

# BETTER PUMPS FOR BETTER YIELD!

No Seals, No Bearings, No Particle Contamination.





## REVOLUTIONARY MAGNETICALLY LEVITATED CENTRIFUGAL PUMP

The BPS pump system is a revolutionary centrifugal pump that has no bearings to wear out or seals to break down and fail. Based on the principles of magnetic levitation, the pump's impeller is suspended, contact-free, inside a sealed casing and is driven by the magnetic field of the motor. The impeller and casing are both fabricated from chemicalresistant high purity fluorocarbon resins. Fluid flow rate and pressure are precisely controlled electronically regulating the impeller speed Two basic system configurations are available. The stand-alone configuration consists of a controller with an integrated user panel to set the speed manually. The extended version consists of a controller with integrated PLC interface. This allows setting the speed by an external signal and enables precise flow or pressure control in connection with either a flow or a pressure sensor.

# Schematic of the main elements of the maglev

Maglev pump motor with pump head





#### Disassembled pump head

centrifugal pump



## SYSTEM BENEFITS

- Extremely low particle generation due to the absence of mechanically contacting parts
- Increased equipment uptime
- Lower maintenance costs by eliminating valves, bearings, rotating seals and costly rebuilds
- Reduced risk of contamination due to the self-contained design with magnetic bearings
- Very gentle to sensitive fluids due to low-shear design
- No narrow gaps and fissures where particles or microorganisms could be become entrapped
- Smooth, continuous flow without pressure pulsation Electronic speed control
- Compact design compared to pneumatic and mag-drive pumps
- Proven technology in medical and semiconductor industry (MTBF 50-100 years)



## **BPS-SERIES - MAX PRESSURE / FLOW CURVES**



## STANDALONE CONFIGURATION

System Configuration for Standalone Operation (Speed setting with integrated user panel)



## **EXTENDED CONFIGURATION**

Extended Operation (Flow or Pressure Control) with Extended Controller



## LEVITRONIX<sup>®</sup> The Company

Levitronix<sup>®</sup> is the world-wide leader in magnetically levitated bearingless motor technology. Levitronix<sup>®</sup> was the first company to introduce bearingless motor technology to the medical and industrial markets.

The company is ISO 13485 and ISO 9001 certified. Production and quality control facilities are located in Switzerland. In addition, the Levitronix<sup>®</sup> R&D team provides third party contract services in cooperation with other research groups.



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