The 794 Series auger valve system is designed to make precise, repeatable deposits of solder paste. By integrating screw feed technology with precise control of dispense time, syringe pressure and auger speed, the 794 Series system ensures consistent deposits without damage to the metal alloy particles in the solder paste.

**794 Series Auger Valves**

The 794 Series auger valves are designed for use with ValveMate™ 7194 controllers and EFD’s automated dispensing systems. During operation, air pressure applied to the syringe of solder moves paste into the path of the auger. As the auger rotates, solder paste moves along the threads and out the dispensing tip.

The VM7194 controller regulates feed pressure so that there is enough pressure to keep the valve primed with solder without forcing it past the auger, and controls dispense time and auger speed.

**Features and Benefits**

- Accurate, consistent output
- Adjustable flow rate
- I/O interface
- Adjustable auger speed
- 8 pitch or 16 pitch auger
- Two motor-styles – brush or brushless
- Low-maintenance design
- Fast, tool-free latch release of wetted parts
- Sliding head/footed tip components for surface irregularities and to maintain consistent dispense gap height.
- Fixed head version for lines and stripes
794 Auger Valve Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>237.4 mm length x 31.7 mm diameter (9.35&quot; x 1.25&quot;)</td>
</tr>
<tr>
<td>Weight</td>
<td>544 grams (19.2 oz)</td>
</tr>
<tr>
<td>Fluid chamber</td>
<td>Type 440C hardened stainless steel</td>
</tr>
<tr>
<td>Auger</td>
<td>Type 440C hardened stainless steel</td>
</tr>
<tr>
<td>“U” cup</td>
<td>Filled PTFE, spring energized</td>
</tr>
<tr>
<td>Liquid feed fitting</td>
<td>Type 304SS #10-32x5/32” (push-in optional: polypro)</td>
</tr>
<tr>
<td>Auger speed</td>
<td>250-400 RPM based on voltage input</td>
</tr>
<tr>
<td>Auger pitch</td>
<td>8 and 16 pitch auger</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>12-24 VDC (&lt;10% ripple)</td>
</tr>
<tr>
<td>Input Air</td>
<td>0-30 psi (0-2.07 bar) clean and dry</td>
</tr>
<tr>
<td>Maximum Acceleration</td>
<td>2g</td>
</tr>
</tbody>
</table>

All stainless steel parts are passivated.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7029743</td>
<td>794 auger valve: 8 pitch, brushless motor, sliding head, and footed tip</td>
</tr>
<tr>
<td>7029742</td>
<td>794 auger valve: 8 pitch, brushless motor, and fixed head</td>
</tr>
<tr>
<td>7029744</td>
<td>794 auger valve: 16 pitch, brushless motor, and sliding head</td>
</tr>
<tr>
<td>7029463</td>
<td>794 auger valve: 16 pitch, brushless motor, and fixed head</td>
</tr>
<tr>
<td>7021916</td>
<td>794 auger valve: 8 pitch, brush motor, sliding head, and footed tip</td>
</tr>
<tr>
<td>7029745</td>
<td>794 auger valve: 8 pitch, brush motor, and fixed head</td>
</tr>
<tr>
<td>7021917</td>
<td>794 auger valve: 16 pitch, brush motor, sliding head, and footed tip</td>
</tr>
<tr>
<td>7029746</td>
<td>794 auger valve: 16 pitch, brush motor, and fixed head</td>
</tr>
</tbody>
</table>
794 Auger Valve System
The 794 Series auger valves are available in brush and brushless motor configurations. Either configuration can be used with EFD’s automated dispensing systems such as the PRO Series, EV Series, and E Series.

ValveMate 7194 Controller
The ValveMate 7194 controller series regulates solder feed pressure, dispense time, and auger speed. It provides motor startup acceleration limits and maximum current overload protection for extended motor life. The precision air pressure regulator ensures that consistent pressure is applied to the material in the syringe barrel.

- Easy deposit size control
- Motor voltage range of 10-24 VDC
- Digital time, pressure, voltage display
- Motor overload/fault detection

Automated Dispensing Systems
Nordson EFD offers a wide range of automated systems that are fully compatible with the 794 auger valve. Our automated systems offer consistent, accurate, and repeatable performance, making even the most complex dispensing applications easy. Get simplified setup and programming plus optimized dispensing results from features such as laser height sensing and fully integrated CCD cameras, or specify inline systems designed for larger products.

Custom Solder Paste
Learn more about EFD dispense paste, print paste, flux, thermal compounds, and solder mask, including specialized formulations. We are a dispense flux technology leader and one-stop shop for solder, dispensers, valves, and automation.

Contact EFD for details: info@nordsonefd.com

Dispense Tips
Tip selection is critical to achieve optimum valve performance. In general, use the shortest and least restrictive tip possible to provide the best paste flow.

794 Series valves are packaged with a dispensing tip kit for maximum fluid control. The kit includes SmoothFlow™ tapered tips in sizes from 14 to 22 gauge and 6.35 mm (1/4”) precision stainless steel tips in sizes from 14 to 30 gauge, and tip caps.

Nordson EFD
For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to www.nordsonefd.com

Global
East Providence, RI USA
800-556-3484; +1-401-431-7000
info@nordsonefd.com

Europe
Dunstable, Bedfordshire, UK
0800 585733; +44 (0) 1582 666334
europe@nordsonefd.com

Asia
China: +86 (21) 3866 9006; china@nordsonefd.com
India: +91 80 4021 3600; india@nordsonefd.com
Japan: +81 03 5762 2760; japan@nordsonefd.com
Korea: +82 31-736-8321; korea@nordsonefd.com
SEAsia: +65 6796 9522; sin-mal@nordsonefd.com

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