

# 82 & 83 Series

## Sealed Tip Squirt Valves

Completely adjustable fluid volume control.

**vanSeo**'s 82 and 83 Series Squirt Valves utilize their quick and compact designs to answer a variety of needs for a number of gluing industry applications. The valves are equipped with a sealed tip designed to eliminate the drying and plugging of adhesive. To promote a long operating life, each valve series is made of plated brass or anodized aluminum with a stainless steel needle and fluid nozzle.

### **vanSeo**'s 82 & 83 Series Squirt Valve features:

#### **Compact Design**

A small package for mounting adaptability and easy installation.

#### **Quick Response Time**

Fast results are achieved due to a short stroke, 4-way valve combined with low-mass needle assembly.

#### **Advanced Technology**

An electric signal triggers a pneumatically piloted spool valve which shifts and opens the adhesive outlet.

#### **Unique Design**

A unique diaphragm seal between fluid and air sections eliminates wetted seals that typically wear out, leak, adjust, and jam.

#### **Serviceability**

"Break-away" disassembly allows all internal parts to be quickly accessed for easy field maintenance.

#### **Voltage Options**

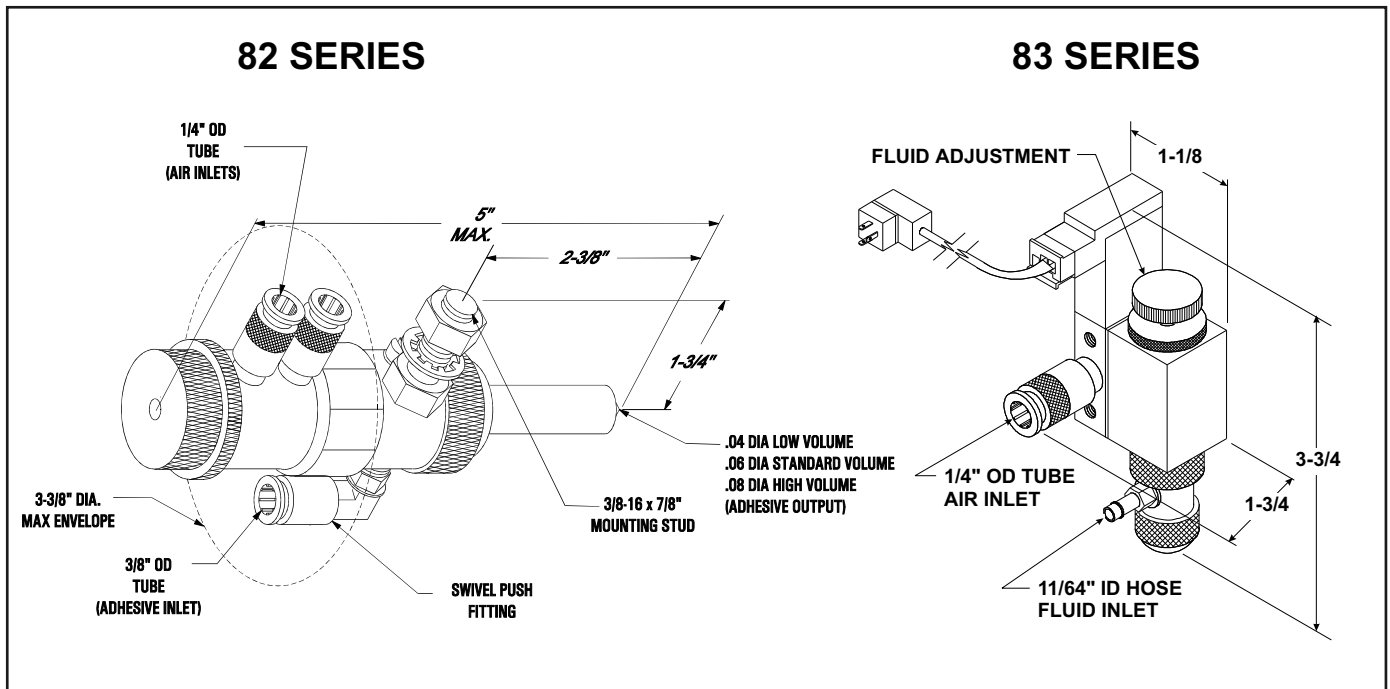
24 VDC and 115 VAC are standard, 12 VDC is available upon request.

#### **Push Fitting**

The push fitting is conveniently located at air input points for simple installation.



# Dimensions



# Technical Characteristics

	<b>82 Series Specifications</b>	<b>83 Series Specifications</b>
<b>Operating Air Pressure</b>	50-125 PSI filtered, regulated, lubricated, compressed air to exceed fluid pressure by 30 PSI	Air pressure to exceed fluid pressure by 40 PSI
<b>Actuation Air Consumption</b>	0.9 in <sup>3</sup> / actuation at 80 PSI operating pressure	0.9 in <sup>3</sup> / actuation at 80 PSI operating pressure
<b>Maximum Cycle Rate/ Response Time</b>	20 actuations/second at 80 PSI operating pressure	7 milliseconds (open) 4.5 milliseconds (closed)
<b>Fluid Pressure</b>	1-30 PSI	1-30 PSI
<b>Fluid Viscosity Range</b>	1-5000 Centipoise	1-2000 Centipoise
<b>Construction</b>	All wetted parts in brass squirt valve assemblies consist of brass, stainless steel, and UHMW polyethylene	Metal parts are plated brass or anodized aluminum, stainless steel needle and fluid nozzle for long life

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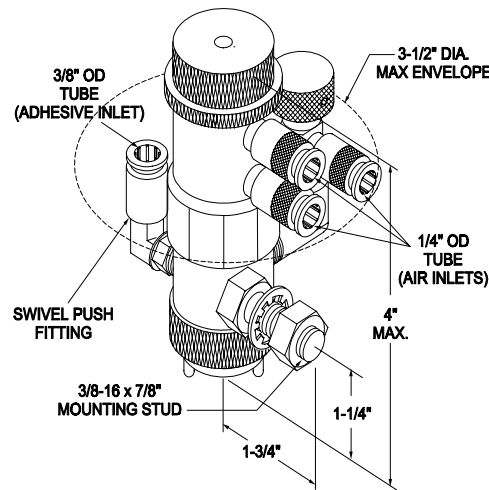


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# 82 SERIES

# Adhesive Spray Valve DIMENSIONS



## TECHNICAL DATA

### OPERATING AIR PRESSURE:

50-125 psi filtered, regulated, lubricated compressed air.

### ATOMIZING AIR CONSUMPTION:

AVERAGE- 1.5 CFM  
MAXIMUM- 3.0 CFM

### ACTUATION AIR CONSUMPTION:

0.9 in<sup>3</sup> /actuation at 80 psi operating pressure.

### MAXIMUM CYCLE RATE:

20 actuations/second at 80 psi operating pressure.

### FLUID PRESSURE:

1-30 psi

### FLUID VISCOSITY RANGE:

1-3000 centipoise

### PRODUCT DISTANCE TO PATTERN

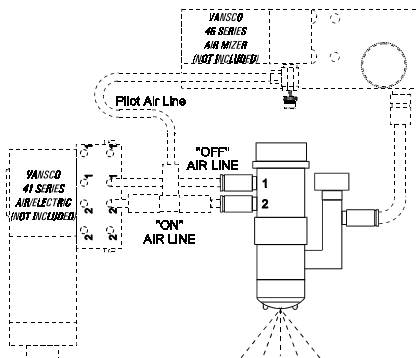
### WIDTH RATIO:

Approximately 1 : 1½

### CONSTRUCTION:

All wetted parts in brass spray valve assemblies consist of brass, stainless steel and UHMW polyethylene. All wetted parts in stainless steel spray valve assemblies consist of stainless steel and UHMW polyethylene.

## TYPICAL SYSTEM DIAGRAM



## HOW TO ORDER

L/V= Low Volume

S/V= Standard Volume

H/V= High Volume

SS= Stainless Steel

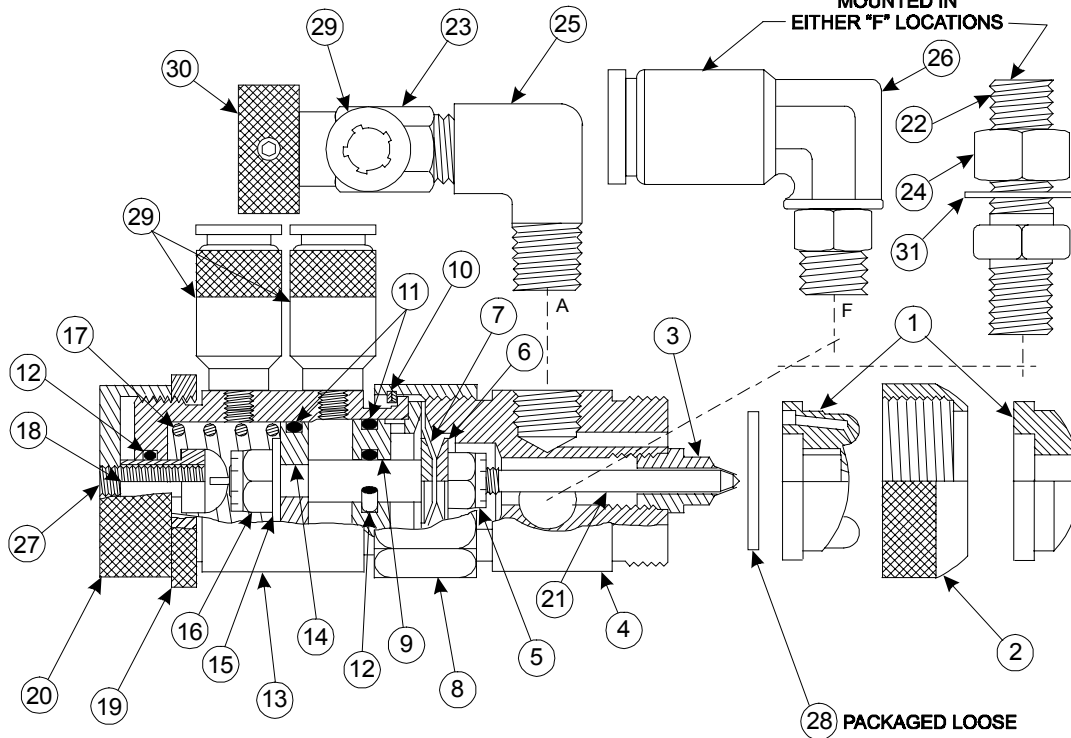
### PART NO. DESCRIPTION

82-00-03	Spray Valve Assy, L/V Brass
82-00-04	Spray Valve Assy, S/V Brass
82-00-05	Spray Valve Assy, H/V Brass
82-00-13	Spray Valve Assy, S/V SS
82-00-14	Spray Valve Assy, H/V SS

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# 82 SERIES SPRAY VALVE

# COMPONENT PARTS



ITEM	PART NO.	QTY	DESCRIPTION
1	90-82-03	1	Air Nozzle, S/V, with Fan Ears
	90-82-18	1	Air Nozzle, H/V, with Fan Ears
	90-82-49	1	Air Nozzle, L/V, No Ears
	90-82-44	1	Air Nozzle, S/V, No Ears
	90-82-45	1	Air Nozzle, H/V, No Ears
2	90-82-08	1	Air Nozzle Retaining Nut
3	90-82-48	1	Fluid Nozzle, L/V
	90-81-03	1	Fluid Nozzle, S/V
	90-82-17	1	Fluid Nozzle, H/V
4	90-82-95	1	Valve Body, Brass
	90-82-96	1	Valve Body, S.S.
5	90-02-18	1	Self Locking Nut, S/V, L/V, S.S.
	90-02-57	1	Self Locking Nut, H/V, S.S.
6	90-82-88	2	Diaphragm Plate, S/V, L/V, S.S.
	90-82-89	2	Diaphragm Plate, H/V, S.S.
7	90-82-13	1	Diaphragm, S/V, L/V
	90-82-41	1	Diaphragm, H/V
8	90-82-10	1	Body Union Nut
9	90-82-04	1	Valve Needle Guide
10	90-02-17	1	Retaining Ring
11	90-02-32	2	"O" Ring
12	90-02-36	2	"O" Ring
13	90-82-07	1	Piston Housing

ITEM	PART NO.	QTY	DESCRIPTION
14	90-81-21	1	Plunger Piston
15	90-02-19	1	Plunger Piston Washer
16	90-02-57	1	Self Locking Nut
17	90-82-02	1	Return Spring
18	90-82-06	1	Sleeve
19	90-82-14	1	Fluid Control Knob Lock Ring
20	90-82-09	1	Fluid Control Knob
21	90-82-50	1	Valve Needle, L/V
	90-82-05	1	Valve Needle, S/V
	90-82-16	1	Valve Needle, H/V
22	90-82-01	1	Mounting Stud
	90-82-21	1	Mounting Stud, Stainless Steel
23	90-82-80	1	Atomizing Air Adj. Valve (Incl. Item 30)
24	90-05-83	1	3/8-16 Hex Nut
25	90-02-15	1	Elbow, 1/8MP X 1/8FP, Brass
26	90-07-45	1	3/8 OD Tube x 1/8MP Swvl El Push Ftg
	90-03-79	1	3/8 OD Tube x 1/8MP Elbow, S.S.
27	90-02-48	1	10-32 x 5/8 Screw
28	90-82-94	1	Gasket (Use to limit fan air)
29	90-07-37	3	1/4" OD Tube x 10-32 Push Fitting
30	90-82-43	1	Knob Extension
31	90-06-09	1	Washer, 3/8", Stainless Steel

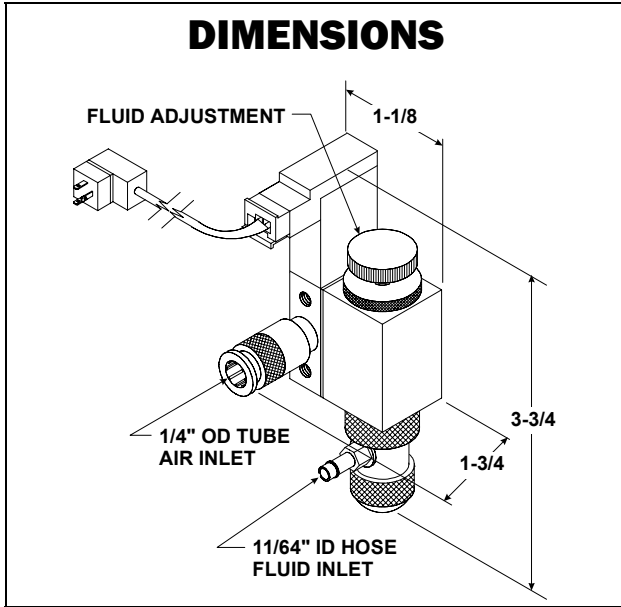
## SERVICE KITS

PART No.	FOR SPRAY VALVE	CONSISTS OF ITEMS
82-00-03	Low Volume (L/V)	82-00-04 Standard Volume (S/V)
82-00-04	Standard Volume (S/V)	82-00-05 High Volume (H/V)
82-00-05	High Volume (H/V)	82-00-13 S/V S.S.
82-00-13	S/V S.S.	82-00-14 H/V S.S.
90-04-72	82-00-03/-04/-13 L/V, S/V (Minor Kit)	7, 11, 12
90-04-74	82-00-05/-14 H/V (Minor Kit)	7, 11, 12
91-04-10	82-00-03 L/V (Major Kit)	12, 17, (3, 5, 6, 7, 9, 11, 12, 14, 15, 16, 21) Assembled and Lapped
91-04-11	82-00-04/-13 S/V (Major Kit)	12, 17, (3, 5, 6, 7, 9, 11, 12, 14, 15, 16, 21) Assembled and Lapped
91-04-12	82-00-05/-14 H/V (Major Kit)	12, 17, (3, 5, 6, 7, 9, 11, 12, 14, 15, 16, 21) Assembled and Lapped

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# 83 SERIES

# TECHNICAL DATA Valve



### OPERATING AIR PRESSURE:

Air pressure to exceed fluid pressure by 40 psi.

### ACTUATION AIR CONSUMPTION:

0.9 in<sup>3</sup> /actuation at 80 psi operating pressure.

### RESPONSE TIME: (24 VDC model only)

7 milliseconds (open)

4.5 milliseconds (closed)

### FLUID PRESSURE:

1-30 psi

### FLUID VISCOSITY RANGE:

1-2,000 centipoise

### INPUT VOLTAGE (CURRENT):

115VAC (0.02A)

24VDC (0.17A)

### DUTY CYCLE:

Continuous

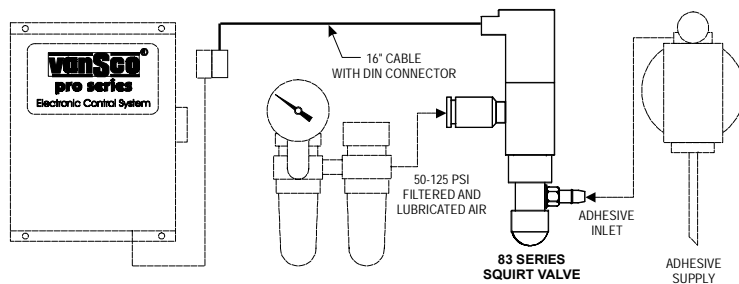
### CONSTRUCTION:

Metal parts are plated brass or anodized aluminum; stainless steel needle and fluid nozzle for long life.

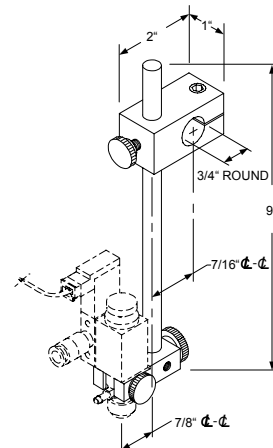
## HOW TO ORDER

PART NO.	DESCRIPTION
83-01-01	Squirt Valve, Low Volume 115VAC
83-01-02	Squirt Valve, Standard Volume 115VAC
83-01-03	Squirt Valve, High Volume 115VAC
83-03-01	Squirt Valve, Low Volume 24VDC
83-03-02	Squirt Valve, Standard Volume 24VDC
83-03-03	Squirt Valve, High Volume 24VDC
79-03-15	83 Series Bracket

## TYPICAL SYSTEM DIAGRAM



## 83 SERIES BRACKET



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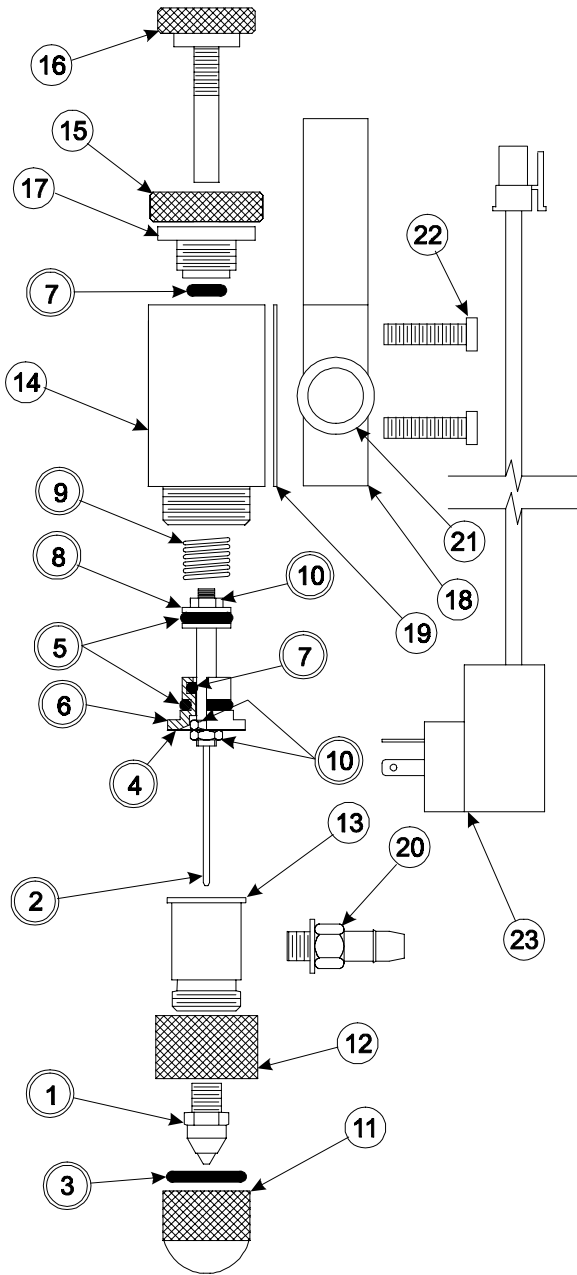
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**83-01-01 83-03-01**  
**83-01-02 83-03-02**  
**83-01-03 83-03-03**

# Squirt Valve COMPONENT PARTS



<u>ITEM</u>	<u>PART NO.</u>	<u>QTY</u>	<u>DESCRIPTION</u>
*1	90-83-13	1	Fluid Nozzle, Squirt, L/V
	90-83-14	1	Fluid Nozzle, Squirt, S/V
	90-83-15	1	Fluid Nozzle, Squirt, H/V
*2	90-83-12	1	Needle Assembly
*3	90-06-33	1	O-Ring
*4	90-83-11	1	Diaphragm
*5	90-02-77	2	O-Ring
*6	90-83-10	1	Needle Guide
*7	90-02-67	2	O-Ring
*8	90-83-09	1	Piston
*9	90-83-05	1	Spring
*10	90-02-78	3	4-40 Hex Nut, Radial
11	90-83-01	1	Nozzle Cover
12	90-83-03	1	Union Nut
13	90-83-02	1	Fluid Body
14	90-83-04	1	Piston Housing
15	90-83-07	1	Lock Ring
16	90-83-06	1	Fluid Adjustment Screw
17	90-83-08	1	Piston Housing Cap
18	91-41-11	1	4-Way Solenoid Valve, 115 VAC
	91-41-10	1	4-Way Solenoid Valve, 24 VDC (Includes Item 23)
19	90-82-75	1	Manifold Gasket
20	90-06-98	1	Hose Barb
21	90-07-37	1	¼" OD Tube X 10-32 Push Fitting
22	90-06-88	2	4-40 PNHD Screw
23	91-41-12	1	Lead Wire Assembly

### SERVICE KITS

91-04-30	For 83-01-01 & 83-03-01 Low Volume Valve
91-04-31	For 83-01-02 & 83-03-02 Standard Volume Valve
91-04-32	For 83-01-03 & 83-03-03 High Volume Valve

\* Asterisks and double circled items included in service kits.

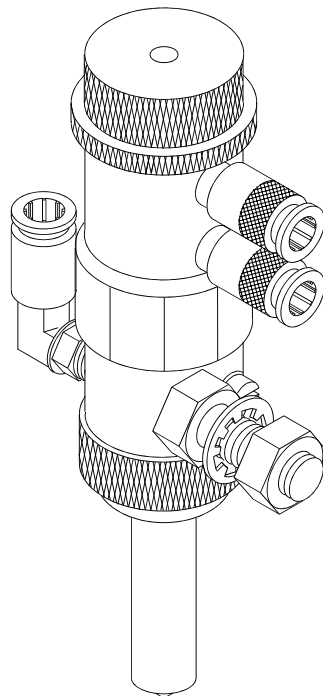
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## 82 SERIES

# Sealed Tip Squirt Valve



## FEATURES

**Sealed Tip-** Sealed tip design eliminates the possibility of adhesive drying and plugging.

**Diaphragm Seal-** Unique diaphragm seal between fluid and air sections; no packing or sliding seals to wear out, adjust or jam.

**Adjustable-** Fully adjustable fluid volume control. Fluid adjustment may be locked at set positions.

**Serviceability-** "Breakaway" disassembly - all internal parts are quickly accessible for quick and easy field maintenance.

**Durable-** Metal parts are plated brass or anodized aluminum; stainless steel needle and fluid nozzle for long life. All stainless steel fluid section available.

**Double Acting-** "Air on - Air off" actuation insures positive operation capable of high cycle rates.

**Versatile-** The actuator will operate in any position.

**Push Fittings-** Convenient at all air and fluid input points for ease of installation.

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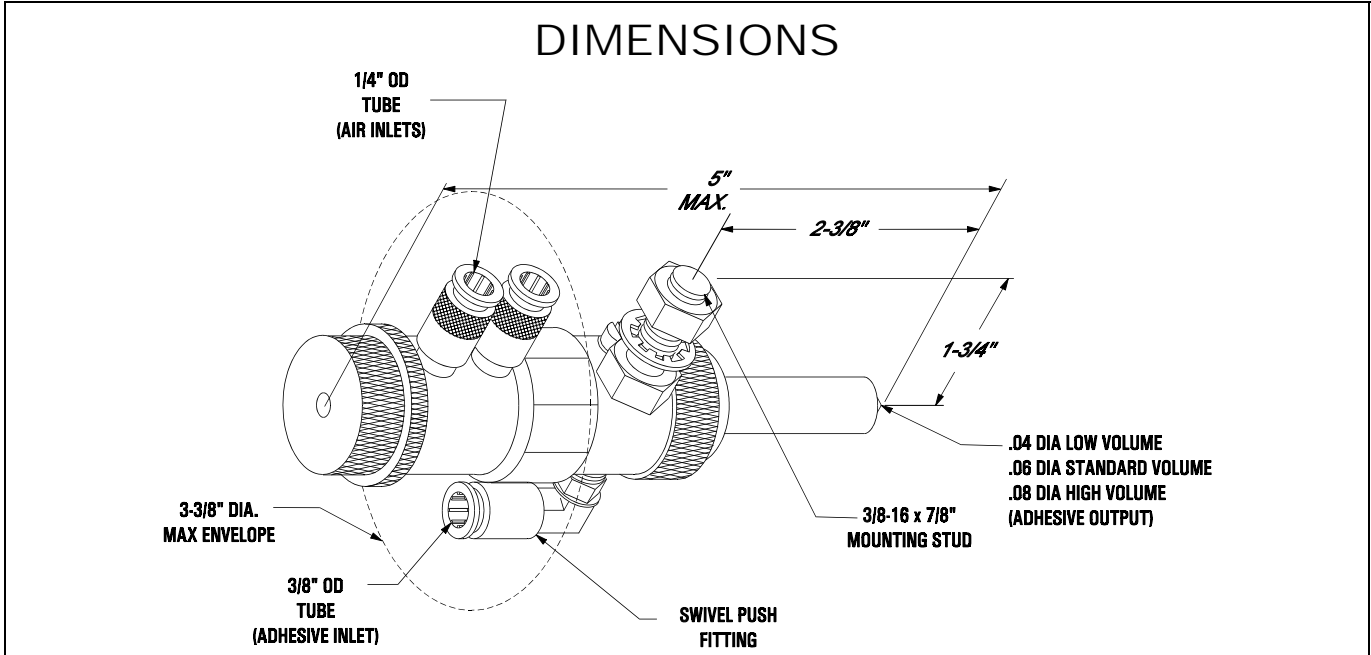
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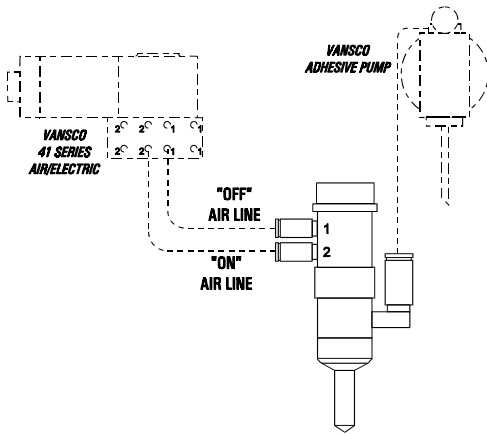
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# 82 SERIES

# Sealed Tip Squirt Valve



## TYPICAL SYSTEM DIAGRAM



## TECHNICAL DATA

### OPERATING AIR PRESSURE:

50-125 psi filtered, regulated, lubricated compressed air to exceed fluid pressure by 30 psi.

### ACTUATION AIR CONSUMPTION:

0.9 in<sup>3</sup> /actuation at 80 psi operating pressure.

### MAXIMUM CYCLE RATE:

20 actuations/second at 80 psi operating pressure.

### FLUID PRESSURE:

1-30 psi

### FLUID VISCOSITY RANGE:

1-5,000 centipoise

### CONSTRUCTION:

All wetted parts in brass squirt valve assemblies consist of brass, stainless steel and UHMW polyethylene.

## HOW TO ORDER

L/V= Low Volume, .04 Dia. Nozzle  
 S/V= Standard Volume, .06 Dia. Nozzle  
 H/V= High Volume, .08 Dia. Nozzle

### PART NO. DESCRIPTION

- 82-00-65** Squirt Valve Assy., L/V Brass
- 82-00-66** Squirt Valve Assy., S/V Brass
- 82-00-67** Squirt Valve Assy., H/V Brass

**BAU197**

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# 82 Series

## Adhesive Hand Spray Valve

Built for long-lasting operation.

**vanSCO**'s 82 Series Hand Spray Valve uses a spiral air design that significantly reduces air consumption during adhesive atomization. The 82 Series valve also features a nylon coated nozzle with rounded external surfaces that help to reduce time spent on maintenance while maintaining the highest level of performance. The type of corners and edges that typically attract stray adhesive particles are removed. These truly beneficial components increase overall efficiency in system operation.

### **vanSCO**'s 82 Series Adhesive Hand Spray Valve features:

#### **Sealed Tip**

Eliminates the possibility of adhesive drying and plugging.

#### **Unique Design**

Unique seal between the fluid and air sections eliminates the problems associated with packing or sliding seals.

#### **Quick Response**

The adhesive has a quicker initial track than created with an extrusion or roller applicator.

#### **Adjustable**

Fully adjustable fluid volume and atomizing air controls. Both fluid and air controls may be locked at set position.

#### **Resilient**

Metal parts are plated brass or anodized aluminum. Needle and fluid nozzle are stainless steel for long life.

#### **Flexible**

The 82 Series Valve is able to operate in any position.



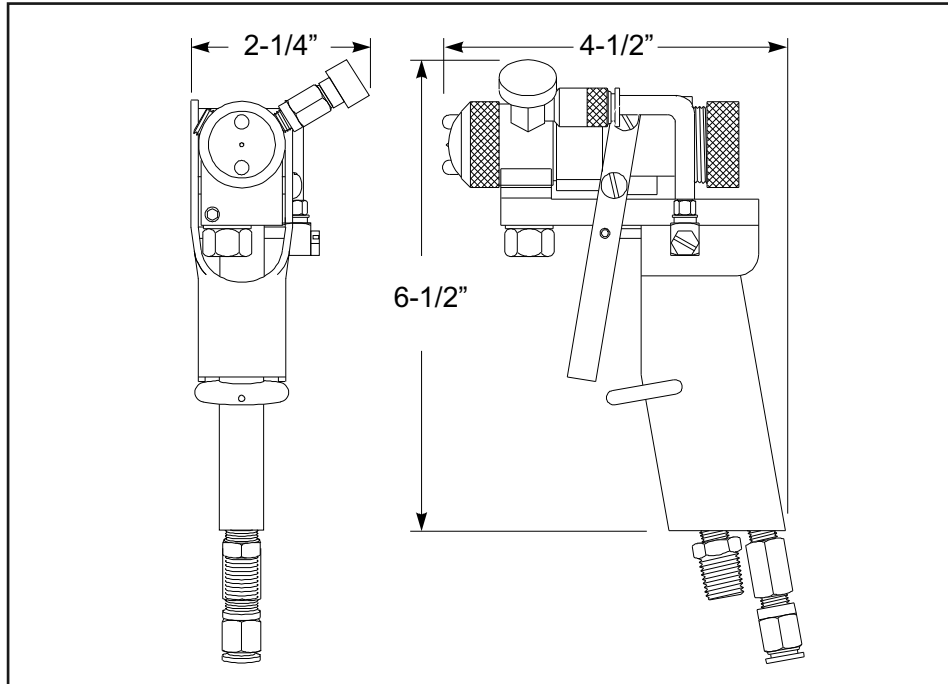
### How to Order

Part No.	Description
82-00-54	Spray Valve, S/V, Brass
82-00-55	Spray Valve, H/V, Brass

#### Recommended Parts


78-00-07	Fluid/Air Hose Kit
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# Dimensions



# Technical Characteristics

82 Series Specifications	
Atomization Air Pressure:	40-80 PSI
Fluid Pressure:	2-40 PSI
Fluid Viscosity Range:	1-3000 CPS
Product Distance to Pattern Width Ratio:	Approximately 1 : 1.5



For more information visit [www.vansco.com](http://www.vansco.com) or contact us direct.



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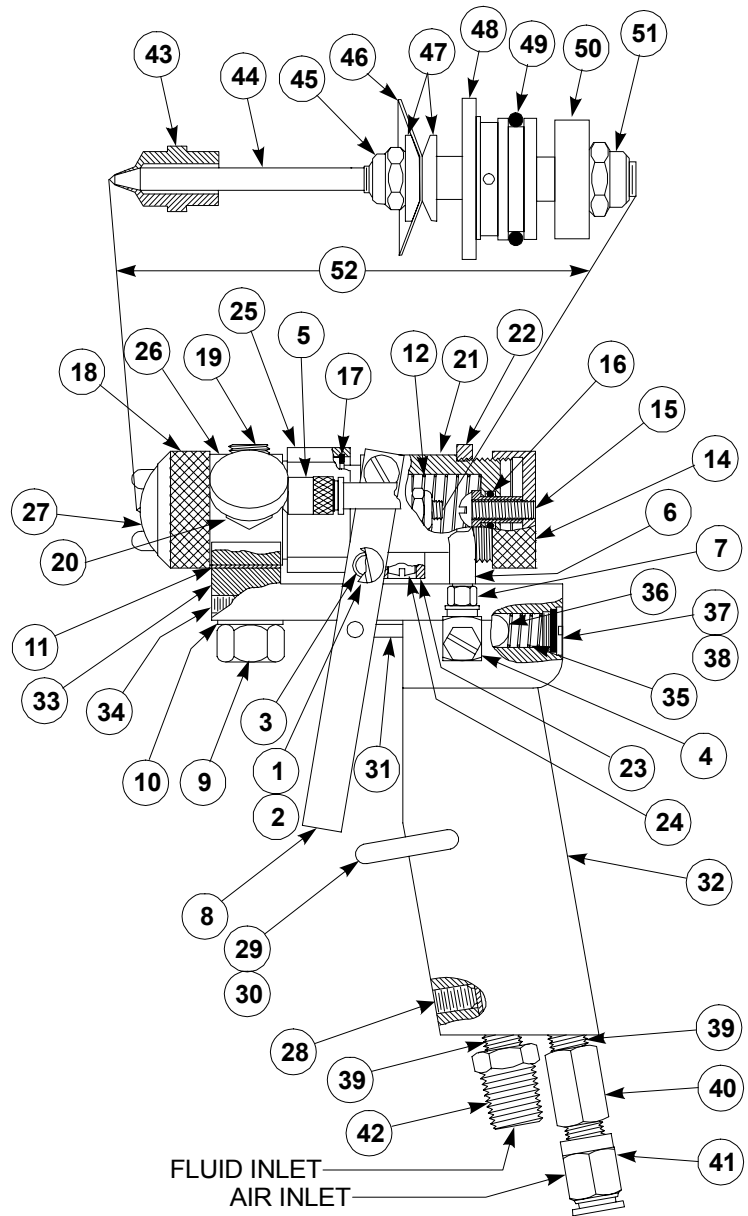


# 82 SERIES

## Hand Spray Valve

# COMPONENT PARTS

ITEM	QTY	PART NO.	DESCRIPTION
1	2	90-01-12	10-32 X 1-1/2" R.H. Screw
2	2	90-01-11	10-32 Hex Nut
3	2	90-82-25	Sleeve
4	1	90-02-05	Swivel Elbow
5	1	90-07-37	10-32 X 1/4" ID Push Fitting
6	1	90-00-49	1/4" OD X 11/64" ID Tube
7	1	90-06-98	Hose Barb
8	1	90-82-34	Trigger
9	1	90-82-33	Mounting Post
10	1	90-82-24	Mounting Post Gasket
11	1	90-82-27	Flat Gasket
12	1	90-82-37	Return Spring
13	1	90-82-06	Sleeve
14	1	90-82-09	Fluid Control Knob
15	1	90-02-48	10-32 X 5/8" R.H. Screw
16	1	90-02-36	O-Ring, Upper Plunger
17	1	90-02-17	Retaining Ring
18	1	90-82-08	Air Nozzle Retaining Nut
19	1	90-01-91	1/8" NPT Socket Plug
20	1	90-82-80	Atomizing Air Adjustment Valve
21	1	90-82-32	Piston Housing
22	1	90-82-14	Fluid Control Lock Ring
23	1	90-82-30	Actuating Cam
24	1	90-01-95	8-32 X 3/8" Fillister Head
25	1	90-82-10	Body Union Nut
26	1	90-82-95	Valve Body
27	1	90-82-03	Air Nozzle, Standard Volume
	1	90-82-18	Air Nozzle, High Volume
28	1	90-05-79	1/4-20 X 3/8" Set Screw SOHD
29	1	90-01-56	Finger Rest Pin
30	1	90-82-29	Finger Rest
31	1	90-82-26	1/8 X 1" Pin, S.S.
32	1	90-82-31	Handle
33	1	90-82-55	Frame
34	1	90-05-94	1/4-28 X 1/4" Set Screw SOHD
35	1	90-82-36	Spring
36	1	90-82-38	1/4" Dia. Ball
37	1	90-03-77	Spring Retainer Cap
38	1	90-02-33	O-Ring, Plunger Piston
39	2	90-03-73	1/8" MP X 4" Nipple
40	1	90-03-75	1/8" FP Hex Coupling
41	1	90-07-41	1/8" MP X 1/4" OD Push Fitting
42	1	90-02-10	1/4" MP X 1/8" FP Bushing
43	1	90-81-03	Fluid Nozzle, 0.055" Orifice, S/V
	1	90-82-17	Fluid Nozzle, 0.078 Orifice, H/V
44	1	90-82-05	Valve Needle, S/V
	1	90-82-16	Valve Needle, H/V
45	1	90-02-18	8-32 Self Locking Nut, S/V
	1	90-02-57	10-32 Self Locking Nut, H/V
46	1	90-82-13	Diaphragm, S/V
	1	90-82-41	Diaphragm, H/V



47	2	90-82-88	Diaphragm Plate, S/V
	2	90-82-89	Diaphragm Plate, H/V
48	1	90-82-04	Valve Needle Guide
49	1	90-02-32	O-Ring, Plunger
50	1	90-82-28	Plunger Piston
51	1	90-47-13	10-32 Self Locking Nut
52	1	90-82-64	Needle Assembly, S/V
	1	90-82-65	Needle Assembly, H/V

**\*SERVICE KIT**  
**S/V Standard Volume**      **H/V High Volume**

90-04-81	Includes Items: 10, 11, 16, 38, 46, and 49
90-04-82	Includes Items: 10, 11, 16, 38, 46, 49, and 52
90-04-83	Includes Items: 10, 11, 16, 38, 46, 49, and 52

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# 78-00-07 COMPONENT PARTS and INSTALLATION Convenience Kit For 82 Series Hand Spray Valve

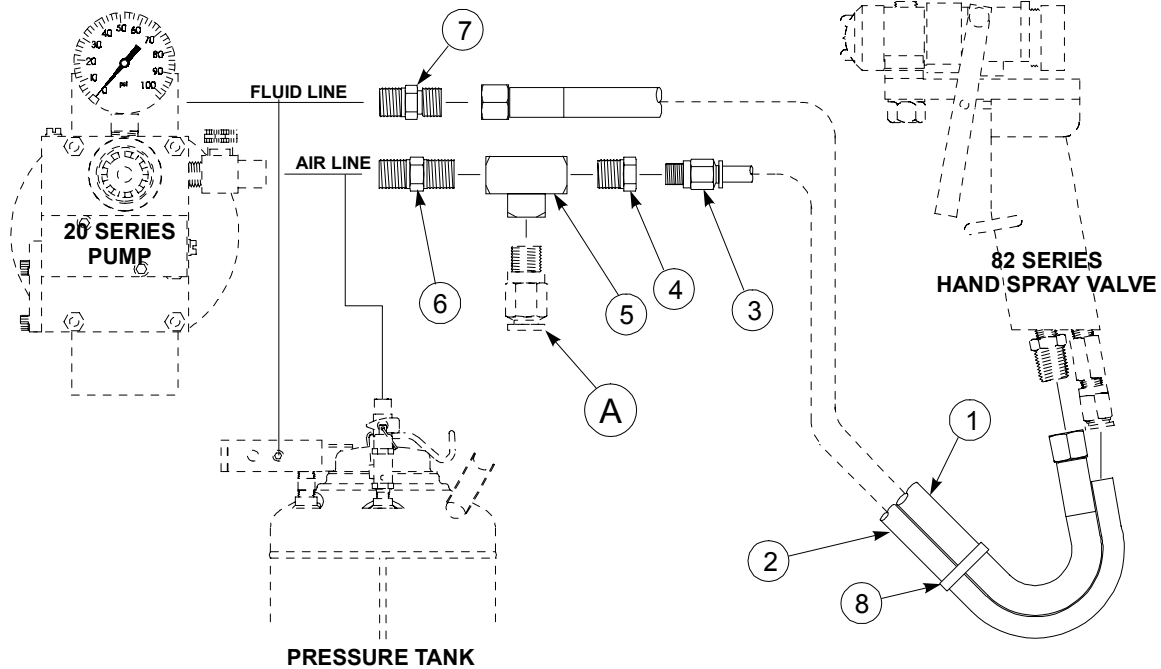
## ASSEMBLY INSTRUCTIONS

The 78-00-07 Convenience Kit contains the hose assemblies and fittings to attach a VanSco hand spray valve to a VanSco pump or pressure tank.

Install Adapter (Item 7) to the fluid manifold (VanSco's 20 Series Pump or Pressure Tank illustrated below). Remove the Push Fitting (Item "A")(if applicable) from the air inlet to the pump or pressure tank. Install the Pipe Nipple, Tee, Adapter and Push Fitting (Items 3, 4, 5, and 6) as shown below. Re-install Item "A" push fitting (if applicable) to the Tee (Item 5). Apply clean dry compressed air at Item "A".

Install the fluid hose, Item 1, to the threaded fluid inlet adapter of the Hand Spray Valve. Install the air tube, Item 2, to the air inlet push fitting of the Hand Spray Valve.

## ASSEMBLY ILLUSTRATION



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ITEM	QTY	PART NO.	DESCRIPTION
1	1	90-00-77	1/4" ID Nyflex Hose Assembly, 10'
2	11	90-00-69	1/4" OD Poly Tube
3	1	90-07-41	1/4" OD Tube X 1/8" MP Push Fitting
4	1	90-02-10	1/4" MP X 1/8" FP Bushing
5	1	90-02-02	1/4" FP Tee
6	1	90-01-81	1/4" MP Nipple
7	1	90-01-80	1/4" MP X 1/4" MS Adapter
8	6	90-01-45	Nylon Ties

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## INSTALLATION & OPERATION

### 82 SERIES SPRAY VALVE

#### **ADHESIVE**

Water based resin adhesives with viscosity's from 0 to 3000 centipoise (CPS) can be sprayed in the 82 Series Spray Valve. Generally, adhesives in the range of 500 to 1500 CPS produce the best results. Adhesives other than resins with viscosity's higher than 3000 CPS may be sprayed in the 82 Series Spray Valve. However, care should be exercised in testing compatibility. All adhesives should be filtered through a 100 mesh filter element.

NOTE: The choice of adhesive is very important for any spray system, and the success or failure of the system can depend entirely on the type and characteristics of the adhesive being used.

#### **ADHESIVE SUPPLY**

**The adhesive pressure supplying the 82 Series Spray Valve should be in the range of 10 to 30 PSI.**

NOTE: If adhesive pressure greater than 30 PSI is used, the valve may open or leak adhesive when air pressure is removed from the valve.

#### **CONTROL AIR SUPPLY**

**The 82 Series Spray Valve requires a constant source of filtered, regulated, and lubricated air of 70 to 120 PSI with 80 PSI normal.** Air consumption for actuation of the valve is negligible.

#### **ATOMIZING AIR**

Filtered *un-lubricated* air should be used to supply the atomizing/fan air. Atomizing air is projected around the fluid nozzle and through the fan ears. The air nozzle may be rotated to produce a variety of patterns. Air consumption for atomizing air is variable, and may range up to 2 to 3 cubic feet per minute at 80 PSI.

#### **MOUNTING**

The 82 Series Spray Valve Assembly includes a mounting stud on the body with 3/8-16 threads, a lock washer, and nut for mounting. The stud and fluid inlet fittings may be switched for flexibility of mounting. (Refer to VanSco form BAS for proper mounting).

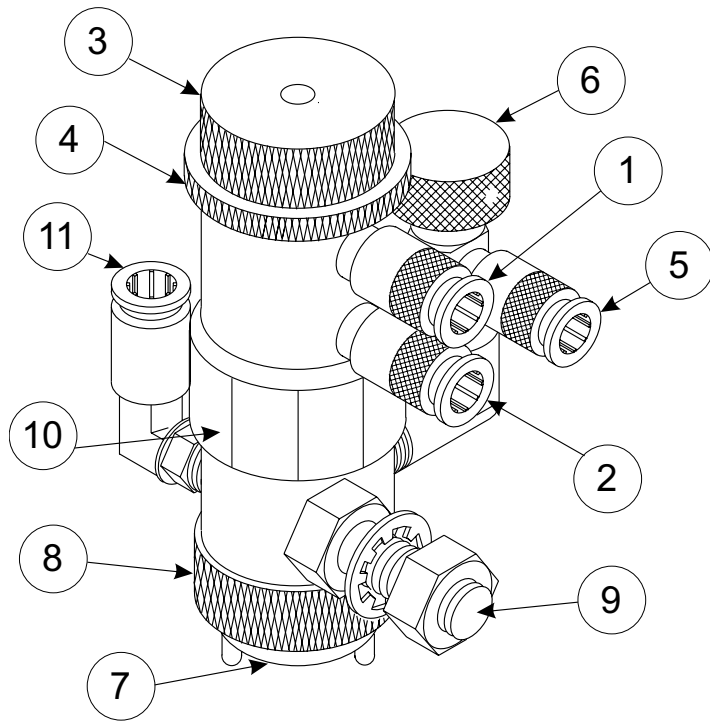
#### **SPRAY PATTERN SIZE**

In most applications the spray valve should initially be mounted approximately 2" above the product surface. This will produce about a 3" wide pattern. The approximate ratio of product distance to maximum pattern width is 1+:1. A 1" distance will provide for a maximum pattern of 1+ ". Pattern width is adjusted by moving the spray valve closer to or further from the product.

NOTE: Atomizing air pressure, adhesive, composition, viscosity and volume may produce some variation in the product distance/pattern width ratio.

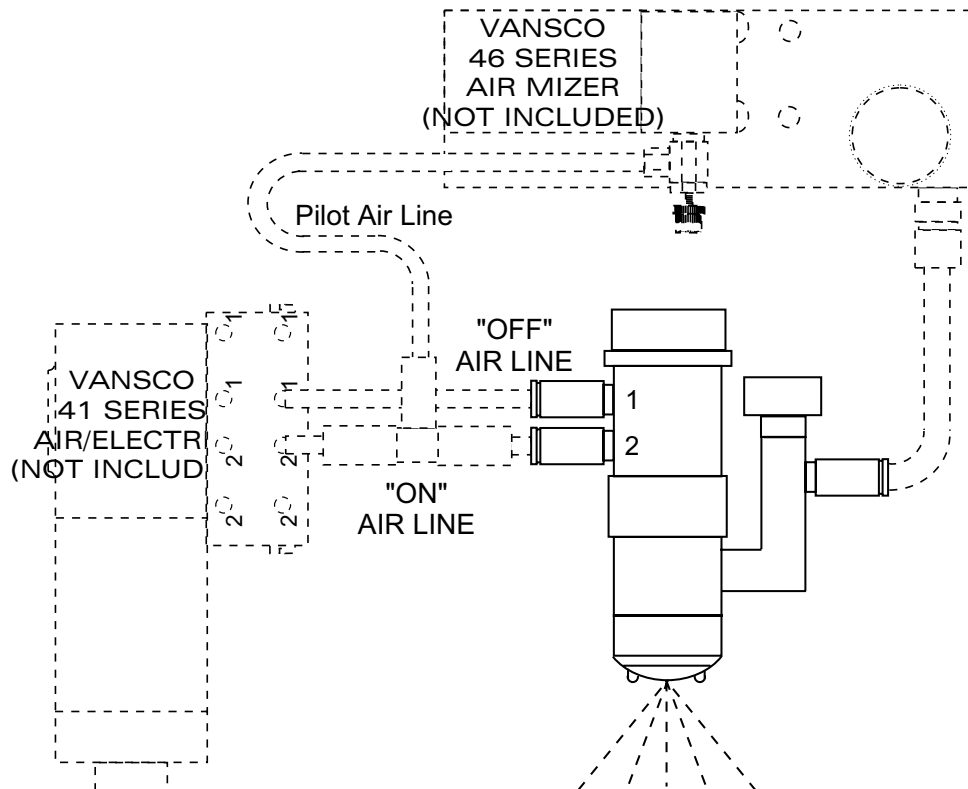
NOTE: In applications where multiple spray heads are connected to one source of adhesive supply, all fluid hoses and air hoses should be of equal length and as short as possible to insure maximum flow and minimum line loss.

### Component Parts



- 1 "OFF" Inlet Port #1
- 2 "ON" Inlet Port #2
- 3 Fluid Control Knob
- 4 Fluid Control Locking Ring
- 5 Atomizing Air Inlet
- 6 Atomizing Air Control Knob
- 7 Air Nozzle
- 8 Air Nozzle Retaining Ring
- 9 Mounting Stud
- 10 Body Union Nut
- 11 Fluid Supply Inlet

### Typical Circuit Diagram



## ***PRINCIPLES OF OPERATION***

A four way valve assembly is required to operate the control air supply. In the off position a constant source of air is supplied from the control valve to the number 1 port. This keeps the valve in a closed position. Upon actuation of the control valve air is supplied to the number 2 port, which opens the valve. A spring in the valve housing holds the needle closed should control air pressure be removed.

## ***FLUID OUTPUT CONTROL***

The fluid control knob (A) controls the amount of adhesive being sprayed. The lock ring (B) is used to lock the fluid control knob at the desired setting.

CAUTION: Closing the fluid control knob too tightly may severely damage the fluid tip assembly.

## ***STARTING UP***

All fluid and air hoses must be clear of foreign matter before connecting and that all connections are tight. Connect clean fluid and air hoses tightly to the appropriate inlets.

Open the fluid control knob (A) two turns counterclockwise from the closed position. Open the atomizing air control knob (C) approximately 1 full turn from the closed position. Adjust adhesive inlet to pressure at approximately 20 PSI to begin.

Actuate the control valve to start the adhesive spray and leave it open several seconds to flush air from the fluid hoses. The spray direction should be upward to purge air from the fluid hose. The valve should be raised or lowered to achieve the desired pattern width. Adjust the fluid control knob (A) to achieve the desired amount of adhesive flow. It may be necessary to readjust the adhesive supply pressure. Set the atomizing air control valve (E) to the minimum required to produce a finely atomized pattern (refer to Trouble Shooting section).

## ***RUNNING PRODUCTION***

The air nozzle (H) must be kept clean. If it is necessary to clean the external surface of the air nozzle due to material build up.

## ***SHUT DOWN AND RE-START UP DURING PRODUCTION***

Upon shut down of production, relieve the pressure from the fluid supply. Clean the air nozzle. Also be sure to inspect and clean all air and fluid strainers weekly or as required.

NOTE: It is unnecessary and undesirable to flush the system or remove the spray valves during each shut down except for extended periods.

For start up it is only necessary to apply pressure to the fluid supply and turn on the control system. Check to see that all patterns are being applied properly.

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## **NOTES:**

**82 SERIES SPRAY VALVE****TROUBLESHOOTING**

PROBLEM	CAUSE	SOLUTION
Valve fails to open	1. Insufficient air supply	Increase pressure of operating air. Inlet air pressure should be 70-120 PSI. (80 PSI best)
	2. Fluid control knob screwed in too far	Turn fluid control knob counterclockwise
Not enough adhesive	1. Fluid control knob screwed in too far	Turn fluid control knob counterclockwise
	2. Adhesive pressure too low	Increase fluid pressure
	3. Adhesive supply empty	Replenish supply and purge air from fluid hose
	4. Plugged Strainer	Clean or replace strainer
Too much adhesive	1. Fluid control knob screwed out too far	Turn fluid control knob clockwise
	2. Adhesive pressure too high	Reduce adhesive pressure
Valve fails to close or slow to close	1. Excessive adhesive pressure	Decreases adhesive pressure or increase operating air pressure
	2. Adhesive build up or foreign material in needle	Remove air nozzle (H) and clean. Remove fluid nozzle and flush and clean needle tip.
	3. Needle and fluid nozzle damaged due to scoring of seat area	Remove and replace, or use fine lapping compound to re-lap needle seat (500 grit recommended)
Unbalanced, distorted, or erratic adhesive pattern	1. One side of air ears plugged with dried adhesive	Remove air nozzle (H) clean all air orifices, blow clean with air (VanSco P/N 90-03-34 Vein Clean Out Kit recommended)
	2. Material build up on fluid nozzle	Remove air nozzle (H) and clean fluid nozzle
	3. Air nozzle lose	Tighten air nozzle (H)
Leading edge and trailing edge of pattern not perpendicular to product travel	1. Air nozzle misaligned	Rotate air nozzle to align for pattern straightness
Pattern too wide	1. Spray valve mounted too high	Mount spray valve closer to product surface
	2. Air nozzle misaligned	Rotate nozzle to adjust pattern
Pattern too narrow	1. Spray valve mounted too low	Mount spray valve farther from product surface
	2. Air nozzle misaligned_Rotate nozzle to adjust pattern	Rapid build up of adhesive on air nozzle
	1. Not enough atomizing air	Adjust air control knob (C) counterclockwise
	2. Contaminated or improper adhesive being used	Consult local adhesive supplier for assistance
Single shot or drop of adhesive as spray valve closes	1. Diaphragm pumping adhesive during closing	Increase adhesive supply pressure and turn fluid control knob (A) clockwise to reduce fluid opening
Adhesive seeping around body union nut	1. Union nut (P) loose	Tighten nut
	2. Broken or loose diaphragm	Replace diaphragm or tighten diaphragm nut

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