**Solenoid-activated Spray Nozzles**

**SETO-SD**

- **Fast response performance by solenoid activation**: Intermittent pulse spray at 0.02 sec/shot with a minimum of 0.006 cc/shot is possible.
- **Ideal for coating in small amounts**, i.e., protective agent coating, etc.
- **IP65, IP67 (dust-proof and water-proof) structure**.
- **SETO07503R-I+SD** is an internal mixing outer air type (the other SETO models are external mixing type).

**APPLICATIONS**
- Spraying release agent for metal molds
- Coating
- Mold cooling
- Uniform coating without dripping

**DRAWING**

**CAUTION**

- Use with care to prevent rusting or blocking due to freezing of compressed air or liquid when the temperature is below freezing, or when the nozzle is exposed to freezing temperatures.
- Use with caution and proper maintenance to prevent rusting, blocking, etc., at the nozzle body and the air or liquid fitting ports.

**HOW TO USE**

1. **Solenoid-activated pneumatic spray nozzle**
2. **Solenoid control panel**
3. **Pressurized flow control unit**
4. **Liquid pressurization tank** (required only if oil-based release agent is used)

**COMPONENTS AND MATERIALS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Components</th>
<th>Standard materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nozzle body</td>
<td>Main materials:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aluminum</td>
</tr>
<tr>
<td>2</td>
<td>Adaptor</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Solenoid</td>
<td></td>
</tr>
</tbody>
</table>

**PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>Nozzle code</th>
<th>Air pressure (MPa)</th>
<th>Spray capacity (L/hr)</th>
<th>Air consumption (L/min, Normal)</th>
<th>Liquid pressure (MPa)</th>
<th>Spray width*2 (mm)</th>
<th>Mean droplet diameter*3 (μm)</th>
<th>Laser Doppler method</th>
<th>Free passage diameter (mm)</th>
<th>Mass (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>07503R-I</td>
<td>0.2</td>
<td>Liquid: 0.05 &amp; 0.13</td>
<td>1.0 5.0 3.2 48</td>
<td>Liquid: 0.2 &amp; 0.3</td>
<td>40–50</td>
<td>15–25</td>
<td>Adaptor Aluminum</td>
<td>Liquid: 0.3 &amp; 0.4</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>0.3</td>
<td>Liquid: 0.05 &amp; 0.13</td>
<td>2.0 36 6.5 36</td>
<td>Liquid: 0.2 &amp; 0.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.4</td>
<td>Liquid: 0.05 &amp; 0.13</td>
<td>5.0 71 13.9 71</td>
<td>Liquid: 0.2 &amp; 0.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>07507R</td>
<td>0.3</td>
<td>Liquid: 2.0 &amp; 2.4</td>
<td>0.9 66 4.0 64</td>
<td>Liquid: 0.2 &amp; 0.3</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2210R</td>
<td>0.3</td>
<td>Liquid: 10.0 &amp; 10.6</td>
<td>1.9 80 10.0 64</td>
<td>Liquid: 0.2 &amp; 0.3</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*1) Spray capacity and air consumption at liquid pressure of 0 MPa (liquid siphon feed) are measured at 100 mm siphon height.

*2) Spray width measured at 100 mm from nozzle.

*3) 07503R-I: Sauter mean diameters measured at compressed air pressure of 0.2 MPa and liquid pressure of 0.13 MPa.

0405R, 07507R, 2210R: Sauter mean diameters measured at compressed air pressure of 0.3 MPa and liquid pressure of 0 MPa (siphon height of 100 mm).
FLOW-RATE DIAGRAMS

How to read the chart
1. The spray capacity shown is for one nozzle.
2. Red lines (—) represent compressed air pressures $P_a$ in MPa.
   Blue lines (—) represent liquid pressures $P_w$ in MPa.
   Green lines (—) represent air-water ratio $Q_a/Q_w$.
3. Figures in ovals $\bigcirc$ indicate Sauter mean diameters ($\mu$m) measured by laser Doppler method (measured at 300 mm from the nozzle).

How to read the chart
1. The spray capacity shown is for one nozzle.
2. Blue lines (—) represent liquid pressures $P_w$ in MPa.
   Green lines (—) represent air-water ratio $Q_a/Q_w$.
3. Measured at liquid siphon height of 100 mm when $P_w$ is 0 MPa.
4. Figures in ovals $\bigcirc$ indicate Sauter mean diameters ($\mu$m) measured by laser Doppler method (measured at 300 mm from the nozzle).

HOW TO ORDER
Please inquire or order for a specific nozzle using this coding system.

<Example> SETO 07503R-I +SD AL

SETO 07503R-I +SD AL

Material
AL (Aluminum)