

Small Capacity Fine Fog Nozzles

Flat Spray

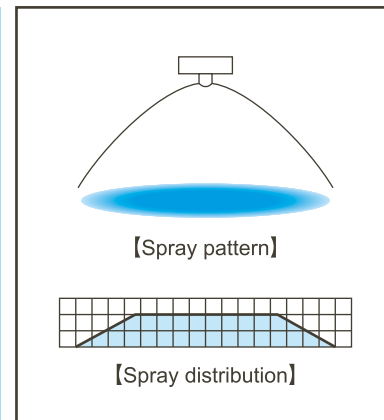
—Liquid Pressure Type—

BIMV

Features

- Flat spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100 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: uniform spray distribution throughout spray pattern 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



BIMV with SNB-type adaptor

Applications

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

Structure & Materials

- Comprising four 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 24.

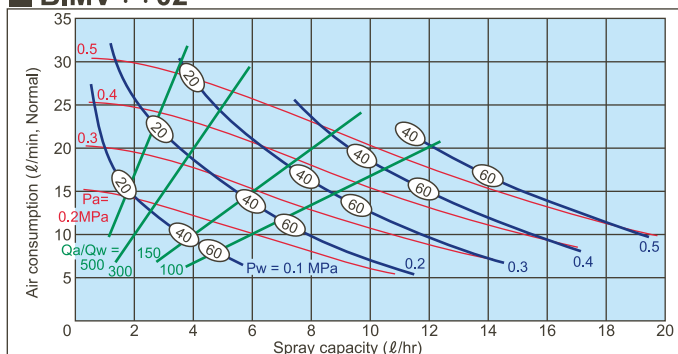
Accessories

- Mounting bracket for easy installation is shown on page 26.

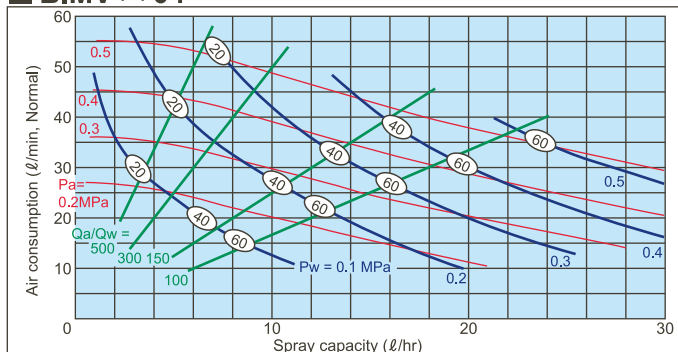
Flow-rate Diagrams

- How to read the chart
- ① The spray capacity shown is for one nozzle.
- ② Red lines (—) represent compressed air pressures P_a in MPa.
- Blue lines (—) represent liquid pressures P_w in MPa.
- Green lines (—) represent air-water ratio Q_a/Q_w .
- ③ Figures in ovals \bigcirc indicate Sauter mean droplet diameters (μm) measured by laser Doppler method.
- ④ ** to be filled by spray angle code of 110, 80, or 45.
- ⑤ These flow-rate diagrams are applicable to adaptors type T and N only.

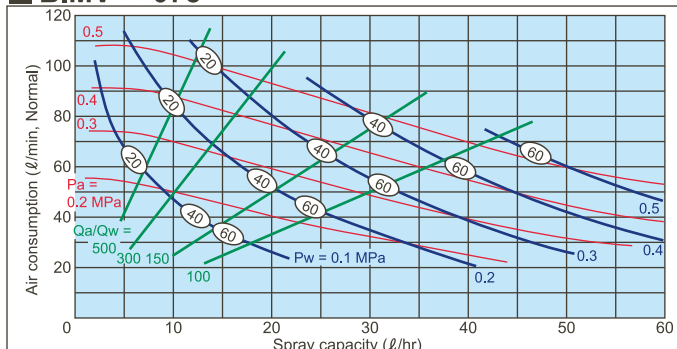
BIMV**02



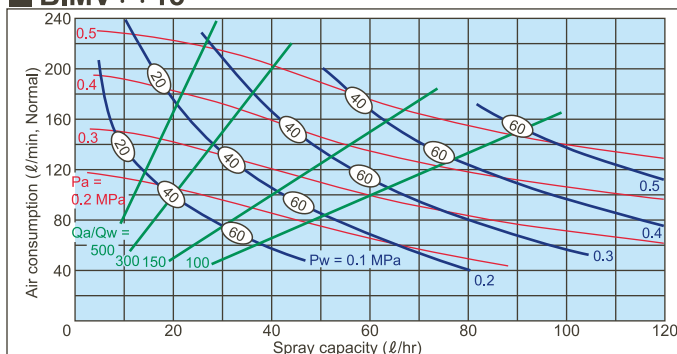
BIMV**04



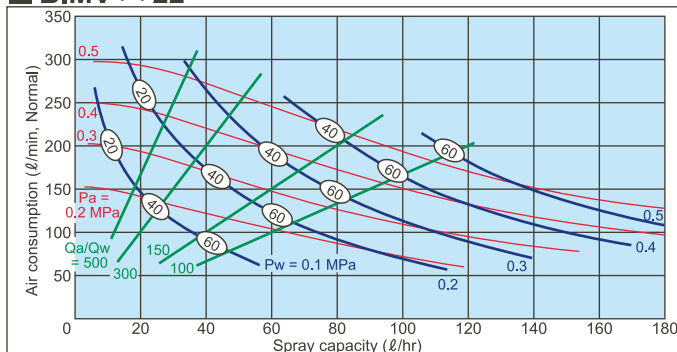
BIMV**075



BIMV**15



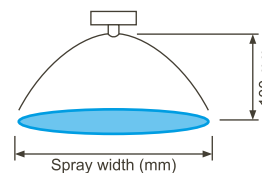
BIMV**22



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				Liquid	Air
			Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air	Liquid	Air								
110	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					
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	340	400	—	20-100	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	77	—	—	—	—	350	420	—	20-100	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	—	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					
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	210	280	—	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	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	77	—	—	—	—	210	280	—	20-100	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	—	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					
	15	0.2	16.8	107	34.8	90	64.4	60	—	—	—	—	110	150	—	20-100	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	77	—	—	—	—	110	160	—	20-100	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					

*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.



How to order

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

<Example> BIMV 11002 S303 + N S303

BIMV	110	02	S303	+	N	S303
	Spray angle code	Air consumption code			Type of adaptor	
	■110	■02			■N	■SPB
	■80	■04			■T	■USPB
	■45	■075			■NDB	■SNB
		■15			■UNDB	■USNB
		■22				

Details of adaptors are shown on pages 23 and 24.