



Adhesives, protective materials and equipment for medical device assembly

ISO 10993 and USP Class VI adhesives and associated mixing, dispensing and curing equipment, designed to help you achieve process reliability, repeatability and validation.

intertronics

As a medical device manufacturer, you need:

- Adhesives and protective material which bond to your substrates, withstand the rigours of your product end-use, and comply with the regulatory needs of the industry
- Synergistic material and equipment technologies which enable your processes to be highly efficient, reliable and repeatable
- The assurance that your validated process is verifiably and consistently in control

That's precisely what we bring.

As well as products for bonding the plastics, metals, ceramics, glass, and other substrates frequently used in medical devices, we offer protective materials for coating, sealing, gasketing and temporary masking. The type of assemblies for which our materials are typically used include catheters, tube sets, reservoirs, respiratory masks, laryngeal mask airways, resuscitation tubes, blood filters, syringes, needles and oxygenators.

We can also specify and supply the equipment you need to mix, apply and cure these materials, as well as products for surface preparation and pre- and post-assembly cleaning.

Many of our products provide you with real time visual verification of process integrity, making test and inspection faster and easier.

With this combination – together with our technical expertise – you can be safe in the knowledge that our products will work every time.

Our materials are:

- ISO 10993 and USP Class VI
- Solvent-free
- Fast-cure
- Sterilisable
- Available in various viscosities
- Available in various hardnesses
- Designed to adhere to most typical substrates used in your industry





Materials

Product

Range



Dymax Medical Grade Adhesives, Coatings & Masking Materials

Dymax UV/visible cure medical grade adhesives cure in seconds on exposure to ultraviolet and/or visible light. Certified to ISO 10993 and USP Class VI, they provide clear, high-strength adhesive bonds in the assembly of many types of device.

They are compatible with gamma, EtO and E-Beam sterilisation. Dymax UV/visible cure adhesives are single-part chemistries, so require no mixing. Formulations are available which are optimised for UV LED curing.

- **See-Cure Visual Placement & Cure Validation**

See-Cure technology provides visual cure validation that makes it easy to confirm placement and cure integrity by eye or using automated optical inspection. Blue when uncured to indicate location on the substrate, the adhesive becomes colourless when correctly cured, providing easy confirmation of a secure bond.

- **Ultra-Red Fluorescing Inspection & Authentication**

Ultra-Red technology facilitates bond line inspection processes and product authentication. The material appearance changes from colourless to bright red when exposed to black light.

Dymax Encompass™ technology combines See-Cure and Ultra-Red Fluorescing features into one light-curable product.



Before Cure



After Cure



Materials

Product

Range



Opti-tec Epoxy Adhesives

Opti-tec medical device epoxy adhesives are two-component non-cytotoxic formulations which meet ISO 10993. The line caters for the demanding and wide-ranging requirements of many specific applications including high temperature bonding, and clear potting and encapsulation for medical devices including endoscopes.



Polytec PT Adhesives

The Polytec PT range of ISO 10993-approved, two-part epoxy adhesives includes products for electrically conductive and optical applications. They are available in process convenient packages, including pre-mixed and frozen syringes.

Medical Grade Cyanoacrylates

Our medical-grade, low-odour, low-bloom, solvent-free cyanoacrylate adhesives offer exceptional product stability and high speed cure. They may be tested for suitability with opaque and difficult to bond substrates including ABS, stainless steel, polycarbonate, PVC and aluminium.



Dispensing Product Range



Fisnar Dispensing Systems, Accessories & Consumables

The Fisnar range of fluid dispensing equipment includes compact, entry-level benchtop time/pressure controllers, pressure pots and dispensing valves together with all barrels, cartridges, tips/needles and many other consumable items.

Fisnar Dispensing Robots

Our benchtop and gantry robots help to automate your material placement with accuracy and consistency. They can be used in conjunction with any of our automatic dispensing systems and where necessary, configured with your existing or new processes. We also supply a rotary table for dispensing circular patterns of adhesives and sealants.



Benchtop time/pressure dispensing controller

Dispensing Product Range



preeflow Precision Volumetric Dispensing Systems

The preeflow eco-PEN, eco-DUO and eco-SPRAY precision volumetric, positive displacement systems deliver accurate and repeatable dispensing of one and two-part materials with a wide range of viscosities. They offer +/- 1% accuracy, 99% of the time, with total control and no stress to the material being dispensed.



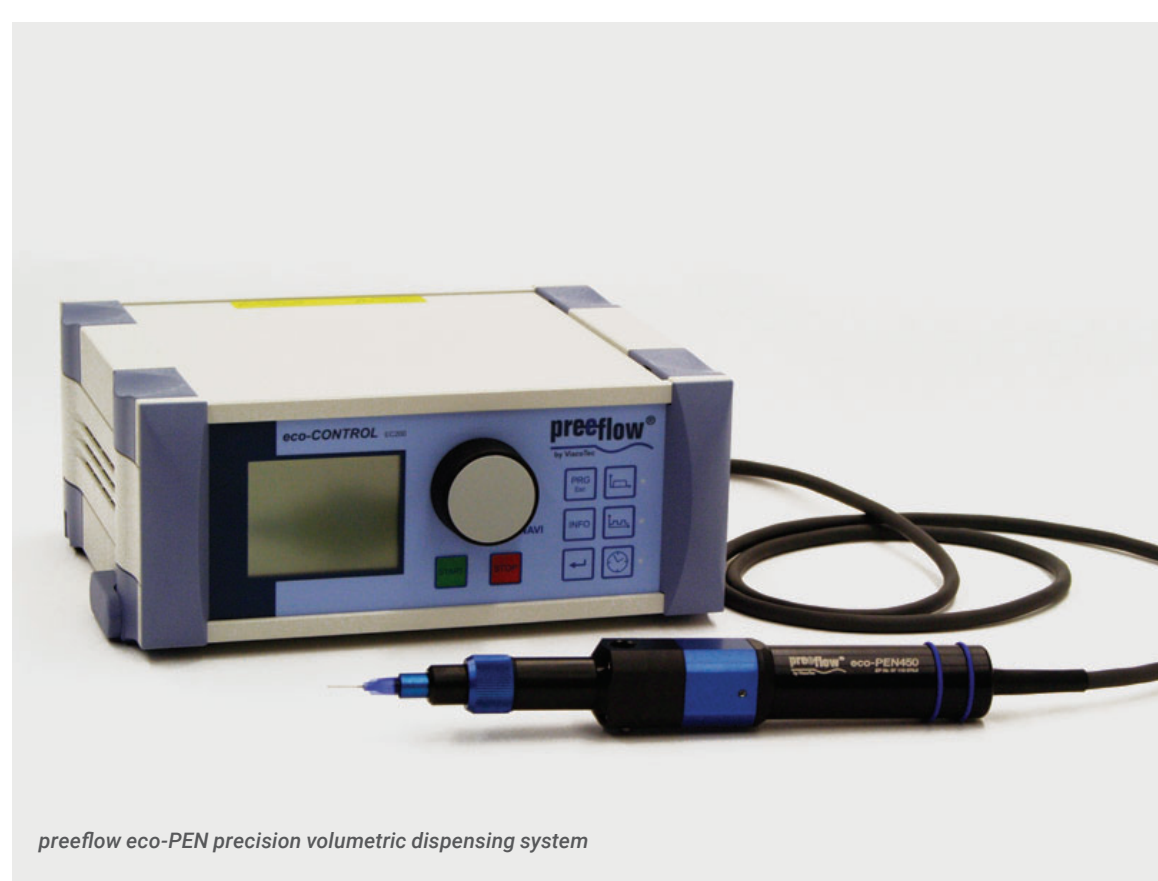
Vermes Microdispensing Jetting Valves

Vermes microdispensing valves use non-contact jetting technology, combining high accuracy and repeatability with the ability to dispense/dose ultra-low volume material deposits. Jetting facilitates high speed operation and greater throughput.



flowplus¹⁶

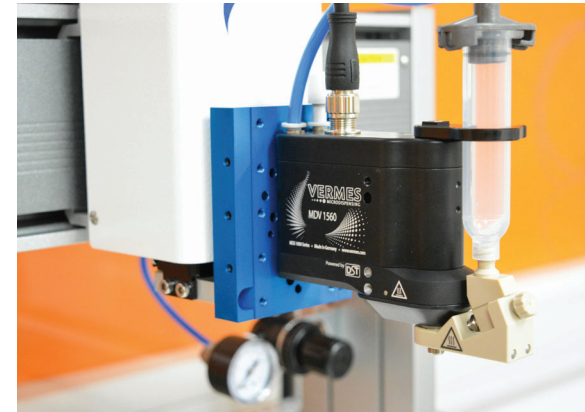
flowplus¹⁶ helps to deliver optimum process assurance for fluid dispensing or dosing applications where accuracy is critical. The compact, inline, through-flow fluid sensor detects issues such as inconsistent material feed, clogging needles or nozzles, unsuitable needle-to-substrate distance or the presence of air bubbles.



preeflow eco-PEN precision volumetric dispensing system

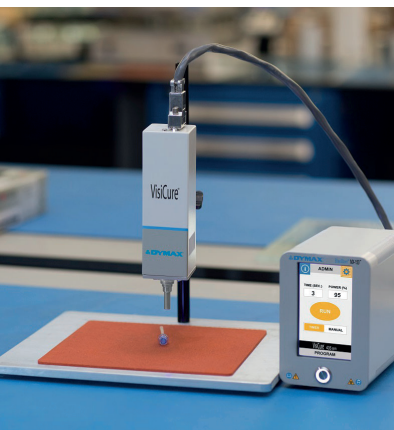


flowplus¹⁶ inline fluid sensor



Vermes microdispensing jetting valve

UV Light Curing Equipment Product Range



*Dymax BlueWave MX-150 LED
UV spot curing system*

Dymax UV Flood & Spot Lamps

Dymax UV curing lamps are available as spot, flood and conveyor systems, and in various sizes and intensities to suit different applications.

LED UV curing technology offers curing of materials in seconds, instant on/off (no warm-up or cool-down period), no bulbs to change and virtually no intensity degradation over time, resulting in a highly repeatable and validatable curing process.

Dymax radiometers provide accurate measurement of emitted energy, for assured process control.



*Dymax BlueWave MX-275 LED UV curing system
with 4-channel controller*



Dymax BlueWave AX-550 LED UV flood curing system

Metering & Mixing Product Range



*preeflow eco-DUO precision volumetric
mixing and dispensing system*

preeflow eco-DUO Precision Meter/Mix/Dispense System

The preeflow eco-DUO meters, mixes and dispenses a wide range of 2-part materials – including adhesives – with absolute control. It is a precision volumetric, positive displacement system providing a high degree of accuracy and repeatability.

THINKY Mixers

THINKY mixers are non-contact 'planetary' mixers for adhesives and all other multi-part compounds. Mixers mix, disperse and degas your materials in seconds to minutes, in a sealed or lidless container such as a jar, beaker, syringe tube or cartridge. The mixers are available in a range of sizes and capabilities – with or without integral vacuum.



THINKY mixing and degassing machine

preeflow
by ViscoTec

THINKY

archytas series robot integrations for your bonding process

We don't just supply medical device adhesive materials and equipment; we can put the constituent parts together to create a ready-to-use system for your application.

With our **archytas series** of robot integrations, we have the capability to custom assemble material mixing, dispensing and application, curing, and/or surface preparation on one machine, providing you with productivity-boosting consolidated and automated processes. Each machine is specified and built to your unique needs, and will consider:

- part size and geometry
- number of parts
- part tooling
- jiggging
- surface preparation
- mixing
- material feed

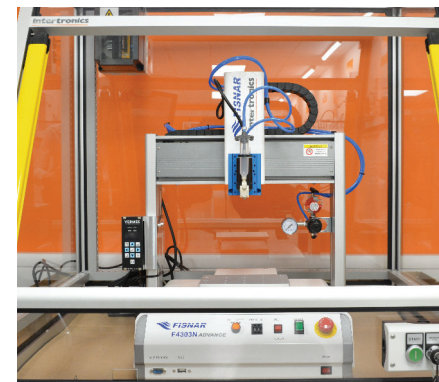
- dispensing, spraying or jetting
- curing
- real-time dispensing feedback
- vision-based programming and fiducial auto-adjustment
- dispensing tip alignment
- control systems
- safety enclosure
- light curtain or interlocking doors
- benchtop or free standing

These robot integrations are built in-house, allowing us to supply a completed system built to your requirements in a timely manner. We can also provide installation and training to have you up and running quickly.

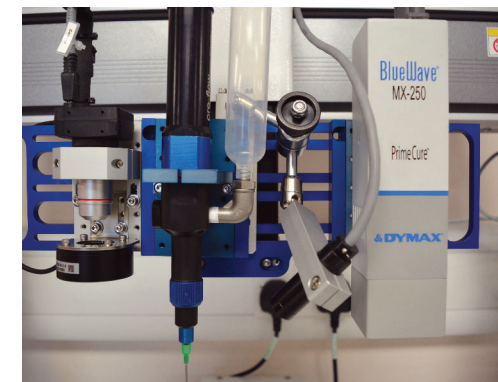
You can find examples of **archytas series** robot integrations on our website, or speak to our team about your requirements.



archytas series robot integrations



Benchtop dispensing robot integration



Dispensing robot with vision and UV curing

Comprehensive knowledge, seamless support

When you work with INTERTRONICS, we will endeavour to fully understand your objectives, product design brief and assembly process. We can work with you during substrate selection, process design and process validation through to implementation, test & inspection and quality assurance.

We partner with leading international material and equipment suppliers to ensure that we always deliver market-leading production solutions. Apart from having the requisite quality and performance approvals, they are rigorously selected by us to ensure they provide the products best suited to our customers' needs – supported by excellent service, technical support and delivery.

When you have chosen to use our products, we will meet your delivery expectations – not just in terms of timeliness, but accommodating all of your requirements such as multiple deliveries or call-offs.

We will also provide ongoing support and technical advice throughout the product lifecycle and beyond, on to your next project.

Contact us

We welcome the opportunity to discuss your current or forthcoming assembly application, either with one of our Product Specialists at your premises, or at our Technology Centre in Oxfordshire. We can also arrange a seminar at a location of your choice to explain our technologies and products, and their respective benefits.



Please contact us with your enquiry:

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The logo for intertronics, featuring the word 'intertronics' in a bold, lowercase, sans-serif font. A horizontal orange line is positioned directly beneath the text.