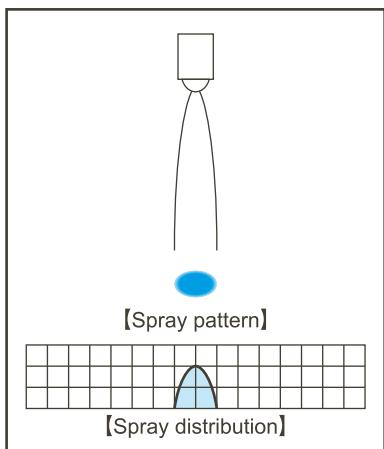
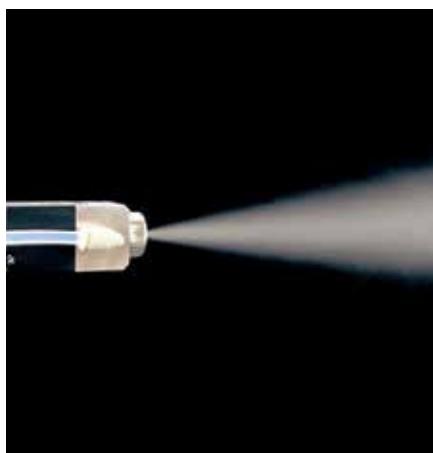


Solenoid-activated Spray Nozzles

SETO-SD

Features

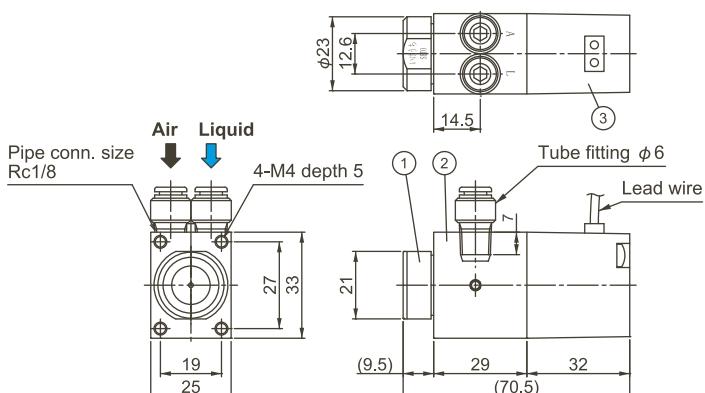
- Fast response performance by solenoid activation: Intermittent pulse spray at 0.02 sec/shot with a minimum of 0.006 cc/shot is possible.
- Ideal for coating in small amounts, i.e. protective agent coating, etc.
- IP65, IP67 (dust-proof and water-proof) structure.
- SETO07503R-I+SD is internal mixing outer air type (the other SETO models are external mixing type).



Applications

- Spraying release agent for metal molds
- Coating
- Mold cooling
- Seasoning (food)
- Uniform coating without dripping

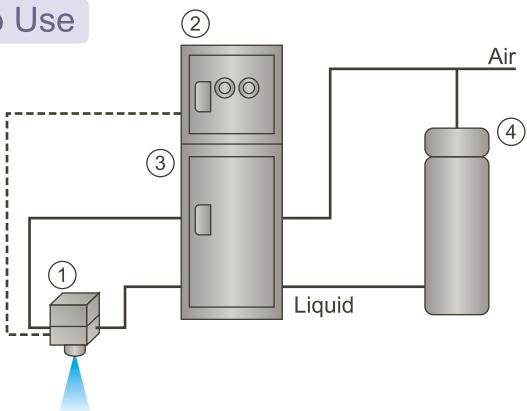
Structure & Materials



Components and materials

No.	Components	Standard materials
①	Nozzle body	Main materials:
②	Adaptor	S304 or Aluminum
③	Solenoid	

How to Use



No.	Description	
①	Solenoid-activated pneumatic spray nozzle	
②	Solenoid control panel	
③	Pressurized flow control unit	
④	Liquid pressurization tank (required only if oil-based release agent is used)	

Nozzle code	Air pressure (MPa)	Spray capacity (ℓ/hr) & Air consumption (ℓ/min, Normal)					Spray width*2 (mm)	Mean droplet diameter*3 (μm)	Free passage diameter (mm)		Mass (g)			
		Liquid pressure (MPa)							Adaptor		Aluminum	S304		
		0 *1	0.05	0.13	0.2	0.3			Laser Doppler method	Liquid	Air			
07503R-I	0.2	— —	— —	1.0 50	3.2 48	— —	40–50	15–25	0.3 0.4	0.5 0.1	0.7 0.2	180 270		
	0.3	— —	— —	— —	0.9 66	4.0 64								
	0.4	— —	— —	— —	— —	1.9 80								
0405R	0.3	2.0 36	6.5 36	— —	— —	— —								
07507R	0.3	5.0 71	13.9 71	— —	— —	— —								
2210R	0.3	10.0 200	26.4 200	— —	— —	— —								

*1) Spray capacity and air consumption at liquid pressure of 0 MPa (liquid siphon feed) are measured at 100 mm siphon height.

*2) Spray width measured at 100 mm from nozzle.

*3) 07503R-I: Sauter mean droplet diameters measured at compressed air pressure of 0.2 MPa and liquid pressure of 0.13 MPa.

0405R, 07507R, 2210R: Sauter mean droplet diameters measured at compressed air pressure of 0.3 MPa and liquid pressure of 0 MPa (liquid siphon feed).

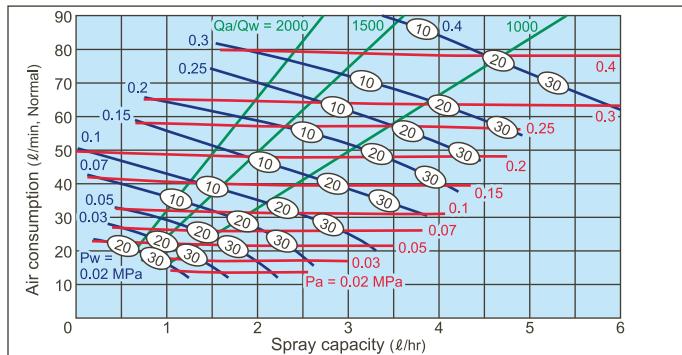
Valve function	Min. operating frequency (sec)	Max. operating pressure (MPa)	Electric current (A)	Electric voltage (DC-V)	Max. allowable temperature
Single solenoid, normally closed	ON: 0.02 OFF: 0.02	0.5 for both air/liquid	0.26	24	50°C (120°F)

Flow-rate Diagrams

■ How to read the chart

- ① The spray capacity shown is for one nozzle.
- ② Red lines (—) represent compressed air pressures P_a in MPa.
- ③ Blue lines (—) represent liquid pressures P_w in MPa.
- ④ Green lines (—) represent air-water ratio Q_a/Q_w .
- ⑤ Figures in ovals (○) indicate Sauter mean droplet diameters (μm) measured by laser Doppler method (measured at 300 mm from the nozzle).

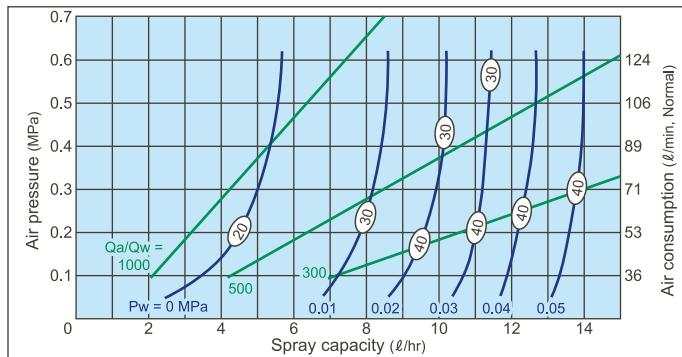
■ SETO07503R-I+SD



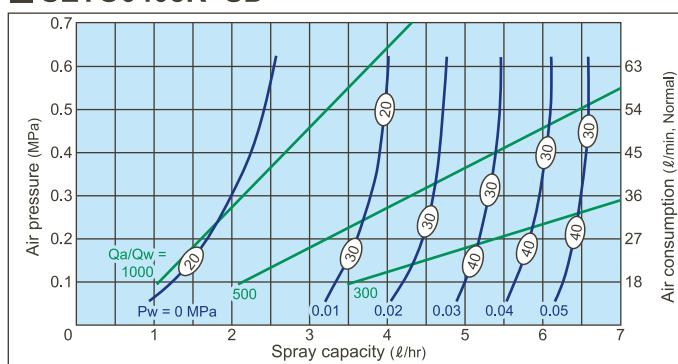
■ How to read the chart

- ① The spray capacity shown is for one nozzle.
- ② Blue lines (—) represent liquid pressures P_w in MPa.
- ③ Green lines (—) represent air-water ratio Q_a/Q_w .
- ④ Measured at liquid siphon height of 100 mm when P_w is 0 MPa.
- ⑤ Figures in ovals (○) indicate Sauter mean droplet diameters (μm) measured by laser Doppler method (measured at 300 mm from the nozzle).

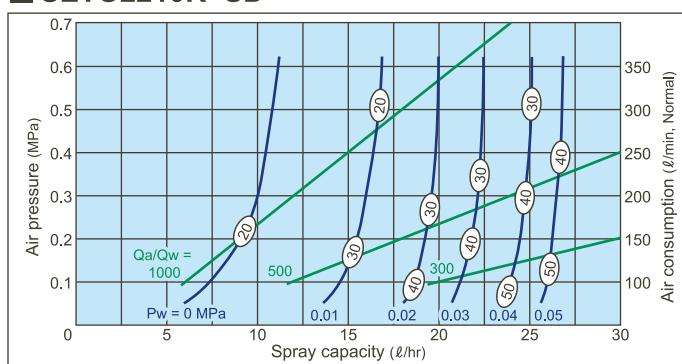
■ SETO07507R+SD



■ SETO0405R+SD



■ SETO2210R+SD



How to order

Please inquire or order for a specific nozzle using this coding system.

<Example> SETO 07503R-I +SD AL

SETO

07503R-I

+ SD

AL

Nozzle code

- 07503R-I
- 0405R
- 07507R
- 2210R

Material

- AL (Aluminum)
- S304