



TW Automation, LC
1721 SE 9th Street
Newton, KS 67114
316.283.7626

USED FANUC 100iB ROBOTIC WELD CELL WITH DUAL 1-AXIS TURNTABLES AND SAFETY SYSTEM

Summary Information

Original Install Date: May 2004
Total Operating Hours: 10,000
Mechanical Condition: Excellent

Robot Hardware

<u>Qty</u>	<u>Item</u>	<u>Description</u>
1	FANUC ARC Mate 100iB	6-axis robot Direct motion absolute encoder drive 6kg (13.7 lb) payload V6.20-1 operating software with six axis brake Reach = 1.373mm (54") from centerline of axis "I" to centerline of axis "S".
1	12-Inch Robot Base Riser	
1	R-J3 Controller	Detached controller cabinet 7 meter non track-rated cables
	Main CPU Board	16 MB DRAM memory 16 MB FROM memory 2 MB SRAM Memory
	Upload/Download 64MB card	Allows off-line storage of robot controller backup image; used for restoration of software options, programs and all information stored in the robot's system memory at the time of the backup.
1	Teach Pendant	10 meter control cable 6.4" backlit 640 X 480 LCD display with 256 colors Multi-window display and fly-out menu bars Cause/Remedy information via diagnostic button Right-hand / left-hand interchangeable strap
1	Touch Screen Operator's Control Station	6" Color Touch Screen with 512 KB memory (expandable to 1 MB); built-in clock and calendar. Functions include Emergency Stop, Hold, and Cycle Start. Screen password protection. Includes 7.6m (25-ft.) cable.

Welding Hardware

<u>Qty</u>	<u>Item</u>	<u>Description</u>
1	FANUC ServoTorch	14 meter High-Flex cables Binzel water-cooled neck
1	Lincoln Power Wave 455M/STT welding unit	450 Amp output @ 100% duty cycle "Surface Tension Transfer" (SST) welding technology Two welding output studs ✓ STT stud output is limited to 325 amps ARCLINK communication from robot controller to directly control the wire drive unit and machine output
1	Lincoln Power Feed 10R Digital Wire Drive	IPM wire0 feed range ✓ Two speed ranges available on the same unit 25' wire drive control 25' 4/0 welding cable with lugs on both ends
1	Lincoln Cool-Arc 40 Water Cooler	Pro-Con® internal water pump designed for continuous operation; delivers steady flow and pressure. "Muffin-style" tube axial fan provides efficient cooling, low noise, and smooth operation to minimize vibration in the welding torch. Uses plain water; no special coolant required.
1	1524-1 Wire stand with conduit bracket	Universal wire reel stand for small reels with adapter bracket and hardware to accept the brass fitting on the end of the K515-x wire conduit.
1	Arc Safety Shield	

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Software

<u>Qty</u>	<u>Item</u>	<u>Description</u>
1	Torch Guard Package, with TorchMate III	<p><u>TorchMate</u> Allows automatic adjustment of robot tool center point (TCP) for MIG processes; 10-20 seconds cycle redefines the TCP to help maintain wire alignment in the weld joint as programmed.</p> <p>Automatically compensates for bent torch barrels and worn contact tips to reduce weld defects and increase system productivity.</p> <p>NOTE: TorchMate does not track the weld joint.</p> <p><u>Collision Guard</u> Allows the robot user to establish functional limits within the robot arm that will cause the robot to fault if it senses a collision in any of its axes.</p> <p><u>Payload Identification</u> Uses an automatic routine to determine the mass and center of gravity of the robot's end effector (torch package). With this information, the robot modifies system variables accordingly for acceleration and deceleration, optimizing air move speeds.</p>
1	Macro Programming Functionality	Allows one-time coding of common functions that can be used many times. Simplifies and accelerates creation of jobs for different parts that have similar design.
4	Utility Software / Routines	Multi-Tasking Utility Weave Instructions Program Shift Utility Mirror Image Utility

Safety

<u>Qty</u>	<u>Item</u>	<u>Description</u>
1	Cell Safe Guarding Package	Includes fail-safe hard barriers, zone ring and redundant electrical door and table safety interlocks.
1	ANSI/RIA 15.06-1999 Compliant Mechanical Unit and Robot Controller	

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Technical Services

<u>Qty</u>	<u>Item</u>	<u>Description</u>
1	Documentation Package	Operation manual (will be used in training session) Electrical schematics Panel layout (enclosure interior) Operator console/station control push-button layouts Pneumatic schematics Cell layout drawing Remote device locations Positioner drawings (subject to actual configuration) Operation/maintenance manuals for all purchased components, including robot, welding equipment, etc. Sequence of operation procedures and sample program job. System operation and maintenance schedules
1	Training	4 days (32 hours) training using this robot. Up to 4 company associates / operators. Provided at TW Automation's classroom and shop facility.
1	Installation and Startup Support	One day (8 hours) of on-site technical assistance during start up and check out

Turntable Positioners

<u>Qty</u>	<u>Item</u>	<u>Description</u>
2	Model RFT-25E Robotic Electric Floor Turntable	Single (1) axis floor-mounted 180 degree oscillatory turntable Capacity: 2,500 pounds balanced load or 200 pounds at 18" radius. Rotation: 180 degrees oscillatory motion. Powered by a 3/4 hp DC motor and regenerative drive. Adjustable deceleration and shock absorbers. Resolution is two positions maintained against hard stops. Index time is approximately three (3) seconds. Repeatability: Plus or minus .0003" per inch of radius. Controls: Programmable PLC ready to interface with robot and manual operator's station furnished. Power: 115 volts, single phase, 60 hertz Size: Tabletop is 3/4" thick x 60" diameter ground steel plate, 31" above floor.