

PDH Deoiling Hydrocyclones

PDH Deoiling Hydrocyclones ensure effective separation with a cost-effective and space-efficient solution.

The advanced generation hydrocyclone geometry optimizes the critical balance between oil removal efficiency and capacity, resulting in finer hydrocarbon separation. Fewer cyclone liners are required compared to traditional systems to treat higher rates of entrained oil while meeting stringent discharge requirements. Options are available for standard units, high turndown design, compartmentalized vessels, pumped systems, and retrofits to existing vessels.

How it Works

As produced water enters the hydrocyclone, the tangential velocity creates a centrifugal action. The velocity increases causing the heavier fluid (water) to move to the outer wall of the liner while the lighter fluid (oil) moves to the inner core. Water exits at the clean water outlet while due to back pressure, the lighter oil moves axially through the cyclone and exits out the discharge orifice at the opposite end.

Common Applications

- FWKO
- SAGD
- Secondary Recovery
- Disposal Wells
- Subsea Production
- Offshore Production
- Secondary Produced Water Treatment

Key Benefits

Cost Saving:

- No moving parts saves maintenance time and costs
- Involute can be inspected without liner disassembly

Better Performance:

- Multiple inlets provide a stable core and increased recovery
- Low and steady pressure loss provides predictable flow rates

High Flexibility:

- Superior hydraulic stability even at very low flow rates due to tighter, axisymmetric oil core
- High turndown ratios
- Designed to handle upset situations and slugging of oil and gas
- Choice of profiles to accommodate space and piping limitations
- Available as standalone equipment or complete skid packages

Standard Features

- ANSI flanged inlet and outlet connections
- Designed to ASME, ANSI, CRN, PED, and NACE industry standards

Materials of Construction

- Liner Material: Duplex 2205 Stainless Steel