

Convemate™ Quaternary Diaphragm Pump

Convemate Quaternary Diaphragm Pump is designed for critical applications in the biopharmaceutical industry, available in single-use and multiple-use pump heads according to your applications. The working principle of diaphragm pump ensures gently, safety and reliability transfer of shear-sensitive aqueous solutions and biologic products, reducing shear effect and particle generation. Additionally, Cobetter Quaternary Diaphragm Pump allows for risk-free dry-running, low pulsation, self-priming.

Features

Low Shear force, low pulsation

Compared with peristaltic pump, Diaphragm Pump have lower Shear force and lower pulsation.

Special for R&D and production

Ideal for R&D and lab/pilot production.

Medical grade design

Meets the requirement in USP<88>\<87>, FDA, support clean-in-place (CIP) and sterilize-in-place (SIP).

Single-use design

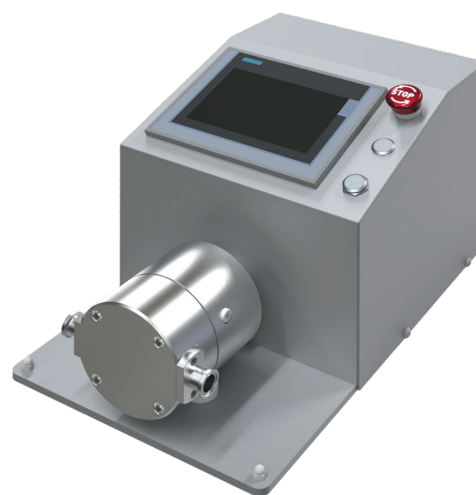
Single-use pump head available, interchangeable with stainless steel pump head

Intelligent pump solution

Versatile function for laboratory applications

Constant pressure, constant flow and constant pump speed control, timing operation, curve display, alarm log and etc .

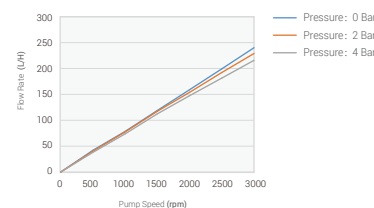
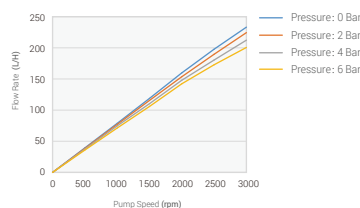
*Constant pressure and constant flow function needs to be connected to the pressure sensor and electromagnetic flow meter.



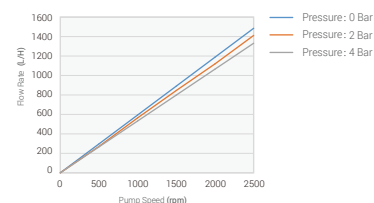
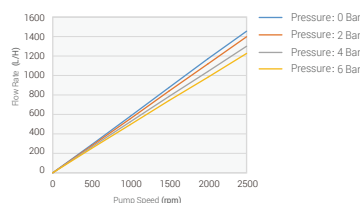
Typical Applications

- TFF System
- Depth Filtration System
- Chromatography System
- Virus Filtration System
- Sterile Filtration
- Mixing System

		FDP MU0150	FDP SU0150
Max. Flow Rate	Eccentric Shaft 5°	1-180 lph (0.017-3 lpm)	1-180 lph (0.017-3 lpm)
Pressure	Temp. of Fluid < 40° C	6 bar	4 bar
	Temp. of Fluid > 40° C	4 bar	4 bar
Max. Temperature	Fluid	80°C	60°C
	Moist Heat Sterilization 30min	121°C	121°C
Suction Lift Dry @3000 rpm	Eccentric Shaft 5°	2-3 m	2-3 m
Volume at Free Output	Approximated Volume per Revolution (0 bar)	1.25 ml	1.25 ml
Motor	Rated speed	3000 rpm	3000 rpm
	Voltage	200-240 VAC	200-240 VAC
	Power	100 W	100 W
Connections	Inner Diameter	4.7 mm	4.7 mm
	Chuck Diameter	25 mm	25 mm
Materials	Housing	SS316L	PP
	Diaphragm	TPE	TPE
	Check Valve	EPDM	EPDM
	O-ring	EPDM	EPDM



		FDP MU1200	FDP SU1200
Max. Flow Rate	Eccentric Shaft 5°	6-1200 lph (0.1-20lpm)	6-1200 lph (0.1-20lpm)
Pressure	Temp. of Fluid < 40° C	6 bar	4 bar
	Temp. of Fluid > 40° C	4 bar	4 bar
Max. Temperature	Fluid	80 °C	80°C
	Moist Heat Sterilization 30min	121 °C	121°C
Suction Lift Dry @3000 rpm	Eccentric Shaft 5°	4-4.5 m	4-4.5 m
Volume at Free Output	Approximated Volume per Revolution (0 bar)	9.7 ml (5°)	9.7 ml (5°)
Motor	Rated Speed	2500 rpm	2500 rpm
	Voltage	200-240 VAC	200-240 VAC
	Power	750 W	750 W
Connections	Inner Diameter	16 mm	16 mm
	Chuck Diameter	25 mm	25 mm
Materials	Housing	SS316L	PP
	Diaphragm	TPE	TPE
	Check Valve	EPDM	EPDM
	O-ring	EPDM	EPDM



Ordering Information

Model	Description	Package (pcs/box)
FDP-MU0150-SPD	Multiple-Use-150-Speed Control Pump	1PC
FDP-MU0150-SMT	Multiple-Use-150-Speed Control Pump	1PC
FDP-MU1200-SPD	Multiple-Use-1200-Speed Control Pump	1PC
FDP-MU1200-SMT	Multiple-Use-1200-Speed Control Pump	1PC
FDP-SU0150-SPD	Single-Use-150-Speed Control Pump	1PC
FDP-SU0150-SMT	Single-Use Pumps-150-Intelligent Pump	1PC
FDP-SU1200-SPD	Single-Use-1200-Speed Control Pump	1PC
FDP-SU1200-SMT	Single-Use Pumps-1200-Intelligent Pump	1PC
FDP-SU0150-PHD	Single-Use Pump head-150	1PC
FDP-SU1200-PHD	Single-Use Pump head-150, Sterile	1PC
FDP-SU0150-PHS	Single-Use Pump head-1200	1PC
FDP-SU1200-PHS	Single-Use Pump head-1200, Sterile	1PC

Comparison Table

Items	Speed Control Pump	Intelligent Pump
Speed control panel	√	√
Pump head	√	√
Motor	√	√
Motor Driver	√	√
Constant pump speed control	√	√
Constant pressure control	×	√
Constant flow control	×	√
Graphs	×	√
Expanded Sensor	×	√

NOTE: Intelligent pumps are equipped with three pressure sensors, and electromagnetic flow meters are available on request.



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* Specifications subject to change without notice.

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