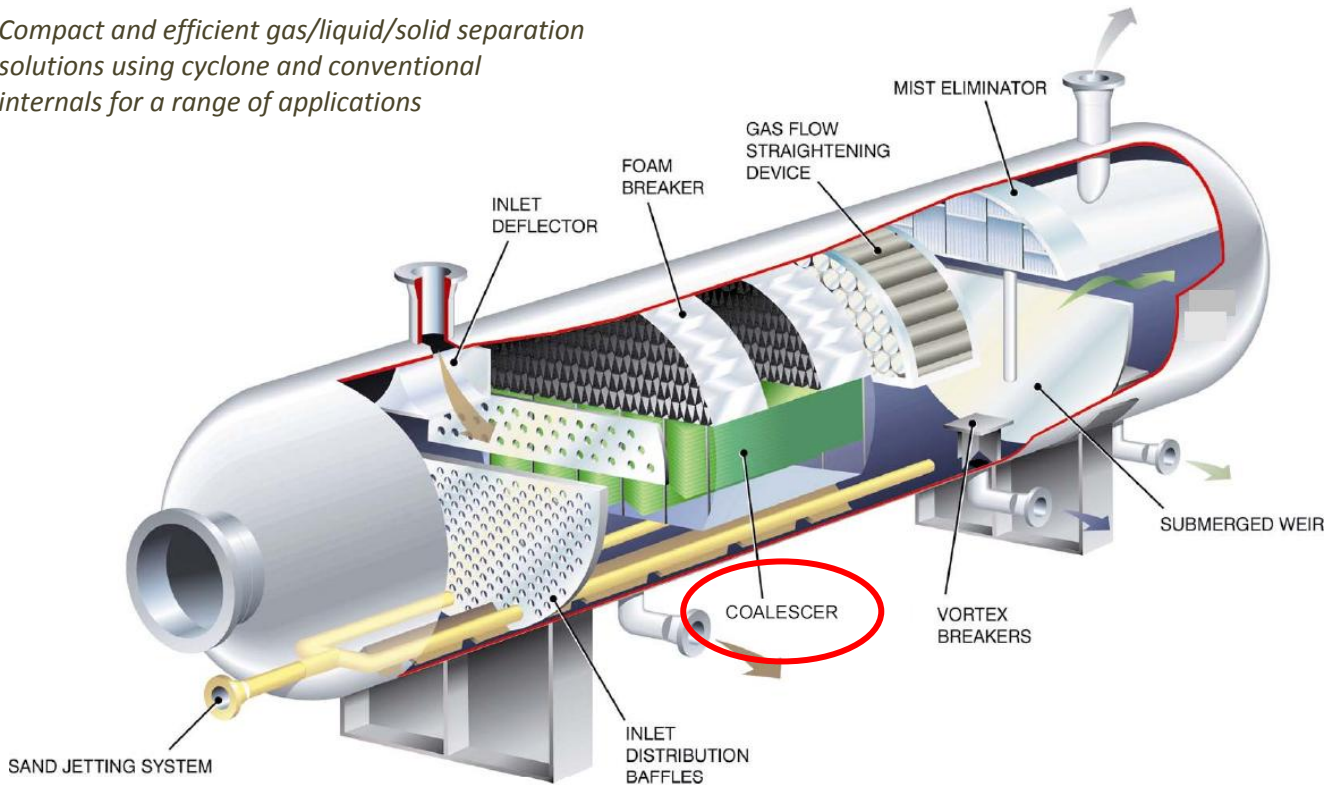


Achieving Separation

K-SEP™ Liquid/Liquid Coalescers

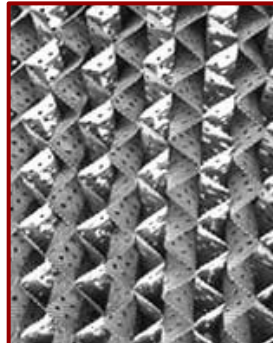
Compact and efficient gas/liquid/solid separation solutions using cyclone and conventional internals for a range of applications



KFP Flat Plate Pack



KMP Matrix Coalescer

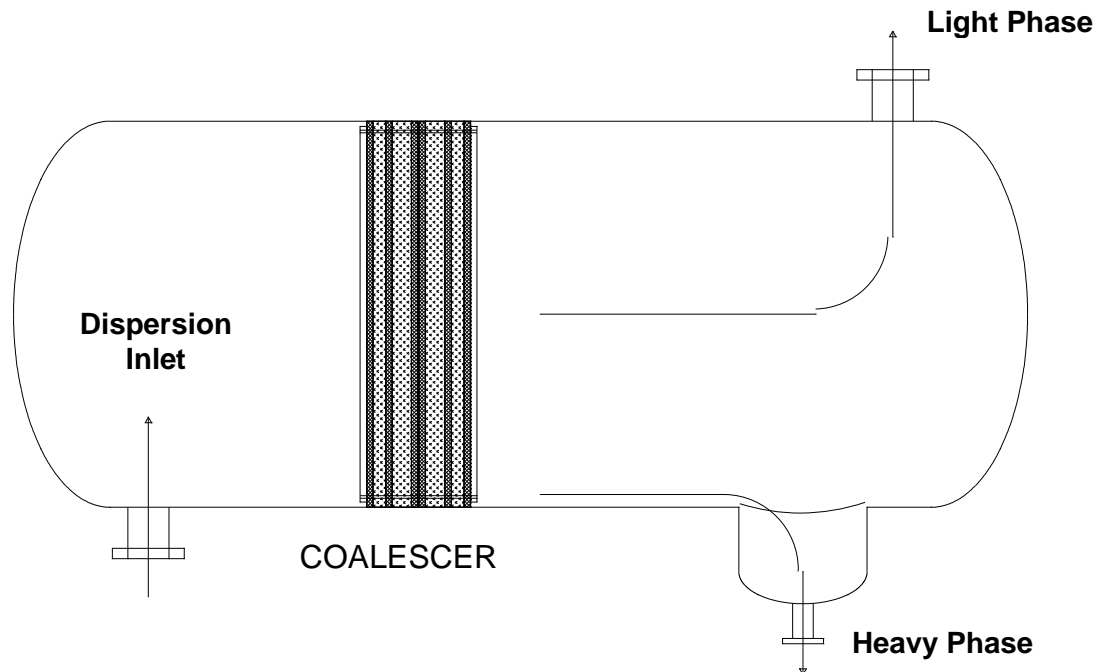


KDM Dual Media Mesh



Mixtures of immiscible liquids can generally be separated by a process of settling as a result of the density difference between the two phases. However gravitational settling becomes increasingly difficult as the droplet size of the dispersed phase decreases. The settling process can be enhanced considerably by passing the dispersion through a suitable coalescer pack.

KIRK's **K-SEP™ Coalescer Packs** are effective coalescers in both liquid-liquid and vapour-liquid service. Coalescer type, face velocity and configuration will depend on the specific application.



TYPICAL ARRANGEMENT OF SEPARATOR VESSEL

Dispersions of droplets sized over 1000 microns tend to be very unstable and separate rapidly under gravity. Dispersions of droplets sized below 10 microns tend to be very stable and do not easily separate. To enhance the separation of mid-range droplet sizes several alternate technologies are employed in our coalescers.

KFP Flat Plate Packs

Offer moderate performance in fouling applications, these use Stokes Law between plates 10-50mm spacing to remove droplets down to 100 microns.

KMP Matrix Coalescer Packs

For mildly fouling applications, corrugations in the plates promote gentle agitation to enhance the separation performance, removing droplets down to around 50 microns.

KDM Dual Media Knitted Mesh Pads

Used in clean service, the separation is achieved by impact of droplets on a fine wire mesh, further enhanced by the introduction of co-knitted oleophilic/oleophobic materials. Effective separation can be down to 20 microns or less.

Axial flow velocities are normally below 1 m/min for optimum performance, but can be up to 2-3 m/min for high capacity applications. For performance predictions please refer to KIRK.