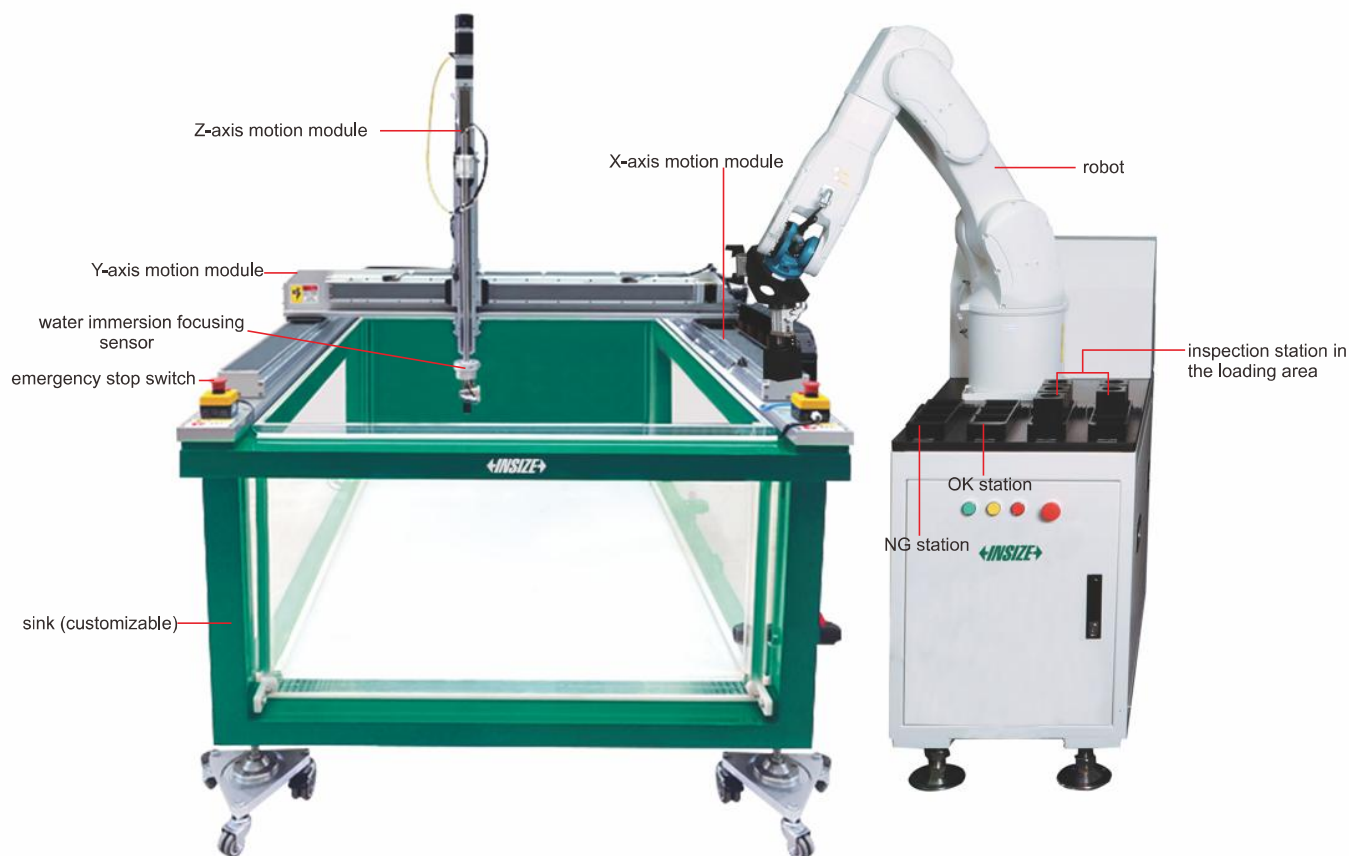


AUTOMATIC IMMERSION ULTRASONIC TESTING SYSTEM CODE RBT-UFD01

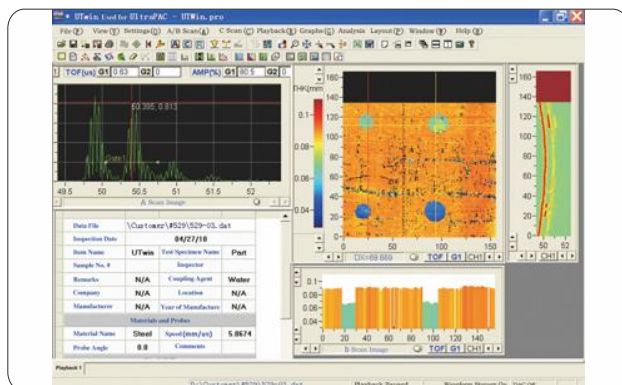
CUSTOMIZED ACCORDING TO
WORKPIECES



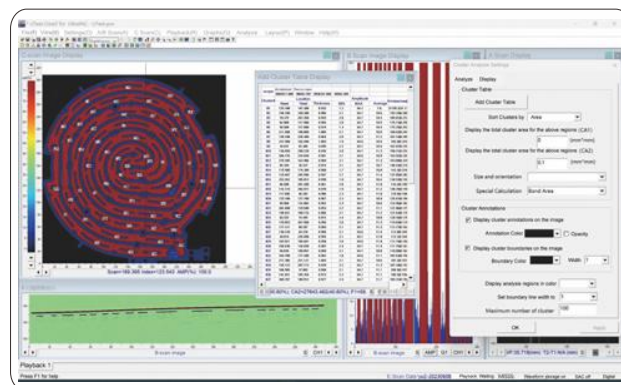
OPERATION PROCESS

- Step 1: Place the workpiece manually on the positioning block in the loading area and position it on the right side against the edge.
- Step 2: Press the reset button to return the robot and cylinder to the initial position.
- Step 3: Press the start button, the system prompts whether the workpiece is correctly placed and click OK.
- Step 4: The robot grips the workpiece and places it in the transplanting station.
- Step 5: Perform a scan inspection of the workpiece and automatically generate a measurement report.
- Step 6: The transplanting station moves to the outer handling station and the robot removes the workpiece.
- Step 7: The robot places the workpiece in the OK or NG station according to the test results.

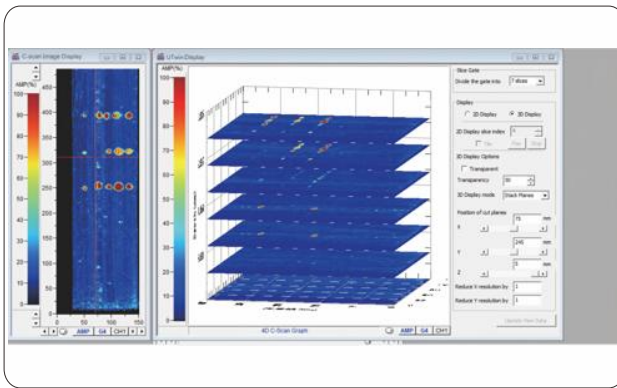
- 6-axis industrial robot for high speed and precision, IP67, triple protection
- Automated loading and unloading via robotic arms, automatic ultrasonic inspection, and real-time feedback of inspection results to the control system
- Control system Tcp/IP via bus communication, high speed, high efficiency and easy to extend



A, B, C, scanning integrated image interface



defect automatic measurement function interface



ultrasonic tomography (CT) interface



UT reporting interface

FUNCTIONS

Scanning mode	real-time A,B,C scanning and image display
Defect localization	automatic tracking and localization of defects
Analysis of defects	quantitative analysis of material defects-Cluster function
Intelligent threshold	automatically generate each corresponding image as well as difference and ratio images between gates
Automated statistics	function to automatically find the maximum and minimum points
Full waveform storage	full-wave RF record analysis and C-scan result reconstruction function

SPECIFICATION

Robot	robot arm spreading	720mm
	Max working speed	4000mm/s
	Max weight of workpiece	8kg
	repeat positioning accuracy	±0.02mm
	number of control axis	6
	communication protocols	Ethernet Tcp/IP
	net weight	100kg
Ultrasonic testing	working gate	4 (different gate delays, width control, transient thresholds and detection thresholds)
	working frequency	0.1~32MHz
	material velocity	20~99999m/s
	repetition frequency	1~14000Hz (non-time-shared sampling)
	sampling frequency	Max 250M
	gain	110dB, step 0.1dB
	detection accuracy	meet the AAA level detection accuracy in the standard (e.g. detection sensitivity Ø0.4mm-15dB in 20# mold steel)
	vertical linearity error	≤±2% (within 5~95%)
	horizontal linearity error	≤±1% (within the range of 0~90%)
	ultrasonic pulse wave modes	sharp wave, square wave, linear fm pulse, group pulse group pulse
	trigger mode	software control, external input, signal threshold
	threshold control	program can control 1~100% full screen
	A/D converter	14 bits
	valid itinerary	1200×900×500mm
	operation environment	temperature: -10~45°C, relative humidity: ≤85%
	power supply	220V, 50Hz
	dimension	1480×1190×1720mm (customizable)

SPECIFICATION OF PROBE

Code	Frenquency	Focal Length
UFD-CW63 (optional)	15MHz	4"
UFD-CW64 (optional)	20MHz	2"
UFD-CW65 (optional)	25MHz	1.25"

Note: Other probes can be customized according to customer requirements

STANDARD DELIVERY

Robotic system	robot body
	robot control cabinet
	programming guide
main unit	1 pc
27"monitor	1 pc
Industrial computer	1 pc
Water filtration system	1 pc
Data storage USB flash drive	1 pc
Control box	1 pc