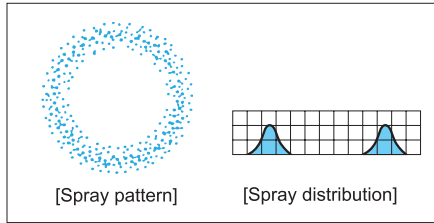
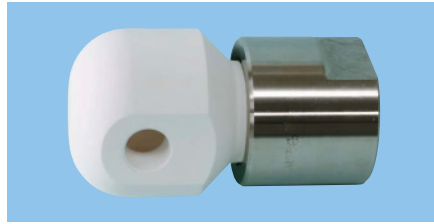


# Alumina Ceramic and Medium Capacity Hollow Cone Spray Nozzles

## AP-AL92

Hollow Cone



### [Features]

- Hollow cone spray nozzle made of alumina ceramic having excellent wear-resistance. Relatively fine atomization.
- Spray pattern is stable both at low and high pressures.
- No-whirler design minimizes clogging.
- Spraying axis 90° from the axis of the nozzle inlet.

### [Standard pressure]

0.2 MPa

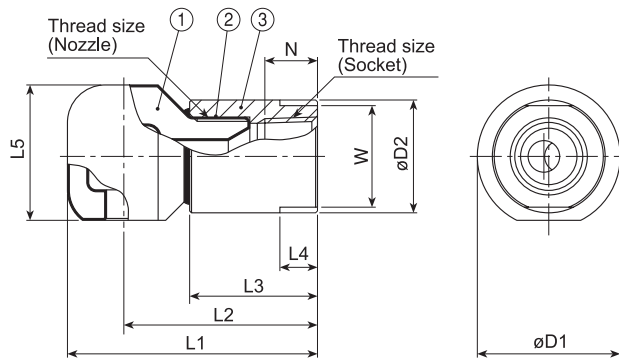
### [Applications]

- Cleaning: Gas, air, machines, pre-painting treatment  
 Cooling: Gas, air handling unit, roofs, machinery, foods, warm water  
 Spraying: Aeration, humidification

### AP-AL92 series

AP-AL92 series	
Structure	<ul style="list-style-type: none"> <li>• Alumina ceramic one-piece structure.</li> <li>• No obstructions in nozzle interior.</li> </ul>
Material	<ul style="list-style-type: none"> <li>• Nozzle body: 92% Alumina</li> <li>• Socket: S316</li> </ul>

We offer AP-AL92 series with a socket made of S316 to prevent thread damage, as the nozzle's alumina threads get easily chipped. Our S316 socket is female threaded.



①Nozzle body ②Adhesive: Araldite®H ③Socket (S316)

Thread sizes		Dimensions (mm)									Mass (g)
Nozzle	Socket	L1	L2	L3	L4	L5	W	øD1	øD2	N	
R1/2	Rc1/2	67	52	34	10	36	27	38	30	14	240
R3/4	Rc3/4	80	60	39	14	44	35	46	40	15	430
R1	Rc3/4	95	71	41	18	52.5	41	56	50	15	590
R1	Rc1	97	73	43	18	52.5	41	56	50	17	790
R1*1/2	Rc1	129	94	47	24	81.5	60	85	70	17	1,960
R1*1/2	Rc1*1/2	132	97	50	24	81.5	60	85	70	19	2,240
R2	Rc1*1/2	154	109	54	27	99	70	104	80	19	2,780
R2	Rc2	158	113	58	27	99	70	104	80	23	3,200
R2*1/2	Rc2	193	133	62	30	123.5	90	128	100	23	5,900
R2*1/2	Rc2*1/2	197	137	66	30	123.5	90	128	100	27	6,500
R3	Rc2*1/2	241	171	71	35	150	100	160	110	27	10,400
R3	Rc3	245	175	75	35	150	100	160	110	30	11,100

### [Note]

Appearance and dimensions may differ slightly depending on materials and nozzle codes.  
 Position of the machined flat surfaces (L4 in the drawing) of the socket is not always the same as shown in the above photo and drawing.

Spray capacity code	Nozzle thread size							Spray angle (°)			Spray capacity (ℓ/min)						Mean drop. dia. (µm)	Free pass. dia. (mm)	
	R1/2	R3/4	R1	R 1*1/2	R2	R 2*1/2	R3	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
14	○							76	80	83	5.62	7.19	10.0	12.2	14.0	17.0	21.7	580	5.6
16	○							76	80	83	6.43	8.22	11.5	13.9	16.0	19.4	24.9		7.0
18	○							76	80	83	7.23	9.24	12.9	15.7	18.0	21.9	28.0	∩	7.5
20	○							76	80	83	8.03	10.3	14.0	17.4	20.0	24.3	31.1		7.5
23	○							76	80	83	9.24	11.8	16.5	20.0	23.0	28.0	35.7	800	8.0
26		○						76	80	83	10.4	13.4	18.6	22.6	26.0	31.6	40.4	670	9.2
30		○						76	80	83	12.1	15.4	21.5	26.1	30.0	36.5	46.6	∩	9.9
35		○						76	80	83	14.1	18.0	25.1	30.5	35.0	42.5	54.4		10.3
40		○						76	80	83	16.1	20.5	28.7	34.8	40.0	48.6	62.1	850	10.5
45			○					81	85	89	18.1	23.1	32.2	39.2	45.0	54.7	69.9	750	12.1
50			○					81	85	89	20.1	25.7	35.8	43.5	50.0	60.8	77.7		12.3
55			○					81	85	89	22.1	28.2	39.4	47.9	55.0	66.8	85.4	∩	13.1
60			○					81	85	89	24.1	30.8	43.0	52.2	60.0	72.9	93.2		13.7
70			○					81	85	89	28.1	35.9	50.2	61.0	70.0	85.1	109	1,000	15.0

# Alumina Ceramic and Medium Capacity Hollow Cone Spray Nozzles AP-AL92 series

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Spray capacity code	Nozzle thread size							Spray angle (°)			Spray capacity (ℓ/min)						Mean drop. dia. (μm)	Free pass. dia. (mm)	
	R1/2	R3/4	R1	R 1*1/2	R2	R 2*1/2	R3	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
80				○				81	85	89	32.1	41.1	57.3	69.7	80.0	97.2	124	}	15.3
100				○				81	85	89	40.2	51.4	71.7	87.1	100	122	155		16.2
120				○				81	85	89	48.2	61.6	86.0	104	120	146	186		16.6
150				○				81	85	89	60.3	77.0	107	131	150	182	233		18.0
200					○			81	85	89	80.3	103	143	174	200	243	311	}	22.5
250					○			81	85	89	100	128	179	218	250	304	388		24.3
300						○		81	85	89	121	154	215	261	300	365	466	}	28.8
400						○		81	85	89	161	205	287	348	400	486	621		30.6
500							○	81	85	89	201	257	358	435	500	608	777	}	36.9
600							○	81	85	89	241	308	430	522	600	729	932		39.6

### How to order

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

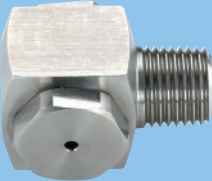
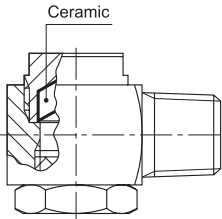
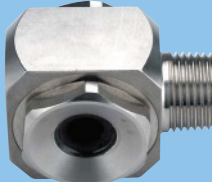
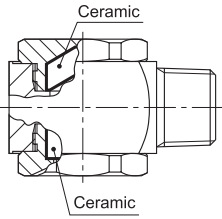
〈Example〉 1/2M AP 14 AL92 + 1/2Fx1/2F SOC S316

1/2M	AP	14	AL92 +	1/2F	x	1/2	F SOC S316
Nozzle thread size*	Spray capacity code	Socket thread size* (Pipe conn. size)	Nozzle thread size (without "R")				
■ 1/2M	■ 14	■ 1/2F	■ 1/2				
■ 3M	■ 600	■ 3F	■ 3				

\*"M" indicates male thread ("R" of the ISO standard) and "F" indicates female thread ("Rc" of the ISO standard), e.g. 1/2M = R1/2, 1/2F = Rc1/2.

### Sister Products

Hollow cone spray nozzles are superior in atomizing performance. On the other hand, the wear at the bottom of the nozzle is increased by an air core generated inside the nozzle. For applications such as spraying slurry where wear resistance of nozzles must be considered, [AP series] hollow cone spray nozzles with highly wear-resistant ceramics are available. Contact us for details.

Series	Appearance	Structure	Features	Applications
AP			Hollow cone spray nozzle with ceramic bottom.	Spraying slurry
AP (with ceramic orifice inserted)			Hollow cone spray nozzle with ceramic bottom and ceramic orifice.	Spraying slurry