

APPLICATION

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FOCUS

FLEXOGRAPHIC PRINTING



Thermo Scientific Masterflex® Pumps Provide For Fast, Easy Ink Changeouts – Gentle Peristaltic Action Prevents Foaming

Challenge:

For many Flexographic and Gravure printers, switching out a color often means costly downtime because technicians must strip and clean the pumps serving the presses. Some of these inks are very abrasive, often prompting unscheduled downtime and missed production schedules due to breakdowns from excessive pump wear. Many inks and varnishes tend to be extremely shear sensitive as well. When subjected to the high shearing action of a typical gear or centrifugal style ink pump, they have a tendency to foam, lowering production quality.

Solution:

With Masterflex peristaltic pumps, there's never a need to clean the pump between color changeouts because the ink is always contained within the pump's flexible tubing. When changing inks, simply change out the tubing – a simple procedure that takes less than a minute – then reuse the tubing next time that ink is used. Plus, Masterflex pumps are impervious to highly abrasive fluids and gentle on shear-sensitive materials, such as water based inks and varnishes, so foaming is never a problem.

Benefits:

Masterflex pumps are ideal for handling all inks, adhesives and coatings typically used in Flexographic and Gravure printing applications. Because of the pump's high suction lift capabilities, users can even pump straight from a one-gallon container. Quick changeovers for short runs are made simple with an easy hose change. Plus, there's no waste left in the sump because the pump is reversible. And if you're concerned about surging, don't be. The pump's gentle action creates even flows and steady pressures.

CLEAN PUMP TECHNOLOGY FOR ULTRA-EFFICIENT PRINT PRODUCTION

Masterflex® pumps are innovative, cost-effective peristaltic pumping systems, optimally designed for OEM or retrofit applications for virtually any inking system serving Flexographic, Gravure, and corrugated board printing systems.

Masterflex pumps provide reliable, precise ink transfer. They also allow presses to run with minimum ink, require no stripping and cleaning when changing colors, and there's zero potential for cross contamination of colors and finishes due to dirty pumps.

BE A QUICK CHANGE ARTIST

Color changes must be extremely fast in order for printers to maintain productivity. Masterflex pumps make this easy. Simply change out the



pump's flexible tubing – it takes typically less than a minute. Masterflex pumps have no gears, valves, seals or glands to clean or wear out. Plus, printers can run four channels of color using a single drive mounted with four Masterflex pump heads, reducing maintenance time, noise level, and costs even further. And, because Masterflex pumps maintain a very low shear, they minimize air in the system that can often negatively effect certain inks and varnishes.

Masterflex pumps are nearly 100 percent volumetrically efficient. This means very little heat is introduced, compared to other pumping systems, eliminating excessive heat transfer to sensitive inks that could cause problems with print quality. Masterflex pumps are also fully reversible and have variable speed control, eliminating waste by draining ink stations and enclosed doctor blades, further minimizing changeover time.

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User-friendly Masterflex pumps provide precise ink dispense and transfer with no pump cleanup required for color changes.



FAST CHANGEOVER, NO CROSS CONTAMINATION

The Masterflex pump: a completely closed system for fluid isolation, reduced downtime

With adjustable 650:1 resolution, bidirectional flow and self-priming capabilities, Masterflex pumps provide for **smooth, seamless flow** to and from inking systems.

Gentle peristaltic method of pumping prevents surging and **will not damage shear-sensitive inks** and varnishes.

Masterflex pumps are **extremely flexible** with ink viscosities.

Masterflex pumps produce **very little heat**, compared to gear pumps, protecting the integrity of temperature-sensitive inks and finishes.

Peristaltic design means **no valves, glands or seals** to clean or wear out.

Requires very little maintenance to keep in peak operating condition.

Pumps have an accuracy of ± 0.5 or better, manually adjustable speeds of 1-to-650 rpm, and **flow rates from a few fluid ounces to multiple gallons per minute.**

Pump acts as its own check valve – when the pump stops, the tube stays shut – no siphoning or dribbling!

Can be cost-effectively retrofit into any inking system, and a wide range of superior tubing material is available for long tubing life.

Highly accurate reversible flow makes Masterflex pumps ideal for today's enclosed reverse angle doctor blade systems.

Maintenance-free brushless motor drive (rated for continuous duty) and roller and ball bearing pumphead construction produce a robust, powerful pump **ideal for long-term operation.**

Self-priming for instant startup. And high suction lift provides for operating flexibility. The pump will also operate dry without damage!

Superior performance in viscous and abrasive fluid handling applications.

From inking system to point of delivery and back again, pumped ink, varnishes and other finishes remain safely contained within the pump's tubing, providing a high performance metering solution with **no lengthy downtime or clean up hassles.**