

Personal care and over-the-counter pharmaceuticals



INNOVATION IN FULL FLOW

Industry experience

Maintaining product quality whilst having the processing and production flexibility to manufacture a broad spectrum of products, requires a complete understanding of your processing requirements.

Watson-Marlow Fluid Technology Solutions (WMFTS) offers comprehensive engineering solutions to manufacturers of personal care products—from pharmaceuticals and nutraceuticals, through to supplements and vitamins. Our diverse product range provides a complete fluid path solution, for use across research and development facilities through to large-scale production environments.

We control our manufacturing to the finest tolerances to ensure consistent and dependable performances.

Directives and standards

Adopting our equipment into your process is made simple through our commitment to validation. Our equipment is rigorously tested to meet the latest

regulatory frameworks and offered with comprehensive validation documentation. Backed by a global network of specialist engineers, technical support and servicing professionals, we partner with you to get the best from our engineering.



Rapid maintenance and cleaning

Our engineering is based on simple principles. The result is high quality equipment that is easy to maintain, designed with cleaning methods and chemical compatibility in mind. This supports rapid product changeovers and accelerated loading and unloading duties. For internal cleaning of processing systems, we design our components for clean-in-place (CIP).

To guarantee the external cleaning procedure of our systems is effective, we design easy-to-clean hygienic solutions.



Applications



	Sinusoidal pumps	Peristaltic hose pumps	Peristaltic tube pumps	Filling machines	Valves	PTFE lined hoses and gaskets
Personal care products	Lotions Shampoo Soap Eye care products Hair gel	Toothpaste Deodorant	Surfactants Soap Lip balm Pomade	Essential oils	✓	✓
Cosmetics	Mascara Cream Eye liner Lip gloss Lip stick Compounding	Transfer of compounding ingredients	Make-up Nail polish Lipstick Eye-liner		✓	✓
Over-the counter pharmaceuticals and nutraceuticals	Suppositories Gels Ointment Creams APIs Raw material Glycerine Oils Cough syrup	Cough syrup	Vitamins Supplements Pills Fish oil	CBD Oil Homeopathic remedies	✓	✓
Facility management		Water and wastewater	Water and wastewater Zero liquid discharge			✓

Sinusoidal pumps

Drawing on considerable experience in sinusoidal pumping technology, Certa Plus has been developed by MasoSine to meet a broad range of applications for the pharmaceutical industry such as suppository, cough syrup, lozenge, ointment, creams and gels processing and handling. Providing a reduced risk processing solution, Certa Plus pumps are fully clean-in-place (CIP) proven with aseptic cleanability (certified by EHEDG).

The gentle product handling and low shear of our Sine® pumps, coupled with the pumps energy efficiency and simple design, helps process and production managers, quality and maintenance staff to focus on the quality of their products.

- Innovative rotor design delivers unrivalled low shear product handling
- Virtually pulsation free pumping action makes the pump ideal for every part of your process including unloading, transfer and circulation
- Supplied with a full documentation package and product traceability.



Each pump is delivered with all the relevant quality documents needed for pharmaceutical applications. All product exposed components are made of FDA and USP Class VI certified raw materials



MasoSine Certa Plus pump

Max flow: 255,000 L/hr

Max suction capability: Can pull up to 85% of full vacuum/646 mmHg

Max discharge pressure: 15 bar

Viscosities: 1 cP to 8 million cP

Certified: EHEDG Type EL Class I and EHEDG Type EL Aseptic Class I, FDA and EC1935/2004 compliant, 3A Certified



Sinusoidal pump design

A single sinusoidal rotor creates four evenly sized chambers. As each chamber rotates it gently conveys the fluid from the inlet port to the outlet port. At the same time, the opposite chamber opens to draw in more fluid, resulting in a smooth flow with virtually no pulsation. A gate stops fluid flow from the higher pressure outlet to the low pressure inlet.



Peristaltic hose pumps



High maintenance diaphragm, rotary lobe, or progressive cavity pumps are unable to match the rugged, reliable 24/7 dependability of Bredel hose pumps.

- **Abrasive handling:** The product only contacts the hose, so no wear on the pump
- **Gentle handling of large particles:** No damage to shear sensitive products
- **Accurate metering:** Perfect dosing every time to ensure end product consistency
- **Easy maintenance:** Just change the hose
- **Seal-less, valve-less design:** Lowers total cost of ownership
- **Bredel genuine hose lubricant:** food grade
- **Automated shoe retraction:** specifically designed for CIP processes ensuring contamination-free pumping, while simplifying maintenance with minimal components



Bredel series

Max flow: 108,000 L/hr
Max discharge pressure: 16 bar



Clean-in-place (CIP) pumps

Max flow: 3,200 L/hr
Max discharge pressure: 16 bar



APEX series

Max flow: 6,200 L/hr
Max discharge pressure: 8 bar



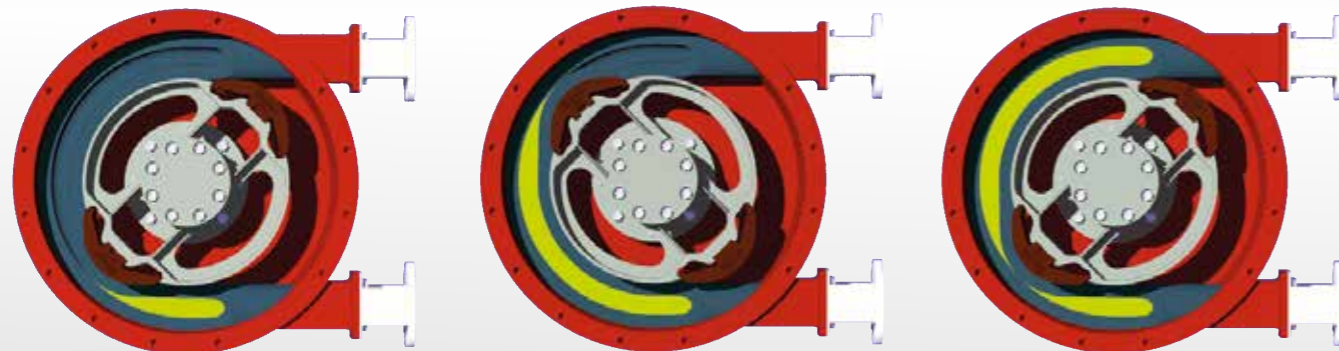
Bredel hose options

NBR for food
Suitable for a wide range of food products. Resistant to various cleaning chemicals. Meets EC 1935/2004

F-NBR
Suitable for all food products including oils and greases. Meets EC1935/2004, FDA compliance 21CFR177.2600 and 3A standards

Bredel hose pump design

The pumping action results from alternately compressing and relaxing a machined hose between the pump housing and the compressing shoes. The fluid ahead of the shoe is pushed towards the discharge while the recovering hose behind the shoe draws more fluid in. With 100% compression at all times, the pump does not slip, providing unbeatable metering accuracy and pressure performance. With no pump seals, seats or valves, abrasive slurries are no problem. With the fluid contacting only the inner wall of the hose, the pump is perfect for aggressive chemicals.



Peristaltic tube pumps



Peristaltic pumps can handle aggressive and shear sensitive fluids. The pumped fluid is totally contained within the tube, providing complete isolation of the fluid and no cross contamination.

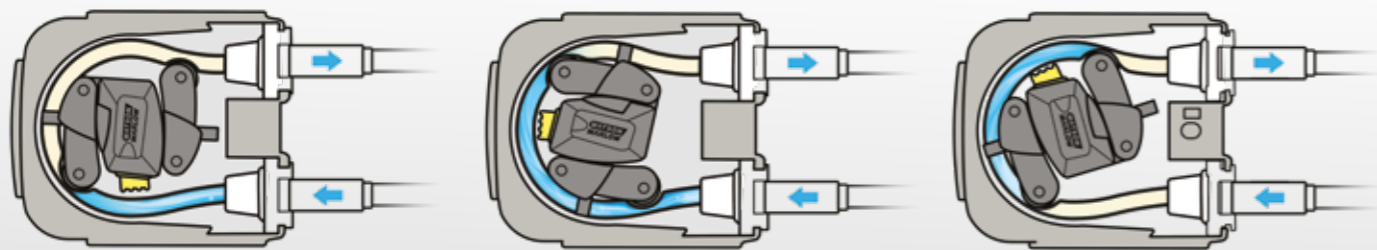
- **Unrivalled accuracy:** Reduce waste and save money with high accuracy delivery
- **Low shear:** Superior to lobe pumps, no damage to fragile food products and improved final product quality
- **Easy clean:** NEMA 4X (IP66) for washdown
- **Reduce process downtime:** One-minute maintenance, just change the tube or pumphead
- **Intuitive:** Operator control, color display and language selection

Watson-Marlow peristaltic pump design

Rollers in a peristaltic pump compress the tube as they rotate, creating a vacuum which draws fluid through the tube.

Nothing but the pump tube touches the fluid, eliminating the risk of the pump contaminating the fluid, or the fluid contaminating the pump.

The complete closure of the tube when it is occluded (squeezed) between the roller and the track, gives the pump its positive displacement action, preventing backflow and eliminating the need for check-valves when the pump is not running.



Qdos

Flow rates: 0.1 ml/min to 600 L/hr

Max discharge pressure: 9 bar



530 series

Flow rates: 0.4 µl/min to 3.5 L/min

Max discharge pressure: 7 bar



630 series

Flow rates: 0.001 mL/min to 19 L/min

Max discharge pressure: 4 bar



730 series

Flow rates: 0.12 L/min to 33 L/min

Max discharge pressure: 2 bar



Tubing and tube elements

We are the only peristaltic pump manufacturer in the world to have our own tubing extrusion plant. Tubing is available in 10 different materials and 50 different sizes, from 0.0197" to 1".



Filling Systems

Our range of filling and capping machines from Flexicon suit many different sizes of bottles with multiple formats for sealing including crimp and screw capping.

They provide a simple and very flexible means of production which allows for a fast return on investment.

- Complete change over in less than five minutes
- Modular integration with existing peristaltic fillers and capping machines
- Systems fill bottles between 12 mm and 78 mm in diameter
- Fill volumes from 0.1 to 500 ml at up to 2000 fills per hour



Maxthane

Long service life for flavour, colour and additive dosing. Tubing elements are compatible with all types of vegetable oil and CIP chemicals.

- FDA regulations 21 CFR177.1680 compliance
- Meets EC1935/2004, EU regulation 10/2011

Bioprene

Wide chemical compatibility and long service life with low gas permeability.

- Opaque to UV and visible light
- FDA regulations 21 CFR177.2600 compliance
- NSF/ANSI 61



Gaskets

- Our sanitary gaskets are all compliant with FDA regulations CFR 21 177.2600
- USP Class VI compliant and animal derived component free (ADCF)
- Designed to achieve a smooth bore
- Advanced metal detectable gaskets are also available—automatically detect polymer decomposition inside your process line



Valves

Our valves are designed to provide the highest level of reliability and safety.

- Tank, sample and in-line valve configurations available
- Simple tri-clamp assembly makes maintenance up to 80% faster
- Diaphragm materials include silicone, EPDM and PTFE
- Manual or pneumatic actuators, limit switches and solenoids
- Fully CIP/SIP capable, for efficient cleaning and sterilising
- Up to three ports for CIP/SIP or flushing while closed
- No adjustment or retightening required after installation



PTFE hose

We are a world leader in PTFE-lined flexible hose. Our hoses contain our unique liner technology, “convoluted outside, smooth inside” for the combination of flow and flexibility, and an embedded kink-proof helical wire.

- Easy clean, shorter cycles. Avoiding costly downtime
- No CIP deterioration so no product contamination
- Kink proof and flexible hose. More than ten times the flex life of other PTFE lined hose
- Fewer hose changes with a long fatigue life results in a more economical product. Natural or anti-static patented PTFE liner
- Smooth bore for uninterrupted fluid flow and ease of cleaning
- High temperature and pressure capability
- Range of braid, cover and external protection options available
- Meets FDA regulation 21 CFR177.1550 or 21 CFR 178.3297, EC 1935/2004 and EU regulation 10/2011

PROCESS INDUSTRIES HYGIENIC SOLUTIONS



Watson-Marlow Fluid Technology Solutions

Watson-Marlow Fluid Technology Solutions supports its customers locally through an extensive global network of direct sales operations and distributors

wmfts.com/global



Disclaimer: The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains and reserves the right to alter specifications without notice. It is the users responsibility to ensure product suitability for use within their application. Watson-Marlow, LoadSure, Qdos, ReNu, LaserTraceability, Pumpsil, PureWeld XL, Bioprene, Marprene, Accusil, asepticSU, puresu, APEX, DuCoNite, Bioprene and Bredel are registered trademarks of Watson-Marlow Limited. Bio Y, BioClamp, BioBarb, FlatBioEndCap, BioEndCap, BioValve and BioTube applicator are trademarks of BioPure Technology Limited. Tri-Clamp is a registered trademark of Alfa Laval Corporate AB. GORE and STA-PURE are trademarks of W.L. Gore and Associates. BioFlex, Corroflon, Corroline, Pharmaline, FaBLINE, Hyperline FX are registered trademarks of Aflex Hose Limited.