



Starcore Refrigeration Ltd. Coalescent Oil separators are engineered to allow a more efficient lubricant management in Screw Compressor Refrigeration applications where a huge quantity of oil is required for circulation through the annular casting of the screw compressor.

Before the oil mist can enter your evaporators and cause low heat transfer the coalescent filter catches the oil and drains it to oil cooler for circulation.

Built up to follow ASME standards all vessels are pressure tested at 300 PSI.

A three step process is followed for oil separation wherein the :

FIRST STEP: The discharge gas is directed to a baffle plate in which the momentum of flow is reduced and the oil droplets fall and drain out.

SECOND STEP: The vapor oil mixture flows through a demister pad where droplets gather and drain out

THIRD STEP: Here the vapor impinges on the coalescer where finer droplets coalesce and separate out

The main process benefits are listed below:

1. The reduction in oil contamination in the final ammonia product to less than 1 ppm leads to more efficient evaporator.
2. The heat removal capacity was improved from 10-20% due to the reduction in fouling of the heat transfer surfaces in the condenser and vaporizer.
3. Less need to replace oil in the separator and ensuring oil flow passages in the annular space of the compressor do not get clogged, thus avoiding motor burnouts and screw wear due to improper lubrication.
4. Coalesce filter can be easily accessed for change. A differential pressure Sensor can be installed to show the pressure drop through the element.



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