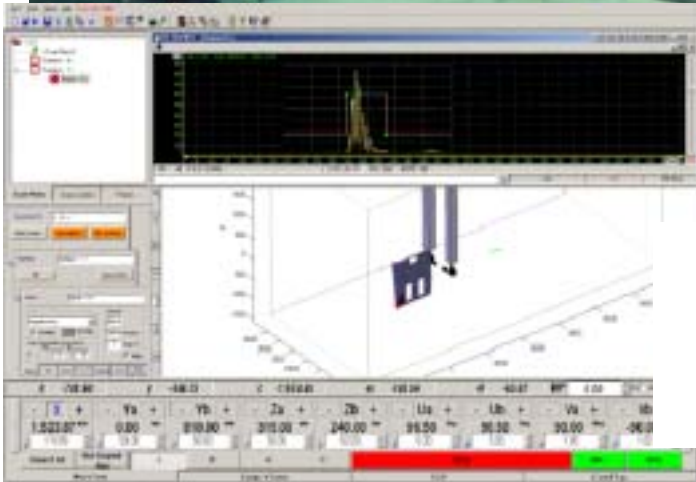


ScanMaster

Industrial Ultrasonic Scanning Systems

DS-200s SERIES



*Large-scale, single and multi-channel
squitter systems for high production
throughput*

PRODUCT DESCRIPTION

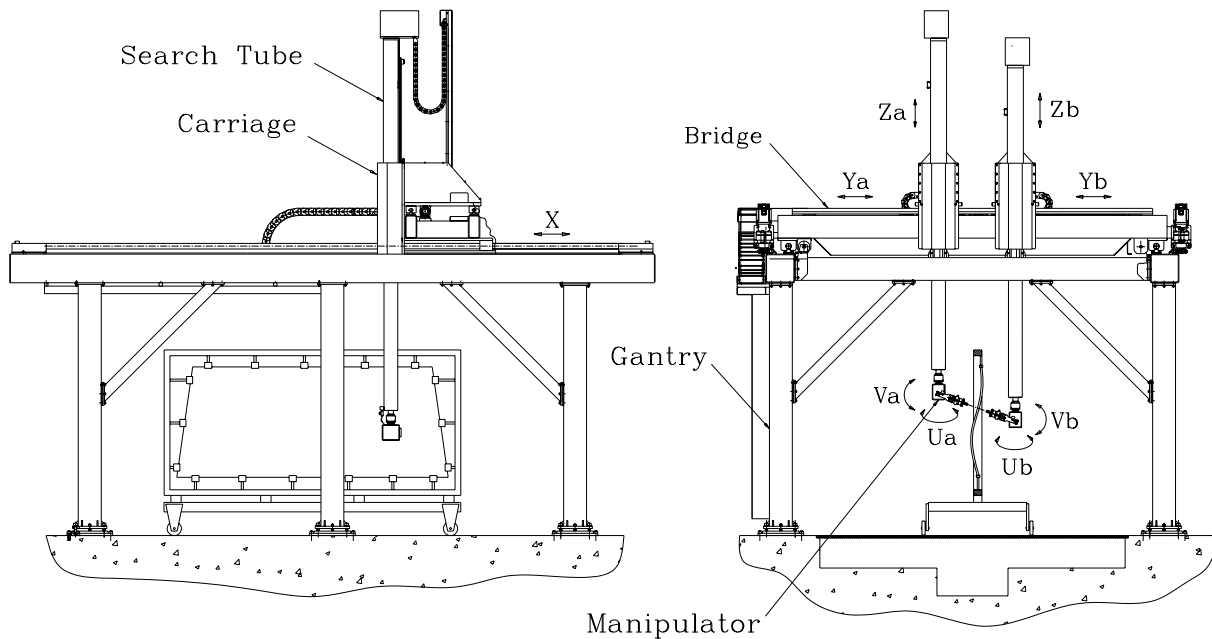
Introducing the DS-200s Series	The DS-200s Series of multi-axis ultrasonic squirter systems were developed and designed for reliable and efficient inspection of parts with complex geometry.
Scanning robot	Rugged gantry-mounted bridge with dual search tubes provide high-speed inspection within tight tolerance limits for accuracy, repeatability and resolution.
Inspection technique	Water squirter inspection in operator-selected pulse-echo (P-E) or thru-transmission (T-T) modes. Optional simultaneous P-E and T-T scanning.
Manipulators	RESOLVE Series high-resolution gimbal-swivel (U,V-axis) manipulator for water squirters, including sealed, direct-drive DC servo motors with low-backlash drive train.
Squirters	Selection of water squirters with wide range of nozzle diameters and water paths.
Multi-channel inspection	Two to four squirters for composite C-scanning of panels held vertically, considerably increases the inspection production rate.
Transducers	0.5-25MHz immersion-type transducers with standard UHF connector.
Ultrasonic hardware	One to eight-channel usc-100 rack-mount ultrasonic instrument with RPP3 square wave pulser preamplifiers. Optional LAM4 logarithmic amplifiers with 75dB of usable dynamic range.
Main operator control console	Desktop mounted 19" TFT monitor, keyboard and mouse pointing device.
Motion control	Servo motion control for all axes, with encoder feedback, RF noise suppression circuitry and ScanMaster motion control software. Hardware housed in environment-protected cabinet.
ScanMaster control panel	Complete system control from the ScanMaster screen-based 'virtual' control panel.
Part programming	ScanMaster Teach-in Programmer for set-up and execution of multi-segment scans. All ultrasonic and scan parameters can be individually set for each scan segment. Geometry can be imported from CAD such as CATIA.
Imaging software	ScanMaster B and C-scan Imaging Software, with up to 132K peak amplitude and TOF measurements/sec and ' SMART ' threshold-based A-scan signal capture to 80Mbytes/sec.
Data analysis and processing	ScanMaster C-scan Data Processing and Analysis Tool Kit. Includes a library of tools for image processing, image projection and measurement of flaw size, depth and signal strength. Automatic advanced flaw evaluation including <i>Search & Identify</i> and <i>Statistics</i> .
Inspection documentation	Standard documentation tools include: Inspection report; operator annotations; storage and screen dump of any A-scan display; image capture and storage.
Mobile operator station	Optional mobile station including large TFT display and mouse. Optional remote pendant for independent control of system motion axes.
System access control	Five levels of programmable authorized access.
Scanning accessories	Optional Head-and-tail stock for inspection of thin-walled metallic and composite tubes, turntable for inspection of axis symmetrical rotational parts, fixtures for part mounting.
Remote data processing	Optional remote data processing and analysis station connected by LAN to the control console. Network link to a factory host for data processing and archiving.

DS-200s SERIES

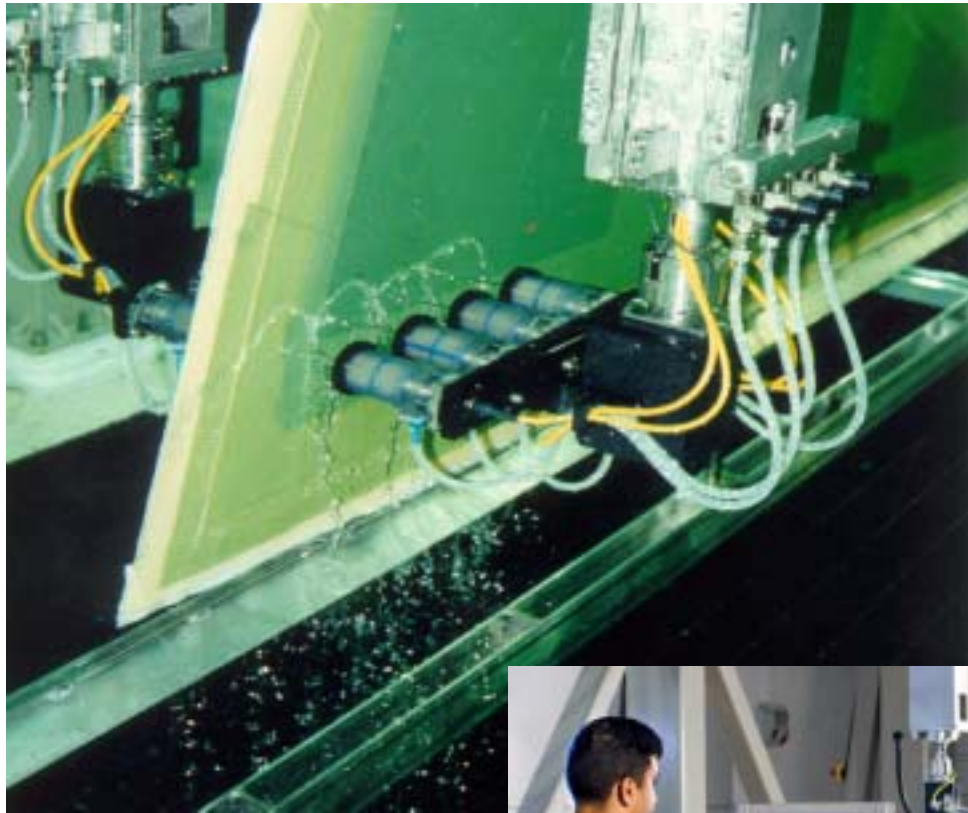
STANDARD PERFORMANCE

Axis	Motion Envelope	Speed Range	Resolution	Repeatability	Accuracy	Backlash	Min. Motion
	± deg	deg/sec	deg	± deg	± deg/45deg	± deg	deg
Ua	190	0.1-20	0.01	≤0.02	0.03	≤0.02	0.02
Ub	190	0.1-20	0.01	≤0.02	0.03	≤0.02	0.02
Va	120	0.1-20	0.01	≤0.02	0.03	≤0.02	0.02
Vb	120	0.1-20	0.01	≤0.02	0.03	≤0.02	0.02
	mm (in)	mm/sec (in/sec)	mm (in)	± mm (in)	± mm/2000mm (in/80in)	± mm (in)	mm (in)
X	From 2500 (100)	0.1-500 (0.04-20) ¹	0.025 (0.001)	≤0.05 (0.002)	0.15 (0.006)	≤0.05 (0.002)	0.05 (0.002)
Ya	1500 – 5000 (60-200)	0.1-500 (0.04-20)	0.025 (0.001)	≤0.05 (0.002)	0.15 (0.006)	≤0.05 (0.002)	0.05 (0.002)
Yb	1500 – 5000 (60-200)	0.1-500 (0.04-20)	0.025 (0.001)	≤0.05 (0.002)	0.15 (0.006)	≤0.05 (0.002)	0.05 (0.002)
Za	1000 – 2800 (40-110)	0.1-150 (0.04-6)	0.025 (0.001)	≤0.05 (0.002)	0.15 (0.006)	≤0.05 (0.002)	0.05 (0.002)
Zb	1000 – 2800 (40-110)	0.1-150 (0.04-6)	0.025 (0.001)	≤0.05 (0.002)	0.15 (0.006)	≤0.05 (0.002)	0.05 (0.002)

¹Optional 750 mm/sec (30 in/sec)



DS - 200s SERIES



Four squirters battery



DS-200s desktop operator station

* Specifications are subject to change without notice.

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