



# MISTRAS



## **MECHANICAL SERVICES**

CENTER OF EXCELLENCE





▶ WATCH OUR  
MECHANICAL SERVICES  
VIDEO HERE



## Center of Excellence

MISTRAS Group (NYSE:MG) takes pride in keeping your assets and people safe. As a OneSource provider of asset protection solutions, that means not just detecting and locating damages, but preparing your assets to return to service as quickly as possible, too.

Our Mechanical Services Center of Excellence (COE) performs light mechanical and maintenance services for the oil & gas, alternative power, and infrastructure industries. By using multi-disciplined crews to complete both inspection and maintenance work, MISTRAS keeps your costs, downtime, and workplace congestion to a minimum.

We offer our mechanical services on the ground and in the air, with teams of rope access technicians located all over the world.

T: +1-609-716-4000

[mechanical@mistrasgroup.com](mailto:mechanical@mistrasgroup.com)

<http://mechanical.mistrasgroup.com>



Our multi-disciplined rope access techs have an impeccable safety record, and help to optimize safety at your location by reducing at-risk work hours through eliminating the need for multiple on-site contractors.

**Our services cover a wide range of applications, including:**

- Corrosion Services
- Insulation Services
- Maintenance Services
- Industrial Services
- Electrical Services
- Multiple Access Strategies

# center of excellence

# access strategies



## Access Strategies

Teaming up with MISTRAS' Unmanned Systems, Rope Access, and Diving Centers of Excellence, we're equipped to access hazardous and hard-to-reach environments. Using drones to pre-qualify inspections and rope access or diving technicians to perform mechanical trades, we increase uptime and decrease at-risk hours and personnel footprint. Our rope access techs perform nearly any mechanical service as technicians on the ground.

### Access Methods

- Rope Access
- Scaffolding
- Unmanned Aerial Systems (Drones)
- Diving/Subsea

### Rope Access/Mechanical Service Case Studies: Scaffolding vs. Rope Access

- Cut Man Hours and Overall Costs by 92% for Barrel Insulation Project
- Saved Refinery \$2.1 Million and Reduced Man Hours 81% on 28-Day Turnaround

### Subsea Inspection and Maintenance

- Welding/Cutting
- Formwork
- Blasting
- Recuperation/Demolition



A photograph of large industrial pipes and tanks, likely part of a chemical or petrochemical plant. The pipes are orange-brown and run diagonally across the frame. In the background, there are metal scaffolding and other industrial structures under a clear blue sky.

# corrosion services

## **Corrosion Services**

MISTRAS' Corrosion Services division provides corrosion removal, mitigation, prevention, and coating solutions to ensure each of your assets meet mechanical integrity (MI) compliance standards. All corrosion services are performed in accordance with API Bulletin 91 "Best Management Practice."

### **Corrosion Mechanical Services**

- Surface Preparation
- Coatings
- Abrasive Blasting
- Baking Soda Blasting
- Cleaner/Greener Slurry Blast
- General Power Tooling
- Fireproofing- Chartek Certified Applicator

### **Ultra-High Pressure (UHP) Blasting**

- Minimal Equipment Setup
- No Need for Containment
- No Hazardous Airborne Materials
- True Grit Nozzle
  - Exposes existing surface profiles and opens up new profiles on rust blooms
- HydroCat Robotic Blasting & Recovery System
  - Vacuum recovery system recovers all spent water and paint chips
  - Operates on vertical surfaces and upside down
  - Production rates as high as 500ft<sup>2</sup> per hour

# electrical services



## **Electrical Services**

Electrical reliability is essential to your facility's success, but these assets are often in difficult-to-access locations. Whether you need to change a fixture or neon bulb a few stories off the ground or install/maintain an industrial heat tracing system, our rope access teams have you covered.

## **Electrical Mechanical Services**

- Lighting
- EHT Maintenance & Installation
- Splicing
- Cable Installation & Removal
- Connections & Terminations
- Electrical Raceways
- Instrumentation



# insulation services

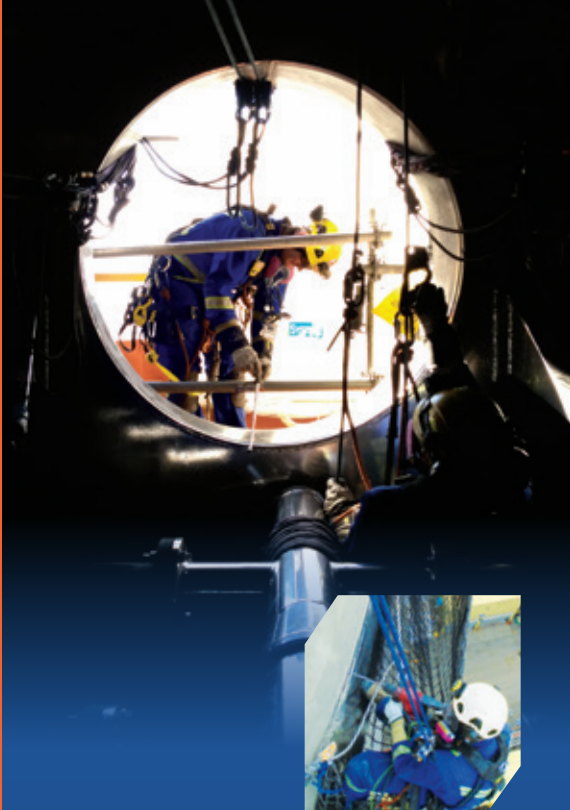
## Insulation Services

We specialize in the installation of thermal protection solutions for hot and cold high-performing assets, using metal jacketing and blanket fastening techniques. Our insulation services help operators access flanges and other operating components without compromising an asset's thermal or radiant temperature, along with reducing emissions, noise levels, and operating inefficiencies.

## Insulation Mechanical Services

- Piping
- Tanks and Spheres
- Cladding
- Spot Welding
- Insulation w/ Metal Jacketing
- Insulation Blankets
  - Ceramic Fiber
  - Silicone Cloth
  - S/S Mesh, Anchors, Washers,
  - Tie Wire and Hog Ring Staples

# maintenance services



## Maintenance Services

MISTRAS' Maintenance & Construction division offers highly-skilled and professionally-certified specialists for flange torqueing, welding, bolt tensioning, and vessel head makeup and removal services. Supported by fully-compliant process safety management (PSM) techniques and industry compliance standards, MISTRAS ensures optimal function and efficiency during repairs and installation periods to reduce failures, secondary damage, and downtime.

## Maintenance Services

- Torqueing and Tensioning
- Vessel Head Makeup or Removal
- Database Management
- Welding
- Spools
- Blinding/Isolation
- Testing and Commissioning
- Steam Tracing
- Flange Mapping
- Valve Identification
- Electrical





## Industrial Services

Industrial service technicians remove chemical and element build-up on tanks and vessels in the drilling and exploration sector of the oil and gas industry. We eliminate accumulated mud, rust, scale, chemical, and old coatings before vacuum removal services are applied. MISTRAS is also well-suited to handle Naturally Occurring Radioactive Material (NORM) conditions, performed by its own certified Radiation Safety Officers (RSO).

## Industrial Mechanical Services

- Storage Tank and Vessel Cleaning and Degassing
- Flexible and Rigid Lancing
- Heat Exchanger Cleaning
- Glycol Dehydration Cleaning (Manual and Chemical)
- Platform removal preparation services
- Drain Clearing Services
- Line Flushing for Pipeline Abandonment/Removal
- NORM Surveying
- Skid Vacuum Systems

# industrial services

# one-source portfolio



## One-Source Portfolio

Mechanical services are only a single facet of MISTRAS' asset protection programs. Our multi-disciplined crews provide tremendous value by performing multiple high-quality services with minimal equipment and personnel footprint, increasing safety and cost-efficiency. MISTRAS serves as your asset protection partner from plant construction through everyday operations.

### Inspection

- Traditional & Advanced Non-Destructive Testing
- Predictive Maintenance (PdM) & Reliability-Centered Maintenance (RCM) Programs



## **Engineering**

- Risk-Based Inspection (RBI)
- Plant Equipment Support
- Project Planning & Execution

## **Asset Condition Monitoring**

- Remote Wall Thickness Tracking
- Tube Cracking and Leaking
- Structural Health Monitoring (SHM)
- Pipeline Condition Monitoring

## **Data Management - Plant Condition Management Software (PCMS)**

- Corporate and Site-Level Metrics
- Mobile Deployment
- Implementation Services and Consulting



| CORROSION  
SERVICES |



| INSULATION  
SERVICES |



| MAINTENANCE  
SERVICES |



| INDUSTRIAL  
SERVICES |



| ELECTRICAL  
SERVICES |



| ACCESS  
STRATEGIES |



**MECHANICAL SERVICES**  
Center of Excellence



▶ **WATCH OUR  
MECHANICAL SERVICES  
VIDEO HERE**



**Local Presence,  
Global Reach!**

T: +1-609-716-4000

[mechanical@mistrasgroup.com](mailto:mechanical@mistrasgroup.com)

<http://mechanical.mistrasgroup.com>



3008-17105-02