

## Form-In-Place EMI/ RFI Shielded Gaskets (8000 Series)

MAJR Products Form-in-Place automated EMI/RFI gasketing is offered to facilitate the increasing demand for shielding of smaller profile and mechanically tight tolerance areas for a variety of metal and plastic housings. Our software driven automated gasket dispensing system delivers a custom programmed precise bead of conductive elastomer to narrow flanges or edges as small as 0.030 in (0.762 mm).

The conductive silicone or fluorosilicone elastomer bead is ideally placed on commercial or military compartmentalized enclosures, cellular handsets, pc cards, and a variety of other mechanically tight, real estate challenged, products. Quick prototyping and short to medium production runs is our specialty.

The robotic bead location holds a pattern positional accuracy to 0.003 in. (0.076 mm) in the X, Y, and Z axis dimensions; repeatability of each axis is 0.001 in. (0.025mm). The heated vacuum tooling plate bead dispense area for the X and Y axis is 17 inches by 14 inches respectfully. The Z axis dispense area has a range of 3.5 inches. If a bead is needed to be dispensed on a part that is over the travel dispense area of the machine, part rotation and dispensing of a second bead path, after the first bead path, can be done to complete the gasket.

The dispensed gasket can compensate for uneven surfaces in castings and molded parts to provide a consistent, highly reliable, seal. Our system offers technologically advanced features such as Mass Flow Calibration for reliable bead delivery, and an automatic targeting offset camera vision system with pattern recognition system for identification of local and global fiducials. The vision system compensates and corrects for part to part misalignment within the calibrated vision area. The bead dispense needle can be heated to improve flow of viscous materials along with the heated, vacuum tooling plate to enable an optimum bead to part environment within the enclosed dispensing area.



Photo courtesy of Asymtek

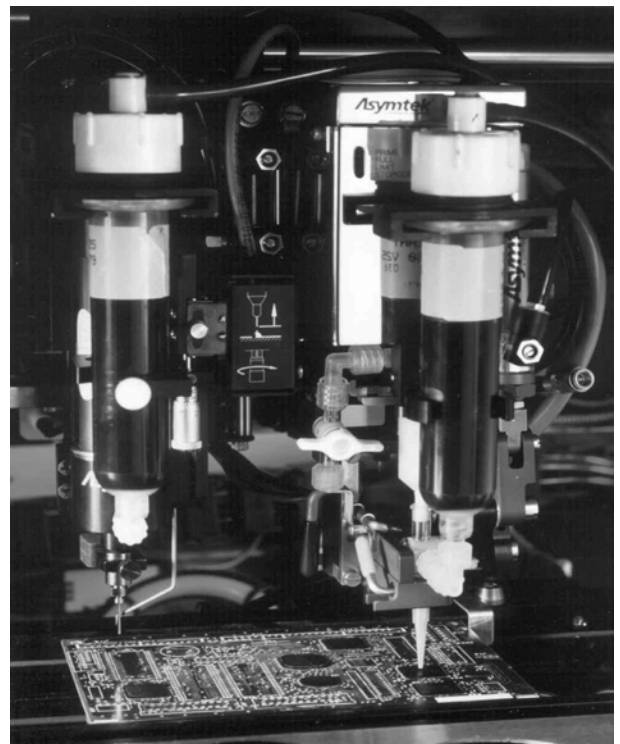


Photo courtesy of Asymtek

## Shielding effectiveness

Depending on the dispensed material, shielding effectiveness (attenuation) of our dispensed gaskets may exceed 80 dB from 100 MHz to 18 GHz. With increased cross sectional area shielding effectiveness will increase. Shielding effectiveness is also dependant on bead thickness between conductive substrates.

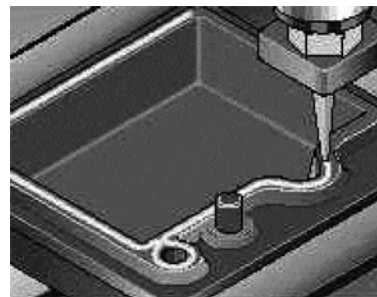


Photo courtesy of Asymtek

## Quality

With our ISO-9001:2000 commitment to continuous improvement, we have document set-up and operational procedures for consistent and reliable form-in-place products. With our 3-axis coordinate measuring system used in conjunction with our form-in-place machine, your parts will be consistent and accurate with documented final QA test results.

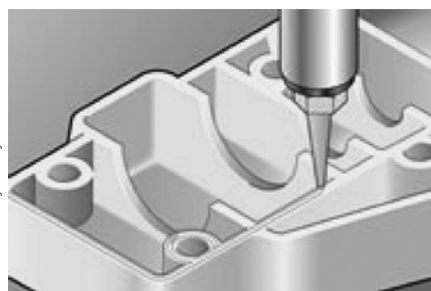


Photo courtesy of Asymtek

## Other Products

For enclosures that do not need a conductive seal we offer a variety of non-conductive elastomer seals that provide exceptional environmental protection and dust sealing. These sealing compounds are dispensed in the same way as the conductive elastomers and exhibit excellent substrate adhesion, with low durometer “soft” but resilient material properties. Non-conductive materials available upon request.

## Available Conductive Materials

Materials	Nickel Graphite	Silver Glass	Silver Nickel	Silver Aluminum	Silver Copper	Pure Silver
Volume Resistivity (Ohm-cm)	0.06	0.01	0.008	0.01	0.008	0.005
Durometer (Shore A)	65	70	75	68	70	65
Operating Temp. Range (°F)	-55 to +400	-55 to +400	-55 to +400	-55 to +400	-55 to +400	-55 to +400
Specific Gravity	2.29	1.82	3.58	1.86	3.58	4.20
Tack free	90	90	90	90	90	90
Handling time (Hr.)	12 to 24	12 to 24	12 to 24	12 to 24	12 to 24	12 to 24
Full Cure (Hr.)	72 to 144	72 to 144	72 to 144	72 to 144	72 to 144	72 to 144
Color	Dark gray	Light tan	Tan	Blue	Dark tan	Tan

The conductive particle filled materials are a one part electrically conductive room temperature curing elastomer. The extruded paste material cures rapidly when exposed to atmospheric moisture. When completely cured, the materials are highly resilient elastomers that exhibit superior adhesion to a variety of substrates and exhibit low volume resistivity.