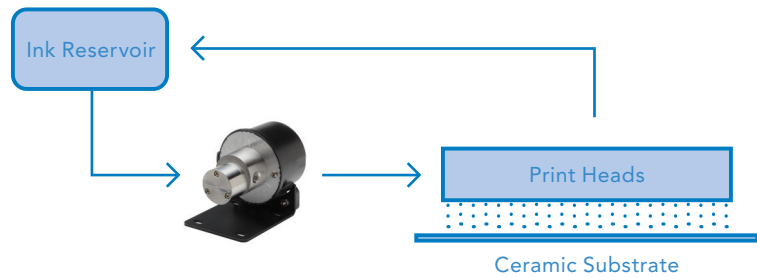




# Ceramic Printing

The speed and flexibility of today’s digital printers have opened up new opportunities for printed ceramic tile applications. These tiles are used for flooring, counter tops, and a broad range of decorative applications.

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



*Gear or centrifugal pump circulating ink to print heads in digital ceramic tile printer*

PUMPING REQUIREMENTS	MICROPUMP SOLUTIONS
<p>FLOW RATE: 1 to 5L/min (16 to 78 USG/hr)</p>	<p>We have 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)</p>
<p>LONG LIFE WITH ABRASIVE, PIGMENTED INKS</p>	<p>Our pumps were developed specifically to handle abrasive, pigmented inks. We have life test results for abrasive white inks well in excess of 20K hours.</p>
<p>LEAK FREE OPERATION</p>	<p>Our magnetic drives eliminate dynamic shaft seals, keeping fluid securely inside the pump and potential contaminants out.</p>
<p>SMALL PACKAGE SIZE</p>	<p>Our magnetic-drive gear pumps are small. When mounted to a Micropump electromagnetic EagleDrive™, we can offer a very compact pump and drive package.</p>
<p>LOW POWER REQUIREMENTS</p>	<p>With no drag from dynamic seals in the mag-drive gear pump, and no moving parts in our EagleDrive, power requirements are very low.</p>

# MICROPUMP PUMPS COMMONLY USED IN THIS APPLICATION

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



## SERIES CA

CENTRIFUGAL PUMP W/ EAGLEDRIVE

**FLOW RATE:** 4.3-23.6 L/MIN (68 TO 374 USG/HR)  
**MAX HEAD:** 7.8 meters (27ft.)  
**MAX SYSTEM PRESSURE:** 13.8 bar (200 psi)  
**WETTED MATERIALS:** 316SS, PTFE  
**DRIVES:** EagleDrive™, and Micropump drive mounts



## SERIES GJR

**FLOW RATE:** 0.158 to 3.52 L/min (2.5 to 56 USG/hr)  
**MAX DIFFERENTIAL PRESSURE:** 4.0 Bar (58 psi)  
**MAX SYSTEM PRESSURE:** 21 Bar (300 psi)  
**WETTED MATERIALS:** 316SS, Carbide/Ceramic, PTFE  
**DRIVES:** EagleDrive™, and Micropump drive mounts

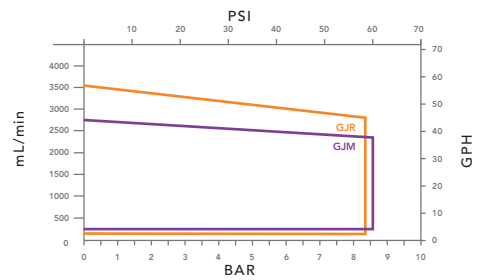
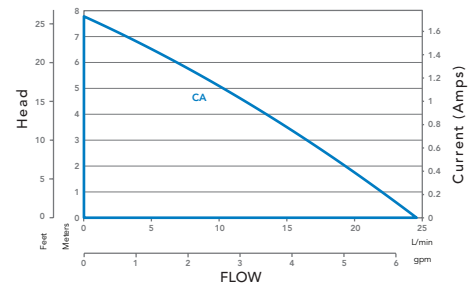


## SERIES GJM

**FLOW RATE:** 0.25 to 2.75 L/min (2.5 to 44 USG/hr)  
**MAX DIFFERENTIAL PRESSURE:** 4.2 Bar (60 psi)  
**MAX SYSTEM PRESSURE:** 21 Bar (300 psi)  
**WETTED MATERIALS:** 316SS, PEEK/Ceramic, PTFE, EP  
**DRIVES:** EagleDrive™, and Micropump drive mounts

## PERFORMANCE SUMMARY

These charts indicate optimal operating ranges for recommended products.



## MICROPUMP ADVANTAGE

The unparalleled quality, performance record, reliability and long operating life of Micropump pumps and our extensive engineering expertise make Micropump a vital partner in this demanding market.

## MICROPUMP

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