

# Medium / Large Capacity Fine Mist Nozzles

## GBIM series Nozzles

Patent pending



- GBIM series fine mist nozzles are large capacity pneumatic nozzles generating fine mist applying very low air-water ratio.
- GBIM series nozzles save running cost of process due to low consumption of compressed air derived from very low air-water ratio.

### Contents

GBIM series  
Medium / Large Capacity  
Fine Mist Nozzles

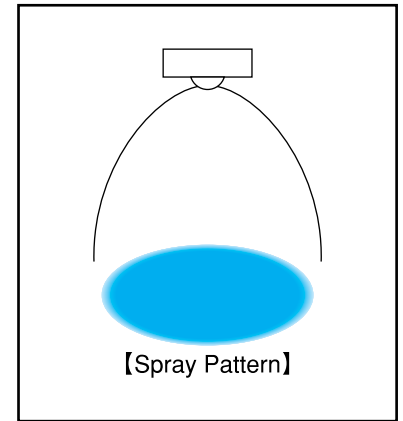
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# Medium / Large Capacity Fine Mist Nozzles

GBIM

## Features

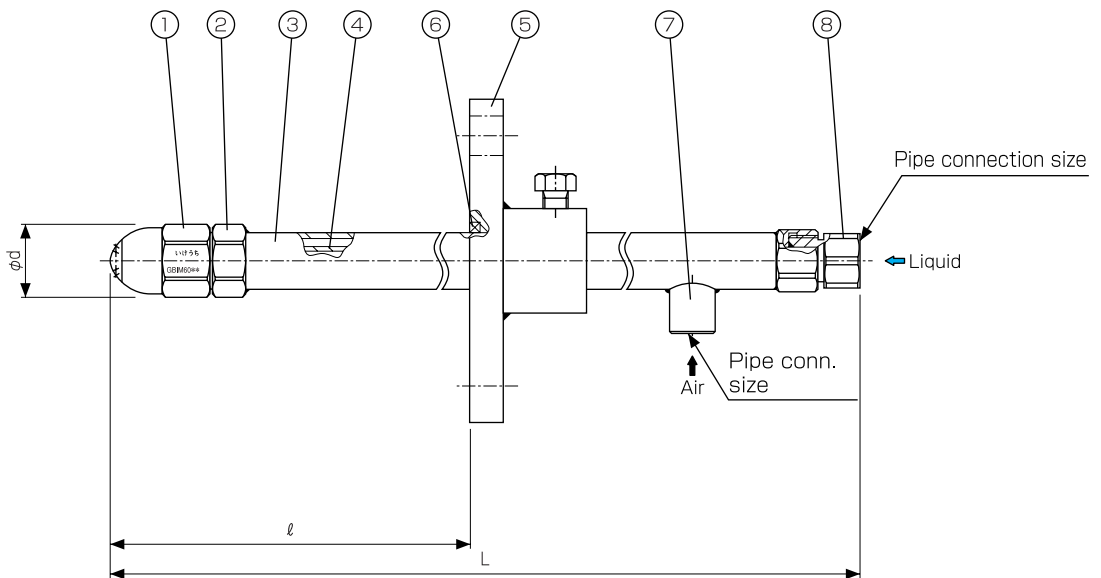
- Realize fine atomization having mean droplet diameter of  $60\mu\text{m}$  and the maximum droplet diameter of  $150\mu\text{m}$ , with spray capacity  $700\text{ l/hr}$  under air-water ratio 100 (measured by Laser Doppler Method).
- Spray angle is  $60^\circ$ .
- Designed for heavy-duty environment such as the cooling tower after incinerator.



## Applications

- Cooling: Gas, molding, refractories
- Moisture control: Paper, gas, concrete
- Combustion: Oil

## Structure, Dimensions, Materials and Pipe Connection Sizes



### Components and materials

No.	Component	Standard Material
①	Nozzle Tip & Cap	SUS316L
②	Adaptor	SUS316L
③	Outer Pipe (for air)	SUS316LTP
④	Inner Pipe (for liquid)	SUS304
⑤	Flange	SUS304
⑥	Packing	Ceramic fiber + Stainless steel wire
⑦	Air Connection	SUS304
⑧	Liquid Connection	SUS304

### Dimensions

Nozzle Code	Pipe Conn. Size		Outer Dia. $\phi d$	Free Pass Dia.
	Air	Liquid		
6075	PT1/2"		45mm	2.2mm
60110				2.4mm

### Nozzle length

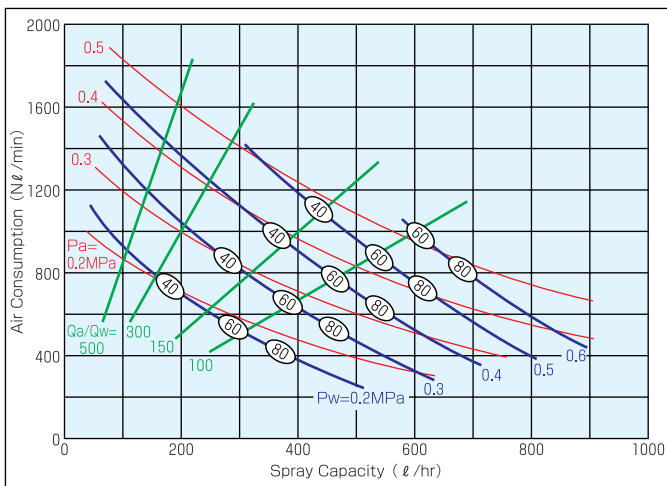
Type	Total Length L (mm)	Length $\ell$ (mm)
A	560	300~380
B	760	400~580
C	960	600~780
D	1160	800~980

## Flow-rate Diagram

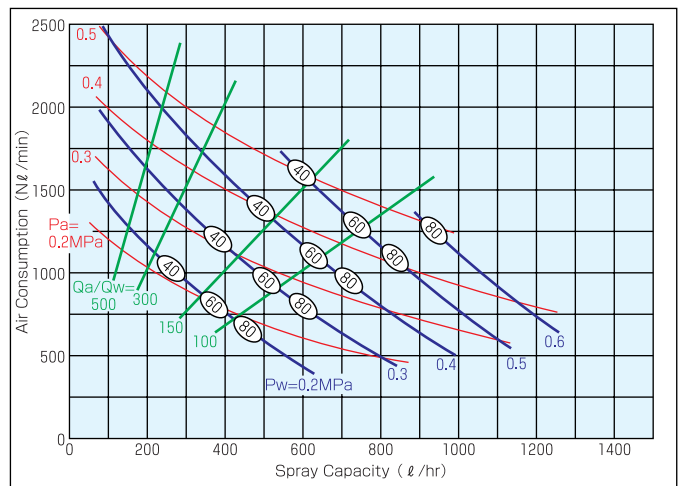
### How to read chart

- ① The spray capacity shown is for one nozzle.
- ② Red line (—) represents air pressure in MPa.  
Blue line (—) represents liquid pressure in MPa.  
Green line (—) represents air-water ratio  $Q_a/Q_w$ .
- ③ Figure in oval (○) indicates Sauter mean droplet diameter ( $\mu\text{m}$ ) measured by Laser Doppler Method.

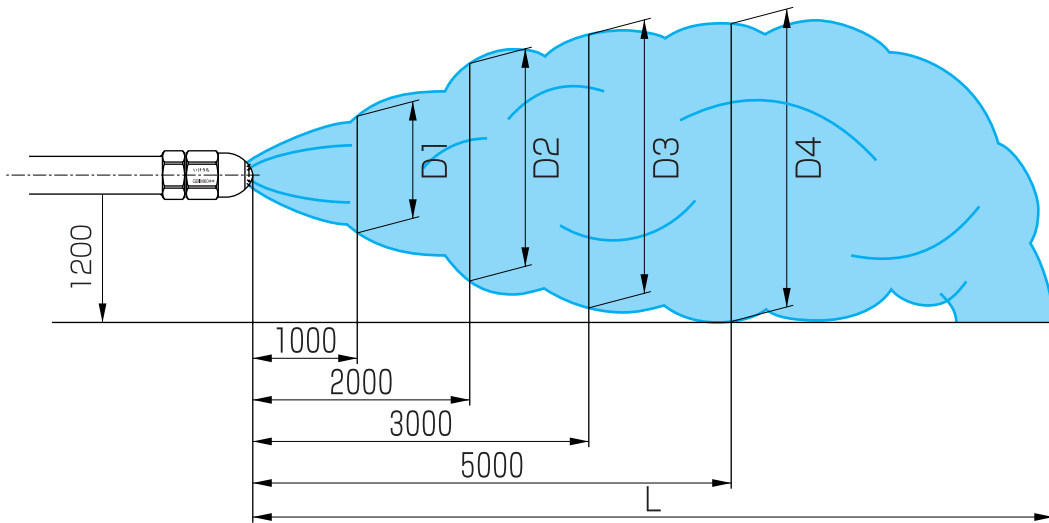
### GBIM6075



### GBIM60110



## Spray Dimensions



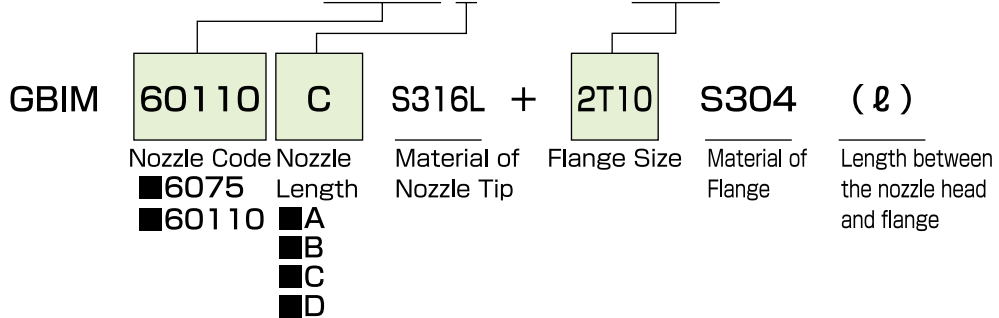
Nozzle No.	Air Pressure (MPa)	Liquid Pressure (MPa)	Spray Dimensions (mm)				
			D1	D2	D3	D4	L
6075	0.3	0.25~0.35	800	1200	1500	2000	8000
	0.4	0.35~0.45	700	1100	1400	2000	8000
	0.5	0.45~0.55	650	1050	1300	2000	9000
60110	0.3	0.25~0.35	850	1250	1550	2100	9000
	0.4	0.35~0.45	750	1150	1450	2100	9000
	0.5	0.45~0.55	700	1100	1400	2100	10000

## How to inquire / order

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

<Example>

**GBIM 60110 C S316L+2T10S304 (ℓ)**



(See P.35)

Flange size : Refer to the table of dimensions of flange on page 69.