

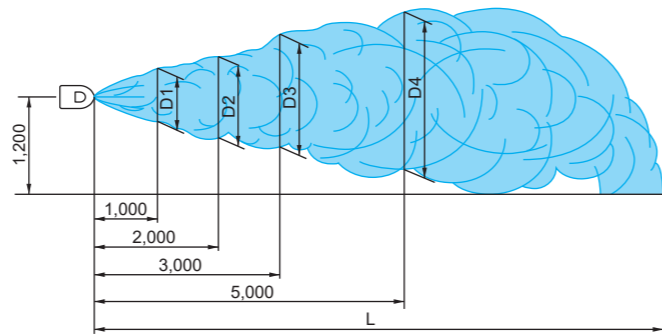
Pneumatic Spray Nozzles for Dust Suppression

GSIM II with SN Adaptor

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 To inquire about or order a specific nozzle please refer to this coding system.

Example: GSIM 6037II S316L + SN S303

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

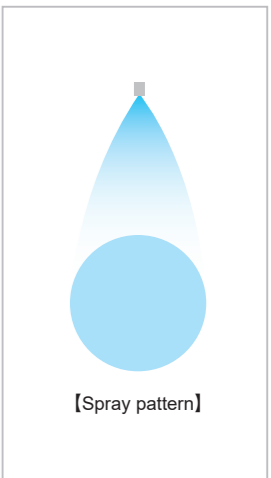
Please feel free to send any inquiry, request for information or quote regarding this product to the contact below.



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The SN-adaptor type, newly added to the large capacity pneumatic nozzle GSIM II Series, turns the spray on-off without dripping by only controlling the air supply.



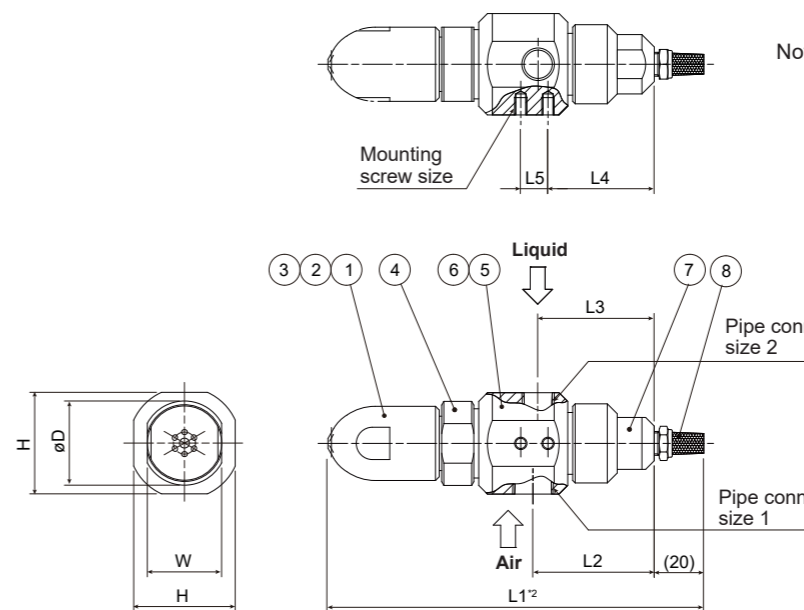
FEATURES

- The low air-water ratio nozzle that provides a large amount of "fine fog" while using little compressed air.
- The spray is turned ON/OFF by turning the compressed air ON/OFF.
- Anti-drip design prevents dust particles from sticking together and adhering due to dripping from the nozzle after shut-off.

APPLICATIONS

- Dust suppression: Recycling facilities, raw material facilities, castings

DRAWING



Note: This drawing is for GSIM6037IIS316L+SNS303. Configurations of nozzle slightly differ depending on air consumption codes.

COMPONENTS AND MATERIALS

No.	Components	Standard material ¹⁾
①	Nozzle tip	S316L
②	Nozzle core	S316L
③	Whirler	S316L equiv.
④	Nozzle adaptor	S303
⑤	Adaptor	S303
⑥	O-ring	FKM
⑦	Spring cap	S303
⑧	Silencer	Brass, etc.

¹⁾ In the material code, "S" represents "stainless steel". For example, S303 stands for stainless steel 303.

DIMENSIONS AND WEIGHT

Spray angle code	Air consumption code	Pipe connection size		Mounting screw size	Outer dimensions (mm)							Free passage diameter ³⁾ (mm)			Weight (g)	
		1 (Air)	2 (Liquid)		L1 ²⁾	L2	L3	L4	L5	H	W	ØD	Tip orifice	Air		Liquid
60 20	37	Rc3/8	Rc1/4	M5 depth 7	152	49	47	43	11	41	30	34	1.8 (4.4)	1.6	1.8 (2.2)	750
	55												2.2 (5.3)	2.0	2.2 (2.2)	
	75	Rc1/2	Rc3/8	M8 depth 10	192	64.5	60	55	17	50	41	45	2.6 (6.3)	2.3	2.6 (3.2)	
	110												3.2 (7.5)	2.9	3.2 (3.2)	
	150	Rc3/4	Rc1/2	M8 depth 10	230	80	75	69	17	65	50	55	3.7 (8.9)	3.3	3.7 (4.0)	
	220												4.5 (10.8)	4.0	4.0 (4.0)	3,100

²⁾ The total length L1 may vary slightly depending on the tightness of the silencer.

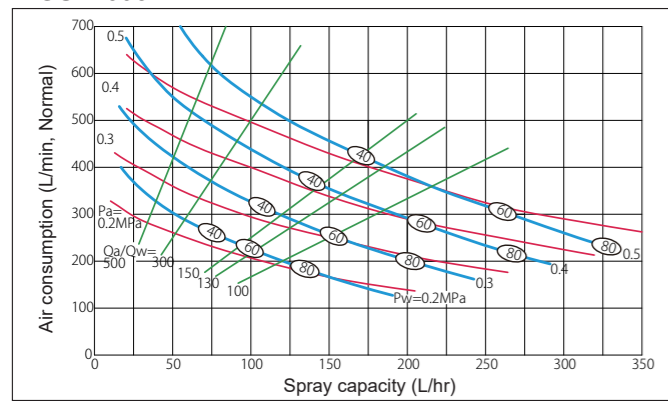
³⁾ Free passage diameter in () shows that of GSIM II with spray angle code of 20.

FLOW-RATE DIAGRAMS SPRAY ANGLE 60° TYPE

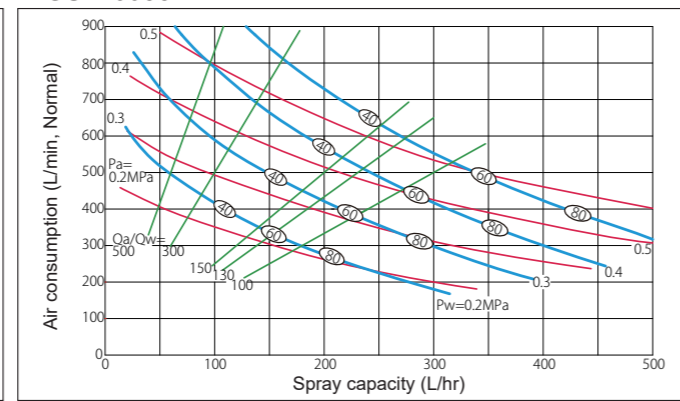
How to read the chart

- The spray capacity shown is for one nozzle.
- 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 .
- Numbers in ovals \bigcirc indicate Sauter mean diameters (μm) measured by laser Doppler method.

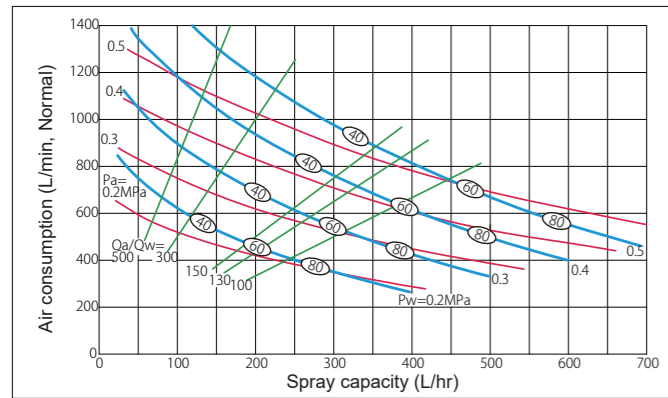
■ GSIM6037II



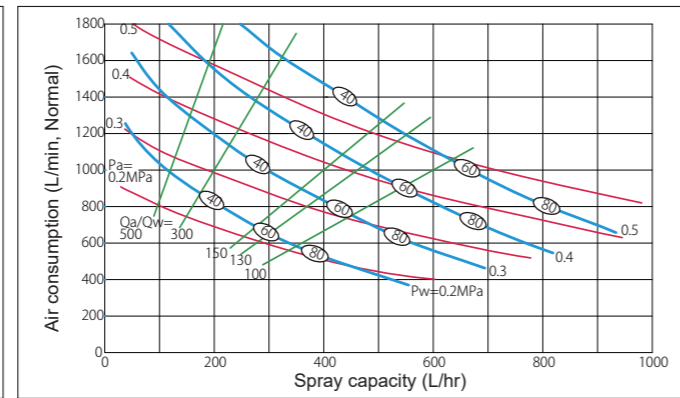
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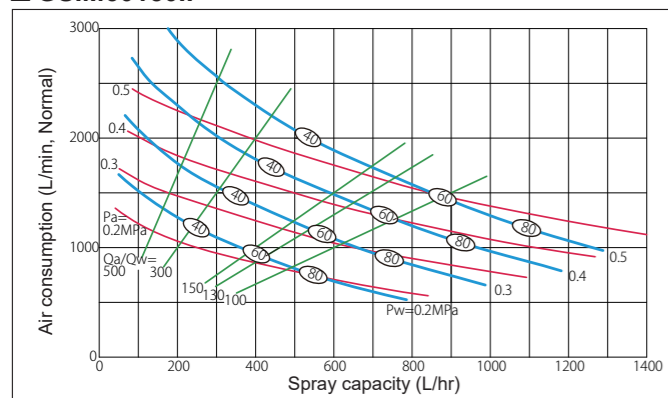
■ GSIM6075II



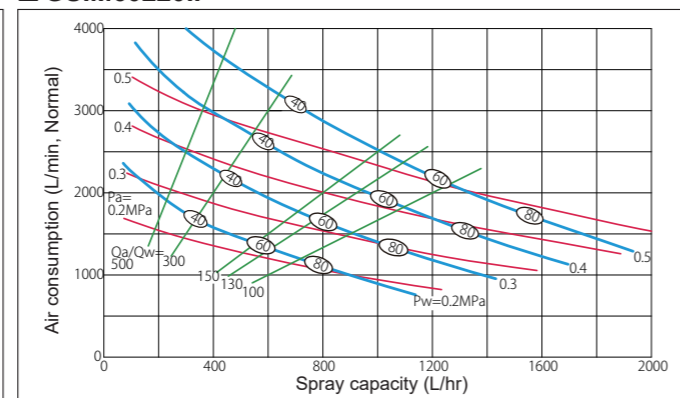
■ GSIM60110II



■ GSIM60150II

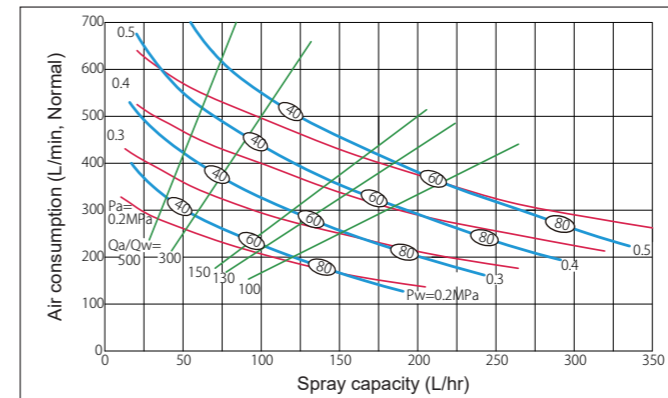


■ GSIM60220II

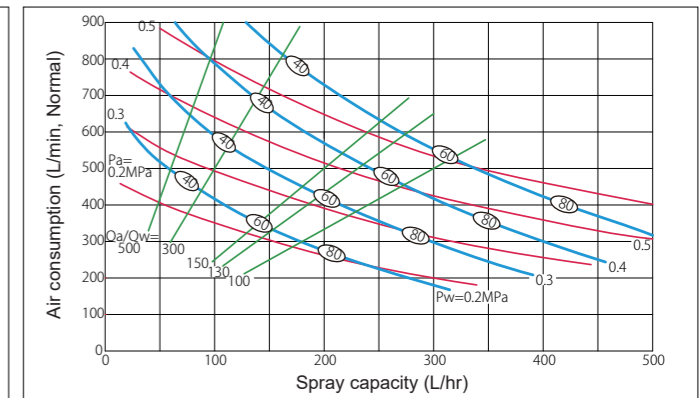


FLOW-RATE DIAGRAMS SPRAY ANGLE 20° TYPE

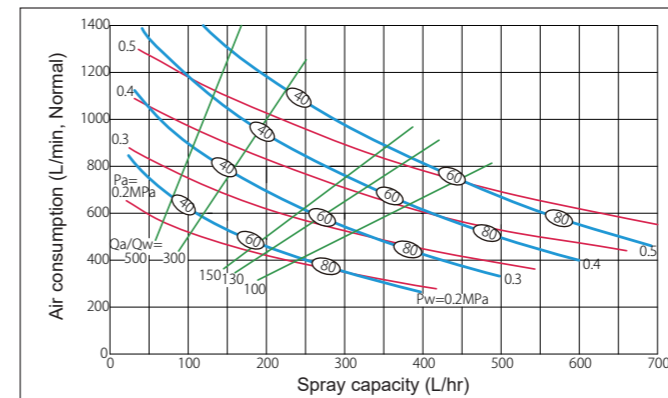
■ GSIM2037II



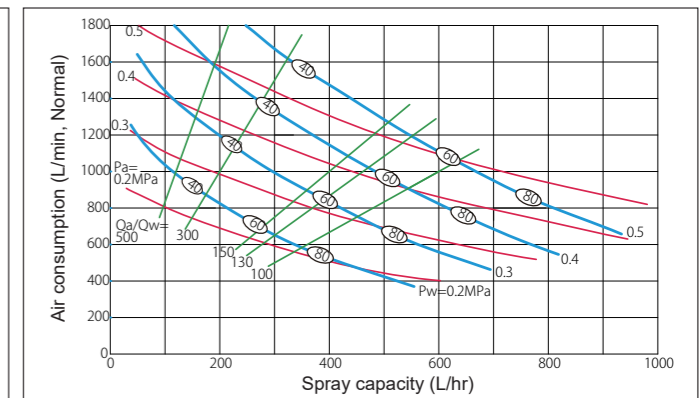
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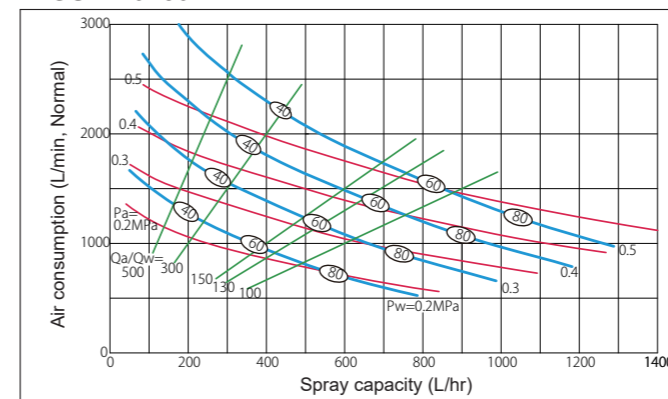
■ GSIM2075II



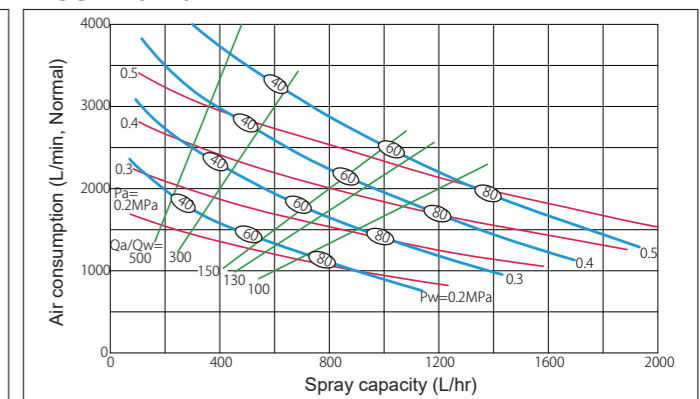
■ GSIM20110II



■ GSIM20150II



■ GSIM20220II



Piping Example

The spray is turned ON/OFF by turning the compressed air ON/OFF.
Compressed air pressure over 0.2 MPa starts the spray.

Operation Time Chart

Compressed air	OFF	ON	OFF	ON	OFF
Liquid	Stop	Spray	Stop	Spray	Stop

