Mud Systems

Engineering by Excellence
Mud Systems

Jotne offers complete packages and equipment for all phases within drilling fluid systems. Our focus is on reliable and easy maintainable products to reduce cost and increase operability.

✓ **Mud Mixing and Additive Systems**  
  Powder mixing, dosing, conveying, handling and storage systems.

✓ **Mud Storage Equipment**  
  Agitators, mud guns, tank design, pumps and valves.

✓ **Mud Treatment System**  
  Shakers, mud cleaners, centrifuges, degassers, cuttings dryers, hydrocyclones and dewatering systems.

✓ **Bulk System**  
  Storage tanks, surge tanks, valve packages, rock catchers and loading stations

✓ **Manifold Systems**  
  Choke & Kill Manifolds, mud gas separators, cement manifolds, standpipe manifolds and production manifolds

✓ **HP Pump Systems**  
  Individual or complete HP Pump systems for offshore and land rigs

✓ **LP Pump Systems**  
  LP centrifugal pumps for mud mixing/circulation and fluid transfer,

✓ **Mud Control System**  
  Stand alone or fully integrated LP mud control system
Mud Mixing and Additive Systems

- **Sack slitting unit**
  Dust free mixing of sacks (120 sacks/hr). Optional lifting table

- **Liquid additive skid**
  Liquid dosing capacity 0.1 – 2 m³/h.

- **Mud mixer with hopper**
  Mixing Eductor with manual sack table. Mixing capacity 35 m³/h

- **Big Bag unit**
  For big bags up to 1200 kg, Powder dosing capacity 0.3 – 6 m³/hr

- **Caustic mixer**
  Mixing capacity 0.1-10 m³/hr
Mud Mixing and Additive Systems

- Liquid Additive Skid
- Cell Feeder
- Big Bag Unit
- Mud Mix Hopper
- Caustic Mixer
Mud Storage Equipment

- **Agitators**
  Various range of mud tank agitators. Designed according to mud tanks, including CFD analysis and calculations

- **Tank Design**
  Mud Tank design, support or calculation

- **Mud Guns and Tank Cleaning**
  Mud guns and/or tank cleaning systems for mud tanks.

- **Valves**
  Pneumatic actuated valves for mud tank system, feeding and transfer.
Mud Treatment Systems

- **Shakers**
  High end shakers for cuttings and sand removal from mud

- **Decanter Centrifuges**
  High-speed, variable-speed centrifuges for improved solids control.

- **Vacuum Degassers**
  Separating gas from mud.

- **Flow Dividers**
  Dividing mud flow with manual or hyd. Actuated valves

- **Cuttings conveyors**
  Transport of cuttings to cuttings dryer, blower or bins.

- **Mud Cleaners**
  Desilter and desander assembly for efficient removal of sand and abrasive cuttings

- **Vertical Cutting Dryers**
  Dryer, fed via screw conveyor, vacuum system, or rotary-lobe solids pump from the flow-line shakers

- **Dewatering Systems**
  Reclaiming water from used drilling fluid. Ultra-fine drilled solids that can be efficiently removed
Mud Treatment Systems

Shaker

Mud Cleaner

Vacuum Degasser
Mud Treatment Systems

Decanting Centrifuge

Vertical Cuttings Dryer

Dewatering System
Bulk Storage Systems

- **Bulk Tanks**
  - Customized bulk tanks

- **Surge Tanks**
  - Tanks for dosing and adding power to mixing lines or pits. Incl. Cell feeder

- **Cell Feeder**
  - Controlled feeding of powder from Surge Tank

- **Dust Cyclone and collector system**
  - Assembly for dust collection from surge- and bulk tanks.

- **Rock Catchers**
  - Catchers for removal of clogged powder and rocks in bulk system

- **Valves and instruments**
  - Pneumatic valves for bulk system. Instruments and sensors
Manifold Systems

- **Choke & Kill Mainfolds**
  2 1/16” to 4 1/16” C&K Manifolds. 3000 to 15000 PSI. API6A, API16C, NORSOK, NPD, DNV, ABS.

- **Mud Gas Separators**
  1000mm to 3000mm diameter, 150 PSI. NORSOK, API 12J, ASME VIII, PD5500

- **Cement Manifolds**
  2” to 4” NB. 5000 to 15000 PSI. API6A, NORSOK, NPD, DNV, ABS.

- **Standpipe Manifolds**
  3” to 6” NB. 3000 to 10000 PSI. API6A, NORSOK, NPD, DNV, ABS.

- **Production Manifolds**
  2” to 24” NB. 150 to 2500 PSI. ANSI B31.1, B31.4, B31.8, ASME VIII, PD5500
HP Pumping Systems

- HP Mud Pumps
  - Drilling Pumps
- Control Systems / Local Control Panels

PZ2400
With more power and less weight than competing pumps, the PZ 2400 tackles the most offshore applications.
LP Pumping Systems

LP Pumps

Centrifugal pumps for all purposes such as mixing, pre-charging and fluid transfer.
Mud Control System

- Jotne Mud Control System
  - Mud control system for control and monitoring of mud mixing, mud transfer and bulk transfer.
  - User friendly HMI system to ensure fast and safe operations.
  - Remote control of equipment and systems.
  - Fully automated mode
  - Control and monitoring of mud storage systems
  - Interface to rig systems.
  - PLC panels, Remote IO panels (safe or hazardous area), LCP panels and VFD panels.
  - Reporting, trending and logging of data
  - MCC

- Design Data (Standard)
  - -10/40 DegC
  - 230 VAC/50 or 60Hz
Valve and Instrumentation packages

✓ Process Engineering
  • *Process and Instrumentation Diagram (P&ID) design for complete mud systems*

✓ Instrumentation packages
  • Engineering and supply of mud system instrumentation;
  • *Level sensors*,
  • *Density transmitters*,
  • *Flow sensors*,
  • *Pressure transmitters etc.*

✓ Valve Packages
  Supply of valves for bulk system, air lines, LP systems/mixing systems and HP systems/Manifolds

✓ Service and Maintenance
  Field Service and maintenance of valves, instruments, and equipment.
Jotne offers complete systems for HP piping, including:

- HP Piping, flanges, crosses, tees and fittings
- Piping Design
- Stress Analysis
- Commissioning, Service & Maintenance
  - Installation
  - Commissioning
  - Maintenance
  - Re-certification
  - Non destructive examination
  - Pressure testing
  - Internal camera inspection at the client site, offshore or in our own facility.
Offshore Upgrade Projects
Modification & Maintenance

✓ **Surveys and studies**
  Jotne perform offshore surveys to advise system upgrades or repairs. Study reports and documentation for details description of modifications and upgrades.

✓ **Rig Upgrade projects**
  Jotne deliver complete EPCI projects for rig upgrades. Projects include fabrication and delivery of equipment (incl. Valves and Instrumentation). Installation and commissioning of complete packages/systems.

✓ **Re-certification and testing**
  Jotne perform maintenance and re-certification of HP piping and valve packages. Work may include:

  ✓ Maintenance
  ✓ Re-certification
  ✓ Non destructive examination
  ✓ Pressure testing
  ✓ Internal camera inspection at the client site, offshore or in our own facility.
Leading Technology

Jotne offers leading technology and engineering excellence thru experience and our partners

✓ Cooperation with DenverGardner

✓ Cooperation with KemTron

✓ Cooperation with RBV Energy
Getting it done

www.jotne.no