

Material Selection of the Nozzle

In various kinds of nozzles, Changyuan Spraying Products Co., Ltd. has marked the materials on the products, the ordinary engineering PP nozzles are marked with PP, stainless steel SS, brass BRASS, for see the table below for details:

Plastic	Poly(vinyl chloride)	PVC
	Poly propylene	PP
	Polyphenylene oxide	POPO
	Acrylonitrile butadiene styrene	ABS
	Polyvinylidene Fluoride	PVDF
	Polyphenylene styrene	PPS
	Poly Tetra Fluoro Ethylene	PTFE
	Epoxy Resin	ARALDITE
	Fibre Reinforced Plastic	FRP

Metal	BRASS	BRASS
	303 Stainless Steel	303SS
	304 Stainless Steel	304SS
	316 Stainless Steel	316SS
	316L Stainless Steel	316LSS
	Titanium	TN
	Hard Alloy	CCA
	Aluminum Alloy	ALMA
Special Material	Sapphire	SAS
	Carbuncle	RUS
	Graphite	GRS
	Ceramics	SIS

A range of application

The application scope is widespread, penetrates into various areas, the product has covered with surface treatment, electron, spinning and weaving, steel and iron, drugs manufacture. Increasing application scope evince that CYCO'S nozzle has been a dramatic influence

■Washing

Semiconductor wafer cleaning
Waste gas desulphurization
Cement mixer's high-pressure cleaning
Brewage barrel's self-cleaning
Processing chemical cleanings for automobile, - motorcycle, domestic electric appliances and so on
High pressure washing
Electronic circuit board cleaning
circuit chemical washing
Beer bottle cleaning
mirror industry glass cleaning
Clean the sand on the strainer
Sand , coal ,gravel washing
The paper mill wool blanket and nettings clean
Tank cans inside surface of tank clean
biscuit packaging environment for food-processing
Strainer and filter
Fruit & vegetables washing
bottle capsule clear for food-processing
mirror industry glass cleaning
Clean industrial equipment
Clean the article suspension chain
Metal cleaning and processing
Container washing
High pressure water for deposphorization on the surface of rolled steel
barrels self-cleaning
plastic container cleaning
Various of Containers and Oil Tank cleaning
Clean the floor in processing workshop

■Cooling

Candle factory's gas ignition
Steel continuous casting
skin coverage wire elongation project
plastic pipe forming
Cooling tower
conveyer belt cooling
heat treatment before quenching
Die casting cooling
PVC pipe extrude cooling
The secondary cooling of billet continuous casting machine
In Steel rolls cooling
storage tanks cooling
Roof cooling
spiral condenser cooling
chamber at kiln back and cooling
aluminium ware angelcast cooling
hoop rolling mill cooling
tool and material cooling
Before electrostatic precipitation cooling and humidifying
draper-type muller cooling
drinks cooling
Wire stretch project cooling
Plastic moldings cooling
Product direct and indirect cooling
Spray and temperature drop for equipment



Humidify for mushroom cultivates

■Spice additive industry

Products concoction
Hot water and gas involve in the steam



storage groove LNG

■Humidity for space and local resistance

Adjust air humidity printer
Prevent the plastic part Electrostatic
thermal insulation in storeroom for bloat fresh fruit
Humidity for printery
silica gel and coating In press cylinder
oxygen chamber in hospital
twig cutting flowers freezing chamber
spray drying LCF-A facility adjust the temperature
pavilion
spray pond

Prevents the coated paper camberd surface to split
mushroom cultivates
Humidify for textile workshop
Humidify for celophane
Cold holding room
Humid room
System for paper humidify
Humidify for corrugated paper system
Man-power snows machine
mist producer for garden

■AntiVirus and disinfection

Bottle capsule's disinfection
Rice vessel's backwoods coli counter measure

disinfected cloth for the food conveyor belt
Building clean

■Spraying & Coating

sirup spray on sponge cake
dustproof spray on iconoscope
sugar-coating
spray adhesives on construct plywood
phosphorize metal parts
airless spray and spray paint
tablet coating
antifrost spray
papermaking material roll spray
spray dye on products to identify
cere, colophony and wet menstruum spray on medicament
baste before firing food
additive and condiment spray on food
safeguard coating on furniture
spray remover on mould
brick and color tile glazing
metal surface basing
wall spray of instrument and beverage tin
deodorization in chimney
glue coating on printing roller
egg-juice coating on cake and biscuit.
separant coating on metal
glazing and painting on tile
liquor spray on brick

■Removing & Peel off

papermaking, clean paper edge
volume label peel off bottles
separate option of quality control
dust removing off glass board
paper machine finishing
metal sheet desorption before punch
replacing indication of air condition filter

■Dust prevention

grist deposit field conveying
prevent dust from clinging after coating
cement and mill factory
prevent dust when conveying foundation
garbage clearing vehicle push down ash to ground
wipe off dust from cupola
coal ash control when dumping coal
cement factory
dust let from chimney and incinerator

■Surface treatment

spray anti-rust oil on metal pipe
ceramic tile glazing
dye marker of making corrugating mould
separant coating on mould
protection spraying on glass board
cere spraying in glass bottle

■Agriculture & stockbreeding

farming irrigation
spray pesticide
fight a drought irrigation
vegetation protection
grow fungus
spray root of crops
large-scale spraying of crops

■Dust control

dust control when conveying coal ash and sand
humidity the top of tram
wipe off dust from gas tower
ferric oxide control in steel rolling
coal ash control when dumping coal
dust control at cement factory
dust control when conveying wooden bits
garbage cleaning vehicle push down ash to ground
dust control in conveying, loading and unloading garbage
wipe off dust from cupola

■Lubricate

lubricating and rust prevention on iron board
lube coating on bottle
lube coating in punch project
lube coating on cable
lubricate gear
spray remover
lubricate conveyer belt and drive chain
lubricate wire rope
molding lubricate on large-scale forge press
hydraulic pressure machine oiling
lubricate reamer slice and spring
lubricate axis and axletree

■Fire protection

electric appliance fitting section
pressure vessel
coal store section
horizontal multilayer drier
rocket and missile test bed
house and common building
mine
convey belt channel
nuclear power station fire protection
oil trough and gas trough fire protection
oil station of tank car
rocket launcher fireproofing insulation
deposited jar
pipeline of steel mill and epurating mill
Liquefied petroleum gas trough and tank car
shipping and pigboat
offing oil field
transformer substation and farming machine substation
bin char prevention

■Salt damage examination

salt damage test
salt damage examination
reaction test

■Gas control

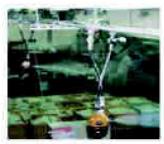
air scrubbing in spray-paint booth
airscrubbing in pipe and cleaning tower
remove sulfur dioxide (SO₂)
nitrogen oxides control (NOX)
deodorization of chimney
reactor cleanout system
air cleaning system of air control system
ferric oxide ash control in steel rolling
centrifugal damp dust picker
remove dust from chimney and incinerator
spray ammonia to eliminate static
spray lime slurry to remove sulfur dioxide



Tower desulfurization
in power station



Pretreatment for
car industry



Textile workshop
humidification



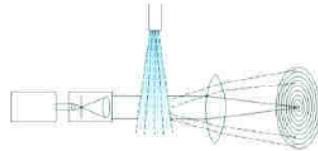
Cooling in HongKong
Ocean Park



Cooling in HongKong
Ocean Park

►► The principle of work of laser particle sizer in CYCO

1. The laser will scatter around the granule, it is a method to connect the refraction image with the interference of the light. The diameter tested is a bit smaller than the actual granule.
2. It forms two interference light stripes with crossing laser light, sense the scatters of the granule of the interference light with several light sensors in certain distance, thus calculating the diameter of the granule with the potential difference. This method is free of the influence of granule density and can test the speed of the granule simultaneously.



The material of the nozzle has different effect to the wearable resistance of the liquid

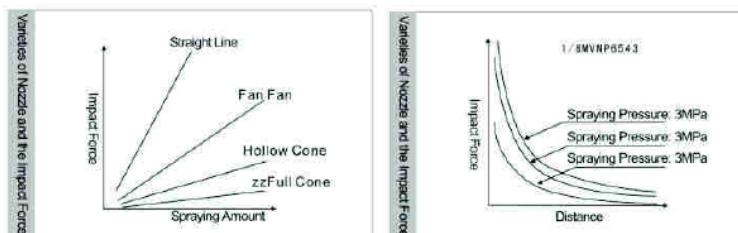
The liquid flows at high speed at the mouth of the nozzle, therefore, the nozzle mouth will be easily worn. Different chemical liquid has different PH value and viscosity, and has different friction to the nozzle. The friction to the nozzle is also different even the PH value and viscosity is the same if different materials are used. The hardness of ceramics (Si3N₄) is 7, and the wearable resistance is 20-30 times of stainless steel, but ceramics is fragile and hard for making, alloy has high wearable resistance but also has high cost in making, stainless steel nozzle has a extremely wide application for it features high wearable resistance, though the price is higher than plastic but much lower than alloy and ceramic, therefore it is widely promoted. Engineering plastic nozzle has poor wearable resistance, but it features low cost with perfect performance in chemical resistance, therefore it is the nozzle with most application.

The spraying angle of the nozzle is different under different pressure

Under different pressure, the spraying angle will change. Under low pressure, the angle is small and the cleaning strength is also small, when the pressure is gradually increasing, the spraying angle is also increasing, so does the cleaning strength. Different materials have different performance in enduring pressure, therefore, it is common that the nozzle is required to be used under standard pressure. If the nozzle is wearable, the Flux of it will change and the spraying angle will also change, the flux increases, the pressure drops and the spraying angle will also be small, the wearable spraying mouth will change the spraying direction, thus largely dropping the using efficiency.

Impact Force

The injection force differs in different injection shape under same pressure. The solid stream features highest impact, and then the fat fan, hollow cone and full cone.



It is important to maintain the nozzle

Under different PH value, viscosity and pressure, nozzles made of different materials have different wearable resistance. Therefore, the clients should periodically clean and maintain even replace the nozzle according to the actual condition. The nozzle will be easily clogged when cleaning dirty work pieces. So you have to change the cleanliness of the solution, filter the liquid, and periodically clean the nozzle for achieving normal injection effect. If the PH value of the solution is extremely strong, it is required to select nozzle made of anti-corrosion materials (316F and PVDF), if the density of the solution is extremely high, it is required to select nozzle with high wearable resistance (Ceramics, alloy), if the nozzle is jammed, the workpiece can't be completely cleaned and the pump will run overloading, thus largely damaging the entire equipments, therefore, it is very important to maintain the nozzle.



Conversion Unit

Changyuan Company has provided the following conversion unit for the client's correct calculation when selecting the products.

Area			
cm ²	m ²	in ²	ft ²
1	1×10 ⁻⁴	0.155	1.08×10 ⁻⁴
1×10 ⁴	1	1.55×10 ³	10.8
6.45	6.45×10 ⁻⁴	1	6.94×10 ⁻³
9.30×10 ²	9.30×10 ⁻²	1.44×10 ²	1

Length					
um	mm	cm	m	in	ft
1	1×10 ³	1×10 ⁻⁴	1×10 ⁻⁹	3.94×10 ⁻⁵	3.28×10 ⁻⁸
1,000	1	0.1	1×10 ⁻³	3.94×10 ⁻⁴	3.28×10 ⁻⁷
1×10 ⁴	10	1	1×10 ⁻²	3.94×10 ⁻³	3.28×10 ⁻⁶
1×10 ⁷	1×10 ³	100	1	3.94×10 ⁻¹	3.28
2.54×10 ⁸	25.4	2.54	2.54×10 ⁻²	1	8.33×10 ⁻²
3.05×10 ⁹	3.05×10 ²	3.05×10	3.05×10 ⁻¹	12	1

Flow rate						
/Min	m ³ /min	m ³ /hr	in ³ /hr	ft ³ /h	GAL: Metric GAL	GAL: British GAL
1	0.001	0.06	3.66×10 ³	2.12	0.264	0.22
1,000	1	60	3.66×10 ⁴	2.12×10 ³	264	220
16.67	0.017	1	6.10×10 ³	35.3	4.40	3.67
2.73×10 ⁴	2.7×10 ⁻⁷	1.64×10 ¹	1	5.79×10 ⁻¹	7.22×10 ⁻⁵	60.1×10 ⁻⁵
0.472	4.72×10 ⁻⁴	0.028	1.728	1	0.125	0.104
3.79	0.004	0.227	1.39×10 ⁴	8.02	1	0.833
4.55	0.005	0.273	1.66×10 ⁴	9.63	1.2	1

Pressure						
KPa	bar	kg/cm ²	lb/in ² (psi)	Atm	mHg	mH ₂ O(mAg)
1	0.01	0.01	0.145	9.87×10 ⁻³	7.50×10 ⁻³	0.102
100	1	1.020	14.5	0.987	0.750	10.2
98.07	0.981	1	14.22	0.968	0.736	10.01
6.89	0.069	0.070	1	0.068	0.052	0.704
1.01×10 ³	1.013	1.033	14.7	1	0.76	10.34
1.33×10 ³	1.33	1.36	19.3	1.32	1	13.61
9.807	0.098	0.10	1.42	0.097	0.073	1

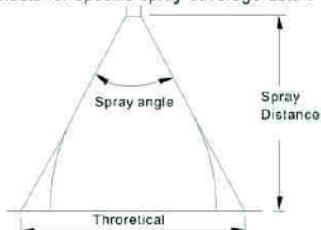
Dimension						
cm ³	I	M ³ (kl)	ft ³	GAL: British GAL	GAL: Metric GAL	
1	1×10 ⁻³	1×10 ⁻¹	3.53×10 ⁻⁵	2.2×10 ⁻⁴	2.64×10 ⁻⁴	
1,000	1	1×10 ⁻¹	3.53×10 ⁻²	0.22	0.264	
1×10 ⁶	1,000	1	353	220	264	
2.83×10 ⁸	28.3	2.83×10 ²	1	0.623	0.749	
4.55×10 ⁸	4.55	4.55×10 ³	1.6	1	12	
3.79×10 ⁹	3.79	3.79×10 ³	1.34	0.833	1	

Water Flow and Suitable Pipe Diameter				Water Flow and Suitable Pipe Diameter			
Pipes Diameter		Steel Tube		Pipes Diameter		Steel Tube	
A	B	Internal	External	A	B	Internal	External
6A	1/8B	6.5	10.5	1.3-2.2	40A	11/2B	41.6
8A	1/4B	9.2	13.8	3-5.2	50A	2B	52.9
10A	3/8B	12.7	17.3	7-12	65A	21/2B	67.9
15A	1/2B	16.1	21.7	12-21	80A	3B	80.7
20A	6B	21.6	27.2	22-38	100A	4B	105.3
25A	1B	27.6	34.0	38-65	125A	5B	130.8
32A	11/4B	35.7	42.7	70-120	150A	6B	155.2

Others	
Viscosity	1P=100cP
	1St=100cSt
Weight	1kg=2.205lb
	1lb=0.454kg
Temperature	1°F=5/9(C+59)+32
	1°C=5/9(F-32)

SPRAY ANGLE AND COVERAGE

Tabulated spray angles indicate approximate coverages based on spray of or distribution of water .In actual spraying ,the effective spray angle varies with spray distance. Liquids more than water form relatively smaller spray angles (or even a solid stream),depending upon viscosity , nozzle capacity and spraying pressure . Liquids with surface tensions lower than those listed for water .This table lists the theoretical coverage of spray patterns as calculated from the included spray angle of the spray and the distance . In actual practice, the tabulated spray angle does not hold for long spray distances ,if the spray coverage requirement is critical ,request data sheets for specific spray coverage data .



spray angle	The coverage under different distance(mm)											
	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	25.6	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	56.6	65.3	74.6	93.3
55°	5.2	10.4	15.6	20.8	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	15.4	23.0	30.7	38.4	46.0	61.4	76.7	92.1	107	123	155
80°	8.4	16.8	25.2	33.8	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	266
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										

The follow rate with the pressure

The spray performance are based on the same medium is corresponding to the square root of the pressure . Any nozzle can count the liquid at the pressure .

$$\frac{Q_1, \text{Flow rate(L/min)}}{Q_x, \text{Flow rate(L/min)}} = \frac{\sqrt{F_1, \text{Pressure (kg)}}}{\sqrt{F_2, \text{Pressure (kg)}}}$$

so it comes to

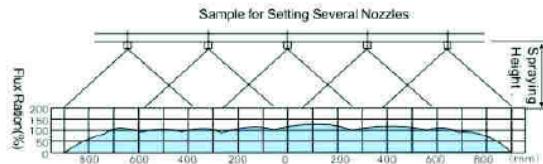
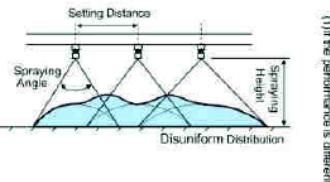
$$Q_x = Q_1 \sqrt{\frac{F_2, \text{Pressure (kg)}}{F_1, \text{Pressure (kg)}}}$$

Usage of Atomization Nozzle

一、Usage of Flat Fan Nozzle

The liquid of the flat fan nozzle is sprayed in fan with higher impact force than hollow cone and full cone, in order to achieve even flux when installing several fan-shaped nozzles, they are installed in mountain-shaped.

The flux distribution, spraying height, distance of the installation positions, spraying pressure and the liquid nature are different, if the performances of several nozzles are different, then the designed value and the actual value will also vary. Changyuan Company assures that the nozzles feature adequately precise for achieving uniform distribution.



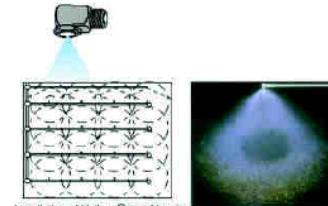
(2) Sample for setting several nozzles with precision assurance.

二、Usage of Hollow Cone Nozzle

Under the condition that the spraying pressure, flux and angle are the same, the average granule of hollow cone nozzle is smallest. With average granule, the surface area of the workpiece exceeds and the surface is treated more fine, thus achieving smooth movement to the objects. The hollow cone nozzle has fine effect when it is used for gas cooling, air humidifying, metal treatment, dust control, gas cleaning and chemical reaction etc. In hollow cone nozzle, liquid is sprayed from the single hole under centrifugal effect, therefore, it has highest smooth diameter and is an ideal selection for the liquid which may easily deposit, for it can reduce clogging to the max.

* The clients may select suitable usage according to distribution.

Installation Distribution of Hollow Cone Nozzle

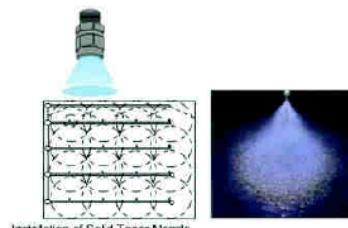


三、Usage of Full Cone Nozzle

Full Cone Nozzle consists of two varieties, the common type is equipped with built-in rotational flow leaves, but the special type not, it produce small-to medium-sized drops. The spraying area is round. Therefore, it is suitable for cleaning, bleaching, dust removing, distinguishing, corrosive carving and cleaning of electronic circuit board etc.

* The clients may select suitable usage according to distribution.

Installation Distribution of Hollow Cone Nozzle

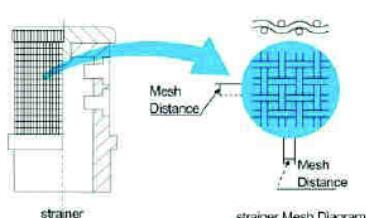


四、Selection of Strainer

Nozzle will have use different strainer according to the using condition, rough strainer for the nozzle with big granule, and fine strainer for small granule. The specification of the strainer is confirmed according to the quantity, please refer to the table below:

The built-in strainer in the nozzle composes of strainer body, cap and strainer mesh.

Strainer mesh	Distance of Mesh	Granule (mm)
#200	0.07	Less than 0.2
#150	0.10	0.3-0.4
#100	0.15	0.5-0.7
#50	0.30	0.8-0.9



AA Series Corner Nozzle

Hollow Cone Spray
Nozzle/Corner Nozzle



female



male



Desulfurization tower
Spraying Of Power Plant



Auto Spraying Before Painting

Performance data

Performance data

A/A Metal Nozzles feature a hollow cone spray pattern with a ring-shaped impact area and spray angles of 51° to 144°.

They produce small-to-medium sized drops at a wide range of flow rates and pressures.

AA/A Metal Nozzles are ideal choice for applications requiring good atomization of liquids at lower pressures or when quick heat transfer or effective airborne droplet impingement is required.

AAA Metal Nozzles have special whirlchamber. They feature large and unobstructed flow passages, which minimize or eliminate clogging.

AA Metal Nozzles have outer screw thread connection, while A Metal Nozzles have inner screw thread connection.

Common applications

- Gas Washing and Gas Cooling
- Water Cooling
- Dust Control
- Metal Treating
- Chemical Reaction Treating
- Other Heat Transfer Applications

Ordering info

1 / 4 AA SS 10

Inlet Conn. Nozzle Type Conn. Capacity Code. Size

Remark: Brass
SS-Stainless Steel
316SS-316 Stainless Steel

A Series Common Nozzle

The design feature of mid-high flow rate foundry nozzle

AASR catamaran casting style 1-1/4" --4" NPT or BSPT (Female)

The spraying style of mid-high spray pattern is hollow cone with ring impact area ; it has two series of spraying angle, narrow angles from 45° to 52° , standard angles from 60° to 86° . Spray tips can be made of carborundum .



AASR catamaran casting style

AAS catamaran casting style The size is 6" joint

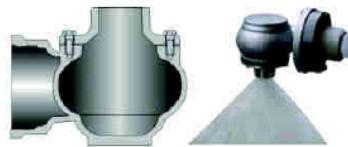
Spray pattern with uniform distribution ,small-to medium sized drops under a large-scale flow rate and pressure. AASR, AAS and AASB series assembly nozzles were made of casting brass, casting iron or 316 SS casting of refined polishing. The size of 1-1/4" , 2" and 3" nozzle were made of 316SS casting that has 304 SS spray tip.



AAS catamaran casting style

AASB catamaran casting style 2-6 inch joint

AASB nozzle of catamaran design can be made of several kinds of wearable material. The spray tip can be made of stainless steel or carborundum for harsh environment. These kinds of nozzle size has 2" , 3" , 4" and 6" . All of AASR, AASB and AAS nozzle had big and unblocked channel. Thereby, it avoids the clogging on the whole.



AASB catamaran casting style

Performance data

Nozzle Inlet Conn.	Nozzle Type			Capacity Size	Inlet Dia. Nom. Size (mm)	Rated Office Dia. (mm)	Capacity (L/min)								Spray angle							
	inner connector AASR	Flange conn.					0.2 bar	0.5 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	0.5 bar	1.5 bar	4 bar			
		AASB	AAS				21.4	13.1	24	39	54	67	77	94	109	122	133	144	45°	49°	52°	
1-1/4	●		10-45°	21.4	13.1	14.3	13.1	24	39	54	67	77	94	109	122	133	144	45°	49°	52°		
	●		12-45°				14.3	29	45	65	80	92	113	131	146	160	173	45°	49°	51°		
	●		14-45°				16.9	34	54	76	93	108	132	153	171	187	200	45°	48°	51°		
	●		16-45°				19.1	39	62	87	107	123	151	174	195	215	230	45°	48°	50°		
	●		20-45°				22.2	49	77	109	133	154	189	222	245	270	290	45°	47°	49°		
	●	●	30-45°				23.8	73	116	163	200	230	285	325	365	400	430	45°	49°	52°		
2	●	●	35-45°	36.5	27.0	30.2	27.0	85	135	191	235	270	330	380	425	465	500	45°	49°	51°		
	●	●	40-45°				30.2	97	154	220	265	310	375	435	490	530	580	45°	48°	51°		
	●	●	45-45°				32.1	110	173	245	300	345	425	495	550	600	650	45°	48°	50°		
	●	●	50-45°				34.9	122	193	270	335	385	470	540	610	670	720	45°	47°	49°		
	●	●	55-45°				36.9	134	210	300	365	425	520	600	670	730	790	45°	47°	49°		
	●	●	70				34.9	171	270	380	485	540	660	760	850	930	1010	65°	66°	69°		
3	●	●	85	57.2	40.1	40.1	40.1	205	325	465	570	650	800	930	1040	1130	1230	67°	68°	71°		
	●	●	100				44.5	245	385	540	670	770	940	1090	1220	1330	1440	69°	72°	74°		
	●	●	120				52.4	290	480	650	800	926	1130	1310	1460	1600	1730	71°	73°	77°		
	●	●	140				58.7	340	540	760	930	1080	1320	1530	1710	1870	2020	73°	75°	80°		
	●	●	55-45°				34.9	171	270	380	485	540	660	760	850	930	1010	45°	49°	52°		
	●	●	85-45°				40.1	205	325	465	570	650	800	930	1040	1130	1230	45°	49°	51°		
4	●	●	100-45°	79.4	44.5	44.5	44.5	245	385	540	670	770	940	1090	1220	1330	1440	45°	48°	51°		
	●	●	120-45°				51.2	290	480	650	800	926	1130	1310	1460	1600	1730	45°	48°	50°		
	●	●	140-45°				58.7	340	540	760	930	1080	1320	1530	1710	1870	2020	45°	47°	49°		
	●	●	150				50.8	365	580	820	1000	1160	1420	1630	1830	2000	2160	66°	67°	70°		
	●	●	175				59.1	425	670	950	1170	1350	1650	1910	2130	2340	2520	68°	70°	71°		
	●	●	200				68.3	485	770	1080	1330	1540	1890	2180	2440	2670	2880	70°	72°	74°		
6	●	●	225	124	74.6	74.6	68.3	550	870	1230	1500	1730	2120	2450	2740	3000	3240	72°	74°	77°		
	●	●	250				82.6	610	960	1360	1670	1930	2360	2720	3050	3340	3600	74°	76°	81°		
	●	●	275				92.1	670	1060	1500	1940	2120	2600	3000	3350	3670	3960	78°	80°	83°		
	●	●	150-45°				50.8	365	580	820	1000	1160	1420	1630	1830	2000	2160	45°	49°	52°		
	●	●	175-45°				59.1	425	670	950	1170	1350	1650	1910	2130	2340	2520	45°	49°	51°		
	●	●	200-45°				68.3	485	770	1080	1330	1540	1890	2180	2440	2670	2880	45°	48°	51°		
	●	●	225-45°				74.6	550	870	1230	1500	1730	2120	2450	2740	3000	3240	45°	48°	50°		
	●	●	250-45°				82.6	610	960	1360	1670	1930	2360	2720	3050	3340	3600	45°	47°	49°		
6	●	●	250	124	62.3	62.3	62.3	610	960	1360	1670	1930	2360	2720	3050	3340	3600	65°	67°	69°		
	●	●	300				69.9	730	1180	1530	2000	2310	2630	3270	3650	4000	4320	65°	68°	70°		
	●	●	350				76.2	850	1350	1910	2340	2700	3300	3810	4260	4670	5050	68°	70°	72°		
	●	●	400				82.6	970	1540	2180	2670	3080	3770	4380	4870	5340	5770	70°	73°	75°		
	●	●	450				88.1	1100	1730	2450	3000	3470	4250	4900	5480	6010	6490	72°	75°	77°		
	●	●	500				97.2	1220	1930	2720	3340	3850	4720	5440	6090	6670	7210	74°	76°	79°		
6	●	●	550	124	108	108	108	1340	2120	3000	3670	4240	5190	5990	6700	7340	7930	76°	79°	83°		
	●	●	620				130	1520	2410	3410	4170	4820	5900	6810	7610	8340	9010	78°	81°	86°		
	●	●	440-45°				88.1	1070	1700	2400	2940	3390	4150	4790	5360	5870	6340	60°	61°	62°		
	●	●	550-45°				108	1340	2120	3000	3670	4240	5190	5990	6700	7340	7930	64°	65°	66°		
	●	●	625-45°				130	1520	2410	3410	4170	4820	5900	6810	7610	8340	9010	65°	66°	67°		

Design features of large flow carbide silicone spray nozzle

Large carbide silicone spray nozzle,with its spray pattern is hollow cone-shaped,can spray an annular area.It has two series of different spray angles,its standard angle is between 70°-90°.The whole spray nozzle is made of carborundum together with carborundum material.It can be applied under bad working condition, and can also produce uniform spray distribution of medium and larger sized drops under high pressure in a large-scale area.The large flux carborundum spray nozzle can be made into 4 different sizes:2 inch,3 inch,4 inch and 6 inch.It can avoid clogging on the whole with its large and easy flow passages.



As a whole made of carborundum

Performance data

flange inlet	Capacity Size	Inlet Dia. Nom. Size (mm)	Orifice Dia. No. Size (mm)	Capacity liters per minute										Spray angle			
				0.2 bar	0.5 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	0.5 bar	1.5 bar	4 bar	
2	30-40°	36.5	23.8	73	116	163	200	230	265	325	365	400	430	70	85	90°	
	35-45°		27.0	85	135	191	235	270	330	380	425	465	500	70	85	90°	
	40-45°		30.2	97	154	220	265	310	375	435	490	530	580	70	85	90°	
	45-45°		32.1	110	173	245	300	345	425	490	550	600	650	70	85°	90°	
	50-45°		34.9	122	193	270	335	385	470	540	610	670	720	70	85°	90°	
	55-45°		36.9	134	210	300	365	425	520	600	670	730	790	70	85°	90°	
3	70	57.2	34.9	171	270	380	465	540	660	760	850	930	1010	70	85	90°	
	85		40.1	205	325	465	570	650	800	930	1040	1130	1230	70	85°	90°	
	100		44.5	245	385	540	670	770	940	1090	1220	1330	1440	70	85°	90°	
	120		52.4	290	460	650	800	920	1130	1310	1460	1600	1730	70	85	90°	
	140		58.7	340	540	760	930	1080	1320	1530	1710	1870	2020	70	85°	90°	
	55-45°		34.9	171	270	380	465	540	660	760	850	930	1010	70	85°	90°	
	85-45°		40.1	205	325	465	570	650	800	930	1040	1130	1230	70	85°	90°	
	100-45°		44.5	245	385	540	670	770	940	1090	1220	1330	1440	70	85°	90°	
	120-45°		51.2	290	460	650	800	920	1130	1310	1460	1600	1730	70	85	90°	
	140-45°		58.7	340	540	760	930	1080	1320	1530	1710	1870	2020	70	85°	90°	
4	150	79.4	50.8	365	580	820	1000	1160	1420	1630	1830	2000	2160	70	85	90°	
	175		59.1	425	670	950	1170	1350	1650	1910	2130	2340	2520	70	85	90°	
	200		68.3	485	770	1090	1330	1540	1890	2180	2440	2670	2880	70	85	90°	
	225		74.6	550	870	1230	1500	1730	2120	2450	2740	3000	3240	70	85°	90°	
	250		82.6	610	960	1360	1670	1930	2360	2720	3050	3340	3600	70	85°	90°	
	275		92.1	670	1050	1500	1840	2120	2690	3000	3350	3670	3960	70	85°	90°	
	150-45°		50.8	365	580	820	1000	1160	1420	1630	1830	2000	2160	70	85°	90°	
	175-45°		59.1	425	670	950	1170	1350	1650	1910	2130	2340	2520	70	85°	90°	
	200-45°		68.3	485	770	1090	1330	1540	1890	2180	2440	2670	2880	70	85°	90°	
	225-45°		74.6	550	870	1230	1500	1730	2120	2450	2740	3000	3240	70	85°	90°	
	250-45°		82.6	610	960	1360	1670	1930	2360	2720	3050	3340	3600	70	85°	90°	
6	250	124	62.3	610	960	1360	1670	1930	2360	2720	3050	3340	3600	70	85	90°	
	300		69.9	730	1160	1630	2000	2310	2630	3270	3650	4000	4320	70	85	90°	
	350		76.2	850	1350	1910	2340	2700	3300	3810	4250	4670	5050	70	85	90°	
	400		82.6	970	1540	2180	2670	3080	3770	4360	4870	5340	5770	70	85	90°	
	450		88.1	1100	1730	2450	3000	3470	4250	4900	5480	6010	6490	70	85°	90°	
	500		97.2	1220	1930	2720	3340	3850	4720	5450	6090	6670	7210	70	85	90°	
	550		108	1340	2120	3000	3670	4240	5190	5990	6700	7340	7930	70	85	90°	
	620		130	1520	2410	3410	4170	4820	5900	6810	7510	8340	9010	70	85	90°	
	440-65°		88.1	1070	1700	2400	2940	3390	4150	4790	5360	5870	6340	70	85°	90°	
	550-65°		108	1340	2120	3000	3670	4240	5190	5990	6700	7340	7930	70	85	90°	
	625-65°		130	1520	2410	3410	4170	4820	5900	6810	7510	8340	9010	70	85	90°	

N-sic material performance data

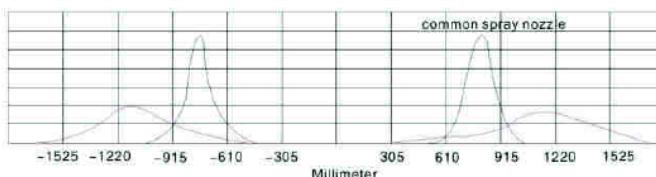
Temperature	Heat transfer parameter	multi-gap rate	heat expansion parameter	flexural strength	Mohs'scale of hardness	Acid corrosion
<1400°C	45w/m.K	<0.1%	4.5K ⁻¹ X10 ⁻⁶	600mPa	>13	Excellent

A Series Common Nozzle

Design features of AASW large flow carbide silicone spray nozzle

1. Spray consistency is uniform.
2. Spray liquid droplets distribute at a large range
3. The spray liquid droplet size is 20%-80% smaller than other hollow cone-shaped nozzles'.

The graph given below is the compare data between AASW spray nozzle and common hollow cone-shaped nozzles at the same flow rate. It's easy to find that the spray liquid droplets of AASW spray nozzle distribute at a larger range, so that it can minimize the spray consistency consumedly. Meanwhile, its droplet size is 50% smaller than common hollow cone-shaped nozzles.



flow rate and size of AASW

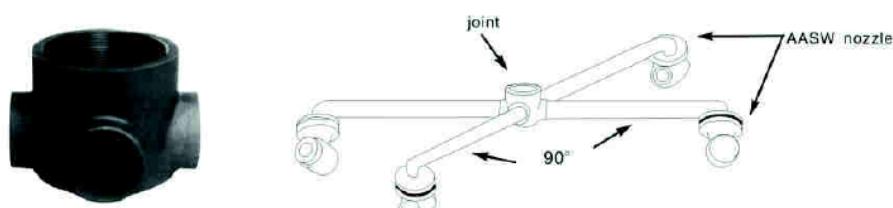
hollow cone-shaped, wide angle, 1" to 3" size BSP or NPT screw thread.

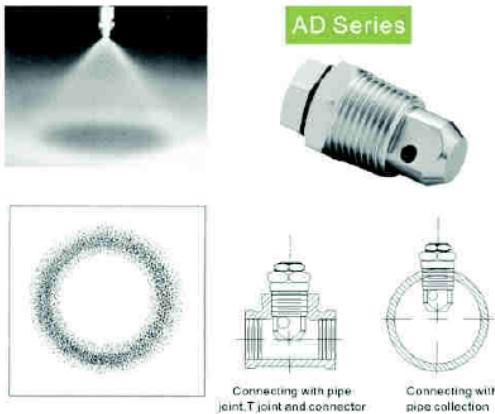
flange inlet	Nozzle Type	Spray angle			K coeffi- cient	Capacity(L/min)							inlet size	Cap- acity size	Size				Weight	
		0.3 bar	1 bar	3 bar		0.2 bar	0.3 bar	0.5 bar	0.7 bar	1 bar	1.5 bar	2 bar			A	B	C	D		
2	SW 8516	112	115	115	194	86.6	106	137	162	194	237	274	336	21.8	91.9	130	114	70.6	1.81	
	SW 10516	120	122	122	239	107	131	169	200	239	293	338	414	25.4						
	SW 12516	119	122	122	285	127	156	201	238	285	349	403	493	29.0						
	SW 14516	122	125	125	330	148	181	234	276	330	405	467	572	32.1						
	SW 17016	125	125	125	387	173	212	274	324	387	474	548	671	35.3						
	SW 19216	125	125	125	438	196	240	309	366	438	536	619	758	36.5						
	SW 20516	125	125	125	467	208	258	330	391	467	572	681	809	41.3						
	SW 23016	125 ¹	125 ¹	125 ¹	524	234	287	371	439	524	642	741	908	44.5						
2 1/2	SW 17020	117	120	120	387	173	212	274	324	387	474	548	671	33.7	125	172	143	88.1	2.90	
	SW 19020	117	120	120	433	194	237	306	362	433	530	612	750	36.1						
	SW 20520	117	120	120	467	208	256	330	391	467	572	661	809	37.3						
	SW 23020	123	125	125	524	234	287	371	439	524	642	741	908	40.1						
	SW 28020	126	130	130	638	285	349	451	534	638	781	902	1110	46.0						
	SW 32020	126	130	130	729	326	399	516	610	729	893	1030	1260	51.2						
	SW 34020	126	130	130	775	347	424	548	646	775	949	1100	1340	53.2						
	SW 43520	126 ²	130 ²	130 ²	991	443	543	701	829	991	1210	1400	1720	61.9						
3	SW 18524	122	122	122	422	189	231	296	353	422	516	596	730	32.5	145	200	173	109	4.08	
	SW 23024	122	122	122	524	234	287	371	439	524	642	741	908	36.5						
	SW 28024	122	122	122	538	285	349	451	534	538	781	902	1110	41.3						
	SW 32024	125	125	125	729	326	399	516	610	729	993	1030	1260	45.2						
	SW 34024	125	125	125	775	347	424	548	646	775	949	1100	1340	46.8						
	SW 12224	126	130	130	939	420	514	664	786	939	1150	1330	1630	53.6						
	SW 46924	129	132	135	1070	478	585	756	894	1070	1310	1510	1850	57.9						
	SW 52624	129 ²	132 ²	135 ²	1200	536	657	848	1000	1200	1470	1700	2080	63.1						
	SW 56424	129 ¹	132 ¹	135 ¹	1290	575	704	909	1080	1290	1570	1820	2230	65.9	54.0					

flow rate L/M=K /Bar

standard material: Brass, carbon steel and 316 stainless steel

The pic given below is AASW spray nozzle joint, to join many nozzles.





Design features of beeline type hollow cone-shaped spray nozzle

Beeline type hollow cone-shaped spray nozzle can produce hollow cone-shaped spraying, and spray area is annular with its uniform distribution.

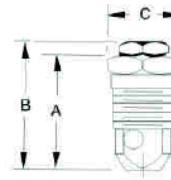
The nozzles spray into small liquid droplets and can avoid clogging with its large and easy passing routeway.

The spray cap can be interchanged between pipes of different size. It can produce a spray pattern of wide spray angle.

The section projection of this beeline nozzle is a bit of low when it's connected with T joint or pipe collection, it's widely used in coal ash control.

size and weight

Nozzle type	A (mm)	B (mm)	C (mm)	Net weight (Kilogram)
3/8AD-	28	32	17.5six angles	0.03
1/2AD-	32.5	37.5	22.2six angles	0.06
3/4AD-	38	44.5	27.0six angles	0.11
11/2AD-	60.5	66.5	50.6six angles	0.60



ordering info

AD—3/8—SS—10

↓ ↓ ↓ ↓
Nozzle type Inlet size Material code Capacity size

Performance data

Nozzle Inlet Conn. NPT or BSPT(out)	Nozzle Type	Inlet Dia. No. Size (mm)	Orifice Dia. Nom. Size (mm)	Capacity (L/min)												Spray angle			
				0.2 bar	0.5 bar	0.7 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	0.5 bar	1.5 bar	6 bar		
3/8	● 2	2.4	2.0		0.78	0.91	1.1	1.3	1.6	1.8	2.0	2.2	2.4	60°	70°				
	● 3	2.4	2.4		0.96	1.1	1.4	1.7	1.9	2.4	2.7	3.1	3.3	3.6	52°	64°	77°		
	● 5	2.8	3.2	1.0	1.6	1.9	2.3	2.8	3.2	3.9	4.6	5.1	5.6	6.0	56°	67°	76°		
	● 8	4.0	4.0	1.6	2.6	3.1	3.6	4.5	5.2	6.3	7.3	8.2	8.9	9.6	56°	65°	70°		
	● 10	4.0	4.4	2.0	3.2	3.8	4.6	5.6	6.4	7.9	9.1	10.2	11.2	12.1	55°	65°	72°		
	● 20-10	4.0	4.4		4.5	5.3	6.4	7.8	9.0	11.1	12.8	14.3	15.6	16.9	61°	65°	67°		
1/2	● 5	3.2	3.6	1.0	1.6	1.9	2.3	2.8	3.2	3.9	4.6	5.1	5.6	6.0	63°	73°	79°		
	● 8	4.0	4.0	1.6	2.6	3.1	3.6	4.5	5.2	6.3	7.3	8.2	8.9	9.6	61°	69°	73°		
	● 10	4.4	4.4	2.0	3.2	3.8	4.6	5.6	6.4	7.8	9.1	10.2	11.2	12.1	63°	70°	74°		
	● 15	4.4	5.2	3.1	4.8	5.7	6.8	8.4	9.7	11.6	13.7	15.3	16.7	18.1	60°	67°	70°		
	● 20	4.8	6.0	4.1	6.4	7.6	9.1	11.2	12.9	15.8	18.2	20	22	24	63°	65°	69°		
	● 25	5.2	7.1	5.1	8.1	9.5	11.4	14.0	16.1	19.7	23	25	28	30	59°	63°	68°		
3/4	● 5	3.6	3.2	1.0	1.6	1.9	2.3	2.8	3.2	3.9	4.6	5.1	5.6	6.0	64°	73°	79°		
	● 8	4.4	4.0	1.6	2.6	3.1	3.6	4.5	5.2	6.3	7.3	8.2	8.9	9.6	62°	70°	74°		
	● 10	5.2	4.4	2.0	3.2	3.8	4.6	5.6	6.4	7.9	9.1	10.2	11.2	12.1	64°	72°	75°		
	● 15	6.4	5.6	3.1	4.8	5.7	6.8	8.4	9.7	11.8	13.7	15.3	16.7	18.1	64°	72°	74°		
	● 20	7.1	6.4	4.1	6.4	7.6	9.1	11.2	12.9	15.8	18.2	20	22	24	63°	70°	74°		
	● 25	7.1	7.5	5.1	8.1	9.5	11.4	14.0	16.1	19.7	23	25	28	30	63°	70°	74°		
1-1/2	● 5	3.6	3.2	1.0	1.6	1.9	2.3	2.8	3.2	3.9	4.6	5.1	5.6	6.0	70°	72°	73°		
	● 8	4.4	4.0	1.6	2.6	3.1	3.6	4.5	5.2	6.3	7.3	8.2	8.9	9.6	62°	70°	74°		
	● 10	5.2	4.4	2.0	3.2	3.8	4.6	5.6	6.4	7.9	9.1	10.2	11.2	12.1	64°	72°	75°		
	● 15	6.4	5.6	3.1	4.8	5.7	6.8	8.4	9.7	11.8	13.7	15.3	16.7	18.1	64°	72°	74°		
	● 20	7.1	6.4	4.1	6.4	7.6	9.1	11.2	12.9	15.8	18.2	20	22	24	63°	70°	74°		
	● 25	7.1	7.5	5.1	8.1	9.5	11.4	14.0	16.1	19.7	23	25	28	30	63°	70°	74°		
50-50.3	● 7.1	9.5	10.2	16.1	19.1	23	28	32	39	46	51	56	60	70°	72°	73°			
	● 40	9.5	7.9	8.2	12.9	15.3	18.2	22	26	32	36	41	45	48	70°	73°	74°		
	● 50	9.5	9.5	10.2	16.1	19.1	23	28	32	39	46	51	56	60	72°	75°	77°		
	● 60	9.5	11.1	12.2	19.3	23	27	33	39	47	55	61	67	72	74°	76°	79°		
	● 70	9.5	12.7	14.3	23	27	32	39	45	55	64	71	78	84	76°	79°	83°		
	● 80	9.5	14.3	16.3	26	31	36	45	52	63	73	82	89	96	78°	82°	84°		
● 90	9.5	14.7	16.3	29	34	41	50	58	71	82	92	100	109	119	81°	84°	84°		
	100	9.5	15.9	20	32	38	46	56	64	79	91	102	112	121	83°	86°	86°		
	110	9.5	17.1	22	35	42	50	61	71	87	100	112	123	133	85°	88°	88°		
	120	9.5	18.3	24	39	46	55	67	77	95	109	122	134	145	87°	90°	90°		

A Series Common Nozzle

BB Series Full Cone Spray Nozzle

standard angle series



single type(BB)

fission type(BBG)

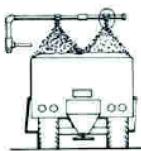


standard angle series

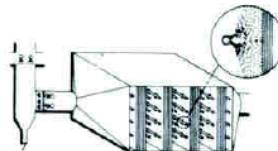
Nozzle Inlet Conn.	Capacity Size	Nozzle Type	Material code	Rated Orifice Dia. 316SS	Max. Hole Dia. (mm)	Capacity (L/min)								Spray angle		
						0.2 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	10 bar	0.5 bar
1/8	1	● ● ● ●	●	0.79	0.64	0.44	0.54	0.62	0.74	0.85	0.94	1.0	1.1	1.3	58° 53°	
	1.5	● ● ● ●	●	1.2	1.0	0.69	0.69	0.81	0.93	1.1	1.4	1.5	1.7	1.9	52° 65° 59°	
	2	● ● ● ●	●	1.2	1.0	0.95	0.92	1.1	1.2	1.5	1.7	1.9	2.0	2.2	2.6	43° 50° 46°
	3	● ● ● ●	●	1.5	1.0	0.98	1.4	1.6	1.9	2.2	2.5	2.8	3.1	3.3	3.9	52° 68° 59°
	3.5	● ● ● ●	●	1.6	1.3	1.1	1.8	1.9	2.2	2.6	3.0	3.3	3.6	3.9	4.5	43° 50° 46°
	3.9	● ● ● ●	●	2.0	1.0	1.3	1.8	2.1	2.4	2.9	3.3	3.7	4.0	4.3	5.1	77° 84° 79°
5	● ● ● ●	●	2.0	1.3	1.6	2.3	2.7	3.1	3.7	4.2	4.7	5.1	5.5	6.5	52° 65° 59°	
6.1	● ● ● ●	●	2.3	1.3	2.0	2.8	3.3	3.8	4.5	5.2	5.7	6.2	6.7	7.9	89° 74° 68°	
1/4	6.5	● ● ● ●	●	2.38	1.6	2.1	3.0	3.5	4.0	4.8	5.6	6.1	6.7	7.1	8.4	45° 50° 46°
	10	● ● ● ●	●	3.18	1.6	3.3	4.7	5.4	6.2	7.4	8.5	9.4	10.2	11.0	13.0	58° 67° 61°
	12.5	● ● ● ●	●	3.2	1.6	4.1	5.8	6.8	7.7	9.3	10.6	11.8	12.8	13	16.2	69° 74° 68°
	9.5	● ● ● ●	●	2.6	2.4	3.1	4.4	5.1	5.9	7.1	8.1	8.9	9.7	10.4	12.3	45° 50° 46°
3/8	15	● ● ● ●	●	3.6	2.4	4.9	6.9	8.1	9.3	11.2	12.7	14.1	15.4	16.5	19.4	64° 67° 61°
	20	● ● ● ●	●	4.0	2.6	6.5	9.2	10.8	12.4	14.9	17.0	18.8	20	22	26	75° 80° 73°
	22	● ● ● ●	●	4.5	2.8	7.2	10.2	11.9	13.6	16.4	18.7	21	23	26	28	87° 90° 82°
	16	● ● ● ●	●	3.5	3.2	5.2	7.4	8.7	9.9	11.9	13.6	15.1	16.4	17.6	21	48° 50° 46°
	25	● ● ● ●	●	4.6	3.2	8.2	11.6	13.5	15.4	18.6	21	24	26	27	32	64° 67° 61°
1/2	32	● ● ● ●	●	5.2	3.6	10.4	14.7	17.3	19.8	24	27	30	33	35	41	72° 75° 68°
	40	● ● ● ●	●	6.2	3.6	13.1	16.5	22	25	30	34	38	41	44	52	88° 91° 83°
	50	● ● ● ●	●	6.7	4.0	15.3	23.1	27	31	37	42	47	51	55	65	91° 94° 86°

common application

- exhaust gas scrubbing
- quenching and cooling
- fire prevention and fire protection
- defoaming
- spraying applications



dust control



air washer

ordering info

BB 1/4 — SS 10

single nozzle type Inlet size material code capacity size

BBG 1/4 — SS 10

Fission nozzle type Inlet size material code capacity size

Remark:BRASS
SS-stainless steel
316SS-316 stainless steel

wide angle series



single type(BB)



fission type(BBG)

BB wide angle series spray nozzles feature a solid cone spray pattern with a round impact area and spray angles between 120° and 125°.

They produce a uniform distribution of medium to large sized drops over a wide range of flow rates and pressures. They are ideal choice for applications requiring complete coverage to a certain area.

With the uniform spray distribution resulting from a unique vane design and exact size, the nozzles insure correct and dependable performance.

wide angle series

Nozzle Inlet Conn. Capacity Size	Nozzle Type	Material code	Rated Max. Orifice Hole Dia. (mm)	316SS	Capacity (L/min)										Spray angle					
					0.2	1	1.5	2	3	4	5	6	7	10	0.5	1.5	6			
1/8	2.8W	● ●	● ●	● ●	1.6	1.0	1.2	1.5	1.7	2.0	2.3	2.5	2.7	2.9	3.5	116	120	102°		
	4.3W	● ●	● ●	● ●	2.0	1.0	1.9	2.3	2.6	3.1	3.5	3.9	4.2	4.5	5.4	116	120	102°		
	5.6W	● ●	● ●	● ●	2.4	1.0	1.8	2.5	3.1	3.4	4.0	4.6	5.1	5.6	5.9	117	118	120	102°	
	8W	● ●	● ●	● ●	2.4	1.3	2.6	3.6	4.4	4.8	5.6	7.2	7.8	8.4	10.1	116	120	103°		
1/4	10W	● ●	● ●	● ●	2.8	1.3	3.3	4.5	5.5	6.0	7.2	8.2	9.1	9.8	10.8	12.7	116	120	103°	
	12W	● ●	● ●	● ●	3.2	1.3	3.9	3.9	6.5	7.3	6.7	9.6	10.9	11.8	12.7	15.2	117	120	103°	
	14W	● ●	● ●	● ●	3.6	1.6	4.6	6.2	7.8	8.5	10.1	11.5	12.7	13.7	14.8	17.7	117	120	103°	
	17W	● ●	● ●	● ●	4.0	1.6	5.6	7.6	9.3	10.3	12.3	13.9	15.4	16.7	18.0	21.6	117	120	103°	
3/8	26W	● ●	● ●	● ●	4.4	2.4	6.8	8.9	10.9	12.1	14.5	15.5	18.1	19.6	21.5	25.3	117	120	104°	
	24W	● ●	● ●	● ●	4.8	2.4	7.9	10.7	13.1	14.5	17.3	19.7	22	24	25	31.0	117	120	104°	
	27W	● ●	● ●	● ●	5.2	2.4	8.5	12.0	14.7	17.2	19.5	22	24	26	28	33.6	117	120	104°	
	30W	● ●	● ●	● ●	5.6	2.8	9.8	13.4	16.4	16.1	22	25	27	29	31.4	37.4	117	120	106°	
1/2	35W	● ●	● ●	● ●	6.0	3.2	11.5	15.6	19.1	20	25	29	32	34	36	43.9	117	120	106°	
	40W	● ●	● ●	● ●	6.4	3.2	13.1	17.8	21.8	24	29	33	36	39	42.1	50.3	117	120	106°	
	45W	● ●	● ●	● ●	6.4	3.6	14.8	20	24.5	27	33	37	41	44	47.5	56.8	117	120	110°	
	50W	● ●	● ●	● ●	6.7	4.0	16.4	22	26.9	30	35	41	45	49	52.9	63.3	117	120	112°	

common application

- Washing and drenching, exhaust gas scrubbing and cooling to remove dust and other burnt offspring.
- Quenching and cooling coke, primary metal and other material, burst apart and defoaming of foaming material, spray in chemical reaction.
- Dust control when transacting chunk ore, coal, limestone, sand and carpolite.
- Dip the tinder and container to prevent a fire and put out a fire.

ordering info

BB 1/8—SS 2.8W
 ↓ Single nozzle size
 Inlet type
 Material code
 Capacity size

quadrat standard angle series



single type(BB)



fission type(BBG)

BB quadrat standard angle series spray nozzles feature a solid cone spray pattern with a foursquare area and spray angles between 40° to 105°.

They produce a uniform distribution of medium to large sized drops over a wide range of flow rates and pressures. Their uniform spray distribution result from a unique vane design, large and easy flow passages and superior spray control design. They are ideal for applications requiring complete coverage to a certain area.

ordering info

BBF 1/8 — SS 3.6
 ↓ Single nozzle size
 Inlet type
 Material code
 Capacity size

standard angel series

Nozzle Inlet Conn. NPT or BSPT	Nozzle Type	Capacity Size	Rated Max. Orifice Hole Dia. (mm)	316SS	Capacity (L/min)										Spray angle					
					0.3	0.5	1	2	3	4	5	6	7	10	0.5	1.5	6			
1/8	3.6	1.6	1.3	0.93	1.2	1.6	2.2	2.7	3.1	3.4	3.7	4.0	4.7	40°	52°	47°				
	4.8	1.9	1.3	1.2	1.6	2.2	3.0	3.6	4.1	4.5	4.9	5.3	6.2	48°	63°	57°				
	6	2.4	1.3	1.5	2.0	2.7	3.7	4.5	5.1	5.6	6.1	6.6	7.8	60°	66°	60°				
	10	2.8	1.6	2.6	3.3	4.5	6.1	7.4	8.5	9.4	10.2	11.0	13.0	62°	67°	61°				
1/4	12	3.2	1.6	3.1	3.9	5.4	7.4	8.9	10.2	11.3	12.3	13.2	15.5	70°	75°	68°				
	14.5	3.9	1.6	3.7	4.7	6.5	9.0	10.8	12.3	13.7	14.8	15.9	18.8	78°	82°	75°				
	18	4.0	2.4	4.6	5.9	8.1	11.1	13.4	15.3	17.0	18.4	19.8	23	71°	75	68°				
	29	5.6	3.2	7.5	9.5	13.0	17.9	22	25	27	30	32	38	71°	75	68°				
1/2	36	6.4	3.2	9.3	11.8	16.2	22	27	31	34	37	40	47	79°	82°	75°				
	50	6.7	4.4	12.9	16.3	22	31	37	42	47	51	55	65	71°	75	68°				
	106	9.9	5.6	27	35	48	65	79	90	109	109	117	137	79°	80	73°				
	177	12.7	6.4	46	58	79	109	132	150	167	181	195	230	78°	80	73°				
1-1/2	230	14.3	8.7	59	75	103	142	171	195	220	235	265	300	73°	77°	70°				
	290	15.5	11.1	75	95	130	176	215	250	275	300	320	375	68°	70°	64°				
	360	17.4	11.1	93	118	162	225	270	305	340	370	395	470	70°	74°	67°				
	480	21.0	11.1	124	157	215	300	360	410	465	495	530	630	79°	82°	74°				
2-1/2	490	19.8	14.3	126	169	220	305	365	420	465	510	540	640	62°	67°	61°				
	590	22.2	14.3	152	193	265	365	440	510	560	610	650	770	75°	78	71°				
	950	28.6	17.5	245	310	430	590	710	810	900	980	1050	1230	81°	84°	76°				
	5	2980	47.6	28.6	770	980	1340	1840	2220	2540	2810	3060	3280	3860	89°	91°	83°			
6	5690	81.6	44.5	1470	1860	2560	3520	4240	4840	5360	5830	6260	7370	102°	105°	95°				

A Series Common Nozzle

Full wide angle nozzle



single type(BBF)

Wide angle quadrate shaped spray nozzle feature a full cone spray pattern with square impact area and spray angles of 93°-115°, small-to medium-sized drops.

Unique vane design provides uniform spray distribution.

They are idea choice for installations requiring uniform coverage of rectangular or square areas. Size 1-1/4 " and larger are case-type nozzles with removable vanes.

Performance data

Nozzle Inlet Conn. NPT or BSPT	Nozzle Type	Capacity Size	Rated Office Dia. (mm)	Max. Hole Dia. (mm)	Capacity (l/min)										Spray angle			
					0.3 bar	0.5 bar	0.7 bar	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	0.5 bar	1.5 bar	6 bar		
1/8	● ●	2.6W	1.6	1.0				1.1	1.2	1.7	2.0	2.3	2.5	2.7		120°	102°	
	● ●	4.3W	2.0	1.0				1.6	1.9	2.6	3.1	3.5	3.9	4.2		120°	102°	
	● ●	5.6W	2.4	1.0				1.8	2.1	2.5	3.4	4.0	4.6	5.1	5.5		120°	102°
1/4	● ●	8W	2.4	1.3				2.6	3.0	3.6	4.8	5.8	6.6	7.2	7.8		120°	102°
	● ●	10W	2.8	1.3	2.6	3.3	3.8	4.5	6.0	7.2	8.2	9.1	9.8	112°	120°	103°		
	● ●	12W	3.2	1.3	3.1	3.9	4.6	5.3	7.3	8.7	8.7	10.9	11.8	114°	120°	103°		
1/4	● ●	14W	3.6	1.3	3.7	4.6	5.3	6.2	8.5	10.1	10.1	12.7	13.7	114°	120°	103°		
	● ●	14W	3.6	1.6	3.7	4.6	5.3	6.2	8.5	10.1	10.1	12.7	13.7	99°	101°	93°		
	● ●	17W	4.0	1.6	4.5	5.6	6.5	7.6	10.3	12.3	13.9	15.4	16.7	114°	120°	103°		
3/8	● ●	17W	4.0	1.6	4.5	5.6	6.5	7.6	10.3	12.3	13.9	15.4	16.7	99°	101°	93°		
	● ●	20W	4.4	2.4	5.2	6.6	8.6	8.9	12.1	14.5	16.5	18.1	19.6	114°	120°	104°		
	● ●	20W	4.4	2.4	5.2	6.6	8.6	8.9	12.1	14.5	16.5	18.1	19.6	104°	110°	94°		
3/8	● ●	24W	4.8	2.4	6.3	7.9	7.9	10.7	14.5	17.3	19.7	22	24	114°	120°	104°		
	● ●	24W	4.8	2.4	6.3	7.9	7.9	10.7	14.5	17.3	19.7	22	24	104°	110°	94°		
	● ●	27W	5.2	2.8	7.1	8.9	8.9	12.0	16.3	19.5	22	24	26	114°	120°	106°		
3/8	● ●	27W	5.2	2.8	7.1	8.9	8.9	12.0	16.3	19.5	22	24	26	104°	110°	96°		
	● ●	30W	5.6	2.8	7.9	9.9	11.4	13.4	18.1	22	25	27	29	114°	120°	108°		
	● ●	30W	5.6	2.8	7.9	9.9	11.4	13.4	18.1	22	25	27	29	104°	110°	102°		
1/2	● ●	35W	6.0	3.2	9.2	11.5	13.3	15.6	21	25	29	32	34	114°	120°	108°		
	● ●	35W	6.0	3.2	9.2	11.5	13.3	15.6	21	25	29	32	34	104°	110°	102°		
	● ●	40W	6.4	3.2	10.5	13.1	15.2	17.8	24	29	33	36	39	104°	110°	102°		
1/2	● ●	40W	6.4	3.2	10.5	13.1	15.2	17.8	24	29	33	36	39	114°	120°	108°		
	● ●	45W	6.4	3.6	11.8	14.8	17.1	20	27	33	37	41	44	114°	120°	110°		
	● ●	45W	6.4	3.6	11.8	14.8	17.1	20	27	33	37	41	44	104°	110°	102°		
1/2	● ●	50W	6.7	4.0	13.1	16.4	19.1	22	30	36	41	45	49	114°	120°	112°		
	● ●	50W	6.7	4.0	13.1	16.4	19.1	22	30	36	41	45	49	104°	110°	102°		
	● ●	6W	9.9	4.4	18.4	23	27	31	42	51	58	64	69	115°	120°	112°		
3/4	● ●	71W	9.9	4.4	18.4	23	27	31	42	51	58	64	69	105°	110°	102°		
	● ●	11W	13.1	5.6	34	42	49	57	78	93	106	116	126	117°	120°	117°		
1	● ●	130W	13.1	5.6	34	42	49	57	76	93	106	116	126	107°	110°	107°		

ordering info

BBF 1/8 — SS 2.8W

↓ Single nozzle type ↓ Inlet size ↓ Material code ↓ Capacity size ↓

A series of nozzles for 15°



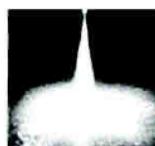
single type(BBW)

BB Series narrow angle nozzles feature a full cone spray pattern with a round impact area and spray angles of 30° or 15°.

They produce a uniform distribution of medium to large sized drops and provide significantly higher impact per unit area than wider angle nozzles at the same flow rate, and all have removable vanes.

The size 1/8" and 1-1/4" are made from steel bar while size 1-1/4" and larger are cast-in-block. Unique vane design provides superior control and uniform distribution.

Performance data



Nozzle Inlet Conn. NPT or BSPT	Nozzle Type edge eject edge Louver	Capacity Size	Rated Orifice Dia. (mm)	Capacity (L/min)										Spray angle			
				0.7 bar	1.5 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	10 bar	20 bar	0.7 bar	3 bar	7 bar	
1/8	● ●	1507	1.6	1.3	2.0	2.3	2.8	3.2	3.6	3.9	4.2	5.0	7.1	13°	15°	15°	
	● ●	1514	2.4	2.7	3.9	4.5	5.5	6.4	7.1	7.8	8.4	10.1	14.3	13°	15°	15°	
1/4	● ●	1530	3.2	5.7	8.4	9.7	11.8	13.7	15.3	16.7	18.1	22	31	13°	15°	15°	
3/8	● ●	1550	4.4	9.5	14.0	16.1	19.7	23	25	28	30	38	51	116°	15°	15°	
1/2	● ●	1590	5.6	17.2	25	29	36	41	48	50	54	65	92	13°	15°	15°	

ordering info

BBW 1/8 — SS 1507

↓
single nozzle type:
Inlet size:
material code:
capacity size:

A series of nozzles for 30°



single type(BBG)

Performance data

Nozzle Inlet Conn. NPT or BSPT	Nozzle Type edge eject edge Louver	Capacity Size	Rated Orifice Dia. (mm)	Capacity(L/min)										Spray angle			
				1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	10 bar	15 bar	20 bar	0.5 bar	1.5 bar	6 bar	
1/8	● ●	3001.4	0.79	0.32	0.45	0.55	0.64	0.71	0.78	0.84	1.0	1.2	1.4	17°	30°	31°	
	● ●	3002.5	0.79	0.57	0.81	0.99	1.1	1.3	1.4	1.5	1.8	2.2	2.5	17°	30°	32°	
	● ●	3004	1.2	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	3.5	4.1	26	30°	32°	
	● ●	3007	1.6	1.6	2.3	2.8	3.2	3.6	3.9	4.2	5.0	6.2	7.1	29°	30°	30°	
1/4	● ●	3009	2.0	2.1	2.9	3.5	4.1	4.6	5.0	5.4	6.5	7.9	9.2	23°	30°	30°	
3/8	● ●	3014	2.4	3.2	4.5	5.5	6.4	7.1	7.8	8.4	10.1	12.4	14.3	25	30°	30°	
1/2	● ●	3030	3.2	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	26	31	26	30°	31°	
3/4	● ●	3050	4.4	11.4	16.1	19.7	23	25	28	30	38	44	51	26	30°	31°	

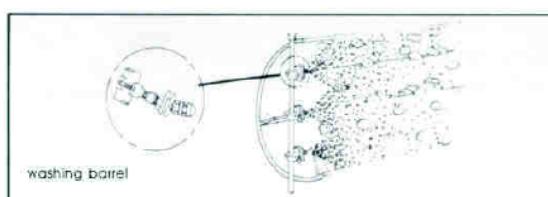
common application

- Cleaning and washing that requires deep penetration and / or spray induced turbulence
- Desuperheating of stream
- cleaning and cooling the inside of ducts and pipes

ordering info

BBG 1/8 — SS — 3001.4

↓
Single nozzle type:
Inlet size:
Material code:
Capacity size:



A Series Common Nozzle

CC series flat fan nozzle Series



Small capacity (CC)
1/8"-1/4"
NPT or BSPT(male)



Medium capacity (CC-N)
1/8"-3/4"
NPT or BSPT(male)



Large capacity (CC-M)
1"-2"
NPT or BSPT(male)



With strainer (CC-L)
1/8"-1/4"
NPT or BSPT(male)

CC Series Flat Fan Nozzle

Design features

CC flat fan spray nozzles feature a high impact solid stream or a flat fan spray pattern with the spray angles between 0°-110°.

They produce a uniform distribution of small to medium sized drops. Properly aligned, the specially tapered spray edges make a evenly coverage.

CC and CC-L series nozzles have external piping thread connector and their flow rate are lower than 3.9 l/min at 3 bar. Inner strainer is available for CC-L Series nozzle with male connector only.

Standard flow rates of CC-N and CC-M Series are 3.9 l/min or larger at 3 bar. All have external piping thread connector.



Common application

- Chemical cleaning
- Product washing /rinsing
- Pressure cleaning
- cooling and quenching
- Fire suppression / prevention
- Fire fighting
- Net blanket low pressure cleaning
- Spray coating
- Roller and scraper ordering

Fan ceramic core



CCTC

Fan tungaloy



CTCK

Jet stabilizer for reducing turbulence



ordering info

Jet stabilizer type

CY21370—SS—1/8x1/8

↓
Jet
stabilizer
type

↓
Material
code

↓
Connection
dimension

ordering info

CC 1/4—SS 6505

↓
Nozzle
type
Remark:
BRASS
↓
Inlet
size
SS-stainless steel
↓
Material
code
316SS-316 stainless steel
↓
Capacity
size

Jet stabilizer type

Jet stabilizer for reducing turbulence number	Inlet Conn. NPT or BSPT	Nozzle Inlet Conn. NPT or BSPT(in)	High(mm)	Net weight (kg)
CY21370-1/8x1/8	1/8	1/8	19	0.007
CY21370-1/4x1/4	1/4	1/4	24	0.01
CY21370-3/8x3/8	3/8	3/8	27	0.03
CY21370-1/2x1/8	1/2	1/2	32	0.05
CY21370-1/2x1/2	3/4	3/4	38	0.10
CY21370-1x1	1	1	46	0.18
CY21370-11/4x11/4	11/4	11/4	57	0.33

Design features

Jet stabilizers installed in the heads of flat fan spray nozzle increase the spray distance and the durative power. When spray nozzles are installed on T-shape pipe, branching pipe or bend pipe and the fluid swerve into the nozzle, turbulence occurs, which diffuses the jet flow. The stabilizer minimize the diffusion and concentrate the jet flow through a thinner and stabler way, offering a better performance in jet distance and durative power.

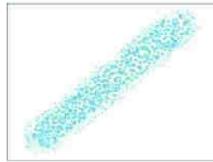
Performance data

A Series Common Nozzle

A Series Common Nozzle

Spray angle (3 bar)	Capacity- Size	Nozzle Type /Inlet Conn. NPT										Flow Direction	Capacity(L/min)										Spray angle																				
		CC		CC-L		CC-N			CC-M				0.3		1		2		3		4		5		6		7		10		20		35		1.5		3		6		14		
		1/8	1/4	1/6	1/4	1/8	1/4	3/8	1/2	3/4	1		bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar								
50°	5001	●	●	●	●	●	●	●	●	●	●	●	0.66	0.23	0.32	0.39	0.48	0.51	0.56	0.60	0.67	0.72	0.79	1.0	1.3	1.37	50°	55°	56°	57°	58°	59°	60°										
50°	5002	●	●	●	●	●	●	●	●	●	●	●	0.91	0.48	0.04	0.79	0.91	1.0	1.1	1.2	1.4	1.5	2.0	2.7	3.0	3.5	3.9	50°	55°	56°	57°	58°	59°	60°									
50°	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	4.6	4.9	50°	56°	56°	57°	58°	59°	60°										
50°	5004	●	●	●	●	●	●	●	●	●	●	●	1.3	0.30	0.50	0.61	1.3	1.6	1.8	2.0	2.2	2.4	2.9	4.1	5.4	6.4	42	56°	56°	57°	58°	59°	60°										
50°	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°	56°	57°	58°	59°	60°											
50°	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°	56°	57°	58°	59°	60°											
50°	5008	●	●	●	●	●	●	●	●	●	●	●	1.8	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.0	10.8	45	50°	55°	56°	57°	58°	59°	60°											
50°	5010	●	●	●	●	●	●	●	●	●	●	●	2.0	1.2	2.3	3.2	3.9	4.5	5.1	5.6	6.0	7.2	10.2	13.5	45	50°	55°	55°	56°	57°	58°	59°											
50°	5013	●	●	●	●	●	●	●	●	●	●	●	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°	55°	56°	57°	58°	59°											
50°	5020	●	●	●	●	●	●	●	●	●	●	●	2.8	2.5	4.6	6.5	7.9	8.1	10.2	11.2	12.1	14.4	20	27	45	50°	55°	55°	56°	57°	58°	59°											
50°	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°	55°	56°	57°	58°	59°											
50°	5040	●	●	●	●	●	●	●	●	●	●	●	4.0	5.0	9.1	13.9	15.8	18.2	20	22	24	29	41	54	46	50°	54°	54°	55°	56°	57°	58°											
50°	5050	●	●	●	●	●	●	●	●	●	●	●	4.4	6.2	11.4	16.1	18.7	23	25	28	30	36	51	66	45	50°	54°	54°	55°	56°	57°	58°											
50°	5060	●	●	●	●	●	●	●	●	●	●	●	4.8	7.5	13.7	19.3	24	27	31	33	36	45	51	61	46	50°	54°	54°	55°	56°	57°	58°											
50°	5070	●	●	●	●	●	●	●	●	●	●	●	5.2	8.7	16.0	23	28	32	36	39	42	50	51	71	46	45	50°	54°	54°	55°	56°	57°	58°										
50°	50100	●	●	●	●	●	●	●	●	●	●	●	6.4	12.5	23	32	39	46	51	56	60	72	102	135	44	50°	52°	54°	54°	55°	56°	57°											
50°	50120	●	●	●	●	●	●	●	●	●	●	●	6.7	15.0	27	39	47	55	61	67	72	86	122	162	44	50°	53°	53°	54°	55°	56°	57°											
50°	50150	●	●	●	●	●	●	●	●	●	●	●	7.5	16.7	24	48	56	68	76	84	90	108	153	205	45	50°	52°	52°	53°	54°	55°	56°											
50°	50200	●	●	●	●	●	●	●	●	●	●	●	8.2	25	46	64	76	91	102	112	121	144	205	270	46	50°	55°	55°	56°	57°	58°	59°											
50°	50400	●	●	●	●	●	●	●	●	●	●	●	12.7	50	91	129	158	182	205	225	240	260	290	410	540	46	50°	51°	51°	52°	53°	54°	55°										
40°	50300	●	●	●	●	●	●	●	●	●	●	●	13.1	62	11.4	16.1	19.7	23	25	29	30	35	40	50	60	49	50°	51°	53°	54°	55°	56°	57°										
40°	50500	●	●	●	●	●	●	●	●	●	●	●	13.9	72	13.2	18.7	23	25	25	25	25	25	25	30	40	49	51	53°	54°	54°	55°	56°	57°	58°									
40°	50700	●	●	●	●	●	●	●	●	●	●	●	15.9	94	17.1	24.0	29.5	340	385	420	455	500	540	570	590	10.10	10.40	10.40	10.40	10.40	10.40	10.40											
40°	501000	●	●	●	●	●	●	●	●	●	●	●	18.3	125	230	325	395	455	510	560	610	720	1020	1350	49	50°	51°	53°	54°	55°	56°	57°											
40°	501500	●	●	●	●	●	●	●	●	●	●	●	22.6	167	340	485	600	690	770	840	910	1000	1530	2020	49	50°	51°	52°	53°	54°	55°	56°											
40°	502000	●	●	●	●	●	●	●	●	●	●	●	26.2	250	460	650	750	910	1020	1120	1210	1440	2040	2700	49	50°	51°	52°	53°	54°	55°	56°											
40°	4001	●	●	●	●	●	●	●	●	●	●	●	0.66	0.32	0.39	0.46	0.51	0.56	0.60	0.67	0.72	0.79	1.0	1.3	1.47	25°	34°	34°	42°	44°	45°	48°											
40°	40015	●	●	●	●	●	●	●	●	●	●	●	0.75	0.38	0.58	0.66	0.76	0.84	0.90	1.1	1.5	2.0	27	40	52	59°	59°	59°	60°	61°	62°	63°											
40°	4002	●	●	●	●	●	●	●	●	●	●	●	0.91	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	1.5	2.0	2.7	4.0	51	58°	58°	58°	59°	59°	59°	60°										
40°	4003	●	●	●	●	●	●	●	●	●	●	●	1.1	0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	4.3	4.7	50°	57°	57°	58°	59°	59°	60°											
40°	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°	56°	57°	58°	59°	60°											
40°	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	45°	53°	53°	54°	55°	56°	57°											
40°	4006	●	●	●	●	●	●	●	●	●	●	●	1.6	1.4	1.9	2.4	2.7	3.1	3.3	3.6	3.6	4.3	6.1	8.1	30	40	45°	53°	53°	54°	55°	56°	57°										
40°	4008	●	●	●	●	●	●	●	●	●	●	●	1.8	1.6	2.6	3.2	3.6	4.1	4.5	4.6	5.8	8.8	9.0	10.8	15.3	32	40	45	48°	56°	56°	57°	58°	59°	60°								
40°	4015	●	●	●	●	●	●	●	●	●	●	●	2.7	25	46	64	79	91	102	112	121	144	205	250	40	42	44°	44°	44°	44°	44°	44°	44°										
40°	4020	●	●	●	●	●	●	●	●	●	●	●	0.66	0.32	0.39	0.46	0.51	0.56	0.60	0.67	0.72	0.79	1.0	1.3	1.47	25°	34°	34°	42°	44°	45°	48°											
25°	2501	●	●	●	●	●	●	●	●	●	●	●	0.91	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	1.5	2.0	2.7	31	40	45	48°	50°	50°	51°	52°	53°	54°									
25°	2502	●	●	●	●	●	●	●	●	●	●	●	0.91	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	1.5	2.0	2.7	31	40	45	48°	50°	50°	51°	52°	53°	54°									
25°	2503	●	●	●	●	●	●	●	●	●	●	●	1.1	0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	3.1	4.0	5.4	15°	33	40	45	48°	50°	50°	51°	52°	53°	54°								
25°	2504	●	●	●	●	●	●	●	●	●	●	●	1.3	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.4	2.9	4.1	5.4	16	25°	32°	32°	39°	45°	50°	52°	53°	54°	55°	56°							
25°	2505	●	●	●	●	●	●	●	●	●	●	●	1.4	1.1	1.5	2.0	2.3	2.5	2.8	3.0	3.6	5.1	6.7	16	25	32	32	39	45	50°	52°	53°	54°	55°	56°	57°							
25°	2506	●	●	●	●	●	●	●	●	●	●	●	1.6	1.4	1.9	2.4	2.7	3.1	3.3	3.6	3.6	4.3	6.1	8.1	17	25	31	31	3														

A Series Common Nozzle



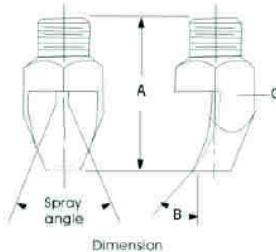
V

1/8 inch-3/4inch NPT
or BSPT(male)



common application

- Crushed stone gravel washing
- High impact washing
- Oil Removing
- Fruit and vegetable washing
- Paper machine deckle spraying



V Common Narrow Spray Nozzle design features

V series spray nozzle features a very high impact flat fan spray pattern with narrow spray angles. They produce a uniform spray distribution of medium-sized drops.

Its V spray pattern has sharply defined edges.

It is one-piece design with male screw thread. A large, unobstructed flow passage minimizes clogging problems.

All V spray nozzles offer a precision-designed deflector surface which produces a uniform, high impact spray pattern.

ordering info

V - 3/8 - SS - 5060

Nozzle type	Inlet size	Material code	Capacity size
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Remark:Brass

SS-stainless steel

316SS-316 stainless steel

Performance data

Spray angle (3 bar)	Nozzle Inlet Conn. NPT or BSPT					Orifice Dia. No. Size (mm)	Capacity (L/min)								Spray angle:			Dimension			net weight (kg)	
	1/8	1/4	3/8	1/2	3/4		1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	10 bar	1 bar	3 bar	7 bar	A (mm)	B (mm)	C Square bar size (mm)		
50°	●					5010	2.0	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	34°	50°	60°	31	6.0	15.9	0.03
	●	●				5025	2.8	5.7	8.1	9.9	11.4	12.7	14.0	15.1	18.0	42°	50°	59°	41.5	42°	91.1	0.09
	●	●				5040	3.6	9.1	12.9	15.8	18.2	20	22	24	29	39°	50°	60°	47	45	19.1	0.09
	●					5060	4.8	13.7	19.3	24	27	31	33	36	43	42°	50°	53°	55	37°	25.4	0.14
	●					50100	6.0	23	32	39	46	51	56	60	72	43°	50°	55°	72	40°	31.8	0.33
	●					50125	6.7	26	40	49	57	64	70	75	90	36°	50°	59°	72	38°	31.8	0.31
40°	●					50160	7.5	36	52	63	73	82	89	96	115	44°	50°	55°	72	37°	31.8	0.31
	●					50200	8.3	46	64	79	91	102	112	121	144	46°	50°	53°	72	32°	31.8	0.31
	●					4040	3.6	9.1	12.9	15.8	18.2	20	22	24	29	31°	40°	50°	60.5	35°	22.2	0.14
	●					4050	4.0	11.4	16.1	19.7	23	25	28	30	36	31°	40°	49°	63.5	33°	25.4	0.20
	●					4060	4.4	13.7	19.3	24	27	31	33	36	43	32°	40°	49°	72	33°	25.4	0.23
	●					4070	5.2	16.0	23	28	32	36	39	42	50	32°	40°	49°	75.5	29°	25.4	0.26
35°	●					4080	5.2	18.2	26	32	36	41	45	48	58	32°	40°	48°	77	26°	25.4	0.26
	●					4090	5.6	21	29	36	41	46	50	54	65	34°	40°	44°	77	28°	25.4	0.23
	●					40100	6.0	23	32	39	46	51	56	60	72	35°	40°	44°	86.5	28°	25.4	0.26
	●					3504	1.2	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	20°	35°	41°	23	40°	11.1	0.01
	●					3510	2.0	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	18°	35°	39°	36.5	36°	15.8	0.06
	●	●				3520	2.8	4.5	6.4	7.9	9.1	10.2	11.2	12.1	14.4	24°	35°	40°	42	30°	19.1	0.06
30°	●					3525	2.8	5.7	8.1	9.9	11.4	12.7	14.0	15.1	18.0	24°	35°	39	49	28°	19.1	0.09
	●					3530	3.2	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	26°	35°	41°	52.5	28°	19.1	0.09
	●					3540	3.6	9.1	12.9	15.8	18.2	20	22	24	29	28°	35°	38	58	26°	22.2	0.11
	●					3550	4.0	11.4	16.1	19.7	23	25	28	30	36	31°	35°	38	63.5	23°	22.2	0.14
	●					3560	4.4	13.7	19.3	24	27	31	33	36	43	29°	35°	39	73	27°	25.4	0.23
	●					3580	5.2	18.2	26	32	36	41	45	48	58	26°	35°	40°	81	24°	25.4	0.26
25°	●					35100	6.0	23	32	39	46	51	56	60	72	26°	35°	40°	89	19°	25.4	0.26
	●					35160	7.5	36	52	63	73	82	89	96	115	26°	35°	40	114	23	31.8	0.57
	●					35200	8.3	46	64	79	91	102	112	121	144	25°	35°	40	122	22°	31.8	0.57
	●					2540	3.6	9.1	12.9	15.8	18.2	20	22	24	29	15°	25°	34°	65	25°	19.1	0.11
	●					1510	2.0	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	18°	15°	23°	47.5	22°	15.9	0.06
	●					1520	2.8	4.6	6.4	7.9	9.1	10.2	11.2	12.1	14.4	24°	15°	19°	54	19°	15.8	0.06
15°	●					1530	3.2	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	6°	15°	24°	72	25°	19.1	0.11
	●					1540	3.6	9.1	12.9	15.8	18.2	20	22	24	29	8°	15°	21°	92	18°	22.2	0.23
	●					1550	4.4	11.4	16.1	19.7	23	25	28	30	36	9°	15°	20°	90.5	15°	22.2	0.17
	●					1560	5.2	13.7	19.3	24	27	31	33	36	43	10°	15°	19°	125	14°	25.4	0.34
	●					1580	6.0	18.2	26	32	36	41	45	48	58	11°	15°	18°	130	14	25.4	0.34
	●					15100	7.5	23	32	39	46	51	56	60	72	11°	15°	18°	137	14	25.4	0.40
	●					15200	8.3	46	64	79	91	102	112	121	144	12°	15	18°	191	14	31.8	0.91

A Series Common Nozzle

Common Wide-angle Spray Nozzle

W

1/8"-1" NPT
or BSPT(male)



Nozzle Dimension

Nozzle type		
Nozzle Dimension	Hexagona l (mm)	Nozzle length (mm)
1/8	14.3	31
1/4	14.3	34

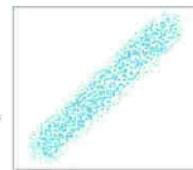
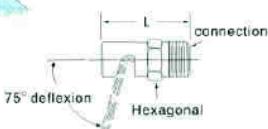
Common application

- Clarify board of spraying air
- Cooling conveyer belt
- Film development
- Fire proofing
- Water curtain



Dimension and weight

For the highest for each style:



W Common Wide-angle Spray Nozzle design features

W Common Wide-angle Spray Nozzle can produce secondary wide-angle sector spraying shape and uniform spraying drop. The round spray hole and large flow channel offer you least barrier.

It can also be applied in spraying of air or steam. The nozzles have precise diversion area, to well master the slanting angle and spraying angle.

It is made of firm stick with a outer inlet joint.

Performance data

Air and steam

Capacity Size	Orifice Dia. No. Size (mm)	Air capacity (l/m)				Steam capacity (l/min)				The coverage of 150mm	
		0.7bar	1.5bar	3bar	3.5bar	0.7bar	1.5bar	3bar	3.5bar	0.7bar	1.5bar
0.50	0.61	4.5	6.4	10.5	11.6	0.16	0.23	0.37	0.41	51	127
0.75	0.71	6.2	9.1	14.7	16.7	0.23	0.33	0.53	0.66	64	140
1	0.84	9.6	13.7	22	25	0.34	0.49	0.80	0.90	76	152
1.5	1.04	15.3	22	36	40	0.54	0.78	1.3	1.5	89	165
2	1.17	19.3	28	45	51	0.68	1.0	1.6	1.8	102	190
2.5	1.32	27	37	60	71	0.95	1.3	2.1	2.5	102	190
3	1.45	31	47	77	85	1.1	1.7	2.7	3.0	127	203
4	1.65	40	57	85	108	1.4	2.0	3.1	3.9	127	228
5	1.85	54	78	124	139	1.9	2.7	4.5	5.0	152	267
7.5	2.31	79	117	189	210	2.9	4.2	6.8	7.6	152	267
10	2.64	110	159	255	290	3.9	5.7	9.2	10.4	178	279
15	3.28	181	260	420	475	6.5	9.3	15.0	17.1	178	305
20	3.76	225	325	520	590	8.0	11.6	18.8	21	216	368
30	4.57	320	465	760	850	11.6	16.8	27	30	216	394

A Series Common Nozzle

Liquid

Nozzle Inlet Conn. NPT or BSPT(male)					Capacity Size	Rated Orifice Dia. (mm)	Capacity (L/min)								Spray angle						
1/8	1/4	3/8	1/2	3/4			0.2 bar	0.3 bar	0.5 bar	0.7 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	0.5 bar	1.5 bar	4 bar			
●	●	●	●	●	0.25	0.41					0.11	0.14	0.16	0.20	0.23	83°	117°				
●	●	●	●	●	0.50	0.61					0.23	0.28	0.32	0.39	0.46	89°	122°				
●	●	●	●	●	0.75	0.71					0.29	0.34	0.42	0.48	0.59	0.68	106°	125°			
●	●	●	●	●	1	0.84					0.38	0.46	0.56	0.64	0.79	0.91	109°	128°			
●	●	●	●	●	1.5	1.0					0.48	0.57	0.68	0.84	0.97	1.2	1.4	73°	108°	125°	
●	●	●	●	●	2	1.2					0.54	0.76	0.91	1.1	1.3	1.6	1.8	83°	113°	129°	
●	●	●	●	●	2.5	1.3					0.62	0.81	0.95	1.1	1.4	1.6	2.0	2.3	98°	122°	133°
●	●	●	●	●	3	1.4					0.97	1.1	1.4	1.7	1.9	2.4	2.7	86°	112°	126°	
●	●	●	●	●	4	1.7					1.0	1.3	1.5	1.8	2.2	2.6	3.2	3.6	97°	123°	132°
●	●	●	●	●	5	1.9	1.0	1.2	1.6	1.9	2.3	2.8	3.2	3.9	4.6	114°	128°	142°			
●	●	●	●	●	7.5	2.3	1.5	1.9	2.4	2.9	3.4	4.2	4.8	5.9	6.8	101°	119°	134°			
●	●	●	●	●	10	2.6	2.0	2.5	3.2	3.8	4.6	5.6	6.4	7.9	9.1	115°	133°	145°			
●	●	●	●	●	12	2.9	2.4	3.0	3.9	4.6	5.5	6.7	7.7	9.5	10.9	128°	139°	153°			
●	●	●	●	●	15	3.3	3.1	3.7	4.8	5.7	6.8	8.4	9.7	11.8	13.7	98°	113°	123°			
●	●	●	●	●	18	3.6	3.7	4.5	5.8	6.9	8.2	10.0	11.6	14.2	16.4	108°	120°	131°			
●	●	●	●	●	20	3.8	4.1	5.0	6.4	7.6	9.1	11.2	12.9	15.8	18.2	110°	122°	133°			
●	●	●	●	●	22	4.0	4.5	5.5	7.1	8.4	10.0	12.3	14.2	17.4	20	113°	126°	136°			
●	●	●	●	●	24	4.1	4.9	6.0	7.7	9.2	10.9	13.4	15.5	18.9	22	115°	131°	144°			
●	●	●	●	●	27	4.4	5.5	6.7	8.7	10.3	12.3	15.1	17.4	21	25	119°	135°	148°			
●	●	●	●	●	30	4.6	6.1	7.5	9.7	11.4	13.7	16.7	19.3	24	27	100°	110°	121°			
●	●	●	●	●	35	5.0	7.1	8.7	11.3	13.3	16.0	19.5	23	28	32	105°	118°	128°			
●	●	●	●	●	40	5.3	8.2	10.0	12.7	15.3	18.2	22	26	32	36	111°	126°	136°			
●	●	●	●	●	45	5.6	9.2	11.2	14.5	17.2	21	25	29	36	41	115°	130°	140°			
●	●	●	●	●	50	6.0	10.2	12.5	16.1	19.1	23	28	32	39	46	117°	131°	149°			
●	●	●	●	●	60	6.5	12.2	15.0	19.3	23	27	33	39	47	55	120°	134°	142°			
●	●	●	●	●	70	7.1	14.3	17.5	23	27	32	39	45	55	64	123°	137°	146°			
●	●	●	●	●	80	7.5	16.3	20	26	31	36	45	52	63	73	127°	138°	149°			
●	●	●	●	●	90	8.0	18.3	22	29	34	41	50	58	71	82	120°	133°	140°			
●	●	●	●	●	100	8.4	20	25	32	38	46	56	64	79	91	123°	136°	145°			
●	●	●	●	●	110	8.8	22	27	35	42	50	61	71	87	100	125°	138°	148°			
●	●	●	●	●	120	9.3	24	30	39	46	55	67	77	95	109	129°	143°	150°			
●	●	●	●	●	140	10.3	29	35	45	53	64	78	90	111	126°	118°	127°	135°			
●	●	●	●	●	160	11.1	33	40	52	61	73	89	103	120	146	121°	130°	137°			
●	●	●	●	●	180	11.5	37	45	58	69	82	100	116	142	164	124°	133°	139°			
●	●	●	●	●	210	12.3	43	52	68	80	96	117	135	166	191	128°	139°	145°			
●	●	●	●	●	300	14.7	61	75	97	114	137	167	193	235	275	110°	128°	135°			
●	●	●	●	●	450	17.9	92	112	145	172	205	250	290	355	410	118°	132°	138°			

ordering info

W—1/8—SS 0.50

Nozzle type Inlet size Material code Capacity size

Remark:
 BRASS
 SS-stainless steel
 316SS-316 stainless steel
 PVC-Poly(vinyl chloride)
 PP-Poly propylene

B series spray nozzle

SJV Three-piece Full Cone Flat Fan Spray Nozzle



SJVC spray tip



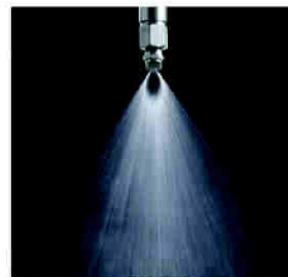
SJVW
Wide angle spray tip



SJVB
Full cone spray tip



SJVA
Hollow cone spray tip



Design features



MG
Tip retainer



GLQ
Screen strainer



SJVE
MALE body



SJVL
Female body

High pressure, High impact solid stream or flat fan spray pattern with spray angles of 0° to 110°.

Spray pattern with uniform distribution, Small-to medium sized drops. Specially uniform distribution with spray area is ideal for use in manifold and header applications.

All SJVC nozzle are finish machining. It can provide the accurate flow and spray angle.

SJVW provide wide angle flat fan atomization, SJVB provide standard solid cone atomization and SJVA provide taper atomization.

common application

- Low pressure washing
- Chemotherapy coating
- Metal cleaning and processing
- Spray coating
- Degreasing and rinsing
- Parts washing /cleaning
- Spray cooling
- Pressure cleaning
- Sand,coal ,gravel washing

Nozzle body

Nozzles and gasket's material consist of brass, 303SS and 316SS. The inlet connection thread (NPT or BSPT) size is 1/8", 1/4", 3/8" and 1/2" (Male or female)

Inlet Conn. NPT or BSPT	Nozzle parts order NO.		Material
	(female)	(male)	
1/8	1/8QJ 1/8QJ-SS	1/8QJJ 1/8-QJJ-SS	Brass ss
1/4	1/4QJ 1/4QJ-SS	1/4QJJ 1/4-QJJ-SS	Brass ss
3/8	3/8QJ 3/8QJ-SS	3/8QJJ 3/8-QJJ-SS	Brass ss
1/2	1/2QJ 1/2QJ-SS	1/2QJJ 1/2-QJJ-SS	Brass ss

Strainer information

The choice for the orifice of the strainer	
Equivalent spray orifice	Suggested size of steel strainer's orifice
less than 0.40mm	200
47mm -0.79mm	100
0.8mm or larger	50

ordering info

SJVE + SJVC – 11001 – SS **SJVE + GLQ + SJVC+ 11001 – SS**

Thread body Nozzle type Capacity size Material code

SJVE + GLQ + SJWV+ 11005 – SS

Thread body Strainer Wide angle spray tip Capacity size Material code

B series spray nozzle



Performance data

Spray angle (3 bar)	Capacity Size (mm)	Rated Orifice Diameter (mm)	Capacity (l/min)												Spray angle			
			0.3bar	1bar	2bar	3bar	4bar	5bar	6bar	7bar	10bar	20bar	35bar	1.5bar	3bar	6bar	14bar	
110°	11001	0.66	0.12	0.23	0.32	0.39	0.46	0.51	0.55	0.60	0.72	1.0	1.3	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	5.4	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	10.8	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	7.8	8.4	9.0	10.8	15.3	20	104°	110°	117°	118°	
	11020	2.8	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	105°	110°	117°	118°	
	11030	3.6	3.7	5.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	46	105°	110°	117°	118°	
95°	01	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°	
	015	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°	
80°	02	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°	
	03	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°	
65°	04	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°	
	05	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°	101°	107°	
50°	06	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°	100°	106°	
	08	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°	109°	105°	
45°	10	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°	
	15	2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	26	90°	95°	100°	100°	
25°	20	2.8	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	90°	95°	95°	105°	
	30	3.6	3.7	5.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40	91°	95°	95°	105°	
15°	40	4.0	5.0	8.1	12.9	15.8	18.2	20	22	24	29	41	54	92°	95°	95°	105°	
	50	4.4	6.2	11.4	16.1	19.7	23	25	26	30	36	51	68	93°	95°	95°	103°	
10°	60	4.8	7.5	13.7	19.3	24	27	31	33	36	43	61	81	93°	95°	95°	103°	
	70	5.2	8.7	16.0	23	28	32	36	39	42	50	71	94	93°	95°	95°	103°	
0°	0000090	0.20	0.01	0.02	0.03	0.035	0.04	0.045	0.05	0.06	0.07	0.09	0.12					
	000012	0.25	0.02	0.03	0.04	0.05	0.055	0.06	0.067	0.08	0.09	0.12	0.16					
	000019	0.30	0.02	0.04	0.06	0.08	0.09	0.10	0.11	0.12	0.14	0.19	0.26					
	000021	0.34	0.03	0.05	0.07	0.08	0.10	0.11	0.12	0.13	0.15	0.21	0.28					
	000050	0.51	0.06	0.11	0.16	0.20	0.23	0.25	0.28	0.30	0.36	0.51	0.67					
	000067	0.58	0.08	0.15	0.22	0.26	0.31	0.34	0.37	0.40	0.48	0.58	0.90					
	0001	0.71	0.12	0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3					
	00015	0.84	0.19	0.34	0.48	0.59	0.68	0.76	0.84	0.90	1.1	1.5	2.0					
	0002	0.99	0.25	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	2.0	2.7					
	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					
0°	0004	1.4	0.50	0.91	1.3	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	5.9	6.0	7.2	10.2	13.5					
	0015	2.7	1.9	2.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20					
	0020	3.2	2.5	4.6	6.5	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					

Wide angle fan cone performance data

Nozzle Inlet Conn. NPT or BSP (in)	Capacity Size (mm)	Rated Orifice Dia. (mm)	Capacity (l/min)								Spray angle												
			0.2bar	0.3bar	0.5bar	0.7bar	1bar	1.5bar	2bar	3bar	4bar	0.5bar	1.5bar	2.5bar									
1/8	0.25	0.41										0.11	0.14	0.16	0.20	0.23	83°	117°					
●	0.50	0.61										0.23	0.28	0.32	0.39	0.46	89°	122°					
●	0.75	0.71										0.29	0.34	0.42	0.48	0.58	106°	125°					
●	1	0.84										0.38	0.46	0.56	0.64	0.79	0.91	109°	128°				
●	1.5	1.0										0.48	0.57	0.68	0.84	0.97	1.2	1.4	73°	108°	125°		
●	2	1.2										0.64	0.76	0.91	1.1	1.3	1.6	1.8	83°	113°	129°		
●	2.5	1.3										0.62	0.81	0.95	1.1	1.4	1.6	2.0	98°	122°	133°		
●	3	1.4										0.75	0.97	1.1	1.4	1.7	1.9	2.4	86°	112°	126°		
●	4	1.7										1.0	1.3	1.5	1.8	2.2	2.6	3.2	3.6	97°	123°	132°	
●	5	1.9										1.0	1.2	1.6	1.9	2.3	2.8	3.2	3.9	4.6	114°	128°	142°
●	7.5	2.3										1.5	1.9	2.4	2.9	3.4	4.2	4.8	5.9	6.8	101°	119°	134°
●	10	2.6										2.0	2.5	3.2	3.8	4.6	5.6	6.7	7.9	9.1	115°	133°	145°
●	12	2.9										2.4	3.0	3.9	4.6	5.5	6.7	7.7	9.5	10.9	128°	139°	153°
●	15	3.3										3.1	3.7	4.8	5.7	6.8	8.4	9.7	11.8	13.7	98°	113°	123°
●	18	3.6										3.7	4.5	5.8	6.9	8.2	10.0	11.6	14.2	16.4	106°	120°	131°
●	20	3.8										4.1	5.0	6.4	7.6	9.1	11.2	12.9	15.8	18.2	110°	122°	133°
●	22	4.0										4.5	5.5	7.1	8.4	10.0	12.3	14.2	17.4	20			

C Series Quick Dismantling Nozzle

QJJ SS Dismantling Nozzle

QB



full cone quick dismantling nozzle tip

QC



flat fan quick dismantling nozzle tip

QCL



narrow angle flat fan nozzle tip

QV



narrow angle flat fan quick dismantling nozzle tip



Gasket



Gasket



Gasket



Gasket



1/4-1/2QJJ
Male nozzle body



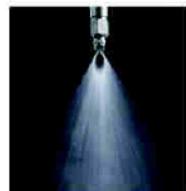
1/4-1/2QJJ
male nozzle body



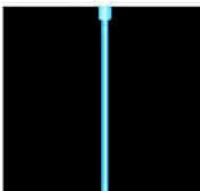
1/8-1/2 QJ
female nozzle body



1/8-1/2 QJ
female nozzle body



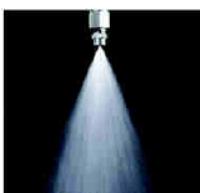
standard flat fan



solid stream



narrow angle flat fan



full cone

Design features

Flat fan spray nozzle is time-saving, which is quick-install with inlet connect size of 1/4" and 1/8", and automatically adjusting spray pattern. QCL nozzle can have the flow rate of 3.9 l/min under 3 bar pressure. QC/QB can have the flow rate of 3.9 l/min or above. They are the perfect choice when the device is small and light.

Common application

- chemical spraying
- low pressure washing
- PCB manufacturing
- product washing and rinsing
- cooling
- moistening
- chemical manufacturing
- dust control

inlet connection NPT or BSPT	standard model of nozzle body	
	(Female)	(Male)
QJ	QJJ	
1/8		●
1/4		●
3/8	●	
1/2	●	

ordering info

QB - 1/4 - SS - 11010

Nozzle type Inlet size Material code Capacity size

C Series Quick Dismantling Nozzle

Performance data

Spray angle (3 bar)	Capacity Size	Quick spray tip		Orifice of nozzle (mm)	Capacity (L/min)										Spray angle					
		QCL	QC		0.3 bar	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	10 bar	20 bar	35 bar	1.5 bar	3 bar	6 bar	14 bar	
					0.66	0.12	0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3	1.9*	11.0*	12.1	12.4
110°	11001			0.66	0.12	0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3	1.9*	11.0*	12.1	12.4	
	110015			0.79	0.19	0.34	0.43	0.50	0.58	0.65	0.75	0.84	0.90	1.1	1.5	2.0	9.7*	11.0	12.1	12.4
	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	9.8*	11.0	12.1	12.3	
	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	9.9*	12.1	12.3	12.3	
	11004			1.3	0.50	0.91	1.3	1.8	1.8	2.0	2.2	2.4	2.9	4.1	5.4	10.0*	12.1	12.2	12.2	
	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	10.0*	12.1	12.2	12.2	
	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	10.1	11.0	12.1	12.2	
	11008			1.8	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	8.2	10.8	10.2	12.1	12.1	12.1	
	11010			2.0	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	10.2	12.5	10.3*	11.0	12.1	11.9*	
	11015			2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	10.4*	11.0	12.1	11.8	
	11020			2.8	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	10.5	11.0	12.1	11.8	
95°	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	1.8*	9.5*	10.5	11.3	
	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	8.2	9.5*	10.5	11.3	
	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	8.2*	9.5*	10.5	11.3	
	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	8.3*	9.5*	10.4	11.1	
	9504			1.3	0.50	0.91	1.3	1.5	1.8	2.0	2.2	2.4	2.9	4.1	5.4	8.4*	9.5*	10.3	10.8	
	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	8.4*	9.5*	10.2	10.7	
	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	8.6*	9.5*	10.1	10.6	
	9508			1.8	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	6.2	10.8	8.7	9.5*	10.0	10.5	
	9510			2.0	1.2	2.3	3.2	3.9	4.6	5.1	5.5	6.0	7.2	10.2	13.5	8.9	9.5*	10.0	10.5	
	9515			2.4	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	15.3	20	9.0	9.5*	10.0	10.5	
80°	9520			2.8	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	20	27	9.0	9.5*	10.0	10.5	
	9530			3.6	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	31	40	9.1	9.5*	10.1	10.5	
	9540			4.0	5.0	9.1	12.9	15.6	16.2	20	22	24	26	41	54	9.2*	9.5*	10.0	10.5	
	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	29	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	
	00009	●		0.20	0.01	0.02	0.03	0.35	0.04	0.45	0.05	0.06	0.07	0.09	0.12					
	00012	●		0.25	0.02	0.03	0.14	0.05	0.05	0.06	0.06	0.07	0.09	0.12	0.16					
60°	00019	●		0.30	0.02	0.04	0.05	0.08	0.09	0.10	0.11	0.12	0.14	0.19	0.26					
	00021	●		0.34	0.03	0.05	0.07	0.08	0.10	0.11	0.12	0.13	0.15	0.21	0.28					
	00050	●		0.51	0.06	0.11	0.16	0.20	0.23	0.25	0.28	0.30	0.36	0.51	0.67					
	00067	●		0.58	0.08	0.15	0.22	0.26	0.31	0.34	0.37	0.40	0.48	0.68	0.90					
	0001	●		0.71	0.12	0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.72	1.0	1.3					
	00015	●		0.84	0.19	0.34	0.48	0.59	0.68	0.75	0.84	0.90	1.1	1.5	2.0					
	0002	●		0.99	0.25	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	2.0	2.7					
	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	2.5	4.1	5.4					
	0005	●		1.5	0.62	1.1	1.6	2.0	2.3	2.5	2.6	3.0	3.6	5.1	6.7					
0°	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	6.5	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	15.6	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					
0° solid stream	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					

The right size of nozzle body and the right capacity of nozzle tip can guarantee the best spray pattern.

The nozzle body must fit for the tips capacity.

Remark: Parameters of QB refer to the form on paper 15;

Parameters of QV refer to the form on paper 22;

QJJ Plastic Dismantling Nozzle

Design features

Easy nozzle replacement

Easy dismantling nozzle design, the nozzle and spray head can be quickly dismantled. You can rotate the spray head by 90 degree to install it or split it from nozzle by hand. So it can significantly downtime during maintenance.



Auto orienting spray head

There is an interior block, which can keep nozzle in right position without manual adjustment. Therefore, it can avoid quality problem caused by wrong orientation of nozzle.

Anti-corrosion and wearable

Easy split nozzle; Made of Glass Fiber PP (25%), Carbon Fiber PP (40%) and PVDF, featured high intensity, wearability and anticorrosion; Suitable for washing and rinsing of corrosive solution, such as phosphate, acid & solvent; Max temperature for Glass Fiber PP is 82°C; Max temperature for Carbon Fiber is 120°C; While PVDF is high pure without pigment which can keep high purity in processing, and the max temperature is 148°C under 7kg pressure.

Widely capacity choice.

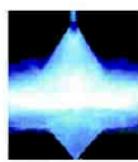
Available sizes: 1/8", 1/4" and 3/8"; Absolutely windtight between nozzle and spray head with an interior O-shaped NBR windtight circle; Easy Split Nozzle; Special appearance of spray head for grasp; Available spray head shapes: QC flat fan, QB full cone and QA hollow cone; and various capacities & angles are available.

Performance data



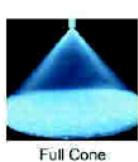
Easy-dismantling Flat Fan Spray Tip

nozzle type (Spraying angle under 3 bar pressure)	Capacity (L/min)											
	0.3bar	1bar	2bar	3bar	4bar	5bar	6bar	7bar	8bar	9bar	10bar	11bar
QC5001 QC6501 QC8001 QC9501 QC11001	0.12	0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.65			
QC5002 QC6502 QC8002 QC9502 QC11002	0.25	0.45	0.64	0.79	0.91	1.0	1.1	1.2	1.3			
QC5003 QC6503 QC8003 QC9503 QC11003	0.37	0.69	0.97	1.2	1.4	1.5	1.7	1.8	2.6			
QC5004 QC6504 QC8004 QC9504 QC11004	0.50	0.92	1.3	1.6	1.8	2.0	2.2	2.4	3.4			
QC5005 QC6505 QC8005 QC9505 QC11005	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	4.3			
QC5006 QC6506 QC8006 QC9506 QC11006	0.75	1.3	1.9	2.4	2.7	3.1	3.3	3.6	5.1			
QC5008 QC6508 QC8008 QC9508 QC11008	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	6.8			
QC5010 QC6510 QC8010 QC9510 QC11010	1.2	2.3	3.2	3.9	4.6	5.1	5.8	6.0	8.5			
QC5015 QC6515 QC8015 QC9515 QC11015	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	12.8			
QC5020 QC6520 QC8020 QC9520 QC11020	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	17.1			
QC5030 QC6530 QC8030 QC9530 QC11030	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	26			

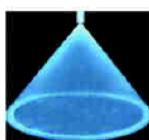


Easy-dismantling Full Cone Spray Tip

nozzle type	Capacity (L/min)												Spray angle		
	0.5bar	0.7bar	1.5bar	2bar	3bar	4bar	5bar	6bar	7bar	10bar	0.5bar	1.5bar	5bar		
QB1	0.25	0.38	0.54	0.62	0.74	0.85	0.94	1.0	1.1	1.3	—	58°	53°		
QB2	0.65	0.76	1.0	1.2	1.5	1.7	1.9	2.0	2.2	2.6	43°	50°	46°		
QB3	0.98	1.1	1.6	1.9	2.2	2.5	2.8	3.1	3.3	3.9	52°	65°	59°		
QB3.5	1.1	1.3	1.9	2.2	2.6	3.0	3.3	3.6	3.9	4.5	43°	50°	46°		
QB5	1.6	1.9	2.7	3.1	3.7	4.2	4.7	5.1	5.5	6.5	52°	65°	59°		
QB6.5	2.1	2.5	3.5	4.0	4.8	5.5	6.1	6.7	7.1	8.4	45°	50°	46°		
QB10	3.3	3.8	5.4	6.2	7.4	8.5	9.4	10.2	11.0	13.0	58°	67°	61°		



Easy-dismantling Hollow Cone Spray Tip



Hollow Cone

nozzle type	Capacity (L/min)										Spray angle		
	0.2bar	0.5bar	1bar	1.5bar	2bar	3bar	4bar	5bar	6bar	7bar	0.5bar	1.5bar	6bar
QA0.5	—	0.16	0.23	0.28	0.32	0.39	0.46	0.51	1.56	0.60	—	58°	69°
QA1	—	0.32	1.46	0.56	0.64	0.79	0.91	1.0	1.1	1.2	—	65°	76°
QA2	—	0.64	0.91	1.1	1.3	1.6	1.8	2.0	2.2	2.4	53°	70°	80°
QA3	—	0.97	1.4	1.7	1.9	2.4	2.7	3.1	3.3	3.6	55°	79°	80°
QA5	—	1.6	2.3	2.8	3.2	3.9	4.6	5.1	5.6	6.0	70°	75°	79°
QA8	1.6	2.6	3.6	4.5	5.2	6.3	7.3	8.2	8.9	9.6	65°	72°	74°
QA10	2.0	3.2	4.6	5.6	6.4	7.9	9.1	10.2	11.2	12.1	70°	76°	75°
QA15	3.1	4.8	6.8	8.4	9.7	11.8	13.7	15.3	16.7	18.1	70°	72°	75°
QA5W	—	1.6	2.3	2.8	3.2	3.9	4.6	5.1	5.6	6.0	125°	112°	96°
QA8W	1.6	2.6	3.6	4.5	5.2	6.3	7.3	8.2	8.9	9.6	112°	100°	87°
QA10W	2.0	3.2	4.6	5.6	6.4	7.9	9.1	10.2	11.2	12.1	111°	97°	89°
QA15W	3.1	4.8	6.8	8.4	9.7	11.8	13.7	15.3	16.7	18.1	110°	98°	90°

common application

- PCB
- Wash & Rinse
- Phosphatization for metal parts
- Cooling
- Moistening
- Chemical Manufacture
- Dust Removing

ordering info

nozzle type	Nozzle Inlet Conn. (inch)
QJJ1/8	1/8
QJJ1/4	1/4
QJJ81/4	1/4(angle fitting)
QJJ3/8	3/8

Please mark out nozzle model and spray tip model.

For Example:

Nozzle Model:QJJ1/4-PP

Spray tip Model:QB5-PP

Complete nozzle model:

QJJ1/4-PP+QB5-PP



Plastic nozzle



Plastic nozzle lip



Gasket



Gasket

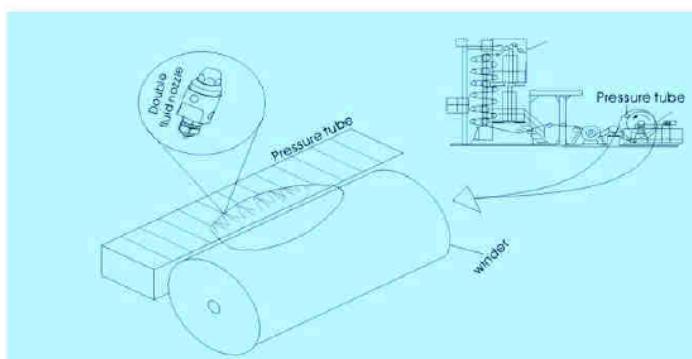
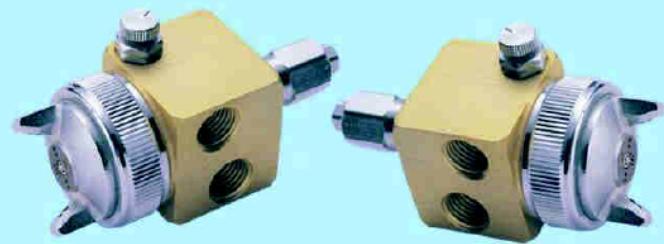


Nozzle body



Nozzle body

D Series Atomizing Nozzle



Air Atomizing Nozzle

Design features

D Atomizing Nozzle has special interior structure, which can evenly mix liquid & gas and generate tiny spraying drop or large spraying drop. In common situation, we can get super tiny (about 30mm) liquid spraying drop by air pressure increasing or hydraulic pressure decreasing. Adjustable Atomized can adjust liquid capacity. It can meet the requirement of spraying without changing air pressure and hydraulic pressure. Therefore, it has good adaptability. Each spray device is composed of air cap and liquid cap, which can offer two spray modes, flat fan and round, with wide liquid capacity coverage. Various available sizes of inlet joint for spray nozzle. It is flexible with changeable parts. Atomizing Nozzle has good moisture effect. It is the ideal choice for the location where requires moisture control.



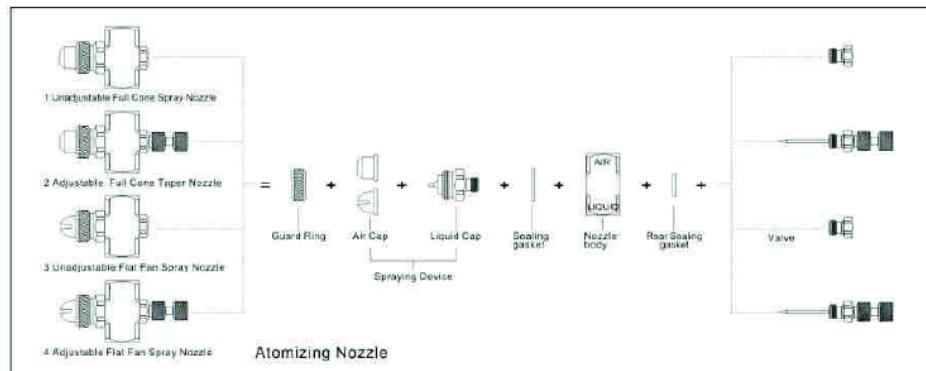
common application

- Wool Spraying & Moisturization
- Mould Lubricating
- Spraying Injection
- Air Disinfection



Efficient Moisture
Ideal choice of location with
efficient moisture

Structure

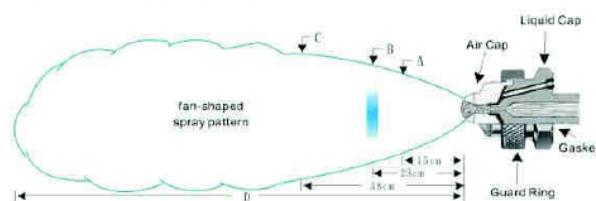


D Series Air Atomizing Nozzle

Pressure Air Atomizing

Performance data

For flat spray, A/B/C size is the distance to nozzle, while "D" is the maximum distance to nozzle as the right chart.

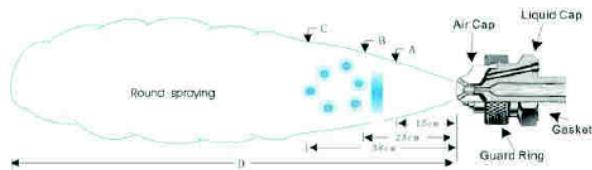


D Series Air Atomizing Nozzle

flat Spray

spray device model	spray device consists of air cap and fluid cap	liquid flow (L/min) and flow (L/min)												Size							
		Water pressure (bar)				Water pressure (bar)				Water pressure (bar)											
		0.7 bar		1.5 bar		2 bar		3 bar		4 bar		Water (L/min)		Ar (bar)	Liquid (bar)	A (cm)	B (cm)	C (cm)	D (cm)		
SUC13A	Liquid Cap 2950 and Air Cap 73328	0.7	3.5	2.1	1.3	0.9	0.5	2.0	8.0	12	1.1	2.1	8.2	3.9	12.0	6.9	1.1	0.7	7.5	3.0	2.0
		0.85	1.7	0.7	1.3	0.7	0.4	2.2	7.5	17	1.0	1.1	8.1	2.8	13.0	6.6	1.1	0.7	7.5	3.0	2.0
		1.0	1.4	0.5	1.0	0.5	0.3	2.5	7.0	22	1.2	1.2	8.3	3.2	14.0	6.3	1.1	0.7	7.6	3.1	2.0
		1.3	1.0	0.4	0.8	0.4	0.2	2.8	6.5	27	1.3	1.3	8.5	3.5	15.0	6.0	1.1	0.7	7.6	3.1	2.0
		1.4	0.9	0.4	0.7	0.4	0.2	3.0	6.0	32	1.4	1.4	8.6	3.6	16.0	5.8	1.1	0.7	7.6	3.1	2.0
		1.5	0.8	0.4	0.6	0.4	0.2	3.2	5.5	37	1.5	1.5	8.8	3.8	17.0	5.5	1.1	0.7	7.6	3.1	2.0
		1.6	0.7	0.4	0.5	0.4	0.2	3.5	5.0	42	1.6	1.6	9.0	4.0	18.0	5.2	1.1	0.7	7.6	3.1	2.0
		1.8	0.6	0.4	0.4	0.4	0.2	3.8	4.5	47	1.7	1.7	9.2	4.2	19.0	5.0	1.1	0.7	7.6	3.1	2.0
		2.0	0.5	0.4	0.3	0.4	0.2	4.0	4.0	52	1.8	1.8	9.4	4.4	20.0	4.8	1.1	0.7	7.6	3.1	2.0
		2.5	0.4	0.4	0.3	0.4	0.2	4.5	3.5	67	1.9	1.9	9.9	4.9	21.0	4.3	1.1	0.7	7.6	3.1	2.0
		3.0	0.3	0.4	0.2	0.4	0.2	5.0	3.0	72	2.0	2.0	10.1	5.0	22.0	3.8	1.1	0.7	7.6	3.1	2.0
		3.5	0.2	0.4	0.2	0.4	0.2	5.5	2.5	77	2.1	2.1	10.3	5.2	23.0	3.3	1.1	0.7	7.6	3.1	2.0
		4.0	0.1	0.4	0.2	0.4	0.2	6.0	2.0	82	2.2	2.2	10.5	5.4	24.0	2.8	1.1	0.7	7.6	3.1	2.0
		4.5	0.0	0.4	0.2	0.4	0.2	6.5	1.5	87	2.3	2.3	10.7	5.6	25.0	2.3	1.1	0.7	7.6	3.1	2.0
		5.0	-	0.4	0.2	0.4	0.2	7.0	1.0	92	2.4	2.4	10.9	5.8	26.0	1.8	1.1	0.7	7.6	3.1	2.0
		5.5	-	0.4	0.2	0.4	0.2	7.5	0.5	97	2.5	2.5	11.1	6.0	27.0	1.3	1.1	0.7	7.6	3.1	2.0
		6.0	-	0.4	0.2	0.4	0.2	8.0	0.0	102	2.6	2.6	11.3	6.2	28.0	0.8	1.1	0.7	7.6	3.1	2.0
		6.5	-	0.4	0.2	0.4	0.2	8.5	-	107	2.7	2.7	11.5	6.4	29.0	0.3	1.1	0.7	7.6	3.1	2.0
		7.0	-	0.4	0.2	0.4	0.2	9.0	-	112	2.8	2.8	11.7	6.6	30.0	-	1.1	0.7	7.6	3.1	2.0
		7.5	-	0.4	0.2	0.4	0.2	9.5	-	117	2.9	2.9	11.9	6.8	31.0	-	1.1	0.7	7.6	3.1	2.0
		8.0	-	0.4	0.2	0.4	0.2	10.0	-	122	3.0	3.0	12.1	7.0	32.0	-	1.1	0.7	7.6	3.1	2.0
		8.5	-	0.4	0.2	0.4	0.2	10.5	-	127	3.1	3.1	12.3	7.2	33.0	-	1.1	0.7	7.6	3.1	2.0
		9.0	-	0.4	0.2	0.4	0.2	11.0	-	132	3.2	3.2	12.5	7.4	34.0	-	1.1	0.7	7.6	3.1	2.0
		9.5	-	0.4	0.2	0.4	0.2	11.5	-	137	3.3	3.3	12.7	7.6	35.0	-	1.1	0.7	7.6	3.1	2.0
		10.0	-	0.4	0.2	0.4	0.2	12.0	-	142	3.4	3.4	12.9	7.8	36.0	-	1.1	0.7	7.6	3.1	2.0
		10.5	-	0.4	0.2	0.4	0.2	12.5	-	147	3.5	3.5	13.1	8.0	37.0	-	1.1	0.7	7.6	3.1	2.0
		11.0	-	0.4	0.2	0.4	0.2	13.0	-	152	3.6	3.6	13.3	8.2	38.0	-	1.1	0.7	7.6	3.1	2.0
		11.5	-	0.4	0.2	0.4	0.2	13.5	-	157	3.7	3.7	13.5	8.4	39.0	-	1.1	0.7	7.6	3.1	2.0
		12.0	-	0.4	0.2	0.4	0.2	14.0	-	162	3.8	3.8	13.7	8.6	40.0	-	1.1	0.7	7.6	3.1	2.0
		12.5	-	0.4	0.2	0.4	0.2	14.5	-	167	3.9	3.9	13.9	8.8	41.0	-	1.1	0.7	7.6	3.1	2.0
		13.0	-	0.4	0.2	0.4	0.2	15.0	-	172	4.0	4.0	14.1	9.0	42.0	-	1.1	0.7	7.6	3.1	2.0
		13.5	-	0.4	0.2	0.4	0.2	15.5	-	177	4.1	4.1	14.3	9.2	43.0	-	1.1	0.7	7.6	3.1	2.0
		14.0	-	0.4	0.2	0.4	0.2	16.0	-	182	4.2	4.2	14.5	9.4	44.0	-	1.1	0.7	7.6	3.1	2.0
		14.5	-	0.4	0.2	0.4	0.2	16.5	-	187	4.3	4.3	14.7	9.6	45.0	-	1.1	0.7	7.6	3.1	2.0
		15.0	-	0.4	0.2	0.4	0.2	17.0	-	192	4.4	4.4	14.9	9.8	46.0	-	1.1	0.7	7.6	3.1	2.0
		15.5	-	0.4	0.2	0.4	0.2	17.5	-	197	4.5	4.5	15.1	10.0	47.0	-	1.1	0.7	7.6	3.1	2.0
		16.0	-	0.4	0.2	0.4	0.2	18.0	-	202	4.6	4.6	15.3	10.2	48.0	-	1.1	0.7	7.6	3.1	2.0
		16.5	-	0.4	0.2	0.4	0.2	18.5	-	207	4.7	4.7	15.5	10.4	49.0	-	1.1	0.7	7.6	3.1	2.0
		17.0	-	0.4	0.2	0.4	0.2	19.0	-	212	4.8	4.8	15.7	10.6	50.0	-	1.1	0.7	7.6	3.1	2.0
		17.5	-	0.4	0.2	0.4	0.2	19.5	-	217	4.9	4.9	15.9	10.8	51.0	-	1.1	0.7	7.6	3.1	2.0
		18.0	-	0.4	0.2	0.4	0.2	20.0	-	222	5.0	5.0	16.1	11.0	52.0	-	1.1	0.7	7.6	3.1	2.0
		18.5	-	0.4	0.2	0.4	0.2	20.5	-	227	5.1	5.1	16.3	11.2	53.0	-	1.1	0.7	7.6	3.1	2.0
		19.0	-	0.4	0.2	0.4	0.2	21.0	-	232	5.2	5.2	16.5	11.4	54.0	-	1.1	0.7	7.6	3.1	2.0
		19.5	-	0.4	0.2	0.4	0.2	21.5	-	237	5.3	5.3	16.7	11.6	55.0	-	1.1	0.7	7.6	3.1	2.0
		20.0	-	0.4	0.2	0.4	0.2	22.0	-	242	5.4	5.4	16.9	11.8	56.0	-	1.1	0.7	7.6	3.1	2.0
		20.5	-	0.4	0.2	0.4	0.2	22.5	-	247	5.5	5.5	17.1	12.0	57.0	-	1.1	0.7	7.6	3.1	2.0
		21.0	-	0.4	0.2	0.4	0.2	23.0	-	252	5.6	5.6	17.3	12.2	58.0	-	1.1	0.7	7.6	3.1	2.0
		21.5	-	0.4	0.2	0.4	0.2	23.5	-	257	5.7	5.7	17.5	12.4	59.0	-	1.1	0.7	7.6	3.1	2.0
		22.0	-	0.4	0.2	0.4	0.2	24.0	-	262	5.8	5.8	17.7	12.6	60.0	-	1.1	0.7	7.6	3.1	2.0
		22.5	-	0.4	0.2	0.4	0.2	24.5	-	267	5.9	5.9	17.9	12.8	61.0	-	1.1	0.7	7.6	3.1	2.0
		23.0	-	0.4	0.2	0.4	0.2	25.0	-	272	6.0	6.0	18.1	13.0	62.0	-	1.1	0.7	7.6	3.1	2.0
		23.5	-	0.4	0.2	0.4	0.2	25.5	-	277	6.1	6.1	18.3	13.2	63.0	-	1.1	0.7	7.6	3.1	2.0
		24.0	-	0.4	0.2	0.4	0.2	26.0	-	282	6.2	6.2	18.5	13.4	64.0	-	1.1	0.7	7.6	3.1	2.0
		24.5	-	0.4	0.2	0.4	0.2	26.5	-	287	6.3	6.3	18.7	13.6	65.0	-	1.1	0.7	7.6	3.1	2.0
		25.0	-	0.4	0.2	0.4	0.2	27.0	-	292	6.4	6.4	18.9	13.8	66.0	-	1.1	0.7	7.6	3.1	2.0
		25.5	-	0.4	0.2	0.4	0.2	27.5	-	297	6.5	6.5	19.1	14.0	67.0	-	1.1	0.7	7.6	3.1	2.0
		26.0	-	0.4	0.2	0.4	0.2	28.0	-	302	6.6	6.6	19.3	14.2	68.0	-	1.1	0.7	7.6	3.1	2.0
		26.5	-	0.4	0.2	0.4	0.2	28.5	-	307	6.7	6.7	19.5	14.4	69.0	-	1.1	0.7	7.6	3.1	2.0
		27.0	-	0.4	0.2	0.4	0.2	29.0	-	312	6.8	6.8	19.7	14.6	70.0	-	1.1	0.7	7.6	3.1	2.0
		27.5	-	0.4	0.2	0.4	0.2	29.5	-	317	6.9	6.9	19.9	14.8	71.0	-	1.1	0.7	7.6	3.1	2.0
		28.0	-																		

For round spray, the spray angle 'A' is maintained within the distance of 'B', the spraying will turn into torrent if the distance has reached 'D', as the right chart.

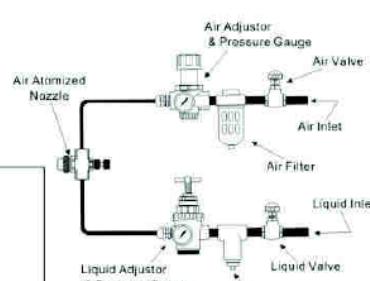


Wide-angle round spray

Performance data

spray device model	spray device consists of air cap and fluid cap	Liquid flow (L/min) and air flow (L/min)												S20							
		Water pressure (bar)				Water pressure (bar)				Water pressure (bar)											
		0.7bar		1.5bar		2bar		3bar		4bar		5bar									
Air pressure (bar)	Water (L/min)	Air (L/min)	Water (L/min)	Air pressure (bar)	Water (L/min)	Air (L/min)	Water (L/min)	Air pressure (bar)	Water (L/min)	Air (L/min)	Water (L/min)	Air pressure (bar)	Water (L/min)	Air (bar)	A (cm)	B (cm)	C (cm)	D (cm)			
SUK16	Liquid Cap 2050 and Air Cap 67-6-Air-70'	0.6 5.3 10.2	1.1 6.1 13.3	1.5 8.1 16.4	2.4 9.9 22	3.1 10.5 24	0.7 0.7 14	1.6 23	1.5	0.7 4.3 12.2	1.3 7.0 15.0	1.8 6.6 25	2.7 9.1 30	3.4 9.7 36	1.4 1.5 15	19	24	1.8			
		0.7 4.3 12.2	1.3 7.0 15.0	1.8 6.6 25	2.7 9.1 30	3.4 9.7 36	1.4 1.5 15	20	25	1.0 3.0 14.2	1.4 6.4 17.0	2.1 4.9 29	3.2 4.9 34	4.2 6.1 42	1.8 2.0 16	20	25	2.1			
		0.85 3.0 19.0	1.5 5.5 19.0	2.4 3.2 29	3.2 4.9 34	4.2 6.1 42	0.7 0.7 14	1.6 23	1.5	1.7 4.5 22	1.8 5.5 24	2.4 4.2 37	3.4 4.4 47	3.9 4.0 47	1.9 2.3	30	4.0	4.0			
SUK26	Liquid Cap 60100 and Air Cap 140-6-37-70'	0.85 7.0 5.0	1.7 13.2 68	2.0 18.5 68	2.8 25 84	3.7 31 96	0.85 0.7	18	24	31 1.8	1.0 2.1 62	1.8 9.8 79	2.1 15.1 76	3.0 22 92	3.8 28 105	1.5 1.5 19	25	33	3.2		
		1.0 2.1 62	1.8 9.8 79	2.2 11.7 85	3.1 18.5 101	3.9 26 113	1.7 1.5 19	25	33	3.2 1.8 24	1.9 6.5 65	2.4 10.9 89	3.2 15.1 95	4.1 20 125	2.0 19 125	3.2 1.8 24	33	3.2	3.2		
SUK26	Liquid Cap 60100 and Air Cap 140-6-37-70	0.7 24 32	1.4 43 37	2.1 33 65	2.8 52 76	3.7 63 86	0.85 0.7	19	25	36	0.85 13.6 44	1.5 35 49	2.2 26 78	3.0 46 87	3.8 68 79	1.5 1.5 20	22	37	2.1		
		0.85 13.6 44	1.5 35 49	2.2 26 78	3.0 46 87	3.8 68 79	0.85 0.7	19	25	36	1.0 7.5 57	1.7 28 61	2.4 18.9 89	3.1 39 95	3.9 52 101	1.5 1.5 20	22	37	4.1		
		1.0 7.5 57	1.8 21 71	2.5 11.7 100	3.2 33 110	3.9 46 116	1.0 0.7	20	26	26	2.1 16.7 133	2.5 28 71	3.2 11.7 100	3.2 33 95	4.2 41 111	1.5 1.5 20	22	38	5.0		
		2.1 16.7 133	2.5 28 71	3.2 11.7 100	3.2 33 95	4.2 41 116	2.1 16.7 133	2.5 28 71	3.2 33 95	3.5 19.5 122	4.9 15.9 168	5.9 13.9 168	6.1 13.2 168	6.6 13.2 168	3.4 4.0 21	28	28	5.9			
SUK28	Liquid Cap 60100 and Air Cap 140-6-52-70'	1.3 36 85	2.1 57 116	3.1 53 156	4.2 64 197	5.6 74 245	1.3 29 102	2.4 51 130	3.2 50 163	4.9 51 230	6.0 68 260	7.0 77 300	8.0 87 340	9.0 97 380	10.0 107 420	11.0 117 460	12.0 127 500	13.0 137 540	14.0 147 580		
		1.5 29 102	2.4 51 130	3.2 50 163	4.9 51 230	6.0 68 260	1.5 29 102	2.4 51 130	3.2 50 163	4.9 51 230	6.0 68 260	7.0 77 300	8.0 87 340	9.0 97 380	10.0 107 420	11.0 117 460	12.0 127 500	13.0 137 540	14.0 147 580		
		1.8 23 117	2.7 45 143	3.4 47 170	5.6 40 265	6.3 62 280	2.0 19.7 125	3.0 39 157	3.5 45 177	6.0 34 285	6.7 56 295	7.0 67 300	8.0 77 315	9.0 87 315	10.0 97 315	11.0 107 315	12.0 117 315	13.0 127 315	14.0 137 315		
		2.0 19.7 125	3.0 39 157	3.5 45 177	6.0 34 285	6.7 56 295	2.1 16.7 133	3.2 33 170	3.9 36 194	6.3 28 300	7.0 51 300	7.7 61 300	8.0 71 315	9.0 81 315	10.0 91 315	11.0 101 315	12.0 111 315	13.0 121 315	14.0 131 315		
		2.3 14.0 142	3.5 28 185	4.6 25 236	6.7 22 320	7.0 32 335	2.4 11.4 149	4.2 13.6 220	4.9 18.5 245	7.0 17.8 335	7.7 27 335	8.0 37 335	8.7 47 335	9.0 57 335	10.0 67 335	11.0 77 335	12.0 87 335	13.0 97 335	14.0 107 335		
SUK36	Liquid Cap 40100 and Air Cap 120-6-35-69'	1.1 12.3 40	2.2 18.3 62	2.7 21 59	4.2 19.3 100	5.6 74 130	1.3 9.9 45	2.5 12.1 71	3.0 16.3 76	4.6 14.6 113	6.0 17.6 142	7.0 22 151	8.0 27 151	9.0 32 151	10.0 37 151	11.0 42 151	12.0 47 151	13.0 52 151	14.0 57 151		
		1.3 9.9 45	2.5 12.1 71	3.0 16.3 76	4.6 14.6 113	6.0 17.6 142	1.4 7.9 50	2.8 8.9 79	3.2 12.3 86	4.9 10.8 124	6.3 14.0 152	7.0 22 152	8.0 27 152	9.0 32 152	10.0 37 152	11.0 42 152	12.0 47 152	13.0 52 152	14.0 57 152		
		1.5 6.1 54	3.0 7.6 83	3.4 10.7 91	5.3 8.1 135	6.7 11.4 163	1.5 6.1 54	3.0 7.6 83	3.4 10.7 91	5.3 8.1 135	6.7 11.4 163	7.0 16 163	8.0 21 163	9.0 26 163	10.0 31 163	11.0 36 163	12.0 41 163	13.0 46 163	14.0 51 163		
		1.7 4.9 58	3.1 6.4 87	3.5 9.3 94	5.6 6.2 146	7.0 9.1 174	1.8 3.9 62	3.2 5.5 91	3.9 6.4 105	6.0 4.9 157	7.0 10 174	8.0 15 174	9.0 20 174	10.0 25 174	11.0 30 174	12.0 35 174	13.0 40 174	14.0 45 174	15.0 50 174		
		2.0 3.1 67	3.4 4.7 95	4.2 4.7 115	6.3 4.0 167	7.0 16 167	2.1 11.4 193	3.4 23 265	3.9 27 300	5.8 26 405	7.0 52 495	8.0 57 495	9.0 62 495	10.0 67 495	11.0 72 495	12.0 77 495	13.0 82 495	14.0 87 495	15.0 92 495		
SUK46	Liquid Cap 100150 and Air Cap 169-6-62-70'	1.7 25 156	3.0 39 230	3.4 50 250	4.6 62 320	6.0 93 395	2.0 15.1 178	3.2 27 255	3.7 41 275	5.3 36 375	6.7 62 460	7.0 52 460	8.0 57 460	9.0 62 460	10.0 67 460	11.0 72 460	12.0 77 460	13.0 82 460	14.0 87 460		
		1.8 19.7 167	3.1 33 240	3.5 43 260	4.9 47 345	6.3 77 425	2.1 11.4 193	3.4 23 265	3.9 27 300	5.8 26 405	7.0 52 495	8.0 57 495	9.0 62 495	10.0 67 495	11.0 72 495	12.0 77 495	13.0 82 495	14.0 87 495	15.0 92 495		
		2.0 15.1 178	3.2 27 255	3.7 41 275	5.3 36 375	6.7 62 460	2.1 11.4 193	3.4 23 265	3.9 27 300	5.8 26 405	7.0 52 495	8.0 57 495	9.0 62 495	10.0 67 495	11.0 72 495	12.0 77 495	13.0 82 495	14.0 87 495	15.0 92 495		
		2.3 7.6 205	3.5 18.5 280	4.1 23 310	6.0 18.9 435	6.3 460	2.3 7.6 205	3.5 18.5 280	4.1 23 310	6.0 18.9 435	6.3 460	6.3 4.0 33 42 58	6.3 4.0 33 42 58	6.3 4.0 33 42 58	6.3 4.0 33 42 58	6.3 4.0 33 42 58	6.3 4.0 33 42 58	6.3 4.0 33 42 58	6.3 4.0 33 42 58	6.3 4.0 33 42 58	

D Series Air Atomizing Nozzle



Typical Moisturization Design

You can freely adjust spraying drop and liquid capacity for best spraying effect.

Remark: Fast joint is used for liquid and air connecting and common air/water pipe Dia.is 8-6mm.

ordering info

D-1/4-SS+SUC13-SS

nozzle type
inlet size
inlet material code
The number of spraying device
capacity size

Remark:

BRASS
SS-stainless steel

316SS-316 stainless steel

Please contact our sales engineers for detail. Besides, customized order is available.

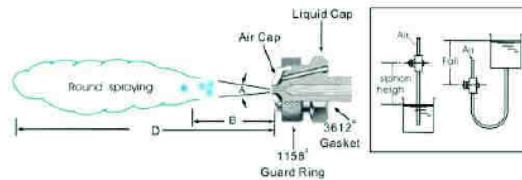
D Series Air Atomizing Nozzle

Siphon Gravity-Fed Air Atomizing Nozzle

Design features

For those nozzle of round and flat spray pattern, the spray can maintain the spray angle of A when it is within the distance of B. If beyond the distance of B, the spray would turn to torrent, and jet to the distance of D.

When using siphon or gravity-fed fluid system, it can be supplied to the fluid by siphon or gravity-fed. In these devices, the fluid is absorbed and sent to the gas stream through conveyer where it is atomized in the gas stream.



The air cap of round or flat fan pattern produces round or flat fan pattern spraying.

¹No. 1158 and No.3162 gaskets should be ordered separately from the spray device, but they are also parts of the standard spray nozzle.

round spray

spray device model	spray device consists of air cap and fluid cap	atomized air		fluid volume(L/H)							spray dimensions of 20cm siphon height				
		air pressure bar	air volume (L/Min)	Gravity-head			siphon height				air pressure bar	Spray angle A	B (CM)	D (CM)	
				45 (CM)	30 (CM)	15 (CM)	10 (CM)	20 (CM)	30 (CM)	60 (CM)					
SU1A	Liquid Cap 1650 and Air Cap 64	0.7	11.3	1.5	1.3	1.1	0.87	0.66	0.53	0.76	0.7	18°	28	1.6	
		1.5	17.0	1.8	1.7	1.5	1.3	1.2	1.1	0.82	0.87	1.5	18	28	1.9
		3.0	28	2.1	1.9	1.7	1.5	1.4	1.3	1.1	3.0	18	30	2.3	
		4.0	36	2.2	2.0	1.8	1.6	1.5	1.4	1.2	4.0	18	36	2.6	
SU1	Liquid Cap 2050 and Air Cap 64	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	2.5	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	3.0	18	38	2.6	
		4.0	41	3.7	3.4	3.3	3.1	2.9	2.7	2.1	4.0	19	43	3.0	
SU2A	Liquid Cap 2050 and Air Cap 70	0.7	23	2.5	2.3	2.0	1.6	1.4	1.1			18°	30	2.4	
		1.5	36	2.9	2.8	2.5	2.2	2.0	1.7	0.89		18°	33	2.7	
		3.0	58	3.4	3.3	3.2	2.9	2.8	2.5	1.9		19°	38	3.4	
		4.0	74	3.7	3.6	3.5	3.4	3.3	3.0	2.5	1.1	1.2	20°	43	4.0
SU2	Liquid Cap 2860 and Air Cap 70	0.7	19.3	4.5	4.0	3.4	2.1	1.8	1.4		1.5	2.0	21°	38	4.6
		1.5	31	5.3	4.9	4.4	3.5	2.9	2.7	1.8	1.2		21°	41	3.0
		3.0	50	6.0	5.6	5.0	4.4	4.0	2.4	2.4	2.0		21°	46	3.4
		4.0	65	5.7	5.4	5.0	4.2	3.9	3.5	2.8		1.2	22°	51	4.6
SU4	Liquid Cap 60100 and Air Cap 120	1.5	58	22	19.9	16.3	12.3	10.5	8.3	2.8	1.2	1.9	17°	46	3.7
		3.0	88	25	23	19.5	16.7	14.2	11.5	6.4	1.9		18°	51	4.3
		4.0	111	26	24	21	18.4	15.7	12.9	7.9	2.8	2.8	18°	53	4.9
		5.6	147	26	24	22	19.7	17.0	14.6	9.8	4.5	4.5	19°	58	5.5
SU5	Liquid Cap 100150 and Air Cap 180	2.0	144				27	22	16.8		6.1	6.1	20°	51	6.7
		3.0	190				30	26	21				20°	53	7.0
		4.0	240		43	40	31	28	23	11.0			21°	58	7.6
		5.6	315	44	42	39	31	28	24	16.7	8.3	8.3	22°	63	8.2

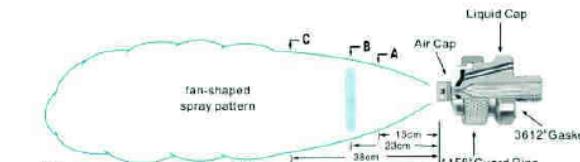
flat spray

spray device model	spray device consists of air cap and fluid cap	atomized air		fluid volume(L/H)							spray dimensions of 20cm siphon height					
		air pressure bar	air volume (L/Min)	Gravity-head			siphon height				Air pressure bar	A (CM)	B (CM)	C (CM)	D (CM)	
				45 (CM)	30 (CM)	15 (CM)	10 (CM)	20 (CM)	30 (CM)	60 (CM)						
SUF1	Liquid Cap 2850 and Air Cap 73420	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
		1.5	58	3.7	3.5	3.3	2.9	2.8	2.5	2.3	2.1	1.5	23	32	38	2.7
		2.0	65	3.4	3.3	3.1	2.8	2.7	2.6	2.4	2.2	2.0	24	34	42	2.7
SUF2C	Liquid Cap 35100 and Air Cap 120432	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	26	39	48	2.7
		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
SUF3B	Liquid Cap 40100 and Air Cap 122435	3.0	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										
		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
SUF4B	Liquid Cap 40100 and Air Cap 122440	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									

Flat Pressure Air Atomizing(external mix)

Design features

With the external mixing, the air pressure can be changed to control atomizing without changing the liquid flow rate. As the picture shown, size 'A' is the flow width of fan-shaped spraying, 'D' is the total distance from the nozzle body to the maximum dispersing area.



Exterior composite air cap
The exterior composite air cap, used in these spray equipments, produce fan-shaped spraying.

Remark: No.1158 guard ring and No.3612 gasket should be ordered separately from spray device, but they are also parts of the standard spray nozzle.

fan-shaped spraying. (exterior composite)

spray device model	spray device consists of oil cap and fluid cap	liquid flow (L/min) and flow (l/min)												Size					
		Water pressure (bar)						Air pressure (bar)						Air (bar)	Liquid (bar)	A (cm)	B (cm)	C (cm)	D (cm)
		0.2bar	0.3bar	0.7bar	1.5bar	4bar	Water (l/h)	Air (l/min)	Water (l/h)	Air (l/min)	Water (l/h)	Air (l/min)	Water (l/h)	Air (l/min)	Water (l/h)	Air (l/min)	Water (l/h)	Air (l/min)	
SUE 15B	Liquid Cap 1850 and Air Cap 67228-45°	0.2 25.2	0.35 26.3	0.7 31.2	1.4 45.3	3.5 53.8	1.4 45.3	2.1 59.5	4.2 102	2.8 73.6	4.9 119	11.0 14	1.4 11.5	1.8 25	1.5	0.2 0.2	9 15	23 0.9	
		0.35 26.3	0.7 31.2	1.05 39.6	1.4 45.3	2.6 72.6	7.6 11.0	3.5 85.0	5.6 139	1.05 0.2	9 15	23 1.2	1.4 0.35	10 15	23 1.2	1.05 0.2	9 15	23 1.2	
		0.7 31.2	1.05 39.6	1.4 45.3	2.1 59.4	4.2 102	4.2 102	5.6 139	7.6 175.5	1.4 0.35	10 15	23 1.2	1.4 0.35	10 15	23 1.2	1.4 0.35	10 15	23 1.2	
		1.05 39.6	2.6 14.4	1.75 53.8	2.1 59.4	3.5 85.0	5.6 139	6.3 159	8.4 240	1.4 0.35	10 15	23 1.5	1.4 0.35	10 15	23 1.5	1.4 0.35	10 15	23 1.5	
		1.4 45.3	1.75 53.8	2.1 59.4	2.8 73.6	3.5 85.0	5.6 139	6.3 159	8.4 240	1.4 0.35	10 15	23 1.5	1.4 0.35	10 15	23 1.5	1.4 0.35	10 15	23 1.5	
		1.75 53.8	2.1 59.4	2.8 73.6	3.5 85.0	5.6 139	6.3 159	8.4 240	10.4 240	1.4 0.35	10 15	23 1.5	1.4 0.35	10 15	23 1.5	1.4 0.35	10 15	23 1.5	
SUE 18B	Liquid Cap 1850 and Air Cap 67228-45°	0.2 22	0.35 22	0.4 25	0.6 28	0.6 34	0.6 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.4 0.3	20 28	33 1.2	
		0.35 22	0.4 25	0.6 28	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.7 34	0.6 0.7	23 30	40 1.8	
		0.4 25	0.5 27.5	0.6 28	0.7 34	0.8 40	0.8 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.6 1.5	26 35	46 1.8	
		0.5 27.5	0.6 28	0.7 34	0.8 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.6 1.5	25 30	41 2.7	
		0.6 28	0.7 34	0.8 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	1.1 1.5	28 33	43 2.4	
		0.7 34	0.8 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	1.1 1.5	25 30	41 2.7	
SUE 15A	Liquid Cap 2050 and Air Cap 67228-45°	0.35 23	0.7 31.2	1.05 39.6	1.4 45.3	1.75 53.8	5.5 83	2.1 59.4	3.5 85.0	4.9 119	12.2 18.6	1.75 14	1.9 19	2.1 21	0.35 0.2	7.5 14	22 1.0		
		0.7 31.2	1.05 39.6	1.4 45.3	1.75 53.8	2.8 73.6	4.2 102	2.8 73.6	4.2 102	3.5 85	4.2 102	4.2 102	4.2 102	4.2 102	4.2 102	1.4 0.2	9 15	22 1.7	
		1.05 39.6	1.4 45.3	1.75 53.8	2.1 59.4	2.8 73.6	4.2 102	2.8 73.6	4.2 102	3.5 85	4.2 102	4.2 102	4.2 102	4.2 102	4.2 102	1.75 0.35	10 16.5	23 1.8	
		1.4 45.3	1.75 53.8	2.1 59.4	2.8 73.6	3.5 85.0	5.6 119	3.5 85	5.6 119	4.2 102	5.2 127	5.2 127	5.2 127	5.2 127	5.2 127	2.1 0.7	13 18	25 1.8	
		1.75 53.8	2.1 59.4	2.8 73.6	3.5 85.0	4.2 102	5.6 119	4.2 102	5.6 119	5.6 119	6.3 159	6.3 159	6.3 159	6.3 159	6.3 159	3.5 1.4	13 22	0 2.4	
		2.1 59.4	2.8 73.6	3.5 85.0	4.2 102	5.6 119	6.3 159	5.6 119	6.3 159	6.3 159	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	5.3 2.8	15 19	25 3.0	
SUE 18A	Liquid Cap 2050 and Air Cap 62240-60°	0.35 22	0.35 22	0.6 28	0.7 34	0.7 34	0.8 33	0.8 33	0.8 33	0.8 33	0.8 33	0.8 33	0.8 33	0.8 33	0.8 33	0.7 0.2	13 16.5	25 1.2	
		0.6 28	0.7 34	1.1 45	1.4 54	2.1 71	2.1 71	2.1 71	2.1 71	2.1 71	2.1 71	2.1 71	2.1 71	2.1 71	2.1 71	1.75 0.2	13 16.5	25 1.8	
		0.7 34	1.1 45	1.4 54	2.1 71	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.1 0.35	13 18.0	24 1.8	
		1.1 45	1.4 54	2.1 71	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.8 0.7	14 19	30 2.3	
		2.1 71	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	4.2 1.4	14 20	36 3.0	
		2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	2.5 79	5.3 2.8	16.5 20	30 4.0	
SUE 15	Liquid Cap 2850 and Air Cap 67228-45°	0.7 31.2	1.05 39.6	1.4 45.3	1.75 53.8	2.1 59.4	10.4 15.9	2.8 73.6	4.2 102	5.3 127	33 33	2.5 14	1.4 14	20 32	1.8	0.7 0.2	13 16.5	25 1.2	
		1.05 39.6	1.4 45.3	1.75 53.8	2.1 59.4	2.8 73.6	4.2 102	4.9 119	5.6 139	6.3 159	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	1.75 0.2	13 16.5	25 1.8	
		1.4 45.3	1.75 53.8	2.1 59.4	2.8 73.6	3.5 85.0	4.9 119	5.6 139	6.3 159	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	2.1 0.35	13 18.0	24 1.8	
		1.75 53.8	2.1 59.4	2.8 73.6	3.5 85.0	4.2 102	5.6 139	6.3 159	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	2.8 0.7	14 19	30 2.3	
		2.1 59.4	2.8 73.6	3.5 85.0	4.2 102	5.6 139	6.3 159	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	4.2 1.4	14 20	36 3.0	
		2.8 73.6	3.5 85.0	4.2 102	4.9 119	6.3 159	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	7.0 176	5.3 2.8	16.5 20	30 4.0	
SUE 18	Liquid Cap 2850 and Air Cap 62240-60°	0.4 25	0.4 25	0.6 28	0.6 28	0.6 31	10.4 15.9	0.7 34	0.8 40	1.1 45	23 33	1.4 54	1.8 62	2.1 71	2.5 79	0.6 0.3	35 48	61 1.8	
		0.5 27.5	0.6 28	0.6 31	0.7 34	0.7 34	0.8 40	0.8 40	0.8 40	1.1 45	1.4 54	1.8 62	2.1 71	2.5 79	0.6 0.7	35 48	63 1.5		
		0.6 28	0.7 34	0.7 34	0.8 40	0.8 40	0.8 40	0.8 40	0.8 40	1.1 45	1.4 54	1.8 62	2.1 71	2.5 79	0.7 1.5	38 48	63 1.8		
		0.7 34	0.8 40	0.8 40	0.8 40	0.8 40	0.8 40	0.8 40	0.8 40	1.1 45	1.4 54	1.8 62	2.1 71	2.5 79	1.1 1.5	41 51 66	2.1		
		0.8 40	0.8 40	0.8 40	0.8 40	0.8 40	0.8 40	0.8 40	0.8 40	1.1 45	1.4 54	1.8 62	2.1 71	2.5 79	1.4 1.5	43 53 66	2.4		
		0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	0.9 40	1.1 45	1.4 54	1.8 62	2.1 71	2.5 79	1.8 2.0	41 51 69	2.7		

D Series Air Atomizing Nozzle



Using thick wall commutator instead of guard ring on spray discretioness,put it into the screw thread inlet to fix the spray nozzle at a proper position hard. They are available for 1/8" and 1/4" nozzle,who has outer discretioness sized 3/4 inch NPT or BSPT, 1/2" nozzle who has outer discretioness sized 11/4 inch NPT or BSPT, and 1" nozzle who has outer discretioness sized 1 1/2 inch NPT or BSPT,including the nozzles that have cut-out and clean-out accessorial settings.



1/8-2 type double sprayer discretioness has two right-angle spray fittings,its air and liquid inlet is vertical to the spray line.The size of discretioness inlet is 1/8 inch NPT or BSPT(female).



On the back, the center line of air and liquid inlet comes into the spray nozzle back, and horizontal to the spray line. The size of inlet connection are 1/4 and 1/2 inch NPT or BSPT(female).

D Series Air Atomizing Nozzle

Air Atomizing Nozzle Device

fan-shaped spraying. (external mix)

spray device model	spray device consists of oil cap and fluid cap	liquid flow (L/min) and flow (L/min) Water pressure (bar)												Size								
		0.2bar			0.3bar			0.7bar			1.5bar			4bar			Air (bar)	Liquid (bar)	A (cm)	B (cm)	C (cm)	D (cm)
		Air pressure (bar)	Water (L/h)	Air (L/min)	Air pressure (bar)	Water (L/h)	Air (L/min)	Air pressure (bar)	Water (L/h)	Air (L/min)	Air pressure (bar)	Water (L/h)	Air (L/min)	Air pressure (bar)	Water (L/h)	Air (L/min)						
SUE 25B	Liquid Cap 35100 and Air Cap 134255-45°	0.7 85	1.0 102	1.4 116	1.8 139	2.1 156	16.4 25	1.4 116	2.5 178	3.2 212	0.7 13	1.9 25	1.7	0.7 13	1.9 25	2.7	1.8 0.2 13	1.9 25	2.7	2.1 0.35 15	1.9 26	3.0
		1.0 102	1.4 116	1.8 139	2.1 156	2.8 195	13.4 25	1.8 139	2.8 195	3.5 227	3.9 255	4.9 312	3.5 227	4.2 275	52	2.5 0.7 15	2.2 28	3.5	2.1 1.5 35	4.6 56	4.0	
		1.4 116	1.8 139	2.1 156	2.8 195	3.5 227	13.4 25	2.1 156	4.2 266	4.9 312	4.9 314	5.6 360	4.9 312	4.2 275	52	2.5 1.4 16.5	23 37	4.3	2.5 1.4 16.5	23 37	4.3	
		2.1 156	2.8 195	3.5 227	4.2 266	4.2 266	13.4 25	2.8 195	5.6 360	6.3 411	6.3 411	4.9 266	4.2 266	4.9 266	52	4.9 2.8 16.5	22 32	4.9	4.9 2.8 16.5	22 32	4.9	
		3.5 227	4.2 266	4.2 266	4.2 266	4.2 266	13.4 25	3.5 227	6.3 411	6.3 411	6.3 411	6.3 411	6.3 411	6.3 411	52	1.4 0.3 33	38 48	3.8	2.1 0.7 33	40 56	4.3	
SUE 28B	Liquid Cap 35100 and Air Cap 122281-60°	0.6 91	0.7 102	1.1 130	1.8 139	2.1 156	16.4 25	1.4 116	2.1 210	2.8 260	3.2 285	4.2 380	4.2 275	37	2.5 1.5 35	46 56	4.0	2.1 1.5 35	46 56	4.0		
		0.7 102	1.1 130	1.8 139	2.1 156	2.8 195	16.4 25	1.1 130	2.1 210	2.8 260	3.2 285	4.2 380	4.2 275	37	3.2 1.5 38	48 66	4.6	4.2 1.5 38	48 64	5.2		
		1.1 130	1.4 156	2.1 210	2.8 195	3.5 227	16.4 25	1.8 139	2.5 235	3.5 310	5.3 430	5.6 455	5.6 455	5.6 455	52	3.9 2.0 41	51 69	4.6	4.2 3.0 38	51 71	4.9	
		1.4 156	2.1 210	2.8 195	3.5 227	4.2 266	16.4 25	2.1 210	4.2 266	4.2 266	4.2 266	4.2 266	4.2 266	4.2 266	52	1.4 0.7 33	40 56	4.3	2.1 0.7 33	40 56	4.3	
SUE 25A	Liquid Cap 40100 and Air Cap 134255-45°	0.7 85	1.4 116	1.8 139	2.1 156	2.5 178	17.6 22	1.4 116	1.8 139	2.8 195	3.5 227	4.9 312	3.5 227	3.2 212	68	0.7 0.35 15	19 27	2.1	1.8 0.7 33	40 56	4.3	
		1.0 102	1.4 116	1.8 139	2.1 156	2.5 178	17.6 22	1.8 139	2.8 195	3.5 227	4.9 312	5.6 360	4.9 312	4.2 275	68	1.8 1.4 15	22 33	3.4	2.5 1.4 15	22 33	3.4	
		1.4 116	1.8 139	2.1 156	2.5 178	2.8 195	17.6 22	2.1 156	3.5 227	4.9 312	5.6 360	6.3 411	6.6 428	6.6 428	6.6 428	68	2.8 1.4 15	22 36	3.8	2.8 1.4 16.5	25 37	4.0
		1.8 139	2.1 156	2.5 178	2.8 195	3.5 227	17.6 22	2.5 178	4.2 266	5.6 360	6.3 411	6.6 428	6.6 428	6.6 428	6.6 428	68	4.2 2.1 16.5	25 37	4.9	5.3 2.8 18	23 36	5.8
		2.1 156	2.5 178	2.8 195	3.5 227	4.2 266	17.6 22	2.8 195	5.6 360	6.3 411	6.6 428	6.6 428	6.6 428	6.6 428	6.6 428	68	1.1 0.2 33	38 51	5.5	1.8 0.7 35	46 64	3.0
SUE 28A	Liquid Cap 40100 and Air Cap 122281-60°	0.6 91	0.7 102	1.1 130	1.4 156	1.8 184	17.6 22	1.1 130	1.8 184	2.5 235	3.2 285	4.6 380	3.2 285	3.2 285	48	0.7 0.35 15	19 27	2.1	1.8 0.7 35	46 64	3.0	
		1.1 130	1.4 156	1.8 184	2.1 210	2.5 235	17.6 22	1.4 156	1.8 184	2.5 235	3.2 285	4.6 380	4.6 380	4.6 380	48	2.5 1.5 36	46 64	3.8	3.2 1.5 33	43 61	4.5	
		1.4 156	1.8 184	2.1 210	2.5 235	2.8 184	17.6 22	2.1 210	3.2 285	4.2 360	4.6 475	6.0 475	6.0 475	6.0 475	68	4.2 1.5 30	43 58	4.9	4.2 2.0 33	45 61	5.2	
		1.8 184	2.1 210	2.5 235	2.8 184	3.2 285	17.6 22	2.5 235	4.2 360	5.9 455	6.7 525	7.0 550	7.0 550	7.0 550	68	4.9 3.0 33	43 61	4.0	6.3 3.0 41	56 79	5.8	
SUE 28	Liquid Cap 60100 and Air Cap 122281-60°	0.7 102	1.1 130	1.4 156	1.8 184	2.1 210	17.6 22	1.1 130	1.8 184	2.5 285	3.2 310	5.3 430	5.3 430	5.3 430	68	2.1 0.3 40	56 76	3.0	2.8 0.7 46	56 81	4.0	
		1.1 130	1.4 156	1.8 184	2.1 210	2.5 210	17.6 22	1.4 156	1.8 184	2.5 310	3.2 310	6.0 475	6.0 475	6.0 475	68	3.2 1.5 48	58 79	4.3	4.2 1.5 30	43 58	4.9	
		1.4 156	1.8 184	2.1 210	2.5 210	2.8 235	17.6 22	2.1 210	2.8 260	4.9 405	6.7 525	7.0 550	7.0 550	7.0 550	68	5.6 1.5 38	51 56	5.8	3.9 2.0 48	64 84	4.3	
SUE 25	Liquid Cap 60100 and Air Cap 134255-45°	1.0 102	1.4 116	1.8 139	2.1 156	2.5 178	17.6 22	1.4 116	1.8 139	2.8 212	3.2 255	4.6 497	4.6 497	4.6 497	141	1.0 0.2 15	20 25	2.7	2.1 0.2 15	22 29	3.0	
		1.4 116	1.8 139	2.1 156	2.5 178	2.8 195	17.6 22	1.8 139	2.1 212	3.9 246	4.6 497	5.6 360	5.6 360	5.6 360	141	2.8 0.35 18	24 36	3.5	2.8 0.35 18	24 36	3.5	
		1.8 139	2.1 156	2.5 178	2.8 195	3.5 227	17.6 22	2.1 156	3.2 212	4.2 266	4.9 314	5.6 360	5.6 360	5.6 360	141	3.2 1.4 20	26 39	3.7	3.2 1.4 20	26 39	3.7	
		2.1 156	2.5 178	2.8 195	3.5 227	4.2 266	17.6 22	2.5 178	4.2 266	5.6 360	6.3 411	7.0 453	7.0 453	7.0 453	141	4.2 1.4 20	26 39	4.3	4.2 1.4 20	26 39	4.3	
		2.5 178	3.2 212	4.2 266	4.2 266	4.2 266	17.6 22	3.2 212	4.9 312	5.6 360	6.3 411	7.0 453	7.0 453	7.0 453	141	5.6 2.8 18	24 36	5.8	1.8 0.2 15	20 29	3.0	
SUE 45B	Liquid Cap 60150 and Air Cap 200278-45°	1.8 235	2.1 260	2.5 300	2.8 330	3.2 355	36 45	1.8 235	2.5 300	3.9 410	4.6 445	5.6 600	5.6 600	5.6 600	100	1.8 0.2 15	20 30	3.4	2.8 0.3 15	20 30	4.0	
		2.1 260	2.5 300	2.8 330	3.2 355	3.5 380	36 45	2.1 260	2.5 300	3.9 410	4.6 445	5.6 600	5.6 600	5.6 600	100	3.6 0.7 17	22 32	4.3	3.9 1.5 17	22 34	4.6	
		2.5 300	2.8 330	3.2 355	3.5 380	3.8 410	36 45	2.5 300	2.8 330	3.9 410	5.3 565	6.3 665	6.3 665	6.3 665	100	3.9 1.5 17	22 34	4.6	4.2 1.0 17	23 33	4.7	
		2.8 330	3.2 355	3.5 380	3.8 410	4.2 445	36 45	2.8 330	3.2 355	4.2 445	5.6 600	6.3 665	6.3 665	6.3 665	100	4.9 1.5 17	23 34	5.5	4.9 1.5 17	23 34	5.5	
		3.2 355	3.5 380	3.8 410	4.2 445	4.5 520	36 45	3.2 355	3.5 380	4.2 445	5.6 600	6.3 665	6.3 665	6.3 665	100	5.3 1.0 18	25 36	5.8	5.3 1.0 18	25 36	5.8	
SUE 45A	Liquid Cap 60150 and Air Cap 200278-45°	2.1 260	2.5 300	2.8 330	3.2 355	3.5 380	64 78	2.1 260	2.5 300	3.9 410	4.2 445	5.3 565	5.6 665	5.6 665	175	2.1 0.2 17	24 34	3.5	3.2 0.2 18	24 36	4.3	
		2.5 300	2.8 330	3.2 355	3.5 380	3.8 410	64 78	2.5 300	2.8 330	3.9 410	4.2 445	5.3 565	5.6 665	5.6 665	175	3.9 0.3 18	25 36	4.9	4.9 0.7 18	25 36	5.5	
		2.8 330	3.2 355	3.5 380	3.8 410	4.2 445	64 78	2.8 330	3.2 355	4.2 445	5.3 565	6.3 665	6.3 665	6.3 665	175	4.9 1.5 20	25 36	5.5	4.9 1.5 20	25 36	5.5	
		3.2 355	3.5 380	3.8 410	4.2 445	4.5 520	64 78	3.2 355	3.5 380	4.2 445	5.3 565	6.3 665	6.3 665	6.3 665	175	5.3 1.0 20	25 36	5.8	5.6 1.5 20	25 36	6.1	
		3.5 380	3.8 410	4.2 445	4.5 520	4.8 590	64 78	3.5 380	3.8 410	4.6 480	5.6 600	6.0 640	6.0 640	6.0 640	175	5.6 1.5 20	25 36	6.1	5.6 1.5 20	25 36	6.1	
SUE 45	Liquid Cap 100150 and Air Cap 200278-45°	2.8 330	3.2 355	3.5 380	3.9 410	4.2 445	102 125	2.8 330	3.2 355	3.5 380	4.6 480	5.6 600	5.6 600	5.6 600	192	2.8 0.2 19	25 36	4.6	3.9 0.2 20	25 37	4.9	
		3.2 355	3.5 380	3.8 410	4.2 445	4.5 520	102 125	3.2 355	3.5 380	4.6 480	5.6 600	6.0 640	6.0 640	6.0 640	192	4.6 0.3 20	25 37	5.2	4.6 0.3 20	25 37	5.2	
		3.5																				

DJ Automatic Air Atomizing Nozzle

Standard type

1/4 DJ nozzle has air and liquid screw thread with the inlet size of 1/4 inch NPT or BSPT(female),and screw thread gas driver inlet size of 1/8 inch NPT or BSPT (female).This type of nozzle is used with small-flow liquid cap.



Compact type

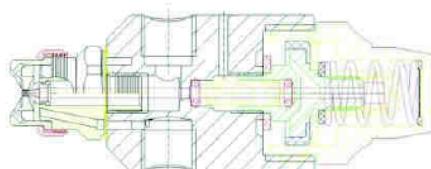
1/8 DJ spray nozzle is a compact , automatic atomizing nozzle,with a pipeline for single gas,it's designed to be used in small area. The size of screw thread air and liquid inlet is 1/8 inch NPT or BSPT(inner).



Design features

DJ automatic air atomizing nozzle has an inner gas driver to control 'on-off', and can circulate180 times per minute. When 'on-off' runs,only the liquid of the sprayer will be shut off.The liquid flow can be carried to the nozzle body by siphon, gravity or pressure.

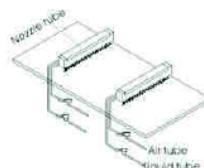
All the parts of spray nozzle are made accurately at strict quality control standard, to insure running smoothly and long service lifetime.The nozzle can be made of nickel-plating brass or stainless steel.Each nozzle has a stainless steel needle valve, a stainless steel flow cap and a stainless steel spring.



common application



Lubricate



corrugating board humidify

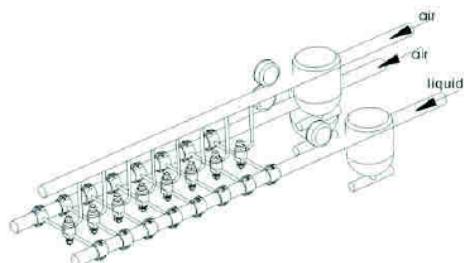
45°

1/8 DJ spray nozzle is a compact,automatic atomizing nozzle,with a single inlet for atomizing gas and driver gas. It keeps 45 degree angle between the inlet line and spray line.



Single gas pipeline type

With a single gas pipeline,1/4 DJ nozzle can be used in atomizing and driving gas. It controls the pressure to drive the atomizing gas and liquid during 'on-off' period. This type of nozzle requires 2 bar gas pressure at least, and could circulate180 times per minute.



D Series Air Atomizing Nozzle

ordering info

1/8DJ—316SS+SUCB-316SS

↓ ↓ ↓
Nozzle type Material code Nozzle device number
*Referring to D series parameter

Remark:

BRASS

SS-stainless steel

316SS-316 stainless steel

D Series Air Atomizing Nozzle

DK Automatic Fine Misting Nozzle



The nozzle is used for moistening and coating which requires accurate spraying and coating area.

common application

- Coating
- Moistening
- Viscous liquid spraying
- Circulation system

Design features

Automatic fine atomizing nozzle could independently control liquid atomizing gas pressure and fan gas pressure to adjust flow rate, droplet size, spraying distribution and coverage area accurately. Resulting from the scientific and rational design, the nozzle can spray viscous liquid ideally.

Also, the single gas atomizing pipeline can be adjusted to alter the droplet size without altering the flow rate. With an accessional entrance/exit passage, the viscous liquid circles to keep itself flowing.

Any one of these seven different spray devices is available, the flow rate is between 2.8 L/H and 179 L/H. The flow rate of atomizing gas, fan gas and liquid can be adjusted and readjusted within several seconds. So the nozzle can be adjusted to adapt various of spray application. The 'on-off' of timing controller can run automatically at the rate of 180 cycles per minute. The cylinder works only when the air pressure reaches 2.4 bar at least.

Performance data

spray device model	Liquid flow rate (L/H)		Data numbers
	0.2bar	1.4bar	
SX-CC001A	2.8	7.3	924M-001A
SX-CC002C	4.2	11.1	924M-002C
SX-CC004	8.1	21	924M-004
SX-CC004B	13.6	35	924M-004B
SX-CC005	18.4	48	924M-005
SX-CC006	38	99	924M-006
SX-CC006D	69	179	924M-006D

Remark: The data of fitting SX-CC006 is a typical example of concerned performance info supplied by each spray fitting in point.

1/8K spray nozzle	(local) atomizing air pressure (bar)	(local) atomizing air pressure (bar)	Spray area (cm) under fan air pressure when the distance to the nozzle is designated														
			0bar		0.3bar		0.7bar		1.5bar		3bar						
			fan air pressure (bar)	atomizing air pressure (bar)	fan air pressure (bar)	atomizing air pressure (bar)	fan air pressure (bar)	atomizing air pressure (bar)	fan air pressure (bar)	atomizing air pressure (bar)	fan air pressure (bar)	atomizing air pressure (bar)					
spray device model SX-CC006	0.7	0.2	7.6	10.2	12.7	11.4	15.2	20	17.8	25	33	30	41	51			
		0.7										28	38	56	53	66	84
		1.5												43	56	76	
	1.5	0.2	7.6	10.2	12.7	7.6	10.2	15.2	12.7	17.8	23	23	30	41	36	46	66
		0.7				7.6	12.7	15.2	12.7	17.8	25	20	30	41	36	48	66
		1.5												33	48	64	
	2	0.2	7.6	10.2	12.7	8.9	11.4	16.5	10.2	15.2	20	15.2	20	26	30	36	53
		0.7	6.4	8.9	12.7	7.6	10.2	14.0	10.2	15.2	22	17.8	23	38	30	41	56
		1.5												28	38	53	
	3	0.2	7.6	10.2	14.0	7.6	11.4	15.2	8.9	12.7	17.8	15.2	20	26	25	30	43
		0.7	6.4	8.9	12.7	7.6	10.2	16.5	7.6	12.7	20	15.2	20	27	29	36	51
		1.5	6.4	8.9	12.7	7.6	10.2	16.5	7.6	12.7	20	15.2	20	28	23	33	43

When the fan air pressure is 0 bar, the spray area is circular.

Ordering info

1/8K—316SS+SX-CC006

↓	Nozzle type	↓	Material code	↓	Spray device model	↓	Remark:
							BRASS
							SS-stainless steel
							316SS-316 stainless steel

DE Large flow Air Atomizing Nozzle

DE series large flow air atomizing nozzle adopts multi-atomizing,with its powerful function , is widely used for dust removing and desulfurizing in fire-power plant,dust removing and environment protection in chemical plant and cement plant .

Design features

- The nozzle can be a double liquid spray nozzle,with steam or air as its second liquid
- Third class - atomizing to achieve optimum atomizing capability
- Working with high dependability even under the worst condition
- Reducing the dosage of compressed air with its high efficiency



Spraying performance

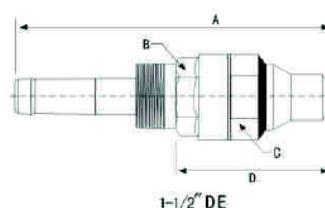
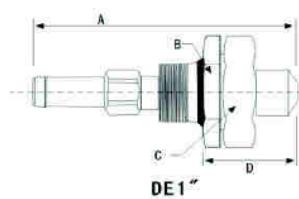
- Spray area:Hollow cone-shaped and flat fan-shaped
- Spray angle:20 degree to 90 degree
(Other angles are available according to the requirement)Flow rate:2.0 to 80 L/M



DE spray equipment,spiral tip and size

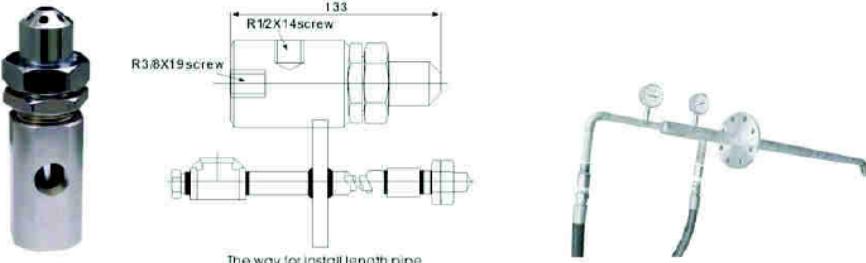
Tube diameter	spray angle	spray nozzle number	spray angle	spray pattern	maximum droplet size mm	spray tip number	Dimension mm				Weight (kg)
							A	B	C	D	
1"	14	DE101	20°	narrow round angle	3.30	14	148	50.8	50.8	64	0.64
		DE308	90°		2.69						
		DE310	60°		2.69						
		DE402	90°	wide round angle	4.22						
		DE404	60°		4.22						
20	20	DE103	20°	narrow round angle	6.60	20	148	50.8	50.8	50.8	0.64
		DE307	90°		3.48						
		DE309	60°		3.48						
		DE401	90°	wide round angle	5.21						
		DE403	60°		5.21						
1 1/2"	28	DE2100	20°	narrow round angle	9.27	28	229	50.8	55.6	113	1.5
		DE2310	90°	wide round angle	4.65						
		DE2303	60°		4.65						

Standard material:316 stainless steel with cobalt metal wearable jacket



D Series Air Atomizing Nozzle

DE can be installed in all ways, as the picture shows. These applications of the device is just for individual customers. If you need more information, please contact the engineering department of CYCO. We can offer a engineering manual of the DE series.



Since when the pressure of the fluid has a tiny change, the flow rate would have a big variation, CYCO kindly advice that you should control the flow rate with metering pump or other metering equipment which would be better.

BSP NPT	capacity	1.0 bar air pressure		2.0 bar air pressure		3.0 bar air pressure		4.0 bar air pressure		5.0 bar air pressure		6.0 bar air pressure		7.0 bar air pressure						
		Liquid l/min	Air bar nm ³ /h	Liquid bar	Air nm ³ /h															
1"	14	2	0.9	25.0	2	1.9	45.0	2	2.8	60.2	2	3.7	86.3	2	4.6	105				
		3	0.9	20.2	3	1.9	39.0	3	2.8	56.6	3	3.8	79.8	3	4.7	97.9				
		4	1.0	17.3	4	2.0	29.1	4	2.9	50.8	4	3.8	73	4	4.8	88.9				
				5	2.0	26.8	5	3.0	43.8	5	3.9	64.8	5	4.8	82.6					
				6	2.1	24.4	6	3.0	41.2	6	3.9	57.9	6	4.9	78.3					
				7	2.1	21.9	7	3.0	38.5	7	4.0	53.2	7	5.0	69.9					
						8	3.1	35.4	8	4.1	49.9	8	5.0	66.7	8	6.2	88.9			
							9	4.1	47.0	9	5.1	64.1	9	6.3	79.8	9	7.0	93.2		
								10	4.2	45.3	10	5.1	60.5	10	6.4	75.2	10	7.1	86.0	
									12	4.4	39.3	12	5.3	53.2	11	6.6	69.6	11	7.2	83.6
1 1/2"	20	4	0.2	34.9	4	1.5	64.4	4	2.4	91.7	4	3.2	117	4	4.0	140	4	4.8	161	
		8	0.8	24.3	8	1.7	45.9	8	2.6	68.1	8	3.5	91.0	8	4.4	114	8	5.2	139	
				11	1.9	35.8	11	2.9	56.3	11	3.8	78.0	11	4.6	101	11	5.3	125		
				15	2.1	26.8	15	3.0	45.8	15	3.9	65.2	15	4.8	85.2	15	5.6	105		
				19	2.2	23.6	19	3.1	39.0	19	4.1	55.9	19	5.0	74.4	19	5.8	94.3		
				23	2.4	21.8	23	3.3	36.7	23	4.2	51.6	23	5.1	87.2	23	5.9	82.8		
						26	3.5	31.8	26	4.4	46.9	26	5.2	61.6	26	6.1	76.1	26	6.9	90.2
							30	4.5	42.9	30	5.4	55.6	30	6.2	70.4	30	7.1	87.4		
							34	4.7	37.0	34	5.6	50.6	34	6.5	62.7	34	7.3	73.2		
							38	5.0	32.4	38	5.9	47.2	38	6.7	57.8	38	7.5	64.2		
1 1/2"	28			40	3.1	76.3	40	4.0	107	40	5.0	142	40	6.0	183	40	7.0	229		
				45	3.2	69.0	45	4.2	97.4	45	5.2	130	45	6.2	167	45	7.3	208		
				50	3.3	61.8	50	4.2	88.4	50	5.2	118	50	6.3	152	50	7.3	199		
				55	3.4	55.5	55	4.3	80.7	55	5.3	109	55	6.3	141	55	7.4	175		
				60	3.5	49.1	60	4.4	73.2	60	5.4	100	60	6.4	130	60	7.5	162		
				65	3.6	43.1	65	4.6	66.3	65	5.6	92.3	65	6.6	121	65	7.6	152		
				70	3.8	37.5	70	4.8	60.2	70	5.8	85.8	70	6.8	114	70	7.9	145		
				75	4.0	32.1	75	5.0	54.6	75	6.1	80.2	75	7.1	109	75	8.2	141		
				80	4.2	27.1	80	5.2	49.8	80	6.2	76.0	80	7.2	106	80	8.2	139		

standard material :316 stainless steel, co alloy 6 weared sheath. Other material please find the stock list as reference.
Please clearly indicate: the pipe diameter, way of connection, nozzle type, spray angle and material.

Hollow Cone, Full Cone Spiral Nozzle

Design features

SPJT Nozzle is hollow/full cone with spraying angle from 60° to 170°. Under 3 Bar pressure, the flowing rate of liquid is 5.5-4140 L/min.

It has an expedite flow channel design, which can decrease liquid barrier formax. capacity with certain size. Rotary spray nozzle can be installed or updated in lots of pipe system.

NPT/BSPT (male). Thread are provided. The common 1/4"-2" nozzles are made of brass, SS316, Teflon or PVC. Other selective materials can be used for special application.



Spraying shapes



Full cone



Hollow cone

common application

- Exhaust gas filtration
- Gas cooling
- Washing and rinsing
- Fireproofing and fire extinguishment

Performance data

pipe connection NPT or BSPT (out)	Spray angle (0.7bar)					Capacity Size	orifice size (mm)	Diameter of nozzle without block(mm)	Capacity (L/min)				
	60°	90°	120°	150°	170°				0.7bar	1.5bar	3bar	7bar	25bar**
1/4	●	●	●			07	2.4	2.4	2.6	3.9	5.5	8.4	16
	●	●	●	●	●	13	3.2	3.2	4.9	7.3	10.3	15.7	30
	●	●	●	●	●	20	4.0	3.2	7.6	11.2	15.8	24	46
3/8	●					07	2.4	2.4	2.6	3.9	5.5	8.4	16
	●					13	3.2	3.2	4.9	7.3	10.3	15.7	30
	●					20	4.0	3.2	7.6	11.2	15.8	24	46
	●	●	●	●	●	30	4.8	3.2	11.4	16.7	24	36	68
	●	●	●	●	●	40	5.6	3.2	15.1	22	32	48	91
	●	●	●	●	●	53	6.4	3.2	20	30	42	64	121
1/2	●	●	●	●	●	82	7.9	3.2	31	46	65	99	187
	●	●	●	●	●	120	9.5	4.8	45	67	95	145	270
	●	●	●	●	●	164	11.1	4.8	62	92	129	198	370
3/4	●	●	●	●	●	210	12.7	4.8	60	117	166	255	480
1	●	●	●	●	●	340	15.9	6.4	130	190	270	410	775
	●	●	●	●	●	470	19.1	6.4	179	260	370	565	1070
	●	●	●	●	●	640	22.2	7.9	245	355	505	770	1460
1-1/2	●	●	●	●	●	820	25.4	7.9	310	455	645	990	1870
	●	●	●	●	●	960	28.6	7.9	365	535	755	1160	2190
2	●	●	●	●	●	1400	34.9	11.1	535	780	1105	1690	3190
	●	●	●	●	●	1780	38.1	11.1	680	995	1405	2150	4060
3	●	●	●	●		2560	44.5	14.3	980	1430	2020	3090	5830
	●	●	●	●		3360	50.8	14.3	1280	1880	2650	4050	7660
4	●	●	●	●		5250	63.5	15.9	2000	2930	4140	6330	11960

** Brass or SS316 for higher pressure.

ordering info

1/4 SPJT — SS 120 07

↓ ↓ ↓ ↓ ↓
Inlet size Nozzle type Material code Spray angle Capacity size

Remark:

BRASS

SS-stainless steel

316SS-316 stainless steel

TEF-TEFLON Poly Tetra Fluoro Ethylene

PP-Poly propylene

Nozzle Inlet Conn.	Nozzle length (mm)	Spray angle
1/4	53.9	60°, 150° and 170°
1/4	47.6	90° and 120°
3/8	60.3	60°, 150° and 170°
3/8	47.6	90° and 120°
1/2	79.4	60°, 150° and 170°
1/2	63.5	90° and 120°
3/4	87.3	60°, 150° and 170°
3/4	69.9	90° and 120°
1	116	60°, 150° and 170°
1	92.1	90° and 120°
1 1/2	171	60°, 150° and 170°
1 1/2	111	90° and 120°
2	175	60° and 170°
3	302	60°
3	203	90° and 120°
4	229	60°, 90° and 120°

accessories



Adjustable connection

Flanged Silicone Carbide Spray Nozzle

E series Spiral Nozzle

The flanging spray nozzle, with a hollow cone spray pattern, fixs on the polyester flange, having a cuspidal stucture which is made of carborundum. It also can be made of an alternative material. The flange connection size of this nozzle have 2", 3" and 4". Under pressure of 0.7 bar, the flow rate can spread from 535l/min to 2000l/min. Spray angle: 2" is 60° to 180°, 3" and 4" is 60° to 120°.

These high flow rate spray nozzles take a great effect in pollution control, cooling and air infalting. Because of the big and fluent flow channel, it is seldom clogged.

It also have a precise blade, which makes the partical well distributed and gets the best coverage area. The flanging spray nozzle can OEM accoding to customers requirement as several kinds of material for are available.

Performance data

Nozzle Inlet Conn.	Spray angle (0, 7bar)				Capacity Size	Rated Orifice Dia. (mm)	Diameter of nozzle without block(mm)	Capacity (L/m)				
	60°	90°	120°	180°				0.7bar	1.5bar	3bar	7bar	25bar
2 inch Flange	●	●	●	●	1400	34.9	11.1	535	780	1105	1690	3190
	●	●	●	●	1780	38.1	11.1	680	995	1405	2150	4060
3 inch Flange	●	●	●	●	2560	44.5	14.3	980	1430	2020	3090	5830
	●	●	●	●	3360	50.8	14.3	1280	1880	2650	4050	7680
4 inch Flange	●	●	●	●	5250	63.5	15.9	2000	2930	4140	6330	11960

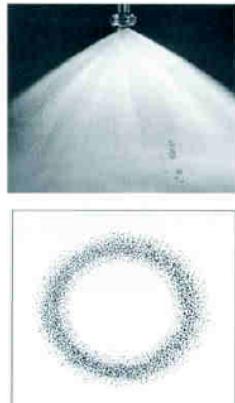
ordering info

4 — SPJT — SiC — 90 — 5250

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Flange size Nozzle type Material code Spray angle Capacity size

SPJT



common application

- Flue gas desulfurizing
- Dust removing
- Gas cooling

A AZ Fine Atomized Nozzle

A AZ-W



Strainer built-in,
wide spray angle
1/4 inch NPT
or BSPT (male)

A AZ-N



Strainer built-in,
1/4 inch NPT
or BSPT (female)

A AZ-M



camaroon design
1/4 inch NPT
or BSPT (male)

Design features

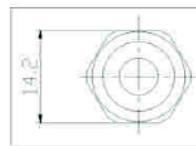
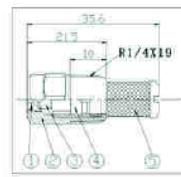
Fine atomizing nozzle utilizes the fluid pressure to produce the extremely fine particle, and the spray pattern is a uniform hollow cone, which can make the spray like fogs.

All the parts are precisely composed. The inlay of orifice, the taper core and the strainer are easy to dismantle for examining and washing.

All the above nozzles have strainers.

Common application

- Moistening in air control chamber
- Cooling for gas and metal
- Liquid medicine spraying
- humidity conditioning
- evaporative cooling



1.Orifice 2.Body 3.Cyclone Core 4.Plug 5.strainer mesh

Performance data

A AZ-W	A AZ-N	A AZ-M	Rated Orifice Dia. (mm)	Core Type	Capacity(L/min)								Spray angle			
					2bar	5bar	10bar	15bar	20bar	30bar	40bar	50bar	70bar	3bar	6bar	20bar
1.4AZ-W.60	1.4AZ-N.60	1.4AZ-M.60	0.41	206			4.3	5.3	6.1	7.5	8.6	9.7	11.4	35°	65°	
1.4AZ-W1	1.4AZ-N1	1.4AZ-M1	0.51	210		5.1	7.2	8.8	10.2	12.5	14.4	16.1	19.1	45°	62°	72°
1.4AZ-W1.5	1.4AZ-N1.5	1.4AZ-M1.5	0.51	216	4.8	7.6	10.8	13.2	15.3	18.7	22	24	29	65°	70°	72°
1.4AZ-W2	1.4AZ-N2	1.4AZ-M2	0.71	216	6.4	10.2	14.4	17.7	20	25	29	32	38	70°	75°	77°
1.4AZ-W3	1.4AZ-N3	1.4AZ-M3	0.71	220	9.7	15.3	22	26	31	37	43	48	57	65°	70°	73°
1.4AZ-W4	1.4AZ-N4	1.4AZ-M4	1.1	220	12.9	20	29	35	41	50	58	64	76	72°	81°	84°
1.4AZ-W5	1.4AZ-N5	1.4AZ-M5	1.1	225	19.3	31	43	53	61	75	86	97	114	73°	79°	81°
1.4AZ-W8	1.4AZ-N8	1.4AZ-M8	1.5	225	26	41	58	71	82	100	115	129	153	85°	89°	91°
1.4AZ-W10	1.4AZ-N10	1.4AZ-M10	1.6	420	32	51	72	88	102	125	144	161	191	82°	84°	86°
1.4AZ-W12	1.4AZ-N12	1.4AZ-M12	1.9	420	39	61	86	106	122	150	173	193	230	78°	82°	85°
1.4AZ-W14	1.4AZ-N14	1.4AZ-M14	1.9	421	45	71	101	124	143	175	206	225	265	85°	88°	90°
1.4AZ-W18	1.4AZ-N18	1.4AZ-M18	1.9	422	58	92	130	159	183	225	260	290	345	81°	84°	86°
1.4AZ-W22	1.4AZ-N22	1.4AZ-M22	1.9	625	71	112	159	194	225	275	320	355	420	70°	72°	75°
1.4AZ-W26	1.4AZ-N26	1.4AZ-M26	2.2	625	84	133	187	230	265	325	375	420	495	73°	74°	77°

ordering info

1/4 — A AZ-W — 206

Inlet size Nozzle type Core No.

FD Anti-drop Misting Nozzle

Nozzle body is made of brass, with stainless steel nozzle core and stainless steel flow leading vane(include a leakproof device) inside. Under hydraulic pressure of 70kg to 120kg, it flows with high speed and forms centrifugal volution in flow leading vane. Then it sprays tiny hollow spraying drop of around 50um with Teflon mesh, which can be widely applied in moisturization and man-made mist. It introduced American driller for drill of spray hole, with hole diameter of 0.1mm to 0.15mm. Compared with air moisturization, it cuts cost by ten times.



FD Series

	FD Series
Structure	It is composed of brass body, SS paneling, O-shaped sealing ring and leakproof globe.
Material	Brass or SS303

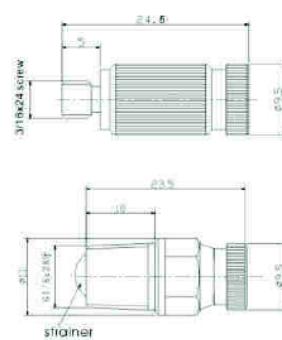
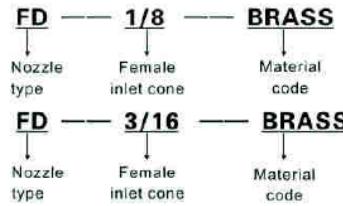
Performance data

Brass nozzle	Orifice	Operation pressure	Spray volume
FD 1	0.15mm		20~46cc/min
FD 2	0.20mm		49~89 cc/min
FD 3	0.30mm		80~145 cc/min
FD 4	0.40mm		95~178 cc/min
FD 5	0.50mm		130~243cc/min

common application

- Wetting & rust removal
- Humidify for space
- Chemical treatment
- Chemical agent spraying
- Liquid coating
- Humidify for tobacco leaf
- Pill coating
- Evaporative cooling for flue gas
- Disinfection & sterilization
- Parts cooling
- Fruit wax injection
- Ceramic tile glazing
- Humidify for factory
- Salt fog test
- Artificial fog
- Humidify for other place

ordering info



FE Plastic Fine Misting Nozzle

Design features

Material: PP

Features: All the parts are precisely manufactured, the spray particles is 20-40micro

Spray angle: 80-90 degrees,

Water output: 1.6-3.4/hr.

Water system pressure: 3-14kg

The coverage area of each spray nozzle is 3-4 square meter.

Cooling capacity: 5-10°C

Advantages: It features a strainer inside which can guarantee no-clogging being blocked and more durable. It also has the function of anti-drip that the nozzle will not drip when the pressure system is closed.



common application

- Cooling and humidifying in the factory and greenhouse
- Industry: Humidifying in textile mill building, cigarette factory building, electronic factory building, paper mill building, printing house building, auto coating plant building, wood/furniture processing factory building, explosive plant building and so on. Cooling in power plant building and steelworks building. Humidifying and cooling in brewing and food service industry.
- Agriculture: Humidifying and cooling in refrigeratory, greenhouse, livestock production, plant nursery, edible fungi cultivation, fruit-vegetable cultivation, electrostatic prevention, disinfection, haze injury control, dust abatement.
- Landscape spraying: The fog spraying out from the nozzle like a cloud, floating with wind in the air, sometimes visible, and sometimes fading away, very beautiful. Meanwhile, there are a lot of negative ion in the spray particles, which can increase the oxygen content in the air, making a most friendly-environmental place to live.

Spray applications



G Series Adjustable Clamp Nozzle

Adjustable Clamp nozzle



Design features



Adjusting Ball-Type Nozzle have got two types: clamp connection type(26988/27988 series) and thread connection type(155series). The clamp connection type nozzle is positioned on the pipe with spring clamp while the thread connection type nozzle is positioned by the way of thread connection.

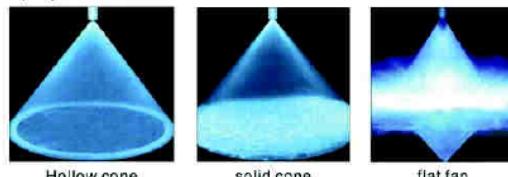
Adjusting Ball-Type Nozzle provides hollow cone spray pattern, solid cone spray pattern and flat fan spray pattern. It meets various needs by directly connecting ball spray tip or by indirectly connecting spray tip with threaded ball or quick dismantling ball. It permits accurate alignment and convenient nozzle positioning without disturbing pipe connection.

Adjusting Ball-Type Nozzle allows for quick and easy tip replacement. Spray tips can be removes without the use of tools, removing the existing spray tip by hand and installing the new tip.

Clamp Nozzle Specification

Type	Clamp Size (inch)	Clamp Outer Dia. (mm)	Pipe Orifice Dia. (Mm)
26988	1	32-35	14
	1-1/4	38-43	16
	1-1/2	44-51	18
	2	54-60	20
27988	1/2	21	14
	3/4	27	
	2	54-60	

Spray Pattern



Threaded Nozzle Specification

Type	Connection Thread Size (inch)
155	1/8
	1/4
	3/8
	1/2

common application

- Metal Cleaning
- Degreasing and phosphatizing in surface treatment
- Other Low Pressure Applications

material characteristics

Parts	Materials
Cap	Fiber-glass-reinforced PP(25%fiber) with maximum temperature of 82°C good performance on chemical resistance
Spray Tip	carbon fiber-glass-reinforced PP(40%fiber) with maximum temperature of 120°C good performance on chemical resistance and abrasion resistance
Base	butadiene acrylonitrile rubber
Spring Clamp	Spring Clamp/hardened 304 stainless steel
Gasket	fluorine rubber

Performance data

Hollow Cone Spray Tip



nozzle type	Capacity liters per minute								Spray angle		
	0.3bar	0.7bar	1bar	1.5bar	2bar	3bar	4bar	0.5bar	1.5bar	4bar	
AT15-30.1	6. 2	8. 8	10. 4	12. 6	14. 5	17. 6	20. 2	46°	49°	51°	
AT25-30.1	7. 5	10. 7	12. 7	15. 4	17. 6	21. 4	24. 6	45°	47°	50°	
AT55-50.1	13. 5	19. 0	22. 7	27. 8	32. 0	39. 2	45. 2	39°	46°	48°	
AT55-50.3	13. 5	19. 0	22. 7	27. 6	31. 8	38. 7	44. 4	75°	45°	76°	



Flat Fan Spray Tip

Spray Tip Type (spray angle at 3 bar)						Capacity(L/min)						
15°	25°	40°	50°	65°	80°	0.3bar	0.7bar	1bar	1.5bar	2bar	3bar	4bar
			CT6510	CT8010		1.2	1.9	2.3	2.8	3.2	3.9	4.6
	CT4020	CT5020	CT6520			2.5	3.8	4.6	5.6	6.5	7.9	9.1
CT2530	CT4030	CT5030	CT6530			3.7	5.7	6.8	8.4	9.7	11.8	13.7
	CT4040	CT5040	CT6540	CT8040	5.0	7.6	9.1	11.2	12.9	15.8	18.2	
CT550	CT4050	CT5050	CT6550			6.2	9.5	11.4	14.0	16.1	19.7	23
	CT1560	CT4060	CT5060	CT6560	CT8060	7.5	11.4	13.7	16.7	19.3	24	27
CT1570	CT1570	CT4070	CT5070	CT6570	CT8070	8.7	13.3	16.0	19.5	23	28	32
CT15100	CT15100	CT40100	CT50100	CT65100	CT80100	12.5	19.1	23	28	32	39	46



Full Cone Spray Tip

nozzle type	Capacity(L/min)						Spray angle			
	0.3bar	0.7bar	1bar	1.5bar	2bar	3bar	4bar	0.5bar	1.5bar	4bar
BT6	1.6	2.3	2.6	3.2	3.7	4.5	5.1	69°	74°	68°
BT12.5	3.4	4.8	5.4	6.8	7.7	9.3	10.6	69°	74°	68°
BT25	6.7	9.5	10.9	13.5	15.4	18.6	21	64°	67°	63°
BT50	13.5	19.1	21.9	27	31	37	42	91°	94°	88°



Quick Dismantling Ball Specification

Quick Dismantling Ball Type	Connection Object
BLQ	Quick Dismantling Object



Threaded Ball Specification

Threaded Ball Type	Thread Size inch
BL1	1/8
BL2	1/4
BL3	3/8



Flat Fan Quick Dismantling Spray Tip

Spray Tip Type (spray angle at 3 bar)						Capacity(L/min)							
50°	65°	80°	95°	110°	0.3bar	1bar	2bar	3bar	4bar	5bar	6bar	7bar	14bar
QC5001	QC6501	QC8001	QC9501	QC11001	0.12	0.23	0.32	0.39	0.46	0.51	0.56	0.60	0.85
QC5002	QC6502	QC8002	QC9502	QC11002	0.25	0.45	0.64	0.79	0.91	1.0	1.1	1.2	1.7
QC5003	QC6503	QC8003	QC9503	QC11003	0.37	0.69	0.97	1.2	1.4	1.5	1.7	1.8	2.6
QC5004	QC6504	QC8004	QC9504	QC11004	0.5	0.92	1.3	1.6	1.8	2.0	2.2	2.4	3.4
QC5005	QC6505	QC8005	QC9505	QC11005	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	4.3
QC5006	QC6506	QC8006	QC9506	QC11006	0.75	1.3	1.9	2.4	2.7	3.1	3.3	3.6	5.1
QC5008	QC6508	QC8008	QC9508	QC11008	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	6.8
QC5010	QC6510	QC8010	QC9510	QC11010	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	8.5
QC5015	QC6515	QC8015	QC9515	QC11015	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	12.8
QC5020	QC6520	QC8020	QC9520	QC11020	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	17.1
QC5030	QC6530	QC8030	QC9530	QC11030	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	26



Full Cone Quick Dismantling Spray Tip

nozzle type	Capacity(L/min)								Spray angle				
	0.5bar	0.7bar	1.5bar	2bar	3bar	4bar	5bar	6bar	7bar	10bar	0.5bar	1.5bar	6bar
QB1	0.25	0.38	0.54	0.82	0.74	0.85	0.94	1.0	1.1	1.3	—	58°	53°
QB2	0.65	0.76	1.0	1.2	1.5	1.7	1.9	2.0	2.2	2.6	43°	50°	46°
QB3	0.98	1.1	1.6	1.9	2.2	2.5	2.8	3.1	3.3	3.9	52°	65°	59°
QB3.5	1.1	1.3	1.9	2.2	2.6	3.0	3.3	3.6	3.9	4.5	43°	50°	46°
QB5	1.6	1.9	2.7	3.1	3.7	4.2	4.7	5.1	5.5	6.5	52°	65°	59°
QB6.5	2.1	2.5	3.5	4.0	4.8	5.5	6.1	6.7	7.1	8.4	45°	50°	46°
QB10	3.3	3.8	5.4	6.2	7.4	8.5	9.4	10.2	11.0	13.0	58°	67°	61°



26988 — 1 — D14 — PP + CT 6530 — PP
Nozzle type
clamp size
Pipe Dia.
Material code
Spray Tip Type
Material code

155 — 3/8 — PP — BLQ — PP + QC 6505 — PP
Nozzle type
Inlet size
Material code
Quick Dismantling Ball type
Material code
Spray Tip Type
Material code

26988RS Adjustable Global spray Nozzle

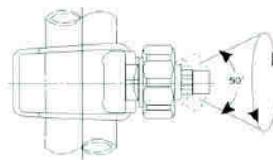
Available spraying modes:hollow cone,full cone and flat fan.Available spray tip:connecting type and whole type.The body can be made of Brass or SS,while the screw thread can be made of PVDF,Brass,SS or Titanium.

The spray tip can be quickly oriented and direct disassembled without other tools.

Available sizes of water pipe for body listed as follows:

26988RS Series

Model	Clamp size (inch)	Outer Dia. of pipe(mm)	Orifice of pipe(mm)
26988RS	1	32-35	14
	1-1/4	38-43	16
	1-1/2	44-51	18
	2	54-60	20



Flat Fan Spray Tip

Spray Tip Type (spray angle at 3 bar)						Capacity (L/min)						
15°	25°	40°	50°	65°	80°	0.3bar	0.7bar	1bar	1.5bar	2bar	3bar	4bar
				CT6510	CT8010	1.2	1.9	2.3	2.8	3.2	3.9	4.6
		CT4020	CT5020	CT6520		2.5	3.8	4.6	5.6	6.5	7.9	9.1
CT2530	CT4030	CT5030	CT6530			3.7	5.7	6.8	8.4	9.7	11.8	13.7
	CT4040	CT5040	CT5040	CT8040	5.0	7.6	9.1	11.2	12.9	15.8	18.2	
CT550	CT4050	CT5050	CT6550			6.2	9.5	11.4	14	16.1	19.7	23
	GT2560	CT4060	CT5060	CT6560	CT8060	7.5	11.4	13.7	16.7	19.3	24	27
CT1570	CT1570	CT4070	CT5070	CT6570	CT8070	8.7	13.3	16.0	19.5	23	28	32
CT15100	CT15100	CT40100	CT50100	CT65100	CT80100	12.5	19.1	23	28	32	39	46

Hollow Cone Spray Tip

nozzle type	Capacity (L/min)						Spray angle			
	0.3bar	0.7bar	1bar	1.5bar	2bar	3bar	4bar	0.5bar	1.5bar	4bar
AT15-30.1	6.2	8.8	10.4	12.6	14.5	17.6	20.2	46°	49°	51°
AT25-30.1	7.5	10.7	12.7	15.4	17.6	21.4	24.6	45°	47°	50°
AT55-50.1	13.5	19.0	22.7	27.8	32.0	39.2	45.2	38°	46°	48°
AT55-50.3	13.5	19.0	22.7	27.6	31.8	38.7	44.4	75°	75°	76°

Full Cone Spray Tip

nozzle type	Capacity (L/min)						Spray angle			
	0.35bar	0.7bar	1bar	1.5bar	2bar	3bar	4bar	0.5bar	1.5bar	4bar
BT6	1.6	2.3	2.6	3.2	3.7	4.5	5.1	69°	74°	68°
BT12.5	3.4	4.8	5.4	6.8	7.7	9.3	10.6	69°	74°	68°
BT25	6.7	9.5	10.9	13.5	15.4	18.6	21	64°	67°	63°
BT50	13.5	19.1	21.9	27	31	37	42	91°	94°	88°

ordering info

26988RS — 1-1/4 — D14 — SS + BI2 — SS + CC1/4 — SS 6505

Nozzle series Clamp size Pipe orifice Dia. Material code Threaded Ball Material code Nozzle type.

PVDF nozzle

Design features

High purity

PVDF nozzle is made of PVDF, which is a sort of natural & pure material without pigment. It can keep high clarification in processing and meet the requirements high.

Heat Resistance

Max temperature of PVDF nozzle is 148°C with 7kg press; Suitable for PCB printing course, including development, plating, etching and film removal.

Anticorrosive

PVDF has good anti corrosion; The PVDF nozzle can be widely used in spraying of chlorid, acid, alkali and amidogen with good antiagig performance.



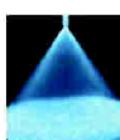
Wide scope and long life

Available sizes of PVDF nozzle: 1/8", 1/4" & 3/8". Three available size for common pipes with different spraying capacity and angle to meet various requirements. As high hardness material, it is wearable and impact resistant with high-intensity.

Performance Data



BB-KY Nozzle

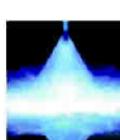


Full Cone

Inlet Joint	Capacity	Capacity (L/min)						Spray angle			
		0.7Bar	1.5Bar	2Bar	3Bar	4Bar	6Bar	7Bar	0.7Bar	1.5Bar	6Bar
1/8	1.3	0.5	0.7	0.8	0.97	1.1	1.3	1.4	52°	65°	59°
	3	1.1	1.6	1.9	2.2	2.5	3.1	3.3	52°	65°	59°
	4	1.5	2.2	2.5	3.0	3.4	4.1	4.4	52°	65°	59°
	6	2.3	3.2	3.7	4.5	5.1	6.1	6.6	67°	75°	82°
1/4	6	2.3	3.2	3.7	4.5	5.1	6.1	6.6	67°	75°	82°
	8	3.0	4.3	4.9	6.0	6.8	8.2	8.8	58°	70°	64°
3/8	6	2.3	3.2	3.7	4.5	5.1	6.1	6.6	67°	75°	82°
	8	3.0	4.3	4.9	6.0	6.8	8.2	8.8	58°	70°	64°
	10	3.8	5.4	6.2	7.4	8.5	10.2	11.0	58°	70°	64°



CC-KY Series



Flat Fan

Inlet Joint	Spray Angle				Capacity (L/min)									
	65°	80°	95°	120°	0.3Bar	1Bar	2Bar	3Bar	4Bar	5Bar	6Bar	7Bar	10Bar	
1/8	6502	8002	9502	12002	0.25	0.46	0.64	0.79	0.91	1.0	1.1	1.2	1.4	
	6503	8003	9503	12003	0.37	0.68	0.97	1.2	1.4	1.5	1.7	1.8	2.2	
	6504	8004	9504	12004	0.50	0.91	1.3	1.6	1.8	2.0	2.2	2.4	2.9	
	6505	8005	9505	12005	0.62	1.1	1.6	2.0	2.3	2.5	2.8	3.0	3.6	
	6506	8006	9506	12006	0.75	1.4	1.9	2.4	2.7	3.1	3.3	3.6	4.3	
1/4	6508	8008	9508	12008	1.0	1.8	2.6	3.2	3.6	4.1	4.5	4.8	5.8	
	6510	8010	9510	12010	1.2	2.3	3.2	3.9	4.6	5.1	5.6	6.0	7.2	
	6515	8015	9515	12015	1.9	3.4	4.8	5.9	6.8	7.6	8.4	9.0	10.8	
	6520	8020	9520	12020	2.5	4.6	6.5	7.9	9.1	10.2	11.2	12.1	14.4	
3/8	6530	8030	9530	12030	3.7	6.8	9.7	11.8	13.7	15.3	16.7	18.1	22	

Ordering Information

BB-KY—1/8—4

Nozzle series
Inlet connection
Flow rate code

CC-KY—1/4—6510

Nozzle series
Inlet connection
Flow rate code

Application

- PCB
- Wash & Rinse
- Dust Removing
- Quenching & Cooling
- Gas Filtration
- Oxidization, Froth
- Extinguishment & aeration

J Series Of Plastic Clamp Nozzle



KC-01
1" clamp



KC-02
1/2" Lamp



KC-03
3/4" lamp



KC-04
3/4" lamp



JK Series

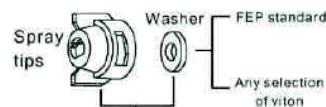
It is installed in the pipe size of 1/2" 3/4" or 1" with the size of orifice is 3/8". The pressure is 320 bar for accessories.



The standard material for gasket is PP while Viton is available. Gaskets fixed in spray caps are installed on spray tips.

The interchangeable spray tips whose operating pressure limit is 20 bar, are made from PP/SS/BRASS. Grooves are designed in spray caps to fix the lugs. The spray caps are made from nylon.

Part No	Folder tube
JK7421-1/2-NYB	1/2" Lamp
JK7421-3/4-NYB	3/4" lamp
JK7421-1-NYB	1" clamp



Quick removable e tips and gasket

Spray tips tips are replaced used	Quick removable e tips	Part No	
		Spray tips	Quick removable e tips and gasket
		CP25611-NY	25612-NYR
		CP25609-NY	25610-NYR

Metal clamp connector

Design features

Connector provides quick and economical method for the nozzle and other parts installation at piping. Only to drill a hole of fitting diameter, along the pipeline to slip the connector and screw the bolt tightly, lock up it at proper place. This special design not only avoids the jointing of screw thread, but also reduces the cost. It also can use to install the nozzle in the sustain pipe which without screw thread.

Connector body was made of steel bar, the joint size of exit can be choosing. If it must uninstall the nozzle after the connector installation, then this design prevents the connector running in the clip button.

This connector entrance can embed the pipeline, it avoid deposit enter into it and make the block reduce minimum. DingQing rubber tight fix the cushions that can make most material erode, it provides a well airproof condition.

Performance Data

The model No. are based on the max. size and heaviest weight

Folder deduction connectors	Clamp size	Outlet connection NPT or BSPT	Common material			Max. liquid (L/MIN)	Max. pressure (bar)	Size				Net weight (kg)
			A	B	C			A (mm)	B Pipe orifice dia.	C Body inlet dia.	D (mm)	
7521	1/2	20-22	1/8	1/4		17	11	48	7.1mm	4.8mm	17.5	0.06
	3/4	25-27	1/8	1/4				54				
	1	32-35	1/8	1/4				57				
8370	1/4	39-43	1/4	3/8	1/2	9	45	70	17.5mm	11.1 or 14.3mm	20	0.17
	1/2	44-51	1/4	3/8	1/2			81				
	2	54-60	1/4	3/8	1/2			88				

A standard for galvanize metal clamp & bolt used in brass connector .B standard for SS .C standard for galvanize metal clamp & bolt used in SS connector.



Ordering Information

7521 — B — 1 X 1/4

↓ ↓ ↓ ↓
Connector Model Material code Clamp size Outlet connection NPT or BSPT (Outside)