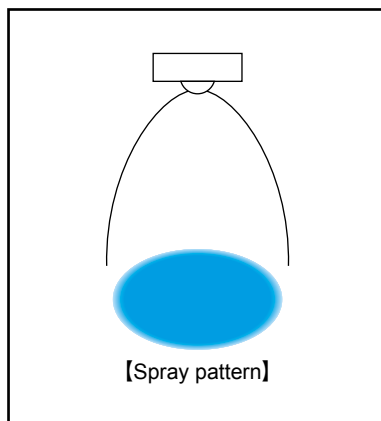


Ultra-Low Pressure Semi-Fine Fog Nozzles

LSIM



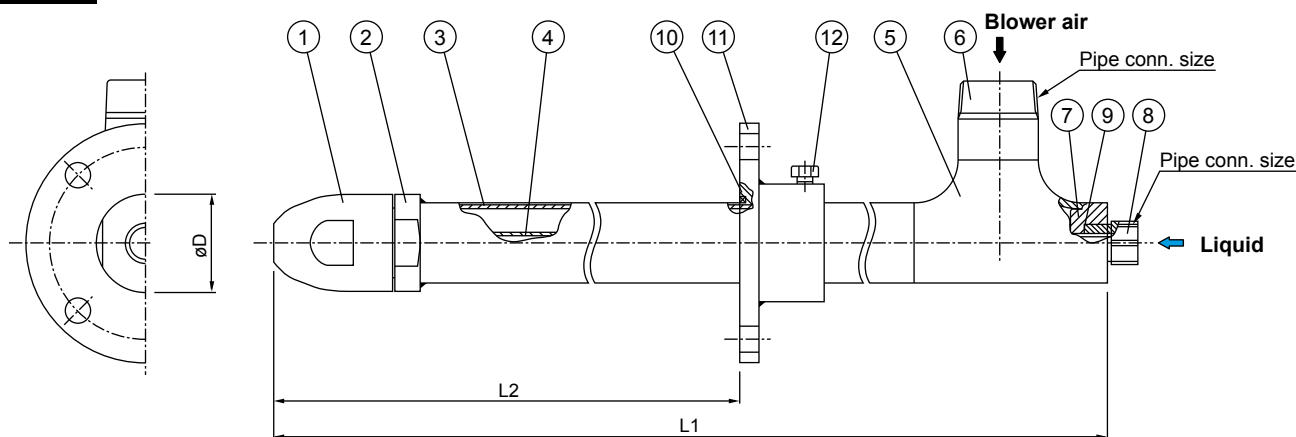
- Pneumatic spray nozzle, utilizing low-cost blower air for atomization, reduces operating cost to about 1/2 to 2/3 that of compressed air driven nozzles.
- Produces semi-fine atomization having no large droplets. When the mean droplet diameter is 80 μm, the maximum droplet diameter is 180 μm.*1
- Compact 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	S316LTP	9	O-ring	FKM
4	Inner pipe	S304TP	10	Packing	Metal wire reinforced AES wool
5	T-connection	S304	11	Flange	S304
6	Air nipple	S304	12	Bolt	S304

DIMENSIONS

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

TYPE OF LENGTH

Type	Total length L1 (mm)	Length L2 (mm)	Mass*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

*2) Mass of flange is not included.

Mass 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

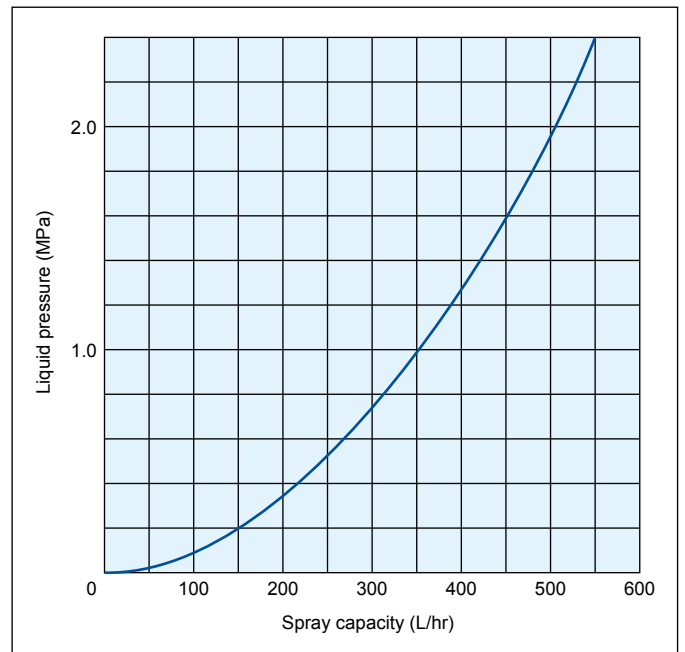
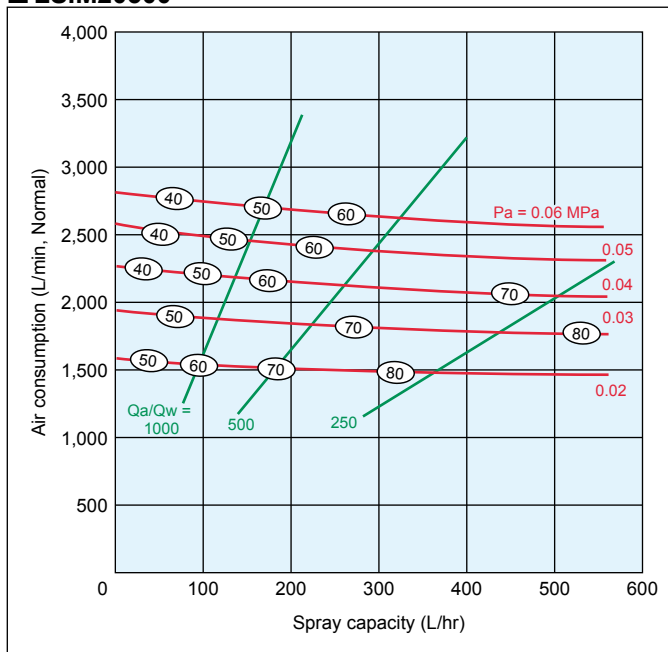
LSIM

FLOW-RATE DIAGRAMS

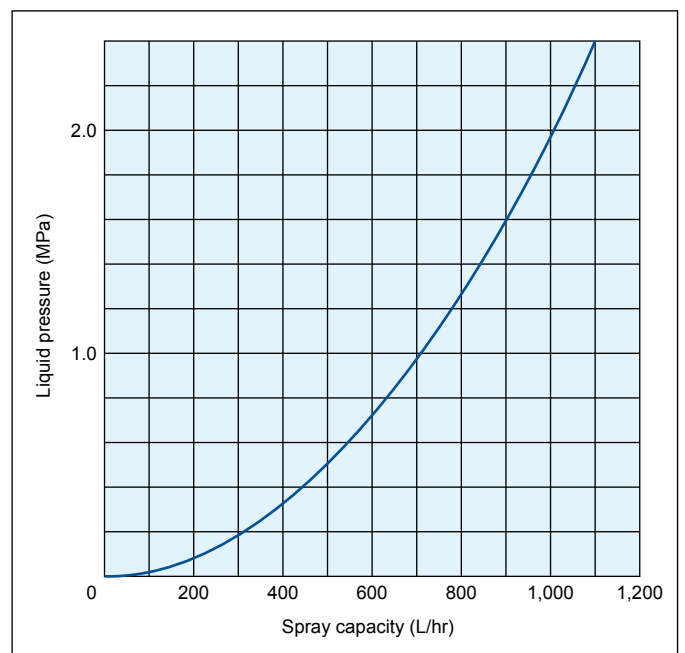
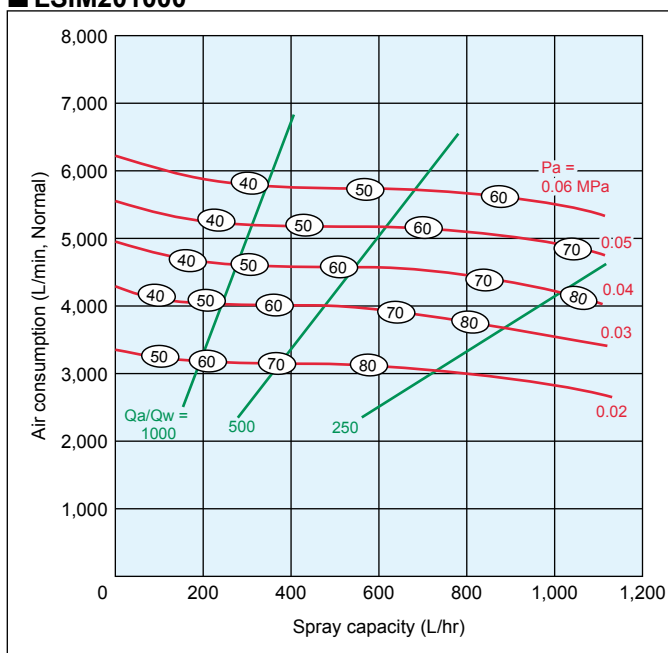
■ How to read the chart

1. The spray capacity shown is for one nozzle.
2. Red lines (—) represent blower air pressures Pa in MPa.
Green lines (—) represent air-water ratio Qa/Qw.
3. Figures 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

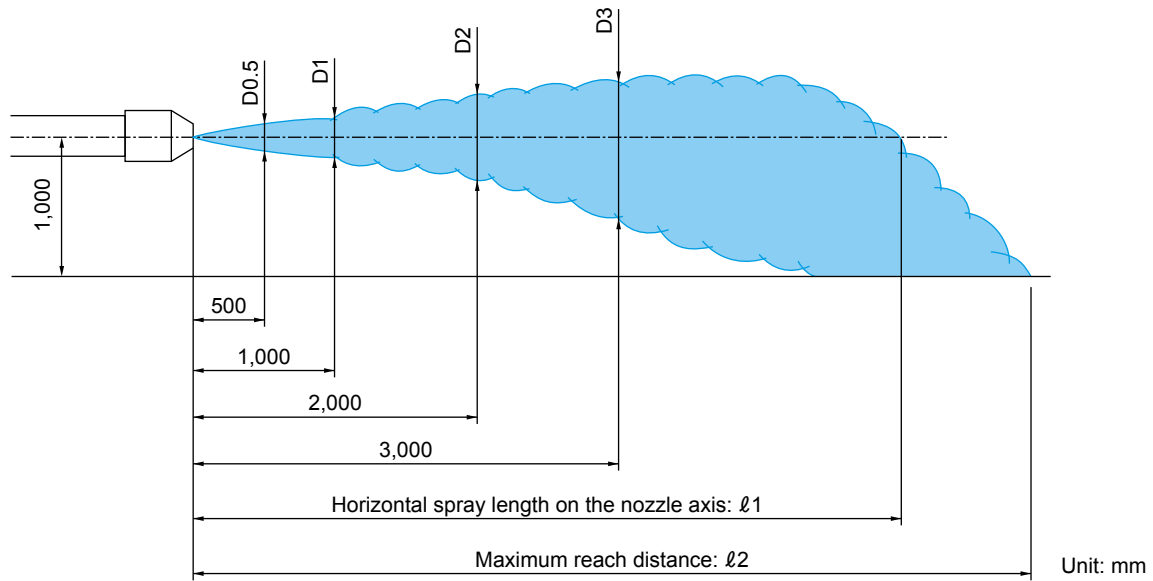


■ LSIM201000



LSIM

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

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

<Example> LSIM20500 C S316L + 2*1/2T5 S304 (L2)

LSIM

20500

Nozzle code
 ■20500
 ■201000

C

Type of length
(Total length)

- A
- B
- C
- D

S316L

Material of
nozzle tip

2*1/2T5

Flange
size
 ■2*1/2T5
 ■3T5

S304

Material of
Flange

(L2)

Length between
the nozzle head
and flange

The minimum flange size
 2*1/2T5 for nozzle code 20500
 3T5 for nozzle code 201000

Please send us an inquiry for a different flange size.

See the drawing and table on page 90 for type of length and length L2.

For details please ask for our inquiry drawing.