

**SERVO
ROBOT**
THINKING HI-TECH

Wiki-SCAN™

WELDING INSPECTION SYSTEM

**A REVOLUTION IN WELD
QUALITY MANAGEMENT**



VIDEO
CAMERA

LASER LINE
SCANNER

servorobot.com

I N S P E C T I O N



WHAT DOES **Wiki-SCAN™** DO?

1

Promotes green manufacturing by reducing over-welding

2

All-in-one "point-and-shoot" wireless device

3

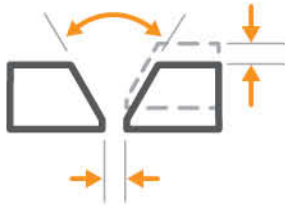
Non-contact, portable and compact

4

Inspects per standard Welding Codes

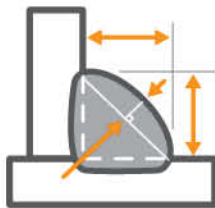
• **PRE-WELD SCAN:**

Wiki-SCAN™ measures joint preparation and fit-up, providing information before welding occurs. Why start welding if the joint is not within tolerance?



• **POST-WELD SCAN:**

Wiki-SCAN™ measures the weld bead and compares to set tolerance limits.



• **PERMANENT RECORD:**

Wiki-SCAN™ provides an electronic record of all results (Images, comments, measurement data, 3D scans).



JOINT INSPECTION

Joint type	T-Joint	Butt Joint (Square, V and Bevel Groove)
Features		
Beta Angle	30° to 140°	140° to 200°
Root Opening	0 to 0.250"	0 to 0.375"
Mismatch/Hi-Lo	N.A.	0 to 0.250"
Groove Angle	N.A.	30° to 90°
Bevel Angle (l,r)	N.A.	15° to 45°

Detection limit: 0.020" for all features, except for Root Opening - 0.040". N.A. - Not Applicable

WELD INSPECTION

Weld type	Fillet weld	Groove weld
Features		
Leg and Size (l,r)	0.080" to 2.000"	N.A.
Theoretical Throat	0.080" to 1.500"	N.A.
Underfill	0 to 0.750"	0 to 0.750"
Reinforcement	N.A.	0 to 0.750"
Undercut (l,r)	0 to 0.125"	0 to 0.125"
Toe Angle (l,r)	90° to 160°	90° to 180°
Mismatch/Hi-Lo	N.A.	0 to 0.250"
Beta Angle	30° to 140°	140° to 200°
Face Width	N.A.	0.080" to 2.250"
Porosity, Cracks and Spatter	0.020" to 0.200"	0.020" to 0.200"

Detection limit: 0.020" for all features. N.A. - Not Applicable

RECORDING FORMATS

Recording Features	Format
Images	5 MP (2600 x 2000 pixels)
Voice Comment	WAV files
Written Comment	document file
Measurement Data	spreadsheet file

Wiki-SCAN™

- Customer specifications
- Industrial standards
- Procedure Qualification Records
- Welding Procedure Specifications



- Quality assessment
- Go/NoGo status
- SPC data
- Welder skill assessment
- Permanent record

FEATURES

- Very user-friendly thanks to its integrated video and alignment functions: point, shoot and measure.
- Compares the measurements against set tolerance limits.
- Takes picture of the joint and/or weld for documentation.
- Zoom allows observation and measure of porosity, cracks and spatter.
- Stores up to 16GB of inspection results, which is equal to about 5000 inspections.
- Attaches voice and written comments to the inspection record.
- Illuminates the weld area for easier weld observation.
- Exports results to spreadsheet for additional analysis like SPC.

BENEFITS

- Any weld inspector will be proficient with the **Wiki-SCAN™** within minutes.
- Real-time viewing for rapid evaluation of a joint or a weld.
- The weld inspection record can be sent through Wi-Fi to anywhere in the world.
- Fatigue critical features such as toe angle, undercut, and cracks can be quickly measured.
- Over-welding can be quantified so excessive welding time, consumable and energy usage can be reduced thus saving money.
- Can inspect any weld the operator's hand can reach.

THE ROLLER ENCODER OPTION

- The **Wiki-SCAN™** encoder allows the system to precisely measure the distance traveled by the sensor over the inspected feature and to compute the length and location of the defects. This sturdy assembly includes a high-precision industrial rotary encoder giving a 0.1" resolution at a displacement speed of 4"/second.



Spiral pipe inspection

Wiki-SCAN™ improves the reliability and speed of field inspections.



**CONSTRUCTION-
BRIDGE & BUILDING**



SHIPBUILDING



AUTOMOTIVE



**EARTH MOVING
EQUIPMENT**



DEFENSE



POWER GENERATION



PIPE & TUBE



TANK & VESSEL

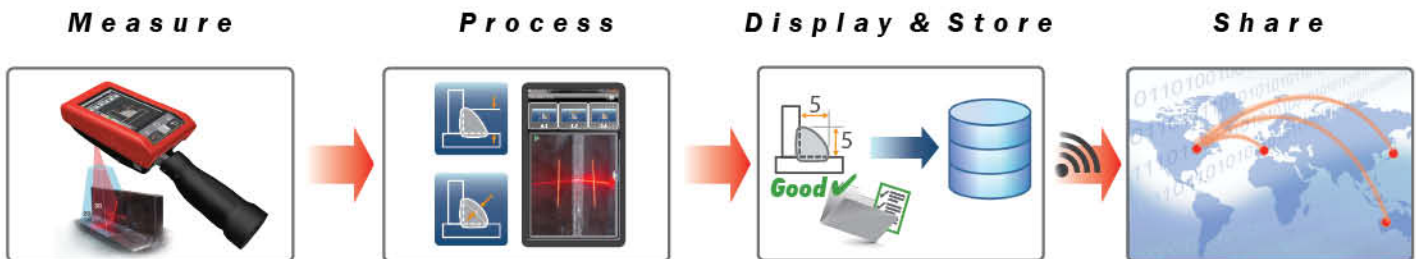
Wiki-SCAN[®] SPECIFICATIONS	
Dimensions L x W x H:	13.3" x 3.7" x 3.3" 13.7" x 3.7" x 7.8" (with Encoder option)
Weight:	2.2 lbs
Li-ion battery life:	2 - 4 hours depending on use (21Wh)
Operating temperature range:	40 - 105 °F
Connectivity:	USB 2.0 / Wi-Fi™ (802.11 b/g)

PORTABLE SYSTEM FOR WELD INSPECTION

Wiki-SCAN[®] eliminates the time-consuming and repetitive task of manually measuring welds and joint preparations in the field with conventional mechanical gauges. Thanks to SERVO-ROBOT's "point-and-shoot" technology, **Wiki-SCAN[®]** is easy to use and provides repeatable and accurate results.



User-friendly touchscreen interface



PLEASE CONTACT US AND SIMPLIFY YOUR WELDING TASKS WITH **Wiki-SCAN[®]!**



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