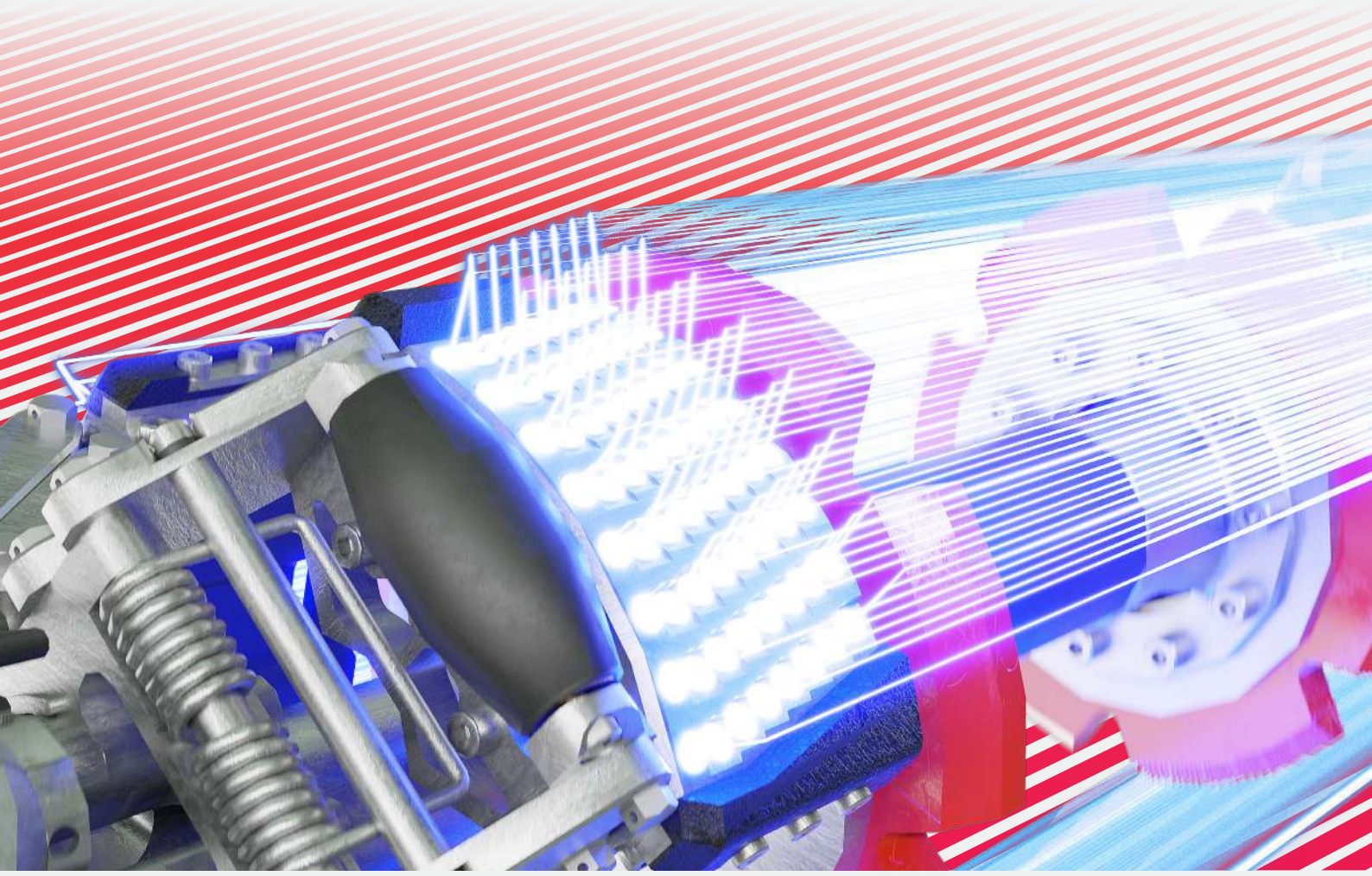
INLINE INSPECTION TECHNOLOGY

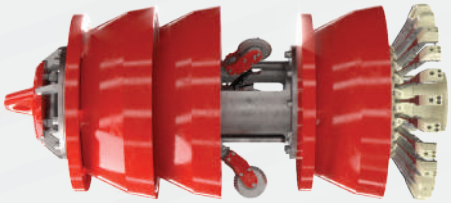


DEXON
IN-LINE INSPECTION TECHNOLOGY

INTELLIGENT PIGGING TOOLS
SOLUTIONS FOR ALL YOUR PIPELINE INSPECTION REQUIREMENTS

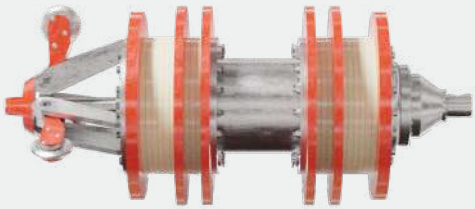
Founded in 1979, Dexon Technology Plc is a global provider of in-line inspection (ILI) services. In-house research development and engineering teams offer customized tool development and inspection solutions for unpiggable pipeline configurations. Dexon's flagship services include accurate crack sizing and inspection of non-metallic pipeline materials.

CALIPER PIGGING TOOLS



- Suitable for pipelines of any length and material
- Ovality measurement
- Dent detection and sizing
- Pipeline feature detection and identification
- Weld joint detection and identification
- Tool range of 4” and greater
- Tool performance and reporting as per POF 2021 specifications

ULTRASONIC ILI WALL MEASUREMENT TOOLS



UT-R (Ultrasonic Rotary)

- Rapid deployment and reporting
- Suitable for all pipeline materials (ferrous and non-ferrous)
- Accurate within ± 0.3mm
- Able to run pipelines under 10km
- Operates only in liquid and gas (batching) pipelines
- Inspection and reporting up to POF 2021

UT-MC (Ultrasonic Multi-channel) Ring

- High resolution of 1,000,000 measurements/m^2
- Maximum length of 200km
- Operates only in liquid and gas (batching) pipelines
- Minimal disruption to operating schedules
- Inspection and reporting up to POF 2021

UT-MC (Ultrasonic Multi-channel) Octopus

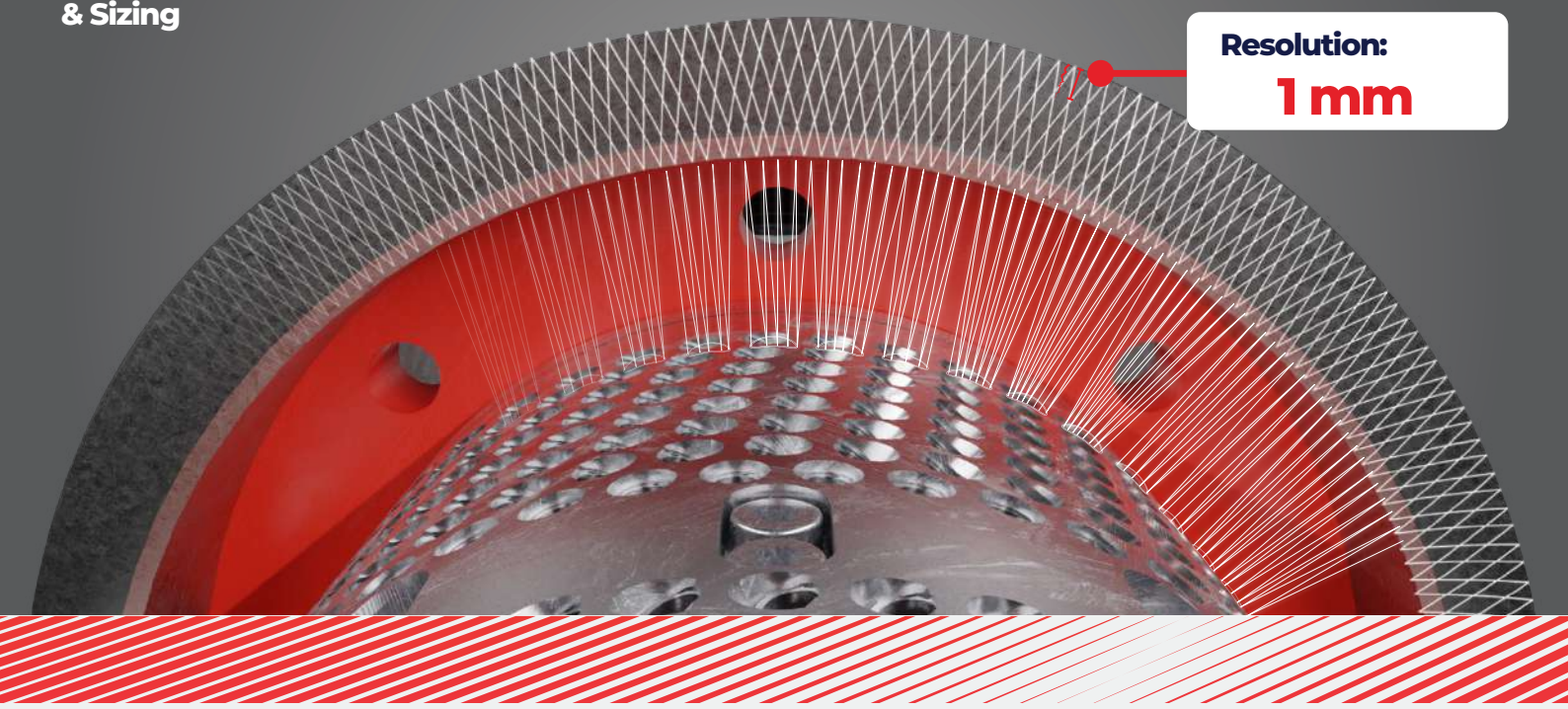
- Specifications are the same as the UT-MC Ring except for:
- Transducers are elevated, reducing the travel time of signals from the wall
- Highly effective in materials with high attenuation, such as heavy crude oil

Customization: If the standard tool specifications don’t align with your project’s requirements, Dexon can design customized solutions to inspect a wide range of pipeline configurations. Contact a Dexon representative directly for a personalized project assessment.

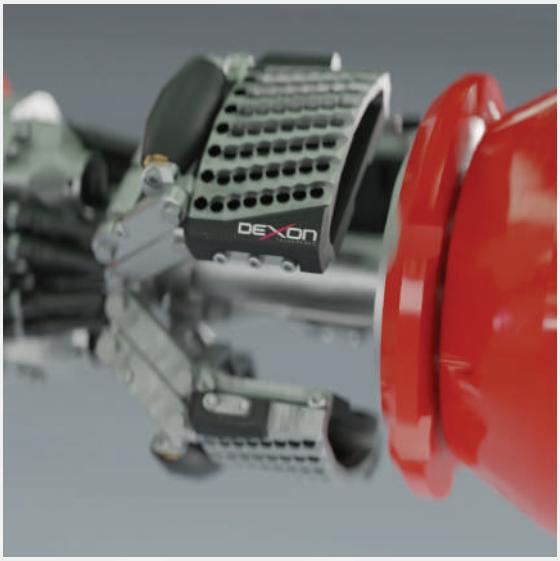
HAWK ILI system

1mm

1mm Crack Detection & Sizing



ULTRASONIC ILI
CRACK DETECTION AND SIZING



- Detection and sizing of axial and circumferential cracking
- Crack and corrosion inspection merged in a single ILI tool
- Crack sizing accuracy up to 1.0mm through wall height
- Extreme sampling density up to 1mm × 2mm (1 million samples/m^2)
- Detection and sizing of skewed cracks, hook cracks, and variable geometry cracking
- Detection and sizing of mid-wall cracks not attached to pipe surface
- Probability of detection ≥ 90% to POF 2021 specification

ULTRASONIC INTELLIGENT PIGGING TOOLS

KEY INSPECTION CAPABILITIES

Reliability: Specially designed, fabricated, and rigorously tested to fulfill various inspection requirements across a range of applications, including pipe materials, products, and detection capabilities.

Metal Loss: Providing up to 1,000,000 direct wall thickness measurements per m^2, generating accurate detection and sizing of internal and external metal loss anomalies.

Geometric Assessment: Internal radius measurements provide a detailed assessment of pipeline ovality, affecting not only asset integrity but also operational efficiency due to changes in flow dynamics.

Pipeline Feature Identification: Increased accuracy of anomaly positioning is achieved by weld and feature identification as well as providing operators with accurate, up-to-date as-built construction records.

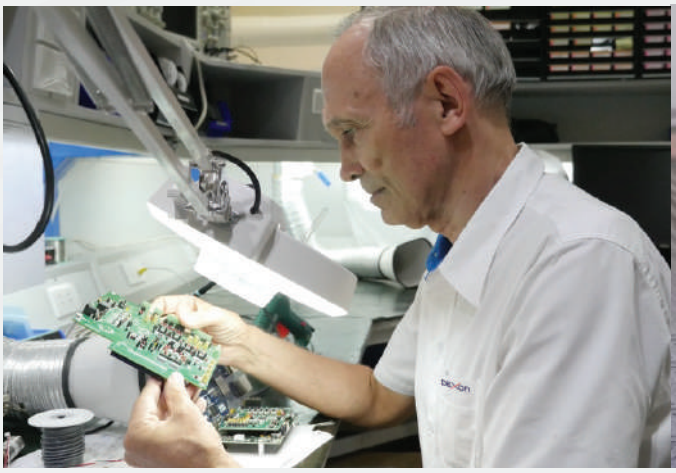
Minimal Disruption to Operating Schedules: Inspection parameters can be customized to suit operating conditions, minimizing the impact on operations.

Flexibility: Customizable tool set-up is available to inspect challenging pipeline configurations and operating conditions.

PIPELINE TEST YARD AND FACILITIES

- Infinity test loop allowing for duration testing and inspection validation for long-length pipelines
- Customization options for testing and validation of client-specific inspection requirements
- Client pipe sample and damage mechanism inspection verification
- Customized client pipeline configuration replication and inspection verification
- Artificial defect detection, identification, and sizing inspection testing
- UT pump-through and MFL pull-through test facilities
- Factory acceptance testing
- Pipeline fabrication yard
- Spacious warehouse & offices

RESEARCH & DEVELOPMENT CENTER



- Provides customized engineering solutions to meet client-specific inspection requirements
- Employs leading research and engineering professionals in the fields of physics, non-destructive testing technologies, field programmable gate array, advanced electronics, firmware, software, and mechanical engineering
- Fully equipped electronics, research, high-precision machining, fabrication, and assembly facilities

CONTACT US

PHONE: +66 33 012484-7 (THAILAND)

PHONE: +49 1761 750 0750 (GERMANY)

PHONE: +54 911 4071 1037 (LATIN AMERICA)

INFO@DEXON-TECHNOLOGY.COM

WWW.DEXON-TECHNOLOGY.COM