

Well Flow Management

Production Systems

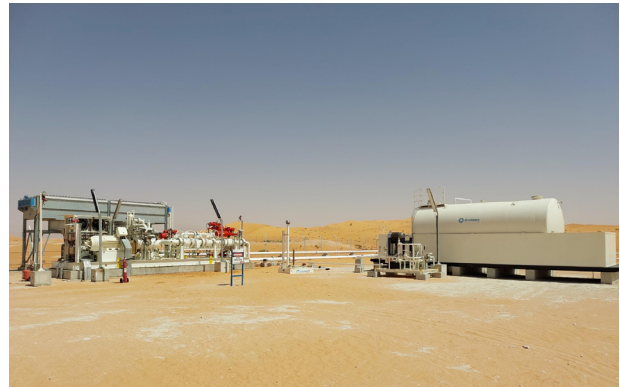
MPP Mark II

Multiphase pumping solutions (1,500 Am³/hr) high GVF% (up to 100%)

Expro multiphase pumping solutions are available on a Lease-Operate-Maintain (LOM) basis on short or long-term contracts.

Customer Challenges

- Low pressure end of life wells or well clusters do not have the pressure to reach downstream processing facilities.
- Wells with enough pressure, but Customers would like to produce greater volumes at lower pressures.
- Remote operational areas with low access to power, operational and maintenance crews, and other utilities.
- High CAPEX solutions required to produce the wells.
- Remaining life / duration of well unknown.
- Remaining characteristics (flow rate, pressure, temperature) of well or well cluster unknown.
- Available footprint on wellpad or well cluster manifold / platform.
- Project execution schedule / timeline to implement a permanent long-term solution.



Twin-Screw pumps are a positive displacement type pump – the pump casing contains two screw rotors. These self-priming machines allow for:

- High Compression Ratios (Good for High GVFs)
- On-skid / Pump Liquids Management
- Unmanned control and operation
- Large pitch portfolio to accommodate a variety of differential pressures, flow rates, and fluid compositions

Parameter	Specification
Pump type	Twin-screw
Pump driver	Electric motor (Diesel & gas engine available on request)
Pump driver duty	1,800 kW
Pump driver voltage	3.3 kVac 50 Hz 3p
Pump starter	Variable frequency drive (VFD)
Pump speed	330 to 3,300 rpm
Pump capacity	1,500 Am ³ /hr
Inlet pressure (min.)	2 bar-g
Delta-P (max.)	91 bar-g
Discharge temperature (max.)	100 °C
Gas-void-fraction (max.)	99%

Notes:

1. Suction pressure, delta-P, capacity, and GVF are indicative for the Expro Mark II system. Each application should be evaluated by a Production Solutions application engineer to ensure appropriate pump selection.
2. Coolers and water injection pump packages available for challenging high GVF applications as required.

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Multiphase Pumping Systems supplied with:

- On-skid double redundant filter for solids and sand removal > 200 µm
- High pressure mechanical seal system (100 bar dynamic load)
- Fully instrumented system
- PLC-based control and shutdown system

Data to Desk

The Expro Data to Desk capability allows real time data to be shared via a web browser on multiple mobile data platforms. This facility allows users to access their data, at the well site, at their desk or remotely at any location thus ensuring informed and timely decisions are made based on real time data. Data to Desk (D2D) is a vital aid when evaluating well performance, supporting the decision making process and reducing or extending rig time, especially where well sites are difficult to access for key personnel.

Expro customers have the full suite of tools necessary to view and export real time data through the web browser via a unique and secure login protocol. D2D has been incorporated into the EDGE data acquisition system.

