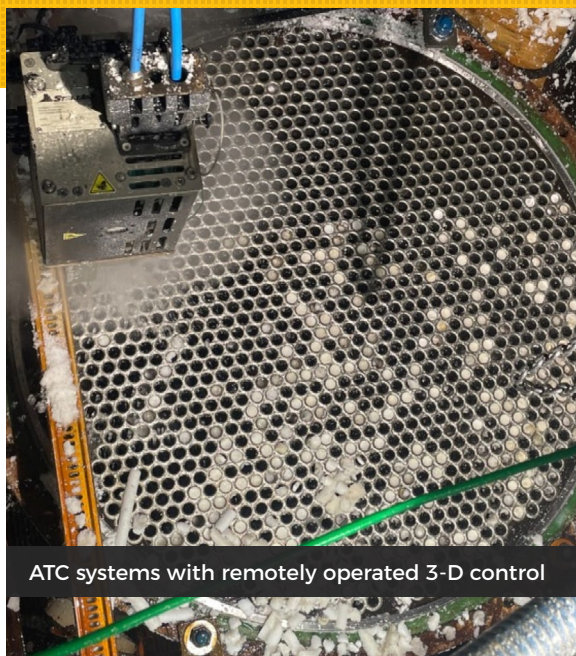


AUTOMATION & TECHNOLOGY



Advantages

- Best-in-class safety
- Decreased cleaning times
- Consistent quality
- Cost efficiency
- Experienced project managers and teams
- Versatile, multi-purpose systems
- Compact, small footprint on site
- Reduced waste and cleanup time



ATC systems with remotely operated 3-D control

AUTOMATION, ROBOTICS & CUSTOM SOLUTIONS

USA DeBusk is committed to developing and applying best-in-class technologies for a safer, more efficient, and more productive workplace.

Our dedicated Automation & Technology Division includes industry-leading technical talent and conducts ongoing research and development projects.

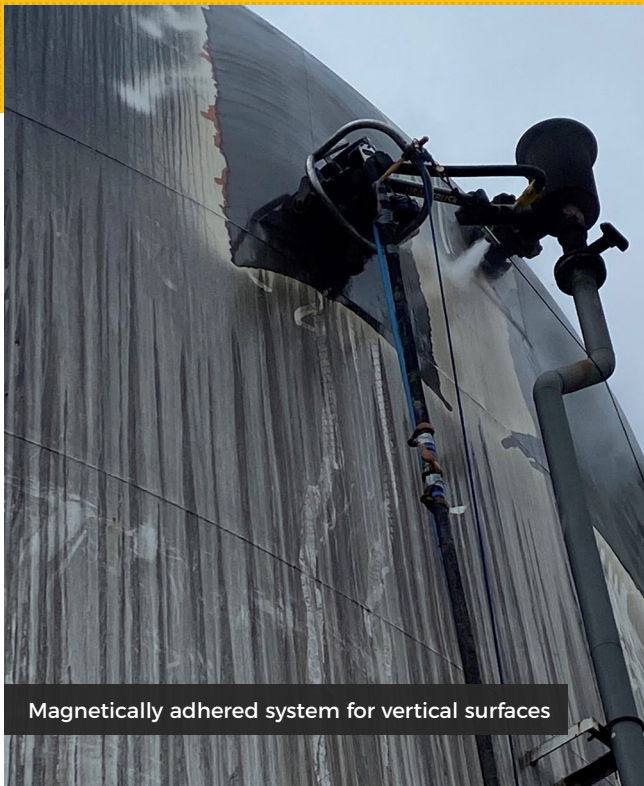
This team has introduced multiple advanced solutions that have demonstrated safety, speed, and cost-saving advantages for our customers. Among these are systems for exchanger tube cleaning and surface preparation.

AUTOMATED TUBE CLEANING

USA DeBusk Automated Tube cleaning (ATC) teams plan, engineer, and execute cleaning services for large tubular heat exchangers and cooling water condensers using the industry's most advanced automated bundle blasting systems. ATC systems are effective on any equipment configuration, including vertical, horizontal, or fin fan, as well as equipment in confined spaces.

All processes and equipment are engineered for maximum operator safety, first-pass cleaning effectiveness, and speed of job completion. Computerized remote operation of the entire process reduces the need for personnel in blast zones during cleaning.

ATC systems use a computerized controller to precisely index locations and mechanically feed multiple flex lances into the tubes. Water pressure up to 40,000 psi removes and ejects foulants. Automation provides thorough, consistent cleaning and extended run times to complete projects with maximum efficiency.



Magnetically adhered system for vertical surfaces



Hydro and abrasive blasting capabilities

WE'RE ADVANCING
SAFETY AND SAVINGS
BY DEVELOPING
TOMORROW'S
TECHNOLOGIES TODAY

ROBOTICS FOR SURFACE PREPARATION

Our specialized robotic solutions clean surfaces and remove coatings on storage tanks, ships and other large steel structures.

These robots are remotely operated, mobile in all directions, and can be equipped with interchangeable assemblies for hydro blasting, pressure washing, or abrasive blasting. They work on vertical, horizontal, and overhead surfaces using a magnetically adhered drive system. Video cameras onboard the robot and from an overall work area perspective enable remote operation from a safely located command and control center.

SAFETY & SAVINGS

Our robotics improve safety by removing workers from blast zones, confined spaces, extreme heights, and other hazardous areas. Custom safety shutoff systems add an extra degree of protection during operation.

Customers realize significant time and cost savings from our robotic surface preparation, including:

- Faster than manual procedures
- Eliminates downtime for breaks and shift changes
- Reduces waste and cleanup time compared to conventional blasting
- Reduces or eliminates the need for scaffolding or manlifts
- Can eliminate the need for door sheets on tank projects
- Eliminates containment associated with conventional blasting

Video footage from robotic operations can also assist maintenance inspections on assets.

ONGOING DEVELOPMENT

USA DeBusk continues to research and apply the latest automation and technological advances to enhance safety, savings, and sustainability for our customers.

We actively solicit employee input and partner closely with our customers on strategies to increase efficiency, improve savings, and mitigate confined space entry, wastewater generation, and worker exposure to hazardous environments.

