



pureSU[®]

Single-use fluid paths



**WATSON
MARLOW**

Fluid Technology Group

Single-use experts

Watson-Marlow Fluid Technology Group (WMFTG) is the world leader in niche peristaltic pumps and associated fluid path technologies for the pharmaceutical and biopharmaceutical industries

Customers demand many things from their process equipment and the prime concern is maintaining product quality. Biopharmaceutical processes are among the most critical in the world. It is important to have a partner who you can trust, who understands the process and is able to help achieve compliance and repeatability throughout.

Watson-Marlow Fluid Technology Group is unique in being able to work with you at every process step to ensure your critical fluid transfer requirements are achieved.

Watson-Marlow is the only peristaltic pump manufacturer to have its own tubing extrusion plant, giving a short supply chain and total quality control.



BioPure Technology built its reputation on designing and manufacturing single-use fluid path connectors for the biopharmaceutical industry

Our range provides the highest quality fluid path components for high specification manufacturing operations, fitting perfectly within the Watson-Marlow Fluid Technology Group offering of peristaltic pumps and high-purity tubing.

Using our combined expertise and values, we have brought Watson-Marlow tubing and BioPure connectors together to advance our capabilities and provide custom tube assemblies.

puresu® tube assemblies

Controlled

Simplifies your validation process, taking the extensive validation available and delivering it all within a new capability.

Efficient

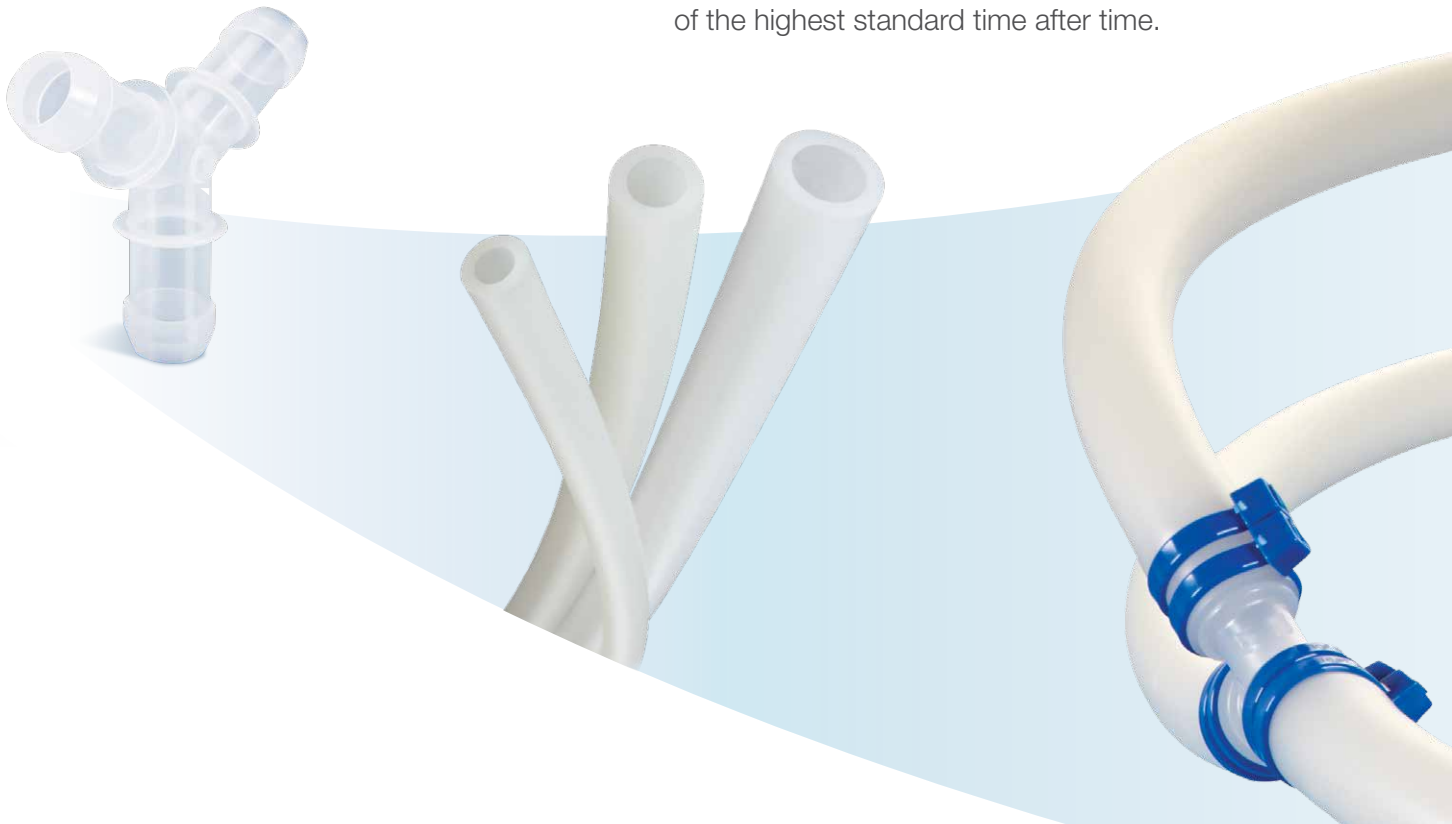
Reduces your supply chain and ensures you receive the product ready to use.

Flexible

Validated components combined with cutting edge design software ensures we can be as flexible as your process.

Reliable

cGMP methodology and an ISO9001 quality system ensures that product quality is at our core and gives you the confidence that the products we supply will be of the highest standard time after time.



puresu — single-use tube assemblies

Drawing on considerable single-use expertise, BioPure provides the flexibility of customised tube assemblies to suit your bioprocessing needs

Offering a broad range of validated components and configurations, with no minimum order quantity and simple, repeatable ordering to support a continuous supply chain. Full traceability of each component is maintained throughout our assembly process and is

provided as part of our detailed documentation. This ensures your tube assemblies reach you ready-to-use and that they meet the exacting requirements set by cGMP manufacture and validation standards.



puresu tube assembly with Pumpsil tubing, BioBarbs and connectors



puresu tube assembly with PureWeld XL tubing, BioBarbs and Bio Y



puresu tube assembly with Bioprene tubing and BioBarbs

BioPure’s puresu capability provides:

- Unique support from the fluid path technology experts
- Ultimate flexibility with quick turnaround and no minimum order quantity
- Ready-to-use bioprocessing solutions, full traceability, double-bagged and irradiated as standard

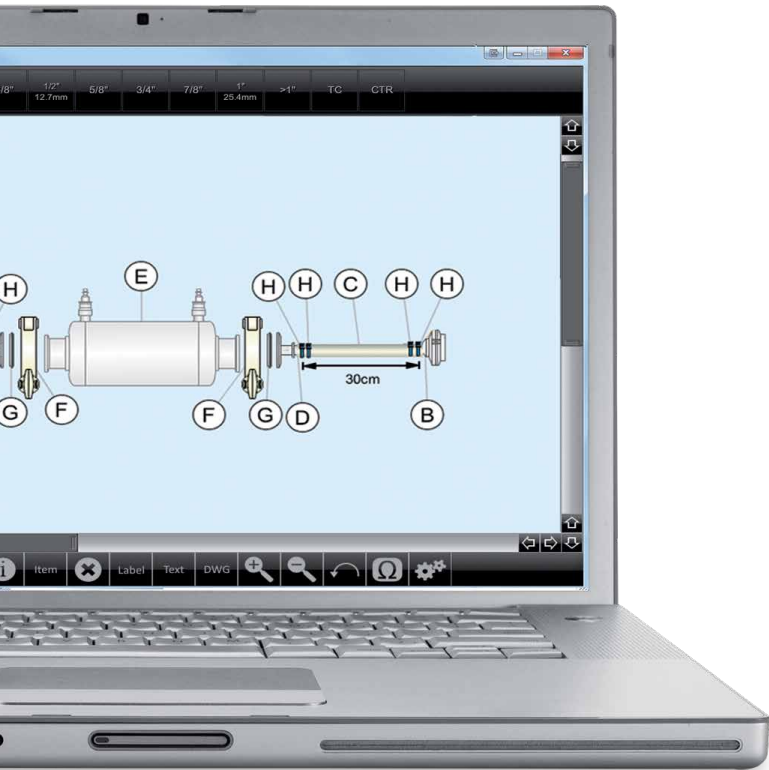
Single-use fluid paths to suit your bioprocessing needs

Simplifying the process

1 Design

BioPure Technology has developed the BioSelector®, a software design tool that simplifies the design of fluid handling assemblies using realistic imagery and a library of component information. Using the BioSelector software we can reduce lead times by avoiding the need for multiple design consultations. The BioSelector is a visual tool that controls the whole drawing process, but remains flexible to meet your design configuration.

Tube assembly design through to approval and quotation is as little as 48 hours.



2 Manufacture

- All manufacturing of BioPure fluid path components and Watson-Marlow tubing is carried out in ISO14644-1 Class 7 clean rooms. We carry core components in stock to allow us to respond quickly and ensure that lead times are kept to a minimum.
- Watson-Marlow tubing is subjected to 100% on-line inspection, plus off-line checks during every run ensure that all Pumpsil, Bioprene and PureWeld tubing is validated to the highest standards.



3 Assembly

puresu tube assemblies are manufactured and packaged in an ISO14644-1 Class 7 clean room operating under ISO9001 quality standards and are supplied double-bagged. Assemblies can be supplied irradiated to a minimum of 25kGy or ready for autoclaving.

The packaging we use has also been manufactured in an ISO14644-1 clean room and is validated to ensure the seal provides a barrier for a minimum of two years.



4 Documentation

We have streamlined our documentation to ensure that you only receive what is required. Assemblies will be provided with a certificate of conformance and an irradiation certificate. Full product certification and validation is available on request.

Collating data from our suppliers, our validation packages include:

- USP Class VI and ISO10993 compliant
- Animal derived component free (ADCF)
- ISO9001 quality system



Choose your tubing

In continuous daily use throughout the bioprocessing industry, Watson-Marlow tubing provides flow accuracy, ensuring process stability, current good manufacturing practice (cGMP) compliance, and final product quality. The unimpeded flow path and superior junction strength provided by BioPure fluid path connectors, coupled with Watson-Marlow tubing performance reduces process variation, enhances operating techniques, and increases product quality. For unsurpassed control over the fluid path, only Watson-Marlow tubing is validated for operation in our peristaltic pumps.

Our biopharm tubing offers absolute purity and reliability. It has the dimensional and restitutional accuracy essential to give long-life, repeatable performance. In addition, the right tubing for you must have the qualities needed for each part of your process.

Traceability is fundamental in the biopharm industry, where validated processes must be demonstrated. In response to this vital requirement from our customers, every Watson-Marlow Pumpsil® tube is permanently laser-marked end-to-end with part number, lot number and use-by date. It means that lot traceability is carried through from box to bag to the tube itself.

Watson-Marlow offers tubing in five pharmaceutical grade materials and over 40 sizes, giving an extraordinary range of application capability.

PureWeld XL

Thermoplastic elastomer tubing

- Weldable and heat sealable
- Animal Derived Component Free
- Sterilisable by gamma radiation, autoclave and ethylene oxide

Bioprene

Precision TPE tubing

- Long pump life
- Excellent chemical compatibility
- Fully autoclavable

STA-PURE PCS

PTFE-reinforced silicone tubing

- Pressure rated up to 7 bar (100 psi)
- Longest available tube life
- Spallation virtually eliminated

STA-PURE PFL

PTFE-reinforced fluoroelastomer tubing

- High resistance to aggressive chemicals
- Pressure rated up to 4 bar (60 psi)
- 50 times longer life than other fluoroelastomers

Additional tubing is available from selected third party suppliers. Please contact your sales engineer for further details

Range of materials for every application

Resistance to chemical attack; long pumping life; economy; transparency: these are some of the factors customers consider when choosing the right validated tubing for their application. Our tubing materials are summarised below to help you make the right choice.

	Pumpsil®	Bioprene®	PureWeld	STA-PURE Series PCS	STA-PURE Series PFL
Bore sizes available	0.5mm - 25.4mm	0.5mm - 25.4mm	0.5mm - 25.4mm	1.6mm - 25.4mm	1.6mm - 15.9mm
Wall thickness available	1.6mm - 4.8mm	1.6mm - 4.8mm	1.6mm - 4.8mm	1.6mm - 4.8	1.6mm - 3.2mm
Operating temperature	-20C to 80C	5C to 80C	-20C to 80C	-20C to 80C	-20C to 80C
USP Class VI	•	•	•	•	•
European Pharmacopoeia 3.1.9	•	•		•	
ISO 10993	•	•	•	•	
Up to 10,000 hours pumping life		•		•	•
High pressure capability (2-7 bar)		•		•	•
Low gas permeability		•	•		
Wide chemical resistance		•	•		•
LaserTraceability™	•				
Lot traceable from raw material to finished product	•	•	•	•	•
Can be gamma sterilised	•		•		
Can be autoclave sterilised	•	•		•	•
Animal derived component free (ADCF)	•		•	•	•



Choose your components

BioPure Technology manufacture and supply high precision bioprocessing flow path components, including sanitary hose barbs, Bio-Clamps, valves and adapters

- Permanently moulded with production lot number and size identification
- The full through bore diameter ensures a smooth transition from tube to adaptor reducing turbulence
- Suitable for sterilisation by autoclave and gamma irradiation.



	Bio Y™	BioBarb™	FlatBioEndCap™	BioEndCap™	BioClamp®	BioValve™
Sizes available	¼" - 1"	1/8" - 5/8" 1/8" - 1"	½" - 2 ½"	½" - 1 ½"	½" - 8"	1/8" - 1 ¼" OD Tubing
Pressure rating	4 bar	4 bar	4 bar	4 bar	6-10 bar	10 bar
Can be gamma or autoclave sterilised	•	•	•	•	•	•
USP Class VI	•	•	•	•	•	•
FDA	•	•	•	•	•	•
European Pharmacopoeia 3.1.9	•	•	•	•		
Animal derived component free (ADCF)	•	•	•	•	•	•
Polypropylene	•	•	•	•		
Glass reinforced nylon					•	•
Tamper evident sizes					½" - 4"	Both Variants

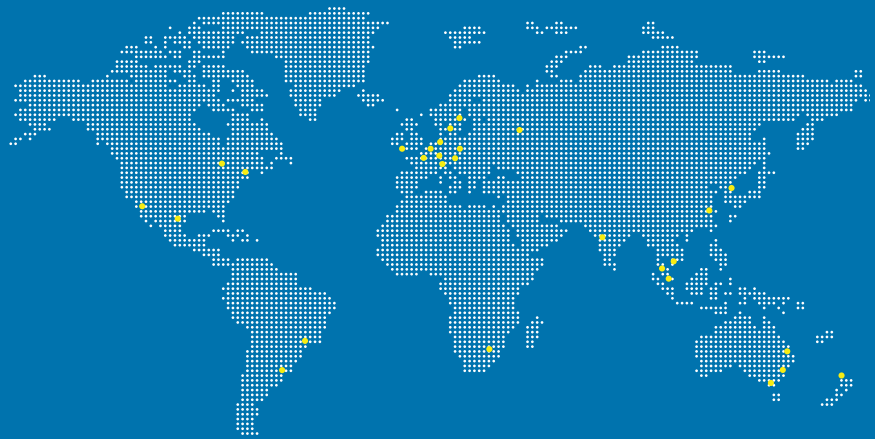
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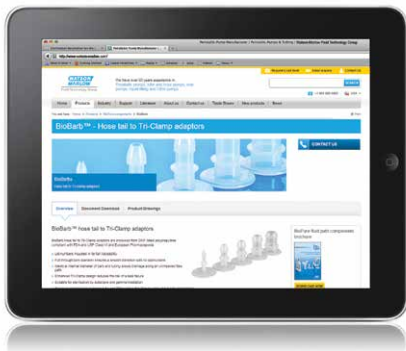
BioPure fluid path components ... connect with confidence

Watson-Marlow Fluid Technology Group has eight world-class factories supported by direct sales operations in 28 countries and distributors in more than 50 countries. For contact details visit our website:

www.wmftg.com



Watson-Marlow Bredel Alitea Flexicon MasoSine BioPure AsepcO



Watson-Marlow online

Our engineers around the world can help you choose the perfect pump and tubing for your needs.

More information? Our brochures are on our website:
www.wmftg.com

For more information on BioPure products
please visit www.biopuretech.com

Watson-Marlow... Innovation in Full Flow

Tel: +44 (0) 2392 499000
sales@biopuretech.com

BioPure Technology Limited
Unit M1, Hazleton Interchange
Lakesmere Road, Horndean
Hampshire, PO8 9JU, UK
www.biopure.co.uk

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