

Mega Flow Separator

The Mega Flow Separator is unlike conventional portable test separators breaking new ground in separation technology.

It satisfies the need for an easily transportable high capacity gas, oil and water separator for use both onshore and offshore. This portability has been made possible as the separator can be dismantled into separate skids to minimise the overall weight and size during mobilisation/demobilisation.

The increased flow capacity of the Mega Flow has been achieved by combining both horizontal and vertical separation technology. The fluids enter the vertical separator where the free liquid is removed from the gas by centrifugal force. Any entrained liquid left in the gas is removed using vertical re-cycling separation technology.

The liquid is collected in the bottom horizontal vessel section which allows for a far greater retention time than of a traditional vertical gas separator. The larger bottom vessel also allows for greater volumes of oil and water.

The Mega Flow Separator has been specifically designed for use in HPHT gas condensate tests to resolve the poor separation efficiency typically experienced with conventional horizontal separators in this application.



Features and benefits

- Large liquid vessel
- High capacity gas/liquid rate separation
- Large temperature range
- Greater operational flexibility
- Higher working pressure
- Combines horizontal and vertical separation technology
- Portable

Applications

- Onshore and offshore
- Oil and gas well testing
- Clean-up operations
- HPHT

Technical specifications

	MKI	MKII
Service	H2S	H2S
Vertical vessel size	30" x 7'	30" x 7'
Lower vessel size	78" (spherical)	36" x 12' (horizontal)
Working pressure	2,160 psi (150 bar)	2,160 psi (150 bar)
Temperature rating	-50°F to 350°F (-46°C to 175°C)	-50°F to 300°F (-46°C x 150°C)
Maximum gas rate	175 mmscf/day (5 mm m3/day)	175 mmscf/day (5mm m3/day)
Maximum oil rate	25,000 bbls/day (4,000 m3/day)	15,000 bbls/day (2,384 m3/day)
Maximum water rate	6290 bbls/day (1,000 m3/day)	3,000 bbls/day (477 m3/day)
Inlet connections	6" 206	6" 900# flange
Gas line outlet connection	6" # 900 lbs Flange	6" 900# flange
Oil Line outlet connection	3" # 900 lbs Flange	3" 900# flange
Water line outlet connection	2" 206	2" 900# flange
Relief valve (fire protection)	NA	1" x 2" – D orifice
Relief valves (full flow)	2 x 3" x 6" – K Orifice	4" x 6" – P orifice
Gas meter run	8" Daniel Senior Orifice Meter	2 x 4" Micro Motion Coriolis
Oil metering	2 x 2" turbine 1 x 1 1/2" turbine	3" Micro Motion Coriolis
Water metering	1 x 1 1/2" turbine	2" Micro Motion Coriolis
Lower vessel capacity	38 bbls (6 m3)	15 bbls
Design code	PD 5500 cet 1, ANSI B31.3, NACE MR-01-075	DNV 2.7-1, ANSI B31.3, NACE MR-01-075
Dimensions	25ft x 8ft x 22ft (7.8m x 2.5m x 7m)	6.70m x 2.44m x 7.95m (22ft x 8ft x 26ft)
Weight	34 tonnes dry (maximum single lift 12 tonnes)	34,500kg dry (22,000kg + 12,500kg)