



ROBOTICS, Inc.

QualiTip™ Nozzle Assurance

PRODUCT DATA

IROBOTICS, Inc. QualiTip™ products provide automatic nozzle calibration, checking, and maintenance for worry-free dispensing part after part.

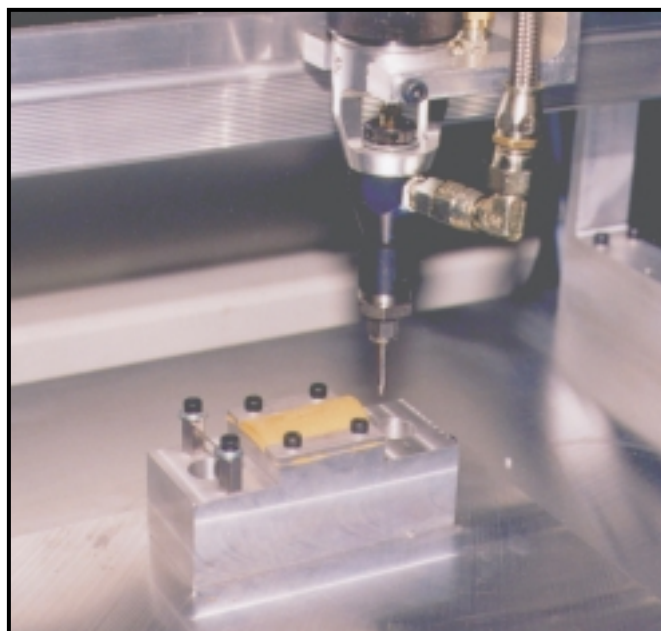
What is QualiTip™?

QualiTip™ products assure high-quality dispensing by eliminating material buildup on the nozzle, repeatably locating the nozzle, and compensating for nozzle variability. QualiTip™ product solutions include:

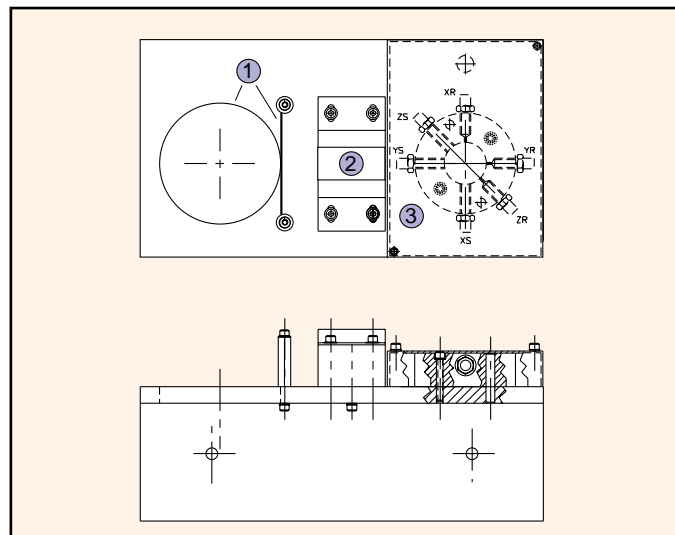
1. **Nozzle Tip Calibration** (x-y-z axes) to compensate for variation between nozzle changes, assuring repeatable dispensing time after time
2. **Tip Check** test for bent or damaged nozzles
3. **Tip Maintenance** to clean and prevent curing of material in and on the nozzle

Benefits

- Improve quality control and productivity
- Fewer rejects
- Eliminate operator time performing manual adjustments



Shown here is a typical Tip Maintenance setup. The nozzle tip moves across a wire to cut off any material stringer, then over a foam pad to wipe the tip clean, and finally to an oil bath (not shown) to prevent air-curing materials from clogging the nozzle while idle.



Tip Calibration mechanism. As the dispense nozzle moves from left to right: (1) the stringer, if any, is removed and falls into a cup, (2) the tip is cleaned with brushes or a foam pad, and (3) the nozzle is dropped into the calibration zone.

Key Features

➤ General

- QualiTip™ products can be integrated into most of our automated dispensing systems
- Customized to your dispensing system
- One or more products can be easily combined
- Calibration, check, and/or maintenance are initiated by either a preset robot idle period or a programmed number of dispense sequences.

➤ Tip Calibration

- Non-contact laser sensing
- Automatically adjusts bead path program
- Nozzle calibration of the x-y-z axes to 0.001 inch
- Compensates for bent or misaligned nozzle
- Compensation can be set to allow dispensing when nozzle is within specified tolerance; otherwise, signal to replace nozzle is given
- Calibration can be set for automatic or operator initiation

➤ Tip Check

- Verifies nozzle integrity
- Signals operator to replace nozzle, if necessary

➤ Tip Maintenance

- Software routine can include timed activation after specified idle period
- Removes material 'stringers'
- Wipes the nozzle clean
- Prevents material from curing in the nozzle

Systems & Support

Robotics, Inc. has decades of experience designing and building automated dispensing systems. We provide complete system solutions, including start-up and installation assistance, training, and field service support. Our knowledgeable staff is ready to work with you to ensure a quick turnaround and an appropriate system solution.

Information

For more information on our QualiTip™ products or other dispensing products and services, contact a Representative from our Technical Sales Department:



Headquarters

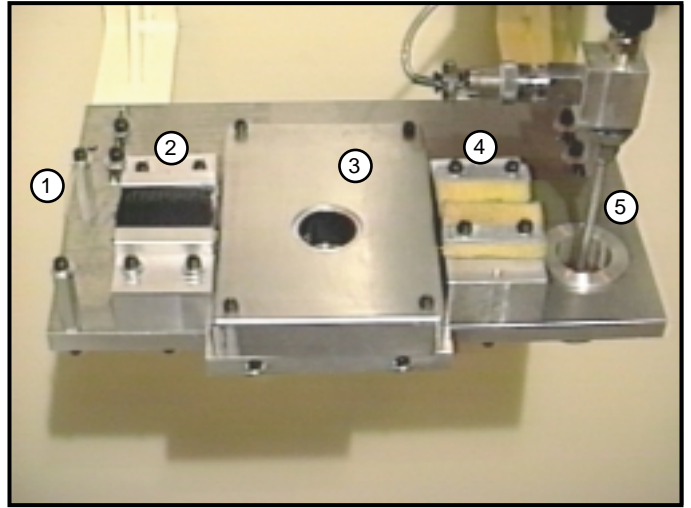
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Tip Calibration, Tip Maintenance, and Tip Check mechanisms.

1) stringer severing wire, 2) nozzle cleaning brushes, 3) x-y-z calibration zone, 4) foam pad to wipe oil from nozzle, and 5) oil bath.

A Tip Check can also be performed in the calibration hole to identify nozzles damaged or bent during operation.

Since 1971, Robotics Inc. has designed, built, and supported automated dispensing around the world!