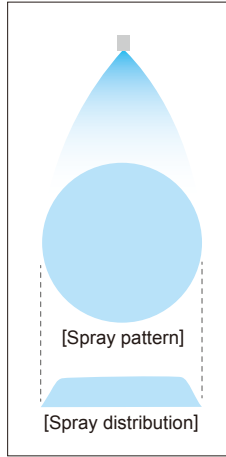


Clog-Resistant Vaneless Full Cone Spray Nozzles

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

Full Cone

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>

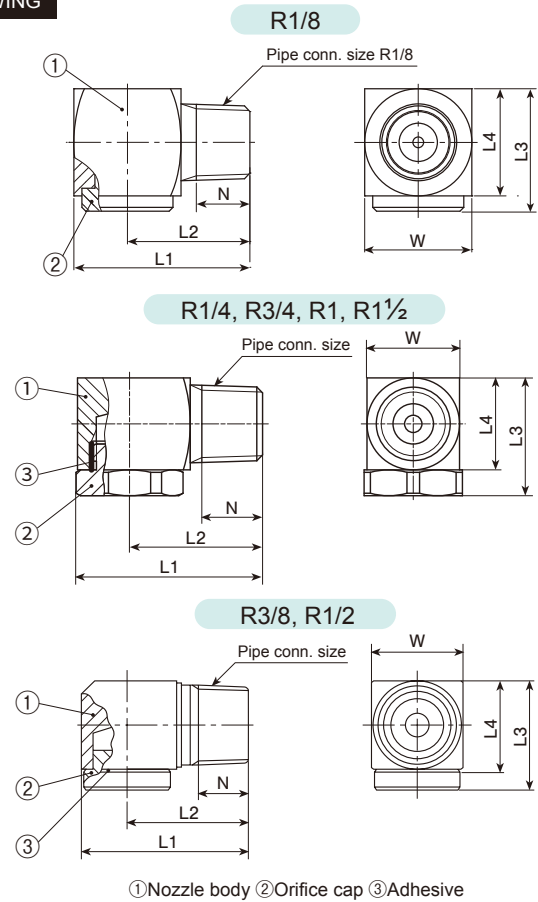
Pipe conn. size	Dimensions (mm)						Weight (g)
	L1	L2	L3	L4	W	N	
R1/8	23	16	16	14	14	7	25
R1/4	32	23	20.5	16	16	10.5	55
R3/8	36	26	23.5	19	20	11	70
R1/2	46	33.5	31	25	25	14	180
R3/4	55	39	38	32	32	15	340
R1	70	50	48	40	40	18	670
R1 1/2	100	70	72	58.5	58.5	20	2,400

[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



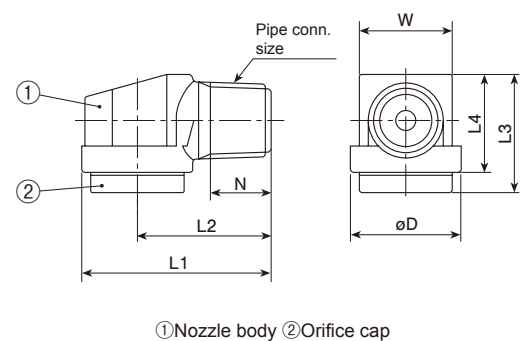
AJP-PPS SERIES

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



Full Cone

Spray capacity code	Pipe connection size								Spray angle (°)			Spray capacity (L/min)						Mean drop. dia. (µm)	Free pass. dia. (mm)	
	AJP (metal)						AJP-PPS		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
	R1/8	R1/4	R3/8	R1/2	R3/4	R1	R 1 1/2	R1/4												
02	○								64	75	69	—	1.02	1.43	1.74	2.00	2.35	2.89	640	1.5
03	○								65	75	69	—	1.53	2.14	2.61	3.00	3.53	4.33		
04		○							65	75	68	1.59	2.04	2.86	3.48	4.00	4.70	5.77	}	2.2
05		○	○						65	75	68	1.99	2.55	3.57	4.35	5.00	5.88	7.21		
06		○	○	○					70	80	73	2.39	3.06	4.29	5.22	6.00	7.06	8.66	}	2.8
07		○	○	○	○				70	80	73	2.79	3.57	5.00	6.09	7.00	8.23	10.1		
08			○						70	80	73	3.19	4.08	5.71	6.96	8.00	9.54	11.9	740	3.1
10			○	○					70	80	73	3.98	5.10	7.14	8.70	10.0	11.9	14.9		
12			○	○	○				75	85	78	4.78	6.12	8.57	10.4	12.0	14.3	17.9	}	4.0
14			○	○	○	○			75	85	78	5.57	7.14	10.0	12.2	14.0	16.7	20.9		
16			○	○	○	○	○		75	85	78	6.37	8.16	11.4	13.9	16.0	19.1	23.8	820	4.8
18				○					76	85	79	7.17	9.18	12.9	15.7	18.0	21.6	27.1		
20				○	○				76	85	79	7.96	10.2	14.3	17.4	20.0	23.9	30.1	}	5.4
23				○	○	○			76	85	79	9.16	11.7	16.4	20.0	23.0	27.5	34.6		
26				○	○	○	○		76	85	79	10.4	13.3	18.6	22.6	26.0	31.1	39.1	}	6.0
30				○	○	○	○	○	76	85	79	11.9	15.3	21.4	26.1	30.0	35.9	45.1		
35				○	○	○	○	○	83	90	85	13.9	17.9	25.0	30.4	35.0	41.9	52.6	}	7.1
40				○	○	○	○	○	83	90	85	15.9	20.4	28.6	34.8	40.0	47.9	60.1		
45				○	○	○	○	○	83	90	85	17.9	23.0	32.1	39.1	45.0	53.9	67.6	}	8.5
50				○	○	○	○	○	83	90	85	19.9	25.5	35.7	43.5	50.0	59.9	75.1		
55				○	○	○	○	○	83	90	85	21.9	28.1	39.3	47.8	55.0	65.9	82.6	1,000	9.0
60				○	○	○	○	○	83	90	85	23.9	30.6	42.9	52.2	60.0	71.8	90.2		
70				○	○	○	○	○	83	90	85	27.9	35.7	50.0	60.9	70.0	83.8	105	}	10.2
80				○	○	○	○	○	83	90	85	31.9	40.8	57.1	69.6	80.0	95.8	120		
90				○	○	○	○	○	83	90	85	35.8	45.9	64.3	78.3	90.0	108	135	}	11.4
100					○	○			83	90	85	39.8	51.0	71.4	87.0	100	120	150		
120					○	○	○		83	90	85	47.8	61.2	85.7	104	120	144	180	}	13.0
150					○	○	○	○	83	90	85	59.7	76.5	107	130	150	180	225		
180						○			83	90	85	71.7	91.8	129	157	180	216	270	1,280	15.5
200						○	○		83	90	85	79.6	102	143	174	200	239	301		
250						○	○	○	83	90	85	99.5	128	179	217	250	299	376	1,350	19.8

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 ∩ ■ 1*1/2M		■ 02 ∩ ■ 250	

AJP-PPS

Example: 3/8M AJP 08 PPS

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