

**xylem**  
Let's Solve Water



# PureFlo 21 Multi Use

DIAPHRAGM PUMPS



a xylem brand

# PureFlo 21 Multi Use DIAPHRAGM PUMPS

The Jabsco PureFlo 21 Multi Use 4-chamber diaphragm pump is designed to be used in pharmaceutical, biotech, food, or cosmetic applications. The design complies with the stringent requirements of these industries.

The PureFlo 21 Multi Use allows delicate fluids to be handled with precision with minimal thermal effect, even on small volumes.

## Some typical uses for this pump include:

- Protein solutions
- Cell suspensions
- Bacteria, yeast, fungi, mammalian cells
- Virus suspensions
- Polymer solutions
- Food and cosmetic ingredients

The pump can be used in filtration or chromatography and for centrifuges and separators or filter systems.

## Available Configurations

The PureFlo 21 Multi Use is available in four different configurations:

### 1 Programmable System

Mounted in a stainless-steel cabinet, this configuration includes the pump, drive, and integrated controls.



### 2 Pump + Motor with Variable Speed

A simple and compact solution for a variable speed and flow pump.



### 3 Pump + Motor

This setup includes an IEC motor for users who want to use an external converter for speed control.

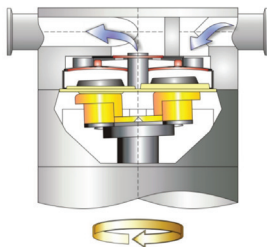


### 4 Pump Head Kit Only

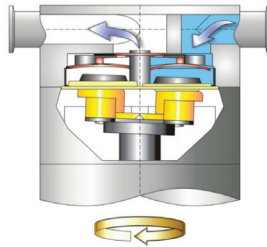
The head kit is suitable for mounting with IEC motor frame size 63.



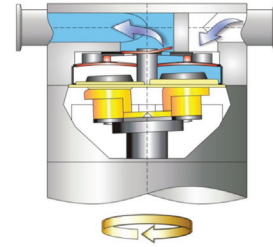
## How It Works



The self-priming design allows the pump to create suction to draw fluid into the pump without manual priming.



Fluid enters inlet port and is drawn through inlet check valve when piston moves away from the check valve assembly.



As piston moves toward the check valve, the fluid is forced through outlet check valve and out of the pump.

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## Programmable System Configuration

Mounted in a stainless steel cabinet, the programmable system configuration includes the pump, drive, and controls that are easily accessible for both service and cleaning.

### Features:

- Easy to clean, no shaft seals
- Can run dry, dry self priming
- Low noise, steady flow
- Small and compact
- Adjustable flow from minimum of 6 LPH/1.6 GPH to maximum of 1,380 LPH/365 GPH
- Maximum pressure 6 bar, 5 bar for continuous duties
- Temperature up to 60°C/140°F in constant use, CIP up to 90°C/194°F
- Viscosity up to 250 mPa s

### Parts in contact with fluid:

- Head: Stainless Steel 316L (1.4404)
- Diaphragm: Santoprene®
- Valves / O-Ring: EPDM / Buna
- Valve chamber: Polypropylene and USP Class VI conforming materials
- Pistons: Stainless Steel 316L (1.4404), Ra <0,5 µm, with electro polish Standard: 3.1 certification
- Ports: Tri-Clamp 19 mm/0.75 in.

### Drive:

- Motor: 48 V DC
- Motor power: 356 Watt
- Rational speed: 4.000 rpm
- Torque: 0.85 Nm at 4,000 rpm
- Motor protection: IP 54



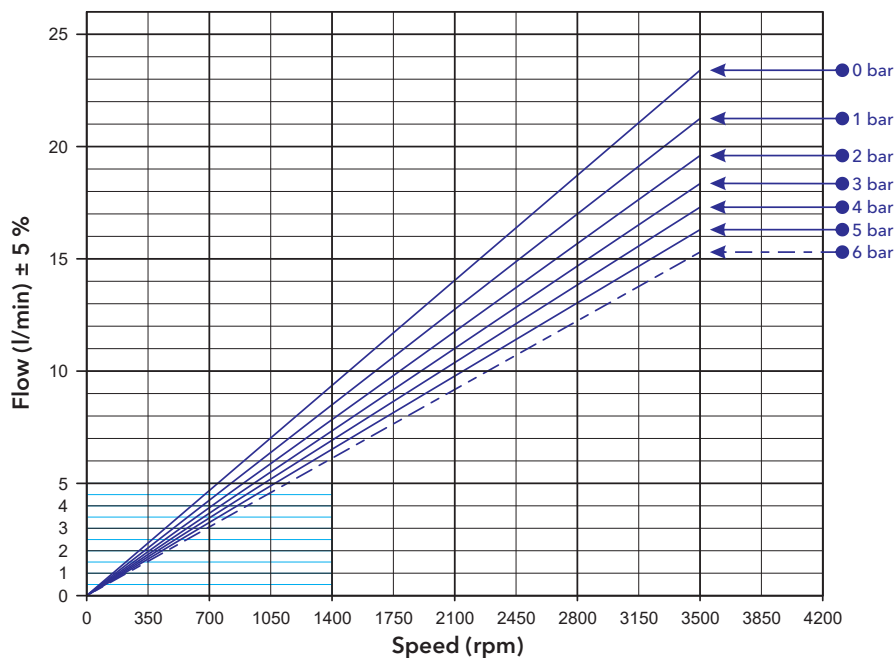
### Control cabinet:

- Power supply: 100 to 240 VAC (Input is automatically detected)
- Input frequency: 50-60 Hz
- Control voltage: 24 VDC
- Protection class: IP 65
- Operation: Touch Pad Start / Stop / Speed + / - Digital display 0-100%
- Speed control: 0 - 100% corresponds to 0 - 3.500 rpm
- Operating modes: 0...10 V DC manual / automatic, switchable by key combination
- Connections: for pressure and level (sensors not included)

### Materials / surface finish:

- Liquid contact parts are manufactured from FDA & USP Class VI conforming materials
- Standard: Surface finish Ra < 0.5 µ electropolished

## Performance Data of Programmable System Configuration



# PureFlo 21 Multi Use DIAPHRAGM PUMPS

## Pump + Motor with Variable Speed Configuration

The pump with IEC-Motor and integrated converter is a simple and compact solution for a variable speed and flow pump.

The simple design, reliable construction and easy handling guarantee long and trouble-free service.

### Features:

- Easy to clean, no shaft seals
- Can run dry, dry self priming
- Low noise, steady flow
- Small and compact
- Adjustable flow up to 1,380 LPH/365 GPH
- Maximum pressure 6 bar, 5 bar for continuous duties Materials
- Temperature up to 60°C/140°F in constant use, CIP up to 90°C/194°F
- Viscosity up to 250 mPa s

### Parts in contact with fluid:

- Head: Stainless Steel 316L (1.4404)
- Diaphragm: Santoprene
- Valves / O-Ring: EPDM / Buna
- Valve chamber: Polypropylene
- Pistons: Stainless Steel 316L (1.4404), Ra <0,5 µm, with electro polish
- Ports: Tri-Clamp 19 mm/0.75 in.



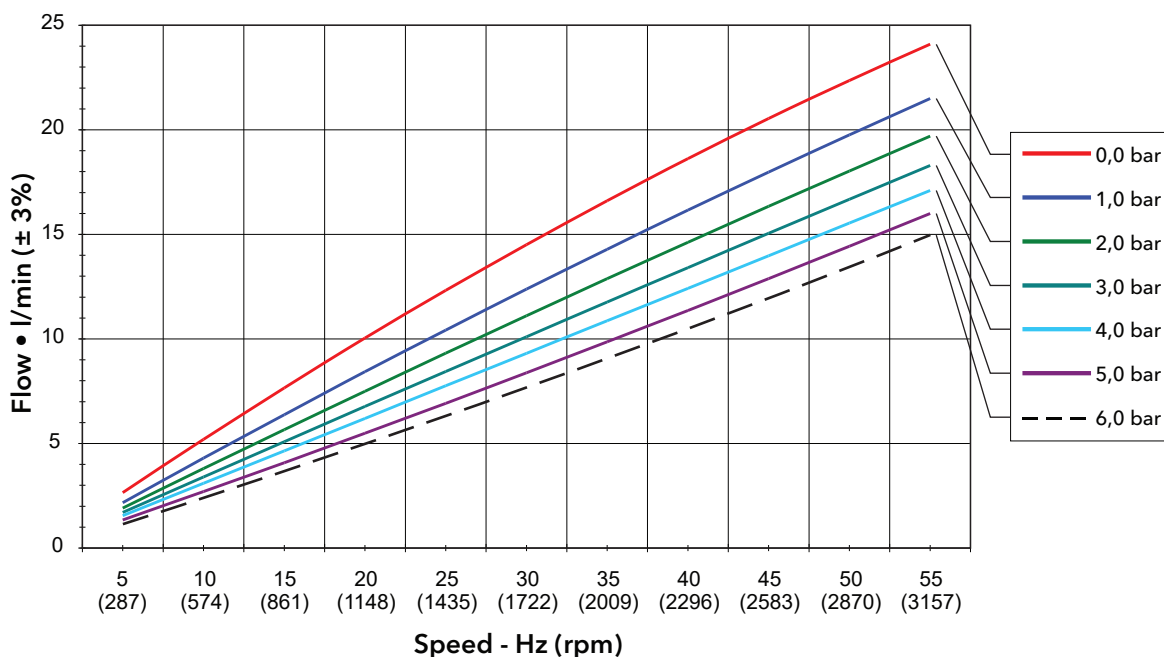
### Drive:

- IEC-Motor with integrated converter 230 V, 50 Hz, 0.25 kW, 2,870 rpm, Motor protection IP 55, inverter with IP 65 (60 Hz versions on request)
- Overload protection of converter and motor

### Materials / surface finish:

- Liquid contact parts are manufactured from FDA & USP Class VI conforming materials
- Standard: Surface finish Ra < 0.5 µ electropolished

## Performance of Pump with 2-Pole Motor and Integrated Frequency Converter



# PureFlo 21 Multi Use DIAPHRAGM PUMPS

## PureFlo 21 Multi Use with IEC-Motor

The pump is supplied with an IEC-Motor. A competitive solution for users who want to use an external converter for speed control.

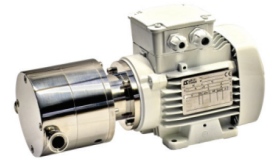
The simple design, reliable construction and easy handling guarantee long and trouble-free service.

### Features:

- Easy to clean, no shaft seals
- Can run dry, dry self priming
- Low noise, steady flow
- Small and compact
- Adjustable flow up to 1,380 LPH/365 GPH
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### Parts in contact with fluid:

- Head: Stainless Steel 316L (1.4404)
- Diaphragm: Santoprene
- Valves / O-Ring: EPDM / Buna
- Valve chamber: Polypropylene
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- Ports: Tri-Clamp 19 mm/0.75 in.



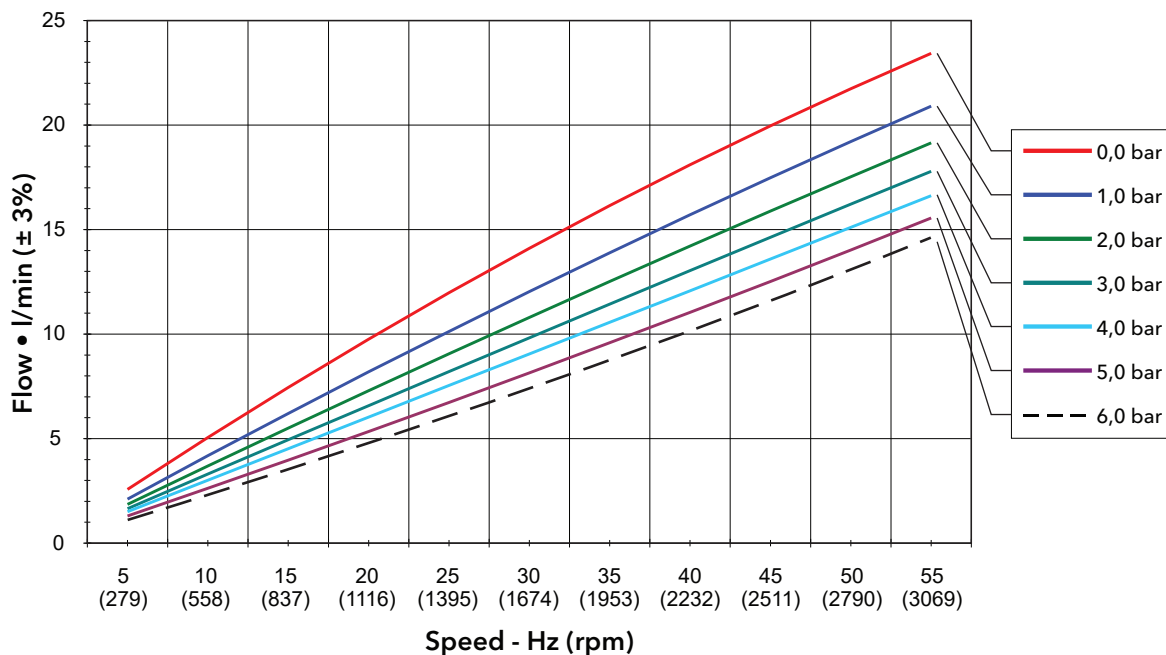
### Drive:

- IEC-Motor: 3 x 230 V, 50 Hz, 0.18 kW, 2,790 rpm, protection IP 55, PTC resistors (60 Hz versions on request)
- IEC-Motors: 1,500, 1,000 and 750 rpm can be supplied as an option

### Materials / surface finish:

- Liquid contact parts are manufactured from FDA & USP Class VI conforming materials
- Standard: Surface finish Ra < 0.5 µ electropolished

## Performance of Pump with 2-Pole IEC-Motor (External Converter)



# PureFlo 21 Multi Use DIAPHRAGM PUMPS

## Pump Head Kit Only Configuration

The head kit only configuration is suitable for mounting with IEC-Motor frame size 63 / 71.

The simple design, reliable construction and easy handling guarantee long and trouble-free service.

### Features:

- Easy to clean, no shaft seals
- Can run dry, dry self priming
- Low noise, steady flow
- Small and compact
- Adjustable flow up to 1,380 LPH/365 GPH
- Maximum pressure 6 bar, 5 bar for continuous duties Materials
- Temperature up to 60°C/140°F in constant use, CIP up to 90°C/194°F
- Viscosity up to 250 mPa s

### Parts in contact with fluid:

- Head: Stainless Steel 316L (1.4404)
- Diaphragm: Santoprene
- Valves / O-Ring: EPDM / Buna
- Valve chamber: Polypropylene
- Pistons: Stainless Steel 316L (1.4404), Ra <0,5 µm, with electro polish
- Ports: Tri-Clamp ¾"



### Drive:

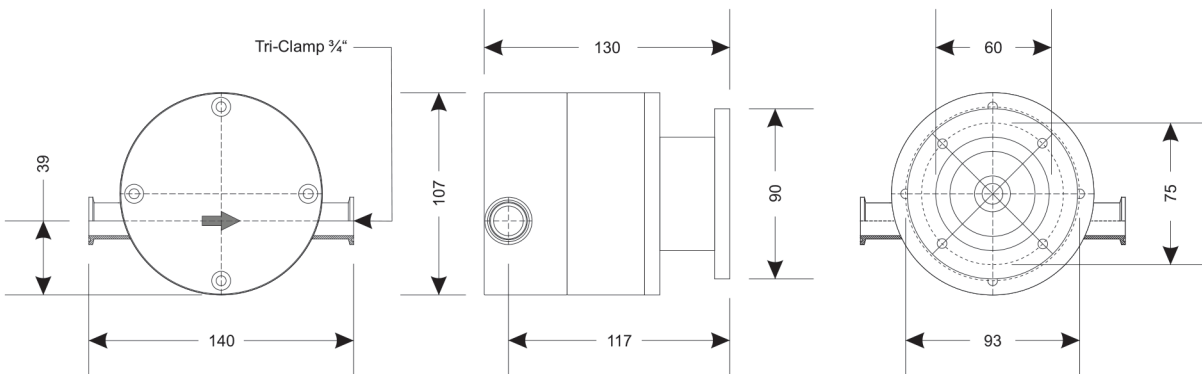
- Can be mounted to a drive of IEC-Motors with a frame size of 63, B34
- (Foot / Flange)
- 2-pole 3,000 rpm
- 4-pole 1,500 rpm

### Materials / surface finish:

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## Head-Kit to be fitted to IEC-Motor, frame size 63

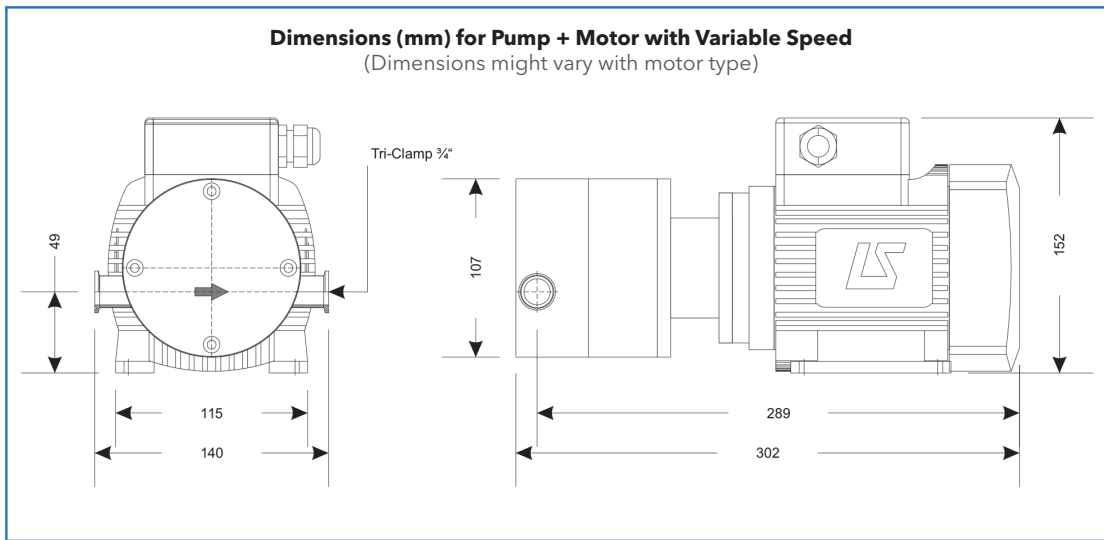
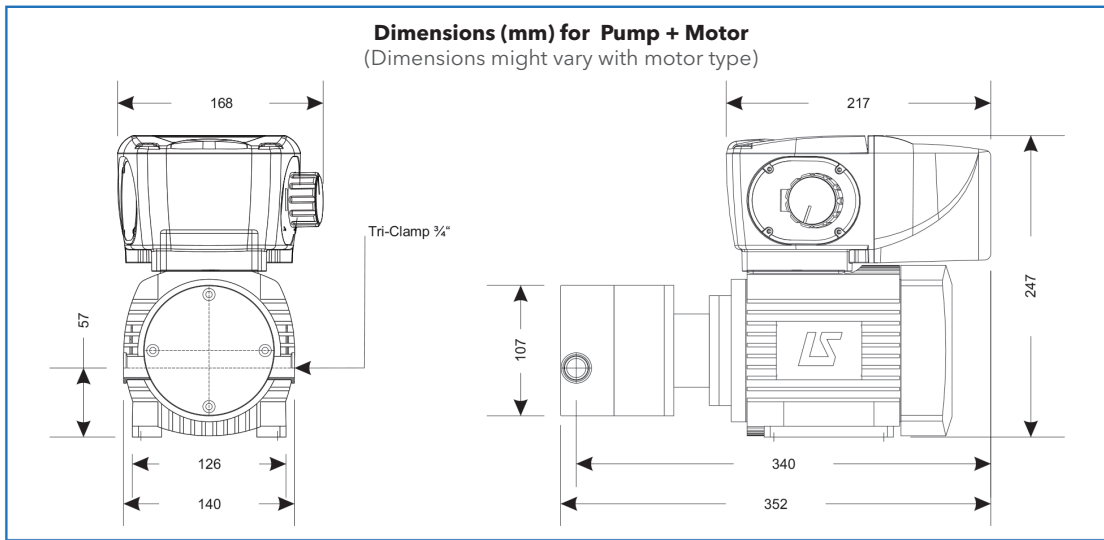
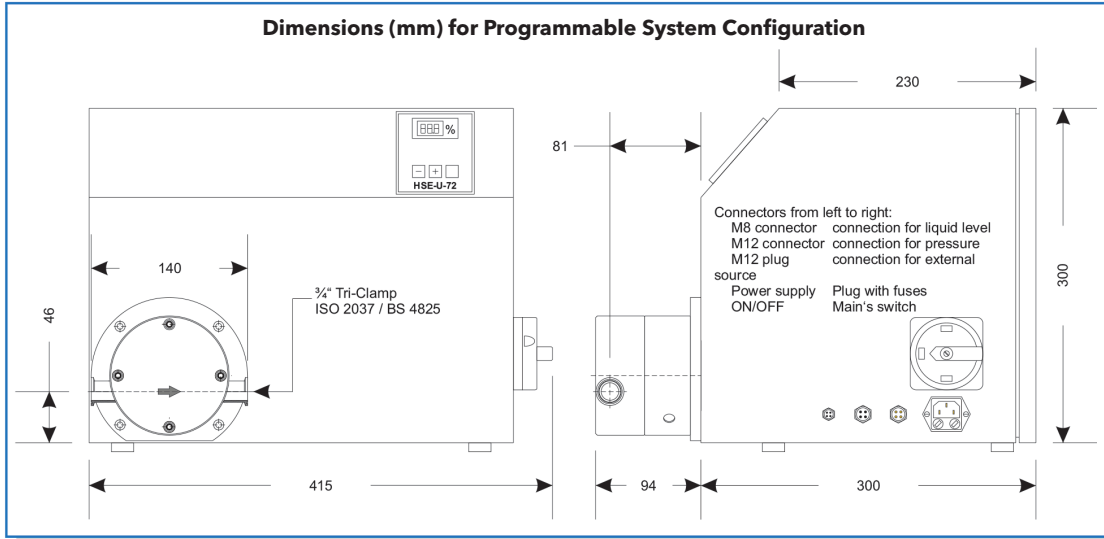
### Dimensions (mm)



The unit is supplied with all necessary components for direct fitment to the motor.

# PureFlo 21 Multi Use DIAPHRAGM PUMPS

## PureFlo 21 Multi Use Configuration Dimensions



# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

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