

Enveloped

Solutions for high-performance construction

CO2 Hot Water Heat Pumps



CO2 heat pumps are the latest technology from Japan for super energy-efficient performance in all weather conditions. The units are so efficient they heat potable water to the preset temperature of 63 degrees with a single loop from the storage tank to the compressor and back. The COP (co-efficient of performance) figures are market leading at a wide range of temperatures, and the systems contain no harmful refrigerants - just plain CO2.

The Reclaim Energy CO2 heat pump is a split system so your hot water cylinder can be either indoors or outdoors. For even more flexibility when renovating, a Reclaim heat pump can be fitted to many existing mains pressure hot water cylinders reducing your upgrade cost. They are also super quiet at just 37dB.

It's important to have enough hot water storage for efficient running so we recommend a 300L cylinder for medium to large sized homes. For extra large homes we can install a 500L cylinder, and for commercial we can install multiple systems. One 22 apartment building in Auckland City targeting Certified Passive House is using six Reclaim systems. We offer super-insulated, stainless-steel lined cylinders made here in New Zealand for ultimate performance for those who want the best.

The included smart controller puts control back into your hands! The controller has five presets that allow you to set customise your hot water management at the touch of a button. You can choose to optimise your PV energy production or for households without PV you can set the unit to operate on the cheapest tariffs to ensure your household energy budget is controlled by you. Our single shot boost guarantees that no matter what option you choose you will never be without hot water.

We also offer massive 30kW CO2 units for large commercial applications.

SUPPLY &
INSTALL



PROJECT
SEQUENCING



EXPERT
ADVICE



ONE STOP
SHOP



COMPETITIVE
RATES



**HIGH PERFORMANCE
INSULATION**

**WOOD PELLET
BOILERS**

**AIR & WATER
HEAT PUMPS**

**HEAT RECOVERY
VENTILATION**

**AIR TIGHTNESS
& MEMBRANES**

**GERMAN WINDOW &
DOOR JOINERY**



Up to 80% energy savings compared to electric storage (reducing the average power bill by around 33%), and even more for high performance homes.

Return on investment in just a few years.

Heat pump only, no electric backup element required.

Reclaim 4.7kW energy performance at different air temperatures:*

Outdoor Air Temp	Coefficient of Performance (COP)	Electric Input	Hot Water Temperature
32°C	6.0	0.8	63°C
19°C	4.7	0.8	
1°C	4.3	1.2	
-5°C	2.9	1.6	
-10°C	2.4	1.9	

* Test conditions at range of ambient air temperatures, inlet water at 15°C

Specifications:

Power input *	0.916 kW
Thermal output *	4.7 kW
COP *	5.24
Refrigerant	CO2 (R744)
Output water temperature	63° C
Power supply	240V/50 Hz
Circuit (Max)	10.0 Amps
Sound Pressure Level	37 dB @ 1m
Ambient temperature operation	-10 to 43°C
Dimension (H x W x D)	675 x 825 x 300 mm
Weight	48 kg
Rain resistance	IP*4
Water port connections (inlet/outlet)	1/2" BSP, 12.7mm
Optional Cylinder	300L, stainless steel, zincalume outdoor case, made in New Zealand

AS/NZS 2712:2007 Solar and heat pump water heaters

AS/NZS 5125:2014 Heat pump water heaters

AS/NZS 4234:2008 Heated water systems, calculation of energy consumption