

ENO70 DOWS Hydrocyclone

Overview

EnSep's range of ENO hydrocyclone separators utilize internal geometry specifically developed to optimize the balance between separation efficiency and capacity. The EnSep ENO70 Hydrocyclone is a high capacity unit particularly suited to downhole applications where a compact separation is required to fit inside the well bore.

Principle of Operation

The oil/water mixture enters the Cyclone tangentially forcing the mixture to spin in a vortex flow pattern. This generates centrifugal forces that push the heavier water outward to the inner wall of the cyclone, which displaces the lighter oil towards the central axis of the cyclone, where it forms an oil core. The heavier water flows out through the tailpipe creating the underflow stream (water outlet). By controlling the pressure drop across the hydrocyclone, the light oil phase core is forced to flow in the opposite direction to exit the cyclone through a central axis opening near the inlet, creating the overflow stream (oil outlet).

Specifications

MOC:

Duplex Stainless Steel Standard

Typical Flows:

Pressure Available (barg)	Inlet Flow (bbl/d)
6	1,000
13	1,500
23	2,000



*Two Stage ENO70 DOWS unit.
Two ENO70 hydrocyclones and
manifold piping ready for
installation in drill pipe housing*

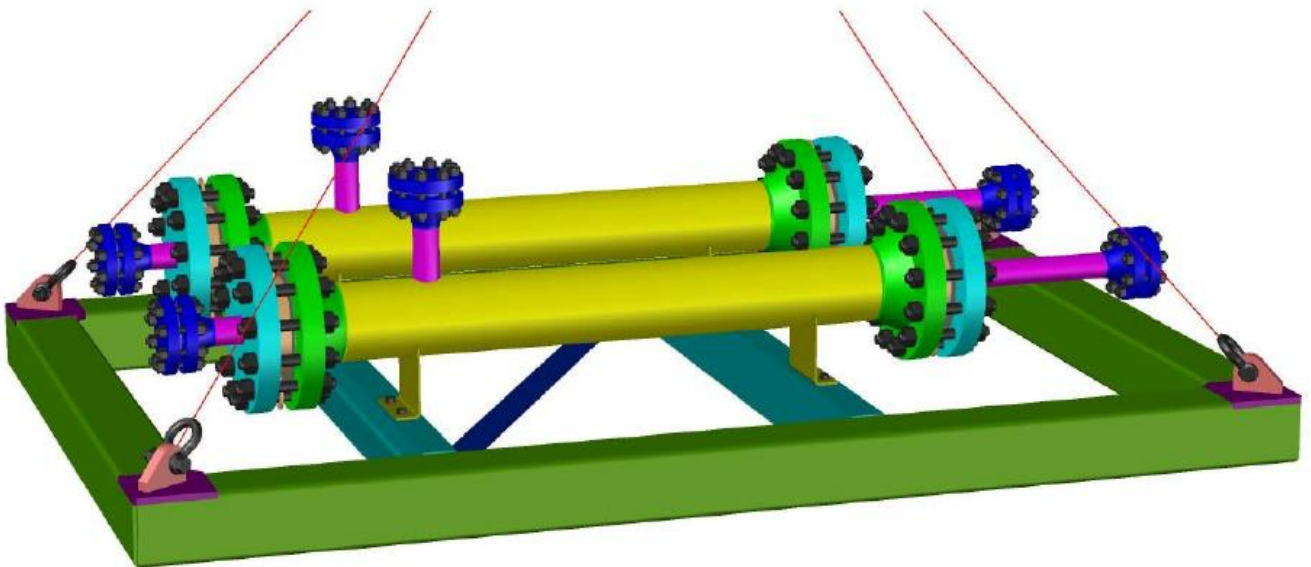
ENO70 Field Trial Unit

Overview

The Field Trial Unit will consist of a single production ENO70 hydrocyclone housed in a small pressure vessel with flanged connections. The Vessel will be mounted on a compact skid frame. For all field trials, EnSep engineers are made available to travel to site, if required, to assist with set up and operation of the ENO70 Field Trial Unit.

Vessel Specifications

Dimensions:	6" N.B. x 2m in length
Design Code:	ASME B31.3
Skid Frame:	AWS D1.1
Design Pressure:	100 barg @ -29 / 80 °C
MOC:	Carbon Steel, 1.6mm C.A.
Termination Points:	
Inlet:	2" N.B.ANSI 600# RF Flange
Overflow Outlet:	2" N.B.ANSI 600# RF Flange
Underflow Outlet:	2" N.B.ANSI 600# RF Flange



3D Model of two ENO70 Field Trial Units mounted on a small skid frame