REACTOR CLEANING

Advantages

- Faster shutdown timeline
- Increased scheduling certainty
- Cleaner high-pressure equipment
- Elimination or reduction of flushing
- Elimination or reduction of hydrogen hot stripping
- Decreased nitrogen usage
- Reduction in venting/flaring
- Opportunity to improve catalyst fluidity during dumping
- Opportunity to improve catalyst regeneration
- Cleaning chemistry is compatible as feedstock
- No harmful effects on the catalyst

USA DeBusk offers patented, proven technology to clean hydroprocessing unit reactor systems. The process uses specially engineered chemistries to remove hydrocarbon deposits and degas reactors online, during the early stages of a process unit shutdown.

USA DeBusk reactor cleaning removes LEL, H2S, benzene, and other noxious gases from high-pressure catalyst reactor systems. The process is used with hydrotreaters, hydrocrackers and many media-containing vessels with dry gas.

EFFECTIVE, EFFICIENT CLEANING

USA DeBusk reactor cleaning integrates seamlessly into your high-pressure catalyst reactor shutdown procedures and produces results that are efficient, effective, and predictable. It decreases flushing and sweeping, eliminates hydrogen hot stripping before cooldown, and minimizes subsequent nitrogen purging.

USA DeBusk's chemical products are non-acqueous, proprietary blends of solvents designed to dissolve hydrocarbon foulants and remove LEL, H2S, benzene and other noxious gases. The process works to enhance hydrogen gas sweeping by improving the evaporation characteristics and clearing profile of the hydrocarbons in the system.

TIME AND MONEY SAVINGS

The process yields substantial cost savings from shorter cleaning times and reduced hydrogen and nitrogen usage.

As an online process with fast-acting chemistries, USA DeBusk reactor cleaning significantly reduces shutdown time and increases scheduling certainty for catalyst turnarounds. It produces cleaner high-pressure equipment compared to traditional methods, reducing the delays and costs of further mechanical cleaning once the unit is opened.

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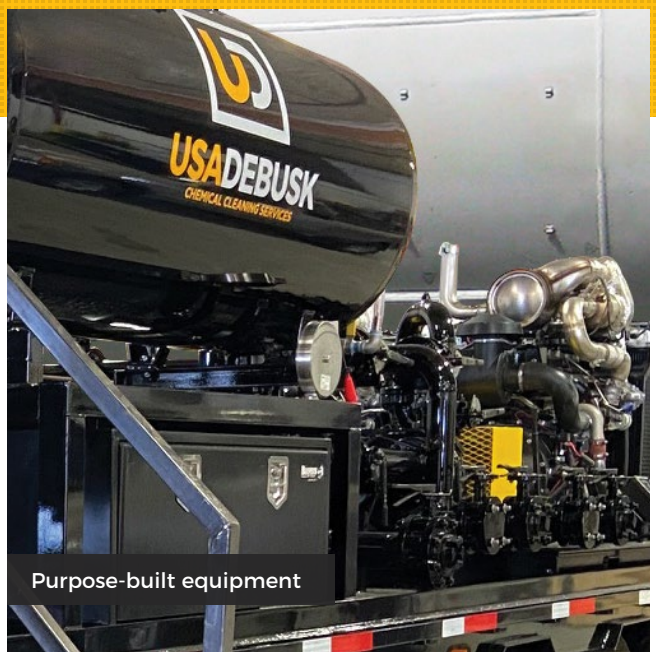
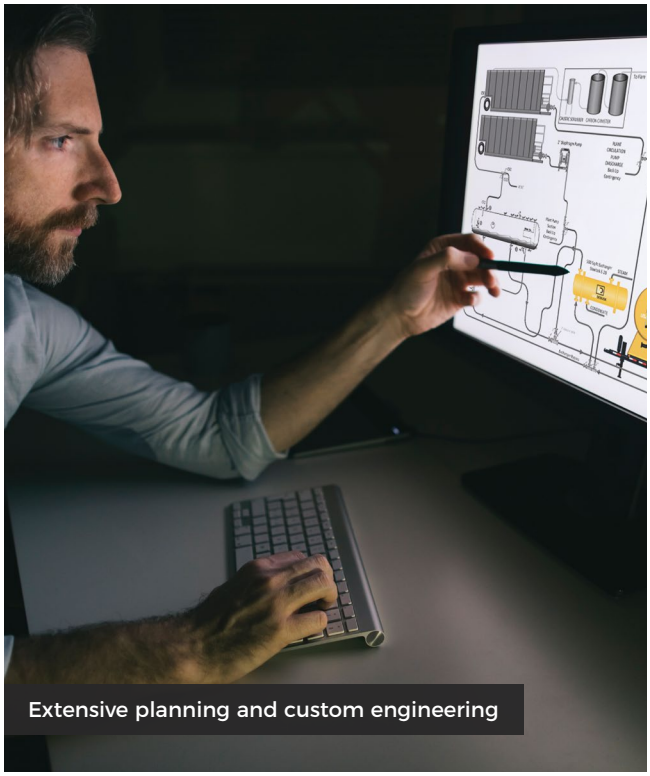


Purpose-built equipment


Extensive planning and custom engineering

USA DEBUSK REACTOR CLEANING IS MORE THAN A NEW OPTION – IT'S A ***BETTER*** OPTION.

CATALYST FRIENDLY

USA DeBusk reactor cleaning has no harmful effects on catalysts and removes more of the hydrocarbon contaminant from the catalyst surfaces.

If the catalyst is going to be removed and regenerated, it improves the dumping process by increasing spent catalyst fluidity. Enhanced cleaning also may improve catalyst regeneration. If the catalyst is going to be left in place, benefits may include decreased pressure drops and increased catalyst activity.

A SAFER ALTERNATIVE

The process also enhances safety and compliance by reducing total time on site, decreasing or eliminating confined space entry for cleaning, and minimizing venting and flaring. Optional no-exotherm chemistry enhances safety in potentially volatile applications.

ELITE EXPERTISE

USA DeBusk reactor cleaning projects are planned and executed by teams of experts with extensive experience in chemical cleaning, reactive chemistry, and plant operations. From degreed engineers in project planning to veteran supervisors and technicians in the field, we apply decades of experience to ensure your reactor shutdown proceeds safely and efficiently.


Streamline unit turnarounds

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