

TEXTILE PRINTING

MICROPUMP®





TEXTILE PRINTING

Digital Printers are used to print patterns on banners, bulk fabric, and garments. Reduced lead time, power consumption, material waste, water consumption, and CO₂ elimination are strong drivers for the textile industry's rapid conversion to digital textile printers. Markets addressed by these printers include Graphics Textiles, Garment, Décor, and Industrial.

MICROPUMP SOLUTION

Micropump pumps are used in digital textile printers to circulate pigmented ink over the inlets of the print heads. This circulation is important to keep the pigments in suspension and prevent blockage of print head inputs.

Precise flow and pressure requirements are driven by the design of the printheads. Micropump pumps deliver a pulseless flow which is key to preventing issues in print quality and drop placement accuracy.

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Flow Rate

- 1 to 5L/min (16 to 78 USG/hr) flow rates
- Variable speed pumps for this application with gear pump flows from 0.158 to 3.52 L/min (2.5 to 56 USG/hr) and centrifugal pump flows from 4 to 24 L/min (68 to 374 USG/hr)

Designed for Abrasive, Pigmented Inks

- Life test results for abrasive white inks well in excess of 20K hours.

Leak Free Operation

- Magnetic drives eliminate dynamic shaft seals, keeping fluid securely inside the pump and potential contaminants out.

Small Package Size

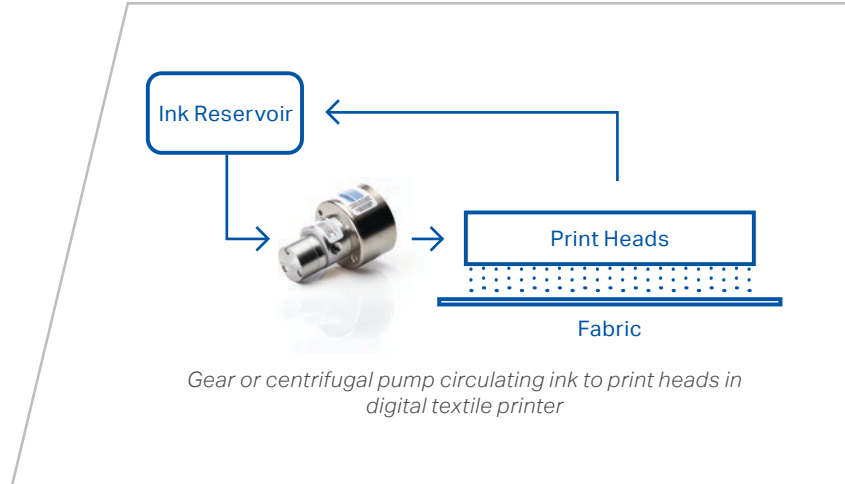
- Magnetic-drive gear pumps are small. When mounted to a Micropump electromagnetic EagleDrive™, we can offer a very compact pump and drive package.

Low Power Requirements

- With no drag from dynamic seals in the mag-drive gear pump, and no moving parts in our EagleDrive, power requirements are very low.

MICROPUMP PRODUCTS OPTIMIZED FOR THIS APPLICATION

Micropump CA Series centrifugal pump and GJR Series gear pumps are most commonly used in this application. They provide reliable, smooth flow for ink circulation.



CA Specifications

- Recommended Max Speed: 6,000 RPM
- Flow Max: 1.13 GPM (4,300 mL/min)
- Flow Min: 7.79 GPM (29,500 mL/min)
- Max System Pressure: 200 psi (14 bar)
- Temperature Range: -50 - 250° F (-46° - 121° C)

GJR Specifications

- Displacement: 0.316 ml/rev (N21) | 0.64 ml/rev (N23) | 1.23 ml/rev (N27) NEW
- Flow Max: 0.89 GPM (3,400 mL/min)
- Flow Min: 0.042 GPM (158 mL/min)
- Max Differential Pressure: 80 psi (5.5 bar)
- Max System Pressure: 300 psi (21 bar)
- Temperature Range: -50 - 270° F (-46° - 130° C)

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ACTUAL PERFORMANCE MAY VARY. Specifications are subject to change without notice.