# **TECHNICAL BULLETIN**

2212



#### Quattroflow Releases New QF2500 New Multiple-Use and Single-Use Pump Size Available

Quattroflow<sup>™</sup> is pleased to announce the extension of the Multiple-Use and Single-Use product lines of Quaternary (Four-Piston) Diaphragm Pumps with the new QF2500 size.

With a maximum flow rate of 2,500 lph, the new QF2500 pump is ideally suited to meet the needs within demanding biopharma applications, including chromatography, TFF, virus filtration, sterile filtration, and depth filtration. The new pump size is located between the existing QF1200 (max. 1,200 lph) and QF4400 (max. 5,000lph) pump sizes.



## The QF2500 offers the following main features and benefits:

- Flow range between 50 and 2,500 lph with AC standard motor
- Proportional and linear flow performance (see performance chart) for optimal precision during flow control
- Proven four-piston diaphragm design with low pulsation characteristics
- New pump chamber design allows complete drainability of the pump chamber to maximize product recovery
- Improved and free venting/priming of pump chamber even at low flow rates
- No use of mechanical seals allows safe dry-run
- Standard drive includes 1.5 kW AC motor
- Optional control box with integrated frequency converter in stainless-steel cabinet available, as well as power box, diaphragm sensor and PID pressure controller
- Available as Multiple-Use and Single-Use version
- CIP and SIP capability
- Turn down-ratio of up to 125:1 possible (according to drive selection)



PSG Almatec | Quattroflow ALMATEC Maschinenbau GmbH Hochstraße 150-152 47228 Duisburg, Germany

P: +49 (0) 2065/89205-0 F: +49 (0) 2065/89205-40 quattroflow.com



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#### **Performance Chart**



Technical Data		QF2500S	QF2500SU
Pump type		Multiple-Use	Single-Use
Flow rate		50 – 2500 l/h	50 – 2500 l/h
Max. fluid temperature:		80°C (176°F)	60°C (140°F)
Connectors		1" TC	1" TC
Power Supply		230/400 V	230/400 V
Materials:	Pump chamber	SS316L	РР
	Diaphragms	TPE	TPE
	Valves	EPDM	EPDM
	Valve plate	SS316L	РР
	O-rings	EPDM	EPDM

For more technical data, please see the pump flyer



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# **Pump Price List**

Designation	PO-No.	Price per piece
Pump complete, Multiple-Use	QF25ACUEGNT	12053€
Pump chamber, Multiple-Use	QF25CU	5292€
Pump service Kit, shaft-bearing-cap, Multiple-Use	PSKITWLC255-MU	993 €
Pump service kit, diaphragm-valves-O-rings	PSKITQF25MU	489€
Pump complete, Single-Use (incl. 1 pump chamber)	QF25PDEGNTW	9398€
Pump chamber, Single-Use	QF25D	1953 €
Pump service Kit, shaft-bearing-cap, Single-Use	PSKITWLC255-SU	1364€

## **Frequently Asked Questions**

- Q: What has been done to improve the drainability and venting of the pump chamber?
- A: We have created a new patent-pending design of the valve plate featuring two outlet valves per chamber. These valves are located at the highest and lowest position of each chamber and thus allow both full drainability of the chamber and significantly improve the venting.

## Q: Are there further design improvement?

A: The connection between motor and pump head has been realized with a motor flange. This significantly simplifies the coupling alignment and also helps to reduce noise and vibration created by the coupling.

## Q: Can I use NEMA motors with the flange?

A: We can provide customized flanges or adapters on request.

#### Q: The in- and outlet ports have different lengths. Why?

- A: Reason for the different lengths is the large diameter of the TC flanges. If the ports would have the same length, the TC clamps would interfere with each other. For Customized ports (e.g. weld ends) identical length could be possible.
- Q: Why doesn't Quattroflow offer an EZ-Set pressure plate like for QF150SU and QF1200SU?



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A: The EZ-Set principle from the QF150SU and QF1200SU cannot be applied to the QF2500SU due to the front location of the ports. In addition, hand wheels cannot provide the torque required to mount the pump chamber on the ring drive.

## Q: Will there be a QF2500HT version in the future?

A: Yes, a QF2500HT is in development and is planned to be available later this year.

#### Q: Can I order the QF2500 with a servo motor?

A: Yes, a customized version with servo motor is available on request.





