



Application Brief

# Automated Radiographic Testing (ART) Inspection Services

Varying environmental conditions can lead to internal corrosion, pitting, and **Corrosion Under Insulation (CUI)** in your aboveground piping. MISTRAS' **Automated Radiographic Testing (ART)** crawler services are cost-effective, advanced inspection solutions that utilize **Digital Radiography (DR)** to detect abnormalities within insulated and uninsulated pipelines.

## Advanced Piping/Pipeline Corrosion Inspection Technology

MISTRAS' patented technology has the unique ability to inspect 100% of a pipe in the time it typically takes to inspect 10% using manual methods\*. Our ART services can also inspect in-service piping with product still flowing through them. Our proprietary design is fully wireless and offers single view or multi-view radiographic scan, simultaneously analyzing the top, bottom, and sides of piping with a 2-axis robotic arm to autonomously drive over supports without the need for multiple set-ups or systems.

MISTRAS offers these services to efficiently inspect for CUI without having to take the line out of service or remove insulation and/or coating, cutting down on time, safety hazards, and budget needs. The motorized functionality allows scanning to be conducted on the full-diameter of a line in any weather, as we can use weatherproof units. Automated RT crawler services provide real-time corrosion data for any horizontal, above ground piping across all industries.

The crawlers' self-leveling motion control system and built in fall arrest technology ensure safe rope access use and the elimination of costly scaffolding. By giving pipeline operators the opportunity to review inspection video and DICONDE compliant radiographic results simultaneously, they can collect, process, and analyze data much faster. Collected images are then digitally stored, providing a long-term, easily traceable, and readily-available record of damage.



Scanning a full pipeline diameter using the multi-view approach of the 2-axis arm



MISTRAS' ART services provide DICONDE-compliant results in real time

Stay ahead of corrosion cost-effectively, quickly, and safely by calling **+1-833-MISTRAS** or emailing **sales@mistrasgroup.com**.

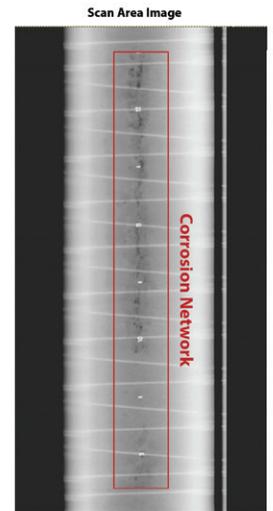
\* Based on MISTRAS Group's internal assessments and analyses. May not be validated by third parties or customers.

# ART SYSTEM COMPARISON

INTERNAL CORROSION CRAWLER SERVICES	
VIEWS	1
PIPE RANGE (INSULATED)	4" - 48"
ENERGY	225 kV
COMMUNICATION	Wireless
MARKET	Up, Mid, Downstream
WEIGHT	70 lbs.
CLEARANCE	<b>Robotic Arm:</b> Top- 10"; Bottom- 2"; Side 1- 4"; Side 2- 0"; <b>Stationary Arm:</b> Top- 10"; Bottom- 2"; Side 1- 2"; Side 2- 0"
DIMENSIONS	54.5" x 7" x 9.75"
EXPOSURE TECHNIQUE	Double Wall Single View (ID+OD)
TEMPERATURE RANGE	-40°F to 120°F
POWER REQUIREMENTS	56V Lithium Ion Battery
APPROVAL	CE
AVAILABILITY	 



6oc Scan Area



4-VIEW CUI CRAWLER SERVICES	
VIEWS	4 (Bottom, Top, Both Sides)
PIPE RANGE (INSULATED)	2" - 20"
ENERGY	70 kV
COMMUNICATION	Wireless
MARKET	Up, Mid, Downstream
WEIGHT	37 lbs.
CLEARANCE	<b>Robotic Arm:</b> Top- 8"; Bottom- 2"; Side 1- 4"; Side 2- 3.5"; <b>Stationary Arm:</b> Top- 8"; Bottom- 2"; Side 1- 2"; Side 2- 3.5"
DIMENSIONS	36" x 6" x 8"
EXPOSURE TECHNIQUE	Tangential (OD Only)
TEMPERATURE RANGE	-40°F to 120°F
POWER REQUIREMENTS	56V Lithium Ion Battery
APPROVAL	CE
AVAILABILITY	   

