**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

<table>
<thead>
<tr>
<th>Flow Rate Maximum:</th>
<th>QF1200SU Standard Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eccentric Shaft 3°</td>
<td>800 l/h (211 gph)</td>
</tr>
<tr>
<td>Eccentric Shaft 5°</td>
<td>1,200 l/h (317 gph)</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Flow Rate Minimum*:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eccentric Shaft 3°</td>
<td>10 l/h (2.64 gph)</td>
</tr>
<tr>
<td>Eccentric Shaft 5°</td>
<td>20 l/h (5.3 gph)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressure:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature of Fluid &lt; 40° C (104° F)</td>
<td>4 bar (58 psi)</td>
</tr>
<tr>
<td>Temperature of Fluid &gt; 40° C (104° F)</td>
<td>4 bar (58 psi)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum Temperature:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Fluid</td>
<td>60° C (140° F)</td>
</tr>
<tr>
<td>Autoclave</td>
<td>130° C (260° F)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump Speed Range:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>rpm</td>
<td>30 - 2,400</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suction Lift Dry at 1800 rpm:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eccentric Shaft 3°</td>
<td>2.5 - 3 m (8.2-9.8 ft)</td>
</tr>
<tr>
<td>Eccentric Shaft 5°</td>
<td>4 - 4.5 m (13.1-14.7 ft)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume Specifications:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approximated Volume per Revolution at Free Output</td>
<td>9.6 ml (5°)</td>
</tr>
<tr>
<td>Filling Volume Without Connectors</td>
<td>75 ml</td>
</tr>
</tbody>
</table>

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)

### Connection Specification (Standard):
- Connectors: 3/4” TC
- Position of Connectors: Inline
- Number of Flow Directions: 4

### Product Wetted Materials (Standard):
- Pump Chamber: PP
- Valve Plate: PP
- Diaphragms: TPE
- Valves: EPDM
- O-rings: EPDM

### Certificates/Proofs (Optional):
- Elastomere (product wetted): USP <88> Cl. VI; FDA 21 CFR 177; BSE/TSE Safe; USP 87/381/661

### Motor (Standard):
- Rated speed: 1375 min-1 (50 Hz)
- Voltage: 230/400 V
- Power: 0.37 KW

### Pump Dimension with Motor and Housing:
- Length: 497 mm (19.56")
- Width: 159 mm (6.26")
- Height: 210 mm (8.27")

### Pump Weight with Motor and Housing:
- 21 kg (46 lb.)
Performance Charts

Eccentric Shaft: 3°

Eccentric Shaft: 5°

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 115V / 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

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

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