

# QF1200SU

## Quaternary Diaphragm Pumps

### Single-Use – Biotech/Biopharma

#### Features

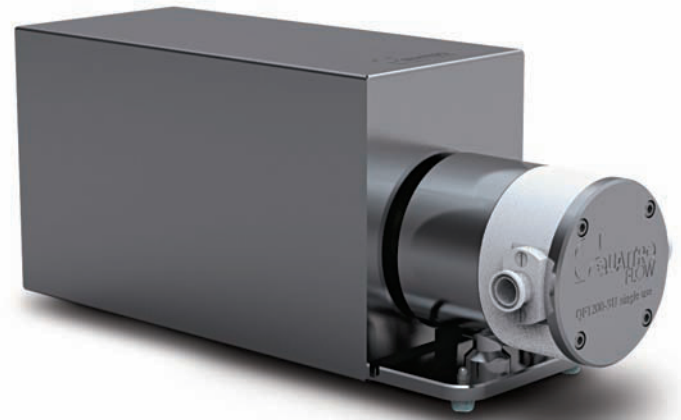
- Fully disposable machined polypropylene pump chamber
- Easy replacement
- 4-piston technology
- Gentle product treatment
- No particle generation
- Low pulsation
- Linear flow characteristic
- Self-priming
- Safe dry-run operation
- Elimination of cleaning validation and cross contamination

#### Applications

- Filtration systems (TFF, etc.)
- Chromatography systems
- Feeding pump
- Virus filtration
- Sterile filtration

#### Technical Data

QF1200SU Standard Motor	
<b>Flow Rate Maximum:</b>	
Eccentric Shaft 3°	800 l/h (211 gph)
Eccentric Shaft 5°	1,200 l/h (317 gph)
<b>Flow Rate Minimum*:</b>	
Eccentric Shaft 3°	10 l/h (2.64 gph)
Eccentric Shaft 5°	20 l/h (5.3 gph)
<b>Pressure:</b>	
Temperature of Fluid < 40° C (104° F)	4 bar (58 psi)
Temperature of Fluid > 40° C (104° F)	4 bar (58 psi)
<b>Maximum Temperature:</b>	
Fluid	60° C (140° F)
Autoclave	130° C (260° F)
<b>Pump Speed Range:</b>	
rpm	30 - 2,400
<b>Suction Lift Dry at 1800 rpm:</b>	
Eccentric Shaft 3°	2.5 - 3 m (8.2-9.8 ft)
Eccentric Shaft 5°	4 - 4.5 m (13.1-14.7 ft)
<b>Volume Specifications:</b>	
Approximated Volume per Revolution at Free Output	9.6 ml (5°) 5.8 ml (3°)
Filling Volume Without Connectors	75 ml



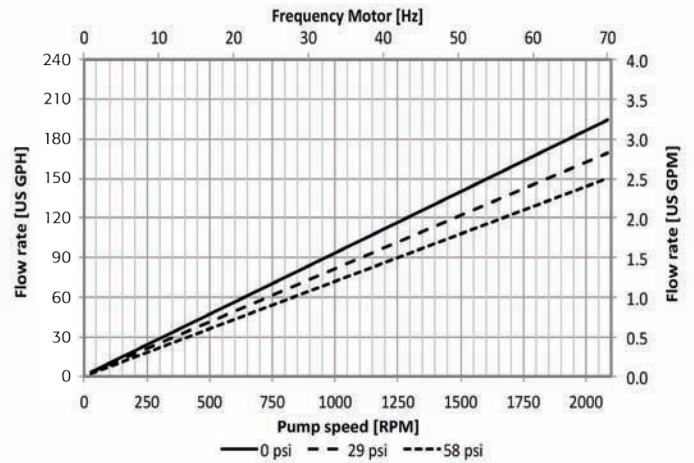
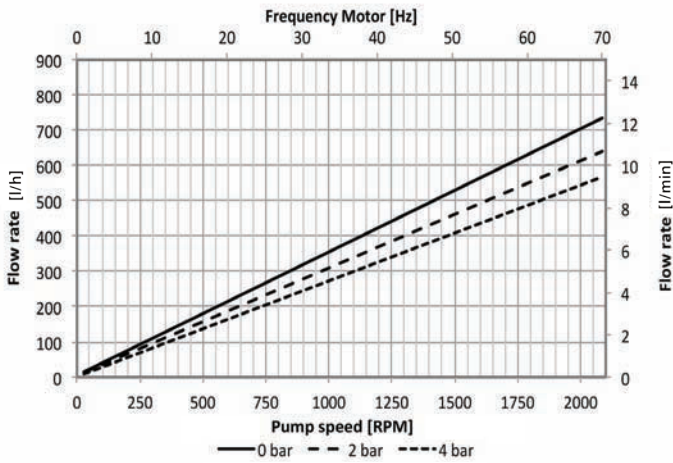
QF1200SU Standard Motor	
<b>Connection Specification (Standard):</b>	
Connectors	3/4" TC
Position of Connectors	Inline
Number of Flow Directions	4
<b>Product Wetted Materials (Standard):</b>	
Pump Chamber	PP
Valve Plate	PP
Diaphragms	TPE
Valves	EPDM
O-rings	EPDM
<b>Certificates/Proofs (Optional):</b>	
Elastomere (product wetted)	USP <88> Cl. VI; FDA21CFR177; BSE/TSE Safe; USP 87/381/661
<b>Motor (Standard):</b>	
Rated speed	1375 min-1 (50 Hz)
Voltage	230/400 V
Power	0.37 KW
<b>Pump Dimension with Motor and Housing:</b>	
Length	497 mm (19.56")
Width	159 mm (6.26")
Height	210 mm (8.27")
<b>Pump Weight with Motor and Housing:</b>	
	21 kg (46 lb.)

Other connection specifications, materials and motors available on request.

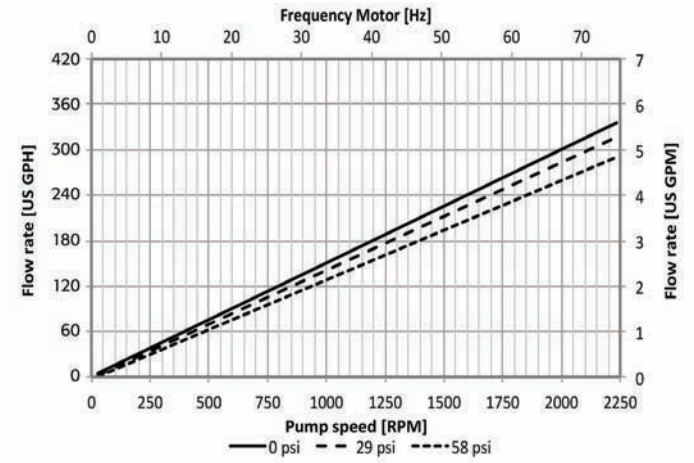
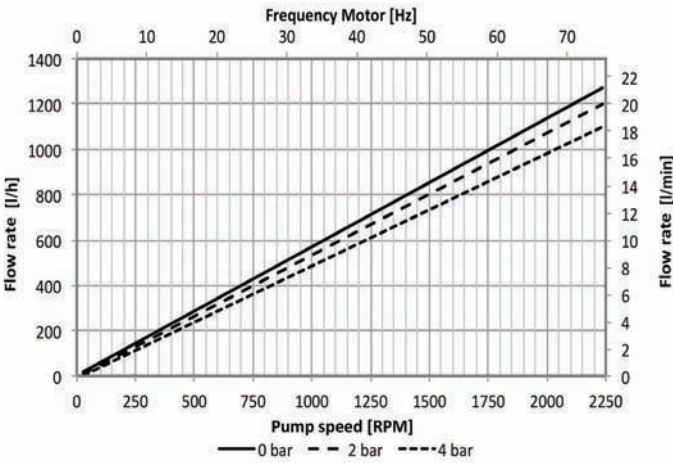
\* When using pump with control box: 20 l/h (5.28 gph) and 40 l/h (10.6 gph)

## Performance Charts

### Eccentric Shaft: 3°



### Eccentric Shaft: 5°



Depending on the selected motor/frequency drive combination, the motor frequency and the resulting pump speed might differ.

## Accessories



### Control Box

- Variable speed controller with integrated touch pad for manual speed control
- Configurable for remote speed control with 4-20 mA analogue input
- 230V / 50 Hz or 115 V / 60 Hz
- Hygienic 1.4301 housing, IP 54
- Easy plug & play installation

### Diaphragm Sensor

- Sensor installed in ring drive unit
- Detection of all liquids
- Signal output to a controller, if diaphragm is ruptured

Distributed by:



QF1200SU

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ALMATEC Maschinenbau GmbH  
 Carl-Friedrich-Gauß-Str. 5  
 47475 Kamp-Lintfort, Germany  
 O: +49/2842/961-0, F: +49/2842/961-40  
[www.quattroflow.com](http://www.quattroflow.com)  
[info@almatec.de](mailto:info@almatec.de)

# QF1200S

## Quaternary Diaphragm Pumps

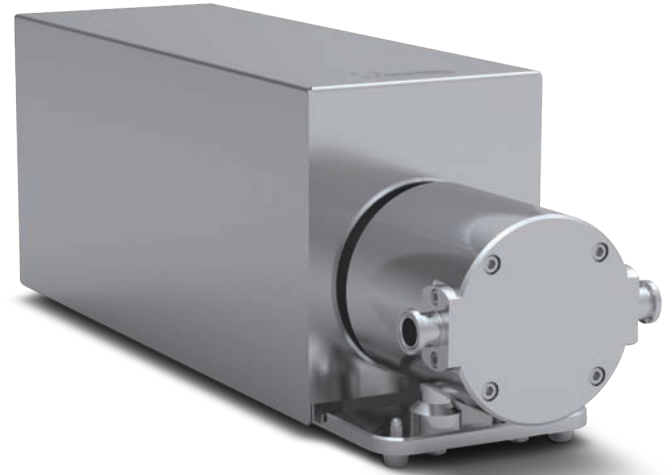
### Multiple-Use – Biotech/Biopharma

#### Features

- 4-piston technology
- Gentle product treatment
- No particle generation
- Low pulsation
- Linear flow characteristic
- Hygienic design
- Self-priming
- Safe dry-run operation
- Also available as single-use version

#### Applications

- Filtration systems (TFF, etc.)
- Chromatography systems
- Feeding pump
- Virus filtration
- Sterile filtration



#### Technical Data

QF1200S Standard Motor	
<b>Flow Rate Maximum:</b>	
Eccentric Shaft 3°	800 l/h (211 gph)
Eccentric Shaft 5°	1,200 l/h (317 gph)
<b>Flow Rate Minimum*:</b>	
Eccentric Shaft 3°	10 l/h (2.64 gph)
Eccentric Shaft 5°	20 l/h (5.3 gph)
<b>Pressure:</b>	
Temperature of Fluid < 40° C (104° F)	6 bar (87 psi)
Temperature of Fluid > 40° C (104° F)	4 bar (58 psi)
<b>Maximum Temperature:</b>	
Fluid	80° C (176° F)
CIP	90° C (194° F)
SIP	130° C (260° F)
Autoclave	130° C (260° F)
<b>Pump Speed Range:</b>	
rpm	30 - 2,400
<b>Suction Lift Dry at 1800 rpm:</b>	
Eccentric Shaft 3°	2.5 - 3 m (8.2-9.8 ft)
Eccentric Shaft 5°	4 - 4.5 m (13.1-14.7 ft)
<b>Volume Specifications:</b>	
Approximated Volume per Revolution at Free Output	9.6 ml (5°) 5.8 ml (3°)
Filling Volume Without Connectors	75 ml

Other connection specifications, materials and motors available on request.

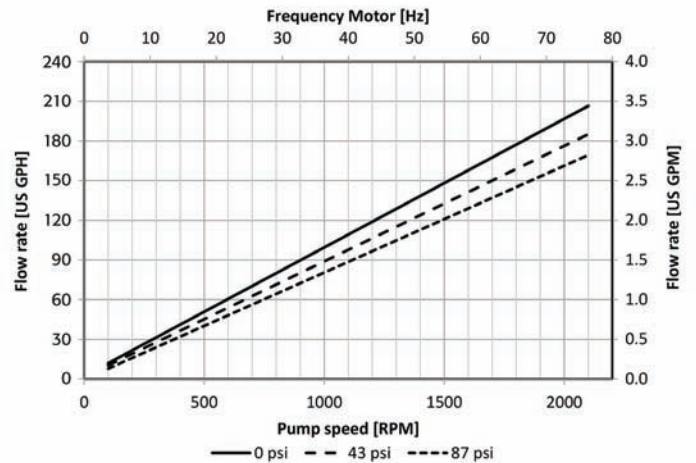
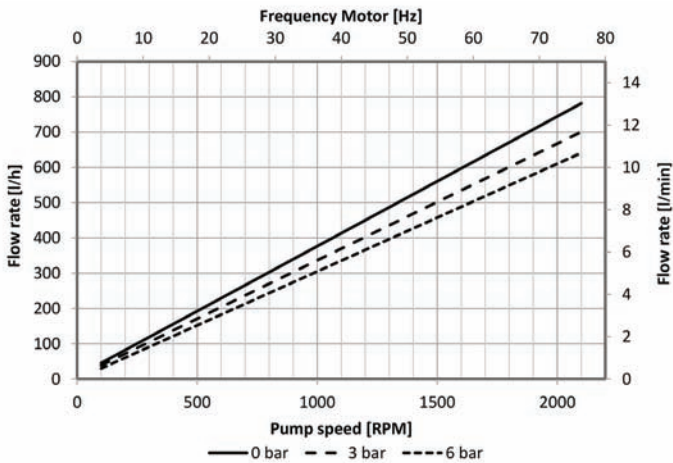
\* When using pump with control box: 20 l/h (5.28 gph) and 40 l/h (10.6 gph)

#### QF1200S Standard Motor

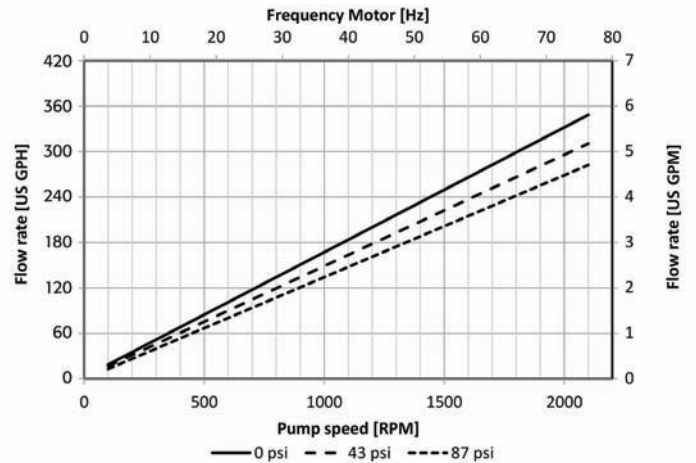
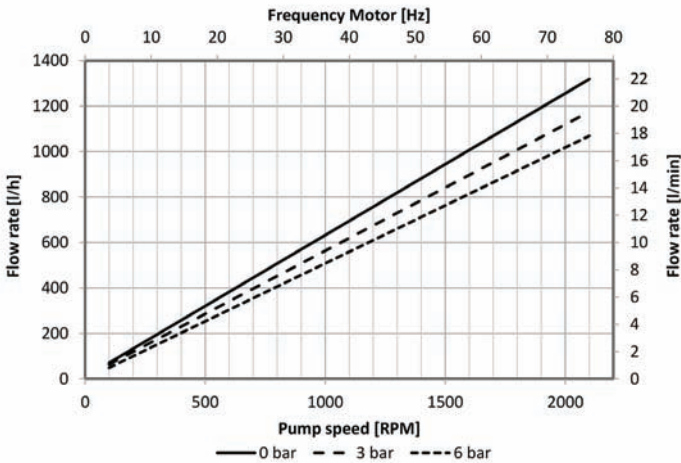
<b>Connection Specification (Standard):</b>	
Connectors	3/4" TC
Position of Connectors	Inline
Number of Flow Directions	4
<b>Product Wetted Materials (Standard):</b>	
Pump Housing	SS316L
Valve Plate	SS316L
Diaphragms	TPE
Valves	EPDM
O-rings	EPDM
<b>Certificates/Proofs (Optional):</b>	
Elastomere (product wetted)	USP <88> Cl. VI; FDA21CFR177; BSE/TSE Safe
Stainless Steel Parts (product wetted)	3.1; Surface Roughness; Ferrite Content
<b>Motor (Standard):</b>	
Rated speed	1375 min-1 (50 Hz)
Voltage	230/400 V
Power	0.37 KW
<b>Pump Dimension with Motor and Housing:</b>	
Length	487 mm (19.17")
Width	159 mm (6.26")
Height	210 mm (8.27")
<b>Pump Weight with Motor and Housing:</b>	
	24 kg (53 lb.)

## Performance Charts

### Eccentric Shaft: 3°



### Eccentric Shaft: 5°



Depending on the selected motor/frequency drive combination, the motor frequency and the resulting pump speed might differ.

## Accessories



### Control Box

- Variable speed controller with integrated touch pad for manual speed control
- Configurable for remote speed control with 4-20 mA analogue input
- 230V / 50 Hz or 115 V / 60 Hz
- Hygienic 1.4301 housing, IP 54
- Easy plug & play installation



### Power Box

- Plug & Play installation
- Protects system and pump from overpressure
- Configurable pressure switch setpoint
- Reset button for pump reset
- To be used with pressure switch (also available)

### Diaphragm Sensor

- Sensor installed in ring drive unit
- Detection of all liquids
- Signal output to a controller, if diaphragm is ruptured

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QF1200S

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ALMATEC Maschinenbau GmbH  
Carl-Friedrich-Gauß-Str. 5  
47475 Kamp-Lintfort, Germany  
O: +49/2842/961-0, F: +49/2842/961-40  
[www.quattroflow.com](http://www.quattroflow.com)  
info@almatec.de

# QF1200S-HT

## Quaternary Diaphragm Pumps

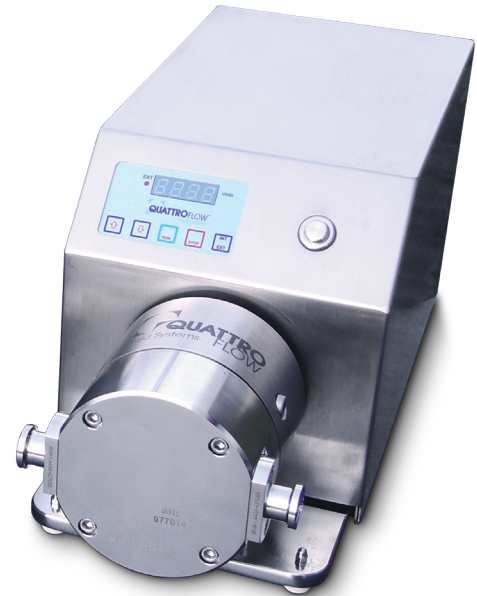
### Multiple-Use – Biotech/Biopharma

#### Features

- Compact version with integrated controller and extended turn-down ratio
- 4-piston technology
- Gentle product treatment
- No particle generation
- Low pulsation
- Linear flow characteristic
- Hygienic design
- Self-priming
- Safe dry-run operation
- Also available as single-use version

#### Applications

- Filtration systems (TFF, etc.)
- Chromatography systems
- Feeding pump
- Virus filtration
- Sterile filtration



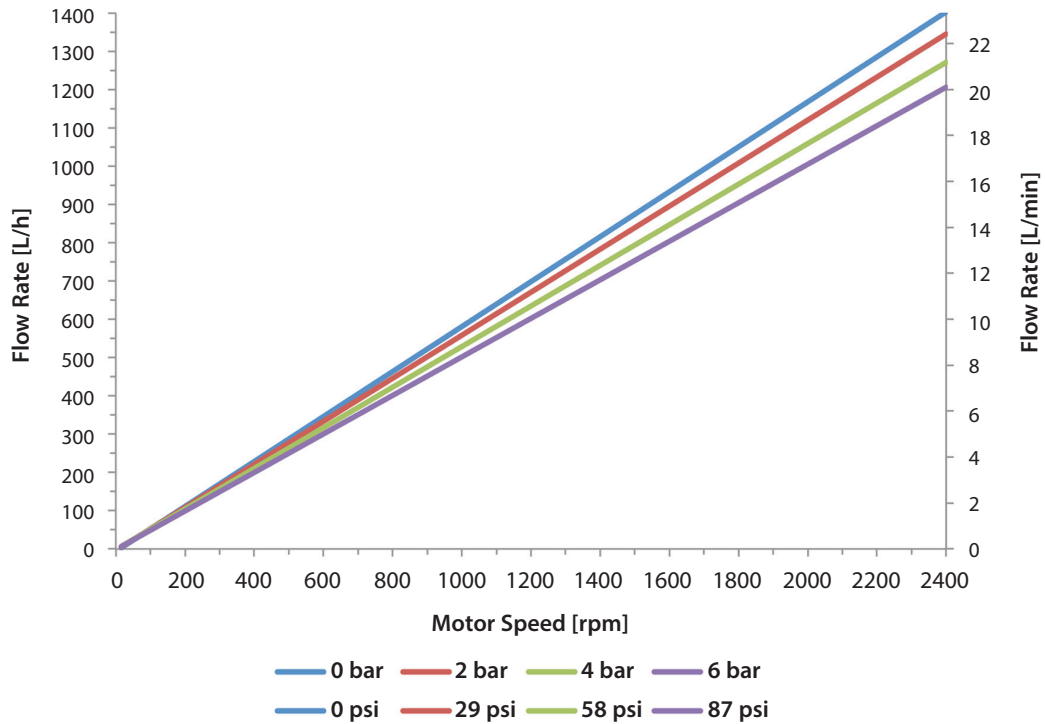
#### Technical Data

	QF1200S-HT
<b>Flow Rate Maximum:</b>	
Eccentric Shaft 5°	1,200 lph (20 lpm)
<b>Flow Rate Minimum:</b>	
Eccentric Shaft 5°	6 lph (0.1 lpm)
<b>Pressure:</b>	
Temperature of Fluid < 40° C (104° F)	6 bar (87 psi)
Temperature of Fluid > 40° C (104° F)	4 bar (58 psi)
<b>Maximum Temperature:</b>	
Fluid	80° C (176° F)
CIP	90° C (194° F)
SIP	130° C (260° F)
Autoclave	130° C (260° F)
<b>Pump Speed Range:</b>	
rpm	10 - 2,400
<b>Suction Lift Dry at 1800 rpm:</b>	
Eccentric Shaft 5°	4 - 4.5 m (13.1-14.7 ft)
<b>Volume Specifications:</b>	
Approximated Volume per Revolution at Free Output	9.6 ml
Filling Volume Without Connectors	75 ml
<b>Connection Specification (Standard):</b>	
Connectors	3/4" TC
Position of Connectors	Inline
Number of Flow Directions	4

	QF1200S-HT
<b>Product Wetted Materials (Standard):</b>	
Pump Chamber	SS316L
Valve Plate	SS316L
Diaphragms	TPE
Valves	EPDM
O-rings	EPDM
<b>Certificates/Proofs (Optional):</b>	
Elastomere (product wetted)	USP <88> Cl. VI; FDA21CFR177; BSE/TSE Safe
Stainless Steel Parts (product wetted)	3.1; Surface Roughness; Ferrite Content
<b>Motor:</b>	
Maximum speed	2,400 min-1
Voltage	110 - 230 V
Power	0.485 kW
<b>Pump Dimension with Motor and Housing:</b>	
Length	489 mm (19.25")
Width	200 mm (7.87")
Height	220 mm (8.66")
<b>Pump Weight with Motor and Housing:</b>	
	25 kg (55 lb.)

## Performance Chart

Eccentric Shaft: 5°



## Accessories



### Power Box

- Plug & Play installation
- Protects system and pump from overpressure
- Configurable pressure switch setpoint
- Reset button for pump reset
- To be used with pressure switch (also available)

### Diaphragm Sensor

- Sensor installed in ring drive unit
- Detection of all liquids
- Signal output to a controller, if diaphragm is ruptured



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Carl-Friedrich-Gauß-Str. 5  
47475 Kamp-Lintfort, Germany  
O: +49/2842/961-0, F: +49/2842/961-40  
info@almatec.de  
quattroflow.com

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