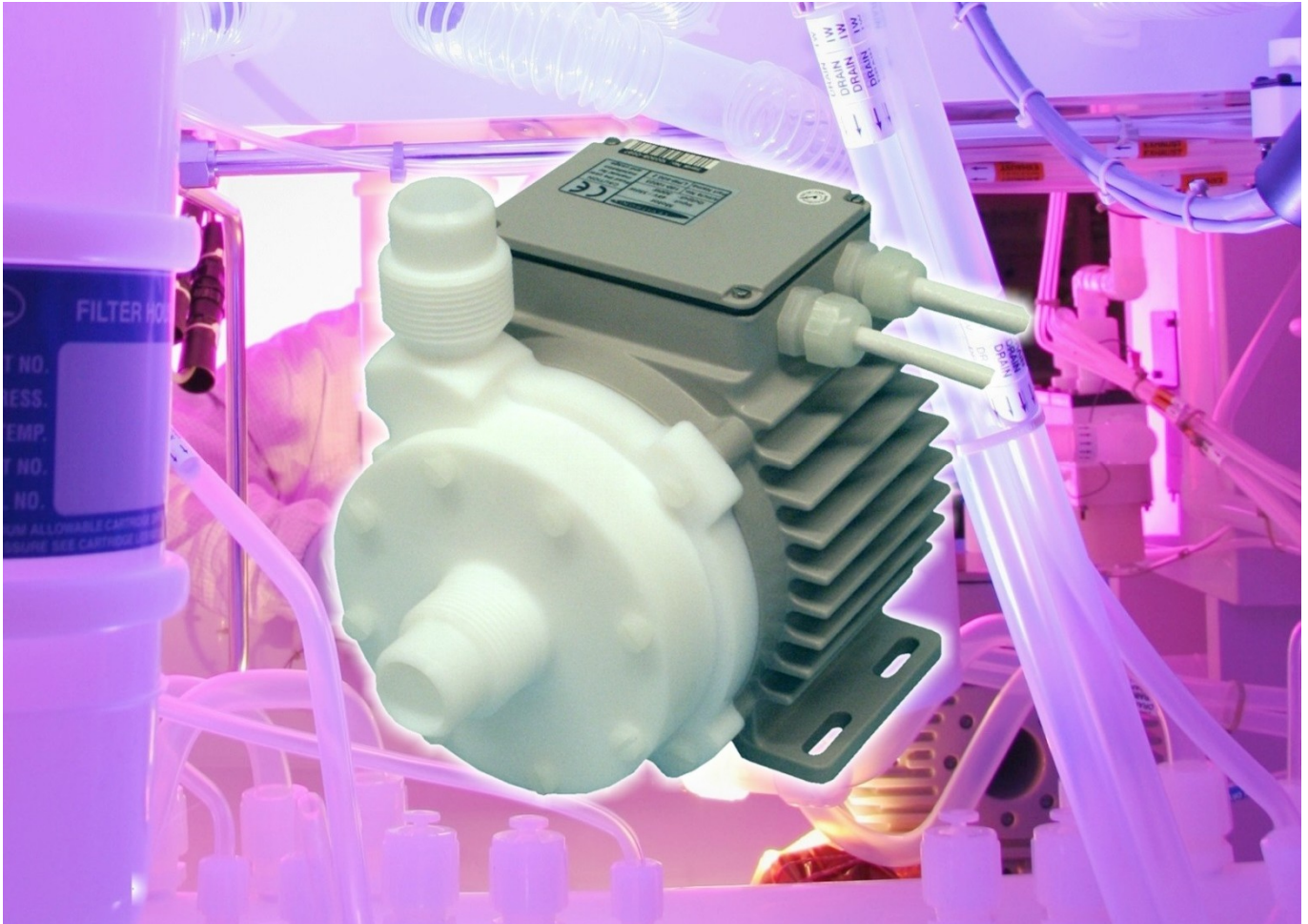


The Way To Unsurpassed Purity!



***No Seals, No Bearings,
No Particle Contamination!***

BPS-300

*2.5 bar (36.2 psi)
58 liters/min (15.3 gallons/min)*

***Levitronix® MagLev Pump Technology
We Make Ultrapure Fluid Handling Easy For You!***

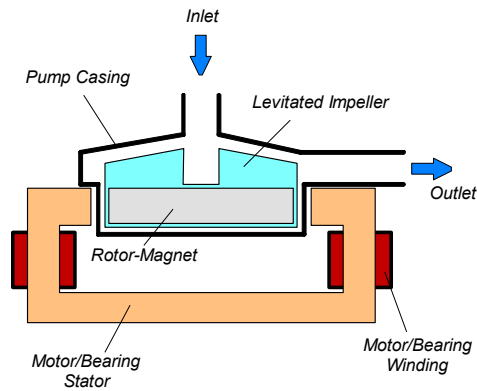


Figure 1: Schematic of the main elements of the maglev centrifugal pump

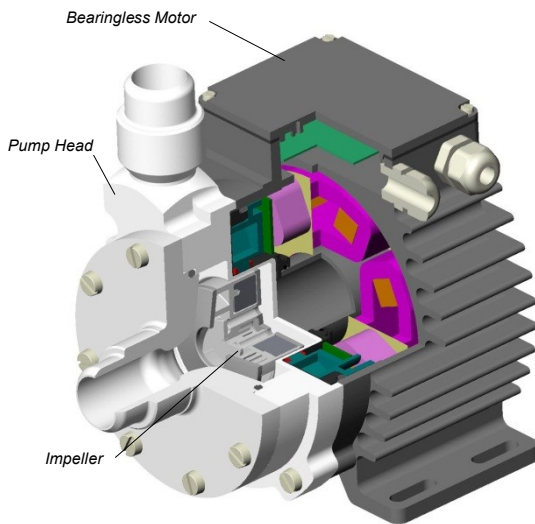


Figure 2: Maglev pump motor and pump head

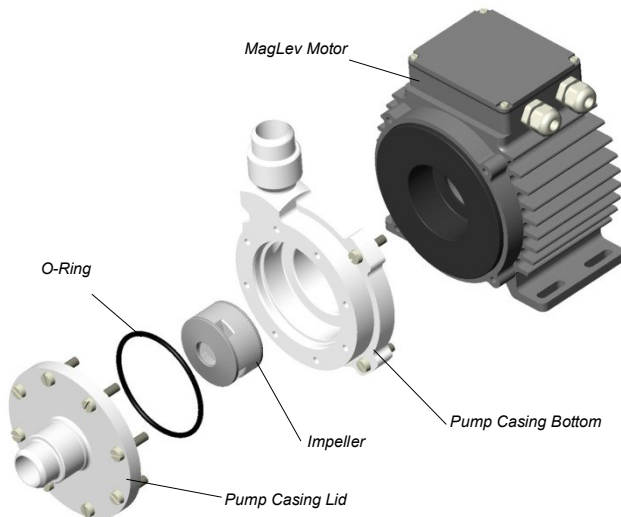


Figure 3: Disassembled pump head

REVOLUTIONARY MAGNETICALLY LEVITATED CENTRIFUGAL PUMP

The BPS-300 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 (Figure 1). The impeller and casing are both fabricated from chemical-resistant high purity fluorocarbon resins and together with the rotor magnet they make up the pump head. Fluid flow rate and pressure are precisely controlled by electronically regulating the rotor speed.

The system (see Figure 5) consists of a controller with an integrated user panel to set the speed manually and a PLC to set the speed with an analog signal.

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 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 > 30 years).

APPLICATIONS

- Semiconductor wet processing.
- Flip chip and advanced packaging.
- Solar cell production.
- Flat panel display manufacturing.
- Hard-disk fabrication.
- Printer ink handling.
- Pharmaceutical production.

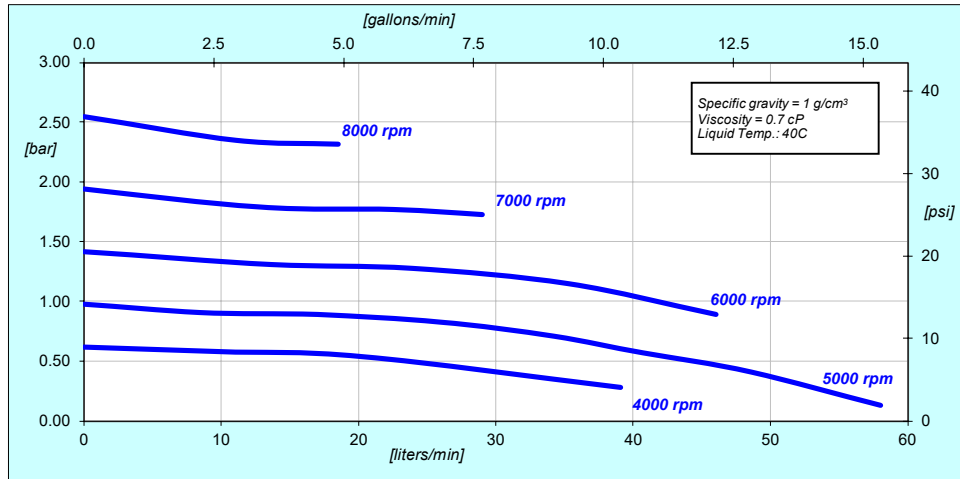


Figure 4: Pressure/flow curves

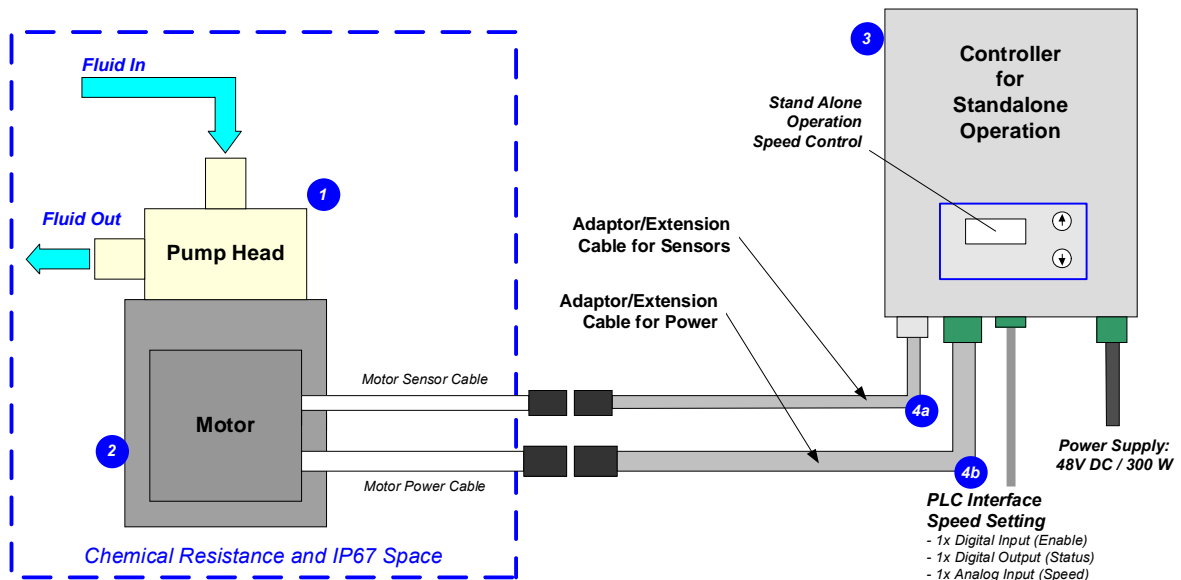


Figure 5: System configuration (speed setting with integrated user panel)

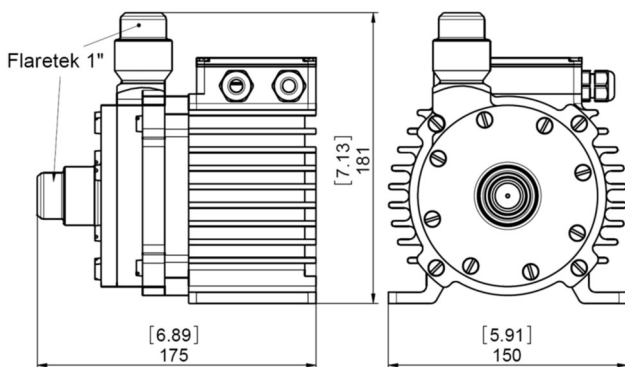


Figure 6: Basic dimensions of motor LPM-600.2 with pump head LPP-300.1

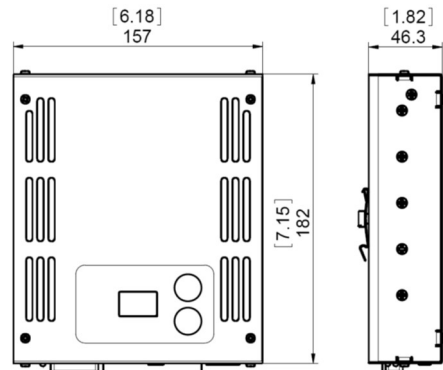


Figure 7: Basic dimensions of controller LPC-300.1

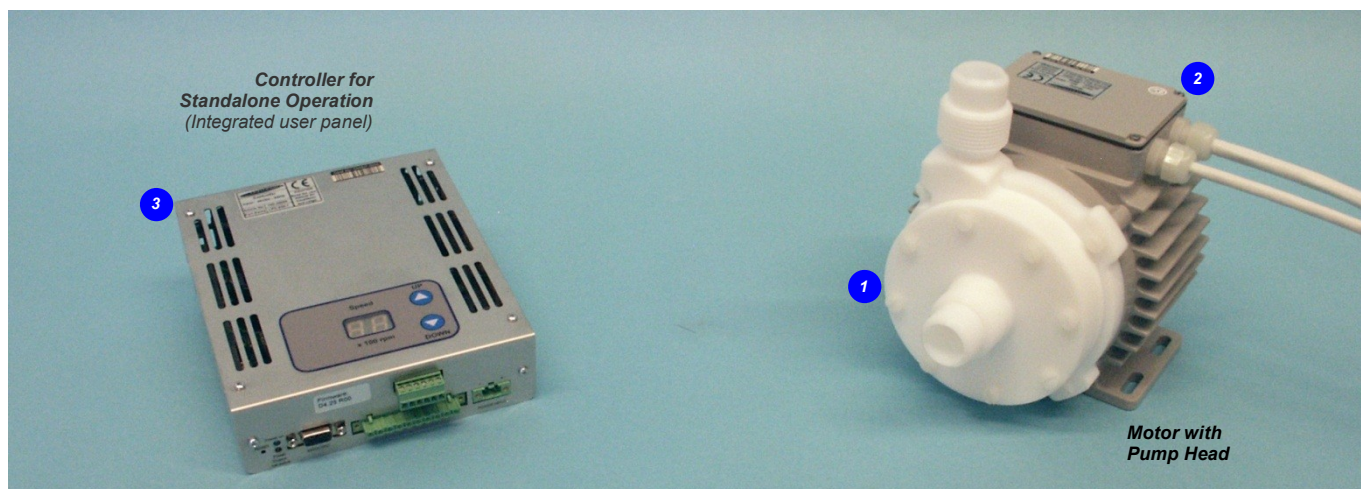


Figure 8: Pump system BPS-300 with components

Pos.	Component	Article Name	Article #	Characteristics	Value / Feature	
1	Pump Head	LPP-300.1	100-90246	Impeller / Pump Casing	PFA / PTFE	
				Sealing Ring	Kalrez® perfluoroelastomer ¹	
				Fittings	Flaretek 1"	
				Max. Flow Max. Diff.-Pressure Max. Viscosity	58 liters/min / 15.3 gallons/min 2.5 bar / 36.2 psi 50 cP	
				Max. Liquid Temp.	70°C / 158°F	
2	Motor	LPM-600.2	100-10025	Mechanical Power	300 W	
				Housing	ETFE coated Aluminum, waterproofed (IP67 without connectors)	
				Cable	2 cables, 3m, FEP jacket	
				Connector	2x circular (AMP types)	
3	Standalone Controller (User Panel)	LPC-300.1	100-30007 (Controller with power supply cable and Enable connector incl. in 10090317)	Electrical Power	300 W	
				Supply Voltage	48V DC	
				Interfaces for Standalone Controller	Panel to set speed (automatic storage on internal EEPROM)	
					PLC with	1x analog input ("Speed") 1x digital input ("Enable") 1x digital output ("Status")
4a	Extension Adaptor Cable for Sensors	MCAS-600.1-05 (0.5m)	190-10122	Jacket and Connectors Cable Length	PVC-jacket and circular AMP to D-SUB connector	
		MCAS-600.1-30 (3m)	190-10123			
		MCAS-600.1-50 (5m)	190-10124			
		MCAS-600.1-70 (7m)	190-10101			
		MCAS-600.1-100 (10m)	190-10125			
4b	Extension Adaptor Cable for Power	MCAP-600.1-05 (0.5m)	190-10118	Jacket and Connectors Cable Length	PVC-jacket and circular AMP to COMBICON connector	
		MCAP-600.1-30 (3m)	190-10119			
		MCAP-600.1-50 (5m)	190-10120			
		MCAP-600.1-70 (7m)	190-10102			
		MCAP-600.1-100 (10m)	190-10121			

Table 1: Specification of components
1: Kalrez® is a registered trademark of DuPont Dow Elastomers

System Name	Article #	Pump Head	Motor	Controller	Note
BPS-300.1	100-90175	LPP-300.1	LPM-600.2	LPC-300.1	Adaptor/Extension (0.5 - 10m) cables according to Table 1 are included in the system package but have to be ordered as separate article with specified length. Certifications: CE, IECCE CB scheme, ETL (NRTL). ¹

Table 2: Standard system configurations (1: Certified components available on request.)

EU Contact (Headquarter)	US Contact	Japan Contact	Taiwan Contact
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