

NOV Process and Flow Technologies

Production and Midstream

All Things Pumping



Reciprocating Pumps

- National™, Oilwell™, Gaso™, Wheatley™, and Bear™
- Applications: Saltwater disposal (SWD), crude transfer, water transfer, LACT booster, CO₂ injection, and water injection
- Suited for high or varying line pressures and harsh pumping environments



Hoss Horizontal Surface Pump System

- Applications: SWD, crude transfer, water transfer, CO₂ injection, water injection, lean amine, and natural gas transfer
- Capacity 12-2,900 GPM, discharge pressure up to 6,000 psi and up to 2,000 HP



Downhole Progressing Cavity Pump Systems

- Applications: Heavy, medium, and light oil; gas well dewatering; and steam enhanced oil recovery
- Production ranges: 1 m³/day (6 bpd) to 1600 m³/day (10,000 bpd)
- Lift capabilities: Up to 13,400 ft (4000 m)
- Drivehead ranges up to 300 hp, most with hydrodynamic brake
- Energy-saving PMM models available



Extract™ Solutions

An industry leader of artificial lift technologies and services, Extract strives to increase uptime and get better drawdown in their customers' wells.

Extract's main products include:

- Electric submersible pumps
- Surface pumping systems
- Variable speed drives
- Optimization



Moyno™ Progressing Cavity Pumps

- Industry leader in all progressing cavity pump (PCP) transfer applications including crude transfer, water transfer, LACT booster, and truck offload
- Effective in harsh environments with abrasive fluids
- Multiphase fluid transfer handles up to 95% gvf with our Tri-Phase™ technology



Automation and Digitization

- Complete automation and control product offering with advanced remote digital monitoring capabilities for PCPs, rod pumps, horizontal surface pumping systems, Tri-Phase, and reciprocating pumps
- Smart choke solutions

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Additional Legacy Solutions and Services



Hercules™/Hercules HP Production Service Hookup

- The industry's most comprehensive product portfolio to cover everything above the wellhead, ranging from 1,500–10K psi
- All ranges of single- and dual-ram BOPs for offset frac prevention
- Specialty products to include: Crooked BOP and Roller Derby



Rod Wear Prevention

- Hercules™ rod rotators
- Smart rod rotators
- New Era™ rod guides



Yale™ and Sentry™ Closures

- Threaded, clamp, and internal door styles available
- ASME BPVC Sec. VIII, Div.1—code stamp available upon request
- Compliant with industry pipeline codes



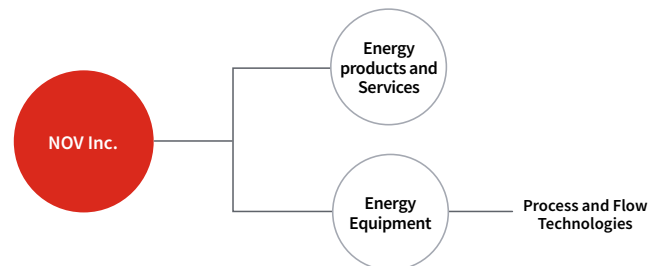
Rodec™ Tubing Rotator Systems

- Sizes: 7–11 in. and pressure ratings: 2–5K
- Dual-string technology gives the option to inject downhole while producing at the same time
- Electric and manual options



Chokes

- Premier pressure- and flow-control choke with specialty tungsten carbide trim for highly erosive applications
- Concentric cage design utilizing internal plug
- Actuation available
- Interceptor Wellhead Debris Catcher available; size and configuration customizable; 5,000, 10,000, and 15,000 PSI working pressure



Architecture Chart