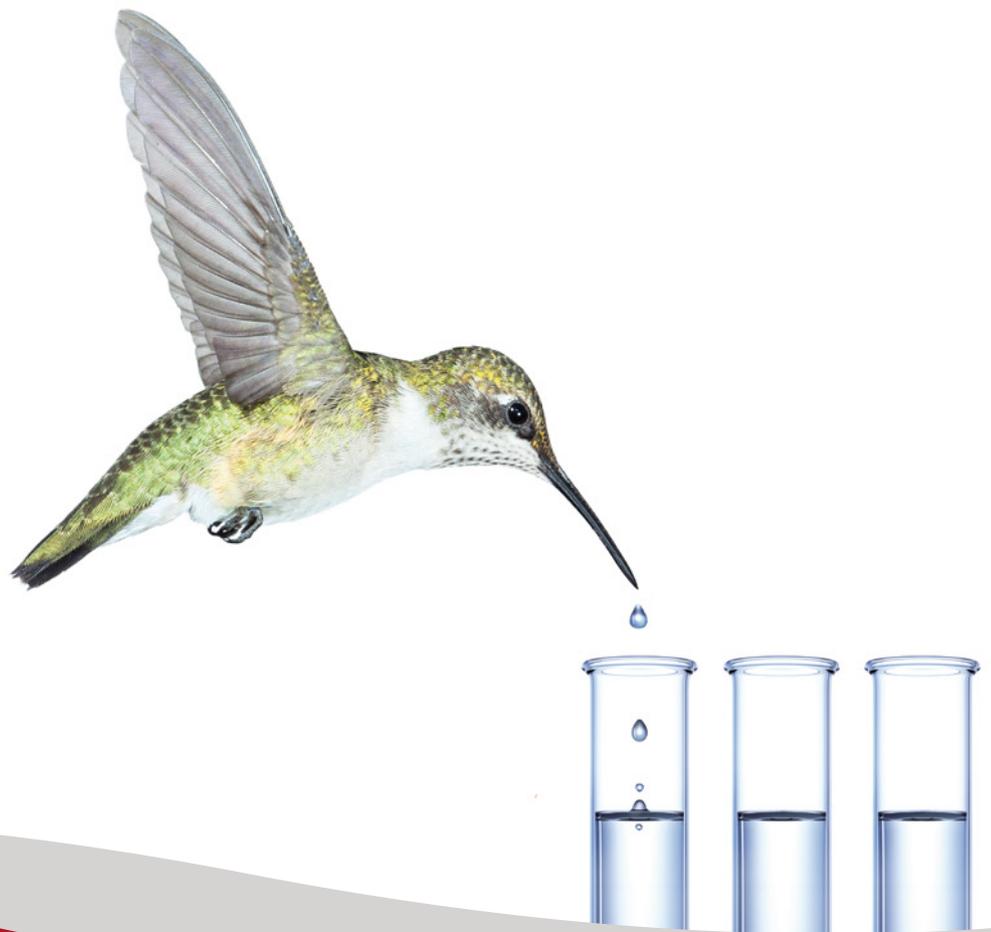


Liquid Handling Lab Automation Expertise



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LIQUID HANDLING CATALOGUE

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Technology overview

Syringe pumps

Air displacement pumps

Valve controller

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Liquid-Handling Solution for OEM's Worldwide

WHO WE ARE

We're TriContinent Scientific, one of the companies in the Gardner Denver Medical Group.

WHAT WE DO

At Gardner Denver Medical, we're proud to be counted among the leading makers of flow control products for medical, life sciences, and selected other industries. We put a particular focus on solutions for OEMs. Our success is built on a foundation composed of relentless innovation, global reach and a solution-centric approach to our customers' needs. Our three top brands, Thomas, Welch and TriContinent, ensure that over 5000 companies around the world can work more efficiently. TriContinent Scientific's core competencies in syringe pumps and liquid handling robots - used in the lab automation market - are the reason why Gardner Denver Medical is in a unique position to provide OEM and laboratory customers with complete solutions from a single source. Our global production network, with eight modern manufacturing facilities throughout the U.S., Europe and Asia, give us the flexibility to respond fast - whatever your needs may be.

If you're in the medical diagnostics or biotechnology industry, you probably already know TriContinent as a specialist in liquid-handling products and instrument components. We're also proud to be the world's leading producer of precision syringe pumps - and ours contribute to the success of the top global medical diagnostic equipment manufacturers. Ever since we were founded back in 1975, we've been designing and producing syringe pumps, pipettes, dispensers and microplate washers. TriContinent is certified in accordance with ISO 13485 and by the certification organization UL.

Liquid-Handling Solution for OEM's Worldwide

WHERE WE ARE

TriContinent is located in the scenic and historic California Gold Rush town of Grass Valley, California. Our highly qualified and dedicated staff handle sales, engineering, manufacturing, quality assurance, and customer support for our customers worldwide. We also have specialized direct sales teams and a dense network of distributors around the world to ensure a fast response to our retail and OEM customers.

There's bound to be a sales team or distributor near you! Intrigued? Want to know more about us or find out about job opportunities? Feel free to get in touch on 1-800-937-4738 if you're within the US, or 530-273-8888 if you're calling from outside the US.





Liquid-Handling Solution for OEM's Worldwide



QUALITY

**Looking for the highest quality?
You've come to the right place.**

At TriContinent, quality is part of our DNA – and we've worked hard to win our reputation as a company that's dedicated to uncompromising quality. Every single employee is committed to quality, regardless of their role, department, or level in the organization. We do have a "quality department" to maintain the quality system and to measure quality, but most of our customers see TriContinent as one big quality department! That's because the quality of our products and service is a primordial and integral part of every job role, system, process, design and material.

OUR THREE PILLARS OF QUALITY

- **Management:** we're committed to Total Quality Management (TQM) at every level. That includes attention to every detail when we monitor and measure the performance of products – because nearly good enough is not good enough. We continuously improve our products and services to achieve total customer satisfaction.
- **Employees:** Every one of our scientific staff is an expert in the critical disciplines of liquid handling instrumentation. At TriContinent, our development staff include experienced electrical, mechanical, plastics, fluid dynamics and software engineers. Along with our leading edge production technology, our people enable the TriContinent engineering group to routinely exceed our customers' expectations.
- **Processes:** One reason for the top-flight quality of every item we manufacture is that we keep tight control over the quality of our raw materials and how they are processed, using advanced planning systems to regulate and monitor the flow of manufacturing and production. Leveraging a wide range of manufacturing processes, TriContinent has invested in computer-controlled machining facilities, ensuring consistently precise component production – and it's our customers and OEMs who benefit.
- **Testing:** We run a wide range of tests on our products before they're sent out into the world – and these include vibration and shock, environmental and electrical safety evaluations as well as gravimetric analysis. In addition, TriContinent performs extensive life testing using customer protocols, reagents and instruments.
- **Materials and Components:** During the product design phase, we carefully select materials based on considerations of cost, performance and reliability aligned with the customer's specific application. Where appropriate, we select and use more advanced materials and components for critical design elements.

C-Series Syringe Pumps

BASE MODEL

C3000, C24000



CONFIGURED OPTIONS

- **Fluid Contact Syringe Material**
Borosilicate Glass and UHMWPE or PTFE (seal) - Pressures to 80 PSI
- **Fluid Contact Valve Material**
PCTFE or PEEK (housing) and PTFE or UHMWPE (plug) - Pressures to 100 PSI
- **Accessories**
Syringe Sizes: 50 μ L, 100 μ L, 250 μ L, 500 μ L, 1 mL, 2.5 mL, 5 mL, 12.5 mL

FEATURES

The C Series comprises syringe pump modules for automated instrumentation and can seamlessly replace XP, XCalibur, PSD/4 and PVM pumps. They provide low total cost of ownership as their proprietary, high-efficiency direct drive system has no belts to stretch or snap - so it is maintenance-free. C Series pumps also feature long-life rotary shear valves, which last up to 24x longer than competing valves. The valve drive achieves a performance of < 250ms between neighboring ports. With C Series modules, you can address up to 15 pumps individually and choose from a wide range of high-resolution options up to 192,000 steps/full-stroke.

CUSTOMER REQUIREMENTS

- **Interface**
Type: RS232, RS485 or CAN
Communication Rates: RS232/RS485 9600 or 38400 baud, CAN 100 or 125 kbits
Format: (RS232/RS485) Data Bits - 8, Parity - None, Stop Bit - 1, Half Duplex, Data Terminal and OEM protocols
- **Environmental (Operating)**
Temperature 15°C to 40°C (59°F to 104°F)
Humidity 20 to 95% RH at 40°C (104°F)

ORDERING INFORMATION

Part number	Description
C3000 Syringe Pumps	
10010	With 120° 3-port Valve PEEK/UHMWPE
10011	With 120° 3-port Valve PEEK/PTFE
10012	With 120° 3-port Valve PCTFE/UHMWPE
10013	With 120° 3-port Valve PCTFE/PTFE
10030	With 90° 4-port Valve PEEK/UHMWPE
10031	With 90° 4-port Valve PEEK/PTFE
10032	With 90° 4-port Valve PCTFE/UHMWPE
10033	With 90° 4-port Valve PCTFE/PTFE
10052	With Distribution 4-port Valve PCTFE/UHMWPE
10053	With Distribution 4-port Valve PCTFE/PTFE
10110	With T 3-Port Valve PEEK/UHMWPE
10120	With T 4-Port Valve PEEK/UHMWPE
C24000 syringe Pumps	
10018	With 120° 3-port Valve PEEK/UHMWPE
10019	With 120° 3-port Valve PCTFE/UHMWPE
10028	With 120° 3-port Valve PEEK/PTFE
10029	With 120° 3-port Valve PCTFE/PTFE
10038	With 90° 4-port Valve PEEK/UHMWPE
10039	With 90° 4-port Valve PCTFE/UHMWPE
10048	With 90° 4-port Valve PEEK/PTFE
10049	With 90° 4-port Valve PCTFE/PTFE
10059	With Distribution 4-port Valve PCTFE/UHMWPE
10069	With Distribution 4-port Valve PCTFE/PTFE
<p>For information about C-series Syringes please go to the Accessories pages at the end of the catalogue. For technical information please ask for Datasheet Nr. MKT90021</p>	

C-Series Replacement Syringes

BASE MODEL

Product compatibility C-Series and MC-Series



FEATURES

With the replacement syringes for C Series pumps, you have the choice between PTFE or UHMWPE seal materials - and the assurance that both are of the highest quality. Compatible with standard 3 cm stroke syringe pumps, the syringes feature top-quality borosilicate glass barrels. In addition, bore diameters are held to extremely tight tolerances.

CUSTOMER REQUIREMENTS

• Seal Materials

UHMWPE - for best abrasion resistance and longest life
PTFE - for best chemical resistance

• Syringe Volumes

UHMWPE - 50 µL, 100 µL, 350 µL, 500 µL, 1 mL, 2.5 mL, 5 mL
PTFE - 50 µL, 100 µL, 350 µL, 500 µL, 1 mL, 2.5 mL, 5 mL, 12.5 mL

CONFIGURED OPTIONS

• OEM Options

Custom volumes and configurations available

ORDERING INFORMATION

Part number	Description
10070	50 µL UHMWPE
10071	100 µL UHMWPE
10072	250 µL UHMWPE
10073	500 µL UHMWPE
10074	1 mL UHMWPE
10075	2.5 mL UHMWPE
10076	5 mL UHMWPE
10080	50 µL PTFE (also recommended for MC6000)
10081	100 µL PTFE (also recommended for MC6000)

ORDERING INFORMATION

Part number	Description
10082	250 µL PTFE (also recommended for MC6000)
10083	500 µL PTFE (also recommended for MC6000)
10084	1 mL PTFE (also recommended for MC6000)
10085	2.5 mL PTFE (also recommended for MC6000)
10086	5 mL PTFE (also recommended for MC6000)
10088*	12.5 mL PTFE *(Compatible only with the TriContinent C3000 Model # 8657-15 and C24000 Model # 8657-11, not suitable for any MC6000 model)

C-Series Accessories

ORDERING INFORMATION

Part number	Description
10151	C-Series Evaluation Kit for use with all C-Series Pumps Includes: Power Supply, Tubing Kit, USB Converter/Cable Assembly and Quick Start Guide.
10171	Cable, RS232 to pump
10176	Evaluation Cable, RS232 and Bench to One C/MC-Series Device
10177	Evaluation Cable, USB to One C/MC-Series Device
10178	Evaluation Cable, XYZ to One C/MC-Series Device
10179	Cable, Daisy Chain Jumper
8152-09	Universal Power Supply
8246-71	Cable, Interface Converter to Pump
8698-02	USB/RS485 Converter
8698-03	Cable, USB-A/USB-B, 2-meter

Multi-Channel Syringe Pump

BASE MODEL

MC6000-4, MC6000-6, MC6000-8



FEATURES

The MC6000 pump is the only one available on the market with shear valves that eliminate the problems associated with solenoid valves. It also features 1/4 -28 female ports offering an integrated bypass capability. Syringe positioning is made easy with the full quadrature encoder. The MC6000 also includes front panel LEDs indicating flow and status, enabling you to easily monitor the process. The valve drive achieves a performance of < 250ms between neighboring ports. With the MC6000, you can address up to 15 pumps individually.

CUSTOMER REQUIREMENTS

• Interface

Type: USB, RS232, RS485 or CAN

Communication Rates: RS232/RS485 9600 or 38400 baud, CAN 100 K, 125 K, 250 K, 500 K, 1 M baud Format (RS232/RS485) Data Bits - 8, Parity - None, Stop Bit - 1Half Duplex, Data Terminal and OEM

• Environmental (Operating)

Temperature 15°C to 40°C (59°F to 104°F)

Humidity 20 to 95% RH at 40°C (104°F)

CONFIGURED OPTIONS

• Available

in 4, 6 or 8 channel syringe configurations

• Accessories

Syringe Sizes: 50 µL, 100 µL, 250 µL, 500 µL, 1 mL, 2.5 mL, 5 mL

ORDERING INFORMATION

Part number	Description
10154	MC6000-8, 8-Channel with 120° 3-port Valve PEEK/UHMWPE
10155	MC6000-6, 6-Channel with 120° 3-port Valve PEEK/UHMWPE
10153	120° 3-port Valve, 1/4 - 28, PEEK/UHMWPE
MC6000 Accessories	
0171	Cable, RS232 to Pump
8246-71	Cable, Interface Converter to Pump
For syringes please see the syringe section. Note: On the MC6000 Multichannel Syringe Pump the maximum syringe volume is 5 mL!	

LT-Series Pump

BASE MODEL

250 μ L, 150 μ L, 1.0 mL, 2.5 mL, 5.0 mL



FEATURES

TriContinent LT Series syringe pumps are renowned for their reliability and cost-effectiveness – because they are designed for a long lifecycle with zero maintenance. This includes the UHMWPE syringe seals, which combine resilience with exceptional longevity. Plus: our advanced manufacturing processes achieve perfect alignment of the syringe and other elements. With LT Series pumps, you benefit from a wide range of options, including valves, electronics and encoders.

CUSTOMER REQUIREMENTS

• Drive Recommendations

Pump should typically be driven with a 24 VDC bipolar chopper drive, 1/2 step, at rated current. Higher voltage may be required at higher step rates.

• Environmental

Temperature (operating) 15°C to 45°C (59°F to 113°F)
Humidity (operating) 10-85% RH (non-condensing)

CONFIGURED OPTIONS

• Available

in 250 μ L, 500 μ L, 1.0 mL, 2.5 mL, 5.0 mL

ORDERING INFORMATION

Part number	Description
0386	LT Pump, 250 μ L
0387	LT Pump, 500 μ L
0388	LT Pump, 1.0 mL
0389	LT Pump, 2.5 mL
0390	LT Pump, 5.0 mL
0956	M-Series Controller PCBA Controller/Driver Assembly (.5A Max)
0959	RS232/485 Converter Kit
0960	USB/485 Converter Kit
Valve options on request	

BasePump

BASE MODEL

BasePump



FEATURES

TriContinent's range of BasePump syringe pumps are recognized throughout the industry for their quality, reliability and cost-effectiveness. You can choose from a wide range depending on your application needs - with or without valves and electronics. The BasePump range is also flexible, accommodating syringes of different sizes, from 50 μ L to 10 mL.

CUSTOMER REQUIREMENTS

- **Driver Recommendation (min)**

For Stepper Motor: Bipolar Chopper at 24 VDC, 350 mA per phase or equivalent

CONFIGURED OPTIONS

- **With or without Valve**

- **Accessories**

Diluent Syringe Sizes - 500 μ L, 2 mL, 5 mL, 10 mL

Dual Port Sample Syringe Size - 50 μ L, 250 μ L

Single Port Sample Syringe Size - 250 μ L, 500 μ L, 2 mL, 5 mL, 10 mL

ORDERING INFORMATION

Part number	Description
0802	BasePump, Sample
0884	BasePump, Diluent

BasePump Syringes

ORDERING INFORMATION

Part number	Description
0905	50 µL Dual Port Sample Syringe
0904	250 µL Dual Port Sample Syringe
0903	500 µL Diluent Syringe
0902	2 mL Diluent Syringe
0901	5 mL Diluent Syringe
0900	10 mL Diluent Syringe
0893	250 µL Single Port Sample Syringe
0894	500 µL Single Port Sample Syringe
0890	2 mL Single Port Sample Syringe
0895	5 mL Single Port Sample Syringe
0896	10 mL Single Port Sample Syringe
0779	Plungers (5/Pack) 50 µL for Dual Port Sample (2.740 L)
0780	Plungers (5/Pack) 250 µL for Dual Port Sample (2.740 L)
0783	Plungers (5/Pack) 250 µL Sample
0781	Plungers (5/Pack) 500 µL Diluent or Sample
0782	Plungers (5/Pack) 2 mL Diluent or Sample
0805	Plungers (5/Pack) 5 mL Diluent or Sample
0784	Plungers (5/Pack) 10 mL Diluent or Sample
0785	Small Polycarbonate Valves (10/Pack)
0786	Large Polycarbonate (10 mL syringe) Valves (10/Pack)
0983	Nylon Valves (10/Pack)
0891	Syringe Holder for Diluent / Polycarbonate Valve
0889	Syringe Holder for Dual Port Sample
0892	Syringe Holder for Single Port Sample
0984	Syringe Holder for Diluent / Nylon Valve

Z-Series Pumps with Proximity Sensor

BASE MODEL

200 μL , 1000 μL , 2000 μL , 5000 μL



FEATURES

TriContinent's Z Series pumps are electronic air displacement pipetting modules designed to be fitted on liquid handling robotic systems. Noted for their exceptional precision and accuracy, these syringe pumps are also available in a version that integrates a proximity sensor for easier homing and position detection. You can use the available interfaces to integrate Z Series pumps with M Series motion controllers, giving you a quick and easy way to produce a complete solution.

CUSTOMER REQUIREMENTS

• Drive Recommendations

Pump should typically be driven with a 24 VDC bipolar chopper drive, 1/2 step, at rated current.

Higher voltage may be required at higher step rates.

CONFIGURED OPTIONS

• Available

in 200 μL , 1000 μL , 2000 μL and 5000 μL

ORDERING INFORMATION

Part number	Description
0948	Z-Pump, 200 μL
0949	Z-Pump, 1000 μL
0950	Z-Pump, 2000 μL
0951	Z-Pump, 5000 μL
10005	Tip Adapter for 200 μL Z-Pump
10006	Tip Adapter for 1000 μL Z-Pump
10007	Tip Adapter for 2000 μL Z-Pump
10008	Tip Adapter for 5000 μL Z-Pump

Z-Series Instrument Ready Pumps

BASE MODEL

1000, 2000, 5000



FEATURES

TriContinent's Z Series pumps are electronic air displacement pipetting modules designed to be fitted on liquid handling robotic systems. Their instrument-ready versions provide exceptional precision and accuracy, especially when used together with the TriTon (XYZ) Robot from TriContinent.

CUSTOMER REQUIREMENTS

• Drive Recommendations

Pump should typically be driven with a 24 VDC bipolar chopper drive, Y2 step, at rated current.

Higher voltage may be required at higher step rates.

CONFIGURED OPTIONS

• Available

Available in 200 p.l., 1000 pi, 2000 µL and 5000 µL

Z-series Accessories

ORDERING INFORMATION

Part number	Description
10000	200 µL Tips, 96/rack
10001	1000 µL Tips, 100/rack
10002	2000 µL Tips, 60/rack
10003	5000 µL Tips, 24/rack
0955	M-Series Controller/Driver for Z-pump (.5A Max)
0959	RS232/485 Converter Kit
0960	USB/485 Converter Kit

StatMatic

BASE MODEL

StatMatic, StatMatic I, StatMatic II



FEATURES

StatMatic is the world's leading bottle top dispenser for clinical instruments, with feature highlights including single volume air displacement pipettes. You can order the StatMatic in custom colors and have them printed with your company name and logo.

CUSTOMER REQUIREMENTS

- **Options**
 - Inlet Length
 - Instructions
 - Unit Color
 - Handle, Outlet, Knob printing
 - Packaging

CONFIGURED OPTIONS

- **OEM Requirements**
 - A volume of 200 units allows custom options.

ORDERING INFORMATION

Part number	Description
Statmatic Bottle-Top Dispenser	
0401	Statmatic with 50, 100, 200 and 250 μ L volume
0981	Statmatic with 0.5, 0.8, 1.0, 2.0 and 2.5 mL volume
Statmatic I Bottle-Top Dispenser	
0982	.8, 1.6, 2.0 and 2.4 mL, 100, 200, 250 or 300 μ L per well, with manifold
Statmatic II Dispenser	
0980	.8, 1.6, 2.0 and 2.4 mL, 100, 200, 250 or 300 μ L per well, with manifold

StatMatic Accessories

ORDERING INFORMATION

Part number	Description
0822	Manifolds, 8-port, non-sterile / disposable, 25 / box
0925	Fixed outlet tubing, 5 / pack for use with Cat# 0401 and 0981
0790	125 cc HDPE bottle with 3.65" tubing inlet and adapter. For use with Cat# 0980

StatPet

BASE MODEL

Available for OEM customers only



FEATURES

StatPet air displacement micropipettes combine the benefits of convenience, accuracy and cost-effectiveness. You can choose from a range of different single volumes and custom colors – and even add your company name and logo.

CUSTOMER REQUIREMENTS

• Options

- Available for OEM customers only
- Dispense Volume: 20 μ L - 1 mL Unit Color
- Handle and Knob Printing
- Packaging

CONFIGURED OPTIONS

• OEM Requirements

A volume of 100 units allows custom options

MiniPet

BASE MODEL

5 μ L, 10 μ L, 20 μ L, 30 μ L, 35 μ L, 40 μ L, 50 μ L, 75 μ L, 100 μ L, 200 μ L



FEATURES

The MiniPet is ideal for use in routine applications requiring a high degree of accuracy. Its compact size, coupled with its precision and affordability, has made it the world's #1 micropipette. You can also choose custom colors and add your logo. The optional DeTipper bottle lets you remove the tips without touching them. The MiniPet uses standard 0–200 μ L yellow tips.

CUSTOMER REQUIREMENTS

- **Options**
 - Custom options available for OEM customers only
 - Dispense Volume: 5 μ L - 200 μ L
 - Unit Color
 - Cap Pad Printing
 - Packaging
- **OEM Requirements**
 - A volume of 1000 units allows custom options.

ORDERING INFORMATION

Part number	Description
0987	MiniPet 5 μ L, Red
0871	MiniPet 10 μ L, White
0872	MiniPet 20 μ L, Pink
0873	MiniPet 25 μ L, Orange
0916	MiniPet 30 μ L, Plum
0874	MiniPet 35 μ L, Light Blue
0875	MiniPet 40 μ L, Light Green
0876	MiniPet 50 μ L, Yellow
0926	MiniPet 75 μ L, Green
0877	MiniPet 100 μ L, Blue
0918	MiniPet 200 μ L, Teal
0342	0 - 200 μ L, Generic Eppendorf®, 1,000 / Bag
0824	DeTipper Bottle

MultiWash III

BASE MODEL

8 Port, 12 Port



CONFIGURED OPTIONS

- **8 Port or 12 Port**
- **Standard Manifold** (ELISA Applications)
or **Coaxial Manifold** (Cell Wash Applications)

FEATURES

The MultiWash III microplate washer is so reliable that it is currently the only one on the market with a two-year warranty. TriContinent designed it to be quick and simple to set up and operate, with color-coded, quick-connect fittings and a manifold that detaches easily for the rinse program. The MultiWash III is ideal for labs performing a variety of test types, as it can accommodate any size of well. It also includes overspill protection for added safety.

CUSTOMER REQUIREMENTS

- **Power Requirements Consumption**
99-132 VAC/198-264 VAC, 50-60 Hz
30 watts maximum
- **Temperature Operating Storage**
10°C to 40°C (50°F to 104°F) Storage: 1°C to 40°C
(34°F to 104°F)

ORDERING INFORMATION

Part number	Description
0820	MultiWash III without Manifold
0820-01	MultiWash III with 8-Port Standard Manifold
0820-02	MultiWash III with 12-Port Standard Manifold
0820-04	MultiWash III with 8-Port Coaxial Manifold
0820-05	MultiWash III with 12-Port Coaxial Manifold
0835	8-Port Standard Manifold for MWIII
0836	12-Port Standard Manifold for MWIII
0838	8-Port Coaxial Manifold for MWIII
0839	12-Port Coaxial Manifold for MWIII

MultiWash III Accessories

ORDERING INFORMATION

Part number	Description
0509	105 µM Filters, 10 / Pack
0721	Clear Dispense Needles, 0.020" I.D. with Installation Tool, 16 / pack 125 cc HDPE bottle with 3.65" tubing inlet and adapter. For use with Cat# 0980
0933	Reservoir Kit F Includes: One each Waste, Rinse and Wash bottle, cap with tubing, slip connectors and fittings.
0934	Replacement Wash Reservoir Cap assembly with slip connectors for use with Kits E and F
0935	Replacement Rinse Reservoir Cap assembly with slip connectors for use with Kits E and F
0936	Replacement Waste Reservoir bottle and cap with slip connectors for use with Reservoir Kits E and F
0943	Maintenance Kit and Syringe Assembly (Cat#'s 0944 and 0945) No tubing included.
0944	Maintenance Kit w/out Syringe Assembly. Includes: Four each inlet filters, thumbscrews and microstrip wells. Two each fuses, valves, valve covers, cleaning needle assemblies and needle installation tools. 16 needle shroud assemblies.
0945	Replacement Syringe Assembly Includes: One each valve cover and syringe set and two thumbscrews.
0946	Replacement Tubing Kit

Triton XYZ

BASE MODEL

Single Arm, Dual Arm



CONFIGURED OPTIONS

• Accessories

- CCU for Tecan® RSP Emulation
- Probe collet
- Liquid level detection (capacitive)
- Proprietary tube stripper design
- Z-axis gripper bracket
- System legs
- Z-axis mounted pipette pump (no external tubing required)

FEATURES

The TriTon is an extremely quiet and smooth liquid handling robot. It offers highly precise and fully adjustable liquid level detection with a high degree of sensitivity. Featuring a tube stripper mechanism for cap piercing applications, the TriTon has a cap piercing force of over 10lb (4.536 kg). It is also scalable across all axes, making it suitable for multiple applications. The TriTon helps you minimize downtime with its full quadrature encoders that provide high-resolution error detection and fast recovery.

CUSTOMER REQUIREMENTS

• Power Requirement

Input voltages = 24 VDC at 2 A (4 A for dual-arm)

• Environmental

- Storage Temperature: 0°C to 50°C (32°F to 122°F)
- Operating Temperature: 15°C to 40°C (59°F to 104°F)
- Operating Humidity: 85% RH at 31°C (87.8°F)
decreasing linearly to 50% RH at 40%
- Altitude: up to 2,000 meters

Rotary Valve Controller

BASE MODEL

Rotary Valve Controller



CONFIGURED OPTIONS

• OEM Options

- Custom configurations possible
- Valve pre-installed
- Pre-configured for specific valve

FEATURES

TriContinent's rotary valve controllers are designed for use with the C Series rotary shear valves. They provide highly accurate control of the fluid flowing through the valves, along with fast actuation - achieving a performance of less than 250ms between neighboring ports. You can address up to 15 controllers individually and benefit from low total cost of ownership, as the controller drive has a long lifespan and is maintenance free.

CUSTOMER REQUIREMENTS

• Interface

Type: RS232, RS485 or CAN Communication Rates: RS232/RS485 9600 or 38400 baud CAN 100 or 125 kbits Format: (RS232/RS485) Data Bits - 8, Parity - None, Stop Bit - 1
Half Duplex, Data Terminal and OEM protocols

• Environmental (Operating)

Temperature 15°C to 40°C (59°F to 104°F)
Humidity 20 to 95% RH at 40°C (104°F)

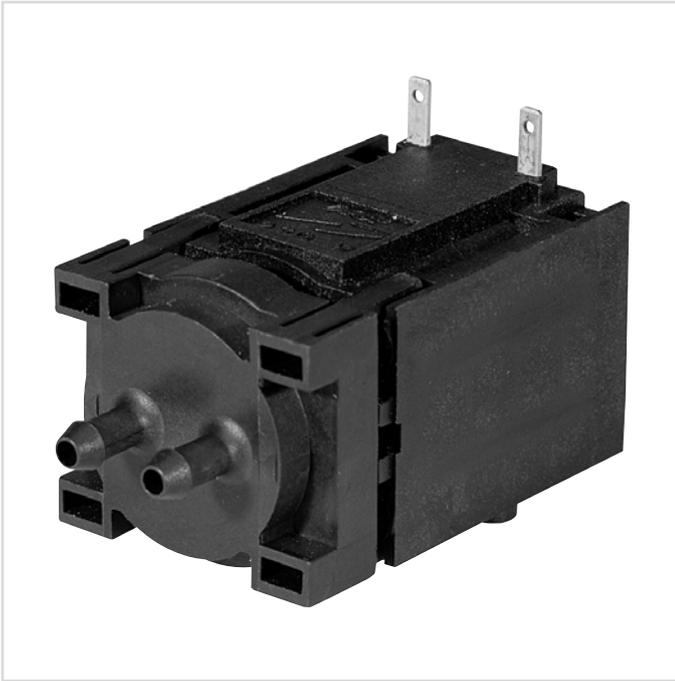
ORDERING INFORMATION

Part number	Description
0XXX	Rotary Valve Controller
0959	RS232/485 Converter Kit
0960	USB/485 Converter Kit

Linear Diaphragm Liquid Pump

BASE MODEL

LMF3 115/230 V AC, LMF3 12/24 V AC, LMF4 115/230 V AC, LMF4 12/24 V AC



FEATURES

Thomas' series of liquid pumps is very cost-effective as the pumps are self-priming, maintenance free and long-lasting. In addition, they are compact and quiet in operation.

TYPICAL APPLICATION

- Industrial Applications
- Medical Devices
- Laboratory and Analysis
- Dosing Applications
- HVAC
- Fuel Cells

Peristaltic Pumps

BASE MODEL

SR10/30, SR10/50, SR10/100



FEATURES

Thomas peristaltic pumps stand out due to their low maintenance requirements, as they are self-priming and the cassette (for the SR10) and tubing (for the SR25 and SR18) can be replaced rapidly. You can select from a variety of different tubing materials for these compact pumps and the S10s in particular support endless tubing possibilities. All the Thomas peristaltic pumps are safe to run dry.

CUSTOMER REQUIREMENTS

- **Chemical industry**
- **Medical industry**
- **Laboratory and analysis technology**
- **Food sector**
- **Hygiene, disinfection**
- **Industrial dishwasher**
- **Glass washing**



Peristaltic Pumps

BASE MODEL

SR18, SR25



FEATURES

Thomas peristaltic pumps stand out due to their low maintenance requirements, as they are self-priming and the cassette (for the SR10) and tubing (for the SR25 and SR18) can be replaced rapidly. You can select from a variety of different tubing materials for these compact pumps and the S10s in particular support endless tubing possibilities. All the Thomas peristaltic pumps are safe to run dry.

CUSTOMER REQUIREMENTS

- **Chemical industry**
- **Medical industry**
- **Laboratory and analysis technology**
- **Food sector**
- **Hygiene, disinfection**
- **Industrial dishwasher**
- **Glass washing**



1210 Series

BASE MODEL

1210 DC, 1210 LC



FEATURES

The Thomas 1210 Series of diaphragm-based liquid pumps streamlines your application in that it is self-priming and handles a mixture of liquid and gas. It also offers excellent performance with high flow and pressure levels, while its compact form factor minimizes pulsation. The 1210 Series pumps also ensure bubble free transfer of gas/liquid media.

TYPICAL APPLICATIONS

- Ink Jet Printers
- Diagnostic Workstations
- Fuel Cells

5002F Series

BASE MODEL

5002F, 5002F Twin



FEATURES

Thomas' 5002F liquid pumps are easy to operate as they are self-priming and require no lubrication - and that maximizes uptime and reduces your maintenance costs. The pumps can also run continuously as well as when they are dry. The 5002F series is ideal for use with aggressive substances, as the pumps are made from strong materials that are highly resistant to corrosion or other damage by chemicals.

TYPICAL APPLICATIONS

- **Chemical Industry**
- **Medical Devices**
- **Laboratory and Analysis**
- **Industrial Applications**
- **Hygiene**

Consult factory for customized solutions

1610 Series

BASE MODEL

1610VD



FEATURES

The 1610 Series of Thomas diaphragm pumps is ideal for use in a medical and lab environment as the pumps offer low vibration levels and are extremely quiet in operation – even when running at maximum performance. The 1610s are recognized for their evacuation speed, which is up to 30% faster than the industry standard, as well as for their unparalleled stability. They also offer excellent reliability throughout their lifetime.

TYPICAL APPLICATIONS

- **Medical Devices**
- **Gas Detectors and Samplers**
- **Laboratory Workstations and Analyzers**

1620 Series

BASE MODEL

1620VD



FEATURES

The 1610 Series of Thomas diaphragm pumps is ideal for use in a medical and lab environment. The pumps offer low vibration levels and are extremely quiet in operation – even when running at maximum performance. The 1620s are recognized for their unparalleled stability and reliability throughout their lifetime.

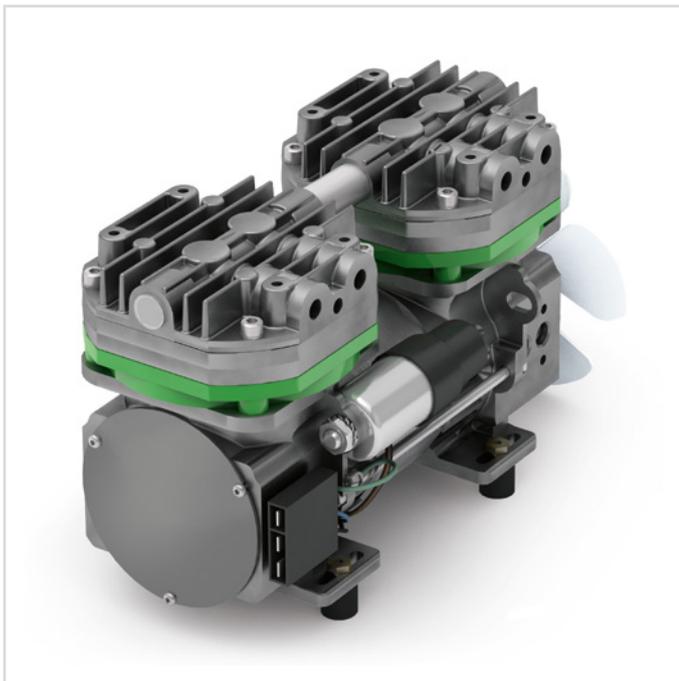
TYPICAL APPLICATIONS

- **Medical Devices**
- **Gas Detectors and Samplers**
- **Laboratory Workstations and Analyzers**

Diaphragm Pumps

BASE MODEL

8011V, 8011ZVP, 8011ZVR



FEATURES

The 8011 Series of Thomas diaphragm pumps is particularly efficient and cost effective as the pumps are oil-less – they do not require lubricating, eliminating the need for maintenance. Made from resilient aluminum, the 8011s are also resistant to seawater. Their excellent performance is combined with silent (50 – 54 dBA) operation along with low vibration levels.

TYPICAL APPLICATIONS

- Autoclaves
- Analysers
- Vacuum ovens
- Rotation Evaporator
- Degassing
- Aspirators

Miniature Diaphragm Pumps

BASE MODEL

2002, 3003, 3013



FEATURES

Thomas' series of miniature diaphragm pumps is optimized for use in medical and lab environments, as the devices are ultra-compact and lightweight while offering low noise and vibration levels. They are also oil-less and maintenance free, making them cost-effective in operation.

TYPICAL APPLICATIONS

- Patient monitoring
- Anaesthetic control
- Gas detection devices
- Flue gas measurement
- Pipetting

3014 Series

BASE MODEL

3014VD LC, 3014VD DC



FEATURES

The 3014 Series of Thomas diaphragm pumps is quiet, compact and lightweight. With low vibration levels, these pumps are typically used for patient monitoring and similar applications. They are also cost-effective, with oil-less operation and low power consumption.

TYPICAL APPLICATIONS

- Patient monitoring
- Anaesthetic control
- Gas detection
- Flue gas measurement
- Pipetting

1410 Series

BASE MODEL

1410 LC, 1410 DC, 1410 BLDC



FEATURES

With the 1410 Series of Thomas diaphragm pumps, you benefit from their cost-effectiveness with oil-less operation, low power consumption and a long lifespan. The 1410 series is also very quiet. These pumps have a compact design and are also lightweight, making them ideal for use in small devices such as medical apparatus.

TYPICAL APPLICATIONS

- **Medical devices**
- **Gas detection**
- **Analysis**
- **Battery operated systems**

1420 Series

BASE MODEL

3014VD LC, 3014VD DC



FEATURES

The 1420 Series of Thomas diaphragm pumps offer very low vibration levels, making them ideal for use in sensitive medical and analysis equipment. You also benefit from their cost-effectiveness with oil-less operation, low power consumption and a long lifespan. The 1420 Series is also very quiet. Along with their compact design, these pumps are also lightweight.

TYPICAL APPLICATIONS

- **Medical devices**
- **Analysis**
- **Battery operated systems**

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