

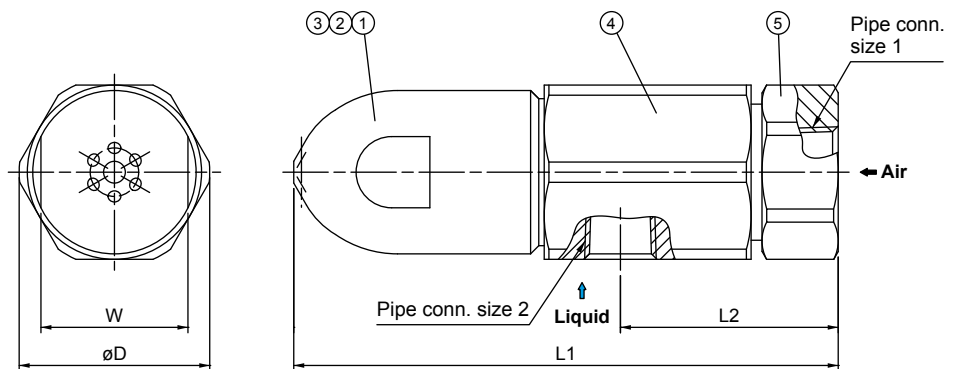
- Pneumatic spray nozzle producing fine atomization with a mean droplet diameter of 50 μm and a max. droplet diameter of 150 μm at an air-water ratio of 130.*1
 - Energy-saving design that provides large amount of "fine fog" with smaller air consumption, yielding a spray capacity of 30–1,000 L/hr at an air-water ratio of 130.
 - Available in spray angles of 60° and 20°, in 6 spray capacity types—12 varieties in total. Wide selection.
 - Easy maintenance with simple structure and compact body.
- *1) Droplet diameter measured by laser Doppler method

APPLICATIONS

- Cooling: Gas, moldings, refractories
- Moisture control: Flue gas, concrete
- Combustion: Oil, waste fluid
- Dust suppression: Recycling facilities, material facilities, moldings

GSIM II Nozzle with T-type Adaptor

DRAWING



Note: The above drawing is for GSIM6037IIS316L+TS303.
Configurations of nozzle tip slightly differ depending on air consumption codes.

COMPONENTS AND MATERIALS

No.	Components	Standard materials
1	Nozzle tip	S316L
2	Nozzle core	S316L
3	Whirler	S316L equivalent

No.	Components	Standard materials
4	Adaptor	S303
5	Air socket	S303

DIMENSIONS

Spray angle code	Air consumption code	Pipe connection size		Outer dimensions (mm)				Free passage diameter (mm)		Mass (g)
		1 (Air)	2 (Liquid)	L1	L2	W	øD	Air	Liquid*2	
60 20	37	Rc3/8	Rc1/4	100	40	27	35	1.6	1.8 (2.2)	500
	55		Rc1/2					2.0	2.2 (2.2)	
	75	Rc1/2	Rc3/8	120	42	32	45	2.3	2.6 (3.2)	900
	110		Rc1/2					2.9	3.2 (3.2)	
	150	Rc3/4	Rc1/2	140	44	46	50	3.3	3.7 (4.0)	1,200
	220		Rc3/4					4.0	4.0 (4.0)	

*2) Free passage diameter in () shows that of GSIM II with spray angle code of 20.

HOW TO ORDER

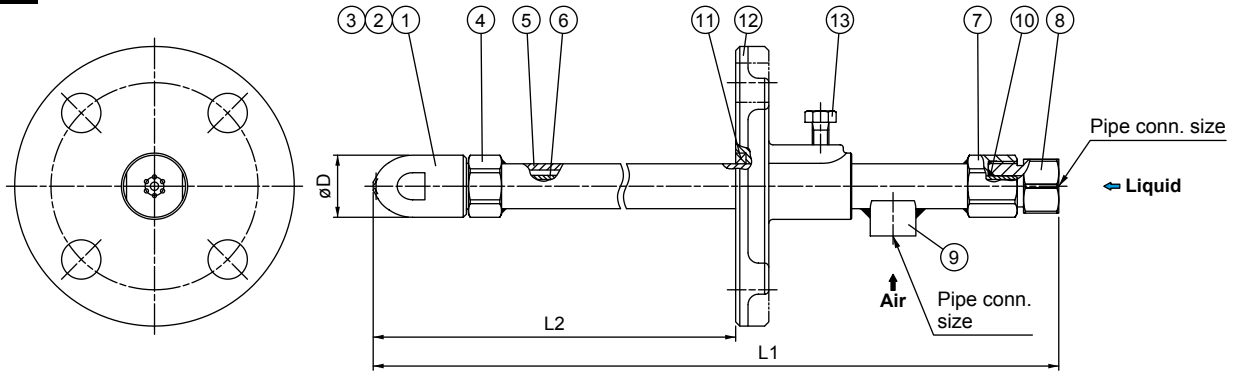
Please inquire or order for a specific nozzle using this coding system.

<Example> GSIM6037II S316L + T S303

GSIM	60	37	II	S316L	+	T	S303
	Spray angle code	Air consumption code		Material of nozzle tip		Type of adaptor	Material of adaptor
	■60	■37 ■55					
	■20	■75 ■110					
		■150 ■220					

Flange Type

DRAWING



COMPONENTS AND MATERIALS

No.	Components	Standard materials	No.	Components	Standard materials
1	Nozzle tip	S316L	7	Joint	S304
2	Nozzle core	S316L	8	Liquid socket	S304
3	Whirler	S316L equivalent	9	Air socket	S304
4	Nozzle adaptor	S316L	10	O-ring	FKM
5	Outer pipe (for air)	S316L	11	Packing	Metal wire reinforced AES wool
6	Inner pipe (for liquid)	S304	12	Flange	SCS13 (S304)
			13	Bolt	S304

DIMENSIONS

Spray angle code	Air consumption code	Pipe connection size		Outer diameter ϕD (mm)	Free passage diameter (mm)	
		Air	Liquid		Air	Liquid*2
60 20	37	Rc3/8	Rc3/8	30	1.6	1.8 (2.2)
	55				2.0	2.2 (2.2)
	75	Rc1/2	Rc1/2	38	2.3	2.6 (3.2)
	110				2.9	3.2 (3.2)
	150	Rc3/4	Rc3/4	50	3.3	3.7 (4.0)
	220				4.0	4.0 (4.0)

*2) Free passage diameter in () shows that of GSIM II with spray angle code of 20.

TYPE OF LENGTH

Type	Total length L1*3 (mm)	Length L2 (mm)
A	560	300–400
B	760	400–600
C	960	600–800
D	1,160	800–1,000

*3) L1: Standard length

MASS

Air consumption code	Type of length	Mass*4 (g)
37, 55	A	1,300
	B	1,600
	C	2,000
	D	2,400
75, 110	A	1,800
	B	2,300
	C	2,800
	D	3,300
150, 220	A	2,500
	B	3,100
	C	3,700
	D	4,300

*4) The mass shown is when the total length is the standard length L1 and excludes a mass of flange. For longer lengths, add the corresponding mass for each 100 mm of L1 length as below.

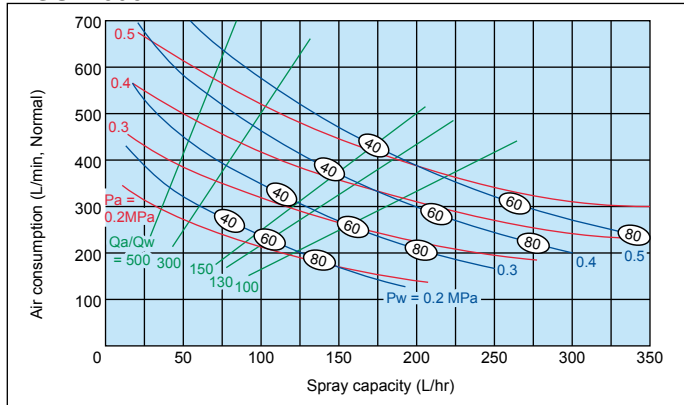
(Air consumption code: Mass per 100 mm)
37/55: 180 g,
75/110: 260 g,
150/220: 300 g

FLOW-RATE DIAGRAMS
SPRAY ANGLE 60° TYPE

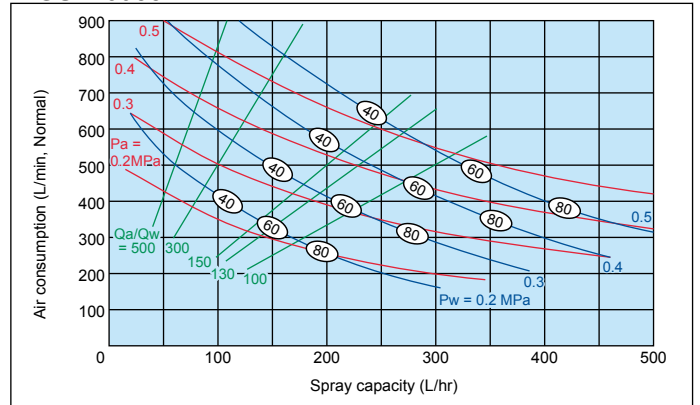
■ How to read the chart

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 diameters (μm) measured by laser Doppler method.

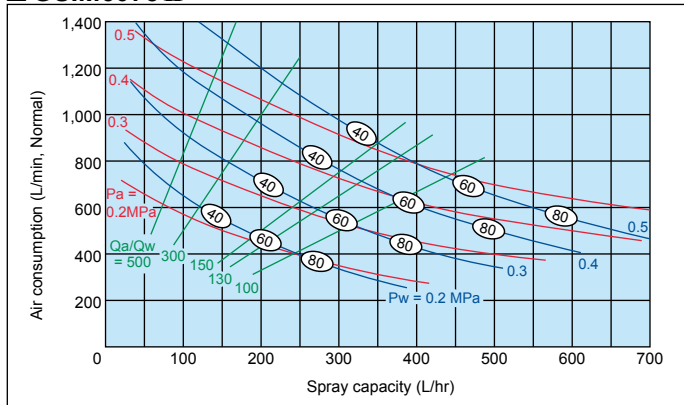
■ GSIM6037 II



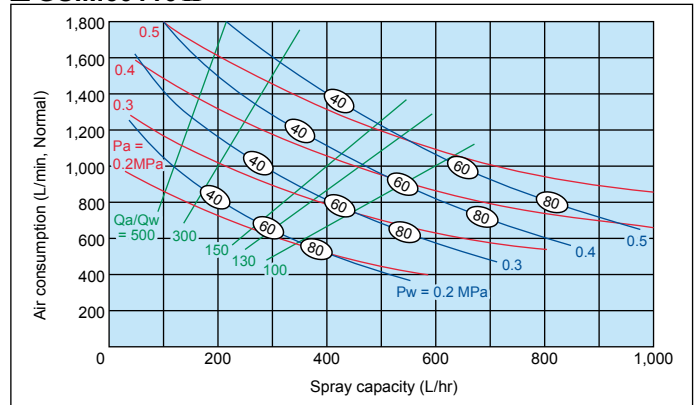
■ GSIM6055 II



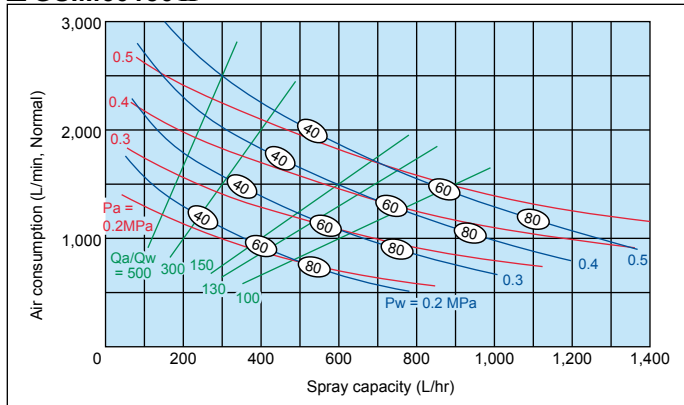
■ GSIM6075 II



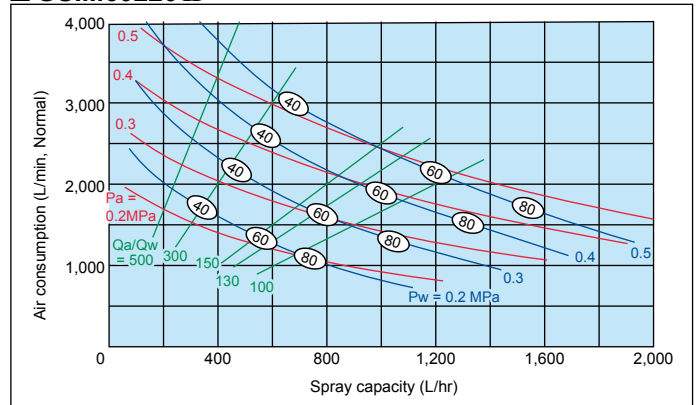
■ GSIM60110 II



■ GSIM60150 II



■ GSIM60220 II

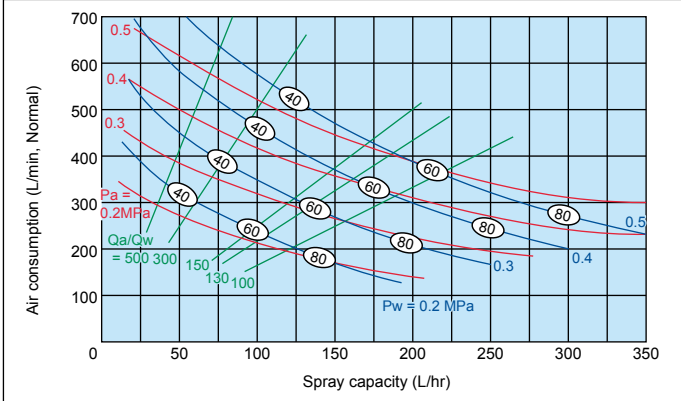


GSIM II

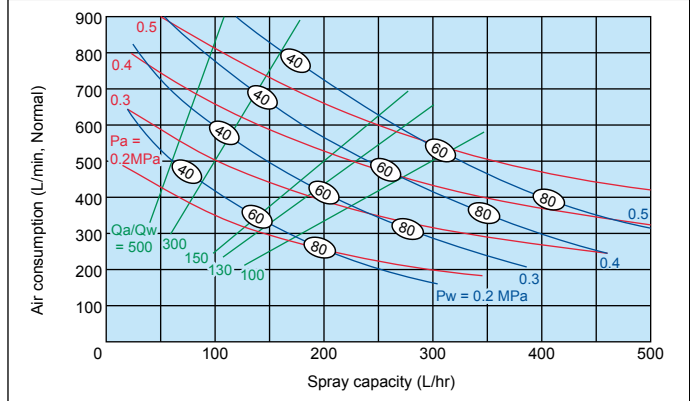
FLOW-RATE DIAGRAMS
SPRAY ANGLE 20° TYPE

- 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 diameters (μm) measured by laser Doppler method.

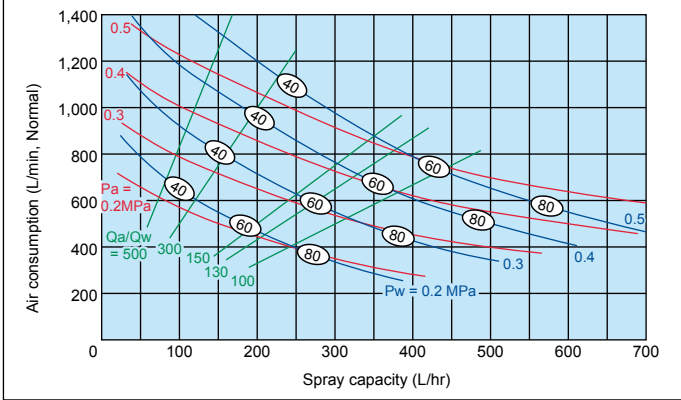
■ **GSIM2037 II**



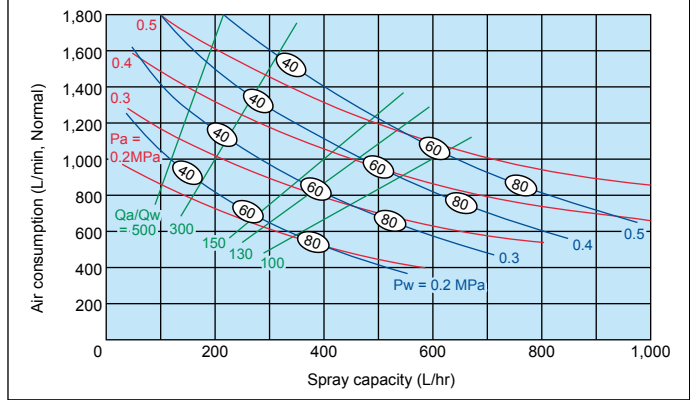
■ **GSIM2055 II**



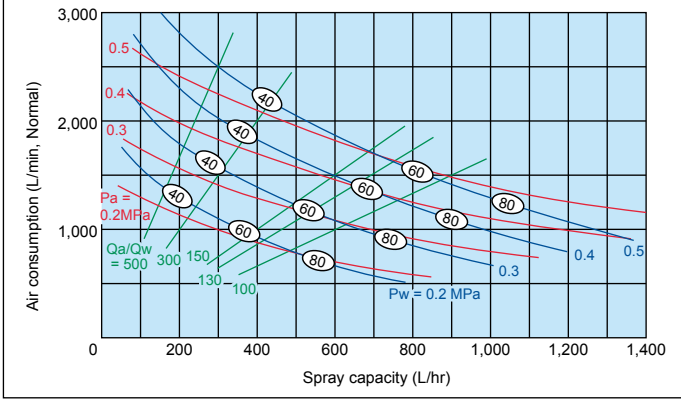
■ **GSIM2075 II**



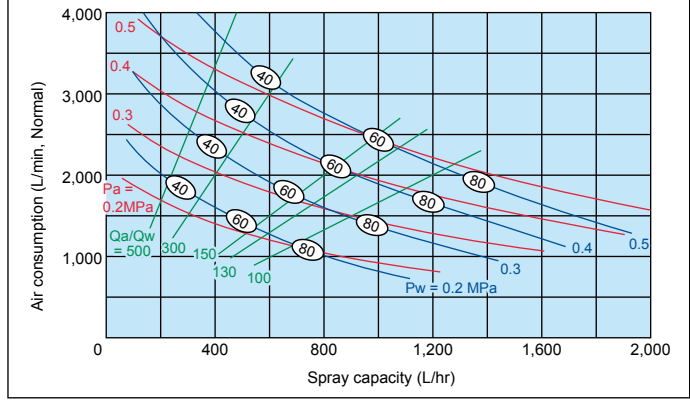
■ **GSIM20110 II**



■ **GSIM20150 II**



■ **GSIM20220 II**

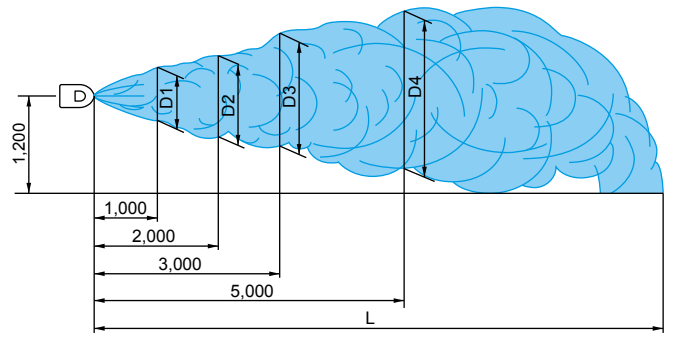


GSIM II

SPRAY DIMENSIONS

■ Spray angle code: 60

Air consumption code	Air pressure (MPa)	Liquid pressure (MPa)	Spray dimensions (mm)				
			D1	D2	D3	D4	L
37	0.3	0.25-0.30	600	950	1,200	1,700	8,000
		0.30-0.35	700	1,050	1,350	1,700	8,000
	0.4	0.35-0.40	550	850	1,100	1,700	8,000
		0.40-0.45	650	950	1,250	1,700	8,000
	0.5	0.45-0.50	500	800	1,000	1,700	8,000
		0.50-0.55	600	900	1,150	1,700	8,000
55	0.3	0.25-0.30	650	1,000	1,250	1,800	9,000
		0.30-0.35	750	1,100	1,400	1,800	9,000
	0.4	0.35-0.40	600	900	1,150	1,800	9,000
		0.40-0.45	650	1,000	1,300	1,800	9,000
	0.5	0.45-0.50	500	850	1,050	1,800	9,000
		0.50-0.55	600	950	1,200	1,800	9,000
75	0.3	0.25-0.30	700	1,050	1,300	1,900	10,000
		0.30-0.35	800	1,150	1,450	1,900	10,000
	0.4	0.35-0.40	650	950	1,200	1,900	10,000
		0.40-0.45	700	1,050	1,350	1,900	10,000
	0.5	0.45-0.50	550	900	1,100	1,900	10,000
		0.50-0.55	600	1,000	1,250	1,900	10,000
110	0.3	0.25-0.30	750	1,100	1,400	1,900	10,000
		0.30-0.35	850	1,200	1,500	1,900	10,000
	0.4	0.35-0.40	700	1,050	1,300	1,900	11,000
		0.40-0.45	750	1,150	1,450	1,900	11,000
	0.5	0.45-0.50	600	1,000	1,200	1,900	11,000
		0.50-0.55	650	1,100	1,350	1,900	11,000
150	0.3	0.25-0.30	800	1,150	1,500	2,000	11,000
		0.30-0.35	900	1,250	1,600	2,000	11,000
	0.4	0.35-0.40	750	1,100	1,400	2,000	12,000
		0.40-0.45	800	1,200	1,500	2,000	12,000
	0.5	0.45-0.50	650	1,050	1,300	2,000	12,000
		0.50-0.55	700	1,150	1,400	2,000	12,000
220	0.3	0.25-0.30	900	1,200	1,600	2,100	11,000
		0.30-0.35	950	1,300	1,700	2,100	11,000
	0.4	0.35-0.40	800	1,150	1,500	2,100	12,000
		0.40-0.45	850	1,250	1,600	2,100	12,000
	0.5	0.45-0.50	700	1,100	1,400	2,100	12,000
		0.50-0.55	750	1,200	1,500	2,100	12,000



Unit: mm

■ Spray angle code: 20

Air consumption code	Air pressure (MPa)	Liquid pressure (MPa)	Spray dimensions (mm)				
			D1	D2	D3	D4	L
37	0.3	0.25-0.35	200	450	750	1,100	9,000
	0.4	0.35-0.45	250	500	850	1,200	10,000
	0.5	0.45-0.55	300	550	900	1,300	10,000
55	0.3	0.25-0.35	250	500	800	1,200	10,000
	0.4	0.35-0.45	300	550	900	1,300	11,000
	0.5	0.45-0.55	350	600	1,000	1,400	11,000
75	0.3	0.25-0.35	300	550	900	1,300	12,000
	0.4	0.35-0.45	350	650	1,000	1,400	13,000
	0.5	0.45-0.55	400	750	1,100	1,500	13,000
110	0.3	0.25-0.35	350	600	1,000	1,400	12,000
	0.4	0.35-0.45	400	700	1,100	1,500	13,000
	0.5	0.45-0.55	450	800	1,200	1,600	13,000
150	0.3	0.25-0.35	400	750	1,100	1,500	13,000
	0.4	0.35-0.45	450	800	1,200	1,600	14,000
	0.5	0.45-0.55	500	850	1,300	1,700	14,000
220	0.3	0.25-0.35	450	800	1,200	1,500	13,000
	0.4	0.35-0.45	500	850	1,250	1,600	14,000
	0.5	0.45-0.55	550	900	1,300	1,700	14,000

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.

Flange Type

<Example> GSIM6037II B S316L+1*1/4T10 SCS13 (L2)

GSIM	60	37 II	B	S316L +	1*1/4T10	SCS13	(L2)
	Spray angle code	Air consumption code	Type of length (Total length)	Material of nozzle tip	Flange size	Flange material	Length between the nozzle head and flange
	■60 ■20	■37 ■55 ■75 ■110 ■150 ■220	■A ■B ■C ■D		■1*1/4T10 ■1*1/2T10 ■2T10		
					The minimum flange sizes (Air consumption code: Flange size) 37II, 55II: 1*1/4T10 75II, 110II: 1*1/2T10 150II, 220II: 2T10		

See the drawing and table on page 58 for type of length and length L2.
For details please ask for our inquiry drawing.

Please send us an inquiry for a different flange size.