Application Note: 0106

Masterflex[®] Pumps: Versatile, Accurate Fluid Transfer, Filling & Dispense

Gregg E. Johnson, Cole-Parmer, Barrington, IL, USA.

Many pump systems cannot stand up to the stringent demands of beverage production, filling and dispense applications. Repeatability is a crucial requirement, and most beverage production applications also demand high speed for line efficiency, and adjustable speed for overall line flexibility to serve different container sizes and product consistencies. Pump systems used for production and filling applications must also meet sterile production requirements, be CIP/SIP capable, and require only minimal parts change to minimize the downtime associated with product changeover.

Solution

Masterflex pumps provide a repeatable, controlled dispense to accommodate precision product handling. Masterflex pumps can handle a variety of product fill volumes and dispensing profiles, as well as provide a robust solution for sterile liquid transfer to serve critical components performing upstream and downstream production processes. For OEMs, our world-class R&D engineers, and production facilities can help you find the pump solution that integrates perfectly with your equipment.





Transfer, filling and dispense operations gain speed and flexibility because your product comes in contact with only the tubing and filling nozzle, which can be replaced in less than a minute. Unlike other pump designs, Masterflex pumps never need to be disassembled to be cleaned.

We offer a wide range of Masterflex pumping systems that provide accurately controlled flow of liquids and contamination-free flow over a wide range of flow rates. Rated for continuous use, Masterflex pumps provide for reduced process maintenance costs and minimized system downtime.

A Completely Closed System

Accurate and sterile flow control is essential for beverage producing, filling, and dispensing applications. Maintaining repeatable, contamination-free flow in both upstream and downstream processes, while also reducing process maintenance costs and minimizing system downtime, is often a full-time challenge. High accuracy and repeatability, combined with low maintenance, make the Masterflex pump a highly versatile and invaluable piece of equipment for many different beverage processing, transfer and dispensing applications. Masterflex pumps provide a completely closed system for contamination-free flow, with a wide range of tubing materials available for commercial beverage processing applications to meet USP, FEA, NSF, and 3A requirements.

Customer-Specific OEM Solutions

For beverage dispensing applications, Masterflex pumps are key components in the products of numerous OEMs worldwide, each providing the specialized fluid handling solution to best match our customer's exact specifications. For example, Bunn-O-Matic Corp. equips its highly regarded coffee dispensing machines with our peristaltic pumps. So does IMI Cornelius, for its popular and extensive line of juice dispensers.

Key Words

- Masterflex®
- Rapid-Load®
- CIP/SIP
- Controlled Dispense
- Fluid Isolation
- Peristaltic Pump
- Precision Liquid Transfer
- OEM Solutions

Every series of our peristaltic pumps is available for OEM use, providing flow rates from less than a teardrop to hundreds of gallons per minute, and an accuracy rate better than 1 percent. Discover why leading OEMs specify our highly versatile peristaltic pumps for their products.

Smooth, Seamless Operation: The Masterflex Pump Advantage

- 650:1 turndown, bidirectional flow, and self priming capabilities.
- The Masterflex pump lines offer pumping capacities from 0.001 mL per minute up to 175 gpm.
- Product comes into contact with only the tubing, *which can be replaced in less than a minute*.
- Masterflex pumps and tubing meet these approvals: UL, cUL, CE, ISO 9001, ISO 13485, USP Class VI, European Pharmacopoeia, FDA, NSF 51, NSF 61.
- Masterflex pumps are *extremely flexible with product viscosities.*
- Masterflex pumps produce very little heat, compared to gear pumps, protecting the consistency and integrity of products.
- *Requires very little maintenance* to keep in peak operating condition.



Every series of our peristaltic pumps is available for OEM use, providing flow rates from less than a teardrop to hundreds of gallons per minute.

- Masterflex pumps are CIP/SIP (cleaning/sterilization in place) capable.
- Maintenance-free brushless motor drive (rated for continuous duty) and roller and ball bearing pump head construction produce a robust, powerful pump ideal for longterm operation.
- A wide range of superior tubing material is available for most any food application.
- Unlike many other peristaltic pumps on the market, Masterflex pump heads offer external adjustable occlusion, allowing the user to make critical adjustments withoutswitching off the pump.

Superior Fluid Handling & Flow Control

Some applications for Masterflex pumps include:

- Bottling Operations
- Restaurant Beverage Dispensers
- Beverage Vending Machines
- Pasteurization Processes
- Vitamin Injection In Milk
- Bottle Washing Operations
- Pumping Sanitizing Agents
- Dosing Yeast in Beer Production
- Feeding Beer Filtration Systems
- Pumping Pulpy Filter Media In Juice Production



Masterflex[®] L/S[®] washdown digital pump with wall-mounted controller.

Metrohm Nederland www.masterflex.nl



Masterflex B/T[®] Rapid-Load[®] direct drive peristaltic pumping systems provides for simple tubing changes.



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