



*The LEADER in ADVANCED Solutions*

[www.autsolutions.net](http://www.autsolutions.net)

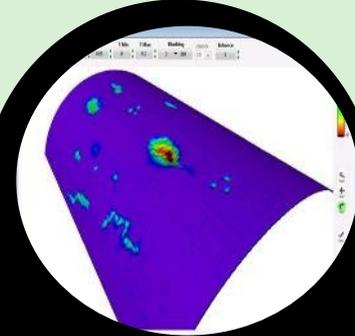
# About us:

## Consulting

- 4xNDI Level III certified Staff
- Eighty+ years of experience in the Energy, Petrochemical, and Aviation
- Project consultation
- Level III Services
- Third-Party Data Review

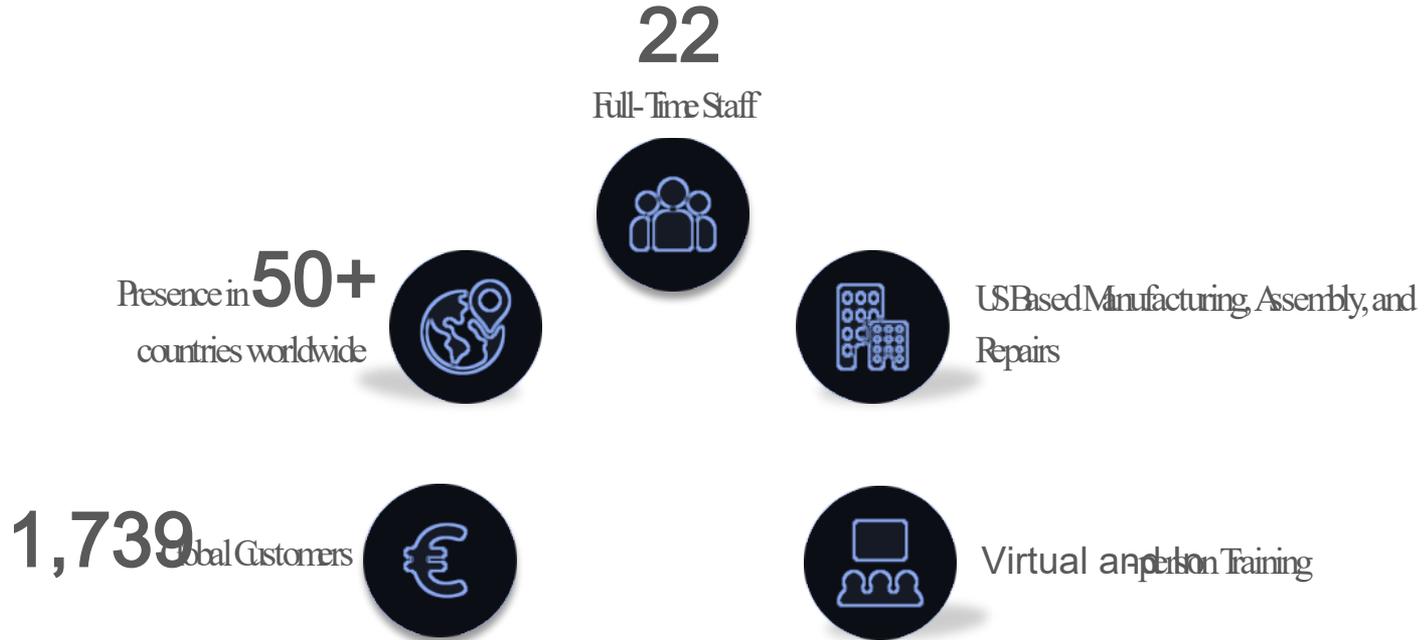


Field Support and Training



Advanced Ultrasonic Training Course

# About us:



## ***A rigorous QC process:***

*Our ambition is to provide our customers with a service adapted to their needs, based on the skills and proximity of our employees. Our Quality Management System (QMS) aims to guarantee this service for our customers.*



## About us:

Specializing in Advanced NDT product solutions ranging from Mobility Platforms, Phased Array inspection tools, Automated Corrosion Mapping, and flaw detection inspection systems for the petrochemical, power generation, oil, nuclear, and aerospace industries.

### AUTOMATED SCANNERS

Phased Array, TOFD Multi-channel Pulse Echo, and Short Range Guided Wave inspection systems. **What makes our product unique?**

- Reliable, modular components
- Automated acquisition systems
- Multi-functional, plug-and-play design
- On-demand support
- Permanent data collection and storage

### MANUAL SCANNERS

- Phased Array and ToFD
- ABCD-scan Corrosion Mapping
- Short Range Guided Wave (SRUW)
- Configured to fit any custom application

# PROSCANXT

## KEYFEATURES

- USB powered dual-channel high speed acquisition system with advanced ultrasonic tooling and visualization.
- Corrosion Mapping, TOF and SRGW device.



# PROSCAN8

## KEYFEATURES

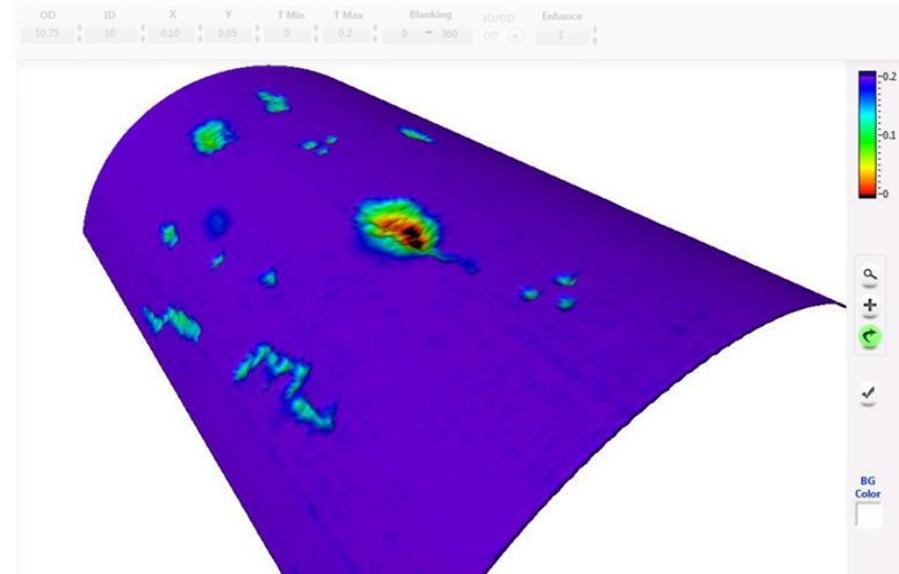
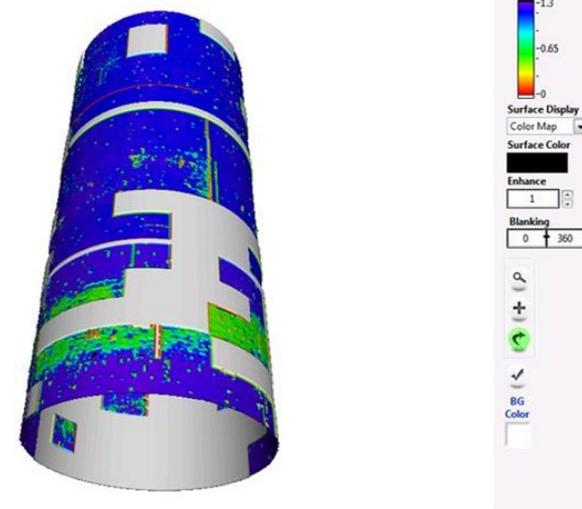
- USB powered 8-channel high speed acquisition system with advanced ultrasonic tooling and visualization.
- Corrosion Mapping, TOF and SRGW device.



# PROSCANXT

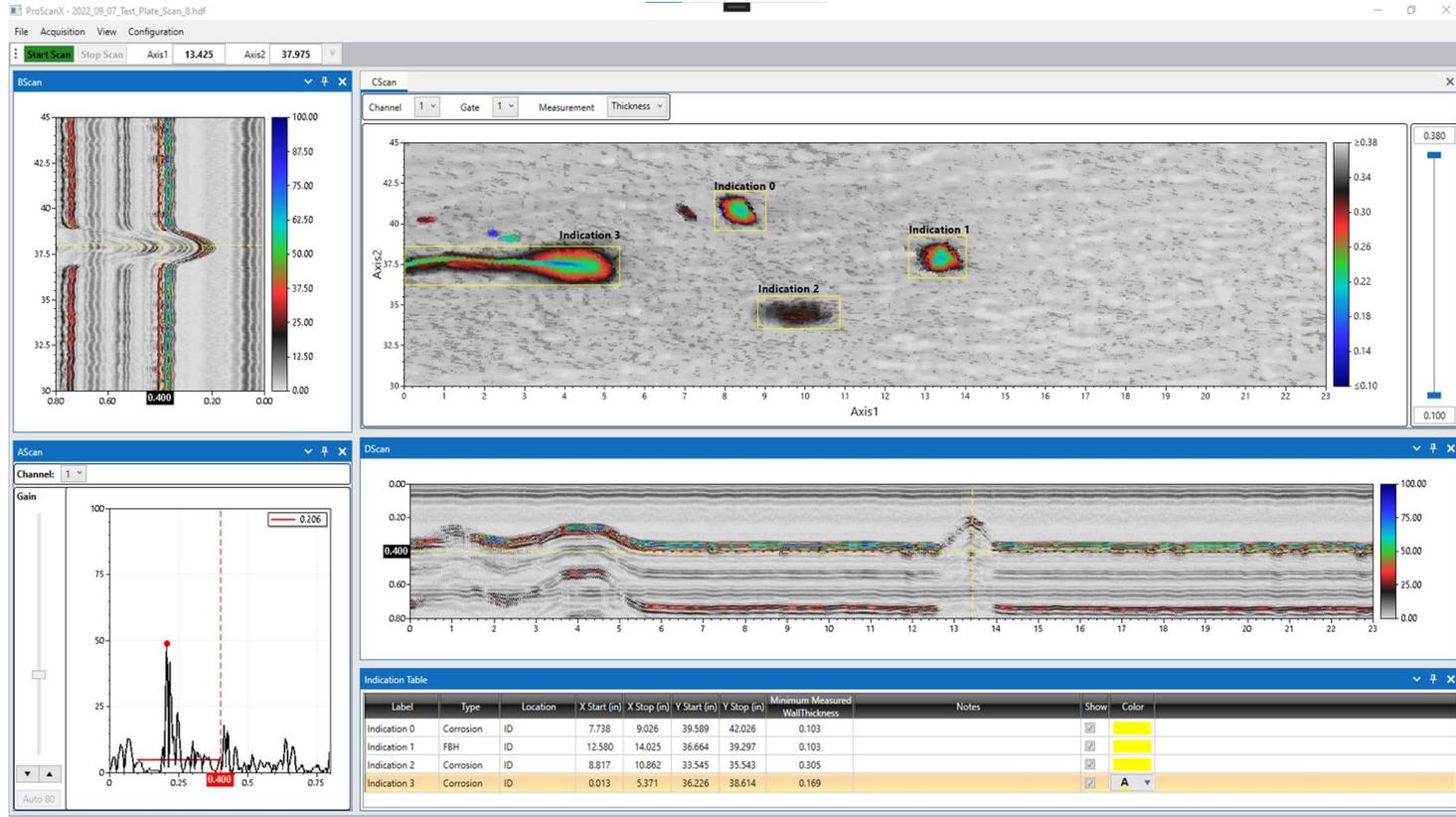
## FEATURES

- USB powered single-channel high speed acquisition system with advanced ultrasonic tooling and visualization.
- Software includes A-scan, B-scan, G-scan, 3D and 4D display specified for Corrosion Mapping and providing quantitative thickness measurements
- Corrosion Mapping TOF and SRGW device
- Includes ProScan flow detector



TOF Corrosion Mapping Short Range Guide Wave

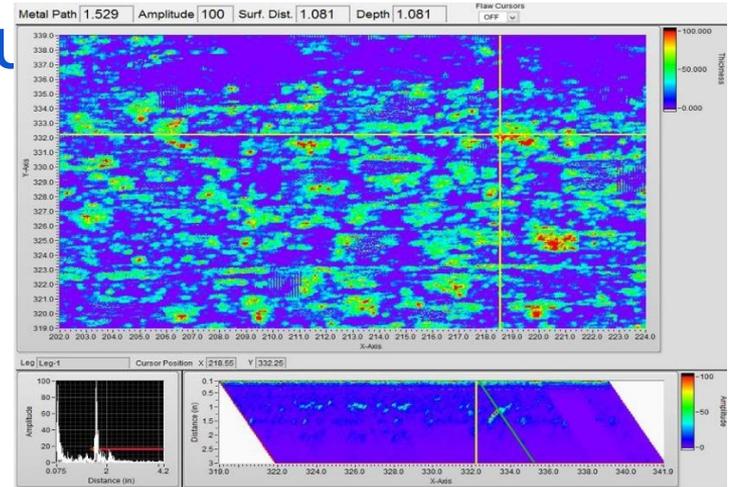
# Available February 2023 ProScan X software suite



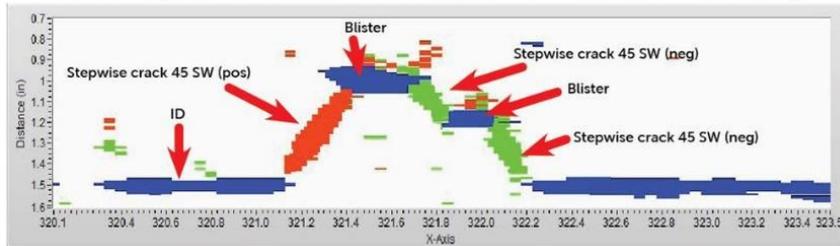
# PROSCAN SOFTWARE SU

## KEY FEATURES

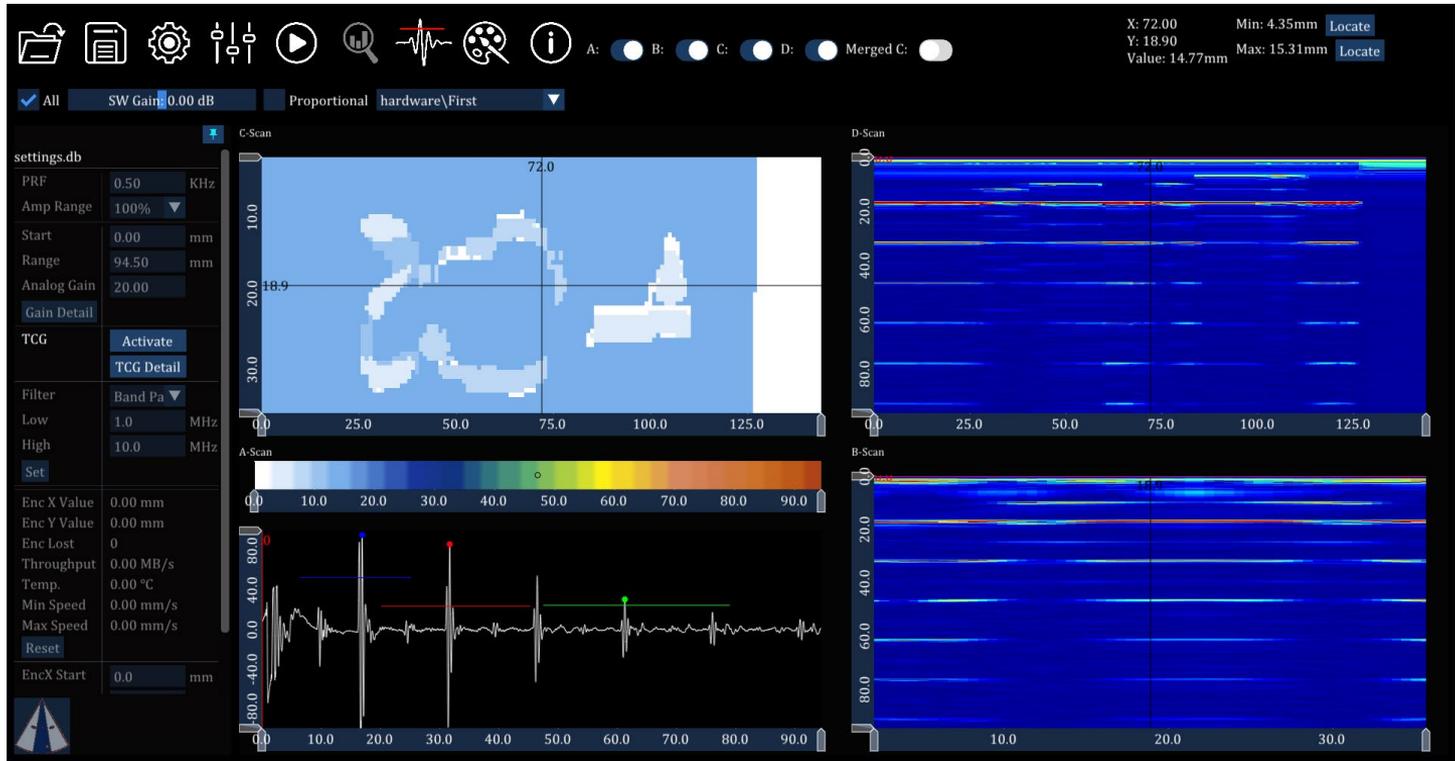
- Analysis software includes A-scan, B-scan, C-scan, 3D and 4D display specified for Corrosion Mapping and providing quantitative thickness measurements
- Pipeline Burst Pressure Calculator - Effective Area, B1G and B1G Modified pipe burst pressure calculations.
- OmniScan Data Conversion Software – To analyze OmniScan datafiles with the ProScan Analysis Software.



Blue - 0-Degree, Red - 45 Degree-Skew-90 (pos), Green - 45 Degree-Skew-270 (neg)



# Coming soon ~~Pocus~~ XPhased Array



# Coming soon

- UT Ethernet-Wi-Fi
- PAUT- Ethernet
- EMAT- Wi-Fi
- TinyPEC-Ethernet – Wi-Fi





## Automated Scanners

- AccuTrak
- Bandit
- Ranger
- R-Mot
- ThermalScan
- Hand-Held motion control

# ACCUTRAK

Automated Steerable 3-Axis Scanner/ Crawler for Phased Array Inspections, TOFD and Corrosion Mapping

The AccuTrak scanning system configuration allows many customization options ranging from multi-probe weld inspection utilizing Phased Array and TOFD techniques, Corrosion Mapping, Internal and external Piping inspection, and Remote Visual Inspections RM.

## TANKSCAN

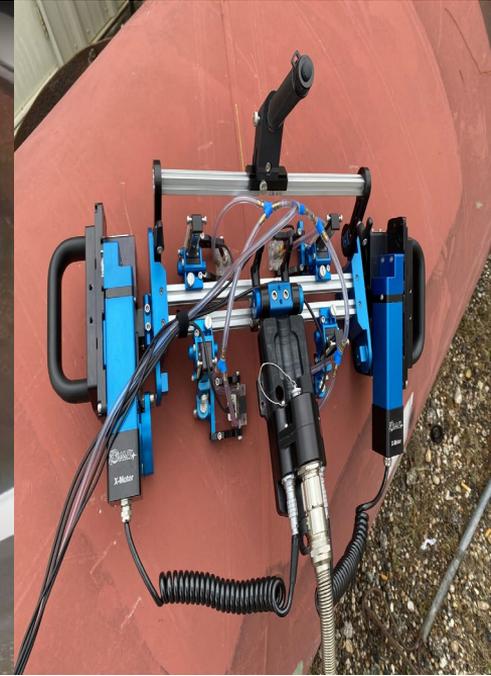
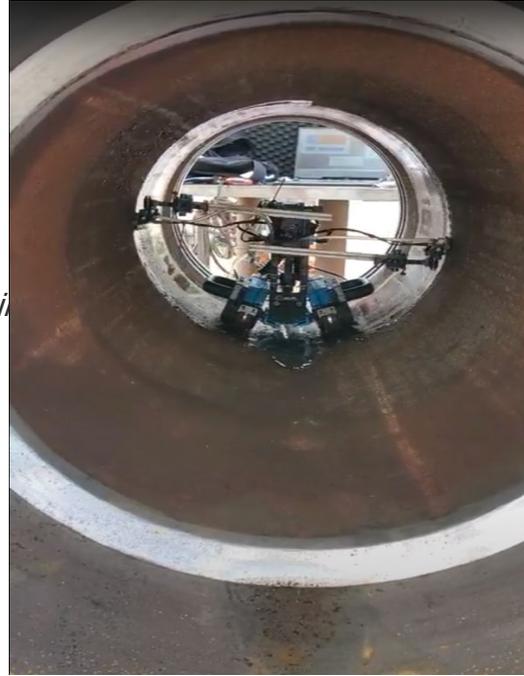
*Remote Access Automated Robot Crawler*

## RM0T

*ID Inspection Solution for external corrosion mapping*

## WELD SCAN

*Steerable Laser Guided Weld Inspection Scanner*





## Advanced- WELDSCANNING

### Steerable Laser Guided Weld Scanner

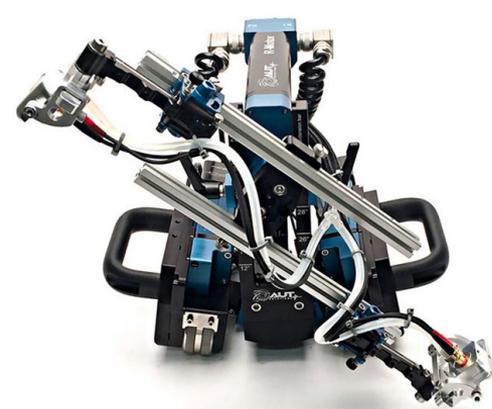
- Multi group PAUT TOFD welds inspection
- Axial pipe inspection
- Independent truck articulation
- Spare X and Y Motors
- 2"-250 unbilical
- Welds tracking system
- Modularity



## Advanced- TANKSCANNING

### Remote Access Robotic Crawler

- API 653 B-Scan Tank Inspection
- Scan up to 6' per second and can climb vertically over weld seams as high as 3/4" without hang-ups or falling off.
- The AccuTrak and AccuTrak II line of automated scanners are modularly designed so modifications or repairs can be done in the field within minutes.
- Modularity



## Advanced- R-MDT

### Internal Pipe Inspection Crawler

- Remote access
- Circumferential ID 8"-36"
- 2 or 4 transducers set up
- 100ft unbilical
- Modularity

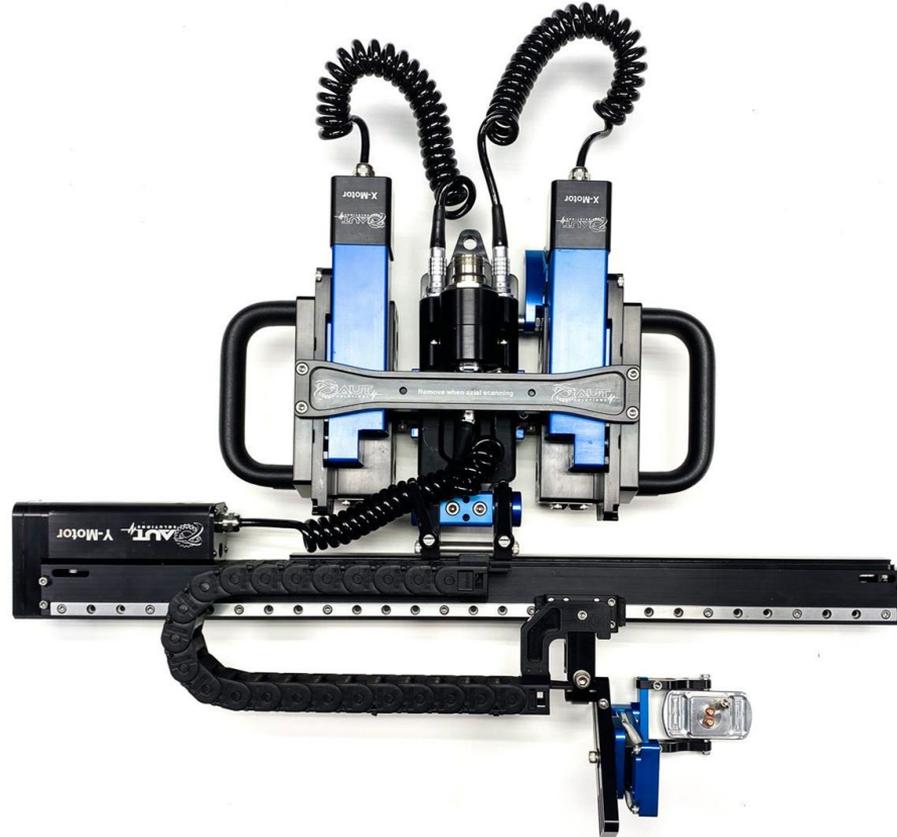
# ACCURAK 3-Axis version, Remote Corrosion Mapping, TCFD&Phased Array Weld Inspection

## FEATURES

- Circumferential OD 4"+
- Axial Pipe OD 8"+
- Axial Pipe ID 15"+
- Spiral Welds OD 15"+
- Turn Radius: 12"+
- Modularity

## SPEEDS

- X:6"/second
- Y:30"/second



## DIMENSION TRUCK

- Length: 13.5"
- Width: 10.5"
- Height: 4.250"
- Weight: 17lbs

## MICROCONTROLLER

- Length: 10"
- Width: 8"
- Height: 5.3"



Loosen arm clamp and slide arm out

# Ranger

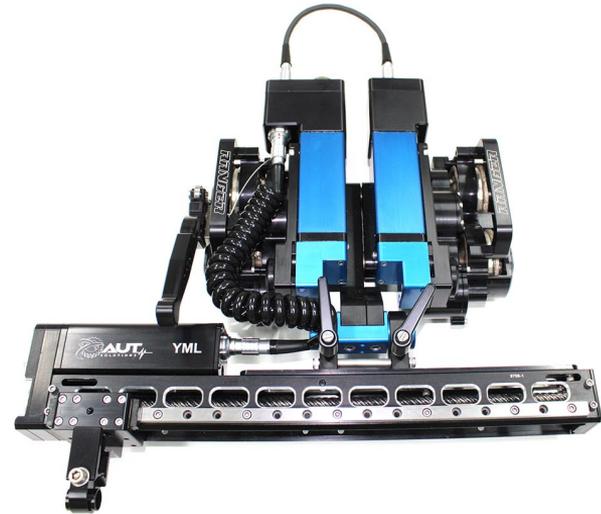
## FEATURES

- We are offering 2-probes and 4-probes version.
- The corrosion mapping setup allows use of 12", 20", 24", 36" and 48" raster arms
- Modular Field Repairable Spare components
- Lightweight - 15lbs
- Practical – Circumferential OD Scans: 2'+ Axial  
OD Scans: 8'+
- Temp – Can be used at 300° For higher with duty cycling

## INCLUDES

- QUADAxis Motor Controller
- 20" arm with motor
- 100ft. umbilical
- Probe holder
- Power and com cables
- Tools and spare parts
- All Windows OS compatible
- Shipping cases

*Steerable and compact ultrasonic corrosion mapping and weld inspection system*



## SPEEDS

- Rapid Scanning - X6"/sec - Y30"/sec

# Bandit

## Automated Corrosion Mapping, TOFD and Ph:

### FEATURES:

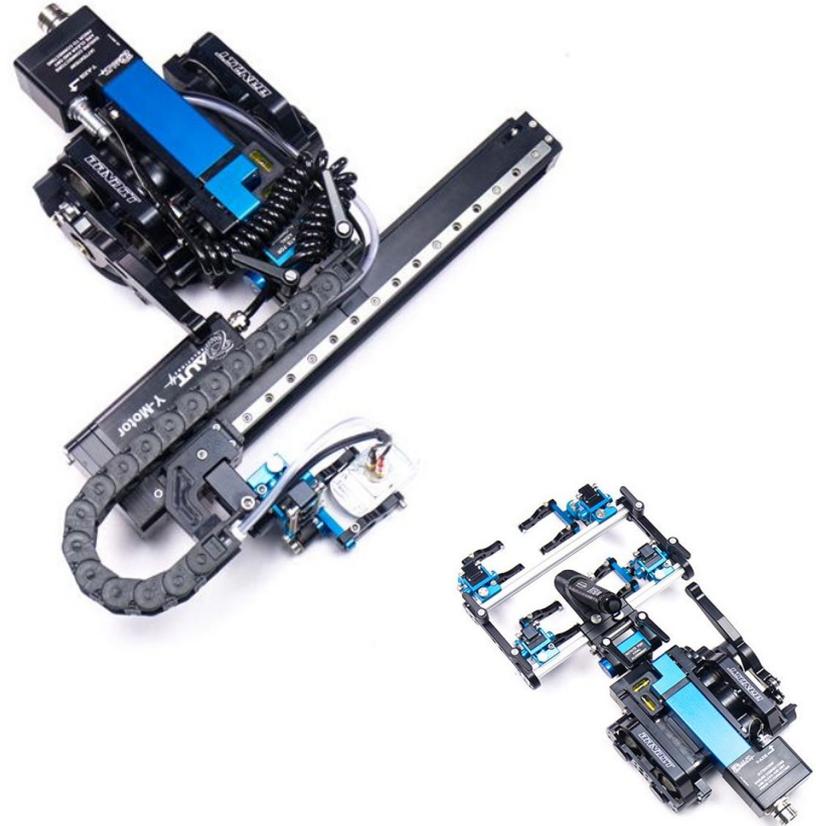
- Circumferential Scanning from 2" OD to Flat
- Axial Scanning from 6" OD
- Magnet Quick-release lever
- Extreme durability in harsh environments

### SPEEDS:

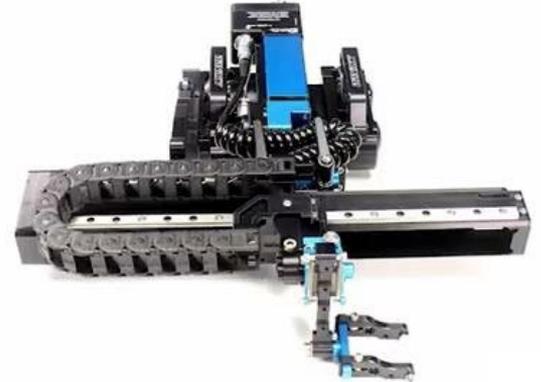
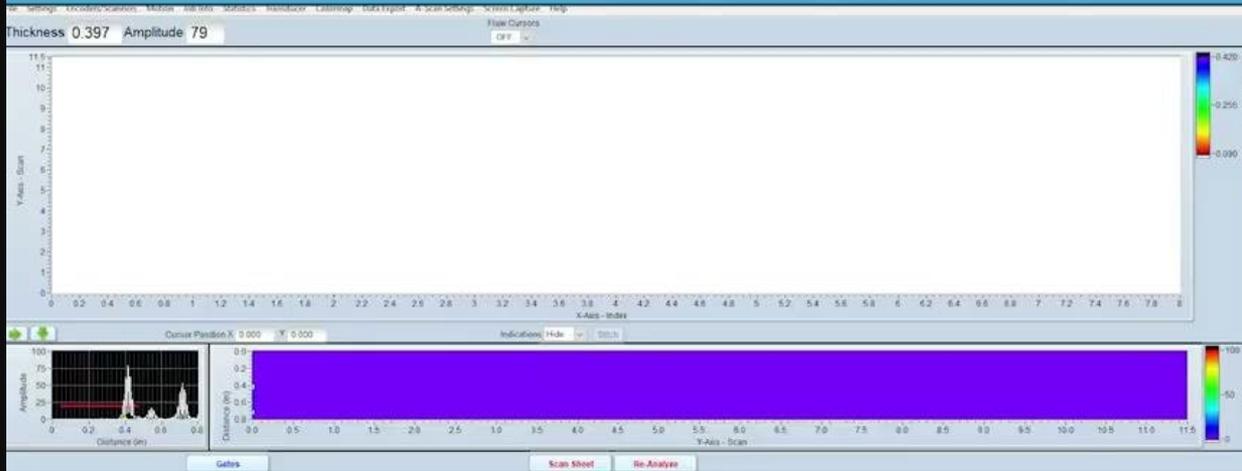
- X: 6"/second
- Y: 30"/second

### PORTABILITY:

- Light Weight: 10.5lbs



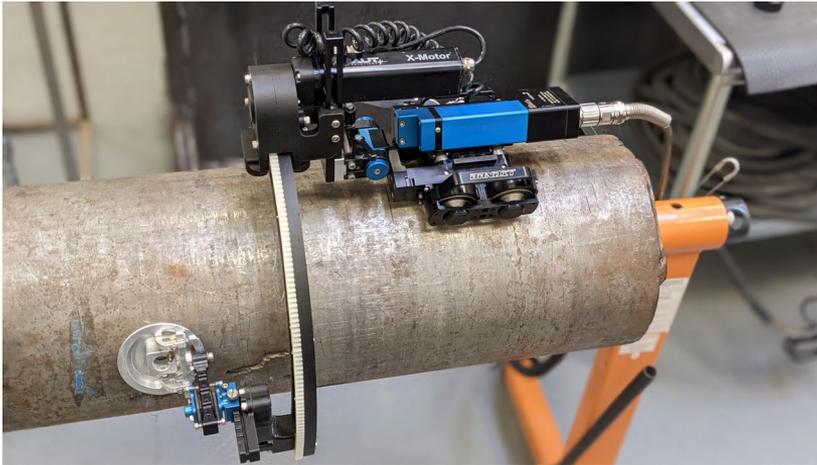
# AUT SOLUTIONS



# Coming soon An Side Arm

## FEATURES

- Lightweight and portable
- 6" OD pipes and greater
- Compatible with all AUT Scanners
- 360- or 180-degree kits
- Single or Dual Probe Capabilities



*Fast, Lightweight, and Modular*

# AccuScan

## FEATURES:

- Lightweight and portable
- 2" OD pipes and greater
- Temperature of 300F or higher
- Magnetic wheels
- Modular

## SPEEDS

- X: 7"/second
- Y: 30"/second

## DIMENSIONS:

- Length: 24"
- Width: 12.5"
- Height: 3"
- Weight: 14lbs



*Fast, lightweight & Modular Automated Axis Scanner*

# ThermalScan 700

## FEATURES:

- Lightweight and portable
- 3" OD pipes and greater including flat surface
- Operates up to 700F(371C), with integrated cooling
- Modularity- arms and motors can be easily switched

## SPEEDS

- Scan up to 30"/second

## INCLUDES:

- 24" catamaran arm
- Air pressure and CFM regulator kit
- 2-axis motor controller
- 100ft unbilical with 15ft high temperature unbilical extension
- High temperature transducers

Automated Capable Scanning



# Handheld motion control

## FEATURES

- Simple Joystick Controls
- Controls motion for Paster and Weld Scanning
- Rugged Aluminum housing
- Battery Powered—rechargeable
- 4.3” Touch Screen Interface
- Simple motion control setups
- Carrying Strap for controller management
- Magnetic Mount

Compatible with AUT Automatedanners



## Manual Scanners

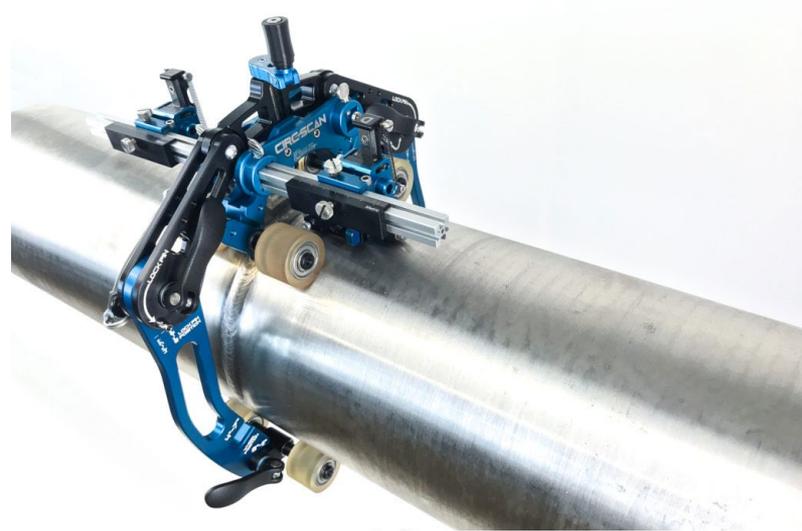
- CIRC-SCAN
- REVOLVER
- HANDSCAN
- B-Scanner
- WELDSCAN
- NANOSCAN II
- USCAN
- PROSCAN 8



# CIRSCAN

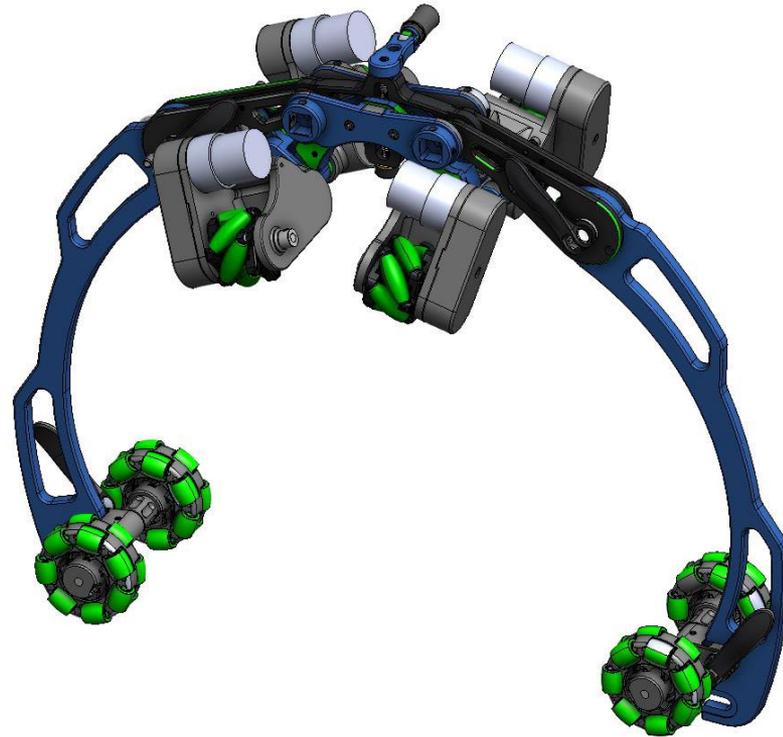
## FEATURES

- Ultimate scanning solution for Circumferential inspections will not vary PCS once set and locked in place
- Works seamlessly between **any pipe material**
- Base kit accommodates 4' to 24' OD pipes
- 2 probe holders perfect for TOFD or Phased Array inspection, and our high-resolution **waterproof** RME encoder with detachable cable.
- Designed to hold 6 or more probes
- Fits into one small carrying case
- Additional arms available to cover up to 48" OD pipe



*Multi-Diameter-Flamless Pipe Weld Scanner*

# Coming soon Motorized Circ-Scan



# REVOLVER

## FEATURES

- Covering pipe size from 0.8”(20.3mm) to 4.5”(114.3mm) upto 6.5’ with additional accessories
- Low profile height as low as 0.625” [16mm], such as boiler tube inspection.
- Machined from high grade aluminum
- Available in Single and Dual PAUT configurations
- Option Dual Probe holder kit for simultaneous PAUT and ToFD acquisition



*Small Bore Pipe Scanner*

# B Scanner

## FEATURES

- Small and lightweight
- Manual B-scan applications up to 500F\*.
- Rugged Aluminum constructed
- Scans on 3" OD pipe or greater
- Spring Loaded Probe holder adjust to surface contours
- Waterproof encoder with a lifetime warranty.
- Soft contact magnetic wheels
- High resolution encoder (<0.001 per inch)

## Dimensions

- Length 5.5'
- Width 16"
- Height 33"
- Weight 16 lbs



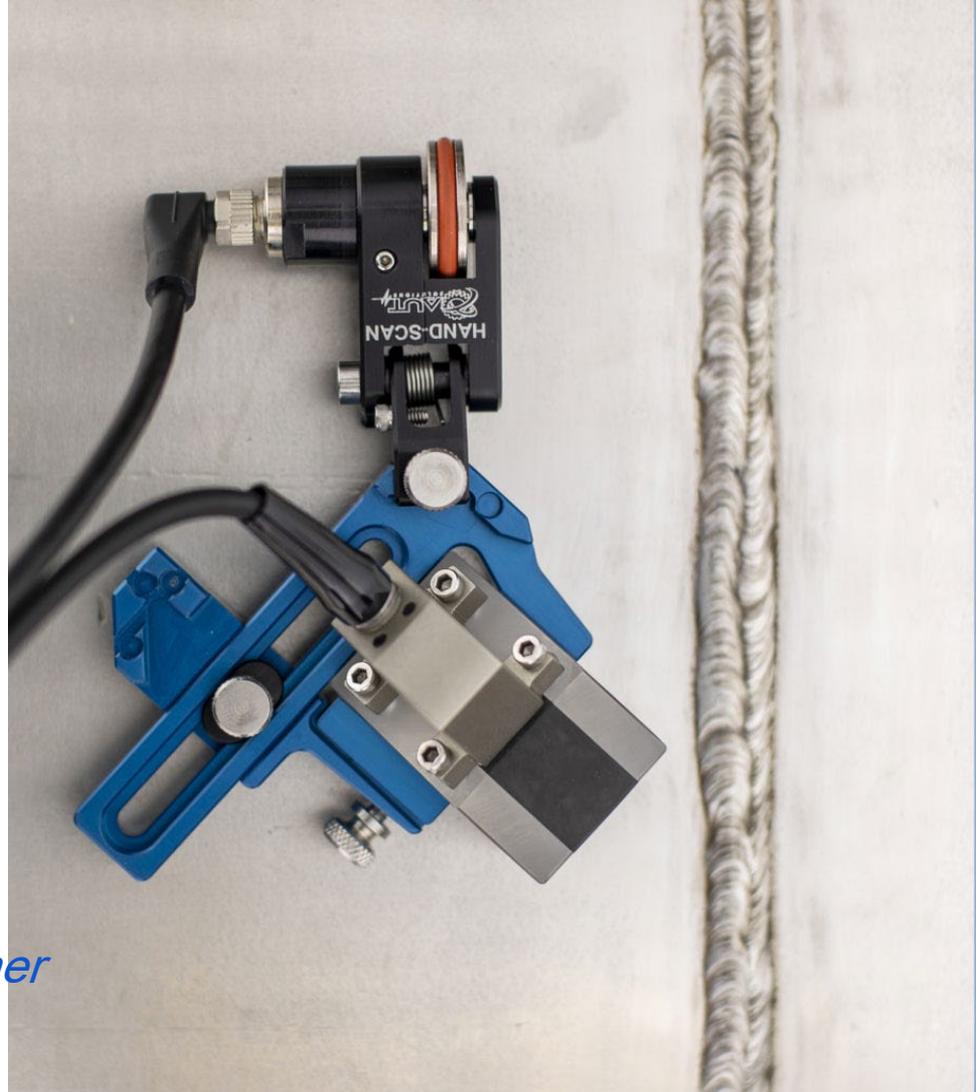
*Small Lightweight Handheld Scanner*

# HANDSCAN

## FEATURES

- Single axis encoded scanning
- Quick and easy setup
- Easily accommodates wedges up to 56mm wide.
- 5 different encoder positions available, including 2 for transverse scanning
- The encoder wheel is magnetic, for use on **ferrous** material applications
- Ideal for **non-ferrous materials**, including carbon fiber and aluminum
- Optional length encoder cables are available 5m, 15m, and 30m

*Encoder based drag lamp scanner*



# WELDSCAN

## FEATURES

- Compact and lightweight
- Soft-contact magnetic wheels
- Exclusive IP68 waterproof RM Encoder with lifetime warranty
- Smooth scanning with reduced probe chatter
- Vertical linear motion Stage-1 Probe Holders
- Standard Kit :
  - 2 trucks
  - 1 straight crossbar
  - 1 hinged crossbar for axial scanning
  - 4 stage-1 probe holders
  
- Can hold up to 8 transducers with optional equipment
- Multiple probe positioning options
  - Center, offset, front or side mount positions



*Cost Effective Phased Array/TOFD*

# NANOSCAN II

## FEATURES

- Multi-configurable scanner
- IP68 waterproof encoder with lifetime warranty
- 5, 15, 30 m cable lengths
- Single or Dual probe setups
- Standard Nozzle inspection setup
- SRG Win inspection of Tank floor annular ring from the chime area

The NanoScan II can hold many types of conventional/ advanced probes and wedges making this scanner one of the best multi-purpose and economical scanning solution.

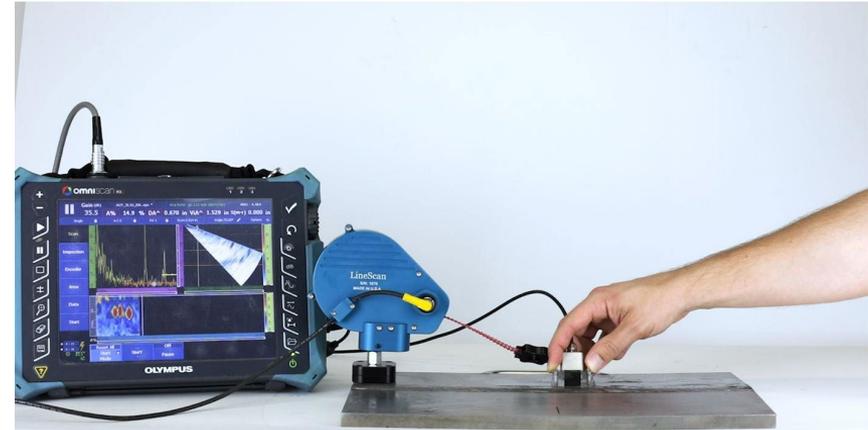
Phase Array/TOFD/Corrosion



# LINESCAN

## FEATURES

- Simple solution to encoding single axis line scans
- Encoder resolution is 0.025mm (0.001") with a draw length of 2030mm(80")
- Ferrous or non-ferrous surfaces using either our magnet or suction cup quick
- RM Encoder which comes with a lifetime warranty
- Built in encoder cable strain relief system
- Stainless steel Posidrive Belt
- Suitable for extreme field conditions
- Compatible with all UT systems with an Encoder inputs



*Simple Single Axis Line Scanner*

# USCAN

## FEATURES

- Scan up to 500° F
- Strong contact magnetic wheels
- Quick & easy configuration changes
- Scan pipe welds in the circ. or axial directions
- Adjustable and rotatable fork
- Circumferential or axial scanning
- Accommodate up to 8 transducers at a time

Configuring the scanner is quick and easy. Each truck is modular and can be mounted to the supplied arm bars to allow multiple probe scanning from the center, offset, front or side mount positions. The encoder truck can also be configured to a simple B-Scan setup for corrosion inspection

*Universal Array/T&ED Corrosion Scanner*



# LASER MAPPING SYSTEM

## FEATURES

The Laser Mapper makes external corrosion mapping and laser profilometry practical when used in conjunction with our automated scanner systems. The laser beam intensity self adjusts based on variable surface conditions (dull or shiny) to obtain a depth reading without loss of data. Scanning speeds can be achieved at speeds up to 30" per second.

The Laser Mapper system includes a small and lightweight controller box with 12vdc power supply and encoder cable. It also includes the laser sensor which mounts to our existing automated and manual scanning equipment and emits a small laser beam to the surface, then the beam distance is measured and interpolated into a thickness value using the ProScan acquisition and analysis software. The laser depth range is 1' (25mm) of displacement with accuracy within +/- 0.002". Set up is simple, place the laser sensor 1' above the target surface and set the software depth measurement on an un-corroded surface to 0" and then scan away.

- **Fast** - Scan up to 30"/sec
- **Accurate** - Accuracy to +/- 0.002"
- **Compatible** - Works with our existing line of scanners
- **Affordable** - Costs less than 3D camera systems
- **Portable** - Fits in one case.

## External Corrosion Mapping Scanner (laser profilometry)



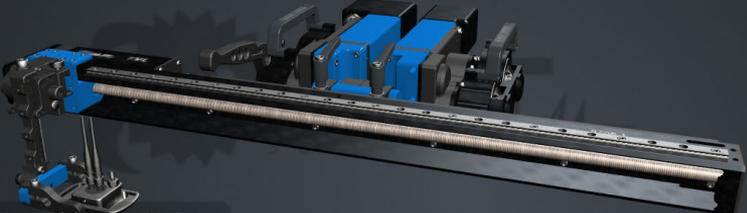
# Software Solution's

AUSolutions softwares suite offers a full line of products to support your Advanced NDT applications

- ProScan Analysis Software - analysis of ID and OD corrosion data, 3D Data modelling, Statistical analysis, Easy Excel Data export, Smoothing, Hide Non-Relevant Indications
- Pipeline Burst Pressure Calculator - The PBPC software package is a helpful tool for anyone to add Effective Area, B1G and B1G Modified pipe burst pressure calculations to their reports. This software works either as a standalone software application where depth or thickness grid information can be imported in from Excel, or can be processed within the ProScan software using UT or Laser data already collected.
- OmiScan Data Conversion Software - Analysis software. This feature will allow OmiScan owners to analyze data faster and more effectively utilizing all the tools and features the ProScan software offers.

# Partial Release Jan 2023

## Autonomous for remote testing and training



**AUT**

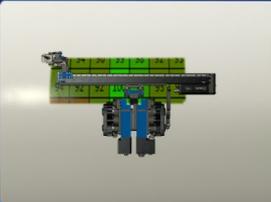
- Rapid Scanning - X: 8"/sec - Y: 30"/sec
- Practical - Circumferential O.D. Scans: 2"  
Axial O.D. Scans: 8"
- Mobility - Zero turn within a 12" radius

**RANGER SCANNER**

**Powerful, Steerable & Compact.  
Ultrasonic Corrosion Mapping System.**

When it comes to ultrasonic corrosion mapping and weld inspection, the motorized DS-Ranger scanner is your ultimate work companion. This scanner's features include ultra-strong magnetic wheels with non-slip traction, giving the capability for both axial, and circumferential surfaces.

[Try it on a vessel](#)



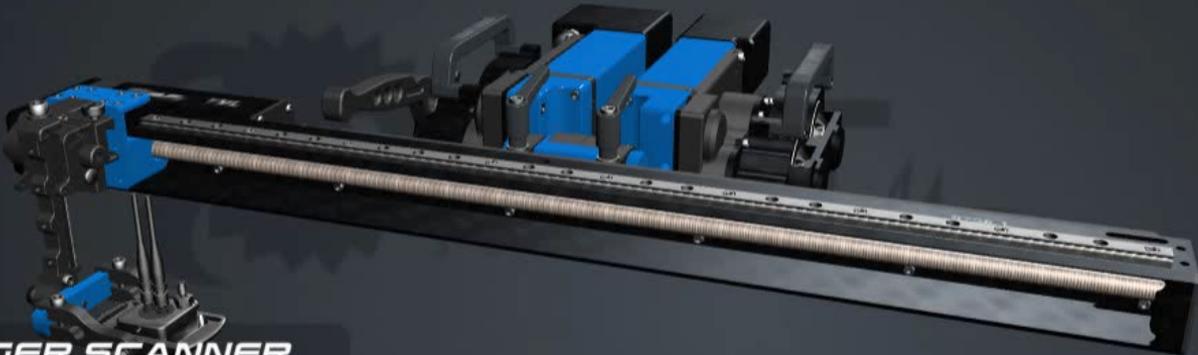
**AUT**

**Operate**

- W move forward
- A turn left
- S move backward
- D turn right

[Scan](#)

# Coming soon! Virtual models for remote training



**AUT**  
AUTOMATIC

- Rapid Scanning - X: 6"/sec - Y: 30"/sec
- Practical - Circumferential O.D. Scans: 2"+  
Axial O.D. Scans: 8"+
- Mobility - Zero turn within a 12" radius

**RANGER SCANNER**

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Try it on a vessel



# PIT AND DENT GAUGE KIT

## Premium Kit

- 1 Starrett dial indicator 1" [25mm] stroke
- 2 replaceable indicator tips
- 1 center gauge holder 9" [228mm]
- 1 blind end gauge holder 5" [127mm]
- 4 extension arms 7.5" [190mm]
- 2 magnetic extensions 1.625" [41mm]
- 2 standoffs .2" [5.08mm]
- 1 custom carry case
- Max length 42.25" [1073mm]
- Shipping case



## Economy Kit

- 1 Fowler dial indicator 1" [25mm] stroke
- 2 replaceable indicator tips
- 1 center gauge holder 9" [228mm]
- 1 blind end gauge holder 5" [127mm]
- 2 extension arms 7.5" [190mm]
- 2 magnetic extensions 1.625" [41mm]
- 2 standoffs .2" [5.08mm]
- 1 custom carry case
- Max length 27.25" [692mm]
- Shipping case



# PHASED ARRAY PROBES AND TRAYS

PA00 Series Phased Array Probe	10MHz, 16 elements, 0.31mm pitch, 4.96x5mm aperture, 5mm elevation, Impedance matched to Rexolite, 2.5 meter cable length, I-Pex (Oriniscan) connector
PA10 Series Phased Array Probe	5MHz, 16 elements, 0.60mm pitch, 9.6x10mm aperture, 10mm elevation, Impedance matched to Rexolite, 2.5 meter cable length, I-Pex (Oriniscan) connector (Housing size: L: 23mm x 16mm x 20mm)
	<u>10MHz, 16 elements, 0.60mm pitch, 9.6x10mm aperture, 10mm elevation, Impedance matched to Rexolite, 2.5 meter cable length, I-Pex (Oriniscan) connector (Housing size: L: 23mm x 16mm x 20mm)</u>
	10MHz, 32 elements, 0.31mm pitch, 9.9x10mm aperture, 10mm elevation, Impedance matched to Rexolite, 2.5 meter cable length, I-Pex (Oriniscan) connector (Housing size: L: 23mm x 16mm x 20mm)
PA12 Series Phased Array Probe	5MHz, 64 elements, 0.60mm pitch, 38.4x10mm aperture, 10mm elevation, Impedance matched to Rexolite, 2.5 meter cable length, I-Pex (Oriniscan) connector (Housing size: L: 45mm x 23mm x 20mm)
PA14 Series Phased Array Probe	5MHz, 60 elements, 1.0mm pitch, 60x10mm aperture, 10mm elevation, Impedance matched to Rexolite, 5 meter cable length, I-Pex (Oriniscan) connector (Housing size: L: 68mm x 23mm x 20mm)
PA32 Series Phased Array Probe	5MHz, 32 elements, 1mm pitch, 32x10mm aperture, 10mm elevation, Impedance matched to Rexolite, 2.5 meter cable length, I-Pex (Oriniscan) connector (Housing size: L: 40mm x 28mm x 26mm)
	5MHz, 64 elements, 0.50mm pitch, 32x10mm aperture, 10mm elevation, Impedance matched to Rexolite, 2.5 meter cable length, I-Pex (Oriniscan) connector (Housing size: L: 40mm x 28mm x 26mm)
PA15 Series Phased Array Probe	5MHz Concave Elevation Focus 35mm Radius, 16 elements, 0.50mm pitch, 8x10mm aperture, 10mm elevation, Impedance matched to Rexolite, 2.5 meter cable length,
	10MHz Concave Elevation Focus 35mm Radius, 32 elements, 0.25mm pitch, 8x7mm aperture, 7mm elevation, Impedance matched to Rexolite, 2.5 meter cable

# PHASED ARRAY PROBES AND WEDGES

W00 Series Wedge for the PA00 Probe	0 degree wedge for the PA00 probe, irrigated with carbide wear pins
	60-degree shear wave wedge for the PA00 probe, irrigated with carbide wear pins
W10 Series Wedge for the PA10 Probe	0 degree wedge for the PA10 probe, irrigated with carbide wear pins
	55-degree shear wave wedge for the PA10 probe, irrigated with carbide wear pins
W2 Series Wedge for the PA2 Probe	0 degree wedge for the PA2 probe, irrigated with carbide wear pins
	55-degree shear wave wedge for the PA2 probe, irrigated with carbide wear pins
W4 Series Wedge for the PA4 Probe	0 degree wedge for the PA4 probe, irrigated with carbide wear pins
	55-degree shear wave wedge for the PA4 probe, irrigated with carbide wear pins
W32 Series Wedge for the PA32 Probe	0 degree wedge for the PA32 probe, irrigated with carbide wear pins
	55-degree shear wave wedge for the PA32 probe, irrigated with carbide wear pins
W00 Series Phased Array Wedge for the PA00 Probe	60-degree shear wave wedge for the PA5 probe, flat
	60-degree shear wave wedge for the PA5 probe, Axial OD0.84" contour



# TRAINING

AUT Solutions Facility		
Schedule	Full courses 4 days	2000\$ per person 3720\$ / 2 trainees 5400\$ / 3 trainees 7000\$ / 4 trainees
Unscheduled	Full courses 4 days	2000\$ per person 3720\$ / 2 trainees 5400\$ / 3 trainees 7000\$ / 4 trainees
Unscheduled	2 days	2750\$ per person 4675\$ / 2 trainees 6785\$ / 3 trainees 7800\$ / 4 trainees
Client Facility		
Schedule	Full courses 4 days	2000\$ per person 3720\$ / 2 trainees 5400\$ / 3 trainees 7000\$ / 4 trainees
Unscheduled	Full courses 4 days	2750\$ per person 4675\$ / 2 trainees 6785\$ / 3 trainees 7800\$ / 4 trainees



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[https://www.youtube.com/channel/UCam4kj95BZgM6hct9s\\_r-g](https://www.youtube.com/channel/UCam4kj95BZgM6hct9s_r-g)

# The Leader in Advanced



*The LEADER in ADVANCED Solutions*

*[www.ausolutions.net](http://www.ausolutions.net)*