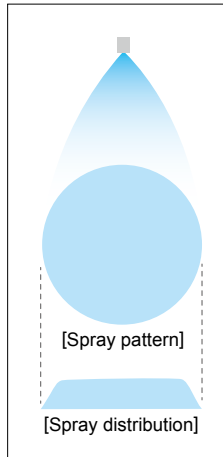


Clog-Resistant Vaneless Full Cone Spray Nozzles

AJP/AJP-PPS



- Full cone spray pattern with a round impact area and uniform distribution.
- Without using a whirler, the liquid is atomized by collision inflow inside the nozzle.
- No-whirler design with a large free passage diameter minimizes clogging.
- Nozzle sprays at a 90° angle to the nozzle inlet.
- Highly chemical and wear resistant AJP-PPS series is available for spraying hydrochloric acid and other chemicals.

[STANDARD PRESSURE] 0.2 MPa

[APPLICATIONS]

Cleaning: Pre-paint treatment, washing booths, machine parts, gas, incinerator fumes

Cooling: Steel plates, copper pieces, gas

Spraying: Aeration, foam breaking

Others: Applications where re-circulated water is being used or clogging is a concern

AJP SERIES

Structure	<ul style="list-style-type: none"> • Includes a nozzle body and orifice cap. • Orifice cap for sizes R1/8, R3/8, and R1/2 is pressed into the nozzle body. Orifice cap for the other sizes are screwed in. • No obstructions in the nozzle interior.
Material	<ul style="list-style-type: none"> • Nozzle body: S304, S303, or SCS13, depending on the spray capacity code. • Orifice cap: S303 <p>SPECIAL ORDER MATERIAL: S316</p>

Pipe conn. size	Dimensions (mm)						Weight (g)
	L1	L2	L3	L4	W	N	
R1/8	23	16	16	14	14	7	25
R1/4	32	23	20.5	16	16	10.5	55
R3/8	36	26	23.5	19	20	11	70
R1/2	46	33.5	31	25	25	14	180
R3/4	55	39	38	32	32	15	340
R1	70	50	48	40	40	18	670
R1 1/2	100	70	72	58.5	58.5	20	2,400

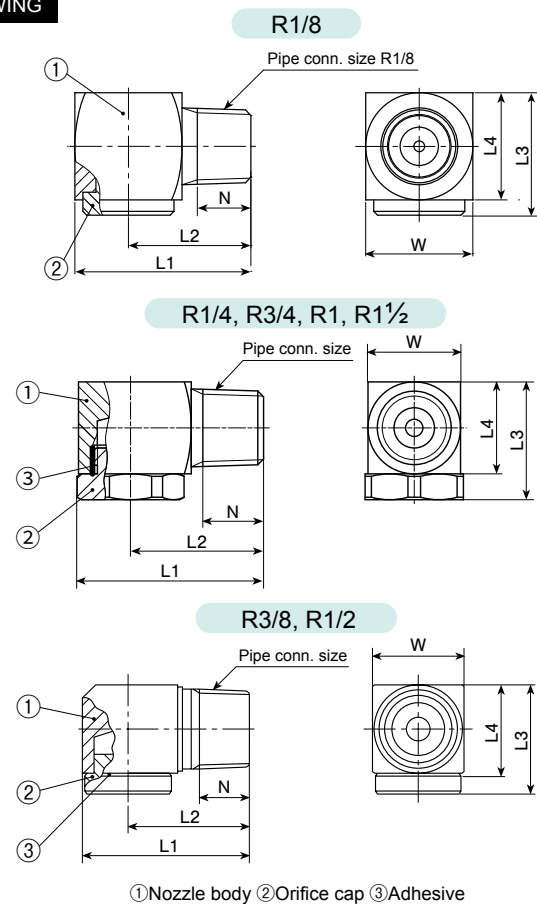
[Note] Appearance and dimensions may differ slightly depending on material and nozzle code.

⚠ Cautions for use (sizes R1/8, R3/8, and R1/2)

In extreme temperatures, high or low, the AJP press-fitted orifice cap for sizes R1/8, R3/8 and R1/2 may come off.

- For these conditions, order the AJP nozzles in S316 with the screw-in orifice caps.
- Do not use AJP size R1/8 in these conditions, the screw-in orifice cap is not available for size R1/8.

DRAWING



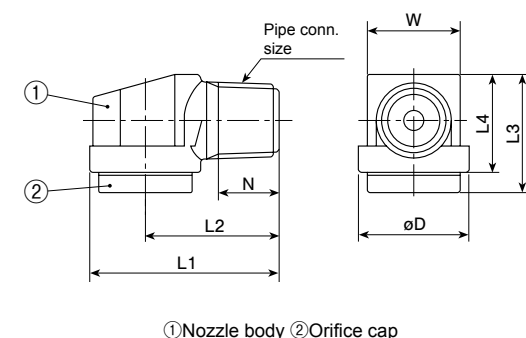
AJP-PPS SERIES

Structure	<ul style="list-style-type: none"> • Includes a nozzle body and orifice cap. • Orifice cap and nozzle body are ultrasonically welded together. • No obstructions in the nozzle interior.
Material	• PPS

Pipe conn. size	Dimensions (mm)							Weight (g)
	L1	L2	L3	L4	W	N	øD	
R1/4	32.5	23	20.5	17	16	19	10.5	6.8
R3/8	37	26	23	20	19	22	11	10.3

[Note] Appearance and dimensions may differ slightly depending on material and nozzle code.

DRAWING



Spray capacity code	Pipe connection size									Spray angle (°)			Spray capacity (L/min)							Mean drop. dia. (µm)	Free pass. dia. (mm)
	AJP (metal)						AJP-PPS														
	R1/8	R1/4	R3/8	R1/2	R3/4	R1	R 1½	R1/4	R3/8	0.05 MPa	0.2 MPa	0.5 MPa	0.03 MPa	0.05 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.3 MPa	0.5 MPa		
02 03	○ ○									64 65	75 75	69 69	— —	1.02 1.53	1.43 2.14	1.74 2.61	2.00 3.00	2.35 3.53	2.89 4.33	640	1.5 1.9
04 05 06 07		○ ○ ○						○ ○ ○		65 65 70 70	75 75 80 80	68 68 73 73	1.59 1.99 2.39 2.79	2.04 2.55 3.06 3.57	2.86 3.57 4.29 5.00	3.48 4.35 5.22 6.09	4.00 5.00 6.00 7.00	4.70 5.88 7.06 8.23	5.77 7.21 8.66 10.1		}
08 10 12 14 16			○ ○ ○ ○					○ ○ ○ ○		70 70 75 75 75	80 80 85 85 85	73 73 78 78 78	3.19 3.98 4.78 5.57 6.37	4.08 5.10 6.12 7.14 8.16	5.71 7.14 8.57 10.0 11.4	6.96 8.70 10.4 12.2 13.9	8.00 10.0 12.0 14.0 16.0	9.54 11.9 14.3 16.7 19.1	11.9 14.9 17.9 20.9 23.8	740	
18 20 23 26 30 35 40 45 50				○ ○ ○ ○						76 76 76 76 76 83 83 83 83	85 85 85 85 85 90 90 90 90	79 79 79 79 79 85 85 85 85	7.17 7.96 9.16 10.4 11.9 13.9 15.9 17.9 19.9	9.18 10.2 11.7 13.3 15.3 17.9 20.4 23.0 25.5	12.9 14.3 16.4 18.6 21.4 25.0 28.6 32.1 35.7	15.7 17.4 20.0 22.6 26.1 30.4 34.8 39.1 43.5	18.0 20.0 23.0 26.0 30.0 35.0 40.0 45.0 50.0	21.6 23.9 27.5 31.1 35.9 41.9 47.9 53.9 59.9	27.1 30.1 34.6 39.1 45.1 52.6 60.1 67.6 75.1		}
55 60 70 80 90				○ ○ ○ ○						83 83 83 83 83	90 90 90 90 90	85 85 85 85 85	21.9 23.9 27.9 31.9 35.8	28.1 30.6 35.7 40.8 45.9	39.3 42.9 50.0 57.1 64.3	47.8 52.2 60.9 69.6 78.3	55.0 60.0 70.0 80.0 90.0	65.9 71.8 83.8 95.8 108	82.6 90.2 105 120 135	1,000	
100 120 150						○ ○ ○				83 83 83	90 90 90	85 85 85	39.8 47.8 59.7	51.0 61.2 76.5	71.4 85.7 107	87.0 104 130	100 120 150	120 144 180	150 180 225		1,120
180 200 250							○ ○ ○			83 83 83	90 90 90	85 85 85	71.7 79.6 99.5	91.8 102 128	129 143 179	157 174 217	180 200 250	216 239 299	270 301 376	1,280	

HOW TO ORDER

To inquire about or order a specific nozzle please refer to this coding system.

AJP (metal)

Example: 1/4M AJP 04 S303

1/4M	AJP	04	S303
Pipe conn. size*1		Spray capacity code	Material of orifice cap*2
1/8M		02	
3/8M		250	
1"1/2M			

AJP-PPS

Example: 3/8M AJP 08 PPS

3/8M	AJP	08	PPS
Pipe conn. size*1		Spray capacity code	Material
1/4M		04	
3/8M		16	

*1) "M" indicates male thread ("R" of the ISO standard), e.g. 1/8M = R1/8, 1"1/2M = R1 1/2.

*2) The material of nozzle body is S304, S303, or SCS13, depending on the spray capacity code.

Wide-Angle AJP SERIES

Made-to-Order

Clog-Resistant Wide-Angle Full Cone Spray Nozzles



Features	Applications
<ul style="list-style-type: none"> The unique no-whirler design prevents clogging. The 120° wide spray angle is ideal for spraying in tight spaces with broader coverage. 	<ul style="list-style-type: none"> Cooling of electric furnace cover Cooling of electric furnace steel shell