Industrial Ultrasonic Scanning System

**DS - 200i Series**

The new generation of DS-200i scanners provide a cost-effective C-scan inspection solution with a superior design. These fully integrated systems include ultrasonic electronics, scanning mechanics, axes motion control, data acquisition and processing software.

**Typical applications for the DS-200i include:**

- Large discs and spools of aero-engines
- Rings of large bearing such as wind turbine pitch bearings
- Flat or complex non-rotational parts

**Basic features of the system include:**

- Multi-channel USC-100c programmable ultrasonic instrument with excellent near surface resolution, approved by all major manufacturers for C-scan inspection of forged jet engine discs and other applications
- Powerful teach-in and scanning software enabling inspection of complex 3D parts
- Off-line part programming through part model import from CAD files
- B- and C-scan data processing tool kit, with a rich library of tools for analysis and evaluation of scan results
- Integration of phased array capability (optional feature)
The DS-200i is available in two standard sizes:

<table>
<thead>
<tr>
<th>DS-200 Series</th>
<th>Motion Envelope</th>
<th>Max. Part Diameter mm (inch)</th>
<th>Turntable Capacity kg (lbs)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Linear Axes</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>X mm (inch)</td>
<td>Y mm (inch)</td>
<td>Z mm (inch)</td>
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<tr>
<td>DS-200i - 1800</td>
<td>2000 (78)</td>
<td>1500 (59)</td>
<td>1,300 (51)</td>
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<tr>
<td>DS-200i - 2000</td>
<td>2000 (78)</td>
<td>1800 (70)</td>
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</tbody>
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Alternate dimensions can be provided upon request.

As with all ScanMaster scanners, the tank is separate from the gantry, which encompasses the tank from two sides and the rear only. The X axis is driven along the bridge beam, which is positioned over the Y axis motion on both sides of the tank. This configuration ensures a clear view of the tank and provides the operator and part loader with easy and safe access to the front of the tank.

All linear axes are made up of high precision modules with sliding covers to prevent accumulation of dust and other particles. The system utilizes ScanMaster’s standard dual-gimbal probe manipulator with it’s SafeGuard anti-collision fuse.

High-speed action jacks enable the Lifting platform to reach speeds of up to 25 mm/sec.

The following optional features can be delivered with the turntable:

- Motorized chucks
- Anti-slippage covers

The DS-200i can be installed in either of the following foundation configurations:

- Tank on floor – In this configuration the customer provides a platform (with a stair case) for the operator workstation. This option is less expensive, but may have an impact on convenience of system operation.

- Tank in pit (gantry remains floor mounted) – This configuration requires a pit to be constructed in the factory ground, but provides more convenience and a safer environment for system operation and part loading/unloading.