

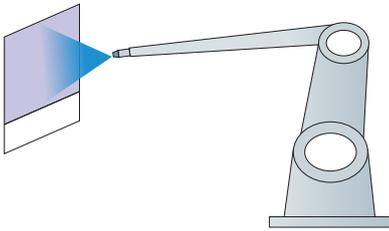
# ST SERIES

# LUMINA AUTOMATIC SPRAY GUN

## APPLICATION EXAMPLES

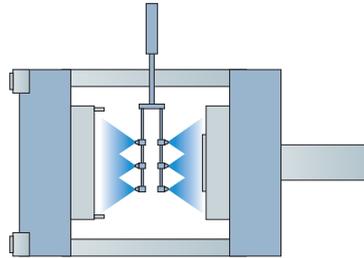
### COATING

Robotic Painting



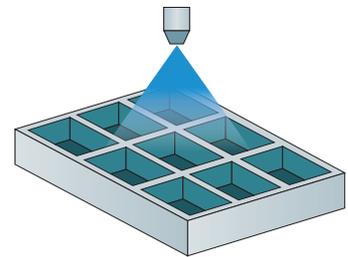
### MOLDING

Spraying release agents into die casting or molding.



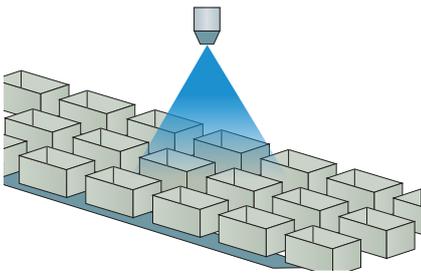
### COOLING

Spraying water to cool, or to release molds



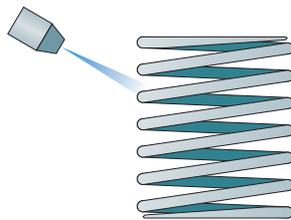
### FOOD PROCESSING

Spraying cooking oils onto a baking pan



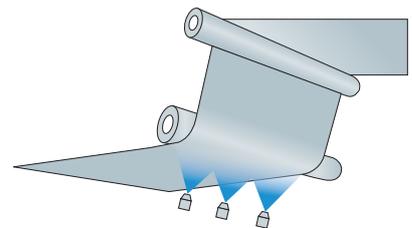
### MARKING

Spraying ink to distinguish models or indicate defective products



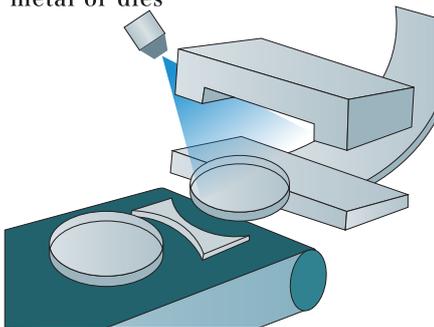
### SURFACE TREATMENT

Spraying waterproof or antistatic agents onto paper



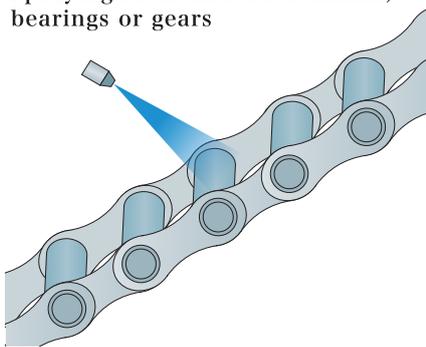
### METAL STAMPING

Applying lubricants to sheet metal or dies



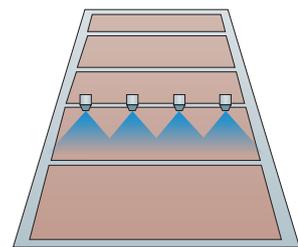
### OIL SUPPLY

Spraying lubricants onto chains, bearings or gears



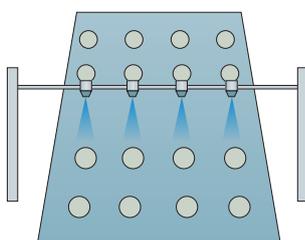
### RUST PREVENTION

Spraying rust-preventive oils onto steel plates



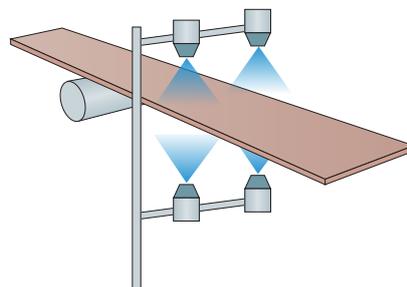
### FOOD HUMIDIFICATION

Spraying water to dampen bread or cookie surfaces



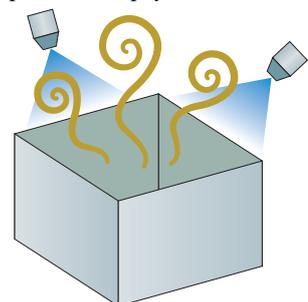
### CHEMICAL SPRAYING

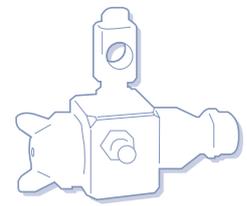
Coating lumber with water-repellent chemicals



### ODOR REMOVAL

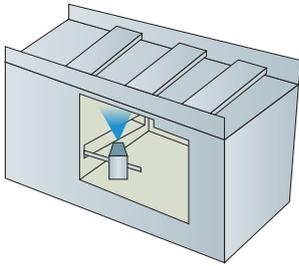
Spraying deodorizing agents in pig pens, dump yards





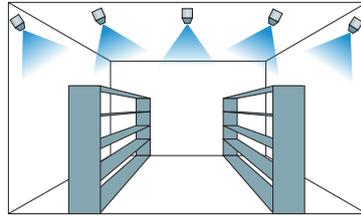
## FLUX

Spraying flux onto a printed circuit board prior to soldering



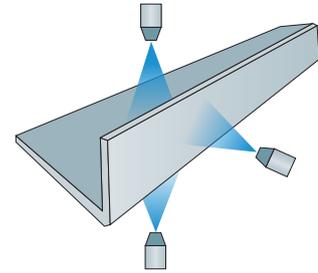
## FACTORY HUMIDIFICATION

Spraying water in printing factories or for mushroom cultivation



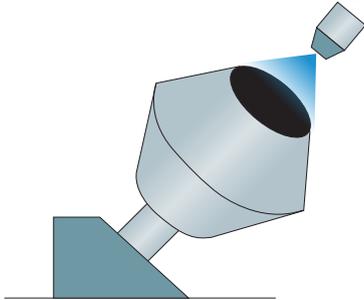
## ADHESIVE

Adhering rubber parts to aluminum frames



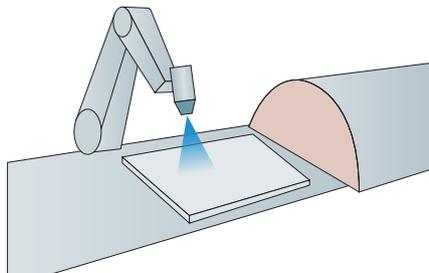
## MIXING

Spraying additives in food factories or pharmaceutical plants



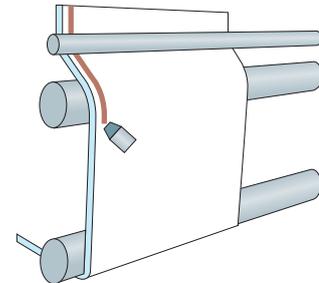
## SEMICONDUCTOR FABRICATION

Spraying resists onto silicon wafers



## LINE MARKING

Line marking in printing machines



## OTHER USES

### AUTOMOBILE

- Coating rust-preventive oils onto disk brakes
- Coating to prevent degradation and improve sliding of rubber products
- Coating solid lubricants onto pistons or camshafts
- Spraying anti-spatter when welding

### FOOD

- Spraying brandy onto cakes
- Spraying alcohol for disinfection
- Spraying salt solution onto fried eggs
- Humidification to prevent drying of bread dough
- Humidification to prevent rice grains sticking to conveyors in frozen food manufacturing
- Humidification to encourage fermentation
- Defrosting frozen foods by spraying water onto them
- Applying glue to label food containers
- Spraying glue remover to make it easier to remove noodle cup lids

### AND MORE

- Fluoropolymer coating for chemical or wear resistance
- Spraying saltwater to test a material's rust endurance
- Painting exterior boards of houses
- Humidification for paper, wood, cardboard and tissues
- Spraying antistatic agents onto plastic products

### Number of Air Inlets

Lumina automatic spray guns include the ST-5 series, with common air inlet for atomizing and piston-actuated air, and the ST-6 and ST-10 series with separate air lines.

The automatic spray gun works by feeding high-pressure air of approximately 0.3 MPa to open a valve. The ST-5 has a single air inlet, so it always produces a fine mist of strong atomizing air. It is well suited to humidification.

The ST-6 and ST-10 series have 2 air inlets, so by setting the air pressure low ( $\leq 0.1$  MPa) liquid can be applied gently without overspraying. Yet fine spraying, like that of the ST-5, is also possible. These series can be used for many different purposes, such as the application of oils, paints, and adhesives without overspraying.

### Fan Pattern or Round Pattern

There are 2 basic types of spray patterns: fan and round. To spray paint or other substance over a wide area, fan is better. Round pattern is best for small areas or markings.

ST series Material List

	Model	Liquid Nozzle Needle	Air Cap	Body	Other Parts
Standard	ST	●	×	×	×
Made partly of stainless steel	STA/UA	●	●	●	×
Made of stainless steel in all areas	STS	●	●	●	●

● 303 Stainless steel    × Chrome-plated brass

\* All packings in the fluid passageways are corrosive resistant in the ST series.

**Fan Pattern**



A wide fan-shaped pattern. To switch to round pattern, close the pattern adjuster.

**Round Pattern**



Pattern that spreads in the shape of a 15° cone

## ST-5 series

High-pressure spray type

Common air inlet for atomizing and piston-actuated air

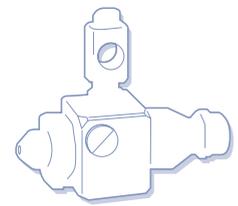
1 air inlet

Recommended air pressure 0.2–0.5 MPa

(At air pressure below 0.2 MPa the piston is not actuated and no liquid comes out.)

- Fan Pattern**
  - Fan ..... ST-5 (p6)
  - Overspray-prevention type ..... ST-5P (p6)
  - Made partly of stainless steel ..... STA-5N (p15)
  - Made of stainless steel in all area ..... STS-5\* (p15)
- Round Pattern**
  - Round ..... ST-5R (p6)
  - Wide Round ..... ST-5RW (p6)
  - Overspray-prevention type ..... ST-5PR\*
  - Small Round ..... ST-5SK (p6)
  - Straight Spraying ..... ST-5L (p6)
  - Made partly of stainless steel ..... STA-5R\* (p15)
  - Made of stainless steel in all areas ..... STS-5R\* (p15)

\* These products are not described. Please contact us directly for details.



# ST-6 series

Overspray-prevention type

Separate air lines for atomizing and piston-actuated air

- 2 air inlets
- Recommended piston-actuated air pressure 0.2–0.5 MPa
- Recommended atomizing air pressure 0.01–0.2MPa
- Since atomizing air and piston-actuated air are separate, low pressure can be used for gently spraying, without overspraying.

# ST-10 series

Liquid-circulation type

Superior to ST-6. Supports liquid circulation, with fine pitch liquid adjuster.

Atomization is same as ST-6.

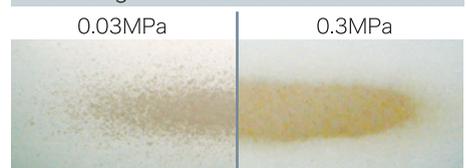
- Fan Pattern**
  - Fan ······ ST-6/ST-10 (p7, p9)
  - Wide Fan ······ ST-6W/ST-10W (p7, p9)
  - Liquid-circulation type ······ ST-10 (p9)
  - Made partly of stainless steel ······ STA-6N\* (p15)
  - Made partly of stainless steel (Liquid-circulation type) ······ UA-6N/STA-10N (p15)
  - Made of stainless steel in all areas ······ STS-6\*/STS-10\*
  - Made partly of stainless steel, Wide Fan ······ STA-10WN\*
  - Made of stainless steel in all areas, Wide Fan ······ STS-10W\*
  
- Round Pattern**
  - Round ······ ST-6R/ST-10R (p7, p9)
  - Wide Round ······ ST-6RW • ST-10RW (p7, p9)
  - Water Pistol-like type ······ ST-6PR (p7)
  - Liquid-circulation type, Round ······ ST-10R (p9)
  - Liquid-circulation type, Wide Round ······ ST-10RW (p9)
  - Small Round ······ ST-6SK/ST-10SK (p7, p9)
  - Made partly of stainless steel ······ STA-6R\*/STA-10R\*
  - Made partly of stainless steel (Liquid-circulation type) ······ UA-6R (p15)
  - Made of stainless steel in all areas ······ STS-6R /STS-10R\* (p15)
  - Made partly of stainless steel, Wide Round ······ STA-6RW\*/STA-10RW\* (p15)
  - Made of stainless steel in all areas, Wide Round ······ STS-6RW\*/STS-10RW\* (p15)

### Spray Data ST-6-1.3X

Atomizing Air Pressure (MPa)	Pattern Width (mm)	Particle Size (SMD μm)	Air Consumption (L/min)
0.03	200	70	22
0.05	230	46	33
0.07	250	30	40
0.1	270	22	64

Data conditions for above: using water, flow rate 50 mL/min, 1-meter gravity fed, 300-mm distance (for particle size, 200-mm distance).

Atomizing Air Pressure and Particle Size



Large-droplet mist without overspray

Fine mists to produce beautiful finishes

\* These products are not described. Please contact us directly for details.

# ST-5 series

High-pressure spray type

For use only at air pressure over 0.2 MPa. Fine, strong mist makes it suitable for humidification and cooling.

No nipple type

To order a product without nipples, add an "X" to the end of the product number.



Data below collected at 1-meter gravity fed, liquid adjuster full-throttle, 300-mm distance (for particle size, 200-mm distance), 0.3 MPa air pressure, using water.

### ST-5 Fan



Flat fan-pattern. Used for humidification and cooling. To switch to round pattern, close the pattern adjuster.

**Spray Pattern**  
Fan and Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-5	$\phi 0.5$	0- 65	250	11	63	280
	$\phi 1.0$	0-210	360	15	70	
	$\phi 1.3$	0-350	420	16	87	
	$\phi 2.0$	0-480	420	17	104	

### ST-5R Round



Round pattern. Suitable for small areas or markings.

**Spray Pattern**  
Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-5R	$\phi 0.5$	0- 60	$\phi 85$	15	38	250
	$\phi 1.0$	0-250	$\phi 110$	27	50	
	$\phi 1.3$	0-380	$\phi 120$	33	60	
	$\phi 2.0$	0-600	$\phi 120$	35	82	

### ST-5SK Small Round



Used for spraying tiny dots or narrow lines.

**Spray Pattern**  
Small Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-5SK	$\phi 0.5$	0- 58	* $\phi 2-10$	19	18	250
	$\phi 1.0$	0-260	* $\phi 2-10$	21	56	

\* at a distance of 5 to 20 mm. Flow rate: 1.5 mL/min

### ST-5RW Wide Round



Wider round pattern. A spiral stream enables effective application on concave surfaces. It reduces dirt and clogging of caps.

**Spray Pattern**  
Wide Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-5RW	$\phi 0.5$	0- 84	$\phi 100$	13	72	250
	$\phi 1.0$	0-280	$\phi 130$	20	86	
	$\phi 1.3$	0-460	$\phi 140$	25	98	
	$\phi 2.0$	0-580	$\phi 150$	61	102	

### ST-5P Overspray-prevention type, Fan



Atomizing air is held at low pressure inside the body to prevent overspraying. Particles are larger. Suitable for preventing overspraying and when a single air hose is preferred\*.

**Spray Pattern**  
Fan and Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-5P	$\phi 0.5$	0- 50	270	16	20	280
	$\phi 1.0$	0-180	360	110	16	
	$\phi 1.3$	0-260	450	92	17	
	$\phi 2.0$	0-420	450	118	16	

### ST-5L Straight spraying



Used for straight spraying at distances such as that for die lubrication in die casting.

**Spray Pattern**  
Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-5L	$\phi 1.3$	0-185	$\phi 60$	26	70	280
	$\phi 2.0$	0-280	$\phi 70$	23	90	

\*Recommended air pressure: 0.2-0.25MPa.

# ST-6 series

Overspray-prevention type

Atomizing air pressure can be set freely from 0.01 MPa upwards. All-purpose type, from misting with controlled overspray to fine spraying.

No nipple type

To order a product without nipples, add an "X" to the end of the product number.



Data below collected at 1-meter gravity fed, liquid adjuster full-throttle, 300-mm distance (for particle size, 200-mm distance), 0.1 MPa air pressure, using water.

### ST-6 Fan



Basic standard model of the ST series. Used for many purposes such as lubrication or coating. To switch to round pattern, close the pattern adjuster.

**Spray Pattern**  
Fan and Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-6	$\phi 0.5$	0- 62	260	28	46	285
	$\phi 1.0$	0-200	360	39	54	
	$\phi 1.3$	0-390	420	43	65	
	$\phi 2.0$	0-570	460	47	76	

### ST-6R Round



Round pattern. Suitable for small areas or markings.

**Spray Pattern**  
Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-6R	$\phi 0.5$	0- 64	$\phi 75$	32	30	255
	$\phi 1.0$	0-230	$\phi 90$	41	35	
	$\phi 1.3$	0-360	$\phi 95$	44	40	
	$\phi 2.0$	0-600	$\phi 100$	49	58	

### ST-6SK Small Round



Used for spraying tiny dots or narrow lines.

**Spray Pattern**  
Small Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-6SK	$\phi 0.5$	0- 50	* $\phi 2-10$	29	14	255
	$\phi 1.0$	0-162	* $\phi 2-10$	32	36	

\* at a distance of 5 to 20 mm. Flow rate 1.5 mL/min

### ST-6RW Wide Round



Offers a round pattern wider than ST-6R. A spiral stream enables effective application on concave surfaces. It reduces dirt and clogging of caps.

**Spray Pattern**  
Wide Round 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-6RW	$\phi 0.5$	0- 64	$\phi 100$	19	52	255
	$\phi 1.0$	0-260	$\phi 120$	34	66	
	$\phi 1.3$	0-400	$\phi 140$	34	72	
	$\phi 2.0$	0-600	$\phi 150$	34	76	

### ST-6W Wide Fan



Offers a fan pattern wider than ST-6. 3 air inlets.

\*Data collected at 0.1MPa atomizing air, and 0.25 MPa pattern air.

**Spray Pattern**  
Wide Fan 

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-6W	$\phi 0.5$	0- 60	360	14	90	300
	$\phi 1.0$	0-200	380	14	96	
	$\phi 1.3$	0-380	400	17	126	

### ST-6PR Water pistol-like spray



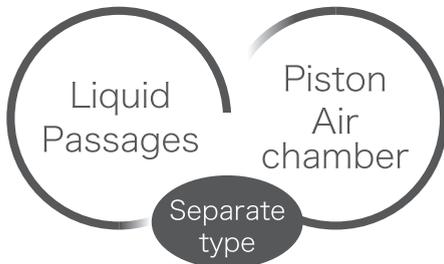
Oil can be applied to points with a water pistol-like spray, without misting. The liquid needs to be pressure-fed.

\*Not available without nipples and joints.

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-6PR	$\phi 0.5$	210	—	—	6	280

Data collected at 0.2 MPa liquid pressure.

At 0.29 MPa atomizing air pressure, spray data are the same as for the ST-5 series.



Liquid passages and piston air chamber are separated from each other.

Multiple packing structure prevents liquid from penetrating the piston chamber.

New liquid volume adjuster pitch 0.5 mm for precise control and rigid lock.

With liquid circulation for liquids that include solids and liquids that are easily separated. Features a special fine-pointed needle to improve liquid flow.

With corrosive- and chemical-resistant perfluoro O-rings (special fluorine-containing rubber).

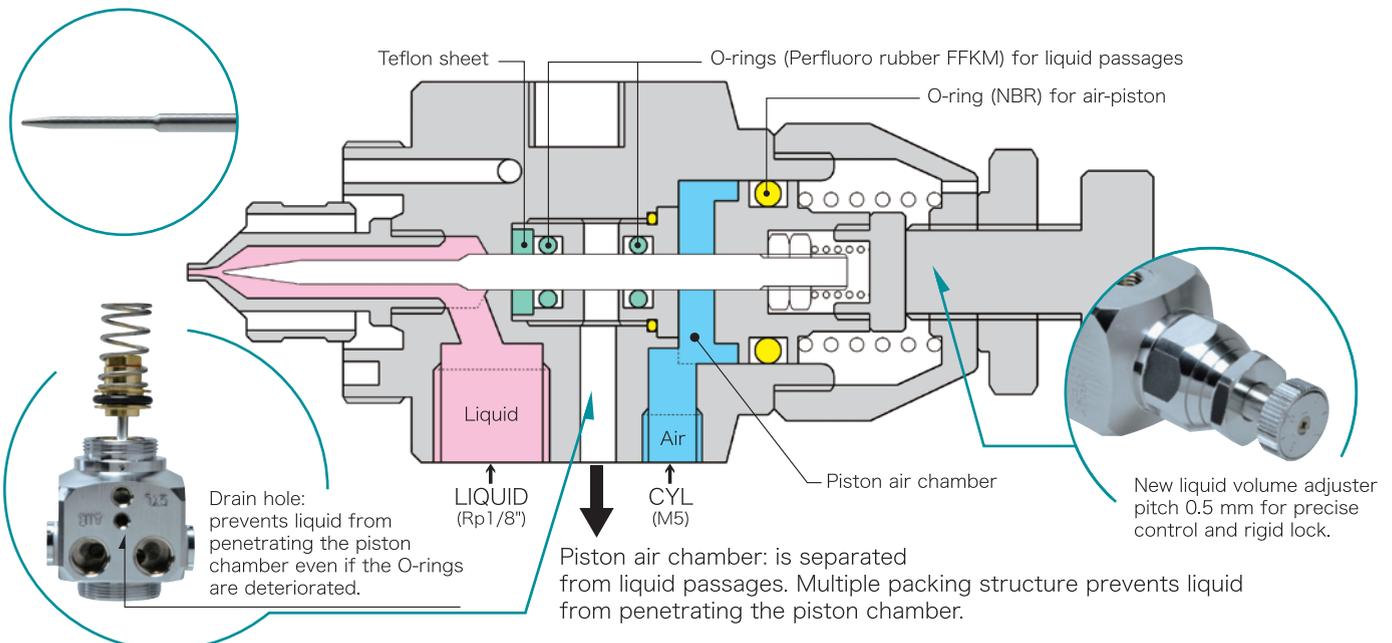
A solenoid valve on each of the 2 air lines prevents overspraying of the large particles produced at the beginning and end of spraying.

Tube fittings not included.

Atomization is same as ST-6.



## Cross-Section Drawing



## ST-10

### Fan



Standard model of the ST-10. Used for many purposes such as coating or painting. To switch to round pattern, close the pattern adjuster.

\*Particle size data collected at 30 mL/min.

#### Spray Pattern

Fan and Round

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-10-0.5X	$\phi 0.5$	0- 50	240	26	48	365
ST-10-1.0X	$\phi 1.0$	0-180	280	19	56	
ST-10-1.3X	$\phi 1.3$	0-280	380	19	69	
ST-10-2.0X	$\phi 2.0$	0-480	400	21	91	

## ST-10R

### Round



Round pattern. Suitable for small areas or markings.

\*Particle size data collected at 30 mL/min.

#### Spray Pattern

Round

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-10R-0.5X	$\phi 0.5$	0- 50	$\phi 80$	16	29	330
ST-10R-1.0X	$\phi 1.0$	0-200	$\phi 100$	16	38	
ST-10R-1.3X	$\phi 1.3$	0-300	$\phi 130$	16	42	
ST-10R-2.0X	$\phi 2.0$	0-550	$\phi 140$	16	62	

## ST-10SK

### Small Round



Used for spraying tiny dots or narrow lines.

\*Particle size data collected at 10 mL/min.

#### Spray Pattern

Small Round

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-10SK-0.5X	$\phi 0.5$	0- 45	* $\phi 2-10$	13	14	335
ST-10SK-1.0X	$\phi 1.0$	0-100	* $\phi 2-10$	12	34	

\* at a distance of 5 to 20 mm. Flow rate 1.5 mL/min

## ST-10RW

### Wide Round



Offers a round pattern wider than ST-10R.

A spiral stream enables effective application on concave surfaces.

It reduces dirt and clogging of caps.

#### Spray Pattern

Wide Round

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-10RW-0.5X	$\phi 0.5$	0- 86	$\phi 100$	16	54	330
ST-10RW-1.0X	$\phi 1.0$	0-240	$\phi 130$	16	70	
ST-10RW-1.3X	$\phi 1.3$	0-450	$\phi 160$	17	82	
ST-10RW-2.0X	$\phi 2.0$	0-650	$\phi 170$	17	88	

## ST-10W

### Wide Fan



Offers a fan pattern wider than ST-10. 3 air inlets.

\*Particle size data collected at 0.1 MPa atomizing air, and 0.25 MPa pattern air. Flow rate: 30 mL/min.

#### Spray Pattern

Wide Fan

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
ST-10W-0.5X	$\phi 0.5$	0- 60	300	13	93	355
ST-10W-1.0X	$\phi 1.0$	0-200	340	12	105	
ST-10W-1.3X	$\phi 1.3$	0-320	400	12	147	

## G2 Liquid Adjuster (option)



Designed so that even when fully opened the adjuster cannot fall off. The application of torque prevents the setting from deviating.

Please see p16 for details.

## Micrometer Liquid Adjuster (option)



With a combination of 50 circular graduations per rotation, and horizontal graduations, liquid volume can be grasped at a glance. This enables highly precise adjustment.

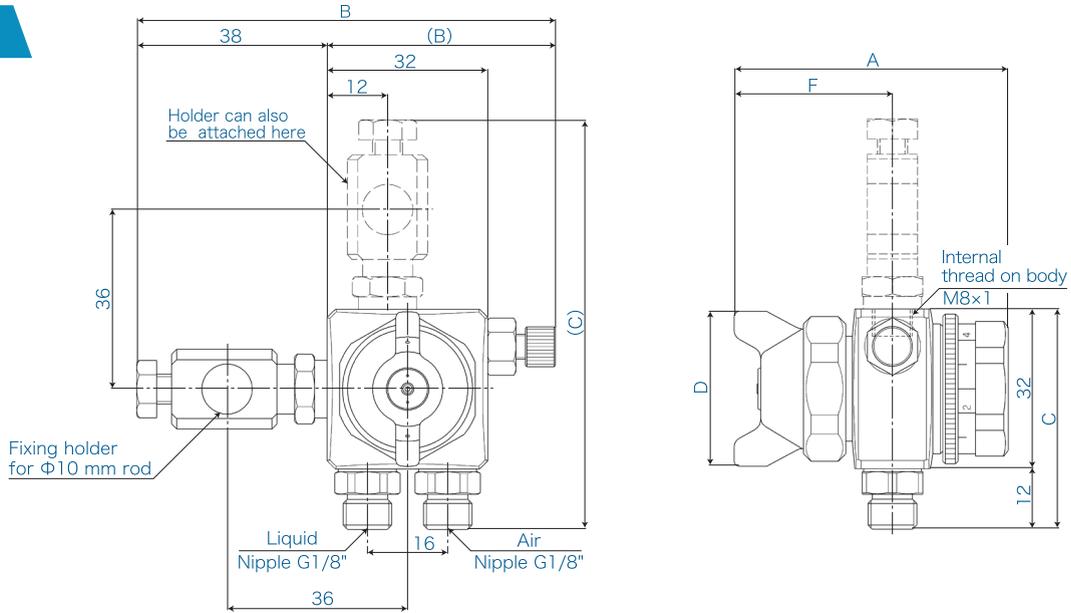
# ST series

## Dimensions

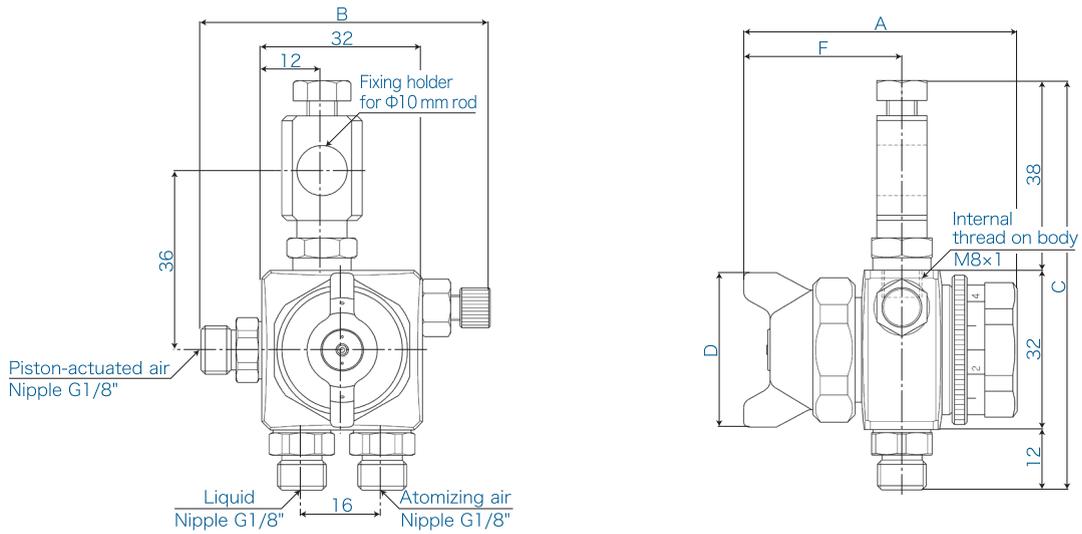
- All packings in the fluid passageways are corrosive resistant in the ST series.
- Standard fixing holder is for  $\phi 10$  mm rod.  $\phi 12$  mm holder is also available.
- The dimension of A varies depending on the positions of the liquid adjuster.

### Nipple type

#### ST-5



#### ST-6



(mm)

### (Dimensions) Nipple type

(mm)

Model	A	B(B)	C(C)	D	F
ST-5	55-60	85(47)	44(82)	$\phi 31$	32
ST-5R	50-55	73(35)	44(82)	$\phi 26$	27
ST-5RW	50-55	73(35)	44(82)	$\phi 26$	27
ST-5SK	50-55	73(35)	44(82)	$\phi 25$	27
ST-5L	87-92	73(35)	44(82)	$\phi 26$	27
ST-5P	55-60	85(47)	44(82)	$\phi 31$	32
ST-6	55-60	59	82	$\phi 31$	32
ST-6W	55-60	68	82	$\phi 31$	32
ST-6R	50-55	47	82	$\phi 26$	27
ST-6RW	50-55	47	82	$\phi 26$	27
ST-6SK	50-55	47	82	$\phi 25$	27
ST-6PR	50-55	61	97	$\phi 26$	27

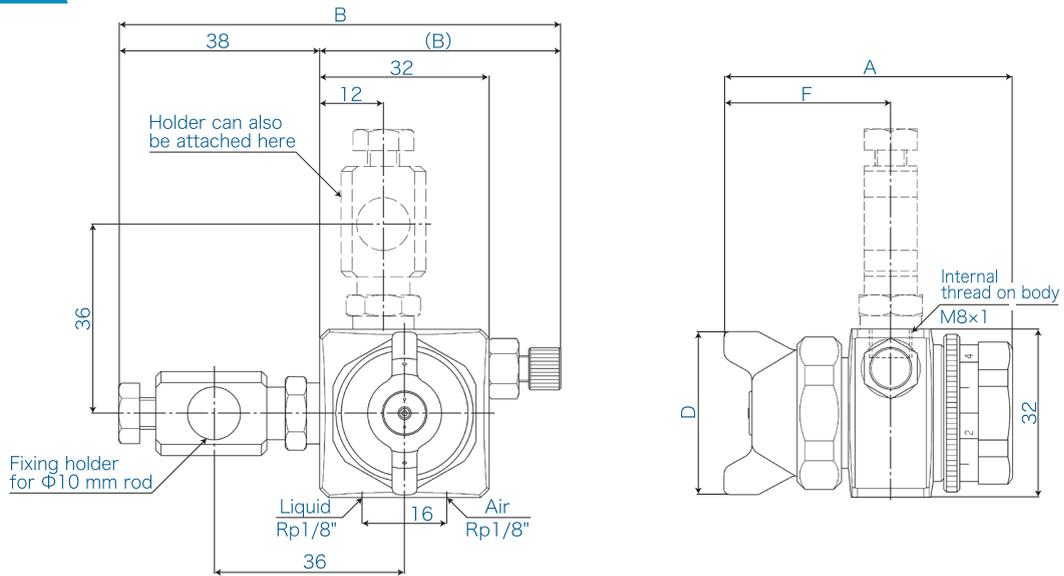
### No nipple type

(mm)

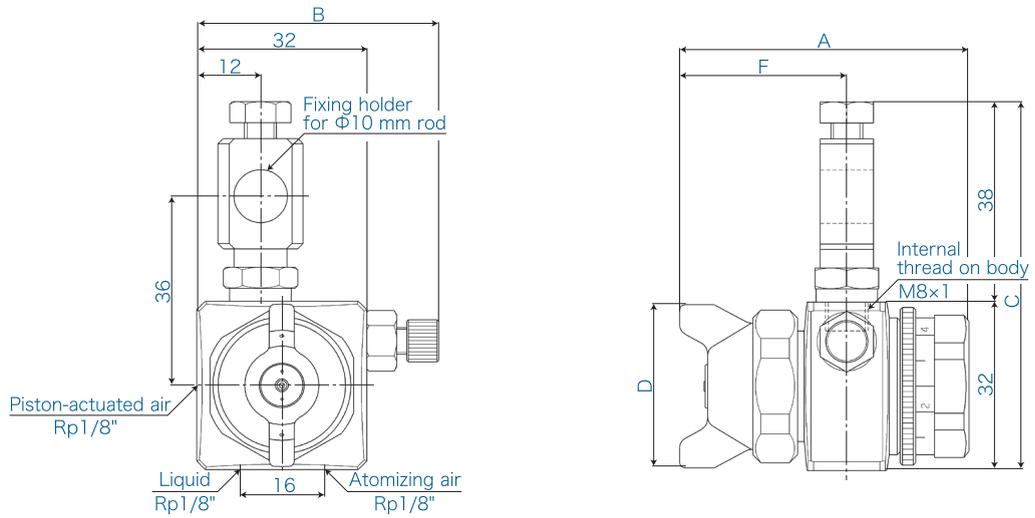
Model	A	B(B)	C(C)	D	F
ST/STA/STS-5X	55-60	85(47)	32(70)	$\phi 31$	32
ST/STA/STS-5RX	50-55	73(35)	32(70)	$\phi 26$	27
ST/STA/STS-5RWX	50-55	73(35)	32(70)	$\phi 26$	27
ST/STA/STS-5SKX	50-55	73(35)	32(70)	$\phi 25$	27
ST/STA/STS-6X	55-60	47	70	$\phi 31$	32
ST/STA/STS-6WX	55-60	32	70	$\phi 31$	32
ST/STA/STS-6RX	50-55	35	70	$\phi 26$	27
ST/STA/STS-6RWX	50-55	35	70	$\phi 26$	27
ST/STA/STS-6SKX	50-55	35	70	$\phi 25$	27
ST/STA/STS-10X	82-87	50	70	$\phi 31$	37
ST/STA/STS-10WX	82-87	35	70	$\phi 31$	37
ST/STA/STS-10RX	78-83	38	70	$\phi 26$	33
ST/STA/STS-10RWX	78-83	38	70	$\phi 26$	33
ST/STA/STS-10SKX	78-83	38	70	$\phi 25$	33

No nipple type

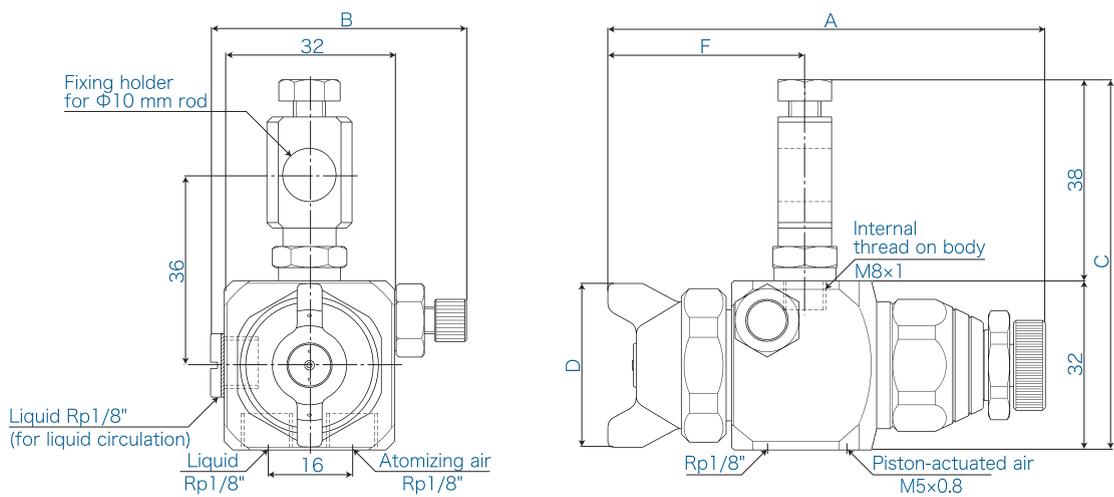
ST-5X  
STA-5X  
STS-5X



ST-6X  
STA-6X  
STS-6X



ST-10X  
STA-10X  
STS-10X



(mm)

# ST-6-C8/ST-10-C8

Long nozzles  
for internal coating

Enables application in previously impossible places,  
such as intricate, narrow parts and the inner surface of tubular items.



## Features

The inner surfaces can be painted by inserting a nozzle inside the rotating tubular item ( $\geq \phi 13$ ).

Angles are 90° and 45° (downward).  
The flat pattern is in a vertical plane parallel to the tube, enabling efficient, uniform coating.  
Round pattern is also available.

It is possible and easy to replace just the spray head.

This is an external mix type. Air and liquid are fed separately up to the nozzle tip, through a long, dual-structured tube.

Liquid circulation system makes it suitable for liquids that are easily separated.



## Applications

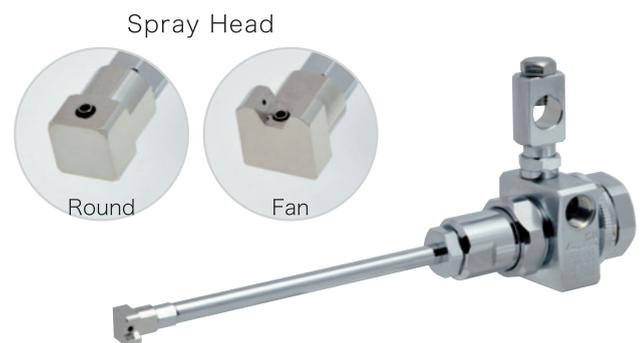
Paints, Silicone oils, Lubricants, Rust-preventive oils, Primers, etc.

## Other features

A solenoid valve on each of the 2 air lines prevents overspraying of the large particles produced at the beginning and end of spraying.

Standard lengths are 100 mm and 150mm.  
Other lengths are available.

No nipples included.



## Spray Pattern

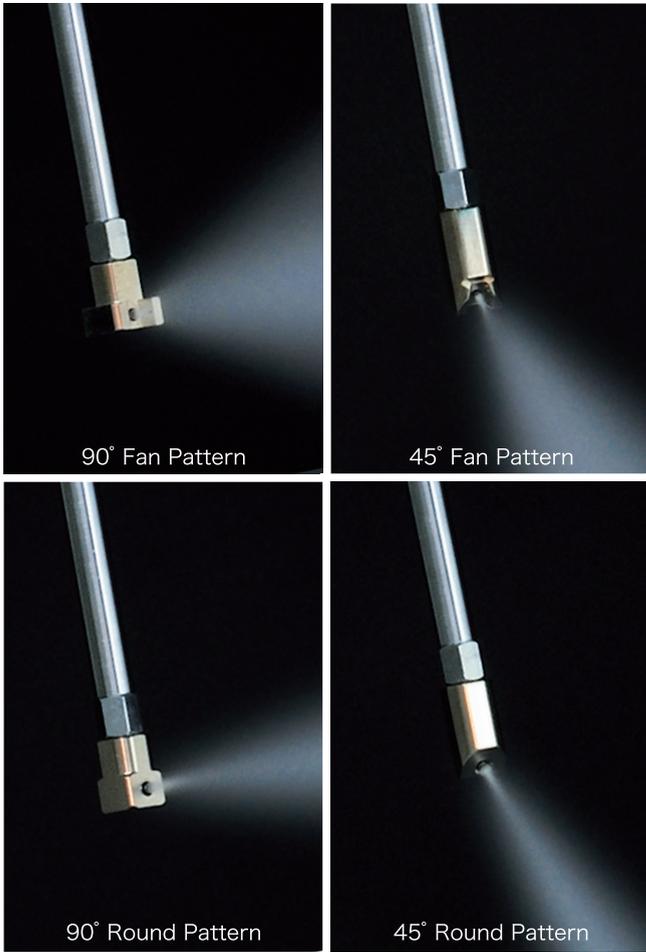
Round Pattern



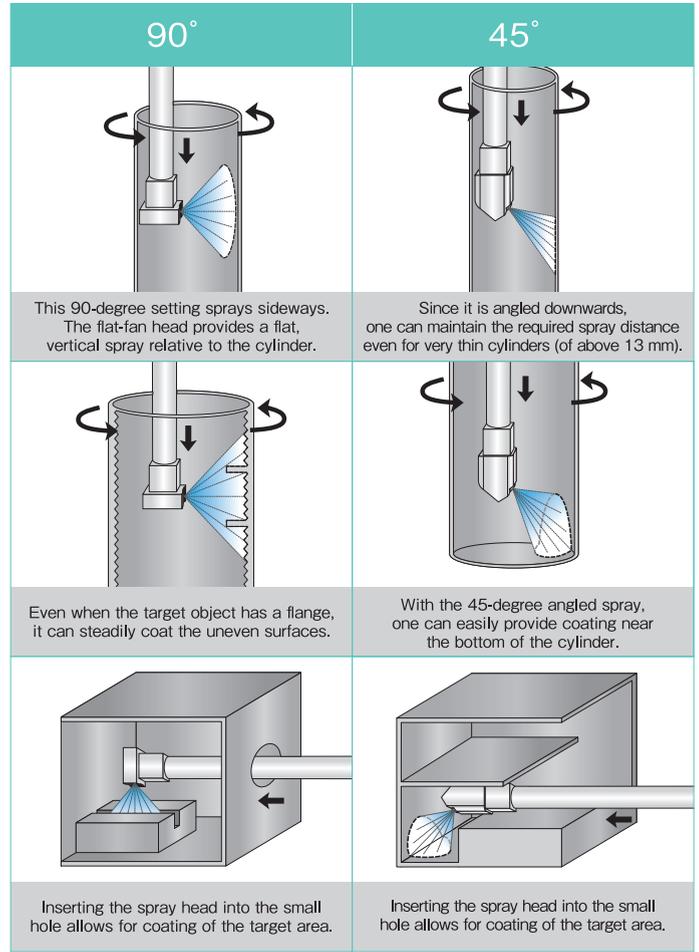
Fan Pattern



Spray Pattern



How to Spray



Spray Pattern	Nozzle Size (mm)	Spray Angle	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g) (100 mm)
Fan	$\phi 0.7$	90°	0-50	50	15	23	290
Fan	$\phi 0.7$	45°	0-50	50	22	18	
Fan	$\phi 1.1$	90°	0-100	50	20	25	
Fan	$\phi 1.1$	45°	0-86	50	21	21	
Round	$\phi 1.1$	90°	0-108	20	20	27	
Round	$\phi 1.1$	45°	0-84	20	20	17	

Data conditions for above: 0.1 MPa atomizing air, 1-meter gravity fed, 50-mm distance (for particle size, 200-mm distance), liquid adjuster full-throttle (for particle size, 3mL/min), using water.

Product Number

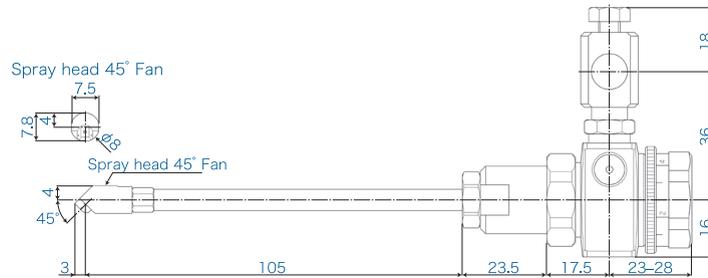
Type: **ST-6** - C8  
 Pattern: **R** - 1.1  
 Nozzle Size: **X-100** L  
 Spray Angle: **45** -   
 Liquid Adjuster:

6: ST-6-C8 body  
 10: ST-10 body  
 None: Fan  
 R: Round  
 0.7:  $\phi 0.7$   
 1.1:  $\phi 1.1$   
 \*For round pattern,  $\phi 1.1$  mm only  
 100 mm, 150 mm, 200 mm, 300 mm  
 90: 90°  
 45: 45°  
 None: Standard type  
 G2 : Falling-off prevention type  
 MHS: Micrometer type  
 \*Please see p16 for the details.

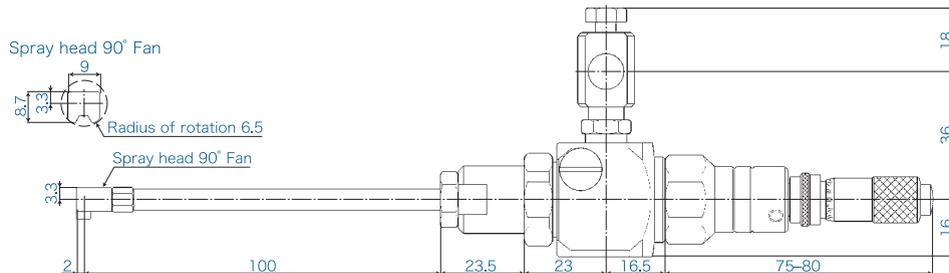
# ST-6-C8/ST-10-C8

## Dimensions

### ST-6-C8-0.7X-100L-45

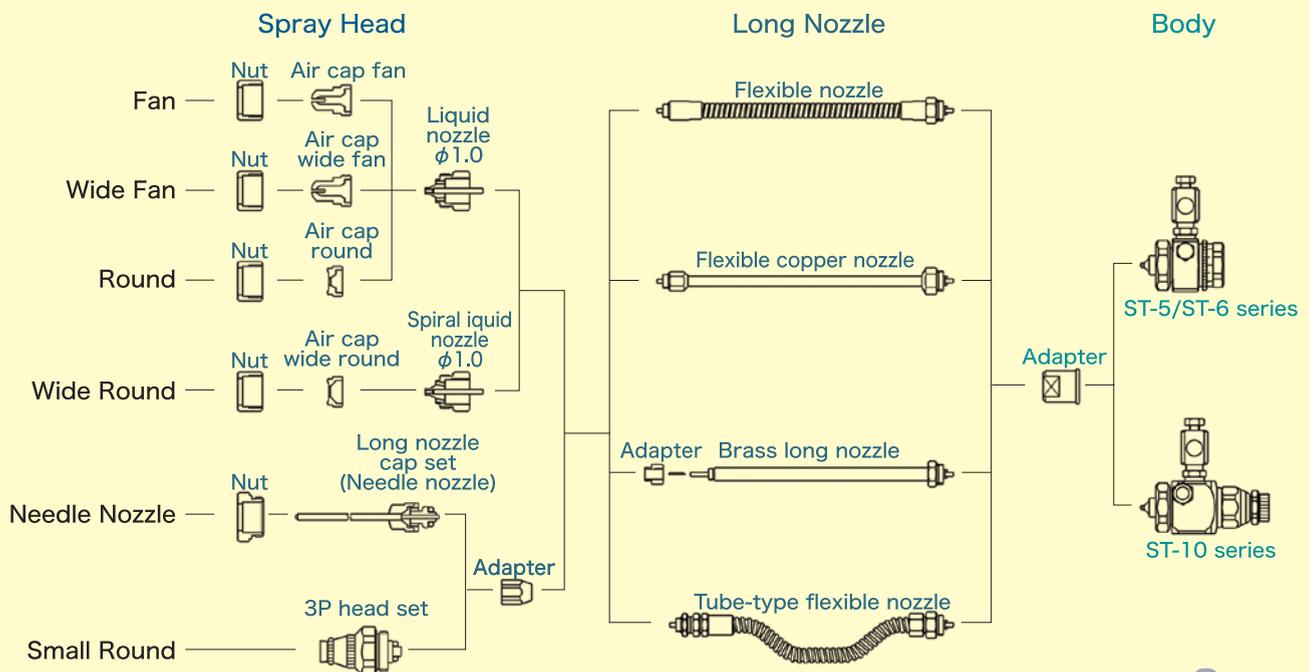


### ST-10-C8-0.7X-100L-90-MHS

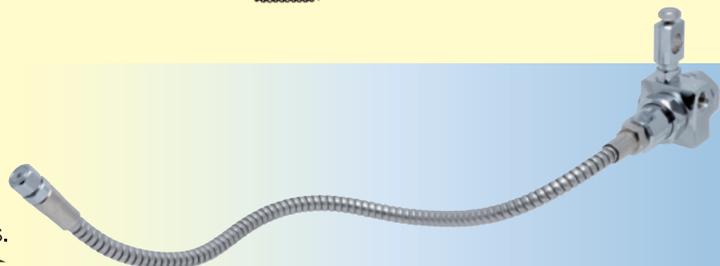


(mm)

## Other long nozzle options



It is possible to create a variety of long nozzles by combining selected items.



The STA series are partly made of stainless steel (in parts subject to contact with liquids). The STS series uses stainless steel in all areas.

Dimensions and spray data are the same as for the standard type. (Refer to pp6-9.) There are many stainless steel models other than those below. Please contact us for the details.

No nipples included. For detailed products numbers, refer to p16.

### STA-5N



ST-5 made partly of stainless steel (in parts subject to contact with liquids). High-pressure spray type. To switch to round pattern, close the pattern adjuster.

**Spray Pattern**  
Fan and Round 

### STS-6R



ST-6R made of 303 stainless steel in all areas. Overspray-prevention type.

**Spray Pattern**  
Round 

### STA-10N



ST-10 made partly of stainless steel. Supports liquid circulation. Two air inlets for overspray prevention.

**Spray Pattern**  
Fan and Round 

### STS-10SK



ST-10SK made of 303 stainless steel in all areas. Supports liquid circulation. Suitable for spraying tiny dots such as flux application to circuit boards.

**Spray Pattern**  
Small Round 

## UA series

Liquid-circulation type  
Made partly of stainless steel

303 stainless steel used in parts subject to contact with liquids. Compact and light. Supports liquid circulation.

### UA-6N



Made partly of stainless steel. Flat fan-pattern. Overspray-prevention type.

**Spray Pattern**  
Fan 

### UA-6R



Made partly of stainless steel. Round pattern. Overspray-prevention type.

**Spray Pattern**  
Round 

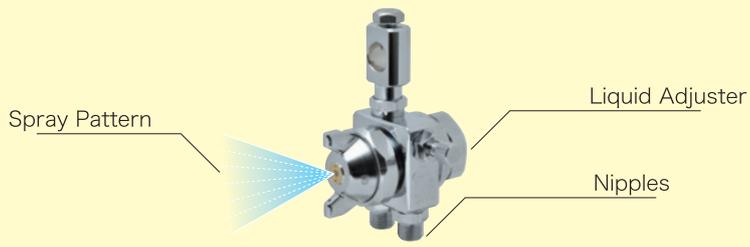
Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
UA-6N-0.5X	$\phi 0.5$	0- 60	180	28	35	250
UA-6N-1.0X	$\phi 1.0$	0-190	280	39	40	
UA-6N-1.3X	$\phi 1.3$	0-300	350	43	50	
UA-6N-2.0X	$\phi 2.0$	0-580	350	47	63	

Model	Nozzle Size (mm)	Flow Rate (mL/min)	Pattern Width (mm)	Particle Size (SMD $\mu\text{m}$ )	Air Consumption (L/min)	Mass (g)
UA-6R-0.5X	$\phi 0.5$	0- 65	$\phi 55$	32	20	230
UA-6R-1.0X	$\phi 1.0$	0-200	$\phi 80$	41	25	
UA-6R-1.3X	$\phi 1.3$	0-320	$\phi 90$	44	28	
UA-6R-2.0X	$\phi 2.0$	0-620	$\phi 100$	49	44	

Data conditions for above: 0.1 MPa atomizing air, 1-meter gravity fed, 300-mm distance (for particle size, 200-mm distance), liquid adjuster full-throttle, using water.

# ST/STA/STS PRODUCT NUMBER

Please confirm the specifications below when ordering.



ST   - 6     - 1.0 X -  

None: chrome-plated brass A: made partly of stainless steel S: made of stainless steel in all areas	5: High-pressure spray type 6: Overspray-prevention type 10: Liquid-circulation type	None: Fan R: Round RW: Wide Round SK: Small Round W: Wide Fan	To order STA series fan-pattern spray guns, add an "N" here.	X: without nipples None: with nipples <small>*For the ST-10 series and stainless steel series, only "X" (no nipple) type is available. Please confirm "X" when being used with tube hose.</small>	None: (for ST-6/5) Pitch 1.0 adjuster (for ST-10) Pitch 0.5 adjuster G2: Pitch 0.5 falling-off prevention adjuster MHS: Pitch 0.5 micrometer adjuster
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## G2 Liquid Adjuster

## Micrometer Liquid Adjuster

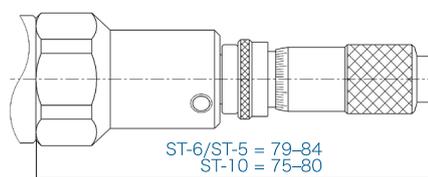
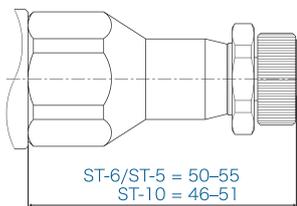
Designed so that even when fully opened the adjuster cannot fall off. The application of torque prevents the setting from deviating.

With a combination of 50 circular graduations per rotation, and horizontal graduations, liquid volume can be grasped at a glance. This enables highly precise adjustment.



### Dimensions

### Dimensions



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