

AUTOMATIC ROCKWELL HARDNESS TEST SYSTEM CODE RBT-ST01

CUSTOMIZED ACCORDING TO THE
CUSTOMER'S WORKPIECE



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 grabs the workpiece and places it in the transplanting station
- Step 5: The transplanting station moves to the ST position
- Step 6: The ST starts the test and outputs the results
- Step 7: The transplanting station moves to the outer handling station and the robot removes the workpiece
- Step 8: 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
- Rockwell hardness test system automatically tests the hardness of the workpiece and provides real-time feedback to the control system
- Control system Modbus Tcp via bus communication, high speed, high efficiency and easy to extend

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 Modbus Tcp
Rockwell hardness tester*	test range	20~95HRA, 10~100HRB, 10~70HRC, 40~77HRD, 60~100HRF, 30~94HRG
	hardness scale (with indenter included)	HRA, HRB, HRC, HRD, HRF, HRG
	hardness scale (with optional indenter)	HRE, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV
	preliminary test force	Rockwell: 98N (10kgf)
	total test force	588N (60kgf), 980N (100kgf), 1471N (150kgf)
	stage lifting	automatic up, down and return
	load control	automatic (initial test force, main test force loading/holding/unloading)
	X-Y stage size	350×250mm
	X-Y stage travel range	140×90mm
	resolution	0.1HR
	load dwell time	2~60 seconds
	max. workpiece height	130mm
	max. testing width	170mm
	dimension (L×W×H)	475×200×700mm
Power supply		220V, 50Hz, 3000W
Net weight		300kg

*Rockwell hardness tester supports selection of different models according to workpieces

STANDARD DELIVERY

Robotic system	robot body	1 pc
	robot control cabinet	1 pc
	programming guide	1 pc
Rockwell hardness tester	main unit	1 pc
	diamond indenter	1 pc
	Ø1.5875mm carbide ball indenter	1 pc
	X-Y automatic stage	1 pc
	Ø150mm flat anvil	1 pc
	Ø58mm flat anvil	1 pc
	V-type anvil	1 pc
	hardness test block HRC20~30	1 pc
	hardness test block HRC40~50	1 pc
	hardness test block HRC60~70	1 pc
	hardness test block HRBW80~100	1 pc
	hardness test block HRA80~90	1 pc
	software	1 pc
	printer	1 pc
	anti-dust cover	1 pc
Control touch screen		1 pc
Control box		1 pc