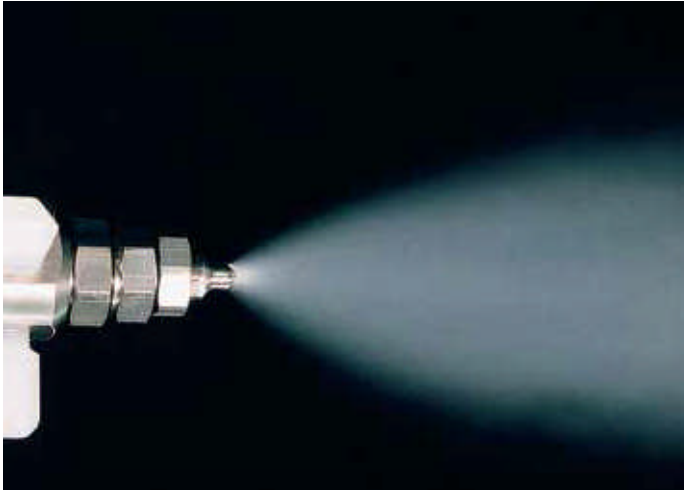


Small Capacity Fine Fog Nozzles

BIM/CBIM series Fine Fog Nozzles



- BIM/CBIM series produces fine atomization with a mean droplet diameter of 10-100 μ m measured by Laser Doppler Method.
- Unique design greatly minimizes clogging.
Designed using fewer parts than typical nozzles for easier maintenance and lower price.
- Available in 3 spray patterns, BIMV/CBIMV flat spray, BIMK/CBIMK hollow cone spray and BIMJ/CBIMJ full cone spray.
Versatile pneumatic spray nozzles - you can select a suitable type depending on the intended use.
- Available with integrated spray header combining air and liquid conduits, ring-shaped header, and other compact headers to fit your site.

Contents

Small Capacity Fine Fog Nozzles

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CBIM Compact Nozzles -Liquid siphon type-	p.33
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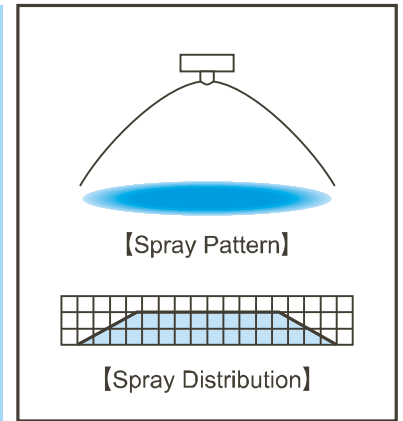
Small Capacity Fine Fog Nozzles / Flat Spray – Liquid Pressure Type –

BIMV

Features

- Flat spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100 μ m or less (*1).
- Features large turn-down ratio under liquid pressures of 0.1-0.3MPa.
- Three spray angles of 110°, 80°, and 45° are available.
- Produces two different spray distributions; uniform spray distribution throughout spray pattern area (when spraying at a low air-water ratio), and a mountain-shaped distribution having gradually tapered edges (at a high air-water ratio).

*1) Measured by Laser Doppler Method



BIM with SN-type adaptor

Applications

- Spraying: Mold release agent, lubricant, deodorant, oil, surface treatment agent, rust preventive, honey, insecticide, aqueous urea, etc.
- Cooling: Dies, gas, glass, steel plates, steel pieces, moldings, automobile bodies, plastic products, etc.
- Moisture control: Paper, gas, ceramics, concrete, etc.
- Cleaning: Printed circuit boards, glass tubes, etc.

Structure & Materials

- Comprising 4 parts: Spray tip, core, cap and adaptor. (Details of adaptors are shown on pages 23 and 24.)
- Materials: S303 (Optional material; S316L)

Dimensions & Pipe Conn. Sizes

- Dimensions and pipe connection sizes are shown on page 25.

Accessories

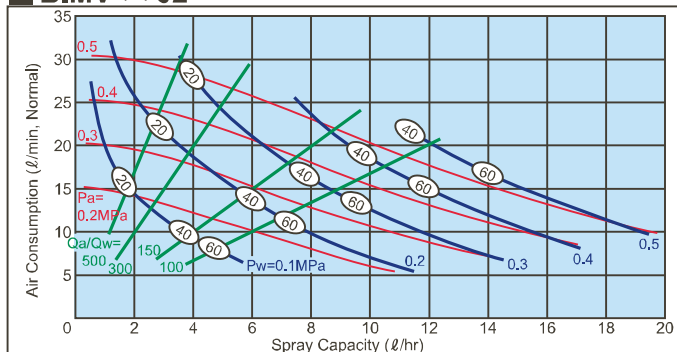
- Fixing support for easy installation is shown on page 26.

Flow-rate Diagram

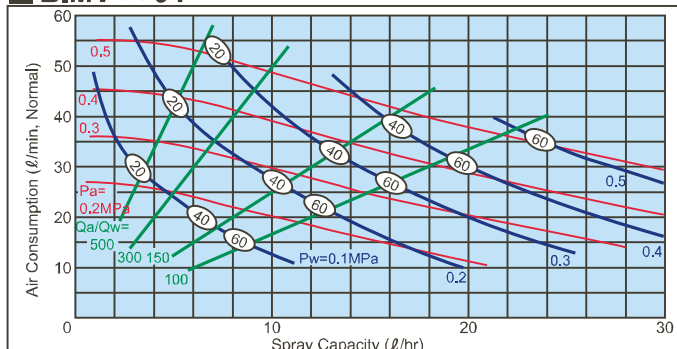
- How to read the chart

- ① The spray capacity shown is for one nozzle.
- ② Red lines (—) represent compressed air pressures Pa in MPa.
Blue lines (—) represent liquid pressures Pw in MPa.
Green lines (—) represent air-water ratio Qa/Qw.
- ③ Figures in ovals ○ indicate Sauter mean droplet diameters (μ m) measured by the Laser Doppler Method.
- ④ ** to be filled by spray angle code of 110, 80 or 45.

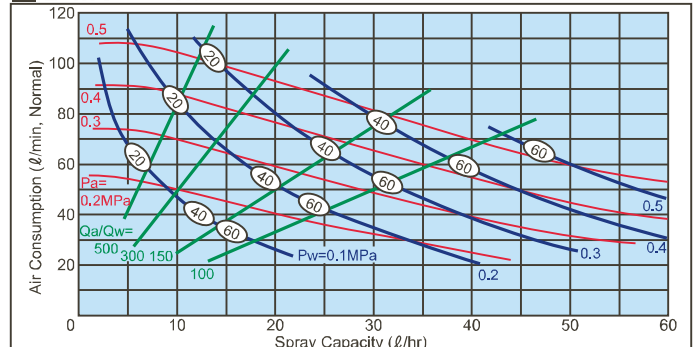
BIMV**02



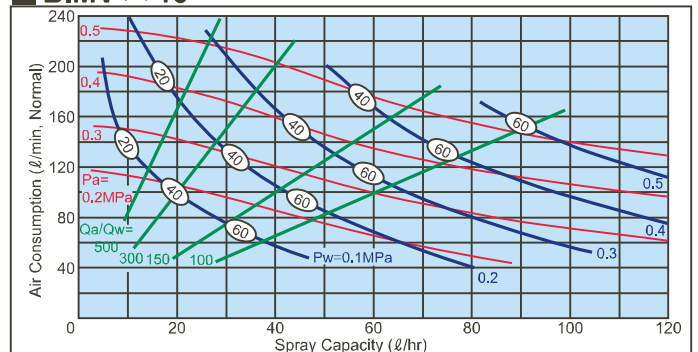
BIMV**04



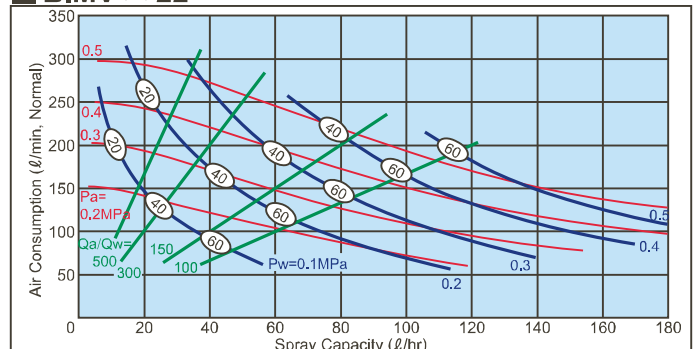
BIMV**075



BIMV**15



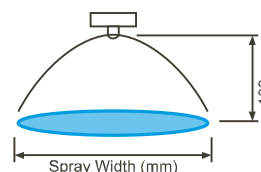
BIMV**22



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 Dia. (μm)	Free Passage Diameter (mm)		
			Liquid Pressure (MPa)										Liquid Press. (MPa)				Laser Doppler Method	Spray Orifice	Adaptor
			0,1		0,15		0,2		0,25		0,3		0,1	0,15	0,25	15			Liquid
			Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air							
110°	02	0.2	2.2	14	5.3	11	—	—	—	—	—	—	280	340	—	15	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	—	15	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	—	15	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				
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	340	400	—	15	0.8	1.8	1.9
		0.3	8.0	150	17.7	144	30.8	130	50.0	108	74.5	87	270	320	470				
		0.4	—	—	11.2	190	18.3	183	29.1	172	42.9	154	—	280	380				
	22	0.2	22.3	140	45.6	116	92.1	76.9	—	—	—	—	350	420	—	15	0.9	2.1	2.2
		0.3	11.5	200	23.9	189	41.3	169	68.5	138	107	103	280	330	490				
		0.4	—	—	15.3	245	24.5	238	39.1	220	57.7	198	—	300	400				
80°	02	0.2	2.2	14	5.3	11	—	—	—	—	—	200	260	—	15	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	—	15	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	—	15	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				
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	210	280	—	15	0.9	1.8	1.9
		0.3	8.0	150	17.7	144	30.8	130	50.0	108	74.5	87	180	220	320				
		0.4	—	—	11.2	190	18.3	183	29.1	172	42.9	154	—	200	270				
	22	0.2	22.3	140	45.6	116	92.1	76.9	—	—	—	—	210	280	—	15	1.1	2.1	2.2
		0.3	11.5	200	23.9	189	41.3	169	68.5	138	107	103	180	220	330				
		0.4	—	—	15.3	245	24.5	238	39.1	220	57.7	198	—	210	280				
45°	02	0.2	2.2	14	5.3	11	—	—	—	—	—	100	130	—	15	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	—	15	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	—	15	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				
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	110	150	—	15	1.2	1.8	1.9
		0.3	8.0	150	17.7	144	30.8	130	50.0	108	74.5	87	90	120	170				
		0.4	—	—	11.2	190	18.3	183	29.1	172	42.9	154	—	110	150				
	22	0.2	22.3	140	45.6	116	92.1	76.9	—	—	—	—	110	160	—	15	1.6	2.1	2.2
		0.3	11.5	200	23.9	189	41.3	169	68.5	138	107	103	90	120	180				
		0.4	—	—	15.3	245	24.5	238	39.1	220	57.7	198	—	110	150				

Note: *2) Measured at compressed air pressure of 0.3MPa and liquid pressure of 0.1MPa.

*3) Measured at 100mm from nozzle.



How to order

To determine specifications, please specify a spray angle code and air consumption code referring to the above chart, then select a connecting adaptor from the 8 types (type N, T, ND, etc.). Please inquire or order for a specific nozzle using this coding system.

<Example> BIMV11002S303+NS303

BIMV

110

Spray Angle Code

- 110°
- 80°
- 45°

02

Air Consumption Code

- 02
- 04
- 075
- 15
- 22

S303

+

N

Type of Adaptor

- N
- T
- ND
- SP
- SN
- UND
- USP
- USN

S303

Details of adaptors are shown on pages 23 and 24.

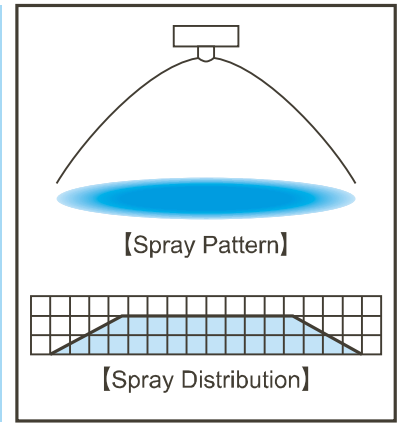
Small Capacity Fine Fog Nozzles / Flat Spray – Liquid Siphon Type –

BIMV-S

Features

- Flat spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 30 μ m or less (*1).
- Liquid siphon feed type (liquid pressure device is not required).
- Spray angle is 80°.
- Even spray distribution across the entire spray area.

*1) Measured by Laser Doppler Method



BIM with T-type adaptor

Applications

- Spraying: Mold release agent, lubricant, deodorant, oil, surface treatment agent, rust preventive, honey, insecticide, aqueous urea, etc.
- Cooling: Dies, gas, glass, steel plates, steel pieces, moldings, automobile bodies, plastic products, etc.
- Moisture control: Paper, gas, ceramics, concrete, etc.
- Cleaning: Printed circuit boards, glass tubes, etc.

Structure & Materials

- Comprising 4 parts: Spray tip, core, cap and adaptor. (Details of adaptors are shown on pages 23 and 24.)
- Materials: S303 (Optional material); S316L

Dimensions & Pipe Conn. Sizes

- Dimensions and pipe connection sizes are shown on page 25.

Accessories

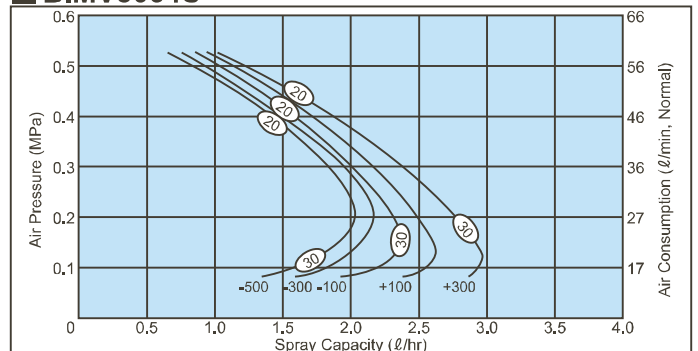
- Fixing support for easy installation is shown on page 26.

Flow-rate Diagram

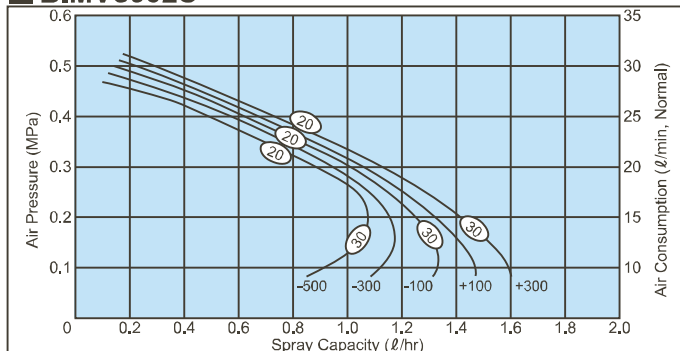
- How to read the chart

- ① The spray capacity shown is for one nozzle.
- ② Figures at foot of each curve indicate gravity head (+) and siphon height (-) in mm.
- ③ Figures in ovals \bigcirc indicate Sauter mean droplet diameters (μ m) measured by the Laser Doppler Method.

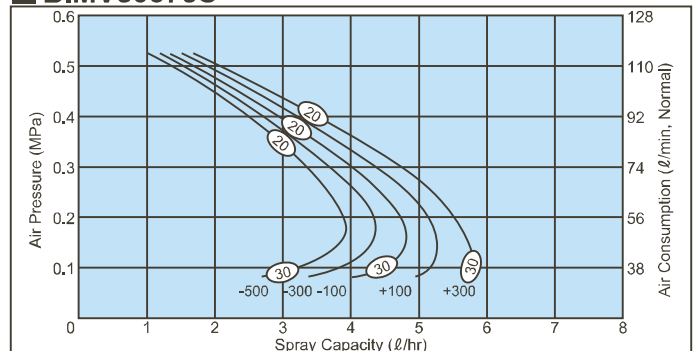
BIMV8004S



BIMV8002S



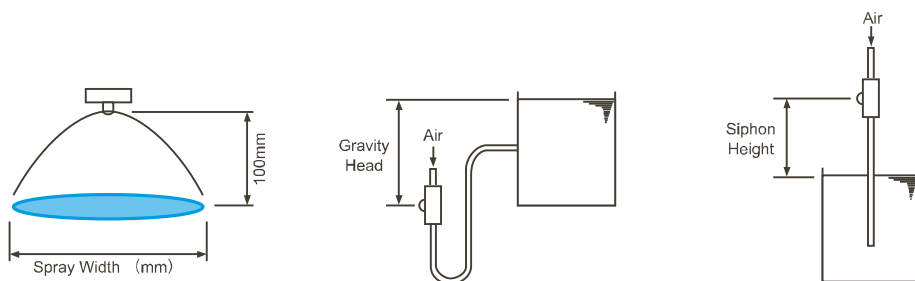
BIMV80075S



Spray Angle Code *2	Air Consumption Code	Air Pressure (MPa)	Air Consumption (ℓ/min, Normal)	Spray Capacity (ℓ/hr)					Spray Width*3 (mm)	Mean Droplet Diameter (μm)	Free Passage Diameter (mm)		
				Gravity Head (mm)		Siphon Height (mm)					Laser Doppler Method	Spray Orifice	Adaptor
				+300	+100	-100	-300	-500		Liquid			Air
80°	02	0.2	15	1.4	1.3	1.2	1.2	1.1	160	20 30	0.3	0.9	0.7
		0.3	20	1.1	1.0	1.0	0.9	0.9	165				
		0.4	25	0.7	0.7	0.6	0.6	0.5	170				
	04	0.2	27	2.8	2.5	2.3	2.2	2.0	165	20 30	0.5	0.9	0.9
		0.3	36	2.4	2.1	2.0	1.9	1.8	170				
		0.4	46	1.9	1.7	1.6	1.5	1.4	175				
	075	0.2	56	5.5	5.1	4.7	4.3	3.9	170	20 30	0.7	1.2	1.4
		0.3	74	4.7	4.3	4.0	3.7	3.3	180				
		0.4	92	3.5	3.2	2.9	2.7	2.5	190				

Note: *2) Measured at compressed air pressure of 0.3MPa and liquid siphon height of 100mm.

*3) Measured at 100mm from nozzle and liquid siphon height of 100mm.



How to order

To determine specifications, please specify a spray angle code and air consumption code referring to the above chart, then select a connecting adaptor from the 8 types (type N, T, ND, etc.). Please inquire or order for a specific nozzle using this coding system.

<Example> BIMV8002S S303+NS303

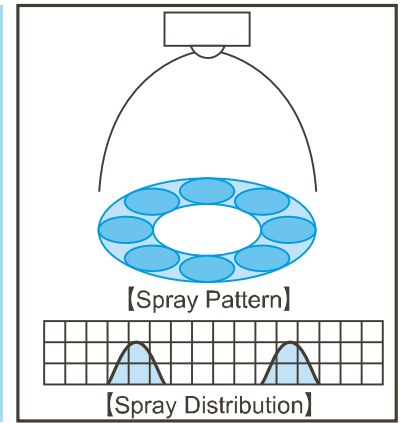
BIMV	80	02	S	S303	+	N	S303
		Air Consumption Code	Siphon Type			Type of Adaptor	
		■02				■N	
		■04				■T	
		■075				■ND ■UND	
						■SP ■USP	
						■SN ■USN	

Details of adaptors are shown on pages 23 and 24.

Features

- Hollow cone spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100 μ m or less (*1).
- Features a large turn-down ratio under the liquid pressures of 0.1-0.3MPa.
- Spray angle is 60°.

*1) Measured by Laser Doppler Method



BIM with T-type adaptor

Applications

- Spraying: Mold release agent, lubricant, deodorant, oil, surface treatment agent, rust preventive, honey, insecticide, aqueous urea, etc.
- Cooling: Dies, gas, glass, steel plates, steel pieces, moldings, automobile bodies, plastic products, etc.
- Moisture control: Paper, gas, ceramics, concrete, etc.

Structure & Materials

- Comprising 4 parts: Spray tip, core, cap and adaptor. (Details of adaptors are shown on pages 23 and 24.)
- Materials: S303 (Optional material; S316L)

Dimensions & Pipe Conn. Sizes

- Dimensions and pipe connection sizes are shown on page 25.

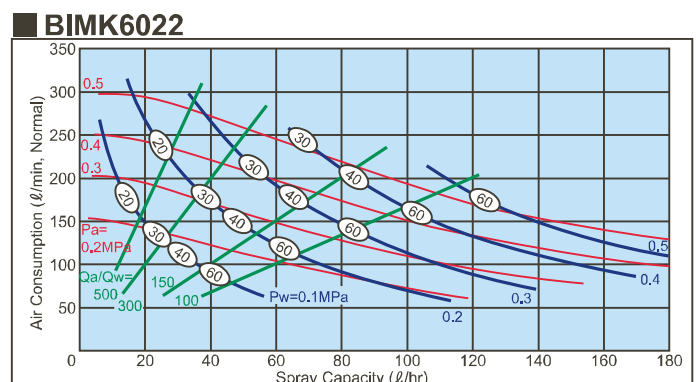
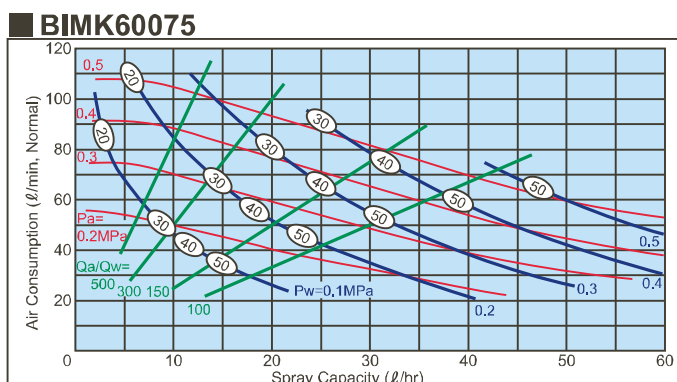
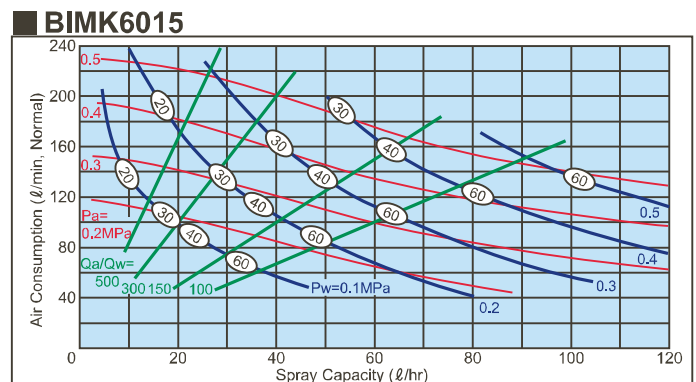
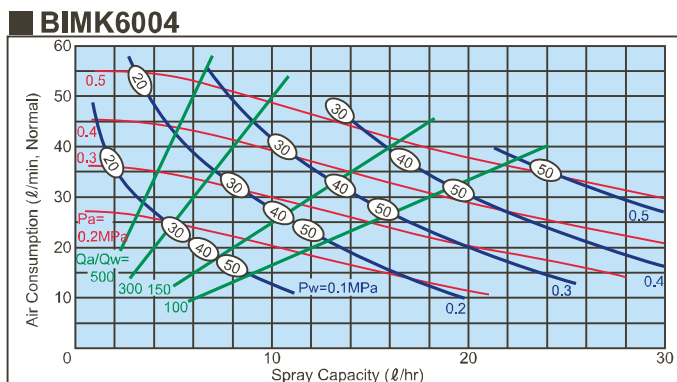
Accessories

- Fixing support for easy installation is shown on page 26.

Flow-rate Diagram

- How to read the chart

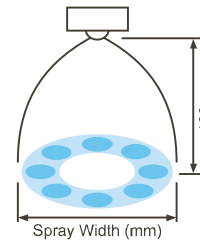
- ① The spray capacity shown is for one nozzle.
- ② Red lines (—) represent compressed air pressures Pa in MPa.
Blue lines (—) represent liquid pressures Pw in MPa.
Green lines (—) represent air-water ratio Qa/Qw.
- ③ Figures in ovals (○) indicate Sauter mean droplet diameters (μ m) measured by the Laser 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)										Liquid Press. (MPa)				Laser Doppler Method	Spray Orifice	Adaptor
			0.1		0.15		0.2		0.25		0.3		0.1	0.15	0.25	20 100			0.5
			Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Air				
60°	04	0.2	4.5	25	9.5	20	17.0	13	—	—	—	—	140	160	—	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	130	160	170				
		0.4	—	—	2.8	45	4.8	44	7.7	41	11.4	37	—	150	170				
	075	0.2	8.7	51	18.4	42	33.3	29	—	—	—	—	140	170	—	20 100	0.7	1.2	1.4
		0.3	4.0	74	8.8	71	15.5	64	24.3	54	38.5	40	130	160	180				
		0.4	—	—	5.6	91	9.1	89	14.8	82	21.8	74	—	150	170				
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	150	170	—	20 100	0.9	1.8	1.9
		0.3	8.0	150	17.7	144	30.8	130	50.0	108	74.5	87	140	170	180				
		0.4	—	—	11.2	190	18.3	183	29.1	172	42.9	154	—	160	180				
	22	0.2	22.3	140	45.6	116	92.1	76.9	—	—	—	—	160	180	—	20 100	1.1	2.1	2.2
		0.3	11.5	200	23.9	189	41.3	169	68.5	138	107	103	140	170	190				
		0.4	—	—	15.3	245	24.5	238	39.1	220	57.7	198	—	160	180				

Note: *2) Measured at compressed air pressure of 0.3MPa and liquid pressure of 0.1MPa.

*3) Measured at 100mm from nozzle.



How to order

To determine specifications, please specify a spray angle code and air consumption code referring to the above chart, then select a connecting adaptor from the 8 types (type N, T, ND, etc.). Please inquire or order for a specific nozzle using this coding system.

<Example> BIMK6004S303+NS303

BIMK **60** **04** **S303** **+** **N** **S303**

Air Consumption Code
 ■04
 ■075
 ■15
 ■22

Type of Adaptor
 ■N
 ■T
 ■ND ■UND
 ■SP ■USP
 ■SN ■USN

Details of adaptors are shown on pages 23 and 24.

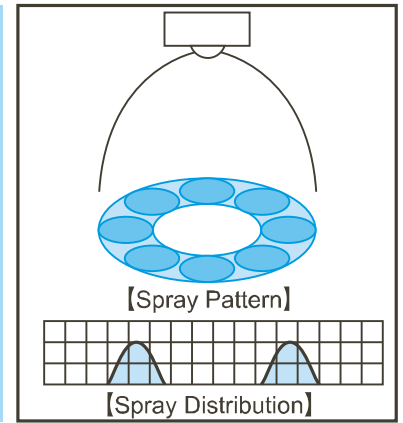
Small Capacity Fine Fog Nozzles / Hollow Cone Spray – Liquid Siphon Type –

BIMK-S

Features

- Hollow cone spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 30 μ m or less (*1).
- Liquid siphon feed type (liquid pressure device is not required).
- Spray angle is 60°.

*1) Measured by Laser Doppler Method



BIM with T-type adaptor

Applications

- Spraying: Mold release agent, lubricant, deodorant, oil, surface treatment agent, rust preventive, honey, insecticide, aqueous urea, etc.
- Cooling: Dies, gas, glass, steel plates, steel pieces, moldings, automobile bodies, plastic products, etc.
- Moisture control: Paper, gas, ceramics, concrete, etc.

Structure & Materials

- Comprising 4 parts: Spray tip, core, cap and adaptor. (Details of adaptors are shown on [pages 23 and 24.](#))
- Materials: S303 (Optional material; S316L)

Dimensions & Pipe Conn. Sizes

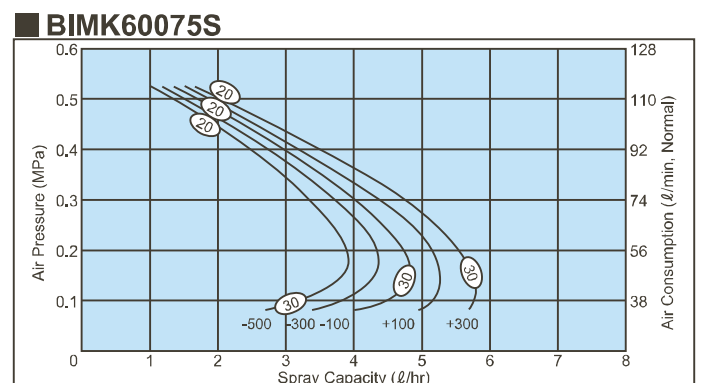
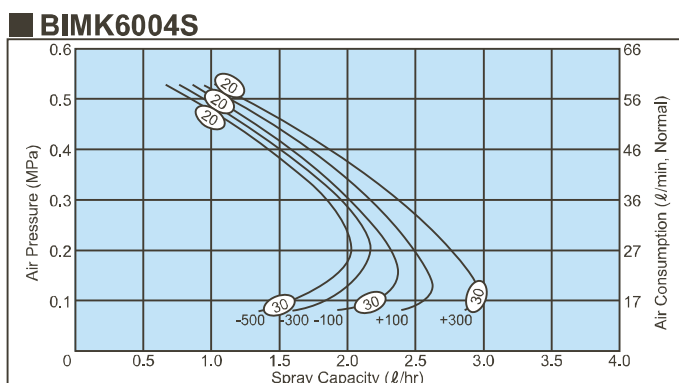
- Dimensions and pipe connection sizes are shown on [page 25.](#)

Accessories

- Fixing support for easy installation is shown on [page 26.](#)

Flow-rate Diagram

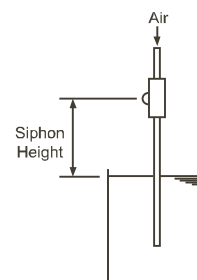
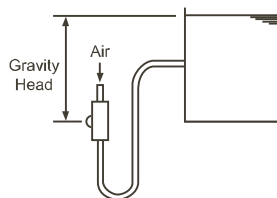
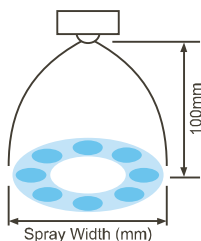
- How to read the chart
- ① The spray capacity shown is for one nozzle.
- ② Figures at foot of each curve indicate gravity head (+) and siphon height (–) in mm.
- ③ Figures in ovals ○ indicate Sauter mean droplet diameters (μ m) measured by the Laser Doppler Method.



Spray Angle Code *2	Air Consumption Code	Air Pressure (MPa)	Air Consumption (ℓ/min, Normal)	Spray Capacity (ℓ/hr)					Spray Width*3 (mm)	Mean Droplet Dia. (μm)	Free Passage Diameter (mm)			
				Gravity Head (mm)		Siphon Height (mm)					Laser Doppler Method	Spray Orifice	Adaptor	
				+300	+100	-100	-300	-500					Liquid	Air
60°	04	0.2	27	2.8	2.5	2.3	2.2	2.0	120	20	0.6	0.9	0.9	
		0.3	36	2.4	2.1	2.0	1.9	1.8	120	20				
		0.4	46	1.9	1.7	1.6	1.5	1.4	120	30				
	075	0.2	56	5.5	5.1	4.7	4.3	3.9	120	20	0.8	1.2	1.4	
		0.3	74	4.7	4.3	4.0	3.7	3.3	120	20				
		0.4	92	3.5	3.2	2.9	2.7	2.5	120	30				

Note: *2) Measured at compressed air pressure of 0,3MPa and liquid siphon height of 100mm.

*3) Measured at 100mm from nozzle and liquid siphon height of 100mm.



How to order

To determine specifications, please specify a spray angle code and air consumption code referring to the above chart, then select a connecting adaptor from the 8 types (type N, T, ND, etc.). Please inquire or order for a specific nozzle using this coding system.

<Example> BIMK60075S S303+NS303

BIMK	60	075	S	S303	+	N	S303
		Air Consumption Code	Siphon Type			Type of Adaptor	
		■ 04				■ N	
		■ 075				■ T	
						■ ND	■ UND
						■ SP	■ USP
						■ SN	■ USN

Details of adaptors are shown on pages 23 and 24.

Small Capacity Fine Fog Nozzles / Full Cone Spray – Liquid Pressure Type –

BIMJ

Features

- Full cone spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100 μ m or less (*1).
- Features a large turn-down ratio under the liquid pressures of 0.1-0.3MPa.
- Spray angle is 20° or 70°.

*1) Measured by Laser Doppler Method

Applications

- Spraying: Mold release agent, lubricant, deodorant, oil, surface treatment agent, rust preventive, honey, insecticide, aqueous urea, etc.
- Cooling: Dies, gas, glass, steel plates, steel pieces, moldings, automobile bodies, plastic products, etc.
- Moisture control: Paper, gas, ceramics, concrete, etc.

Structure & Materials

- Comprising 4 parts: Spray tip, core, cap and adaptor.
(Details of adaptors are shown on [pages 23 and 24](#).)
- Materials: S303 (Optional material; S316L)

Dimensions & Pipe Conn. Sizes

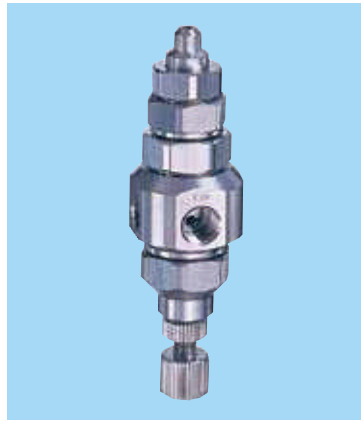
- Dimensions and pipe connection sizes are shown on [page 25](#).

Accessories

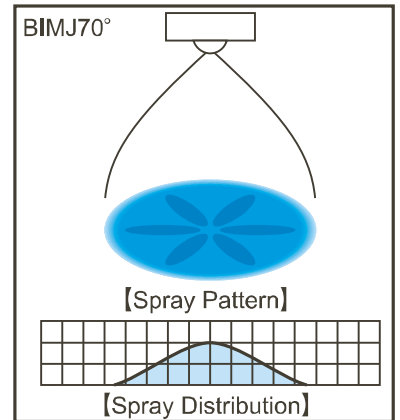
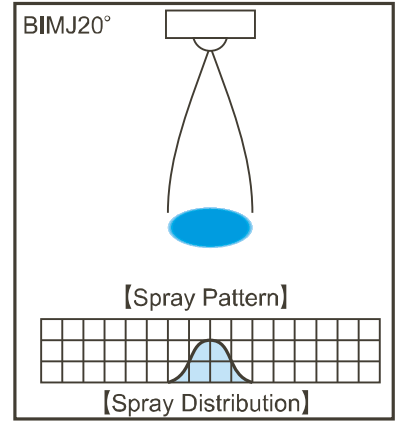
- Fixing support for easy installation is shown on [page 26](#).

Flow-rate Diagram

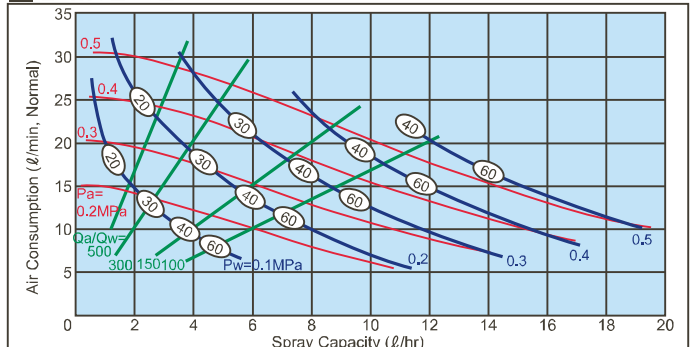
- How to read the chart
- ① The spray capacity shown is for one nozzle.
- ② **Red lines (—)** represent compressed air pressures Pa in MPa.
- Blue lines (—)** represent liquid pressures Pw in MPa.
- Green lines (—)** represent air-water ratio Qa/Qw.
- ③ Figures in ovals \bigcirc indicate Sauter mean droplet diameters (μ m) measured by the Laser Doppler Method.
- ④ ** to be filled by spray angle code of 70 or 20.



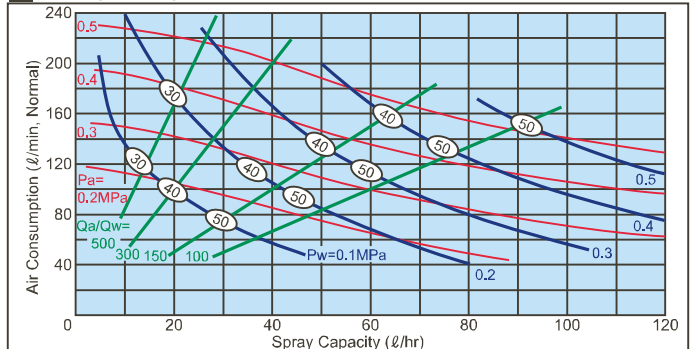
BIM with ND-type adaptor



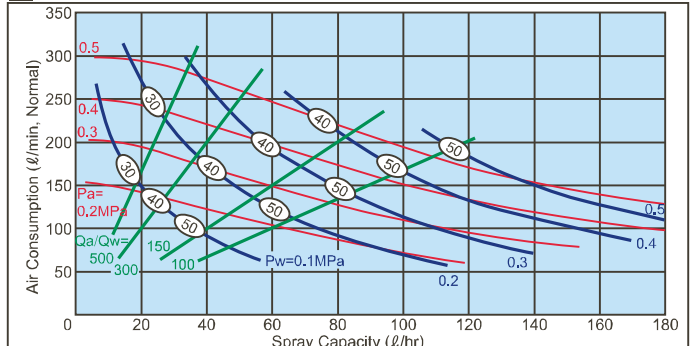
BIMJ2002



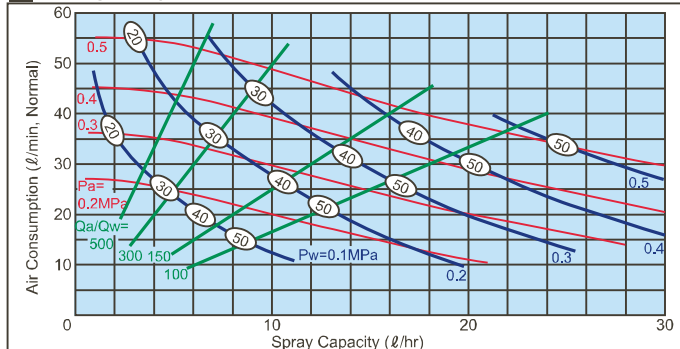
BIMJ**15



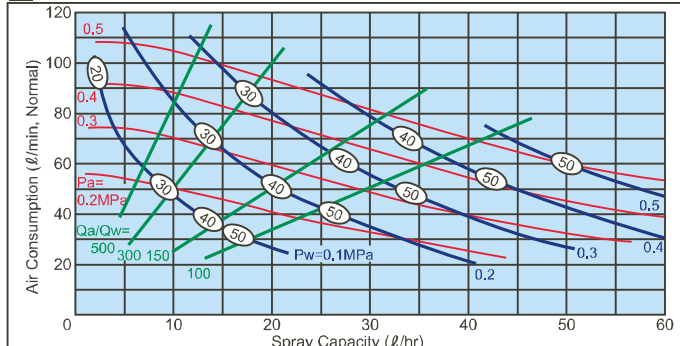
BIMJ**22



BIMJ**04

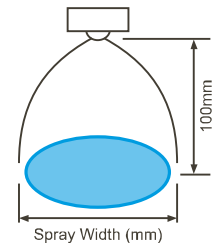


BIMJ**075



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)																	
			0.1		0.15		0.2		0.25		0.3		Liquid Press. (MPa)			Laser Doppler Method	Spray Orifice	Adaptor		
			Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	0.1	0.15	0.25			Liquid	Air	
70°	04	0.2	4.5	25	9.5	20	17.0	13	—	—	—	—	140	160	—	20	0.4	0.9	0.9	
		0.3	2.0	36	4.7	35	8.5	31	13.1	27	19.6	20	140	160	170	20				
		0.4	—	—	2.8	45	4.8	44	7.7	41	11.4	37	—	170	170	100				
	075	0.2	8.7	51	18.4	42	33.3	29	—	—	—	—	140	160	—	20	0.4	1.2	1.4	
		0.3	4.0	74	8.8	71	15.5	64	24.3	54	38.5	40	140	160	170	20				
		0.4	—	—	5.6	91	9.1	89	14.8	82	21.8	74	—	170	170	100				
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	140	160	—	20	0.5	1.8	1.9	
		0.3	8.0	150	17.7	144	30.8	130	50.0	108	74.5	87	140	160	170	20				
		0.4	—	—	11.2	190	18.3	183	29.1	172	42.9	154	—	170	170	100				
	22	0.2	22.3	140	45.6	116	92.1	76.9	—	—	—	—	140	160	—	20	0.7	2.1	2.2	
		0.3	11.5	200	23.9	189	41.3	169	68.5	138	107	103	140	160	170	20				
		0.4	—	—	15.3	245	24.5	238	39.1	220	57.7	198	—	170	170	100				
20°	02	0.2	1.7	14	5.3	11	—	—	—	—	—	25	25	—	20	1.1	0.9	0.7		
		0.3	—	—	1.5	19	4.5	17	8.1	17	14.1	7	30	30	25				20	
		0.4	—	—	1.3	25	2.3	25	4.0	24	6.2	20	—	30	30				100	
	04	0.2	4.5	25	9.5	20	17.0	13	—	—	—	—	30	25	—	20	1.6	0.9	0.9	
		0.3	2.0	36	4.7	35	8.5	31	13.1	27	19.6	20	35	35	30	20				
		0.4	—	—	2.8	45	4.8	44	7.7	41	11.4	37	—	35	35	100				
	075	0.2	8.7	51	18.4	42	33.3	29	—	—	—	—	30	25	—	20	2.0	1.2	1.4	
		0.3	4.0	74	8.8	71	15.5	64	24.3	54	38.5	40	35	35	30	20				
		0.4	—	—	5.6	91	9.1	89	14.8	82	21.8	74	—	35	35	100				
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	35	30	—	20	2.7	1.8	1.9	
		0.3	8.0	150	17.7	144	30.8	130	50.0	108	74.5	87	40	40	35	20				
		0.4	—	—	11.2	190	18.3	183	29.1	172	42.9	154	—	40	40	100				
22	0.2	22.3	140	45.6	116	92.1	76.9	—	—	—	—	35	30	—	20	3.1	2.1	2.2		
	0.3	11.5	200	23.9	189	41.3	169	68.5	138	107	103	40	40	35	20					
	0.4	—	—	15.3	245	24.5	238	39.1	220	57.7	198	—	40	40	100					

Note: *2) Measured at compressed air pressure of 0.3MPa and liquid pressure of 0.1MPa.
 *3) Measured at 100mm from nozzle.



How to order

To determine specifications, please specify a spray angle code and air consumption code referring to the above chart, then select a connecting adaptor from the 8 types (type N, T, ND, etc.). Please inquire or order for a specific nozzle using this coding system.

<Example> BIMJ2004S303+NS303

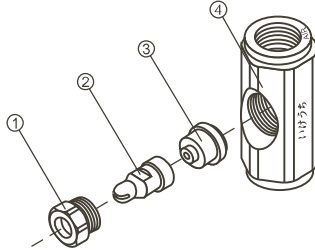
BIMJ	20	04	S303	+	N	S303
	Spray Angle Code	Air Consumption Code			Type of Adaptor	
	■70°	■02 (for 20° only)			■N	
	■20°	■04			■T	
		■075			■ND	■UND
		■15			■SP	■USP
		■22			■SN	■USN

Details of adaptors are shown on pages 23 and 24.

The following 8 types of adaptors are available for BIM Small Capacity Fine Fog Nozzles; BIMV, BIMV-S, BIMK, BIMK-S, BIMJ, which are introduced on pages 13 to 22.

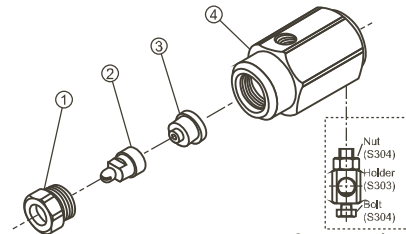
● Types and Structures of Adaptors for BIM series nozzles

Type N Liquid and air enter into Adaptor from both sides.



No.	Component	Standard Material
①	Cap	S303
②	Spray Tip	S303
③	Core	S303
④	Adaptor	S303

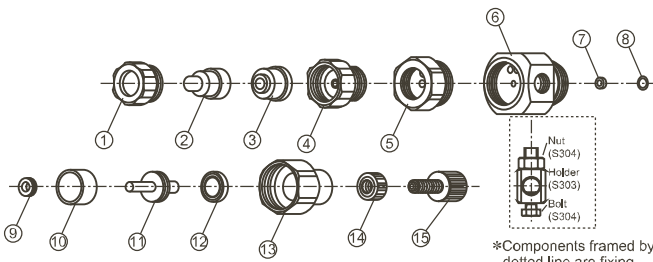
Type T Air inlet is on the center line and liquid inlet is on a 90° angle line to the center line. Suitable for use in a small space.



*Components framed by dotted line are fixing support (option, p.26).

No.	Component	Standard Material
①	Cap	S303
②	Spray Tip	S303
③	Core	S303
④	Adaptor	S303

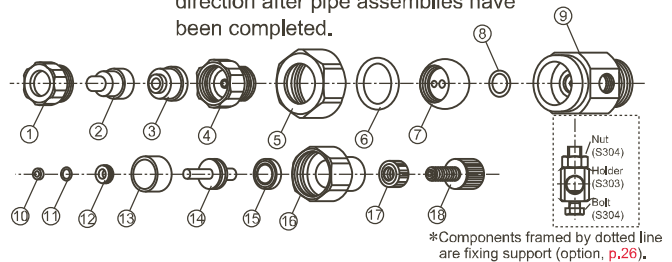
Type ND Spray capacity is adjustable with Needle Valve.



*Components framed by dotted line are fixing support (option, p.26).

No.	Component	Standard Material
①	Cap	S303
②	Spray Tip	S303
③	Core	S303
④	Nozzle Adaptor	S303
⑤	Connector	S303
⑥	Adaptor	S303
⑦	Seal Sleeve	PTFE
⑧	O-ring	FKM
⑨	Lock Nut	S303
⑩	Sleeve	PTFE
⑪	Piston	S303
⑫	Y-packing	NBR
⑬	Needle Cap	S303
⑭	Needle Lock Nut	S303
⑮	Needle Lock Bolt	S303

Type UND Besides the features of the ND-type adaptor, spray direction can be adjusted within +/- 15° by means of a ball joint. It is convenient for finer tuning of spray direction after pipe assemblies have been completed.

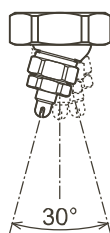


*Components framed by dotted line are fixing support (option, p.26).

No.	Component	Standard Material
①	Cap	S303
②	Spray Tip	S303
③	Core	S303
④	Nozzle Adaptor	S303
⑤	UT-Cap	S303
⑥	O-ring	NBR
⑦	UT-Ball	S303
⑧	O-ring	FKM
⑨	Adaptor	S303
⑩	Seal Sleeve	PTFE
⑪	O-ring	FKM
⑫	Lock Nut	S303
⑬	Sleeve	PTFE
⑭	Piston	S303
⑮	Y-packing	NBR
⑯	Needle Cap	S303
⑰	Needle Lock Nut	S303
⑱	Needle Lock Bolt	S303



● Ball Joint (UND, USP, USN series)



- Spray direction can be adjusted with +/- 15° in all directions.
- Accurate spray alignment can be done easily after installation onto a pipe.
- Ball joint is included in UND, USP and USN types.

CAUTIONS

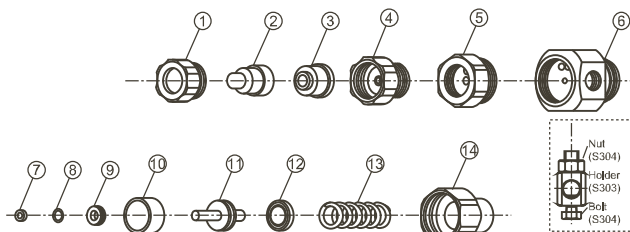
for ND, SP and SN adaptors

Thin-walled Nozzle Adaptor④ tends to deform easily if installed directly by itself.

First assemble Core③, Spray Tip②, Cap① and Nozzle Adaptor④ by hand with light pressure, then attach them to Connector⑤. Use a well-fitting hexagon socket wrench instead of a regular spanner (wrench), as a spanner may deform the unit.

● Types and Structures of Adaptors for BIM series nozzles

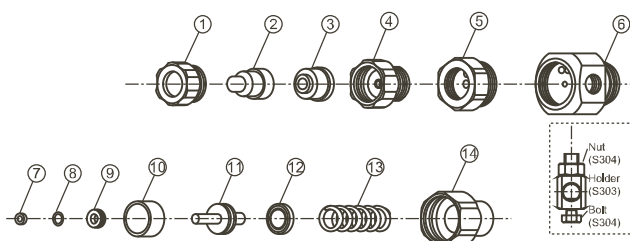
Type SP Spray (ON/OFF) can be regulated by switching the pilot air ON/OFF. The pilot air actuates an internal piston to regulate the spray. (Pilot air pressure more than 0.2MPa required) This type of adaptor is suitable for applications to avoid scattering droplets of fog.



*Components framed by dotted line are fixing support (option, p.26).

No.	Component	Standard Material
①	Cap	S303
②	Spray Tip	S303
③	Core	S303
④	Nozzle Adaptor	S303
⑤	Connector	S303
⑥	Adaptor	S303
⑦	Seal Sleeve	PTFE
⑧	O-ring	FKM
⑨	Lock Nut	S303
⑩	Sleeve	PTFE
⑪	Piston	S303
⑫	Y-packing	NBR
⑬	Spring	S304
⑭	Spring Cap	S303

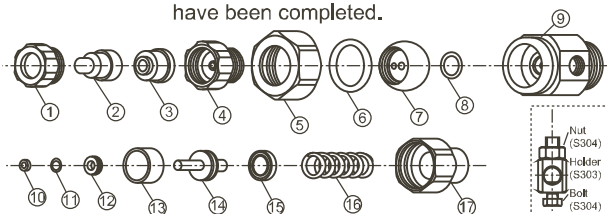
Type SN Spray (ON/OFF) can be regulated by turning compressed air ON/OFF, which actuates an internal piston, to open or close the nozzle. Air pressure over 0.2MPa starts the spray.



*Components framed by dotted line are fixing support (option, p.26).

No.	Component	Standard Material
①	Cap	S303
②	Spray Tip	S303
③	Core	S303
④	Nozzle Adaptor	S303
⑤	Connector	S303
⑥	Adaptor	S303
⑦	Seal Sleeve	PTFE
⑧	O-ring	FKM
⑨	Lock Nut	S303
⑩	Sleeve	PTFE
⑪	Piston	S303
⑫	Y-packing	NBR
⑬	Spring	S304
⑭	Spring Cap	S303

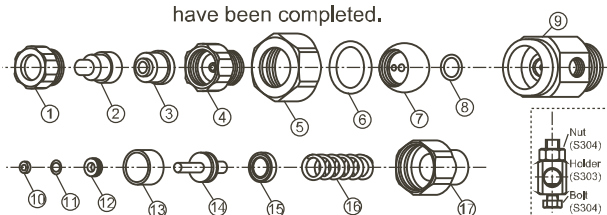
Type USP Besides the features of the SP-type adaptor, spray direction can be adjusted within +/- 15° by means of a ball joint. It is convenient for finer tuning of spray direction after pipe assemblies have been completed.



*Components framed by dotted line are fixing support (option, p.26).

No.	Component	Standard Material
①	Cap	S303
②	Spray Tip	S303
③	Core	S303
④	Nozzle Adaptor	S303
⑤	UT-Cap	S303
⑥	O-ring	NBR
⑦	UT-Ball	S303
⑧	O-ring	FKM
⑨	Adaptor	S303
⑩	Seal Sleeve	PTFE
⑪	O-ring	FKM
⑫	Lock Nut	S303
⑬	Sleeve	PTFE
⑭	Piston	S303
⑮	Y-packing	NBR
⑯	Spring	S304
⑰	Spring Cap	S303

Type USN Besides the features of the SN-type adaptor, spray direction can be adjusted within +/- 15° by means of a ball joint. It is convenient for finer tuning of spray direction after pipe assemblies have been completed.

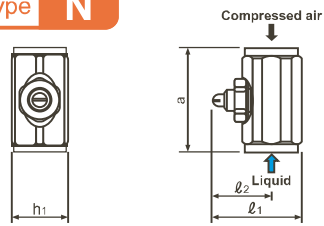


*Components framed by dotted line are fixing support (option, p.26).

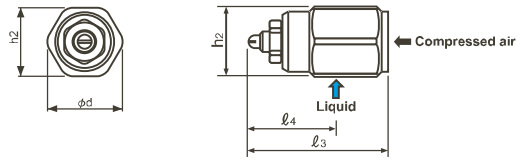
No.	Component	Standard Material
①	Cap	S303
②	Spray Tip	S303
③	Core	S303
④	Nozzle Adaptor	S303
⑤	UT-Cap	S303
⑥	O-ring	NBR
⑦	UT-Ball	S303
⑧	O-ring	FKM
⑨	Adaptor	S303
⑩	Seal Sleeve	PTFE
⑪	O-ring	FKM
⑫	Lock Nut	S303
⑬	Sleeve	PTFE
⑭	Piston	S303
⑮	Y-packing	NBR
⑯	Spring	S304
⑰	Spring Cap	S303

● Dimensions and Pipe Connection Size

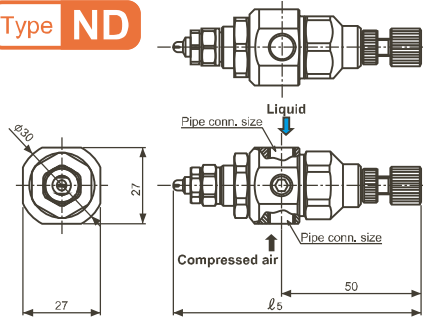
Type N



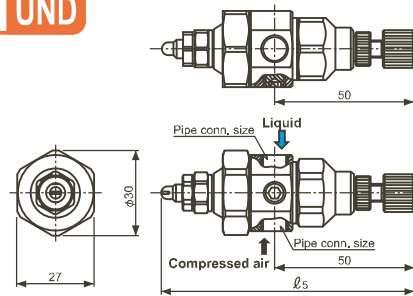
Type T



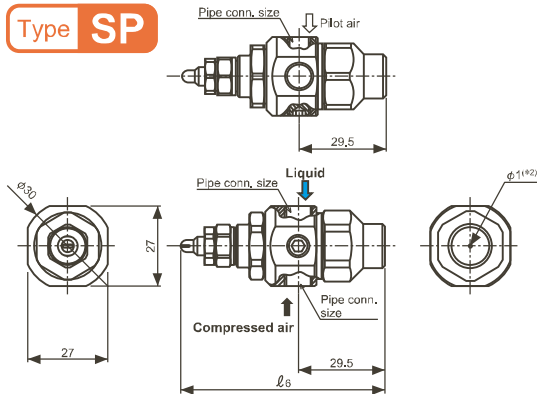
Type ND



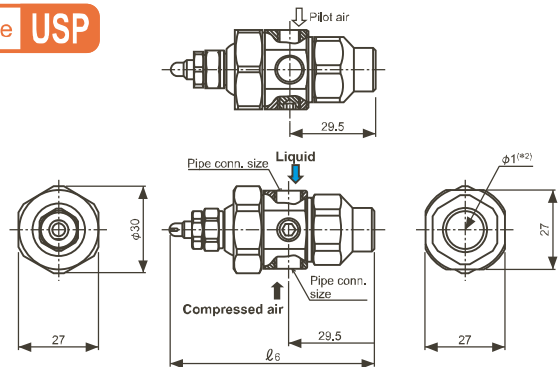
Type UND



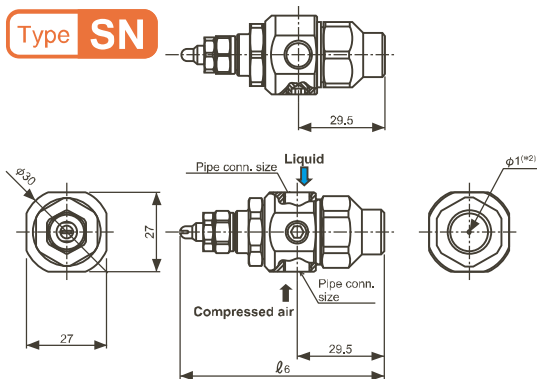
Type SP



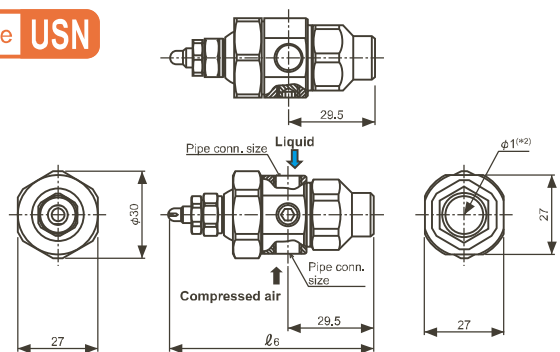
Type USP



Type SN



Type USN



Air Consumption Code	Dimensions (mm)									
	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	a	h ₁	h ₂	φd
02	25.3	16.3	40.8	24.8	87.3	66.8	32	17	21	23.5
04*1	26.8	17.8	42.3	26.3	88.8	68.3	32	17	21	23.5
BIMJ2004	27.0	18.0	42.5	26.5	89.0	68.5	32	17	21	23.5
075	28.1	19.1	43.6	27.6	90.1	69.6	32	17	21	23.5
15	39.1	26.6	60.1	38.1	97.6	77.1	43	23	29	23.5
22	41.3	28.8	62.3	40.3	99.8	79.3	43	23	29	23.5

*1) Excludes BIMJ2004.
*2) Hole φ1 is for air relief.

■ Pipe Connection Size and Mass

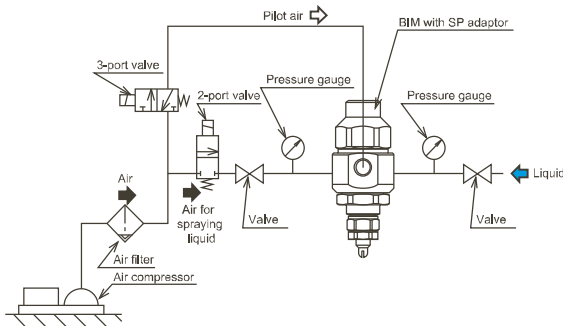
Adaptor	Air Consumption Code	Pipe Conn. Size			Mass (g)
		Compressed Air	Liquid	Pilot Air	
N	02, 04, 075	1/8F	1/8F	—	55
	15, 22	1/4F	1/4F	—	130
T	02, 04, 075	1/8F	1/8F	—	80
	15, 22	1/4F	1/4F	—	210
ND(UND)	02, 04, 075	1/8F	1/8F	—	172
	15, 22	1/8F	1/8F	—	193
SP(USP)	02, 04, 075	1/8F	1/8F	1/8F	146
	15, 22				167
SN(USN)	02, 04, 075	1/8F	1/8F	—	151
	15, 22			172	

● How to use BIM controlling adaptors

■ SP-adaptor

Spray (ON/OFF) can be regulated by switching the pilot air ON/OFF.
The pilot air actuates an internal piston to regulate the spray.
(Pilot air pressure must be 0.2MPa or higher.)
As even low pressure atomizing air can be used, production of a range of fine to coarse mists is possible.
Best-suited for when there is concern about scattering droplets.

Example of connections for adaptor



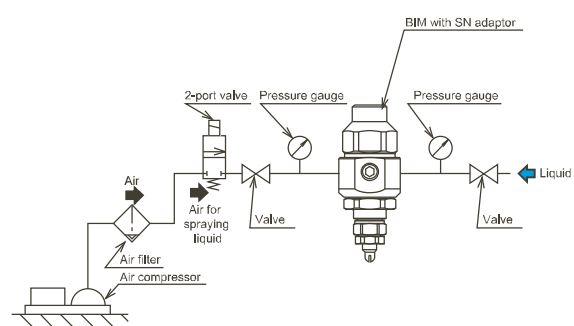
Function chart

Compressed air		ON		
Liquid	Stop	Spray	Stop	Spray
Pilot air	OFF	ON	OFF	ON

■ SN-adaptor

Spray (ON/OFF) can be regulated by turning compressed air ON/OFF.
Air pressure must be 0.2MPa or higher in order to start the spray.

Example of connections for adaptor



Function chart

Compressed air	OFF	ON	OFF	ON	OFF
Liquid	Stop	Spray	Stop	Spray	Stop

■ Option

● Fixing Support



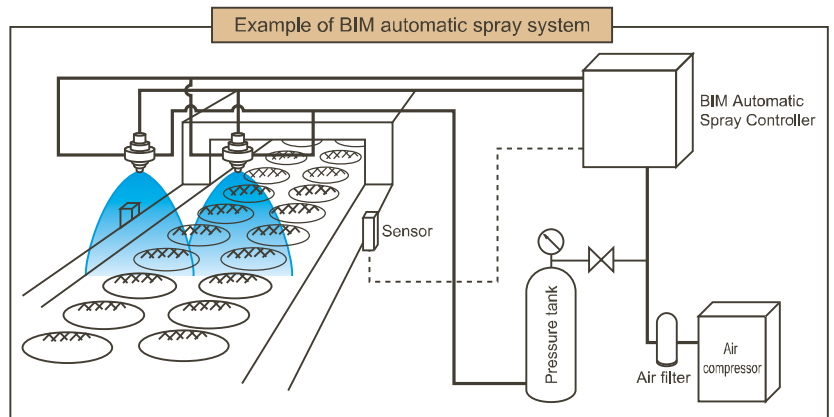
Fixing Support enables easy fixing of BIM nozzle on a pole with desired spray direction.
Two types are available for pole diameters of 8mm and 10mm.
Available for the adaptor type T, ND/UND, SP/USP and SN/USN (not available for N-type adaptor),

● Spray Controller



It is recommended to use KEUCHI Spray Controllers, especially designed for utilizing all kinds of adaptors and optimizing operational conditions of BIM nozzles for customer's processes.

■ Example of applications controlled by BIM automatic spray system (with SP/SN adaptor)



Small Capacity Fine Fog Nozzles

Polypropylene, BIM-PP – Liquid Pressure Type –

BIM-PP

Features

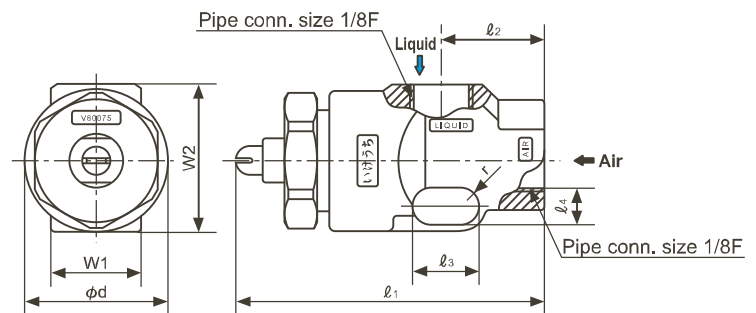
- Excellent chemical resistance with Polypropylene construction.
- Two types, BIMV (flat spray type) and BIMJ (full cone spray type) are available.
- Liquid pressure type with approx. 0.1 to 0.3MPa.



Applications

- Spraying: Deodorant, germicide, disinfectant, etc.
- Moisture control: Paper, textile, printing, etc.
- Cleaning: Printed circuit boards, electrical components, etc.

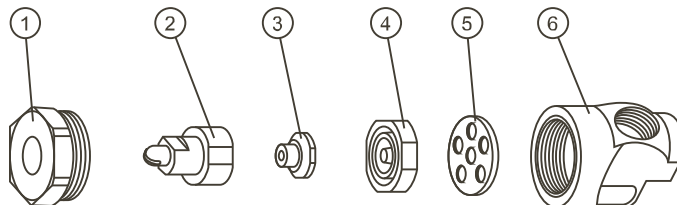
Dimensions & Pipe Conn. Sizes



■ Dimensions

Type	Nozzle No.	Dimensions (mm)								Mass (g)
		l_1	l_2	l_3	l_4	ϕd	r	W1	W2	
BIMV (flat spray)	BIMV80075	47.5	16	10	5	22	2.5	14	23	10
BIMJ (full cone spray)	BIMJ2004	46.7								

Structure & Materials



■ Components and materials

No.	Component	Standard Material
①	Cap	PP
②	Spray Tip	PP
③	Core	PP
④	Orifice	PP
⑤	Packing	PTFE
⑥	Adaptor	PP

Characteristics of the flat spray nozzle BIMV80075PP are equivalent to BIMV80075 on [pages 13 and 14](#).
 Characteristics of the full cone spray nozzle BIMJ2004PP are equivalent to BIMJ2004 on [pages 21 and 22](#).

How to order

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

For flat spray nozzle

BIMV 80075 PP + TPP-IN

For full cone spray nozzle

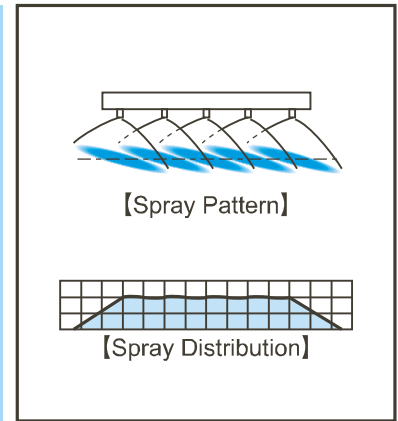
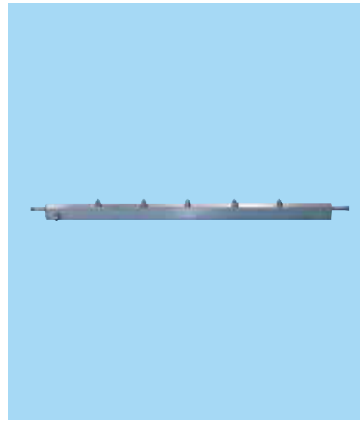
BIMJ 2004 PP + TPP-IN

Integrated Spray Header with BIM Fine Fog Nozzles

Features

- Spray header equipped with BIMV-series (liquid pressure type) producing fine atomization with mean droplet diameter of 100 μ m or less (*1).
- Combines two pipes for air and water into one rectangular spray header. Very compact and easy for installation and maintenance.
- Uniform spray distribution across the entire spray area.

*1) Measured by Laser Doppler Method

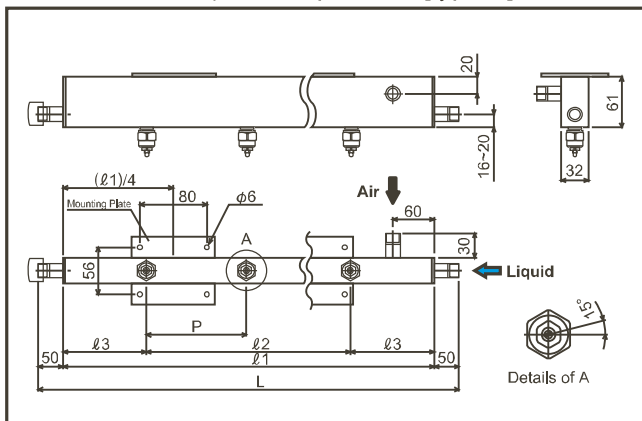


Applications

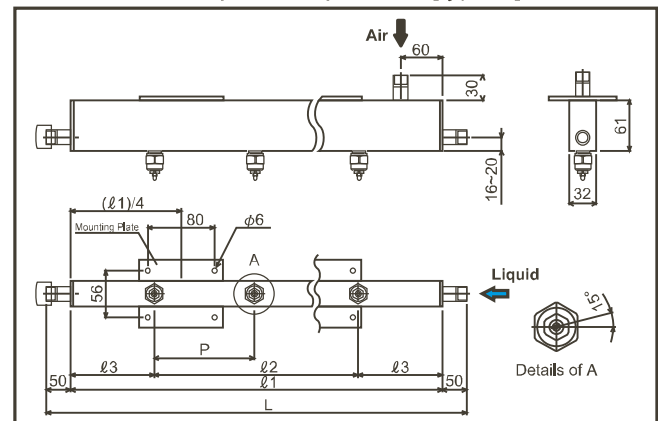
- Spraying: Oil, surface treatment agent, etc.
- Cooling: Moldings, steel plates, glass plates, plastic film, etc.
- Cleaning: Printed circuit boards, shadow masks, etc.

Structure, Materials & Dimensions

Air/Liquid inlet position [type A]



Air/Liquid inlet position [type B]



Type of Mounting Plate

None	
F	
S	

F: To install facing perpendicular from a wall.
S: To install facing parallel along a wall edge.

Dimensions

Header Code		Nozzle Spacing P (mm)	Nozzle Quantity (pcs.)	Spacing (mm)		Pipe Connection Size						Material	
Header Length $\ell 1$ (mm)	Total Length L (mm)			$\ell 2$	$\ell 3$	BIMV11002		BIMV11004		BIMV110075		Nozzle	Header
1000	1100	100	10	900	50	3/8M	1/4M	3/8M	1/4M	1/2M	3/8M		
		200	5	800	100					3/8M	1/4M		
2000	2100	100	20	1900	50	1/2M	3/8M	1/2M	3/8M	3/4M	1/2M	S303	S304
		200	10	1800	100	3/8M	1/4M	3/8M	1/4M	1/2M	3/8M		

Air Consumption & Spray Capacity

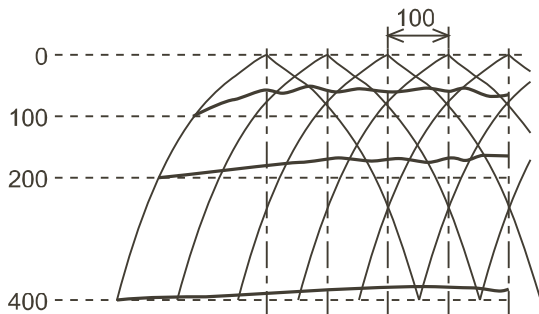
Nozzle Code	Nozzle Quantity	Air Pressure (MPa)	Air Consumption (ℓ/min, Normal)	Spray Capacity (ℓ/hr) (at liquid pressure of 0,1MPa)
BIMV11002	5	0.3	100	5.0
	10		200	10.0
	20		400	20.0
BIMV11004	5	0.3	180	10.0
	10		360	20.0
	20		720	40.0
BIMV110075	5	0.3	370	20.0
	10		740	40.0
	20		1480	80.0

Note: Total air consumption and spray capacities shown in the above table are calculated from number of nozzles used, based on each air consumption and spray capacity described on page 14.

Spray Distribution

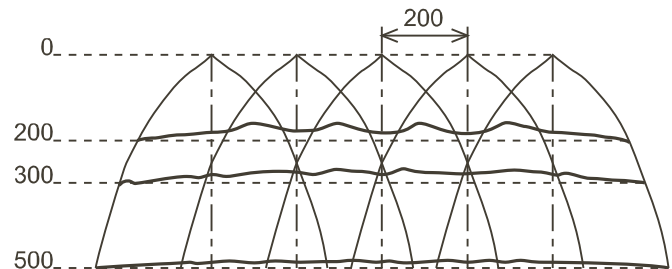
■ BIMV11004S303

Nozzle spacing: 100mm,
Compressed air pressure: 0,3MPa, Liquid pressure: 0.1MPa,
Offset angle (nozzle tip angle to axis of header): 15°



■ BIMV11004S303

Nozzle spacing: 200mm,
Compressed air pressure: 0,3MPa, Liquid pressure: 0.1MPa,
Offset angle (nozzle tip angle to axis of header): 15°



How to order

To determine specifications, please specify a nozzle code, nozzle quantity, nozzle spacing and header length etc., using this coding system.

<Example> BIMV11002S303+10(P100)A1000F(Pre-setting 15°, L=1100)

BIMV11002	S303+	10	(P 100)	A	1000	F	(Pre-setting 15°, L=1100)	
Nozzle Code*1		Nozzle Quantity	Nozzle Spacing	Inlet Position	Header Length	Type of Mounting Plate	Offset Angle	Total Length
■ BIMV11002		■ 5	■ 100	■ A	■ 1000	■ F	■ (0°)*3	■ 1100
■ BIMV11004		■ 10	■ 200	■ B	■ 2000	■ S	■ 15°	■ 2100
■ BIMV110075		■ 20 (pcs.)				■ (None)*2		

*1) Note: For details of BIMV nozzles, see page 14.

Please contact our sales office for other air/liquid inlet position (connection) types.

*2) Blank denotes "without plate".

*3) Blank denotes 0°.

Compact Design Small Capacity Fine Fog Nozzles

CBIM

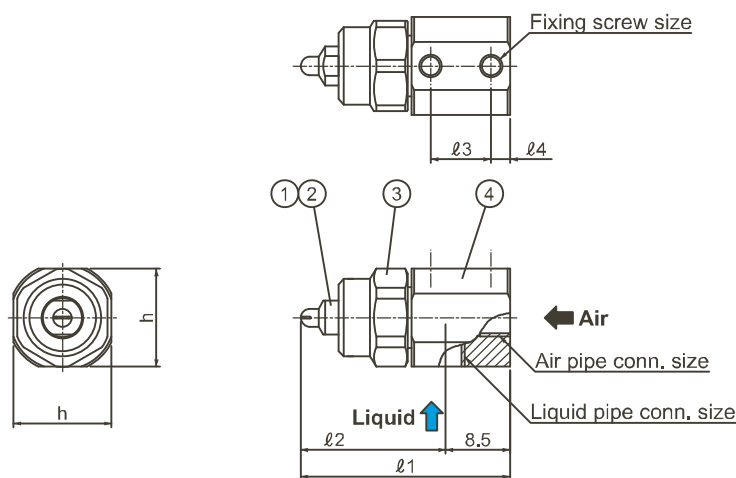
Features

- 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), 3 spray pattern types (flat spray, hollow cone spray, full cone spray) - 23 varieties in total. Wide selection.
- Able to spray the smallest flow rate among IKEYUCHI's all pneumatic spray nozzles.

*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

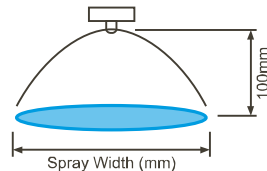
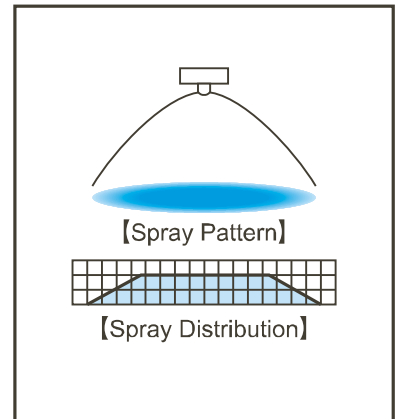
Dimensions

Air Consumption Code	Dimensions (mm)					Pipe Connection Size			Approx. Mass (g)
	l1	l2	l3	l4	h	Compressed Air	Liquid	Fixing	
01	27.7	19.2	8	2.5	13	M5 depth 3	M5 depth 3	M3x2	Approx. 22
02	28	19.5							
04	31.3	22.8							
075	32.6	24.1							

CBIMV (Flat Spray)

Features

- Flat spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100µm or less (*1).
- Features large turn-down ratio under liquid pressures of 0.1-0.3MPa.
- Three spray angles of 110°, 80°, and 45° are available.
- Produces two different spray distributions; uniform spray distribution throughout spray pattern area (when spraying at a low air-water ratio), and a mountain-shaped distribution having gradually tapered edges (at a high air-water ratio).



*1) 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)																
			0.1		0.15		0.2		0.25		0.3		Liquid Press. (MPa)			Laser Doppler Method	Spray Orifice	Adaptor	
			Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	0.1	0.15	0.25			Liquid	Air
110°	01	0.2	1.2	7	3.0	5	—	—	—	—	—	—	280	330	—	15 ↓ 100	0.2	0.6	0.5
		0.3	0.5	10	1.0	9.5	2.1	8.5	3.8	6.5	—	—	200	250	380				
		0.4	—	—	0.5	12.5	0.9	12	2.0	11	3.0	9.5	—	220	300				
	02	0.2	2.2	14	5.3	11	—	—	—	—	—	—	280	340	—	15 ↓ 100	0.2	0.6	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	—	15 ↓ 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	—	15 ↓ 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°	01	0.2	1.2	7	3.0	5	—	—	—	—	—	—	220	250	—	15 ↓ 100	0.2	0.6	0.5
		0.3	0.5	10	1.0	9.5	2.1	8.5	3.8	6.5	—	—	140	200	250				
		0.4	—	—	0.5	12.5	0.9	12	2.0	11	3.0	9.5	—	140	220				
	02	0.2	2.2	14	5.3	11	—	—	—	—	—	—	200	260	—	15 ↓ 100	0.3	0.6	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	—	15 ↓ 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	—	15 ↓ 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°	01	0.2	1.2	7	3.0	5	—	—	—	—	—	—	120	150	—	15 ↓ 100	0.3	0.6	0.5
		0.3	0.5	10	1.0	9.5	2.1	8.5	3.8	6.5	—	—	70	110	150				
		0.4	—	—	0.5	12.5	0.9	12	2.0	11	3.0	9.5	—	70	120				
	02	0.2	2.2	14	5.3	11	—	—	—	—	—	—	100	130	—	15 ↓ 100	0.4	0.6	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	—	15 ↓ 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	—	15 ↓ 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				

Note: *2) Measured at compressed air pressure of 0.3MPa and liquid pressure of 0.1MPa.

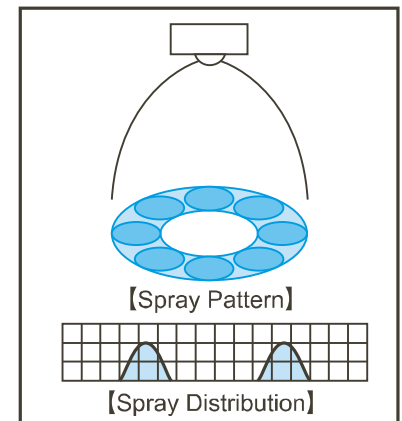
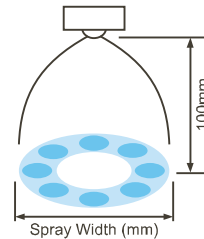
*3) Measured at 100mm from nozzle.

CBIMK (Hollow Cone Spray)

Features

- Hollow cone spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100µm or less (*1).
- Features large turn-down ratio under liquid pressures of 0.1-0.3MPa.
- Spray angle is 60°.

*1) 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 Dia. (µm)	Free Passage Diameter (mm)			
			Liquid Pressure (MPa)												Liquid Press. (MPa)				Laser Doppler Method	Spray Orifice	Adaptor	
			0.1		0.15		0.2		0.25		0.3											
			Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	0.1	0.15	0.25				Liquid	Air
60°	04	0.2	4.5	25	9.5	20	17.0	13	—	—	—	—	140	160	—	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	130	160	170							
		0.4	—	—	2.8	45	4.8	44	7.7	41	11.4	37	—	150	170							
	075	0.2	8.7	51	18.4	42	33.3	29	—	—	—	—	140	170	—	20 100	0.7	1.2	1.4			
		0.3	4.0	74	8.8	71	15.5	64	24.3	54	38.5	40	130	160	180							
		0.4	—	—	5.6	91	9.1	89	14.8	82	21.8	74	—	150	170							

Note: *2) Measured at compressed air pressure of 0.3MPa and liquid pressure of 0.1MPa.

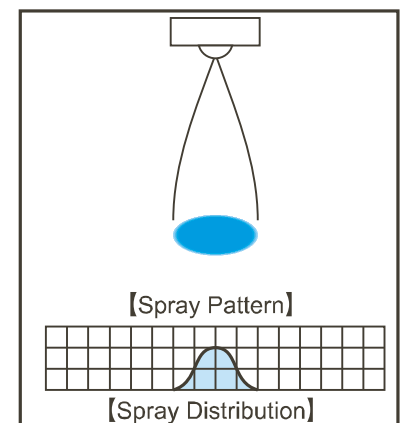
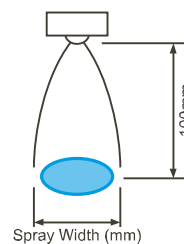
*3) Measured at 100mm from nozzle.

CBIMJ (Full Cone Spray)

Features

- Full cone spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100µm or less (*1).
- Features large turn-down ratio under liquid pressures of 0.1-0.3MPa.
- Spray angle is 20°.

*1) 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 Dia. (µm)	Free Passage Diameter (mm)			
			Liquid Pressure (MPa)												Liquid Press. (MPa)				Laser Doppler Method	Spray Orifice	Adaptor	
			0.1		0.15		0.2		0.25		0.3											
			Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	0.1	0.15	0.25				Liquid	Air
20°	01	0.2	1.2	7	3.0	5	—	—	—	—	—	—	30	30	—	20 100	0.8	0.6			0.5	
		0.3	0.5	10	1.0	9.5	2.1	8.5	3.8	6.5	—	—	35	30	25							
		0.4	—	—	0.5	12.5	0.9	12	2.0	11	3.0	9.5	—	30	30							
	02	0.2	2.7	13	5.0	11	8.0	8	—	—	—	—	25	20	—	20 100	1.1	0.6	0.7			
		0.3	1.0	20	2.5	19	4.5	17	6.8	14	9.7	11.5	30	30	25							
		0.4	—	—	1.2	26	2.5	24.5	4.1	23	6.3	20	—	30	30							
	04	0.2	4.5	25	9.5	20	17.0	13	—	—	—	—	30	25	—	20 100	1.6	0.9	0.9			
		0.3	2.0	36	4.7	35	8.5	31	13.1	27	19.6	20	35	35	30							
		0.4	—	—	2.8	45	4.8	44	7.7	41	11.4	37	—	35	35							
	075	0.2	8.7	51	18.4	42	33.3	29	—	—	—	—	30	25	—	20 100	2.0	1.2	1.4			
		0.3	4.0	74	8.8	71	15.5	64	24.3	54	38.5	40	35	35	30							
		0.4	—	—	5.6	91	9.1	89	14.8	82	21.8	74	—	35	35							

Note: *2) Measured at compressed air pressure of 0.3MPa and liquid pressure of 0.1MPa.

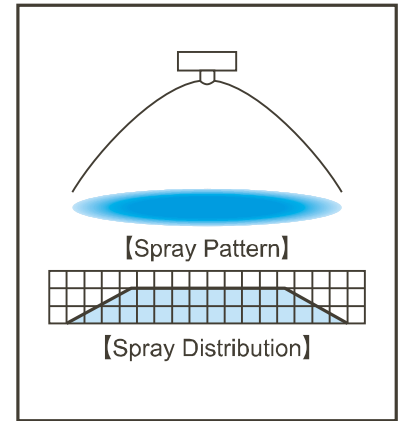
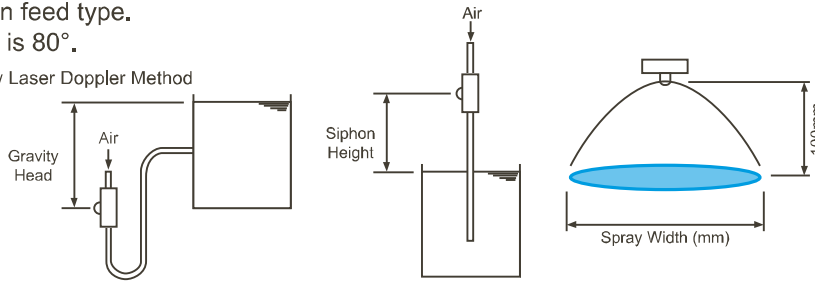
*3) Measured at 100mm from nozzle.

CBIMV-S (Flat Spray)

Features

- Flat spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 30µm or less (*1).
- Produces uniform spray distribution throughout spray pattern area.
- Liquid siphon feed type.
- Spray angle is 80°.

*1) Measured by Laser Doppler Method



Spray Angle Code *2	Air Consumption Code	Air Pressure (MPa)	Air Consumption (ℓ/min, Normal)	Spray Capacity (ℓ/hr)					Spray Width*3 (mm)	Mean Droplet Diameter (µm) Laser Doppler Method	Free Passage Dia. (mm)		
				Gravity Head (mm)		Siphon Height (mm)					Spray Orifice	Adaptor	
				+300	+100	-100	-300	-500				Liquid	Air
80°	02S	0.2	15	1.4	1.3	1.2	1.2	1.1	160	20 30	0.3	0.6	0.7
		0.3	20	1.1	1.0	1.0	0.9	0.9	165				
		0.4	25	0.7	0.7	0.6	0.6	0.5	170				
	04S	0.2	27	2.8	2.5	2.3	2.2	2.0	165	20 30	0.5	0.9	0.9
		0.3	36	2.4	2.1	2.0	1.9	1.8	170				
		0.4	46	1.9	1.7	1.6	1.5	1.4	175				
	075S	0.2	56	5.5	5.1	4.7	4.3	3.9	170	20 30	0.7	1.2	1.4
		0.3	74	4.7	4.3	4.0	3.7	3.3	180				
		0.4	92	3.5	3.2	2.9	2.7	2.5	190				

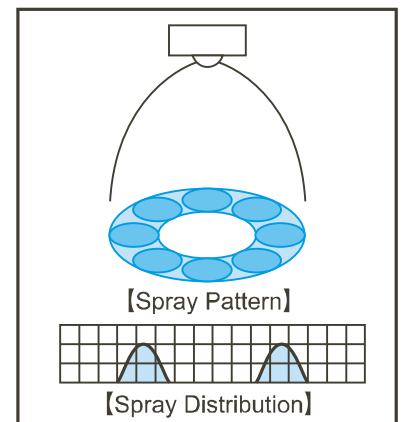
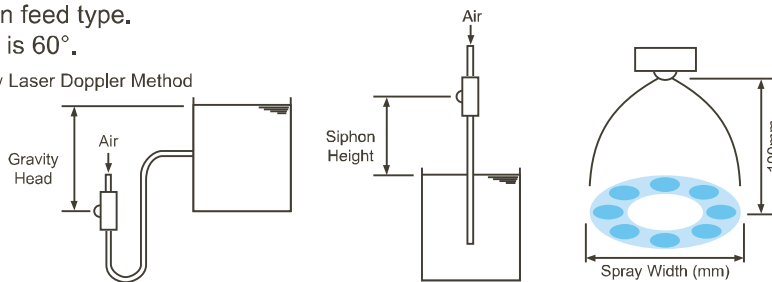
Note: *2) Measured at compressed air pressure of 0.3MPa and liquid siphon height of 100mm. *3) Measured at 100mm from nozzle and liquid siphon height of 100mm.

CBIMK-S (Hollow Cone Spray)

Features

- Hollow cone spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 30µm or less (*1).
- Liquid siphon feed type.
- Spray angle is 60°.

*1) Measured by Laser Doppler Method



Spray Angle Code *2	Air Consumption Code	Air Pressure (MPa)	Air Consumption (ℓ/min, Normal)	Spray Capacity (ℓ/hr)					Spray Width*3 (mm)	Mean Droplet Diameter (µm) Laser Doppler Method	Free Passage Dia. (mm)		
				Gravity Head (mm)		Siphon Height (mm)					Spray Orifice	Adaptor	
				+300	+100	-100	-300	-500				Liquid	Air
60°	04S	0.2	27	2.8	2.5	2.3	2.2	2.0	120	20 30	0.6	0.9	0.9
		0.3	36	2.4	2.1	2.0	1.9	1.8	120				
		0.4	46	1.9	1.7	1.6	1.5	1.4	120				
	075S	0.2	56	5.5	5.1	4.7	4.3	3.9	120	20 30	0.8	1.2	1.4
		0.3	74	4.7	4.3	4.0	3.7	3.3	120				
		0.4	92	3.5	3.2	2.9	2.7	2.5	120				

Note: *2) Measured at compressed air pressure of 0.3MPa and liquid siphon height of 100mm. *3) Measured at 100mm from nozzle and liquid siphon height of 100mm.

How to order

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

<Example> CBIMV11002S303+TS303

CBIMV

- CBIMV, CBIMV-S
- CBIMK, CBIMK-S
- CBIMJ

110

Spray Angle Code
(See chart)

02

Air Consumption Code
(See chart)

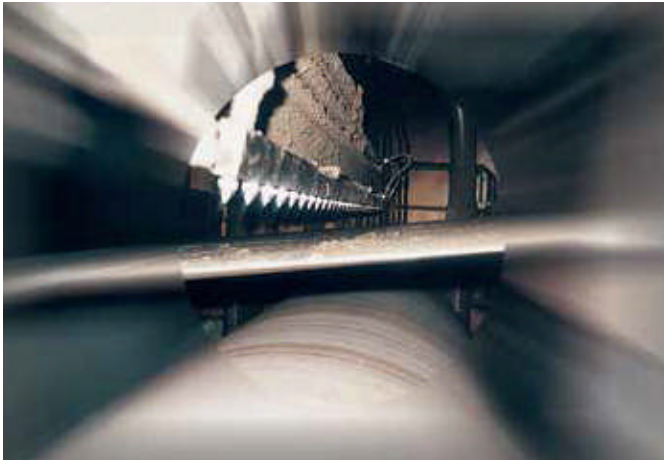
S303

+

T

S303

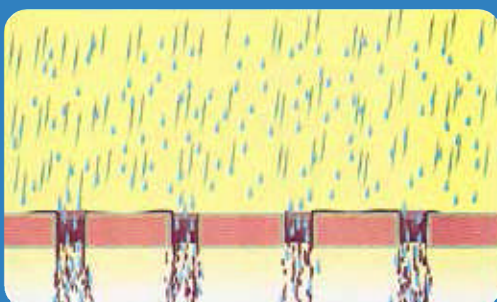
● Common Applications



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

● New cleaning method "Fog Cleaning"

Cleaning Mechanism



- 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 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 get better cleaning effects.

