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for a free consultation



## IMPORTANT FACTS

### IMPORTANT FACTS TO CONSIDER WHEN ASSESSING VENTILATION AND HEAT RECOVERY SYSTEMS IN NEW ZEALAND

With the obvious movement towards air tightness and insulation in new homes the issues surrounding air change are now becoming more urgent. In the past we have relied upon natural leakage and infiltration and the opening of windows to provide the necessary ventilation in our homes. Opening windows is still the accepted method of achieving the required ventilation as laid out in the New Zealand Building Code. This method alone is now being seriously questioned and with just cause. It seems more than a little inconsistent that having created a very effective thermal barrier, that we compromise this barrier in winter time in order to achieve the necessary indoor air change.

Mechanical ventilation is now finding its rightful place as a prime and viable method of changing the air in domestic homes just as it has been integrated into the commercial sector for decades. The main question that designers of new homes are confronted with is how this process should be carried out.

In our view it is quite simple. The philosophy behind air tightness is heat retention and so too the focus on any mechanism to ventilate our homes of today and the future must reside. We are strong believers in the heat recovery methodology with the utilisation of the most efficient plate exchange to carry out this process. Certainly the thermal efficiency and performance of a home is enhanced with the installation of a mechanical heat recovery ventilation system and the insulation performance value is rated at a significantly higher level.

Not all heat recovery systems are equal and there are various types offering different efficiencies and objectives. We believe that designers of new homes need to be more acquainted with the mechanics of these systems and what they currently offer. They also should be aware of the necessary design features for the successful application of this technology and how this needs to be taken into account right at the conceptual and design phase of any project.

Because we have a wide variety of homes in New Zealand, in order to deliver the wide variety of benefits that Heat Recovery Systems are able to offer, special consideration must be given to design and system layout. The position and number of exhaust or extraction points must be carefully considered. In a centrally heated home where the warming of the home is consistent throughout the layout will be different from other homes where the living area is very warm with sometimes excessive heat and the bedrooms are under heated or not heated at all. Where this is the case significant heat redistribution within the home can be achieved.

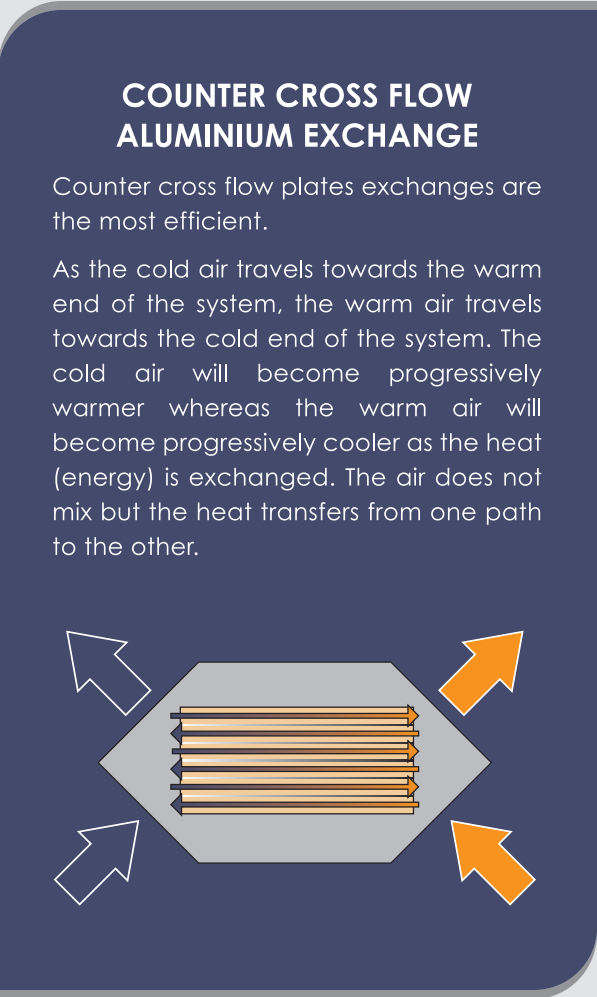
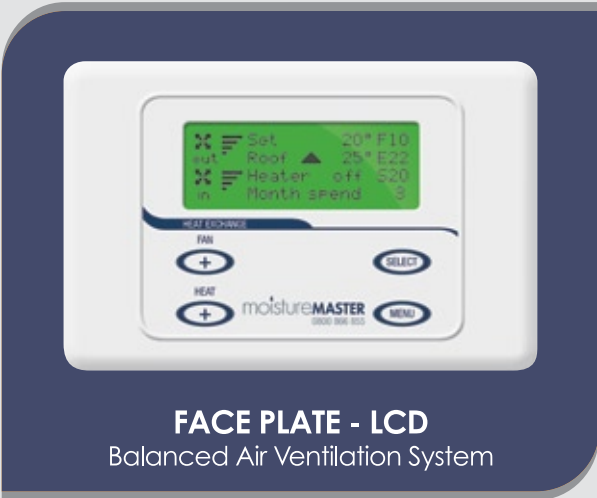
Little thought has been put into the plate design and composition of the current crop of heat recovery systems current being marketed in New Zealand. There are plastic exchange plates, energy recovery paper based exchange plates and aluminium plates. The difference between the plate compositions must be understood as they are extremely important when considering their use in the New Zealand context. Aluminium plate exchange systems offer the best and most permanent solution.

The moistureMASTER™ HX system utilises a European designed "Counter Cross Flow" aluminium plate exchange which is widely recognised in the ventilation industry for its high efficiency and hygiene qualities.

Before you embark on installing a Heat Recovery ventilation system, make sure you understand what is being supplied and that it will meet your expectations. At moistureMASTER™ we offer a complete design and layout service and go to great lengths to delivery what we claim and matching that to what you are looking for.

Email us your plans to [info@condensation.co.nz](mailto:info@condensation.co.nz)

## COMPONENTS



moistureMASTER



**HEATING & HEAT RECOVERY**

Remarkable advancement in moisture and heat management for a healthier home and family

moistureMASTER  
For more information visit  
[www.moisturemaster.co.nz](http://www.moisturemaster.co.nz)

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47-55 Rankeilor Street  
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Auckland Office  
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Email [info@moisturemaster.co.nz](mailto:info@moisturemaster.co.nz)



Remove moisture for a healthier home



**moistureMASTER HX  
Balanced Air Ventilation –  
Heat Recovery Ventilation  
(Including the Heat Exchange system)**

**moistureMASTER™ HX** – the new innovative heat recovery and heat exchange unit. The **moistureMASTER™ HX** system takes the existing heat within the home and uses it to warm the incoming fresh drier unheated air. For just a few cents a day the HX unit can achieve a heat recovery rate of up to 90% efficiency. You now have the benefits of a ventilation system to control condensation and warm the drier air supply, even on those freezing winter nights. No more cold air being introduced to your home. Heat exchange ventilation can be used in tandem with most primary heat sources like flued gas heaters, pellet fires, log burners, wood fires and central heating.

The **moistureMASTER™ HX** system is changing the way New Zealanders ventilate and heat their homes.

- Controls condensation and working in conjunction with insulation and heat will prevent mould and mildew.
- Enjoy a fresher, drier, healthier home with fresh filtered air.
- Save money on heating. A drier home is cheaper and easier to heat. The Heat Exchanger works to prevent heat loss and retain the maximum heat within the home whilst providing necessary air change.
- Modular design with many add-on enhancements. A system can be designed to fit in any type of home even without a roof cavity.

**moistureMASTER HX has  
many unique add on  
options not available in  
other systems**

**moistureMASTER™ HX HEAT  
EXCHANGE SYSTEM IS THE NEXT STEP  
IN DELIVERING ENERGY EFFICIENT  
VENTILATION**

**Size:** The HX system is much smaller than other units but delivers more.

**Roof Cavity Exhaust Option:** The HX can be set to extract the warmth from the roof cavity when available whilst sourcing the drier fresh air from outside.

**Heat Boost Option:** Any hot water heat source may be used in conjunction with the **moistureMASTER** water to air heat exchange module to further boost the heat levels of the home and deliver the warmth via the ventilation system.

**Summer Ventilation:** The HX can be fitted with an "external bypass" for cooler summer ventilation.

**Aluminium Plate Exchanger:** The Aluminium plate exchanger is long lasting and is superior to plastic or paper based exchangers.

**Best fan Technology:** The fans for the HX system are mounted externally. This allows options when it comes to fan choice and duct sizes. The new ETALINE fan is ideal for the HX heat recovery system.

**Zone Control:** Air can be delivered or apportioned to two separate zones or a combination of both. Ideal for homes that have a guest area or two distinct living areas.

The **moistureMASTER HX** System is a true heat recovery/plate exchange system and is a quantum leap forward in delivering energy efficient ventilation

**BALANCED AIR VENTILATION**

FRESH FILTERED AIR IN

HEAT RECAPTURED

MOISTURE ESCORTED OUT

