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Product datasheet

Multiphase Desanding Hydrocyclones

Desanding Hydrocyclones
Our multiphase desanding hydrocyclones are designed to treat a combined gas/liquid flow with gas flows up to 100%. The internal geometry of gMAX® hydrocyclones is extremely important in multiphase applications. Our design utilises detailed knowledge of the fluid properties, multiphase flow regime, allowable pressure drop and separation efficiency requirements. We have also developed physical models based on empirical data, CFD modeling and industry knowledge of multiphase flow.

Wellhead Desanding
In order to protect downstream production equipment, multiphase desanding units can be located at several locations in the production train. Multiphase units that are located upstream of the production choke are called wellhead desanding units.

Wellhead desanding units are usually high pressure, multiphase, harsh duty applications that severely challenge the reliability and performance of the separation equipment. Wellhead desanding systems employ single insert or multiple liner designs with design pressures to 15 000 psig. Both methods are field proven and include an integral or separate accumulator for solids collection. Fit for service valves and instrumentation allow for safe operation.

Wellstream Desanding
When placement upstream of the choke is not possible, the optimum location would be in the wellstream prior to the production separator. Wellstream Desanding is typically a multiphase application similar to the wellhead, but usually at much lower operating pressures.

FLS

Each engineered system is designed to meet or exceed applicable standards. We offer almost any material of construction, including carbon steel and exotic alloys. Hydrocyclone liner material is wear resistant alumina ceramic or silicon carbide lining, depending on the application.

TurnDOWN™

In order to accommodate large turndown requirements that exceed 50:1, FLSmidth offers its TurnDOWN™ design. Turn-DOWN™ allows for continuous operation without ever shutting down the vessel. This is accomplished by compartmentalizing the overflow and feed section of the desanding vessel. Isolation valves are opened or closed to adjust the number of liners in operation depending on the system flow rate and pressure drop.

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