

TS7000 Series Interchangeable Material Path (IMP) Rotary Valve



The TS7000 Series IMP Rotary Valve is the latest additions to the Rotary Micro-valve family. The valve uses a feed screw (auger) to dispense fluid with a rotary displacement action, allowing ultra-precise control of the dispensing process. The valve's modular design allows quick and easy replacement of the feed screw/chamber cartridge assembly without the need of removing the valve from the machine. In addition, the valve housing can be interchanged to use with TS5000DMP feed screw inserts.

The TS7000 Series IMP valve is available in 4 feed screw sizes (32-Pitch, 16-pitch, 8-pitch and high output 8-pitch), all made of precision hardened stainless steel. An encoder motor version is available for applications that require closed-loop motor control with encoder feedback.

Typical Applications: Solder Paste, Die Attach, Surface Mount Adhesive (SMA), Chip Encapsulation, Dam Writing, Thermal Grease



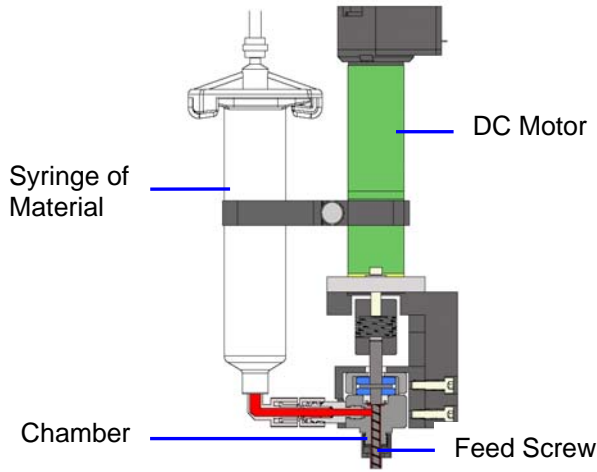
Key Features:

- Field replaceable spare parts
- Accurate and repeatable dispensing output
- Precision and durable feed screw/chamber
- Quick and easy feed screw/chamber cartridge changeover
- Low-maintenance design
- Interchangeable with TS5000DMP valve body
- Flexible syringe mounting position
- Flexible needle installation position
- Flexible motor mounting position
- Closed-loop motor control with encoder feedback (encoder version)

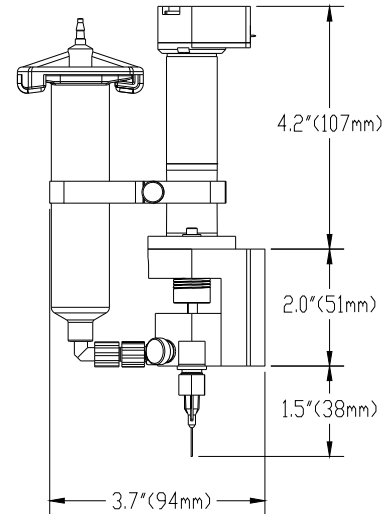
Available Configurations:

Part Number	Description
TS7000-32	IMP Rotary Valve, 32-Pitch
TS7000-16	IMP Rotary Valve, 16-Pitch
TS7000-8	IMP Rotary Valve, 8-Pitch
TS7000-8HO	IMP Rotary Valve, 8-Pitch High Output
TS7000E-32	IMP Rotary Valve, 32-Pitch, Encoder
TS7000E-16	IMP Rotary Valve, 16-Pitch, Encoder
TS7000E-8	IMP Rotary Valve, 8-Pitch, Encoder
TS7000E-8HO	IMP Rotary Valve, 8-Pitch High Output, Encoder

The TS7000 Series valve dispenses material with a rotary displacement action using a rotary feed screw principle. During operation, air pressure pushes material from the syringe into the feed screw chamber. As the feed screw rotates, material travel between the threads and out to the dispense tip. The feed screw is driven by the DC motor.



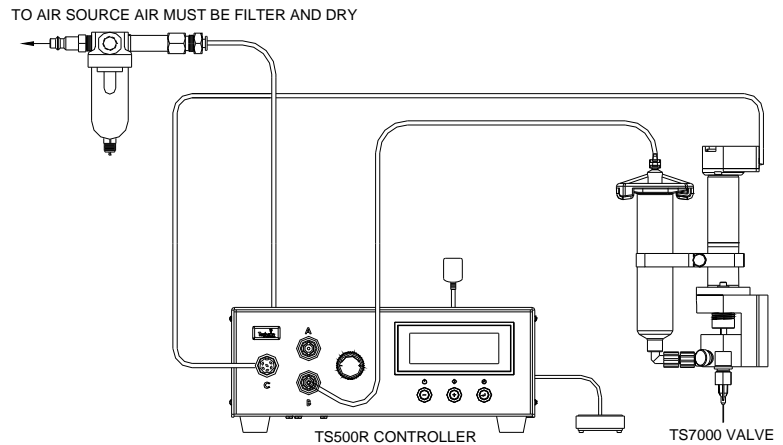
Cross Section



Outside Dimension

Specifications

- Length (without dispense tip): 6.78" (172.2mm)
- Width: 3.70" (94mm)
- Weight: 0.86lb (0.40 kg)
- Wetted Parts: Heat treated Tool Steel, Stainless steel, UHMWPE, Turcite, Nylon
- Motor : 6-Watt, 400 RPM (no load)
- Encoder: 500 counts/turn
- Input Voltage: 5-24 VDC
- Recommended Fluid Pressure: 30 psi (2.07 bar)
- Viscosity range: 30K – 1300K Cps.



Typical Setup

Recommended Controller: TS500R Digital Controller

Material Reservoir: The TS7000 Series valve can be fed directly from a syringe (3-55 cc) or can be fed remotely from a cartridge or a pressure tank.

Dispense Tip: Precision dispense tip such as the TE series, TS-SS series or TT series is recommended.

For application assistance and ordering information please visit Techcon Systems website at www.techconsystems.com