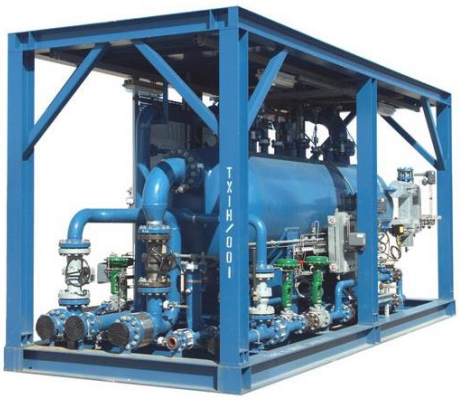
Horizontal separator

The horizontal separator is a pressure vessel that processes the well effluent, breaking it down into individual phases for accurate measurement. It is more efficient for oil wells, where the higher volume and surface area aid the separation process.

The vessel internals are designed to maximise the efficiency of the separation process. An inlet device deflects the effluent initiating the first stage of the separation process. A high efficiency mist extractor and coalescing vanes are in place for reduced liquid carryover. A weir plate at the bottom of the vessel separates the liquid phases.

Oil and water volumes are accurately measured with turbine meters or Coriolis meters and the gas rate is metered by an orifice plate or Coriolis meter.

The unit is protected from overpressure by safety valves and rupture discs mounted directly on top of the vessel. High level alarms and automatic shutdowns eliminate liquids spilling over into the gas flare and gas blow-by to surge tank.



Features and benefits

- Accurately determines oil, gas, and water volumes
- Can be used in a wide range of applications such as low/high-volume wells and corrosive or sweet wells
- Compact for quick installation
- Third-party certified
- Coriolis meters option available for gas and liquids, which benefits include from no moving parts and the meter covers full fluid flow rate envelope
- DNV and CSC skid design for improved portability

Applications

- Onshore and offshore well testing
- Exploration development
- Clean-up operation
- Extend well testing
- Production, inline testing

Technical specifications

Working pressure psi (bar)	600 psi (41 bar) Heli-portable	1,440 psi (99 bar)		2,000 psi (138 bar)
Vessel size	30” x 10ft	42” x 10ft	42”x 15ft	42”x15ft
Temperature rating ^{0}F (^{0}C)	-20° to 100°F (-29° to 38°C)	1,440psi @ 100°F (99bar @38°C) 1,350psi @200°F (93bar @93°C)	1,440psi @ 100°F (99bar @38°C) 1,350psi @200°F (93bar @93°C)	-20°F TO 200°F (-29°C to +93°C)
Service	H_2S	H_2S	H_2S	H_2S
Design code*	ASME VIII Div 1 NACE MR0175 ASME B31.3	ASME VIII Div 1 NACE MR0175 ASME B31.3	ASME VIII Div 1 NACE MR0175 ASME B31.3	ASME VIII Div 1 NACE MR0175 ASME B31.3
Liquid capacity**	6,000 bpd (953 m3/d)	12,000 bpd (1,908 m3/day)	15,000 bpd (2,386 m3/day)	15,000 bpd (2,386 m3/day)
Gas capacity**	40 MMscf/d (1.1 MM m3/d)	60 MMscf/d (1.7 MM m3/d)	92 MMscf/d (2.6 MM m3/d)	115 Mscf/d (3.3 MM m3/d)

Note: Other sizes, configurations and pressure ratings are available to meet most applications. For more information contact your local Expro representative or email welltesting@exprogroup.com