



## Dispensing Valves & Equipment

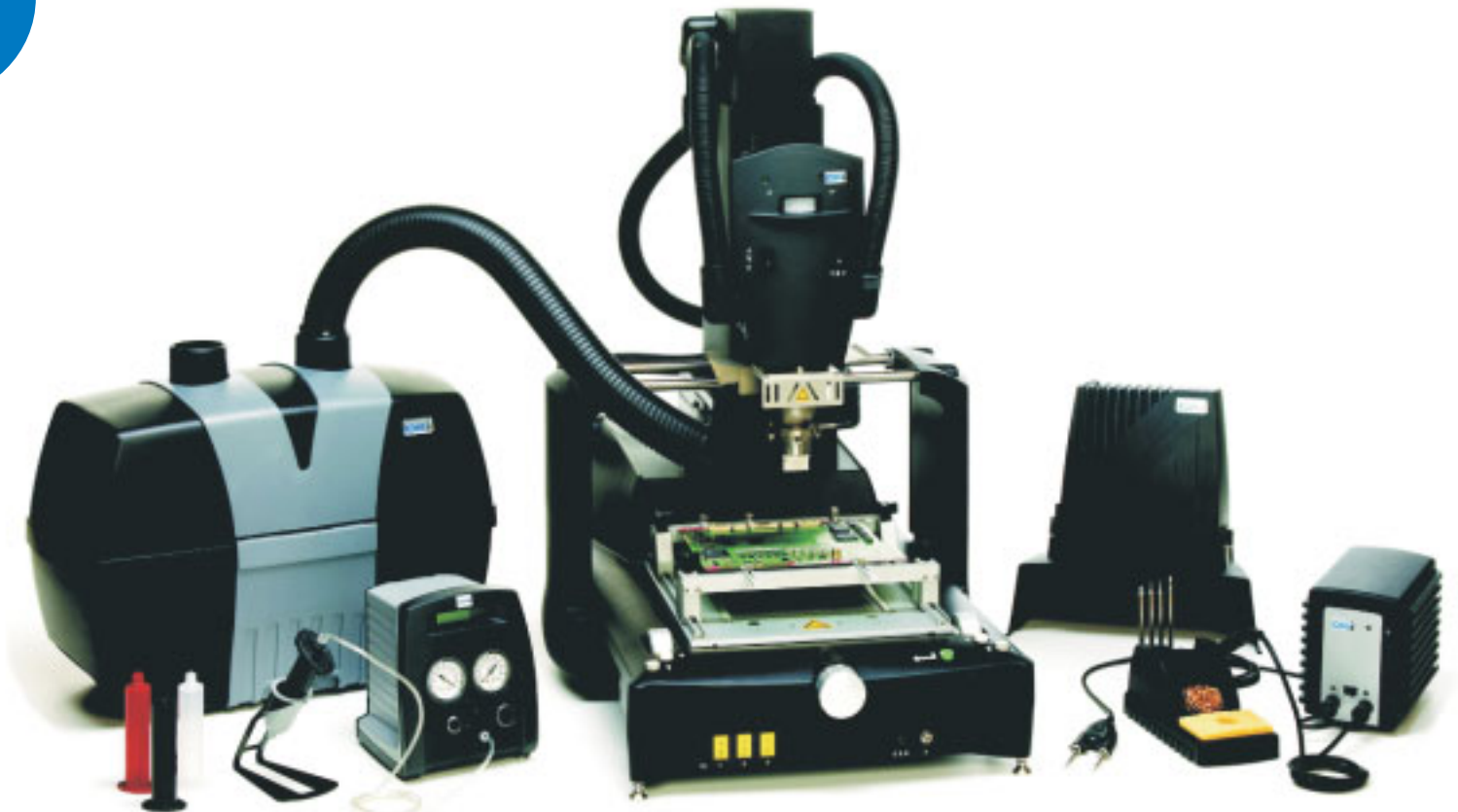
**OK** International has been a leading manufacturer of tools for the electronics assembly work bench for almost 60 years. For over 40 years, OK International has provided reliable dispensing solutions to a diverse array of industries under the trusted Techcon Systems brand.

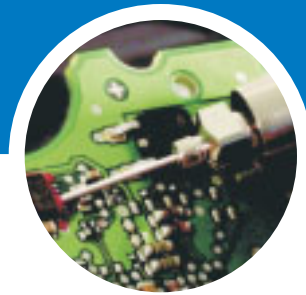
Now, our fluid dispensing products feature the OK International name. The OK International family of complementary products also includes soldering, rework and fume extraction systems.

OK International's fluid dispensing product line offers a wide range of dispensing components; from disposable accessories to complete microprocessor-controlled dispensing systems and precision valves. Our systems incorporate innovative designs, professional performance and ease of use, all within your budget.

Specifically, our selection of fluid dispensing valves ranges from simple manual dispensing to precision valves for high-speed automated applications. Plus, we offer the controllers and accessories necessary to operate each valve.

Quality. Known. Trusted. That's OK International. More than ever, we are committed to provide customer-driven solutions and the reliable tools for technology that you demand.





	Page
<b>Valve Application Guide</b> .....	2
<b>Range Overview</b> .....	3
<b>Rotary Valves</b> .....	4
<b>Diaphragm Valves</b> .....	6
<b>Spray Valves</b> .....	8
<b>Needle Valves</b> .....	10
<b>Spool Valves</b> .....	12
<b>Pinch Tube Valves</b> .....	14
<b>Pressure Pots</b> .....	15
<b>Accessories and Fittings</b> .....	16
<b>Stainless Steel Needles</b> .....	17
<b>Typical Set Up</b> .....	17
<b>Valve Controllers</b> .....	18
<b>Product Range</b> .....	20

FLUIDS	APPLICATIONS					
	MICRODOTS	DOTS	LINES/BEADS	POTTING ENCAPSULATION	PACKAGING FILLING	SPRAY
Activators	TS5440	TS5420	TS5420		TS5622VU	TS5520 TS5540
Alcohol	TS5440	TS5420	TS5420		TS5420	TS5520 TS5540
Anaerobics	TS5622VU	TS5622VU	TS5622VU		TS5622VU	
Conformal Coatings		TS5622VU	TS5622VU	TS5622VU	TS5322	TS5520 TS5540
Cyanoacrylates	TS5622VU	TS5622VU	TS5622VU TS1212		TS5622VU TS1212	
Epoxies	TS5000	TS5000 TS5000DMP	TS5000DMP	TS5000DMP	TS941	
Flux (liquid)	TS5440	TS5622VU	TS5622VU		TS5322	TS5520 TS5540
Flux (paste)	TS5440	TS5322	TS5322		TS5322	
Greases	TS5000	TS5000DMP	TS5000DMP		TS941	
Inks	TS5440	TS5420	TS5420		TS5322	TS5520 TS5540
Lacquers	TS5622VU-DVD	TS5622VU-DVD	TS5622VU-DVD		TS5622VU-DVD	TS5520 TS5540
Mold Releases	TS5440	TS5622VU	TS5622VU		TS5322	TS5520 TS5540
Oils	TS5440	TS5622VU	TS5622VU		TS5322	TS5520 TS5540
Paints	TS5440	TS5622VU	TS5622VU		TS5322	TS5520 TS5540
Reagent	TS5440	TS5622VU	TS5622VU		TS5622VU	TS5520 TS5540
RTV Silicone	TS5000	TS5322	TS5322 TS941	TS5322 TS941	TS5322 TS941	
Solder Masks		TS5322	TS5322		TS5322 TS941	
Solder Pastes	TS5000	TS5000	TS5000			
Solvents	TS5440	TS5622VT	TS5622VT		TS5622VT	TS5520 TS5540
Two-part Adhesive	TS5000DMP	TS5000DMP	TS5000DMP	TS5000DMP TS1212	TS1212	
UV-cure Adhesive (liquid)	TS5440	TS5622VU-DVD	TS5622VU-DVD	TS5622VU-DVD	TS5622VU-DVD	
UV-cure Adhesive (gel)	TS5000DMP	TS5000DMP	TS5000DMP	TS5000DMP	TS5322D	
UV-cure with Anaerobic	TS5622VD	TS5622VD	TS5622VD	TS5622VD	TS5622VD	

Blank = NOT APPLICABLE

NEEDLE VALVES











MINI/SPOOL VALVES

DIAPHRAGM VALVES

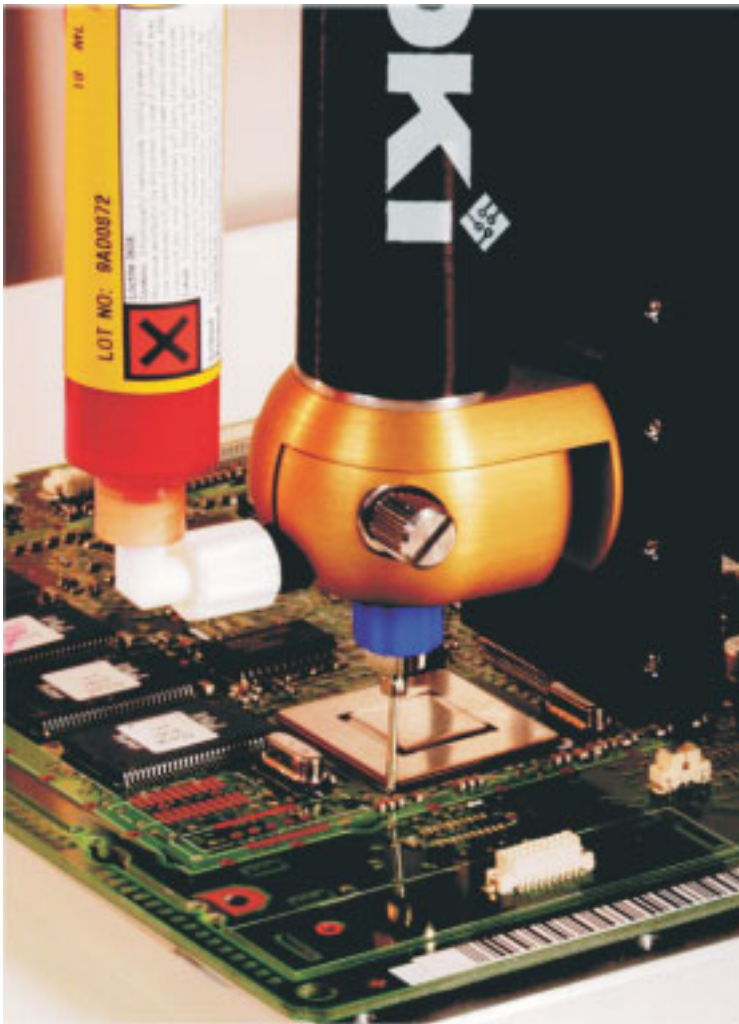
SPRAY VALVES

ROTARY VALVES

DISPENSE PEN & PINCH TUBE VALVE

		CONTROLLERS					
		DX-300 Digital Dispenser/Controller	DX-200 Digital Dispenser/Controller	TS5130 Pneumatic Valve Controller	TS5100 Rotary Valve Controller	TS5110 Spray Valve Controller	TS1258 Pressure Pot
VALVES	TS5000DMP TS5000 Rotary Valves 						
	TS5420 TS5420SS Needle Valves 						
	TS5440 Microshot Needle Valve 						
	TS5322 TS5322D Mini Spool Valves 						
	TS941 TS941A Spool Valves 						
	TS5600 Series Diaphragm Valves 						
	TS1212 Pinch Tube Valve 						
	TS5623 Series Hand Held Diaphragm Valves 						
	TS1201 Dispense Pen 						
	TS5520 TS5540 Spray Valves 						

Blue = Recommended



▲ *TS5000DMP - performing underfill.*

In addition to the 5000 Series, the unique DMP (Disposable Material Path) valve offers a choice of 3 different feed screws sizes (6, 8 and 16-pitch), all made of Delrin®. The DMP Valve has a hinged doorway that opens easily so the disposable auger can be removed, disposed of, and replaced within seconds, while the line is still in operation. Therefore, the DMP significantly reduces downtime and waste. The choice of left, right or center hinged openings makes the valve suitable for mounting on most automated systems.

*Optional encoder motors are available for closed loop feed back requirement.* ►

## TS5000 Series

The Rotary Valves use a rotary feed screw (auger) to dispense fluid with a positive displacement action, allowing for ultra-precise control of the dispensing process. The unique design ensures that material is constantly present at the feed screw inlet while the controlled rotation of the feed screw moves the material from the feed to the discharge point. This allows for precise dispensing of two-part products without the danger of separation. Discrete control of the forward and reverse rotations of the feed screw controls the amount of material discharged.

The 5000 Series offers a comprehensive range of options including motors with 2 different wattages, 3 reduction ratios and an encoding option. There are 4 different choices for body material and 12 choices of feed screws. This variety enables you to make the correct valve selection for any given application.

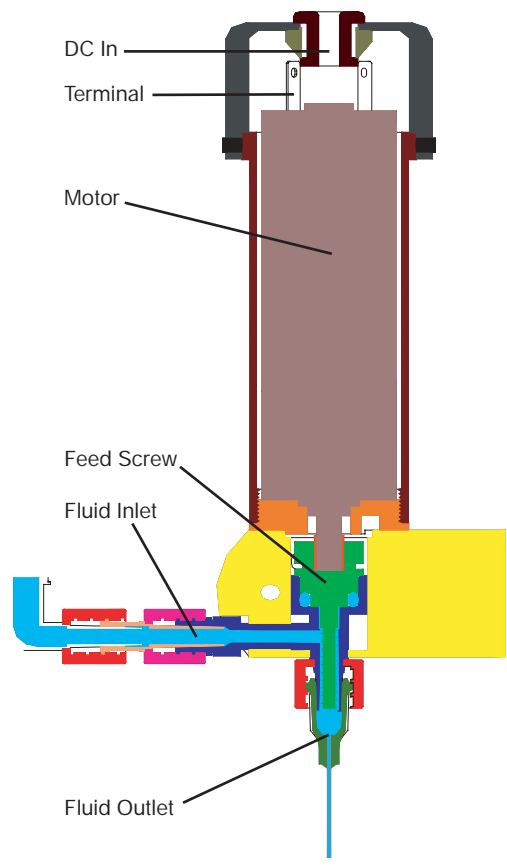




**TS5000**  
Precision  
Rotary Valve



**TS5000DMP**  
Disposable  
Material Path  
Rotary Valve



### Typical Applications:

Solder paste, die attach, surface mount adhesive, chip encapsulation, dam writing

### Key Features:

- Precise and consistent shot sizes
- Motor reverse capability
- Field replaceable wetted parts (For DMP version)
- Adjustable dispense rate
- Wide variety of configurations

### Recommended Controller:

TS5100 Rotary Valve Controller.

For complete information on the TS5100 Rotary Valve Controller, please see page 19.



▲ **TS5000** Right hand opening. Left and front door opening also available.



▲ **TS5000** Disposable path available in 3 different pitches, DMP6-10, DMP8-10, DMP16-10, in packs of 10.



▲ **TS-SS** Precision Metal Needles, see page 17.

VALVE	SIZE AND WEIGHT	WETTED PARTS	MAXIMUM FLUID PRESSURE	ACTIVATION PRESSURE	CONNECTIONS	MOUNTING	RECOMMENDED VISCOSITY RANGE
TS5000 3-Watt	L: 3.99" (101mm) W: 2.13" (54mm) Weight: 0.4lb (180g)	Depending on exact configuration	30 psi (2.1bar)	NA	Inlet: Female Luer Lock Outlet: Male Luer Lock	1.0" wide channel	30k-1300k cps
TS5000 6-Watt	L: 5.38" (137mm) W: 2.45" (62mm) Weight: 0.6lb (270g)	Depending on exact configuration	30 psi (2.1bar)	NA	Inlet: Female Luer Lock Outlet: Male Luer Lock	1.0" wide channel	30k-1300k cps
TS5000DMP	L: 5.88" (149mm) W: 3.56" (90mm) Weight: 0.75lb (340g)	Delrin®, Viton®, Celcon®	30 psi (2.1bar)	NA	Inlet: Female Luer Lock Outlet: Male Luer Lock	1.0" wide channel	30k-1300k cps

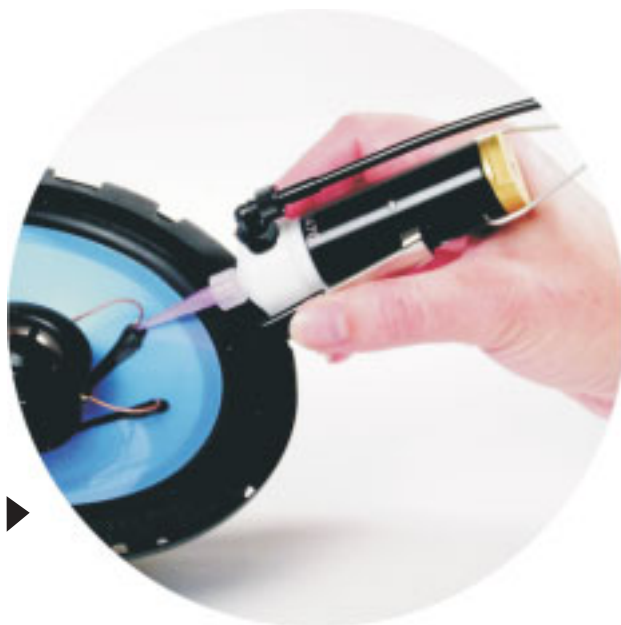


▲ **TS5622**

A stainless steel version with optimized internal fluid route is especially dedicated to dispense UV-cure adhesives, resins and lacquers used in the manufacture of DVDs and CDs.

The valves are easy to use and maintain with user replaceable spare parts. Hand-held actuated valve is also available.

**TS5623 Hand-held Diaphragm Valve for manual application of adhesive.** ►



## TS5600 Series

Diaphragm Valves are designed to dispense low to medium viscosity materials with precision over a wide range of shot and bead size down to a fraction of a micro-liter. An internal return spring makes the valves fully adaptable for use with OK International time/pressure controllers. A short opening stroke provides extremely fast, positive shut-off. An external stroke control adjustment makes it easy for the operator to fine tune shot sizes. The compact design with both horizontal and vertical mounting geometries allows for mounting flexibility and easy integration into automated applications.

Body available in FDA-compliant Ultra High Molecular Weight Polyethylene (UHMWPE) for most applications. We also offer Teflon® for chemical compatibility, and Delrin® for UV-curables.





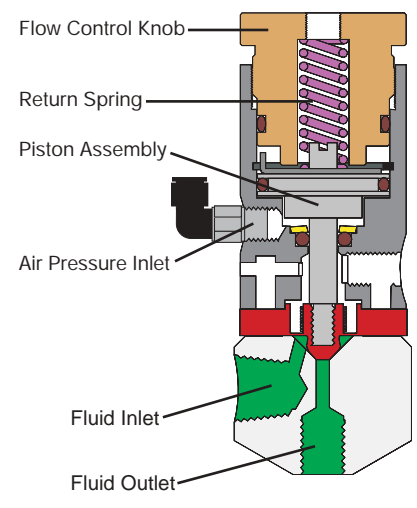
**TS5621**  
Diaphragm  
Valves  
(Horizontal Valve)



**TS5622VU-DVD**  
Diaphragm  
Valves



**TS5622**  
Diaphragm  
Valves  
(Vertical Valve)



## Typical Applications:

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

## Key Features:

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

## Recommended Controller:

DX-300 and TS5130. The TS1258 Pressure Pot is recommended for use with all Diaphragm Valves.



**TS5622VU-DVD - spin coating application.**

VALVE	SIZE AND WEIGHT	WETTED PARTS	MAXIMUM FLUID PRESSURE	ACTIVATION PRESSURE	CONNECTIONS	MOUNTING	RECOMMENDED VISCOSITY RANGE
TS5620HU	L: 2.4"(61mm) D:0.94"(24mm) Weight: 0.13lb(61g)	UHMWPE	70 psi (4.8 bar)	70 psi (4.8 bar)- 90 psi (6.3 bar)	Inlet: 1/4-28 UNF Outlet: 1/4-28 UNF	10-32 UNF	1-50k cps
TS5620HT	L: 2.4"(61mm) D:0.94"(24mm) Weight: 0.13lb(61g)	Teflon®	70 psi (4.8 bar)	70 psi (4.8 bar)- 90 psi (6.3 bar)	Inlet: 1/4-28 UNF Outlet: 1/4-28 UNF	10-32 UNF	1-50k cps
TS5621HD	L: 2.4"(61mm) D:0.94"(24mm) Weight: 0.14lb(63g)	UHMWPE, Delrin®	70 psi (4.8 bar)	70 psi (4.8 bar)- 90 psi (6.3 bar)	Inlet: 1/8" NPT Outlet: 1/8" NPT	10-32 UNF	1-50k cps
TS5622VU	L: 2.6"(66mm) D:1.06"(27mm) Weight: 0.15lb(66g)	UHMWPE	70 psi (4.8 bar)	70 psi (4.8 bar)- 90 psi (6.3 bar)	Inlet: 1/8" NPT Outlet: 1/4-28 UNF	10-32 UNF	1-50k cps
TS5622VD	L: 2.6"(66mm) D:1.06"(27mm) Weight: 0.15lb(66g)	UHMWPE, Delrin®	70 psi (4.8 bar)	70 psi (4.8 bar)- 90 psi (6.3 bar)	Inlet: 1/8" NPT Outlet: 1/4-28 UNF	10-32 UNF	1-50k cps
TS5622VU-DVD	L:2.6"(66mm) D: 1.06"(27mm) Weight: 0.27lb(122g)	UHMWPE 303 Stainless steel	70 psi (4.8 bar)	70 psi (4.8 bar)- 90 psi (6.3 bar)	Inlet: 1/8" NPT Outlet: Taper with Luer cap	10-32 UNF	1-50k cps
TS5622SS-DVD	L:2.6"(66mm) D: 1.06"(27mm) Weight: 0.44lb(200g)	UHMWPE 303 Stainless steel	70 psi (4.8 bar)	70 psi (4.8 bar)- 90 psi (6.3 bar)	Inlet: 1/8" NPT Outlet: Taper with Luer cap	10-32 UNF	1-50k cps
TS5622VT	L: 2.6"(66mm) D:1.06"(27mm) Weight: 0.15lb(66g)	Teflon®	70 psi (4.8 bar)	70 psi (4.8 bar)- 90 psi (6.3 bar)	Inlet: 1/8" NPT Outlet: 1/4-28 UNF	10-32 UNF	1-50k cps
TS5623HU	L: 3.47"(88mm) D:1.06"(27mm) Weight: 0.25lb(116g)	UHMWPE	70 psi (4.8 bar)	NA	Inlet: 1/8" NPT Outlet: 1/4-28 UNF	NA	1-50k cps
TS5623HD	L: 3.47"(88mm) D:1.06"(27mm) Weight: 0.25lb(116g)	UHMWPE, Delrin®	70 psi (4.8 bar)	NA	Inlet: 1/8" NPT Outlet: 1/4-28 UNF	NA	1-50k cps
TS5623HT	L: 3.47"(88mm) D:1.06"(27mm) Weight: 0.25lb(116g)	Teflon®	70 psi (4.8 bar)	NA	Inlet: 1/8" NPT Outlet: 1/4-28 UNF	NA	1-50k cps



▲ *TS5520 - spray marking on metal work.*

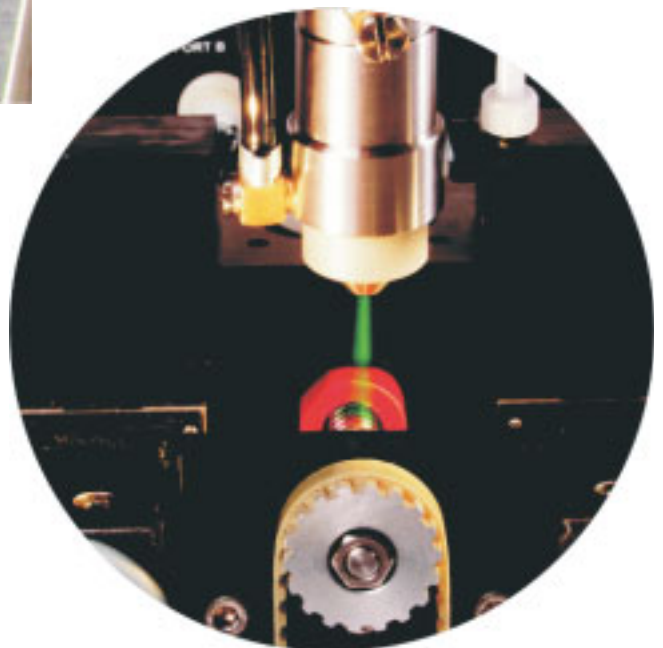
## TS5500 Series

The Spray Valves are designed for precise spray applications of low to medium viscosity materials. An external stroke control makes it easy for the operator to fine-tune fluid flow. Total control of the spray cycle is provided by adjustable fluid flow and precise control of pre-spray, atomizing air and post spray with the TS5110 Spray Valve Controller. Maintenance is made simple by the elimination of troublesome spring loaded needle packing. Downtime is virtually eliminated with only one seal to replace during normal maintenance.

The new 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 the operating life cycles.

The compact design and easy-mount threaded hole allow for easy integration into automated applications.

*TS5540 Spray Valve - spray lubricant on feed screw.* ►





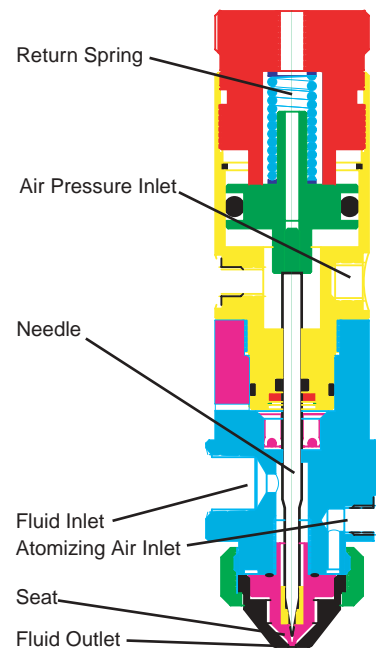
**TS5520**  
Spray Valve



**TS5540**  
Spray Valve



**TS5540F**  
Spray Valve



## Typical Applications:

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

## Key Features:

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

## Recommended Controller:

TS5110 Spray Valve Controller.

For complete information on the TS5110 Spray Valve Controller, please see page 19.



**TS5110**  
Spray Valve Controller



## Nozzles:

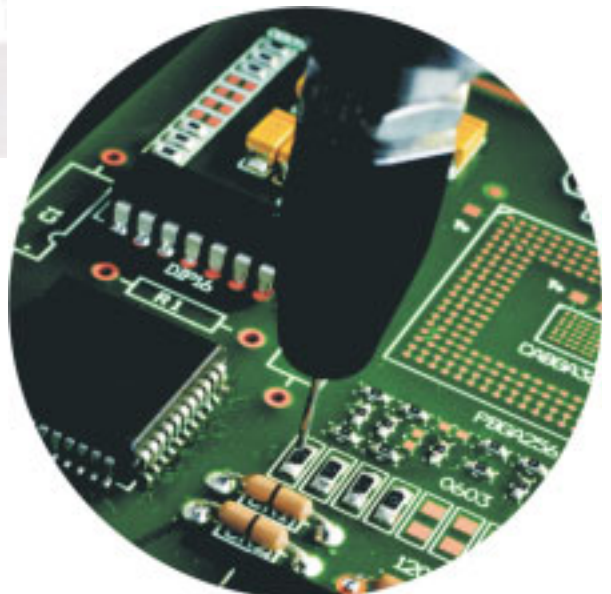
	OPENING DIAMETER	CONE NOZZLE	FAN NOZZLE
TS5520	0.046" (1.17mm)	(standard)	
TS5540	0.014" (.356mm)	TS5540-014R	TS5540-014F
	0.028" (.711mm)	TS5540-028R	TS5540-028F
	0.046" (1.17mm)	TS5540-046R	TS5540-046F

VALVE	SIZE AND WEIGHT	WETTED PARTS	MAXIMUM FLUID PRESSURE	ACTIVATION PRESSURE	CONNECTIONS	MOUNTING	RECOMMENDED VISCOSITY RANGE
TS5520	L: 4.2" (107mm) D: 1.12" (28mm) Weight: 0.3lb (136g)	303 SS, Teflon®, Anodized Al, EPR	100 psi (6.9 bar)	70 psi (4.8 bar) Minimum	Inlet: 1/8" NPT Outlet: Spray nozzle	1/4"-20UNC-2B	1-1k cps
TS5540	L: 4.2" (107mm) D: 1.12" (28mm) Weight: 0.74lb (336g)	303 SS, Teflon® Delrin®	100 psi (6.9 bar)	70 psi (4.8 bar) Minimum	Inlet: 1/8" NPT Outlet: Spray nozzle	1/4"-20UNC-2B	1-5k cps



▲ *TS5420 - precision filling.*

*TS5440 - solder masking.* ▶



## TS5400 Series

Needle Valves dispense very precise deposits over a wide range of shot and bead sizes due to a minimal dead fluid zone. An external stroke control adjustment to fine-tune shot sizes. Easy to maintain, with little or no downtime. The compact design and easy-mount threaded hole allows for easy integration into automated applications.

The TS5420 Adjustable Needle Valve is a pneumatically triggered single-acting valve that can be used with an internal spring close (single acting) or may be connected for air closing without the spring (double acting). The TS5440 Microshot Needle Valve, with its needle closing the fluid path directly on the canula inside the needle body, can dispense very precise deposits down to  $0.0005 \text{ cm}^3$ .

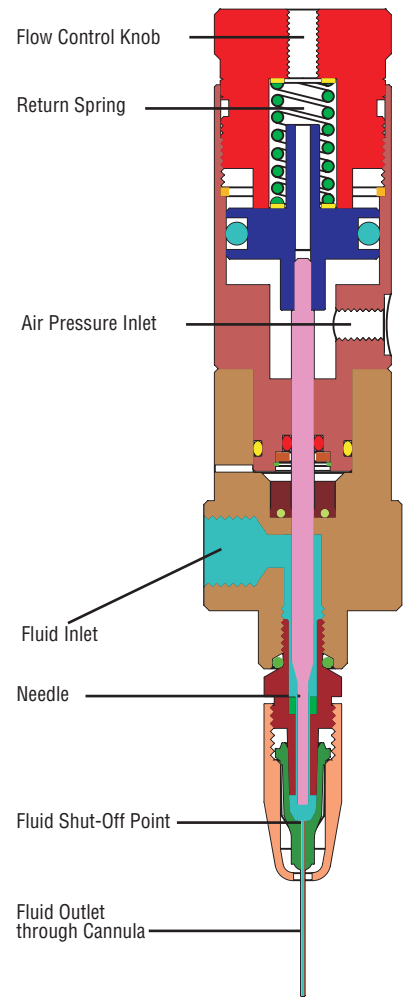
The TS5440 valve's wetted parts include FDA-compliant 303 Stainless Steel Material.



**TS5420**  
Needle Valve



**TS5440**  
Microshot  
Needle Valve

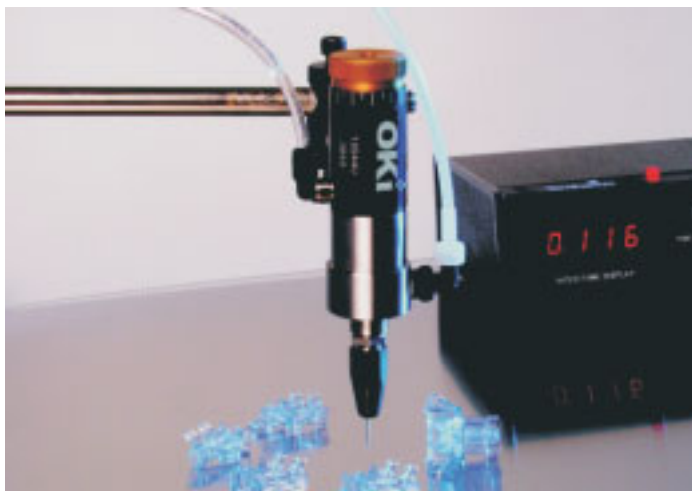


## Typical Applications:

To dispense microdots of low viscosity fluids such as: solvents, inks, oils, activators, primers; the TS5440 is excellent to dispense microdots of UV adhesive used in medical device manufacturing.

## Key Features:

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

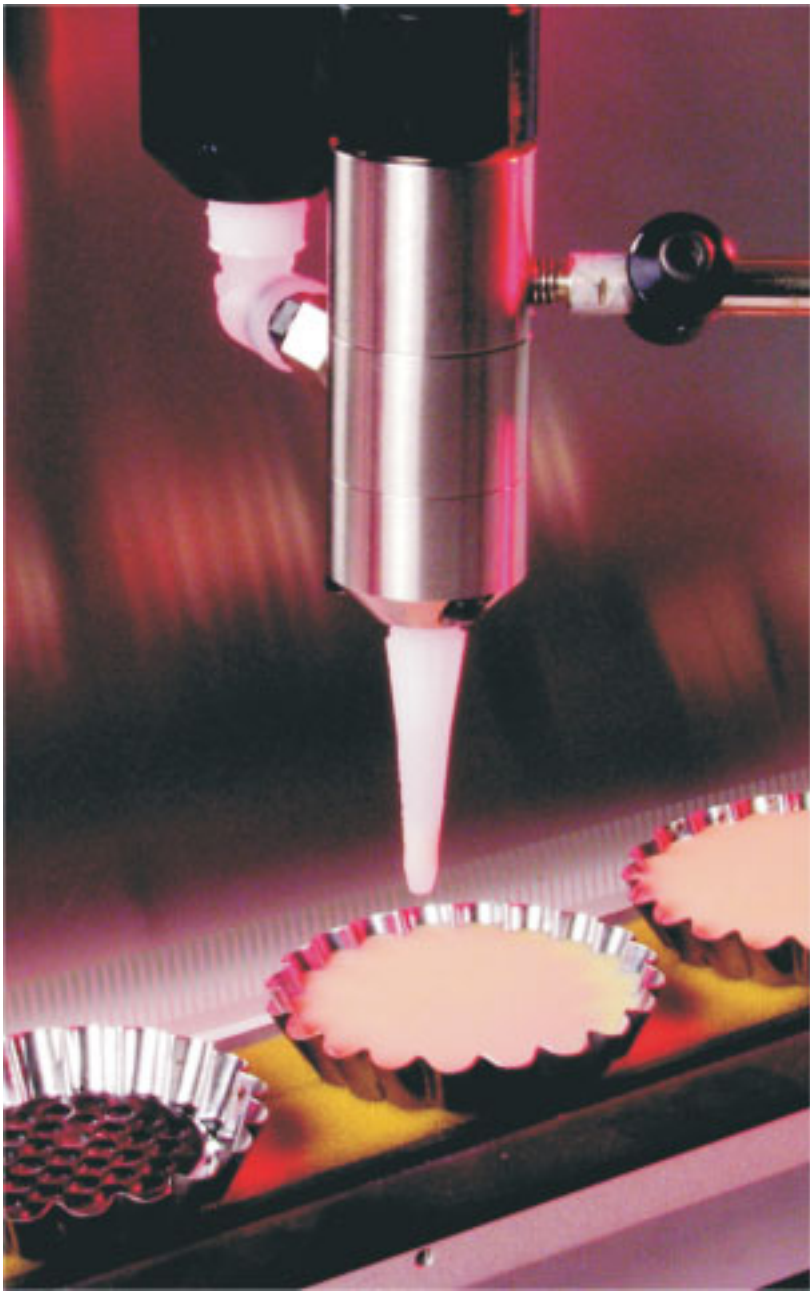


▲ **TS5440 - precision gluing for medical device manufacturing.**

## Recommended Controller:

DX-300 and TS5130.

VALVE	SIZE AND WEIGHT	WETTED PARTS	MAXIMUM FLUID PRESSURE	ACTIVATION PRESSURE	CONNECTIONS	MOUNTING	RECOMMENDED VISCOSITY RANGE
TS5420	L: 4.4" (112mm) D: 1.12" (28mm) Weight: 0.3lb (136g)	303 SS, Anodized Al, Teflon®, EPR	300 psi (20.7 bar)	70 psi (4.8 bar) Minimum	Inlet: 1/8" NPT Outlet: Male Luer Lock	1/4"-20UNC-2B	1-100k cps
TS5420SS	L: 4.4" (112mm) D: 1.12" (28mm) Weight: 0.5lb (227g)	303 SS, Teflon®, EPR	300 psi (20.7 bar)	70 psi (4.8 bar) Minimum	Inlet: 1/8" NPT Outlet: Luer Lock	1/4"-20UNC-2B	1-100k cps
TS5440	L: 5.0" (127mm) D: 1.12" (28mm) Weight: 0.5lb (227g)	303 SS, Teflon®	100 psi (6.9 bar)	70 psi (4.8 bar) Minimum	Inlet: 1/8" NPT Outlet: Taper w/Luer Cap	10-32 UNF	1-100k cps



▲ *TS941 - high-speed filling.*

## TS5322 Mini Spool Valve Series

The Mini Spool Valve series is designed for better accuracy with lower pressure. This series operates like the TS941 in a smaller size. Output is a 1/8" NPT.

*TS5322- gasketing.* ►



## 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 allowing multiple tip termination. This is the only valve type which allows multiple types of tip to be used.

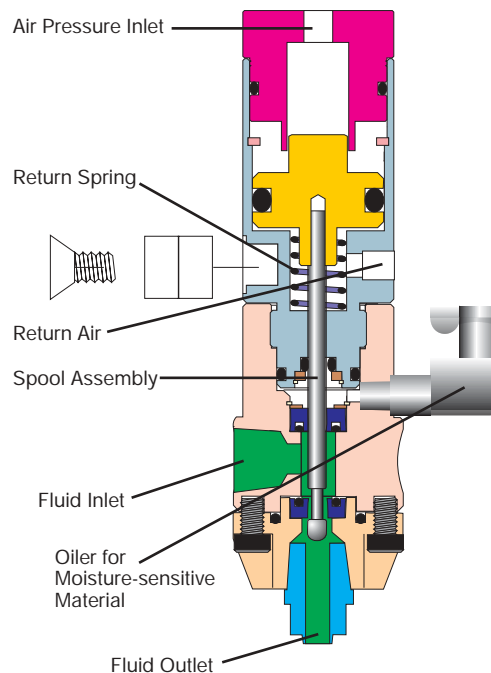
The TS941 valve's wetted parts include FDA-compliant 303 Stainless Steel material.



**TS941**  
Spool Valve



**TS5322**  
Mini Spool Valve

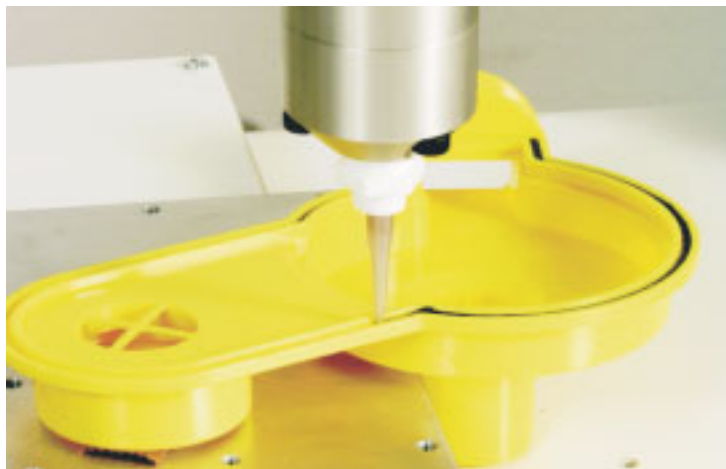


## Typical Applications:

To dispense dots and beads of medium to high viscosity fluids such as: RTV silicone for form-in-place gasket; grease for lubrication, solder mask, etc.

## Key Features:

- TS941 withstands high fluid pressure up to 2500 psi
- Simple and low maintenance design
- End-of-cycle suck-back
- Fast flow rate



▲ **TS941 - gasketing.**

## Recommended Controller:

TS5130 Smart Pneumatic Valve Controller and DX-300.

VALVE	SIZE AND WEIGHT	WETTED PARTS	MAXIMUM FLUID PRESSURE	ACTIVATION PRESSURE	CONNECTIONS	MOUNTING	RECOMMENDED VISCOSITY RANGE
TS5322	L: 4.0" (102mm) D: 1.38" (35mm) Weight: 0.31lb (141g)	303 SS, Anodized Al, Teflon®, EPR	500 psi (34.5 bar)	70 psi (4.8 bar) Minimum	Inlet: 1/8" NPT Outlet: 1/8" NPT	1/4"-20UNC-2B	5-1000k cps
TS5322D	L: 4.0" (102mm) D: 1.38" (35mm) Weight: 0.26lb (118g)	303 SS, Delrin®, Teflon®, EPR	500 psi (34.5 bar)	70 psi (4.8 bar) Minimum	Inlet: 1/8" NPT Outlet: 1/8" NPT	1/4"-20UNC-2B	5-1000k cps
TS941	L: 4.7" (119mm) D: 1.5" (38mm) Weight: 1.6lb (726g)	303 SS, UHMWPE, EPR	2500 psi (172 bar)	70 psi (4.8 bar) Minimum	Inlet: 3/8" NPT Outlet: 1/4" NPT	1.50" Diameter	5-3000k cps
TS941A	L: 4.7" (119mm) D: 1.5" (38mm) Weight: 1.6lb (726g)	303 SS, UHMWPE, EPR	2500 psi (172 bar)	70 psi (4.8 bar) Minimum	Inlet: 1/4" NPT Outlet: 1/4" NPT	1.50" Diameter	5-3000k cps



**Spare pinch tube for TS1201 (Pack of 10)**

1201-000-004BPK	Black PE	Ø 0.1" (2.54mm)	Male to Female
1201-000-004PK	Natural PE	Ø 0.1" (2.54mm)	Male to Female
1201-000-005PK	Natural PE	Ø 0.1" (2.54mm)	Male to Male
1201-000-006PK	Natural PE	Ø 0.07" (1.8mm)	Male to Female

## TS1201 Dispense Pen

The TS1201 Dispense Pen uses a disposable molded tube assembly. By pressing the handle, the operator releases the piece pinching the tube. 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 control 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" hose. Replacement pinch tube assemblies sold in packs of ten.

### Typical Applications:

Cyanoacrylates, anaerobics, two-part adhesive, etc.

### Key Features:

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

### Recommended Pressure Pot:

TS1258

## TS1212 Pneumatic Pinch Tube Valve

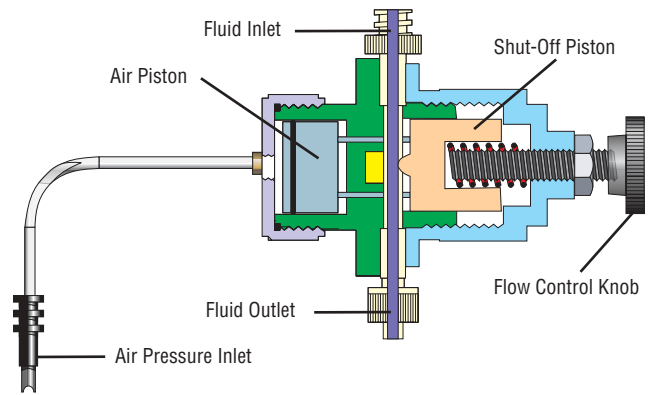
The TS1212 Pneumatic Pinch Tube Valve provides control for continuous or micro shot applications of low to semi-viscous fluids. The "ON/OFF" control is achieved by automatically opening and closing (pinching) a molded plastic tube assembly. Adjusting the opening size of the pinch tube assembly determines the shot size or flow rate. The air-actuated valve can be timed to develop specific shot sizes. The only part of the valve making contact with the fluid being dispensed is the disposable pinch tube assembly.

### Typical Applications:

Cyanoacrylates, anaerobic, two-part adhesive, etc.

### Key Features:

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



**Spare pinch tube for TS1212 (Pack of 10)**

1212-004-000PK	Natural PE	Ø 0.07" (1.8mm)	male to female
1212-004-002BPK	Black PE	Ø 0.1" (2.54mm)	male to female
1212-004-002PK	Natural PE	Ø 0.1" (2.54mm)	male to female
1212-004-100BPK	Black PU	Ø 0.125" (3.16mm)	male to female
1212-004-100HPK	Hi-Duro PU	Ø 0.125" (3.16mm)	male to female
1212-004-100PK	Natural PU	Ø 0.125" (3.16mm)	male to female
1212-004-200PK	Natural PU	Ø 0.125" (3.16mm)	male to male

### Recommended Controller:

TS5130, DX-200 and DX-300.

VALVE	SIZE AND WEIGHT	WETTED PARTS	MAXIMUM FLUID PRESSURE	ACTIVATION PRESSURE	CONNECTIONS	MOUNTING	RECOMMENDED VISCOSITY RANGE
TS1201	L: 5" (127mm) W: 1.34" (34mm) Weight: 0.08 lb (36g)	Polyethylene (Standard) Polyurethane (Optional)	60 psi (4.1 bar)	NA	Inlet: Female Luer Lock Outlet: Male Luer Lock	NA	1-45k cps
TS1212	L: 3.25" (83mm) D: 1.58" (40mm) Weight: 0.18lb (82g)	Polyethylene (Standard) Polyurethane (Optional)	60 psi (4.1 bar)	30 psi (2.1 bar) Minimum	Inlet: Female Luer Lock Outlet: Male Luer Lock	1/4"-20UNC-2B	1-45k cps





## TS1258 Pressure Pot

OK International's TS1258 Pressure Pot (high pressure @ 100 psi) is designed to accommodate all solvent and epoxy fluids, as well as CA's and UV's. It will also accommodate black fittings and tubing in 1/4", 3/8", and 4 mm, with stainless steel compression fittings for a continuous fluid path from the reservoir inside the pot to the point of use. Airtight seals ensure no leakage or air entrapment problems.

100 psi operating pressure easily handles fluid with viscosity up to 50,000 cps. Disposable polyethylene dip tube can be quickly changed. The pressure gauge and pressure regulator are located on top for easy reading and access. Includes 1/4" fluid line kit.

SPECIFICATIONS	
Size:	9.3" x 11.2" x 15.1" (236 x 284 x 384mm )
Chamber:	6.1" I.D. x 11.0" H (155 x 279mm)
Weight:	21 lbs. (9.5 kg)
Max Operating Pressure:	100 psi (6.9 bar)

AVAILABLE FLUID LINE KITS: <i>Includes 2 fittings (black and clear tubing)</i>	
TS1252-4MM	4mm O.D. tube
TS1258-250	1/4" (6.35mm) O.D. tube
TS1258-375	3/8" (9.5mm) O.D. tube

**TS1251E - A smaller 0.5 liter version pressure pot is also available.** ▶



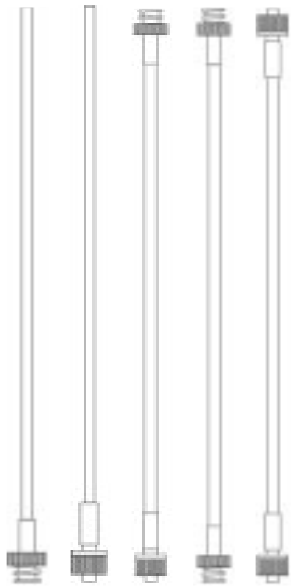
## TS918-46 Four-way Manifold

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. And, the manifold can be used with any OK International Fluid Dispensing Valve. The TS918-46 works with the TS1258 Pressure Pot (TS1258-375 Hose Kit required to use TS918-46 and TS1258 together).

SPECIFICATIONS	
Size:	2.6" x 2.2" (66 x 56mm)
Inlet port:	1/4"NPT (3/8" O.D. tube fitting is included)
Outlet port:	1/8" NPT (4 Luer Lock fittings are included)
Max Operating Pressure:	100 psi (6.9 bar)
Mounting:	1/4"-20UNC-2B (x2)

## Fluid Line Assemblies

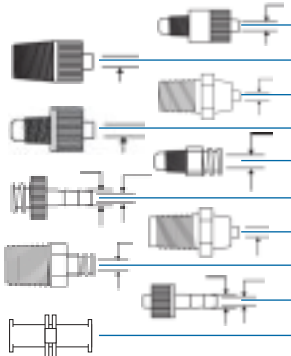
Each polyethylene hose assembly is provided with a molded luer lock fitting on one or both ends. The assembly can be used with other standard luer lock connectors and will handle up to 100 psi working pressure.



PART NUMBER	SIZE	CONNECTION	MATERIAL
TSD126-118PK	0.100"(2.54mm) X 18"(457mm)	Male Luer/open	Natural PE
TSD126-124PK	0.100"(2.54mm) X 24"(610mm)	Male Luer/open	Natural PE
TSD126-136PK	0.100"(2.54mm) X 36"(914mm)	Male Luer/open	Natural PE
TSD126-218PK	0.100"(2.54mm) X 18"(457mm)	Female Luer/open	Natural PE
TSD126-224PK	0.100"(2.54mm) X 24"(610mm)	Female Luer/open	Natural PE
TSD126-236PK	0.100"(2.54mm) X 36"(914mm)	Female Luer/open	Natural PE
TSD126-318PK	0.100"(2.54mm) X 18"(457mm)	Male Luer/female Luer	Natural PE
TSD126-318BPK	0.100"(2.54mm) X 18"(457mm)	Male Luer/female Luer	Black PE
TSD126-324PK	0.100"(2.54mm) X 24"(610mm)	Male Luer/female Luer	Natural PE
TSD126-324BPK	0.100"(2.54mm) X 24"(610mm)	Male Luer/female Luer	Black PE
TSD126-336PK	0.100"(2.54mm) X 36"(914mm)	Male Luer/female Luer	Natural PE
TSD126-336BPK	0.100"(2.54mm) X 36"(914mm)	Male Luer/female Luer	Black PE
TSD126-360BPK	0.100"(2.54mm) X 18"(457mm)	Male Luer/female Luer	Black PE
TSD126-418PK	0.100"(2.54mm) X 18"(457mm)	Female Luer/female Luer	Natural PE
TSD126-424PK	0.100"(2.54mm) X 24"(610mm)	Female Luer/female Luer	Natural PE
TSD126-436PK	0.100"(2.54mm) X 36"(914mm)	Female Luer/female Luer	Natural PE
TSD126-524PK	0.100"(2.54mm) X 24"(610mm)	Male Luer/male Luer	Natural PE

## Luer Lock Fittings

All 931 Series fittings are molded and have good chemical resistance to solvents, acids and resin fluids. The locking end accepts all standard dispensing needle tips and molded fitting used on the TSD126 Series hose assemblies. For a complete list, see your OK International representative.



PART NUMBER	DESCRIPTION	MATERIAL
TSD931-5	Male Luer Lock to 5/16"-28	White Acetal
TSD931-6	Male Luer Lock to 1/8" NPT	White Acetal
TSD931-7	Male Luer Lock to 1/4" NPT	White Polypropylene
TSD931-8	Male Luer Lock to 1/4"-32	White Acetal
TSD931-9	Female Luer Lock to 1/4"-32	White Acetal
TSD931-13	Female Luer Lock to Hose Barb	Black Acetal
TSD931-14	Male Luer Lock to 1/4" NPT	Black Polypropylene
TSD931-15	Female Luer Lock to 1/4" NPT	Black Nylon/Acetal
TSD931-17	Male Luer Lock to Hose Barb	White Acetal
TSD931-28	Female Luer Lock to Female Luer Lock	Natural Polypropylene

## Compression Fittings & Tubes

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



PART NUMBER	DESCRIPTION	MATERIAL
TSD1003-16	1/8" NPT to 1/4" O.D. tube, 90° elbow fitting	Black Polypropylene
TSD1002-17	1/8" NPT to 3/8" O.D. tube fitting	Black Polypropylene
TSD1002-18	1/8" NPT to 1/4" O.D. tube fitting	Black Polypropylene
TSD1566-5	1/4" NPT to 3/8" O.D. tube fitting	Black Polypropylene
TSD1099-22	3/8" O.D. X 1/4" I.D. tube	Black Polyethylene
TSD1099-23	3/8" O.D. X 1/4" I.D. tube	Clear Polyethylene
TSD1099-24	1/4" O.D. X 1/8" I.D. tube	Clear Polyethylene
TSD1099-25	1/4" O.D. X 1/8" I.D. tube	Black Polyethylene

## TS-SS Needles

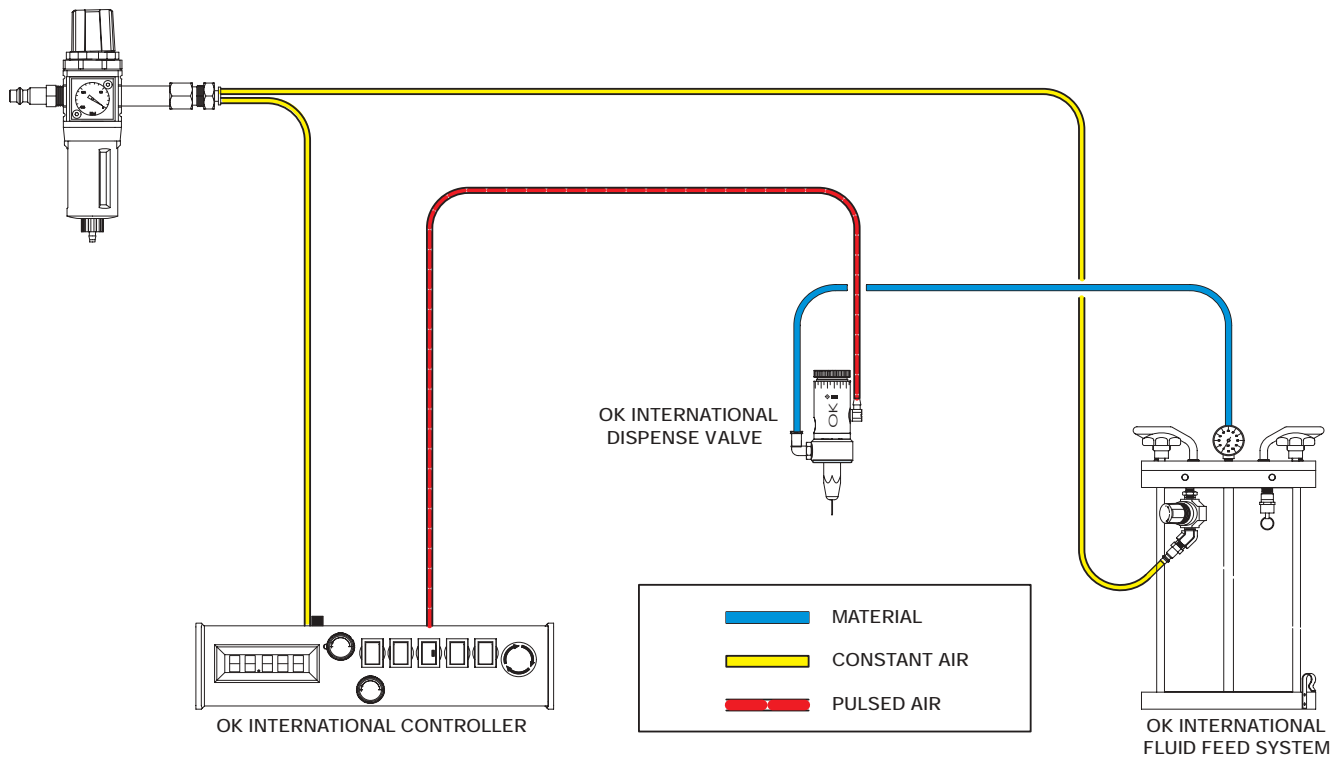
TS-SS Series Precision Metal Dispensing Needles are designed with high precision and tolerance for use in automated applications. Recommended for use with TS5000 Series valves.

Cannula is stainless steel; Hub is made of nickel plated brass. Length is 1/2" (12.7mm). Sold in packs of 12.



Part Number	Gauge	I.D. (inches)	I.D. (mm)
TS14SS-1/2	14	0.0622	1.581
TS15SS-1/2	15	0.0565	1.436
TS16SS-1/2	16	0.0469	1.192
TS17SS-1/2	17	0.0422	1.073
TS18SS-1/2	18	0.0331	0.841
TS19SS-1/2	19	0.0265	0.673
TS20SS-1/2	20	0.0235	0.597
TS21SS-1/2	21	0.0206	0.524
TS22SS-1/2	22	0.0161	0.410
TS23SS-1/2	23	0.0132	0.334
TS25SS-1/2	25	0.0102	0.260
TS26SS-1/2	26	0.0101	0.257
TS27SS-1/2	27	0.0082	0.207
TS28SS-1/2	28	0.0068	0.172

## Typical Valve Set Up





## DX-300 Digital Dispenser/Controller

The DX-300 offers 10 user programmable dispense routines. It is intuitive to use and allows accurate reproduction of sequences of beads or dots.

The DX-300 includes an adjustable vacuum feature for controlling drip of fluids between dispense cycles. A vacuum gauge is included to monitor suck-back. Packaged ready to use, with sample tips, barrels and syringe adapters.

Available in two versions of operating pressure: 0 to 100 psi for general applications, and 0 to 15 psi for specific low viscosity applications.

SPECIFICATIONS	
Size:	6" x 7" x 6" (15.2 x 17.8 x 15.2 cm)
Voltage:	24V DC power adapter provided
Time Range:	0.008 to 99.999 seconds
CE certified	
DX-300	Digital Dispenser 0 to 100 psi (0 to 6.9 bar)
DX-315	Digital Dispenser 0 to 15 psi (0 to 1.0 bar)

## TS5130 Smart Pneumatic Valve Controller

The TS5130 features a fully adjustable Low Pressure Alarm function. This provides process control by preventing dispensing of the process air supply falls below the minimum required for the specific operation.

The TS5130 Valve Controller is designed to offer all the conventional valve control features such as a Valve Purge, Valve Test, External Actuation and End-of-cycle signal. The TS5130 comes equipped with an integrated I/O connector that allows the unit to be connected directly to a computer interface.



SPECIFICATIONS	
Size:	9 1/4" x 8 1/2" x 2 1/2" (23.5 x 21.6 x 6.4 cm)
Voltage:	115/230V AC 50/60Hz (selectable)
Operating Pressure:	0 to 100 psi (0 to 6.9 bar)
Time Range:	0.008 to 99.99 seconds
Meet or Exceeds CE	

## TS5100 Rotary Valve Controller



The TS5100 Controller is the timer/power source for Rotary Valves. It provides an adjustable DC output from 6 to 24 volts, for motor drive and a digital time-set display shows motor on-time, forward and reverse, from 1 millisecond to 99.99 seconds.

Motor activation can be foot switch initiated, or tied to an actuated limit switch. An extra limit switch port is available in "Z" travel relative to dispense cycle. Air adjustment for the syringe feed can be made from the unit's front panel.

TS5100D – Dual controller is also available to control two valves simultaneously.

### SPECIFICATIONS

Size:	12 3/8" x 7 3/8" x 2 1/2" (31.4 x 18.7 x 6.35 cm)
Voltage:	110-120/200-240V AC selectable
Operating Pressure:	0 to 100 psi (0 to 6.9 bar)
Time Range:	0.001 to 99.99 seconds forward and reverse
Output Voltage:	6 to 24V DC adj. (± .5%)
Meets or Exceeds CE	

## TS5110 Spray Valve Controller

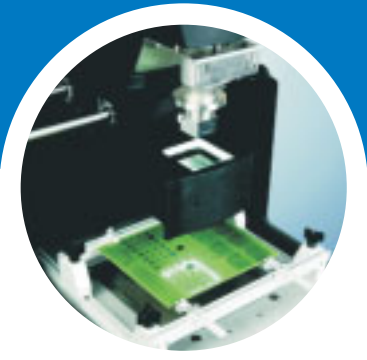
The TS5110 Spray Valve Controller offers precision control of OK International's Spray Valve. Three-stage microprocessor (pre-spray, spray and post-spray) provides accurate and repeatable time control of each stage from .001 to 99.99 seconds.

Continuous spray option offers switch initiated and terminated spray cycles. Precision air regulator provides accurate control of atomizing air pressure. The TS5110 offers footswitch initiated cycles and an I/O port for connecting to a host computer for automated applications.



### SPECIFICATIONS

Size:	12 3/8" x 7 3/8" x 2 1/2" (31.4 x 18.7 x 6.4 cm)
Voltage:	110-120V AC 60Hz - 18W 200-240V AC 50Hz - 18W
Time Range:	0.008 to 99.99 seconds
Operating Pressure:	0 to 100 psi (0 to 6.9 bar)
Meets or Exceeds CE	



OK International has a full range of products for the electronics assembly work bench to meet your application needs.

Besides a comprehensive line of fluid dispensing products, including valves, equipment and consumables, OK International has a full range of soldering, desoldering and rework systems. Our rework and repair equipment offers best-in-class performance for BGA and array package rework. And, to complement these products is a line of benchtop fume extraction systems that range from tip extraction to multi-user units. OK International products conform to global industry standards, and meet today's high standards of precision and performance.

For more information about the full scope of OK International products, please contact your local OK International Representative.



OK International provides solution-based technologies to electronics manufacturing industries throughout the world. Through our sales, service and distribution centers located in North America, Europe and Asia we provide seamless, proactive expertise and support to our customers worldwide.

Wherever industrial manufacturing facilities are located, OK International's global network of expertly trained distributors is there, to supply essential technical support and advanced process solutions.



#### **NORTH AMERICA**

OK International  
12151 Monarch Street  
Garden Grove,  
California 92841  
USA  
Tel: +1-714-799-9910  
Fax: +1-714-799-9533

#### **UNITED KINGDOM**

OK International Ltd.  
Eagle Close, Chandlers Ford  
Eastleigh, Hampshire SO53 4NF  
United Kingdom  
Tel: +44 (0) 2380 489100  
Fax: +44 (0) 2380 489109

#### **FRANCE**

OK International SAS  
Rue de la Saone  
Zac de Follieuses-les Echets  
01706 Miribel Cedex  
France  
Tel: +33 (0)4 72 26 20 30  
Fax: +33 (0)4 72 26 20 35

#### **JAPAN**

OK International Japan Co.  
5-3-1 Heiwajima, Ota-ku  
Tokyo 143-0006  
Japan  
Tel: +81-3-5753-0085  
Fax: +81-3-3765-8855

#### **GERMANY**

OK International GmbH  
Frankfurter Straße 74  
64521 Gross-Gerau  
Germany  
Tel: +49 (0) 61 52-71 12-0  
Fax: +49 (0) 61 52-71 12-22

#### **ITALY**

OK International  
Strada Statale 11 – No 28  
20010 Vittuone, Milano  
Italy  
Tel: +39 02 902 5161  
Fax: +39 02 901 11147

#### **SINGAPORE**

OK International  
10 Ang Mo Kio St. 65  
#05-13 Techpoint  
Singapore 569059  
Tel: +65-62810991  
Fax: +65-62853473

#### **CHINA**

OK Electronics (Beijing) Co.,Ltd.  
No. 1 Building,  
A -10 Long Qing Street  
Beijing Economic &  
Technical Developing Zone  
Beijing, 100176  
The People's Republic of China  
Tel: +86-10-67878490  
Fax: +86-10-67878491



North America

12151 Monarch Street • Garden Grove, California 92841 USA

Tel: +1-714-799-9910 • Fax: +1-714-799-9533

[www.okinternational.com](http://www.okinternational.com)



© 2005 Delaware Capital Formation, Inc. All rights reserved  
DOVER and the Dover logo are registered trademarks of Delaware Formation, Inc. a wholly-owned subsidiary of Dover Corporation

BRO-FDVT-US-05