hometech™

ERS

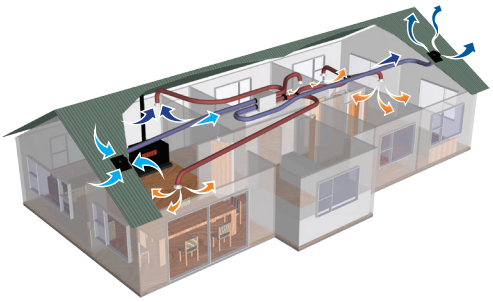
energy recovery system

Let a building 'breathe'.

Ventilate with clean, fresh air without compromising heating.

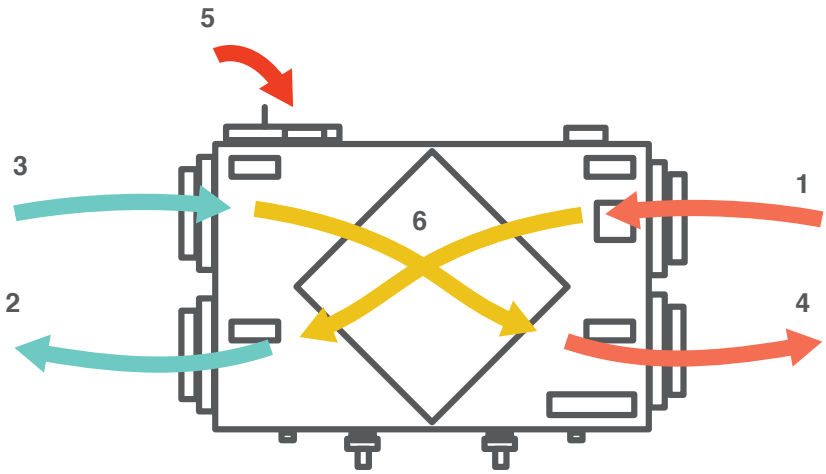
Acting as an Energy Recovery System, once installed in the attic, the HomeTech ERS provides a continuous circulation of fresh, healthy air and being energy efficient maximises any wasted heat in a building, while the balanced ventilation minimises dampness and condensation.

- The ERS is designed to detect the level of humidity in the building, by way of a humidity sensor in the keypad.
- Exhausts damp, foul air and odours from the building, improving the air quality.
- Ventilates with warmed, tempered air creating a drier environment making buildings easier to heat.
- The HomeTech balanced ventilation system leads to a healthier environment by working to expel indoor humidity that can promote the build-up of mould and mildew.
- Drier air is easier to heat than moist air, the energy demand is equivalent to a 100w lightbulb.
- Recovers 80% of energy from outgoing air to incoming fresh air – maximising any wasted heat from the building
- Efficient, durable, polypropylene heat exchanger core with a lifetime warranty



How it Works

- Powerful, centrifugal blowers bring fresh air into a building while an equal amount of stale, humid air is exhausted to the outside.
- Stale, humid air (1) flows through the cross-flow heat core and transfers the heat to the incoming fresh air
- Incoming fresh air (3) is filtered before flowing through the heat recovery core. (6)
- Stale air exhausted to the outside. (2)
- Tempered fresh air is distributed to each room of the house through an independent ductwork system (4).
- Damper Switch (5):
  The optional damper switch can be installed to achieve one of two solutions:
  1. To act as a Heat Transfer unit in cooler months
  2. For summer bypass to bring cooler air into the home.



1. Warm stale air
2. Cool stale air
3. Fresh air
4. Tempered fresh air to home
5. Damper Switch (optional)
6. Heat exchanger transfers heat from exhausted air to temper incoming fresh air.

HomeTech's Energy Recovery System complies with New Zealand Building Code compliances as follows:

NZBC E2/AS1	External Moisture
NZBZ G4/AS1	Ventilation
NZBC G9/VM1	Electricity
ASNZS 60335.2.80	Household and similar electrical appliances - Safety - Electricity (safety) regulations 2010

Flashings - Roof penetrations
To NZBC E2/AS1, 8.4.17 Roof Penetrations. Formable grade flashings, material to match selected roofing, to the same standards as the profiled sheets, notched where across profile, in accordance with HomeTech™ recommended details.

Exterior penetrations
To NZBC E2/AS1 as consistent with project requirements & in accordance with HomeTech™ recommended details

Manufacturer / supplier warranty:
5 years: For ERS unit internal components
Lifetime warranty: for ERS heat recovery core

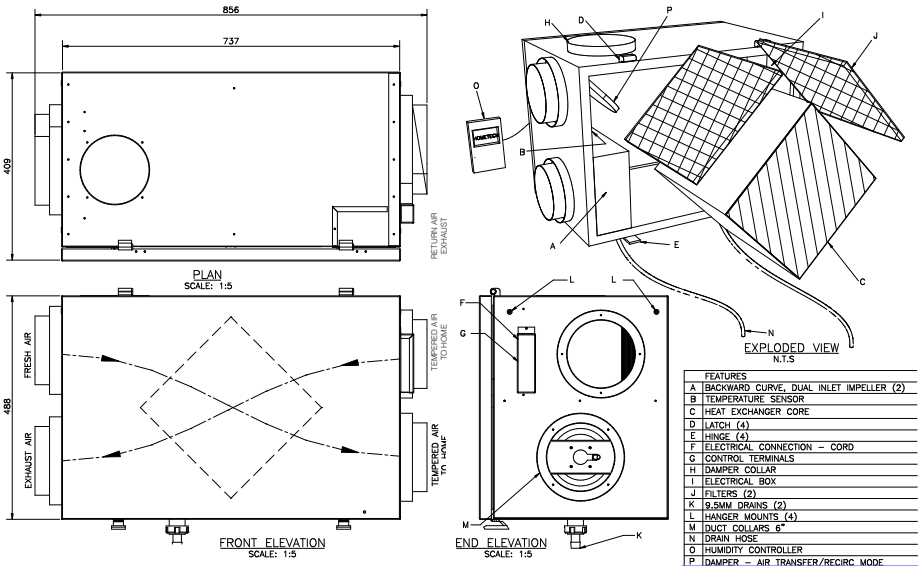
Installation warranty:
5 years: For installation

Keypad
Set the humidity with fingertip control

Specifications for ERS150, ERS170 & ERS170D units

All HomeTech™ ERS Units, factory tested, comply with AS/NZS 60335.2.80.
Unit comprised of the following:

- Aluminium cabinet with hinged access panel one side and white enamel paint finish
- Cabinet fully insulated with 25mm thick polyurethane rigid foam.
- Two directional polypropylene heat recovery core.
- 2 x Fans
- 4 x 152mm diameter duct collars
- High and low-speed adjustment / balancing



ERS150

Suitable for homes up to 230sq metres.

ERS150:

335mm wide
760mm long
480mm high

Air flow:

Supply Air 59 l/s
Exhaust Air 71 l/s

Ducting size: 150mm | Unit weight: 13.6kg

ERS170

Suitable for homes up to 300sq metres.
This model can also have a damper switch option (ERS170D).

ERS170:

410mm wide
860mm long
500mm high

ERS170D

410mm wide
860mm long
520mm high

Air flow:

Supply Air 84 l/s
Exhaust Air 85 l/s

Ducting size: 150mm | Unit weight: 19kg

ERS150 Ventilation Performance

EXT. Static Pressure	Net supply Air flow	Gross air flow	
		Supply	Exhaust
in wg (Pa)	*cfm (m³/h)*	*cfm (m³/h)*	*cfm (m³/h)*
0.1 (25)	122 (207)	122 (207)	150 (255)
0.2 (50)	105 (178)	106 (180)	128 (217)
0.3 (75)	93 (158)	94 (160)	115 (195)
0.4 (100)	85 (144)	86 (146)	104 (177)
0.5 (125)	78 (132)	79 (134)	88 (150)
0.6 (150)	66 (112)	64 (109)	79 (134)
0.7 (175)	54 (92)	54 (92)	73 (124)
0.8 (200)	39 (66)	40 (68)	61 (104)

ERS170 Ventilation Performance

Ext. Static Pressure	Net supply Air flow	Gross air flow	
		Supply	Exhaust
in wg (Pa)	*cfm (m³/h)*	*cfm (m³/h)*	*cfm (m³/h)*
0.1 (25)	157 (267)	160 (272)	164 (279)
0.2 (50)	150 (255)	151 (257)	153 (260)
0.3 (75)	136 (231)	139 (236)	141 (240)
0.4 (100)	126 (214)	135 (229)	129 (219)
0.5 (125)	116 (197)	118 (200)	120 (204)
0.6 (150)	105 (178)	107 (182)	111 (189)
0.7 (175)	94 (160)	94 (160)	100 (170)

ERS150 Energy Performance

Supply Temp.	Net Air Flow	Sensible Recovery	Apparent Sensible
°F (°C)	*cfm (m³/h)*	*Efficiency*	*Effectiveness*
+32 (0)	64 (109)	71	80
+32 (0)	96 (163)	64	73
+32 (0)	116 (197)	63	70
13 (-25)	60 (102)	64	82

220-240V-50 Hz, 110w electrical power input

ERS170 Energy performance

Supply Temp.	Net Air flow	Sensible Recovery	Apparent Sensible
°F (°c)	*cfm (m³/h)*	*Efficiency*	*Effectiveness*
+32 (0)	62 (105)	65	73
+32 (0)	86 (146)	63	70
+32 (0)	115 (195)	61	68
13 (-25)	63 (107)	59	78

220-240V-50 Hz, 110w electrical power input