

# Air Dryers for Compressors

Air compressors are used within fire sprinkler systems to maintain dry pipe systems where there is a risk of water freezing in the pipes...roof spaces, canopies, loading bays, warehouses etc.

Where air temperatures are almost permanently very low (for example industrial chillers and freezers), and warmer air is introduced via a compressor, then there is a significant risk of ice plugs forming from frozen condensation.

When warm air enters a chilled environment and rapidly cools, moisture within it condenses and can accumulate within the pipes, eventually icing the entire cross-section of the pipe. These ice plugs will prevent a sprinkler system from operating by impeding or completely blocking the flow of water to the sprinkler heads. It is not advisable to try to avoid this situation by taking chilled air through the compressor, due to the risk of thickening lubricant and causing physical damage to the components.

Drying ambient-temperature compressed air prior to entry into the chilled pipework strongly mitigates or eliminates this risk of ice plugs, enabling the sprinkler system to function as designed when required.

All of our receiver model compressors can be used with air dryers (we do not advise the use of non-receiver models due to the risk of back-pressure), and we recommend the use of oil removal pre-filters to maximise the efficiency and longevity of the desiccant medium.

The air dryers that we now recommend require no separate power supply or electronically-controlled purging, making them cheaper and simpler to run and maintain – the only maintenance cost is a periodic cartridge change.

## Desiccant Air dryer

- In-line easy installation.
- Low pressure dew point down to  $-40^{\circ}\text{C}$ .
- Cartridge lifetime approx. 1,000 working hours.
- Replaceable desiccant cartridge – quick and simple to maintain.
- Low differential pressure.
- One single model up to 17cfm, suitable for almost all SEP compressors.
- Compact size, less than 300mm high (130mm wide).

## Oil removal filter

- In-line easy installation.
- Optional differential pressure gauge indicates when maintenance required.
- Automatic brass drain assembly for condensate.
- Replaceable filter cartridge – quick and simple to change.
- Oil removal down to  $0.01\text{mg/m}$ ; particle removal down to 0.01 micron.
- One single model up to 25cfm, suitable for all SEP compressors.
- Compact size, 150mm high (90mm wide).

