



## Product Data Sheet

### TS5420 Series Needle Valve

The TS5420 Series Needle Valve is a normally closed needle and seat dispensing valve, which is designed to dispense low - medium viscosity fluids. TS5420 Series can dispense very precise deposits over a wide range of deposit sizes. The TS5420 Series is a pneumatically triggered single-acting valve that can be used with an internal spring close (single action) or may be connected for air closing without the spring (double acting).

The internal spring return makes the valve fully adaptable with Techcon Systems controllers. A 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 the air inlet port retracts the needle assembly from the seat allowing fluid to flow from the valve fluid inlet to the Luer lock outlet. Relieving the input air pressure allows the spring to return the needle back to its position, to close the fluid path, ready for the next dispensing cycle.

The valve is shipped with the following items:

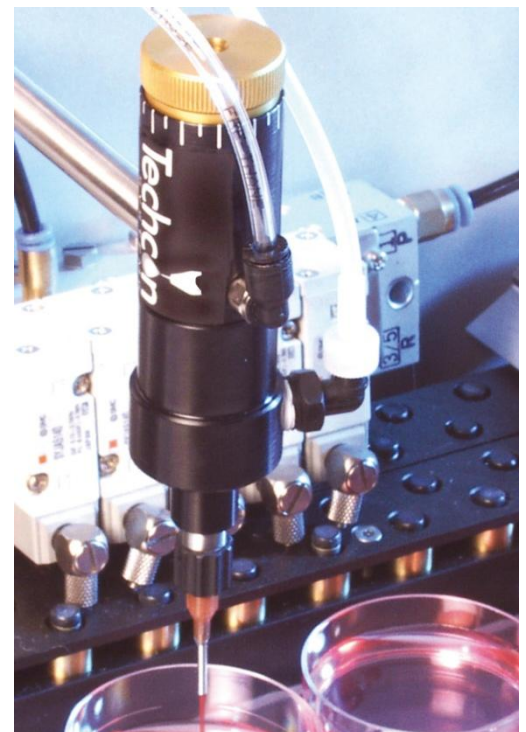
- Mounting bracket kit
- Valve air hose
- Luer lock fluid line
- Fluid inlet fittings - 1/4" compression and Luer lock type
- Dispensing tip selection pack

### TYPICAL APPLICATIONS

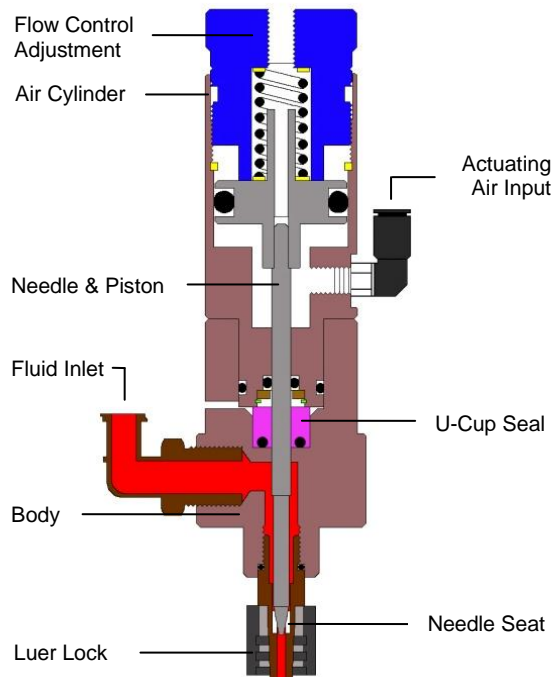
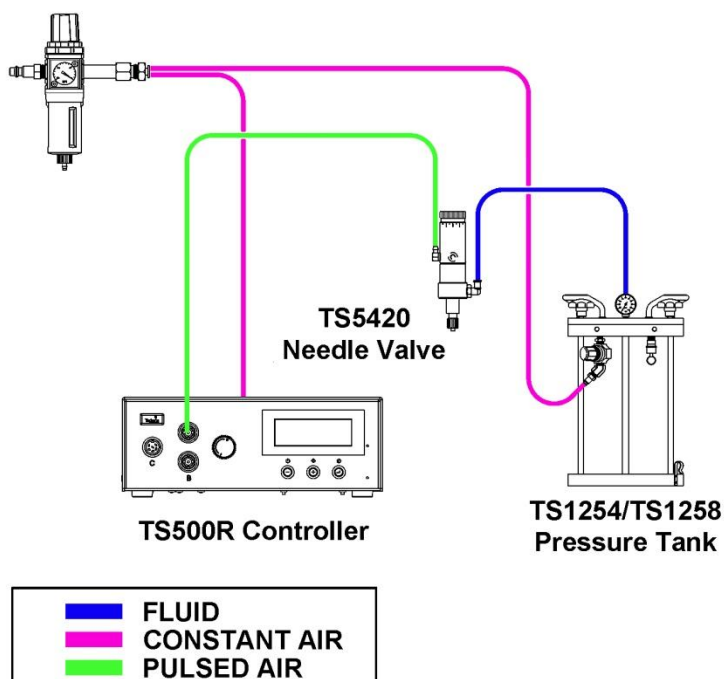
- Applying lubricant in Automotive electrical switches
- Dispensing UV beads in LCD bonding applications
- Impregnating humidity indicator cards (HIC) with fluid chemical in semiconductor packaging applications

### KEY FEATURES AND BENEFITS

- Low maintenance design
- Rotating tip allows for easy tip integration
- Can handle fluid pressures up to 300 psi (20.7bar)



## TYPICAL SETUP



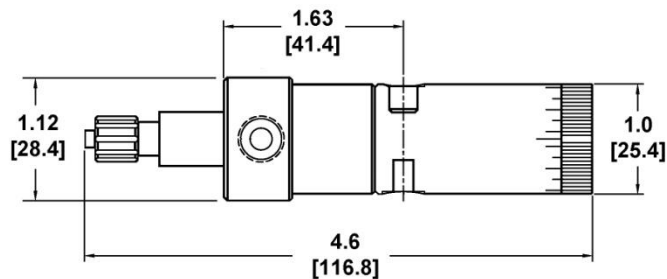
## SPECIFICATIONS & PART NUMBERS

| Part Number:         | TS5420                             | TS5420SS                      |
|----------------------|------------------------------------|-------------------------------|
| Size (Imperial):     | 4.6" Length x 1.12"                | 4.6" Length x 1.12"           |
| Size (Metric):       | 116.8mm x 28.4mm                   | 116.8mm x 28.4mm              |
| Weight:              | 0.3 lb (136g)                      | 0.5 lb (227g)                 |
| Fluid Inlet Port:    | 1/8" NPT female                    | 1/8" NPT female               |
| Fluid Outlet Port:   | Luer lock male                     | Luer lock male                |
| Aux Air Inlet Port:  | 10-32 UNF female                   | 10-32 UNF female              |
| Activation Pressure: | 70 psi (4.8bar) Min.               | 70 psi (4.8bar) Min           |
| Max Fluid Pressure:  | 300 psi (20.7bar)                  | 300 psi (20.7bar)             |
| Operating Frequency: | 400+ cycles/min.                   | 400+ cycles/min.              |
| Mounting Port:       | 1/4-20 UNC-2B female               | 1/4-20 UNC-2B female          |
| Viscosity Range:     | 1 - 100 000cps                     | 1 - 100 000cps                |
| Wetted Parts:        | 303 SS, Aluminum, Teflon®, Delrin® | 303 SS, Teflon®, Delrin®, EPR |

## ACCESSORIES

- Fluid reservoirs:** The valve can be fed from the TS1254 or TS1258 Pressure Tank, or from any size syringe barrel or cartridge.

Dimensions are in inches [mm]



For Sales and Support:

# DispenseRite