

## AirGO Heat Pump

# Corrosion Resistant Heat Pump for Coastal Areas

### Salt Water Corrosion and Heat Pumps

#### The Solution:

The AirGO heat pump is the only heat pump that can resist salt water corrosion when installed in sea-side locations. Salt water corrosion if not considered will result in failure of the heat pump within a short period. The AirGO evaporator is entirely aluminium which is resistant to corrosion and there are no moving fans required as in other heat pumps so no moving parts to corrode and fail.

The AirGO has been installed in sea side locations in Ireland for over 10 years with no corrosion issues.

#### Careful Design

Careful design has gone into producing the unique AirGO heat pump. The aluminium evaporator forms an oxide coat on the outside when exposed to salt water air over time. This coat protects the rest of the evaporator from further exposure with no negative effect to the performance of the heat pump.

#### Secure Installation

The AirGO comes with 3 installation options allowing for consideration to be made for wind exposure. The AirGO can be mounted upstanding, or on a roof or on a wall. In exposed areas beside the sea this can be very advantageous.



*AirGO installed on Roof beside Greystones Harbour*



*AirGO installed on Wicklow coast – 10 Years*

## THE ISSUE – GALVANIC CORROSION

Most heat pumps are not designed for continued exposure to salt water environments present in seaside locations. The metal casings that protect the fans, electronics and compressors are susceptible to galvanic corrosion which can cause failure over time.

Galvanic or bimetallic corrosion occurs when two dissimilar metals are connected in a conductive solution. In this case the conductive solution is salt water which is present in seaside locations and the two metals are two different metals contained in the heat pump housing. The salt water allows for the accelerated corrosion of one of the metals present.

It is vitally important that any mix of metals in heat pumps in seaside locations are adequately protected against salt water exposure. The AirGO design ensures this exposure is eliminated while other heat pumps will corrode.



*Standard Air to Water Heat Pump - Lahinch*



*Wall Mounted AirGO - Carlingford Lough*