

In Use – 11

Problem Plungers in Handlers Create Static Charge, Cause Failure.

Solution: Nuclestat™ and Nuclespot™ Ionizers.

Among the more common handlers used in the electronics industry are ones manufactured by Delta Design. However, these handlers feature a type of plunger that creates a static charge. As a result, an integrated circuit can be “zapped,” causing it to fail. The problem is especially insidious because it happens post-test, so the failed device is not usually detected before being shipped.

Ionization to eliminate potential static charges should offer clear benefits. But the extreme environment of the handlers is unfavorable for most ionization methods. It is, however, an ideal application for a Nuclestat™ ionizer. The model P-2001 (10” unit) is easy to mount on the fan shroud, just inside the top doors of the handler.

During the secondary pick-and-place stage of the manufacturing process, air moves across parts and nozzles. This area of the handler has the potential for an electrostatic discharge (ESD) event. The solution? Install a Nuclespot ionizer

model P-2042. The unit can be clipped inside the vent at the back of the machine, with access through the rear door. The air stream from the vent carries the ions produced by the Nuclespot over the parts, bathing the entire area in ionized air. Very low potentials are maintained, and the risk of an ESD event is greatly reduced. The ultimate result? Increased product yields!

This application is an excellent candidate for alpha energy ionizers. Here are a few of the most significant benefits, especially when compared to electrical ionizers:

- Easy to mount in tight spaces
- No high voltage power supply to potentially damage process controllers
- No RF emissions from cables
- No calibration required

Installing Nuclestat Ionizers with Delta Design Handlers

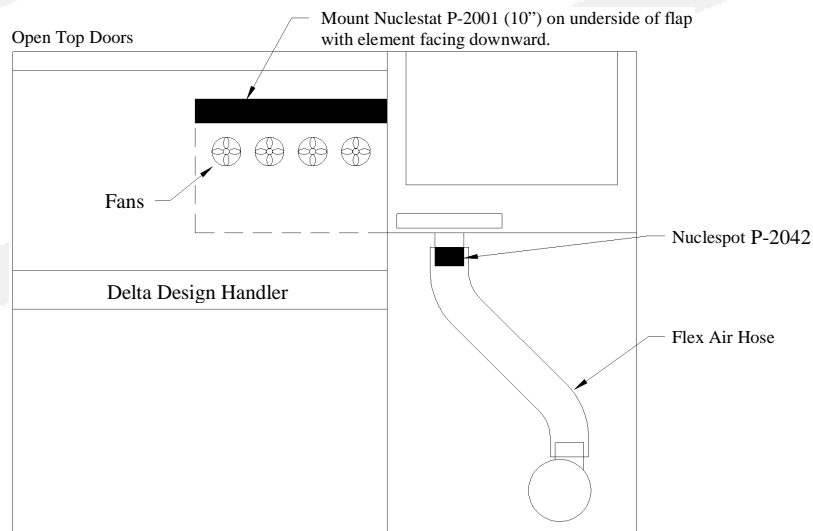


Figure 1



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