

# Compact Design Small Capacity Fine Fog Nozzles

CBIM

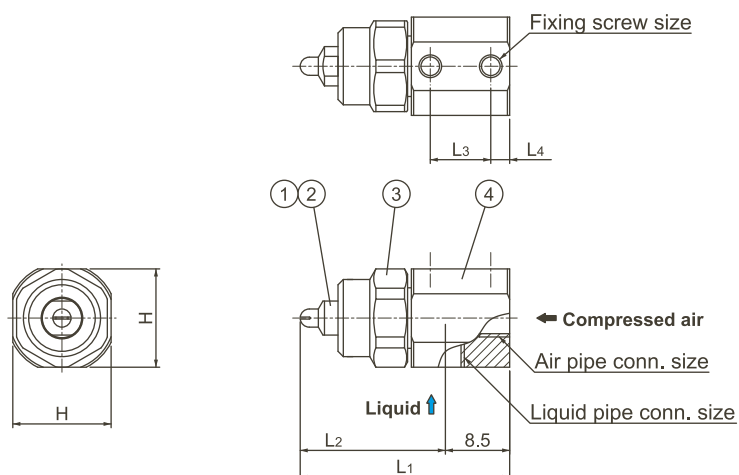
## Features

- Compact version of BIM series producing fine atomization. Space-saving design.
- Clog-resistant. Easy maintenance due to low number of parts.
- Available in liquid pressure or liquid siphon feed type\*1, three spray pattern types (flat spray, hollow cone spray, full cone spray)—23 varieties in total. Wide selection.

\*1) CBIMJ (full cone spray) series has no liquid siphon type.



## Structure & Material



### Components and materials

No.	Components	Standard materials
①	Spray tip	S303
②	Core	S303
③	Cap	S303
④	Adaptor	S303

## Dimensions & Pipe Connection Sizes

Air consumption code	Dimensions (mm)					Pipe connection size			Mass (g)
	L1	L2	L3	L4	H	Compressed air	Liquid	Fixing	
005	27.7	19.2	8	2.5	13	M5 depth 3	M5 depth 3	M3x2	22
01	27.7	19.2							
02	28.0	19.5							
04	31.3	22.8							
075	32.6	24.1							

# Compact Design, Small Capacity Fine Fog Nozzles

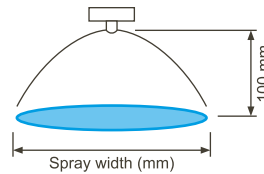
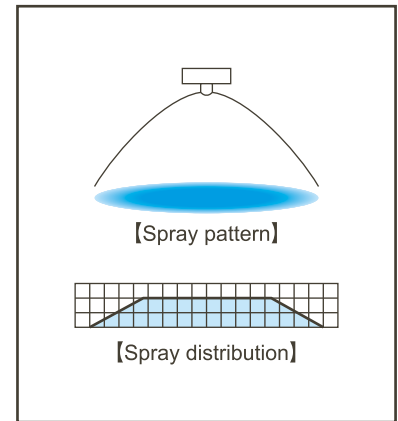
—Liquid Pressure Type—

# CBIMV

## CBIMV (Flat Spray)

### Features

- Flat spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100 μm or less.\*1
- Features large turn-down ratio under liquid pressures of 0.1–0.3 MPa.
- Spray angle of 110°, 80°, or 45°.
- Produces two different spray distributions: even spray distribution across the entire spray area (when spraying at a low air-water ratio), or a mountain-shaped distribution having gradually tapered edges (at a high air-water ratio).



\*1) Droplet diameter measured by laser Doppler method

Spray angle code *2	Air consumption code	Air pressure (MPa)	Spray capacity (ℓ/hr) & Air consumption (ℓ/min, Normal)												Spray width*3 (mm)	Mean droplet diameter (μm)	Free passage diameter (mm)				
			Liquid pressure (MPa)														Laser Doppler method	Spray orifice	Adaptor		
			0.1		0.15		0.2		0.25		0.3		Liquid press. (MPa)						Liquid	Air	
			Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	0.1	0.15							0.25
110	01	0.2	1.3	6.8	2.8	5.3	—	—	—	—	—	—	280	330	—	20–100	0.2	0.6	0.5		
		0.3	0.5	10	1.1	9.5	2.3	8.4	4.0	6.5	—	—	240	250	380						
		0.4	—	—	0.6	12.4	1.1	12	2.2	11	3.3	9.6	—	220	300						
	02	0.2	2.2	14	5.3	11	—	—	—	—	—	—	280	340	—	20–100	0.2	0.9	0.7		
		0.3	1.0	20	2.5	19	4.6	17	8.3	12	14.3	7	220	250	420						
		0.4	—	—	1.4	25	2.3	24	4.0	23	6.3	20	—	230	340						
	04	0.2	4.5	25	9.5	20	17.0	13	—	—	—	—	300	360	—	20–100	0.3	0.9	0.9		
		0.3	2.0	36	4.7	35	8.5	31	13.1	27	19.6	20	230	270	430						
		0.4	—	—	2.8	45	4.8	44	7.7	41	11.4	37	—	250	350						
	075	0.2	8.7	51	18.4	42	33.3	29	—	—	—	—	320	380	—	20–100	0.5	1.2	1.4		
		0.3	4.0	74	8.8	71	15.5	64	24.3	54	38.5	40	240	300	450						
		0.4	—	—	5.6	91	9.1	89	14.8	82	21.8	74	—	270	370						
80	005	0.2	0.7	3.4	1.5	2.6	—	—	—	—	—	—	230	260	—	20–100	0.1	0.4	0.3		
		0.3	0.25	5.0	0.6	4.7	1.25	4.1	2.0	3.2	—	—	170	200	280						
		0.4	—	—	0.3	6.3	0.55	6.0	1.1	5.5	1.65	4.8	—	160	250						
	01	0.2	1.3	6.8	2.8	5.3	—	—	—	—	—	—	220	250	—	20–100	0.2	0.6	0.5		
		0.3	0.5	10	1.1	9.5	2.3	8.4	4.0	6.5	—	—	140	200	250						
		0.4	—	—	0.6	12.4	1.1	12	2.2	11	3.3	9.6	—	140	220						
	02	0.2	2.2	14	5.3	11	—	—	—	—	—	—	200	260	—	20–100	0.3	0.9	0.7		
		0.3	1.0	20	2.5	19	4.6	17	8.3	12	14.3	7	170	210	300						
		0.4	—	—	1.4	25	2.3	24	4.0	23	6.3	20	—	200	250						
	04	0.2	4.5	25	9.5	20	17.0	13	—	—	—	—	200	260	—	20–100	0.4	0.9	0.9		
		0.3	2.0	36	4.7	35	8.5	31	13.1	27	19.6	20	170	210	310						
		0.4	—	—	2.8	45	4.8	44	7.7	41	11.4	37	—	200	260						
075	0.2	8.7	51	18.4	42	33.3	29	—	—	—	—	200	270	—	20–100	0.6	1.2	1.4			
	0.3	4.0	74	8.8	71	15.5	64	24.3	54	38.5	40	170	210	310							
	0.4	—	—	5.6	91	9.1	89	14.8	82	21.8	74	—	200	260							
45	005	0.2	0.7	3.4	1.5	2.6	—	—	—	—	—	—	120	150	—	20–100	0.2	0.4	0.3		
		0.3	0.25	5.0	0.6	4.7	1.25	4.1	2.0	3.2	—	—	80	110	150						
		0.4	—	—	0.3	6.3	0.55	6.0	1.1	5.5	1.65	4.8	—	80	140						
	01	0.2	1.3	6.8	2.8	5.3	—	—	—	—	—	—	120	150	—	20–100	0.3	0.6	0.5		
		0.3	0.5	10	1.1	9.5	2.3	8.4	4.0	6.5	—	—	80	110	150						
		0.4	—	—	0.6	12.4	1.1	12	2.2	11	3.3	9.6	—	70	120						
	02	0.2	2.2	14	5.3	11	—	—	—	—	—	—	100	130	—	20–100	0.4	0.9	0.7		
		0.3	1.0	20	2.5	19	4.6	17	8.3	12	14.3	7	80	110	150						
		0.4	—	—	1.4	25	2.3	24	4.0	23	6.3	20	—	100	130						
	04	0.2	4.5	25	9.5	20	17.0	13	—	—	—	—	100	130	—	20–100	0.5	0.9	0.9		
		0.3	2.0	36	4.7	35	8.5	31	13.1	27	19.6	20	80	110	150						
		0.4	—	—	2.8	45	4.8	44	7.7	41	11.4	37	—	100	130						
075	0.2	8.7	51	18.4	42	33.3	29	—	—	—	—	100	140	—	20–100	0.9	1.2	1.4			
	0.3	4.0	74	8.8	71	15.5	64	24.3	54	38.5	40	80	110	160							
	0.4	—	—	5.6	91	9.1	89	14.8	82	21.8	74	—	100	140							

\*2) Spray angle measured at compressed air pressure of 0.3 MPa and liquid pressure of 0.1 MPa.

\*3) Measured at 100 mm from nozzle.



**SCBIM series Spray Tip Interchangeability**

			Liquid pressure type						Liquid siphon type	
			SCBIMV				SCBIMJ		SCBIMV-S	
			11001	80005	8001	45005	4501	20005	2001	80005S
Liquid pressure type	SCBIMV	11001	×	⊙	×	⊙	×	⊙	×	×
		80005	×	×	⊙	×	⊙	×	×	×
		8001	⊙	×	×	⊙	×	⊙	×	×
		45005	×	⊙	×	×	⊙	×	×	×
		4501	⊙	×	⊙	×	×	⊙	×	×
		4501	⊙	×	⊙	×	×	⊙	×	×
Liquid pressure type	SCBIMJ	20005	×	⊙	×	⊙	×	×	×	
		2001	⊙	×	⊙	×	⊙	×	×	
Liquid siphon type	SCBIMV-S	80005S	×	×	×	×	×	×	×	
		8001S	×	×	×	×	×	×	×	

Spray tips with ⊙ are interchangeable with each other.

**CBIM series Cap Interchangeability**

Adaptor type		T* <sup>1</sup>					CSP/CSN* <sup>2</sup>		
		005	01	02	04	075	005	01	02
T* <sup>1</sup>	005	×	⊙	⊙	×	×	×	×	×
	01	⊙	×	⊙	×	×	×	×	×
	02	⊙	⊙	×	×	×	×	×	×
	04	×	×	×	⊙	×	×	×	×
	075	×	×	×	⊙	×	×	×	×
CSP/CSN* <sup>2</sup>	005	×	×	×	×	×	⊙	⊙	
	01	×	×	×	×	×	⊙	⊙	
	02	×	×	×	×	×	⊙	⊙	

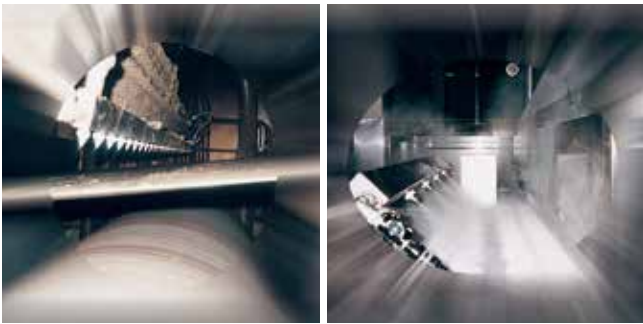
Caps with ⊙ are interchangeable with each other.

\*1) Air consumption codes available for T-type adaptor are 005, 01, 02, 04, and 075.

\*2) Air consumption codes available for CSP- and CSN-type adaptors are 005, 01, and 02 only.

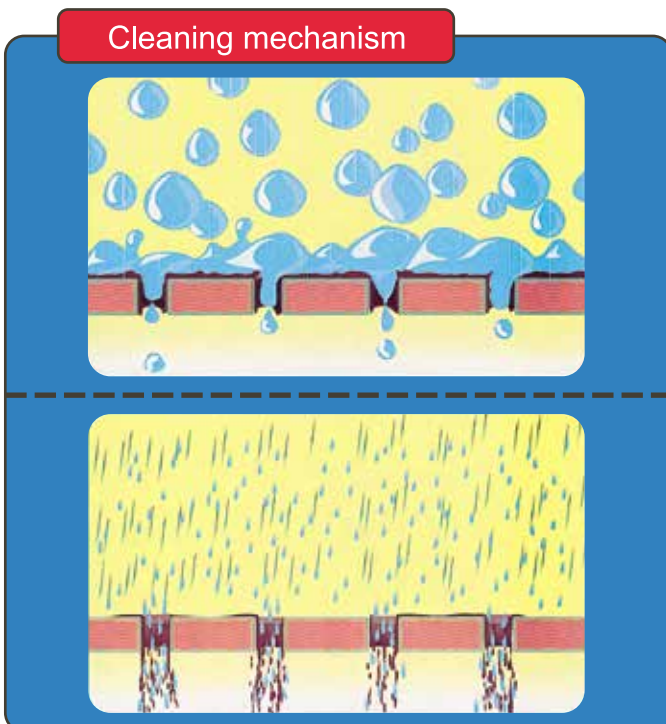
When changing an adaptor type of the existing CBIM nozzle between T, CSP, and CSN types, it is possible to continue to use the same spray tips and core, which are the common parts (the cap is not).

**Common applications**



- **Paper & Pulp:** Moisture control, spraying mold lubricant, preventing cardboard from curling
- **Plastics:** Spraying anti-electrostatic agent, coating
- **Iron & Steel:** Cooling metal sheets
- **Glass:** Coating and cooling glass sheets
- **Textile:** Moisture control of textile and fiber
- **Printing:** Moisture control of paper after dryer of web offset printing machine
- **Automotives:** Cooling carriages of automobile bodies on the painting lines after oven
- **Food:** Spraying egg yolk, oil, honey, and more

**New cleaning method "Fog Cleaning"**



- For precise cleaning in cleaning process of photo-processing products

In conventional cleaning methods, large droplets created by hydraulic nozzles are used and cannot clean within fine interstices.

By using air, pneumatic spray nozzles produce very fine droplets for "fog cleaning".

■ Features of Fog Cleaning

- ① Very fine droplets get into interstices and wash out dirt.
- ② Velocity of cleaning water has been remarkably improved due to compressed air blow, that contributes to maximizing spray impact.
- ③ Compressed air will blow off puddles on surfaces of objects, stopping chemical reactions, and thus, it will get better cleaning effects.