

Well Flow Management

Well Testing | Separation

Vertical Separator

The Expro vertical separator is designed to remove liquids from produced gas, predominantly in wells with low liquid content, where the units' high gas flow capacity enhances operational efficiency.

This compact, lightweight, vertical separator is ideally suited for separation processes containing moderate amounts of liquid. Expro vertical separators are able to separate liquids from gas at rates of up to 125 MMSCF/Day. The recycling design captures up to 99% of all liquid droplets larger than 10 microns.

Separation takes place as gas enters through a tangential nozzle, creating centrifugal force and forcing the heavier liquid particles to the vessel wall. From there, the liquids drain to the still chamber in the bottom of the vessel.

The separator is a self-contained modular unit containing the valves and pneumatic controllers needed to regulate the vessel pressure and fluid levels during a well test operation.

The unit is protected from overpressure by safety relief valves mounted 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.

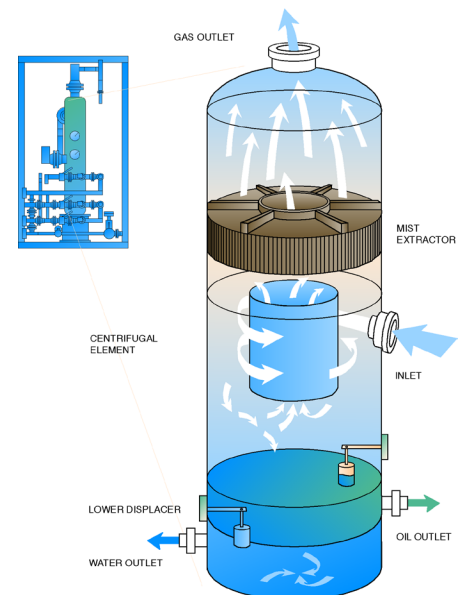
All of the measurement devices on the separator are connected to the Electronic Data Gathering Equipment (EDGE) for processing / recording.

Applications

- Gas well testing
- High rate gas testing
- Production optimization and verification

Features and benefits

- Recycling technology ensures efficient removal of liquids from gas phase
- Minimise footprint area
- Increase separation efficiency as gas flow rate increase
- Coriolis metering of gas phase
- Operate foam-free and eliminate or reduce expensive de-foaming chemicals





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Technical specifications			
Vessel size (tan/tan) inches (m)	18 O.D. x 100	24 O.D. x 120	30 O.D. x 164
Working pressure psi (bar)	1,440 (99)	2,000 (138)	1,440 (99)
Temperature rating °F (°C)	-20 to 200 (-29 to 93)		
Pressure compensation for elevated temperature psi @ °F (bar @ °C)	1,440 @ 100 (99 @ 38)	2,000 @ 100 (138 @ 38)	1,440 @ 100 (99 @ 38)
	1,350 @ 200 (93 @ 93)	2,000 @ 200 (138 @ 93)	1,350 @ 200 (93 @ 93)
1. Liquid capacity bpd (m3/d)	2,000 (318)	4,000 (636)	4,000 (636)
1. Gas capacity MMscfd (MM m3/d)	60 (1.699)	110 (3.115)	200 (5.663)
Skid dimensions (L x W x H) ft. (m)	7.58 x 8.00 x 14.76 (2.31 x 2.44 x 4.50)	9.50 x 9.84 x 19.88 (2.896 x 3.00 x 6.058)	8.37 x 8 x 20 (2.55 x 2.44 x 6.10)
Weight (dry) lbs (kgs)	28,660 (13,000)	36,376 (16,500)	37,479 (17,000)

Note: Equipment is designed/certified to ASME VIII Div-1 (U Stamp), NACE MR-01-75, DNV 2.7-1/2.7-3, CE / PED, Norsok standards as applicable based on the region (local) requirements

These ratings are for guidance only, for more information contact your local Expro representative or email welltesting@expro.com