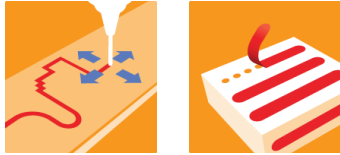


**Fisnar F4403
ADVANCE robot**

**archytas series
robot integration**

**Wondermask P
temporary
masking liquid**



Our customer

J-TEQ EMS Solutions Ltd

Customer benefits

- Return on investment achieved in one year
- Improved repeatability, efficiency and productivity
- Greater marketplace competitiveness with cost savings passed to customer
- Redeployment of operators to higher-value tasks
- Full training provided to have robot up and running immediately

Automating liquid temporary masking with a dispensing robot pays for itself in a year

Electronics manufacturing service (EMS) provider **J-TEQ EMS Solutions Ltd** was looking for an automated and efficient process for applying liquid temporary solder mask to printed circuit boards (PCBs). After research into options, it turned to Intertronics for a **Fisnar F4403N ADVANCE Benchtop Dispensing Robot**, which provided an automated process, reduced waste and paid for itself within a year.

Livingston-based J-TEQ focuses on offering end-to-end electronics manufacturing services from design for manufacture to delivery across multiple sectors including aerospace, space, medical devices, industrial, and telecommunications.

The company is known for its precision and efficiency in producing complex electronic assemblies and systems, ensuring that every stage of the manufacturing process meets strict quality and regulatory restrictions. It is proud of its state-of-the-art manufacturing facilities, equipped with modern machinery and technologies to handle both small and large production runs, as well environmentally conscious practices throughout its operations, including waste reduction and energy-efficient processes.

Challenge

For one assembly, two operators using hand applicators were employed applying temporary solder masking compound to printed circuit boards. Inevitably, this meant some operator variance in the process, with the potential for process failure. Variance in the amounts applied led to excessive waste. This was identified as an area for improvement for driving efficiencies.

J-TEQ investigated ways to automate the process. Intertronics were suggested by another material supplier, saying it could provide a benchtop robot for a reliable, repeatable masking process. This followed a previous relationship with Intertronics as J-TEQ had purchased consumable products including solder repair kits.

After visiting J-TEQ's site in Livingston, Intertronics' Sales Specialist Ian Mann recommended the Fisnar F4403N ADVANCE Benchtop Dispensing Robot. Along with the robot, Intertronics provided a dispensing valve and pressure pot to dispense the material – a peelable temporary solder mask called **Wondermask P**. These components were integrated by the Intertronics' engineering team into a **purpose built safety enclosure** for operator protection and compliance with the EU Machinery Directive 2006/42/EC and UKCA.

Following purchase, as part of the installation and commissioning process, Intertronics spent two days with J-TEQ to train technicians so the robot could be fully operational in rapid time. Understanding the set up and maintenance of the fluid dispensing is important to prevent clogging or other unwanted downtime. Programming is simply carried out by a teach pendant using dispensing software that walks the user through step-by-step instructions to create a sophisticated dispensing operation in minutes. The technicians were able to quickly and seamlessly integrate the robot into their manufacturing process.

This allowed between one and two operators, depending on the product, to be redeployed to higher-value tasks elsewhere in the business including hand soldering, mechanical assembly, hand placement of PTH parts prior to running through the Selective and/or Wave Solder Machines. This helped increase the product ranges that J-TEQ can run through their selective solder process. The robot provided J-TEQ with improved repeatability, efficiency, and productivity, illustrated by the video they shared.

"It's a win-win all around for both J-TEQ and our customers, and it has made us more competitive for quoting new business," explained Michael Page, General Manager of J-TEQ EMS Solutions Ltd.

"This has helped us continue to excel in the production of complex electronic assemblies with high precision, ensuring optimal performance and reliability. Where we see automation, it's to work alongside our existing staff that can be freed up to work in other areas."

Michael explained the savings and efficiencies brought about from the Fisnar ADVANCE dispensing robot means it has paid for itself within a year of installation, reducing the costs of manufacture, and resulting in increased profits. It has also allowed the company to pass on the cost reduction to customers when quoting their prices.

As a consequence of this success, Intertronics are working closely with J-TEQ on a new project involving potting compounds and dispensing.

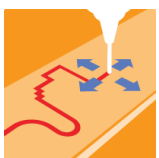


[Watch a video of J-TEQ's robot in action](#)

Fisnar F4403N ADVANCE Robot

- Fast, accurate and reliable 24/7
- Dispensing dots, lines, arcs and circles
- Resolution 0.001mm/axis
- 100 programs memory, 50,000 points per program

Applications include: Form-in-place gaskets, adhesives, potting and filling materials, coatings, gaskets and shielding.



Contact us for more information on our dispensing, robots, and masking products

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