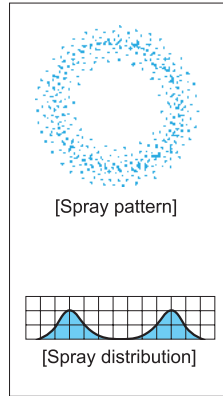


# Extremely Fine Fog and Ultra-small Capacity Hollow Cone Spray Nozzles

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,<sup>1</sup> 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

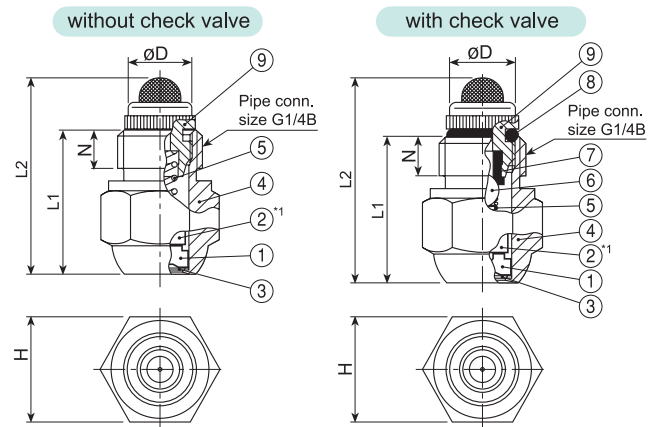
**KB series**

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

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<sup>\*1</sup> ③Packing (PTFE) ④Nozzle body  
⑤Spring ⑥Ball (S304) ⑦Packing (NBR) ⑧O-ring (NBR)  
⑨Strainer (S303+S304 or B+S304)

Spray angle code	Spray capacity code <sup>*2</sup>	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				
	08	—	80	80	—	1.97	2.20	2.41	2.60	3.11	3.40	3.80	4.40	50	0.15	200	
	09	—	80	80	—	2.23	2.49	2.73	2.95	3.53	3.86	4.32	4.99				
	10N	65	80	80	2.19	2.51	2.78	3.03	3.25	3.84	4.18	4.63	5.30	60	0.30	200	
	125N	65	80	80	2.77	3.16	3.51	3.82	4.10	4.84	5.27	5.84	6.68				
	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				
	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				
	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				
	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				
	45	70	80	80	9.79	11.3	12.6	13.9	15.0	17.9	19.6	21.9	25.3	65	0.40	150	
	50	70	80	80	10.9	12.6	14.0	15.4	16.6	19.9	21.8	24.3	28.1				
	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				
	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				
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					
1250	73	80	80	27.2	31.5	35.2	38.5	41.6	49.8	54.5	60.9	70.4	90	0.50	100		
180	74	80	80	39.2	45.3	50.6	55.5	59.9	71.6	78.5	87.6	101					
200	74	80	80	43.6	50.4	56.3	61.7	66.6	79.7	87.3	97.5	113	50	0.60	100		
320	75	80	80	69.7	80.5	90.0	98.6	107	127	140	156	180					
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				
	32	—	60	60	—	8.01	8.96	9.82	10.6	12.7	13.9	15.5	17.9	50	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				
	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				

\*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.<sup>\*3</sup>

\*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	}
	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


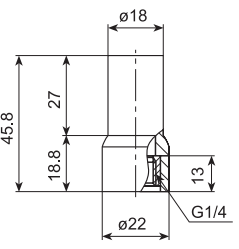

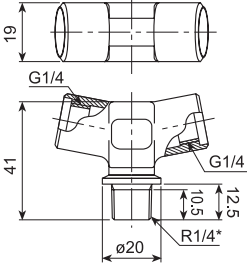

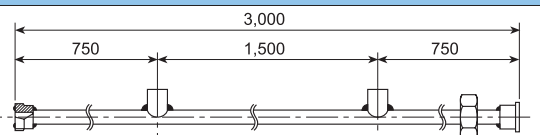
Please inquire or order for a specific nozzle using this coding system.

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