Neptune™ 500-E Series Hydraulic Metering Pumps offers an economical alternative to the standard 500 Series pumps or a packed plunger pump that includes the Neptune Variable Oil By-Pass™. The Variable Oil By-Pass stroke adjustment allows improved valve performance over variable linkage designs.

**FEATURES AND BENEFITS**
- Economical alternative to standard 500 Series
- Max capacity up to 34 gph (113 L/h)
- Max pressure up to 1,100 psi (77 bar)
- Materials of construction: 316SS, PVDF, PVC

**OPTIONS**
- Capacity control options include electric stroke length adjustment and variable speed drives

WWW.PSGDOVER.COM/NEPTUNE
### 500-E Series Hydraulic Metering Pumps SELECTION CHART

#### Standard Motor 1/3hp-1ph-115VAC-60c-TEFC

<table>
<thead>
<tr>
<th>MODEL</th>
<th>PISTON DIAMETER INCHES (MM)</th>
<th>STROKES PER MIN AT 60 HZ (50 HZ)</th>
<th>MATERIALS OF CONSTRUCTION</th>
<th>CAPACITY AT 100 PSI (7 BAR) 60 HZ (50 HZ)</th>
<th>MAX PRESSURE PSI (BAR)</th>
<th>SHIPPING WEIGHT LB. (KG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>515-E-N3</td>
<td>1/2 (13)</td>
<td>117 (97)</td>
<td>316SS, PVC, Hypochlorite, PTFE</td>
<td>3 (2.5) 11.3 (9.4)</td>
<td>1,100 (77) 150 (11)</td>
<td>59 (27)</td>
</tr>
<tr>
<td>515-E-N5</td>
<td>11/16 (18)</td>
<td>72 (60)</td>
<td>316SS, PVC, Hypochlorite, PTFE</td>
<td>2 (1.7) 7.5 (6.3)</td>
<td>700 (49) 150 (11)</td>
<td>59 (27)</td>
</tr>
<tr>
<td>515-E-N8</td>
<td>11/16 (18)</td>
<td>117 (97)</td>
<td>316SS, PVC, Hypochlorite, PTFE</td>
<td>4 (3.3) 15.1 (12.6)</td>
<td>700 (49) 150 (11)</td>
<td>59 (27)</td>
</tr>
<tr>
<td>527-E-AR</td>
<td>11/16 (18)</td>
<td>144 (120)</td>
<td>Hypochlorite, PTFE</td>
<td>7 (5.8) 26.5 (22.1)</td>
<td>900 (63) 150 (11)</td>
<td>59 (27)</td>
</tr>
<tr>
<td>532-E-N3</td>
<td>1-1/16 (27)</td>
<td>72 (60)</td>
<td>316SS, PVC, Hypochlorite</td>
<td>11 (9.2) 41.6 (34.7)</td>
<td>350 (25) 150 (11)</td>
<td>59 (27)</td>
</tr>
<tr>
<td>535-E-N3</td>
<td>1-1/16 (27)</td>
<td>117 (97)</td>
<td>316SS, PVC, Hypochlorite</td>
<td>18 (15) 68 (56.7)</td>
<td>350 (25) 150 (11)</td>
<td>59 (27)</td>
</tr>
<tr>
<td>547-SE-N3*</td>
<td>1-3/16 (30)</td>
<td>144 (120)</td>
<td>316SS, PVC</td>
<td>29 (23.3) 110 (91)</td>
<td>200 (14) 150 (11)</td>
<td>65 (29)</td>
</tr>
<tr>
<td>548-SE-N3*</td>
<td>1-3/16 (30)</td>
<td>176 (147)</td>
<td>316SS</td>
<td>34 (28.3) 128 (106.7)</td>
<td>200 (14) 150 (11)</td>
<td>85 (39)</td>
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<td>700 (49) 150 (11)</td>
<td>59 (27)</td>
</tr>
<tr>
<td>525-E-N8</td>
<td>11/16 (18)</td>
<td>117 (97)</td>
<td>316SS, PVC, Hypochlorite, PTFE</td>
<td>4 (3.3) 15.1 (12.6)</td>
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</tbody>
</table>

**MATERIALS OF CONSTRUCTION**

<table>
<thead>
<tr>
<th>MATERIAL CODE</th>
<th>PUMP HEAD</th>
<th>CHECK VALVE BODY</th>
<th>CHECK VALVE BALL</th>
<th>DIAPHRAGM</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3</td>
<td>316SS</td>
<td>316SS</td>
<td>316SS</td>
<td>PTFE</td>
</tr>
<tr>
<td>N5</td>
<td>PVC*</td>
<td>PVC*</td>
<td>Glass***</td>
<td>PTFE</td>
</tr>
<tr>
<td>AR**</td>
<td>PVC*</td>
<td>PVC*</td>
<td>Glass***</td>
<td>PTFE</td>
</tr>
<tr>
<td>N8</td>
<td>PVDF</td>
<td>PVDF</td>
<td>Ceramic</td>
<td>PTFE</td>
</tr>
</tbody>
</table>

* PVC head pumps are satisfactory for temperatures to 125°F (52°C).
** PVC head with air release valve for sodium hypochlorite service.
*** Special materials available for services not compatible with glass.

### Dimensions

**AR** Models

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* Simplex Economy Model Style
** Duplex Economy Model Style

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Available Chemical Feed Systems With 500-E Series Pumps

TOP-MOUNTED CHEMICAL FEED SYSTEM

System includes:
1. 500-E Series Pump
2. Model ET-P Tank (includes):
   - 50 gallon self-supporting polyethylene tank
   - Molded polyethylene cover
   - Suction piping and PVC foot valve strainer
3. Model L-2-300 Agitator (optional)

BOTTOM-MOUNTED CHEMICAL FEED SYSTEM

System includes:
1. 500-E Series Pump
2. Model 50PT-300 Tank (includes):
   - 50 gallon polyethylene tank in steel support
   - Molded polyethylene cover
   - PVC suction piping, PVC valve and iron strainer
3. Model L-1-300 or A-1-301 Agitators (optional)

AGITATORS

Neptune also offers a line of economically priced agitators for use with the tanks shown above:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>MOTOR DESCRIPTION</th>
<th>MOUNTING STYLE</th>
<th>MATERIAL OF CONSTRUCTION</th>
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</thead>
<tbody>
<tr>
<td>L-1-300</td>
<td>1/20hp-1-115-TEFC</td>
<td>Direct Mount* Vert. to Lid</td>
<td>316SS</td>
</tr>
<tr>
<td>L-2-300</td>
<td>1/20hp-1-115-TEFC</td>
<td>Direct Mount* Vert. to Lid</td>
<td>316SS</td>
</tr>
<tr>
<td>A-1-301</td>
<td>1/4hp-1-115-TEFC</td>
<td>Direct Mount*</td>
<td>316SS</td>
</tr>
</tbody>
</table>

*Mounting plate supplied on tank.
Additional Solutions by Neptune

**BACK PRESSURE VALVES**

Back pressure valves are adjustable to a maximum of 50 psi (3.5 bar). Ensure the set pressure is maintained at the pump outlet port (discharge) to assure accurate metering and prevent siphoning. Required accessory when pumping to a low-pressure injection point below the tank level or when pumping from a bulk tank with a high head pressure.

- Available in PVC, 316SS, PVDF and C-20 materials
- Standard sizes include 1/2" through 1-1/2" options

**CALIBRATION COLUMNS**

Provide a fast, easy economical way to check the flow rate of a chemical metering pump.

- Standard sizes include 100, 250, 500, 1000 and 4000 ml options

**PRESSURE RELIEF VALVES**

Relief valves protect piping and system from overpressure.

- Available in PVC, 316SS, PVDF and C-20 materials
- Standard sizes include 1/2" through 1-1/2" options

**EZE-GRAB PLATFORM**

Molded polyethylene base provides elevated platform for use indoors or outdoors. Handles allow the pump to be moved easily.

**PULSATION DAMPENERS**

Remove the pulsating flow caused by a pump’s reciprocating action, ensuring a smooth, laminar flow.

- Available in PVC, polypropylene, 316SS, and C-20 (with FKM or EPDM bladders) materials

**SAMPLE COOLERS**

Cool hot water or steam samples for easy handling and effective sample collection. Suitable for use on hot water, saturated steam or super-heated steam services.

- Available in 316SS and Inconel materials

**CORPORATION STOPS & QUILLS**

Used for injecting chemicals pumped into turbulent-flow zone of high-pressure water or steam lines to provide a more rapid, uniform dispersion of injected chemical. Corporation stops allow injection quills to be inserted or removed without having to drain or shut down the system.

- Available in CPVC, PVDF, 316SS and C-20 materials

**30 GALLON MINI TANK**

Neptune offers a line of completely packaged chemical feed systems, with or without containment.

**BY-PASS FEEDERS**

Neptune By-Pass Feeders are a convenient method of introducing treatment chemicals into closed water recirculation systems. Neptune By-Pass Feeders are ideal for treating hot and chilled closed water recirculation loops used in heating and air conditioning systems, process heating and cooling or large engine water jackets.

- Available with and without legs
- Max pressure up to 300 psi (20.7 bar)

For more information on these additional solutions, visit us at psgdover.com/neptune.

Where Innovation Flows

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