- SPRAY NOZZLE
- AUTO SPRAY GUN
- SPRAY SYSTEM & ENGINEERING
- PAINTING SYSTEM

SEJIN NOZZLE CO.,LTD

www.sejinnozzle.co.kr

■ HEAD OFFICE & FACTORY

360-70, Anhyeon-dong, Siheung-si, Gyeonggi, Korea

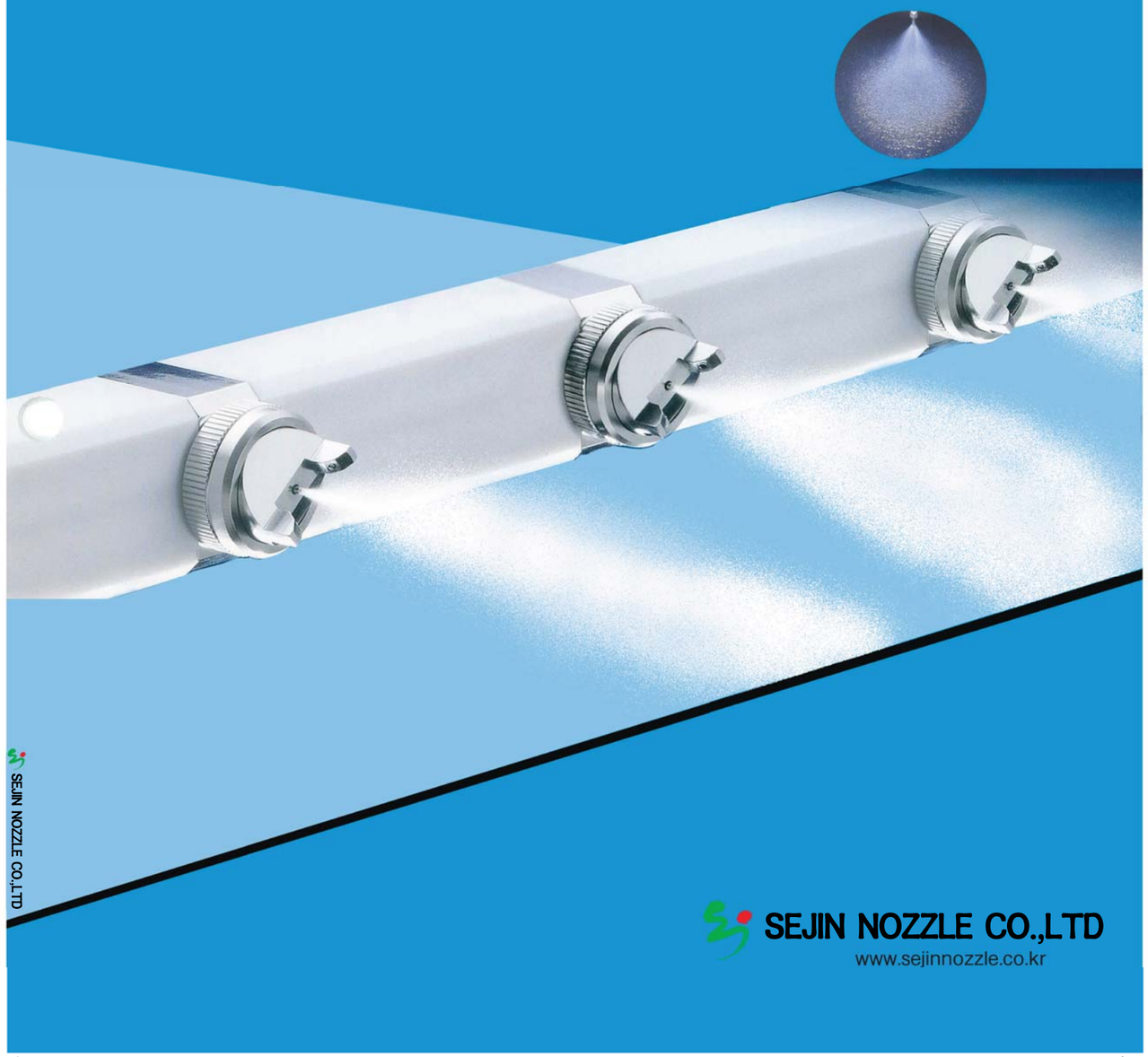
TEL : 82-31-404-9013 , 82-2-895-0160

FAX : 82-31-404-9015

E-mail : sejin@sejinnozzle.co.kr

SPRAY NOZZLE

SPRAY NOZZLE



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With over 20 years of design and manufacturing experience,
SEJIN NOZZLE is a leader in spray nozzle . Our sales specialists,
engineers, and technical support staff are capable and willing
to help solve the toughest of application problems in industries
ranging from cleaning, rinsing, and washing to food and beverage
from chemical processes to dust control, and many more.
SEJIN NOZZLE is known not just for our exceptional quality
but also for our industry-leading delivery and customer service.

Month / Day

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영업안내

- SPRAY NOZZLE
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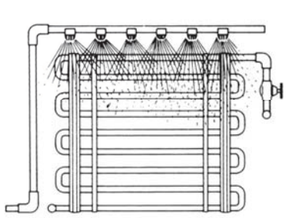
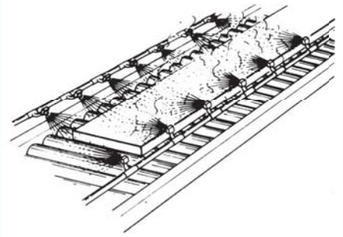
Common use spray nozzle

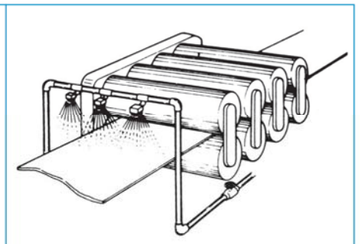
COOLING



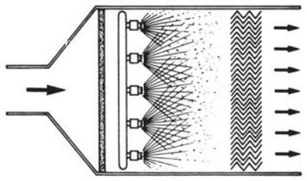
1. HEAT-EXCHANGERS



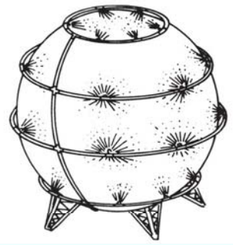
2. COOLING STEEL SHEET DESCALING, etc



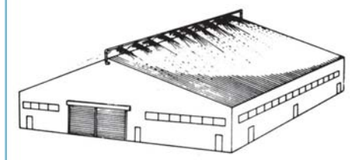
3. COOLING REDUCTION ROLL



4. AIR CONDITIONER

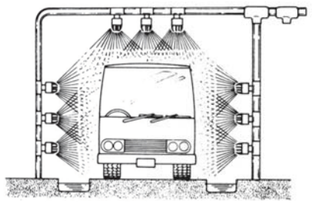


5. COOLING OUTSIDE IF TANK

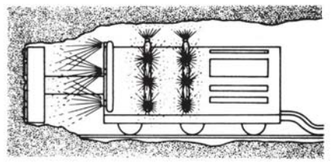


6. COOLING ROOFS

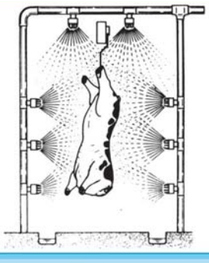
WASHING & CLEANING



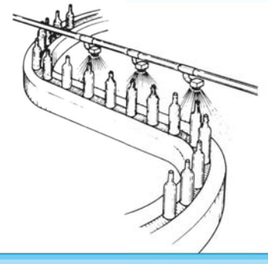
7. CAR WASHING



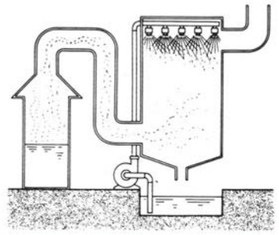
8. DUST REMOVAL in tunnel, mine



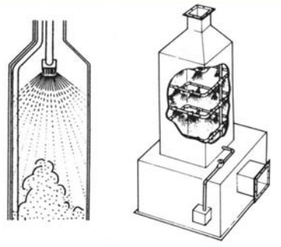
9. WASHING MEAT



10. WASHING BOTTELS



11. CLEANING WASTE GASES



12. CLEANING TOWER

Nozzle Selection Guide

How to choose the best type of Sejin nozzle

1 Where, How?

ex
- Think of the product you wish to use
- Washing, High impact nozzle, coating, uniform distribution
- Automatic or Manual?

2 Spray Pattern?

ex
- Flat fan, Round, Hollow, Solid stream, Fog

3 Using Liquid and Characteristics?

ex
- Water or High viscosity

4 Pressure, Flow Rate?

ex
- Think the pressure loss and refer to each part of the chart

5 Spray Angle?

ex
- Think of the size of the product. (refer to chart)

6 Material, Specification?

ex
- Operating temperature, Corrosiveness, Female, Male, PT, NPT pipe

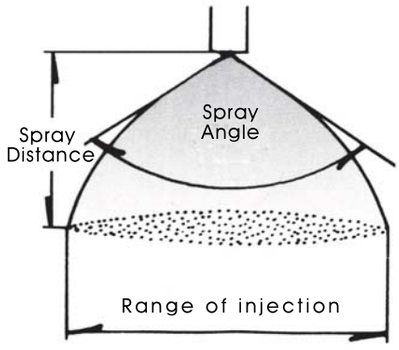
7 Quantity of nozzles

ex
- Depending on the width of the selected line or object

8 Inquiry

- Please feel free to contact us

Spray angle and coverage



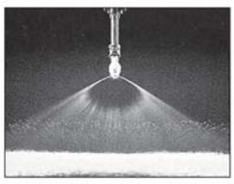
Spray Angle	Spray distance Spray angle Theoretical spray width											
	5cm	10cm	15cm	20cm	25cm	30cm	40cm	50cm	60cm	70cm	80cm	100cm
5°	0.4	0.9	1.3	1.8	2.2	2.6	3.5	4.4	5.2	6.1	7.0	8.7
10°	0.9	1.8	2.6	3.5	4.4	5.3	7.0	8.8	10.5	12.3	14.0	17.5
15°	1.3	2.6	4.0	5.3	6.6	7.9	10.5	13.2	15.8	18.4	21.1	26.3
20°	1.8	3.5	5.3	7.1	8.8	10.6	14.1	17.6	21.2	24.7	28.2	35.3
25°	2.2	4.4	6.7	8.9	11.1	13.3	17.7	22.2	26.6	31.0	35.5	44.3
30°	2.7	5.4	8.0	10.7	13.4	16.1	21.4	26.8	32.2	37.5	42.9	53.6
35°	3.2	6.3	9.5	12.6	15.8	18.9	25.2	31.5	37.8	44.1	50.5	63.1
40°	3.6	7.3	10.9	14.6	18.2	21.8	29.1	36.4	43.7	51.0	58.2	72.8
45°	4.1	8.3	12.4	16.6	20.7	24.9	33.1	41.4	49.7	58.0	66.3	82.8
50°	4.7	9.3	14.0	18.7	23.3	28.0	37.3	46.6	56.0	65.3	74.6	93.3
55°	5.2	10.4	15.6	20.0	26.0	31.2	41.7	52.1	62.5	72.9	83.3	104
60°	5.8	11.6	17.3	23.1	28.9	34.6	46.2	57.7	69.3	80.8	92.4	115
65°	6.4	12.7	19.1	25.5	31.9	38.2	51.0	63.7	76.5	89.2	102	127
70°	7.0	14.0	21.0	28.0	35.0	42.0	56.0	70.0	84.0	98.0	112	140
75°	7.7	16.4	23.0	30.7	38.4	46.0	61.4	76.7	92.1	107	123	153
80°	8.4	16.8	25.2	33.6	42.0	50.4	67.1	83.9	101	118	134	168
85°	9.2	18.3	27.5	36.7	45.8	55.0	73.3	91.6	110	128	147	183
90°	10.0	20.0	30.0	40.0	50.0	60.0	80.0	100	120	140	160	200
95°	10.9	21.8	32.7	43.7	54.6	65.5	87.3	109	131	153	175	218
100°	11.9	23.8	35.8	47.7	59.6	71.5	95.3	119	143	167	191	238
110°	14.3	28.6	42.9	57.1	71.4	85.7	114	143	171	200	229	286
120°	17.3	34.6	52.0	69.3	86.6	104	139	173	208	243	–	–
130°	21.5	42.9	64.3	85.8	107	129	172	215	257	–	–	–
140°	27.5	55.0	82.4	110	137	165	220	275	–	–	–	–
150°	37.3	74.6	112	149	187	224	299	–	–	–	–	–
160°	56.7	113	170	227	284	–	–	–	–	–	–	–
170°	114	229	–	–	–	–	–	–	–	–	–	–

C·O·N·T·E·N·T·S

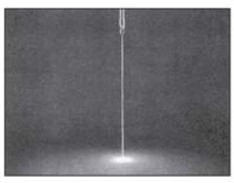
Spray patter and shape of Spray nozzle





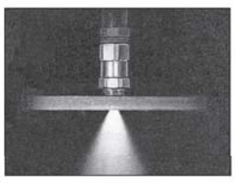


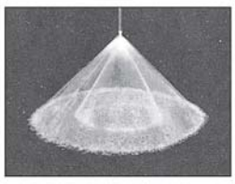




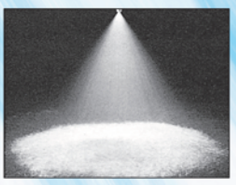




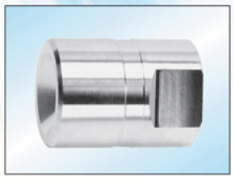




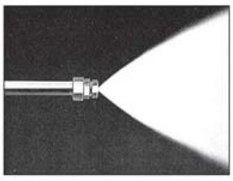

-SEJIN NOZZLE-
















-SEJIN NOZZLE-

AIR NOZZLE

Low noise Air Nozzles

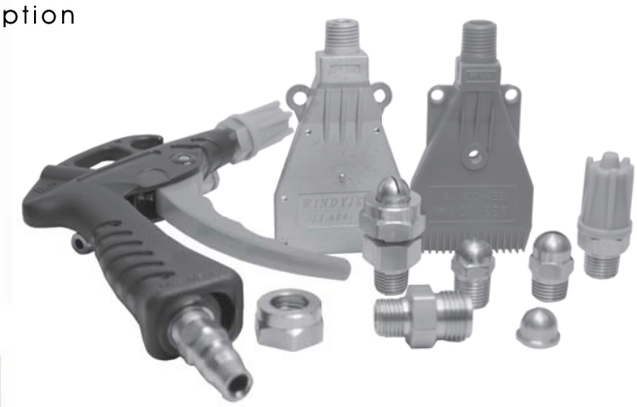
Features : Noiseless and Little air consumption

Material : ABS, Aluminum, SS-304

Temperature resistance : -30℃ ~ +80℃

Maximum pressure : 7Bar

Typical Applications : Air dryer for parts, Burr removal, Air curtain, control of part moving…

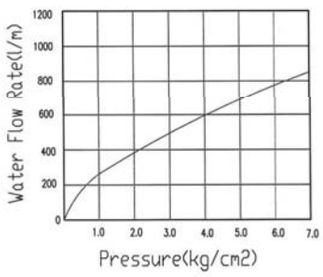


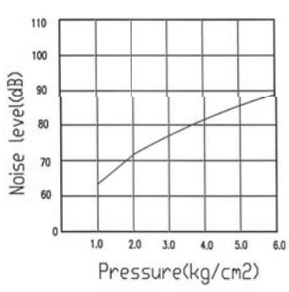
	Air consumption Vnair (㎥/h)				
	1bar	2bar	3bar	4bar	5bar
SJ-600	9	15	21	27	34
SJ-406	4	6	9	11	14

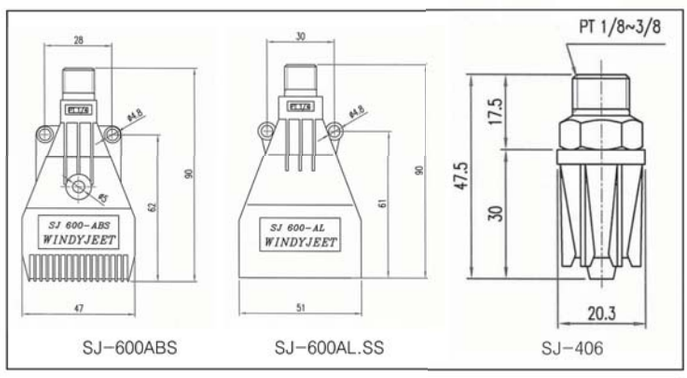
Air Curtain, Dryer (SJ-600)

Control for Part moving

Air Gun Set Set(SJ-406)







-SEJIN NOZZLE-

AIR NOZZLE

For Air / Steam

Features : Flat spray of Air or Steam

Construction : One piece nozzle or 3 piece assembled nozzle

Materials : Brass, 303, 304, 316 Stainless Steel. For steam application, Stainless Steel material is required

Applications : Drying, Air curtain, Humidification...

Dimensions & Weights

Nozzle Number	Length Max (mm)	Weight Max (kg)
1/4T	25	0.06
1/4TT	44	0.05
3/8T	32	0.07
3/8TT	44	0.05

One piece(Type TR)
female & male thread

Nozzle Number		Connection NPT or PT	Width of slot (㎜)	Air Flow ℓ/min(Temp.15° C)				Steam Flow(kg/h)				Coverage from nozzle 150㎜	
One piece Type	Separate Type			1 kg/cm²	2 kg/cm²	4 kg/cm²	7 kg/cm²	1 kg/cm²	2 kg/cm²	4 kg/cm²	7 kg/cm²	1 kg/cm²	4 kg/cm²
¼TL ⅜TL	¼TTL ⅜TTL	1/4" 3/8"	0.20	21	38	65	102	0.75	1.4	2.3	3.7	275	419
¼TP ⅜TP	¼TTP ⅜TTP	1/4" 3/8"	0.33	41	60	99	153	1.5	2.1	3.6	5.5	152	254
¼TQ ⅜TQ	¼TTQ ⅜TTQ	1/4" 3/8"	0.58	77	111	190	305	2.8	4.0	6.8	11.5	228	330
¼TR ⅜TR	¼TTR ⅜TTR	1/4" 3/8"	1.1	132	198	345	540	4.7	7.1	12.3	19.5	158	241
¼TU ⅜TU	¼TTU ⅜TTU	1/4" 3/8"	1.3	210	335	570	880	7.6	12.0	20.3	32	275	368
¼TV ⅜TV	¼TTV ⅜TTV	1/4" 3/8"	2.3	430	700	1150	1725	15.3	25	42	63	238	343

Separate (Type TTR)
female & male thread

주문방법 : 조합체의 경우
(예) 스테인레스로 숫나사의 경우 B¼TT-SS+R-SS

주문방법 : 단일체의 경우
B 1/4TR-SS

FK Type

Features : Flat spray

Construction: One piece body without vane

Materials: Brass, 303 Stainless steel

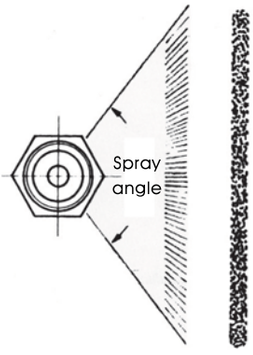
Applications : Drying, Air curtain, Humidification...

Dimensions

Nozzle Number	Length Max (mm)	Hex. (mm)
1/8FK	24	11
1/4FK	30~35	14
3/8FK	44	17

FK Type

Nozzle Number	Connection NPT or PT	Orifice Dia.(mm)	Air Flow ℓ/min(Temp.15° C)					Steam Flow(kg/h)					Coverage from nozzle 150㎜	
			0.7 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	3.5 kg/cm²	0.7 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	3.5 kg/cm²	0.7 kg/cm²	3.5 kg/cm²
⅛FK50	⅛"	0.6	4.5	6.4	7.6	10.5	11.6	0.16	0.23	0.27	0.37	0.41	51	127
⅛FK75	⅛"	0.7	6.2	9.1	10.8	14.7	16.7	0.23	0.33	0.39	0.53	06.0	64	140
⅛FK1	⅛"	0.8	9.6	13.7	16.4	22	25	0.34	0.49	0.59	0.80	0.90	76	152
⅛FK1.5	⅛"	1.0	15.3	22	26	36	40	0.54	0.78	0.94	1.3	1.5	89	165
⅛FK2	⅛"	1.2	19.3	28	33	45	51	0.68	1.0	1.2	1.6	1.8	102	190
⅛FK3	⅛"	1.4	31	47	56	77	85	1.1	1.7	2.0	2.7	3.0	127	203
⅛FK5	⅛"	1.9	54	76	91	124	139	1.9	2.7	3.3	4.5	5.0	152	267
⅛FK7.5	⅛"	2.3	79	117	140	189	210	2.9	4.2	5.0	6.8	7.6	152	267
⅛FK10	⅛"	2.6	110	159	190	255	290	3.9	5.7	6.8	9.2	10.4	178	279
⅛FK15	⅛"	3.3	181	260	310	420	475	6.5	9.3	11.2	15.0	17.1	178	305
⅛FK18	⅛"	3.6	205	300	355	485	540	7.4	10.7	12.7	17.4	19.5	203	330
¼FK20	¼"	3.8	225	325	385	520	590	8.0	11.6	13.8	18.8	21	216	368
⅜K30	⅜"	4.6	320	465	560	760	850	11.6	16.8	20	27	30	216	394
⅜K40	⅜"	5.3	440	640	760	1050	1160	15.7	23	27	37	42	216	406



FLAT NOZZLE

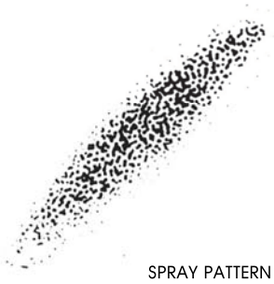
V TYPE

Features
- Flat spray pattern distributes the liquid as a flat- or sheet-type spray.
- Small- to medium-sized drops.
- Uniform distribution over a wide range of flow rates and pressures.
- Specially tapered spray pattern is ideal for use in manifold and header applications.

Materials
- 303, 304, 316 Stainless Steel,Brass, and other materials available upon request.

Pipe Size
- PT, NPT 1/8" ~2"

Applications
- Fire suppression/prevention, Air washing
- Cooling and quenching, Dust control
- Gas washing, Scrubbers



SPRAY PATTERN

Dimensions & Weights

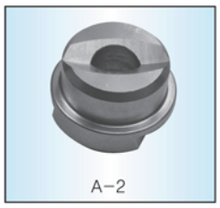
Type V			
Nozzle Number	Hex. Max (mm)	Length Max (mm)	Weight Max (kg)
⅛V	11	22	0.014
¼V	14	25	0.02
⅜V	17	32	0.04
½V	22	38	0.06
¾V	27	51	0.14

Type V			
Nozzle Number	Hex. Max (mm)	Length Max (mm)	Weight Max (kg)
1v	33	64	0.28
1¼V	43	95	0.57
2V	60	127	1.93

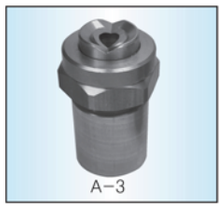
FLAT TYPE (One piece)

DOVETEL TYPE

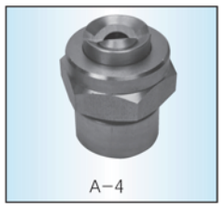
A-1



A-2



A-3

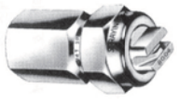


A-4

NOZZLE TIP ASSEMBLE EXAMPLES

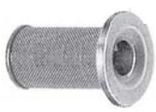
1/4TT-SS Male
1/4TT-BRASS Male

1/4T-SS Female
1/4T-BRASS Female



1/4T-SS Female

1/4TT-SS Male



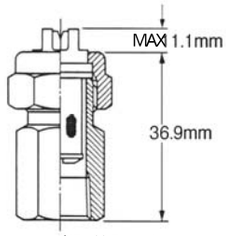
Filter 200mesh
100mesh
50mesh

CAP

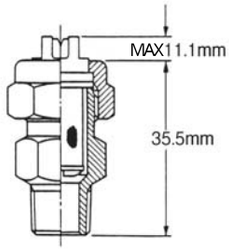
Deflector type

Flat type

Round type

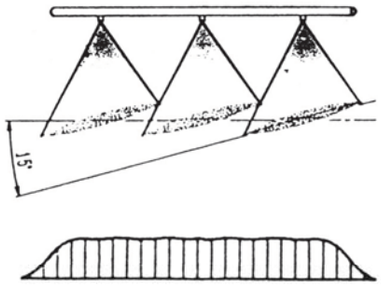


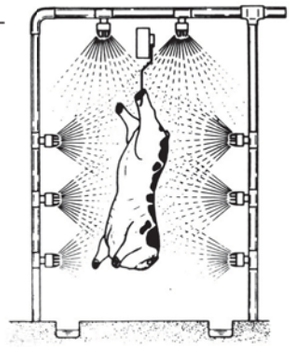
1/4T-SS Female
Weight 0.06kg



1/4TT-SS Male
Weight 0.06kg

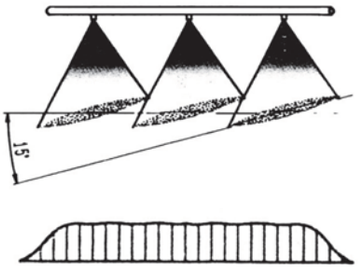
FLAT NOZZLE(I)

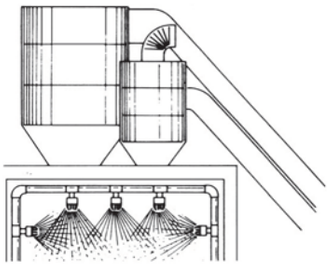


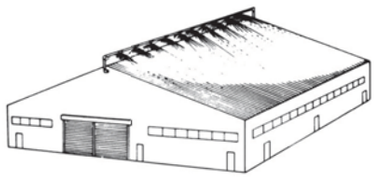


Angle	Nozzle Number	VEEJET Pipe Size V		VF		V								Orifice Dia. (mm)	Capacity ℓ/min 0.3 kg/cm²	1 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	10 kg/cm²	20 kg/cm²	35 kg/cm²	Spray Angle 1 kg/cm²	3 kg/cm²	6 kg/cm²	10 kg/cm²
		1/8	1/4	1/8	1/4	1/8	1/4	3/8	1/2	3/4	1	1 1/4	2																
110°	11001	●	●	●	●									0.66	0.12	0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.9	1.0	94°	110°	121°	124°
	110015	●	●	●	●									0.79	0.19	0.34	0.48	0.59	0.68	0.76	0.84	0.90	1.1	1.5	2.0	97°	110°	121°	124°
	11002	●	●	●	●									0.91	0.25	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	2.0	2.7	98°	110°	120°	123°
	11003	●	●	●	●									1.1	0.37	0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	99°	110°	120°	123°
	11004	●	●	●	●									1.3	0.50	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.1	100°	110°	119°	122°
	11005	●	●	●	●									1.4	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	100°	110°	118°	122°
	11006	●	●	●	●									1.6	0.75	1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	6.1	8.1	101°	110°	117°	122°
	11008	●	●	●	●									1.8	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.2	102°	110°	117°	121°
	11010	●	●											2.0	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	13.5	103°	110°	117°	119°
	11015	●	●											2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	104°	110°	117°	118°
	11020						●							2.8	2.5	4.5	6.5	7.8	9.0	10.1	11.1	11.9	14.3	20	27	105°	110°	117°	118°
	11030													3.6	3.7	6.8	9.6	11.7	13.5	15.1	16.6	17.9	21	31	40	105°	110°	117°	118°
95°	950050	●		●										0.46			0.16	0.20	0.23	0.25	0.28	0.30	0.36	0.51	0.67	81°	95°	105°	113°
	9501	●	●	●	●									0.66	0.12	0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3	81°	95°	105°	113°
	95015	●		●										0.79	0.19	0.34	0.48	0.59	0.68	0.76	0.84	0.90	1.1	1.5	2.0	82°	95°	105°	113°
	9502	●	●	●	●									0.91	0.25	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	2.0	2.7	82°	95°	105°	113°
	9503	●	●	●	●									1.1	0.37	0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	83°	95°	104°	111°
	9504	●	●	●	●									1.3	0.50	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.4	84°	95°	103°	108°
	9505	●	●	●	●									1.4	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	84°	95°	102°	107°
	9506	●	●	●	●									1.6	0.75	1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	6.1	8.1	86°	95°	101°	106°
	9508	●	●	●	●									1.8	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.8	87°	95°	100°	105°
	9510					●	●		●					2.0	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	13.5	89°	95°	100°	105°
	9515					●	●		●					2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	90°	95°	100°	105°
	9520					●	●							2.8	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	90°	95°	100°	105°
	9530					●	●		●					3.6	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40	91°	95°	101°	105°
	9540						●							4.0	5.0	9.1	12.9	15.8	18.2	20	22	24	29	41	54	92°	95°	100°	105°
	9550						●		●					4.4	6.2	11.4	16.1	19.7	23	25	28	30	36	51	68	93°	95°	99°	103°
	9560						●		●					4.8	7.5	13.7	19.3	24	27	31	33	36	43	61	81	93°	95°	99°	103°
	9570						●	●	●					5.2	8.7	16.0	23	28	32	36	39	42	50	71	94	93°	95°	99°	103°
	95100								●					6.4	12.5	23	32	39	46	51	56	60	72	102	135	93°	95°	99°	102°
	95150								●					7.5	18.7	34	48	59	68	76	84	90	108	153	205	93°	95°	99°	102°
80°	800050	●	●	●	●									0.46		0.11	0.16	0.20	0.23	0.25	0.28	0.30	0.36	0.51	0.67	61°	80°	95°	101°
	800067	●	●	●	●									0.53		0.15	0.21	0.26	0.31	0.34	0.37	0.40	0.48	0.68	0.90	67°	80°	94°	99°
	8001	●	●	●	●									0.66		0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3	68°	80°	89°	92°
	80015	●	●	●	●									0.79		0.34	0.48	0.59	0.68	0.76	0.84	0.90	1.1	1.5	2.0	68°	80°	89°	92°
	8002	●	●	●	●									0.91	0.25	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	2.0	2.7	69°	80°	88°	91°
	8003	●	●	●	●									1.1	0.37	0.68	0.96	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	70°	80°	87°	90°
	8004	●	●	●	●									1.3	0.50	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.4	71°	80°	86°	89°
	8005	●	●	●	●									1.4	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	71°	80°	86°	89°
	8006	●	●	●	●									1.6	0.75	1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	6.1	8.1	72°	80°	85°	88°
	8008	●	●	●	●									1.8	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.8	72°	80°	84°	87°
	8010					●	●	●	●					2.0	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	13.5	73°	80°	84°	87°
	8015					●	●	●	●					2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	74°	80°	83°	86°
	8020					●	●	●	●					2.8	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	74°	80°	83°	86°
	8030					●	●	●	●					3.6	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40	74°	80°	83°	86°
	8040					●	●	●	●					4.0	5.0	9.1	12.9	15.8	18.2	20	22	24	29	41	54	74°	80°	83°	86°
	8050						●	●	●					4.4	6.2	11.4	16.1	19.7	23	25	28	30	36	51	68	74°	80°	83°	85°
	8060						●	●	●					4.8	7.5	13.7	19.3	24	27	31	33	36	43	61	81	75°	80°	83°	85°
	8070						●	●	●					5.2	8.7	16.0	22	28	32	36	39	42	50	71	94	75°	80°	83°	86°
	80100							●	●					6.4	12.5	23	32	39	46	51	56	60	72	102	135	75°	80°	83°	86°
	80150							●	●					7.5	18.7	34	48	59	68	76	84	90	108	153	205	73°	80°	84°	86°
	80200								●	●				8.7	25	46	64	79	91	102	112	121	144	205	270	74°	80°	82°	85°
	80400									●				12.7	50	91	129	158	182	205	225	240	290	410	540	78°	80°	81°	83°
73°	730023	●	●	●	●									0.30		0.05	0.07	0.09	0.10	0.12	0.13	0.14	0.16			50°	73°	89°	97°
	730039	●	●	●	●									0.41		0.09	0.12	0.15	0.18	0.20	0.22	0.23	0.28			53°	73°	87°	93°
	730077		●		●									0.56		0.17	0.25	0.30	0.35	0.39	0.43	0.46	0.55	0.78	1.0	53°	73°	86°	92°
	730116	●	●	●	●									0.71		0.26	0.37	0.45	0.52	0.59	0.64	0.69	0.83	1.6	2.1	54°	73°	85°	90°
	730154		●		●									0.81		0.35	0.49	0.60	0.70	0.78	0.85	0.92	1.1	2.4	3.1	55°	73°	84°	88°
	730231	●		●	●									1.0		0.52	0.74	0.90	1.0	1.2	1.3	1.4	1.7	3.1	4.2	56°	73°	83°	87°
	730308													1.1		0.70	0.98	1.2	1.4	1.6	1.7	1.8	2.2	4.7	6.2	58°	73°	82°	86°
	730385													1.3		0.87	1.2	1.5	1.7	1.9	2.1	2.3	2.8	7.8	10.4	59°	73°	81°	85°
	730462													1.4		1.0	1.5	1.8	2.1	2.3	2.6	2.8	3.3			60°	73°	80°	84°
	730616													1.7		1.4	2.0	2.4	2.8	3.1	3.4	3.7	4.4			63°	73°	79°	83°
	7360770													1.8		1.7	2.5	3.0	3.5	3.9	4.3	4.6	5.5			64°	73°	77°	82°
	730924													2.0		2.1	2.9	3.6	4.2	4.7	5.1	5.5	6.6			65°	73°	77°	80°

FLAT NOZZLE(II)

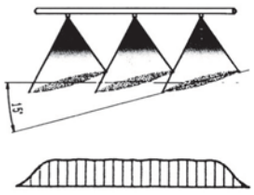


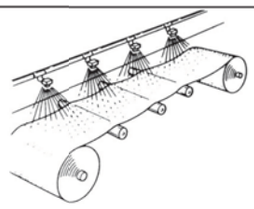




Angle	Nozzle Number	VEEJET Pipe Size V		VF		V								Orifice Dia. (mm)	Capacity ℓ/min 0.3 kg/cm²	1 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	10 kg/cm²	20 kg/cm²	35 kg/cm²	Spray Angle 1 kg/cm²	3 kg/cm²	6 kg/cm²	10 kg/cm²
		V ⅛	V ¼	VF ⅛	VF ¼	V ⅛	V ¼	V ⅜	V ½	V ¾	V 1	V 1¼	V 2																
65°	650017	●	●	●	●									0.28			0.05	0.07	0.08	0.086	0.09	0.10	0.12			44°	65°	77°	86°
	650025	●	●	●	●									0.33			0.08	0.10	0.11	0.13	0.14	0.15	0.18			45°	65°	77°	84°
	650033	●	●	●	●									0.38		0.07	0.11	0.13	0.15	0.17	0.18	0.20	0.24			47°	65°	76°	83°
	650050	●	●	●	●									0.46		0.11	0.16	0.20	0.23	0.25	0.28	0.30	0.36			48°	65°	75°	82°
	650067					●	●	●						0.53		0.15	0.21	0.26	0.30	0.34	0.37	0.40	0.48			50°	65°	75°	81°
	6501					●	●	●	●					0.66		0.23	0.32	0.39	0.45	0.50	0.55	0.60	0.71			51°	65°	74°	80°
	65015					●	●		●					0.79		0.34	0.48	0.59	0.68	0.76	0.83	0.90	1.1			51°	65°	74°	80°
	6502					●	●							0.91		0.45	0.64	0.78	0.90	1.0	1.1	1.2	1.4			52°	65°	73°	79°
	6503					●	●	●						1.1		0.68	0.96	1.2	1.4	1.5	1.7	1.8	2.1			53°	65°	72°	78°
	6504					●	●	●	●					1.3	0.50	0.90	1.3	1.6	1.6	2.0	2.2	2.4	2.9	4.1	5.4	53°	65°	72°	76°
	6505						●	●	●					1.4	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	53°	65°	72°	76°
	6506						●	●	●					1.6	0.75	1.4	1.9	2.3	2.7	3.0	3.3	3.6	4.3	6.1	8.1	54°	65°	72°	75°
	6508							●	●					1.8	1.0	1.8	2.6	3.1	3.6	4.0	4.4	4.8	5.7	8.2	10.8	55°	65°	71°	74°
	6510								●					2.0	1.2	2.3	3.2	3.9	4.5	5.0	5.5	6.0	7.1	10.2	13.5	56°	65°	71°	74°
	6515								●	●				2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.3	9.0	10.7	15.3	20	56°	65°	70°	73°
	6520													2.8	2.5	4.5	6.4	7.8	9.0	10.1	11.1	11.9	14.3	20	27	57°	65°	70°	73°
	6530													3.6	3.7	6.8	9.6	11.7	13.5	15.1	16.6	17.9	21	31	40	58°	65°	69°	72°
	6540													4.0	5.0	9.0	12.8	15.6	18.1	20	22	24	29	41	54	59°	65°	68°	72°
	6550													4.4	6.2	11.3	16.0	19.5	23	25	28	30	36	51	68	60°	65°	68°	71°
	6560													4.8	7.5	13.5	19.2	23	27	30	33	36	43	61	81	60°	65°	68°	71°
	6570													5.2	8.7	15.8	22	27	32	35	39	42	50	71	94	60°	65°	68°	71°
	65100													6.4	12.5	23	32	39	46	51	56	60	72	102	135	58°	65°	69°	70
	65150													7.5	18.7	34	48	59	68	76	84	90	108	153	205	59°	65°	68°	77°
	65200													8.7	25	46	64	79	91	102	112	131	144	205	270	60°	65°	67°	69°
50°	500017													0.23			0.05	0.07	0.08	0.086	0.09	0.10	0.12			50°	65°	74°	
	500025													0.33			0.08	0.10	0.11	0.13	0.14	0.15	0.18			29°	50°	64°	71°
	500033													0.38			0.11	0.13	0.15	0.17	0.18	0.20	0.24			30°	50°	62°	68°
	500050													0.46		0.11	0.16	0.20	0.23	0.25	0.28	0.30	0.36			32°	50°	60°	66°
	500067													0.53		0.15	0.21	0.26	0.30	0.34	0.37	0.40	0.48			35°	50°	60°	66°
	5001	●	●	●	●									0.66		0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3	37°	50°	59°	65°
	5002	●	●	●	●									0.91		0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	2.0	2.7	39°	50°	57°	63°
	5003	●	●	●	●									1.1	0.37	0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	40°	50°	56°	62°
	5004	●	●	●	●									1.3	0.50	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.4	42°	50°	56°	61°
	5005	●	●	●	●									1.4	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	44°	50°	56°	61°
	5006	●	●	●	●									1.6	0.75	1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	6.1	8.1	45°	50°	56°	60°
	5008	●	●	●	●									1.8	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.8	45°	50°	55°	60°
	5010					●	●	●						2.0	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	13.5	45°	50°	55°	59°
	5015					●	●	●	●					2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	45°	50°	55°	59°
	5020					●	●	●	●					2.8	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	45°	50°	55°	59°
	5030					●	●	●	●					3.6	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40	45°	50°	55°	59°
	5040					●	●	●						4.0	5.0	9.1	12.9	15.8	18.2	20	22	24	29	41	54	46°	50°	54°	59°
	5050					●	●	●						4.4	6.2	11.4	16.1	19.7	23	25	28	30	36	51	68	46°	50°	54°	59°
	5060						●	●						4.8	7.5	13.7	19.3	24	27	31	33	36	43	61	81	46°	50°	54°	59°
	5070						●	●	●					5.2	8.7	16.0	23	28	32	36	39	42	50	71	94	46°	50°	54°	59°
	50100							●	●					6.4	12.5	23	32	39	46	51	56	60	72	102	135	44°	50°	52°	54°
	50120							●	●					6.7	15.0	27	39	47	55	61	67	72	86	122	162	44°	50°	53°	55°
	50150							●	●					7.5	18.7	34	48	59	68	76	84	90	108	153	205	45°	50°	52°	55°
	50200								●					8.7	25	46	64	79	91	102	112	121	144	205	270	46°	50°	52°	55°
	50400									●				12.7	50	91	129	158	182	205	225	240	290	410	540	46°	50°	52°	55°
	50500										●	●		13.1	62	114	161	197	230	255	280	300	360	510	680	49°	50°	51°	54°
	50580										●	●		13.9	72	132	187	230	265	295	325	350	420	600	780	49°	50°	51°	53°
	50750											●		15.9	9.4	171	240	295	340	385	420	455	540	770	1010	49°	50°	51°	53°
	501000													18.3	125	230	325	395	455	510	560	610	720	1020	1350	49°	50°	51°	53°
	5015000												●	22.6	187	340	485	600	690	770	840	910	1080	1530	2020	49°	50°	51°	52°
	502000												●	26.2	250	460	650	790	910	1020	1120	1210	1440	2040	2700	49°	50°	51°	52°
40°	400017													0.28			0.05	0.07	0.08	0.086	0.09	0.10	0.12			21°	40°	54°	61°
	400025													0.33			0.08	0.10	0.11	0.13	0.14	0.15	0.18			22°	40°	53°	60°
	400033													0.38			0.11	0.13	0.15	0.17	0.18	0.20	0.24			22°	40°	53°	60°
	400050													0.46			0.16	0.20	0.23	0.25	0.28	0.30	0.36			22°	40°	53°	60°
	400067													0.53		0.15	0.21	0.26	0.30	0.34	0.37	0.40	0.48			22°	40°	53°	60°
	4001													0.66		0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3	26°	40°	52°	59°
	40015	●	●	●	●									0.79		0.34	0.48	0.59	0.68	0.76	0.84	0.90	1.1	1.5	2.0	27°	40°	52°	59°
	4002	●	●	●	●									0.91		0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	2.0	2.7	29°	40°	51°	58°
	4003	●	●	●	●									1.1		0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	30°	40°	50°	57°
	4004	●	●	●	●									1.3		0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.4	30°	40°	50°	56°
	4005	●	●	●	●									1.4		1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	31°	40°	49°	55°
	4006	●	●	●	●									1.6		1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	6.1	8.1	31°	40°	49°	55°
	4008	●	●	●	●									1.8	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.8	31°	40°	47°	53°
	4010													2.0	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	13.5	32°	40°	45°	48°
	4015													2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	32°	40°	45°	48°
	4020													2.8	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	32°	40°	45°	48°
	4030													3.6	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40	33°	40°	45°	48°
	4040													4.0	5.0	9.1	12.9	15.8	18.2	20	22	24	29	41	54	34°	40°	45°	48°
	4050													4.4	6.2	11.4	16.1	19.7	23	25	28	30	36	51	68	35°	40°	45°	48°
	4060													4.8	7.5	13.7	19.3	24	27	31	33	36	43	61	81	35°	40°	45°	48°
	4070													5.2	8.7	16.0	23	28	32	36	39	42	50	71	94	35°	40°	45°	48°
	40100													6.4	12.5	23	32	39	46	51	56	60	72	102	135	34°	40°	43°	46°
	40150													7.5	18.7	34	48	59	68	76	84	90	108	153	205	35°	40°	43°	44°
	40200													8.7	25	46	64	79	91	102	112	121	144	205	270	36°	40°	42°	44°

VEEJET NOZZLE(III)





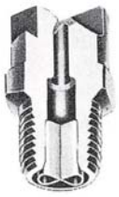
Angle	Nozzle Number	VEEJET Pipe Size												Orifice Dia. (mm)	Capacity ℓ/min											Spray Angle			
		V		VF		V									0.3 kg/cm²	1 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	10 kg/cm²	20 kg/cm²	35 kg/cm²	1 kg/cm²	3 kg/cm²	6 kg/cm²	10 kg/cm²
		1/8	1/4	1/8	1/4	1/8	1/4	3/8	1/2	3/4	1	1 1/4	2																
25°	2501	●	●	●	●									0.66			0.32	0.39	0.46	0.51	0.56	0.60	0.71			14°	25°	34°	42°
	25015	●	●	●	●									0.79		0.34	0.48	0.59	0.68	0.76	0.83	0.90	1.1			15°	25°	34°	41°
	2502	●	●	●	●									0.91		0.45	0.64	0.78	0.90	1.0	1.1	1.2	1.4	2.0	2.7	15°	25°	33°	40°
	2503	●	●	●	●									1.1		0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	15°	25°	33°	40°
	2504	●	●	●	●									1.3		0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.4	16°	25°	32°	39°
	2505	●	●	●	●									1.4		1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	16°	25°	32°	39°
	2506	●	●	●	●									1.6		1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	6.1	8.1	17°	25°	31°	38°
	2508					●	●							1.8		1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.8	17°	25°	31°	38°
	2510					●	●	●						2.0		2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	13.5	18°	25°	31°	37°
	2515					●	●	●						2.4		3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	18°	25°	31°	37°
	2520					●	●	●						2.8		2.5	4.6	6.5	7.9	9.1	10.2	11.2	14.4	20	27	19°	25°	31°	37°
	2530						●	●						3.6	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40	20°	25°	30°	36°
	2540						●	●						4.1	5.0	9.1	12.9	15.8	18.2	20	22	24	29	41	54	21°	25°	29°	35°
	2550						●	●						4.4	6.2	11.4	16.1	19.7	23	25	28	30	36	51	68	21°	25°	29°	35°
	2560						●	●						4.8	7.5	13.7	19.3	24	27	31	33	36	43	61	81	22°	25°	29°	35°
	2570							●	●					5.2	8.7	16.0	23	28	32	36	39	42	50	71	94	22°	25°	29°	35°
	25100							●	●					6.4	12.5	23	32	39	46	51	56	60	72	102	135	23°	25°	28°	32°
	25150								●					7.5	18.7	34	48	59	68	76	84	90	108	153	205	24°	25°	28°	30°
	25200								●			●		8.7	25	46	64	79	91	101	112	121	144	205	270	24	25°	26°	29°
	25500											●		13.1	62	114	161	197	230	255	280	300	360	510	680	24°	25°	26°	29°
	25500											●		13.1	62	114	161	197	230	255	280	300	360	510	680	24°	25°	26°	29°
	25750											●		15.9	94	171	240	295	340	385	420	455	540	770	1010	24°	25°	26°	28°
	251000													18.7	125	230	325	395	455	510	560	610	720	1020	1350	24°	25°	26°	28°
15°	1501	●	●	●	●									0.66			0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3		15°	24°	28°
	1502	●		●										0.91			0.64	0.79	0.91	1.0	1.1	1.2	1.4	2.0	2.7	6°	15°	22°	27°
	1503	●	●	●	●									1.1			0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	6°	15°	22°	27°
	1504	●	●	●	●									1.3			1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.4	7°	15°	21°	26°
	1505	●	●	●	●									1.4			1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	7°	15°	21°	26°
	1506	●	●	●	●									1.6		1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	6.1	8.1	8°	15°	21°	26°
	1508	●	●	●	●									1.8		1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.8	9°	15°	20°	25°
	1510					●	●							2.0		2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	13.5	10°	15°	19°	24°
	1515					●	●	●						2.4		3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	10°	15°	19°	24°
	1520					●	●	●						2.8		4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	10°	15°	19°	23°
	1530					●	●	●						3.6		6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40	10°	15°	19°	21°
	1540					●	●	●						4.0		9.1	12.9	15.8	18.2	20	22	24	29	41	54	10°	15°	18°	21°
	1550						●	●	●					4.4		11.4	16.1	19.7	23	25	28	30	36	51	68	11°	15°	18°	21°
	1560						●	●	●					4.8		13.7	18.3	24	27	31	33	36	43	61	81	11°	15°	18°	21°
	1570							●	●					5.2		16.0	23	28	32	36	39	42	50	71	94	11°	15°	18°	21°
	15100							●	●					6.4	12.5	23	32	39	46	51	56	60	72	102	135	13°	15°	17°	18°
	15120						●							6.7	15.0	27	39	47	55	61	67	72	86	122	162	13°	15°	17°	18°
	15150								●					7.5	18.7	34	48	59	68	76	84	90	108	153	205	14°	15°	17°	18°
	15200								●					8.7	25	46	64	79	91	102	112	121	144	205	270	14°	15°	17°	18°
	15250									●				9.5	31	57	81	99	114	127	140	151	180	255	340	14°	15°	16°	17°
	15500											●		13.1	62	114	161	197	230	255	280	300	360	510	680	14°	15°	16°	17°
	151000											●		18.7	125	230	325	395	455	510	560	610	720	1020	1350	14°	15°	16°	17°
0°	000009													0.20		0.02	0.03	0.035	0.04	0.045	0.05	0.054	0.06			0°			
	000012													0.25		0.03	0.04	0.05	0.054	0.06	0.066	0.07	0.09						
	000019													0.30		0.04	0.06	0.07	0.09	0.10	0.105	0.11	0.14						
	000021													0.34		0.05	0.07	0.08	0.10	0.11	0.12	0.13	0.15						
	000050													0.51		0.11	0.16	0.20	0.23	0.25	0.28	0.30	0.36						
	000067													0.58		0.15	0.21	0.26	0.30	0.34	0.37	0.40	0.48						
	0001													0.71		0.23	0.32	0.39	0.45	0.50	0.355	0.60	0.71						
	00015													0.84		0.34	0.48	0.59	0.368	0.76	0.83	0.90	1.1						
	0002													0.99		0.45	0.64	0.78	0.90	1.0	1.1	1.2	1.4						
	0003					●	●							1.2	0.37	0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0				
	0004					●	●							1.4	0.50	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.4				
	0005					●	●							1.5	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7				
	0006					●	●							1.7	0.75	1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	6.1	8.1				
	0008					●	●							2.0	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.8				
	0010					●	●							2.2	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	13.5				
	0015					●	●							2.7	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20				
	0020					●	●		●					3.2	2.5	4.6	6.4	7.9	9.1	10.2	11.2	12.1	14.4	20	27				
	0030					●	●							3.6	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40				
	0040					●	●							4.0	5.0	9.1	12.9	15.8	18.2	20	22	24	29	41	54				
	0050						●							4.4	6.2	11.4	16.1	19.7	23	25	28	30	36	51	68				
	0060						●							4.8	7.5	13.7	19.3	24	27	31	33	36	43	61	81				
	0070						●		●					5.2	8.7	16.0	23	28	32	36	39	42	50	71	94				
	0080								●					5.2	10.0	18.2	26	32	36	41	45	48	58	82	108				
	00100								●					6.0	12.5	23	32	39	46	51	56	60	72	102	135				
	00120								●					6.4	15.0	27	39	47	55	61	67	72	86	122	162				
	00150										●			7.5	18.7	34	48	59	68	76	84	90	108	153	205				
	00200										●			8.3	25	46	64	79	91	102	112	121	144	205	270				
	00250													9.5	31	57	81	99	114	127	140	151	180	255	340				
	00350										●			11.1	44	80	113	138	160	178	195	210	255	360	475				
	00700										●			15.5	87	160	225	275	320	355	390	420	510	720	950				
	001000											●		19.1	125	230	325	395	460	510	560	610	720	1020	1350				
	001100											●		19.8	140	255	355	435	500	560	620	670	790	1120	1490				
	001400											●		22.2	175	320	455	560	640	720	780	850	1010	1430	1890				
	001800											●		25.4	225	410	580	710	820	920	1010	1090	1300	1840	2430				
	002000												●	26.6	250	460	650	790	910	1020	1120	1210	1440	2040	2700				
	003500												●	34.9	440	800	1130	1380	1600	1790	1960	2110	2520	3570	4720				

VEEJET NOZZLE HIGH PRESSURE WASHING FLAT SPRAY NOZZLE

MEG, WEG, EG TYPE

Features

- High pressure, high impact solid stream (0°) or flat fan spray pattern.
- Medium-sized drops.
- Spray angles of 5° to 65° at operating pressures from 20 to 210 kg/㎠.
- Quick visual reference for spray alignment with milled side flats.
- Longer wear life and flow control accuracy with especially hardened stainless steel construction.

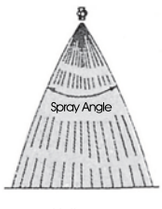


Cross section of MEG Type
–Uniform distribution by using internal guide vane to stabilize liquid turbulence.

Type 1/8 MEG
Type 1/4 MEG

Type 1/8 WEG
Type 1/4 WEG

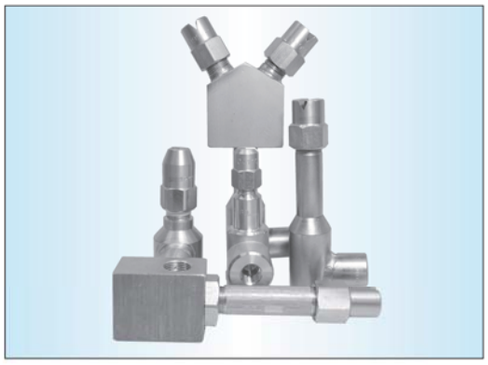
EG Tip Type
EG spray tips produce a uniform spray distribution of medium sized droplets. The spray tip orifice is precision machined to accurately control flow rates.



Uniform
flat spray pattern

Angle	Nozzle Number: Pipe Size 1/8" PT or NPT Male	1/8" PT or NPT Female	1/4" PT or NPT Male	1/4" PT or NPT Female	TIP	Orifice Dia. (mm)	Capacity ℓ/min: 20 kg/cm²	30 kg/cm²	40 kg/cm²	50 kg/cm²	60 kg/cm²	70 kg/cm²	80 kg/cm²	100 kg/cm²	120 kg/cm²	140 kg/cm²
65°	⅛MEG6504	⅛WEG6504	¼MEG6504	¼WEG6504	6504EG	1.19	4.0	4.9	5.9	6.3	6.9	7.5	8.0	9.0	9.8	10.6
	⅛MEG65045		¼MEG65045			1.27	4.6	5.6	6.5	7.2	7.9	8.6	9.2	10.2	11.2	12.1
	⅛MEG6505	⅛WEG6505	¼MEG6505		6505EG	1.35	5.0	6.1	7.1	7.9	8.7	9.4	10.0	11.2	12.3	13.2
	⅛MEG65055	⅛WEG65055	¼MEG65055			1.40	5.6	6.8	7.9	8.8	9.7	10.4	11.2	12.5	13.7	14.8
	⅛MEG6506	⅛WEG6506	¼MEG6506		6506EG	1.42	6.0	7.4	8.5	9.5	10.4	11.2	12.0	13.4	14.7	15.9
	⅛MEG6507	⅛WEG6507	¼MEG6507	¼WEG6507	6507EG	1.60	7.0	8.6	9.9	11.1	12.1	13.1	14.0	15.7	17.2	18.5
	⅛MEG6508	⅛WEG6508	¼MEG6508		6508EG	1.70	8.2	10.0	11.5	12.9	14.1	15.3	16.3	18.2	20.0	21.6
	⅛MEG6509	⅛WEG6509	¼MEG6509		6509EG	1.80	9.2	11.2	12.9	14.5	15.9	17.1	18.3	20.5	22.4	24.2
	⅛MEG6510	⅛WEG6510	¼MEG6510		6510EG	1.91	10.2	12.4	14.4	16.1	17.6	19.0	20.3	22.7	24.9	25.9
			¼MEG6515			2.34	15.2	18.6	21.4	24.0	26.3	28.4	30.3	33.9	37.1	40.1
			¼MEG6520			2.69	20.2	24.7	28.5	31.9	34.9	37.7	40.3	45.1	49.4	53.4
50°	⅛MEG5003		¼MEG5003			1.09	3.0	3.68	4.25	4.75	5.20	5.62	6.01	6.72	7.36	7.95
	⅛MEG5004	⅛WEG5004	¼MEG5004			1.19	4.0	4.9	5.7	6.3	6.9	7.5	8.0	9.0	9.8	10.6
	⅛MEG5005	⅛WEG5005	¼MEG5005		5005EG	1.35	5.0	6.1	7.1	7.9	8.7	9.4	10.0	11.2	12.3	13.2
	⅛MEG50055	⅛WEG50055	¼MEG50055			1.40	5.6	6.8	7.9	8.8	9.7	10.4	11.2	12.5	13.7	14.8
	⅛MEG5006	⅛WEG5006	¼MEG5006		5006EG	1.42	6.0	7.4	8.5	9.5	10.4	11.2	12.0	13.4	14.7	15.9
	⅛MEG5007	⅛WEG5007	¼MEG5007		5007EG	1.60	7.0	8.6	9.9	11.1	12.1	13.1	14.0	15.7	17.2	18.5
	⅛MEG5008	⅛WEG5008	¼MEG5008		5008EG	17.0	8.2	10.0	11.5	12.9	14.1	15.3	16.3	18.2	20.0	21.6
	⅛MEG5009	⅛WEG5009	¼MEG5009			1.80	9.2	11.2	12.9	14.5	15.9	17.1	18.3	20.5	22.4	24.2
	⅛MEG5010	⅛WEG5010	¼MEG5010		5010EG	1.91	10.2	12.4	14.4	16.1	17.6	19.0	20.3	22.7	24.9	26.9
			¼MEG5015			2.34	15.2	18.6	21.4	24.0	26.3	28.4	30.3	22.9	37.1	40.1
			¼MEG5020		5020EG	2.69	20.2	24.7	28.5	31.9	34.9	37.7	40.3	46.1	49.4	53.4
40°	⅛MEG4003	⅛WEG4003	¼MEG4003			1.09	3.00	3.68	4.25	4.75	5.20	5.62	6.01	6.72	7.36	7.96
	⅛MEG4004	⅛WEG4004	¼MEG4004	¼WEG4004	4004EG	1.19	4.0	4.9	5.7	6.3	6.9	7.5	8.0	9.0	9.8	10.6
	⅛MEG40045	⅛WEG40045	¼MEG40045	¼WEG40045	40045EG	1.27	4.6	5.6	6.5	7.2	7.9	8.6	9.2	10.2	11.2	12.1
	⅛MEG4005	⅛WEG4005	¼MEG4005	¼WEG4005	4005EG	1.35	5.0	6.1	7.1	7.9	8.7	9.4	10.0	11.2	12.3	13.2
	⅛MEG40055	⅛WEG40055	¼MEG40055		40055EG	1.40	5.6	6.8	7.9	8.8	9.7	10.4	11.2	12.5	13.7	14.8
	⅛MEG4006	⅛WEG4006	¼MEG4006	¼WEG4006	4006EG	1.42	6.0	7.4	8.5	9.5	10.4	11.2	12.0	13.4	14.7	15.9
	⅛MEG40065	⅛WEG40065	¼MEG40065		40065EG	1.52	6.6	8.1	9.3	10.4	11.4	12.3	13.2	14.7	16.1	17.4
	⅛MEG4007	⅛WEG4007	¼MEG4007	¼WEG4007	4007EG	1.60	7.0	8.6	9.9	11.1	12.1	13.1	14.0	15.7	17.2	18.5
	⅛MEG40075		¼MEG40075		40075EG	1.65	7.6	9.3	10.7	12.0	13.1	14.2	15.2	17.0	18.6	20.1
	⅛MEG4008	⅛WEG4008	¼MEG4008	¼WEG4008	4008EG	1.70	8.2	10.0	11.5	12.9	14.1	15.3	16.3	18.2	20.0	21.6
	⅛MEG40085	⅛WEG40085	¼MEG40085			1.75	8.6	10.5	12.1	13.6	14.9	16.1	17.2	19.2	21.0	22.7
	⅛MEG4009	⅛WEG4009	¼MEG4009	¼WEG4009	4009EG	1.80	9.2	11.2	12.9	14.5	15.9	17.1	18.3	20.5	22.4	24.2
		⅛WEG40095				1.85	9.6	11.7	13.6	15.2	16.6	17.9	19.2	21.4	23.5	25.4
	⅛MEG4010	⅛WEG4010	¼MEG4010	¼WEG4010	4010EG	1.91	10.2	12.4	14.4	16.1	17.6	19.0	20.3	22.7	24.9	26.9
			¼MEG4011			1.98	11.2	13.7	15.8	17.6	19.3	20.9	22.3	25.0	27.3	29.5
	⅛MEG4012		¼MEG4012			2.08	12.2	14.9	17.2	19.2	21.1	22.8	24.3	27.2	29.8	32.2
			⅛MEG40125			2.13	12.6	15.4	17.8	19.9	21.8	23.6	25.2	28.2	30.8	33.3
			¼MEG4013		4013EG	2.16	13.2	16.1	18.6	20.8	22.8	24.6	26.3	29.4	32.2	34.8
			¼MEG4015		4015EG	2.34	15.2	18.6	21.4	24.0	26.3	28.4	30.3	33.9	37.1	40.1
			¼MEG4020		4020EG	2.69	20.2	24.7	28.5	31.9	34.9	37.7	40.3	45.1	49.4	53.4
			¼MEG4025			3.00	25.3	31.0	35.8	40.0	43.9	47.4	50.6	56.6	62.0	67.0
			¼MEG4030			3.30	30.3	36.8	42.5	47.5	52.0	56.2	60.1	67.2	73.6	79.5
			¼MEG4035			3.56	35.8	43.8	50.6	56.6	62.0	66.9	71.5	80.0	87.6	94.6
			¼MEG4040			3.81	40.1	49.1	56.7	63.3	69.4	74.9	80.1	89.6	98.1	106
			¼MEG4050			4.24	50.1	61.3	70.8	79.2	86.7	93.7	100	112	123	132
			¼MEG4060			4.65	60.1	73.6	85.0	95.0	104	112	120	134	147	159
25°	⅛MEG2502		¼MEG2502			0.91	2.00	2.45	2.83	3.17	3.47	3.75	4.01	4.48	4.91	5.30
	⅛MEG2503	⅛WEG2503	¼MEG2503		2503EG	1.09	3.00	3.68	4.25	4.75	5.20	5.62	6.01	6.72	7.36	7.96
	⅛MEG2504	⅛WEG2504	¼MEG2504	¼WEG2504	2504EG	1.19	4.0	4.9	5.7	6.3	6.9	7.5	8.0	9.0	9.8	10.6
	⅛MEG25045	⅛WEG25045	¼MEG25045	¼WEG25045	25045EG	1.27	4.6	5.6	6.5	7.2	7.9	8.6	9.2	10.2	11.2	12.1
	⅛MEG2505	⅛WEG2505	¼MEG2505	¼WEG2505	2505EG	1.35	5.0	6.1	7.1	7.9	8.7	9.4	10.0	11.2	12.3	13.2
	⅛MEG25055	⅛WEG25055	¼MEG25055	¼WEG25055	25055EG	1.40	5.6	6.8	7.9	8.8	9.7	10.4	11.2	12.5	13.7	14.8
	⅛MEG2506	⅛WEG2506	¼MEG2506	¼WEG2506	2506EG	1.42	6.0	7.4	8.5	9.5	10.4	11.2	12.0	13.4	14.7	15.9
	⅛MEG25065		¼MEG25065		25065EG	1.52	6.6	8.1	9.3	10.4	11.4	12.3	13.2	14.7	16.1	17.4
	⅛MEG2507	⅛WEG2507	¼MEG2507	¼WEG2507	2507EG	1.60	7.0	8.6	9.9	11.1	12.1	13.1	14.0	15.7	17.2	18.5
	⅛MEG25075		¼MEG25075		25075EG	1.65	7.6	9.3	10.7	12.0	13.1	14.2	15.2	17.0	18.6	20.1
	⅛MEG2508	⅛WEG2508	¼MEG2508	¼WEG2508	2508EG	1.70	8.2	10.0	11.5	12.9	14.1	15.3	16.3	18.2	20.0	21.6
	⅛MEG25085	⅛WEG25085	¼MEG25085			1.75	8.6	10.5	12.1	13.6	14.9	16.1	17.2	19.2	21.0	22.7
	⅛MEG2509	⅛WEG2509	¼MEG2509	¼WEG2509	2509EG	1.80	9.2	11.2	12.9	14.5	15.9	17.1	18.3	20.5	22.4	24.2
	⅛MEG25095					1.85	9.6	11.7	13.6	15.2	16.6	17.9	19.2	21.4	23.5	25.4
	⅛MEG2510	⅛WEG2510	¼MEG2510	¼WEG2510	2510EG	1.91	10.2	12.4	14.4	16.1	17.6	19.0	20.3	22.7	24.9	26.9
	⅛MEG25105					1.96	10.6	13.0	15.0	16.7	18.3	19.8	21.2	23.7	25.9	28.0
	⅛MEG2511		¼MEG2511			1.98	11.2	13.7	15.8	17.6	19.3	20.9	22.3	25.0	27.3	29.5
	⅛MEG25115					2.03	11.6	14.2	16.4	18.3	20.1	21.7	23.2	25.9	28.4	30.7
			¼MEG2512		2512EG	2.08	12.2	14.9	17.2	19.2	21.1	22.8	24.3	27.2	29.8	32.2
			¼MEG25125			2.13	12.6	15.4	17.8	19.9	21.8	23.6	25.2	28.2	30.8	33.3
			¼MEG2513		2513EG	2.16	13.2	16.1	18.6	20.8	22.8	24.6	26.3	29.4	32.2	34.2
			¼MEG2514			2.26	14.2	17.3	20.0	22.4	24.5	26.5	28.3	31.7	34.7	37.5

AIR MIST NOZZLES (CASTER NOZZLE)

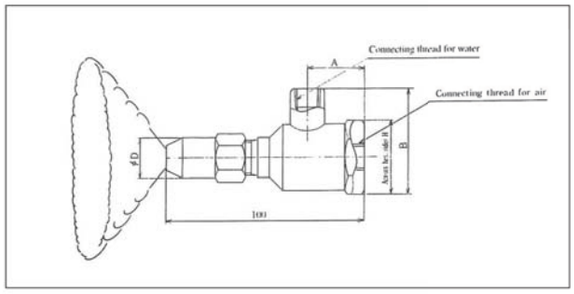


Features
- Uniform water flow distribution
- Small mean particle diameter, and small discrepancy.
- Superwide angle spray type is manufacturable.

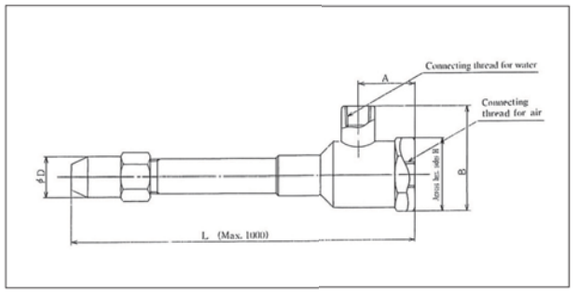
Applications
- Sprinkling of chemicals,
- Humidifying in paper mill
- Cooling of various high temperature gases

Materials
- 303, 304, 316 Stainless Steel, and Tungsten, Special material on request

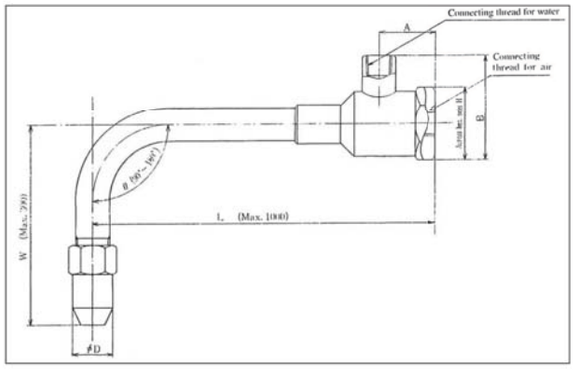
Compact type



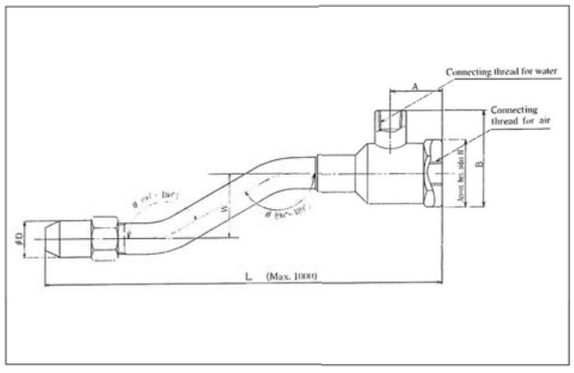
Straight type

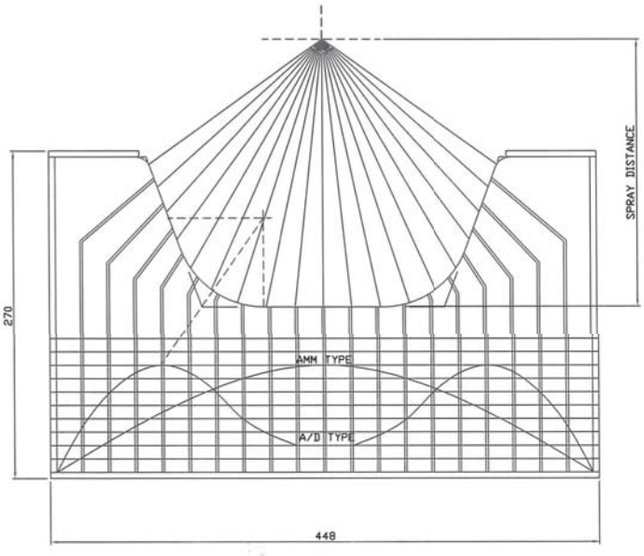


Elbow type



Bent type

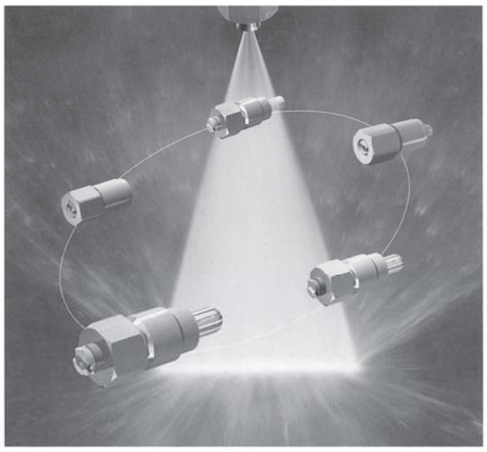




Specification

PART NO.	WATER PRESSURE (kgf/㎠)	AIR FLOW RATE (Nm3/h)	WATER FLOW RATE (L/MIN)	SPRAY ANGLE (°)	SPRAY DIATANCE (mm)
1/4-3/8-0470AMM	2	2	2.4	70 ( )	220
1/4-3/8-0695AMM	2	2	3.6	95 ( )	220
1/4-3/8-0895AMM	2	2	5.3	95 ( )	220
1/4-3/8-0470AMM	2	2	2.4	70 ( )	175
1/4-3/8-0695AMM	2	2	3.6	95 ( )	200
1/4-3/8-0895AMM	2	2	5.3	95 ( )	200

DESCALING NOZZLE



Features

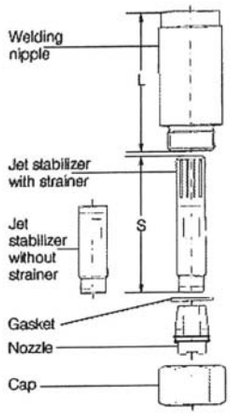
- Uniform impact force distribution.
- Excellent wear resistance.
- Consistent performance.

Structure

- Body, Cap Filter, Tip

DESCALING ASSY

Series	spray angle				Mat-No		Volume Flow(WATER)					
							P=100bar(1450)psi			P=100bar(1450)psi		
	22°	26°	30°	40°	11	27	ℓ /min	ℓ /sec	Gal ℓ /min	ℓ /min	ℓ /sec	Gal ℓ /min
644	495	496	497	498	○		12.00	0.20	3.17	16.97	0.28	4.50
644	535	536	537	538	○	○	15.00	0.25	3.96	21.21	0.35	5.60
644	565	566	567	568	○	○	18.00	0.30	4.76	25.46	0.42	6.73
644	605	606	607	608	○	○	23.00	0.38	6.08	32.53	0.59	9.39
644	645	646	647	648	○	○	28.00	0.47	7.40	39.60	0.66	10.46
644	685	686	687	688	○	○	36.00	0.60	9.51	50.91	0.85	13.45
644	725	725	727	728	○	○	45.00	0.75	11.89	63.64	1.06	16.81
644	765	766	767	768	○	○	58.00	0.97	15.32	82.02	1.37	21.67
644	805	806	807	808	○	○	72.00	1.20	19.02	101.82	1.70	26.90
644	845	846	847	848	○	○	89.00	1.48	23.51	125.67	2.10	33.25
644	885	886	887	888	○	○	112.00	1.87	29.59	158.39	2.64	41.85
644	905	906	907	908	○	○	125.00	2.08	30.03	176.78	2.95	46.70
644	915	916	917	918	○	○	134.00	2.23	35.40	189.50	3.16	50.07



Specification

Type (Spray angle22°)	E Ø (mm)	A Ø (mm)
644.495	1.20	1.50
644.535	1.40	1.75
644.565	1.60	2.00
644.606	1.80	2.10
644.645	2.00	2.50
644.685	2.20	2.80
644.725	2.50	3.00
644.765	2.80	3.50
644.805	3.20	3.80
644.845	3.50	4.30
644.885	3.90	4.70

Type (Spray angle26°)	E Ø (mm)	A Ø (mm)
644.496	1.17	1.50
644.536	1.30	1.75
644.566	1.50	2.00
644.606	1.70	2.10
644.646	1.90	2.50
644.686	2.20	2.80
644.726	2.40	3.00
644.768	2.50	3.50
644.806	3.00	3.80
644.846	3.50	4.30
644.886	3.90	4.70
644.906	4.00	5.00
644.916	4.20	5.20

Type (Spray angle.30°)	E Ø (mm)	A Ø (mm)
644.497	1.16	1.50
644.537	1.30	1.75
644.567	1.40	2.00
644.607	1.60	2.10
644.647	1.80	2.50
644.687	2.10	2.80
644.727	2.30	3.00
644.767	2.40	3.50
644.807	2.90	3.80
644.847	3.20	4.30
644.887	3.70	4.70
644.907	3.90	5.00
644.917	4.00	5.20

Type (Spray angle.30°)	E Ø (mm)	A Ø (mm)
644.498	1.11	1.50
644.538	1.20	1.75
644.568	1.20	2.00
644.608	1.50	2.10
644.648	1.60	2.50
644.688	2.00	2.80
644.728	1.90	3.00
644.768	2.30	3.50
644.808	2.70	3.80
644.848	3.00	4.30
644.888	3.40	4.70
644.908	3.70	5.00
644.918	3.80	5.20

SELF CLEANING NOZZLE

SJ-SCFF SERIES

Features

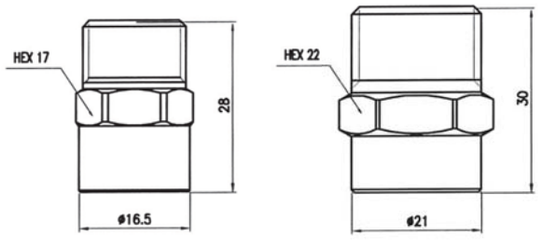
-Effective against poor quality water (white water etc.) which may cause clogging.
Self-cleaning nozzle reduce shower maintenance.
By reducing the supplied pressure, an internal piston retracts to purge fibers and other suspended solids from the clogged nozzle.

Applications

-Washing of wire, Felt and rolls at paper mills,
-Washing of filter cloth of belt presses and Filter presses etc.
-White water spraying facilities.

Materials

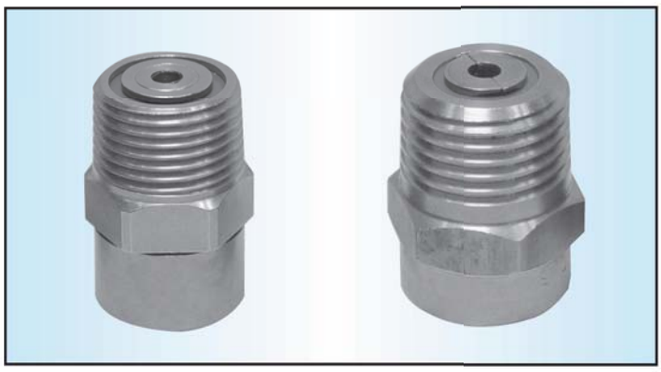
-303, 304, 316 Stainless Steel, Special material on request



PT 3/8"-SCFF　　PT 1/2"-SCFF

Angle type

FF TYPE



Nozzle Number	Orifice Dia. (mm)	Flow ℓ/min(Temp.15° C)								Spray angle									
		0.7 kg/cm²	1.0 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	7 kg/cm²	10 kg/cm²	0	15	25	40	50	65	80	90	100	110
3.0	1.10	0.57	0.68	0.97	1.18	1.36	1.53	1.81	2.23										
4.0	1.25	0.75	0.90	1.27	1.56	1.83	2.03	2.38	2.86										
4.5	1.3	0.85	1.01	1.43	1.75	2.05	2.29	2.70	3.21										
5.0	1.4	0.96	1.15	1.62	1.99	2.28	2.55	3.02	3.62										
5.5	1.45	1.05	1.26	1.78	2.18	2.50	2.81	3.29	4.11										
6.0	1.5	1.15	1.37	1.94	2.37	2.72	3.07	3.61	4.46										
6.5	1.6	1.24	1.48	2.09	2.56	3.00	3.33	3.80	4.91										
7.0	1.65	1.33	1.59	2.25	2.75	3.21	3.54	4.21	5.36										
8.0	1.75	1.53	1.83	2.59	3.17	3.66	3.98	5.03	5.80										
8.5	1.8	1.62	1.94	2.74	3.36	3.88	4.32	5.03	5.80										
9.0	1.9	1.72	2.05	2.90	3.55	4.11	4.75	5.50	6.25										
10	2.0	1.90	2.27	3.21	3.93	4.46	5.19	5.95	7.14										
12.5	2.2	2.40	2.90	4.02	4.97	5.69	6.38	7.55	9.04										
15	2.4	2.84	3.44	4.21	6.16	6.70	7.78	9.15	10.71										
20	2.8	3.80	4.46	6.25	8.05	9.37	9.94	12.35	14.73										
25	3.1	4.80	5.80	8.03	9.94	11.38	12.75	15.09	18.08										
30	3.6	5.95	6.70	9.82	11.84	13.84	15.13	17.84	21.43										

ASSEMBLE-JET NOZZLE(TC)

High–Pressure TC Tips

Features

–Erosion–resistant tungsten carbide orifice insert provides longer wear life than standard stainless steel tips
–Excellent corrosion resistance
–High–impact flat spray pattern with tapered edges provides even coverage when sprays overlap
–Tip orifice insert is recessed in a solid stainless steel tip body to protect against damage

Typical Applications

–Paint spraying
–Sealant/protective coating spraying

Nozzle Number	Orifice Dia. (mm)	Capacity (ℓ/min) 30 kg/cm²	70 kg/cm²	100 kg/cm²	140 kg/cm²	Spray Pattern Width (cm) (at 30cm)
1100025-TC	0.33	0.34	0.45	0.57	0.68	42
1100033-TC	0.38	0.45	0.60	0.76	0.87	43
1100039-TC	0.41	0.53	0.76	0.91	1.1	46
1100050-TC	0.46	0.68	0.95	1.1	1.4	48
1100067-TC	0.53	0.91	1.2	1.5	1.8	53
1100080-TC	0.58	1.1	1.5	1.9	2.2	56
11001-TC	0.66	1.3	1.9	2.3	2.7	58
110015-TC	0.79	2.0	2.8	3.4	4.2	64
11002-TC	0.91	2.7	3.8	4.5	5.3	66
11003-TC	1.1	4.2	5.7	6.8	7.9	69
11004-TC	1.3	5.3	7.6	9.5	10.1	71
11005-TC	1.4	6.8	9.5	11.7	13.2	71
11006-TC	1.6	7.9	11.3	14.0	15.9	71
11007-TC	1.7	9.5	13.2	16.3	18.9	71
11008-TC	1.8	10.1	15.1	18.5	22	71
11009-TC	1.9	12.1	17.0	21	24	71
11010-TC	2.0	13.2	18.9	23	27	71
11012-TC	2.3	16.3	23	28	32	71
950017-TC	0.28	0.23	0.30	0.38	0.45	33
950025-TC	0.33	0.34	0.45	0.57	0.68	36
950033-TC	0.38	0.45	0.60	0.76	0.87	38
950039-TC	0.41	0.53	0.76	0.91	1.1	41
950050-TC	0.46	0.68	0.95	1.1	1.4	43
950067-TC	0.53	0.91	1.2	1.5	1.8	48
950080-TC	0.58	1.1	1.5	1.9	2.2	48
9501-TC	0.66	1.3	1.9	2.3	2.7	53
95015-TC	0.79	2.0	2.8	3.4	4.2	53
9502-TC	0.91	2.7	3.8	4.5	5.3	56
9503-TC	1.1	4.2	5.7	6.8	7.9	56
9504-TC	1.3	5.3	7.6	9.5	10.1	58
9505-TC	1.4	6.8	9.5	11.7	13.2	58
9506-TC	1.6	7.9	11.3	14.0	15.9	58
9507-TC	1.7	9.5	13.2	16.3	18.9	58
9508-TC	1.8	10.1	15.1	18.5	22	58
9509-TC	1.9	12.1	17.0	21	24	58
9510-TC	2.0	13.2	18.9	23	27	58
9511-TC	2.2	14.7	21	25	29	58
9512-TC	2.3	16.3	23	28	32	58
9515-TC	2.4	20	28	35	40	58
800011-TC	0.23	0.15	0.21	0.25	0.29	27
800017-TC	0.28	0.23	0.30	0.38	0.45	29
800025-TC	0.33	0.34	0.45	0.57	0.68	32
800033-TC	0.38	0.45	0.60	0.76	0.87	33
800039-TC	0.41	0.53	0.76	0.91	1.1	36
800050-TC	0.46	0.68	0.95	1.1	1.4	38
800067-TC	0.53	0.91	1.2	1.5	1.8	43
800080-TC	0.58	1.1	1.5	1.9	2.2	43
8001-TC	0.66	1.3	1.9	2.3	2.7	48
80015-TC	0.79	2.0	2.8	3.4	4.2	48
8002-TC	0.91	2.7	3.8	4.5	5.3	48
8003-TC	1.1	4.2	5.7	6.8	7.9	48
8004-TC	1.3	5.3	7.6	9.5	10.1	48
8005-TC	1.4	6.8	9.5	11.7	13.2	48
8006-TC	1.6	7.9	11.3	14.0	15.9	48
8007-TC	1.7	9.5	13.2	16.3	18.9	48
8008-TC	1.8	10.1	15.1	18.5	22	48
8009-TC	1.9	12.1	17.0	21	24	48
8010-TC	2.0	13.2	18.9	23	27	48
8011-TC	2.2	14.7	21	25	29	48
8012-TC	2.3	16.3	23	28	32	48
8013-TC	2.36	17.4	25	30	35	48
8014-TC	2.4	18.5	26	33	37	48
8015-TC	2.5	20	28	35	40	48
730023-TC	0.3	0.30	0.42	0.53	0.60	29
730039-TC	0.41	0.53	0.76	0.91	1.1	33
650008-TC	0.18	0.11	0.15	0.19	0.22	22
650011-TC	0.23	0.15	0.21	0.25	0.29	23
650017-TC	0.28	0.23	0.30	0.38	0.45	25
650025-TC	0.33	0.34	0.45	0.57	0.68	27
650033-TC	0.38	0.45	0.60	0.76	0.87	28

Nozzle Number	Orifice Dia. (mm)	Capacity (ℓ/min) 30 kg/cm²	70 kg/cm²	100 kg/cm²	140 kg/cm²	Spray Pattern Width (cm) (at 30cm)
650039-TC	0.41	0.53	0.76	0.95	1.1	30
650044-TC	0.43	0.60	0.83	1.0	1.2	32
650050-TC	0.46	0.68	0.93	1.1	1.4	33
650055-TC	0.48	0.72	1.1	1.3	1.5	33
650067-TC	0.53	0.91	1.2	1.5	1.8	38
650080-TC	0.58	1.1	1.5	1.9	2.2	38
6501-TC	0.66	1.3	1.9	2.3	2.7	41
65015-TC	0.79	2.0	2.8	3.4	4.2	41
6502-TC	0.91	2.7	3.8	4.5	5.3	41
6503-TC	1.1	4.2	5.7	6.8	7.9	41
6404-TC	1.3	5.3	7.6	9.5	10.1	41
6505-TC	1.4	6.8	9.5	11.7	13.2	41
6506-TC	1.6	7.9	11.3	14.0	15.9	41
6507-TC	1.7	9.5	13.2	16.3	18.9	41
6508-TC	1.8	10.1	15.1	18.5	22	41
6509-TC	1.9	12.1	17.0	21	24	41
6510-TC	2.0	13.2	18.9	23	27	41
6511-TC	2.2	14.7	21	25	29	41
6512-TC	2.3	16.3	23	28	32	41
6513-TC	2.36	17.4	25	30	35	41
6514-TC	2.4	18.5	26	33	37	41
6515-TC	2.5	20	28	35	40	41
500008-TC	0.18	0.11	0.15	0.19	0.22	20
500011-TC	0.23	0.15	0.21	0.25	0.29	20
500017-TC	0.28	0.23	0.30	0.38	0.45	22
500025-TC	0.33	0.34	0.45	0.57	0.68	23
500033-TC	0.38	0.44	0.60	0.76	0.87	25
500039-TC	0.41	0.53	0.76	0.91	1.1	27
500044-TC	0.43	0.60	0.83	1.0	1.2	27
500050-TC	0.46	0.68	0.95	1.1	1.4	28
500055-TC	0.48	0.72	1.1	1.3	1.5	28
500067-TC	0.53	0.91	1.2	1.5	1.8	30
500080-TC	0.58	1.1	1.5	1.9	2.2	33
5001-TC	0.66	1.3	1.9	2.3	2.7	36
50015-TC	0.79	2.0	2.8	3.4	4.2	36
5002-TC	0.91	2.7	3.8	4.5	5.3	36
5003-TC	1.1	4.2	5.7	6.8	7.9	36
5004-TC	1.3	5.3	7.6	9.5	10.1	36
5005-TC	1.4	6.8	9.5	11.7	13.2	36
5006-TC	1.6	7.9	11.3	14.0	15.9	36
5007-TC	1.7	9.5	13.2	16.3	18.9	36
5008-TC	1.8	10.1	15.1	18.5	22	36
5010-TC	2.0	13.2	18.9	23	27	36
5015-TC	2.5	20	28	35	40	36
400004-TC	0.13	0.05	0.08	0.09	0.11	17
400006-TC	0.15	0.08	0.11	0.14	0.16	17
400008-TC	0.18	0.11	0.15	0.19	0.22	17
400011-TC	0.23	0.15	0.21	0.25	0.29	18
400017-TC	0.28	0.23	0.30	0.38	0.45	19
400025-TC	0.33	0.34	0.45	0.57	0.68	20
400033-TC	0.38	0.45	0.60	0.76	0.87	22
400039-TC	0.41	0.53	0.76	0.91	1.1	23
400044-TC	0.43	0.60	0.83	1.0	1.2	24
400050-TC	0.46	0.68	0.95	1.1	1.4	25
400055-TC	0.48	0.72	1.1	1.3	1.5	25
400067-TC	0.53	0.91	1.2	1.5	1.8	28
400080-TC	0.58	1.1	1.5	1.9	2.2	28
4001-TC	0.66	1.3	1.9	2.3	2.7	30
40013-TC	0.74	1.7	2.5	3.0	3.5	30
40015-TC	0.79	2.0	2.8	3.4	4.2	30
4002-TC	0.91	2.7	3.8	4.5	5.3	30
4003-TC	1.1	4.2	5.7	6.8	7.9	30
4004-TC	1.3	5.3	7.6	9.5	10.1	30
4005-TC	1.4	6.8	9.5	11.7	13.2	30
4006-TC	1.6	7.9	11.3	14.0	15.9	30
4007-TC	1.7	9.5	13.2	16.3	18.9	30
4008-TC	1.8	10.1	15.1	18.5	22	30
4009-TC	1.9	12.1	17.0	21	24	30
4015-TC	2.5	20	28	35	40	30

High–Pressure (Female)

GASKET

SCREEN STRAINER

TIP GASKET

SPRAY TIP

High Pressure CAP

FLO-JET NOZZLE

FP Type

Features

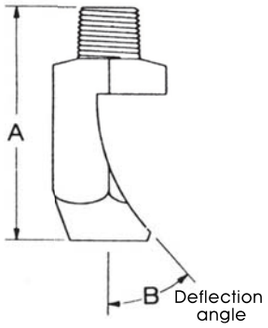
–Low pressure in the fan–shaped spray of a strong impact
–Large unobstructed flow passage minimizes clogging.
–spray viscosity

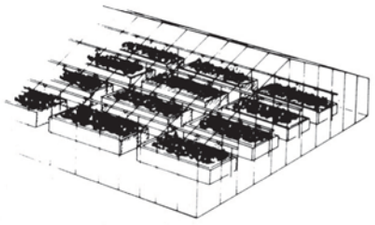
Materials

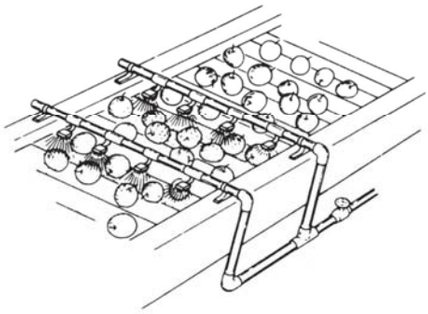
–303, 304, 316 Stainless Steel, Brass
–Other materials available upon request.

Applications

–High wallop cleaning
–Carpet and net fabric washing
–Grease and dirt removing
–Electroplating line washing
–Fruit–vegetable washing

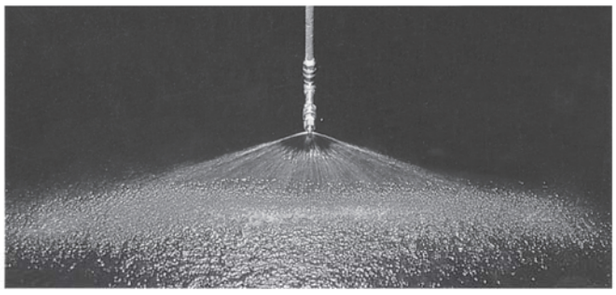






Angle	Nozzle Number	Orifice Dia. (mm)	Dimension A	Dimension B	Dimension Specifications	Capacity ℓ/min 1 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	Spray Angle 7 kg/cm²	10 kg/cm²	1 kg/cm²	3 kg/cm²	7 kg/cm²
50°	¼FP5010	1.9	31	60°	15.9	2.3	3.2	3.9	4.5	5.0	5.5	6.0	7.1	34°	50°	60°
	¼FP5025	2.9	41	50°	19.1	5.6	8.0	9.8	11.3	12.6	13.8	14.9	17.9	42°	50°	59°
	¼FP5040	3.7	47	45°	19.1	9.0	12.8	15.6	18.1	20	22	24	29	39°	50°	60°
	⅜FP5040	3.7	47	45°	19.1	9.0	12.8	15.6	18.1	20	22	24	29	39°	50°	60°
	⅜FP5060	4.6	55	37°	25.4	13.5	19.2	23	27	30	33	36	43	42°	50°	63°
	⅜FP50100	6.0	72	40°	31.8	23	32	39	45	50	55	60	71	43°	50°	55°
	⅜FP50125	6.7	72	38°	31.8	28	40	49	56	63	69	75	89	38°	50°	29°
	⅜FP50160	7.5	72	37°	31.8	36	51	63	72	81	88	96	114	44°	50°	55°
	⅜FP50200	8.4	72	32°	31.8	45	64	78	90	101	111	19	143	46°	50°	53°
40°	⅜FP4040	3.7	60	35°	22.2	9.0	12.8	15.6	18.1	20	22	24	29	31°	40°	50°
	⅜FP4050	4.1	64	33°	25.4	11.3	16.0	19.5	23	25	28	30	36	31°	40°	49°
	⅜FP4060	4.5	72	33°	25.4	13.5	19.2	23	27	30	33	36	43	32°	40°	49°
	⅜FP4070	5.0	75	29°	25.4	15.8	22	27	32	35	39	42	50	32°	40°	49°
	⅜FP4080	5.2	77	26°	25.4	18.1	26	31	36	40	44	48	57	32°	40°	48°
	⅜FP4090	5.7	77	28°	25.4	20	29	35	41	45	50	54	64	34°	40°	44°
	⅜FP40100	6.0	87	28°	25.4	23	32	39	45	50	55	60	71	25°	40°	44°
35°	¼FP3504	1.2	23	40°	11.1	0.90	1.3	1.6	1.8	2.0	2.2	2.4	2.9	20°	35°	41°
	¼FP3510	1.9	37	36°	15.9	2.3	3.2	3.9	4.5	5.0	5.5	6.0	7.1	18°	35°	39°
	¼FP3520	2.6	42	30°	19.1	4.5	6.4	7.8	9.0	10.1	11.1	11.9	14.3	24°	35°	40°
	⅜FP3520	2.6	43	30°	19.1	4.5	6.4	7.8	9.0	10.1	11.1	11.9	14.3	24°	35°	40°
	⅜FP3525	2.9	49	28°	19.1	5.6	8.0	9.8	11.3	12.6	13.8	14.9	17.9	24°	35°	39°
	⅜FP3530	3.3	52	28°	19.1	6.8	9.6	11.7	13.5	15.1	16.6	17.9	21	26°	35°	41°
	⅜FP3540	3.7	58	26°	22.2	9.0	12.8	15.6	18.1	20	22	24	29	28°	35°	38°
	⅜FP3550	4.1	64	23°	22.2	11.3	16.0	19.5	23	25	28	30	36	31°	35°	38°
	½FP3560	4.5	73	27°	25.4	13.5	19.2	23	27	30	33	36	43	29°	35°	39°
	½FP3580	5.3	81	24°	25.4	18.1	26	31	36	40	44	48	57	26°	35°	40°
	½FP35100	5.9	89	19°	25.4	23	32	39	45	50	55	60	71	26°	35°	40°
	¾FP35160	7.5	114	23°	31.8	36	51	63	72	81	88	96	114	26°	35°	40°
	¾FP35200	8.4	122	22°	31.8	45	64	78	90	101	111	119	143	25°	35°	40°
25°	¼FP2540	3.7	65	25°	19.1	9.0	12.8	15.6	18.1	20	22	24	29	15°	25°	34°
15°	¼FP1510	1.9	48	22°	15.9		3.2	3.9	4.5	5.0	5.5	6.0	7.1		15°	23°
	¼FP1520	2.6	54	19°	15.9		6.4	7.8	9.0	10.1	11.1	11.9	14.3		15°	19°
	⅜FP1530	3.2	72	25°	19.1	6.8	9.6	11.7	13.5	15.1	16.6	17.9	21	6°	15°	24°
	⅜FP1540	3.7	92	18°	22.2	9.0	12.8	15.6	18.1	20	22	24	29	8°	15°	21°
	⅜FP1550	4.2	90	15°	22.2	11.3	16.0	19.5	23	25	28	30	36	9°	15°	20°
	½FP1560	4.6	125	14°	25.4	13.5	19.2	23	27	30	33	36	43	10°	15°	19°
	½FP1580	5.3	130	14°	25.4	18.1	26	31	36	40	44	48	57	11°	15°	18°
	½FP15100	5.9	137	14°	25.4	23	32	39	45	50	55	60	71	11°	15°	18°
	¾FP15200	8.4	191	14°	31.8	45	64	78	90	101	111	119	143	12°	15°	18°

FLO-JET NOZZLE



FK Type

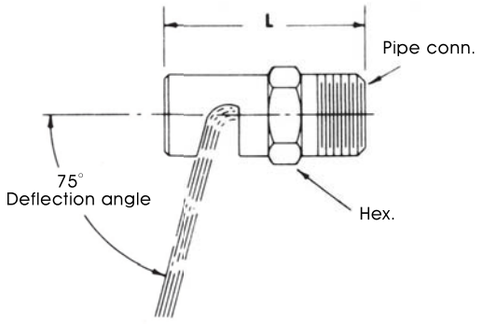
Features
- –Wide angle deflector type
- –Low impact, flat spray pattern.
- –One–piece design, no cores or internal members to clog.

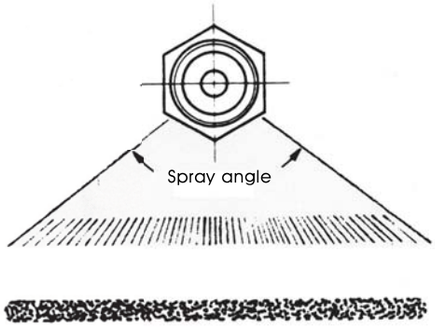
Materials
- –03, 304, 316 Stainless Steel,
- –Brass, and other materials available upon request.

Applications
- –Roll cooling , Metal cleaning,
- –Dust control, Mold cooling
- –Metal processing, Oil coating
- –Parts washing, Food processing

Nozzle Number	Orifice Dia. (mm)	Dimension		Capacity ℓ/min					Spray Angle		
		Hex.	L (mm)	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	0.5 kg/cm²	1.5 kg/cm²	4 kg/cm²
⅛FK0.25	0.41	11.1	24	0.11	0.14	0.16	0.20	0.23		83°	117°
⅛FK0.50	0.60	11.1	24	0.23	0.28	0.32	0.39	0.45		89°	122°
⅛FK0.75	0.71	11.1	24	0.34	0.41	0.48	0.59	0.68		106°	125°
⅛FK1	0.84	11.1	24	0.45	0.55	0.64	0.78	0.90		109°	128°
⅛FK1.5	1.0	11.1	24	0.68	0.83	0.96	1.2	1.4	73°	108°	125°
⅛FK2	1.2	11.1	25	0.90	1.1	1.3	1.6	1.8	83°	113°	129°
⅛FK2.5	1.3	11.1	25	1.1	1.4	1.6	2.0	2.3	98°	122°	133°
⅛FK3	1.4	11.1	25	1.4	1.7	1.9	2.3	2.7	86°	112°	126°
⅛FK4	1.7	11.1	25	1.8	2.2	2.6	3.1	3.6	97°	123°	132°
⅛FK5	1.9	11.1	25	2.3	2.8	3.2	3.9	4.5	114°	128°	142°
⅛FK7.5	2.3	11.1	25	3.4	4.1	4.8	5.9	6.8	101°	119°	134°
⅛FK10	2.6	11.1	25	4.5	5.5	6.4	7.8	9.0	115°	133°	145°
⅛FK12	2.9	11.1	25	5.4	6.6	7.7	9.4	10.9	128°	139°	153°
⅛FK15	3.3	14.3	31	6.8	8.3	9.6	11.7	13.6	98°	113°	123°
⅛FK18	3.6	14.3	31	8.1	10.0	11.5	14.1	16.3	106°	120°	131°
⅛FK20	3.7	14.3	31	9.0	11.1	12.8	15.7	18.1	110°	122°	133°
¼FK2	1.2	14.3	31	0.90	1.1	1.3	1.6	1.8	82°	111°	128°
¼FK2.5	1.3	14.3	31	1.1	1.4	1.6	2.0	2.3	98°	122°	133°
¼FK3	1.4	14.3	31	1.4	1.7	1.9	2.3	2.7	86°	112°	126°
¼FK5	1.9	14.3	31	2.3	2.8	3.2	3.9	4.5	114°	128°	142°
¼FK7.5	2.3	14.3	31	3.4	4.1	4.8	5.9	6.8	101°	119°	134°
¼FK10	2.6	14.3	31	4.5	5.5	6.4	7.8	9.0	115°	133°	145°
¼FK15	3.3	14.3	34	6.8	8.3	9.6	11.7	13.6	98°	113°	123°
¼FK18	3.6	14.3	34	8.1	10.0	11.5	14.1	16.3	106°	120°	131°
¼FK20	3.7	14.3	34	9.0	11.1	12.8	15.7	18.1	110°	122°	133°
¼FK22	4.0	14.3	34	9.9	12.2	14.0	17.2	19.9	113°	125°	136°
¼FK24	4.1	14.3	34	10.8	13.3	15.3	18.8	22	115°	131°	144°
¼FK27	4.4	14.3	34	12.2	14.9	17.2	21	24	119°	135°	148°
⅜FK30	4.6	17.5	44	13.5	16.6	19.2	23	27	100°	110°	121°
⅜FK35	5.0	17.5	44	15.8	19.3	22	27	32	105°	118°	128°
⅜FK40	5.3	17.5	44	18.1	22	26	31	36	111°	126°	136°
⅜FK45	5.6	17.5	44	20	25	29	35	41	115°	130°	140°
½FK40	5.3	22.2	51	18.1	22	26	31	36	111°	126°	136°
½FK50	6.0	22.2	51	23	28	32	39	45	117°	131°	140°
½FK60	6.5	22.2	51	27	33	38	47	54	120°	134°	142°
½FK70	7.1	22.2	51	32	39	45	55	63	123°	137°	146°
½FK80	7.5	22.2	51	36	44	51	63	72	127°	138°	149°
¾FK90	8.0	28.6	56	41	50	57	70	81	120°	133°	140°
¾FK100	8.4	28.6	56	45	55	64	78	90	123°	136°	145°
¾FK110	8.8	28.6	56	50	61	70	86	99	125°	138°	148°
¾FK120	9.3	28.6	56	54	66	77	94	109	128°	143°	153°
¾FK180	11.5	38.1	65	81	100	115	141	163	124°	133°	139°
¾FK210	12.3	38.1	65	95	116	134	164	190	128°	139°	145°
1FK300	14.7	44.5	87	135	166	192	235	270	110°	128°	135°
1FK450	17.9	47.6	92	205	250	285	350	405	118°	132°	138°

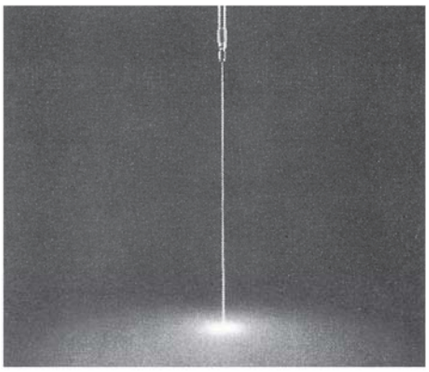
FK Type





Wide angle flat spray type

SOLID-JET NOZZLE (Wire & Felt Cleaning)



MCP TYPE

Features
–Extra fine solid stream with high impact cutting force

Structure
–One–piece structure with ceramic orifice inserted

Material
–Spray orifice: Ceramics
–Metal parts: Brass or 303 Stainless steel

Applications
–Cleaning: High pressure jet cleaning, wire and felt parts of paper making machines, vehicles, returnable containers, machinery, parts, etc.
–Trimming: Paper making, asbestos plate, etc.

Nozzle Number	Capacity ℓ/min												Free Pass. Dia.	Strainer Mesh Size
	10 kg/cm²	20 kg/cm²	25 kg/cm²	30 kg/cm²	35 kg/cm²	40 kg/cm²	45 kg/cm²	50 kg/cm²	65 kg/cm²	80 kg/cm²	100 kg/cm²	150 kg/cm²		
⅛ MCP 25☆ W	1.43	2.02	2.25	2.47	2.67	2.85	3.03	3.19	3.64	4.03	4.51	5.52	0.8	50
⅛ MCP 31☆ W	1.78	2.52	2.82	3.09	3.34	3.57	3.78	3.99	4.55	5.05	5.64	6.91	0.9	50
⅛ MCP 37☆	2.14	3.03	3.39	3.71	4.01	4.28	4.54	4.79	5.46	6.06	6.77	8.30	1.0	–
⅛ MCP 43☆	2.50	3.54	3.96	4.33	4.68	5.00	5.30	5.59	6.37	7.06	7.91	9.67	1.1	–
⅛ MCP 49☆	2.86	4.04	4.52	4.94	5.34	5.71	6.06	6.38	7.28	8.07	9.04	11.1	1.2	–
⅛ MCP 56☆	3.22	4.54	5.08	5.56	6.01	6.42	6.81	7.18	8.19	9.08	10.2	12.4	1.2	–
⅛ MCP 62☆	3.57	5.05	5.65	6.18	6.68	7.14	7.57	7.98	9.10	10.1	11.3	13.8	1.3	–
⅛ MCP 68☆	3.93	5.55	6.21	6.80	7.35	7.85	8.33	8.79	10.0	11.1	12.4	15.2	1.4	–
⅛ MCP 74☆	4.29	6.06	6.78	7.42	8.01	8.56	9.09	9.58	10.9	12.1	13.6	16.6	1.4	–
⅛ MCP 80☆	4.65	6.56	7.35	8.04	8.68	9.28	9.85	10.4	11.8	13.1	14.7	18.0	1.5	–
⅛ MCP 87☆	5.00	7.07	7.91	8.66	9.35	10.0	10.6	11.2	12.8	14.1	15.8	19.4	1.6	–
⅛ MCP 93☆	5.36	7.58	8.48	9.28	10.0	10.7	11.4	12.0	13.7	15.2	17.0	20.8	1.6	–
⅛ MCP 99☆	5.72	8.08	9.04	9.89	10.7	11.4	12.1	12.8	14.6	16.2	18.1	22.1	1.7	–
⅛ MCP 111☆	6.43	9.09	10.2	11.1	12.0	12.9	13.6	14.4	16.4	18.2	20.3	24.9	1.8	–
⅛ MCP 124☆	7.15	10.1	11.3	12.4	13.4	14.3	15.1	16.0	18.2	20.2	22.6	27.7	1.9	–
⅛ MCP 136☆	7.85	11.1	12.4	13.6	14.7	15.7	16.7	17.6	20.0	22.2	24.8	30.4	2.0	–
⅛ MCP 148☆	8.57	12.1	13.6	14.8	16.0	17.1	18.2	19.2	21.8	24.2	27.1	33.2	2.0	–
⅛ MCP 161☆	9.28	13.1	14.7	16.1	17.4	18.6	19.7	20.8	23.7	26.2	29.3	35.9	2.1	–
⅛ MCP 173☆	9.99	14.1	15.8	17.3	18.7	20.0	21.2	22.4	25.5	28.3	31.6	38.7	2.2	–
⅛ MCP 186☆	10.7	15.2	16.9	18.6	20.0	21.4	22.7	24.0	27.3	30.3	33.9	41.5	2.3	–
⅛ MCP 198☆	11.4	16.2	18.1	19.8	21.4	22.8	24.2	25.5	29.1	32.3	36.1	44.2	2.4	–
⅛ MCP 210☆	12.1	17.2	19.2	21.0	22.7	24.3	25.7	27.1	30.9	34.3	38.4	47.0	2.4	–
¼ MCP 223☆	12.9	18.2	20.3	22.3	24.0	25.7	27.3	28.7	32.8	36.3	40.6	49.8	2.5	–
¼ MCP 247☆	14.3	20.2	22.6	24.7	26.7	28.6	30.3	31.9	36.4	40.4	45.2	55.3	2.6	–
¼ MCP 272☆	15.7	22.2	24.8	27.2	29.4	31.4	33.3	35.1	40.0	44.4	49.7	60.8	2.7	–
¼ MCP 297☆	17.1	24.2	27.1	29.7	32.1	34.3	36.3	38.3	43.7	48.5	54.2	66.4	2.9	–
¼ MCP 322☆	18.6	26.3	29.4	32.2	34.7	37.1	39.4	41.5	47.3	52.5	58.7	71.9	3.0	–
¼ MCP 346☆	20.0	28.3	31.6	34.6	37.4	40.0	42.4	44.7	51.0	56.5	63.2	77.4	3.1	–
¼ MCP 371☆	21.4	30.3	33.9	37.1	40.1	42.8	45.4	47.9	54.6	60.6	67.6	82.9	3.2	–
¼ MCP 396☆	22.8	32.3	36.1	39.6	42.7	45.7	48.5	51.1	58.2	64.6	72.2	88.5	3.3	–
¼ MCP 420☆	24.3	34.3	38.4	42.0	45.4	48.5	51.5	54.3	61.9	68.7	76.8	94.0	3.4	–
¼ MCP 445☆	25.7	36.3	40.6	44.5	48.51	51.4	54.5	57.5	65.5	72.7	81.3	99.5	3.5	–
¼ MCP 470☆	27.1	38.4	42.9	47.0	50.7	54.3	57.5	60.7	69.2	76.7	85.8	105	3.6	–
¼ MCP 495☆	28.6	40.4	45.1	49.5	53.4	57.1	60.6	63.8	72.8	80.8	90.3	111	3.7	–
¼ MCP 519☆	30.0	42.4	47.4	51.9	56.1	60.0	63.6	67.0	76.4	84.8	94.8	116	3.8	–
¼ MCP 544☆	31.4	44.4	49.7	54.4	58.8	62.8	66.6	70.2	80.1	88.8	99.3	122	3.9	–
⅜ MCP 569☆	32.8	46.4	51.9	56.9	61.4	65.7	69.7	73.4	83.7	92.9	104	127	4.0	–
⅜ MCP 594☆	34.3	48.5	54.2	59.4	64.1	68.5	72.7	76.6	87.4	96.9	108	133	4.1	–
⅜ MCP 618☆	36.7	50.5	56.4	61.8	66.8	71.4	75.7	79.8	91.0	101	113	138	4.2	–
⅜ MCP 643☆	37.1	52.5	58.7	64.3	69.4	74.2	78.7	83.0	94.6	105	117	144	4.2	–
⅜ MCP 668☆	38.5	54.5	60.9	66.8	72.1	77.1	81.8	86.2	98.3	109	122	149	4.3	–
⅜ MCP 692☆	40.0	56.5	63.2	69.2	74.8	80.0	84.8	89.4	102	113	126	155	4.4	–
⅜ MCP 717☆	41.4	58.6	65.5	71.7	77.5	82.8	87.8	92.6	106	117	131	160	4.5	–
⅜ MCP 742☆	42.8	60.6	67.7	74.2	80.1	85.7	90.9	95.8	109	121	135	166	4.6	–
⅜ MCP 767☆	44.3	62.6	70.0	76.7	82.8	88.5	93.9	99.0	113	125	140	171	4.6	–
⅜ MCP 791☆	45.7	64.6	72.2	79.1	85.8	91.4	96.9	102	117	129	145	177	4.7	–
⅜ MCP 816☆	47.1	66.6	74.5	81.6	88.1	94.2	99.9	105	120	133	149	183	4.8	–
⅜ MCP 841☆	48.5	68.6	76.7	84.1	90.8	97.1	103	109	124	137	154	188	4.9	–
⅜ MCP 866☆	50.0	70.7	79.0	86.6	93.5	99.9	106	112	127	141	158	194	4.9	–
⅜ MCP 890☆	51.4	72.7	81.3	89.0	96.2	103	109	115	131	145	163	199	5.0	–
⅜ MCP 915☆	52.8	74.7	83.5	91.5	98.8	106	112	118	135	149	167	205	5.1	–
⅜ MCP 940☆	54.3	76.7	85.8	94.0	102	109	115	121	138	153	172	210	5.1	–
⅜ MCP 964☆	55.7	68.7	88.0	96.4	104	111	118	125	142	158	176	216	5.2	–
⅜ MCP 989☆	57.1	80.8	90.3	98.9	107	14	121	128	146	162	181	221	5.3	–
⅜ MCP 1014☆	58.5	82.8	92.6	101	110	117	124	131	149	166	185	227	5.3	–
⅜ MCP 1039☆	60.0	84.8	94.8	104	112	120	127	134	153	170	190	232	5.4	–

MCM, MCTM TYPE
(Paper trimming)

MCP TYPE

MCRP TYPE
(wire high pressure cleaning)

☆ = Nozzle Material
–Add B to Brass
–Add S303 to Stainless steel

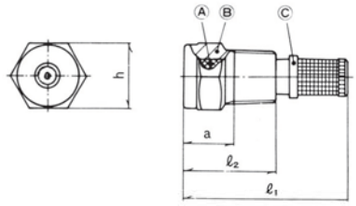
(예) ⅛MCP 25 B W
(예) ⅛MCP 25 S303 W

W=Strainer
–W=Strainer W (with Strainer) – (without Strainer)
–Models that do not appear W available upon request also

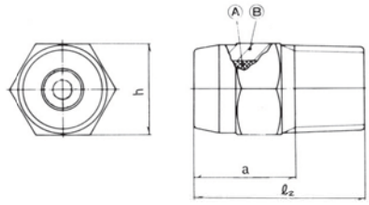
SOLID-JET NOZZLE

MCP SERIES

1/8MCP



1/4MCP or higher

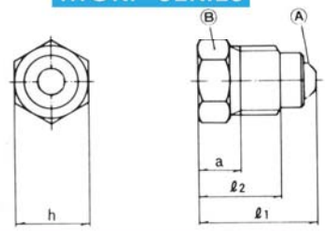


Pipe Conn. Size	Dimensions (mm)				Weight(g)	
	ℓ1	ℓ2	h	a	B	SUS
1/8MCP	29.5	16.5	12	9.5	7.8(10)	7.1(9)
1/4MCP	–	26.0	14	15.5	21	19.5
3/8MCP	–	30.0	19	19.0	40	38

* ( ) with strainer weight

Nozzle Number		Capacity ℓ/min							Free Pass. Dia.
1/8" mounting aperture	1/4" mounting aperture	3 kg/cm²	5 kg/cm²	7 kg/cm²	10 kg/cm²	15 kg/cm²	20 kg/cm²	30 kg/cm²	
⅛ MCRP 06☆	¼ MCRP 06☆	0.24	0.30	0.36	0.43	0.53	0.61	0.74	0.5
⅛ MCRP 09☆	¼ MCRP 09☆	0.34	0.44	0.52	0.62	0.76	0.88	1.07	0.6
⅛ MCRP 12☆	¼ MCRP 12☆	0.46	0.59	0.70	0.84	1.03	1.19	1.45	0.7
⅛ MCRP 15☆	¼ MCRP 15☆	0.60	0.77	0.91	1.09	1.33	1.54	1.89	0.8
⅛ MCRP 20☆	¼ MCRP 20☆	0.76	0.98	1.15	1.38	1.69	1.95	2.39	0.9
⅛ MCRP 24☆	¼ MCRP24☆	0.94	1.21	1.43	1.71	2.09	2.42	2.96	1.0
⅛ MCRP 29☆	¼ MCRP 29☆	1.13	1.46	1.73	2.07	2.54	2.93	3.59	1.1
⅛ MCRP 35☆	¼ MCRP 35☆	1.35	1.74	2.06	2.46	3.01	3.48	4.26	1.2
⅛ MCRP 41☆	¼ MCRP 41☆	1.58	2.04	2.42	2.89	3.54	4.09	5.01	1.3
⅛ MCRP 47☆	¼ MCRP 47☆	1.83	2.37	2.80	3.35	4.10	4.74	5.80	1.4
⅛ MCRP 54☆	¼ MCRP 54☆	2.11	2.72	3.22	3.85	4.72	5.44	6.67	1.5
⅛ MCRP 70☆	¼ MCRP 70☆	2.71	3.50	4.14	4.95	6.06	7.00	8.57	1.7
⅛ MCRP 97☆	¼ MCRP 97☆	3.75	4.84	5.72	6.84	8.38	9.67	11.80	2.0

MCRP SERIES

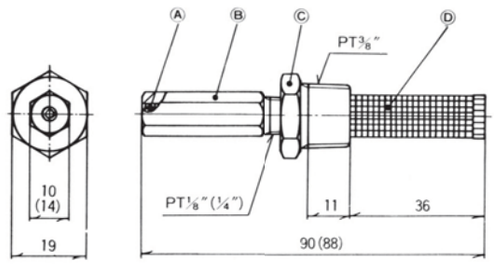


Pipe Conn. Size	Dimensions (mm)				Weight (g)
	ℓ1	ℓ2	h	a	
1/8MCP	18	13	12	9	7.0
1/4MCP	22	15.5	14	9.5	15.0

Ⓐ	Ceramic or Tungsten carbide
Ⓑ	Body
Ⓒ	Metal Adaptor
Ⓓ	Metal Strainer

MCM, MCTM SERIES

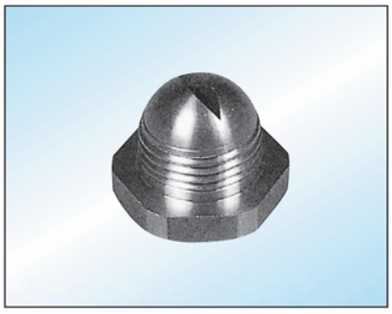
중량	B	SUS
(gr)	55	50



* Dimensions in ( ) are 13,16, 19,23, 26,30

Nozzle Number		Capacity ℓ/min						Free Pass. Dia.	Strainer Mesh Size
CERAMIC TIP	TC TIP	5 kg/cm²	10 kg/cm²	20 kg/cm²	30 kg/cm²	40 kg/cm²	50 kg/cm²		
⅜ MCM 01☆W	⅜ MCTM 01☆W	0.10	0.14	0.19	0.23	0.27	0.30	0.3	150
⅜ MCM 02☆W	⅜ MCTM 02☆W	0.17	0.24	0.34	0.41	0.47	0.52	0.4	150
⅜ MCM 04☆W	⅜ MCTM 04☆W	0.25	0.35	0.49	0.60	0.68	0.76	0.5	100
⅜ MCM 05☆W	⅜ MCTM 05☆W	0.36	0.51	0.71	0.86	0.99	1.10	0.6	100
⅜ MCM 07☆W	⅜ MCTM 07☆W	0.49	0.69	0.96	1.17	1.34	1.54	0.7	50
⅜ MCM 09☆W	⅜ MCTM 09☆W	0.65	0.90	1.26	1.53	1.75	1.95	0.8	50
⅜ MCM 11☆W	⅜ MCTM 11☆W	0.78	1.09	1.52	1.84	2.11	2.64	0.9	50
⅜ MCM 13☆W	⅜ MCTM 13☆W	0.97	1.34	1.88	2.28	2.61	2.91	1.0	50
⅜ MCM 16☆W	⅜ MCTM 16☆W	1.17	1.63	2.27	2.75	3.16	3.51	1.1	50
⅜ MCM 19☆W	⅜ MCTM 19☆W	1.39	1.94	2.70	3.28	3.76	4.18	1.2	50
⅜ MCM 23☆W	⅜ MCTM 23☆W	1.63	2.27	3.17	3.85	4.41	4.91	1.3	50
⅜ MCM 26☆W	⅜ MCTM 26☆W	1.89	2.64	3.68	4.46	5.17	5.69	1.4	50
⅜ MCM 30☆W	⅜ MCTM 30☆W	2.17	3.03	4.22	5.12	5.88	6.54	1.5	50

BRUSH HEADER



SJ-ND

Features
–Flat Spray for Shower header

Material
–303, Stainless Steel, Brass, Other materials available upon request

Applications
–Dewatering

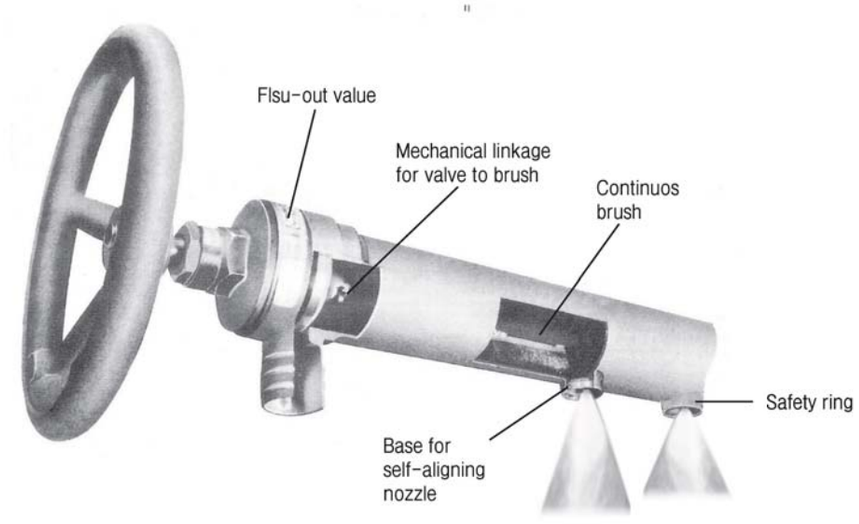
Nozzle Number	Thread Size	Capacity (ℓ /min)										Spray Angle			
		0.5kg/cm²	1kg/cm²	1.5kg/cm²	2.0kg/cm²	2.5kg/cm²	3.0kg/cm²	4.0kg/cm²	5kg/cm²	6kg/cm²	7kg/cm²	1kg/cm²	3kg/cm²	5kg/cm²	7kg/cm²
M-ND 4	3/8"	1.4	2.1	2.6	3.0	3.3	3.6	4.0	4.3	4.7	5	38	45	50	60
M-ND 8	3/8"	2.7	3.8	4.7	5.5	6.3	6.8	8	9	9.6	10.3	42	45	54	55

SJ-FS

Features
–Flat Spray for Shower header

Material
–303, 304Stainless Steel,
Other materials available upon request

Applications
–Showers for Paper making



Nozzle Number	Orifice Dia (mm)	Capacity (ℓ /min)						Spray Angle		
		1.5kg/cm²	3kg/cm²	5kg/cm²	7kg/cm²	10kg/cm²	20kg/cm²	0°	30°	60°
SJ-FSO8	0.8	0.8	0.5	0.65	0.77	0.92	1.3	●		
SJ-FS10	1.0	1.0	0.9	1.2	1.5	1.8	2.4	●		
SJ-FS12	1.2	1.2	1.3	1.63	2	2.4	3.5	●	●	●
SJ-FS15	1.5	1.5	1.7	2.2	2.6	3.1	4.4	●	●	●
SJ-FS20	2.0	2.0	3	3.9	5	6	8.4	●	●	●
SJ-FS25	2.5	2.5	5	6.5	7.6	9	13	●	●	●
SJ-FS30	3.0	3.0	8	10.3	12	14.3	20	●	●	●
SJ-FS40	4.0	4.0	12.5	16	19	22.7	32	●	●	●

PJ/P fine atomizing

Design features

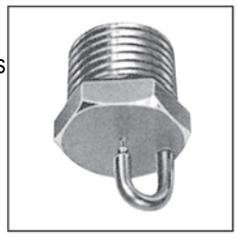
- High energy efficiency
- One-piece, compact construction
- No whirl vances or internal parts
- Dewatering
- 1/8" or 1/4" male connection
- 200-mesh screen or 10micron paper filer optional

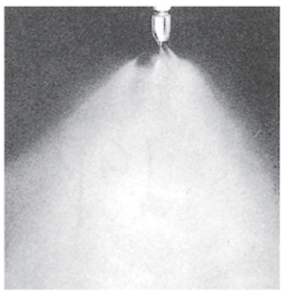
Spray characteristics

- Finest fog of any direct pressure nozzle
- Produces high percentage of droplets under 50microns
- Spray pattern: Cone-Shaped Fog
- Spray angle: 90°
- Flow rates: 0.0367 to 5.34 ℓ/m

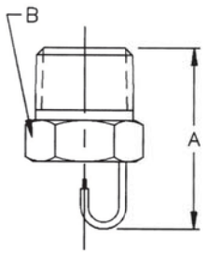
Applications : Humidifying, sterilization, odor removal, mist spraying

PJ

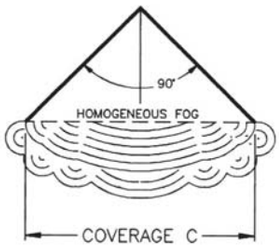




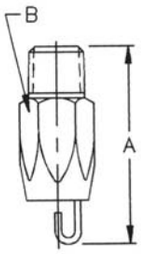
Fog



PJ Male



Fog Pattern



P Male

P

Flow Rates and Dimensions

Impingement, 90° Spray Angle, 1/8″ or 1/4″ Pipe Sizes, BSP or NPT

DISC JET SPRAY NOZZLE

Male Pipe Size	Nozzle Number	K Factor	Capacity (ℓ/min) kg/cm² 2 kg/cm²	3 kg/cm²	5 kg/cm²	10 kg/cm²	20 kg/cm²	30 kg/cm²	50 kg/cm²	70 kg/cm²	Orifice Dia. (mm)	Dimension. (mm) A	B	C	Wt. (g)
1/8 ~ 1/4	PJ8	0.0259	–	–	0.0580	0.0820	0.116	0.142	0.183	0.217	0.203	19.1	11.1	254	7
	PJ10	0.0387	–	0.0671	0.0866	0.123	0.173	0.212	0.274	0.324	0.254				
	PJ12	0.0254	–	0.0908	0.117	0.166	0.234	0.287	0.371	0.439	0.305				
	PJ15	0.0843	0.119	0.146	0.189	0.267	0.377	0.462	0.596	0.705	0.381				

● P

Male Pipe Size	Nozzle Number	K Factor	Capacity (ℓ/min) kg/cm² 1 kg/cm²	2 kg/cm²	3 kg/cm²	5 kg/cm²	7 kg/cm²	10 kg/cm²	20 kg/cm²	30 kg/cm²	Orifice Dia. (mm)	Dimension. (mm) A	B	C	Wt. (g)
1/4	P20	0.153	0.153	0.216	0.264	0.341	0.404	0.483	0.683	0.836	0.508			310	
	P24	0.228	0.228	0.322	0.395	0.510	0.603	0.721	1.02	1.25	0.610			380	
	P28	0.296	0.296	0.419	0.513	0.662	0.784	0.937	1.32	1.62	0.711			460	
	P32	0.410	0.410	0.580	0.710	0.917	1.09	1.30	1.83	2.25	0.813			530	
	P40	0.638	0.638	0.902	1.11	1.43	1.69	2.02	2.85	3.49	1.02	50.8	16.0	610	57
	P48	0.912	0.912	1.29	1.58	2.04	2.41	2.88	4.08	4.99	1.22			690	
	P54	1.21	1.21	1.71	2.09	2.70	3.20	3.82	5.40	6.62	1.37			760	
	P66	1.71	1.71	2.42	2.96	3.82	4.52	5.40	7.364	9.36	1.68			910	
	P80	2.46	2.46	3.48	4.26	5.50	6.51	7.78	11.0	13.5	2.03			1200	
	P120	5.54	5.54	7.83	9.59	12.4	14.7	17.5	24.8	30.3	3.05			1500	

Flow Rate(1/min)=K$\sqrt{bar}$

Standard Material : Brass, 303 Stainless Steel and 316 Stainless Steel. See chart on page 17 for complete list.

FULL JET NOZZLE

TG Type Design Pressure : 0.7kg/㎠

Features
–Round spray pattern
–Uniform distribution over a wide range of flow rates and pressures

Materials
–Standard materials are Brass, 303 Stainless Steel

Applications
– Parts washing, Cooling, and so on.

T
FEMALE BODY
OR

TT
MALE BODY

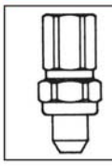
TIP RETAINER

Nozzle Number		Tip Number	Orifice Dia. (mm)	Screen Mesh	Capacity (ℓ / min)											Spray Angle		
Type T Female	Type TT Female				0.7 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	6 kg/cm²	7 kg/cm²	10 kg/cm²	15 kg/cm²	20 kg/cm²	1.5 kg/cm²	3 kg/cm²	7 kg/cm²
¼TG0.3	¼TTG0.3	TG0.3	0.5	100	..	..	0.16	0.19	0.23	0.28	0.32	0.36	0.45	0.49	0.60	50°	58°	61°
¼TG0.4	¼TTG0.4	TG0.4	0.56	100	..	..	0.22	0.26	0.30	0.37	0.42	0.49	0.61	0.68	0.83	56°	60°	63°
¼TG0.5	¼TTG0.5	TG0.5	0.6	100	..	0.23	0.27	0.33	0.38	0.45	0.53	0.61	0.72	0.83	1.02	56°	60°	63°
¼TG0.6	¼TTG0.6	TG0.6	0.68	100	..	0.28	0.32	0.38	0.45	0.57	0.64	0.72	0.87	1.02	1.25	54°	59°	62°
¼TG0.7	¼TTG0.7	TG0.7	0.76	100	..	0.33	0.38	0.45	0.53	0.64	0.76	0.83	1.02	1.17	1.44	54°	60°	63°
¼TG1	¼TTG1	TG1	0.91	*	..	0.45	0.53	0.64	0.72	0.87	0.98	1.14	1.36	1.51	1.82	58°	59°	53°
¼TG2	¼TTG2	TG2	1.2	*	0.76	0.91	1.06	1.29	1.44	1.74	2.00	2.23	2.91	2.99	3.63	50°	50°	46°
¼TG3	¼TTG3	TG3	1.6	*	1.14	1.36	1.59	1.89	2.16	2.61	2.99	3.33	4.20	4.50	5.30	65°	65°	59°
¼TG3.5	¼TTG3.5	TG3.5	1.7	*	1.32	1.59	1.82	2.10	2.54	3.07	3.48	3.80	4.90	5.30	6.40	50°	50°	46°
¼TG5	¼TTG5	TG5	2.1	*	1.89	2.27	2.61	3.10	3.59	4.50	4.90	5.70	6.80	7.60	9.10	65°	65°	59°
¼TG6.5	¼TTG6.5	TG6.5	2.4	*	2.46	2.95	3.37	4.20	4.90	5.70	6.40	7.20	8.70	9.80	11.7	50°	50°	46°
¼TG10	¼TTG10	TG10	3.2	*	3.8	4.9	5.30	6.40	7.20	9.10	10.2	11.4	13.6	15.1	18.2	67°	67°	61°

Ordering info : (Ex) Stainless steel Male – 1/4TT–SS+5
Brass Female – 1/4T+TG–5
Tip only Stainless steel – TG–SS5

TG
Spray Nozzle Tip

DIMENSIONS & WEIGHTS



Nozzle Number	Max. Length mm	Max. Hex mm	Weight
1/4T+TG	48.5	20.6	0.07
1/4TT+TG	48.5	20.6	0.07

WIDE ANGLE FULL CONE SPRAY TIP

TGW Type Design Pressure : 0.7kg/㎠

Features
–Wide Round spray pattern
–Uniform distribution over a wide range of flow rates and pressures

Materials : Standard materials are Stainless Steel

Applications
– Foam break–up
–Gas scrubbing, washing, cooling
–Washing/rinsing

TTG–W Type

120 °

Nozzle Number		Tip Number	Orifice Dia. (mm)	Capacity (ℓ / min)									Spray Angle			
Type T Female	Type TT Female			0.3 kg/cm²	0.5 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	0.3 kg/cm²	0.7 kg/cm²	3 kg/cm²	5 kg/cm²
¼TG–SS2.8W	¼TTG–SS2.8W	TG–SS2.8W	1.4			1.2	1.5	1.7	2.0	2.3	2.5	2.7		120°	120°	102°
¼TG–SS4.3W	¼TTG–SS4.3W	TG–SS4.3W	1.9			1.9	2.3	2.6	3.1	3.5	3.9	4.2		120°	120°	102°
¼TG–SS5.6W	¼TTG–SS5.6W	TG–SS5.6W	2.0		1.8	2.5	3.0	3.4	4.0	4.6	5.0	5.5		120°	120°	102°
¼TG–SS8W	¼TTG–SS8W	TG–SS8W	2.5		2.6	3.5	4.2	4.8	5.7	6.5	7.2	7.8		120°	120°	103°
¼TG–SS10W	¼TTG–SS10W	TG–SS10W	2.8	2.6	3.3	4.4	5.3	6.0	7.2	8.1	9.0	9.7	112°	120°	120°	103°
¼TG–SS12W	¼TTG–SS12W	TG–SS12W	3.3	3.1	3.9	5.3	6	7.2	8.6	9.8	10.8	11.7	114°	120°	120°	103°

Ordering info : (Ex) Stainless steel Male – 1/4TT–SS+TG–SS5.6W
Brass Body – 1/4T+TG–SS5.6W 2323

FULL CONE NOZZLE

R/RR F/FF TYPE

Features

- –Solid cone–shaped spray pattern with round impact area.
- –Uniform distribution over a wide range of flow rates and pressures.
- –Medium– to large–sized drops.
- –Removable internal parts for easy inspection and cleaning.

Materials

- –303, 304, 316 Stainless Steel, Brass, PVC
- –Other materials available upon request

Applications

- –Cooling, Chemical processing,
- –Dust control, Fire suppression/prevention
- –Gas scrubbing, washing and cooling

Type R
Female Separable Type

Type RR
Male Separable Type

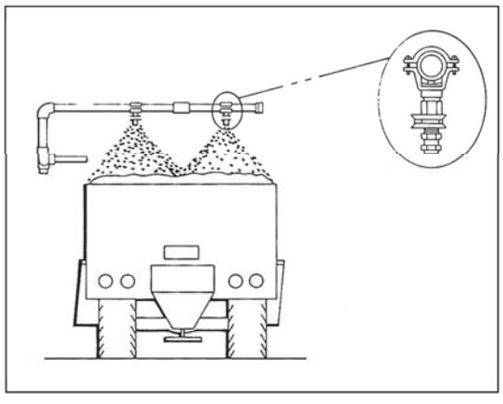
Type FF
Male One–piece Type

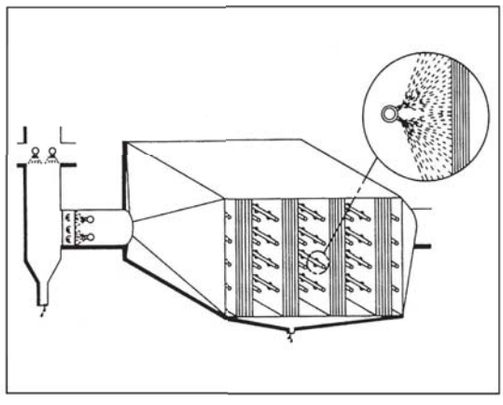
Type F
Female One–piece Type

(60°~90°)

Nozzle Number		Orifice Dia (mm)	Capacity (ℓ /min)										Spray Angle		
Conn F	Conn M		0.5 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	10 kg/cm²	0.5 kg/cm²	1.5 kg/cm²	5 kg/cm²
⅛R1	⅛RR1	0.89		0.45	0.54	0.61	0.74	0.84	0.93	1.0	1.1	1.3		58°	53°
⅛R1.5	⅛RR1.5	1.2	0.49	0.67	0.80	0.92	1.1	1.3	1.4	1.5	1.6	1.9	52°	65°	59°
⅛R2	⅛RR2	1.2	0.65	0.89	1.1	1.2	1.5	1.7	1.9	2.0	2.2	2.6	43°	50°	46°
⅛R3	⅛RR3	1.5	0.97	1.3	1.6	1.8	2.2	2.5	2.8	3.0	3.3	3.9	52°	65°	59°
⅛R3.5	⅛RR3.5	1.6	1.1	1.6	1.9	2.1	2.6	3.0	3.3	3.6	3.8	4.5	43°	50°	46°
⅛R5	⅛RR5	2.0	1.6	2.2	2.7	3.1	3.7	4.2	4.7	5.1	5.5	6.4	52°	65°	59°
¼R6.5	¼RR6.5	2.3	2.1	2.9	3.5	4.0	4.8	5.5	6.1	6.6	7.1	8.4	45°	50°	46°
	¼FF6.5	2.3	2.1	2.9	3.5	4.0	4.8	5.5	6.1	6.6	7.1	8.4	45°	50°	46°
¼R10	¼RR10	2.9	3.2	4.5	5.4	6.1	7.4	8.4	9.3	10.2	10.9	12.9	58°	67°	61°
	¼FF10	2.9	3.2	4.5	5.4	6.1	7.4	8.4	9.3	10.2	10.9	12.9	58°	67°	61°
⅜R9.5	⅜RR9.5	2.6	3.1	4.2	5.1	5.8	7.0	8.0	8.9	9.7	10.4	12.2	45°	50°	46°
	⅜FF9.5	2.6	3.1	4.2	5.1	5.8	7.0	8.0	8.9	9.7	10.4	12.2	45°	50°	46°
⅜R15	⅜RR15	3.6	4.9	6.7	8.0	9.2	11.1	12.7	14.0	15.2	16.4	19.3	64°	67°	61°
	⅜FF15	3.6	4.9	6.7	8.0	9.2	11.1	12.7	14.0	15.2	16.4	19.3	64°	67°	61°
⅜R22	⅜RR22	4.5	7.1	9.8	11.8	13.5	16.3	18.6	21	22	24	28	87°	90°	82°
	⅜FF22	4.5	7.1	9.8	11.8	13.5	16.3	18.6	21	22	24	28	87°	90°	82°
½R16	½RR16	3.5	5.2	7.1	8.6	9.8	11.8	13.5	15.0	16.3	17.5	21	48°	50°	46°
½R25	½RR25	4.6	8.1	11.1	13.4	15.3	18.5	21	23	25	27	32	64°	67°	61°
	½FF25	4.6	8.1	11.1	13.4	15.3	18.5	21	23	25	27	32	64°	67°	61°
½R32	½RR32	5.2	10.4	14.2	17.2	19.6	24	27	30	33	35	41	72°	75°	68°
½R40	½RR40	6.2	12.9	17.8	21	24	30	34	37	41	44	51	88°	91°	83°
	½FF40	6.7	12.9	17.8	21	24	30	34	37	41	44	51	88°	91°	83°
¾F2.5	¾FF2.5	4.9	9.5	13.1	15.8	18.1	22	25	28	30	32	38	48°	50°	46°
¾F4	¾FF4	6.4	15.3	21	25	29	35	40	44	48	51	61	67°	70°	63°
¾F7	¾FF7	9.5	27	37	44	51	61	70	77	84	90	106	89°	92°	84°
1F4.2	1FF4.2	6.0	16.0	22	27	30	37	42	46	50	54	64	48°	50°	46°
1F7	1FF7	8.3	27	37	44	51	61	70	77	84	90	106	67°	68°	62°
1F10	1FF10	11.9	38	52	63	72	87	99	100	120	129	151	78°	90°	94°
1F12	1FF12	11.9	46	63	76	87	104	119	132	144	154	182	89°	92°	84°

Application Examples





FULL CONE NOZZLE

R–W/RR–W F–W/FF–W TYPE

Features

–Wide–angle solid cone–shaped spray pattern with round impact area
–Unique vane design with large flow passages provides superior control and uniform distribution.
–Removable caps and vanes for easy inspection and cleaning on most models.
–Removable vane has location marks for proper positioning after cleaning.

Materials

–303, 304, 316 Stainless Steel, Brass, PVC / Other materials available upon request

Applications

–Cooling, Chemical processing
–Dust control, Fire suppression/prevention
–Gas scrubbing, washing and cooling

120°

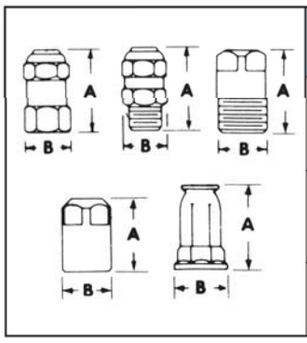
Nozzle Number		Orifice Dia (mm)	Capacity (ℓ /min)								Spray Angle		
Conn. F	Conn. M		0.3 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	0.5 kg/cm²	3 kg/cm²	5 kg/cm²
⅛R2.8W ⅛R4.3W ⅛R5.6W ⅛R8W	⅛RR2.8W ⅛RR4.3W ⅛RR5.6W ⅛RR8W	1.4 1.9 2.0 2.5		1.2 1.9 2.5 3.5	1.5 2.3 3.0 4.2	1.7 2.6 3.4 4.8	2.0 3.1 4.0 5.7	2.3 3.5 4.6 6.5	2.5 3.9 5.0 7.2	2.7 4.2 5.5 7.8	120° 120° 120° 120°	120° 120° 120° 120°	102° 102° 102° 103°
¼R10W ¼R12W	¼RR10W ¼RR12W	2.8 3.3	2.6 3.1	4.4 5.3	5.3 6.3	6.0 7.2	7.2 8.6	8.1 9.8	9.0 10.8	9.7 11.7	120° 120°	120° 120°	103° 103°
¼R14W	¼RR14W ¼FF14W	3.6	3.6	6.2	7.4	8.4	10.0	11.4	12.6	13.6	120°	120°	103°
⅜R20W	⅜RR20W ⅜FF20W	4.4	5.2	8.8	10.6	12.0	14.4	16.3	18.0	19.5	120°	121°	104°
⅜R24W	⅜RR24W ⅜FF24W	4.5	6.2	10.6	12.7	14.4	17.2	19.5	22	23	120°	121°	104°
⅜R27W	⅜RR27W ⅜FF27W	4.7	7.0	11.9	14.3	16.2	19.4	22	24	26	120°	121°	106°
½R30W	½RR30W ½FF30W	5.1	7.8	13.3	15.89	18.0	22	24	27	29	120°	121°	108°
½R35W	½RR35W ½FF35W	5.9	9.1	15.5	18.5	21	25	29	31	34	120°	121°	108°
½R40W	½RR40W ½FF40W	6.3	10.4	17.7	21	24	29	33	36	39	120°	121°	108°
½R45W	½RR45W ½FF45W	6.3	11.7	19.9	24	27	32	37	40	44	120°	121°	110°
½R50W	½RR50W ½FF50W	6.7	13.0	22	26	30	36	41	45	49	120°	121°	112°
¾F6W	¾FF6W	9.8	18.3	31	37	42	50	57	63	68	120°	121°	112°
1F11W	1FF11W	13.1	33	57	68	77	92	105	116	125	120°	124°	117°
1¼F16W		15.5	49	83	99	112	134	152	168	182	121°	124°	119°
1½F24W		18.2	73	124	148	169	200	230	250	275	124°	125°	119°
2F47W		25.0	143	245	290	330	395	445	495	540	124°	125°	119°
2½F70W		31.8	215	360	430	490	590	670	740	800	125°	125°	119°
3F95W		34.9	290	490	590	670	800	910	1000	1080	125°	125°	119°
4F188W		50.8	570	970	1160	1320	1580	1790	1980	2140	125°	125°	119°

Type R
Male Separable Type

Type FF
Male One–piece Type

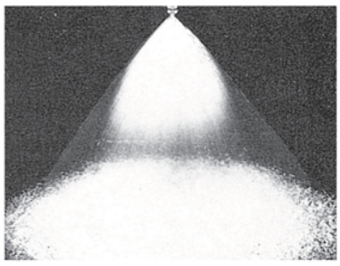
Type F–W Male

Dimensions and Weights



Nozzle Number	A Max (mm)	B Max (mm)	Weight Max (kg)	Nozzle Number	A Max (mm)	B Max (mm)	Weight Max (kg)
⅛R	31.0	14.3 육각	0.03	⅜FF	40.5	ϕ27.0	0.10
¼R	37.5	17.5 육각	0.04	1FF	53.5	ϕ33.3	0.20
⅜R	46.0	20.6 육각	0.07				
½R	57.2	25.4 육각	0.17	⅜F	55.5	ϕ31.8	0.21
				1F	70.0	ϕ38.1	0.36
⅛RR	32.5	14.3 육각	0.02	1¼F	87.5	ϕ52.4	0.48
¼RR	40.0	17.5 육각	0.04	1½F	102	ϕ58.7	0.68
⅜RR	47.0	20.6 육각	0.07	2F	138	ϕ76.2	1.6
½RR	56.5	25.4 육각	0.17	2½F	1632	ϕ87.3	2.2
				3F	187	ϕ104.8	2.7
¼FF	23.0	ϕ13.5	0.01	4F	251	ϕ138.1	8.2
⅜FF	30.5	ϕ16.7	0.03				
½FF	34.9	ϕ20.6	0.04				

FULL CONE NOZZLE

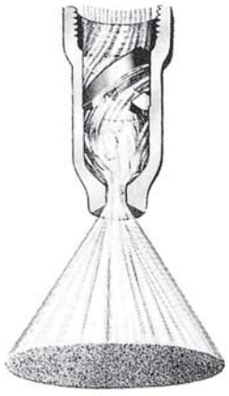


F, FH Type

Features
- One piece design
- Large droplet sizes
- Even atomization and distribution

Materials
- Brass, 303, 304, 316 Stainless Steel and PVC / Other materials available upon request

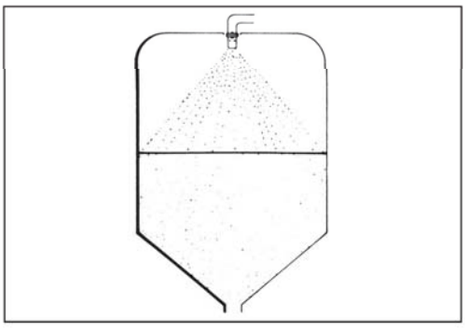
Applications
- High volume surface spraying / Scrubbers
- Gas cooling / Chemical processing / Fire suppression

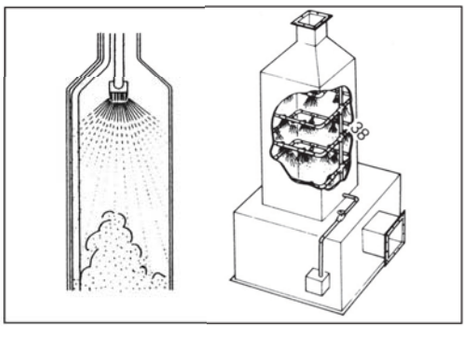


Type F
Female Type

Type FH
Flange Conn.

Nozzle Number		Orifice Dia (mm)	Capacity (ℓ /min)											Spray Angle		
Conn. F	Conn. Flange		0.5 kg/cm²	0.7 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	10 kg/cm²	0.5 kg/cm²	1.5 kg/cm²	4 kg/cm²
1¼F6		7.4	23	27	31	38	43	52	60	66	72	77	91	48°	50°	46°
1¼F610		9.6	38	45	52	63	72	87	99	110	120	129	151	64°	67°	61°
1¼F12		10.7	46	53	63	76	87	104	119	132	144	154	182	66°	70°	63°
1¼F14		12.3	53	62	73	88	101	122	139	154	168	180	210	77°	80°	73°
1¼F20		15.1	76	89	105	126	144	174	199	220	240	255	300	90°	93°	85°
1½F10		9.5	38	45	52	63	72	87	99	110	120	129	151	48°	50°	46°
1½F16		12.7	61	71	84	101	116	139	159	176	192	205	240	72°	74°	67°
1½F20		14.3	76	89	105	126	144	174	199	220	240	255	300	74°	76°	69°
1½F30		18.3	114	134	157	190	215	260	300	330	360	385	455	91°	94°	86°
2F17		12.7	65	76	89	107	123	148	169	187	205	220	255	49°	50°	46°
2F30		17.3	114	134	157	190	215	260	300	330	360	385	455	72°	74°	67°
2F35		19.2	133	156	184	220	250	305	345	385	420	450	530	75°	77°	70°
2F40		21.0	153	178	210	250	290	350	395	440	480	510	610	78°	80	73°
2F50		23.8	191	220	260	315	360	435	495	550	600	640	760	83°	85°	78°
2F60		28.6	230	265	315	380	435	520	600	660	720	770	910	98°	100°	91°
2½F25		15.1	95	111	131	158	181	215	250	275	300	320	380	49°	50°	46°
2½F50		22.2	191	220	260	315	360	435	495	550	600	640	760	72°	74°	67°
2½F60		24.6	230	265	315	380	435	520	600	660	720	770	910	76°	78°	71°
2½F70		28.6	265	310	365	440	510	610	700	770	840	900	1060	79°	82°	75°
2½F80		28.6	305	355	420	510	580	700	800	880	960	1030	1210	86°	88°	80°
2½F90		31.8	345	400	470	570	650	780	890	990	1080	1160	1360	95°	97°	88°
3F42		19.1	160	187	220	265	305	365	415	460	500	540	640	49°	50°	46°
3F80		27.8	305	355	420	510	580	700	800	880	960	1030	1210	81°	84°	76°
3F90		30.2	345	400	470	570	650	780	890	990	1080	1160	1360	86°	89°	81°
3F100		32.5	380	445	520	630	720	870	990	1100	1200	1290	1510	92°	95°	87°
3F120		34.9	455	530	630	760	870	1040	1190	1320	1440	1540	1820	102°	105°	93°
4F160	4FH160	42.9	610	710	840	1010	1160	1390	1590	1760	1920	2060	2420	87°	90°	73°
4F180	4FH180	47.2	690	800	940	1140	1300	1570	1790	1980	2160	2310	2730	92°	95°	87°
4F200	4FH200	50.8	760	890	1050	1260	1440	1740	1990	2200	2400	2570	3030	97°	100°	91°
4F210	4FH210	54.8	800	930	1100	1330	1520	1830	2090	2310	2510	2700	3180	102°	105°	95°
5F250	5FH250	47.6	950	1110	1310	1580	1810	2180	2480	2750	2990	3210	3790	89°	91°	83°
5F280	5FH280	52.8	1070	1250	1470	1770	2020	2440	2780	3080	3350	3600	4240	93°	96°	88°
5F320	5FH320	68.3	1220	1420	1680	2020	2310	2790	3180	3520	3830	4110	4850	97°	100°	91°
5F330	5FH330	72.2	1260	1470	1730	2090	2380	2870	3280	3630	3950	4240	5000	102°	105°	95°
6F350	6FH350	61.1	1330	1560	1840	2210	2530	3050	3480	3850	4190	4500	5300	87°	90°	82°
6F400	6FH400	69.1	1530	1780	2100	2530	2890	3480	3980	4400	4790	5150	6050	92°	95°	87°
6F450	6FH450	77.0	1720	2000	2360	2840	3250	3920	4470	4960	5400	5800	6800	97°	100°	91°
6F480	6FH480	81.8	1830	2140	2520	3030	3470	4180	4770	5300	5750	6150	7250	102°	105°	95°
8F500	8FH500	69.9	1910	2230	2620	3160	3610	4350	4970	5500	6000	6400	7550	78°	80°	73°
8F600	8FH600	80.2	2290	2670	3150	3790	4330	5200	5950	6600	7200	7700	9100	86°	88°	80°
8F700	8FH700	91.3	2670	3120	3670	4420	5050	6100	6950	7700	8400	9000	10600	92°	95°	87°
8F800	8FH800	102	3050	3560	4200	5050	5750	6950	7950	8800	9600	10300	12100	102°	105°	95°
8F900	8FH900	124	3430	4010	4720	5700	6500	7850	8950	9900	10800	11600	13600	106°	110°	100°
	10FH800	85.1	3050	3560	4200	5050	5750	6950	7950	8800	9600	10300	12100	78°	80°	73°
	10FH1000	101	3810	4450	5250	6300	7200	8700	9950	11000	12000	12900	15100	86°	89°	81°
	10FH1200	122	4580	5350	6300	7600	8650	10400	11900	13200	14400	15400	18200	97°	100°	91°
	10FH1300	135	4960	5800	6800	8200	9400	11300	12900	14300	15600	16700	19700	103°	106°	96°





FULL CONE NOZZLE

R/RR F/FF TYPE

Features
- Solid narrow angle cone-shaped spray pattern and spray angles of 15° and 30°
- Significantly higher impact per unit area than wider angle nozzles at the same flow rate.
- Designed to be disassembled, in the form of the R, RR has two forms.

Materials
- Brass, 303, 304, 316 Stainless Steel and PVC / Other materials available on request

Applications
- Cleaning and cooling the inside of ducts and pipes
- Products washing / Gas washing and gas cooling

30° Type

30° R Female Separable Type

30° RR Male Separable Type

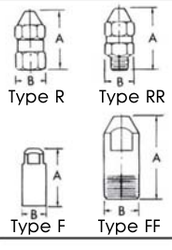
Nozzle Number		Orifice Dia (mm)	Capacity (ℓ /min)								Spray Angle		
Conn. F	Conn. M		1 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	10 kg/cm²	1 kg/cm²	3 kg/cm²	7 kg/cm²
⅛R3001	⅛RR3001	0.71	0.32	0.45	0.55	0.63	0.71	0.77	0.84	1.0	17°	30°	31°
⅛R3002	⅛RR3002	0.97	0.56	0.80	0.98	1.1	1.3	1.4	1.5	1.8	17°	30°	32°
⅛R3004	⅛RR3004	1.2	0.90	1.3	1.6	1.8	2.0	2.2	2.4	2.9	26°	30°	32°
⅛R3007	⅛RR3007	1.6	1.6	2.2	2.7	3.2	3.5	3.9	4.2	5.0	23°	30°	30°
¼R3009	¼RR3009	1.8	2.0	2.9	3.5	4.1	4.5	5.0	5.4	6.4	23°	30°	30°
⅜R3014	⅜RR3014	2.3	3.2	4.5	5.5	6.3	7.1	7.7	8.4	10.0	25°	30°	30°
½R3030	½RR3030	3.2	6.8	9.6	11.7	13.5	15.1	16.6	17.9	21	26°	30°	31°
¾R3050	¾RR3050	4.2	11.3	16.0	19.5	23	25	28	30	36	26°	30°	31°
	1FF3070	5.1	15.8	22	27	32	35	39	42	50	27°	30°	30°
	1FF30100	6.1	23	32	39	45	50	55	60	71	27°	30°	30°
	1¼FF30150	7.4	34	48	59	68	76	83	90	107	27°	30°	30°
	1¼FF30200	8.6	45	64	78	90	101	111	119	143	27°	30°	30°
	1½FF30250	9.6	56	80	98	113	126	138	149	179	27°	30°	30°
	1½FF30300	10.5	68	96	117	135	151	166	179	215	27°	30°	30°
	2FF30350	11.1	79	112	137	158	177	193	210	250	28°	30°	30°
	2FF30400	11.9	90	128	156	181	200	220	240	285	28°	30°	30°
	2FF30500	13.5	113	160	195	225	250	275	300	355	28°	30°	30°
	2½FF30600	14.7	135	192	235	270	300	330	360	430	28°	30°	30°
	2½FF30700	15.9	158	225	275	315	355	385	415	500	28°	30°	30°
	2½FF301000	19.1	225	320	390	450	500	550	600	710	28°	30°	30°
	2½FF301100	19.8	250	350	430	495	560	610	660	790	28°	30°	30°
	2½FF301200	20.6	270	385	470	540	610	660	720	860	28°	30°	30°

15° Type

15° ,30° FF Male One-piece Type

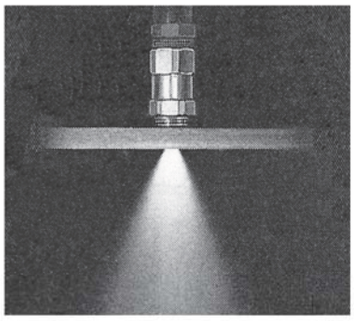
Nozzle Number		Orifice Dia (mm)	Capacity (ℓ /min)								Spray Angle		
Conn. F	Conn. M		0.7 kg/cm²	1 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	7 kg/cm²	10 kg/cm²	1 kg/cm²	3 kg/cm²	7 kg/cm²
⅛R1507	⅛R1507	1.6	1.3	1.6	2.2	2.7	3.1	3.5	4.2	5.0	13°	15°	15°
⅛R1514	⅛R1514	2.3	2.6	3.1	4.4	5.4	6.3	7.0	8.3	9.9	13°	15°	15°
¼R1530	¼R1530	3.2	5.7	6.8	9.6	11.7	13.5	15.1	17.9	21.4	13°	15°	15°
⅜R1550	⅜R1550	4.2	9.5	11.3	16.0	19.6	22.6	25.3	29.9	35.8	13°	15°	15°
½R1590	½R1590	5.6	17.3	20.7	29.2	35.8	41.3	46.2	55	65	13°	15°	15°
¾R15150		7.4	28.3	33.9	47.9	59	68	76	90	107	13°	15°	15°
1R15280		9.9	53	64	90	110	127	142	168	201	13°	15°	15°
1¼R15430		12.3	82	97	138	169	195	218	258	308	14°	15°	15°
1¼R15630		15.1	120	143	202	248	286	320	378	452	14°	15°	15°
2R151150		20.2	218	260	368	451	520	580	690	820	14°	15°	15°
2½R151750		24.6	331	396	560	685	790	880	1050	1250	14°	15°	15°
3R152500		29.4	47.3	565	800	980	1130	1265	1500	1790	14°	15°	15°
4R154500		39.7	850	1020	1440	1760	2040	2280	2690	3220	14°	15°	15°
5R157000		48.8	132	1580	2240	2740	3170	3540	4190	5010	14°	15°	15°

Dimensions and Weights



Nozzle type	A Max (mm)	B Max (mm)	Weight Max (kg)	Nozzle type	A Max (mm)	B Max (mm)	Weight Max (kg)	Nozzle type	A Max (mm)	B Max (mm)	Weight Max (kg)
1/8R	35.7	17.5六角	0.06	1FF	92.1	Ø33.3	0.57	1½F	127	Ø58	1.36
1/4R	42.9	20.6六角	0.09	1¼FF	127	Ø42.9	1.02	2F	183	Ø76.2	1.81
3/8R	54.0	25.4六角	0.17	1½FF	155	Ø47.6	1.47	2½F	233	Ø87.3	2.95
1/2R	66.7	31.8六角	0.31	2FF	200	Ø60.3	3.35	3F	268	Ø105	4.31
3/4R	84.1	38.1六角	0.57	2½FF	264	Ø73.0	5.4	4F	338	Ø138	9.07
1/8RR	38.9	17.5六角	0.06	¾F	72.2	Ø31.8	0.43	5F	430	Ø171	16.33
1/4RR	45.2	20.6六角	0.09	1F	92.2	Ø38.1	0.57				
3/8RR	55.6	25.4六角	0.17	1¼F	117	Ø47.6	1.13				
1/2RR	69.9	31.8六角	0.31								
3/4RR	87.3	38.1六角	0.57								

FULL CONE NOZZLE(WALL MOUNTED)



RD,RRD,FD TYPE

Features
- –Solid narrow angle cone–shaped spray pattern and spray angles of 15° and 30°
- –Significantly higher impact per unit area than wider angle nozzles at the same flow rate.
- –Designed to be disassembled, in the form of the R, RR has two forms.

Materials
- –Brass, 303, 304, 316 Stainless Steel and PVC / Other materials available on request

Applications
- –Spraying into chemical reaction vessels
- –Spraying into storage tanks and bins
- –Spraying into steam and gas lines

Nozzle Number		Conn.	Orifice Dia (mm)	Max. Free Passage Dia (mm)	Capacity (ℓ /min)									Spray Angle		
Inlet Conn. F	Inlet Conn. M	NPT or PT			0.5 kg/cm²	1 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	10 kg/cm²	0.5 kg/cm²	1.5 kg/cm²	5 kg/cm²
⅛RD1	⅛RRD1	⅛″	0.89	0.64		0.45	0.61	0.74	0.84	0.93	1.0	1.1	1.3		58°	53°
⅛RD2	⅛RRD2	⅛″	1.2	1.0	0.65	0.89	1.2	1.5	1.7	1.9	2.0	2.2	2.6	43°	50°	46°
⅛RD3	⅛RRD3	⅛″	1.5	1.0	0.97	1.3	1.8	2.2	2.5	2.8	3.0	3.3	3.9	52°	65°	59°
⅛RD3.5	⅛RRD3.5	⅛″	1.6	1.3	1.1	1.6	2.1	2.6	3.0	3.3	3.6	3.8	4.5	43°	50°	46°
⅛RD5	⅛RRD5	⅛″	2.0	1.3	1.6	2.2	3.1	3.7	4.2	4.7	5.1	5.5	6.4	52°	65°	59°
¼RD6.5	¼RRD6.5	¼″	2.3	1.6	2.1	2.9	4.0	4.8	5.5	6.1	6.6	7.1	8.4	45°	50°	46°
¼RD10	¼RRD10	¼″	2.9	1.6	3.2	4.5	6.1	7.4	8.4	9.3	10.2	10.9	12.9	58°	67°	61°
⅜RD9.5	⅜RRD9.5	⅜″	2.6	2.4	3.1	4.2	5.8	7.0	8.0	8.9	9.7	10.4	12.2	45°	50°	46°
⅜RD15	⅜RRD15	⅜″	3.6	2.4	4.9	6.7	9.2	11.1	12.7	14.0	15.2	16.4	19.3	64°	67°	61°
½RD16	½RRD16	½″	3.5	3.2	5.2	7.1	9.8	11.8	13.5	15.0	16.3	17.5	21	48°	50°	46°
½RD25	½RRD25	½″	4.6	3.2	8.1	11.1	15.3	18.5	21	23	25	27	32	64°	67°	61°
¾FD2.5		¾″	4.9	4.4	9.5	13.1	18.1	22	25	28	30	32	38	48°	50°	46°
¾FD4		¾″	6.4	4.4	15.3	21	29	35	40	44	48	51	61	67°	70°	63°
1FD4.2		1″	6.0	5.6	16.0	22	30	37	42	46	50	54	64	48°	50°	46°
1FD7		1″	8.3	5.6	27	37	51	61	70	77	84	90	106	67°	68°	62°
1¼FD10		1¼″	9.6	6.4	38	52	72	87	99	110	120	129	151	64°	67°	61°
1¼FD12		1¼″	10.7	6.4	46	63	87	104	119	132	144	154	182	66°	70°	63°
1½FD16		1½″	12.7	8.7	61	84	116	139	159	176	192	205	240	72°	74°	67°
1½FD20		1½″	14.3	8.7	76	105	144	174	199	220	240	255	300	74°	76°	69°
2FD30		2″	17.3	11.1	114	157	215	260	300	330	360	385	455	72°	74°	67°
2FD35		2″	19.2	11.1	133	184	250	305	345	385	420	450	530	75°	77°	70°
2FD40		2″	21.0	11.1	153	210	290	350	395	440	480	510	610	78°	80°	73°
2FD60		2″	25.4	11.1	230	315	435	520	600	660	720	770	910	98°	100°	91°
2½FD25		2½″	15.0	14.3	95	131	181	215	250	275	300	320	380	49°	50°	46°
2½FD50		2½″	22.2	14.3	191	260	360	435	495	550	600	640	760	72°	74°	67°
2½FD60		2½″	24.6	14.3	230	315	435	520	600	660	720	770	910	76°	78°	71°
2½FD70		2½″	27.0	14.3	265	365	510	610	700	770	840	900	1060	79°	82°	75°
3FD42		3″	19.1	17.5	160	220	305	365	415	460	500	540	640	49°	50°	46°
3FD80		3″	27.8	17.5	305	420	580	700	800	880	960	1030	1210	81°	84°	76°
3FD90		3″	30.2	17.5	345	470	650	780	890	990	1080	1160	1360	86°	89°	81°
3FD100		3″	32.5	17.5	380	520	720	870	990	1100	1200	1290	1510	92°	95°	87°

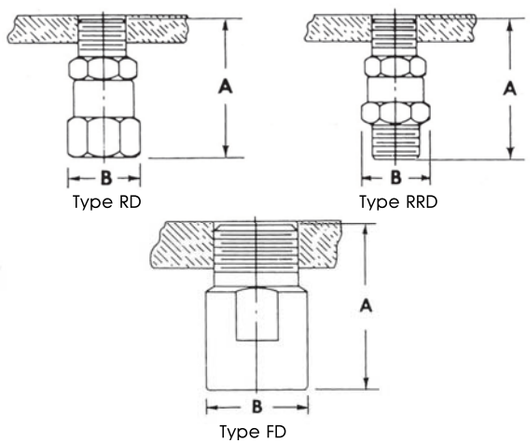
★ Maximum Free Passage Diameter is the maximum diameter as listed of foreign matter that can pass through the nozzle without clogging.

Type RD Female Inlet Separate Type

Type RRD Male Inlet Separate Type

Type FD Female Inlet One piece Type

Dimensions and Weights



Nozzle Number	A max (mm)	B max (mm)	Weight Max (kg)
⅛RD	35	14.3육각	0.03
⅛RRD	37	14.3육각	0.03
¼RD	41	17.5육각	0.04
¼RRD	43	17.5육각	0.04
⅜RD	46	20.6육각	0.07
⅜RRD	47	20.6육각	0.07
½RD	56	25.4육각	0.14
½RRD	55	25.4육각	0.13
¾FD	54	∮31.8	0.17
1FD	68	∮38.1	0.40
1¼FD	86	∮47.6	0.68
1½FD	103	∮57.2	1.1
2FD30 2FD35 2FD40	129	∮69.39	2.0
2FD60	122	∮69.9	2.0
2½FD	159	∮82.6	3.2
3FD	186	∮101.6	5.8

All Wall mounted is Male connection, same size as in Inlet connection.

Ordering info

Ex) Stainless steel,
Male – 1/4RRD–SS10
Brass,
Female –1/4RD–10

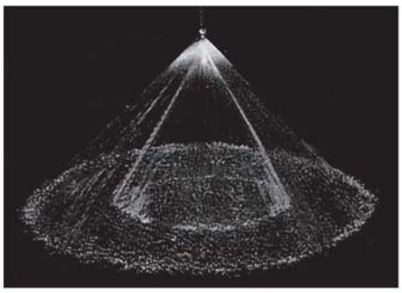
FULL CONE NOZZLE

TF TYPE

Features
- –High energy efficiency
- –One–piece/no internal parts
- –Clog–resistant performance
- –High discharge velocity

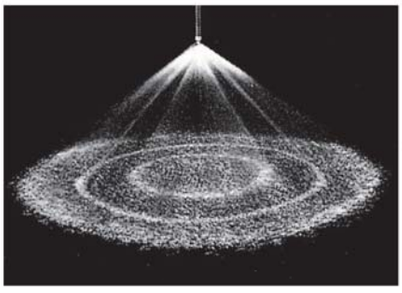
Materials
- –Brass, 303, 304, 316 Stainless Steel and PVC / Other materials available on request

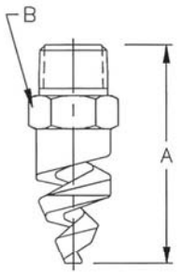
Applications
- –Washing and Rinsing, Gas Cooling, Chemical Processing
- –Cooling, Washing/Rinsing, Fire protection/Suppression, Gas scrubbing


FULL CONE 60°

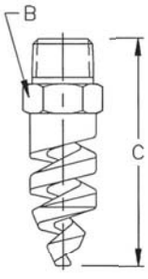

FULL CONE 90°


90° 120° Metal


FULL CONE 120°



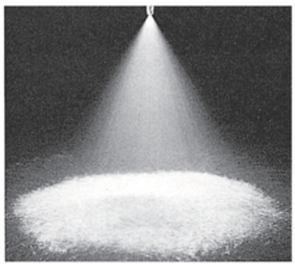
60°, 90°, 120°



150°, 170°

Male Pipe Size	Nozzle Number	Available Spray Angles					Orifice Dia. (mm)	Capacity (ℓ /min)								SIZE		
		60°	90°	120°	150°	170°		0.5	0.7	1 kg/cm²	2 kg/cm²	3 kg/cm²	5 kg/cm²	10 kg/cm²	20 kg/cm²	A	B	C
1/8	TF6 TF8	60° 60°	90° 90°	120° 120°			2.38 3.18	2.26 4.19	2.67 4.96	3.19 5.93	4.5 8.4	5.5 10.3	7.1 13.2	10.1 18.7	14.3 26.5	42.9	14.3	
1/4	TF6 TF8 TF10	60° 60° 60°	90° 90° 90°	120° 120° 120°			2.38 3.18 3.97	2.26 4.19 6.45	2.67 4.96 7.63	3.19 5.93 9.12	4.5 8.4 12.9	5.5 10.3 15.8	7.1 13.2 20.4	10.1 18.7 28.8	14.3 26.5 40.8	47.6	14.3	
3/8	TF6 TF8 TF10 TF12 TF14 TF16 TF20	60° 60° 60° 60° 60° 60° 60°	90° 90° 90° 90°	120° 120° 120° 120°	150° 150° 150° 150°	170° 170° 170° 170°	2.38 3.18 3.97 4.76 5.56 6.35 7.94	2.26 4.19 6.45 9.67 13.1 17.1 26.6	2.67 4.96 7.63 11.4 15.4 20.2 31.5	3.19 5.93 9.12 13.7 18.5 24.2 37.6	4.5 8.4 12.9 19.3 26.1 34.2 53.2	5.5 10.3 15.8 23.7 32.0 41.6 65.1	7.1 13.2 20.4 30.6 41.3 54.0 84.1	10.1 18.7 28.8 43.2 58.4 76.4 119	14.3 26.5 40.8 61.1 62.6 108 168	47.6	17.5	80.5
1/2	TF24 TF28	60° 60°	90° 90°	120° 120°	150° 150°	170° 170°	9.53 11.1	38.8 53.2	46.0 62.9	54.9 75.2	77.7 106	95.1 130	123 168	174 238	246 336	63.5	22.2	77.7
3/4	TF32	60°	90°	120°	150°	170°	12.7	67.7	80.1	95.7	135	166	214	303	428	69.9	28.6	88.9
1	TF40 TF48	60° 60°	90° 90°	120° 120°	150° 150°	170° 170°	15.9 19.1	108 153	128 181	153 216	216 306	264 375	341 484	483 685	683 958	92.1	34.9	111
11/2	TF56 TF64 TF72	60° 60° 60°	90° 90° 90°	120° 120° 120°	150° 150° 150°	170° 170° 170°	22.2 25.4 28.6	208 272 309	246 322 366	294 385 438	416 545 619	509 657 758	657 861 978	930 1220 1380	1320 1720 1960	11.1 111 111	50.8 50.8 50.8	137 137 143
2	TF88 TF96		90° 90°	120° 120°	150° 150°	170° 170°	34.9 38.1	451 570	534 674	638 805	902 1140	1110 1400	1430 1800	2020 2550	2850 3600	143 176	63.5 63.5	175 178
3	TF112 TF128		90° 90°	120° 120°			44.5 50.8	825 1090	976 1290	1170 1550	1650 2190	2020 2080	2610 3460	3690 4891	5220 6920	21.9	88.9	
4	TF160		90°	120°			63.5	1690	2000	2300	3380	4140	5350	7570	10700	257	114	

ANGLE형 FULL CONE NOZZLE



RA, RRA TYPE

Features

–Solid cone–shape spray pattern with round impact area
–Injection at a 90–degree angle from the entrance to the angled
–Resolution attached to the cap and van

Materials

–Brass, 303, 304, 316 Stainless Steel and PVC / Other materials available on request

Nozzle Number		Orifice Dia (mm)	Capacity (ℓ /min)										Spray Angle		
Female	Male		0.3 kg/cm²	0.5 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	0.5 kg/cm²	1.5 kg/cm²	5 kg/cm²
⅛RA2	⅛RRA2	1.2	0.51	0.65	0.89	1.1	1.2	1.5	1.7	1.9	2.0	2.2	43°	50°	46°
⅛RA3	⅛RRA3	1.5	0.77	0.97	1.3	1.6	1.8	2.2	2.5	2.8	3.0	3.3	52°	65°	59°
⅛RA3.5	⅛RRA3.5	1.6	0.90	1.1	1.6	1.9	2.1	2.6	3.0	3.3	3.6	3.8	43°	50°	46°
⅛RA5	⅛RRA5	2.0	1.3	1.6	2.2	2.7	3.1	3.7	4.2	4.7	5.1	5.5	52°	65°	59°
¼RA6.5	¼RRA6.5	2.3	1.7	2.1	2.9	3.5	4.0	4.8	5.5	6.1	6.6	7.1	45°	50°	46°
¼RA10	¼RRA10	2.9	2.6	3.2	4.5	5.4	6.1	7.4	8.4	9.3	10.2	10.9	58°	67°	61°
⅜RA9.5	⅜RRA9.5	2.7	2.4	3.1	4.2	5.1	5.8	7.0	8.0	8.9	9.7	10.4	45°	50°	46°
⅜RA15	⅜RRA15	3.7	3.8	4.9	6.7	8.0	9.2	11.1	12.7	14.0	15.2	16.4	64°	67°	61°
⅜RA20	⅜RRA20	4.0	5.1	6.5	8.9	10.7	12.2	14.8	16.9	18.7	20	22	76°	80°	73°
⅜RA22	⅜RRA22	4.7	5.6	7.1	9.8	11.8	13.5	16.3	18.6	21	22	24	87°	90°	82°
½RA16	½RRA16	3.5	4.1	5.2	7.1	8.6	9.8	11.8	13.5	15.0	16.3	17.5	48°	50°	46°
½RA25	½RRA25	4.6	6.4	8.1	11.1	13.4	15.3	18.5	21	23	25	27	64°	67°	61°
½RA32	½RRA32	5.2	8.2	10.4	14.2	17.2	19.6	24	27	30	33	35	72°	75°	68°
½RA40	½RRA40	6.7	10.2	12.9	17.8	21	24	30	34	37	41	44	88°	91°	83°
½RA50	½RRA50	6.7	12.8	16.2	22	27	31	37	42	47	51	55	91°	94°	86°

Angle Type RA fulljet
Female with Standard Cap

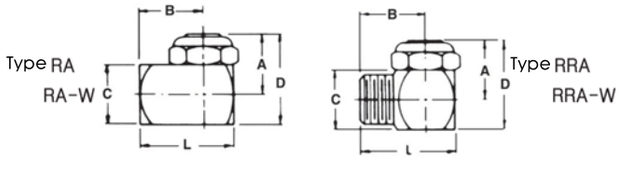
Angle Type
Male with Wide
Angle Cap
RRA–W Male, RA–W
fulljet also available

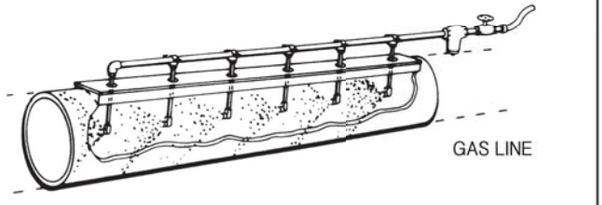
ANGLE TYPE WIDE ANGLE FULL CONE NOZZLE

RA-W, RRA-W TYPE(120°)

Nozzle Number		Orifice Dia (mm)	Capacity (ℓ /min)										Spray Angle		
Female	Male		0.3 kg/cm²	0.5 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	1 kg/cm²	3 kg/cm²	5 kg/cm²
⅛RA4.3W	⅛RA4.3W	1.9			1.9	2.3	2.6	3.1	3.5	3.9	4.2	4.5	120°	120°	102°
⅛RA8W	⅛RA8W	2.5		2.6	3.5	4.2	4.8	5.7	6.5	7.2	7.8	8.3	120°	120°	103°
¼RA14W	⅛RA14W	3.6	3.6	4.6	6.2	7.4	8.4	10.0	11.4	12.6	13.6	14.6	120°	120°	103°
⅜RA20W	⅛RA20W	4.4	5.2	6.5	8.8	10.6	12.0	14.4	16.3	18.0	19.5	21	120°	121°	104°
½RA35W	¼RA35W	5.9	9.1	11.4	15.5	18.5	21	25	29	31	34	36	120°	121°	108°
½RA50W	¼RA50W	6.7	13.0	16.3	22	26	30	36	41	45	49	52	120°	120°	108°

Dimensions and Weights





Nozzle Number	Dimensions					Weight Max(Kg)	Nozzle Number	Dimensions					Weight Max(Kg)
	A Max (mm)	B Max (mm)	C Max (mm)	D Max (mm)	L Max (mm)			A Max (mm)	B Max (mm)	C Max (mm)	D Max (mm)	L Max (mm)	
⅛RA	14	16	14.3사각	21	23	0.04	⅛RRA	14	17	14.3	21	24	0.04
¼RA	19	20	17.4사각	28	29	0.05	¼RRA	19	21	17.4	28	29	0.06
⅜RA	20	22	20.6사각	30	33	0.09	⅜RRA	20	23	20.6	30	33	0.09
½RA50	30	27	25.4사각	43	40	0.17	½RRA50	30	29	25.4	43	41	0.17
⅛RA–W	16	16	14.3사각	23	23	0.04	⅛RRA–W	16	17	14.3	23	24	0.04
⅛RA–W	22	20	17.4사각	30	29	0.05	⅛RRA–W	22	21	17.4	30	29	0.06
⅜RA–W	23	22	20.6사각	34	33	0.09	⅜RRA–W	23	23	20.6	34	33	0.09
½RA50W	32	27	25.4사각	45	40	0.13	½RRA50W	32	29	25.4	45	41	0.18

FULL CONE NOZZLE : ANGLE TYPE(VANELESS FULL CONE)

Features
- –Vaneless' full–cone design
- –Large maximum free passage
- –Easy disassembly/assembly and cleaning

Construction
- –Vaneless Cap and Body

Materials
- –Brass, 303, 304, 316 Stainless Steel / Other materials available on request

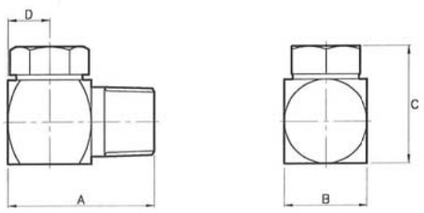
Applications
- –Gas washing, Foam break, Cooling
- –Cooling of primary metals and other materials

Dimensions and Weights

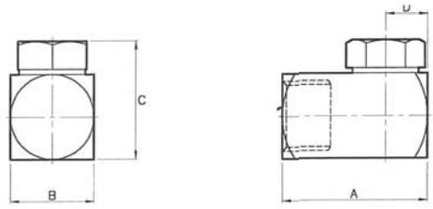
Nozzle Number	Nozzle Type	Dimensions(mm)				Weight (kg)
		A	B	C	D	
¼〃	RRNM	28.5	15.9	21.0	8.0	53
¼〃	RRNF	28.5	15.9	21.0	8.0	66
⅜〃	RRNM	35.0	19.0	26.0	9.5	89
⅜〃	RRNF	35.0	19.0	26.0	9.5	100
½〃	RRNM	44.5	25.4	35.5	12.7	184
½〃	RRNF	44.5	25.4	35.5	12.7	200
¾〃	RRNM	57.0	31.8	43.0	16.0	350
¾〃	RRNF	57.0	31.8	43.0	16.0	370
1〃	RRNM	76.0	38.1	50.5	19.0	695
1〃	RRNF	76.0	38.1	50.0	19.0	715

Male Type

Female Type



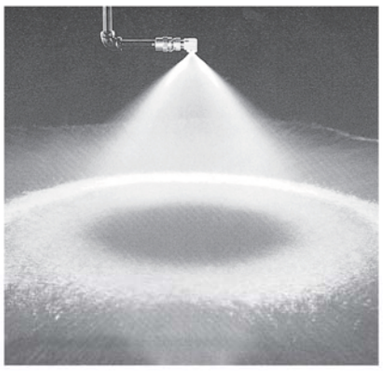
RBIM (MALE)



RBIF (FEMALE)

Nozzle Number		BEST THREAD SIZE						Capacity (ℓ /min)										Spray Angle		
Female	Male	1/8	1/4	3/8	1/2	3/4	1	0.35	7	1	1.5	2	3	4	6	7	8	7	2	6
RRF6	RRM6	●	●					0.88	1.25	1.50	1.88	2.18	2.65	2.87	3.41	3.54	3.76	40	47	40
RRF8	RRM8	●	●					1.30	1.86	2.28	2.84	3.23	4.00	4.55	5.38	5.72	5.97	44	56	53
RRF11	RRM11	●	●					1.63	2.32	2.87	3.62	4.05	4.87	5.36	6.30	6.74	7.06	52	64	58
RRF12	RRM12	●	●					2.09	2.79	3.41	4.09	4.55	5.30	5.91	7.02	7.58	8.01	62	70	58
RRF16	RRM16		●					2.50	3.58	4.41	5.30	6.14	7.27	8.00	9.51	10.04	10.61	57°	60	55
RRF20	RRM20		●					3.11	4.46	5.46	6.50	7.54	9.06	10.00	11.92	12.63	13.43	62	73	58
RRF22	RRM22		●					3.58	5.11	6.24	7.51	8.32	9.78	10.91	13.23	14.24	14.95	70	80	62
RRF12	RRM12			●				2.00	2.79	3.32	4.19	4.73	5.83	6.60	7.79	8.17	8.65	36	45	39
RRF16	RRM16			●				2.50	3.58	4.41	5.30	6.14	7.27	8.00	9.51	10.04	10.61	57	60	55
RRF20	RRM20			●				3.11	4.46	5.46	6.50	77.54	9.06	10.00	11.92	12.63	13.43	61	73	58
RRF22	RRM22			●				3.58	5.11	6.24	7.51	8.32	9.78	1091	13.23	14.24	14.95	70	80	62
RRF27	RRM27			●				4.23	6.04	7.42	9.01	10.10	12.32	13.64	16.06	17.47	18.08	70	80	62
RRF32	RRM32			●				5.81	7.25	8.88	10.81	12.32	14.44	15.96	19.29	20.40	22.12	70	80	62
RRF27	RRM27				●			4.23	6.04	7.42	9.01	10.10	12.32	13.64	16.06	17.47	18.08	44	53	51
RRF32	RRM32				●			5.81	7.25	8.88	10.81	12.32	14.44	15.96	19.29	20.40	22.12	60	70	61
RRF42	RRM42				●			6.74	9.67	11.82	14.44	15.96	19.29	21.41	24.95	27.37	28.48	70	76	64
RRF49	RRM49				●			8.17	11.62	14.24	16.36	18.69	23.13	25.05	29.29	32.52	33.94	79	86	72
RRF63	RRM63				●			10.20	14.44	17.07	20.50	23.84	28.89	32.22	38.48	41.31	43.94	80	86	70
RRF47	RRM47					●		7.48	10.61	13.03	14.95	17.78	21.11	26.63	28.48	30.20	31.71	43	57	42
RRF63	RRM63					●		10.20	14.44	17.07	20.50	23.84	28.89	32.22	38.48	41.31	43.94	60	69	53
RRF77	RRM77					●		12.32	17.68	20.50	23.94	29.09	34.95	38.68	45.65	49.29	52.02	70	73	60
RRF89	RRM89					●		13.94	20.00	23.74	29.39	33.63	40.00	44.54	52.92	56.26	59.29	82	85	67
RRF102	RRM102					●		14.85	20.91	27.37	33.73	38.68	46.26	50.00	60.10	64.54	67.87	85	97	74
RRF73	RRM73						●	11.92	16.26	20.00	22.62	27.78	34.24	38.68	45.65	50.00	52.02	35	41	44
RRF105	RRM105						●	16.26	23.23	27.78	33.73	39.79	48.18	52.32	62.42	67.37	71.51	51	57	49
RRF123	RRM123						●	19.49	28.38	34.64	42.32	46.56	57.77	63.63	75.95	80.40	85.55	66	73	57
RRF140	RRM140						●	22.73	32.02	38.18	45.25	53.23	62.12	68.18	80.80	85.95	90.90	75	81	52
RRF162	RRM162						●	25.55	36.26	44.64	53.03	61.41	72.22	79.08	95.14	101.00	108.07	74	86	63
RRF193	RRM193						●	28.79	41.81	50.10	60.70	73.23	87.57	99.08	119.18	128.27	135.34	82	100	80

HOLLOW CONE NOZZLE

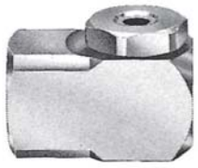


HX,HCX Type

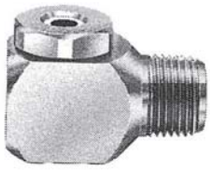
Features
- Circular Hollow Spray Pattern with Uniform Distribution
- Swirl Type Nozzle with Clog Resistance Body
- Body and Cap of the Nozzle are Designed for Disassembly
- 200~5,000μ Particle Diameter
- High Durability

Materials
- Brass, 303, 304, 316 Stainless Steel / Other materials available on request

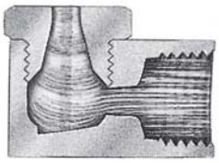
Applications
- Cleaning Various Kinds of Industrial Products
- Gas Collection, Dust Collection
- Handling Before and After the Painting
- Cleaning Gas, Cooling Gas, Fire Prevention



Slope-bottom design
HX Female Type



Slope-bottom design
HCX Male Type

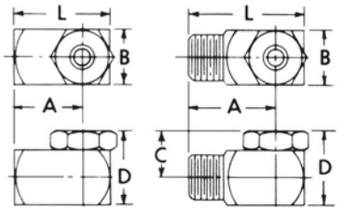


Slope-bottom design
for water vortex

60° ~90°

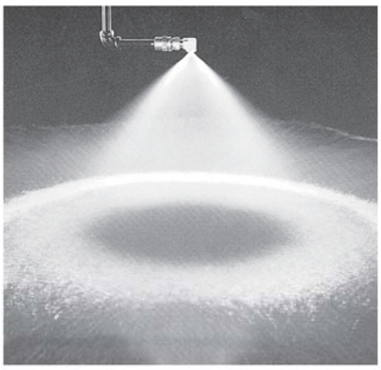
Nozzle Number			Orifice Dia. (mm)	Capacity (ℓ /min)									Spray Angle		
HX Female	HCX Male	Capacity Size		0.5 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	0.5 kg/cm²	1.5 kg/cm²	5 kg/cm²
		1	1.4	0.32	0.45	0.55	0.64	0.78	0.90	1.0	1.1	1.2	36°	64°	76°
		2	2.0	0.64	0.90	1.1	1.3	1.6	1.8	2.0	2.2	2.4	52°	61°	69°
		3	2.4	0.96	1.4	1.7	1.9	2.3	2.7	3.0	3.3	3.6	52°	64°	77°
⅛HX	⅛HCX	5	3.3	1.6	2.3	2.8	3.2	3.9	4.5	5.1	5.5	6.0	56°	67°	76°
		8	3.9	2.6	3.6	4.4	5.1	6.3	7.2	8.1	8.9	9.6	56°	65°	70°
		10	4.4	3.2	4.5	5.5	6.4	7.8	9.0	10.1	11.1	12.0	55°	65°	72°
		1	1.4		0.45	0.55	0.64	0.78	0.90	1.0	1.1	1.2		53°	67°
		2	2.2	0.64	0.90	1.1	1.3	1.6	1.8	2.0	2.2	2.4	48°	62°	71°
		3	2.4	0.96	1.4	1.7	1.9	2.3	2.7	3.0	3.3	3.6	51°	65°	78°
¼HX	¼HCX	5	3.7	1.6	2.3	2.8	3.2	3.9	4.5	5.1	5.5	6.0	63°	73°	79°
		8	4.0	2.6	3.6	4.4	5.1	6.3	7.2	8.1	8.9	9.6	61°	69°	73°
		10	4.5	3.2	4.5	5.5	6.4	7.8	9.0	10.1	11.1	12.0	63°	70°	74°
		15	5.1	4.8	6.8	8.3	9.6	11.7	13.6	15.2	16.6	17.9	63°	71°	72°
		5	3.3	1.6	2.3	2.8	3.2	3.9	4.5	5.1	5.5	6.0	64°	73°	79°
		8	4.2	2.6	3.6	4.4	5.1	6.3	7.2	8.1	8.9	9.6	62°	70°	74°
		10	4.5	3.2	4.5	5.5	6.4	7.8	9.0	10.1	11.1	12.0	64°	72°	75°
⅜HX	⅜HCX	15	5.4	4.8	6.8	8.3	9.6	11.7	13.6	15.2	16.6	17.9	64°	72°	74°
		20	6.4	6.4	9.0	11.1	12.8	15.7	18.1	20	22	24	63°	70°	74°
		25	7.4	8.0	11.3	13.8	16.0	19.6	23	25	28	30	63°	70°	74°
		30	7.9	9.6	13.5	16.6	19.2	23	27	30	33	36	63°	70°	74°
		25	6.4	8.0	11.3	13.8	16.0	19.6	23	25	28	30	63°	66°	71°
		30	7.5	9.6	13.5	16.6	19.2	23	27	30	33	36	67°	71°	75°
½HX	½HCX	40	9.1	12.8	18.1	22	26	31	36	40	44	48	72°	76°	78°
		50	11.1	16.0	23	28	32	39	45	51	55	60	74°	79°	82°
		60	13.1	19.2	27	33	38	47	54	61	66	72	77°	82°	86°
		40	7.9	12.8	18.1	22	26	31	36	40	44	48	70°	73°	74°
		50	9.5	16.0	23	28	32	39	45	51	55	60	72°	75°	77°
		60	11.1	19.2	27	33	38	47	54	61	66	72	74°	76°	79°
		70	12.7	22	32	39	45	55	63	71	78	84	76°	79°	83°
¾HX	¾HCX	80	14.3	26	36	44	51	63	72	81	89	96	78°	82°	84°
		90	14.7	29	41	50	57	70	81	91	100	108	81°	84°	84°
		100	15.9	32	45	55	64	78	90	101	111	120	83°	86°	86°
		110	17.1	35	50	61	70	86	99	111	122	132	85°	88°	88°
		120	18.3	38	54	66	77	94	109	121	133	144	87°	90°	90°

Dimensions and Weights



Type HX Female	Weight Max (kg)	A Max (mm)	B Max (mm)	C Max (mm)	D Max (mm)	L Max (mm)	Type HX Male	Weight Max (kg)	A Max (mm)	B Max (mm)	C Max (mm)	D Max (mm)	L Max (mm)
⅛HX	0.04	17.5	16.0	11.5	19.0	25.5	⅛HCX	0.04	22.5	16.0	11.5	19.0	30.5
¼HX	0.08	22.5	19.0	13.5	23.0	32.0	¼HCX	0.07	25.5	19.0	13.5	23.0	35.0
⅜HX	0.12	26.5	22.5	16.0	27.0	37.5	⅜HCX	0.11	28.5	22.5	16.0	27.0	40.0
½HX	0.25	35.0	28.5	20.0	34.5	49.5	½HCX	0.20	35.0	28.5	20.0	34.5	49.5
¾HX	0.31	40.0	32.0	22.5	38.5	55.5	¾HCX	0.30	41.5	32.0	22.5	38.5	57.5

WIDE HOLLOW CONE SPRAY NOZZLE



HX–W, HCX–W TYPE

Features
–Circular Hollow Spray Pattern with Uniform Distribution
–Super Wide Angle Spray
–Easy to Change Cap
–High Durability
–nclination is on the Bottom of Nozzle

Materials
–Brass, 303, 304, 316 Stainless Steel /
–Other materials available on request

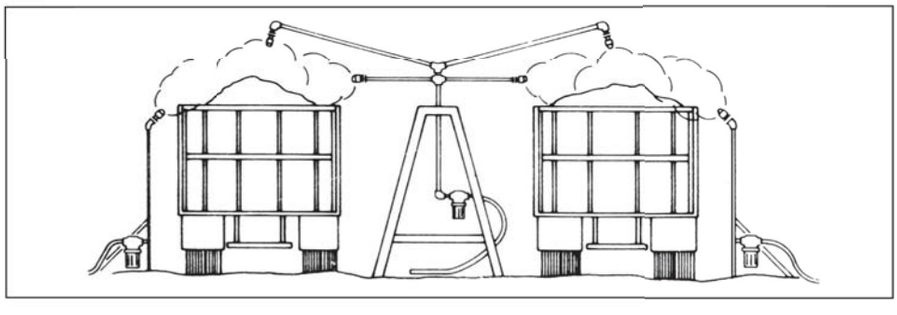
Slope–bottom design
HCX–W Male Type

Slope–bottom design
HX–W Female Type

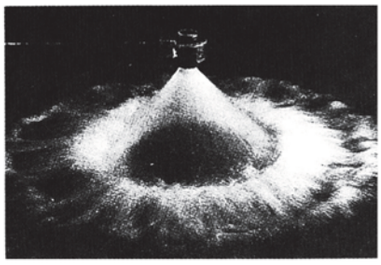
Slope–bottom design
reduces the drilling effect
of the fluid vortex
in the fluid chamber.

120°

Nozzle Number			Orifice Dia. (mm)	Body Inlet Dia. (mm)	Capacity (ℓ /min)									Spray Angle
HX Female	HCX Male	Capacity Size			0.3 kg/cm²	0.5 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	0.7 kg/cm²
		0.5W	1.1	0.91			0.23	0.28	0.32	0.39	0.45	0.51	0.55	112°
		1W	1.7	1.4			0.45	0.55	0.64	0.78	0.90	1.0	1.1	114°
		3W	2.7	2.1		0.80	1.1	1.4	1.6	2.0	2.3	2.5	2.8	114°
		1–3W	2.7	2.4		0.96	1.4	1.7	1.9	2.3	2.7	3.0	3.3	114°
⅛HX	⅛HCX	5W	3.3	2.4		1.1	1.5	1.9	2.2	2.7	3.1	3.4	3.8	116°
		10W	4.5	2.1		1.3	1.9	2.3	2.6	3.2	3.7	4.1	4.5	130°
		1–5W	3.3	3.0		1.6	2.3	2.8	3.2	3.9	4.5	5.1	5.5	116°
		10W	4.5	3.0	1.6	2.1	2.9	3.6	4.1	5.1	5.9	6.6	7.2	126°
		1–10W	4.5	3.8	2.2	2.9	4.1	5.0	5.7	7.0	8.1	9.1	10.0	124°
		1W	1.7	1.4			0.45	0.55	0.64	0.78	0.90	1.0	1.1	110°
		5W	3.3	1.4			0.77	0.94	1.1	1.3	1.5	1.7	1.9	100°
		10W	4.5	1.4			0.95	1.2	1.3	1.6	1.9	2.1	2.3	112°
		15W	5.4	1.4			1.1	1.3	1.5	1.9	2.2	2.4	2.7	105°
		1–5W	3.3	2.1		1.1	1.5	1.9	2.2	2.7	3.1	3.4	3.8	118°
		1–10W	4.5	2.1		1.3	1.9	2.3	2.6	3.2	3.7	4.1	4.5	138°
¼HX	¼HCX	2–5W	3.3	3.6		1.6	2.3	2.8	3.2	3.9	4.5	5.1	5.5	114°
		2–10W	4.5	3.6	1.6	2.1	2.9	3.6	4.1	5.1	5.9	6.6	7.2	130°
		1–15W	5.4	3.6	1.9	2.5	3.5	4.3	4.9	6.0	7.0	7.8	8.5	130°
		3–10W	4.5	4.1	2.2	2.9	4.1	5.0	5.7	7.0	8.1	9.1	10.0	129°
		4–10W	4.5	4.7	2.5	3.2	4.5	5.5	6.4	7.8	9.0	10.1	11.1	120°
		2–15W	5.4	4.1	2.7	3.5	5.0	6.1	7.0	8.6	9.9	11.1	12.2	129°
		3–15W	5.4	4.7	3.0	3.8	5.4	6.6	7.7	9.4	10.9	12.1	13.3	120°
		4–15W	5.4	5.8	3.7	4.8	6.8	8.3	9.6	11.7	13.6	15.2	16.6	101°
		10W	4.5	3.5	1.6	2.1	2.9	3.6	4.1	5.1	5.9	6.6	7.2	130°
		15W	5.4	3.5	1.9	2.5	3.5	4.3	4.9	6.0	7.0	7.8	8.5	138°
		1–10W	4.5	4.5	2.2	2.9	4.1	5.0	5.7	7.0	8.1	9.1	10.0	122°
		2–10W	4.5	5.0	2.5	3.2	4.5	5.5	6.4	7.8	9.0	10.1	11.1	116°
		1–15W	5.4	4.5	2.7	3.5	5.0	6.1	7.0	8.6	9.9	11.1	12.2	133°
		2–15W	5.4	5.0	3.0	3.8	5.4	6.6	7.7	9.4	10.9	12.1	13.3	126°
⅜HX	⅜HCX	25W	7.4	4.5	3.2	4.1	5.9	7.2	8.3	10.2	11.8	13.1	14.4	122°
		20W	5.9	5.0	3.5	4.5	6.3	7.7	8.9	11.0	12.7	14.2	15.5	118°
		3–15W	5.4	6.1	3.7	4.8	6.8	8.3	9.6	11.7	13.6	15.2	16.6	116°
		1–20W	5.9	6.1	4.2	5.4	7.7	9.4	10.9	13.3	15.4	17.2	18.8	113°
		2–20W	5.9	7.1	4.9	6.4	9.0	11.1	12.8	15.7	18.1	20	22	106°
		30W	7.9	6.1	5.4	7.0	9.9	12.2	14.0	17.2	19.9	22	24	116°
		1–25W	7.4	7.4	6.2	8.0	11.3	13.8	16.0	19.6	23	25	28	105°
		1–30W	7.9	7.4	6.9	8.9	12.6	15.5	17.9	22	25	28	31	105°
½HX	½HCX	50W	11.1	9.5	12.4	16.0	23	28	32	39	45	51	55	110°
¾HX	¾HCX	80W	14.3	12.7	19.8	26	36	44	51	63	72	81	89	115°



HOLLOW CONE NOZZLE



HX, HCX TYPE

Features
- –Large capacity, hollow spray pattern
- –Durability with chemical resistance and temperature
- –One–piece angle type

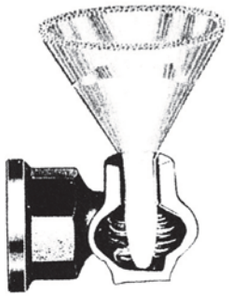
Materials
- –1" or more casting products
- –Cast brass
- –Cast Stainless stee
- –Other materials available upon request

Application
- –Gas washing, dust control
- –Fire suppression/prevention

Type HX (Female)

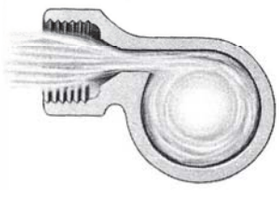
Type HDX (Male)

Hollow spray pattern



Type HCX
Slope–bottom design reduces the drilling effect of the fluid vortex in the fluid chamber.

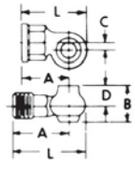
Nozzle Number		Orifice	Capacity (ℓ /min)										Spray Angle		
HX Female	HCX,HDX Male	Dia. (mm)	0.5 kg/cm²	0.7 kg/cm²	1 kg/cm²	1.5 kg/cm²	2 kg/cm²	3 kg/cm²	4 kg/cm²	5 kg/cm²	6 kg/cm²	7 kg/cm²	0.5 kg/cm²	1.5 kg/cm²	4 kg/cm²
	½HCX3	7.5	11.4	13.5	16.2	19.8	23	28	32	36	40	43	60°	63°	65°
	½HCX4	9.5	15.3	18.1	22	26	31	37	43	48	53	57	68°	71°	73°
	½HCX5	11.5	19.1	23	27	33	38	47	54	60	66	71	74°	77°	80°
	½HCX7	13.5	27	32	38	46	53	66	76	85	93	100	77°	80°	83°
	½HDX3	7.9	11.4	13.5	16.2	19.8	23	28	32	36	40	43	62°	65°	67°
	½HDX4	9.9	15.3	18.1	22	26	31	37	43	48	53	57	68°	71°	73°
	½HDX5	11.9	19.1	23	27	33	38	47	54	60	66	71	74°	77°	80°
	½HDX7	13.9	27	32	38	46	53	66	76	85	93	100	77°	80°	83°
	¾HCX5	10.1	19.1	23	27	33	38	47	54	60	66	71	59°	61°	63°
	¾HCX6	11.5	23	27	32	40	46	56	65	73	79	86	62°	64°	66°
	¾HCX7	12.7	27	32	38	46	53	66	76	85	93	100	70°	71°	72°
	¾HCX10	16.3	38	45	54	66	76	94	108	121	132	143	73°	75°	77°
	¾HDX4	9.1	15.3	18.1	22	26	31	37	43	48	53	57	65°	66°	67°
	¾HDX5	10.7	19.1	23	27	33	38	47	54	60	66	71	68°	69°	70°
	¾HDX6	12.3	23	27	32	40	46	56	65	73	79	86	70°	73°	77°
	¾HDX7	13.9	27	32	38	46	53	66	76	85	93	100	72°	75°	80°
	¾HDX10	16.7	38	45	54	66	76	94	108	121	132	143	77°	80°	84°
1HX7	1HCX7	11.4	27	32	38	46	53	66	76	85	93	100	64°	65°	66°
1HX8	1HCX8	12.8	31	36	43	53	61	75	86	97	106	114	65°	66°	67°
1HX9	1HCX9	14.2	34	41	49	59	69	84	97	109	119	129	66°	67°	69°
1HX10	1HCX10	15.6	38	45	54	66	76	94	108	121	132	143	67°	69°	71°
1HX12	1HCX12	17.1	46	54	65	79	92	112	130	145	159	172	70°	73°	75°
1HX15	1HCX15	20.7	57	68	81	99	115	140	162	181	199	215	76°	79°	81°
1¼HX10	1¼HCX10	14.3	38	45	54	66	76	94	108	121	132	143	65°	67°	67°
1¼HX12	1¼HCX12	16.3	46	54	65	79	92	112	130	145	159	172	68°	70°	71°
1¼HX14	1¼HCX14	18.3	53	63	76	93	107	131	151	169	185	200	71°	73°	75°
1¼HX16	1¼HCX16	20.2	61	72	86	106	122	150	173	193	210	230	74°	75°	77°
1¼HX20	1¼HCX20	24.2	76	90	108	132	153	187	215	240	265	285	76°	77°	79°
1¼HX16	1¼HCX16	17.4	61	72	86	106	122	150	173	193	210	230	64°	67°	69°
1¼HX20	1¼HCX20	21.8	76	90	108	132	153	187	215	240	265	285	69°	72°	74°
1¼HX25	1¼HCX25	25.8	95	113	135	165	191	235	270	300	330	355	72°	74°	76°
1¼HX30	1¼HCX30	28.6	114	135	162	198	230	280	325	360	395	430	74°	76°	78°
2HX30	2HCX30	23.6	114	135	162	198	230	280	325	360	395	430	66°	67°	70°
2HX35	2HCX35	27.0	134	158	189	230	265	325	380	420	465	500	68°	70°	73°
2HX40	2HCX40	30.2	153	181	215	265	305	375	430	485	530	570	70°	72°	75°
2HX45	2HCX45	33.1	172	205	240	295	345	420	485	540	600	640	72°	74°	78°
2HX50	2HCX50	36.0	191	225	270	330	380	470	540	600	660	710	74°	77°	82°
2HX60	2HCX60	39.8	230	270	325	395	460	560	650	730	790	860	77°	79°	84°
2½HX60	2½HCX60	36.1	230	270	325	395	460	560	650	730	790	860	67°	68°	71°
2½HX70	2½HCX70	40.4	265	315	375	460	530	660	760	850	930	1000	69°	71°	74°
2½HX80	2½HCX80	44.1	305	360	430	530	610	750	860	970	1060	1140	71°	73°	77°
2½HX90	2½HCX90	47.6	345	405	485	590	690	840	970	1090	1190	1290	73°	75°	80°
2½HX100	2½HCX100	50.8	380	450	540	660	760	940	1080	1210	1320	1430	77°	79°	83°



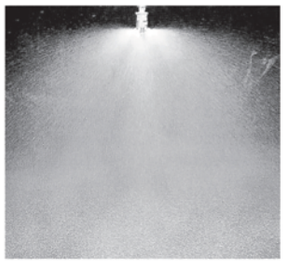
For free flow of liquid and foreign the inlet and the diameter of the orifice passage is large.

Dimensions and Weights

Nozzle Number	Weight Max (kg)	A Max (mm)	B Max (mm)	C Max (mm)	D Max (mm)	L Max (mm)	Nozzle Number	Weight Max (kg)	A Max (mm)	B Max (mm)	C Max (mm)	D Max (mm)	L Max (mm)
½HX	0.13	33	33	5.5	19	48	1HX.HCX	0.31	45	47	9	27	67
½HDX	0.14	44	33	6.5	19	59	1¼HX.HCX	0.57	53	56	11.5	32	78
¾HX	0.20	38	42	7.5	23	58	1½HX.HCX	0.79	62	73	14.5	42	94
¾HDX	0.21	51	42	8	24	69	2HX.HCX	1.4	75	94	18.5	54	115
							2½HX.HCX	1.9	89	115	24	69	141



FOG JET NOZZLE

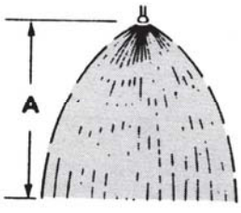


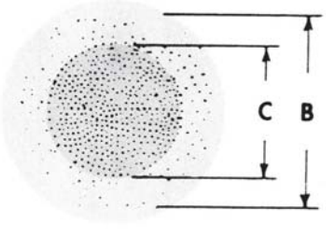
CL-7 TYPE

Features
-The CL-7 series FogJet nozzle produces a shower-like full cone spray pattern of very find droplets.
Construction
-Body and 7 removable FullJet spray caps
Materials
-Brass, 303 Stainless steel
Application
-Gas washing, humidification, tank cooling

CL-7 Female Type

Round spray Type





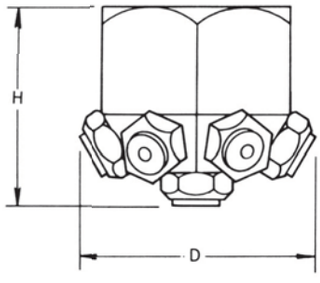
Nozzle Number	Spray distance			Capacity (ℓ /min)						
	A m	B m	C m	1 kg/cm²	2 kg/cm²	3 kg/cm²	5 kg/cm²	6 kg/cm²	8 kg/cm²	10 kg/cm²
¾-CL-7, 1	1 1.5 2.5 3.5	1.5 2 2.3 2.5	1 1.3 1.5 1.6	3.1	4.3	5.2	6.5	7.1	8.1	9.0
¾-CL-7, 1.5	1 1.5 2.5 3.5	2.5 2.7 3.0 3.2	1.7 2.0 2.3 2.4	4.7	6.5	7.8	9.8	10.6	12.1	13.6
¾-CL-7, 3	1 1.5 2.5 3.5	2.6 3 3.3 3.5	1.7 2 2.1 2.3	9.3	12.9	15.5	19.5	21	24	27
¾-CL-7, 5	1 1.5 2.5 3.5	3 3.3 3.6 3.8	1.9 2.1 2.4 2.5	15.6	21	26	33	36	41	45
1-CL-7, 10	1 1.5 2.5 3.5	2.2 3 3.6 4.3	1.5 1.9 2.4 2.7	31	43	52	65	71	81	90
1-CL-7, 12.5	1 1.5 2.5 3.5	3.7 4.0 4.3 4.4	3.0 3.4 3.7 3.8	39	53	65	82	89	102	112
1-CL-7, 25 1½-CL-7, 25	1 1.5 2.5 3.5	4 4.9 5.2 5.3	2.7 3.2 3.3 3.5	78	107	129	164	178	205	225
1-CL-7, 30 1½-CL-7, 30	1 1.5 2.5 3.5	4 4.9 5.2 5.3	2.7 3.2 3.3 3.5	93	129	155	196	215	245	270
1-CL-7, 32 1½-CL-7, 32	1 1.5 2.5 3.5	4 4.9 5.2 5.3	2.7 3.2 3.3 3.5	100	137	166	210	225	260	285
1-CL-7, 40 1½-CL-7, 40	1 1.5 2.5 3.5	4 4.9 5.2 5.3	2.7 3.2 3.3 3.5	125	171	205	260	285	325	360
1½-CL-7, 45	1 1.5 2.5 3.5	4.2 5.0 5.3 5.5	2.9 3.3 3.6 3.8	140	193	230	295	320	365	405
1½-CL-7, 50	1 1.5 2.5 3.5	4.4 5.2 5.5 5.8	3.2 3.6 4 4.2	156	215	260	325	355	405	450

"C" area density distribution within the range of about 65% of the total area "B" represents the area, has a full range of spray distribution.
Approximately 35% of the total distribution "C" is the only area.
the density distribution of the form of the distribution closer to the end will be lower.

"Ordering info :
Ex)
Stainless steel : 3/4 CL7-SS1
Brass : 3/4 CL7-1

Nozzle Number	Inlet Pipe NPT or PT	H Max (mm)	D Max (mm)	Weight (kg)
¾-CL-7,1 ¾-CL-7,3	¾"	45	53	0.34
¾-CL-7,5	¾"	46	54	0.34
1-CL-7,10	1"	56	69	0.68
1-CL-7, 25~ 1-CL-7, 40	1"	84	104	1.6
1½-CL-7, 25~ 1½-CL-7, 45	1½"	76	102	1.7
1½-CL-7, 50	1½"	81	108	1.6

CL-7 Female Type



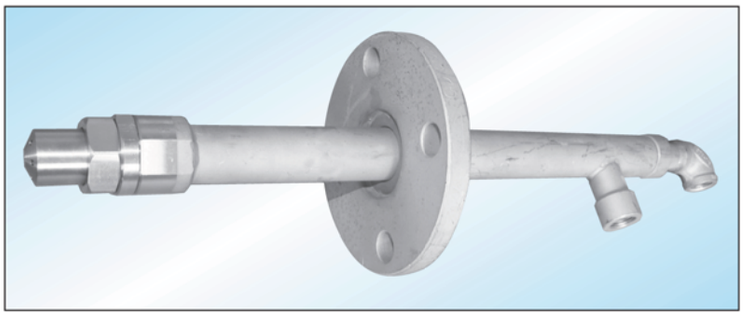
Flomax Air Auto mizing

FM TYPE

Features
- FloMax nozzles use a patented three-stage atomization principle to produce a highly focused air stream that shears the liquid with minimal air.
- Compressed air use and energy consumption are low.

Materials
- 316,316L Stainless Steel, Hastelloy C&G
- Other materials available on request.

Application
- Cooling prior to baghouse, ESP, heat exchanger, kilns
- Cooling towers, Induct cooling
- NOx control, SO2 removal



AA-SA001

Nozzle Number	Air (bar)	Liquid (bar)	Capacity (ℓ/min)
AA-SA001	2	0.97	1.88
		1.18	3.78
		1.57	7.57
		1.79	9.46
	3	2.02	1.87
		2.27	3.79
		2.79	7.57
		3.05	9.46
	4	3.02	1.89
		3.35	3.79
		3.99	7.57
		4.31	9.45
	5.5	3.99	1.89
		4.36	3.79
		5.21	7.57
		5.48	9.45

AA-SA005

Nozzle Number	Air (bar)	Liquid (bar)	Capacity (ℓ/min)
AA-SA005	2	2.31	7.57
		3.03	15.13
		3.96	22.72
	4	3.37	7.57
		4.13	15.13
		5.12	22.72
	4.8	3.91	7.57
		4.73	15.13
		5.67	22.72
	5.5	4.54	7.57
		5.39	15.13
		6.28	22.72

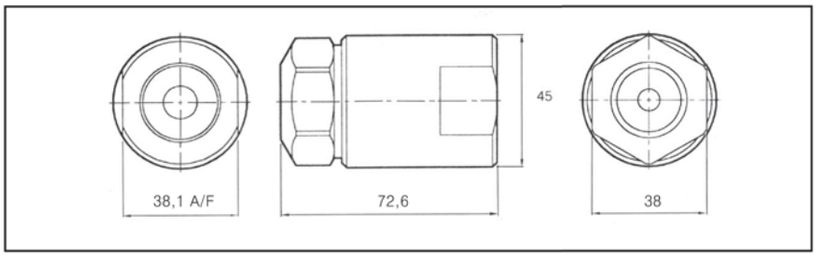
AA-SA010

Nozzle Number	Air (bar)	Liquid (bar)	Capacity (ℓ/min)
AA-SA010	2.8	2.63	15.1
		3.24	30.4
		4.01	45.4
	4.2	3.86	15.2
		4.48	30.3
		5.31	45.5
	4.8	4.48	15.2
		5.17	30.3
		6.01	45.5
	5.5	5.11	15.1
		5.79	30.3
		6.59	45.4

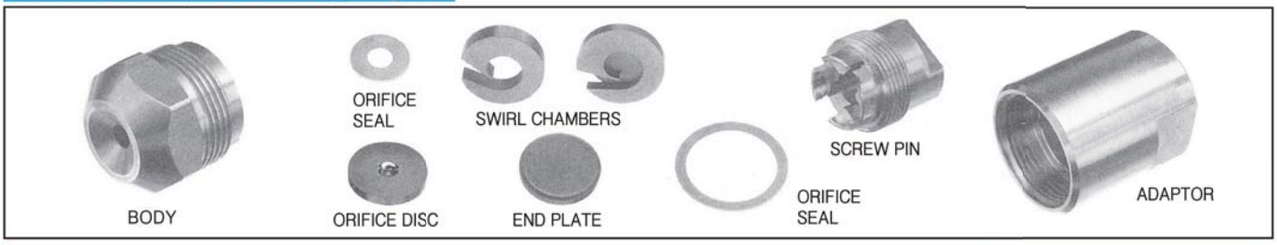
AA-SA250

Nozzle Number	Air (bar)	Liquid (bar)	Capacity (ℓ/min)
AA-SA250	2.1	2.56	56.7
		2.83	68.2
		3.16	79.5
	2.8	3.22	56.7
		3.9	68.2
		3.82	79.5
	4.2	4.38	56.7
		4.75	68.2
		5.11	79.5

Spray Drying Nozzles and Applications



Construction, materials, weights



Description	Part No.	Material	Weight(g)
Body	29776	316 SS	153.0
Orifice Seal	29772-1 29772-3 29772-6 29772-7 29772-4	Nylon Aluminum PTFE Hard Fibre Copper	– – – – –
Orifice Disc	703-XXX* 704-XXX 608-XXX	Tungstem Carbide Chrome Carbide Ceramic	11.4 11.4 –
Swirl Chamber Swirl Chamber Swirl Chamber Swirl Chamber with End Plate Combined	29794-XX* 21212-XX 30655-XX WO1380-XX	Hardened SS Tungsten Carbide Ceramic Tungsten Carbide	8.5 17.0 – 28.4
End Plate	W05366 29953 34330	Tungsten Carbide Chrome Carbide Ceramic	11.4 11.4 –
Screw Pin	29777	316 Stainless Steel	91.0
Body Seal	29773-1 29773-3 29773-6 29773-7 29773-4	Nylon Aluminium PTFE Hard Fibre Copper	– – – – –
¼"BSPT Female Adaptor ⅜"BSPT Female Adaptor ½"BSPT Female Adaptor ¾"BSPT Female Adaptor	29775-9 29773-11 29773-13 29773-15	316 Stainless Steel	370.0

*Specify orifice size and swirl chamber suffix from capacity chart.

SWIRL CHAMBER SUFFIX	ORIFICE DISC	SPRAY ANGLE AT 69 Bar.G.	FLOW RATE IN LITRES/HOUR AT Bar.G.										
			15	25	50	75	100	125	150	200	300	400	500
SH SG SF SE SD	703-66 703-75 703-89 703-108 703-133	50 60 70 80 90	262	340	486	593	681	766	833	968	1170	1377	1548
SH SG SF SE	703-75 703-86 703-102 703-125	50 65 75 85	315	407	585	715	826	929	1013	1174	1449	1375	1881
SI SH SG SF SE	703-76 703-83 703-97 703-114 703-141	45 55 65 75 85	367	477	681	829	955	1086	1182	1365	1690	1950	2187
SI SH SG SF	703-83 703-90 703-106 703-127	50 60 70 80	420	546	780	948	1097	1232	1338	1544	1912	2218	2486
SI SH SG SF	703-88 703-99 703-119 703-141	50 60 70 80	474	612	880	1087	1238	1399	1518	1771	2180	2523	2829
SJ SI SH SG SF	703-85 703-95 703-106 703-128 703-155	45 55 65 75 85	524	683	975	1185	1369	1555	1683	1950	2409	2791	3135

TANK CLEANING SPRAY NOZZLE

Applications
- TCIP SYSTEM, Various process tank, Mixer
- pray dryer, power tower, dryer tower
- Fructose, fermentation, yeast tank
- Storage tank, chemical tank

Features
- The flow of the cleaning fluid causes the body of the cleaning head to rotate providing a swirling impact.
- Water, detergent, chemical available

TZ-02

TYPE TZ-02

SPECIFICATIONS

Materials
Bronze, AISI 316L,PTFE, PVDF, Carbon

Weight
15 kgs (33 lbs) portable model
16 kgs (35.3 lbs) fixed model

Lubricant
Self-lubricating with the cleaning fluid

Working pressure
2-12 Bar (30-174 psi)

Recommended pressure
5-10 Bar(72-145 psi)

Max. working temperature
95℃ (203°F)

Max. throw length
22-36m (72-118 ft.)

Installation
Fixed or portable

Standard thread
2″ NPT or 2½″ ASA for portable installation

Flange
φ165 · PC125 · 4× φ19mm(0.75″) holes

SJ-RTZ

SJ-RTZ-650

Features
- The flow of the cleaning fluid causes the body of the cleaning head to rotate providing a swirling impact.
- The flow of the cleaning fluid makes the nozzles perform a geared rotation around the vertical and horizontal axis.
- Maximum throw length is 25m

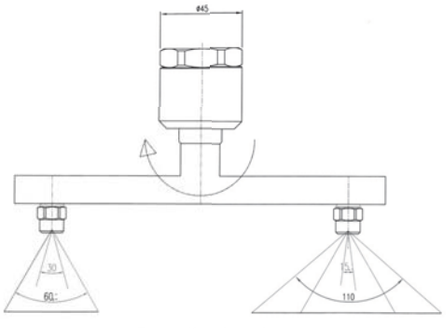
Working pressure
- 5kg/㎠ -25kg/㎠

Materials
- Body-316L Stainless steel , tungsten, viton

Nozzle Number	Capacity (ℓ/min)								Nozzle(Ø)
	2	3	4	5	7	10	15	20	
RTZ22-316LSS	100	120	140	155	185	220	260	300	6.0
RTZ32-316LSS	145	180	200	230	275	325	400	460	8.0
RTZ40-316LSS	180	220	250	280	330	400	490	580	10.0

CL-9 Female Type

CL-19 Male Type



For self-cleaning

TANK CLEANING SPRAY NOZZLE

Features
- The flow of the cleaning fluid causes the body of the cleaning head to rotate
- Effective internal scrubbing of small tanks and drums

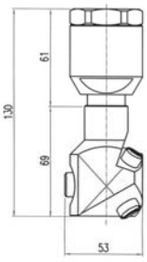
Working pressure
- 3kg/㎠ - 7kg/㎠

Applications
- TDrum, brewery, distillery

Materials
- Body - 316L Stainless steel
  other materials available upon request.

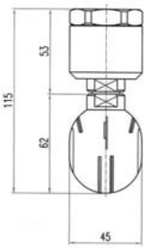
SJ-RTW-PERFORMANCE DATA

Nozzle Number	Capacity (ℓ /min)								PipeConn (PT.NPT)	A	B	C	D
	1	2	3	4	5	7	10	12		(mm)	(mm)	(mm)	(mm)
RTW10-316LSS	25	35	40	45	50	60	71	76	1/2″.3/4″	134	59	75	56
RTW18-316LSS	40	58	70	80	89	106	126	139	1/2″.3/4″	-	-	-	-
RTW31-316LSS	60	85	104	120	134	158	189	207	3/4″.1″	-	-	-	-
RTW45-316LSS	100	140	171	198	221	261	310	340	3/4″.1″	134	59	75	56



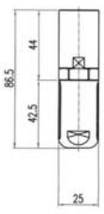
SJ-RTR-PERFORMANCE DATA

Nozzle Number	Capacity (ℓ /min)								PipeConn (PT.NPT)	A	B	C	D
	1	2	3	4	5	7	10	12		(mm)	(mm)	(mm)	(mm)
RTR18-316LSS	40	58	70	80	89	106	126	139	1/2″	110	53.5	56.5	34
RTR31-316LSS	60	85	104	120	134	158	189	207	3/4″	120	53	67	45
RTR45-316LSS	100	140	171	198	221	261	310	340	3/4″.1″	120	53	67	45
RTR60-316LSS	173	245	300	346	387	460	550	600	1-1/4″	150	70	80	85

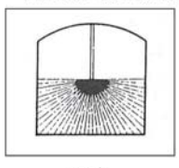


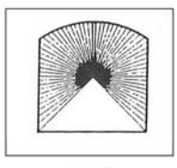
SJ-RTR-PERFORMANCE DATA

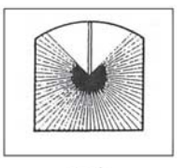
Nozzle Number	Capacity (ℓ /min)								PipeConn (PT.NPT)	A	B	C	D
	1	2	3	4	5	7	10	12		(mm)	(mm)	(mm)	(mm)
RTM7-316LSS	16	23	28	32	36	43	50	55	3/8″.1/2″	86.5	44	42.5	25
RTM10-316LSS	25	35	40	45	50	60	71	78	3/8″.1/2″	-	-	-	-
RTM12-316LSS	31	43	53	61	68	80	96	105	1/2″	86.5	44	42.5	25



TYPE OF COVERAGE


180°


270°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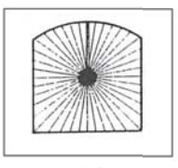

360°

-SEJIN NOZZLE-

Accessories

BJ SERIES
BALL JOINT
ADAPTER

(BJ + Spiral Combination)

(BJ + Veejet Combination)

BJ Type

Features

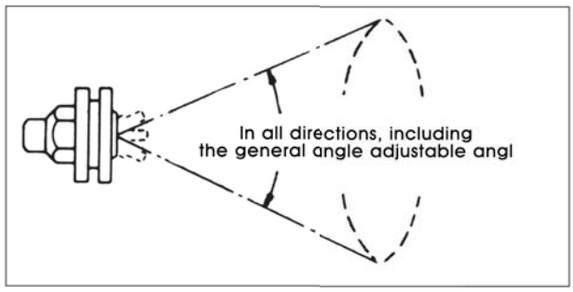
- 3 pieces construction (BODY, BALL, Retaining Cap)
- Accessories for aligning spray directions.
- Adjustable ball joints allow custom alignment of spray nozzles without expensive piping changes
- Rapid installation and replacement of spray tips without the use of tools

Materials

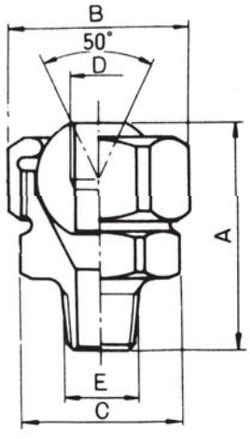
- Brass, 303, 304, 316 Stainless Steel

Application

- Aligning for spray directions



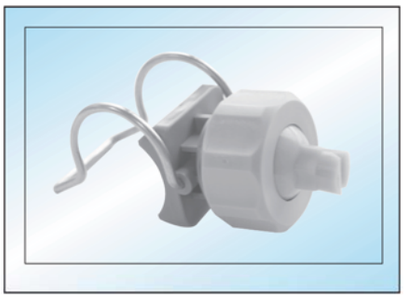
Dimensions



Dimensions and Weights

Nozzle Number	Dimension					weight (kg)
	Amm	Bmm	Cmm	Dmm	Emm	
⅛BJ	37	HE×29	HE×26	PT⅛	PT⅛	0.15
⅛×¼BJ	40	HE×35	HE×32	PT⅛	PT¼	0.15
¼BJ	40	HE×35	HE×32	PT¼	PT¼	0.3
¼×⅜BJ	45	HE×35	HE×32	PT¼	PT⅜	0.3
⅜BJ	45	HE×41	HE×35	PT⅜	PT⅜	0.5
⅜×½BJ	48	HE×41	HE×41	PT⅜	PT½	0.5
½BJ	50	HE×50	HE×41	PT½	PT½	1.0
½×¾BJ	58	HE×55	HE×50	PT½	PT¾	1.0
¾BJ	60	HE×55	HE×50	PT¾	PT¾	1.5
¾×1 BJ	62	HE×55	HE×55	PT¾	PT1	1.5

노즐접속용 악세사리



CLIP-EYELET

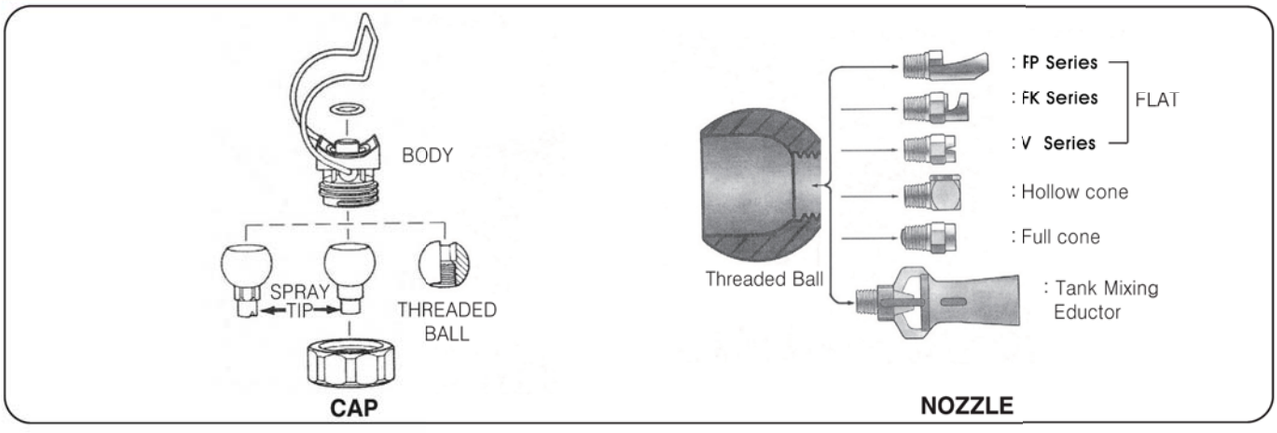
Features

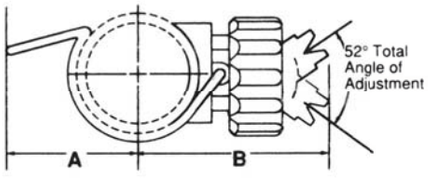
- –Easy installation and minimal maintenance downtime
- –Easy to align the spray angle
- –Durability with chemical resistance and temperature
- –Available for any type of spray pattern
- –Designed to fit a 9/16" (14.5mm) diameter hole

Materials

- –Body: P.P, BALL: P.P
- –Nozzle: P.P, Stainless Steel

CLIP-ON NOZZLE

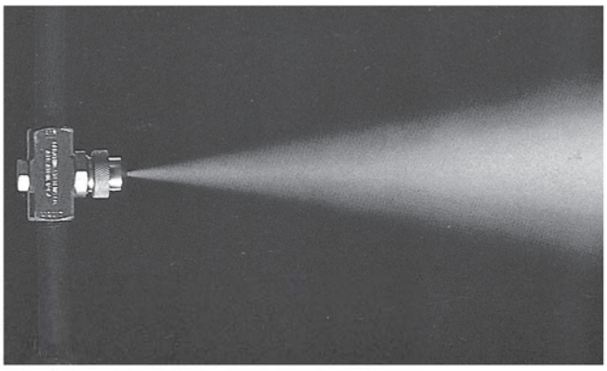




Pipe size	Dimension "A"	Dimension "B"
1"	1-3/4"(45mm)	2-7/8"(73mm)
1-1/4"	2"(51mm)	3"(77mm)
1-1/2"	2-1/8"(54mm)	3-1/8"(80mm)
2	2-3/8"(61mm)	3-1/2"(89mm)

Spray angle at 3kg/㎠	Nozzle Number	Orifice Dia (mm)	Capacity (ℓ /min)													Spray angle			
			0.3 kg/㎠	1 kg/㎠	2 kg/㎠	3 kg/㎠	4 kg/㎠	5 kg/㎠	6 kg/㎠	7 kg/㎠	10 kg/㎠	15 kg/㎠	20 kg/㎠	30 kg/㎠	35 kg/㎠	1.5 kg/㎠	3 kg/㎠	5 kg/㎠	14 kg/㎠
110°	11060	4.8	7.4	13.5	19.2	23	27	30	33	36	43	53	61	74	80	107°	110°	117°	124°
80°	8010	2.0	1.2	2.3	3.2	3.9	4.5	5.0	5.5	6.0	7.1	8.8	10.1	12.4	13.4	75°	80°	83°	87°
	8040	4.0	4.9	9.0	12.8	15.6	18.1	20	22	24	29	35	40	50	53	76°	80°	85°	85°
	8050	4.4	6.2	11.3	16.10	19.5	23	25	28	30	36	44	51	62	67	78°	80°	85°	85°
	8060	4.8	7.4	13.5	19.2	23	27	30	33	36	43	53	61	74	80	78°	80°	86°	91°
	8070	5.2	8.6	15.8	22	27	32	35	39	42	50	61	71	87	94	78°	80°	89°	92°
	80100	6.4	12.3	23	32	39	45	50	55	60	71	88	101	124	134	75°	80°	83°	86°
65°	6520	2.8	2.5	4.5	6.4	7.8	9.0	10.1	11.1	11.9	14.3	17.5	20	25	27	61°	65°	72°	73°
	6530	3.6	3.7	6.8	9.6	11.7	13.5	15.1	16.6	17.9	21	26	30	37	40	62°	65°	72°	73°
	6540	4.0	4.9	9.0	12.8	15.6	18.1	20	22	24	29	35	40	50	53	63°	65°	72°	73°
	6550	4.4	6.2	11.3	16.0	19.5	23	25	28	30	36	44	51	62	67	63°	65°	73°	72°
	6560	4.8	7.4	13.5	19.2	23	27	30	33	36	43	53	61	74	80	63°	65°	73°	72°
	6570	5.2	8.6	15.8	22	27	32	35	39	42	50	61	71	87	94	63°	65°	74°	72°
	65100	6.4	12.3	23	32	39	45	50	55	60	71	88	101	124	134	58°	65°	69°	70°
50°	5040	4.0	4.9	9.0	12.8	15.6	18.1	20	22	24	29	35	40	50	53	43°	50°	53°	54°
	5050	4.4	6.2	11.3	16.0	19.5	23	25	28	30	36	44	51	62	67	43°	50°	53°	54°
	5060	4.8	7.4	13.5	19.2	23	27	30	33	36	43	53	61	74	80	43°	50°	53°	54°
	5070	5.2	8.6	15.8	22	27	32	35	39	42	50	61	71	87	94	43°	50°	53°	54°
	50100	6.4	12.3	23	32	39	45	50	55	60	71	88	101	124	134	44°	50°	52°	54°
40°	4040	4.0	4.9	9.0	12.8	15.6	18.1	20	22	24	29	35	40	50	53	33°	40°	44°	47°
	4050	4.4	6.2	11.3	16.0	19.5	23	25	28	30	36	44	51	62	67	33°	40°	43°	46°
	4060	4.8	7.4	13.5	19.2	23	27	30	33	36	43	53	61	74	80	33°	40°	43°	45°
	4070	5.2	8.6	15.8	22	27	32	35	39	42	50	61	71	87	94	33°	40°	43°	46°
	40100	6.4	12.3	23	32	39	45	50	55	60	71	88	101	124	134	34°	40°	43°	46°
25°	2540	4.0	4.9	9.0	12.8	15.6	18.1	20	22	24	29	35	40	50	53	23°	25°	32°	36°
	2550	4.4	6.2	11.3	16.0	19.5	23	25	28	30	36	44	51	62	67	23°	25°	32°	36°
	2560	4.8	7.4	13.5	19.2	23	27	30	33	36	43	53	61	74	80	23°	25°	33°	34°
	2570	5.2	8.6	15.8	22	27	32	35	39	42	50	61	71	87	94	23°	25°	33°	34°
	25100	6.4	12.3	23	32	39	45	50	55	60	71	88	101	124	134	23°	25°	28°	32°

AIR-ATOMIZING NOZZLE



Features

The AA nozzle uses theb energy in compressed air to produce highly atomized sprays at low flow rates. There are many interchangeable components that can be assembled to achieve a variety of spraying objectives.

Spray set-ups

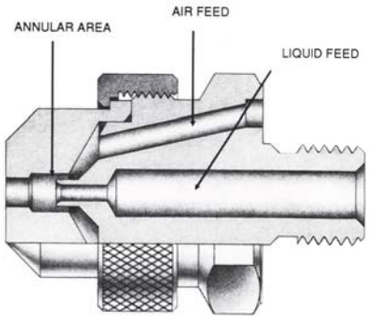
AA nozzles produce three distinctly different types of sprays, depending on which interchangeable air and fluid caps are selected. The spray type and flow rate are determined by the "set up" -a specific combination of one air cap and one fluid cap.

Materials

-Nickel-plated brass / Other materials and special materials

Applications

-Humidification, spray adhesive, viscous material
-spraying the coating of pharmaceutical and food processing

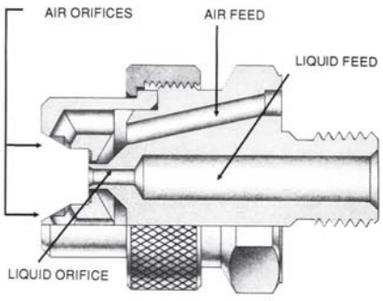


Internal Mix set-up

Internal Mix set-up

Features

The liquid and gas are mixed internally to produce a completely atomized spray. Available with Round, Wide-Angle Round, Flat Spray patterns.



External Mix set-up

External mix set-up

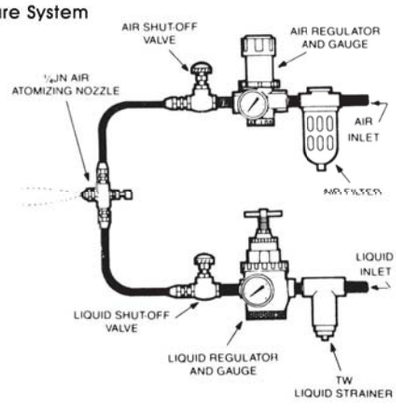
Features

The liquid atomization is controlled by varying the air pressure without changing flow rates.
Effective for higher viscosity liquids and abrasive suspensions.

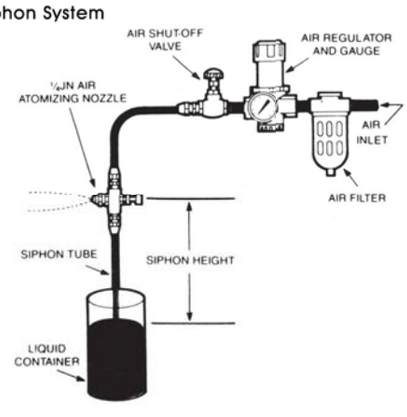
Applications

-Humidify control: air humidifier, fermentation, culture, electrostatic painting
-Anti-Static: Plastic Injection Molding, Printing Plate
-Fine spray cooling: gas, waste gas, such as refractory cooling
-Combustion: waste incineration, two liquid mixture combustion
-Sterilization: sterilization unattended food factory, barn, piggery poultry humidification and disinfection
-Dust: cement, coke, glass raw materials, crushed stone other fine dust
-Odor Removal: Odor Remover Spray micro injection

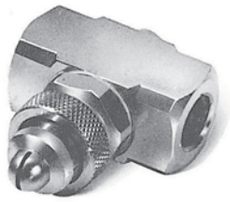
*Pressure System



*Siphon System



AIR-ATOMIZING SET-UP

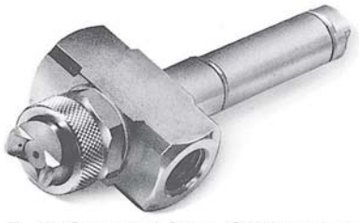


A. End Plug

B. Shut-Off

C. Cleant-out

D. Clean-Out/Shut-Off

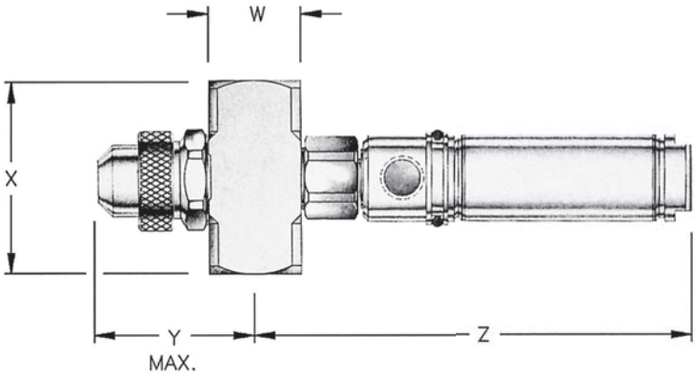


E. Air Operated Shut-Off**(Square Body)**

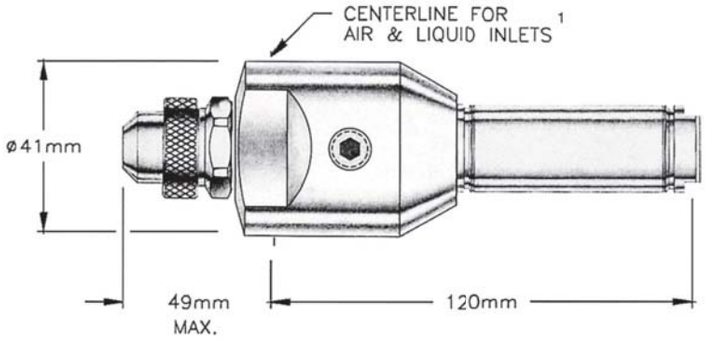
F. XA 01/02 Body with E or F Hardware **(Round Body)**

Dimensions with Hardware Options for Square Body

Pipe Size	Hardware Option	W	X	Y	Max.Z
1/8 OR 1/4	A	20.6	42.9	49.2	14.3
	B				42.3
	C				63.5
	D				77.0
	E				103
	F				103
1/2	A	31.8	63.5	68.3	25.4

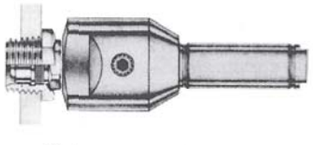


Overall Dimensions of AA Assemblies with Square (XA00) Body (Shown with E or F Hardware)



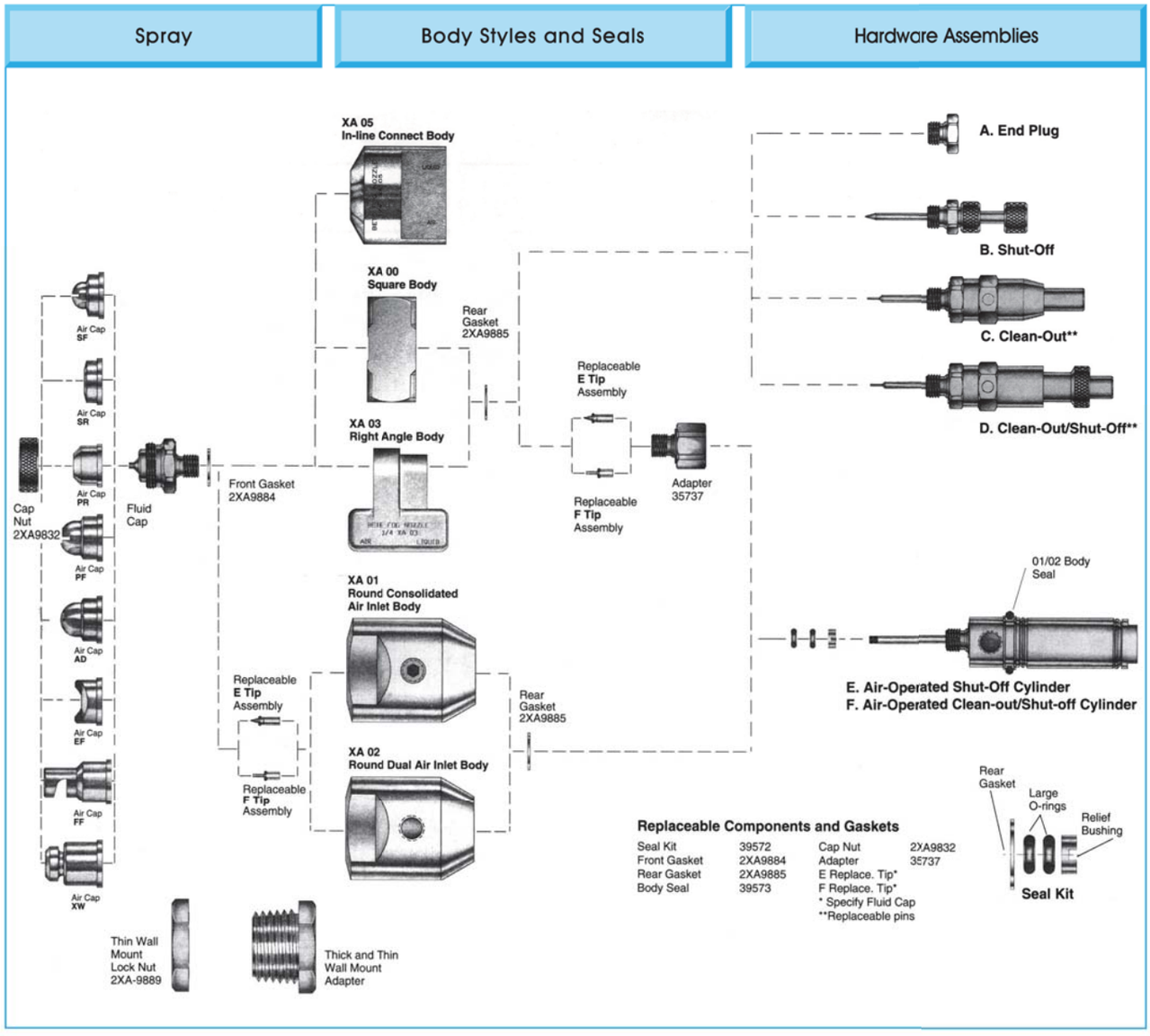
Overall Dimensions for Assemblies with Round (XA01, XA02)Bodies

1. Spray Extension



2. Mounting Bracket

AIR-ATOMIZING NOZZLE



TO ORDER

SPRAY SET–UP NUMBER

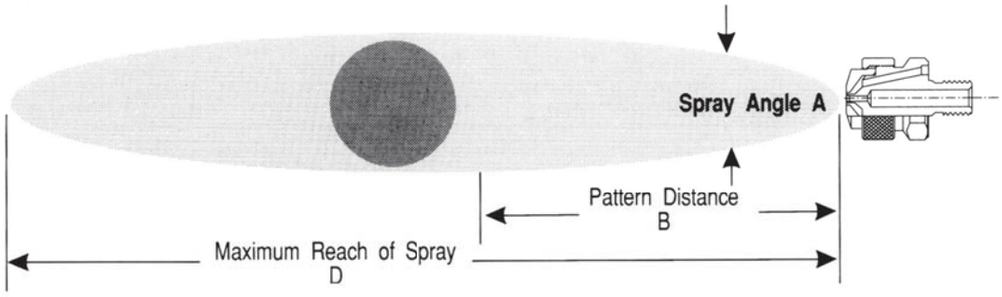
1/4 AA 01 PR 250 E 01

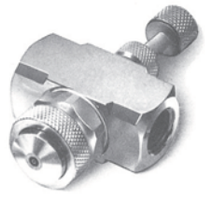
SIZES AND SERIES	1/8"B, 1/4"B, 1/2"B–BSP 1/8", 1/4", 1/2"–NPT
BODY STYLES	00 01 02 03 05
AIR CAP STYLES	PR FF AD XW PF SR SF
COMBINATION NUMBER	
SIZES AND SERIES	1/8"B, 1/4"B, 1/2"B–BSP 1/8", 1/4", 1/2"–NPT
HARDWARE ASSEMBLIES	A B C D E F

AIR-ATOMIZING NOZZLE(1/4")

AA-SR Series

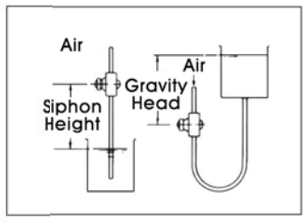
Siphon Fed/ Round Spray Pattern





Features

- -lowest flow available
- -Full cone pattern
- -Very fine atomization
- -Short to moderate forward spray projection
- -Narrow spray angle(12° ~22°)

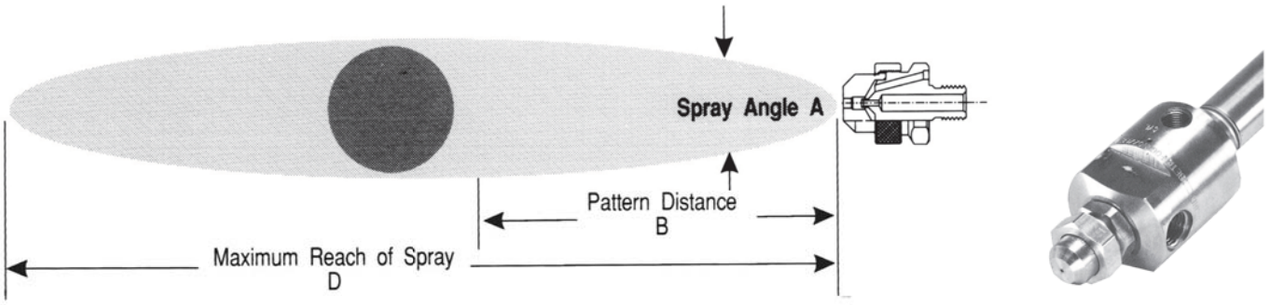


Set-up Number	Fluid and Air Cap Numbers	Atomizing Air		Liquid capacity in ℓ/h								Spray Dimensions at 200mm Siphon Height			
				Gravity Head			Siphon Height								
		Air Pressure kg/㎠	Air Capacity ℓ/min	45cm	30cm	15cm	10cm	20cm	30cm	60cm	90cm	Air kg/㎠	Spray Angle A°	B cm	D m
AA-SRO50	Fluid Cap FC7 & Air Cap AC1201	0.7	11.3	1.5	1.3	1.1	0.87	0.68	0.53			0.7	18°	28	1.8
		1.5	17.0	1.8	1.7	1.5	1.3	1.2	1.1	0.62		1.5	18°	28	1.9
		3.0	28	2.1	1.9	1.7	1.5	1.4	1.3	1.1	0.76	3.0	18°	30	2.3
		4.0	36	2.2	2.0	1.8	1.6	1.5	1.4	1.2	0.87	4.0	18°	36	2.6
AA-SR150	Fluid Cap FC4 & Air Cap AC1201	0.7	13.3	2.4	2.1	1.7	1.5	1.2	0.79			0.7	18°	30	2.1
		1.5	20	2.8	2.6	2.4	2.1	1.9	1.6	0.91		1.5	18°	33	2.3
		3.0	32	3.4	3.1	2.9	2.8	2.6	2.4	1.7	1.1	3.0	18°	38	2.6
		4.0	41	3.7	3.4	3.3	3.1	2.9	2.7	2.1	1.5	4.0	19°	43	3.0
AA-SR200	Fluid Cap FC4 & Air Cap AC15202	0.7	23	2.5	2.3	2.0	1.6	1.4	1.1			0.7	18°	30	2.4
		1.5	36	2.9	2.8	2.5	2.2	2.0	1.7	0.89		1.5	18°	33	2.7
		3.0	58	3.4	3.3	3.2	2.9	2.8	2.5	1.9	1.2	3.0	19°	38	3.4
		4.0	74	3.7	3.6	3.5	3.4	3.3	3.0	2.5	2.0	4.0	20°	43	4.0
AA-SR250	Fluid Cap FC3 & Air Cap AC1202	0.7	19.3	4.5	4.0	3.4	2.1	1.8	1.4			0.7	21°	38	3.0
		1.5	31	5.3	4.9	4.4	3.5	2.9	2.7	1.8		1.5	21°	41	3.4
		3.0	50	6.0	5.6	5.0	4.4	4.0	3.4	2.4	1.2	3.0	21°	46	4.0
		4.0	65	5.7	5.4	5.0	4.2	3.9	3.5	2.8	1.9	4.0	22°	51	4.6
AA-SR400	Fluid Cap FC1 & Air Cap AC1204	1.5	58	22	19.9	16.3	12.3	10.5	8.3	2.8		1.5	17°	46	3.7
		3.0	88	25	23	19.5	16.7	14.2	11.5	6.4	2.8	3.0	18°	51	4.3
		4.0	111	26	24	21	18.4	15.7	12.9	7.9	4.5	4.0	18°	53	4.9
		5.6	147	26	24	22	19.7	17.0	14.6	9.8	6.1	5.6	19°	58	5.5
AA-SR450	Fluid Cap FC5 & Air Cap AC1205	2.0	144				27	22	16.8			2.0	20°	51	6.7
		3.0	190				30	26	21			3.0	20°	53	7.0
		4.0	240		43	40	31	28	23	11.0		4.0	21°	58	7.6
		5.6	315	44	42	39	31	28	24	16.7	8.3	5.6	22°	63	8.2

AIR-ATOMIZING NOZZLE(1/4")

AA-PR Series

Pressure-fed / Internal Mix / Narrow Angle Round



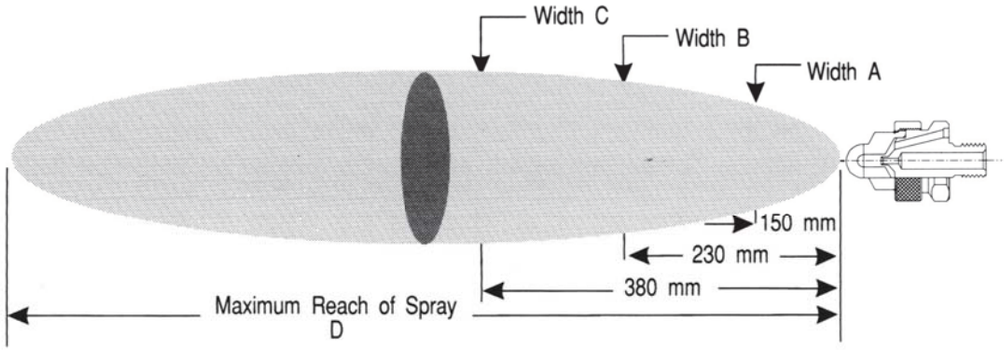
Features

- Internal Mix
- Very fine atomization
- Narrow spray angle(12° ~22°)
- Full cone Pattern

Set-up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ/h) and Air capacity (ℓ/m)																Spray Dimensions				
		Liquid Pressure																				
		0.7kg/㎠			1.5kg/㎠			2kg/㎠			3kg/㎠			4kg/㎠							
		Air Press kg/㎠	Liquid ℓ/h	Air ℓ/min	Air Press kg/㎠	Liquid ℓ/h	Air ℓ/min	Air Press kg/㎠	Liquid ℓ/h	Air ℓ/min	Air Press kg/㎠	Liquid ℓ/h	Air ℓ/min	Air Press kg/㎠	Liquid ℓ/h	Air ℓ/min	Air Press kg/㎠	Liquid kg/㎠	A °	B cm	D m
AA-PR050	Fluid Cap FC4 & Air Cap AC1501	0.7 0.85 1.0	2.5 1.8 1.4	15.6 19.0 22	1.1 1.4 1.7 1.8 2.0 2.1 2.2	6.4 5.0 4.1 3.4 3.0 2.6 2.0	11.9 15.0 18.7 20 23 25 27	1.4 1.7 2.0 2.2 2.4 2.5 2.7	6.4 5.5 4.5 3.4 3.0 2.5 2.3	13.9 16.7 19.8 24 26 28 31	2.7 2.8 3.0 3.1 3.2 3.4 3.7	6.2 5.7 5.2 4.7 4.3 3.9 3.0	23 25 27 29 31 33 38	3.5 3.7 3.9 4.2 4.5 4.6 4.8	7.8 7.3 6.4 5.5 4.5 4.1 3.7	28 29 33 38 43 45 47	0.85 1.7 2.5 3.1 4.5	0.7 1.5 2.0 3.0 4.0	13° 13° 13° 14° 15°	30 33 36 39 44	2.7 3.0 3.4 3.8 4.4
AA-PR100	Fluid Cap FC4 & Air Cap AC1502	0.7 0.85 1.0	2.5 2.0 1.6	18.7 22 26	1.4 1.5 1.7 1.8 2.0 2.1	5.7 5.2 4.8 4.3 3.9 3.4	27 29 32 35 37 40	1.7 1.8 2.0 2.1 2.2 2.4 2.7	6.7 6.4 5.9 5.2 4.8 4.3 3.6	29 31 34 37 40 43 48	2.2 2.5 2.8 3.0 3.1 3.2 3.4	9.2 8.2 7.2 6.7 6.3 5.9 5.5	34 39 44 47 49 52 55	2.8 3.1 3.4 3.7 3.9 4.2 4.5	11.9 11.0 10.1 9.2 8.4 7.6 6.8	39 43 47 52 58 62 68	0.85 1.5 2.4 3.0 3.9	0.7 1.5 2.0 3.0 4.0	12° 13° 13° 13° 15°	43 46 48 51 56	3.7 4.0 4.3 4.6 5.2
AA-PR150	Fluid Cap FC3 & Air Cap AC1502	0.85 1.1 1.4 1.5 1.7 1.8 2.0	4.8 4.1 3.4 3.1 3.0 2.9 2.8	21 27 33 35 39 41 44	1.7 1.8 2.0 2.2 2.5 2.8 3.1	8.4 7.5 7.0 5.7 4.8 4.1 3.6	31 35 37 44 49 54 59	2.0 2.1 2.4 2.7 3.0 3.2 3.5	10.7 9.8 8.2 6.8 5.9 5.0 4.1	33 37 42 48 55 59 65	2.7 2.8 3.1 3.4 3.7 3.9 4.2	16.5 15.4 13.6 11.8 10.4 9.1 7.9	37 38 43 49 55 61 65	3.4 3.7 3.9 4.2 4.5 4.8 4.9	20 18.4 16.8 15.2 13.8 12.4 11.8	43 47 50 55 60 65 68	1.5 2.5 3.0 3.4 4.2	0.7 1.5 2.0 3.0 4.0	12° 13° 13° 14° 15°	48 51 53 56 60	4.0 4.3 4.6 4.9 5.3
AA-PR200	Fluid Cap FC2 & Air Cap AC1503	1.1 1.4 1.5 1.7 1.8 2.0 2.1	13.0 8.9 7.2 5.8 4.7 3.6 2.7	76 91 98 105 112 119 127	2.2 2.5 2.8 3.1 3.4 3.5	17.8 13.1 9.5 7.0 4.9 4.2	116 130 143 157 171 178	2.8 3.1 3.4 3.9 4.2 4.6	20 16.3 11.9 7.0 4.7 3.0	136 149 163 187 205 220	3.4 3.9 4.6 5.3 5.6 6.0 6.3	32 25 15.9 9.1 6.8 5.0 3.6	149 170 205 240 255 275 290	4.6 5.3 5.6 6.0 6.3 6.7 7.0	37 29 25 21 17.4 14.0 11.0	193 220 235 250 270 290 305	1.7 2.8 3.9 5.3 6.0	0.7 1.5 2.0 3.0 4.0	18° 20° 20° 21° 21°	66 76 81 91 97	4.9 6.1 6.7 7.9 9.1
AA-PR250	Fluid Cap FC1 & Air Cap AC1503	0.85 1.0 1.1 1.3	31 25 18.5 12.9	57 66 75 85	1.4 1.5 1.7 1.8 2.0 2.1 2.2	61 54 48 41 35 30 25	69 76 85 93 102 110 119	2.1 2.4 2.7 2.8 3.0	53 41 31 26 22	96 112 127 136 144	2.7 3.0 3.2 3.5 3.7 3.8 3.9	80 69 59 49 44 37 35	103 117 130 146 154 161 170	3.8 4.2 4.6 4.9 5.3 5.6 6.0	88 73 61 48 39 31 23	135 156 176 196 215 240 260	1.0 1.8 2.8 3.5 4.9	0.7 1.5 2.0 3.0 4.0	17° 18° 20° 20° 21°	81 69 76 79 91	4.9 5.8 6.7 7.0 8.5
AA-PR300	Fluid Cap FC5 & Air Cap AC1504	1.0 1.1	44 32	86 102	1.4 1.5 1.7 1.8 2.0	125 106 87 70 55	79 91 105 118 130	2.0 2.1 2.2 2.4 2.5 2.7 2.8	123 108 95 79 64 52 42	108 119 130 143 155 166 178	2.2 2.5 2.8 3.1 3.2 3.4 3.5	199 174 146 121 108 95 84	88 110 133 154 166 176 187	3.0 3.2 3.5 3.8 4.1 4.6 4.9	250 225 205 182 159 121 93	99 120 141 163 184 225 255	1.0 1.7 2.4 3.1 3.8	0.7 1.5 2.0 3.0 4.0	19° 20° 21° 21° 22°	89 99 104 107 117	6.1 7.0 7.6 7.9 9.1

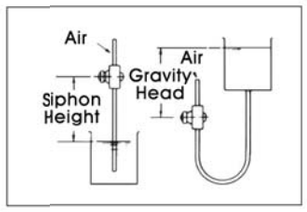
AIR-ATOMIZING NOZZLE(1/4")

AA-SF Series



Features

- Lowest flow available
- Very fine atomization
- Flat fan spray pattern
- Moderate spray angle (60° – 85°)
- Small forward projection
- Siphon fed

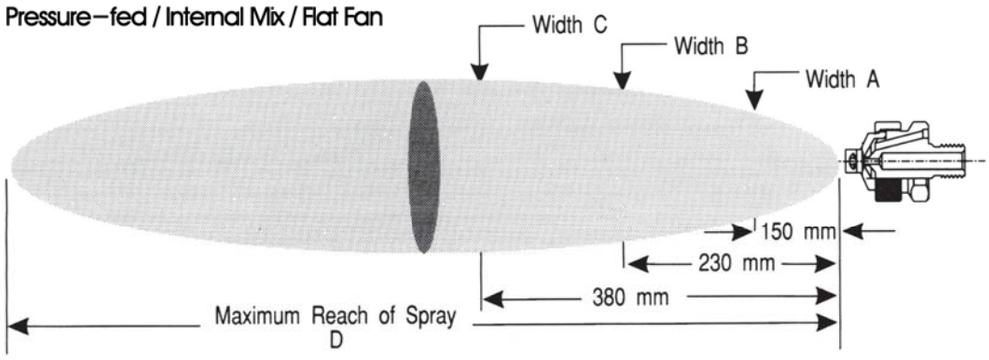


Set-up Number	Fluid and Air Cap Numbers	Atomizing Air		Liquid capacity in ℓ/h								Spray Dimensions at 200mm Siphon Height				
		Air Pressure kg/㎠	Air Capacity ℓ/min	Gravity Head			Siphon Height					Air kg/㎠	A cm	B cm	C cm	D m
				45㎝	30㎝	15㎝	10㎝	20㎝	30㎝	60㎝	90㎝					
AA-SF050	Fluid Cap FC3 & Air Cap AC1101	0.7	28	1.3	1.2	1.1	1.0	0.95	0.83	0.64	0.49	0.7	20	26	38	2.1
		1.5	43	1.2	1.1	1.0	0.90	0.86	0.78	0.66	0.54	1.5	21	29	38	2.1
		2.0	50	0.82	0.76	0.68	0.57	0.50				2.0	23	30	38	1.8
AA-SF100	Fluid Cap FC6 & Air Cap AC1102	1.5	56	3.7	3.5	3.3	2.9	2.8	2.5	2.3	2.1	1.5	23	32	38	2.7
		2.1	65	3.4	3.3	3.1	2.8	2.7	2.6	2.4	2.2	2.0	24	34	42	2.7
		3.0	87	2.8	2.7	2.5	2.4	2.2	2.1	1.9	1.7	3.0	27	37	46	3.0
		4.0	110	1.9	1.8	1.6	1.5	1.3	1.2			4.0	28	39	48	2.7
AA-SF150	Fluid Cap FC2 & Air Cap AC1103	1.5	68	5.1	4.8	4.5	3.8	3.7	3.5	3.0	2.4	1.5	19	23	27	3.4
		2.0	78	4.9	4.7	4.4	3.6	3.4	3.2	2.9	2.3	2.0	20	25	28	3.4
		3.1	103	3.4	3.2	3.0	2.2	2.0	1.7			3.0	22	27	30	3.0
		3.5	117	2.2	2.0	1.7										
AA-SF200	Fluid Cap FC2 & Air Cap AC1104	1.5	63	7.6	7.2	6.6	5.7	5.4	5.1	4.6	3.7	1.5	17	22	27	3.4
		2.0	73	7.6	7.3	6.8	5.9	5.7	5.5	5.0	4.2	2.0	18	23	29	3.4
		3.0	96	6.4	6.1	5.7	5.0	4.5	4.1	3.3		3.0	20	27	33	3.4
		3.5	110	4.2	3.7	3.2	2.6									

AIR-ATOMIZING NOZZLE(1/4")

AA-EF Series

Pressure-fed / Internal Mix / Flat Fan



Features

- External mix: allows spraying of viscous materials
- Variable atomization
- Moderate spray angle(60° ~90°)
- Precise metering of the liquid flow rate

Set-up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ/h) and Air capacity (ℓ/m)																Spray Dimensions					
		Liquid Pressure																					
		0.2kg/㎠			0.3kg/㎠			0.7kg/㎠			1.5kg/㎠			3kg/㎠									
		Air Press kg/㎠	Air ℓ/min	Liquid ℓ/h	Air Press kg/㎠	Air ℓ/min	Liquid ℓ/h	Air Press kg/㎠	Air ℓ/min	Liquid ℓ/h	Air Press kg/㎠	Air ℓ/min	Liquid ℓ/h	Air Press kg/㎠	Air ℓ/min	Liquid ℓ/h	Air kg/㎠	Liquid kg/㎠	A cm	B cm	C cm	D m
AA-EF050	Fluid Cap FC7 & Air Cap AC1001	0.35	22		0.35	22		0.4	25		0.6	28		0.7	34		0.4	0.3	20	28	33	1.2
		0.4	25		0.4	25		0.6	28		0.7	34		1.1	45		0.6	0.7	23	30	40	1.8
				2.8			3.5			5.3			7.8			11.0	0.6	1.5	28	35	46	1.8
		0.5	27.5		0.6	28		0.7	34		1.1	45		1.8	62		1.1	1.5	28	33	43	2.4
		0.6	28		0.7	34		0.85	40		1.4	54		2.5	79		1.4	1.5	25	30	41	2.7
																	1.1	2.0	28	35	48	2.6
																	1.4	3.0	30	38	51	2.7
AA-EF100	Fluid Cap FC7 & Air Cap AC1003	0.21	25		0.35	26		0.7	31		1.4	45		2.8	74		0.21	0.21	9	15	23	0.9
		0.35	26		0.7	31		1.1	40		1.75	54		3.5	85		1.1	0.21	9	15	23	1.2
		0.7	31		1.1	40		1.4	45		2.1	59		4.2	102		1.4	0.35	10	15	23	1.2
		1.1	40	2.8	1.4	45	3.5	1.75	54	5.3	2.8	74	7.8	4.9	119	11.0	1.4	1.4	11	18	25	1.5
		1.4	45		1.75	54		2.1	59		3.5	85		5.25	127		1.75	0.7	11	15	24	1.5
		1.75	54		2.1	59		2.8	74		4.2	102		5.6	139		2.8	1.4	13	18	28	1.8
		2.1	59		2.8	74		3.5	85		5.6	139		7.2	158		4.9	2.8	15	18	24	2.4
AA-EF150	Fluid Cap FC4 & Air Cap AC1001																0.7	0.3	28	33	40	1.5
		0.35	22		0.35	22		0.6	28		0.7	34		1.1	45		1.1	0.7	30	38	48	2.1
		0.6	28		0.7	34		0.7	34		1.4	54		1.4	54		0.7	1.5	38	46	58	1.8
				4.5			5.5			8.3			12.2			17.2	1.4	1.5	35	43	56	2.4
		0.7	34		1.1	45		1.4	54		2.1	71		2.1	71		2.5	1.0	33	40	51	3.0
		1.1	45		1.4	54		2.1	71		2.5	79		2.5	79		1.8	2.0	38	46	58	2.7
AA-EF200	Fluid Cap FC4 & Air Cap AC1003																1.8	3.0	41	48	66	2.9
		0.35	26		0.7	31		1.1	40		1.75	54		3.15	82		0.35	0.21	8	14	22	1.1
		0.7	31		1.1	40		1.4	45		2.1	59		3.5	85		1.4	0.21	9	15	22	1.7
		1.1	40		1.4	45		1.75	54		2.8	74		4.2	102		1.75	0.35	10	17	23	1.8
		1.4	45	4.5	1.75	54	5.5	2.1	59	8.3	3.5	85	12.2	4.9	119	17.2	1.75	1.4	13	19	29	2.1
		1.75	54		2.1	59		2.8	74		4.2	102		5.25	127		2.1	0.7	13	18	25	1.8
		2.1	59		2.8	74		3.5	85		4.9	119		6.3	158		3.5	1.4	13	22	30	2.4
		2.8	74		3.5	85		4.2	102		6.3	158		6.65	164		5.25	2.8	15	19	25	3.0
AA-EF250	Fluid Cap FC3 & Air Cap AC1001																0.6	0.3	35	48	61	1.8
		0.4	25		0.4	25		0.4	25		0.7	34		1.4	54		0.6	0.7	35	48	63	1.5
		0.5	27.5		0.6	28		0.6	28		0.85	40		1.8	62		0.7	1.5	38	48	63	1.8
				8.5			10.4			15.9			23			33	1.1	1.5	41	51	66	2.1
		0.6	28		0.65	31		0.7	34		1.1	45		2.1	71		1.4	1.5	43	53	66	2.4
		0.7	34		0.7	34		0.85	40		1.4	54		2.5	79		1.8	2.0	41	51	69	2.7
																	2.1	3.0	41	51	69	2.9

AIR-ATOMIZING NOZZLE(1/4")

Spray Set Up 1/2 Series

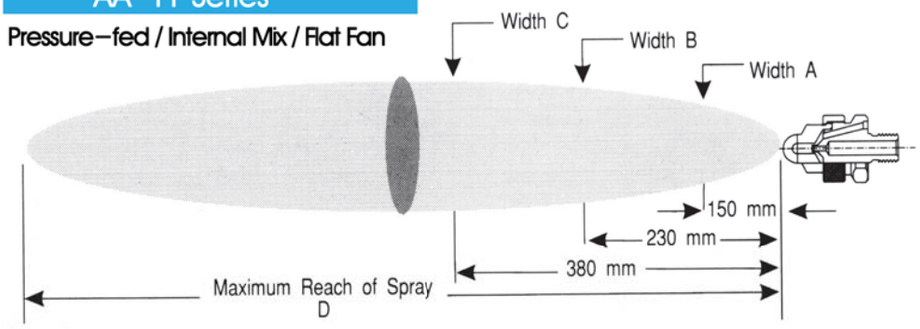
Pressure–fed / External Mix / Flat Fan

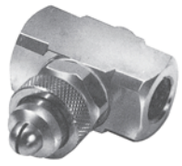
Set–up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ /h) and Air capacity (ℓ /m)																Spray Dimensions					
		Liquid Pressure																					
		0.2kg/㎠			0.3kg/㎠			0.7kg/㎠			1.5kg/㎠			3kg/㎠			Air	Liquid	A	B	C	D
		Air Press kg/㎠	Air ℓ /min	Liquid ℓ /h	Air Press kg/㎠	Air ℓ /min	Liquid ℓ /h	Air Press kg/㎠	Air ℓ /min	Liquid ℓ /h	Air Press kg/㎠	Air ℓ /min	Liquid ℓ /h	Air Press kg/㎠	Air ℓ /min	Liquid ℓ /h	kg/㎠	kg/㎠	cm	cm	cm	m
AA–EF300	Fluid Cap FC3 & Air Cap AC1003	0.7 1.1 1.4 1.75 2.1 2.8 3.5	31 40 45 54 59 74 85	8.5	1.1 1.4 1.75 2.1 2.8 3.5 4.2	40 45 54 59 74 85 102	10.4	1.4 1.75 2.1 2.8 3.5 4.2 4.9	45 54 59 74 85 102 119	15.9	2.45 2.8 3.5 4.2 4.9 5.6 6.3	68 74 85 102 119 139 158	23	3.5 4.2 4.9 5.25 5.9 6.3 7.0	85 102 119 127 139 158 175	33	0.7 1.75 2.1 2.45 2.8 4.2 5.25	0.21 0.21 0.35 1.4 0.7 1.4 2.8	13 13 13 14 14 14 17	17 17 18 20 19 20 20	25 25 24 32 30 36 30	1.2 1.8 1.8 1.8 2.3 3.0 4.0
AA–EF350	Fluid Cap FC6 & Air Cap AC1002	0.6 0.7 1.1 1.4	91 102 130 156	13.4	0.7 1.1 1.8 2.1	102 130 184 210	16.4	1.4 2.1 2.5 2.8	156 210 235 260	25	2.1 2.8 3.5 4.2	210 260 310 360	37	3.2 4.2 5.3 5.6	285 360 430 455	52	1.4 2.1 2.1 3.2 4.2 3.9 4.2	0.3 0.7 1.5 1.5 1.5 2.0 3.0	33 33 35 38 38 41 38	38 40 46 48 48 51 51	48 56 58 66 64 69 71	3.8 4.3 4.0 4.6 5.2 4.6 4.9
AA–EF400	Fluid Cap FC6 & Air Cap AC1004	0.7 1.05 1.4 1.45 2.1 2.8 3.5	85 102 116 139 156 195 226	13.4	1.05 1.4 1.75 2.1 2.8 3.5 4.2	102 116 139 156 195 226 266	16.4	1.4 1.75 2.1 2.45 2.8 3.5 4.2	116 139 156 178 195 226 266	25	2.45 2.8 3.5 4.2 4.9 5.6 6.3	178 195 226 266 311 359 410	37	3.15 3.5 3.85 4.2 4.9 5.6 6.3	212 226 255 266 311 359 410	52	0.7 1.75 2.1 2.45 2.45 4.2 4.9	0.21 0.21 0.35 0.7 1.4 1.4 2.8	13 13 15 15 17 17 17	19 19 19 22 23 23 22	25 25 28 28 36 37 32	1.7 2.7 3.0 3.5 3.7 4.3 4.9
AA–EF450	Fluid Cap FC6 & Air Cap AC1002	0.6 1.1 1.4 1.8	91 130 156 184	17.6	0.7 1.4 1.8 2.1	102 156 184 210	22	1.1 1.8 2.5 2.8	130 184 235 260	33	2.5 3.2 3.9 4.2	235 285 330 360	48	3.5 4.6 6.0 6.7	310 380 475 525	68	1.1 1.8 2.5 3.2 4.2 4.2 4.9	0.2 0.7 1.5 1.5 1.5 2.0 3.0	33 35 38 33 30 33 33	38 48 46 43 43 43 43	51 64 64 61 58 61 61	3.5 3.0 3.8 4.3 4.9 5.2 4.0
AA–EF500	Fluid Cap FC2 & Air Cap AC1004	0.7 1.05 1.4 1.75 2.1 2.8 3.5	85 102 118 139 156 195 226	17.6	1.4 1.75 2.1 2.45 2.8 3.5 4.2	116 139 156 178 195 226 266	22	1.75 2.1 2.45 2.8 3.5 4.2 4.9	139 156 178 195 226 266 311	33	2.8 3.15 3.5 4.2 4.9 5.6 6.3	195 212 226 266 311 359 410	48	3.5 4.2 4.9 5.25 5.6 6.3 6.65	226 266 311 340 359 410 427	68	0.7 1.75 2.45 2.8 2.8 4.2 5.25	0.21 0.21 0.35 0.7 1.4 1.4 2.8	15 15 15 15 17 17 18	19 19 22 22 25 25 23	27 27 33 36 37 37 36	2.1 3.0 3.4 3.8 4.0 4.9 5.8
AA–EF550	Fluid Cap FC1 & Air Cap AC1002	0.7 1.1 1.4 1.8	102 130 156 184	36	1.1 1.4 2.1 2.5	130 156 210 235	45	1.8 2.1 2.8 3.2	184 210 260 285	68	3.2 3.5 4.9 5.6	285 310 405 455	100	5.3 6.0 6.0 7.7	430 475 525 550	141	2.1 2.8 3.2 4.6 5.6 3.9 6.3	0.3 0.7 1.5 1.5 1.5 2.0 3.0	40 46 48 43 38 48 41	56 58 58 53 51 64 56	76 81 79 76 66 84 79	3.7 4.0 4.3 4.9 5.8 4.3 5.8
AA–EF600	Fluid Cap FC1 & Air Cap AC1004	1.05 1.4 1.75 2.1 2.45 2.8 3.5	102 116 139 156 178 195 226	36	1.75 2.1 2.45 2.8 3.15 3.5 4.2	139 156 178 195 212 226 266	45	2.45 2.8 3.15 3.5 4.2 4.9 5.8	178 195 212 226 266 311 359	68	3.15 3.5 3.85 4.2 4.9 5.6 6.3	212 226 255 266 311 359 410	100	3.85 4.2 4.55 4.9 5.6 6.3 7.0	255 266 297 311 359 410 453	141	1.05 2.1 2.8 3.15 3.5 4.2 5.6	0.21 0.21 0.35 1.4 0.7 1.4 2.8	15 15 18 20 19 20 18	20 22 24 28 27 28 24	25 29 36 39 38 39 38	2.7 3.0 3.5 3.7 4.0 4.3 5.9
AA–EF650	Fluid Cap FC8 & Air Cap AC1005	1.8 2.1 2.5 2.8 3.2 3.5 4.2	235 260 300 330 355 380 445	36	1.8 2.1 2.5 2.8 3.2 3.5 4.2	235 260 300 330 355 380 445	45	2.5 2.8 3.2 3.5 3.9 4.2 4.9	300 330 355 380 410 445 520	68	3.9 4.2 4.6 4.9 5.3 5.6 6.3	410 445 480 520 565 600 685	100				1.8 2.8 2.8 3.5 3.9 4.2 4.9	0.2 0.2 0.3 0.7 1.5 1.0 1.5	15 15 15 17 17 17 17	20 20 20 22 22 23 23	29 30 30 32 34 33 34	3.0 3.4 4.0 4.3 4.6 4.7 5.5
AA–EF700	Fluid Cap FC9 & Air Cap AC1005	2.1 2.5 2.8 3.2 3.5 4.2 4.9	260 300 330 355 380 445 520	64	2.8 3.2 3.5 3.9 4.2 4.9 5.6	330 355 380 410 445 520 600	78	3.9 4.2 4.6 4.9 5.3 5.6 6.3	410 445 480 520 565 600 685	119	4.9 5.3 5.6 6.0 6.3	520 565 600 640 685	175				2.1 3.2 3.9 4.9 4.9 5.3 5.6	0.2 0.2 0.3 0.7 1.5 1.0 1.5	17 18 18 18 20 18 20	24 24 25 25 25 25 25	34 36 36 36 38 38 38	3.5 4.3 4.9 5.5 5.5 5.8 6.1
AA–EF750	Fluid Cap FC5 & Air Cap AC1005	2.8 3.2 3.5 3.9 4.2 4.6 4.9	330 355 380 410 445 480 520	102	3.5 3.9 .2 4.6 4.9 5.3 5.6	380 410 445 480 520 565 600	125	4.6 4.9 5.3 5.6 6.0 6.3	480 520 565 600 640 685	182	5.6 6.0 6.3	600 640 685	280				2.8 3.9 4.6 5.3 5.6 5.6 6.0	0.2 0.2 0.3 0.7 1.0 1.5 1.5	19 20 20 22 22 22 22	25 25 25 27 27 27 27	36 37 37 38 41 41 41	4.6 4.9 5.2 5.5 5.5 5.8 6.1

AIR-ATOMIZING NOZZLE(1/4")

AA–PF Series

Pressure–fed / Internal Mix / Flat Fan





Features

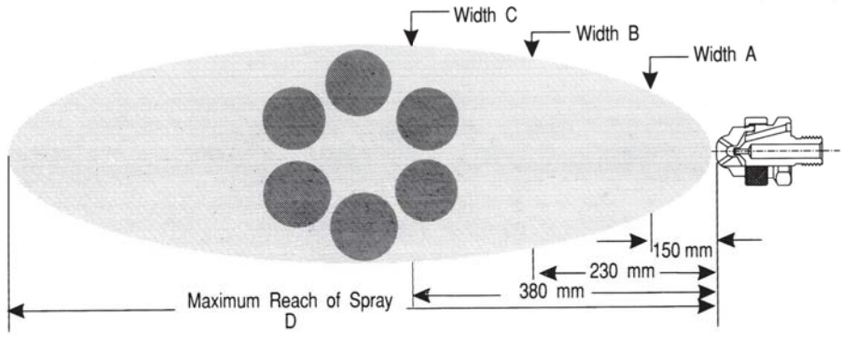
–Internal Mix
–Very fine atomization
–Flat fan, Wide angle spray Pattern (between 80° and 90°)

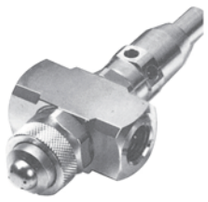
Set–up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ /h) and Air capacity (ℓ /m) Liquid Pressure 0.2kg/㎠ Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	0.3kg/㎠ Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	0.7kg/㎠ Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	1.5kg/㎠ Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	3kg/㎠ Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	Spray Dimensions Air kg/㎠	Liquid kg/㎠	A cm	B cm	C cm	D m
AA–PF050	Fluid Cap FC4 & Air Cap AC1301	0.7 0.85 1.0 1.1 1.3 1.4 1.5	5.5 4.7 4.1 3.5 3.0 2.5 2.0	24 27 31 34 37 40 44	1.3 1.5 1.8 2.1 2.4 2.7 2.8	9.1 7.7 6.5 5.4 4.3 3.3 2.8	31 36 42 47 52 57 60	2.0 2.2 2.5 2.8 3.1 3.2 3.4	8.6 7.5 6.2 5.2 4.2 3.7 3.2	42 47 52 57 63 65 68	2.7 3.0 3.2 3.5 4.1 4.6 4.9	11.2 10.1 9.1 8.1 5.4 4.2 3.1	52 56 62 66 79 85 91	3.9 4.6 5.3 6.0 6.3 6.7 7.0	12.0 9.7 7.5 5.3 4.3 3.3 2.4	69 81 93 104 110 116 122	1.1 2.1 2.8 3.5 6.0	0.7 1.5 2.0 3.0 4.0	25 36 38 47 56	36 48 53 61 74	46 66 76 86 94	2.6 3.0 3.2 3.4 4.0
AA–PF100	Fluid Cap FC3 & Air Cap AC1303	1.3 1.4 1.5 1.7 1.8 2.0	3.9 3.0 2.3 1.8 1.3 0.95	30 33 35 38 41 44 3.1	2.1 2.4 2.5 2.7 2.8 3.0 2.1	7.4 5.3 4.4 3.7 3.1 2.6 57	40 45 47 50 52 55	3.0 3.1 3.2 3.4 3.5 3.9	6.1 5.3 4.5 3.8 3.2 1.8	52 54 57 59 62 68	3.9 4.2 4.6 4.9	9.4 7.2 5.3 3.8	60 67 73 80	5.3 5.6 6.0 6.3	10.2 8.3 6.6 5.1	78 84 89 98	1.5 2.7 3.2 4.2 5.6	0.7 1.5 2.0 3.0 4.0	25 36 58 61 64	33 51 74 74 76	46 69 91 94 97	1.8 2.0 2.0 2.1 2.3
AA–PF150	Fluid Cap FC3 & Air Cap AC1301	0.85 1.0 1.1 1.3 1.4	8.2 6.8 5.5 4.1 2.9	19.8 23 27 30 34 2.4 2.5	1.4 1.7 2.0 2.1 2.2 6.1 5.1	14.4 11.9 9.5 8.3 7.1 46 49	27 32 37 40 43 3.4 3.5	2.1 2.4 2.7 3.0 3.2 4.0 3.3	13.5 11.4 9.2 7.1 5.0 63 66	36 42 47 53 59 4.6 4.9	2.7 3.0 3.2 3.5 4.2 5.9 4.0	19.1 17.1 15.1 13.1 8.1 79 86	42 46 52 57 72 6.3 6.7	4.6 4.9 5.3 5.6 6.0 5.6 4.3	16.1 13.8 11.5 9.3 7.3 104 112	69 76 83 90 97	1.1 2.1 3.0 3.5 5.6	0.7 1.5 2.0 3.0 4.0	36 43 51 58 58	46 61 66 76 76	71 81 89 97 97	2.1 2.4 2.6 2.7 3.2
AA–PF200	Fluid Cap FC3 & Air Cap AC1302	1.0 1.1 1.3 1.4 1.7 2.0 2.2	9.0 7.8 6.6 5.2 3.1 2.0 1.1	25 30 32 36 44 50 56	2.0 2.1 2.2 2.5 2.8 3.1 3.4	10.4 9.3 8.2 6.1 4.3 3.0 2.0	41 45 48 55 62 69 75	2.4 2.5 2.7 3.0 3.2 3.5 3.8	11.6 10.4 9.4 7.3 5.5 4.1 2.9	48 51 54 61 68 75 81	3.1 3.2 3.4 3.8 4.2 4.9 6.0	15.6 14.6 13.7 10.8 8.5 5.2 2.3	56 59 62 71 82 98 120	4.2 4.6 4.9 5.3 5.6 6.3 7.0	17.1 15.0 12.8 11.0 9.4 7.2 6.1	73 80 87 94 103 119 134	1.4 2.5 3.2 3.8 5.3	0.7 1.5 2.0 3.0 4.0	10 13 13 15 20	13 15 17 22 25	17 20 22 28 33	3.0 3.7 4.0 4.2 4.8
AA–PF250	Fluid Cap FC2 & Air Cap AC1304	1.1 1.3 1.4 1.5 1.7	11.2 8.5 6.5 5.0 3.8	54 60 65 71 77	2.1 2.2 2.4 2.5	18.0 15.8 13.6 11.6	79 84 89 95	2.7 2.8 3.0 3.1 3.2	19.6 17.3 15.2 13.2 11.4	93 98 103 1.9 114 4.2	3.5 3.7 3.8 3.9 4.1 17.0	27 25 23 21 18.9 137	112 116 121 126 132 6.3	4.6 4.9 5.3 5.6 6.0 12.4	33 28 24 19.7 15.7 200	137 149 161 174 187	1.4 2.4 3.0 3.7 5.3	0.7 1.5 2.0 3.0 4.0	15 23 25 30 33	18 28 33 38 41	20 33 46 46 48	3.0 3.2 3.4 3.5 4.0
AA–PF300	Fluid Cap FC1 & Air Cap AC1304	0.85 1.0 1.1 1.3 1.4 1.5	27 20 15.9 12.5 10.2 7.6	33 38 45 48 56 62	1.8 2.1 2.2 2.4 2.5 2.7	38 28 24 21 17.8 15.1	55 66 71 76 82 87 3.7	2.4 2.7 3.0 3.2 3.4 3.5 10.6	39 30 24 17.8 15.1 12.9 114	67 77 87 98 103 109 4.9	3.2 3.5 3.8 3.9 4.2 4.6 14.8	58 47 38 34 27 20 140	76 87 97 103 113 126 7.0	4.6 5.3 5.6 6.0 6.3 6.7 12.7	59 40 32 26 20 15.9 198	106 132 145 158 172 185	1.1 2.4 3.2 3.9 6.0	0.7 1.5 2.0 3.0 4.0	18 23 25 30 33	23 30 33 38 41	30 41 43 48 51	3.4 3.5 3.7 3.8 4.4
AA–PF350	Fluid Cap FC1 & Air Cap AC1305	1.0 1.1 1.3 1.4	17.0 11.0 7.6 3.2	23 27 33 40	2.0 2.1 2.2 2.4 2.5	24 18.9 14.4 10.6 7.2	44 50 56 63 71	2.4 2.5 2.7 2.8 3.0	28 23 18.9 15.1 11.7	51 59 66 74 79 4.2 4.6	3.4 3.5 3.7 3.8 3.9 13.1 7.2	38 33 28 23 19.7 120 138	72 80 89 97 105 5.6 6.3	3.9 4.2 4.6 4.9 5.3 13.8 3.2	65 53 40 30 21 173 225	75 89 108 127 149	1.1 2.1 2.8 3.7 4.9	0.7 1.5 2.0 3.0 4.0	10 10 13 15 20	13 13 17 20 25	15 17 22 28 35	2.4 3.0 3.4 3.6 4.0
AA–PF400	Fluid Cap FC5 & Air Cap AC1306	1.0 1.1	29 18.9	90 108	1.8 2.0	56 40	117 133	2.1 2.2 2.4 2.5 2.7	100 79 62 48 36	119 133 147 162 177	3.0 3.1 3.2 3.4 3.5 3.7 3.8	126 110 95 78 62 48 37	140 151 163 184 193 210 225	4.1 4.2 4.6 4.9 5.3 5.6	140 125 89 58 34 16.7	181 193 225 265 305 340	1.0 1.8 2.4 3.4 4.9	0.7 1.5 2.0 3.0 4.0	18 25 25 33 36	20 30 30 41 43	25 43 46 53 58	3.4 3.8 4.3 4.6 5.2

AIR-ATOMIZING NOZZLE(1/4")

AA–AD Series

Pressure–fed / Internal Mix / Wide Angle Round





Features

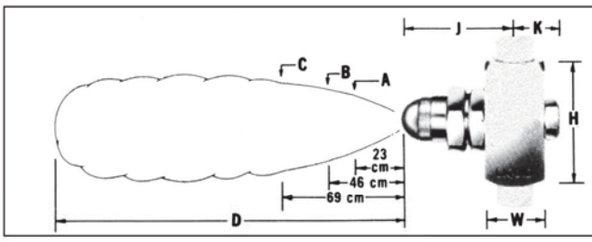
–Internal Mix
–Very fine atomization
–70° Hollow Cone spray pattern
–Moderate forward spray projection

Set–up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ /h) and Air capacity (ℓ /m)															Spray Dimensions					
		Liquid Pressure																				
		0.7kg/cm²			1.5kg/cm²			2kg/cm²			3kg/cm²			4kg/cm²								
		Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	Air kg/cm²	Liquid kg/cm²	A cm	B cm	C cm	D m
AA-AD050	Fluid Cap FC4 & Air Cap AC1601	0.6 0.7 0.85 1.0	5.3 4.3 3.0 1.7	10.2 12.2 14.2 17.0	1.1 1.3 1.4 1.5 1.7 1.8	8.1 7.0 6.4 5.5 4.5 3.5	13.3 15.0 17.0 19.0 22 24	1.5 1.8 2.1 2.4	8.1 6.6 4.9 3.2	16.4 21 25 29	2.4 2.7 3.0 3.2 3.4 3.5	8.9 8.1 6.4 4.9 4.2 3.4	22 26 30 34 37 40	3.1 3.4 3.9 4.2 4.6 4.9	10.5 9.7 7.8 6.1 4.4 2.8	24 28 36 42 47 54	0.7 1.4 1.8 3.0 3.9	0.7 1.5 2.0 3.0 4.0	14 15 16 16 19	18 19 20 20 23	23 24 25 26 30	1.5 1.8 2.1 2.7 4.0
AA-AD100	Fluid Cap FC2 & Air Cap AC1603	0.85 1.0	7.0 2.1	50 62	1.7 1.8	13.2 9.8	68 79	2.0 2.1 2.2	18.5 15.1 11.7	68 76 85	2.8 3.0 3.1 3.2 3.4 3.5 3.7	25 22 18.5 15.1 12.1 9.1 6.1	84 92 101 109 119 130 142	3.7 3.8 3.9 4.1 4.2 4.6 4.9	31 28 26 23 20 13.6 6.8	96 105 113 122 130 153 183	0.85 1.7 2.1 3.2 4.1	0.7 1.5 2.0 3.0 4.0	18 19 19 20 21	24 25 25 26 28	31 33 33 34 37	1.8 2.4 3.2 4.1 5.9
AA-AD150	Fluid Cap FC2 & Air Cap AC1602	1.1 1.3 1.4 1.5 1.7 1.8 2.0	12.3 9.9 7.9 6.1 4.9 3.9 3.1	40 45 50 54 58 62 67	2.2 2.5 2.8 3.0 3.1 3.2 3.4	16.3 12.1 8.9 7.6 6.4 5.5 4.7	62 71 79 83 87 91 95	2.7 3.0 3.2 3.4 3.5 3.9 4.2	21 16.3 12.3 10.7 9.3 6.4 4.7	69 78 86 91 94 105 115	4.2 4.6 4.9 5.3 5.6 6.0 6.3	19.3 14.6 10.8 8.1 6.2 4.9 4.0	100 113 124 135 146 157 167	5.6 6.0 6.3 6.7 7.0	22 17.6 14.0 11.4 9.1	130 142 142 163 174	1.5 3.0 3.4 5.3 6.3	0.7 1.5 2.0 3.0 4.0	15 16 16 18 19	19 20 20 22 24	23 24 24 25 30	2.7 4.6 5.5 7.3 9.4
AA-AD200	Fluid Cap FC1 & Air Cap AC1603	0.7 0.85 1.0	24 13.6 7.6	32 44 57	1.4 1.5 1.7 1.8	43 35 28 21	37 49 61 71	2.1 2.2 2.4 2.5	33 26 18.9 11.7	66 78 89 100	2.8 3.0 3.1 3.2 3.4 3.5 3.7	52 46 39 33 26 19.5 13.2	65 76 87 99 110 122 133	3.7 3.8 3.9 4.2 4.6 4.9	63 58 52 41 27 15.9	68 79 101 111 138 166	0.85 1.5 2.4 3.2 3.9	0.7 1.5 2.0 3.0 4.0	19 20 20 20 20	25 27 27 28 28	36 37 37 38 39	2.1 3.2 4.1 5.0 6.8
AA-AD250	Fluid Cap FC1 & Air Cap AC1604	1.3 1.5 1.8 2.0 2.1 2.3 2.4	36 29 23 19.7 16.7 14.0 11.4	85 102 117 125 133 142 149	2.1 2.4 2.7 3.0 3.2 3.5 4.2	57 51 45 39 33 28 13.6	116 130 143 157 170 185 220	3.1 3.2 3.4 3.5 3.9 4.6 4.9	53 50 47 45 38 25 18.5	156 163 170 177 194 230 245	4.2 4.9 5.6 6.0 6.3 6.7 7.0	64 51 40 34 28 22 17.8	197 230 265 285 300 320 335	5.6 6.0 6.3 6.7 7.0	74 68 62 56 51	245 260 280 295 315	2.0 3.0 3.9 6.0 6.3	0.7 1.5 2.0 3.0 4.0	20 20 22 23 24	25 27 28 29 32	33 34 37 38 41	5.5 6.4 8.2 9.1 10.4
AA-AD300	Fluid Cap FC5 & Air Cap AC1605	1.7 1.8 2.0 2.1 2.3	25 19.7 15.1 11.4 7.6	156 167 178 193 205	3.0 3.1 3.2 3.4 3.5 3.7	39 33 27 23 18.5 14.8	230 240 255 265 280 290	3.4 3.5 3.7 3.9 4.1 4.2 4.4	50 43 41 27 23 18.9 15.9	250 260 275 300 310 320 335	4.6 4.9 5.3 5.6 6.0 6.3	62 47 36 16 18.9 13.6	320 345 375 405 435 460	6.0 6.3 6.7 7.0	93 77 62 52	395 425 460 495	2.0 3.2 3.9 5.3 6.3	0.7 1.5 2.0 3.0 4.0	24 25 28 29 33	33 34 37 38 42	46 47 51 53 58	5.5 6.4 7.3 7.9 9.8

AIR-ATOMIZING NOZZLE(1/2")

Spray Set Up 1/2 Series

Dimensions and Weights



Nozzle Assembly	Dimensions J mm Wide Round Set Up 77, 78, 79, 89	J mm Round Set Up 70, 72, 82	J mm Flat Fan Set Up 75, 85	K mm	H mm	W mm	Weight Max (kg)
1/2-A	58	60	64	24	64	32	0.60
1/2-B				73			0.68
1/2-C				127			0.85

AA-2PR SERIES Internal Mix : Narrow Angle Round

Set-up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ /h) and Air capacity (ℓ /m) Liquid Pressure (kg/cm²) 0.7kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	1.5kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	2kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	3kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	4kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	Spray Dimensions Air kg/cm²	Liquid kg/cm²	A cm	B cm	C cm	D m
AA-2PR 72	Fluid Cap	1.3	34	350	1.7	146	365	3.0	230	510							1.4	0.35				6.7
		1.4	25	390	1.8	121	395	3.1	200	550							2.0	1.0	9	16	25	7.3
	Air Cap	1.5	20	415	2.0	102	430	3.2	176	590							3.2	2.0				8.2
		1.7	15.5	445	2.1	86	460	3.4	154	620												
					2.3	72	490	3.5	135	660												
					2.4	60	520	3.6	118	700												
AA-2PR 82	Fluid Cap	0.7	134	315	1.3	320	440	2.1	575	570	3.0	740	710	3.9	840	860	0.7	0.35	10	18	23	7.0
		0.85	100	380	1.4	255	520	2.2	505	640	3.1	690	770	4.1	790	930	1.4	1.0	15	25	33	6.4
	Air Cap				1.5	200	590	2.4	440	720	3.2	630	840	4.2	740	990	2.5	2.0	13	20	25	11.3
					1.7	154	670	2.5	380	790	3.4	570	910	4.4	690	1070	3.4	3.0	10	18	25	12.5
								2.7	330	860	3.5	520	980	4.5	650	1140	4.5	4.0	10	18	25	14.3
								2.8	275	930	3.7	470	1050	4.6	600	1210						
								3.0	235	1010	3.8	420	1120	4.8	550	1280						
								3.1	195	1080	3.9	345	1190	4.9	510	1350						
											4.1	325	1260	5.1	465	1430						
														5.2	425	1490						
														5.3	390	1560						
														5.5	350	1640						

AA-2AD SERIES Internal Mix : Wide Angle Round

Set-up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ /h) and Air capacity (ℓ /m) Liquid Pressure (kg/cm²) 0.7kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	1.5kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	2kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	3kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	4kg/cm² Air Press kg/cm²	Liquid ℓ /h	Air ℓ /min	Spray Dimensions Air kg/cm²	Liquid kg/cm²	A cm	B cm	C cm	D m
AA-2AD 77	Fluid Cap							2.1	213	176	3.1	316	214	4.2	238	351	2.1	2.0	36	48	69	6.7
	Air Cap							2.3	127	249	3.2	195	292	4.3	154	439	3.2	3.0	36	48	69	7.3
											3.4	107	371	4.5	100	521	4.3	4.0	36	48	69	8.5
AA-2AD 78	Fluid Cap	0.6	102	184	1.1	215	153	2.5	185	355	3.7	192	560	5.0	230	830	0.7	0.35	33	47	65	6.1
		0.7	57	230	1.3	124	230	2.7	146	410	3.9	150	620	5.3	158	940	1.3	1.0	34	48	67	7.9
	Air Cap	0.85	32	280	1.4	84	280	2.8	112	465	4.0	119	680	5.6	108	1080	2.8	2.0	33	47	65	6.4
								3.0	86	520	4.2	86	770				4.0	3.0	34	48	67	7.3
								3.1	65	580	4.6	51	910				5.3	4.0	36	48	69	8.2
AA-2AD 79	Fluid Cap	0.7	129	325	1.7	182	540	3.1	265	810	4.3	350	1000				0.85	0.35	36	50	69	7.9
		0.85	82	370	1.8	143	590	3.2	215	860	4.6	260	1080				1.7	1.0	33	48	66	7.3
	Air Cap	1.0	45	415				3.4	173	910	5.0	186	1200				3.4	2.0	33	47	66	7.0
								3.5	136	950							4.6	3.0	36	50	69	8.5
								3.6	120	980												
AA-2AD 89	Fluid Cap	0.7	134	315	1.3	320	440	2.1	575	570	3.0	740	710	3.9	840	860	0.7	0.35	33	64	91	3.4
		0.85	100	380	1.4	255	520	2.2	505	640	3.1	690	770	4.1	790	930	1.4	1.0	33	66	91	4.9
	Air Cap				1.5	200	590	2.4	440	720	3.2	630	840	4.2	740	990	2.5	2.0	28	56	81	6.1
					1.7	154	670	2.5	380	790	3.4	570	910	4.4	690	1070	3.4	3.0	28	53	74	6.7
								2.7	330	860	3.5	520	980	4.5	650	1140	4.5	4.0	28	56	79	7.6
								2.8	275	930	3.7	470	1050	4.6	600	1210						
								3.0	235	1010	3.8	420	1120	4.8	550	1280						
								3.1	195	1080	3.9	345	1190	4.9	510	1350						
											4.1	325	1260	5.1	465	1430						
														5.2	425	1490						
														5.3	390	1560						
														5.5	350	1640						

AIR-ATOMIZING NOZZLE(1/2")

AA-2PF SERIES Internal Mix : Flat Fan

Set-up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ /h) and Air capacity (ℓ /m) Liquid Pressure (kg/㎠)																Spray Dimensions					
		0.35kg/㎠			1kg/㎠			2kg/㎠			3kg/㎠			4kg/㎠								
		Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	Air Press kg/㎠	Liquid ℓ /h	Air ℓ /min	Air kg/㎠	Liquid kg/㎠	A cm	B cm	C cm	D m
AA-2PF 75	Fluid Cap				1.8	154	590	3.4	184	950							2.0	1.0	46	74	91	5.8
					2.0	119	640	3.5	157	1010							3.5	2.0	51	79	97	7.0
					2.1	93	690	3.7	133	1060												
	Air Cap							3.8	112	1110												
AA-2PF 85	Fluid Cap	0.7	134	315	1.3	320	440	2.1	575	570	3.0	740	710	3.9	840	860	0.7	0.35	51	86	119	4.0
		0.85	100	380	1.4	255	520	2.2	505	640	3.1	690	770	4.1	790	930	1.4	1.0	86	157	211	4.6
					1.5	200	590	2.4	440	720	3.2	630	840	4.2	740	990	2.5	2.0	86	157	208	5.2
					1.7	154	670	2.5	380	790	3.4	570	910	4.4	690	1070	3.4	3.0	91	168	216	5.8
								2.7	330	860	3.5	520	980	4.5	650	1140	4.5	4.0	91	170	226	6.4
								2.8	275	930	3.7	470	1050	4.6	600	1210						
								3.0	235	1010	3.8	420	1120	4.8	550	1280						
	Air Cap							3.1	195	1080	3.9	345	1190	4.9	510	1350						
											4.1	325	1260	5.1	465	1430						
														5.2	425	1490						
														5.3	390	1560						
														5.5	350	1640						

AA-2EF SERIES External Mix : Flat Fan

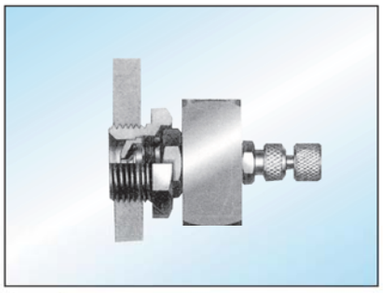
Set-up Number	Fluid and Air Cap Numbers	Liquid Capacity (ℓ /h) and Air capacity (ℓ /m) Liquid Pressure (kg/㎠)															Spray Dimensions					
		0.21kg/㎠			0.35kg/㎠			0.5kg/㎠			0.7kg/㎠			1kg/㎠								
		Air Press kg/㎠	Air h/min	Liquid ℓ /h	Air Press kg/㎠	Air h/min	Liquid ℓ /h	Air Press kg/㎠	Air h/min	Liquid ℓ /h	Air Press kg/㎠	Air h/min	Liquid ℓ /h	Air Press kg/㎠	Air h/min	Liquid ℓ /h	Air kg/㎠	Liquid kg/㎠	A cm	B cm	C cm	D m
AA-2EF 75	Fluid Cap	2.10	877		2.8	1075		3.15	1174		3.85	1358		5.6	1840		2.45	0.21	22	37	52	5.8
		2.45	962		3.15	1174		3.5	1274		4.2	1458		5.95	1953		3.5	0.35	23	42	55	6.7
		2.80	1075	522	3.5	1274	681	3.85	1358	795	4.9	1641	953	6.3	2038	1158	3.85	0.49	24	44	58	7.0
		3.15	1174		3.85	1358		4.2	1458		5.25	1755		6.65	2123		4.9	0.7	24	46	61	7.6
	Air Cap				4.20	1458		4.55	1557		5.6	1840		7.00	2207		6.3	1.05	25	48	66	8.8
								4.9	1641		5.95	1953										

AA-2SR SERIES Siphon Fed : Round Spray Pattern

Set-up Number	Fluid and Air Cap Numbers	Atomizing Air		Liquid capacity in (ℓ /m)							Spray Dimensions at 200mm Siphon Height				
				Gravity Head			Siphon Height								
		Air Pressure kg/㎠	Air ℓ /m	45 cm	30 cm	15 cm	10 cm	20 cm	30 cm	60 cm	Air kg/㎠	A cm	B cm	C cm	D m
AA-2SR 70	Fluid Cap	0.7	360				40				1.5				6.1
		1.5	570				97	64			2.0				6.7
		2.0	660				117	90			3.0				7.3
		3.0	870		260	225	150	123	90		3.5	8	15	22	7.9
	Air Cap	3.5	990	300	265	235	163	133	104		4.0				8.8
		4.0	1100	305	270	240	170	143	115		5.0				9.8
		5.0	1300	315	280	250	183	157	129	53	5.6				10.7
		5.6	1450	320	290	255	188	164	136	62					

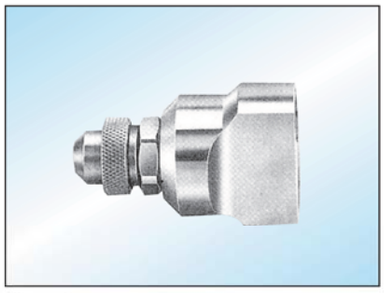
AIR-ATOMIZING NOZZLE

XAWM NOZZLE(1/4")



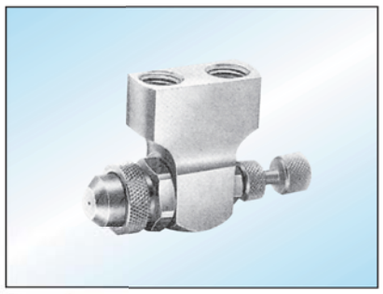
Features
- XAWM Nozzles replace Retainer Rings on nozzle assemblies and fit into threaded wall openings, holding the nozzle securely in place.
- Adapter is available in 3/4".

XA05 NOZZLE(1/8" ,1/4")



Features
- The center lines of the air and liquid inlet entering in the back of the nozzle and parallel to the spray projection axis.

XA06 NOZZLE(1/8" ,1/4")



Features
- Air and liquid inlet connections entering the nozzle at 90° to spray projection axis.

XA MULTIPLE NOZZLE(1/4")

Features
- Five Spray Set-Ups located on the faces of the assembly or four set-ups located on the side faces.

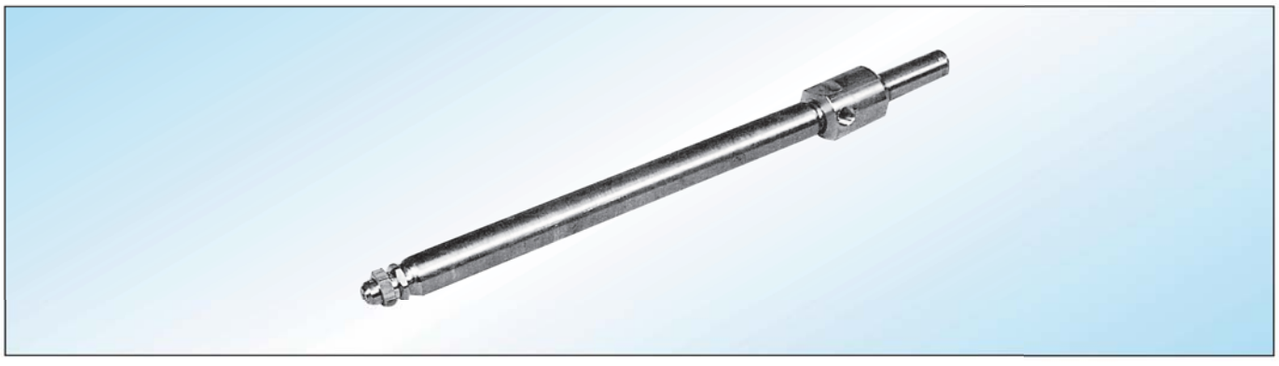
XADL NOZZLE(1/8" ,1/4")

Features
- Dual Spray assembly with opposing Spray Set-Ups perpendicular to opposing air and liquid inlets.

XA DLH NOZZLE(1/8" ,1/4")

Features
- Two oppcsing Spray Set-Ups with the air and liquid inlet connections perpendicular to the spray axis.

XA02 LM NOZZLE(1/4")



Features
- Provides accurate intermittent spray at speeds up to 180 cycles per minute.
- 6" or 12" (15 cm or 30 cm) lengths
- Suitable for spraying Slaked Lime

MINI FOGGER(II)

Applications
- Textiles, Food Processing
- Storage Facilities, Printing
- Furniture Manufacturing

Particle Size : 7 ~ 11.5㎛

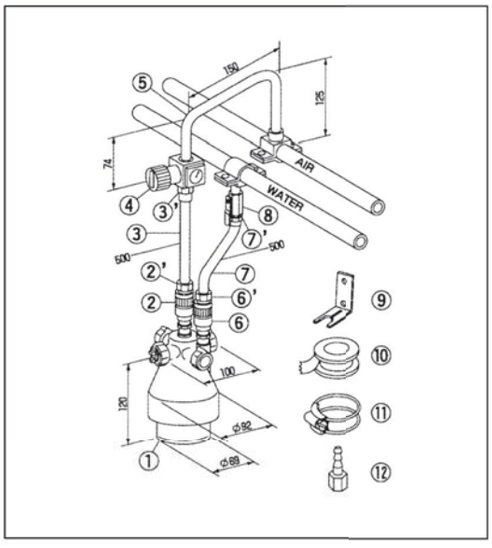
Liquid Capacity : 0.5 ~ 16L/hr

Air Pressure : 0.5 ~ 7Bar

Features
- Available with a choice of one to four spray nozzle set-ups

Equipment Kit Example

① Mini Fogger
② Air Coupler, Air Socket
③ Air Hose, Air Hose Fitting
④ Air Regulator
⑤ U-Pipe
⑥ Water Coupler, Water Socker
⑦ Water Hose, Water Hose Fitting
⑧ Water Value
⑨ Wall Mounting Fitting
⑩ Seal Tape
⑪ Hose Clamp
⑫ Hose Shank



4types of models : Available with a choice of one to four spray nozzle set-ups

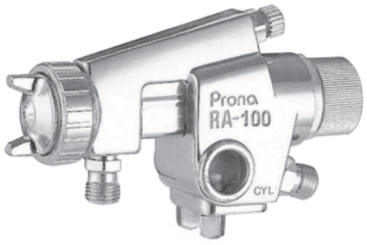

4-Way Type


1-Way Type

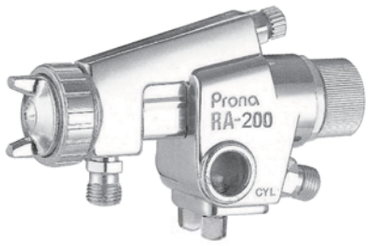

Mist Vehicle Cart Type

Set-UP No	Orifice Diameter (mm)	Date per Nozzle (Air Pressure : 0.3 MPa)			
		Liquid Capacity (L/hr)	Air Capacity (L(normal)/min)	Mean Droplet Size (㎛)	Spray Distance (m)
SJ-005	0.5	2.1	37	8.6	2.5
SJ-007	0.7	4.2		11.1	4

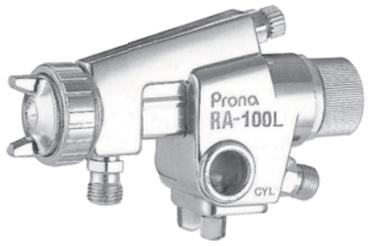
AUTO SPRAY GUN



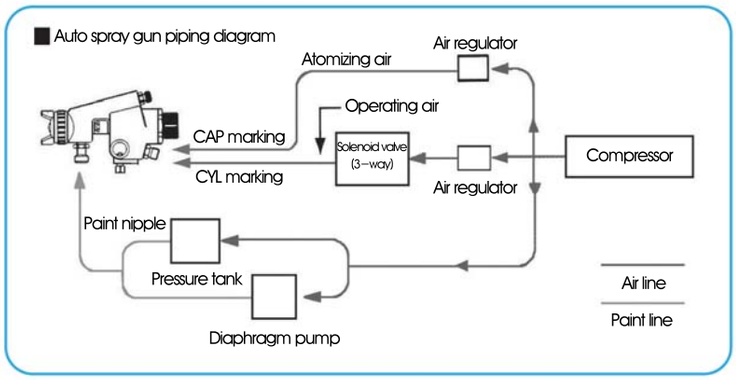
RA-100 (Small Auto Spray Gun)



RA-200 (Large Auto Spray Gun)



RA-100L, 200L (Low Pressure Auto Spray Gun)



PR-30

Features
- Flow rate, Spray angle is controllable
- Spray Type is controllable

Applications
- Paint, Release agent Spraying
- Glue, Syrup, Oil Spraying

Model		Type	Type of feed	Fluid nozzle orifice Ø mm	Spray distance mm	Atomizing air pressure MPa(kg/㎠)	Air consumption (ℓ/min)	Fluid output (㎖/min)	Pattern width (mm)	Approx. weight g	Applications
wide use auto spray gun	RA100-P082	Small	Pressure	0.8	200	0.29(3.0)	270	150	190	460	Small products painting
	RA100-P102			1.0			270	200	220		Small products painting
	RA100-P132			1.3			260	250	230		Small products painting
	RA100-P152			1.5			330	270	340		Large products painting
	RA100-S182			1.8			330	290	340		
	RA200-P202	Large	Pressure	2.0	250	0.29(3.0)	360	400	320	500	
	RA200-P251			2.5				550	330		
	RA100R-P05	Round	Pressure	0.5	200	0.29(3.0)	40	20	35	440	Small products robot painting
low pressue auto spray gun	RA100L-101	Small	Pressure	1.0	200	0.26(2.7)	430	150	200	460	Small products painting
	RA200L-122	Large		1.2		0.20(2.0)	500	500	300	550	Large products painting

AUTO SPRAY GUN

Features
- Provides accurate intermittent spray at speeds up to 180 cycles per minute.
- Flow rate, Spray angle is controllable
- Spray Type is controllable

Applications
- Paint, Release agent Spraying
- Glue, Syrup, Oil Spraying

RA-60

Model	Type of feed	Fluid nozzle orifice	Applied air cap	Atomizing air pressure	Air consumption	Fluid output	Pattern width	Approx. weight
		mm		kg/cm²	l/min	ml/min	mm	g
RA-60-P082	Pressure	0.8	E2P	3.0	270	150	190	280
RA-60-P102		1.0	E2P		270	200	220	
RA-60-P102	Pressure	1.0	E2	2.5	145	180	200	
RA-60-P132	(Gravity)	1.3	H2		260	250	230	
RA-60-P152		1.5	H2		260	270	245	
RA-60-P181		1.8	N1		190	310	240	
RA-60-P101	Pressure	1.0	E1	2.7	430	150	200	

RA-80

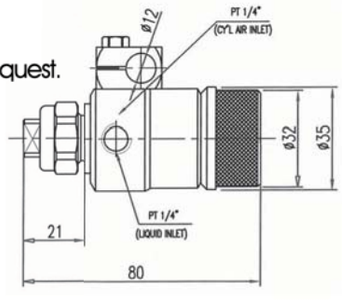
Model	Type of feed	Fluid nozzle orifice	Applied air cap	Atomizing air pressure	Air consumption	Fluid output	Pattern width	Approx. weight
		mm		kg/cm²	l/min	ml/min	mm	g
RA-80-P122	Pressure	1.2	G2P	3.0	530	500	400	300
RA-80-P152		1.5	K2		330	270	340	
RA-80-P182	Pressure	1.8			330	330	340	
RA-80-P202	(Gravity)	2.0	R2		360	400	320	
RA-80-P251		2.5	W1		360	500	330	
RA-80-P122	Pressure	1.2	G2	2.7	500	500	300	

AUTO GUN

Features
- Provides accurate intermittent spray at speeds up to 180 cycles per minute.
- Produce distinctly different types of sprays patterns (flat, round, hollow cone) depending on which interchangeable nozzle tip selected.

Applications
- Oil, Paint, Release agent auto spraying

Materials
- 303,316 Stainless Steel
  other materials available upon request.



AUTO SPRAY GUN

AUTO SPRAY GUN SA-1, SA-2

SA-1

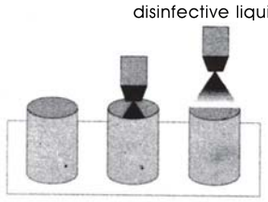
SA-2

SA-RW

	RA-C1	RA-C2	RA-CW
Features & Applications	–Wide scope of purpose, and ideal for various industries. –Release agent, cooling, surface treatment –Press molding, odor removal –Plant humidification, and so on.	–Two separate air hoses (for piston operation & atomization) –Superior atomization and uniform pattern –Available large capacity spray	–Wide angle round spray type –Provides accurate intermittent spray

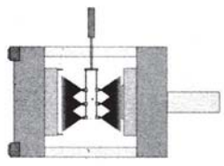
Disinfection

Disinfection — Spraying disinfective liquids



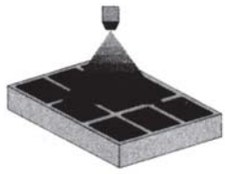
For release agent

Molding — Spraying mold release agents



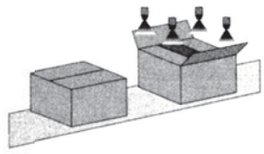
Cooling

Cooling — Spraying water to cool



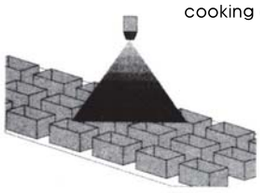
Adhesion

Adhesion — Spraying bonding agents



Food processing

Food processing — Spraying cooking oils

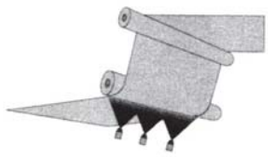


Marking

Marking — Spray marking industrial components

Surface treatment

Surface treatment — Spraying waterproof or antiseptic agents

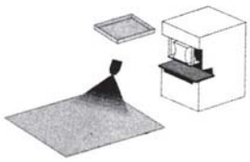


Lubrication for products

Lubrication for products — Spraying mold release agents

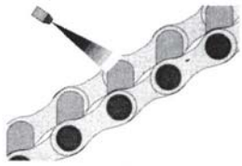
Press molding

Metal process work — Spraying lubricating oil



Oil supply

Oil supply — Spraying lubricants

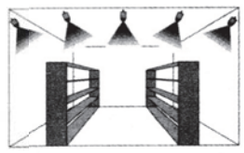


Rust prevention

Rust prevention — Spraying rust proof oils

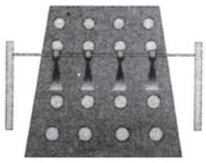
Plant humidification

Factory humidification — Spraying water



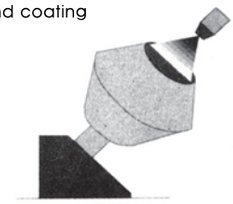
Humidifying for foood

Food humidification — Spraying water



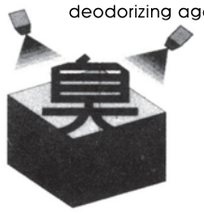
Mixing and coating

Mixing and coating — Spraying additives



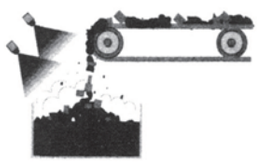
Odor removel

Odor control — Spraying deodorizing agents



Powder/Dust humidification

Power/Dust humidification — Spraying water



AUTO SPRAY GUN

AUTO SPRAY GUN

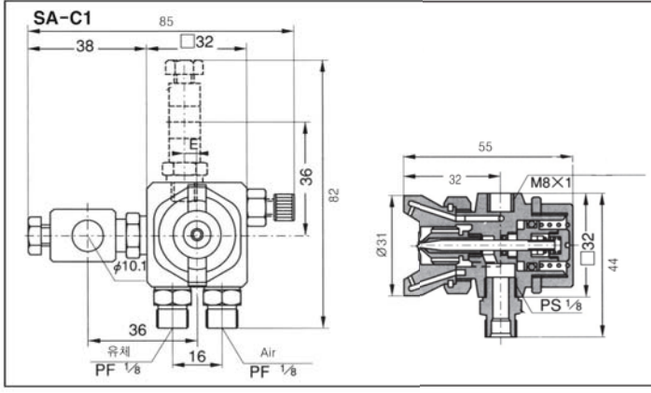
SA-1

SA-2

SA-W

Spray Type	Orifice Dia. mm	Capacity ℓ /hour	Spray Pattern Size 300mm	Air Consumption (3kgf/cm²)
	0.5	0~3.6	200	60
	1.0	0~15	250	80
	1.3	0~21	350	100
	2.0	0~36	400	140

SA-C1



HM Series

Features
- –Provides accurate intermittent spray
- –Flow rate is controllable
- –Siphon Fed / Compact Nozzle

Applications
- –Deodorization, mold release agent spraying, surface treatment

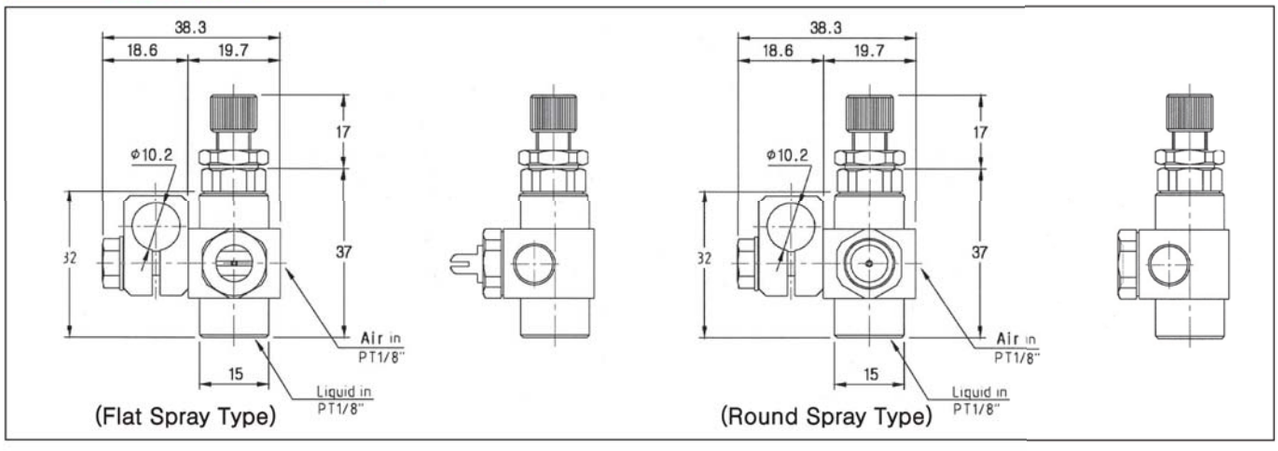
HM–01

HM–02

HM–

HM–05

Dimensions



PRESSURE TANK & DIAPHRAGM PUMP

PRESSURE TANK

Features : Wheel type, easy to move, using air pressure only

Capacity : 10ℓ ~80ℓ

Applications : Paint, chemical solution, syrup, rust preventive oil

AT-A (Automatic)

AT-M (Manual)

AT-2E (2ℓ)

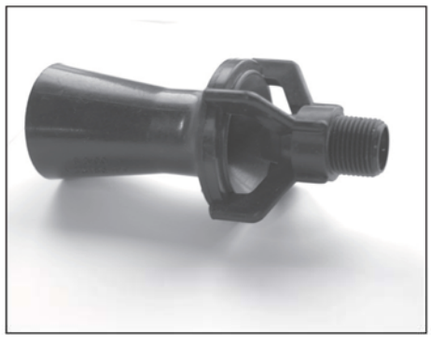
MODEL	CALACITY	WT.(KGS)	CUFT.(L/W/H)
AT-10	10ℓ	16.2	305 * 305 * 550
AT-20	20ℓ	26.1	415 * 360 * 695
AT-40	40ℓ	30.4	415 * 360 * 847
AT-60	60ℓ	35.6	500 * 500 * 880
AT-80	80ℓ	38.6	550 * 500 * 1000

DIAPHRAGM PUMP

Model: DPS-90D
Pressure ratio : 1:1
Maximum working pressure : 7kg/㎠
Maximum discharge : 20ℓ/min

Model: PD-30
Pressure ratio : 1:1
Maximum working pressure : 7kg/㎠
Maximum discharge : 20ℓ/min

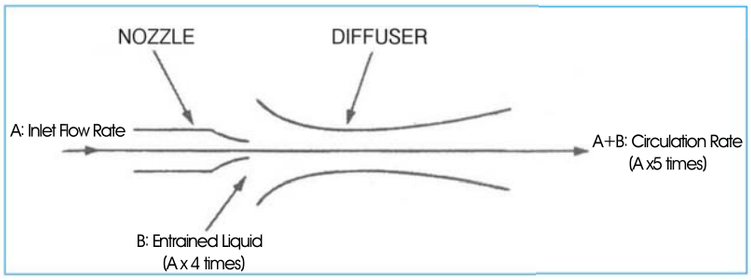
EDUCTOR NOZZLE



Features
- –Allows small pumps to circulate large volumes of liquid.
- –Large flow opening minimizes plugging.
- –The volume of discharge liquid will be 5 times greater than the motive liquid pumped.

Materials
- –Glass–filled polypropylene for excellent corrosion and chemical resistance.

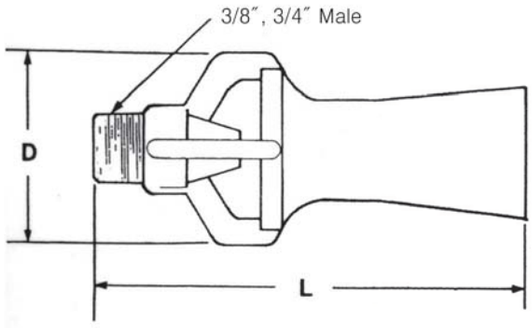
PRINCIPLE OF OPERATION

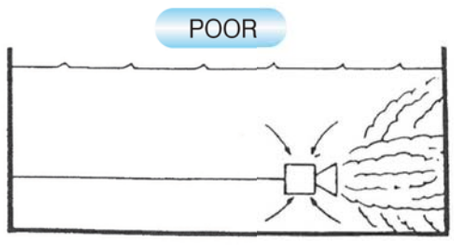


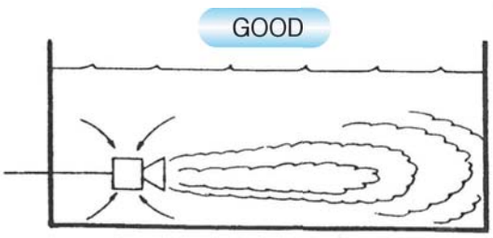
* Pressurized liquid is pumped through the Eductor's nozzle and then diffuser. Between the nozzle and diffuser is a flow–through chamber that is open to the surrounding liquid. As liquid exits the diffuser at high velocity, surrounding solution is entrained into the flow–through chamber. This combination of pumped flow and pulled flow significantly increases circulation.

Features
- –Effective, economical way to circulate

liquids in closed or open tanks
- –No moving parts
- –Inherently clog resistant
- –Good in many applications up to 90° C
- –Requires minimal maintenance
- –Nozzle operation creates multiplying





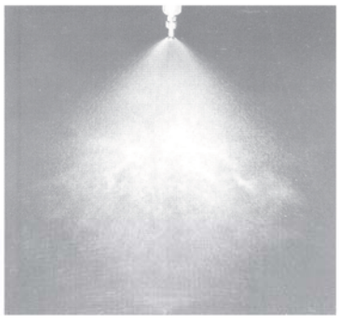


MODEL NO.	Flow Rate (ℓ /min) at Liquid Pressure (kg/㎠)					
	1.0	1.5	2.0	2.5	3.0	3.5
9270–PP	60	73	85	95	104	112
33180–PP	40	50	57	63	70	75

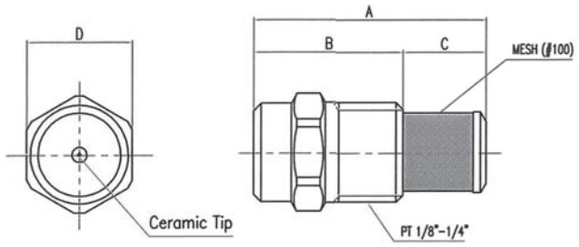
MODEL NO.	PIPE CONNECTION	L	D
9270–PP	3/4BSPT (M)	162mm	74mm
33180–PP	3/8BSPT (M)	103mm	52mm

MIST SPRAY NOZZLE

Hydraulic Mist Spray NOZZLE

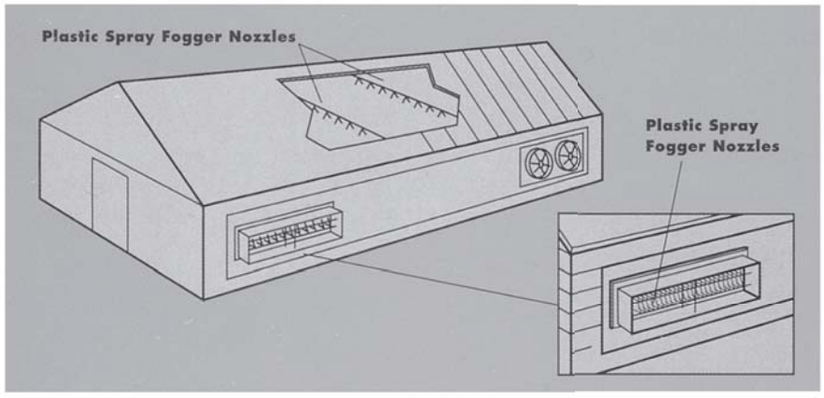


Features
–Finest fog of any direct pressure nozzlet
–Uniform distribution, hollow cone spray pattern
Materials
–Body – Stainless Steel, Brass
–Orifice, Core – Ceramic, Strainer – Stainless Steel
Applications
Humidifying, cooling, disinfection, spraying rust proof oils, release agent



NOZZLE NO.	Flow Rate(ℓ /min) Pressure(kg/cm²)									Spray Angle	Ofifice Dia ϕ	A (mm)	B (mm)	C (mm)	D (HEX)
	2	3	5	7	10	15	20	25	30						
	0.05	0.07	0.08	0.10	0.12	0.04	0.17	0.20	0.22	80°	0.4	1/8″	1/8″	1/8″	1/8″
SJ–FJ 4.8	0.07	0.08	0.10	0.13	0.15	0.18	0.22	0.25	0.27	80°	0.5	(24)	(18)	(6)	(11)
(1/8″–1/4″)	0.14	0.16	0.20	0.26	0.30	0.35	0.43	0.49	0.55	80°	0.7	1/4″	1/4″	1/4″	1/4″
	0.22	0.25	0.30	0.38	0.45	0.53	0.65	0.74	0.32	80°	0.8	(26)	(20)	(6)	(14)

FOG NOZZLE



Plastic Spray Fogger Nozzles Performance Data

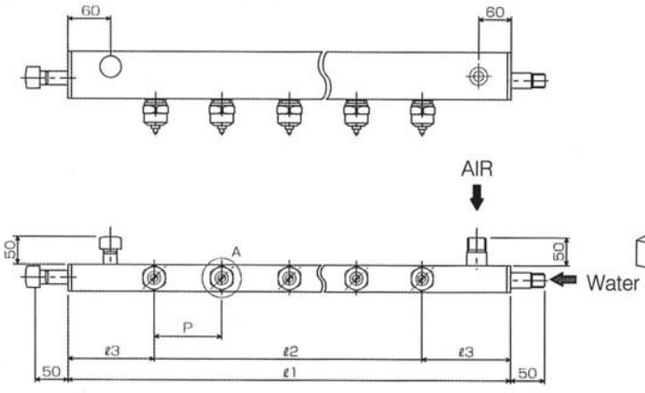
NOZZLE NO.	Inlet Conn. NPT or BSPT (M)	Capacity · gph(l/hr)					Spray Angle			Vinyl cap color
		20 psi (1.5 bar)	40 psi (3 bar)	100 psi (7 bar)	150 psi (10 bar)	200 psi (14 bar)	40 psi (3 bar)	100 psi (7 bar)	200 psi (14 bar)	
1/8SF– CE1	1/8″	0.45(1.8)	0.63(2.5)	1.0(3.8)	1.2(4.5)	1.5(5.4)	110°	110°	100°	Blue
1/8SF– CE2	1/8″	0.90(3.5)	1.3(5.0)	2.0(7.6)	2.4(9.1)	2.8(10.8)	105°	105°	100°	Yellow
1/8SF – CE3	1/8″	1.3(5.3)	1.9(7.5)	3.0(11.4)	3.7(13.7)	4.2(16.2)	110°	110°	100°	Green
1/8SM – CE1	1/8″	0.71(2.8)	1.0(3.9)	1.6(6.0)	1.9(7.2)	2.2(8.5)	80°	75°	75°	White
1/8SM – CE2	1/8″	1.4(5.6)	2.0(7.9)	3.2(12.0)	3.9(14.4)	4.5(17.0)	80°	75°	75°	Black

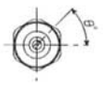
Air atomizing fine header

Features
–Mist and uniform article size
–Suitable for products requiring uniform washing

Features
–AIR ATOMIZING FINE HEDER

Outside view

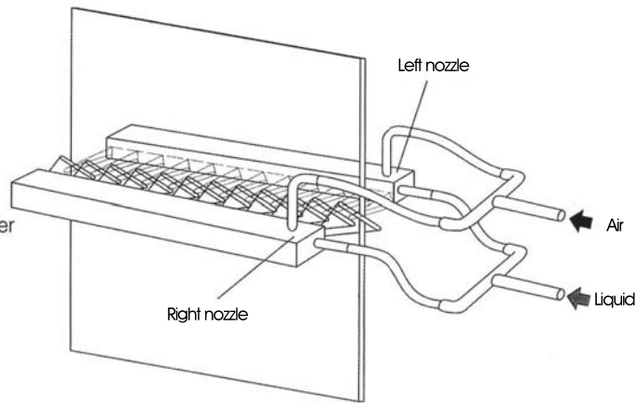




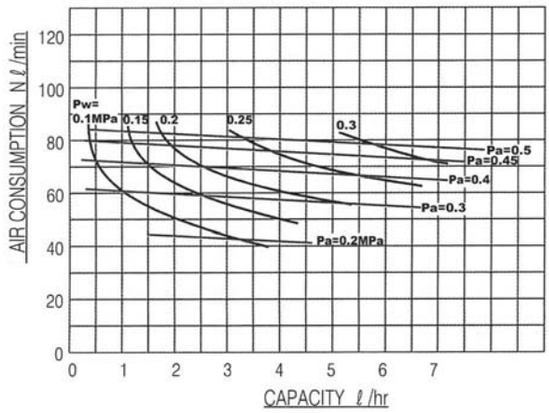
Detail A

P : Nozzle pitch
ℓ1 : Overall length
ℓ2 : Nozzle overall length
ℓ3 : Distance between nozzle and end
θ : Nozzle install angle

Application exam

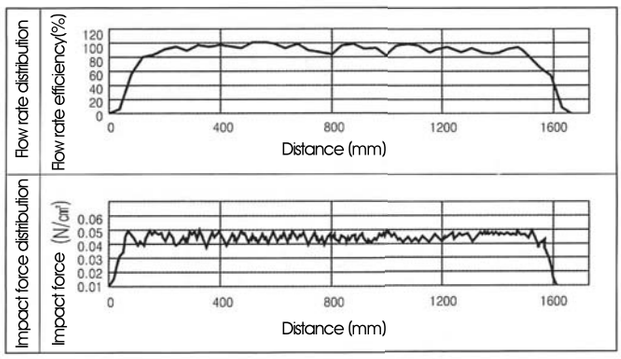


Flow chart



Technical data

Measure condition: Air pressure (0.4Mpa) Liquid pressure (0.2MPa), Spray distance



Performance data

NOZZLE SET-UP	AIR PRESSURE (MPa)	WATER PRESSURE (MPa)	AIR CAPACITY (Nm^3/Hr)	WATER CAPACITY (L/min)
AA–PF350	0.5	0.5	5.4	1.1

*The dimensions can be changed according to design requirements.

COMMON INFORMATION OF NOZZLE

1. Definition of nozzle
   A nozzle is a device designed to control the direction or characteristics of a fluid flow (especially to increase velocity) as it exits (or enters) an enclosed chamber or pipe.

2. Spray performance considerations
   1) Specific Gravity
      Specific gravity is the ratio of the mass of a given volume of liquid to the mass of the same volume of water. In spraying, the main effect of the specific gravity of a liquid (other than water) is on the capacity of the spray nozzle.
   2) Temperature
      The values given in the catalog are based on spraying water at 70° F (21° C). Although liquid temperature changes do not affect the spray performance of a nozzle, they often affect viscosity, surface tension and specific gravity which do influence spray nozzle performance.

SUS 303 – SUS 304	: 430°C available from
SUS 316	: 430°C – (760)1000°C available from
SUS316L	: 1000°C – 1200°C available from
PP	: 71°C
VITION	: 204°C
PVC	: 60°C
STEEL	: 371°C
BRASS–COPPER	: 204°C
ALUMINA CERAMIC	: 1371°C
SILICON CARBIDE	: 1704°C

   3) Viscosity
      Liquid viscosity is a primary factor affecting spray pattern formation and, to a lesser degree, capacity. High viscosity liquids require a higher minimum pressure to begin formation of a spray pattern and provide narrower spray angles as compared to those of water.
   4) Operating pressure
      The values given in the tabulation sections of this catalog indicate the most commonly used pressure ranges for the associated spray nozzle or accessory. Some spray nozzles and accessories can perform below or above the pressures shown, while others can be modified at our factory or redesigned to accommodate the requirements of specific new applications.

a)Low pressure : 5kg/㎠ below (PVC,PP,SUS,BRASS)
b)Medium Pressure : 5~21kg/㎠ below (SUS,BRASS)
c)High pressure : –Ceramics Tip : NEEDLEJET
–TC TIP : paint,DESCALING NOZZLE
–SUS6316L : FLOW BACK NOZZLE
–HSS : MEG High pressure washing nozzle

3. Nozzle wear

Nozze wear is typically characterized by an increase in nozzle capacity, followed by a general deterioration of the spray pattern. Flat fan spray nozzles with elliptical orifices experience a narrowing of the spray patter. In other spray patter types, the distribution within the spray pattern deteriorates without substantially changing the coverage area.

Approximate abrasion resistance ratios

①ALUMINUM : 1
②BRASS : 1
③STEEL : 1.5~2
④MONEL : 2~3
⑤SUS 303, 304 : 4~6
⑥HASTELLOY : 4~6
⑦HSS : 10~15
⑧STELLITE : 10~15
⑨CERAMICS : 90~200
⑩ Nitride Bonded : 90~130
⑪Carbidss(T.C초경) : 180~250

Important SI unit

NO	Name	Symbol	Previous unit→SI unit	SI unit→Previous unit
1	Pressure	Mpa	1kgf/㎠≒0.098Mpa	1Mpa≒10.2kgf/cm²
2	Force	N	1kgf≒9.8N	1N≒0.102kgf
3	Moment of force	N · m	1kgf · m≒9.8m	1N · m≒0.102kgf · m
4	Vacuum pressure	-KPa	-1mmHg≒-0.133kPa	-1kPa≒-7.5mmHg
5	Moment of inertia	kg · ㎡	1kgf · cmS²≒0.098kg · m²	1kgf · m²≒10.2kgf · cm · S²
6	Kinetic energy	J	1kgf · cm≒0.098J	1J≒10.2kgf · cm

Conversion table Pressure Mpa→kgf/cm²

Mpa	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.01	0.011	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.019
kgf/cm²	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.1	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19

Mpa	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.1	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.2
kgf/cm²	0.2	0.31	0.41	0.51	0.61	0.71	0.82	0.92	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0

Mpa	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.5
kgf/cm²	3.1	4.1	5.1	6.1	7.1	8.2	9.2	10.2	11.2	12.2	13.3	14.3	15.3	16.3	17.3	18.4	19.4	20.4	25.5

Mpa	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.9	10	20	30	40	50
kgf/cm²	30.6	35.7	40.8	45.9	51.0	56.1	61.2	66.3	74.1	76.5	81.6	86.7	91.8	101.0	102	204	306	408	510

Understanding of particle size

Particle size MVD(μ)	Relevant particle	Time to need to fall 3m (Second)	Distance between a falling out 3m pushed wind of 2m/h	The number of particles per unit area falling if 10 liters of water sprayed on the area of 100 ㎡
5000~2000	Heavy rain	0.85~0.9	1.7~0.9	1.5~24(EA/㎡)
2000~1000	Downpour	0.9~1.1	1.8~1.1	24~191(EA/㎡)
1000~500	Moderate rain	1.1~1.6	2.2~1.6	191~1.528(EA/㎡)
500~100	Light rain	1.6~11	3.2~11	1.528~190.000(EA/㎡)
1000~50	Scotch mist	11~40	22~40	19~153(EA/㎡)
50~10	Wet fog	40~1.020	80~1.020	153~19.100(EA/㎡)
10~2.0	Dry fog	1.020~25,400	2.040~25.400	19.000~23.870.000(EA/㎡)
1.0~0.01	Fog	Floating in the air*	-	-
0.01~0.001	Smoke	Floating in the air*	-	-
0.001 below	Molecule size	-	-	-

*Particle size less than 1m is suspended in the air by Brownian motion.