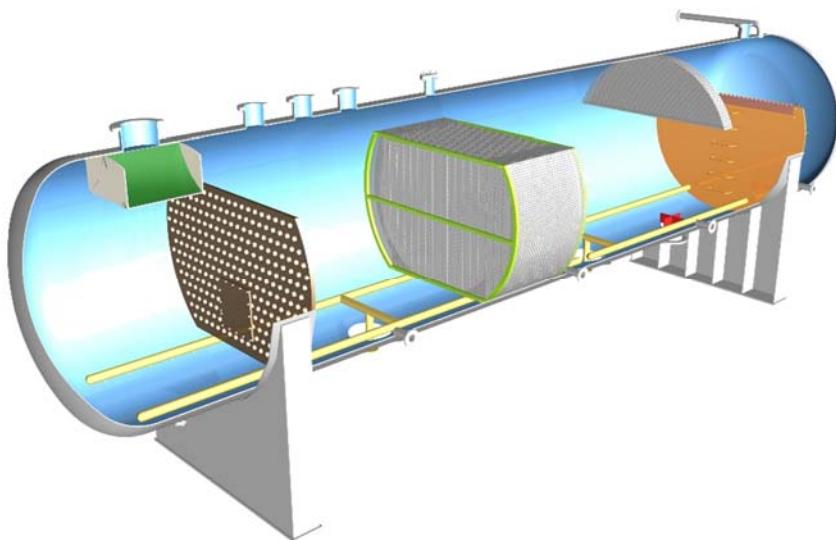


HIGH EFFICIENCY INTERNALS FOR PHASE SEPARATORS

High Efficiency Internals

To improve separation efficiency Petro Techna offers its high efficiency internals, which are specifically designed to match the physical properties of the operating fluid mixture passing through the separator and optimize the operational performance of the separator. Our custom designed internals include:

- Inlet Devices
- Mist Eliminators
- Liquid-Liquid Separation Enhancement Devices (Coalescer Packs)
- Calming Baffle / Adjustable Weirs
- Sand Removal Systems
- Vortex Breakers



Inlet Devices

Vane Distributors

Petro-Techna Vane Inlet Distributor reduces the momentum of incoming fluid and provides bulk separation of liquid and gas phase at the entrance to the separator. Only fine mists get the opportunity to leave this device along with the gas phase. Petro-Techna has performed numerous CFD modeling in order to evaluate different configurations and eliminate the break-up of liquid droplets. It is crucial to avoid emulsification of water in crude oil which can significantly contribute to the water carry over in the crude stream. The special design of Petro-Techna's inlet device makes it one of the most reliable inlet devices for challenging applications, especially the retrofit projects.

Cyclonic Device

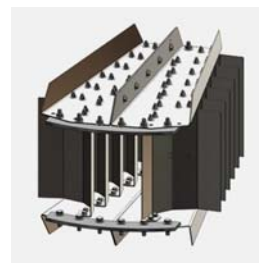
Petro-Techna Cyclonic Device separates the gas from liquid phase utilizing centrifugal forces. This device is ideal for crudes with high foaming index. The unique design of Petro-Techna's cyclonic Device eliminates the foam in the vessel and therefore, the available space can be used towards a more efficient liquid/liquid separation. Moreover, Cyclonic devices can handle higher a momentum range at the inlet nozzle which makes this design more favorable where more flexibilities are required.

Petro Techna's proven design will improve your production efficiency and reduce your operational upsets.

Utilizing our custom designed internals will:

- ✓ Improved Separation Efficiency
- ✓ Improved Product Quality
- ✓ Reduced Size
- ✓ Operational Stability
- ✓ Less Maintenance

Whether you want a new separator or you are going to revamp your existing equipment, our custom made separator internals will prove to be a valuable choice.



Mist Eliminators

Similar to Inlet Devices. Petro Techna's Mist Eliminators range from conventional Mesh pads and Vane Type Demisters to Cyclonic Demisting Elements. Petro-Techna selects the appropriate size, style and orientation of each device depending on the application and the required performance. The demisting elements are typically sized for removal of 99.9% of 10-micron liquid droplets or larger.

Cyclonic Mist Eliminator

High-efficiency cyclonic demisting elements exhibits a superior performance compared to conventional mist eliminators utilizing centrifugal forces. Centrifugal forces in cyclonic elements promote separation of liquid and gas separation and results in a higher performance. Hence, a higher capacity and a better efficiency can be achieved over a smaller cross sectional area. This makes Petro-Techna's cyclonic demisting elements ideal for applications with high gas flowrates and/or retrofit applications where the conventional devices do not meet the required specifications.

Liquid Liquid Enhancement Device (Coalescer Pack)

Petro-Techna's Coalescer Packs consist of corrugated plates stacked with a determined gap. The liquid phase passes the narrow channel between these plates where the smaller droplets are coalesced and form a larger droplet. Thus the phase separation takes place at a shorter length and a smaller foot print. In addition, Wire Coalescer and parallel plates are other forms of this device which are typically used from separation of oil droplets in oily water separators.

Other Features of Petro-Techna's separators

Over the past three decades of supplying field production equipment, Petro-Techna has gained a favorable reputation among all the world-wide End-users. Our intention has been designing the equipment with maximum flexibility to meet clients' needs even after 20 years of operation. Below lists some of other features we have employed in every fabricated separator;

Calming Baffle

Petro-Techna standard calming perforated baffle minimizes turbulence inside the separator, breaks the foam, reduces undesired mixing and allows efficient settling of water droplets.

Adjustable Weir

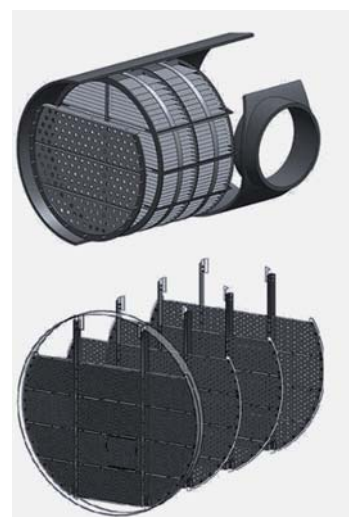
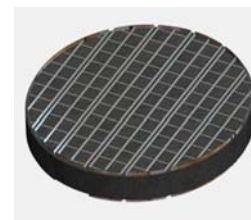
Petro-Techna standard weir is design with adjustability range of 5-10 inches in order to allow the performance to be optimized as the well production rate changes over the years.

Sand Removal System

Petro-Techna standard sand removal system with high-efficiency nozzle jets fluidizes the accumulated solids at the bottom of the separator and wash the sands and sludge out of the vessel. The sand removal system can be designed to work offline or alternatively, online while the separator is operating.

Vortex Breaker

Petro-Techna installs a vortex breaker at each of the outlet nozzles. This device eliminates any vortex in the vessel and prevents from undesired carry over of one phase into another



Registered to ISO 9001

ISO 9001 Certified



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