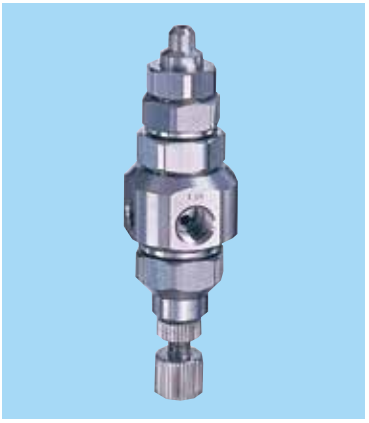
# Small Capacity Fine Fog Nozzles
# Full Cone Spray —Liquid Pressure Type—

**BIMJ**

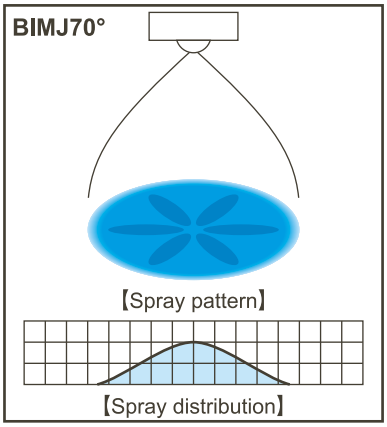
## Features

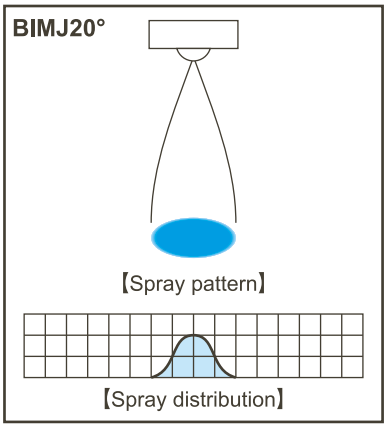
■Full cone spray pneumatic nozzle producing fine atomization with a mean droplet diameter of 100 μm or less.*1
■Features a large turn-down ratio under the liquid pressures of 0.1–0.3 MPa.
■Spray angle of 70° or 20°.

*1) Droplet diameter measured by laser Doppler method



BIMJ with NDB-type adaptor




## Applications

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

## 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.

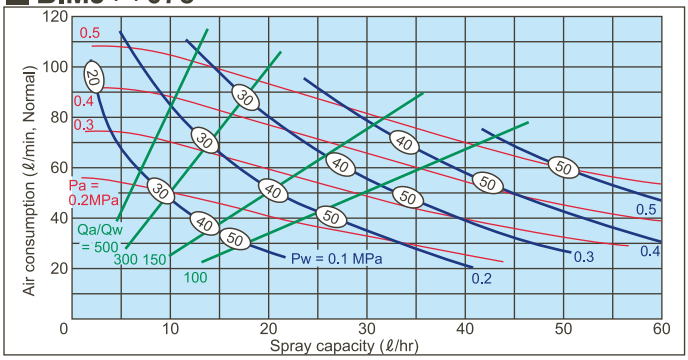
## Accessories

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

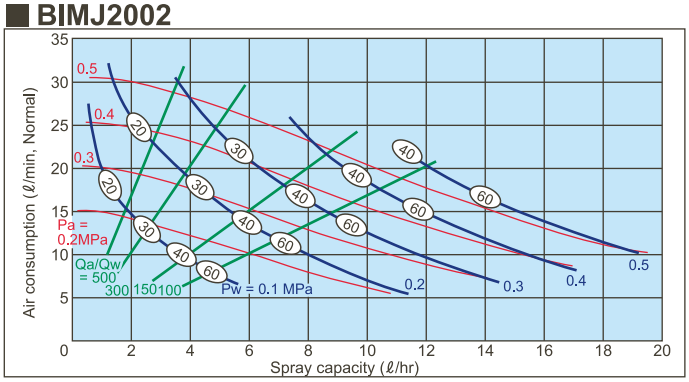
## Flow-rate Diagrams

■How to read the chart
①The spray capacity shown is for one nozzle.
②Red lines (—) represent compressed air pressures Pa in MPa.
Blue lines (—) represent liquid pressures Pw in MPa.
Green lines (—) represent air-water ratio Qa/Qw.
③Figures in ovals ⬭ indicate Sauter mean droplet diameters (μm) measured by laser Doppler method.
④** to be filled by spray angle code of 70 or 20.
⑤These flow-rate diagrams are applicable to adaptors type T and N only.

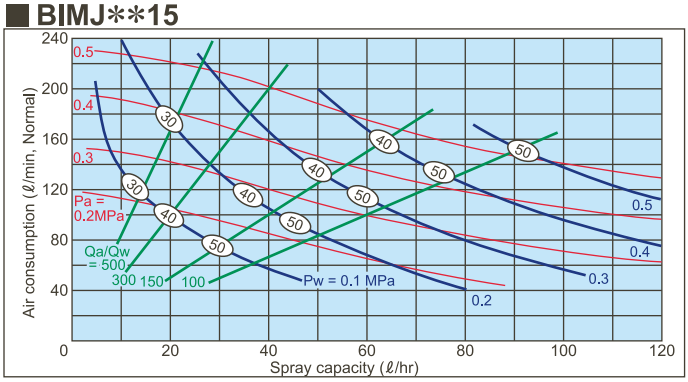
### ■ BIMJ**075



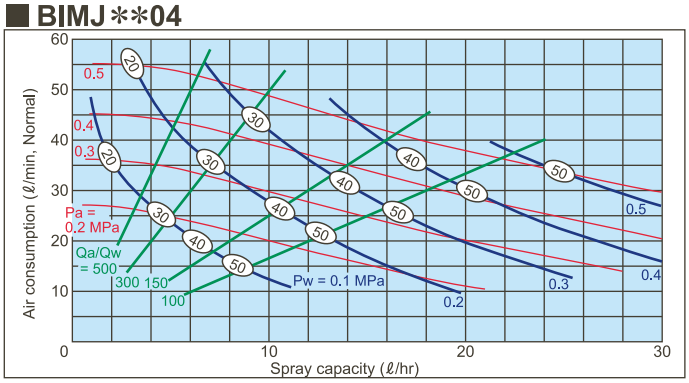

### ■ BIMJ2002



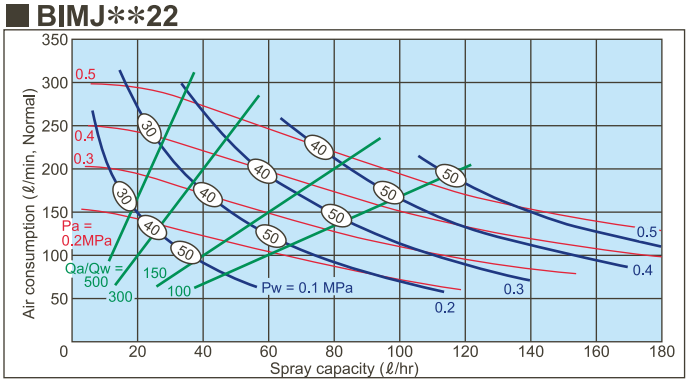

### ■ BIMJ**15




### ■ BIMJ**04

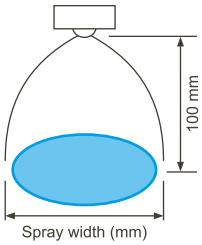



### ■ BIMJ**22



| 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 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 | — | 20–100 | 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 | | | | |
| | | 0.4 | — | — | 2.8 | 45 | 4.8 | 44 | 7.7 | 41 | 11.4 | 37 | — | 170 | 170 | | | | |
| | 075 | 0.2 | 8.7 | 51 | 18.4 | 42 | 33.3 | 29 | — | — | — | — | 140 | 160 | — | 20–100 | 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 | | | | |
| | | 0.4 | — | — | 5.6 | 91 | 9.1 | 89 | 14.8 | 82 | 21.8 | 74 | — | 170 | 170 | | | | |
| | 15 | 0.2 | 16.8 | 107 | 34.8 | 90 | 64.4 | 60 | — | — | — | — | 140 | 160 | — | 20–100 | 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 | | | | |
| | | 0.4 | — | — | 11.2 | 190 | 18.3 | 183 | 29.1 | 172 | 42.9 | 154 | — | 170 | 170 | | | | |
| | 22 | 0.2 | 22.3 | 140 | 45.6 | 116 | 92.1 | 77 | — | — | — | — | 140 | 160 | — | 20–100 | 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 | | | | |
| | | 0.4 | — | — | 15.3 | 245 | 24.5 | 238 | 39.1 | 220 | 57.7 | 198 | — | 170 | 170 | | | | |
| 20 | 02 | 0.2 | 2.2 | 14 | 5.3 | 11 | — | — | — | — | — | — | 25 | 25 | — | 20–100 | 1.1 | 0.9 | 0.7 |
| | | 0.3 | 1.0 | 20 | 2.5 | 19 | 4.6 | 17 | 8.3 | 12 | 14.3 | 7 | 30 | 30 | 25 | | | | |
| | | 0.4 | — | — | 1.4 | 25 | 2.3 | 24 | 4.0 | 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 | | | | |
| | 15 | 0.2 | 16.8 | 107 | 34.8 | 90 | 64.4 | 60 | — | — | — | — | 35 | 30 | — | 20–100 | 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 | | | | |
| | | 0.4 | — | — | 11.2 | 190 | 18.3 | 183 | 29.1 | 172 | 42.9 | 154 | — | 40 | 40 | | | | |
| | 22 | 0.2 | 22.3 | 140 | 45.6 | 116 | 92.1 | 77 | — | — | — | — | 35 | 30 | — | 20–100 | 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 | | | | |
| | | 0.4 | — | — | 15.3 | 245 | 24.5 | 238 | 39.1 | 220 | 57.7 | 198 | — | 40 | 40 | | | | |

*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> BIMJ 2004 S303 + N S303

BIMJ [20] [04] S303 + [N] S303

**Spray angle code**
- ■70
- ■20

**Air consumption code**
- ■02 (for 20° only)
- ■04
- ■075
- ■15
- ■22

**Type of adaptor**
- ■N
- ■T
- ■NDB
- ■UNDB
- ■SPB
- ■USPB
- ■SNB
- ■USNB

Details of adaptors are shown on pages 23 and 24.