



Quick Start Guide

Collaborative Robot Vacuum Tool for Universal Robots



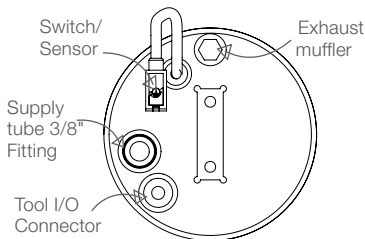
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1. What is included

- > (1) Collaborative Robot Vacuum Tool (CRVTU)
- > (4) Mounting Bolts
- > (1) Setpoint Adjustment Tool (Switch option)
- > (1) M6 Allen Wrench



2. What you will need

- > 3/8" Polyurethane Tubing
- > Tie Wraps
- > Regulated, Clean Dry Compressed Air Source

3. Mechanical properties

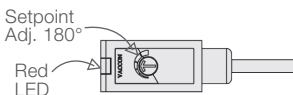
- > Tool weight: Approximately 2 lbs. [0.9kg]
- > Center of mass (tool only): Z=2.75" [69.9 mm]
- > Standard vacuum ports:
 - 1 - 1/4" NPT Female
 - 4 - 1/8" NPT Male

4. Installation

- > Mount the tool to the robot wrist using the 4 mounting bolts supplied
- > Ensure the I/O cable can reach the Tool I/O connector on the wrist
- > Connect the M8 connector to the Tool I/O connector on the Universal Robot
- > Connect the 3/8" polyurethane tube to the tool
- > Route and secure the tubing along the length of the robot ensuring enough slack to allow the robot to move freely
- > Connect tubing to a regulated air supply set to 60 or 80 PSI depending on tool

5. Setup

- > The Collaborative Robot Vacuum Tool uses the Universal Robot Tool I/O to control the tool. All configuration is done in the Universal Robot Graphical User Interface (GUI). Set the Universal Robot internal power supply to 24V in the I/O tab of the Universal Robot GUI
- > Vacuum On/Off - Tool Output I Digital 0
- > Part present
 - Vacuum switch - Tool Input I Digital 0
 - Vacuum sensor - Tool Input I Analog in[3]
- > Set Vacuum Switch: With the tool active and holding the product, use setpoint adjustment tool to adjust the sensing trimmer to set the "ON" vacuum level. Rotate clockwise to increase the vacuum setpoint; rotate counter-clockwise to decrease the setpoint. The red LED will light when switch is on.



- > Vacuum Sensor: Provides a 1-5V analog output to the I/O. Contact factory for assistance with configuring the robot to respond to this signal.

6. Support

- > www.bimba.com/vaccon
- > Email: vaccon-engineering@imi-precision.com
- > Phone: 508.359.7200