

# Auger valve system for precise, consistent fluid application.

solder pastes  
particle-filled materials  
thermal greases  
silver epoxies

**EFD®**  
A NORDSON COMPANY



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.

## Features / 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

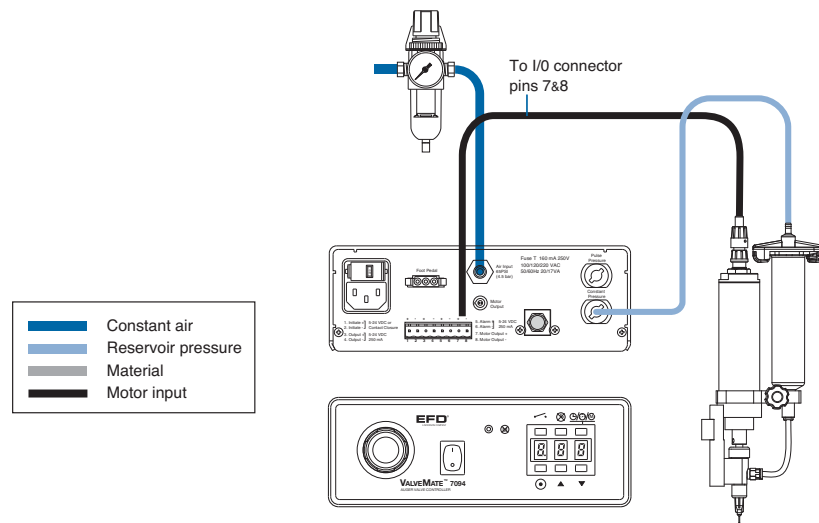
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# Auger valve systems

The 794 Series auger valves are available in brush and brushless motor configurations.

Either configuration can be used with XYZ dispensing robots like EFD's Ultra TT automation system.

**NOTE: Only the brush motor configurations can be used with the 7094 controller.**



## 794 Series Auger Valves

The 794 Series auger valves are designed for use with the 7094 controller or XYZ dispensing robots like the EFD Ultra® TT automation system. 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 7094 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.

**Size:** 237.4 mm x 31.7 mm diameter  
(9.35" length x 1.25")

**Weight:** 544 grams (19.2 oz)

**Fluid chamber:** Type 440C hardened stainless steel

**Auger:** Type 440C hardened stainless steel

**"U" cup:** Filled PTFE, spring energized

**Liquid feed fitting:** Type 304SS #10-32x5/32"  
(push-in optional: polypro)

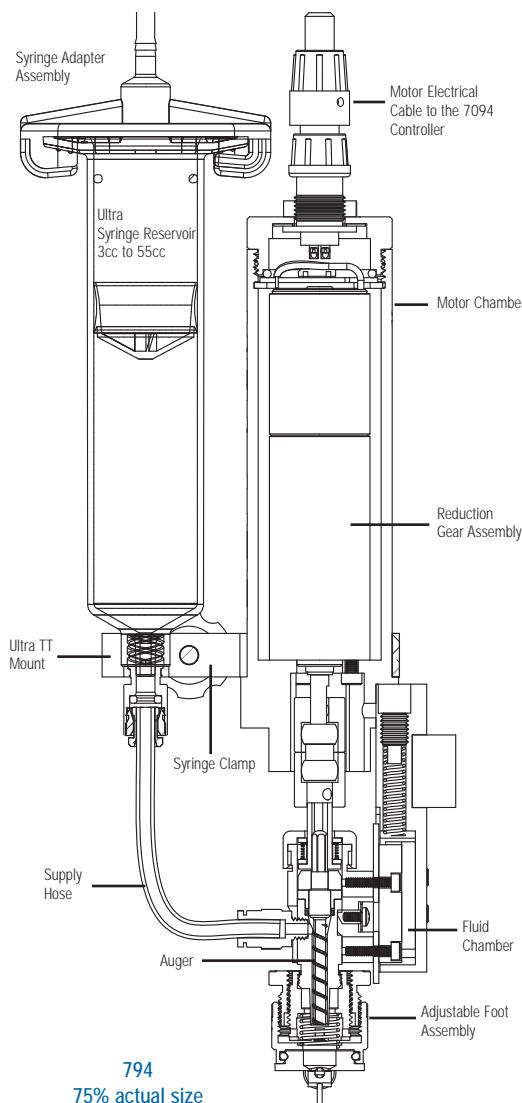
**Auger speed:** 250-400 RPM based on voltage input

**Auger pitch:** 8 and 16 pitch auger

**Input Voltage:** 12-24 VDC (<10% ripple)

**Input Air:** 0-30 psi (0-2.07 bar) clean and dry

**Maximum Acceleration:** 2g



794

75% actual size

All stainless steel parts are passivated.



## ValveMate 7094 Controller

The ValveMate 7094 controller 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
- On-the-fly adjustability
- Motor voltage range of 10-24 VDC
- Digital time, pressure, voltage display
- Motor overload/fault detection

## Optional: XYZ Dispensing System

The EFD Ultra TT XYZ dispensing system incorporates all functions of the ValveMate 7094. Compact 3- or 4-axis tabletop system offers consistent deposit repeatability. Work area: 325 x 325 x 100 mm or 525 x 525 x 100 mm.

## Solder Paste Reservoirs

The 794 Series auger valve can be supplied with solder paste from prefilled syringe barrels or cartridges. Contact EFD's Solder Paste Group for details: [www.efdsolder.com](http://www.efdsolder.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 an Ultra dispensing tip kit for maximum fluid control. The kit includes smooth-flow 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.

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