



A DistributionNOW Company

Flex Flow HPS

Optimizes Completion, Production and Water Management

Flex Flow Services offers proprietary completion, production and water management technology designed to lower operational risk and improve operational efficiency. The Flex Flow* horizontal pumping system (HPS) can be used to optimize water supply, injection, artificial lift, disposal and distribution operations. The mobile, trailer-mounted system integrates a surface horizontal pumping system with variable speed drives, surface controls and automated reporting capabilities.

The Flex Flow mobile HPS can be deployed quickly with no capital expenditure to support early project commissioning, increase operational capacity or replace failed equipment. Engineered to match flow rate and pressure requirements, the units can connect to existing control systems and are equipped with real-time remote monitoring to support safety shutdowns/alarms in compliance with regulatory requirements.

Ideal for all fluid transfer operations, the Flex Flow HPS system is powered by electric motors with a variable speed drive using field-proven multistage centrifugal pumps for high pressure and low- to medium-flow transfer and injection. Alternatively, the units can be powered by existing facility electrical power or independently with gen-sets. Engineers using these systems have documented lower maintenance and repair costs, longer run life and greater operating flexibility and efficiency.



The trailer-mounted Flex Flow horizontal pumping system is a highly flexible solution that lowers the total cost of operations.

Flex Flow Benefits

Trailer-mounted system facilitates rapid response

Flexible to match rate and pressure requirements

Lease-to-own or staged purchase options require zero CAPEX

Field-proven reliability with 24/7 support

Automated reporting and monitoring

Flex Flow Applications

Upstream

Saltwater disposal
Water transfer
Frac protection
Waterflooding
Artificial lift

Midstream

Water transfer
NGL and amine plants
Pipeline integrity
Crude transfer

Downstream Refining/Storage

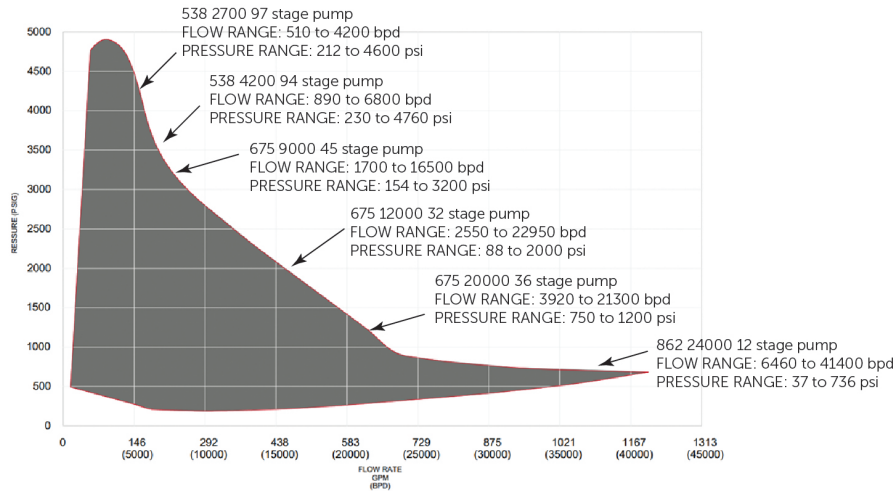
Salt cavern leaching
Storage operations
Crude transfer
Petrochemical plants
Ports and terminals

Mining

Solution mining
De-watering

FFS-PumpRequest@dnw.com

Hydraulic coverage



A single Flex Flow HPS can be run with the results as shown above. Multiple systems may be run in parallel or in series and are easily configured in the field. All combinations fit a common skid. VFD and PLC controls offer additional flow and pressure flexibility.

Flex Flow Components

Centrifugal pump, consisting of stages, each with one impeller and one diffuser

480-V, 3,500-rpm motor, with three horsepower options—300, 500 and 600 hp

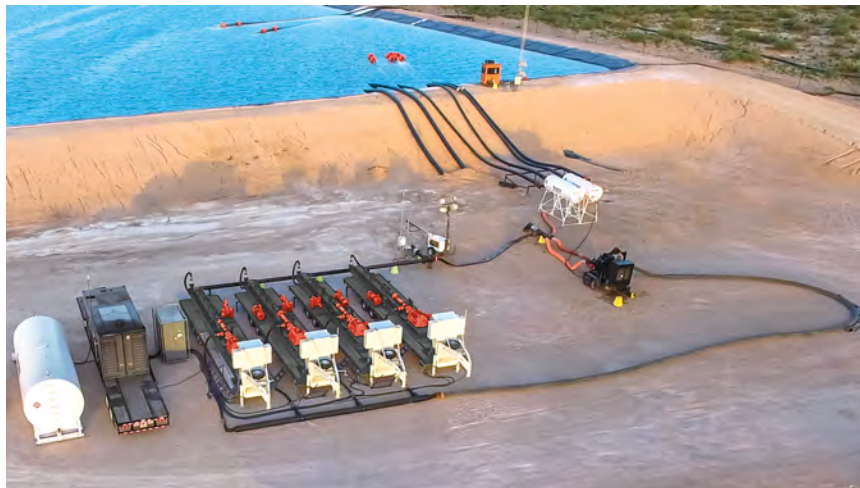
Thrust chamber, which carries the thrust load developed by the multistage pump; it connects to the motor shaft on one end and the pump shaft on the other

VFD with HP/kVA delivery capabilities

Dual-pot system for filtering impurities from source water

Charge pump with 10-, 15- and 25-hp options, providing NPSHr of 20 to 60 psi

40-ft trailer with stabilizers or a variety of permanent installation options



The Flex Flow HPS system is ideal for all fluid transfer operations, including storage and capacity applications, pump replacement/backup, brine and hydrocarbon transfer, and brine disposal.

Flex Flow Service Locations

Colorado
Frederick

Louisiana
Shreveport

Pennsylvania
Washington

Texas
Longview
Midland

Wyoming
Casper

Alberta, Canada
Edmonton