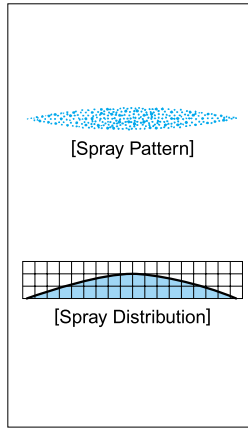


Flat Spray Nozzles with ON/OFF Control

SO-V

Flat Spray



[Features]

- Flat spray pattern with a mountain-shaped spray distribution having gradually tapered edges.
- Prevents dripping after spraying stops.
- Quick response ON/OFF spray within 1 second.
- Spray ON/OFF can be regulated by pilot air ON/OFF.

[Standard Pressure]

0.3MPa

[Applications]

Coating : Release agent, lubricant, food additive (seasoning)

Moisture control : Paper, food, etc.

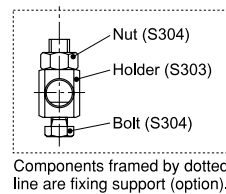
SO-V series

SO-V series	
Structure	Spray ON/OFF can be regulated by switching the pilot air ON/OFF. The pilot air actuates an internal piston to regulate the spray.
Material	<ul style="list-style-type: none"> • Spray orifice : ceramic • Metal parts : S303 (stainless steel 303)
Mass	150g
Pipe Conn. Size	1/8F (for both air and liquid inlets)

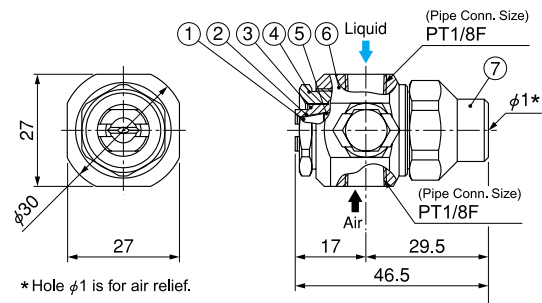
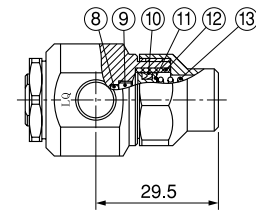
[Note] Appearance and dimensions may differ slightly depending on materials and nozzle codes.

Fixing support (Optional)

Fixing support is available for fixing SO-V nozzles on a pole at spray direction as desired. Please specify "(with $\phi 10$ fixing support)" at the end of product code to order.



Components framed by dotted line are fixing support (option).

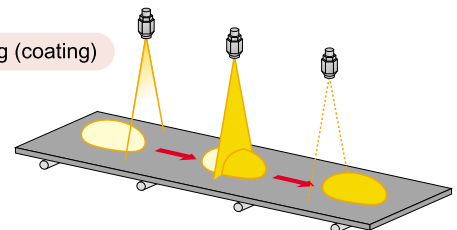


- ① Ceramic orifice
- ② Adhesive : Araldite®
- ③ Retainer
- ④ Cap
- ⑤ Packing (PTFE)
- ⑥ Adaptor
- ⑦ Spring cap
- ⑧ O-ring (FKM)
- ⑨ Lock nut
- ⑩ Y-packing (NBR)
- ⑪ Piston
- ⑫ Sleeve
- ⑬ Spring (S304)

Spray Capacity Code	Pipe Conn. Size	Spray Angle Code								Spray Capacity (ℓ/min)
		0.3MPa								
		115°	90°	80°	65°	50°	40°	25°	15°	
02	1/8F (Air / Liquid)									0.20
03		○	○	○	○	○	○	○	○	0.30
04		○	○	○	○	○	○	○	○	0.40
05		○	○	○	○	○	○	○	○	0.50
07		○	○	○	○	○	○	○	○	0.70
10		○	○	○	○	○	○	○	○	1.00
15		○	○	○	○	○	○	○	○	1.50
20		○	○	○	○	○	○	○	○	2.00

For the spray angle and spray capacity at pressures other than 0.3MPa, please refer to the chart of V series on pages 13-14.

Seasoning (coating)



Operation time chart

Liquid	Stop	Spray	Stop	Spray	Stop
Pilot air	OFF	ON	OFF	ON	OFF

How to order

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

(Example) ...1/8SO-V11503S303 (with $\phi 10$ fixing support)

1/8 SO-V 115 03 S303 (with $\phi 10$ fixing support)

Spray Angle Code	Spray Capacity Code
115	02
15	20

(Option)

ALSO AVAILABLE!

Solid Stream Jet with ON/OFF Control
SO-CM series

See p.98 of this catalog.

CAUTIONS

- Supply liquid pressure at 0.5MPa or less.
- Supply pilot air pressure at between 0.2-0.5MPa.
- Pilot air ON/OFF regulates spray ON/OFF.
- Recommend use with a 3-way solenoid valve to purge the air inside/between the solenoid valve and SO-V nozzle at OFF time, for better shut-off and preventing dripping.

Air & Steam Spray Flat Spray Nozzles

VZ

Flat Spray



[Note] Water is sprayed here to better show the spray pattern.



[Features]

- Produces a flat spray pattern of air or steam.
- Effective spray angle does not hold long, as air and steam disperse very quickly.

[Standard Pressure]

0.3MPa

[Applications]

Compressed air : Cleaning, dust suppression, drying, air curtain, etc.

Steam : Humidification, temperature control, moisture control, etc.

VZ-series

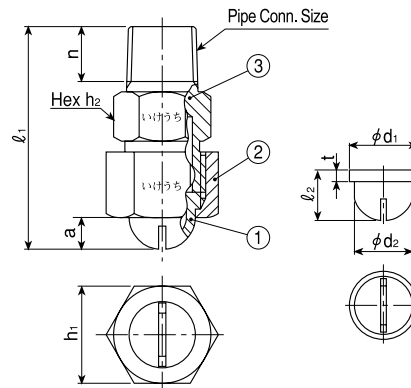
VZ-series (3-piece structure)	
Structure	<ul style="list-style-type: none"> • Made of metal, 3-piece structure. • Comprises three parts : Spray tip, cap and adaptor. • Worn-out spray tip can be replaced separately. • Cap and adaptor are exchangeable with those of 3-piece structure standard flat spray nozzles for liquids.
Material	<ul style="list-style-type: none"> • B (brass) or S303 (stainless steel 303) • Optional material : S316

[Complete nozzle]

Series	Pipe Conn. Size	Dimensions(mm)					Mass(g)	
		ℓ_1	h_1	h_2	a	n	B	S303
VZ	1/4M	43	19	17	6.5	10.5	47	44
	3/8M	48.5	23	21	9.5	11	78	73

[Spray tip]

Series	Pipe Conn. Size of Complete Nozzle	Dimensions(mm)				Mass(g)	
		ℓ_2	ϕd_1	ϕd_2	t	B	S303
VZ	1/4M	11	14.5	12.5	2.5	5.0	4.7
	3/8M	14	18	16	2.5	8.1	7.7



① Spray Tip ② Cap ③ Adaptor

[Note] Appearance and dimensions may differ slightly depending on materials and nozzle codes.

Spray Angle Code	Spray Capacity Code	Pipe Conn. Size		Air Capacity (ℓ/min, Normal)						Steam Capacity (kg/hr)						Free Pass. Dia. (mm)
		1/4M	3/8M	0.05 MPa	0.1 MPa	0.2 MPa	0.3 MPa	0.5 MPa	0.7 MPa	0.05 MPa	0.1 MPa	0.2 MPa	0.3 MPa	0.5 MPa	0.7 MPa	
90°	150	○		55.7	77.6	116	154	230	307	2.62	3.56	5.27	6.97	10.3	13.7	0.2
	200	○		73.1	102	152	202	302	402	3.44	4.67	6.92	9.14	13.6	17.9	0.3
	250	○		90.5	126	188	250	374	498	4.26	5.78	8.57	11.3	16.8	22.2	0.4
	300	○		108	150	224	298	446	594	5.08	6.90	10.2	13.5	20.0	26.5	0.5
	350	○		125	175	261	346	518	690	5.90	8.00	11.9	15.7	23.2	30.7	0.6
	400	○		143	199	297	394	590	786	6.72	9.12	13.5	17.9	26.5	35.0	0.7
	450	○		160	223	333	443	662	882	7.54	10.2	15.2	20.0	29.7	39.3	0.8
	500	○		177	247	369	491	734	977	8.36	11.3	16.8	22.2	32.9	43.5	0.9
	550		○	199	278	414	551	823	1096	9.38	12.7	18.8	24.9	36.9	48.8	0.6
	600		○	219	305	455	605	905	1205	10.3	14.0	20.7	27.4	40.6	53.7	0.7
	650		○	235	328	489	650	972	1295	11.1	15.0	22.3	29.4	43.6	57.7	0.8
	700		○	253	353	526	700	1047	1394	11.9	16.2	24.0	31.7	46.9	62.1	0.8
	750		○	272	380	566	753	1126	1500	12.8	17.4	25.8	34.1	50.5	66.8	0.9
	900		○	326	454	677	901	1347	1794	15.3	20.8	30.8	40.7	60.4	79.9	1.1
1130		○	406	566	844	1122	1678	2235	19.1	25.9	38.4	50.8	75.2	99.5	1.4	

How to order

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

① Complete nozzle

<Example>...1/4MVZ150B

1/4M	VZ	150	B
Pipe Conn. Size	Spray Capacity Code		Material
1/4M	150		B
3/8M	1130		S303

② Spray tip only

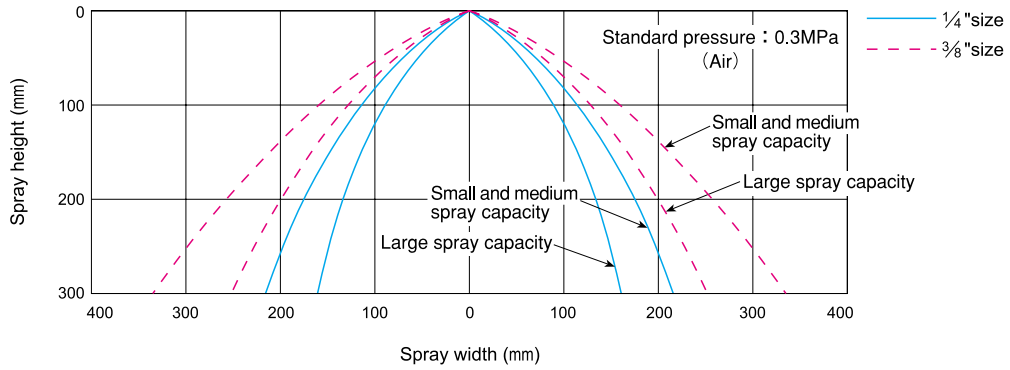
<Example>...1/4VZ150B

1/4	VZ	150	B
Pipe Conn. Size	Spray Capacity Code		Material
1/4	150		B
3/8	1130		S303

For Effective Use of Air & Steam Spray Nozzles

VZ Air & Steam Flat Spray Nozzles / Spray Height and Spray Width

The spray coverage at various spray heights is shown as follows.



The wind velocity at various spray heights is shown as follows.

