

Ultrasonic Inspection Systems for Bars and Billets

PRODUCT DESCRIPTION

ScanMaster offers a variety of immersion scanners for inspection of round and square bars and billets, as well as tubes and shafts intended for use in aerospace, steel and other industries.

These systems can support a wide range of part dimensions, accommodating bar diameters of 8 mm – 1,000 mm (5/16" – 40") and different bar lengths, according to customer requirements.

Both conventional and Phased Array UT methods can be incorporated in these scanners.

Customized designs ensure system compliance with specific geometrical parameters and ultrasonic inspection standards such as AMS-STD-2154, AMS 2628, ASTM E-588, SEP 1927, P3TF31, DMC 0022, SIM-16 and others.



Supported Scanner Configurations

ScanMaster systems support a number of scanner configurations.

The implemented configuration is based on the geometry and size of products to be inspected as well as on applicable standards and specifications of customer requirements.

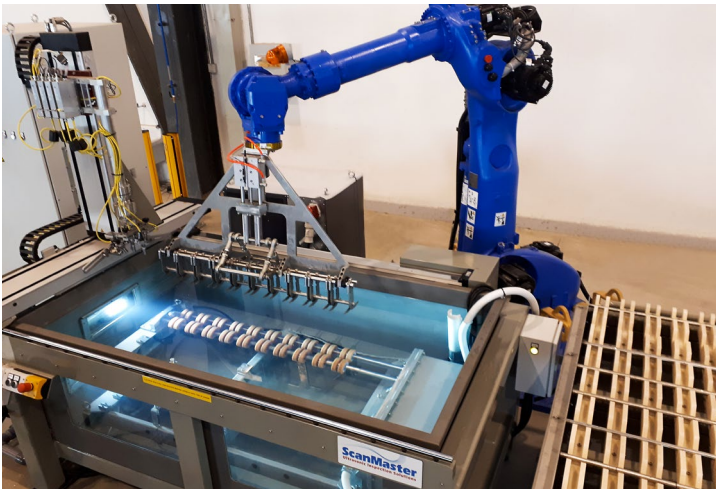
Some supported configurations include:

- Search tube with gimbal/gimbal probe manipulator supporting quick exchange between conventional and Phased Array transducers
- Multi transducer heads with surface following mechanism for:
 - a. Multi Zone inspection with either single element or Fermat probes
 - b. Combined composite scan using multiple transducers to enhance productivity
 - c. Probe adjustment allowing combinations of shear scan in circumferential and axial mode
- Dedicated rotator for calibration bars

Other configurations that support devices such as bar indexers, drop-in platforms for flat parts and more can be provided.

Add-on jigs for accommodation of rectangular and square bars of various dimensions are also available





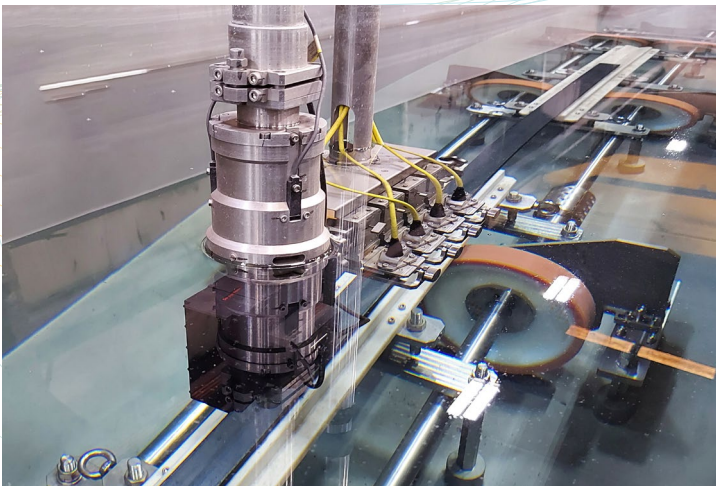
Automated loading/unloading



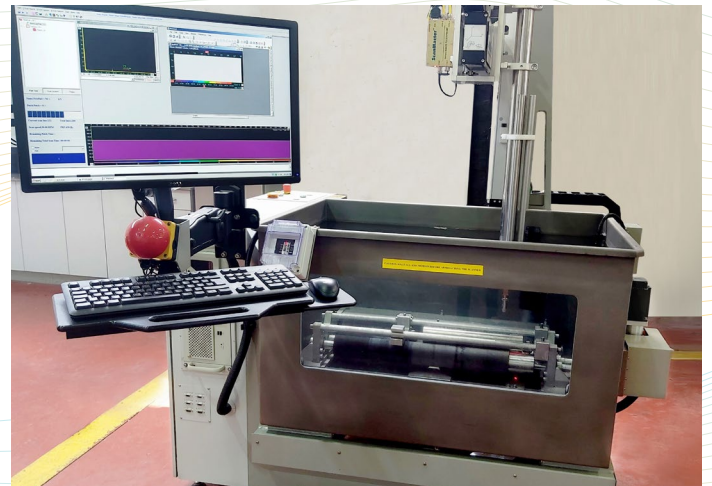
Multi-Zone inspection system

Features and Benefits

- Rugged immersion tanks with high-precision mechanics and integrated water circulation system
- Advanced bar-rotator devices with adjustable end stoppers and optical sensor for determining zero- position of the part
- Customized multi-transducer holder for simultaneous longitudinal and shear wave inspection
- Multi-channel programmable ultrasonic instrument with exceptional performance
- Pulser-preamplifier units installed near the probes to ensure high sensitivity, best near-surface resolution and minimization of ambient (RFI/EMI) noise interference
- Helical scan mode for inspection of round bars and billets for significantly increased inspection throughput
- A, B and C-scan views with a rich library of tools for analysis and evaluation of scan results
- Stop-on-Defect and Fast-Return-to-Defect for efficient evaluation and decision making
- Comprehensive inspection report featuring standard and customized versions in accordance with applicable aerospace and steel standards
- Automation of major functions for increased efficiency and fewer operator errors



Inspection of round corner square (RCS) bars



Inspection of small bars

CORPORATE OFFICES

ScanMaster Systems (IRT) Ltd.

5b Atir Yeda St., Industrial Park. Kfar Saba, 4464305, Israel
 Tel: + 972 9 7791990
 Fax: + 972 9 7791989
 E-mail: info@scanmaster-irt.com
 Web site: www.scanmaster-irt.com

ScanMaster (IRT), Inc.

1200 Woodruff Road, Unit H-17, Greenville, SC 29607, USA
 Tel: + 1 864 288 9813
 Fax: + 1 864 288 9799
 E-mail: info@scanmaster-irt.com
 Web site: www.scanmaster-irt.com