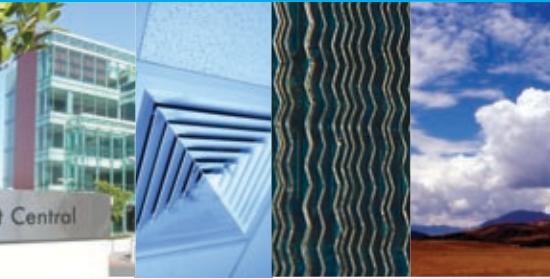




# Corrosion of HVAC Asset - the facts



## Environmental and Galvanic Corrosion



### The HVAC Asset Assassin

✔ Reduced Heat Rejection  
= Increasing compressor temperature = increased power usage on any system



✔ Reduced Heat Rejection  
= Lower cooling capacity of the cooling coil on DX systems



✔ Lower cooling capacity = Compressor not cycling as designed = increased fan and compressor power consumption



✔ Systems working harder  
= increased mechanical stress = more breakdowns  
= higher maintenance costs



Heavily Corroded HVAC Commercial Units

✔ Lower cooling capacity = Comfort issues for occupants  
= lost business or productivity

Costing you more than you ever realized

It's not just the inevitable replacement costs that will burn up your HVAC budget!

## Environmental Corrosion

Environmental corrosion is a major problem associated with all HVAC coils both indoor (cooling) and outdoor (condensing). The issue arises due to several factors, however from the day the coils leave the factory corrosion is taking place due to the different types of metal used in the coil construction.

Environmental factors such as salt mist in sea side locations, add to the corrosive environments occurring in industrial facilities. It's not hard to see that HVAC coils are under threat of accelerated degradation.

Corroded HVAC coils can not absorb and reject heat as efficiently as intended in the initial design and as the system efficiency degrades the power bills go up. Also as the equipment ages and corrosion sets in maintenance bills rise as well. Prevention is much cheaper than replacing coils or the entire system.



Commercial Building HVAC Unit

# The Solution

AerisGuard\* Maintenance Corrosion Protection has been specifically designed to offer long term corrosion protection of valuable HVAC coils and components. Furthermore with an Aeris Accredited 3 Year Corrosion Protection Plan in place with your contractor, a full factory backed warranty is provided.

Unlike other corrosion protection systems the AerisGuard coating is unique as it can be easily maintained over the life of the equipment it is applied to. AerisGuard Maintenance Corrosion Protection is a cost effective solution for any HVAC air to air condenser.

Aeris also supplies an OEM version of this coating which is applied to the indoor cooling coils as well as condenser coils at point of manufacture. Now there is a way of ensuring equipment already installed can be protected and any new equipment is protected straight out of the box.



## Technical Information

### Benefits

- Water Based - Easy to Apply
- Environmentally friendly
- Extends operating life of plant equipment
- Long term corrosion protection of heat exchange coils:
  - Restores damaged coil surfaces
  - Seals surfaces between tubing and fin stock



### Technical Specifications

Colour:	Transparent, light blue finish and colourless
Gloss Level:	Full
Film thickness:	10-12 microns d.f.t. (dry film thickness) per coat
Application rate:	700mL per 1m <sup>2</sup> coil face area
Chemical Resistance:	Excellent (with the exception of strong alkalis or oxidising chemicals)
Solvent Resistance:	Dependent upon selection of solvent
Thermal resistance:	Less than 1% depending on fin details
Pressure Drop:	Less than 1% depending on fin details
Temperature Range:	Up to 120°C
Fin pattern:	Suitable for standard and also for enhanced fin designs
Fin Type:	Aluminium, Copper
Coil Frames:	All ferrous and non ferrous coil substrates

## AerisGuard\* Maintenance Corrosion Protection Test Data\*\*

- ✓ ASTM G 85-A5 Prohesion 1000 Hrs Modified Salt Spray Test
- ✓ 48-Hour Steam Exposure Carrier Corp Test
- ✓ ASTM G 85 2000 Hrs Modified Salt Spray Test
- ✓ MIL-STD-810F Sand and Dust Test
- ✓ ASTM G 87 Moist S02 Test
- ✓ ASTM B117 Salt Spray Test 1000 Hours
- ✓ ASTM D 522 Flexibility Test
- ✓ ASTM B117 Salt Spray Test 3000 Hours

### WARRANTY

Aeris Technologies Ltd (Aeris Technologies) and (Aeris Accredited Applicator) provide the following limited warranty to original purchasers of AerisGuard Maintenance Corrosion Protection which has been applied to the surface of heat exchange condenser coil(s) of new, and up to 12 months after installation, air-conditioning unit by the Aeris Accredited Applicator and which have been paid for in full.

For a period of three years from the date on which AerisGuard Maintenance Corrosion Protection was first applied to the coil, provided the subject installation is formally contracted to the Aeris Accredited Applicator, subject to the AerisGuard 3 Year Corrosion Protection Plan

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MONTH WARRANTY WITH CORROSION PROTECTION PLAN

### Applicator

\*AerisGuard is a registered trademark of Aeris Technologies Ltd.

\*\*Referred to as AerisCoat



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