

ROBO-RIVET

The Robo-Rivet automated blind fastening system is ideal for manufacturers seeking to increase part throughput, boost productivity and enhance operator safety while decreasing operational overhead. This compact, robot friendly joining solution provides an actively controlled and highly repeatable fastening process for improved joint quality. With many customizable features and options available, the Robo-Rivet is completely adaptable to meet the fastening requirements of your production line.

Applications

- Automotive Body in White assembly
- Fastening of lightweight structures
- Mixed materials joining
- Fixation for adhesive bonding
- Truck, tractor and trailer manufacturing
- Joining of parts with complex geometries



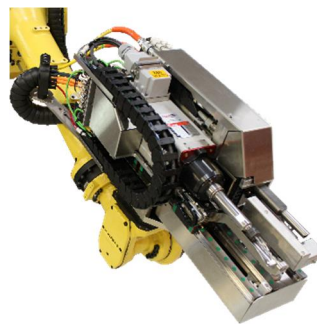
Features



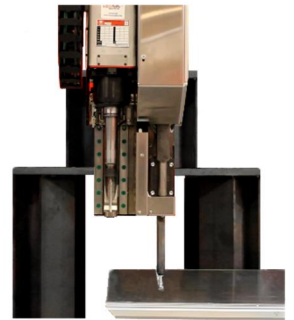
- Fully automated drill tool and/or rivet tool integrated into a compact assembly
- Servo control of drill axis and/or rivet axis with force feedback and fault detection
- Automatic fastener feed and pintail collection systems
- Presser foot with chip collection with drill option for extracting debris
- Vision hardware options for part inspection and/or guidance through the work cell controller
- Multiple Robo-Rivet tools can operate from a single Supply Cabinet
- End of Arm Tooling or stanchion/gantry configurable with process specific versions available

Benefits

- Enables fastening of dissimilar materials
- Matched drilling option ensures perfect hole alignment
- Labor and ergonomic savings
- Easy implementation on the manufacturing line
- Enhanced productivity and throughput
- Fastening process assurance with data acquisition
- Unmatched quality of finished joint



End of Arm Tooling

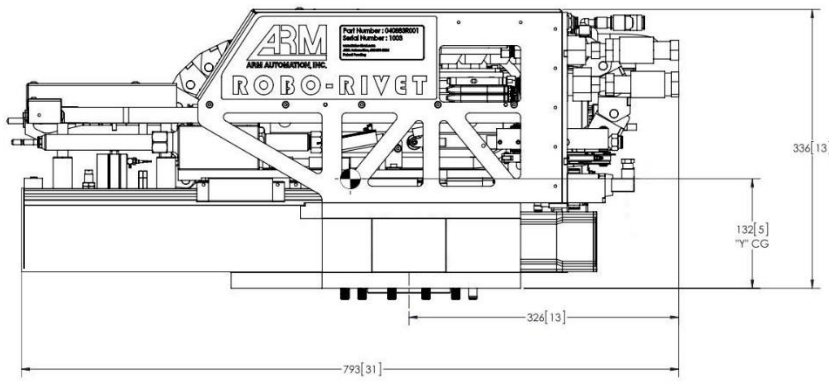


Stanchion/Gantry

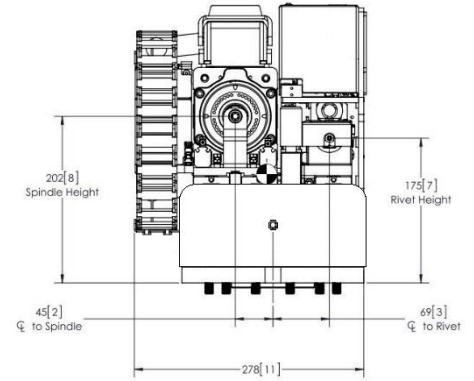
Robo-Rivet General Specifications

Fastener Type:	The Robo-Rivet system is adaptable for use with many blind fastener types and sizes
Drill Spindle Speed:	Up to 24,000 RPM
Drill/Rivet Cycle Time:	<5 seconds (varies by application)
Controls Interface:	Standalone controls with onboard HMI and communication interface
Factory Options:	Drill Tool with Chip Collection System, Vision System Hardware, Automated Drill Tool Change

Robo-Rivet Tool Dimensions



Side View (mm [in])



Front View (mm [in])

Robo-Rivet Supply Cabinet

The fully integrated Robo-Rivet Supply Cabinet includes a flexible fastener feed system and closed loop controls for the Robo-Rivet tool. Multiple tools can be powered from a single Supply Cabinet (factory option). The Robo-Rivet control system allows for operation in manual mode via the full-featured, onboard HMI or completely standalone and triggered through the communication interface. For ease of reference, all Robo-Rivet documentation can be accessed directly through the HMI, including user guides and maintenance manuals.

Commissioning of the Robo-Rivet system is straightforward by design. The Robo-Rivet tool is mounted to a robot or stanchion and connected to the Supply Cabinet via the umbilical connection system. After the work cell controller is connected to the Robo-Rivet communication interface and the fastener waypoints are programmed, the drill and/or rivet recipes are configured on the Supply Cabinet HMI and the Robo-Rivet is ready for operation.



ROBO-RIVET - Automating your blind fastening process...*quickly!*



The Robo-Rivet is manufactured in the USA



© 2014-2015 ARM Automation, Inc., Austin TX. All rights reserved. %Robo-Rivet+and all other ARM Automation, Inc. products and technology names are trademarks of ARM Automation, Inc. All other products or trademarks mentioned and/or shown herein are property of their respective owners. ARM Automation reserves the right to change products and specifications without prior notice. BRO-RR-0615