

COKER UNIT SERVICES



Capabilities

Jet Pump Temporary Support

- Volumes ranging from 600 to 1,400 gpm at pressures up to 15,000 psi
- Computerized command center controls up to 20 pumping units
- Real-time camera/data feeds available to customers

Critical Path Cleaning Services

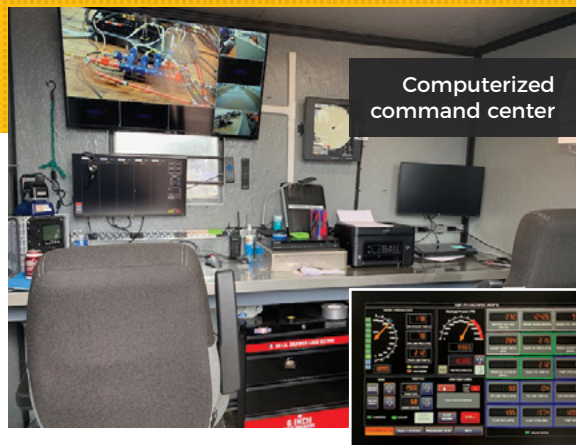
- Furnace coil pigging & decoking
- Cutting water/clarifier/ sluiceway cleaning
- Automated frac tower decoking
- Online coke fines removal from quench water tanks and weir pits
- Cleaning of feed transfer lines, overhead vapor lines, frac return piping and heater outlet lines to switch valves
- Cleaning of frac tower bottoms and internals
- Blowdown system Fin-Fan® air-cooled heat exchanger cleaning
- Blind-to-blind bundle extraction, cleaning, and mechanical services

USA DeBusk is a trusted provider of support services for coker operations, with highly experienced specialists, advanced equipment and rapid-response teams that deliver turnkey solutions. Leveraging more than 120 years of combined hands-on experience, USA DeBusk offers proven expertise to minimize downtime and process interruptions during emergencies or planned outages.

COKER JET PUMP TEMPORARY SUPPORT

USA DeBusk provides complete functional solutions to replace lost jet pump capacity. Equipment packages are kept ready to deploy to your site 24 hours a day, 365 days a year. Systems are designed for maximum safety and reliability.

- Computerized control from portable, blast-resistant command center
- 24-volt safety psi and emergency kick outs
- Flows/pressures/safety functions controlled via live camera/computer feed
- High-volume/high-pressure pumping units from 125 hp to 2,500 hp
- 2,500 hp tier 2/3 engine packages
- Twin disc 12V4000-8500 auto (8) geared transmissions
- Quintuplex 15,000 psi 4.5" fluid ends matched with 3,000 hp quintuplex power ends

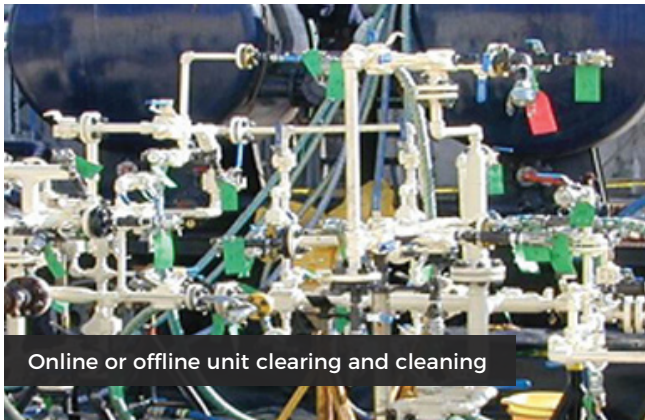




World's most advanced pigging pumper fleet



Automated rotating hose line cleaning



Online or offline unit clearing and cleaning

USA DEBUSK HELPS
COKER OPERATIONS
REMAIN PRODUCTIVE
IN EMERGENCIES AND
REDUCE DOWNTIME
DURING PLANNED
OUTAGES

CRITICAL PATH CLEANING SERVICE HIGHLIGHTS

Pigging & Decoking

Pigging & Decoking services mechanically clean furnace coils to restore flow and heat exchange efficiency while reducing differential pressure. USA DeBusk's triple pumping systems allow cleaning and decoking to be completed in two passes followed by smart pigging or three cleaning passes to be performed at the same time. USA DeBusk provides comprehensive planning and execution, including project design, engineering, scheduling, cost savings analyses and results verification.

- World's largest fleet of TriMax™ triple pumping systems that increase productivity by 50%
- Advanced electronic controls, automation and video monitoring
- The most diverse selection of decoking pigs in the industry
- Closed-loop effluent filtration

Line Cleaning

USA DeBusk provides specialty hydro line cleaning technologies that apply properly sized hoses, nozzle configurations, pressures and cleaning speeds for each line in the coker. Options include the Rotating Hose system, a safe, fully automated technology that cleans 100% of the pipe ID.

- Effective on lines up to 1,500 feet in length
- 10,000-40,000 psi
- Complete coke and water containment

Unit Clearing & Chemical Cleaning

USA DeBusk offers ultra-safe cleaning products, technical supervision, advanced equipment and innovative procedures for decontaminating coker equipment. Cleaning techniques include vapor phase, chemical circulation, and other methods that remove oil/hydrocarbons, LEL, hydrogen sulfide, benzene, pyrophoric iron sulfide, hazardous gases and other contaminants that impact coker equipment efficiency.

- Safe, non-hazardous chemistries
- Environmentally friendly
- Vapor phase is up to 70% faster than steam alone