



**Protect your heat exchangers
against frost damage**



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FlexGuard

Protect your heat exchangers against frost damage

Liquid filled heat exchangers can suffer from frost damage during extreme weather conditions if the system is not filled with or cannot accommodate antifreeze solutions.

EVAPCO Air Solutions offer a novel coil design concept named **FlexGuard**, which eliminates this problem.

It is not generally appreciated that coil frost damage results from excessive liquid pressure and not from ice that has formed inside the tubes. This pressure often causes the return bends to split and the coil leaks.

Usually, 'cold spots' somewhere within the coil block cause ice crystals to form which grow radially into ice plugs. Thereafter the plugs grow longitudinally. If two such ice plugs form in the same circuits then very rapidly; the liquid pressure generated by the growing ice plugs; exceed the burst pressure of the tube material resulting in failure.

The **FlexGuard** design concept provides for special tube interconnection and high pressure relief valve which prevents these excessive liquid pressures from occurring thus retaining the coil integrity.

Benefits of FlexGuard

- Simple and reliable frost protection solution
- Passive system - no power supply required
- Simplifies the piping system at minimal cost to provide an effective frost protection system when compare with alternative solutions
- PED compliant

Alternative options

- Basic **FlexGuard** coil configuration in either
 - Duct mounted
 - Slide-in cartridge construction
- Fully encapsulated
- Insulated encapsulation
- Safety relief valve



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