

# 316L stainless steel micro spray valve for precise aseptic and sterile fluid applications.

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The 784S-SS aseptic spray valve system accurately controls the application of most low to medium viscosity fluids. The seal-less design incorporates an inert Teflon® diaphragm that isolates the actuator from the valve.

The 784S-SS aseptic spray valve uses low volume low pressure (LVLP) technology to produce uniform round spray patterns between 0.130" and 0.75" in diameter. For wider area of coverage, the 784S-SS-F with fan air cap is available.

Innovative design uses a small gauge (0.013"– 0.004" ID) disposable dispensing tip in place of a standard spray nozzle. This concentrates the LVLP air used to atomize the coating into uniform spray patterns over 30% smaller than standard spray valve configurations. Between shots the valve needle seats in the hub of the disposable dispensing tip, virtually eliminating dead fluid volume.

The unique design of the 784S-SS provides a fluid flow path free of any entrapment areas, critical for sterile and aseptic fluid applications. Wetted parts are 316L stainless steel and Teflon, which are suitable for CIP (clean in place) and SIP (sterilize in place) processes. Disposable tip is a polypropylene hub with passivated 304SS shaft.

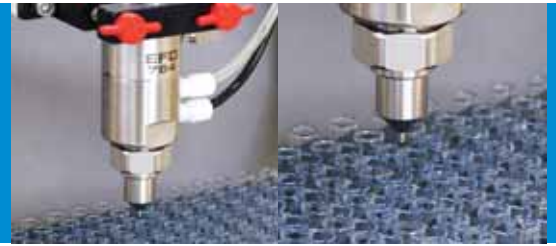
## Benefits

- High transfer efficiency
- Easy to clean or sterilize in place
- No overspray or mist
- Medium- to low-viscosity fluids
- Consistent spray patterns
- Low maintenance design

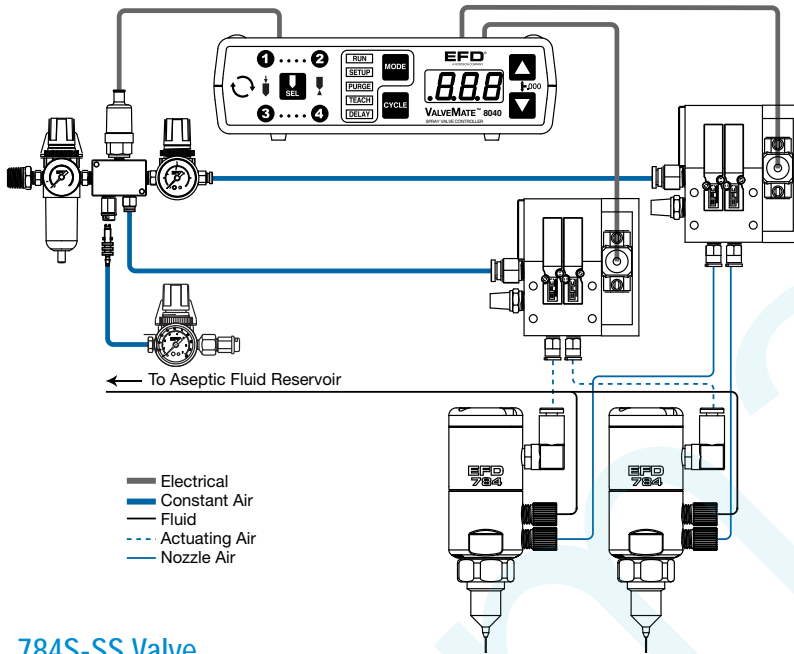
## Features

- Compact size and weight
- Adjustable fluid flow control
- Diaphragm life exceeds  $1 \times 10^6$
- Cycle rate exceeds 400/minute
- FDA-compliant wetted parts
- Positive shutoff, no seals
- Tamper-resistant design

# Aseptic valve systems



The complete system includes the 784S-SS valve, ValveMate™ 8040 controller, the fluid reservoir and dispense tip. Expert technical assistance and high quality standards ensure productive, trouble-free performance. EFD offers a full line of reliable dispensing systems to meet your specific application requirements.



## ValveMate 8040 Controller

The ValveMate controls valve open time and nozzle pressure. Its compact size allows the controller to be mounted near the valve for easy setup and spray adjustment.

- Multi-valve control- up to (2) spray valves
- Partner to Programmable Logic Controller (PLC)
- Easy control for consistent coverage
- Precise control of nozzle air pressure
- End-of-cycle air delay prevents valve from clogging
- End user convenience
- Maximum machine efficiency

## Automation: XYZ & XYZR Robot Dispensing Systems

Nordson EFD offers a wide selection of XYZ and XYZR robot systems that are fully compatible with ValveMate valve controller systems. Consistent, accurate, repeatable and complex dispensing applications can be easily performed with EFD robots, with working envelopes that range from 200 x 200 x 50mm to 510 x 510 x 100mm. Scara robot systems are also available for larger, heavier products or inline dispensing applications.

## Fluid Reservoirs

EFD reservoirs are supplied with precision, constant-bleed regulators to ensure consistent fluid pressure to the valve. Tank reservoirs are available in 1.0, 5.0 and 19.0 liter capacities. Cartridge sizes range from 2.5 to 32 ounces (75 cc to 950 cc).

To order 784S-SS Spray Valve round pattern refer to part #7012988, 784S-SS-F fan pattern #7013000.

## 784S-SS Valve

The 784S-SS valve is used with a ValveMate 8040 controller or a TT automation system for precise, repeatable outputs of low to medium viscosity fluids. The 784S-SS wetted components are made of stainless steel and PTFE to conform to biopharmaceutical regulations. Each valve can be calibrated with the stroke reference knob for process control. The amount dispensed depends on valve open time, fluid pressure, fluid viscosity, flow adjustment and tip size.

### Specifications

**Size:** 31.5 mm (1.24") diameter x 96.27 mm (3.79") long

**Weight:** 430.30 grams (15.20 ounces)

**Fluid body:** Type 316L stainless steel

**Air cylinder body:** Type 316L stainless steel

**Piston:** Type 316L stainless steel

**Needle:** Type 316L stainless steel

**Air cap:** Type 316L stainless steel

**Fluid inlet thread:** 5/16 - 24 UNF tapped hole

**Diaphragm:** PTFE

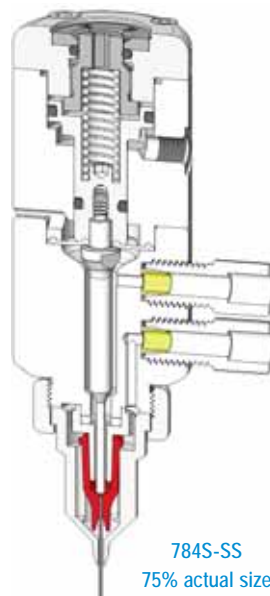
**Disposable tips:** Polypropylene hub / 304SS shaft

**Maximum fluid pressure:** 25 psi (1.7 bar)

**Maximum operating temperature:** Autoclaving 260°C (500°F)

**Operating frequency:** Exceeds 400 cycles / minute

**Note:** For improved surface finish, all 316L stainless steel valve parts are electro-polished and passivated



784S-SS  
75% actual size



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