DYNAMIC FLUIDITY

More than 60 years of precise fluid control

MICROPUMP®
MICROPUMP

Experts in pump and drive technology - so you don't have to be.

CONTENTS

* 2 EXPERTISE

* 3 PUMP TECHNOLOGY

* 4 FLOW RANGES

* 5 & 6 PUMPS

* 7 CUSTOMIZATION & CERTIFICATION

* 8 ADAPTER KITS

* 9 SOLUTIONS & APPLICATIONS

* 10 PUMP SIZING

* 11 & 12 DRIVE & EAGLEDRIVE TECHNOLOGY

* 13 & 14 DRIVES
Established in 1960, Micropump Inc. is the originator of magnetic drive gear pump technology.

Today, more than six decades later, Micropump still is the market go-to for industry-leading gear pumps whether customers need standard models, configure-to-order options, and custom solutions.

Specializing in OEM and industrial pump applications where precise fluid control is required, Micropump combines the highest quality of manufacturing with unparalleled engineering expertise to meet our customers’ ever-changing fluid handling needs.

Micropump delivers a higher standard in performance and total confidence in your system design.
**Suction Shoe**

Our patented suction shoe gear pump solution delivers reliable and high-volumetric efficiency.

This innovative pump provides a reliable solution for accurate, pulseless flow control in high pressure, high temperature environments beyond the range of traditional cavity-style gear pumps.

The suction shoe pump, unlike any other gear pump on the market, self adjusts on the job for wear, offers near zero slip for accurate metering, and stable performance as components wear or thermally expand. Due to this the suction shoe gear pump features easier maintenance with less downtime than standard pumps.

This market exclusive suction shoe gear pump is available only from Micropump.

---

**Cavity Style**

Our cavity style pumps are highly versatile for fluid movement applications. This style of pump can handle a wide range of operating conditions, including pumping abrasive fluids, and can even be designed for reverse pumping.

Our cavity style pumps deliver exceptional pumping performance for any high-precision application. These compact, magnetically driven gear pumps feature a cavity style design with no dynamic seals for applications that cannot tolerate leaks.

Micropump’s cavity style pumps boast hydraulically efficient positive displacement design for minimum change in flow over a wide range of differential pressures and temperatures. Additionally, the continuous pulseless flow often eliminates the need for pulse dampening components, minimizes the impact on fluid system components, and minimizes formation of bubbles from dissolved gases or cavitation.

---

**Centrifugal**

Our centrifugal pumps utilize integrated impeller and magnet assemblies reduce the number of rotating parts to maximize pump life. Using the unique magnetic drive technology, centrifugal pumps provide excellent chemical resistance and energy-efficient fluid delivery. Centrifugal pumps offer a reliable, simple, long-lasting design for higher flow applications.

Centrifugal pumps consist of an impeller rotating within a casing. Liquid directed into the center of the rotating impeller is picked up by the impeller vanes and accelerated to a high velocity. When the liquid in the impeller is forced away from the center of the impeller, a reduced pressure is produced and consequently more liquid flows forward. There is no closed volume, as in a positive displacement pump, therefore producing a steady flow through the impeller. The pump basically increases the Bernoulli head of the flow between the eye and the exit of the pump.
PRODUCT FLOW RANGES BASED ON CONSTANT SPEED CURVES.
Displacement: 0.26 ml/rev (P23)  
0.58 ml/rev (P25) | 1.17 ml/rev (P35)  
Differential Pressure (max):  
8.6 bar | 125 psi  
System Pressure (max):  
21 bar | 300 psi  

Differential Pressure (max):  
8.6 bar | 125 psi  
System Pressure (max):  
345 bar | 5000 psi  
High Pressures

WE INVENTED MAGNETICALLY COUPLED GEAR PUMP TECHNOLOGY, AND

PATENTED SUCTION SHOE DESIGN

SELF-COMPENSATES FOR WEAR.

NEAR ZERO SLIP.

LONGER PUMP LIFE.
MICROPUMP PUMPS SUPPORT FOUR MAJOR APPLICATION CATEGORIES FOR FLUID HANDLING.

DOISING. METERING. CIRCULATION. TRANSFER.

WE CONTINUE TO LEAD IN DESIGN AND INNOVATION.
Micropump products are configured with many material options, including high strength, chemical-resistant advanced-engineered composites. Numerous wetted material options are available to ensure our products’ compatibility with the extensive range of fluids used in the many markets we serve.

Additionally, our pumps can be designed to withstand extreme environments such as intense heat, abrasives or freezing conditions. Overall, the materials from which we construct our pumps help deliver precise and durable performance.

MICROPUMP INCORPORATES DESIGNS TO MEET SAFETY, REGULATORY AND COMPLIANCE CERTIFICATIONS

Find out about our ATEX and UKEX certification and which products are rated for explosive environments.

Our products have been assessed and deemed to be compliant with all current CE and UKCA regulations for incorporation into customers’ systems, applications, and facilities within the EU & UK.
Adapter kits - Flexibility when you need it.

Our adapter kits feature separate components - available for versatile interface with NEMA 56C, 143/145TC and IEC (metric) frame motors. These adapter kits allow for the greatest flexibility when it comes to matching the best pump to your motor choice.

By utilizing an adapter kit, users can select a Micropump pump to improve systems without needing to change out existing motors. Even more, in the future, the lifetime of the pump can be extended with the ability to swap a replacement motor.

Now pumps or motors are easily interchangeable and allows customers to make the installation of the adaptor with a few simple bolts and screws provided with the kit.

The new adapter kits utilize standard product numbers to streamline and simplify ordering. Also, by offering a compatible solution with separate components, the adapter kit allows for easy replacement of specific parts if needed and removes the potential of having to pay for unnecessary parts.
Precise and critical fluid handling

Micropump brings more than six decades of industry and application solutions to help our customers meet the ever-changing demands of their industries.

US-made with the highest of quality standards, reliable, and precise, our pumps are uniquely engineered to meet the world’s most challenging pump application requirements. Even more, our pumps contribute superior fluid movement and hydraulic efficiency while requiring low power consumption for overall optimized wire-to-water efficiency.

Micropump has partnered with leading global companies. We are partners with our customers in every sense of the word. We work to understand your system goals, how our technology can create the greatest value, and the regulations that must be followed. We turn that knowledge into optimized systems designed specifically to meet your technical, operational, financial and business goals.

Allow our team to apply our industry and application experience to benefit your project. With our experience, we have unequaled expertise in matching pump technology to application needs. We have the expertise needed to help customers design the most optimized pumping solutions for their system needs.
PUMP SIZING
FROM SMALLEST TO LARGEST - COMPACT DESIGN FOR EASY INTEGRATION

GA SERIES

GLH SERIES
Micropump magnetic drive pumps, also known as magnetically coupled pumps, vary from the traditional direct mechanical shaft style with the elimination of any required shaft sealing.

Magnetic drive pumps consist of two magnets - a drive magnet placed on the motor shaft which initiates motion to a driven magnet completely sealed within the pump head and connected to the driving gear. The driven magnet is a wetted component and is totally encapsulated. The two magnets couple automatically such that the drive magnet turns the driven magnet and gears without physical contact.

Other benefits of magnetic drive pumps include better transfer of motor power to the pump and little to no heat transfer from the electric motor. Also, the use of magnetic coupling softens any shock or spike torques, and in instances where the load may become too great, magnetic couplings can temporarily de-couple instead of damaging the pump.

For many applications, magnetically driven gear pumps can provide a superior solution due to lack of dynamic seals, smooth flow, self priming capabilities, a direct relationship between pump rotational speed and flow, and small sizes for a variety of applications. Due to the lack of dynamic seals, magnetically driven gear pumps are ideal in applications with no tolerance for leaks or potentially difficult to seal liquids. Additionally, the seal-less design doesn’t require maintenance events such as flushes for difficult fluids, pump trips, replacement or other unscheduled downtime. The elimination of seals is a great improvement for performance, reliability and availability of our magnetically driven gear pumps.

Our magnetically driven gear pumps can be manufactured to meet tight tolerances to achieve optimal, repeatable performance.

Micropump’s magnetically driven gear pumps can be driven by a variety of different means including AC motors, DC brush motors, DC brushless and stepper motors.
EAGLE DRIVE™

The Micropump EagleDrive™ was created to integrate the pump and motor for an optimized design. By eliminating the need for the hub assembly and adapter, the size envelope is reduced further and decoupling is eliminated. Reliability is even more improved with the lack of moving parts in the drive. The torque and power is even increased for higher flow rate capability.

With the drive and pump integrated in a single, compact unit, the EagleDrive™ is an ideal solution to solve many of the previous shortcomings of separate units. The rotating electromagnetic field, which is induced in the fixed and stationary stator by a controller, couples with and turns the permanent magnet sealed inside the pump. The controller offers thermal and overload protection to the drive. It allows for an external control signal (0-5 VDC) to provide adjustable speed and as a result, regulate pump flow. With the built-in microprocessor control, fault signals and tachometer output allow for easy system integration.

The close coupling of the pump and motor is IP55 rated with static seals between the pump and drive to protect from water and dust. Our technology improves reliability under extreme temperature and vibrations. The EagleDrive™ also features low power consumption for minimal impact to your overall system operations.

The EagleDrive™ is available in DEMSE and DEELE models. Both are manufactured with Ryton® housing and standard cables are sealed with nylon pull-relief fitting. Both models are have options for open-frame, without housing or cable for optimal OEM installations.
A mount
Continuous duty
0-24 VDC speed control
Tach output
500-4,000 RPM

Shaded pole drive for GA, GB, GJ, and CA Series pumps.
A mount
Continuous duty
115/230 VAC
3450 RPM

Brush type, permanent magnet drive for GA and GJ (N21) Series pumps.
C mount
Intermittent duty
0-12 VDC
500-6,000 RPM

Shaded pole drive for GA, GB, GJ, and CA Series pumps.
A mount
Continuous duty
115 VAC
3450 RPM

**OUR QUALITY SYSTEMS ARE AMONG THE BEST IN THE BUSINESS.**
**WE ARE CERTIFIED TO ISO 9001:2015 STANDARDS.**
Explosion proof drive for GA, GB, GJ, and CA Series pumps.
A mount
Continuous duty
115/230 VAC
3450 RPM

Universal drive for GA, GB, GJ, and CA Series pumps.
A mount
Intermittent duty
115 VAC
500-9,000 RPM

Explosion proof. Air vane drive for GA, GB, GJ, and CA Series pumps.
A mount
5-80 psi
500-10,000 RPM