

COKER UNIT	
SERVICES	

Support for emergency or planned outages, including temporary jet pump replacement, online fines removal, and specialty cleaning and decoking services.

# EMISSION CONTROLS

Ensure safety and environmental compliance with complete vapor management services, including mobile scrubbers and vapor combustion with 99.9% DRE.

### FABRICATION SERVICES

ASME-coded fabrication of custom pressure vessels and equipment, with in-house CAD, code calc, and engineering support from veteran oil & gas industry experts.

## FIELD SERVICES

Pipeline and facilities construction, installation, repairs, maintenance, integrity services, and compliance programs for any energy, utility, or industrial application, above or below grade.

## HOT CATALYST SERVICES

Cut entire days from your FCCU turnaround schedule and reduce the critical path by removing residual catalyst during shutdown. Our specialized equipment handles catalyst up to 1,250°F (677°C).

#### HYDRO BLASTING

Full range of options, from computerized, threedimensionally controlled automated systems to expertly performed manual procedures.

### **HYDRO CUTTING**

Specially engineered automated systems utilized for cutting metal and concrete with safety and precision.

## HYDRO EXCAVATION & VACUUMING

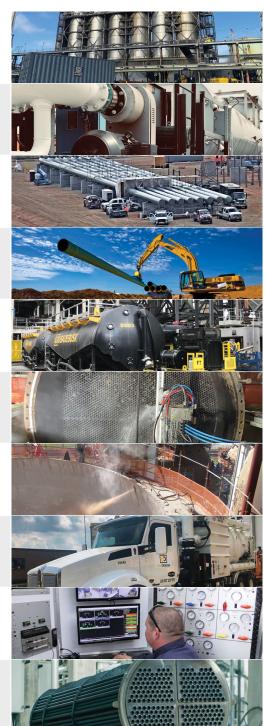
Protect people and underground assets by using pressure-controlled water for excavation.

## INERT CATALYST HANDLING

Remotely controlled robotic catalyst removal, biometric monitoring systems for technicians, and other advanced technologies are used to safely restore the availability of your reactors.

## INSPECTION

A single-source solution combining high-accuracy inspection with advanced tube cleaning provided as a seamless, integrated service by experienced experts.



NITROGEN SERVICES	Nitrogen delivery and on-site generation (liquid and membrane) for plant or field operations, as well as for integrated support of complementary USAD services.	
OFFSHORE SERVICES	Patented vapor blast and coating for safe, productive surface preparation, plus on-site nitrogen for well service, hydrate remediation and artificial lift.	
PIGGING & DECOKING	TriMax <sup>™</sup> pigging pumpers boost productivity by 50% as part of an advanced pigging, decoking and filtration system for furnace coils, boilers and piping systems.	USADEBUSK USADEBUSK
PIPELINE INTEGRITY	Services include pigging, fluid filtration, temporary flaring, chemical cleaning and treating, lab analysis, hydrotesting, commissioning/decommissioning, and project management.	
REACTOR CLEANING	Patent technology integrates into high-pressure catalyst reactor shutdown procedures to save time, enhance cleaning, increase spent catalyst fluidity, and reduce nitrogen usage.	
TANK CLEANING	Turnkey services include advanced robotics, material processing and waste minimization, plus integrated emission control, vacuuming and in-plant transportation.	
TRANSPORTATION, STORAGE & TRANSLOADING	Safe, reliable and cost-effective handling and transporting of catalyst, chemicals, waste and raw materials.	
TURNAROUND SERVICES	Reliable, multi-service line project planning, management, and execution achieve your objectives, assure safety and add value throughout the turnaround.	
UNIT DECONTAMINATION & CHEMICAL CLEANING	Custom-engineered, patented solutions with steam vapor phase and reactive chemistry technologies for faster, safer vessel entry.	
VAPOR BLASTING	Prepare surfaces for inspection, repairs and coating with low-pressure water/abrasive vapor technology that is safe and dust-free.	
VBX+™ EXCHANGER TUBE POLISHING	Single-pass polishing of exchanger tubes using a patented vapor blast system with high-precision automated efficiency and remote control for enhanced safety.	
WASTE SOLUTIONS	Cradle-to-grave hazardous and nonhazardous waste management programs integrating seamlessly with USA DeBusk services for a single-source waste solution.	0.230