

# LEAP

## THERMAGENIUS



INTEGRAL HEAT PUMP WATER HEATER - AO SMITH



# THERMAGENIUS

USES RENEWABLE ENERGY TO HEAT WATER



**THERMAGENIUS Integral Heat Pump Water Heater from A.O. Smith extracts renewable energy stored in the air to heat water. THERMAGENIUS is not dependent on weather and operates throughout the year even during cold winter nights. With high efficiencies, payback on a THERMAGENIUS can be very quick.**

Unobtrusive, easy to install and cheap to run, a THERMAGENIUS Heat Pump Water Heater is a smart way to provide hot water for the home. The only energy used by a THERMAGENIUS is electricity to power the pumps – electricity that delivers between two and four times its value in heat output.

THERMAGENIUS Integral Heat Pump Water Heaters are air-source models. Air-source heat pumps extract heat energy stored in the air. They operate like a refrigerator

in reverse, transferring low temperature energy to a refrigeration loop, compressing the refrigerant to high temperatures, and transferring this heat to the hot water.

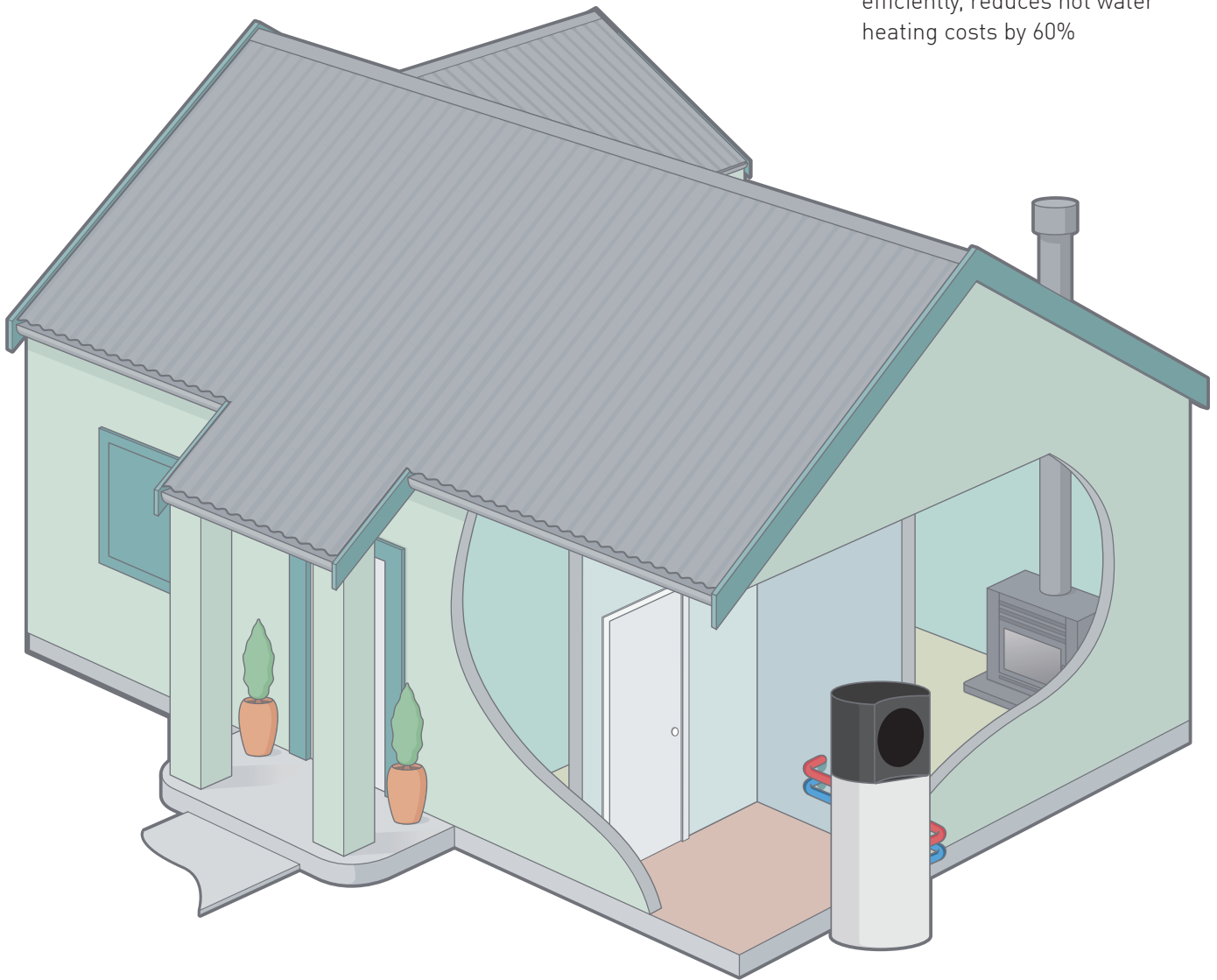
The THERMAGENIUS Integral Heat Pump Water Heater is an impressive new model, containing a 180 litre or 150 litre patented glass-lined hot water cylinder integrated into the unit. A THERMAGENIUS Integral Heat Pump Water Heater makes conversions from gas water heating simple, easy and affordable.

# THERMAGENIUS

## AT A GLANCE

- **RETROFITTING** to existing hot water systems is easy and inexpensive. A THERMAGENIUS Integral Heat Pump Water Heater also offers a quick and easy conversion from gas systems

- **USES FREE NATURAL ENERGY** from the air to heat water efficiently, reduces hot water heating costs by 60%



- **EXTREMELY QUIET** – noise levels less than 40dB(A)

- **HOT WATER CYLINDER (150L OR 180L)** combined with a Heat Pump Water Heater makes for a great water heating solution – and will fit in anywhere outside your home

# WHY THERMAGENIUS IS BETTER

## EFFICIENT

A THERMAGENIUS Integral Heat Pump Water Heater draws approximately 1/3 to 1/4 of the electricity of standard electrical hot water elements for the same amount of heating, reducing utility bills and greenhouse gas emissions accordingly. Heat pumps are more efficient than oil, gas, and electric resistance heating in climates such as New Zealand.

## CONNECTS TO EXISTING PLUMBING

A THERMAGENIUS Integral Heat Pump Water Heater can be easily retrofitted or connected to existing hot water heating or other home heating systems. Converting from a gas system is easy with a THERMAGENIUS.

## GUARANTEED

Because of its unique design and construction, THERMAGENIUS Integral Heat Pump Water Heaters are guaranteed against material or manufacturing defects for 5 years.

## SUITABLE FOR COLD LOCATIONS

Some heat pumps can lose efficiency if they're installed in a region with temperatures typically lower than 5°C. This is because winter frost builds up on the outdoor heat exchanger coils, which prevents the unit from heating water efficiently. The THERMAGENIUS Integral Heat Pump Water Heater uses a highly efficient active de-icing method to stop this from occurring. An added benefit is that this method uses approximately 60% less energy than traditional de-icing systems.

## AUTOMATED TO RUN EFFICIENTLY AND SAFELY

Multiple sensors and switches have been incorporated into a THERMAGENIUS Integral Heat Pump Water Heater to ensure the unit isn't damaged in the unlikely event of a malfunction. Such devices include compressor time delay protection (which ensures motor temperatures are correct during start phase), sensor fault protection for water, evaporator and ambient air temperatures and water flow protection to ensure adequate flow.

## INTELLIGENT CONTROLLER

THERMAGENIUS Integral Heat Pump Water Heaters come with an intelligent controller allowing users to manage operation of their system including timers for "on and/or off" functions.

## AES (ADAPTIVE ENERGY-SAVING SYSTEM)

AES feature adopts heating cycle automatically, which will facilitate water usage and save energy by minimising thermal loss.

## HOT WATER AMOUNT DISPLAY

Indicates the amount of hot water available in the tank.

## INSTANT HEATING BUTTON

Users can select heating by pressing this button at all times and the water heater starts electrical heating immediately to reach the preset temperature.

## MODE BUTTON

The Efficiency or Hybrid Mode can simply be selected by touch of a button.

# TECHNICAL DETAILS

COP's (Coefficients Of Performance) for THERMAGENIUS Heat Pumps range from 3 to 4 compared to 1 for a resistance heater and 0.7-0.95 for a fuel-powered boiler.

H2 rated system – a THERMAGENIUS offers users superior performance even on the coldest day of winter in most parts of New Zealand.

MODEL:	25CHPI-40	25CHPI-50
Rated Volume (L):	150	180
Rated Outlet Water Temp (°C):	55	55
Water Temp Range (°C):	75	75
Rated Output (W/A):		
- Efficiency Mode:	470 / 2.5	510 / 2.5
- Hybrid Turbo Mode:	3000 / 13.6	3000 / 13.6
Output (W):		
- Efficiency Mode:	1880	1900
- Hybrid Turbo:	3800	3900
Moisture Resistance:	IPX4	IPX4
Electrical Shock Proof:	I	I
Refrigerant:	R134A	R134A
Tank Rated Pressure (bar):	10	10
Water inlet/outlet pipe:	¾ inch	¾ inch
Net Weight (kg):	87	92
Height (mm):	1660	1850
Diameter (mm):	520	520
Noise [dB(A)]:	≤40	≤40d
Timer Setup	Yes	Yes
Remote Controller	Yes	Yes
Hot Water Amount Display	Yes	Yes
Anode Rod Protection	Yes	Yes

**PLEASE NOTE:** This information is only a summary. Your plumber will need to contact a LEAP supplier for a copy of the Installation Manual which has other important information.

# OTHER LEAP SYSTEMS



## SOLAR WATER HEATING SYSTEM

SOLARGENIUS water heating system harnesses clean, free solar energy to heat water quickly and effectively, even on cloudy days. Solar water heating systems are commonly installed in both new and existing houses, especially when renovating, and are integrated with household electricity and gas supplies. SOLARGENIUS systems are lightweight, easy-to-install solar water heaters that can save households between 40% and 75% on hot water bills.



## HYDRONIC RADIATOR SYSTEMS

RADIATHERM builds on LEAP'S highly effective TERRATHERM system adding radiant heat to your home through radiator systems. RADIATHERM brings comfortable, healthy warmth to your home through a tried and true central heating system that has been popular in Europe for decades. RADIATHERM provides heat by circulating hot water through radiators on the walls in every room of your house.



## HYDRONIC HEATING SYSTEM

TERRATHERM is a highly effective and unobtrusive way to radiate comfortable, healthy warmth through your home. TERRATHERM pipes heat via hot water circulated through flexible underfloor pipes and radiators where required. The system delivers warmth that starts at ground level then slowly rises. TERRATHERM is built-in and its zone-by-zone controls also let you manage your home heating more efficiently, ensuring heat goes where and when it's needed.



## MANIFOLD PLUMBING SYSTEM

MANIFLOW saves energy and conserves water by having a dedicated pipeline from a manifold near the hot water cylinder to each tap or fixture in the house. Hot water goes straight where it's needed without sitting round cooling in the big 'feeder' pipes needed to serve multiple outlets. Less energy and water is wasted, as hot water arrives faster at the tap. Flexible and non-metallic pipes result in a quiet and efficient plumbing system that doesn't suffer corrosion, scaling or microbial build-up.



## HOME FIRE SPRINKLER SYSTEM

BLAZESTOP is an affordable sprinkler system linked to a domestic water supply, putting the reassurance of sprinkler protection within reach of private homeowners. Designed especially for the home environment, BLAZESTOP uses sprinkler heads concealed in the ceiling. Flexible, concealed piping makes retrofitting into homes easy and cost-effective. Made from durable polybutylene, it isn't affected by scaling, corrosion, or microbiological growth and doesn't transmit noise.



## WASTEWATER SYSTEM

FRESHFLOW combines the advanced Hepv0 self-sealing waterless waste valve with easy to install flexible HepFlex Waste piping. This innovative system replaces space-hungry S or U traps with a hygienic valve that provides an effective and reliable barrier against sewer gases escaping into a building. As well as its space-saving advantages, FRESHFLOW leaves no standing reservoir of water which can stagnate and lead to bacterial or fungal growth.

FOR MORE INFORMATION ABOUT THERMAGENIUS CALL

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