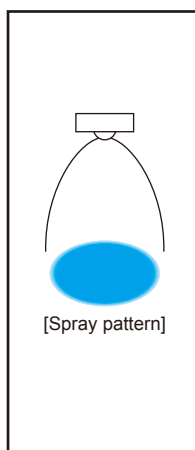
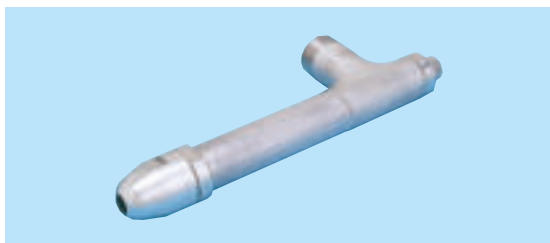


Ultra-Low Pressure Semi-Fine Fog Nozzles

LSIM



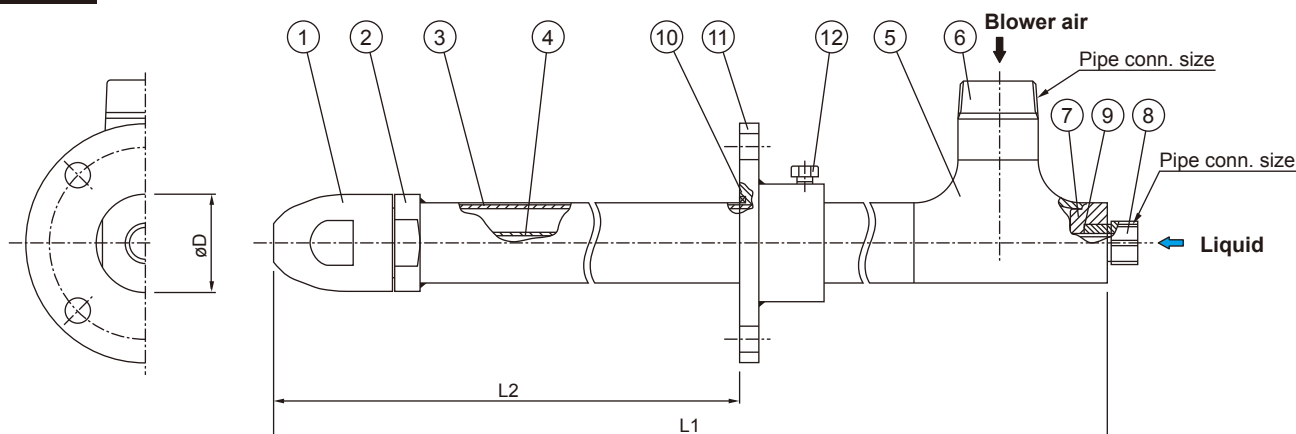
- Pneumatic spray nozzle, utilizing low-cost blower air for atomization, reduces operating cost to about 1/2 to 2/3 that of compressed air driven nozzles.
- Produces semi-fine atomization having no large droplets. When the mean droplet diameter is 80 μm , the maximum droplet diameter is 180 μm .^{*1}
- Compact and lightweight design.
- Spray angle of 20°.

^{*1} Measured by laser Doppler method under air-water ratio of 250

APPLICATIONS

- Cooling: Gas, refractories

DRAWING



COMPONENTS AND MATERIALS

No.	Components	Standard materials	No.	Components	Standard materials
1	Nozzle tip A,B & whirler	S316L	7	Joint	S304
2	Nozzle adaptor	S316L	8	Liquid socket	S304
3	Outer pipe	S316L	9	O-ring	FKM
4	Inner pipe	S304	10	Packing	Metal wire reinforced AES wool
5	T-connection	S304	11	Flange	S304
6	Air nipple	S304	12	Bolt	S304 equivalent

DIMENSIONS

Nozzle code	Pipe connection size		Outer diameter øD (mm)	Free passage diameter (mm)		
	Air (Blower)	Liquid		Tip orifice	Air	Liquid
20500	R1 1/2	Rc1/2	60	5.8	4.0	1.5
201000	R2	Rc1/2	74	7.7	5.9	2.0

TYPE OF LENGTH

Type	Total length L1 (mm)	Length L2 (mm)	Weight*2 (kg)	
			Nozzle code	
			20500	201000
A	650	300-400	3.8	5.5
B	850	400-600	4.6	6.5
C	1,050	600-800	5.4	7.5
D	1,250	800-1,000	6.2	8.6

Weight of Flange (reference only)

Flange for Nozzle Code 20500

JIS5K 2*1/2B: 2.6 kg

Flange for Nozzle Code 201000

JIS5K 3B: 3.7 kg

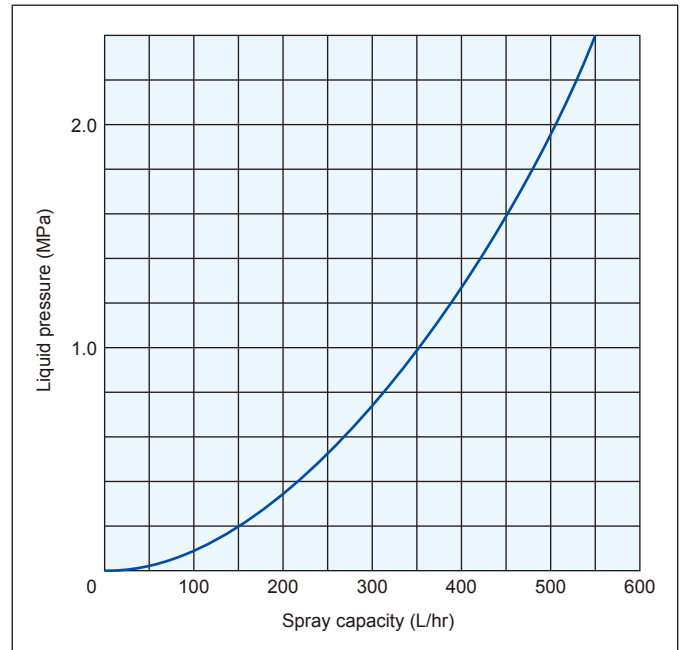
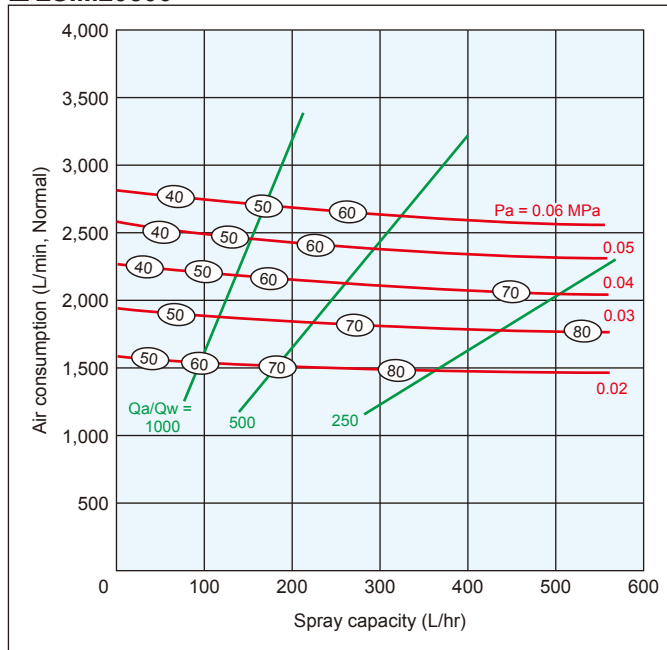
*2) Weight of flange is not included.

FLOW-RATE DIAGRAMS

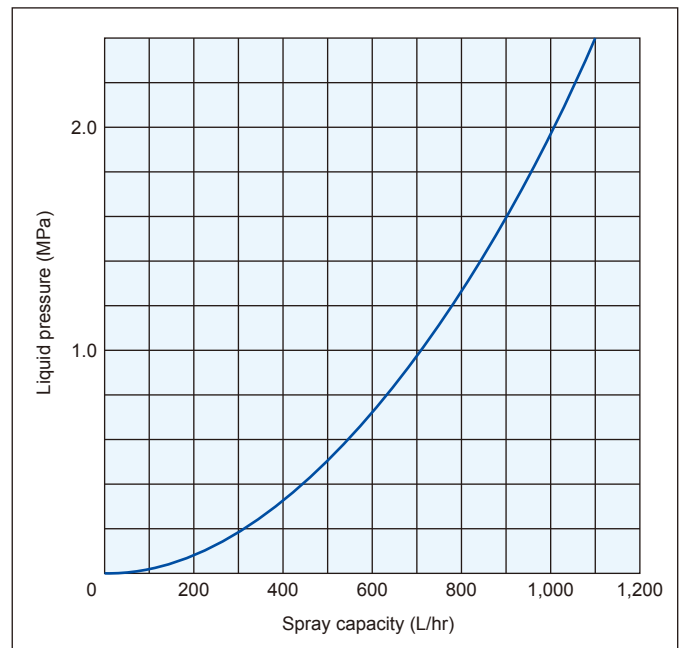
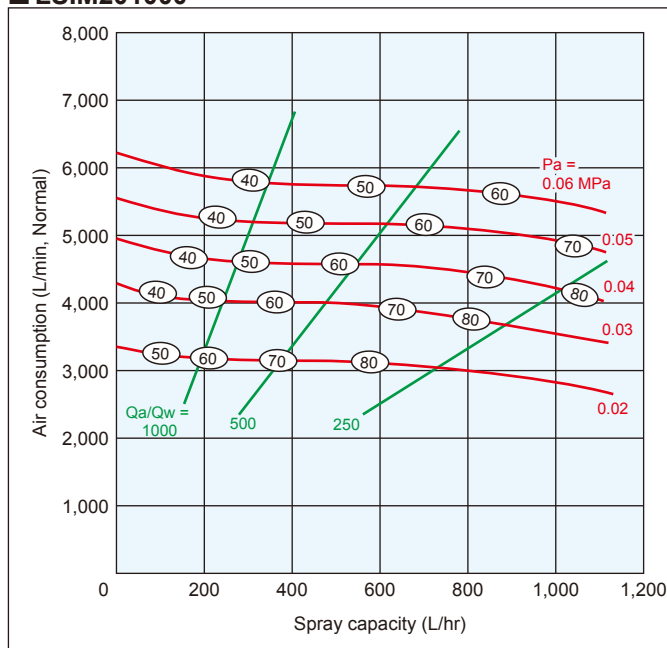
How to read the chart

1. The spray capacity shown is for one nozzle.
2. Red lines (—) represent blower air pressures P_a in MPa.
Green lines (—) represent air-water ratio Q_a/Q_w .
3. Numbers in ovals ○ indicate Sauter mean diameters (μm) measured by laser Doppler method.
4. Relation between liquid pressure and spray capacity of each nozzle is shown (as blue line) in the graphs to the right of flow-rate diagrams.

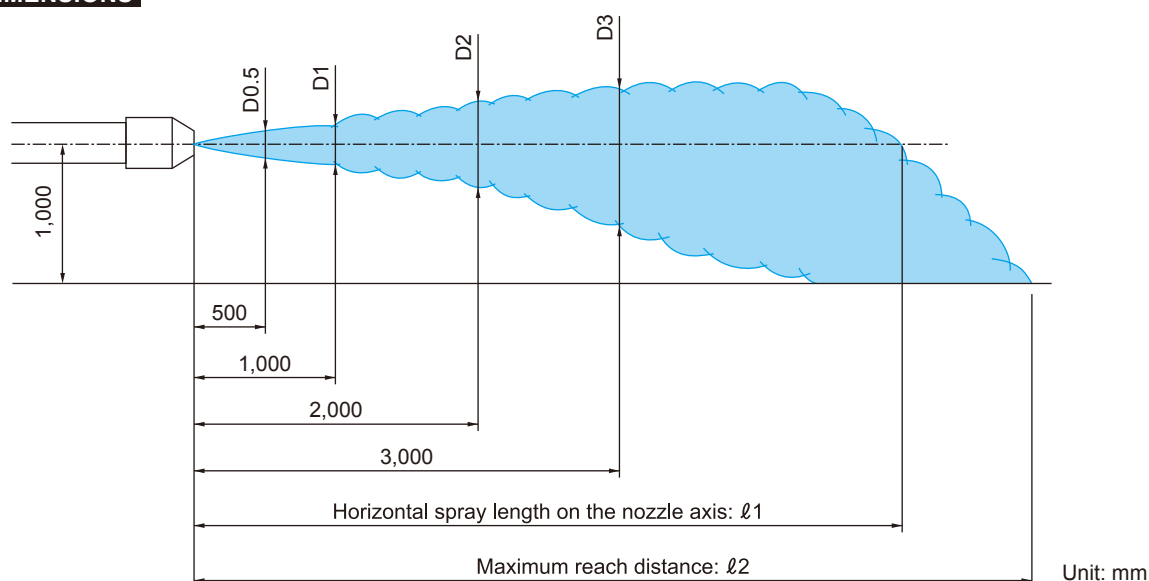
LSIM20500



LSIM201000



SPRAY DIMENSIONS



Nozzle code	Air pressure (MPa)	Liquid pressure (MPa)	Spray dimensions (mm)					
			D0.5	D1	D2	D3	ℓ1	ℓ2
LSIM20500	0.03	0–0.2	180	350	600	800	4,000	7,000
		0.2–1.0	180	300	550	800	4,000	7,000
		1.0–2.0	180	350	600	800	4,000	7,000
	0.04	0–0.2	180	300	550	800	4,000	7,000
		0.2–1.0	180	300	550	800	5,000	8,000
		1.0–2.0	180	300	550	800	5,000	8,000
	0.05	0–0.2	200	350	550	800	5,000	8,000
		0.2–1.0	200	350	600	850	5,000	8,000
		1.0–2.0	200	350	600	850	5,000	8,000
LSIM201000	0.03	0–0.2	200	350	600	800	5,000	8,000
		0.2–1.0	180	300	600	800	5,000	8,000
		1.0–2.0	200	350	600	800	6,000	9,000
	0.04	0–0.2	200	400	800	1,000	5,000	8,000
		0.2–1.0	180	300	600	900	6,000	9,000
		1.0–2.0	180	350	600	900	6,000	9,000
	0.05	0–0.2	200	400	700	900	6,000	9,000
		0.2–1.0	160	280	600	850	6,000	9,000
		1.0–2.0	160	300	700	850	6,000	9,000

Note: The above data were measured with tap water in a laboratory, in windless conditions.

HOW TO ORDER

When selecting a nozzle product, various factors must be considered, such as distance to target, number of nozzles required, and installation layout including air and liquid piping.

To ensure the best nozzle selection for your needs, consult our sales representatives during the design phase. Our engineering services are essential for efficient performance.

Inquiry forms with outline drawings are available to confirm dimensions and pipe connections. Contact us for more details.