

MICROPUMP®

A Unit of IDEX Corporation

Analytical Equipment Applications

David Grimes

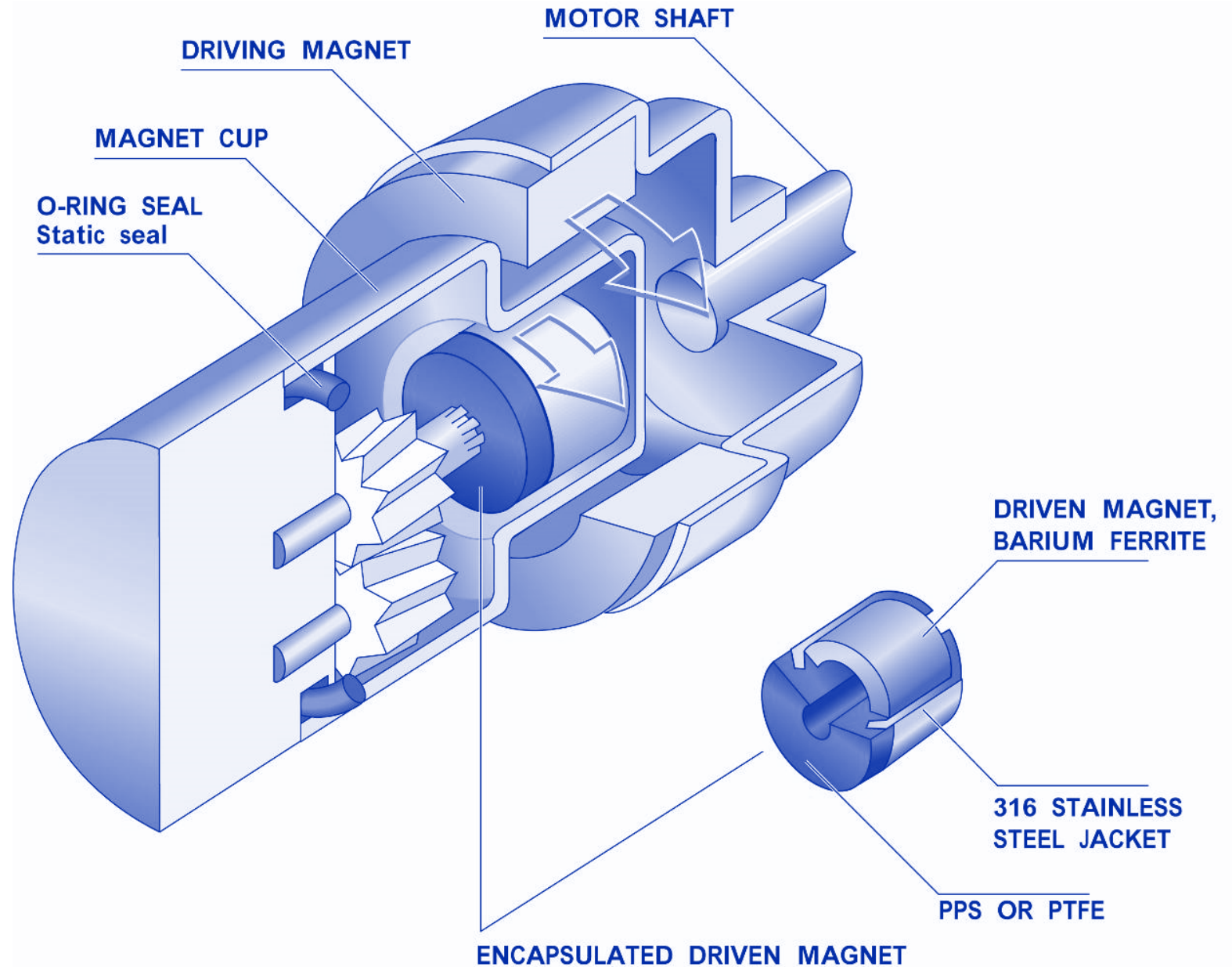
Staff Engineer

March 2, 2022

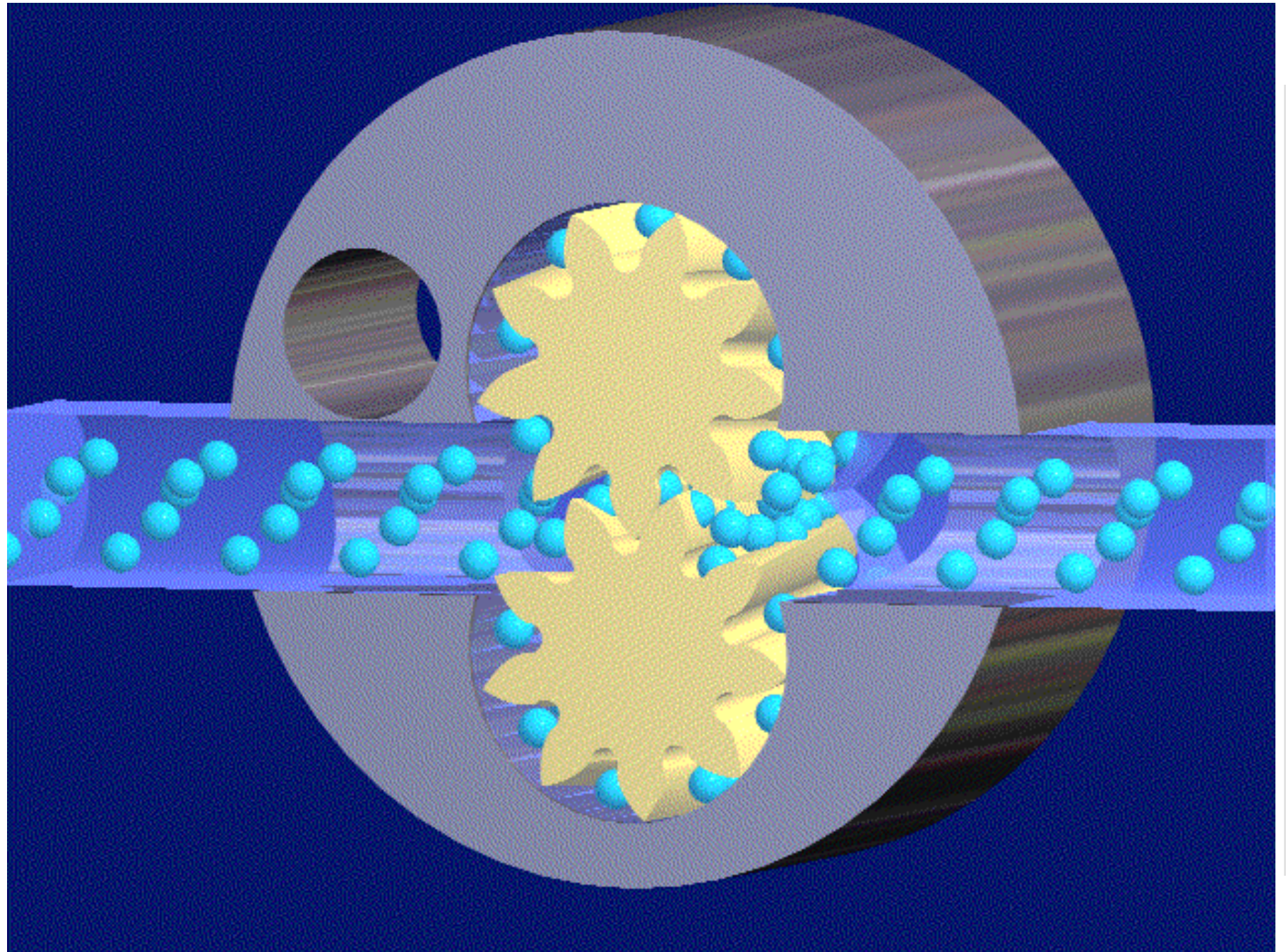
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What is Magnetically- Driven?



External Gear Pumps – Operating Principle



Why Micropump Products?

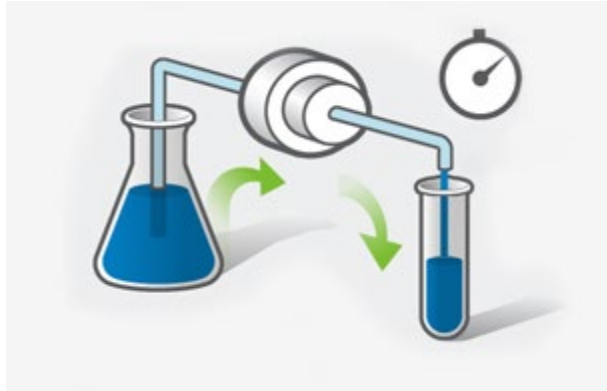
MICROPUMP PRODUCT PRECISION

Precision = Efficiency + Consistency

- Chemical resistant pump materials
- Leak free magnetically driven design
- Positive displacement
- Pulseless continuous flow

Pumping Applications

- Metering (flow over time)



- Dosing (periodic flow)



- Circulating

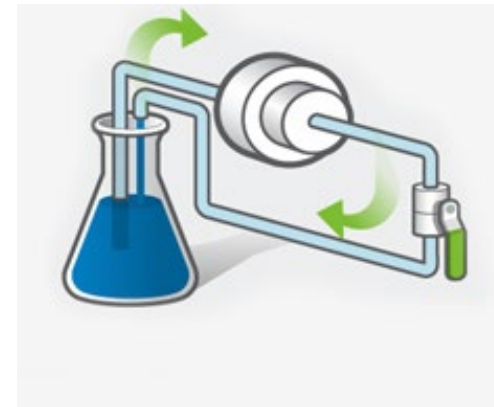


- Delivery/Transfer



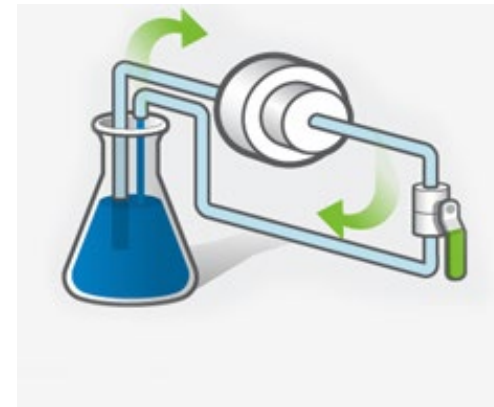
Analytical Equipment Applications

- Metering/Dosing
 - reagent
 - sample
 - buffer
- Dosing
 - reagent
 - dilution
 - wash
- Circulating
 - cooling systems
 - buffer
 - media conditioning
 - lubrication systems
- Delivery/Transfer
 - sample placement
 - waste handling



Analytical Equipment Applications

- Flow Cytometry
 - Dynamic Imaging
 - Particle Size & Shape Analysis
 - Tissue Diagnostics
 - Chemistry Analysis
 - Dissolution Testing Solution
 - Reagent/Sample Dilution
 - Flash Chromatography
 - Post Column Derivatization
 - Cooling, Degassing, Lubrication
- Support systems



Product Solutions for Analytical Equipment

MICROPUMP®

GA Series Specifications

- Displacements:

0.017 ml/rev (X21) | 0.042 ml/rev (V21)

0.092 ml/rev (T23)

- Min Flow Rate: 8.5 mL/min (0.002 US gpm)
- Max Flow Rate: 506 mL/min (0.134 US gpm)
- Max Differential Pressure: 5.2 Bar (75 psi)
- Max System Pressure: 21 Bar (300 psi)
- Temp range: -46 to 177 °C (-50 to 350 °F)



Product Solutions for Analytical Equipment

MICROPUMP®

GJ Series Specifications

- Displacements:

0.316 ml/rev (N21) | 0.64 ml/rev (N23)

0.91 ml/rev(N25) | 1.23 ml/rev (N27)

- Min Flow Rate: 158 mL/min (0.041 US pm)
- Max Flow Rate: 6.8 L/min (1.8 US gpm)
- Max Differential Pressure: 5.5 Bar (80 psi)
- Max System Pressure: 21 Bar (300 psi)
- Temp range: -46 to 121 °C (-50 to 250 °F)

