

FANUC America Demonstrates Intelligent Fixtureless Welding at IMTS 2014

For Immediate Release

ROCHESTER HILLS, Mich., Sept. 8, 2014 – FANUC America Corporation demonstrates intelligent fixtureless live welding with its new ARC Mate 0iB robot working with the LR Mate 200iD/7L mini-robot robot during IMTS 2014, Sept. 8-13, at McCormick Place, Chicago, booth #S-8919.

At the show, a FANUC LR Mate 200iD/7L robot will pick an auger tooth from an in-process rack, present it to a fixed camera and use *iRVision*[®] to determine the part's orientation. The LR Mate 200iD/7L will place it in a re-grip station and grab the part correctly. During the pick process, the ARC Mate 0iB will run through a torch maintenance station.

The two robots will then perform dual-arm motion to simulate hard face welding. The robots will perform live welding approximately every three minutes. After live welding, The LR Mate 200iD/7L will perform post-process inspection to validate hard facing. If the inspection fails, the robot will apply additional weld material and inspect again. If the inspection passes, the LR Mate 200iD/7L will place the finished part into a bin below the pick rack. Non-welded parts will fail post-inspection and be run through a simulated welding program.

New ARC Mate 0iB Robot

Extremely lightweight and compact, the new ARC Mate 0iB robot is designed specifically for arc welding applications and can carry a standard welding torch and wire feeder on the arm. The new high-speed robot is ideal for a variety of applications and suited to smaller shops that typically weld manually. The high-value robot offers the speed and motion quality to produce high-quality welds and lower overall cycle time.

The new ARC Mate 0iB incorporates the latest FANUC servo technology for high-speed and accurate welds. "In terms of speed, it's the fastest robot in its classification," said Terry Tupper, materials joining, FANUC America. "We've combined high motion performance with world-renowned FANUC reliability in a very low cost solution."

ARC Mate 0iB Features and Benefits

- High-speed operation minimizes robot cycle times.
- Ideal solution for cost-effective welding.
- Provides the same reliability and repeatability as all FANUC ARC Mate series robots.
- Lightweight and compact robot designed to fit in tight spaces.
- All welding setup is done through the teach pendant.

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- ArcLink XT™, the industry's first Ethernet-based welding network.
- Lincoln Electric's R350 integrated welding power source.
- Handles various advanced welding waveforms such as thin metal spatter-less. welding or highly controlled pulse welding for optimized welds.
- Multiple mounting positions including floor, angle and wall. The J3 axis flips over itself for invert mounting.
- High-precision coordinated motion with the welding positioner.
- Easy maintenance.

FANUC LR Mate 200iD Robots

The family of LR Mate 200iD robots is a versatile solution for a wide range of manufacturing operations that require access into small spaces. A very slim arm about the same size as a human arm, and a bottom cable exit option minimize interference with peripheral devices. The LR Mate 200iD robots offer a "best in class" work envelope for both upright and invert mount installations. The LR Mate 200iD robots are also available with ISO Class 4 clean-room and food-grade variants for primary (unwrapped) food handling and healthcare packaging applications.

LR Mate 200iD Features and Benefits

- Slim arm and compact foot print minimizes interference to peripheral devices in narrow spaces.
- Four to seven kg wrist load capacity with six-axis articulation.
- Best in class work envelope simplifies system layout.
- Fastest joint axes speeds maximize system throughput.
- Integrated 24VDC power, signal and air for easy end-of-arm-tool connection.
- Integrated thru-arm cable option for iRVision, force sensing, Ethernet and auxiliary axes.
- Flexible mounting (upright, invert, angle).
- High rigidity and the most advanced servo technology enable smooth motion at high speeds.
- Easy integration into machines.
- Features lightest mechanical unit in its class.
- IP67 rating allows operation in factory environments with dust and oil mist.
- New LR Mate 200iD/4SC clean-room model is ISO Class 4 (Class 10) clean-room certified for electronics, pharmaceutical and food applications. It features a white FDA compliant coating, stainless steel wrist, and NSF-H1 grade grease on all joints. to provide reliable performance in demanding production environments, including rigorous sanitation procedures.

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FANUC iRVision

FANUC iRVision is a truly integrated, plug-and-go vision system that runs on the standard CPU of every FANUC R-30i/B controller without any additional hardware. A single source solution developed and supported by FANUC, iRVision offers easy setup and operation for factory environments requiring 2D and 3D guidance, error proofing, visual tracking, and quality control – all with FANUC’s world-renowned reliability.

Next Generation R-30i/B and R-30i/B Mate Controller

The FANUC R-30i/B and R-30i/B Mate Controller use high-performance hardware and the latest advances in network communications, integrated iRVision, and motion control functions. The R-30i/B Controllers feature FANUC’s exclusive and easy-to-use iPendant with 4D graphics. The iPendant displays process information and the actual process path directly on the iPendant screen, enabling easier setup and troubleshooting.

Based on the latest FANUC Series 30i/B CNC Controller, the R-30i/B and R-30i/B Mate Robot Controllers are compact, providing customers a significant space savings. The R-30i/B Mate Controller, available with a compact rack-style open-air controller cabinet, or an industrial grade standard Mate cabinet, is very energy efficient and requires less power consumption due to its availability in both single-phase and three-phase versions. The R-30i/B Controller offers an optional power regeneration feature.

About FANUC America Corporation

FANUC America Corporation is a subsidiary company of FANUC Corporation in Japan, and provides industry-leading CNC systems, robotics, and ROBOMACHINES. FANUC’s innovative technologies and proven expertise help manufacturers in the Americas maximize efficiency, reliability and profitability.

For more information about FANUC America Corporation, please call: 888-FANUC-US (888-326-8287) or visit our website: www.fanucamerica.com. Also, connect with us on [YouTube](#), [Twitter](#), [Facebook](#), [Google+](#) and [LinkedIn](#). FANUC America is headquartered at 3900 W. Hamlin Road, Rochester Hills, MI 48309, and has facilities in: Atlanta; Boston; Charlotte; Chicago; Cincinnati; Cleveland; Dallas; Indianapolis; Los Angeles; Minneapolis; Montreal; Pine Brook, NJ; San Francisco; Toronto; Buenos Aires, Argentina; Sao Paulo, Brazil; and Aguascalientes, Mexico City and Monterrey, Mexico.

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