



TECHCON™



Precision Dispensing Solutions

Industrial  
Ingenuity  
Lives Here.



## The Techcon Story

In the evolving world of manufacturing, Techcon is delivering smarter, cleaner, more durable solutions.

Since 1961, our fluid and adhesive dispensing products have been renowned for their superior accuracy and durability, offering customers both improved industrial hygiene and enhanced productivity.

Moving forward, our innovation road map pushes these boundaries even further, with the introduction of intelligent solutions such as an automatic robotic dispensing system and equipment with homeostatic dispensing capabilities. These new developments Reduce human error and further increase precision.

Our products are backed by an expert engineering team that can solve the toughest manufacturing problems in a range of industries, from aerospace, military and material packaging to industrial assembly, medical devices and electronics.

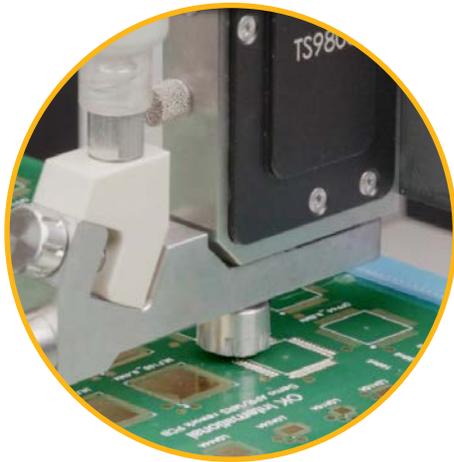
We're Techcon, an OK International company.



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Find the right products for your application



## Bonding With Cyanoacrylate Adhesives (CA)

CA is a very frequently used adhesive in generic bonding applications and is best used with a moisture-resistant dispensing system. The TS5622VU Diaphragm Valve along with the TS555R Controller and TS1258 Pressure Pot is a perfect system for this application. **TS5622VU (page 21), TS555R (page 27), TS1258 (page 28)**



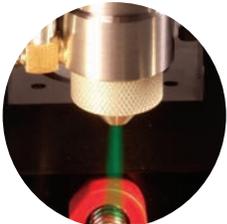
## Bonding & Encapsulation with 2K Material

Electrical finished goods become smaller each year. It has become necessary for most operations to use two-part epoxies to bond and protect these otherwise fragile assemblies. To accurately measure, mix and dispense these often fast-curing materials, manufacturers turn to the Techcon **TS8200D Micro-Meter Mix** to achieve precision dispensing of bonding and filling materials, glob-top encapsulate, battery sealing and thermal past. **TS8200D Micro-Meter Mix & TS580D-MM Controller (page 17)**



## Microdot Adhesive Dispensing

Most medical device manufacturing applications require a dispensing system that can provide highly repeatable dispensing of UV adhesives. With the unique needle shut off design inside the dispensing tip, the TS5440 Microshot Needle Valve is the perfect choice for these applications. The TS555R controller is recommended for this valve. **TS5440 Microshot Needle Valve (page 23), TS555R Controller (page 27)**



## Spray Conformal Coating Application

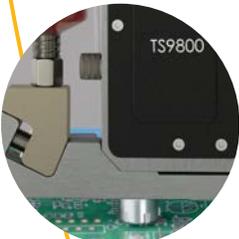
The TS5540 Series Spray Valve along with the TS566R Controller and the TS1258 Pressure Pot is an ideal system to spray conformal coating material on the surface of an assembled printed circuit board to provide protection against moisture, dust and corrosion from extreme environments. **TS5540 Series Spray Valve (page 26), TS566R Controller (page 27), TS1258 Pressure Pot (page 28)**



## Gasketing Application

When a high throughput or large shot size is required for gasketing or similar "form-in-place-gasket" applications, the TS941 Series Spool Valve along with the TS555R Controller is the recommended system choice. Whether the fluid is fed from a cartridge or pail pump, the TS941 Series will dispense accurately and consistently through a dispensing nozzle or dispensing tip. **TS941 Series Spool Valve (page 24), TS555R Controller (page 27)**

For finer deposit control of sealing material, the TS5322 Series Mini Spool Valve with the TS555R Controller is recommended. **TS5322 Series Mini Spool Valve (page 24), TS555R Controller (page 27)**



## Jet Dispensing Chip Bonders

Dispensing chip bonders is an essential part of electronics manufacturing, from applying die attach to bonding laser diodes and optical systems. Not only is the Techcon TS9800 Jet Valve the best solution for dispensing chip bonders because it's so fast (up to 1500 Hz continuous, 2000 Hz burst), but it can jet customized volumes and patterns on uneven surfaces, into small holes and at angles not possible with other dispensing methods. **TS9800 Jet Valve and TS980 Smart Controller (page 16)**

## Plural Component Material Dispensing

Plural component material dispensing is no longer a problem when using a Disposable Material Path valve. When the 2-component material starts to cure, just throw away the valve wetted parts. It takes less than one minute to replace the DMP.

For low viscosity material, the TS1212 Pinch Tube Valve along with the TS555R Controller is recommended. For medium to High-Viscosity material with high repeatability rate requirement, the TS5000DMP valve with the TS577R controller is suitable. **TS1212 Pinch Tube Valve (page 25), TS555R Controller (page 27), TS5000DMP-DCX Valve (page 19), TS577R Controller (page 27)**



## Solder Paste Dispensing

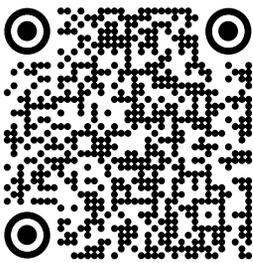
Solder paste is the most difficult material to dispense. The TS5000DMP-DCX Series Rotary Valve is designed specifically to dispense solder paste without clogging and separation. Dot size as small as 0.5 mm can be dispensed consistently. A majority of automated dispensing systems incorporate the TS5000DMP-DCX Series valve for solder paste dispensing. **TS5000DMP-DCX Series Rotary Valve (page 19), TS577R Controller (page 27) Pressure Pot (page 28)**

# Find the Best Dispensing Solution for Your Application

Determining the best configuration of valves, fluid line assemblies, controllers, adapters, syringes, and/or dispensing cartridges for your own needs is not easy.

## Techcon is here to help

Take advantage of the Techcon Material Test Program, a service where our Application Engineers test your material in our systems and dispense on your part to build the best bespoke solution to meet your requirements.



Interested? Fill out the **Application Form** or contact your **Techcon Regional Sales Manager**:

[www.techcon.com/application-form](http://www.techcon.com/application-form)  
[www.techcon.com/contact-us](http://www.techcon.com/contact-us)



	Page Number	Viscosity Range			Small Shot Accuracy by Viscosity Range			Disposable Material Path (DMP)	Field-Replaceable Wetted Parts	High Flow Rate	High Feed Pressure	Aggressive Material	Abrasive Material	Atomizing Spray
		Low	Med	High	Low	Med	High							
TS1201 Dispensing Pen	25	●						●	●			●		
TS1212 Pinch Tube Valve	25	●						●	●			●		
TS941 Spool Valve	24		●	●					●	●	●	●		
TS5322 Mini Spool Valve	24		●	●		●	●		●		●			
TS5420 Needle Valve	23	●	●		●				●			●		
TS5440 MS Needle Valve	23	●	●		●	●						●		
TS5540/5520 Spray Valves	26	●			●				●			●		●
TS5622 Diaphragm Valve	21	●			●				●			●		
TS5624DMP DMP Diaphragm	22	●			●			●	●			●		
TS5000DMP DMP Rotary Valve	19		●	●		●	●	●	●				●	
TS7000 Rotary Valve	20		●	●		●	●		●			●	●	
TS8100-M PC Pump	18	●	●	●	●	●	●		●			●	●	
TS9800 Jet Valve	16	●	●	●	●	●	●		●			●	●	
TS8200-MM Micro-Meter Mix	17	●	●	●	●	●	●		●			●	●	

Viscosity Rating; Low = Up to 30K Cps; Med = 30K-100K Cps; High = 100K Cps - up

Recommended = ●

For additional reference, see the The Valve Application Guide on page 43. Disclaimer: The chart above and the Valve Application Guide is for reference only. Please contact a Techcon applications engineer for accurate valve recommendations.



# Digital Dispensers/Controllers

## TS250/TS350

### TS250 Series

#### Digital Dispenser/Controller

The TS250 Series Dispenser/Controller dispenses low, medium and high-viscosity fluids accurately and consistently. These systems are economical, highly accurate and repeatable microair dispensing systems. These user-friendly fluid dispensing systems include a digital timer with rotary control time knob for easy setup and a vacuum control for all viscosities of fluids.

Packaged ready to use with a universal power supply, foot switch, air hose, sample tips, syringe barrel and adapter. Features a small footprint and is lightweight.

Available in two versions of operating pressure: TS250 for 0 to 100 psi (0-6.9 bar) for general applications and TS255 for 0 to 15 psi (0-1.0 bar) for specific low-viscosity applications.



### TS350 Series

#### Digital Dispenser/Controller

The TS350 Series Dispenser/Controller is equipped with a digital timer and a pressure and vacuum read out on a large LCD. The firmware provides the option of programming up to 10 varied, sequenced, or individual shots. It is intuitive to use, dispenses low, medium and high-viscosity fluids accurately and consistently.

The TS350/355 Series includes a vacuum-driven "suck-back" to control material tailing and waste and to control drips of fluid between dispense cycles. These systems have user-programmable manual and automatic dispense cycle settings (program and time) and they feature a "Teach Mode" for determining the dispensing time required when dispensing output is unknown.

Packaged ready to use with a universal power supply, foot switch, air hose, sample tips, syringe barrel and adapter. Features a small footprint and is lightweight.

Available in two versions of operating pressure: TS350 for 0 to 100 psi (0-6.9 bar) for general applications and TS355 for 0 to 15 psi (0-1.0 bar) for specific low-viscosity applications.



Specifications		
	TS250 Series	TS350 Series
<b>Cabinet Dimensions</b>	6"W (152 mm) x 6.5"L (152 mm) x 7.0"H (178 mm)	
<b>Weight</b>	2.6 lb. (1.2 kg)	
<b>Cycle Rate</b>	600 cycle/minute	1200 cycle/minute
<b>Timing Range</b>	0.020-60.000 seconds	0.008-60.000 seconds
<b>Timing Repeat Tolerances</b>	+/- 0.001%	
<b>Input Voltage</b>	100-240 VAC	
<b>Input Frequency</b>	50-60 Hz	
<b>Cycle Mode</b>	TIMED, PURGE	TIMED, INTERRUPT, TEACH, PURGE
<b>Meets or exceeds</b>	CE, TUV-GS and NRTL	
<b>Warranty</b>	1 year	
Operating Pressure		
<b>TS250/TS350 Dispenser/Controller</b>	0-100 psi (0-6.9 bar)	
<b>TS255/TS355 Dispenser/Controller</b>	0-15 psi (0-1.0 bar)	



# Dispensing Components

## 700 Series



## 700 Series Dispensing Components

Our 700 Series Premier Dispensing Components are silicone and chloride-free and designed to work with industry-standard equipment. 700 Series Dispensing components ensure accuracy, repeatability, and productivity.

### 700 Series Syringe Barrels

Unique ultra-low draft construction of the inner diameter yields high accuracy and stability. They are comprised of industry-compliant silicone and chloride-free, low-friction PP. Available in three different colors: Natural for most generic applications, amber provides protection of UV/visible light block (up to 520nm), but with the ability to see material inside the barrel; and Black for total light block. Sold in bulk and packs of 50.

### 700 Series Syringe Barrel Kits

For your convenience these syringe barrels and white wiper pistons are packaged together without pistons inserted. Kits with blue pistons are also available. Sold in bulk and packs of 50.

#### Syringe Barrel Kits With White Wiper Pistons

Size	Natural	Amber	Black
3 cc	7030LL1NW-1000	7030LL1DW-1000	7030LL1BW-1000
5 cc	7050LL1NW-1000	7050LL1DW-1000	7050LL1BW-1000
10 cc	7100LL1NW-1000	7100LL1DW-1000	7100LL1BW-1000
30 cc	7300LL1NW-500	7300LL1DW-500	7300LL1BW-500
55 cc	7550LL1NW-250	7550LL1DW-250	7550LL1BW-250

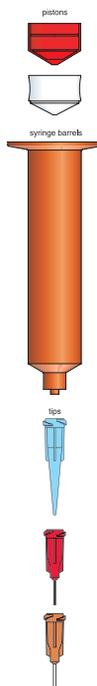
#### Syringe Barrel Kits With Blue Wiper Pistons

Size	Natural
3 cc	7030LL1NBL-1000
5 cc	7050LL1NBL-1000
10 cc	7100LL1NBL-1000
30 cc	7300LL1NBL-500
55 cc	7550LL1NBL-250

### 700 Series Air Powered Pistons

Spread the pressure evenly, using a piston for consistent dispensing of even high-viscosity material. Easy Flow pistons (blue) require less pressure to dispense and prevent air from becoming entrapped during the dispense process. Tight fit Wiper pistons (white) provide a complete seal for low-viscosity fluid. Loose fit straight wall pistons (red) prevent stringing and bouncing when dispensing high-viscosity material. Sold in bulk and packs of 50. Made of polyethylene.

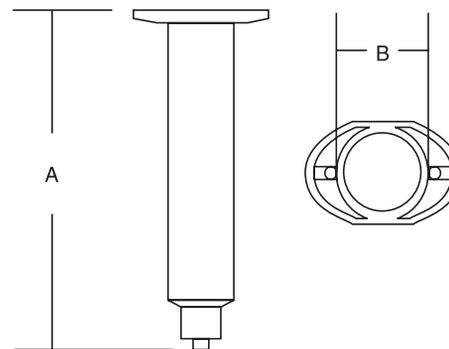
Size	Straight Wall Piston (Red)	Easy Flow Piston (Blue)	Wiper Piston (White)	High Interference (Green)
3 cc	7030006R-1000	7030007BL-1000	7030009W-1000	
5 cc	7050006R-1000	7050007BL-1000	7050009W-1000	
10 cc	7100006R-1000	7100007BL-1000	7100009W-1000	
30-55 cc	7300006R-1000	7300007BL-1000	7300009W-1000	7300008G-1000



Size	Natural	Amber	Black
3 cc	7030LL1N-1000	7030LL1D-1000	7030LL1B-1000
5 cc	7050LL1N-1000	7050LL1D-1000	7050LL1B-1000
10 cc	7100LL1N-1000	7100LL1D-1000	7100LL1B-1000
30 cc	7300LL1N-500	7300LL1D-500	7300LL1B-500
55 cc	7550LL1N-250	7550LL1D-250	7550LL1B-250

### 700 Series Syringe Barrel Dimensions

Capacity	Overall Length A inches/mm	Outside Diameter B inches/mm
3 cc	2.96/75.18	0.46/11.56
5 cc	2.83/71.9	0.59/14.99
10 cc	3.58/90.9	0.72/18.29
30 cc	4.66/118.36	0.99/25.15
55 cc	6.91/175.51	1.01/25.65





# Dispensing Components

## 700 Series

### 700 Series Receiver Head Assemblies

Receiver Head Assemblies are the connecting link between time/pressure controllers and syringe assemblies. These assemblies provide a safe connection for accident-proof dispensing. Available with 3 or 6 feet (0.9 - 1.8 meters) of tubing. Consists of a Delrin® receiver head with Viton® O-ring, tubing and male quick connector. Sold individually.



Size	3' (0.9m) Hose	6' (1.8m) Hose	No Hose
3 cc	70303RHB	70306RHB	70300RHR
5 cc	70503RHB	70506RHB	70500RHR
10 cc	71003RHB	71006RHB	71000RHR
30/55 cc	73003RHB	73006RHB	73000RHR

### In-Line Fluid Filter

Attach the fluid filter to the receiver head to prevent fluid from being pulled back from the syringe barrel into the dispenser.

Part No.	Description
881-000-000	In-line fluid filter kit
TSD800-11	In-line fluid filter only

### In-Line Filter Specifications

Housing Material	PP
Filter Media	0.2 µm PTFE
Operating Pressure	75 psi max.

### Replacement O-rings for Receiver Heads

Sold in packs of 10.



Size	EPR O-ring	Viton® O-ring
3 cc	P3015EPK	P3019VPK
5 cc	P3016EPK	P3020VPK
10 cc	P3017EPK	P3021VPK
30/55 cc	P3018EPK	P3022VPK

The Receiver Head is installed with a Viton® O-ring.

### 700 Series Tip Cap

Designed to seal the syringe barrel tip during storage and shipment. Fits all syringe barrel sizes. Sold in bulk and packs of 50. Made from PP.



Part No.	Description
7015LL-1000	Tip Cap Double Helix Thread Orange
TE7015LB-1000	Tip Cap Double Helix Thread Black

### Stand-up Tip Cap

Designed for easy attachment with large flat base to allow the syringe barrel to stand upright. Sold in bulk and packs of 50. Made of PP.



Part No.	Description
7015STC-1000	Blue Stand up Tip Cap

### 700 Series End Caps

Designed to seal the large end of the syringe barrel to ensure no contaminants come in contact with material during storage and shipment. Standard color is blue. Made from PP. Sold in bulk and packs of 50.

Size	End Cap
3 cc	703000CB-1000
5 cc	705000CB-1000
10 cc	710000CB-1000
30/55 cc	730000CB-1000



### TS700 Series Manual Syringe Gun

Lightweight syringe barrel applicator gun provides excellent control for medium/high-viscosity material. Easy to use. No dripping or spillage.



Size	Manual Syringe Gun
10 cc	TS710SG
30 cc	TS730SG
55 cc	TS755SG

Size	Replacement Rods
10 cc	71000ROD
30 cc	73000ROD
55 cc	75500ROD-C

### Finger Switch Assembly

Use the Finger Switch with Techcon's dispensers and syringes in place of a foot pedal. Provides control at your finger tip.



Part No.	Description
DX9010	Finger Switch Assembly for TS Series Dispenser

# Premium Dispensing Tips

## TE Series & Teflon™



TE Series — Dispensing Tips

## TE Series Dispensing Tips

TE Series dispensing tips consist of a stainless-steel cannula with a double-helix PP hub.

This premium line of dispensing tips is burr-free and has an electro-polished cannula for unobstructed and consistent material flow. Silicone and chloride free. Sold in bulk and packs of 50.

TE Dispensing Tips				
	1/4" (6.35mm)	1/2" (12.7mm)	1" (25.4mm)	1-1/2" (38.1mm)
<b>Gauge</b>				
14		TE714050-1000	TE714100-1000	TE714150-1000
15		TE715050-1000	TE715100-1000	TE715150-1000
18	TE718025-1000	TE718050-1000	TE718100-1000	TE718150-1000
20	TE720025-1000	TE720050-1000	TE720100-1000	TE720150-1000
21	TE721025-1000	TE721050-1000	TE721100-1000	TE721150-1000
22	TE722025-1000	TE722050-1000	TE722100-1000	TE722150-1000
23	TE723025-1000	TE723050-1000	TE723100-1000	TE723150-1000
25	TE725025-1000	TE725050-1000		
27	TE727025-1000	TE727050-1000		
30	TE730025-1000	TE730050-1000		
32	TE732025-1000			
34	TE734025-1000			

Color Coding and Gauge For TE Series and TE Bent Dispensing Tips				
Color	Gauge		I.D. (")	I.D. (mm)
Olive	14		0.063	1.600
Amber	15		0.054	1.371
Green	18		0.033	0.838
Pink	20		0.024	0.610
Purple	21		0.020	0.508
Blue	22		0.016	0.406
Orange	23		0.013	0.330
Red	25		0.010	0.254
Clear	27		0.008	0.203
Lavender	30		0.006	0.152
Yellow	32		0.004	0.102
Lime Green	34		0.0037	0.095

### TE Bent Dispensing Tips

TE Bent Tips are precision bent at 45° and 90° angles. Perfect for dispensing fluid in hard to reach places. Sold in packs of 50.



TE Bent — Dispensing Tips

TE Bent Dispensing Tips			
Gauge	1/2" (12.7mm)		1-1/2" (38.1mm)
	90°	45°	45°
14	TE714050B90PK	TE714050B45PK	TE714150B45PK
15	TE715050B90PK	TE715050B45PK	
18	TE718050B90PK	TE718050B45PK	TE718150B45PK
20	TE720050B90PK	TE720050B45PK	
21	TE721050B90PK	TE721050B45PK	TE721150B45PK
22	TE722050B90PK	TE722050B45PK	
23	TE723050B90PK	TE723050B45PK	
25	TE725050B90PK	TE725050B45PK	
27	TE727050B90PK	TE727050B45PK	
30	TE730050B90PK	TE730050B45PK	

### Teflon™ Lined Tips

Teflon™ lined tips are ideal for low-viscosity fluids and cyanoacrylates (CA). They resist CA clogging and prevent damage to substrates. Teflon™ lined tips feature a double-helix PP color hub and a rigid Teflon™ crimped lining that protrudes approximately 1/8" (3.17 mm) from the inside of a stainless steel tube. Sold in packs of 50.



Teflon™ Lined — Dispensing Tips

Teflon™ Lined Tips				
Hub Color	1/2" (12.7mm)	1" (25.4mm)	Tip ID	Crimp ID
Gray	TF720050PK	TF720100PK	0.024" (0.61 mm)	0.023"(0.58 mm)
Pink	TF725050PK	TF725100PK	0.011" (0.28 mm)	0.006"(0.15 mm)

### TT Series

#### Dispensing Tips

The tapered tip prevents blockage and increases the flow of high-viscosity material. Standard tips are molded in high-density polyethylene with UV light block additive. Rigid tips are molded in PP with opaque color. Sold in bulk and packs of 50.



Specifications				
	ID (inches)	ID (mm)	Width Line (mm)	Tip Height (mm)
TT14	0.063	1.6	2.4	0.8
TT16	0.047	1.19	1.785	0.595
TT18	0.033	0.838	1.257	0.419
TT20	0.023	0.58	0.87	0.29
TT22	0.016	0.406	0.609	0.203
TT25	0.010	0.254	0.381	0.127
TT27	0.008	0.203	0.3045	0.101

Color	Gauge	Standard TT Tips	Rigid TT Tips
Olive	14	TT14-DHUV-1000	TT14-RIGID-1000
Gray	16	TT16-DHUV-1000	TT16-RIGID-1000
Green	18	TT18-DHUV-1000	TT18-RIGID-1000
Pink	20	TT20-DHUV-1000	TT20-RIGID-1000
Blue	22	TT22-DHUV-1000	TT22-RIGID-1000
Red	25	TT25-DHUV-1000	TT25-RIGID-1000
White	27	TT27-DHUV-1000	TT27-RIGID-1000

### TS-P

#### Plastic Dispensing Tips



Flexible tips allow access to hard to reach areas and allow you to "customize" the length. Ideal for CA applications. 1.5" length. Sold in bulk and packs of 50. Made from PP.

Color	Gauge	TS-P Dispensing Tips
Grey	15	TS15P-1-1/2-500
Brown	16	TS16P-1-1/2-500
Pink	18	TS18P-1-1/2-500
Yellow	20	TS20P-1-1/2-500
Black	22	TS22P-1-1/2-500
Red	25	TS25P-1-1/2-500

### BT Series

#### Dispensing Tips

Use these double-helix Brush Tips for "spread" applications such as glues, paints and other materials. The Soft brush is made of Red sable. The Stiff brush is made of nylon. Sold in packs of 12.



Gauge	Soft Bristle	Bristle
16	BT16-SOFTPK	BT16-STIFFPK
18	BT18-SOFTPK	BT18-STIFFPK
22	BT22-SOFTPK	BT22-STIFFPK

#### Dispensing Tip Kit

Decide for yourself which tip to use. This kit contains a variety of the most popular 700 Series tips to let you test different tips to find the ones that fit your needs.



Part No.	Description
TNOODKIT	Dispensing Tip Kit

## TS60C-LL-N 140 cc Syringe Barrel

Introducing one of the largest syringe barrels on the market



Techcon **TS60C-LL-N** 140 cc syringe barrel is one of the largest capacity syringe barrels available in the fluid dispensing market, allowing productions to run longer with fewer fluid changeovers.

### Key Features & Benefits

- Made of clear Polypropylene (PP)
- Ultra-low draft construction of inner diameter
- High accuracy and stability
- Silicon and chloride-free
- Connects directly to air adapters
- Allows for longer production runs, Reducing downtime

#### TS60C-LL-N Specifications

Capacity	140 cc (4.73 oz)
Material	Clear PP
Length	177 mm (6.969")
Outside Diameter (O.D.)	40 mm (1.57")
Maximum Pressure	100 psi

#### TS60C-LL-N Part Numbers

Part Number	Description
TS60C-LL-N-50	1 Syringe, 140 cc (QTY = 50)
TS60C-LL-N-250	1 Syringe, 140 cc (QTY = 250)
TS5C-A-50	2 End Cap for TS60C-LL-N Syringe (QTY = 50)
TS5C-A-500	2 End Cap for TS60C-LL-N Syringe (QTY = 500)
TS7P-LL-50	3 Luer lock tip cap for TS60C-LL-N (QTY = 50)
TS7P-LL-500	3 Luer lock tip cap for TS60C-LL-N (QTY = 500)
TS4P-LL-50	4 Piston for TS60C-LL-N Syringe (QTY = 50)
TS4P-LL-500	4 Piston for TS60C-LL-N Syringe (QTY = 500)
RH60CC-LL-6	5 Receiver Head Assembly w/ 6 ft. / 1.8 m Hose

All Techcon syringe barrels are manufactured in our silicone-free facilities in the United States and certified for industrial use.

### Typical Applications

Bonding / Underfill / Potting / Conformal Coating





## 400 Series Disposable Dispensing Components

400 Series Disposable Syringes and Components are available in a variety of styles to meet a wide range of applications.

### Syringe Barrels

Barrels are molded from polypropylene (PP). Standard style is Luer lock. Luer slip and taper tip styles are also available, however minimum quantity, lead time and pricing considerations apply. In natural color only (for black and amber refer to page 4).

Syringe Barrels	
Part No.	Description
401L-1L-1000	400 Barrel 1 cc Luer Slip Natural (QTY = 1000)
403LL-1-4000	400 Barrel 3 cc Luer Lock Natural (QTY=4000)
406L-1-2400	400 Barrel 6 cc Luer Slip Natural (QTY = 2400)
406LL-1-2400	400 Barrel 6 cc Luer Lock Natural (QTY = 2400)

### Pistons

Pistons are molded from polyethylene (-7) or thermoplastic rubber (-2).The rubber pistons listed are not lubricated unless indicated by the -LUB in the part number. Suitable for manual and/or air dispensing (see product descriptions).

Pistons	
Part No.	Description
401L-2L-1000	400 Piston 1 cc Manual/Air, Rubber (QTY = 1000)
403L-2-4000	400 Piston 3 cc Manual/Air, Rubber (QTY = 4000)
403L-2-LUB-4000	400 Piston 3 cc Manual/Air, Rubber Lub (QTY = 4000)
403L-7-4000	400 Piston 3 cc Manual Wiper, Black (QTY = 4000)
406L-2-2400	400 Piston 6 cc Manual, Rubber (QTY = 2400)
406L-2-LUB-2400	400 Piston 6 cc Manual, Rubber Lub (QTY = 2400)
406L-7-1000	400 Piston 6 cc Manual , Wiper, Black (QTY = 1000)
406L-8-2400	400 Piston 6 cc Air, Rubber (QTY = 2400)
406L-8-LUB-2400	400 Piston 6 cc Air Rubber Lub (QTY = 2400)
435L-8-1000	400 Piston 35 cc Air, Rubber (QTY = 1000)

### Thumb Plungers

Plungers lock to the piston for smooth manual dispensing.

Thumb Plungers	
Part No.	Description
401L-4L-1000	400 Plunger, 1 cc (QTY = 1000)
406L-4-2400	400 Thumb Plunger 6 cc (QTY=2400)

## 700 Series Manual Plungers & Pistons for 700 Series Barrels

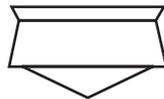
### Manual Plungers & Pistons 700 Series Syringe Barrels

The new manual syringe assemblies provide simple and quick dispensing solutions without the need for compressed air. Molded from PP resin, manual Plungers are compatible with a wide range of dispensing fluids. Pistons are made from thermoplastic rubber and are available dry or with lubrication. Sold in packs of 50.

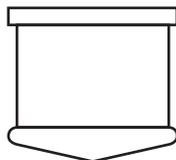
Plungers and Pistons	
Part No.	Description
7030004PPK	700 Manual Thumb Plunger, 3 cc
7030002MPK	700 Manual Piston Rubber, 3 cc
7030002M-LUBPK	700 Manual Piston Rubber, Lub, 3 cc
7050004PPK	700 Manual Thumb Plunger, 5 cc
7050002MPK	700 Manual Piston Rubber, 5 cc
7050002M-LUBPK	700 Manual Piston Rubber, Lub, 5 cc



Manual Rubber Piston



Plastic Wiper Piston



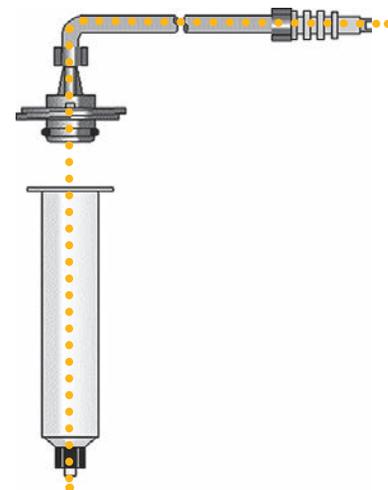
Air-Powered Rubber Piston

## 400 Series Receiver Head Assemblies

The connecting link between time/pressure controllers and syringe assemblies, Receiver Head Assemblies provide a safe connection between the receiver head and syringe barrel for accident-proof dispensing.

Receiver Head Assemblies are available with 3 feet/0.9 m of tubing (-3), 6 feet/1.8 m of tubing (-6) and no tubing (-R). Sold individually.

400 Series Receiver Head Assemblies			
	3 feet of tubing (0.9 m)	6 feet of tubing (1.8 m)	No tubing
1 cc	900-250-3	900-250-6	900-250-R
3 cc	900-350-3	900-350-6	900-350-R
6 cc	900-550-3	900-550-6	900-550-R
10 cc	900-650-3	900-650-6	900-650-R
35 cc	900-950-3	900-950-6	900-950-R
60 cc	900-1150-3	900-1150-6	900-1150-R



## 400 Series Manual Syringe Configurations

In manual syringe dispensing, the Plunger locks to the Piston for smooth, controlled dispensing. Below are configurations with polypropylene Barrels and Plungers and either thermoplastic rubber Pistons (-2) or polyethylene Pistons (-7) for better chemical compatibility. Use of a Tip Cap will seal the delivery end of the Syringe Barrel when not dispensing. See the previous page for product descriptions.

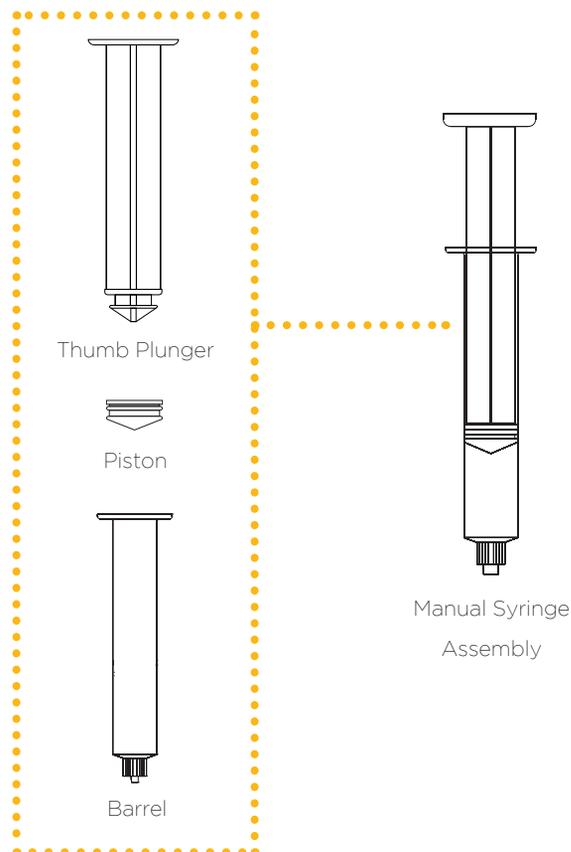
Manual Syringes with Thermoplastic Rubber Pistons			
Size	Syringe	Piston	Plunger
1 cc	401L-1L-1000	401L-2L-1000	401L-4L-1000
3 cc	403LL-1-4000	403L-2-4000	
6 cc	406LL-1-2400	406L-2-2400	406L-4-2400

Manual Syringes with Polyethylene Pistons			
Size	Syringe	Piston	Plunger
1 cc	401L-1L-1000		401L-4L-1000
3 cc	403LL-1-400	403L-7-4000	
6 cc	406LL-1-2400	406L-7-1000	406L-4-2400

### Tip Caps

Use of a Tip Cap will seal the delivery end of the Syringe Barrel when not dispensing

Tip Caps	
Part No.	Description
15LL-1000	Luer Lock Tip Cap
15LL-B-1000	Black Luer Lock Tip Cap
15LT-1000	Yellow Tip Cap

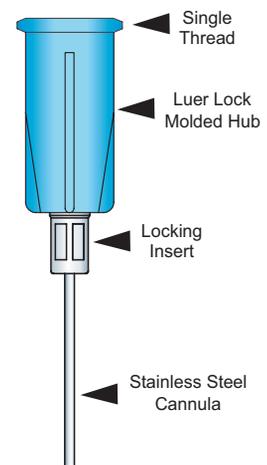




## TS Series Dispensing Tips

The TS Series Dispensing Tips offer a variety of dispensing performance and flexibility options. Stainless steel tubing is cut to precise lengths and ground to be burr-free. Cut tubing is crimped into an aluminum locking insert, then molded into polyethylene hubs. Molded hub colors correspond to gauge size. All TS Series tips secure to Techcon syringe barrels and correspond to the Luer lock specification.

Part Number	International Hub Color	Gauge	I.D. (inches)	I.D. (mm)	Length (inches)	Length (mm)
TS18-1/2-1000	Pink	18	0.033	0.838	0.5	12.7
TS18-1-1000	Pink	18	0.033	0.838	1.0	25.4
TS19-1/2-1000	Brown	19	0.028	0.711	0.5	12.7
TS19-1-1000	Brown	19	0.028	0.711	1.0	25.4
TS20-1/2-1000	Yellow	20	0.024	0.609	0.5	12.7
TS20-1-1000	Yellow	20	0.024	0.609	1.0	25.4
TS21-1/2-1000	Green	21	0.020	0.508	0.5	12.7
TS22-1/2-1000	Black	22	0.016	0.406	0.5	12.7
TS22-1-1000	Black	22	0.016	0.406	1.0	25.4
TS23-1/4-1000	Blue	23	0.013	0.330	0.25	6.35
TS23-1/2-1000	Blue	23	0.013	0.330	0.5	12.7
TS27-1/4-1000	Grey	27	0.008	0.203	0.25	6.35
TS30-1/4-1000	Lavender	30	0.006	0.152	0.25	6.35
TS30-5/16-1000	Lavender	30	0.006	0.152	0.31	7.94



## TS-M Metal Dispensing Tips

This series features a stainless steel cannula and aluminium hub. Sold in bulk quantity of 500.

Part Number	Gauge	Length (inches)	Length (mm)
TS14-1/2M-500	14	0.5	12.7
TS14-1M-500	14	1.0	25.4
TS14-2M-500	14	2.0	50.8
TS15-1M-500	15	1.0	25.4
TS16-1M-500	16	1.0	25.4



## TS-SS Metal Dispensing Tips

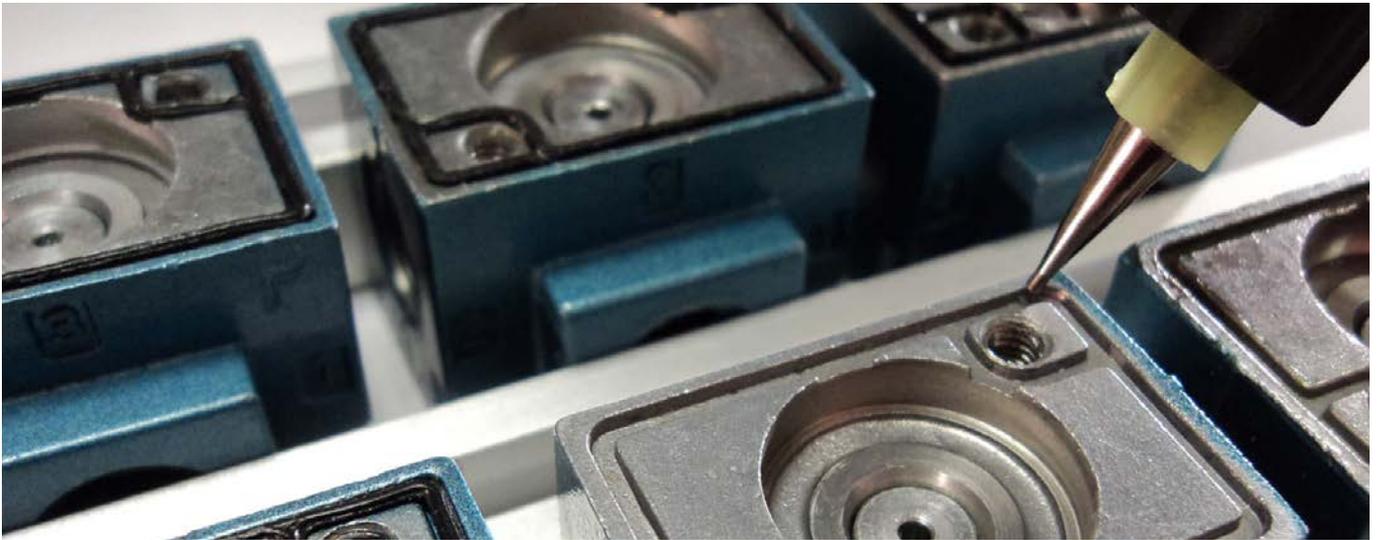
High-precision and high-tolerance for use in automated applications. With stainless steel cannula and nickel plated brass hub. Length of 1/2" (12.7 mm). Sold in packs of 12.



Part Number	Gauge	I.D. (inches)	I.D. (mm)
TS12SS-1/2PK	12	0.087	2.21
TS13SS-1/2PK	13	0.077	1.95
TS14SS-1/2PK	14	0.061	1.54
TS15SS-1/2PK	15	0.056	1.43
TS16SS-1/2PK	16	0.048	1.22
TS17SS-1/2PK	17	0.044	1.11
TS18SS-1/2PK	18	0.033	0.83
TS19SS-1/2PK	19	0.028	0.72
TS20SS-1/2PK	20	0.024	0.62
TS21SS-1/2PK	21	0.021	0.54
TS22SS-1/2PK	22	0.017	0.42
TS23SS-1/2PK	23	0.013	0.34
TS25SS-1/2PK	25	0.011	0.27
TS26SS-1/2PK	26	0.010	0.25
TS27SS-1/2PK	27	0.008	0.21
TS28SS-1/2PK	28	0.007	0.17

# Precision Dispensing Tips

## MT Series



## MT Series Dispensing Tips

MT Series Precision Metal Tapered Tips deliver the best in high flow rates, which are ideal for high-speed dispensing at a fraction of the cost of comparable precision tips. The smooth internal conical fluid path increases performance and Reduces clogging and back pressure, allowing for higher flow rates.

The phosphor bronze construction with electroless nickel plating makes the MT Series ideal for use in robotic applications or whenever precision counts. The thin-walled design at the tip enhances dispensing accuracy, while at the same time reduces fluid tailing and stringing. Available from 18 to 30 gauge, the MT Series Tips are color-coded for easy identification. Sold individually.



## Key Features & Benefits

- Smooth internal fluid path
  - Reduces turbulent fluid flow
  - Reduces back pressure
  - Increases flow rates
  - Reduces air entrapment and fluid dripping
- Metal construction
  - Provides accurate positioning
  - Ideal for automatic dispensing applications
- Thin walls - Reduces fluid tailing and stringing
- Clog resistant - Ideal for filled fluids

Part Number	Hub Color	Gauge	I.D. (inches)	I.D. (mm)	OD (inches)	OD (mm)
MT18-PBN	Pink	18	0.040	1.013	0.050	1.265
MT19-PBN	Orange	19	0.033	0.833	0.043	1.085
MT20-PBN	Green	20	0.026	0.655	0.036	0.904
MT21-PBN	Blue	21	0.023	0.584	0.033	0.836
MT23-PBN	Purple	23	0.021	0.538	0.026	0.660
MT25-PBN	White	25	0.016	0.411	0.021	0.533
MT27-PBN	Red	27	0.012	0.31	0.017	0.432
MT30-PBN	Black	30	0.008	0.208	0.013	0.330

# TSR2000 Series

## Benchtop Dispensing Robots



**TSR2305** Dispensing Robot

Techcon Benchtop Dispensing Robots are easy to program, simple to operate and compatible with all valve types and controllers. These versatile dispensing platforms deliver consistent, high-performance dispensing results, at an affordable price.

Designed and configured specifically for fluid dispensing applications, Techcon robots provide total control over fluid placement, from beads, arcs and circles to repeated timed dots. Programming is simple via teach pendant.

TSR2305 Dispensing Robot even enables the fourth axis to allow for dispensing at any angle along the 360° rotation plane.

From a general assembly manufacturer looking to automate an existing dispensing application, to an engineer designing a production process from scratch, Techcon dispensing robots offer unsurpassed value in automated precision fluid dispensing.

## Key Features & Benefits

- Easy to program and simple to operate
- Programmable interface via TSR-TPENDANT-2 Teach Pendant
- Fast - increase productivity
- Compatible with all Techcon syringes, valves and jet dispensing systems
- Suitable for a wide range of fluid dispensing applications
- Rugged and reliable construction

Specifications - Benchtop Dispensing Robots					
Features		TSR2202(E)	TSR2302(E)	TSR2402(E)	TSR2305(E)
Input Voltage		110 VAC 50/60 HZ			
Input Voltage (E version)		220 V AC 50/60 HZ			
Power Consumption		150 W	200 W	200 W	300 W
Motor		2-phase stepper			
Drive Mechanism		Belt			
Number of Controllable Axes		3-Axis			4-Axis
Moving Range	X axis	200 mm	300 mm	400 mm	300 mm
	Y axis	200 mm	300 mm	400 mm	300 mm
	Z axis	50 mm	100 mm	100 mm	100 mm
	R axis				±180°
Speed Range	X/Y axis	0.1~600 mm/sec	0.1~800 mm/sec	0.1~800 mm/sec	0.1~800 mm/sec
	Z axis	0.1~300 mm/sec	0.1~300 mm/sec	0.1~300 mm/sec	0.1~300 mm/sec
	R axis				0.1~800 degrees/sec
Repeatability Accuracy	X/Y/Z axis	+/-0.01 mm			
	R axis				+/-0.02°
Resolution	X/Y/Z axis	0.01 mm			
	R axis				0.01°
Loading Weight	Tool	5 Kg	8 Kg	8 Kg	
	Head	2 Kg	5 Kg	5 Kg	
Payload	Y axis				8 Kg
	Head Z & R				3 Kg
Storage for Processing Files		Max. 255 files & Max. 60000 bytes			
Processing Files		Max 128 files			
Working Ambient	Temperature	0~40 °C			
	Relative Humidity	20%~90% (no condensation)			
Dimensions (H x W x D)		521 x 377 x 303 mm	654 x 484 x 528 mm	628 x 584 x 650 mm	700 x 470 x 520 mm
Unit Weight		23 kg	43 kg	48 kg	46 kg

# Benchtop Dispensing Robots

## TSR2000 Series



TSR2302 Dispensing Robot



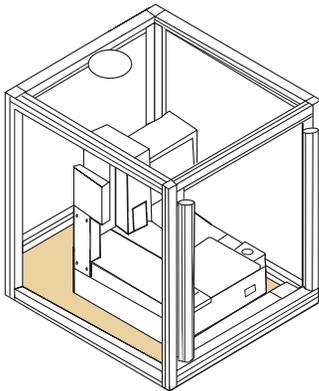
TSR2202 Dispensing Robot



TSR-TPENDANT-2 Teach Pendant

## Typical Applications

- Dots of solder paste
- Form-in-place gasketing
- Filling
- Potting
- Encapsulation
- Bonding
- Coating



TSR2202-SC Safety Cover

### Benchtop Dispensing Robot Platforms

TSR2202(E)	200 mm X 200 mm working area, 3-Axis
TSR2302(E)	300 mm X 300 mm working area, 3-Axis
TSR2402(E)	400 mm X 400 mm working area, 3-Axis
TSR2305(E)	300 mm X 300 mm working area, 4-Axis

### Light Beam Safety Covers for TSR2000 Dispensing Robots

TSR2202-SC	Light Beam Safety Cover for TSR2202 Dispensing Robots
TSR2302-SC	Light Beam Safety Cover for TSR2302 Dispensing Robots
TSR2402-SC	Light Beam Safety Cover for TSR2402 Dispensing Robots
TSR2305-SC	Light Beam Safety Cover for TSR2305 Dispensing Robots

### Accessories & Replacement Parts

TSR-TPENDANT-2	Teach Pendant for TSR2000 Series Dispensing Robots
TSR-CABRACKET-10	Assembly, Bracket, 1/10 Gal. Retainer for TSR Robot
TSR-CABRACKET-10DMP	Cartridge Bracket for TS110C Cartridges on TS5000DMP
TSR-CABRACKET-10MSP	Cartridge Bracket, 1/10 Gal. for Mini Spool Valves
TSR-CABRACKET-6	Assembly, Bracket for 6 oz Retainer
TSR-CARING-6	Assembly, Adapter Ring for 6 oz Retainer
TSR-DSB50ML-2	Bracket for 50ml Dual-Syringe Dispenser, Sm
TSR-DSB50ML-3	Bracket for 50 ml Dual-Syringe Dispenser, Ad
TSR-SVBRACKET	Bracket Assembly for Spool Valves
TSR-VCABLE	I/O Cable, Valve Controller to TSR Robot

For a complete list of TSR Dispensing Robot Accessories and Spare Parts, please contact Techcon



**TS9800** — Piezo Actuated Jet Valve

## TS9800 Series Jet Valve System

### TS9800 Piezo-Actuated Jet Valve

The TS9800 Series Jet Valve System delivers ultra-fast and high-precision dispensing results for a wide range of adhesives and viscosities. The high-speed piezo actuator enables the valve to dispense as fast as 1500 Hz continuously with up to 2000 Hz maximum burst and produce microshots as small as 2 nL.

The valve features fully adjustable parameter settings, allowing the operator to change the jetting properties for different fluid types and optimize the process for repeatable dispensing.

Every component of the valve was designed to the highest tolerances and manufactured to the strictest degree of precision and Jet Valve's compact size and modular design aids integration into robotic systems.

### TS980 Smart Controller

The TS980 Smart Controller for Jet Valve features an intuitive touchscreen user interface that allows for easy setup and operation, making valve calibration quick and easy. The Internet port allows users to monitor, record data and make precise parameter adjustments from remote locations. Troubleshooting and training can be done remotely through an Ethernet connection.



### Tungsten Carbide Nozzle Inserts

Part Number	Size
7511-0140-05	50µm
7511-0140-07	70µm
7511-0140-10	100µm
7511-0140-12	120µm
7511-0140-15	150µm
7511-0140-20	200µm
7511-0140-30	300µm
7511-0140-40	400µm



### Key Features

- Fast dispense frequency, up to 1500 Hz continuous, with up to 2000 Hz maximum burst for higher throughput
- Micro shot sizes as small as 2 nL for small component applications
- Quick and easy calibration
- Localized fluid housing heater for better viscosity stabilization and dispensing (optional)
- Touch screen user-friendly interface for easy setup
- Parameters can be adjusted remotely

### Jet Valve System Specifications

Valve Size (mm) H x W x D	125 x 69 x 16 mm / 5" x 2.7" x 0.6"
Valve Weight	258 g / 0.6 lbs
Nozzle Orifice Diameter Range	50 µm - 400 µm
Minimum Shot Size	2 nL
Max. Dispensing Frequency	1500 Hz Continuous, 2000 Hz Burst
Wetted Parts	Stainless Steel, Tungsten, PEEK, EPDM, FFKM*
Max. Fluid Pressure	6.9 bar / 100 psi
Fluid Viscosity	1 - 2 million cps
Operating Frequency	1 - 1500 Hz (depending on parameter settings)
Environmental Temperature Range	10 - 50 °C (50 - 122 °F)
Warranty	6 months or 500 million pulses on the Piezo Actuator, whichever comes first

### Jet Valve System Configurations

TS9800-TT15-H	Jet Valve TT 1.5 mm w/ Heater
TS9800-TT15-NH	Jet Valve TT 1.5 mm, w/out Heater
TS9800-TT20-H	Jet Valve TT 2.0 mm w/ Heater
TS9800-TT20-NH	Jet Valve TT 2.0 mm, w/out Heater
TS9800-TT7-H	Jet Valve TT 0.7 mm w/ Heater
TS9800-TT7-NH	Jet Valve TT 0.7 mm, w/out Heater

\*Nozzle Insert sold separately

## Typical Applications

Edge sealing and end sealing of LCDs and OLEDs, die bonding and frame bonding for camera module assembly, under-fill in micro-electronic package applications, micro dots of UV adhesive in medical device applications

\*PEEK = Polyether ether ketone, EPDM = Ethylene propylene diene monomer rubber, FFKM = Perfluoroelastomer

## TS8200D Series Micro-Meter Mix

The TS8200D Series Micro-Meter Mix is a precision volumetric mixing and dispensing system for 2-component materials. It consists of two progressive cavity (PC) pumps integrated in a fluid manifold connected to a static mixing nozzle. Part A and part B of the material is precisely fed by the progressive cavity pumps with the correct ratio into the static mixing nozzle to provide accurate mixing and dispensing output.

Every component of the TS8200D Micro-Meter Mix was designed to the highest tolerances and manufactured to the strictest degree of precision, ensuring world-class accuracy and repeatability.



TS8200D — Micro-Meter Mix

### Typical Applications

- Bonding
- Glob-Top Potting and Encapsulation
- Battery Pack Sealing
- Thermal Paste Dispensing
- Filling

### Key Features

- Mix & dispense 2-component materials
- Volumetric accuracy up to +/- 1%
- Unaffected by changes in fluid pressure or viscosity
- No possibility of material cross-contamination
- Fast and easy cleaning and maintenance

Specifications	100	200	300	400	500
Length (mm) L x W x D	276 x 69 x 33	276 x 69 x 33	276 x 69 x 33	302 x 69 x 33	323 x 69 x 33
Length (mm) L x W x D	10.9 x 2.7 x 1.3	10.9 x 2.7 x 1.3	10.9 x 2.7 x 1.3	11.9 x 2.7 x 1.3	12.7 X 2.7 x 1.3
Weight (kg)	1.24	1.24	1.24	1.33	1.47
Weight (lbs.)	2.74	2.74	2.74	2.95	3.25
Motor	24V DC, incremental encoder				
Repeatability	+/- 1% per pump*				
Dispense Accuracy	> 99%				
Fluid Inlet Pressure - Max	Up to 2 bar (30 psi) for viscosity of 1,000 cps or less, up to 5.5 bar (80 psi) for viscosity greater than 1,000 cps**				
Fluid inlet type	1/8" NPT				
Mixing Nozzle	K-type Standard, A-Type & B-Type Optional				
Mounting	M4 x 35 mm, SHC, S.S				
Operating Temperature	10 - 40 °C (50 - 104 °F)				
Fluid Viscosities	1 - 300K Cps (m.Pa.s)				



TS580D-MM — Smart Controller  
for Micro-Meter Mix

Part No.	Description
TS580D-MM	Smart Controller for Micro-Meter Mix

	100 x 100	200 x 200	300 x 300	200 x 100	300 x 100	300 x 200	400 x 400	500 x 500
Flow Rate (mL/min)	0.24 -2.42	1.29 -13.80	1.56 -16.24	0.77 -8.11	0.90 -9.33	1.43 -15.02	4.8 - 48	6.4-64
Dispensing Volume /Revolution /Pump (ml)	0.012	0.047	0.08	0.047 (200) 0.012 (100)	0.08 (300) 0.012 (100)	0.08 (300) 0.047 (200)	0.12	0.31

Wetted Parts			
Stator Housing	Anodized Aluminum	Seal Block, Manifold Plugs	Delrin®
Rotor	Stainless Steel	Manifold Gaskets	Viton®
Stator	Perfluoroelastomer (PFE)	Pump O-rings	BUNA N
Flex Coupling	Stainless Steel, Polyolefin	Vent Seals	Fluorosilicone
Shaft Seal	***UHMWPE	Fluid Inlet Fittings	***UHMWPE, Nylon

\*Accuracy measurements are taken for one complete revolution. Absolute deviation in volumetric dispense accuracy exist for incomplete revolutions and may also occur for certain dispensing fluid.

\*\*2 bar self-sealing is for fluid with viscosity of 1000 cps or lower. The pump can handle up to 5.5 bar for 300K cps viscosity fluid.

\*\*\*UHMWPE = Ultra-High Molecular Weight Polyethylene

# TS8100-M

## Progressive Cavity (PC) Pump Dispensing System

The TS8100 Series Positive Displacement Pump is a continuously volumetric dispense pump based on Progressive Cavity (PC) technology. The pump is designed to dispense a wide range of fluids, from low-viscosity coatings to high-viscosity greases. Techcon's PC Pump uses a special stator and rotor design to provide consistent dispensing output. The turning rotor moves the fluid in tightly sealed cavities through the stator's fluid chambers to create a volumetric fluid flow that does not change the shape or size of the fluid. Due to the PC Pump's unique dispensing technology, accuracy and repeatability of  $\pm 1\%$  are achievable.

### Typical Applications

Underfilling PCBA components, encapsulation and potting applications, applying lubrication on automotive parts, dispensing pastes and flux.

#### Key Features

- Volumetric, positive displacement
- Accurate and repeatable up to  $\pm 1\%$
- No dripping with any viscosity fluid
- Compatible with abrasive materials
- Does not damage or break fillers
- Easy to clean

Specifications	
Weight (g)	590 g
Weight (lb)	1.3 lb
Wetted Parts	Delrin* (Acetal), Carbide, *PFE, Stainless Steel, *UHMWPE
Fluid Viscosity	1-300K cps or m.Pa.s
Precision $\pm$ , Absolute (1)	$\pm 1\%$
Self-sealing (2)	2 bar
Material Inlet Port	1/8" NPT
Material Outlet Port	Luer Taper & Cap (Optional Luer Lock)
Direct Mount Material Reservoir	3 to 55 cc (Optional Cartridge Mount)



TS8100-M — Progressive Cavity (PC) Pump



TS588R — Smart PC Pump Controller

Part No.	Description
TS588R	Smart PC Pump Controller

	TS8100-100M	TS8100-200M	TS8100-300M	TS8100-400M	TS8100-500M
Dispense Volume per Rotation (average)	0.012 ml	0.047 ml	0.070 ml	0.12 ml	0.31 ml
Flow Rate	0.15-1.04 ml/min.	0.47-4.46 ml/min.	0.74 - 6.7 ml/min.	1.2 - 12 ml/mi	3.1 - 31 ml/mi
Max. Flow Rate Recommended (3)	0.65 ml/min	3.38 ml/min	5.06 ml/min	8.0 ml/min	21 ml/min
Minimum Dispense Amount	0.001 ml	0.0045 ml	0.0068 ml	0.012 ml	0.031 ml
Size mm	261 mm L x 34 mm W	261 mm L x 34 mm W	261 mm L x 34 mm W	275 mm L x 34 mm W	275 mm L x 34 mm W
Size inches	10" L x 1.3" W	10" L x 1.3" W	10" L x 1.3" W	11" L x 1.3" W	11" L x 1.3" W

#### Accessories

**XYZ Robot:** Techcon's Benchtop Dispensing Robots makes it easy to automate fluid dispensing.

**Fluid reservoirs:** The pump can be fed from the TS1254 (1.8 liter) or TS1258 (5 liter) Pressure Tank, or from any size syringe barrel or cartridge.

1) Volumetric dispensing as absolute deviation per complete revolution and depends on dispensing fluid.

2) For fluid with viscosity of 1000 Cps or lower. The pump can handle up to 5.5 bar for 300K Cps viscosity fluid.

3) This is the maximum flow rate that does not shorten the stator work life



**TS5000DMP-DCX**  
Rotary Microvalve

## Key Features

- Precise and consistent shot sizes
- Motor reverse capability
- Field-replaceable wetted parts
- Adjustable dispense rate
- Closed-loop motor control with encoder feedback (encoder version)

Specifications	
<b>Size (Imperial)</b>	1.56" W x 3.56" L x 5.88" H
<b>Size (Metric)</b>	39.6 mm x 90.4 mm x 149.4 mm
<b>Weight</b>	0.73 lb. (331 g)
<b>Fluid Inlet</b>	Luer Lock female
<b>Fluid outlet</b>	Luer Lock male
<b>Door Opening</b>	Right hand side, Left hand side, Front
<b>Input Voltage</b>	5 - 24 VDC
<b>Fluid Pressure</b>	30 psi (2.07 bar) MAX
<b>Cycle Rate</b>	300 cycles/min.
<b>Mounting Port</b>	1.0" (25.4 mm) Channel
<b>Viscosity Range</b>	30K - 1300K cps
<b>Wetted Parts</b>	Delrin <sup>®</sup> , Viton <sup>®</sup> , Nylon

DMP Insert Options		
	Fixed Luer Collars	Rotating Luer Collars
<b>6 Pitch (red)</b>	DMP6-10	DMP6R-10
<b>8 Pitch (black)</b>	DMP8-10	DMP8R-10
<b>16 Pitch (blue)</b>	DMP16-10	DMP16R-10

## TS5000DMP-DCX Rotary Auger Microvalve

Techcon's patented Disposable Material Path (DMP) rotary auger valve contains a disposable feed screw for easy maintenance and reliable dispensing.

With the feed screw made of Delrin<sup>®</sup>, the valve is designed for use with two-compound and UV fluids. The DMP valve has a hinged doorway that opens easily so the disposable feed path can be removed, disposed of and replaced within seconds while the line is still in operation. No cleaning or refurbishment of the valve is required.

TS5000DMP-DCX is the perfect valve for applications where removing the valve for cleaning is inconvenient and costly. With the ability to remove and replace the disposable material path, the valve maintains its accuracy over a greater period of time. With less fluid build up to reduce wear-and-tear on the motor, the valve's usable lifetime is dramatically increased.

The TS5000DMP-DCX Series valve offers three options in feed screw pitch type: 6, 8 and 16 pitch. All DMP inserts are made available with fixed or rotating color-coded tip collar.

### Configurations - TS5000DMP-DCX Rotary Valve w/ Disposable Material Path (DMP)

<b>TS5000DMP-DCX-SR</b>	Slim Body, Right Door Opening
<b>TS5000DMP-DCX-SL</b>	Slim Body, Left Door Opening
<b>TS5000DMP55-DCX</b>	Slim Body, Front Door Opening
<b>TS5000DMP-E-DCX-SR</b>	Encoder Motor, Slim Body, Right Door Opening
<b>TS5000DMP-E-DCX-SL</b>	Encoder Motor, Slim Body, Left Door Opening



Right-hand opening shown. Left and front door opening versions are also available.



Disposable Material Paths are available in 3 different pitches and with 3 different rotating Luer collars.

### Typical Applications

Dispensing of thermal conductive, UV gels, silicone, epoxies, flux paste, an-aerobic gel, 2K epoxies, grease



**TS577R** Smart Rotary Valve Controller.

Part No.	Description
<b>TS577R</b>	Smart Rotary Valve Controller

## TS7000-DCX Series

### Interchangeable Material Path (IMP) Rotary Valve

The TS7000-DCX Series IMP Rotary Valve uses a feed screw 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 removing the valve from the machine. In addition, the valve can be interchanged to accommodate TS5000DMP-DCX feed screw inserts (with optional 7000-DMPBKIT retrofit kit).

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



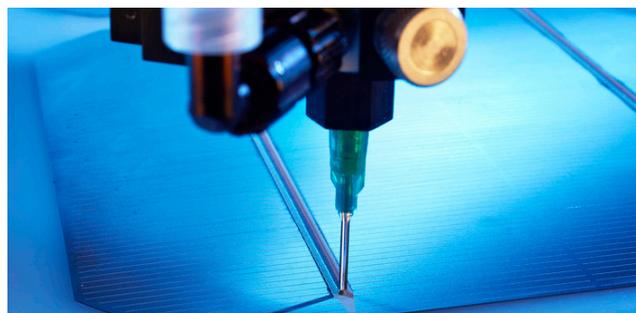
TS7000-DCX — Rotary Valve

Specifications	
Size (Imperial)	6.78" x 3.70" x 2.23"
Size (Metric)	172.2 x 94 x 56.6 mm
Weight	0.96 lb. (438 g)
Fluid Inlet Port	Luer lock female
Fluid Outlet Port	Luer taper and cap
Input Voltage Range	4 - 24 VDC
Max Fluid Pressure	30 psi (2.07 bar)
Operating Frequency	300+ cycles/min.
Mounting Port	1"/25.4 mm channel
Viscosity Range	30K - 1,300Kcps
Wetted Parts	303SS, *UHMWPE, Nylon*

## Typical Applications

Encapsulation & potting applications, dispensing thermal conductive, UV gels, silicone, epoxies, solder paste, flux pastes and grease.

Cartridge Assemblies	
Part No.	Description
7090-9030	Cartridge Assembly, 8-Pitch
7090-9040	Cartridge Assembly, 16-Pitch
7090-9050	Cartridge Assembly, 8-Pitch HO
7090-9140	Cartridge Assembly, 32-Pitch



Configurations	
Part Number	Description
TS7000-DCX-8	Rotary Valve, 8P Feed Screw
TS7000-DCX-8HO	Rotary Valve, 8P High Output Feed Screw
TS7000-DCX-16	Rotary Valve, 16P Feed Screw
TS7000-DCX-32	Rotary Valve, 32P Feed Screw
TS7000E-8-DCX	Rotary Valve, 8P Feed Screw
TS7000E-8HO-DCX	Rotary Valve, 8P High Output Feed Screw
TS7000E-16-DCX	Rotary Valve, 16P Feed Screw
TS7000E-32-DCX	Rotary Valve, 32P Feed Screw
7000-DMPBKIT	TS7000 DMP Conversion Kit

## Key Features

- Accurate and repeatable dispensing output
- Field replaceable spare parts
- Quick and easy feed screw/chamber cartridge changeover
- Closed-loop motor control with encoder feedback (encoder version)



TS577R Smart Rotary/Auger Valve Controller

Part No.	Description
TS577R	Smart Rotary Valve Controller

# Diaphragm Valves

## TS5620 Series



TS5621HD



TS5622VU-DVD



TS5622VT

## TS5620 Series Diaphragm Valves

Diaphragm Valves are designed to dispense low to medium-viscosity materials with accuracy over a wide range of shot and bead sizes down to a fraction of a micro liter. A short opening stroke provides fast, positive shut-off. An external stroke control adjustment makes it easy to fine-tune shot sizes. The compact design allows for mounting flexibility and easy integration into automated applications.

Body available in FDA-compliant Ultra High Molecular Weight Polyethylene (UHMWPE) for most applications. A Teflon™ version for chemical compatibility and a Delrin® version for UV-curables are also available. A stainless steel version with optimized internal fluid route is especially dedicated to dispense UV-cure adhesives, resins and lacquers. A hand-held actuated valve is also available. The valves are easy to use and maintain with user replaceable spare parts.

## Typical Applications

To dispense a wide range of shot sizes of low viscosity fluids such as: cyanoacrylates, anaerobics, liquid fluxes, solvents, UV-cure adhesives, resins and lacquers.



TS555R Smart Valve Controller

Part No.	Description
TS555R	Smart Pneumatic Valve Controller

\*UHMWPE = Ultra-High Molecular Weight Polyethylene

Specifications	
Length	2.4" (61 mm) - 3.47" (88 mm) (Depending on exact configuration)
Diameter	0.94" (24 mm) - 1.06" (27 mm)
Weight	0.13 lb. (59 g) to 0.26 lb. (118 g)
Wetted Parts	Depending on exact configuration
Viscosity Range	1-50k cps
Max Fluid Pressure	70 psi (4.8 bar)
Activation Pressure	70 psi (4.8 bar) - 90 psi (6.2 bar)
Connections	Depending on exact configuration
Mounting	10-32 UNF (not available on handheld models)

Part Number	Description
TS5620HU	Horizontal Valve *UHMWPE
TS5621HD	Horizontal Valve Delrin®
TS5620HT	Horizontal Valve Teflon™
TS5622VU	Vertical Valve *UHMWPE
TS5622VD	Vertical Valve Delrin®
TS5622VT	Vertical Valve Teflon™
TS5622VU-DVD	Vertical Valve, *UHMWPE and Stainless Steel
TS5623HU	Hand-Held Valve *UHMWPE
TS5623HD	Hand-Held Valve Delrin®
TS5623HT	Hand-Held Valve Teflon™



## Key Features

- Excellent moisture-sensitive resistance
- Adjustable stroke control
- Compact size and weight
- Simple and low-maintenance design
- Long life cycles



TECHCON™

# DMP Diaphragm Valve TS5624DMP

## TS5624DMP Disposable Material Path Diaphragm Valve

The TS5624 Diaphragm Valve features a “first to market” Disposable Material Path. Difficult fluids such as CAs and pre-mixed 2-part epoxies can now be dispensed without the need of frequent cleaning by simply replacing the entire wetted area in a matter of seconds while the valve stays on the production line.

The wetted parts are manufactured from Black polyethylene to prevent moisture and UV light coming into contact with the dispense fluids. As a result, moisture-sensitive fluids such as cyanoacrylate and UV-cured adhesives can be dispensed reliably and accurately.

The TS5624 dispenses low to medium-viscosity fluids over a wide range of shot and bead sizes, down to a fraction of a micro liter. An internal spring return makes the valves fully adaptable for use with Techcon controllers. A short opening stroke provides an extremely fast and positive shut-off. The seal-less valve design offers an excellent moisture sensitive resistance and the incorporated diaphragm creates a barrier between the wetted parts and the air cylinder.

## Typical Applications

Dispensing difficult fluids such as cyanoacrylate (CA) and pre-mixed 2-part epoxies in bonding applications.



TS5624DMP — Disposable Material Path Diaphragm Valve



TS555R Smart Pneumatic Valve Controller

Specifications	
Length	3.34" (84.8 mm)
Width	2.15" (54.6 mm)
Weight:	0.25 lb. (113 g)
Fluid Inlet Port	Luer lock female
Fluid Outlet Port	Luer lock male
Aux Air Inlet Port:	10-32 UNF female
Activation Pressure Range	70 psi - 90 psi, (4.8bar - 6.2bar)
Max Fluid Pressure	60 psi (4.1 bar)
Operating Frequency	400+ cycles/min.
Mounting Port	10-32 UNF female
Viscosity Range	1 - 50,000 cps
Wetted Parts	Black Polyethylene Compound

Accessories	
DMP-5624	Replacement DMP Insert (Pack of 10)
7509-9100	Syringe Bracket, fits all syringe sizes
5624DMP-FLB	Fluid Line Bracket
TS1254	1.8 liter Pressure Pot, 100 psi/6.9 bar
TS1258	5.0 liter Pressure Pot, 100 psi/6.9 bar

Part No.	Description
TS555R	Smart Pneumatic Valve Controller

## Key Features

- Disposable material path - no cleaning
- Compact size and weight
- Excellent moisture sensitive resistance
- No special tools required
- Low cost of ownership
- Accurate and repeatable dispensing



## TS5400 Series Needle Valves

Needle Valves dispense very precise deposits over a wide range of shot and bead sizes due to a minimal dead-fluid zone and an external stroke control adjustment to fine-tune shot sizes.

The TS5440 Microshot Needle Valve, with its needle closing the fluid path directly on the cannula inside the dispensing tip hub, can dispense very precise deposits down to 0.0005 cm<sup>3</sup>.

The TS5420 Adjustable Needle Valve is a pneumatically triggered single-acting valve that can be used with an integral spring close (single action) or may be connected for air closing without the spring (double acting).

Easy to maintain, with little or no downtime. The compact design and easy-mount threaded hole allows for easy integration into automated applications.

## Typical Applications

Dispense microdots of low-viscosity fluids such as solvents, inks, oils, activators, activators and primers. The TS5440 is excellent for dispensing microdots of UV adhesive used in medical device manufacturing.

**TS5440** — Dispensing medical device adhesive

Specifications			
Part Number	TS5420	TS5420SS	TS5440
<b>Size and Weight</b>	L: 4.4" (112 mm) D: 1.12" (28 mm) Weight: 0.3 lb. (136 g)	L: 4.4" (112 mm) D: 1.12" (28 mm) Weight: 0.5 lb. (227 g)	L: 5.0" (127 mm) D: 1.12" (28 mm) Weight: 0.5 lb. (227 g)
<b>Wetted Parts</b>	303 SS, Anodized Al, Teflon™, *EPR, Delrin*	303 SS, Teflon™, *EPR, Delrin*	303 SS, Teflon™, *EPR
<b>Maximum Fluid Pressure</b>	300 psi (20.7 bar)	300 psi (20.7 bar)	100 psi (6.9 bar)
<b>Activation Pressure</b>	70 psi (4.8 bar) Minimum	70 psi (4.8 bar) Minimum	70 psi (4.8 bar) Minimum
<b>Connections</b>	Inlet: 1/8" NPT Outlet: Male Luer Lock	Inlet: 1/8" NPT Outlet: Male Luer Lock	Inlet: 1/8" NPT Outlet: Luer Taper and Cap
<b>Mounting</b>	1/4"-20UNC-2B	1/4"-20UNC-2B	10-32 UNF
<b>Recommended Viscosity Range</b>	1-100k cps	1-100k cps	1-100k cps

**TS5420**  
Needle Valve



**TS5440**  
Microshot Needle Valve



## Key Features

- Precise and consistent shot sizes
- Adjustable flow control
- Zero dead fluid zone
- Simple and low-maintenance design



**TS555R** Smart Pneumatic Valve Controller

Part No.	Description
TS555R	Smart Pneumatic Valve Controller

\*EPR = Ethylene Propylene Rubber



# High Pressure & Mini Spool Valves

## TS941 & TS5322

### TS941

## High Pressure Spool Valve

The Spool Valves provide precise shot accuracy along with high-volume capacity over a range of material viscosities, shot sizes and pressures. They feature "suck back" anti-drip as well as a fast on/off dispensing function that is not affected by material input pressure. An optional oil chamber creates an additional liquid seal to prevent moisture from being carried on the spool, excellent for moisture-sensitive materials.

Pneumatically activated, the valves can be used with an internal spring close (single acting) or an air-closing connection (double acting). Output is a 1/4" NPT which allows multiple tip types to be used. See page 34 for compatible nozzles.

### TS5322

## Mini Spool Valve

The Mini Spool Valve Series is designed for better accuracy with lower pressure. The TS5322 operates similarly to the TS941 but in a smaller form factor.

Specifications		
Part Number	TS941	TS5322
Length	4.7" (119 mm)	4.00" (101.6 mm)
Diameter	1.5" (38 mm)	1" (25 mm)
Weight	1.61 lb. (726 g)	0.31 lb. (141 g)
Wetted Parts	UHMWPE*, EPR**, 303 Stainless Steel,	303 Stainless Steel, Anodized Al, Teflon™, EPR**
Viscosity Range	5 - 3 million cps	5 - 1 million cps
Max Fluid Pressure	2500 psi (172.4 bar)	500 psi (34.5 bar)
Activation Pressure	70 psi (4.8 bar)	70 psi (4.8 bar)
Material Inlet	3/8" NPT	1/8" NPT
Material Outlet	1/4" NPT	1/8" NPT
Mounting	1.50" Diameter	1/4"-20UNC-2B

## Typical Applications

Suitable for moisture-sensitive adhesive when utilizing supplied oiler. The Spool Valves can be used in a wide range of applications such as flux paste, grease, RTV silicone, UV cure gel, solder mask and gasketing.



TS941 Spool Valve



TS5322 Mini Spool Valve

Part Numbers	
TS941	High-Pressure Spool Valve
TS5322	Mini Spool Valve
934-003-000	TS941 Adjustable Suck-Back Cap



TS941 High Pressure Spool Valve



TS5322 Gasketing



TS555R Smart Pneumatic Valve Controller

Part No.	Description
TS555R	Smart Pneumatic Valve Controller

\* UHMWPE = Ultra-High Molecular Weight Polyethylene  
 \*\*EPR = Ethylene Propylene Rubber

# Pinch Tube Valves

## TS1212 & TS1201



TS1201 Dispense pen

Specifications		
Part Number	TS1201	TS1212
Length	5" (127 mm)	2.49" (63 mm)
Diameter	1.34" (34 mm)	1.58" (40 mm)
Weight	0.08 lb. (36 g)	0.18 lb. (82 g)
Wetted Part:	Polyethylene (PE) (standard), Polyurethane (PU) (optional)	
Viscosity Range	1-45k cps	
Max Fluid Pressure	60 psi (4.1 bar)	
Material Inlet	Female Luer Lock	
Material Outlet	Male Luer Lock	
Mounting		1/4"-20UNC-2B
Activation Pressure		50 psi (3.4 bar) minimum

## TS1201 & TS1212 Pinch Tube Valves

### TS1201 Dispense Pen

The TS1201 Dispensing Pen uses a disposable moulded tube assembly. Designed to handle a wide variety of fluids from adhesives and lubricants to sealants and masks. Gravity or pressure fed, the pen has a built-in shot and flow rate for repeatability. Includes pre-assembled applicator pen, two clear and two Black spare pinch tube assemblies, an assortment of disposable dispensing tips and a 24" (0.61 m) hose. Replacement pinch tube assemblies sold in packs of 10.

### TS1212 Pneumatic Pinch Tube Valve

Provides control for continuous or micro-shot applications of low to semi-viscous fluids. The "ON/OFF" control is achieved by automatically opening and closing (pinching) a moulded polyethylene tube assembly. Adjusting the opening size of the pinch tube assembly determines the shot size or flow rate. In addition, the air-actuated valve can be timed to develop desired shot sizes. Finally, a wide range of dispensing tips can be used to further refine the amount of dispensed output. The only part of the valve making contact with the fluid being dispensed is the disposable pinch tube assembly. Replacement pinch tube assemblies are sold in packages of 10.

## Typical Applications

Cyanoacrylates, anaerobics, two-part adhesive.



TS1201 Dispenser Pen



TS1212 Pneumatic Pinch Tube Valve



### Key Features

- Disposable fluid path
- Simple to operate
- Compact size and weight



TS555R Smart Controller

Part No.	Description
TS555R	Smart Pneumatic Controller
TS250	Digital Dispenser/Controller
TS350	Digital Dispenser/Controller

### Spare Pinch Tubes for TS1201 (Sold in packs of 10)

Part Number	Material	I.D.	Connection	Length
1201-000-004BPK	Black PE*	0.1" (2.54 mm)	Male to Female	15.2 cm
1201-000-004PK	Natural PE	0.1" (2.54 mm)	Male to Female	15.2 cm
1201-000-006PK	Natural PE	0.07" (1.78 mm)	Male to Female	15.2 cm
1201-006-000PK	Natural PU*	0.125" (3.18 mm)	Male to Female	15.2 cm

### Spare Pinch Tubes for TS1212 (Sold in packs of 10)

Part Number	Material	I.D.	Connection	Length
1212-004-002BPK	Black PE	0.1" (2.54 mm)	Male to Female	10.2 cm
1212-004-002PK	Natural PE	0.1" (2.54 mm)	Male to Female	10.2 cm
1212-004-000PK	Natural PE	0.07" (1.78 mm)	Male to Female	10.2 cm

PE = Polyethylene, PU = Polyurethane

# TS5500 Series

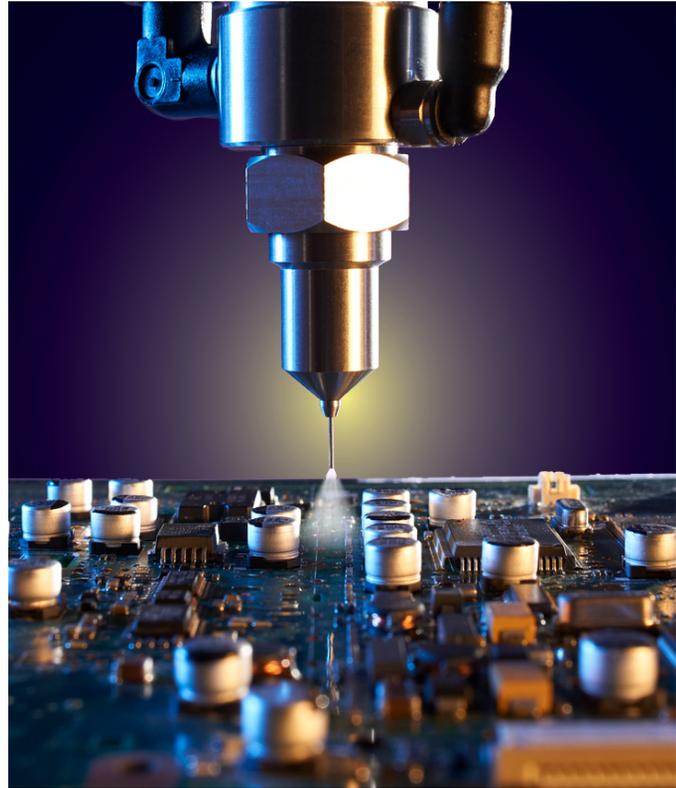
## Spray Valves

Techcon Spray Valves are designed for precise spray applications of low viscosity materials. Total control of the spray cycle is provided by adjustable fluid flow and precise control of prespray, atomizing air and post-spray with the TS566R Valve Controller. Normal maintenance is simple and downtime is virtually eliminated with only one seal to replace.

TS5540 Spray Valves come with FDA-Compliant 303 stainless steel construction in both air cylinder and fluid housing. A field replaceable Delrin® seat provides positive shut-off and extends life cycles. The compact design and easy-mount threaded hole allow for easy integration into automated applications.

## Typical Applications

To spray fine mist of low viscosity fluids such as conformal coating, solvent, oil, etc.



Specifications		
	TS5520	TS5540/TS5540-MS
Length	4.2" (107 mm)	4.2" (107 mm)
Diameter	1.12" (28 mm)	1.12" (28 mm)
Weight	0.3 lb. (136 g)	0.74 lb. (336 g)
Wetted Parts	303 SS, Teflon™, EPR, Anodized Al, Delrin®	303 SS, Teflon™, Delrin®
Viscosity Range	1-1K cps	1-5K cps
Max Fluid Pressure	100 psi (6.9 bar)	
Activation Pressure	70 psi (4.8 bar) Minimum	
Connections	Inlet: 1/8" NPT Outlet: Spray nozzle	
Mounting	1/4" 20UNC-2B	

Spray Valves with Nozzles			
	Opening Diameter	Cone Nozzle	Fan Nozzle
TS5520	0.046" / 1.17 mm	Standard	Not Available
TS5540	0.014" / 0.356 mm	TS5540-014R	TS5540-014F
	0.028" / 0.711 mm	TS5540-028R	TS5540-028F
	0.046" / 1.17 mm	TS5540-046R	TS5540-046F

Nozzle Outlet Kits		
Nozzle Diameter	Cone Outlet P/N	Fan Outlet P/N
0.014" / 0.356 mm	RNC014	FNC014
0.028" / 0.711 mm	RNC028	FNC028
0.046" / 1.17 mm	RNC046	FNC046



**TS5520**  
Spray Valve  
with Cone Nozzle



**TS5540**  
Spray Valve  
with Fan Nozzle



Cone Nozzle



Fan Nozzle



**TS5540-MS**  
Microshot Spray Valve

### TS5540-MS Microshot Spray Valve

The TS5540-MS Spray Valve is designed to spray low-viscosity materials through disposable dispensing tips (TE range, 23 gauge - 32 gauge). Spray patterns range from 0.18" - 0.60" (4.6 mm - 15 mm) in diameter.

## Key Features

- Consistent spray coverage with no overspray
- Positive shut-off
- Adjustable flow control
- Long life cycles



**TS566R** Smart Spray Valve Controller

Part No.	Description
TS566R	Smart Spray Valve Controller

# Smart Valve Controllers

## TS500 Series



## TS500 Series

### Smart Valve Controllers

We are pleased to introduce our new series of Smart Valve Controllers: the **TS555R**, **TS566R**, **TS577R** and **TS588R** that will control our complete line of precision valves. Equipped with a universal power supply, the new Smart Valve Controllers are fully plug-and-play and can be used immediately anywhere in the world.



**TS588R** — Smart PC Pump Controller

## Key Features

- User-friendly touchscreen interface with icon-based GUI
- Easy setup and operation
- Parameters set through interface or remotely
- Ethernet interface for remote configuration
- Digital timer for accurate & repeatable spray times
- Program up to 50 varied, sequenced, or individual shots
- Password protection of all settings
- Purge and Timed dispense cycles
- Teach mode for determining dispensing times
- Low-Pressure Warning maintains uninterrupted dispensing
- Easily integrates with automatic/semi-automatic machinery

Specifications	
Size (Imperial)	11.4" W x 8.3" L x 3.9" H
Size (Metric)	290 mm x 211 mm x 99 mm
Weight	6.8 lb. (3100 g)
Pressure Range	0 to 100 psi (0-6.9 bar)
Display	Touch Screen
Timing Range	0.008 - 99.9 seconds
Timing Tolerance	+/- 0.001%
Input Voltage	100 - 240 VAC
Cycle Rate	900/min.
Cycle Modes	Timed, Interrupt, Teach, Purge
Connectivity	Ethernet
Certification	CE, TUV-GS

Part Number	Description
TS555R	Smart Pneumatic Valve Controller
TS566R	Smart Spray Valve Controller
TS577R	Smart Rotary/Auger Valve Controller
TS588R	Smart PC Pump Controller



### TS1254/1258 Pressure Pots

TS1254 and TS1258 Pressure Pots are designed to accommodate low to medium-viscosity fluids, including solvents and adhesives, CAs and UVs. The fluid feed line is located in the center of the unit for a direct and continuous feed path from the reservoir to the dispensing valve.

TS1254 is shipped with 6 mm tubing, TS1258 is shipped with 1/4" tubing. The TS1252-4MM Fluid Line Kit is needed when using these pressure pumps with the TS1212 or TS1201 valves.

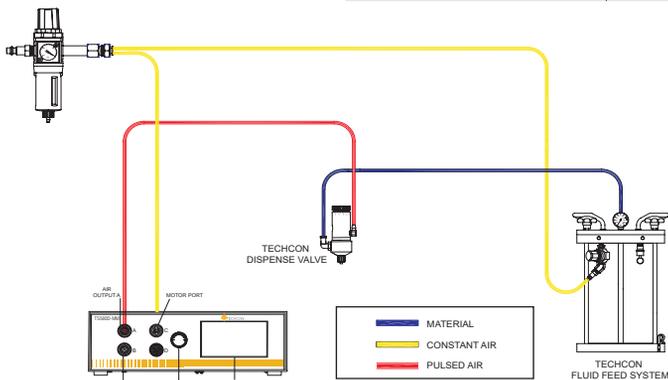


TS1254 Pressure Pot



TS1258 Pressure Pot

Specifications - Pressure Pots	
	<b>TS1254</b>
<b>Size</b>	7.5" x 12.5" (190 x 318 mm)
<b>Chamber</b>	4.75" I.D. x 6.5" (121 I.D. x 165 mm)
<b>Weight</b>	10.4 lb. (4.7 kg)
<b>Max Operating Pressure</b>	100 psi (6.9 bar)
<b>Internal Volume</b>	1.8 liters
	<b>TS1258</b>
<b>Size</b>	10" x 15.1" (254 x 383 mm)
<b>Chamber</b>	6.1" I.D. x 11.0" (155 I.D. x 280 mm)
<b>Weight</b>	21 lb. (9.5 kg)
<b>Max Operating Pressure</b>	100 psi (6.9 bar)
<b>Internal Volume</b>	5 liters



Typical Valve Set Up

#### Available Fluid Line Kits (include clear and black tubing)

For TS1254 Pressure Pot	
<b>TS1252-4MM</b>	4 mm O.D. Tube (required for TS1212 & TS1201 connection)
<b>1254-250PE</b>	6 mm O.D. Polyethylene (PE) Tube

For TS1258 Pressure Pot	
<b>TS1252-4MM</b>	4 mm O.D. Tube (required for TS1212 & TS1201 connection)
<b>TS1258-250</b>	1/4" O.D. Tube
<b>TS1258-375</b>	3/8" O.D. Tube

### TS918 Four-way Manifold

Designed to provide equal flow for up to four fluid paths, the TS918-46 is used whenever precision fluid flow to multiple stations is required. The manifold works with the TS1258 Pressure Pot (TS1258-375 Hose Kit required to use TS918-46 and TS1258 together). Made from Delrin® and suitable with UV materials. The manifold can be used with any Techcon valve.

Specifications - TS918-46 Four-way Manifold	
<b>Size</b>	2.6" x 2.2" (66 x 56 mm)
<b>Inlet Port</b>	1/4" NPT (3/8" O.D. tube fitting is included)
<b>Outlet Port</b>	1/8" NPT (4 Luer Lock fittings are included)
<b>Max Operating Pressure</b>	100 psi (6.9 bar)
<b>Mounting</b>	1/4"-20UNC-2B (x2)



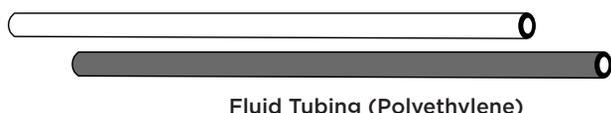
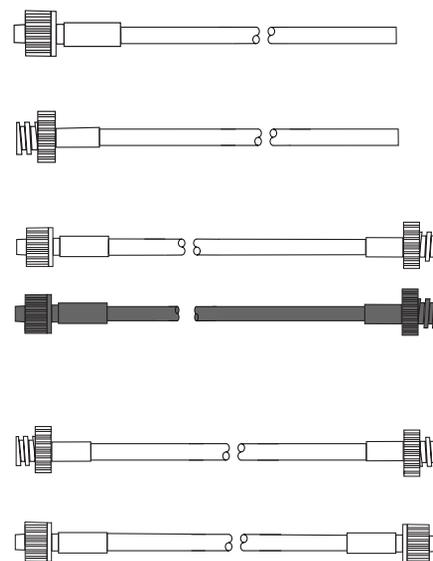
TS918-46 — Four-way Manifold

# Fluid Line Assemblies

## Fluid Line Assemblies

Each polyethylene hose assembly is provided with a moulded Luer lock fitting on one or both ends. The assembly can be used with other standard Luer lock connectors and will handle up to 100 psi (6.9 bar) working pressure.

Fluid Line Assemblies			
Part Number	Size	Connection	Material
TSD126-118PK	0.100" (2.54 mm) x 18" (457 mm)	Male Luer/Open	Natural PE
TSD126-124PK	0.100" (2.54 mm) x 24" (610 mm)	Male Luer/Open	Natural PE
TSD126-136PK	0.100" (2.54 mm) x 36" (914 mm)	Male Luer/Open	Natural PE
TSD126-218PK	0.100" (2.54 mm) x 18" (457mm)	Female Luer/Open	Natural PE
TSD126-224PK	0.100" (2.54 mm) x 24" (610 mm)	Female Luer/Open	Natural PE
TSD126-236PK	0.100" (2.54 mm) x 36" (914 mm)	Female Luer/Open	Natural PE
TSD126-318PK	0.100" (2.54 mm) x 18" (457 mm)	Male Luer/Female Luer	Natural PE
TSD126-318BPK	0.100" (2.54 mm) x 18" (457 mm)	Male Luer/Female Luer	Black PE
TSD126-324PK	0.100" (2.54 mm) x 24" (610 mm)	Male Luer/Female Luer	Natural PE
TSD126-324BPK	0.100" (2.54 mm) x 24" (610 mm)	Male Luer/Female Luer	Black PE
TSD126-336PK	0.100" (2.54 mm) x 36" (914 mm)	Male Luer/Female Luer	Natural PE
TSD126-336BPK	0.100" (2.54 mm) x 36" (914 mm)	Male Luer/Female Luer	Black PE
TSD126-360BPK	0.100" (2.54 mm) x 60" (1524 mm)	Male Luer/Female Luer	Black PE
TSD126-418PK	0.100" (2.54 mm) x 18" (457 mm)	Female Luer/Female Luer	Natural PE
TSD126-424PK	0.100" (2.54 mm) x 24" (610 mm)	Female Luer/Female Luer	Natural PE
TSD126-436PK	0.100" (2.54 mm) x 36" (914 mm)	Female Luer/Female Luer	Natural PE
TSD126-524PK	0.100" (2.54 mm) x 24" (610 mm)	Male Luer/Male Luer	Natural PE



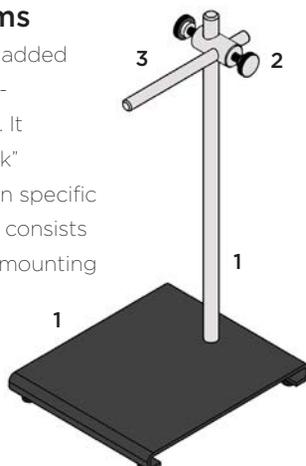
Fluid Tubing (Polyethylene)

Fluid Tubing (Polyethylene)		
Part No.	Color	Size
TSD1099-22	Black	3/8" O.D x 1/4" ID
TSD1099-23	Clear	3/8" O.D x 1/4" ID
TSD1099-24	Clear	1/4" O.D x 1/8" ID
TSD1099-25	Black	1/4" O.D x 1/8" ID
TSD1099-45	Clear	6mm O.D x 4mm ID
TSD1099-46	Black	6mm O.D x 4mm ID

Tubing sold per meter

## Production Master Systems

Production Master Systems provide added flexibility and productivity for hands-free, remotely-controlled dispensing. It incorporates a unique "building block" concept to provide more versatility in specific dispensing applications. The system consists of a basic Production Master stand, mounting rod, brackets and a rod clamp.



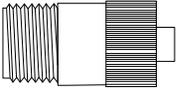
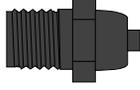
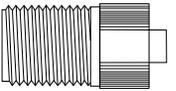
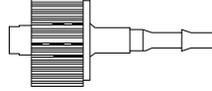
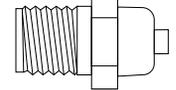
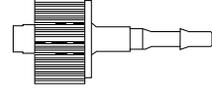
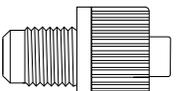
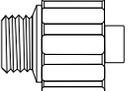
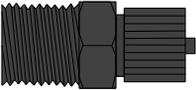
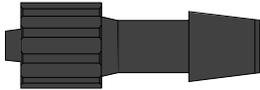
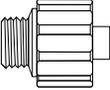
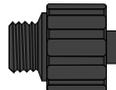
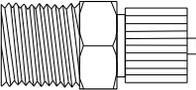
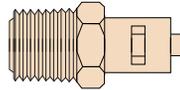
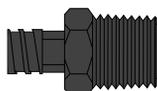
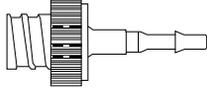
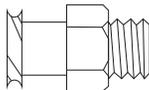
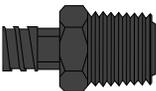
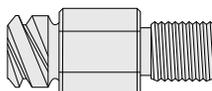
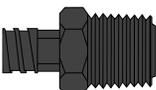
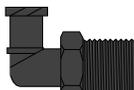
Part No.		Description
918-033-000	1	Production Master Stand (Base and Support)
918-000-011		Syringe Bracket for 400 Series
918-000-013		TS934/TS941 Spool Valve Bracket
918-110-004		1/10 gallon (325 ml) Cartridge Bracket
918-000-007		2.5 oz, 6 oz, 8 oz and 12 oz Cartridge Bracket
918-000-039		20 oz (591 ml) Cartridge Bracket
918-000-012	2	Rod Clamp Assembly
918-000-009		6" Non-Threaded Mounting Rod
1212-000-008	3	6" 1/4-20UNC-2B Threaded Mounting Rod
5620-000-008	3	4" 10-32 Threaded Mounting Rod
5000-000-005		TS5000DMP/TS7000IMP Mounting Bracket

# Fluid Line Adapters

## Luer Lock Fittings

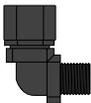
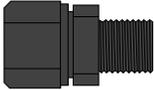
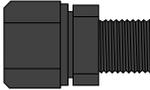
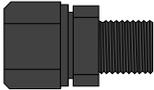
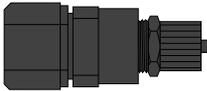
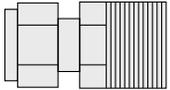
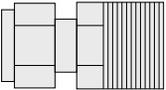
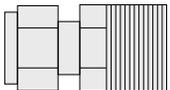
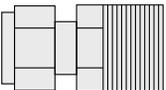
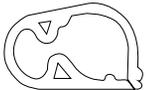
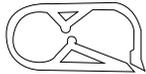
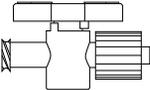
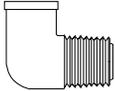
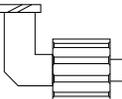
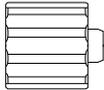
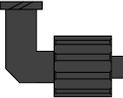
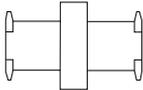
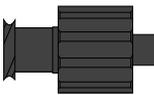
All TSD931 Series fittings are moulded and have good chemical resistance to solvents, acids and resin fluids. The locking end accepts all standard dispensing tips and moulded fittings used on the TSD126 Series hose assemblies. For a complete list, contact your local representative.



Male Luer Lock Adaptors			
	Part Number: TSD931-5 Material: White Celcon Thread Size: 5/16-28		Part Number: TSD931-14 Material: Black PP Thread Size: 1/4-18 NPT
	Part Number: TSD931-6 Material: White Acetal Thread Size: 1/8" NPT		Part Number: TSD931-16 Material: White Acetal Barb Size: 3.30 mm/0.13"
	Part Number: TSD931-7 Material: White PP Thread Size: 1/4-18 NPT		Part Number: TSD931-17 Material: White Acetal Barb Size: 4.32 mm/0.17"
	Part Number: TSD931-8 Material: White Acetal Thread Size: 1/4-32		Part Number: TSD931-49 Material: White Nylon Thread Size: 1/4-28
Male Luer Lock Adaptors			
	Part Number: TSD931-57 Material: Black Nylon Thread Size: 1/8" NPT		Part Number: TSD931-73 Material: Black PP Barb Size: 8.38 mm/0.33"
	Part Number: TSD931-60 Material: Clear PP Thread Size: 1/4-28		Part Number: TSD931-91 Material: Black Delrin® Thread Size: 1/4-28
	Part Number: TSD931-62 Material: Clear PP Thread Size: 1/8" NPT		Part Number: 918-006-000 Material: Nickel Plated & Brass Thread Size: 1/4" NPT
Female Luer Lock Adaptors			
	Part Number: TSD931-9 Material: Black Acetal Thread Size: 1/4-32		Part Number: TSD931-54 Material: Black PP Thread Size: 1/8" NPT
	Part Number: TSD931-13 Material: White Acetal Barb Size: 4.32 mm/0.17"		Part Number: TSD931-58 Material: Clear PP Thread Size: 1/4-28
	Part Number: TSD931-15 Material: Black Nylon/Acetal Thread Size: 1/4" NPT		Part Number: TSD931-63 Material: Stainless Steel Thread Size: 10-32
	Part Number: TSD931-54 Material: Black Nylon/Acetal Thread Size: 1/8" NPT		Part Number: TSD931-75 Material: Black PP Thread Size: 1/8-27 NPT

### Compression Fittings & Tubes

Compression fittings and tubes provide secure connection and increase fluid flow.

"Non -Through" Compression Fittings			
	Part Number: TSD1002-17 Material: Black PP Thread Size: 1/8" NPT Tube Size: 3/8" OD		Part Number: TSD1003-16 Material: Black PP Thread Size: 1/8" NPT Tube Size: 1/4" OD
	Part Number: TSD1002-18 Material: Black PP T Thread Size: 1/8" NPT Tube Size: 1/4" OD		Part Number: TSD1566-5 Material: Black PP Thread Size: 1/4" NPT Tube Size: 3/8" OD
	Part Number: TSD1002-38 Material: Black PP Thread Size: 1/4" NPT Tube Size: 1/4" OD		Part Number: VFKIT Material: Black PP/Nylon Use: 1/4" OD To Male Luer Lock
Through Compression Fittings			
	Part Number: P3000042 Material: Stainless Steel Thread Size: 3/8-18 NPT Tube Size: 1/4" OD		Part Number: P3000045 Material: Stainless Steel Thread Size: 1/4-18 NPT Tube Size: 1/4" OD
	Part Number: P3000043 Material: Stainless Steel Thread Size: 3/8-18 NPT Tube Size: 3/8" OD		Part Number: P3000046 Material: Stainless Steel Thread Size: 1/4-18 NPT Tube Size: 4 mm OD
Special Adaptors & Tubing Accessories			
	Part Number: TSD1102-18 Use: Tube Clamp Tube Size: Up To 1/2" OD		Part Number: TSD931-296N Material: White Acetal Use: Euro Cart Transfer Adaptor
	Part Number: TSD1102-19 Use: Tube Clamp for Tube Size: Up To 1/4" OD		Part Number: TSD931-42 Material: Clear Polycarbonate Use: Luer Tap
	Part Number: TSD918-3 Material: Clear PP Use: Male/Female 1/4-18 NPT		Part Number: TSD931-81 Material: White Nylon Use: Male/Female Luer Elbow
	Part Number: TSD921-3 Material: Clear PP Use: Luer Blank		Part Number: TSD931-81B Material: Black Nylon Use: Male/Female Luer Elbow
	Part Number: TSD931-28 Material: Clear PP Use: Syringe Transfer		Part Number: TSD931-82B Material: Black Nylon Use: Male/Female Luer Extender

## Cartridges & Accessories

These dependable, high-quality products are designed for the rigors of manufacturing and have undergone continuous improvement to keep pace with the exacting requirements of this challenging field.

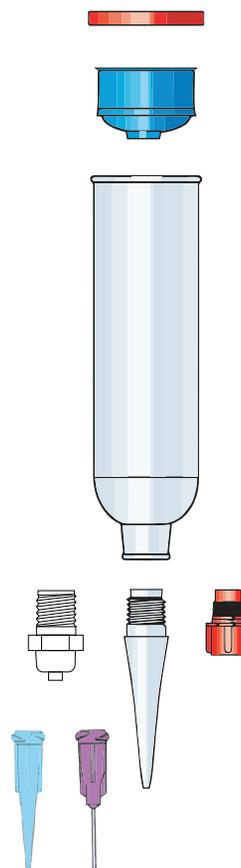
Disposable plastic cartridges and nozzles provide a clean, efficient and low-cost method to meet all types of production requirements. Plungers with a wiper-leading edge clean each cartridge thoroughly. Caps for both ends of the cartridges are available, making the system ideal for prepackaged materials and pre-mixed frozen material (PMF) handling.



### Cartridges

Cartridges are available in 2.5, 6, 8, 12 and 20 ounce and 1/10 gallon capacities. Each size can be used with hand or bench-mounted air-powered dispensing tools or manual dispensing tools. Cartridges are molded in either high-density or low-density polyethylene. Custom colors and assemblies are available. Sold in bulk packages.

Cartridges				
Part Number	Description	Length Inches/mm	Diameter Inches/mm	Quantity
TS25C-500	2.5 oz (65 ml) Natural HD	4.00/101.6	1.59/40.4	500
TS25C-GREEN-500	2.5 oz (65 ml) Green HD	4.00/101.6	1.59/40.4	500
TS25C-LD-500	2.5 oz (65 ml) Natural LD	4.00/101.6	1.59/40.4	500
TS60C-500	6 oz (165 ml) Natural HD	7.11/180.6	1.59/40.4	500
TS60C-BLACK-500	6 oz (165 ml) Black HD	7.11/180.6	1.59/40.4	500
TS60C-BLUE-500	6 oz (165 ml) Blue HD	7.11/180.6	1.59/40.4	500
TS60C-GREEN-500	6 oz (165 ml) Green HD	7.11/180.6	1.59/40.4	500
TS60C-YELLOW-500	6 oz (165 ml) Yellow HD	7.11/180.6	1.59/40.4	500
TS60C-LD-500	6 oz (165 ml) Natural LD	7.11/180.6	1.59/40.4	500
TS80C-250	8 oz (225 ml) Natural HD	8.92/226.6	1.59/40.4	250
TS80C-LD-250	8 oz (225 ml) Natural LD	8.92/226.6	1.59/40.4	250
TS120C-250	12 oz (330 ml) Natural HD	12.34/313.4	1.59/40.4	250
TS120C-BLACK-250	12 oz (330 ml) Black HD	12.34/313.4	1.59/40.4	250
TS120C-GREEN-250	12 oz (330 ml) Green HD	12.34/313.4	1.59/40.4	250
TS120C-RED-250	12 oz (330 ml) Red HD	12.34/313.4	1.59/40.4	250
TS120C-YELLOW-250	12 oz (330 ml) Yellow HD	12.34/313.4	1.59/40.4	250
TS120C-LD-250	12 oz (330 ml) Natural LD	12.34/313.4	1.59/40.4	250
TS110C-250	1/10 Gallon (310 ml) Natural HD	8.99/228.3	1.85/47.0	250
TS110C-LD-250	1/10 Gallon (310 ml) Natural LD	8.99/228.3	1.85/47.0	250
TS20C-100	20 oz (600 ml) Natural HD	10.3/254.8	2.57/65.3	100
TS20C-BLACK-100	20 oz (600 ml) Black HD	10.3/254.8	2.57/65.3	100





## Plungers

Wiper Plungers incorporate a modified or extended front wiper edge. Sold in bulk packages.

Plungers		Qty
Part Number	Description	
TSIP-SR-1000	2.5, 6, 8, 12 oz., Blue Wiper LD	1000
TSIPB-SR-1000	2.5, 6, 8, 12 oz., Black Wiper LD	1000
TS1WP-1000	2.5, 6, 8, 12 oz., Natural Extended Wiper LD	1000
TS1WP-BLACK-1000	2.5, 6, 8, 12 oz., Black Extended Wiper LD	1000
TS2PW-1000	1/10 Gallon White Extended Wiper LD w/ EVA	1000
TS2P-BLACK-1000	1/10 Gallon Black Wiper LD	1000
TS20P-100	20 oz White Wiper MD	100
TS20PLD-100	20 oz Natural Wiper LD	100

## Caps

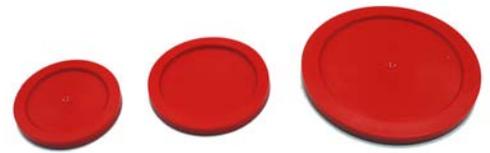
Top and bottom Caps provide a choice of methods to seal the neck and base of the cartridge. Sold in bulk packages of 1,000.

Caps		
	Part Number	Description
Flange Caps	TS2C-1000	2.5, 6, 8, 12 oz Red LD Flange Cap
	TS2C-BLACK-1000	2.5, 6, 8, 12 oz Black LD Flange Cap
	TS2C-GREEN-1000	2.5, 6, 8, 12 oz Green LD Flange Cap
	TS4C-1000	1/10 Gallon Red LD Flange Cap
	TS6C-1000	20 oz Red LD Flange Cap
Thread Caps	TS3P-1000	Threaded Tri-Seal Red PE Cap
	TS4P-1000	Threaded Square Red PE Cap
	TS5P-1000	Snap On Tri-Seal Red PE Cap
	TS5P-BLACK-1000	Snap On Tri-Seal Black PE Cap
	TS5P-GREEN-1000	Snap On Tri-Seal Green PE Cap
	TS5P-BLUE-1000	Snap On Tri-Seal Blue PE Cap
	TS6P-BLACK-1000	Threaded Black PE Cap
	TS6P-RED-1000	Threaded Red PE Cap
	TS6P-GREEN-1000	Threaded Green PE Cap

## Cartridge Assemblies

HD and LD Cartridges with plungers inserted offer an even higher level of convenience. Check the product descriptions for exact configuration and quantity.

Cartridge Assemblies			
	Part Number	Description	Qty
2.5 oz	TS25CP-500	2.5 oz HD with TSIP-SR Plunger inserted	500
	TS25CP-LD-500	2.5 oz LD with TSIP-SR Plunger inserted	500
	TS25CP-LD-BLUE-500	2.5 oz LD blue with TSIP-SR Plunger inserted	500
	TS25CWP-500	2.5 oz HD with TS1WP Plunger inserted	500
	TS25CPB-500	2.5 oz HD with TSIPB-SR Plunger inserted	500
	TS25CPB-LD-500	2.5 oz LD with TSIPB-SR Plunger inserted	500
6 oz	TS25CWP-500	2.5 oz LD with TS1WP-SR Plunger inserted	500
	TS60CP-500	6.0 oz HD with TSIP-SR Plunger inserted	500
	TS60CP-LD-500	6.0 oz LD with TSIP-SR Plunger inserted	500
	TS60CP-LD-BLUE-500	6 oz LD blue with TSIP-SR Plunger inserted	500
	TS60CPB-500	6.0 oz HD with TSIPB-SR Plunger inserted	500
	TS60CPB-LD-500	6 oz, LD with TSIPB Plunger inserted	500
8 oz	TS60CWP-500	6 oz with TS1WP Plunger inserted	500
	TS60CWP-GREEN-500	6 oz HD Green with TS1WP Plunger inserted	500
	TS60CWP-LD-500	6 oz LD with TS1WP Plunger inserted	500
	TS80CP-250	8 oz with TSIP-SR Plunger inserted	250
12 oz	TS80CWP-250	8 oz with TS1WP Plunger inserted	250
	TS120CP-250	12 oz HD with TSIP-SR Plunger inserted	250
	TS120CPB-250	12 oz HD with TSIPB-SR Plunger inserted	250
20 oz	TS120CWP-250	12 oz HD with TS1WP Plunger inserted	250
	TS120CWP-GREEN-250	12 oz HD Green with TS1PB Plunger inserted	250
	TS20CP-100	20 oz with TS20P Plunger inserted	100
	TS20CPFM-100	20 oz with TS20PFLD Plunger and 600-380 Mix Wheel inserted - MOQ applies	100



TS2C / TS4C / TS6C



TS2C / TS2C-BLACK / TS2C-GREEN



TS5P Snap-On Tri-Seal



TS4P

TS6P

TS3P

## Disposable Nozzles and Dispensing Tip Adapters

Nozzles and dispensing tip adapters provide a wide range of application capabilities. Standard nozzles may be cut back to increase orifice size.

### Standard Nozzles

Standard nozzles are precision moulded from natural polyethylene and have 1/4" NPT male threads to fit all Techcon cartridges or equivalent. Color nozzles are available upon request. Sold in bulk packages of 1,000.

Part No.	Description
TS216-1000	2" (64 mm) x 1/16" (1.6 mm), HDPE
TS218-1000	2" (64 mm) x 1/8" (3.2mm), HDPE
TS218-LD-1000	2" (64 mm) x 1/8" (3.2 mm), LD
TS416-HO-HD-1000	4" (101.6 mm) x 1/16" (1.6 mm), HDPE
TS416-HO-LD-1000	4" (101.6 mm) x 1/16" (1.6 mm), LD
TS418-HO-LD-1000	4" (101.6 mm) x 1/8" (3.2 mm), LD
TS432-HO-HD-1000	4" (101.6 mm) x 1/32" (0.8 mm), HDPE
TS432-HO-LD-1000	4" (101.6 mm) x 1/32" (0.8 mm), LD
TS490-HO-LD-1000	4" (101.6 mm) x 3/32" (2.4 mm), LD
TS616-HO-LD-1000	6" (152.4 mm) x 1/16" (1.6 mm), LD
TS618-HO-LD-1000	6" (152.4 mm) x 1/8" (3.2 mm), LD

### Specialty Nozzles

Specialty nozzles are precision moulded from natural polyethylene and have 1/4" NPT male threads to fit all Techcon cartridges or equivalent. Sold in bulk packages of 1,000.



TS1050 TS1050-45 TS1075 TS1100 TS1175 TS3206 TS3106

Part No.	Description
TS1050-1000	4" (101.6 mm) x 0.5" (12.4 mm) x 0.06" (1.52 mm)
TS1050-45-1000	4" (101.6 mm) x 0.5" (12.4 mm) x 0.06" (1.52 mm)
TS1075-1000	4.5" (114.3 mm) x 0.75" (19.5 mm) x 0.13" (3.3 mm)
TS1100-1000	4.4" (111.7 mm) x 1.0" (25.4 mm) x 0.13" (3.3 mm)
TS1175-1000	4" (101.6 mm) x 1.75" (44.45 mm) x 0.13" (3.3 mm)
TS3106-1000	3.8" (96.5 mm) x 0.35" (8.89 mm) x 0.11" (2.79 mm)
TS3206-1000	3.8" (96.5 mm) x 0.35" (8.89 mm) x 0.11" (2.79 mm)



### Bent Nozzles

Below is the list of standard bent nozzles. Special bent nozzles available upon request. Sold in bulk packages of 1,000.

Part No.	Description
TS416-HO-LD-B30/1-1000	Bent 30° at 1" (25.4 mm)
TS416-HO-LD-B30/2-1000	Bent 30° at 2" (50.8 mm)
TS416-HO-LD-B40/1-1000	Bent 40° at 1" (25.4 mm)
TS418-HO-LD-B30/1-1000	Bent 30° at 1" (25.4 mm)
TS618-HO-LD-B30/2-1000	Bent 30° at 2" (50.8 mm)



### Dispensing Tip Adapters

These tip adapters have standard 1/4" NPT male threads on one end to fit all Techcon cartridges or equivalent, and standard male Luer lock threads on the opposite side to fit all Luer lock dispensing tips.

Part No.	Description
TSD931-7	Dispensing Tip Adapter White PP
TSD931-14	Dispensing Tip Adapter Black PP

# TSM50FR & TSM120FR

## Two-Component Meter Mix Systems



**TSM120FR** — Meter Mix System

## TSM50FR & TSM120FR

### Meter Mix Systems

The TSM50FR and TSM120FR Meter-Mix Systems employ a parallel-drive system with positive-displacement pump technology to ensure repeatable, accurate volumetric metering, mixing and dispensing of low to medium-viscosity two-part materials.

These systems are fixed-ratio, pneumatically powered and digitally controlled via a user-friendly touch-screen interface, enabling a wide range of electrical dispensing accessories and a simple, robust robot interface.

The TSM50FR is capable of dispensing mixed material from 2 cc to 50 cc and is an economical solution to what is often an inefficient and hazardous process.

The TSM120FR will dispense from 5 cc to 120 cc within +/- 1% volumetric accuracy.

These mix-and-dispense systems can be used in bonding, encapsulation, potting, sealing and insulating applications for all industries.

NOTE: These are reference part numbers for the basic units. Please contact Application Support for the part number and configuration that will meet your application requirements.

Specifications		
	TSM50FR*	TSM120FR*
Dispensing Range	2 - 50 cc	5 - 120 cc
Mix Ratios	1:1, 2:1, 4:1, 10:1	
Maximum Viscosity	150K cps (leveled)	
Activation	Pedal Switch & Touch Screen	
Repeatability	+/- 1 %	
Maximum Pressure	6.9 bar (100 psi)	
Mixer	Static Mixer	
Reservoir Options	3, 5, 7, 10 liter	
Dispensing Mechanism	Parallel Drive, Positive Displacement	
Controller Interface	Touch Screen	
Input voltage	110 & 220 VAC	
Dimensions (L x W x H)	775 x 430 x 570 mm	
Certification	CE	
Weight	40 kg	50 kg

## Key Features

- Positive-displacement pump technology
- Repeatable, accurate volumetric 2K dispensing
- Pneumatically powered, digitally controlled

## Typical Applications

- Bonding
- Encapsulation
- Potting
- Sealing
- Insulating

## TS6500 Series

### Techkit Cartridge Mixers

The TS6500 Series Techkit Cartridge Mixer provides complete automatic mixing of two-component material filled in a cartridge kit. The feature-rich TS6500 Series accommodates all standard size cartridge kits ranging from 2.5 oz (50 ml) to 20 oz (550 ml) and is immediately usable anywhere in the world with its accompanying tools, accessories and universal power supply.

Specifications	
<b>Size</b>	15.7" x 21.2" x 40.6" / 398 mm x 538 mm x 1032 mm
<b>Weight</b>	80 lb. (36 kg)
<b>Internal Voltage</b>	120-230 VAC, 50-60 Hz, 2 A
<b>Motor Speed</b>	139 RPM and 118 RPM (-RS) versions
<b>Air Inlet</b>	80 psi (5.5 Bar) Min.
<b>Stroke Speed</b>	33 Strokes/minute (fully extended)
<b>Meets or exceeds</b>	CE, cTUV-us
<b>Warranty</b>	1 year

### Key Features

- Universal power supply for worldwide use
- Automatic fluid level sensing device for all kit sizes - No need to set stroke length
- Automatically injects hardener into resin to provide uniform mixed material
- Robust, high torque motor to handle high-viscosity material
- Safety features include safety enclosure, emergency stop button and two-hand start
- User-programmable memories for storing and recalling most frequently used mix cycle
- Quick/easy toolless replacement of cartridge holder & plunger
- User-friendly interface for easy setup
- Robust and sturdy platform for heavy industrial use
- RoHS, WEEE compliance, CE certified



**TS6500** — Techkit Cartridge Mixer

Part No.	Description
<b>TS6500CIM-6</b>	Cartridge Mixer for 2.5 oz (50 ml), 6 oz (140 ml), 8 oz (210 ml) kit, 139 RPM
<b>TS6500CIM-RS-6</b>	Cartridge Mixer for 2.5 oz (50 ml), 6 oz (140 ml), 8 oz (210 ml) kit, 118 RPM
<b>TS6500CIM-20</b>	Cartridge Mixer for 20 oz (550 ml) kit, 139 RPM
<b>TS6500CIM-SMR-6</b>	Cartridge Mixer for 2.5 oz (50 ml), 6 oz (140 ml), 8 oz (210 ml) kit, 139 RPM. Requires metal rod 800-100-METAL
<b>TS6500CIM-SMR-20</b>	Cartridge Mixer for 20 oz (550 ml) kit, 139 RPM. Requires metal rod 800-100-METAL
<b>CK6500-6</b>	Conversion Kit for 2.5 oz (50 ml), 6 oz (140 ml), 8 oz (210 ml) kit
<b>CK6500-10</b>	Conversion Kit for 1/10 gal (280 ml) kit
<b>CK6500-20</b>	Conversion Kit for 20 oz (550 ml) kit

## Techkits

### Two-Component Cartridge Packaging and Mixing Kits

The Techkit is a compact and simple method of packaging two or three-component resin systems into a 2.5, 6, 8, 20 ounce or 1/10 gallon cartridge. The kit mechanically separates the base and hardener until they are ready to be used. An internal mixing head provides a thorough blend for all types of compounds. When the job has been completed, the entire package is disposed of - no clean up or physical contact with the resin. Reliability is increased with accurate compound ratios, complete mixing and proper application techniques. Three types of kits are available:

#### Barrier Type

For compounds with a minimum demand of 23 ml of hardener, the catalyst and base are separated by an aluminum barrier formed over the mixing head.



#### Injection Type

For compounds with a maximum demand of 12.5 ml or less, the catalyst is contained inside the valved mixing rod while the base is in the cartridge.



#### Barrier/Injection Type

For three component compounds, components of both Barrier Techkits and Injection Techkits are combined.



# Techkit Components

Complete Techkits								
Part Number	Size	Kit Type	Cartridge	Plunger	Cap	Mix Head	Rod	Ram Rod
110-80	1/10 gal. (280 ml)	Injection	TS110C	TS2PW	TS4C	110-340	810-100A	600-080
110-81T	1/10 gal. (280 ml)	Taped Barrier	TS110C	TS2PW	TS4C	110-350	800-100	
250-60	2 1/2 oz (50 ml)	Injection	TS25C	TS1WP	TS2C	600-200	610-100A	600-080
250-61T	2 1/2 oz (50 ml)	Taped Barrier	TS25C	TS1WP	TS2C	600-310	600-100	
250-61T-330	2 1/2 oz (50 ml)	Taped Barrier	TS25C	TS1WP	TS2C	600-330	600-100	
250-80	2 1/2 oz (50 ml)	Injection	TS25C	TS1WP	TS2C	600-200	810-100A	600-080
250-81T	2 1/2 oz (50 ml)	Taped Barrier	TS25C	TS1WP	TS2C	600-310	800-100	
600-60	6 oz (140 ml)	Injection	TS60C	TS1WP	TS2C	600-200	610-100A	600-080
600-61T	6 oz (140 ml)	Taped Barrier	TS60C	TS1WP	TS2C	600-310	600-100	
600-80	6 oz (140 ml)	Injection	TS60C	TS1WP	TS2C	600-200	810-100A	600-080
600-81T	6 oz (140 ml)	Taped Barrier	TS60C	TS1WP	TS2C	600-310	800-100	
600-81T-330	6 oz (140 ml)	Taped Barrier	TS60C	TS1WP	TS2C	600-330	800-330	
800-80	8 oz (210 ml)	Injection	TS80C	TS1WP	TS2C	600-200	810-100A	600-080
800-81T	8 oz (210 ml)	Taped Barrier	TS80C	TS1WP	TS2C	600-310	800-100	
800-81T-330	8 oz (210 ml)	Taped Barrier	TS80C	TS1WP	TS2C	600-330	800-330	
200-80	20 oz (550 ml)	Injection	TS20C	TS20P	TS6C	600-360	810-100A	600-080
200-81T	20 oz (550 ml)	Taped Barrier	TS20C	TS20P	TS6C	600-370	800-100	
200-81T-PFLD	20 oz (550 ml)	Taped Barrier	TS20C	TS20PFLD	TS6C	600-380	800-100	

## Mix Heads



Mix Heads	
Part Number	Description
110-340	1/10 gal. (280 ml) Mix Head
110-350	1/10 gal. (280 ml) Foiled Mix Head
600-200	Open Mix Head
600-300	Wheel Mix Head
600-310	Foiled Wheel Mix Head
600-320	Half Closed Circle Mix Head
600-330	Foiled Half Closed Circle Mix Head
600-360	20 oz (550 ml) Wheel Mix Head
600-370	20 oz (550 ml) Foiled Wheel Mix Head
600-380	20 oz (550 ml) Spoked Wheel Mix Head

## Sealant Smoothing and Removal Tools

Techcon plastic sealant tools are ideal for spreading, smoothing and removing sealants or adhesives. Approved for use in aerospace industry, these tools are designed to prevent damage to delicate substrates. Spatulas made from nylon. Smoothing tool made from Acetal.

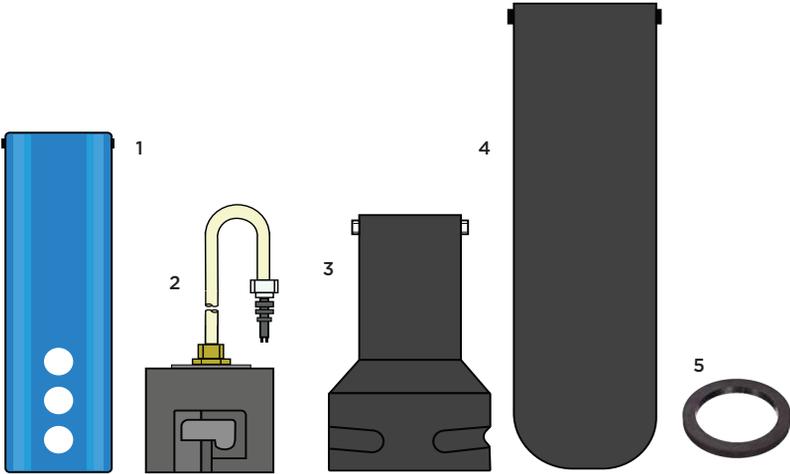


Part Number	Description
TS1275-KP	1 Spatula Kit
TS1275-4	2 Smoothing tool, Red Acetal



Rods	
Part Number	Description
600-080	1 8" (203.2 mm) Ram Rod
600-100	2 6" (152.4 mm) Plugged Rod
600-101	Piston for Injection Rod
610-100A	3 6" (152.4 mm) Valved Rod with Piston
800-100	4 8" (203.2 mm) Plugged Rod
810-100A	5 8" (203.2 mm) Valved Rod with Piston
800-100-METAL	6 8" (203.2 mm) Plugged Rod, Metal

### 20 oz & 1/10 Gallon (310 ml) Dispensing Components



Part No.		Size
110-2-C	1	1/10 gal. (310 ml) Retainer
918-000-036-C	2	20 oz / 1/10 Gallon Retainer Cap
101-20A	3	20 oz Adapter Retainer
101-20R*	4	20 oz Retainer
101-20G	5	Gasket for 20 oz Adapter

\*101-20A Adapter is required for 20 oz.



### TS Retainers

TS Series Retainers are durable, lightweight and can withstand up to 100 psi (6.9 bar) pressure.

Part No.		Size
918-030-000	6	2.5 oz
918-031-000	7	6 oz
918-034-000	8	8 oz
918-032-000	9	12 oz



### TS Retainer Cap

The TS Series Retainer Cap provides a leakproof connection between the dispenser and TS Series Retainers. Quick connector and air hose assembly are available separately and can withstand up to 100 psi (6.9 bar) pressure.

Part No.		Description
918-001-004	10	TS Series Retainer Cap
918-000-002	11	Air Hose Assembly
918-001-007	12	Gasket for TS Retainer Cap
534A	13	Connector without Shut-off



## TS Series

### Dispensing Guns and Components

TS Series Dispensing Guns and components are designed to accommodate Techcon's extensive line of cartridges and Techkits.

#### TS2560 Series Applicator Guns

These lightweight palm and pistol grip applicator guns allow for the processing of Techcon and standard sealant cartridges with ease. The TS2560 Series Dispensing Gun is ideal for dispensing silicones, grease, or other materials that come in standard cartridges.

A unique, light-weight, adjustable retainer fits cartridge sizes of 2.5 oz., 6 oz & 8 oz.

With a maximum working pressure of 5.5 bar (80psi), the guns are ideally suited for a multitude of aerospace and other industrial applications.

Part No.	Description
TS2560-PG	Palm Grip
TS2560-HG	Pistol Grip
TS2560-2040	Bayonet Retainer
TS2560-2041	Threaded Retainer Adapter



#### Key Features

- Easy to assemble & operate
- Adjustable retainer to fit 2.5 oz., 6 oz & 8 oz cartridges
- Light-weight
- Pistol version features adjustable air regulator
- Compatible with all aerospace sealant



#### TS950 Sealant Gun

The TS950 is a versatile, pneumatic sealant gun designed to accommodate all TS Series Retainers. Complete assemblies include palm grip gun with pistol grip handle attached. Shipped without an air hose, the 1000-12 10 foot hose assembly can be ordered separately.

Pistol Grip Sealant Gun	Size	Palm Grip Assembly	Pistol Grip Handle	Retainer
TS950-25-HA	2.5 oz	TS950-75	TS950-3	918-030-000
TS950-60-HA	6 oz	TS950-75	TS950-3	918-031-000
TS950-80-HA	8 oz	TS950-75	TS950-3	918-034-000
TS950-120-HA	12 oz	TS950-75	TS950-3	918-032-000



#### TS16 Manual Gun Assemblies

The lightweight TS16 Series Manual Gun Assembly is ideal for field applications where compressed air is not available.

Gun	Size	Handle	Retainer
TS16-25	2.5 oz	TS16	918-030-000
TS16-60	6 oz	TS16	918-031-000
TS16-80	8 oz	TS16-2	918-034-000
TS16-120	12 oz	TS16-2	918-032-000

# Side-by-Side Dispensing Cartridges

Techcon Side-by-Side (SBS) Cartridges are precise metering containers for 2-component adhesives and sealants.

Available in 1:1, 2:1, 4:1 and 10:1 ratios, Techcon SBSs are made of Polypropylene (PP) to meet a wide range of chemical compatibility. Available in 50 ml, 200 ml, 400 ml and 490 ml sizes. Techcon SBS systems are fully sealed, ensuring thorough mixing and dispensing without air entrapment.

### Key Features

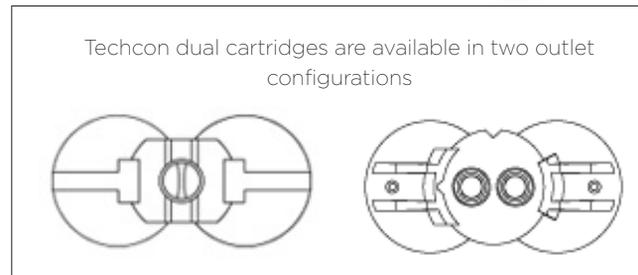
- 50 ml, 200 ml, 400 ml, 490 ml sizes
- Available in 1:1, 2:1, 4:1 and 10:1 ratios
- Made of Polypropylene (PP)
- Safe and easy to use
- Leakproof, minimal waste volume
- Compatible with most cartridge guns for high-quality results

### Key Industries

- Automotive
- Construction
- Electronics
- Industrial
- Medical Device



Side-by-Side Specifications	
<b>Capacities</b>	50 ml, 200 ml, 400 ml, 490 ml
<b>Mix Ratios</b>	1:1, 2:1, 4:1, 10:1 (not all sizes)
<b>Outlets Systems</b>	Standard A-System, B-System**
<b>Material</b>	PP
<b>Compatible with</b>	Most standard cartridge guns
<b>Sets include</b>	Cartridges, caps, Plungers and O-rings
<b>Quantities</b>	100 or 500



Standard Outlets A-System    Separate Outlets B-System

\*\*Please Note: Techcon 200 ml and 400 ml SBS "A-System" outlets are similar to other supplier's "C-System" outlets. 400/490 ml "B-System" outlets are similar to other supplier's "F-System" outlets. Please confirm compatibility before purchase.

50 ml Part Numbers				
System	Ratio	Description	Pack of 100	Pack of 500
A	1:1	50 ml SBS Set, 1:1, PP, A-sys.	SBS50-A1-100	SBS50-A1-500
A	2:1	50 ml SBS Set, 2:1, PP, A-sys.	SBS50-A2-100	SBS50-A2-500
B	1:1	50 ml SBS Set, 1:1, PP, B-sys.	SBS50-B1-100	SBS50-B1-500
B	2:1	50 ml SBS Set, 2:1, PP, B-sys.	SBS50-B2-100	SBS50-B2-500
B	10:1	50 ml SBS Set, 10:1, PP, B-sys.	SBS50-B10-100	SBS50-B10-500

200 ml Part Numbers (QTY 100)			
System	Ratio	Description	Part No.
A	1:1	200 ml SBS Set, 1:1, PP, A-sys.	SBS200-A1-100

400/490 ml Part Numbers (QTY 100)			
System	Ratio	Description	Part No.
A	1:1	400 ml SBS Set, 1:1, PP, A-sys.	SBS400-A1-100
A	2:1	400 ml SBS Set, 2:1, PP, A-sys.	SBS400-A2-100
B	1:1	400 ml SBS Set, 1:1, PP, B-sys.	SBS400-B1-100
B	2:1	400 ml SBS Set, 2:1, PP, B-sys.	SBS400-B2-100
B	4:1	400 ml SBS Set, 4:1, PP, B-sys.	SBS400-B4-100
B	10:1	490 ml SBS Set, 10:1, PP, B-sys.	SBS490-B10-100

PP = Polypropylene

# Dual-Syringe Dispensers

## TS-DSAD & TS-DCD Series



## TS-DSAD & TS-DCD Series

### Dual-Syringe Dispensers



TS-DSAD

**Techcon TS-DSAD Dual-Syringe Dispensers** are designed to accommodate 50 ml side-by-side syringes in ratios of 1:1, 2:1, 4:1 and 10:1.

**TS-DSAD** dispenses via pulsed air from a TS250 or TS350 Series Dispenser/Controller. A Robot Integration Bracket allows for semi-automated operation. And, TS-DSAD can be used with Techcon Disposable Material Path valves (TS5624DMP, TS5000DMP-DCX-SR, TS1212).

#### Key Features & Benefits

- Robust, stainless steel construction
- Hand-held or robot mounted operation
- Quick attachment/detachment of 50 ml side-by-side (SBS) dual-syringes
- Hanging ring for easy storage

#### TS-DSAD-50 Specifications

<b>Size</b>	2.13" x 6.3" / 54 mm x 160 mm
<b>Weight</b>	0.94 lbs / 425 g
<b>Air Inlet</b>	1/8" NPT female
<b>Activation Pressure</b>	0 - 100 psi / 0 - 6.9 bar

#### TS-DSAD-50 Part Numbers

P/N	Ratio	Back Type
TS-DSAD-50-11	1:1	Square Back
TS-DSAD-50-21	2:1	Square Back
TS-DSAD-50-41	4:1	Square Back
TS-DSAD-50-101	10:1	Round Back

#### TS-DSAD-50 Accessories

P/N	Description
TSR-DSB50ML-3	Robot Bracket for TS-DSAD-50 Dispensers
TSR-1212BKIT	Robot Bracket Kit for TS1212 Valves
TS8120	Stand-alone Manual Vacuum Pickup Pen

#### Typical Applications

Dispensing Gap Filler, Encapsulant and Structural Adhesive

#### TS-DSAD-50 Configuration Chart

Use	Controller	Valve	Accessories	Vacuum	Robot Bracket
Hand-held	TS250/TS350	n/a	n/a	n/a	n/a
Robot + Pinch Valve	TS555R	TS1212	TSR-1212BKIT	TS8120	TSR-DSB50ML-3
Robot + Diaphragm Valve	TS555R	TS5624DMP	5624DMP-FLB	TS8120	TSR-DSB50ML-3
Robot + Rotary Valve	TS577R	TS5000DMP-DCX-SR	n/a	TS8120	TSR-DSB50ML-3

#### TS-DCD Dual-Cartridge Dispensers

enable dispensing 2K materials from standard 200 ml and 400 ml side-by-side (SBS) dual cartridges. Both TS-DCD versions dispense from 1:1 and 2:1 ratio SBS cartridges out of the box. An included conversion kit enabled dispensing from 4:1 and 10:1 cartridges.

TS-DCD combines the simplicity and versatility of SBS cartridges with bench-mount support, air logic controls and everything needed to convert SBS dual cartridges into a benchtop potting, encapsulation, bonding and dispensing system.



TS-DCD

#### Key Features & Benefits

Low cost & simple operation / Reduced operator fatigue / Adjustable shot control / Precise ratio control / Handles a variety of viscosities

#### TS-DCD Specifications

	TS-DCD200	TS-DCD400
<b>Size</b>	33" x 12" x 12" 83.2 x 30.5 x 30.5 cm	36" x 12" x 12" 91.4 x 30.5 x 30.5 cm
<b>Weight</b>	3.52 lbs / 1.6 kg	4.85 lbs / 2.2 kg
<b>Pneumatic Connection</b>	1/4" / 6.35 mm OD	
<b>Operating Pressure</b>	85 psi / 5.86 bar Max.	
<b>Compressed Air Supply</b>	100 psi / 6.9 bar Max.	

#### TS-DCD Part Numbers

<b>TS-DCD200</b>	Dual-Cartridge Dispenser, 200 ml
<b>TS-DCD400</b>	Dual-Cartridge Dispenser, 400 ml

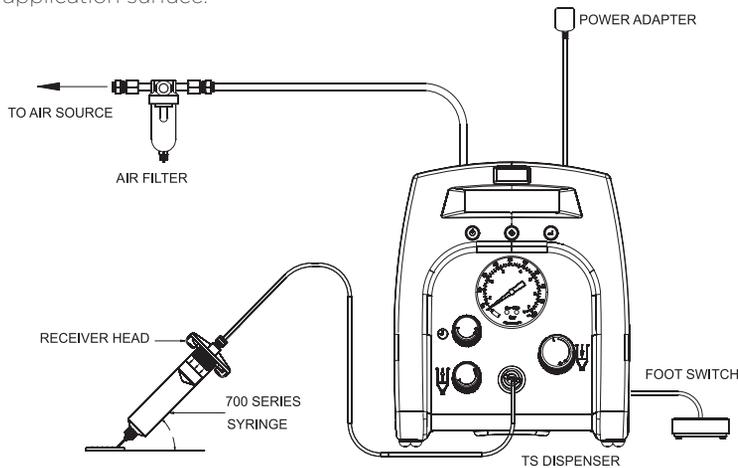
#### Key Benefits

Bench top hands-free dispensing of epoxies, urethanes, acrylics, silicones and other adhesives / Laboratory testing & inspection

## Tutorial Time-Pressure Dispensing

Time pressure dispensing is the most common dispensing method used today. Its popularity stems from the need for process control and that it is possible to dispense from disposable containers without the need for cleaning.

Our time-pressure dispensers deliver a measured amount of air pressure, for a measured amount of time, to a pre-filled syringe barrel. This controlled shot of air pressure forces material out of the delivery end of the barrel, through a dispensing tip and out to the application surface.



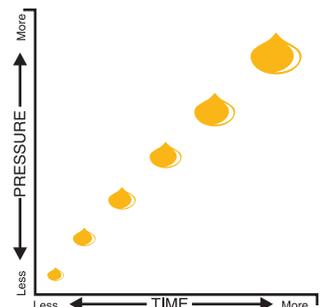
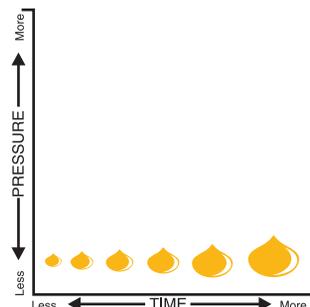
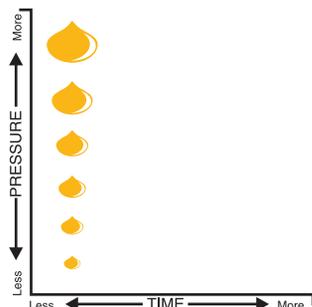
### Basic Dispensing Guidelines

- Small Shot Size = small dispensing tip, low fluid pressure, short dispense time
- Large Shot Size = larger dispensing tip, higher fluid pressure, longer dispense time
- Low Viscosity Fluid = small dispensing tip, low pressure, time as required
- High Viscosity Fluid = larger dispensing tip (tapered dispensing tip recommended), high pressure, time as required
- Position syringe barrel at 45° angle
- Position the dispensing tip close to the work surface, then activate the dispense cycle and keep the syringe barrel in the same position until the cycle is completed
- If vacuum "suck-back" is needed, use only enough vacuum to draw back fluid into the dispense tip. Excessive vacuum could draw air into the fluid and draw fluid into the dispenser.

Viscosity Chart		Shot Size Chart		
Material	Viscosity (cps)	Dot Diameter	Dot Volume	Dot Size (actual)
Water	1	0.010" (0.25 mm)	0.0000043 cc	•
Milk	3	0.020" (0.51 mm)	0.00003 cc	•
Castor Oil	1000	0.030" (0.76 mm)	0.0001 cc	•
Maple Syrup	5000	0.040" (1.02 mm)	0.0003 cc	•
Honey	10000	0.050" (1.27 mm)	0.0005 cc	•
Chocolate Syrup	25000	0.060" (1.52 mm)	0.0009 cc	•
Ketchup	50000	0.070" (1.78 mm)	0.0015 cc	•
Sour Cream	100000	0.080" (2.03 mm)	0.0022 cc	•
Peanut Butter	250000	0.090" (2.29 mm)	0.0031 cc	•
Shortening	1200000	0.100" (2.54 mm)	0.0043 cc	•

### Factors Affecting Dispensing

- Pressure: Increasing fluid pressure will increase dot size and vice versa
- Time: Increasing dispense time will increase dot size and vice versa
- Dispensing Tip Size: Larger inside diameter (orifice) needle results in larger dot size and vice versa



# Valve Application Guide



	Pinch (TS1212)	Needle (TS5420)	Micro Needle (TS5440)	Mini Spool (TS5322)	HP Spool (TS941)	Diaphragm (TS5620) <sup>1</sup> (TS5624DMP) <sup>2</sup>	Rotary DMP (TS5000-DMP)	Rotary (TS7000)	Spray (TS5540)	PC Pump (TS8100)	MMM (TS8200-MM)	Jet Valve (TS9800)	
Catalog Page	25	23	23	24	24	21	22	19	20	26	18	17	16
Micro shots	X	♦	✓	♦	♦	♦	♦	♦	✓	X	♦	X	✓
Dots	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	X	✓
Lines/Beads	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	X	✓
Potting & Encapsulation	♦	♦	✓	✓	✓	✓	✓	✓	✓	X	✓	X	X
Packaging/Filling	✓	✓	✓	✓	✓	✓	✓	♦	♦	X	✓	X	X
High Pressure	✓	X	X	✓	✓	X	X	X	X	X	X	X	X
Sprayed	X	X	X	X	X	X	X	X	X	✓	X	X	X
Jetting	X	X	X	X	X	X	X	X	X	X	X	X	✓
Viscosity													
High	X	X	X	✓	✓	X	X	✓	✓	X	✓	✓	✓
Medium	X	X	♦	✓	✓	X	X	✓	✓	X	✓	✓	✓
Low	✓	✓	✓	♦	♦	✓	✓	X	X	✓	✓	✓	✓
Application													
Activators	✓	✓	✓	♦	♦	✓	✓	X	X	✓	✓	X	✓
Alcohol	✓	✓	✓	♦	♦	✓	✓	X	X	✓	✓	X	✓
Anaerobics	✓	X	X	X	X	✓	✓	✓	X	X	♦	X	X
Brazing Paste	X	X	X	X	X	X	X	X	✓	X	♦	X	X
Conformal Coatings	X	♦	♦	♦	♦	✓	✓	X	X	✓	♦	X	♦
Cyanoacrylates	✓	X	X	X	X	✓	✓	X	X	X	X	X	X
Epoxies	♦	♦	♦	♦	♦	X	♦	✓	✓	X	✓	X	✓
Flux (liquid)	✓	✓	✓	♦	♦	✓	✓	X	X	✓	✓	X	✓
Flux (paste)	X	X	X	✓	✓	X	X	✓	✓	X	✓	X	✓
Greases	X	X	♦	✓	✓	X	X	✓	✓	X	✓	X	✓
Inks	✓	✓	✓	♦	♦	✓	✓	X	X	✓	✓	X	X
Lacquers	♦	♦	✓	♦	♦	✓	✓	X	X	✓	✓	X	✓
Mold Releases	✓	✓	✓	♦	♦	✓	✓	X	X	✓	✓	X	X
Oils	✓	✓	✓	♦	♦	✓	✓	X	X	✓	✓	X	✓
Paints	✓	✓	✓	♦	♦	✓	✓	X	X	✓	✓	X	✓
Reagent	♦	✓	✓	X	X	✓	✓	X	X	✓	✓	X	✓
RTV Silicone	X	X	X	✓	✓	X	X	✓	✓	X	✓	X	X
Solder masks	✓	♦	♦	✓	✓	✓	✓	X	X	X	✓	X	✓
Solder pastes	X	X	X	♦	♦	X	X	♦	✓	X	✓	X	X
Solvents	✓	✓	✓	X	X	✓	✓	X	X	✓	✓	X	✓
Two-part adhesive	✓	X	X	X	X	X	✓	✓	X	X	X	✓	X
UV cure/adhesive (liquid)	♦	X	✓	♦	X	✓	✓	X	X	✓	✓	X	✓
UV cure/adhesive (gel)	X	X	✓	✓	X	X	X	✓	✓	X	✓	X	✓
UV cure with anaerobic	✓	X	X	X	X	✓	✓	✓	X	X	♦	X	X

Excellent - ✓

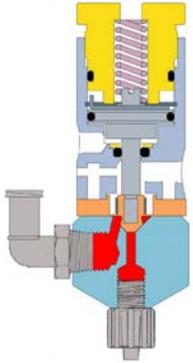
Average - ♦

Do not use - X

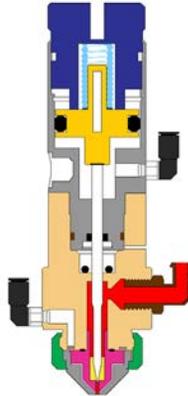
Disclaimer: The valve application guide is for reference only. Please contact a Techcon applications engineer for accurate valve recommendations.

# Valve Diagrams

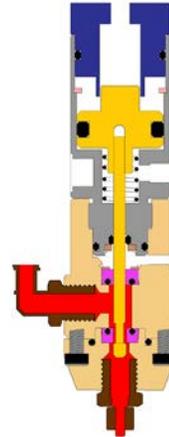
TS5620  
Diaphragm Valve



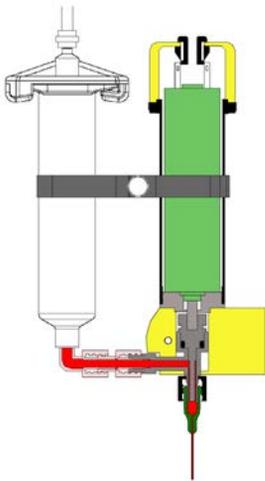
TS5540  
Spray Valve



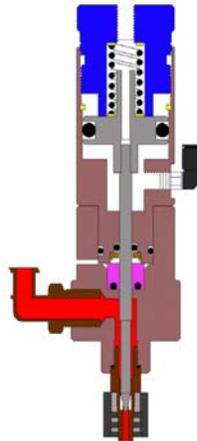
TS5322  
Mini Spool Valve



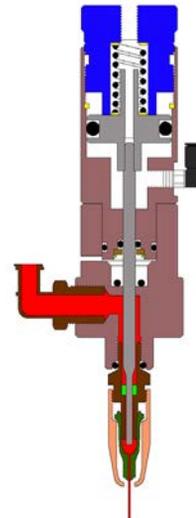
TS5000DMP-DCX  
Rotary Valve



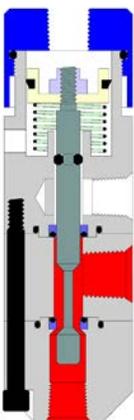
TS5420  
Needle Valve



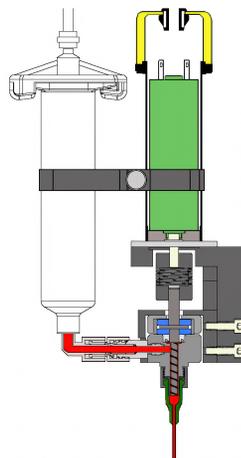
TS5440  
Microshot Needle Valve



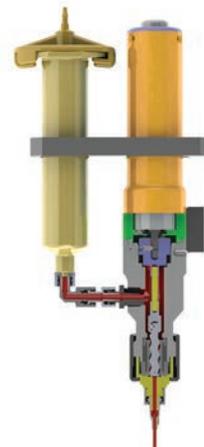
TS941  
High Pressure Spool Valve



TS7000-DCX  
IMP Rotary Valve



TS8100  
PC Pump



# APPENDIX

## Cannula-Style Tips - Specifications

	ID (inches)	ID (mm)	Width Line (mm)	Tip Height (mm)
TT14	0.063	1.6	2.4	0.8
TT16	0.047	1.19	1.785	0.595
TT18	0.033	0.838	1.257	0.419
TT20	0.023	0.58	0.87	0.29
TT22	0.016	0.406	0.609	0.203
TT25	0.010	0.254	0.381	0.127
TT27	0.008	0.203	0.3045	0.101

## Cartridge Conversion: Imperial & Metric

Imperial	Metric	Metric Techkit Volume
2.5 oz	65 ml	50 ml
6 oz	165 ml	140 ml
8 oz	225 ml	210 ml
1/10 gal	310 ml	280 ml
12 oz	330 ml	
20 oz	600 ml	550 ml

## Dispensing Tip Color Coding & Gauge

TE Series & TE Bent Series Tips

Color		Gauge	I.D. (inches)	I.D. (mm)
Olive		14	0.063	1.600
Amber		15	0.054	1.371
Green		18	0.033	0.838
Pink		20	0.024	0.610
Purple		21	0.020	0.508
Blue		22	0.016	0.406
Orange		23	0.013	0.330
Red		25	0.010	0.254
Clear		27	0.008	0.203
Lavender		30	0.006	0.152
Yellow		32	0.004	0.102
Lime Green		34	0.0037	0.095

## Abbreviations Commonly Used in this Catalog

Abbreviation	Name
CA	Cyanoacrylate Adhesive
EPDM	Ethylene propylene diene monomer rubber
EPR	Ethylene Propylene Rubber
FFKM	Perfluoroelastomer
PE	Polyethylene
PEEK	Polyether ether ketone
PFE	Perfluoroelastomer
PP	Polypropylene
PU	Polyurethane
UHMWPE	Ultra-High Molecular Weight Polyethylene

*While both FFKM and PFE refer to the same type of material (perfluoroelastomer), "PFE" often specifically denotes the line of perfluoroelastomers manufactured by 3M Dyneon™.*



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