Product Data Sheet
TS8100 Series
Positive Displacement
PC Pump

The TS8100 Series Positive Displacement Pump is a continuously volumetric dispense pump based on Progressive Cavity (PC) technology. The pump is designed to dispense a wide range of fluids, from low viscosity coatings to high viscosity greases.

Techcon’s PC Pump uses a special stator and rotor design to provide consistent dispensing output.

The turning rotor moves the fluid in tightly sealed cavities through the stator’s fluid chambers to create a volumetric fluid flow that does not change the shape or size of the fluid. Due to the PC Pump’s unique dispensing technology, accuracy and repeatability of ± 1% is achievable.

KEY FEATURES AND BENEFITS

- Volumetric, positive displacement
- Accurate and repeatable up to ± 1%
- No dripping with any viscosity fluid
- Compatible with abrasive materials
- Does not damage or break fillers
- Easy to clean

INCLUDED WITH THE UNIT

- Syringe bracket
- Mounting bracket kit
- Luer lock fitting
- Cleaning kit
- Dispensing tip selection pack

TYPICAL APPLICATIONS

- Under filling PCBA components
- Encapsulation and Potting applications
- Applying lubrication on Automotive parts
- Dispensing pastes and flux

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**SPECIFICATIONS & PART NUMBERS**

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>TS8100-100</th>
<th>TS8100-200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>801” (205mm) L X 1.3” (34mm) W</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>13.4 oz. (380g)</td>
<td></td>
</tr>
<tr>
<td>Wetted Part</td>
<td>Delrin® (Acetal), PFE, Stainless Steel, UHMWPE</td>
<td></td>
</tr>
<tr>
<td>Fluid viscosity</td>
<td>1-300K (Cps or mPa.s)</td>
<td></td>
</tr>
<tr>
<td>Precision ±, absolute (1)</td>
<td>±1%</td>
<td></td>
</tr>
<tr>
<td>Self-sealing (2)</td>
<td>2 bar</td>
<td></td>
</tr>
<tr>
<td>Material inlet port</td>
<td>1/8 NPT</td>
<td></td>
</tr>
<tr>
<td>Material outlet port</td>
<td>Male Luer lock</td>
<td></td>
</tr>
<tr>
<td>Direct mount material reservoir</td>
<td>3 to 55cc</td>
<td></td>
</tr>
<tr>
<td>Part number</td>
<td>TS8100-100</td>
<td>TS8100-200</td>
</tr>
<tr>
<td>Dispense volume per rotation</td>
<td>0.012 ml average</td>
<td>0.047 ml average</td>
</tr>
<tr>
<td>Flow rate range</td>
<td>0.15 – 1.04 ml/min.</td>
<td>0.47 – 4.46 ml/min.</td>
</tr>
<tr>
<td>Max flow rate recommended (3)</td>
<td>0.65 ml/min</td>
<td>3.38 ml/min</td>
</tr>
<tr>
<td>Minimum dispense amount</td>
<td>0.001 ml</td>
<td>0.0045 ml</td>
</tr>
</tbody>
</table>

(1) Volumetric dispensing as absolute deviation per complete revolution and also depends on dispensing fluid.
(2) For fluid with viscosity of 1000 Cps or lower. The pump can handle up to 5.5 bar for 300K Cps viscosity fluid.
(3) This is the maximum flow rate that does not shorten the stator work life.

**ACCESSORIES**

- **XYZ Robot**: Techcon’s Bench-Top Dispensing Robots makes it easy to automate fluid dispensing.
- **Fluid reservoirs**: The pump can be fed from the TS1254 (1.8 litre) or TS1258 (5 litre) Pressure Tank, or from any size syringe barrel or cartridge.
- **Digital Controller**: Techcon’s TS500R-PC Digital Controller is designed specifically for Techcon’s TS8100 PC Pump.

**For Sales and Support:**

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Or visit [www.techconsystems.com](http://www.techconsystems.com)

*SS: Stainless Steel
*PFE: Perfluoroelastomer
*UHMWPE: Ultra High Molecular Weight Polyethylene