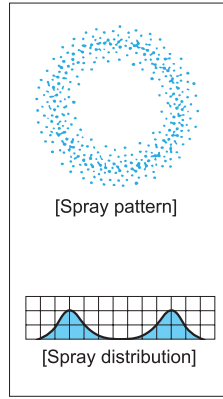


Extremely Fine Fog and Ultra-small Capacity Hollow Cone Spray Nozzles

KB



[Features]

- Ultra-small capacity hollow cone spray nozzle with the finest atomization among hydraulic nozzles.
- Capable of generating extremely fine spray.
- The whirl chamber is formed by a ceramic orifice and closer,*1 which provides excellent wear resistance.

[Standard pressure]

0.7 MPa

[Applications]

Humidifying: Air handling units, greenhouses
Cooling: Gas, thin plates, poultry
Spraying: Alcohol, chemicals

Hollow Cone

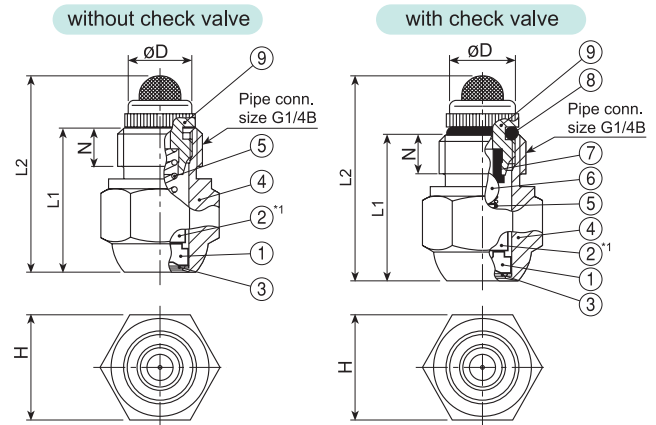
KB series

KB series (with ceramic orifice inserted)	
Structure	<ul style="list-style-type: none"> • Nozzle orifice and closer are made of ceramics.*1 • Male parallel pipe thread (G1/4B). • All models include built-in strainers. • Comes with check valve at extra cost.
Material	<ul style="list-style-type: none"> • Nozzle orifice & closer: ceramic*1 • Metal parts: S303 or B (brass)

Series	Dimensions (mm)					Mass (g)	
	L1	L2	H	øD	N	S303	B
KB (w/o check valve)	22.5	31	17(S303) 16(B)	10.5	6	24.8	25
KB+CV (w/ check valve)	22.5	32	17(S303) 16(B)	10.5	6	25.3	25.5

*1) For KB nozzles with N in the spray capacity code (see p.53), the closer is made of polyester elastomer instead of ceramic.

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



- ①Ceramic orifice ②Ceramic closer*1 ③Packing (PTFE) ④Nozzle body
⑤Spring ⑥Ball (S304) ⑦Packing (NBR) ⑧O-ring (NBR)
⑨Strainer (S303+S304 or B+S304)

Spray angle code	Spray capacity code*2	Spray angle (°)			Spray capacity (ℓ/hr)									Mean drop. dia. (μm)	Free pass. dia. (mm)	Strainer mesh size
		0.3 MPa	0.7 MPa	2 MPa	0.3 MPa	0.4 MPa	0.5 MPa	0.6 MPa	0.7 MPa	1 MPa	1.2 MPa	1.5 MPa	2 MPa			
80	063N	65	80	80	1.36	1.55	1.72	1.86	2.00	2.35	2.56	2.83	3.22	45	0.20	200
	071	—	80	80	—	1.70	1.90	2.08	2.25	2.69	2.95	3.29	3.81	5	0.15	200
	08	—	80	80	—	1.97	2.20	2.41	2.60	3.11	3.40	3.80	4.40	5	0.15	200
	09	—	80	80	—	2.23	2.49	2.73	2.95	3.53	3.86	4.32	4.99	5	0.15	200
	10N	65	80	80	2.19	2.51	2.78	3.03	3.25	3.84	4.18	4.63	5.30	5	0.25	200
	125N	65	80	80	2.77	3.16	3.51	3.82	4.10	4.84	5.27	5.84	6.68	60	0.30	200
	14	—	80	80	—	3.48	3.89	4.26	4.60	5.50	6.02	6.73	7.78	50	0.15	200
	16N	65	80	80	3.51	4.02	4.47	4.88	5.25	6.22	6.79	7.55	8.66	50	0.35	150
	20N	65	80	80	4.41	5.06	5.62	6.13	6.60	7.82	8.53	9.49	10.9	50	0.40	150
	22N	65	80	80	4.84	5.55	6.18	6.74	7.25	8.59	9.37	10.4	12.0	5	0.40	150
	25	70	80	80	5.40	6.24	6.97	7.64	8.25	9.87	10.8	12.1	14.0	50	0.25	150
	28	70	80	80	6.05	6.99	7.82	8.56	9.25	11.1	12.1	13.5	15.7	50	0.30	150
	32	70	80	80	6.94	8.01	8.96	9.82	10.6	12.7	13.9	15.5	17.9	75	0.30	150
	38	70	80	80	8.25	9.52	10.7	11.7	12.6	15.1	16.5	18.4	21.3	65	0.40	150
	45	70	80	80	9.79	11.3	12.6	13.9	15.0	17.9	19.6	21.9	25.3	50	0.40	100
	50	70	80	80	10.9	12.6	14.0	15.4	16.6	19.9	21.8	24.3	28.1	50	0.40	100
	56	70	80	80	12.2	14.1	15.7	17.2	18.6	22.3	24.4	27.2	31.5	50	0.40	100
	63	72	80	80	13.7	15.8	17.7	19.4	21.0	25.1	27.5	30.7	35.5	50	0.40	100
	71	72	80	80	15.5	17.8	20.0	21.9	23.6	28.2	30.9	34.6	39.9	50	0.50	100
	80	72	80	80	17.5	20.2	22.6	24.7	26.7	31.9	35.0	39.0	45.1	50	0.50	100
90	73	80	80	19.6	22.7	25.4	27.8	30.0	35.9	39.3	43.9	50.8	110	0.50	100	
100	73	80	80	21.8	25.2	28.2	30.9	33.3	39.9	43.7	48.8	56.4	90	0.50	100	
1250	73	80	80	27.2	31.5	35.2	38.5	41.6	49.8	54.5	60.9	70.4	50	0.50	100	
180	74	80	80	39.2	45.3	50.6	55.5	59.9	71.6	78.5	87.6	101	5	0.60	100	
200	74	80	80	43.6	50.4	56.3	61.7	66.6	79.7	87.3	97.5	113	5	0.60	100	
320	75	80	80	69.7	80.5	90.0	98.6	107	127	140	156	180	210	0.60	100	
60	063	—	60	60	—	1.51	1.69	1.85	2.00	2.39	2.62	2.93	3.38	45	0.15	200
	14	—	60	60	—	3.48	3.89	4.26	4.60	5.50	6.02	6.73	7.78	5	0.15	200
	32	—	60	60	—	8.01	8.96	9.82	10.6	12.7	13.9	15.5	17.9	5	0.30	150
	56	50	60	60	12.2	14.1	15.7	17.2	18.6	22.3	24.4	27.2	31.5	90	0.40	100
	140	53	60	60	30.5	35.2	39.4	43.2	46.6	55.7	61.0	68.2	78.8	130	0.50	100
	280	54	60	60	61.0	70.5	78.8	86.4	93.2	112	122	136	158	190	0.60	100

*2) Spray capacity code with N is our newly-designed KB series. See page 53 for the features.

[Note] The spray capacity of KB series is in liters per hour (ℓ/hr), not in ℓ/min. The spray capacity code does not correspond with the spray capacity at the standard pressure.

Extremely Fine Fog and Ultra-Small Capacity Hollow Cone Spray Nozzles KB series

Hollow Cone

Features of newly-designed KB (with code "N") series

● Anti-clogging design

- Features larger orifice diameter (1.3–2.6 times) compared with conventional KB models. Clog-resistant.

● Available in wide range from low (0.2 MPa) to high (10 MPa) pressures

- Capable of spraying from 0.2 MPa: Able to spray at low capacity.
- Designed to withstand pressures up to 10 MPa: Suitable for finer atomization.^{*3}

*3) When spraying at pressure of 2 MPa and above, use S303 nozzles.

■ Spray capacity of KB series (with code "N") at high pressure

Spray angle code	Spray capacity code	Spray angle (°)	Spray capacity (ℓ/hr)					Mean drop. dia. at 10 MPa (μm)
			3 MPa	5 MPa	6 MPa	7 MPa	10 MPa	
80	063N	80	3.88	4.89	5.31	5.70	6.70	33
	10N		6.40	8.11	8.83	9.48	11.2	
	125N		8.07	10.2	11.1	12.0	14.1	5
	16N		10.5	13.4	14.6	15.7	18.6	
	20N		13.2	16.8	18.4	19.8	23.4	
	22N		14.5	18.5	20.2	21.7	25.7	

Check valve

For drip-free shut-off, KB series nozzles with check valves are available.

The standard operating pressure for check valve is 0.4 MPa. Supply pressure minus the operating pressure of the check valve (0.4 MPa) is the atomizing pressure. KB series nozzles with check valves are not guaranteed for spray angle and spray capacity.

How to order


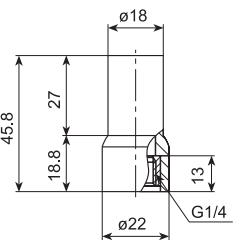

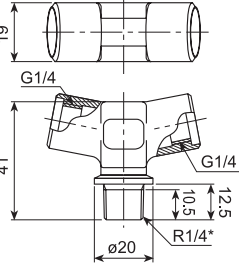

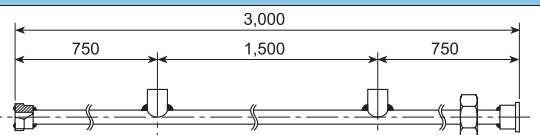
Please inquire or order for a specific nozzle using this coding system.

〈Example〉 1/4M KB 80071 S303 CV-RW

1/4M KB 80 071 S303 CV -RW

Spray angle code	Spray capacity code	Material	Check valve
80	063N	S303	CV (with check valve)
60	}	B	(Blank denotes "without check valve")
	320		

Optional Accessories for KB series

Product	Appearance	Structure	Features
Fitting for PVC pipe 13AKB adaptor PVC			<ul style="list-style-type: none"> • Fitting for KB series nozzle to 13A (1/2") Tee. • Material: PVC
Two-way adaptor			<ul style="list-style-type: none"> • Adaptor for connecting 2 pcs. of KB. series nozzles. • Material: Chrome-plated brass <p>*Three types of threads for pipe connection are available: male taper thread, male parallel thread, or M15x1.</p>
Spray header			<ul style="list-style-type: none"> • Stainless steel header with two-way adaptors. • Length of header: 3 m or 4 m <p>Please contact us for details.</p>