

TS5440 Series

Micro Shot Needle Valves



TECHCON™



Micro Shot Needle Valve TS5440 Series

Featuring a zero “dead volume” seat design, the TS5440 series dispenses precision deposits down to a fraction of a micro liter.

The TS5440 Series Micro Shot Needle Valve is a normally closed needle and seat dispensing valve, which is designed to dispense low to medium viscosity fluids.

An Internal spring return makes the valve fully adaptable with Techcon’s controllers. As short opening stroke provides extremely fast, positive shut off and the external stroke control adjustment allows the operator to fine tune deposit sizes. Air pressure through and air inlet port retracts the needle assembly from the seat (tip cannula), allowing fluid to flow from the valve’s fluid inlet to Luer outlet.

The TS5440 Series compact design allows for mounting flexibility and integration into automated application.

Relieving the air input pressure allows the spring to return the needle back to the seat to close the material path, ready for the next dispensing cycle.

A version with stainless steel air cylinder construction is made available where operators require both the air cylinder and body to be made of stainless steel.

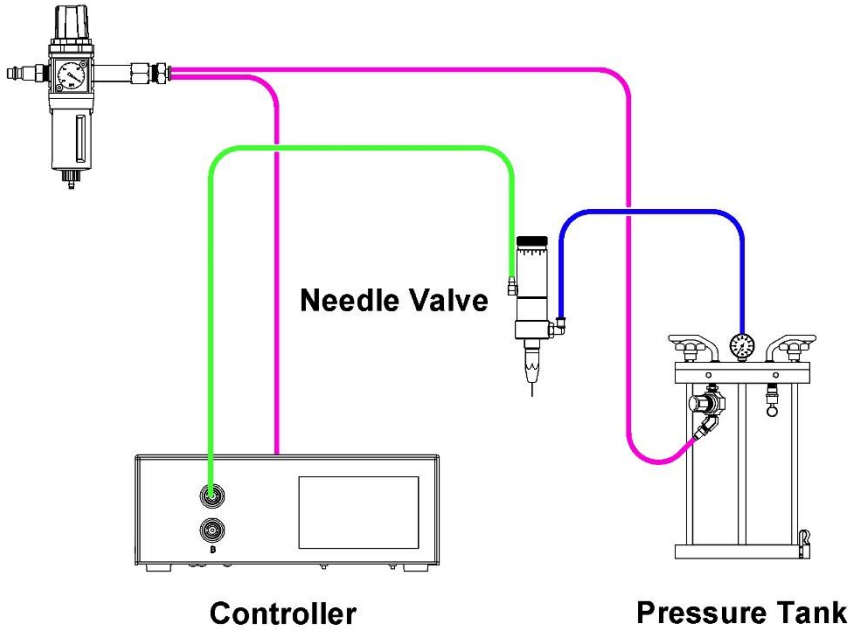
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IDENTIFICATION OF FEATURES



SPECIFICATIONS & PART NUMBERS

Part Number:	TS5440	TS5440-SS
Size (Imperial):	4.79" x 1.12"	4.79" x 1.12"
Size (Metric):	121.6mm x 28.4mm	121.6mm x 28.4mm
Weight:	0.47 lb (215g)	0.60 lb (274g)
Fluid Inlet:	1/8" NPT female	1/8" NPT female
Fluid Outlet:	Luer taper & cap	Luer taper & cap
Aux. Inlet: (Double Acting)	10-32 UNF female	10-32 UNF female
Act. Pressure:	70 psi (4.8bar) Min.	70 psi (4.8bar) Min.
Fluid Pressure:	100 psi (6.9bar) Max.	100 psi (6.9bar) Max.
Cycle Rate:	400+ Cycles/min.	400+ Cycles/min.
Mounting Port:	10-32 UNF female	10-32 UNF female
Viscosity Range:	1 – 100 000cps	1 – 100 000cps
Wetted Parts:	SS*, Teflon®, UHMWPE*	SS*, Teflon®, UHMWPE*

*SS: Stainless Steel

*UHMWPE: Ultra High Molecular Weight Polyethylene

The valve is shipped with the following items:

- Mounting Bracket
- Air Hose
- Luer Lock Fluid Line
- 1/4" and Luer lock inlet fittings
- Dispense Tip Selection Pack

ACCESSORIES

- Fluid Reservoirs: The valve can be fed from Techcon's TS1254 or TS1258 pressure tanks, or from any size syringe barrel.
- Dispense Tips: Precision TE tips are required for this valve, Gauges 18 - 32.
- Recommended Controller: TS550R Smart Pneumatic Valve Controller

Key Features & Benefits

- Zero "dead volume"
- Low maintenance design
- Fixed body & air cylinder position
- Luer taper & cap for easy tip integration

Typical Applications

Dispensing:

- UV adhesive in medical device manufacturing
- Micro dots of lubrication in automotive switches
- Micro dots of adhesive in electronics assembly

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