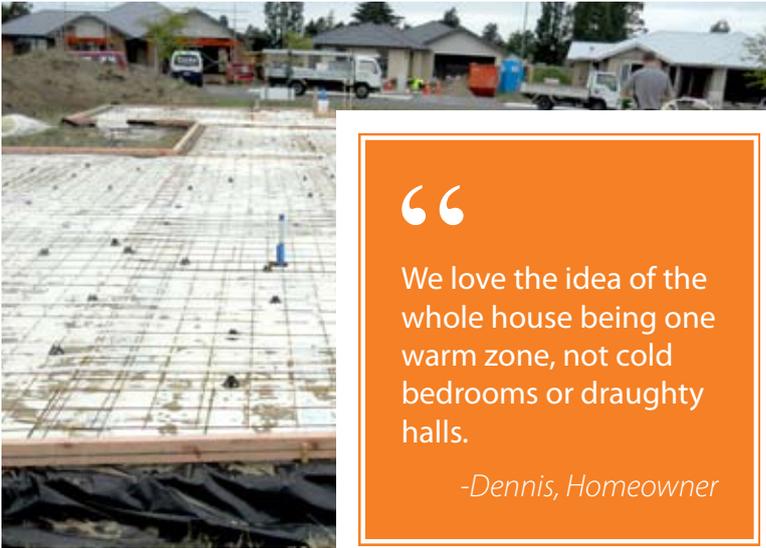
Contractors and Client

Mike Greer Homes

Products Used

DeLonghi Bran 0041 MH Air-to-Water Heat Pump
Aube analogue room thermostat with floor probe
Underfloor Heating





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We love the idea of the whole house being one warm zone, not cold bedrooms or draughty halls.

-Dennis, Homeowner



thereby optimising efficiency. This central heating system is totally automated, controlled by a single thermostat, providing comfortable radiant heat through every room in the house.

The heat pump is positioned at the back of the house, hidden from the street by the garage and away from the bedrooms. Hot water is provided mostly from a solar collector.

Benefits

“We would recommend the set-up to any new home builders [...] Cost wise it is a great way to heat your home,” say the owners. Even in the coldest month of the heating season, with every room in the home dry, warm, and comfortable, the home’s monthly running cost just reached \$200.

Avg Running Cost/Month* \$124

Living area 195sqm

Heated area 195sqm

Extras Double glazed, thermally broken windows and doors

* For the heating season, May - October

In addition to being cost-effective, the air-to-water heat pump is clean for the environment as well as quiet.

Underfloor heating provides the ideal heat distribution for the human body: warmest at the feet and cooler near the head, making this central heating solution healthy as well.



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