CYCO
Nations Technology

# Industrial spray nozzle









Dongguan Changyuan Spraying Technology Co.,Ltd.

The specialised manufacturer of Industrial nozzle




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# Company profile

SIGMA International Co., Ltd, located in San Francisco, California, is a company specializing in product development,manufacturing and international trade, technology import and export as an integrated enterprise, the name comes from SIGMA Six Sigma, it represents the highest quality and is closest to perfect pursuit. SIGMA processes forstrictcontrol of the production and quality to ensure the bestproducts available to consumers.

The company is the world's leading technology arena.SIGMA hiredhigh-tech talent people from Silicon Valley with a strong R & D team to make sigma develop high-quality products , and has a strong control over the supply chain , competitive price .

Spraying products and precision metal processing series are parts of the company's products, which are managed by a dedicated team, SIGMA spray division sells the following products:

1. Spray cleaning/washing products
2. Spray humidification products
3. Spray dust control/dust suppression products
4. spray coating products
5. Precision forged Products
6. Precision casting Products
7.CNC precision machined products
8. Precision water filters and related accessories



## Advanced Equipments, Assurance of Quality

Our company import the made in Japan CNC machines with the precision exceeding 2μ, and several U.S. precise punching machine with the precision reaching 0.01mm, high pressure test bench and other precise granule test machines. Advanced equipment is the assurance for our quality improvement. The clients can select such materials as polypropylene, ceramics, alloy, imported 303, 304 or 316 stainless steel to make nozzle according to the actual conditions.





## Creative Technique and Design

"Life lies in movements, success lies in innovation". Each worker of our Development Department, Production Department and Sales Department are dedicated in improving the performance and quality of spraying products. Basing on satisfying the existing clients, we are constantly forecasting the developing trend of spraying products, constantly innovate and improve our products such as the improvement of existed products, application of new materials and new testing equipments and methods as well as new service. We timely improve our making procedures and techniques according to the market feedback, thus completely integrating with the market and enabling the clients to enjoy the pleasure brought from new technology.









## The most previous examination

In the profession, SIGMA utilizes of most advanced and most precise testing equipments,we achieve what we have reminded. We are dedicated in improving the testing equipments. We feature strict requirements to the suppliers (metal bars and plastic).Each procedure transporting tostoring is under strict control.We also present stricproducts checking,thus assuring to provide precise data to our clients.

# Pursue global strategy target

SIGMA International Corp.LLC. is developing towards the target of world top company with the global strategy vision. All the staffs are devoting to satisfying the requirements of different clients in the world. The powerful R&D team and world wide sales network are capable of satisfying the requirements of the clients in settling the problems in nozzle, presenting project of improvement and even providing the manufacturers of nozzle parts, thus settling the problems of the suppliersor terminal clients, and achieving shared resources.




NO international competition,
there's no long term development

# Extension of the product application

SIGMA features a wide variety of products, including universal cleaning nozzle, high pressure atomization nozzle, high pressure cleaning nozzle,from the ordinary workpiece cleaning to environment protection dust removing and desulfurizing to the corrosive carving and cleaning of electronic circuit board, from phosphorization to humidifying, lubricating, iron and steel dephosphorization.



Plastic parts automatic coating treatment



For cleaning and dust removing



For corrosive carving and cleaning circuit board



For cleaning electroplated wires



For auto parts surface treatment



For automobile coating



For distinguishing of drilling platform

# Spraying Pattern

The spraying pattern of the nozzle consist of four types:



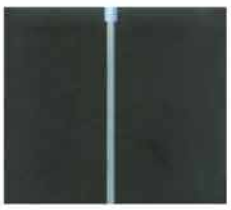
1、Fan Fan



2. Hollow Cone



3. Full Cone



4. Solid stream

# The difference of Spraying Granule

Our company separate showering and spraying, it is called as spraying if the granule is less than 100mm, and showering more than 100mm. usually,The nozzle for spraying is used for workshop humidifying, artificial fog and spraying drying. However, nozzle for showering is mainly used for removing dust, cleaning and dephosphorizing for iron and steel.

# Tolerance of Nozzle Flux and Angle

The tolerance of capacity of our nozzle is ±5.5%
The tolerance of angle of our nozzle is ±5°
The tolerance of angle of solid stream is ±3°

# Material Selection of the Nozzle

In various kinds of nozzles, SIGMA International Corp.LLC. has marked the materials on the products, the ordinary engineering PP nozzles are markedwith PP, stainless steel SS, brass BRASS, for see the table below for details:

| | | |
|---|---|---|
| Plastic | Poly(vinyl chloride) | PVC |
| | Poly propylene | PP |
| | Polyphenylene oxide | PPO |
| | 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

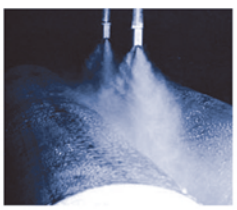
The application scope is widespread, penetrates into various areas, the product has covered with surface treatment, electron, spinning and weaving, steel and iron, drugs manufacture. Increasing application scope evince that SIGMA' S nozzle has been a dramatic influence

## ■Washing

Semiconductor wafer cleaning
Waste gas desulphurization
Cement mixer's high-pressured 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 ans inside surface of tank clean
biscuit packaging environment for food-processing
Strainer and filter
Fruit & vegetables washing
bottle capsule clean 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 dephosphorization on-
the surface of rolled steel
barrels self-cleaning
plastic containers cleaning
Various of Containers and OilTank cleaning
Clean the floor in processing workshop

## ■Cooling

Cancle foctory's gas ignition
Steel continuous casting
skin coverage wire elongation project
plastic pipe forming
Cooling tower
conveyer belt colling
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 end cooling
aluminium ware angioclast cooling
hoop rolling mill cooling
tool and material colling
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



steel rolls cooling



Humidify for space
prevent electrostatic

## ■Spice additive industry

Products concoction
Hot water and gas invoive in the steam



Humidify for mushroom cultivates

## ■Humidify for space and local resistance

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

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



storage groove LNG

## ■AntiVirus and disinfection

Bottle capsule's disinfection
Rice vessel's backwoods coli countermeasure

disinfected cloth fon the food conveyor belt
Building clean

## ■Spraying & Coating

sirup spray on sponge cake
dustproof spray on iconoscope
sugar-coating
spray adhesives on construct plywoods
phosphorize metal parts
airless spray and spray paint
tablet coating
antirust 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 basting
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 discerption before punch
replacing indication of air condition filter

## ■Dust prevention

grist deposite field conveying
prevent dust from clinging after coating
cement and mill factory
prevent dust when conveying foundration
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
humidify 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 clearing 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 insufflation
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
air scrubbing in pipe and cleaning tower
remove sulfur dioxide ( $SO_2$ )
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


Pretoeatment for car industry


Textile workshop humidification

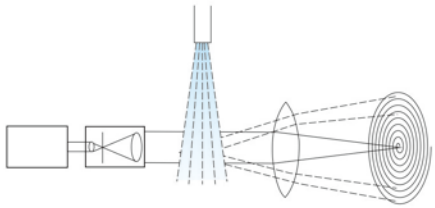

Coding in HongKong Ocean Park


Coding in HongKong Ocean Park

## ▶▶ The principle of work of laser particle sizer in SIGMA

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

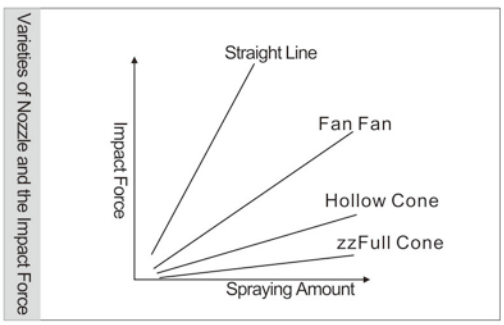
The liquid flows at high speed at the mouth of the nozzle, therefore, the nozzle mouth will be easily worn. Different chemical liquid has different PH value and viscosity, and has different friction to the nozzle. The friction to the nozzl is also different even the PH value and viscosity is the same if different materials are used. The hardness of ceramics (SIS) 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 inchemical resistance, therefore it is the nozzle with most application.

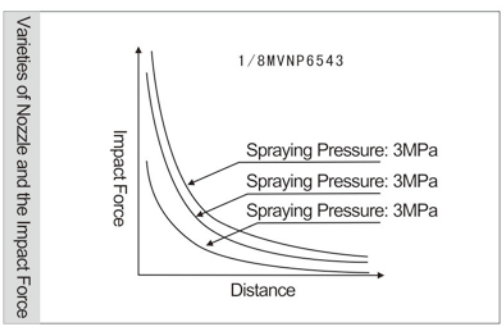
## The spraying angle of the nozzle is different under different pressure

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 cleanness 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 | $1\times10^{-4}$ | 0.155 | $1.08\times10^{-6}$ |
| $1\times10^{4}$ | 1 | $1.55\times10^{3}$ | 10.8 |
| 6.45 | $6.45\times10^{-4}$ | 1 | $6.94\times10^{-3}$ |
| $9.30\times10^{2}$ | $9.30\times10^{-2}$ | $1.44\times10^{2}$ | 1 |

| Length | | | | | |
|---|---|---|---|---|---|
| um | mm | cm | m | in | ft |
| 1 | $1\times10^{-3}$ | $1\times10^{-4}$ | $1\times10^{-6}$ | $3.94\times10^{-5}$ | $3.28\times10^{-6}$ |
| 1,000 | 1 | 0.1 | $1\times10^{-3}$ | $3.94\times10^{-2}$ | $3.28\times10^{-3}$ |
| $1\times10^{4}$ | 10 | 1 | $1\times10^{-2}$ | $3.94\times10^{-1}$ | $3.28\times10^{-2}$ |
| $1\times107$ | $1\times10^{3}$ | 100 | 1 | $3.94\times10$ | 3.28 |
| $2.54\times10^{4}$ | 25.4 | 2.54 | $2.54\times10^{-2}$ | 1 | $8.33\times10^{-2}$ |
| $3.05\times10^{5}$ | $3.05\times10^{2}$ | $3.05\times10$ | $3.05\times10^{-1}$ | 12 | 1 |

| Flow rate | | | | | | |
|---|---|---|---|---|---|---|
| L/Min | $m^3$/min | $m^3$/hr | $in^3$/hr | $ft^3$/h | GAL: Metric GAL | GAL: British GAL |
| 1 | 0.001 | 0.06 | $3.66\times10^{3}$ | 2.12 | 0.264 | 0.22 |
| 1,000 | 1 | 60 | $3.66\times10^{6}$ | $2.12\times10^{3}$ | 264 | 220 |
| 16.67 | 0.017 | 1 | $6.10\times10^{4}$ | 35.3 | 4.40 | 3.67 |
| $2.73\times10^{-4}$ | $2.7\times10^{-7}$ | $1.64\times10^{-5}$ | 1 | $5.79\times10^{-4}$ | $7.22\times10^{-5}$ | $60.1\times10^{-5}$ |
| 0.472 | $4.72\times10^{4}$ | 0.028 | 1.728 | 1 | 0.125 | 0.104 |
| 3.79 | 0.004 | 0.227 | $1.39\times10^{4}$ | 8.02 | 1 | 0.833 |
| 4.55 | 0.005 | 0.273 | $1.66\times10^{4}$ | 9.63 | 1.2 | 1 |

| Pressure | | | | | | |
|---|---|---|---|---|---|---|
| KPa | bar | $kg/cm^2$ | $ib/in^2$(p.si) | Atm | mHg | $mH_2O$(mAg) |
| 1 | 0.01 | 0.01 | 0.145 | $9.87\times10^{-3}$ | $7.50\times10^{-3}$ | 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 |
| $1.01\times10^{2}$ | 1.013 | 1.033 | 14.7 | 1 | 0.76 | 10.34 |
| $1.33\times10^{2}$ | 1.33 | 1.36 | 19.3 | 1.32 | 1 | 13.61 |
| 9.807 | 0.098 | 0.10 | 1.42 | 0.097 | 0.073 | 1 |

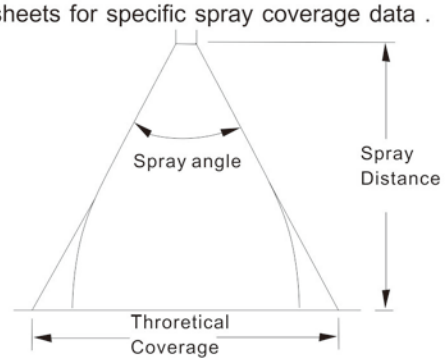
| Dimension | | | | | |
|---|---|---|---|---|---|
| $cm^3$ | l | $M^3$(kl) | $ft^3$ | GAL: British GAL | GAL: Metric GAL |
| 1 | $1\times10^{-3}$ | $1\times10^{-6}$ | $3.53\times10^{-5}$ | $2.2\times10^{-4}$ | $2.64\times10^{-4}$ |
| 1,000 | 1 | $1\times10^{-3}$ | $3.53\times10^{-2}$ | 0.22 | 0.264 |
| $1\times10^{6}$ | 1,000 | 1 | 353 | 220 | 264 |
| $2.83\times10^{4}$ | 28.3 | $2.83\times10^{-2}$ | 1 | 0.623 | 0.749 |
| $4.55\times10^{3}$ | 4.55 | $4.55\times10^{-3}$ | 1.6 | 1 | 1.2 |
| $3.79\times10^{3}$ | 3.79 | $3.79\times10^{-3}$ | 1.34 | 0.833 | 1 |

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

| Water Flow and Suitable Pipe Diameter | | | | | Water Flow and Suitable Pipe Diameter | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pipes Diameter | | Steel Tube | | Flow rates when the pipe is 10m and the pressure loss ranges 0.01-0.03MPa | Pipes Diameter | | Steel Tube | | Flow rates when the pipe is 10m and the pressure loss ranges 0.01-0.03MPa |
| A | B | Internal | External | | A | B | Internal | External | |
| 6A | 1/8B | 6.5 | 10.5 | 1.3-2.2 | 40A | 11/2B | 41.6 | 48.6 | 120-210 |
| 8A | 1/4B | 9.2 | 13.8 | 3-5.2 | 50A | 2B | 52.9 | 60.5 | 215-370 |
| 10A | 3/8B | 12.7 | 17.3 | 7-12 | 65A | 21/2B | 67.9 | 76.3 | 410-700 |
| 15A | 1/2B | 16.1 | 21.7 | 12-21 | 80A | 3B | 80.7 | 89.1 | 680-1,200 |
| 20A | 6B | 21.6 | 27.2 | 22-38 | 100A | 4B | 105.3 | 114.3 | 1,200-2,100 |
| 25A | 1B | 27.6 | 34.0 | 38-65 | 125A | 5B | 130.8 | 139.8 | 2,100-3,600 |
| 32A | 11/4B | 35.7 | 42.7 | 70-120 | 150A | 6B | 155.2 | 165.2 | 3,300-5,700 |

# SPRAY ANGLE AND COVERAGE

Tabulated spray angles indicate approximate coverages based on spray of or distribution of water .In actual spraying ,the effiective 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 actural pratice,the tabulated spray angle does not hold for long spray diatances ,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 | 26.6 | 31.0 | 35.5 | 44.3 |
| 30° | 2.7 | 5.4 | 8.0 | 10.7 | 13.4 | 16.1 | 21.4 | 26.8 | 32.2 | 37.5 | 42.9 | 53.6 |
| 35° | 3.2 | 6.3 | 9.5 | 12.6 | 15.8 | 18.9 | 25.2 | 31.5 | 37.8 | 44.1 | 50.5 | 63.1 |
| 40° | 3.6 | 7.3 | 10.9 | 14.6 | 18.2 | 21.8 | 29.1 | 36.4 | 43.7 | 51.0 | 58.2 | 72.8 |
| 45° | 4.1 | 8.3 | 12.4 | 16.6 | 20.7 | 24.9 | 33.1 | 41.4 | 49.7 | 58.0 | 66.3 | 82.8 |
| 50° | 4.7 | 9.3 | 14.0 | 18.7 | 23.3 | 28.0 | 37.3 | 46.6 | 50.6 | 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 | 153 |
| 80° | 8.4 | 16.8 | 25.2 | 33.6 | 42.0 | 50.4 | 67.1 | 83.9 | 101 | 118 | 134 | 168 |
| 85° | 9.2 | 18.3 | 27.5 | 36.7 | 45.8 | 55.0 | 73.3 | 91.6 | 110 | 128 | 147 | 183 |
| 90° | 10.0 | 20.0 | 30.0 | 40.0 | 50.0 | 60.0 | 80.0 | 100 | 120 | 140 | 160 | 200 |
| 95° | 10.9 | 21.8 | 32.7 | 43.7 | 54.6 | 65.5 | 87.3 | 109 | 131 | 153 | 175 | 218 |
| 100° | 11.9 | 23.8 | 35.8 | 47.7 | 59.6 | 71.5 | 95.3 | 119 | 143 | 167 | 191 | 238 |
| 110° | 14.3 | 28.6 | 42.9 | 57.1 | 71.4 | 85.7 | 114 | 143 | 171 | 200 | 229 | 286 |
| 120° | 17.3 | 34.6 | 52.0 | 69.3 | 86.6 | 104 | 139 | 173 | 208 | 243 | | |
| 130° | 21.5 | 42.9 | 64.3 | 85.8 | 107 | 129 | 172 | 215 | 257 | | | |
| 140° | 27.5 | 55.0 | 82.4 | 110 | 137 | 165 | 220 | 275 | | | | |
| 150° | 37.3 | 74.6 | 112 | 149 | 187 | 224 | 299 | | | | | |
| 160° | 56.7 | 113 | 170 | 227 | 284 | | | | | | | |
| 170° | 114 | 229 | | | | | | | | | | |

## The folow 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 prressure .

$$\frac{Q_1 \text{Flow rate(L/min)}}{Q_x \text{Flow rate(L/min)}} = \frac{\sqrt{F_1 \text{Pressure (kg/cm}^2\text{)}}}{\sqrt{F_2 \text{Pressure (kg/cm}^2\text{)}}}$$

so it comes to

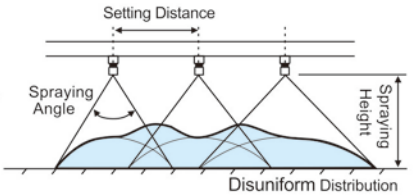
$$Q_x = Q_1 \sqrt{\frac{F_2 \text{Pressure (kg/cm}^2\text{)}}{F_1 \text{Pressure (kg/cm}^2\text{)}}}$$

# Usage of Atomization Nozzle

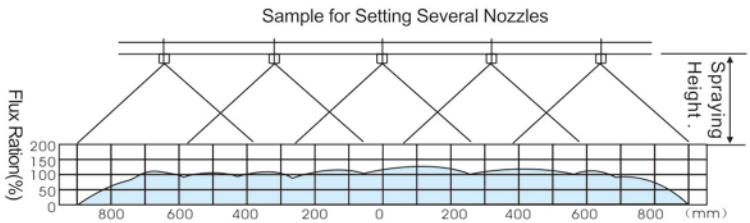
## 一、Usage of Flat Fan Nozzle

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.




(1)If the performance is different

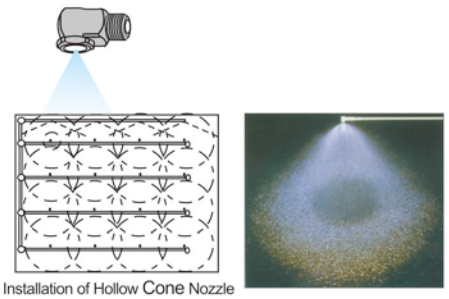



(2)Sample for setting several nozzles with precision assurance

## 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

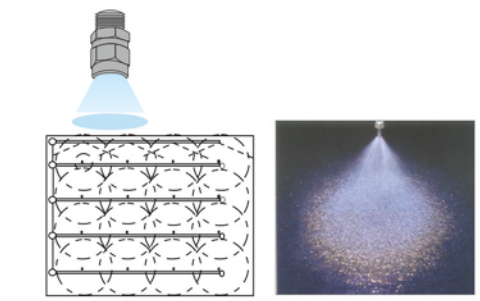


Installation of Hollow Cone Nozzle

## 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



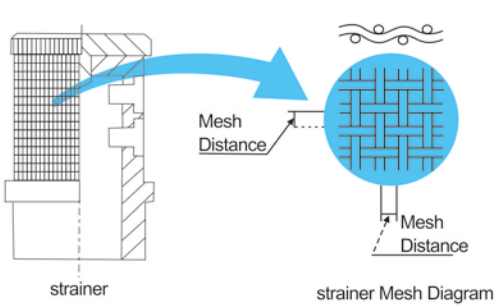
Installation of Solid Taper Nozzle

## 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.

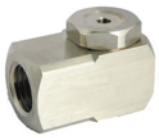
| Strainer mesh | Distance of Mesh | Granule (mm) |
|---|---|---|
| #200 | 0.07 | Less than 0.2 |
| #150 | 0.10 | 0.3-0.4 |
| #100 | 0.15 | 0.5-0.7 |
| #50 | 0.30 | 0.8-0.9 |




strainer Mesh Diagram

# AA Series Corner Nozzle

## Hollow Cone Spray Nozzle/Corner Nozzle



female



male

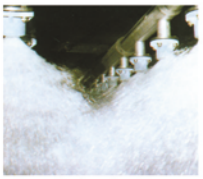
AA/A Metal Nozzles feature a hollow cone spray pattern with a ring-shaped impact area and spray angles of 51° to 144°.

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.

AA/A 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.



Desulfurization Tower Spraying Of Power Plant



Auto Spraying Before Painting

## Performance data

### Performance data

| Nozzle Inlet Conn. | Capacity Size | Nozzle Type AA | Nozzle Type A | Material code BRASS | Material code SS | Material code 316SS | Body Inlet Dia. (mm) | Rated Orifice Dia. (mm) | Capacity liters per minute 0.2 bar | 0.5 bar | 1 bar | 1.5 bar | 2 bar | 3 bar | 4 bar | 5 bar | 6 bar | 7 bar | Spray angle 0.5 bar | 1.5 bar | 6 bar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 0.5 | ● | ● | ● | ● | ● | 0.79 | 1.2 | | 0.16 | 0.23 | 0.28 | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | | 58° | 69° |
| | 1 | ● | ● | ● | ● | ● | 1.6 | 1.6 | | 0.32 | 0.46 | 0.56 | 0.61 | 0.79 | 0.91 | 1.1 | 1.1 | 1.2 | | 64° | 76° |
| | 2 | ● | ● | ● | ● | ● | 2.0 | 2.0 | | 0.64 | 1.91 | 1.1 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 52° | 61° | 69° |
| | 3 | ● | ● | ● | ● | ● | 2.4 | 2.4 | | 0.97 | 1.4 | 1.7 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 52° | 64° | 77° |
| | 5 | ● | ● | ● | ● | ● | 3.2 | 3.2 | 1.0 | 1.6 | 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 | 3.6 | 4.5 | 5.2 | 6.3 | 7.3 | 8.2 | 8.9 | 9.6 | 56° | 65° | 70° |
| | 10 | ● | ● | ● | ● | ● | 4.4 | 4.4 | 2.0 | 3.2 | 4.6 | 5.6 | 6.4 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 55° | 65° | 72° |
| 1/4 | 1 | ● | ● | ● | ● | ● | 1.6 | 1.6 | | | 0.46 | 0.56 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | | 53° | 67° |
| | 2 | ● | ● | ● | ● | ● | 2.0 | 2.0 | | 0.64 | 0.91 | 1.1 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | | 62° | 71° |
| | 3 | ● | ● | ● | ● | ● | 2.4 | 2.4 | | 0.97 | 1.4 | 1.7 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 51° | 65° | 78° |
| | 5 | ● | ● | ● | ● | ● | 3.6 | 3.6 | 1.0 | 1.6 | 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 | 3.6 | 4.5 | 5.2 | 6.3 | 7.3 | 8.2 | 8.9 | 9.6 | 61° | 69° | 73° |
| | 10 | ● | ● | ● | ● | ● | 4.8 | 4.4 | 2.0 | 3.2 | 4.6 | 5.6 | 6.4 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 63° | 70° | 74° |
| | 15 | ● | ● | ● | ● | ● | 5.9 | 5.2 | 3.1 | 4.8 | 6.8 | 8.4 | 9.7 | 11.8 | 13.7 | 15.1 | 16.7 | 18.1 | 63° | 71° | 72° |
| 3/8 | 5 | ● | ● | ● | ● | ● | 3.6 | 3.2 | 1.0 | 1.6 | 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 | 3.6 | 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 | 4.6 | 5.6 | 6.4 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 64° | 72° | 75° |
| | 15 | ● | ● | ● | ● | ● | 5.9 | 5.6 | 3.1 | 4.6 | 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 | 9.1 | 11.2 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 63° | 70° | 74° |
| | 25 | ● | ● | ● | ● | ● | 7.5 | 7.5 | 5.1 | 8.1 | 11.4 | 14.0 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 63° | 70° | 74° |
| | 30 | ● | ● | ● | ● | ● | 8.3 | 7.9 | 6.1 | 9.7 | 13.7 | 16.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 63° | 70° | 74° |
| 1/2 | 25 | ● | ● | ● | ● | ● | 9.5 | 6.4 | 5.1 | 8.1 | 11.4 | 14.0 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 63° | 66° | 71° |
| | 30 | ● | ● | ● | ● | ● | 9.5 | 7.5 | 6.1 | 9.7 | 13.7 | 16.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 67° | 71° | 75° |
| | 40 | ● | ● | ● | ● | ● | 9.5 | 9.1 | 8.2 | 12.9 | 18.2 | 22 | 26 | 32 | 36 | 41 | 45 | 48 | 72° | 76° | 78° |
| | 50 | ● | ● | ● | ● | ● | 9.5 | 11.1 | 10.2 | 16.1 | 23 | 28 | 32 | 39 | 46 | 51 | 56 | 60 | 74° | 79° | 82° |
| | 60 | ● | ● | ● | ● | ● | 9.5 | 13.1 | 12.2 | 19.3 | 27 | 33 | 39 | 47 | 55 | 61 | 67 | 72 | 77° | 82° | 86° |

### Wide Angle Nozzle Type

| Nozzle Inlet Conn. | Capacity Size | Nozzle Type AA | Nozzle Type A | Material code BRASS | Material code SS | Material code 316SS | Body Inlet Dia. (mm) | Rated Orifice Dia. (mm) | Capacity liters per minute 0.2 bar | 0.5 bar | 1 bar | 1.5 bar | 2 bar | 3 bar | 4 bar | 5 bar | 6 bar | 7 bar | Spray angle 0.5 bar | 1.5 bar | 6 bar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 0.5–0.5W | ● | ● | ● | ● | ● | 0.79 | 1.2 | | | 0.23 | 0.28 | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.6 | | 117° | 98° |
| | 1–1W | ● | ● | ● | ● | ● | 1.6 | 1.6 | | | 0.46 | 0.56 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | | 125° | 110° |
| | 2–3W | ● | ● | ● | ● | ● | 2.0 | 2.8 | | 0.81 | 1.1 | 1.4 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 2.9 | 114° | 114° | 97° |
| | 3–3W | ● | ● | ● | ● | ● | 2.4 | 2.8 | | 0.97 | 1.4 | 1.7 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.7 | 114° | 114° | 97° |
| | 3–5W | ● | ● | ● | ● | ● | 2.4 | 3.2 | | 1.1 | 1.5 | 1.9 | 2.2 | 2.7 | 3.1 | 3.5 | 3.8 | 4.0 | 116° | 110° | 95° |
| | 2–10W | ● | ● | ● | ● | ● | 2.0 | 4.4 | | 1.3 | 1.9 | 2.3 | 2.6 | 3.2 | 3.7 | 4.2 | 4.6 | 5.0 | 130° | 135° | 120° |
| | 5–5W | ● | ● | ● | ● | ● | 3.2 | 3.2 | | 1.6 | 2.3 | 2.8 | 3.2 | 3.9 | 4.6 | 5.1 | 5.5 | 6.1 | 116° | 110° | 92° |
| | 5–10W | ● | ● | ● | ● | ● | 3.2 | 4.4 | 1.3 | 2.1 | 3.0 | 3.6 | 4.2 | 5.1 | 5.9 | 6.6 | 7.3 | 7.9 | 126° | 121° | 95° |
| | 8–10W | ● | ● | ● | ● | ● | 4.0 | 4.4 | 1.8 | 2.9 | 4.1 | 5.0 | 5.8 | 7.1 | 8.2 | 9.2 | 10.0 | 10.8 | 124° | 112° | 90° |
| 1/4 | 1–1W | ● | ● | ● | ● | ● | 1.6 | 1.6 | | | 0.46 | 0.56 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | | 117° | 111° |
| | 1–5W | ● | ● | ● | ● | ● | 1.6 | 3.2 | | | 0.77 | 0.95 | 1.1 | 1.3 | 1.5 | 1.7 | 1.9 | 2.0 | | 123° | 124° |
| | 1–10W | ● | ● | ● | ● | ● | 1.6 | 4.4 | | | 0.96 | 1.2 | 1.4 | 1.7 | 1.9 | 2.1 | 2.3 | 2.5 | | 144° | 139° |
| | 1–15W | ● | ● | ● | ● | ● | 1.6 | 5.6 | | | 1.1 | 1.3 | 1.5 | 1.9 | 2.2 | 2.4 | 2.7 | 2.9 | | 128° | 132° |
| | 2–5W | ● | ● | ● | ● | ● | 2.0 | 3.2 | | 1.1 | 1.5 | 1.9 | 2.2 | 2.7 | 3.1 | 3.5 | 3.8 | 4.0 | 118° | 123° | 113° |
| | 2–10W | ● | ● | ● | ● | ● | 2.0 | 4.4 | | 1.3 | 1.9 | 2.3 | 2.6 | 3.2 | 3.7 | 4.2 | 4.6 | 5.0 | 138° | 136° | 126° |
| | 5–5W | ● | ● | ● | ● | ● | 3.6 | 3.2 | | 1.6 | 2.3 | 2.8 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.1 | 114° | 113° | 104° |
| | 5–10W | ● | ● | ● | ● | ● | 3.6 | 4.4 | 1.3 | 2.1 | 3.0 | 3.6 | 4.2 | 5.1 | 5.9 | 6.6 | 7.3 | 7.9 | 130° | 130° | 119° |
| | 5–15W | ● | ● | ● | ● | ● | 3.6 | 5.6 | 1.6 | 2.5 | 3.5 | 4.3 | 5.0 | 6.1 | 7.0 | 7.8 | 8.6 | 9.3 | 130° | 132° | 120° |
| | 8–10W | ● | ● | ● | ● | ● | 4.0 | 4.4 | 1.8 | 2.9 | 4.1 | 5.0 | 5.8 | 7.1 | 8.2 | 9.2 | 10.0 | 10.8 | 129° | 122° | 103° |
| | 10–10W | ● | ● | ● | ● | ● | 4.8 | 4.4 | 2.0 | 3.2 | 4.6 | 5.6 | 6.4 | 7.9 | 9.1 | 10.2 | 11.2 | 12.2 | 120° | 108° | 95° |
| | 8–15W | ● | ● | ● | ● | ● | 4.0 | 5.6 | 2.2 | 3.5 | 5.0 | 6.1 | 7.1 | 8.7 | 10.0 | 11.2 | 12.3 | 13.2 | 129° | 122° | 107° |
| | 10–15W | ● | ● | ● | ● | ● | 4.8 | 5.6 | 2.4 | 3.9 | 5.5 | 6.7 | 7.7 | 9.5 | 10.9 | 12.2 | 13.4 | 14.6 | 120° | 108° | 97° |
| | 15–15W | ● | ● | ● | ● | ● | 4.0 | 5.6 | 3.0 | 4.8 | 6.8 | 8.4 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.0 | 101° | 95° | 90° |
| 3/8 | 5–10W | ● | ● | ● | ● | ● | 4.8 | 4.4 | 1.3 | 2.1 | 3.0 | 3.6 | 4.2 | 5.1 | 5.9 | 6.6 | 7.3 | 7.9 | 130° | 123° | 102° |
| | 5–15W | ● | ● | ● | ● | ● | 6.0 | 5.6 | 1.6 | 2.5 | 3.5 | 4.3 | 5.0 | 6.1 | 7.0 | 7.8 | 8.6 | 9.3 | 138° | 131° | 112° |
| | 8–10W | ● | ● | ● | ● | ● | 3.6 | 4.4 | 1.8 | 2.9 | 4.1 | 5.0 | 5.8 | 7.1 | 8.2 | 9.2 | 10.0 | 10.8 | 122° | 110° | 96° |
| | 10–10W | ● | ● | ● | ● | ● | 3.6 | 4.4 | 2.0 | 3.2 | 4.6 | 5.6 | 6.4 | 7.9 | 9.1 | 10.2 | 11.2 | 12.2 | 116° | 108° | 93° |
| | 8–15W | ● | ● | ● | ● | ● | 4.4 | 5.6 | 2.2 | 3.5 | 5.0 | 6.1 | 7.1 | 8.7 | 10.0 | 11.2 | 12.3 | 13.2 | 133° | 120° | 105° |
| | 10–15W | ● | ● | ● | ● | ● | 5.2 | 5.6 | 2.4 | 3.9 | 5.5 | 6.7 | 7.7 | 9.5 | 10.9 | 12.2 | 13.4 | 14.6 | 126° | 115° | 100° |
| | 8–25W | ● | ● | ● | ● | ● | 4.4 | 7.5 | 2.6 | 4.2 | 5.9 | 7.3 | 8.4 | 10.3 | 11.9 | 13.3 | 14.5 | 15.6 | 122° | 118° | 109° |
| | 10–20W | ● | ● | ● | ● | ● | 5.2 | 6.0 | 2.9 | 4.5 | 6.4 | 7.8 | 9.0 | 11.1 | 12.8 | 14.3 | 15.6 | 16.9 | 118° | 112° | 102° |
| | 15–15W | ● | ● | ● | ● | ● | 6.0 | 5.6 | 3.0 | 4.8 | 6.8 | 8.4 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.0 | 116° | 106° | 95° |
| | 15–20W | ● | ● | ● | ● | ● | 6.0 | 6.0 | 3.4 | 5.5 | 7.7 | 9.5 | 11.0 | 13.4 | 15.5 | 17.3 | 16.0 | 20.4 | 113° | 108° | 98° |
| | 20–20W | ● | ● | ● | ● | ● | 7.1 | 6.0 | 4.1 | 6.4 | 9.1 | 11.2 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24.1 | 106° | 102° | 95° |
| | 15–30W | ● | ● | ● | ● | ● | 6.0 | 7.9 | 4.5 | 7.1 | 10.0 | 12.3 | 14.2 | 17.4 | 20 | 22 | 25 | 26.5 | 116° | 110° | 102° |
| | 25–25W | ● | ● | ● | ● | ● | 7.5 | 7.5 | 5.1 | 8.1 | 11.4 | 14.0 | 16.0 | 19.7 | 23 | 25 | 28 | 30.2 | 105° | 100° | 93° |
| | 25–30W | ● | ● | ● | ● | ● | 7.5 | 7.9 | 5.7 | 9.0 | 12.8 | 15.6 | 18.0 | 22 | 26 | 29 | 31 | 33.9 | 105° | 101° | 94° |
| ½ | 50–50W | ● | ● | ● | ● | ● | 9.5 | 11.1 | 10.2 | 16.1 | 23 | 28 | 32 | 39 | 46 | 51 | 56 | 60.9 | 110° | 102° | 93° |

## 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 ↓ Material Code ↓ Capacity Size ↓

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

## The design feature of mid-high flow rate foundry nozzle



AASR catamaran casting style

### 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 .



AAS catamaran casting style

### AAS catamaran casting style The size is 6″ joint

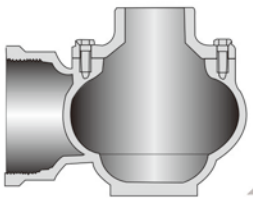
Spray pattern with uniform distribution ,samll-to medium sized drops under a large-scale flow rate and pressure. AASR, AAS and AASB series assembly nozzles were made of casting brass, casting iron or 316 SS casting of refined polishing. The size of 1 -1/4 ″, 2″ and 3 ″ nozzle were made of 316SS casting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



AASB 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.





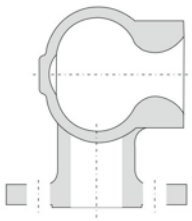
## Performance data

| Nozzle Inlet Conn. | Nozzle Type | | | Capacity Size | Inlet Dia. Nom. Size (mm) | Rated Orifice 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 | | | | | | | | | | | | | | | | |
| 1–1/4 | ● | | | 10–45° | 21.4 | 13.1 | 24 | 39 | 54 | 67 | 77 | 94 | 109 | 122 | 133 | 144 | 45° | 49° | 52° |
| | ● | | | 12–45° | | 14.3 | 29 | 46 | 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 | 220 | 245 | 270 | 290 | 45° | 47° | 49° |
| 2 | ● | ● | | 30–45° | 36.5 | 23.8 | 73 | 116 | 163 | 200 | 230 | 285 | 325 | 365 | 400 | 430 | 45° | 49° | 52° |
| | ● | ● | | 35–45° | | 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 | 490 | 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° |
| 3 | ● | ● | ● | 70 | 57.2 | 34.9 | 171 | 270 | 380 | 465 | 540 | 660 | 760 | 850 | 930 | 1010 | 65° | 66° | 69° |
| | ● | ● | ● | 85 | | 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 | 460 | 650 | 800 | 920 | 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 | 465 | 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° |
| | ● | ● | ● | 100–45° | | 44.5 | 245 | 385 | 540 | 670 | 770 | 940 | 1090 | 1220 | 1330 | 1440 | 45° | 48° | 51° |
| | ● | ● | ● | 120–45° | | 51.2 | 290 | 460 | 650 | 800 | 920 | 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° |
| 4 | ● | ● | ● | 150 | 79.4 | 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 | 1090 | 1330 | 1540 | 1890 | 2180 | 2440 | 2670 | 2880 | 70° | 72° | 74° |
| | ● | ● | ● | 225 | | 74.6 | 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 | 1840 | 2120 | 2600 | 3000 | 3350 | 3670 | 3960 | 78° | 80° | 83° |
| | ● | ● | ● | 150–45° | | 50.8 | 365 | 580 | 820 | 1000 | 1160 | 1420 | 1630 | 1830 | 2000 | 3160 | 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 | 1090 | 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 | 610 | 960 | 1360 | 1670 | 1930 | 2360 | 2720 | 3050 | 3340 | 3600 | 65° | 67° | 69° |
| | | ● | ● | 300 | | 69.9 | 730 | 1160 | 1630 | 2000 | 2310 | 2830 | 3270 | 3650 | 4000 | 4320 | 66° | 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 | 4360 | 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° |
| | | ● | ● | 550 | | 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 carborudum

## Performance data

| flange inlet | Capacity Size | Inlet Dia. Nom. Size (mm) | Rated Orifice Dia. (mm) | Capacity (L/min) | | | | | | | | | | 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 | 285 | 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 | 1060 | 1500 | 1840 | 2120 | 2600 | 3000 | 3350 | 3670 | 3960 | 70° | 85° | 90° |
| | 150–45° | | 50.8 | 365 | 580 | 820 | 1000 | 1160 | 1420 | 1630 | 1830 | 2000 | 3160 | 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 | 2830 | 3270 | 3650 | 4000 | 4320 | 70° | 85° | 90° |
| | 350 | | 76.2 | 850 | 1350 | 1910 | 2340 | 2700 | 3300 | 3810 | 4260 | 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 | 7610 | 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 | 7610 | 8340 | 9010 | 70° | 85° | 90° |

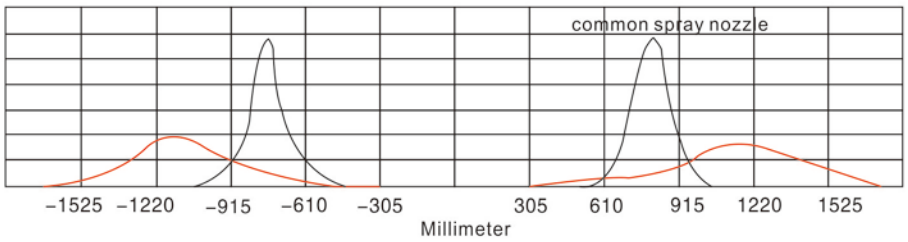
N-sic material performance data

| Temperature | Heat transfer parameter | multi-gap rate | heat expansion parameter | flexural strength | Mohs'scale of hardness | Acid corrosion |
|---|---|---|---|---|---|---|
| <1400℃ | 45w/m.k | <0.1% | $4.5k^{-1}X10^{-6}$ | 600mPa | >13 | Excellent |

## 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.

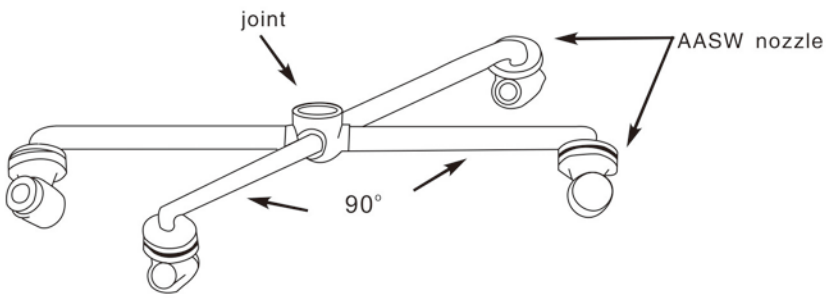
| flange inlet | Nozzle Type | Spray angle | | | K coef-ficient | Capacity(L/min) | | | | | | | | inlet size | Cap-acity size | Size | | | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.3 bar | 1 bar | 3 bar | | 0.2 bar | 0.3 bar | 0.5 bar | 0.7 bar | 1 bar | 1.5 bar | 2 bar | 3 bar | | | A | B | C | D | |
| 2 | SW 8516 | 112° | 115° | 115° | 194 | 86.6 | 106 | 137 | 162 | 194 | 237 | 274 | 336 | 21.8 | 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 | 25.4 | | | | | |
| | SW 12516 | 119° | 122° | 122° | 285 | 127 | 156 | 201 | 328 | 285 | 349 | 403 | 493 | 29.0 | 29.0 | | | | | |
| | SW 14516 | 122° | 125° | 125° | 330 | 148 | 181 | 234 | 276 | 330 | 405 | 467 | 572 | 32.1 | 32.1 | | | | | |
| | SW 17016 | 125° | 125° | 125° | 387 | 173 | 212 | 274 | 324 | 387 | 474 | 548 | 671 | 35.3 | 35.3 | | | | | |
| | SW 19216 | 125° | 125° | 125° | 438 | 196 | 240 | 309 | 366 | 438 | 536 | 619 | 758 | 38.5 | 36.5 | | | | | |
| | SW 20516 | 125° | 125° | 125° | 467 | 209 | 256 | 330 | 391 | 467 | 572 | 661 | 809 | 41.3 | 36.5 | | | | | |
| | SW 23016 | 125° | 125° | 125° | 524 | 234 | 287 | 371 | 439 | 524 | 642 | 741 | 908 | 44.5 | 36.5 | | | | | |
| 2 1/2 | SW 17020 | 117° | 120° | 120° | 387 | 173 | 212 | 274 | 324 | 387 | 474 | 548 | 671 | 33.7 | 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 | 36.1 | | | | | |
| | SW 20520 | 117° | 120° | 120° | 467 | 209 | 256 | 330 | 391 | 467 | 572 | 661 | 809 | 37.3 | 37.3 | | | | | |
| | SW 23020 | 123° | 125° | 125° | 524 | 234 | 287 | 371 | 439 | 524 | 642 | 741 | 908 | 40.1 | 40.1 | | | | | |
| | SW 28020 | 128° | 130° | 130° | 638 | 285 | 349 | 451 | 534 | 638 | 781 | 902 | 1110 | 46.0 | 44.5 | | | | | |
| | SW 32020 | 128° | 130° | 130° | 729 | 326 | 399 | 516 | 610 | 729 | 893 | 1030 | 1260 | 51.2 | 44.5 | | | | | |
| | SW 34020 | 128° | 130° | 130° | 775 | 347 | 424 | 548 | 648 | 775 | 949 | 1100 | 1340 | 53.2 | 44.5 | | | | | |
| | SW 43520 | 128° | 130° | 130° | 991 | 443 | 543 | 701 | 829 | 991 | 1210 | 1400 | 1720 | 61.9 | 44.5 | | | | | |
| 3 | SW 18524 | 122° | 122° | 122° | 422 | 189 | 231 | 298 | 353 | 422 | 516 | 596 | 730 | 32.5 | 32.5 | 145 | 200 | 173 | 109 | 4.08 |
| | SW 23024 | 122° | 122° | 122° | 524 | 234 | 287 | 371 | 439 | 524 | 642 | 741 | 908 | 36.5 | 36.5 | | | | | |
| | SW 28024 | 122° | 122° | 122° | 638 | 285 | 349 | 451 | 534 | 538 | 781 | 902 | 1110 | 41.3 | 41.3 | | | | | |
| | SW 32024 | 125° | 125° | 125° | 729 | 326 | 399 | 516 | 610 | 729 | 893 | 1030 | 1260 | 45.2 | 45.2 | | | | | |
| | SW 34024 | 125° | 125° | 125° | 775 | 347 | 424 | 548 | 648 | 775 | 949 | 1100 | 1340 | 46.8 | 46.8 | | | | | |
| | SW 12224 | 128° | 130° | 130° | 939 | 420 | 514 | 664 | 786 | 939 | 1150 | 1330 | 1630 | 53.6 | 53.6 | | | | | |
| | SW 46924 | 129° | 132° | 135° | 1070 | 478 | 585 | 756 | 894 | 1070 | 1310 | 1510 | 1850 | 57.9 | 54.0 | | | | | |
| | SW 52624 | 129° | 132° | 135° | 1200 | 536 | 657 | 848 | 1000 | 1200 | 1470 | 1700 | 2080 | 63.1 | 54.0 | | | | | |
| | SW 56424 | 129° | 132° | 135° | 1290 | 575 | 704 | 909 | 1080 | 1290 | 1570 | 1820 | 2230 | 65.9 | 54.0 | | | | | |

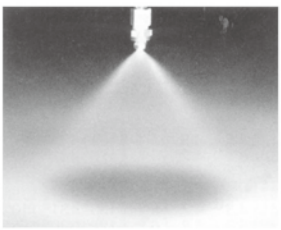
flow rate $L/M=K\sqrt{Bar}$

standard material: Brass,carbon steel and 316 stainless steel

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

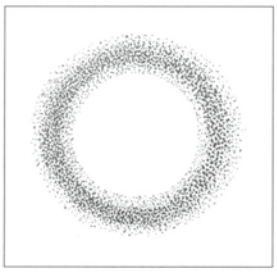


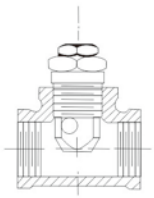




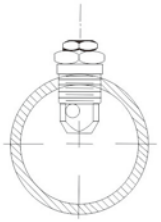
## AD Series







Connecting with pipe joint,T joint and connector



Connecting with pipe collection

## 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.

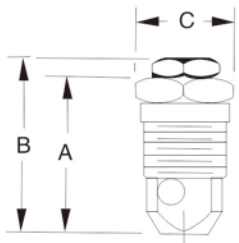
The nozzles spray into small liquid droplets and can avoid clogging with its large and easy passing routeway.

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 | 50.8six angles | 0.60 |




## ordering info

**AD——3/8——SS——10**

| Nozzle type | Inlet size | Material code | Capacity size |
|---|---|---|---|

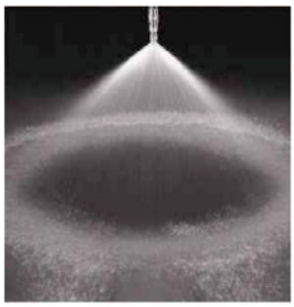
## Performance data

| Nozzle Inlet Conn. NPT or BSPT(out) | Nozzle Type AD | Capacity Size | Inlet Dia. No. Size (mm) | Rated Orifice Dia. (mm) | Capacity (L/min) 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 | Spray angle 0.5 bar | 1.5 bar | 6 bar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/8 | ● | 2 | 2.4 | 2.0 | | | 0.76 | 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° |
| ½ | ● | 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 | 7.9 | 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 | 11.8 | 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° |
| | ● | 50–50.3 | *7.1 | 9.5 | 10.2 | 16.1 | 19.1 | 23 | 28 | 32 | 39 | 46 | 51 | 56 | 60 | 70° | 72° | 73° |
| 1–1/2 | ● | 40 | *95 | 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 | 18.3 | 29 | 34 | 41 | 50 | 58 | 71 | 82 | 92 | 100 | 109 | 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° |

# AF Series Hollow Cone Spray Nozzle



## AF Hollow Cone





Removable deflector cap
1/8" to 3/8" NPT or BSPT(M)

## Features and Benefits

- Hollow cone spray pattern with a ringshaped impact area.
- Small-to-medium-sized drops.
- Deflection angles determined by deflector cap:120°, 150° and 180° included angle of spray at 0.7bar(10psi).
- Uniform distribution over a wide range of flow rates and pressures.

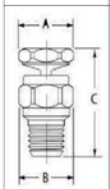
## Performance data

AF

*At the stated pressure in bar.

| Inlet Conn. (in.) | Capacity Size | Capacity (L/min)* | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 0.4 | 0.7 | 1.5 | 3 | 4 | 6 | 7 |
| 1/8 | 0.37 | 1.1 | 1.4 | 2.1 | 3.0 | 3.4 | 4.2 | 4.5 |
| | 0.5 | 1.4 | 1.9 | 2.6 | 4.0 | 4.6 | 5.6 | 6.0 |
| | 0.75 | 2.2 | 2.9 | 4.2 | 5.9 | 6.8 | 8.4 | 9.0 |
| 1/4 | 1 | 2.9 | 3.8 | 5.6 | 7.9 | 9.1 | 11.2 | 12.1 |
| | 1.5 | 4.3 | 5.7 | 8.3 | 11.8 | 13.7 | 16.8 | 18.1 |
| | 2 | 5.8 | 7.7 | 11.2 | 15.8 | 18.2 | 22 | 24 |
| | 2.5 | 7.2 | 9.5 | 13.9 | 19.7 | 23 | 28 | 30 |
| 3/8 | 3 | 8.8 | 11.6 | 17.0 | 24 | 27 | 34 | 36 |
| | 3.5 | 10.4 | 13.7 | 20 | 28 | 32 | 39 | 42 |
| | 4 | 11.9 | 15.7 | 23 | 32 | 36 | 45 | 48 |
| | 4.5 | 12.9 | 17.1 | 25 | 36 | 41 | 50 | 54 |
| | 5 | 14.4 | 19.1 | 28 | 39 | 46 | 56 | 60 |

## Dimensions and weights

| Standard | Nozzle type | Inlet Conn. (in.) | A Hex. (mm) | B Hex. (mm) | C (mm) | Net Weight (kg) |
|---|---|---|---|---|---|---|
|  | AF (M) | 1/8 | 11.8 | 12.7 | 30 | 0.02 |
| | | 1/4 | 14.2 | 15.9 | 33 | 0.03 |
| | | 3/8 | 20.6 | 22.2 | 24 | 0.08 |

## APPLICATIONS

- Chemical processing
- Metal treating
- Gas scrubbling, washing, cooling
- Product degreasing
- Water cooling

## ordering info

**AF——1/4——SS——1——120**

| Nozzle type | Inlet Conn. | Material Code | Capacity Size | Spray Angle |
|---|---|---|---|---|

# BB Series Full Cone Spray Nozzle

## standard angle series

BB standard angle series spray nozzles feature a full cone spray pattern with a round impact area and spray angles between 43° and 106°.

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.

Machined critically, BB series metal nozzles insure correct and dependable performance with exact sizes.They are ideal for applications requiring complete coverage to a certain area.

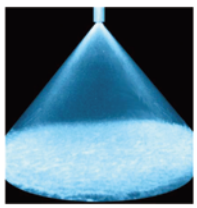
BBG series metal nozzles have removable cap and vane,can be suitably connected with pipe collection and multi-pipe.Under this design way,its working-end(cap and vane) can be removefrom the nozzle body to be overhauled and cleaned,without knocking down the nozzle body off the pipe.



single type(BB)



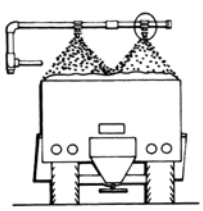
fission type(BBG)



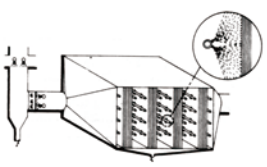
BB-single type external thread
B-single type internal thread
BBG-fission type external thread
BG-fission type internal thread

## common application

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



dust control



air washer

## standard angle performance data

* in the specified pressure(bar)

| Nozzle inlet connect (in.) | Nozzle type | | | | Capacity Size | Rated Orifice Dia,(mm) | Max. Hole Dia,(mm) | Capacity(l/min)* | | | | | | | | | | Spray Angle(°)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Standard type | | | | | | | | | | | | | | | | | | | |
| | BG | BBG | B | BB | | | | 0.4 | 0.5 | 0.7 | 1.5 | 2 | 3 | 4 | 6 | 7 | 10 | 0.5 | 1.5 | 6 |
| 1/8 | ● | ● | | ● | 1 | .79 | .64 | .29 | .33 | .38 | .54 | .62 | .74 | .85 | 1.0 | 1.1 | 1.3 | | 58 | 53 |
| | ● | ● | | ● | 1.5 | 1.2 | .64 | .44 | .49 | .57 | .81 | .93 | 1.1 | 1.3 | 1.5 | 1.6 | 1.9 | 52 | 65 | 59 |
| | ● | ● | | ● | 2 | 1.2 | 1.0 | .59 | .65 | .76 | 1.1 | 1.2 | 1.5 | 1.7 | 2.0 | 2.2 | 2.6 | 43 | 50 | 46 |
| | ● | ● | | ● | 3 | 1.5 | 1.0 | .88 | .98 | 1.1 | 1.6 | 1.9 | 2.2 | 2.5 | 3.1 | 3.3 | 3.9 | 52 | 65 | 59 |
| | ● | ● | | ● | 3.5 | 1.6 | 1.3 | 1.0 | 1.1 | 1.3 | 1.9 | 2.2 | 2.6 | 3.0 | 3.6 | 3.8 | 4.5 | 43 | 50 | 46 |
| | ● | ● | | ● | 3.9 | 2.0 | 1.0 | 1.1 | 1.3 | 1.5 | 2.1 | 2.4 | 2.9 | 3.3 | 4.0 | 4.3 | 5.1 | 77 | 84 | 79 |
| | ● | ● | | ● | 5 | 2.0 | 1.3 | 1.5 | 1.6 | 1.9 | 2.7 | 3.1 | 3.7 | 4.2 | 5.1 | 5.5 | 6.5 | 52 | 65 | 59 |
| | ● | ● | | ● | 6.1 | 2.3 | 1.3 | 1.8 | 2.0 | 2.3 | 3.3 | 3.8 | 4.5 | 5.2 | 6.2 | 6.7 | 7.9 | 69 | 74 | 68 |
| 1/4 | ● | ● | | ● | 6.5 | 2.4 | 1.6 | 1.9 | 2.1 | 2.5 | 3.5 | 4.0 | 4.8 | 5.5 | 6.7 | 7.1 | 8.4 | 45 | 50 | 46 |
| | ● | ● | | ● | 10 | 3.2 | 1.6 | 2.9 | 3.3 | 3.8 | 5.4 | 6.2 | 7.4 | 8.5 | 10.2 | 11.0 | 13.0 | 58 | 67 | 61 |
| | ● | ● | | ● | 12.5 | 3.2 | 1.6 | 3.7 | 4.1 | 4.8 | 6.8 | 7.7 | 9.3 | 10.6 | 12.8 | 13.7 | 16.2 | 69 | 74 | 68 |
| 3/8 | ● | ● | | ● | 9.5 | 2.6 | 2.4 | 2.8 | 3.1 | 3.6 | 5.1 | 5.9 | 7.1 | 8.1 | 9.7 | 10.4 | 12.3 | 45 | 50 | 46 |
| | ● | ● | | ● | 15 | 3.6 | 2.4 | 4.4 | 4.9 | 5.7 | 8.1 | 9.3 | 11.2 | 12.7 | 15.4 | 16.5 | 19.4 | 64 | 67 | 61 |
| | ● | ● | | ● | 20 | 4.0 | 2.8 | 5.9 | 6.5 | 7.6 | 10.8 | 12.4 | 14.9 | 17.0 | 20 | 22 | 26 | 76 | 80 | 73 |
| | ● | ● | | ● | 22 | 4.5 | 2.8 | 6.5 | 7.2 | 8.4 | 11.9 | 13.6 | 16.4 | 18.7 | 23 | 24 | 28 | 87 | 90 | 82 |
| 1/2 | ● | ● | | ● | 16 | 3.5 | 3.2 | 4.7 | 5.2 | 6.1 | 8.7 | 9.9 | 11.9 | 13.6 | 16.4 | 17.6 | 21 | 48 | 50 | 46 |
| | ● | ● | | ● | 25 | 4.6 | 3.2 | 7.4 | 8.2 | 9.5 | 13.5 | 15.4 | 18.6 | 21 | 26 | 27 | 32 | 64 | 67 | 61 |
| | ● | ● | | ● | 32 | 5.2 | 3.6 | 9.4 | 10.4 | 12.2 | 17.3 | 19.8 | 24 | 27 | 33 | 35 | 41 | 72 | 75 | 68 |
| | ● | ● | | ● | 40 | 6.2 | 3.6 | 11.8 | 13.1 | 15.2 | 22 | 25 | 30 | 34 | 41 | 44 | 52 | 88 | 91 | 83 |
| | ● | ● | | ● | 50 | 6.7 | 4.0 | 14.7 | 16.3 | 19.1 | 27 | 31 | 37 | 42 | 51 | 55 | 65 | 91 | 94 | 86 |
| 3/4 | | | ● | ● | 2.5 | 4.9 | 4.4 | 8.7 | 9.6 | 11.2 | 15.9 | 18.2 | 22 | 25 | 30 | 32 | 38 | 48 | 50 | 46 |
| | | | ● | ● | 4.0 | 6.4 | 4.4 | 13.9 | 15.4 | 18.0 | 26 | 29 | 35 | 40 | 48 | 52 | 61 | 67 | 70 | 63 |
| | | | ● | ● | 7.0 | 9.5 | 5.2 | 24 | 27 | 31 | 45 | 51 | 61 | 70 | 84 | 91 | 107 | 89 | 92 | 84 |
| 1 | | | ● | ● | 4.2 | 6.0 | 5.6 | 14.6 | 16.2 | 18.9 | 27 | 31 | 37 | 42 | 51 | 54 | 64 | 48 | 50 | 46 |
| | | | ● | ● | 7.0 | 8.3 | 5.6 | 24 | 27 | 31 | 45 | 51 | 61 | 70 | 84 | 91 | 107 | 67 | 68 | 62 |
| | | | ● | ● | 8.0 | 9.5 | 5.6 | 28 | 31 | 36 | 51 | 58 | 70 | 80 | 97 | 104 | 122 | 72 | 81 | 82 |
| | | | ● | ● | 10 | 11.9 | 5.6 | 35 | 38 | 45 | 64 | 73 | 88 | 100 | 121 | 130 | 153 | 78 | 90 | 94 |
| | | | ● | ● | 12 | 11.9 | 6.4 | 42 | 46 | 54 | 77 | 87 | 105 | 120 | 145 | 155 | 183 | 89 | 92 | 84 |
| 1-1/4 | | | ● | ● | 6 | 7.4 | 6.4 | 21 | 23 | 27 | 38 | 44 | 53 | 60 | 72 | 78 | 92 | 48 | 50 | 44 |
| | | | ● | ● | 10 | 9.6 | 6.4 | 35 | 38 | 45 | 64 | 73 | 88 | 100 | 121 | 130 | 153 | 64 | 67 | 58 |
| | | | ● | ● | 12 | 10.7 | 6.4 | 42 | 46 | 54 | 77 | 87 | 105 | 120 | 145 | 155 | 183 | 66 | 70 | 60 |
| | | | ● | ● | 14 | 12.3 | 6.4 | 49 | 54 | 63 | 89 | 102 | 123 | 140 | 169 | 181 | 214 | 77 | 80 | 70 |
| | | | ● | ● | 16 | 12.7 | 7.9 | 56 | 62 | 72 | 102 | 116 | 140 | 160 | 193 | 207 | 244 | 73 | 76 | 66 |
| | | | ● | ● | 20 | 15.1 | 7.9 | 69 | 77 | 90 | 128 | 146 | 175 | 200 | 241 | 259 | 305 | 90 | 93 | 81 |
| 1-1/2 | | | ● | ● | 10 | 9.5 | 8.7 | 35 | 38 | 45 | 64 | 73 | 88 | 100 | 121 | 130 | 153 | 48 | 50 | 44 |
| | | | ● | ● | 16 | 12.7 | 8.7 | 56 | 62 | 72 | 102 | 116 | 140 | 160 | 193 | 207 | 244 | 72 | 74 | 64 |
| | | | ● | ● | 20 | 14.3 | 8.7 | 69 | 77 | 90 | 128 | 146 | 175 | 200 | 241 | 259 | 305 | 74 | 76 | 66 |
| | | | ● | ● | 30 | 18.3 | 10.3 | 104 | 115 | 135 | 191 | 218 | 263 | 300 | 362 | 389 | 458 | 91 | 94 | 82 |
| 2 | | | ● | ● | 17 | 12.7 | 11.1 | 59 | 65 | 76 | 108 | 124 | 149 | 170 | 205 | 220 | 259 | 49 | 50 | 44 |
| | | | ● | ● | 30 | 17.3 | 11.1 | 104 | 115 | 135 | 191 | 218 | 263 | 300 | 362 | 389 | 458 | 72 | 74 | 64 |
| | | | ● | ● | 35 | 19.2 | 11.1 | 122 | 135 | 157 | 223 | 255 | 307 | 350 | 422 | 453 | 534 | 75 | 77 | 68 |
| | | | ● | ● | 40 | 21.0 | 11.1 | 139 | 154 | 180 | 255 | 291 | 351 | 401 | 483 | 518 | 611 | 78 | 80 | 70 |
| | | | ● | ● | 50 | 23.8 | 14.3 | 174 | 192 | 225 | 319 | 364 | 439 | 501 | 603 | 648 | 763 | 83 | 85 | 75 |
| | | | ● | ● | 60 | 28.6 | 14.3 | 208 | 231 | 269 | 383 | 437 | 526 | 601 | 724 | 777 | 916 | 98 | 100 | 86 |

The Max. Hole Diameter indicated above is the maximum diameter of the particles that can pass through thechannel and do not block.

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 120°.

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 performance data

* in the specified pressure(bar)

| Nozzle inlet connect (in.) | Nozzle type | | | | Capacity Size | Rated Orifice Dia,(mm) | Max. Hole Dia,(mm) | Capacity(l/min)* | | | | | | | | | Spray Angle(°)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Standard type | | | | | | | | | | | | | | | | | | |
| | BG–W | BBG–W | BB–W | B–W | | | | 0.4 | 0.5 | 0.7 | 1 | 1.5 | 2 | 3 | 4 | 6 | 0.4 | 0.7 | 6 |
| 1/8 | ● | ● | | | 1.5W | 1.2 | .64 | | | .57 | .67 | .81 | .93 | 1.1 | 1.3 | 1.5 | | 120 | 86 |
| | ● | ● | ● | | 2.8W | 1.6 | 1.0 | | | 1.1 | 1.3 | 1.5 | 1.7 | 2.1 | 2.4 | 2.9 | | 120 | 102 |
| | ● | ● | ● | | 4.3W | 2.0 | 1.0 | | | 1.6 | 1.9 | 2.3 | 2.7 | 3.2 | 3.7 | 4.4 | | 120 | 102 |
| | ● | ● | | | 5.6W | 2.4 | 1.0 | | 1.8 | 2.1 | 2.5 | 3.0 | 3.5 | 4.2 | 4.8 | 5.7 | | 120 | 102 |
| | ● | ● | ● | | 8W | 2.4 | 1.3 | | 2.6 | 3.0 | 3.6 | 4.3 | 4.9 | 6.0 | 6.8 | 8.2 | | 120 | 103 |
| 1/4 | ● | ● | | | 10W | 2.8 | 1.3 | 2.9 | 3.3 | 3.8 | 4.5 | 5.4 | 6.2 | 7.4 | 8.5 | 10.2 | 112 | 120 | 103 |
| | ● | ● | | | 12W | 3.2 | 1.3 | 3.5 | 3.9 | 4.6 | 5.4 | 6.5 | 7.4 | 8.9 | 10.2 | 12.3 | 114 | 120 | 103 |
| | ● | ● | ● | | 14W | 3.6 | 1.6 | 4.1 | 4.6 | 5.3 | 6.3 | 7.6 | 8.6 | 10.4 | 11.9 | 14.3 | 114 | 120 | 103 |
| 3/8 | ● | ● | ● | | 17W | 4.0 | 1.6 | 5.0 | 5.6 | 6.5 | 7.6 | 9.2 | 10.5 | 12.7 | 14.4 | 17.4 | 114 | 120 | 103 |
| | ● | ● | ● | | 20W | 4.4 | 2.4 | 5.9 | 6.5 | 7.6 | 9.0 | 10.8 | 12.4 | 14.9 | 17.0 | 20 | 114 | 120 | 104 |
| | ● | ● | ● | | 24W | 4.8 | 2.4 | 7.1 | 7.8 | 9.1 | 10.8 | 13.0 | 14.8 | 17.9 | 20 | 25 | 114 | 120 | 104 |
| | ● | ● | ● | | 27W | 5.2 | 2.8 | 8.0 | 8.8 | 10.3 | 12.1 | 14.6 | 16.7 | 20 | 23 | 28 | 114 | 120 | 106 |
| 1/2 | ● | ● | ● | | 30W | 5.6 | 2.8 | 8.8 | 9.8 | 11.4 | 13.5 | 16.2 | 18.5 | 22 | 25 | 31 | 114 | 120 | 108 |
| | ● | ● | ● | | 35W | 6.0 | 3.2 | 10.3 | 11.4 | 13.3 | 15.7 | 18.9 | 22 | 26 | 30 | 36 | 114 | 120 | 108 |
| | ● | ● | ● | | 40W | 6.4 | 3.2 | 11.8 | 13.1 | 15.2 | 18.0 | 22 | 25 | 30 | 34 | 41 | 114 | 120 | 108 |
| | ● | ● | ● | | 45W | 6.4 | 3.6 | 13.3 | 14.7 | 17.2 | 20 | 24 | 28 | 34 | 38 | 46 | 114 | 120 | 110 |
| | ● | ● | ● | | 50W | 6.7 | 4.0 | 14.7 | 16.3 | 19.1 | 22 | 27 | 31 | 37 | 42 | 51 | 114 | 120 | 112 |
| 3/4 | | | ● | ● | 6W | 9.9 | 4.4 | 21 | 23 | 27 | 31 | 37 | 42 | 51 | 58 | 69 | 115 | 120 | 112 |
| 1 | | | ● | ● | 11W | 13.1 | 5.6 | 38 | 42 | 49 | 57 | 69 | 78 | 93 | 106 | 126 | 117 | 120 | 117 |
| 1-1/4 | | | ● | ● | 16W | 15.5 | 6.4 | 56 | 62 | 71 | 83 | 100 | 113 | 135 | 154 | 184 | 118 | 121 | 119 |
| 1-1/2 | | | ● | ● | 24W | 18.3 | 10.3 | 84 | 92 | 107 | 125 | 150 | 170 | 203 | 230 | 275 | 119 | 124 | 119 |
| 2 | | | | ● | 47W | 25.0 | 11.1 | 164 | 181 | 210 | 245 | 293 | 333 | 398 | 451 | 539 | 120 | 124 | 119 |
| 2-1/2 | | | | ● | 70W | 31.8 | 14.3 | 244 | 269 | 312 | 365 | 436 | 495 | 592 | 672 | 803 | 120 | 125 | 119 |
| 3 | | | | ● | 95W | 34.9 | 17.5 | 331 | 365 | 424 | 496 | 592 | 672 | 803 | 912 | 1090 | 120 | 125 | 119 |
| 4 | | | | ● | 188W | 50.8 | 20.6 | 655 | 723 | 838 | 981 | 1172 | 1330 | 1590 | 1805 | 2157 | 120 | 125 | 119 |

The Max. Hole Diameter indicated above is the maximum diameter of the particles that can pass through thechannel and do not block.

## 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 type | Inlet size | Material code | Capacity size |
|---|---|---|---|

## 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

## Square standard angle series



single type(BB)



fission type(BBG)

### common application

- Cooling and quenching
- Products washing
- Air and gas washer
- Scrubbing machine
- Dust control
- Fire prevention

BB square 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.

### Square standard angle performance data

| Nozzle inlet connect NPT or BSPT | Nozzle type | | Capacity Size | Rated Orifice Dia, (mm) | Max. Hole Dia, (mm) | Capacity(l/min)* | | | | | | | | | | Spray Angle(°)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BB | BBG | | | | 0.3 bar | 0.5 bar | 1 bar | 2 bar | 3 bar | 4 bar | 5 bar | 6 bar | 7 bar | 10 bar | 0.5 bar | 1.5 bar | 6 bar |
| 1/8 | ● | ● | 3.6SQ | 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° |
| | ● | ● | 4.8SQ | 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° |
| | ● | ● | 6SQ | 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° |
| 1/4 | ● | ● | 10SQ | 2.8 | 1.6 | 2.6 | 3.3 | 4.5 | 6.2 | 7.4 | 8.5 | 9.4 | 10.2 | 11.0 | 13.0 | 62° | 67° | 61° |
| | ● | ● | 12SQ | 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° |
| | ● | ● | 14.5SQ | 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° |
| 3/8 | ● | ● | 18SQ | 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° |
| 1/2 | ● | ● | 29SQ | 5.6 | 3.2 | 7.5 | 9.5 | 13.0 | 17.9 | 22 | 25 | 27 | 30 | 32 | 38 | 71° | 75° | 68° |
| | ● | | 36SQ | 6.4 | 3.2 | 9.3 | 11.8 | 16.2 | 22 | 27 | 31 | 34 | 37 | 40 | 47 | 78° | 82° | 75° |
| 3/4 | ● | | 50SQ | 6.7 | 4.4 | 12.9 | 16.3 | 22 | 31 | 37 | 42 | 47 | 51 | 55 | 65 | 71° | 75° | 68° |
| 1 | ● | | 106SQ | 9.9 | 5.6 | 27 | 35 | 48 | 65 | 79 | 90 | 100 | 109 | 117 | 137 | 78° | 80° | 73° |
| 1–1/4 | ● | | 177SQ | 12.7 | 6.4 | 46 | 58 | 79 | 109 | 132 | 150 | 167 | 181 | 195 | 230 | 78° | 80° | 73° |
| 1–1/2 | ● | | 230SQ | 14.3 | 8.7 | 59 | 75 | 103 | 142 | 171 | 195 | 220 | 235 | 255 | 300 | 73° | 77° | 70° |
| 2 | ● | | 290SQ | 15.5 | 11.1 | 75 | 95 | 130 | 179 | 215 | 250 | 275 | 300 | 320 | 375 | 66° | 70° | 64° |
| | ● | | 360SQ | 17.4 | 11.1 | 93 | 118 | 162 | 225 | 270 | 305 | 340 | 370 | 395 | 470 | 70° | 74° | 67° |
| | ● | | 480SQ | 21.0 | 11.1 | 124 | 157 | 215 | 300 | 360 | 410 | 455 | 495 | 530 | 630 | 79° | 82° | 74° |
| 2–1/2 | ● | | 490SQ | 19.8 | 14.3 | 126 | 160 | 220 | 305 | 365 | 420 | 465 | 510 | 540 | 640 | 62° | 67° | 61° |
| | ● | | 590SQ | 22.2 | 14.3 | 152 | 193 | 265 | 365 | 440 | 510 | 560 | 610 | 650 | 770 | 75° | 78° | 71° |
| | ● | | 950SQ | 28.6 | 17.5 | 245 | 310 | 430 | 590 | 710 | 810 | 900 | 980 | 1050 | 1230 | 81° | 84° | 76° |

## Square wide angle nozzle



single type(BB)

### common application

- Air and gas washers
- Cooling /quenching
- Dust control
- Fire suppression /prevention
- Liquor washers
- Product washing /rinsing
- Scrubbers

Wide angle square 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 choicel for installations requiring uniform coverage of rectangular or square areas. Size1-1/4 ″ and larger are case-type nozzles with removable vanes.

### Square wide angle performance data

| Nozzle inlet connect NPT or BSPT | Nozzle type | | Capacity Size | Rated Orifice Dia, (mm) | Max. Hole Dia, (mm) | Capacity(l/min)* | | | | | | | | | Spray Angle(°)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BB | B | | | | 0.3 bar | 0.5 bar | 0.7 bar | 1 bar | 2 bar | 3 bar | 4 bar | 5 bar | 6 bar | 0.3 bar | 0.7 bar | 0.6 bar |
| 1/4 | ● | | 14WSQ | 3.6 | 1.6 | 3.7 | 4.6 | 5.3 | 6.2 | 8.5 | 10.1 | 11.5 | 12.7 | 13.7 | 99° | 101° | 93° |
| 3/8 | ● | | 17WSQ | 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° |
| | ● | | 20WSQ | 4.4 | 2.4 | 5.2 | 6.6 | 7.6 | 8.9 | 12.1 | 14.5 | 16.5 | 18.1 | 19.6 | 104° | 110° | 94° |
| | ● | | 24WSQ | 4.8 | 2.4 | 6.3 | 7.9 | 9.1 | 10.7 | 14.5 | 17.3 | 19.7 | 22 | 24 | 104° | 110° | 94° |
| | ● | | 27WSQ | 5.2 | 2.8 | 7.1 | 8.9 | 10.3 | 12.0 | 16.3 | 19.5 | 22 | 24 | 26 | 104° | 110° | 98° |
| 1/2 | ● | | 30WSQ | 5.6 | 2.8 | 7.9 | 9.9 | 11.4 | 13.4 | 18.1 | 22 | 25 | 27 | 29 | 104° | 110° | 102° |
| | ● | | 35WSQ | 6.0 | 3.2 | 9.2 | 11.5 | 13.3 | 15.6 | 21 | 25 | 29 | 32 | 34 | 104° | 110° | 102° |
| | ● | | 40WSQ | 6.4 | 3.2 | 10.5 | 13.1 | 15.2 | 17.8 | 24 | 29 | 33 | 36 | 39 | 104° | 110° | 102° |
| | ● | | 45WSQ | 6.4 | 3.6 | 11.8 | 14.8 | 17.1 | 20 | 27 | 33 | 37 | 41 | 44 | 104° | 110° | 102° |
| | ● | | 50WSQ | 6.7 | 4.0 | 13.1 | 16.4 | 19.1 | 22 | 30 | 36 | 41 | 45 | 49 | 104° | 110° | 102° |
| 3/4 | ● | ● | 71WSQ | 9.9 | 4.4 | 18.4 | 23 | 27 | 31 | 42 | 51 | 58 | 64 | 69 | 105° | 110° | 102° |
| 1 | ● | ● | 130WSQ | 13.1 | 5.6 | 34 | 42 | 49 | 57 | 78 | 93 | 106 | 116 | 126 | 107° | 110° | 107° |
| 1–1/4 | | ● | 190WSQ | 15.5 | 6.4 | 49 | 62 | 71 | 83 | 113 | 135 | 154 | 169 | 184 | 108° | 111° | 109° |
| 1–1/2 | | ● | 290WSQ | 18.3 | 10.3 | 74 | 92 | 107 | 125 | 170 | 205 | 230 | 255 | 275 | 109° | 114° | 109° |
| 2 | | ● | 560WSQ | 25.0 | 11.1 | 144 | 181 | 210 | 245 | 335 | 400 | 455 | 500 | 540 | 110° | 114° | 109° |
| 2–1/2 | | ● | 830WSQ | 31.8 | 14.3 | 215 | 270 | 315 | 365 | 495 | 600 | 680 | 750 | 810 | 110° | 115° | 109° |

### ordering info

**BB 1/4 — SS 14WSQ**

- BB: Single nozzle type
- 1/4: Inlet size
- SS: Material code
- 14WSQ: Capacity size

### ordering info

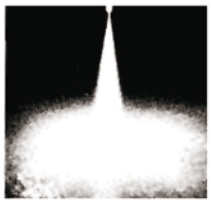
**BB1/8 — SS 3.6SQ**

- BB: Single nozzle type
- 1/8: Inlet size
- SS: Material code
- 3.6SQ: Capacity size

## Narrow angle nozzles for 15°



fission type(BBG)





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 cap and 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.The narrow angle nozzle is made of thick and thin process, which realizes the accurate specification to ensure the best performance.Unique vane design provides superior control and uniform distribution.

### Performance data

* in the specified pressure(bar)

| Nozzle inlet connect (in.) | Nozzle type | | | Capacity Size | Rated Orifice Dia, (mm) | Capacity(l/min)* | | | | | | | | | | Spray Angle(°)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BG-15 | BBG-15 | B-15 | | | 0.7 | 1.5 | 2 | 3 | 4 | 6 | 7 | 10 | 15 | 20 | 0.7 | 3 | 7 |
| 1/8 | • | • | | 1507 | 1.6 | 1.3 | 2.0 | 2.3 | 2.8 | 3.2 | 3.9 | 4.2 | 5.0 | 6.2 | 7.1 | 13 | 15 | 15 |
| | • | • | | 1514 | 2.4 | 2.7 | 3.9 | 4.5 | 5.5 | 6.4 | 7.8 | 8.4 | 10.1 | 12.4 | 14.3 | 13 | 15 | 15 |
| 1/4 | • | • | | 1530 | 3.2 | 5.7 | 8.4 | 9.7 | 11.8 | 13.7 | 16.8 | 18.1 | 22 | 26 | 31 | 13 | 15 | 15 |
| 3/8 | • | • | | 1550 | 4.4 | 9.5 | 14.0 | 16.1 | 19.7 | 23 | 28 | 30 | 36 | 44 | 51 | 13 | 15 | 15 |
| 1/2 | • | • | | 1590 | 5.6 | 17.2 | 25 | 29 | 36 | 41 | 50 | 54 | 65 | 79 | 92 | 13 | 15 | 15 |
| 3/4 | | | • | 15150 | 7.5 | 29 | 42 | 48 | 59 | 68 | 84 | 90 | 108 | 132 | 153 | 13 | 15 | 15 |
| 1 | | | • | 15280 | 9.9 | 53 | 78 | 90 | 111 | 128 | 156 | 169 | 202 | 247 | 285 | 13 | 15 | 15 |
| 1-1/4 | | | • | 15430 | 12.3 | 82 | 120 | 139 | 170 | 196 | 240 | 259 | 310 | 380 | 438 | 14 | 15 | 15 |
| 1-1/2 | | | • | 15630 | 15.1 | 120 | 176 | 203 | 249 | 288 | 352 | 381 | 455 | 557 | 643 | 14 | 15 | 15 |
| 2 | | | • | 151150 | 20.2 | 219 | 321 | 371 | 454 | 524 | 642 | 694 | 829 | 1015 | 1172 | 14 | 15 | 15 |
| 2-1/2 | | | • | 151750 | 24.6 | 334 | 489 | 564 | 691 | 798 | 977 | 1055 | 1261 | 1545 | 1784 | 14 | 15 | 15 |
| 3 | | | • | 152500 | 29.4 | 477 | 698 | 806 | 987 | 1140 | 1396 | 1508 | 1802 | 2207 | 2548 | 14 | 15 | 15 |
| 4 | | | • | 154500 | 39.7 | 858 | 1256 | 1451 | 1777 | 2051 | 2513 | 2714 | 3244 | 3973 | 4587 | 14 | 15 | 15 |
| 5 | | | • | 157000 | 48.8 | 1335 | 1954 | 2257 | 2764 | 3191 | 3908 | 4222 | 5046 | 6180 | 7136 | 14 | 15 | 15 |

## Narrow angle nozzles for 30°

### Performance data

* in the specified pressure(bar)

| Nozzle inlet connect (in.) | Nozzle type | | | Capacity Size | Rated Orifice Dia, (mm) | Capacity(l/min)* | | | | | | | | | | Spray Angle(°)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BG-30 | BBG-30 | BB-30 | | | 1 | 1.5 | 2 | 3 | 4 | 6 | 7 | 10 | 15 | 20 | 1 | 3 | 7 |
| 1/8 | • | • | | 3001.4 | .79 | .32 | .39 | .45 | .55 | .64 | .78 | .84 | 1.0 | 1.2 | 1.4 | 17 | 30 | 31 |
| | • | • | | 3002.5 | .79 | .57 | .70 | .81 | .99 | 1.1 | 1.4 | 1.5 | 1.8 | 2.2 | 2.5 | 17 | 30 | 32 |
| | • | • | | 3004 | 1.2 | .91 | 1.1 | 1.3 | 1.6 | 1.8 | 2.2 | 2.4 | 2.9 | 3.5 | 4.1 | 26 | 30 | 32 |
| | • | • | | 3007 | 1.6 | 1.6 | 2.0 | 2.3 | 2.8 | 3.2 | 3.9 | 4.2 | 5.0 | 6.2 | 7.1 | 23 | 30 | 30 |
| 1/4 | • | • | | 3009 | 2.0 | 2.1 | 2.5 | 2.9 | 3.6 | 4.1 | 5.0 | 5.4 | 6.5 | 7.9 | 9.2 | 23 | 30 | 30 |
| 3/8 | • | • | | 3014 | 2.4 | 3.2 | 3.9 | 4.5 | 5.5 | 6.4 | 7.8 | 8.4 | 10.1 | 12.4 | 14.3 | 25 | 30 | 30 |
| 1/2 | • | • | | 3030 | 3.2 | 6.8 | 8.4 | 9.7 | 11.8 | 13.7 | 16.8 | 18.1 | 22 | 26 | 31 | 26 | 30 | 31 |
| 3/4 | • | • | | 3050 | 4.4 | 11.4 | 14.0 | 16.1 | 19.7 | 23 | 28 | 30 | 36 | 44 | 51 | 26 | 30 | 31 |
| 1 | | | • | 3070 | 5.2 | 16.0 | 19.5 | 23 | 28 | 32 | 39 | 42 | 50 | 62 | 71 | 27 | 30 | 30 |
| | | | • | 30100 | 6.4 | 23 | 28 | 32 | 39 | 46 | 56 | 60 | 72 | 88 | 102 | 27 | 30 | 30 |
| 1-1/4 | | | • | 30150 | 7.5 | 34 | 42 | 48 | 59 | 68 | 84 | 90 | 108 | 132 | 153 | 27 | 30 | 30 |
| | | | • | 30200 | 8.7 | 46 | 56 | 64 | 79 | 91 | 112 | 121 | 144 | 177 | 204 | 27 | 30 | 30 |
| 1-1/2 | | | • | 30250 | 9.5 | 57 | 70 | 81 | 99 | 114 | 140 | 151 | 180 | 221 | 255 | 27 | 30 | 30 |
| | | | • | 30300 | 10.3 | 68 | 84 | 97 | 118 | 137 | 168 | 181 | 216 | 265 | 306 | 27 | 30 | 30 |
| 2 | | | • | 30350 | 11.1 | 80 | 98 | 113 | 138 | 160 | 195 | 211 | 252 | 309 | 357 | 28 | 30 | 30 |
| | | | • | 30400 | 11.9 | 91 | 112 | 129 | 158 | 182 | 223 | 241 | 288 | 353 | 408 | 28 | 30 | 30 |
| | | | • | 30500 | 13.5 | 114 | 140 | 161 | 197 | 228 | 279 | 302 | 360 | 441 | 510 | 28 | 30 | 30 |
| 2-1/2 | | | • | 30600 | 14.7 | 137 | 168 | 193 | 237 | 274 | 335 | 362 | 432 | 530 | 612 | 28 | 30 | 30 |
| | | | • | 30700 | 15.9 | 160 | 195 | 226 | 276 | 319 | 391 | 422 | 505 | 618 | 714 | 28 | 30 | 30 |
| | | | • | 301000 | 19.1 | 228 | 279 | 322 | 395 | 456 | 558 | 603 | 721 | 883 | 1019 | 28 | 30 | 30 |
| | | | • | 301100 | 19.8 | 251 | 307 | 355 | 434 | 501 | 614 | 663 | 793 | 971 | 1121 | 28 | 30 | 30 |
| | | | • | 301200 | 20.6 | 274 | 335 | 387 | 474 | 547 | 670 | 724 | 865 | 1059 | 1223 | 28 | 30 | 30 |



fission type(BBG)



fission type(BG)



single type(BB)

### ordering info

**BBG 1/8 — SS 1507**

| single nozzle type | Inlet size | material code | capacity size |
|---|---|---|---|

### ordering info

**BBG 1/8 — SS — 3001.4**

| Single nozzle type | Inlet size | Material code | Capacity size |
|---|---|---|---|

# CC Series Flat Fan 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)

## 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 connetor.



## 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 tungalloy



CTCK

## Jet stabilizer for reducing turbulence



### ordering info

Jet stabilizer type

**CY21370—SS—1/8x1/8**

- CY21370 → Jet stabilizer type
- SS → Material code
- 1/8x1/8 → Connection dimension

### ordering info

**CC 1/4—SS 6505**

- CC → Nozzle type
- 1/4 → Inlet size
- SS → Material code
- 6505 → Capacity size

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

## 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 |
| CY21370-1/8x1/8 | ½ | ½ | 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

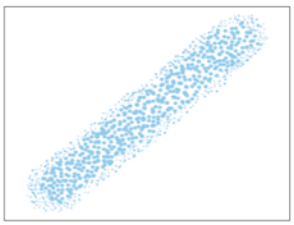
Jet stabilizers installed in the heads of flat fan spray nozzle increase the spray distance and the durative power. When spray nozzles are installed on T-shape pipe, branching pipe or bend pipe and the fluid swerve into the nozzle, turbulance occurs,which diffuses the jet flow. The stabilizer minimize 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

| Spray angle (3 bar) | Capacity Size | Nozzle Type /Inlet Conn. NPT | | | | | | | | | | | | Equivalent spray orifice (mm) | Capacity (L/min) | | | | | | | | | | | Spray angle | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CC | | CC-L | | CC-N | | | | | CC-M | | | | 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 |
| | | 1/8 | 1/4 | 1/8 | 1/4 | 1/8 | 1/4 | 3/8 | ½ | 3/4 | 1 | 1/1/4 | 2 | | | | | | | | | | | | | | | | |
| 110° | 11001 | ● | ● | ● | ● | | | | | | | | | 0.66 | 0.12 | 0.23 | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 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 | 7.6 | 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° |
| 95° | 950050 | ● | | ● | | | | | | | | | | 0.46 | | | 0.316 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.36 | 0.51 | 0.67 | 81° | 95° | 105° | 113° |
| | 9501 | | ● | ● | ● | | | | | | | | | 0.66 | 0.12 | 0.23 | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 1.3 | 81° | 95° | 105° | 113° |
| | 95015 | ● | | ● | | | | | | | | | | 0.79 | 0.19 | 0.34 | 0.48 | 0.59 | 0.68 | 0.76 | 0.84 | 0.90 | 1.1 | 1.5 | 2.0 | 82° | 95° | 105° | 113° |
| | 9502 | ● | ● | ● | ● | | | | | | | | | 0.91 | 0.25 | 0.46 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | 1.4 | 2.0 | 2.7 | 82° | 95° | 105° | 113° |
| | 9503 | ● | ● | ● | ● | | | | | | | | | 1.1 | 0.37 | 0.68 | 0.97 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.2 | 3.1 | 4.0 | 83° | 95° | 104° | 111° |
| | 9504 | ● | ● | ● | ● | | | | | | | | | 1.3 | 0.50 | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | 84° | 95° | 103° | 108° |
| | 9505 | ● | ● | ● | ● | | | | | | | | | 1.4 | 0.62 | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | 84° | 95° | 102° | 107° |
| | 9506 | ● | ● | ● | ● | | | | | | | | | 1.6 | 0.75 | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | 86° | 95° | 101° | 106° |
| | 9508 | ● | ● | ● | ● | | | | | | | | | 1.8 | 1.0 | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | 87° | 95° | 100° | 105° |
| | 9510 | | | | | ● | ● | | ● | | | | | 2.0 | 1.2 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | 89° | 95° | 100° | 105° |
| | 9515 | | | | | ● | ● | | ● | | | | | 2.4 | 1.9 | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 90° | 95° | 100° | 105° |
| | 9520 | | | | | ● | ● | | | | | | | 2.8 | 2.5 | 4.6 | 6.5 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 20 | 27 | 90° | 95° | 100° | 105° |
| | 9530 | | | | | ● | ● | | ● | | | | | 3.6 | 3.7 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 91° | 95° | 101° | 105° |
| | 9540 | | | | | | ● | | | | | | | 4.0 | 5.0 | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 41 | 54 | 92° | 95° | 100° | 105° |
| | 9550 | | | | | | ● | | ● | | | | | 4.4 | 6.2 | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | 93° | 95° | 99° | 103° |
| | 9560 | | | | | | ● | | ● | | | | | 4.8 | 7.5 | 13.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 43 | 61 | 81 | 93° | 95° | 99° | 103° |
| | 9570 | | | | | | ● | ● | ● | | | | | 5.2 | 8.7 | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 71 | 94 | 93° | 95° | 99° | 103° |
| | 95100 | | | | | | | | ● | | | | | 6.4 | 12.5 | 23 | 32 | 39 | 46 | 51 | 56 | 60 | 72 | 102 | 135 | 93° | 95° | 99° | 102° |
| | 95150 | | | | | | | | ● | | | | | 7.5 | 18.7 | 34 | 48 | 59 | 68 | 76 | 84 | 90 | 108 | 153 | 205 | 93° | 95° | 99° | 102° |
| 80° | 850050 | ● | ● | ● | ● | | | | | | | | | 0.46 | | 0.11 | 0.16 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.36 | 0.51 | 0.67 | 61° | 80° | 95° | 101° |
| | 800067 | ● | ● | ● | ● | | | | | | | | | 0.53 | | 0.15 | 0.22 | 0.26 | 0.31 | 0.34 | 0.37 | 0.40 | 0.48 | 0.68 | 0.90 | 67° | 80° | 94° | 99° |
| | 8001 | ● | ● | ● | ● | | | | | | | | | 0.66 | | 0.23 | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 1.3 | 68° | 80° | 89° | 92° |
| | 80015 | ● | ● | ● | ● | | | | | | | | | 0.79 | | 0.34 | 0.48 | 0.59 | 0.68 | 0.76 | 0.84 | 0.90 | 1.1 | 1.5 | 2.0 | 68° | 80° | 89° | 92° |
| | 8002 | ● | ● | ● | ● | | | | | | | | | 0.91 | 0.25 | 0.46 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | 1.4 | 2.0 | 2.7 | 69° | 80° | 88° | 91° |
| | 8003 | ● | ● | ● | ● | | | | | | | | | 1.1 | 0.37 | 0.68 | 0.97 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.2 | 3.1 | 4.0 | 70° | 80° | 87° | 90° |
| | 8004 | ● | ● | ● | ● | | | | | | | | | 1.3 | 0.50 | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | 71° | 80° | 86° | 89° |
| | 8005 | ● | ● | ● | ● | | | | | | | | | 1.4 | 0.62 | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | 71° | 80° | 86° | 89° |
| | 8006 | ● | ● | ● | ● | | | | | | | | | 1.6 | 0.75 | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | 72° | 80° | 85° | 88° |
| | 8008 | ● | ● | ● | ● | | | | | | | | | 1.8 | 1.0 | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | 72° | 80° | 84° | 87° |
| | 8010 | | | | | ● | ● | ● | ● | | | | | 2.0 | 1.2 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | 73° | 80° | 84° | 87° |
| | 8015 | | | | | ● | ● | | ● | | | | | 2.4 | 1.9 | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 74° | 80° | 83° | 86° |
| | 8020 | | | | | ● | ● | ● | ● | | | | | 2.8 | 2.5 | 4.6 | 6.5 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 20 | 27 | 74° | 80° | 83° | 86° |
| | 8030 | | | | | ● | ● | ● | ● | | | | | 3.6 | 3.7 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 74° | 80° | 83° | 86° |
| | 8040 | | | | | ● | ● | ● | ● | | | | | 4.0 | 5.0 | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 41 | 54 | 74° | 80° | 83° | 86° |
| | 8050 | | | | | | ● | ● | ● | | | | | 4.4 | 6.2 | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | 74° | 80° | 83° | 85° |
| | 8060 | | | | | | ● | ● | ● | | | | | 4.8 | 7.5 | 13.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 43 | 61 | 81 | 75° | 80° | 83° | 85° |
| | 8070 | | | | | | ● | ● | ● | | | | | 5.2 | 8.7 | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 71 | 94 | 75° | 80° | 83° | 86° |
| | 80100 | | | | | | | ● | ● | | | | | 6.4 | 12.5 | 23 | 32 | 39 | 46 | 51 | 56 | 60 | 72 | 102 | 135 | 75° | 80° | 83° | 86° |
| | 80150 | | | | | | | ● | ● | | | | | 7.5 | 18.7 | 34 | 48 | 59 | 68 | 76 | 84 | 90 | 108 | 153 | 205 | 73° | 80° | 84° | 86° |
| | 80200 | | | | | | | | ● | ● | | | | 8.7 | 25 | 36 | 64 | 79 | 91 | 102 | 112 | 121 | 144 | 205 | 270 | 74° | 80° | 82° | 85° |
| | 80400 | | | | | | | | | | | | | 12.7 | 50 | 91 | 129 | 158 | 182 | 205 | 225 | 240 | 290 | 410 | 540 | 78° | 80° | 81° | 83° |
| 73° | 730077 | ● | ● | ● | ● | | | | | | | | | 0.56 | | 0.18 | 0.25 | 0.30 | 0.35 | 0.39 | 0.43 | 0.46 | 0.55 | 0.78 | 1.0 | 53° | 73° | 86° | 92° |
| | 730154 | ● | ● | ● | ● | | | | | | | | | 0.81 | 0.19 | 0.35 | 0.50 | 0.61 | 0.70 | 0.78 | 0.86 | 0.93 | 1.1 | 1.6 | 2.1 | 55° | 73° | 84° | 88° |
| | 730231 | | ● | | ● | | | | | | | | | 1.0 | 0.29 | 0.53 | 0.74 | 0.91 | 1.1 | 1.2 | 1.3 | 1.4 | 1.7 | 2.4 | 3.1 | 56° | 73° | 83° | 87° |
| | 730308 | ● | ● | ● | | | | | | | | | | 1.1 | 0.38 | 0.70 | 0.99 | 1.2 | 1.4 | 1.6 | 1.7 | 1.9 | 2.2 | 3.1 | 4.2 | 58° | 73° | 82° | 86° |
| | 730462 | | ● | | ● | | | | | | | | | 1.4 | 0.58 | 1.1 | 1.5 | 1.8 | 2.1 | 2.4 | 2.6 | 2.8 | 3.3 | 4.7 | 6.2 | 60° | 73° | 80° | 84° |
| | 730770 | ● | | ● | | | | | | | | | | 1.8 | 0.96 | 1.8 | 2.5 | 3.0 | 3.5 | 3.9 | 4.3 | 4.6 | 5.5 | 7.8 | 10.4 | 64° | 73° | 77° | 82° |
| 65° | 650017 | ● | | ● | | | | | | | | | | 0.28 | | | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.17 | 0.23 | 44° | 65° | 77° | 86° |
| | 650033 | ● | | ● | | | | | | | | | | 0.38 | | | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.24 | 0.34 | 0.44 | 47° | 65° | 76° | 83° |
| | 650067 | ● | ● | ● | ● | | | | | | | | | 0.53 | | 0.15 | 0.22 | 0.26 | 0.31 | 0.34 | 0.37 | 0.40 | 0.48 | 0.68 | 0.90 | 50° | 65° | 75° | 81° |
| | 6501 | ● | ● | ● | ● | | | | | | | | | 0.66 | | 0.23 | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 1.3 | 51° | 65° | 74° | 80° |
| | 65015 | ● | ● | ● | ● | | | | | | | | | 0.79 | | 0.34 | 0.48 | 0.59 | 0.68 | 0.76 | 0.84 | 0.90 | 1.1 | 1.5 | 2.0 | 51° | 65° | 74° | 80° |
| | 6502 | ● | ● | ● | ● | | | | | | | | | 0.91 | 0.25 | 0.46 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | 1.4 | 2.0 | 2.7 | 52° | 65° | 73° | 79° |
| | 65025 | ● | | ● | | | | | | | | | | 1.0 | 0.31 | 0.57 | 0.81 | 0.99 | 1.1 | 1.3 | 1.4 | 1.5 | 1.8 | 2.5 | 3.4 | 52° | 65° | 73° | 79° |
| | 6503 | ● | | ● | | | | | | | | | | 1.1 | 0.37 | 0.68 | 0.97 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.2 | 3.1 | 4.0 | 53° | 65° | 72° | 78° |
| | 6504 | ● | ● | ● | ● | | | | | | | | | 1.3 | 0.50 | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | 53° | 65° | 72° | 76° |
| | 6505 | ● | ● | ● | ● | | | | | | | | | 1.4 | 0.62 | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | 53° | 65° | 72° | 76° |
| | 6506 | ● | ● | ● | ● | | | | | | | | | 1.6 | 0.75 | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | 54° | 65° | 72° | 75° |
| | 6508 | ● | ● | ● | ● | | | | | | | | | 1.8 | 1.0 | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | 55° | 65° | 71° | 74° |
| | 6510 | | | | | ● | ● | ● | | | | | | 2.0 | 1.2 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | 56° | 65° | 71° | 74° |
| | 6515 | | | | | ● | ● | ● | ● | | | | | 2.4 | 1.9 | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 56° | 65° | 70° | 73° |
| | 6520 | | | | | ● | ● | | ● | | | | | 2.8 | 2.5 | 4.6 | 6.5 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 20 | 27 | 57° | 65° | 70° | 73° |
| | 6530 | | | | | ● | ● | | | | | | | 3.6 | 3.7 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 58° | 65° | 69° | 72° |
| | 6540 | | | | | ● | ● | ● | | | | | | 4.0 | 5.0 | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 41 | 54 | 59° | 65° | 68° | 72° |
| | 6550 | | | | | ● | ● | ● | ● | | | | | 4.4 | 6.2 | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | 60° | 65° | 68° | 71° |
| | 6560 | | | | | | ● | ● | ● | | | | | 4.8 | 7.5 | 13.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 43 | 61 | 81 | 60° | 65° | 68° | 71° |
| | 6570 | | | | | | ● | ● | ● | | | | | 5.2 | 8.7 | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 71 | 94 | 60° | 65° | 68° | 71° |
| | 65100 | | | | | | | ● | ● | | | | | 6.4 | 12.5 | 23 | 32 | 39 | 46 | 51 | 56 | 60 | 72 | 102 | 135 | 58° | 65° | 69° | 70° |
| | 65150 | | | | | | | | ● | | | | | 7.5 | 18.7 | 34 | 48 | 59 | 68 | 76 | 84 | 90 | 108 | 153 | 205 | 59° | 65° | 68° | 70° |
| | 65200 | | | | | | | | ● | ● | | | | 8.7 | 25 | 46 | 64 | 79 | 91 | 102 | 112 | 121 | 144 | 205 | 270 | 60° | 65° | 67° | 69° |

| Spray angle (3 bar) | Capacity Size | Nozzle Type /Inlet Conn. NPT | | | | | | | | | | | | Equivalent spray orifice (mm) | Capacity(L/min) | | | | | | | | | | | | Spray angle | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CC | | CC-L | | CC-N | | | | | CC-M | | | | 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 |
| | | 1/8 | 1/4 | 1/8 | 1/4 | 1/8 | 1/4 | 3/8 | ½ | 3/4 | 1 | 1/1/4 | 2 | | | | | | | | | | | | | | | | |
| 50° | 5001 | ● | ● | ● | ● | | | | | | | | | 0.66 | | 0.23 | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 1.3 | 37° | 50° | 59° | 65° |
| | 5002 | ● | ● | ● | ● | | | | | | | | | 0.91 | | 0.46 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | 1.4 | 2.0 | 2.7 | 39° | 50° | 57° | 63° |
| | 5003 | ● | ● | ● | ● | | | | | | | | | 1.1 | 0.37 | 0.68 | 0.97 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.2 | 3.1 | 4.0 | 40° | 50° | 56° | 62° |
| | 5004 | ● | ● | ● | ● | | | | | | | | | 1.3 | 0.50 | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | 42° | 50° | 56° | 61° |
| | 5005 | ● | ● | ● | ● | | | | | | | | | 1.4 | 0.62 | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | 44° | 50° | 56° | 61° |
| | 5006 | ● | ● | ● | ● | | | | | | | | | 1.6 | 0.75 | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | 45° | 50° | 56° | 60° |
| | 5008 | ● | ● | ● | ● | | | | | | | | | 1.8 | 1.0 | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | 45° | 50° | 55° | 60° |
| | 5010 | ● | ● | ● | ● | ● | ● | ● | | | | | | 2.0 | 1.2 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | 45° | 50° | 55° | 59° |
| | 5015 | | | | | | ● | ● | ● | | | | | 2.4 | 1.9 | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 45° | 50° | 55° | 59° |
| | 5020 | | | | | ● | ● | ● | ● | | | | | 2.8 | 2.5 | 4.6 | 6.5 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 20 | 27 | 45° | 50° | 55° | 59° |
| | 5030 | | | | | ● | ● | ● | ● | | | | | 3.6 | 3.7 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 45° | 50° | 55° | 59° |
| | 5040 | | | | | ● | ● | ● | ● | | | | | 4.0 | 5.0 | 9.1 | 13.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 41 | 54 | 46° | 50° | 54° | 59° |
| | 5050 | | | | | ● | ● | ● | ● | | | | | 4.4 | 6.2 | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | 46° | 50° | 54° | 59° |
| | 5060 | | | | | ● | ● | ● | ● | | | | | 4.8 | 7.5 | 13.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 43 | 61 | 81 | 46° | 50° | 54° | 59° |
| | 5070 | | | | | ● | ● | ● | ● | | | | | 5.2 | 8.7 | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 71 | 94 | 46° | 50° | 54° | 59° |
| | 50100 | | | | | ● | ● | ● | ● | | | | | 6.4 | 12.5 | 23 | 32 | 39 | 46 | 51 | 56 | 60 | 72 | 102 | 135 | 44° | 50° | 52° | 54° |
| | 50120 | | | | | ● | ● | ● | ● | | | | | 6.7 | 15.0 | 27 | 39 | 47 | 55 | 61 | 67 | 72 | 86 | 122 | 162 | 44° | 50° | 53° | 55° |
| | 50150 | | | | | ● | ● | ● | ● | | | | | 7.5 | 18.7 | 34 | 48 | 59 | 68 | 76 | 84 | 90 | 108 | 153 | 205 | 45° | 50° | 52° | 55° |
| | 50200 | | | | | ● | ● | ● | ● | | | | | 8.7 | 25 | 46 | 64 | 79 | 91 | 102 | 112 | 121 | 144 | 205 | 270 | 46° | 50° | 52° | 55° |
| | 50400 | | | | | | | | | ● | | | | 12.7 | 50 | 91 | 129 | 158 | 182 | 205 | 225 | 240 | 290 | 410 | 540 | 46° | 50° | 52° | 55° |
| | 50500 | | | | | | | | | | ● | ● | | 13.1 | 62 | 114 | 161 | 197 | 230 | 255 | 280 | 300 | 360 | 510 | 680 | 49° | 50° | 51° | 54° |
| | 50580 | | | | | | | | | | ● | | | 13.9 | 72 | 132 | 187 | 230 | 265 | 295 | 325 | 350 | 420 | 600 | 780 | 49° | 50° | 51° | 53° |
| | 50750 | | | | | | | | | | | ● | | 15.9 | 94 | 171 | 240 | 295 | 340 | 385 | 420 | 455 | 540 | 770 | 1010 | 49° | 50° | 51° | 53° |
| | 501000 | | | | | | | | | | | ● | | 18.3 | 125 | 230 | 325 | 395 | 455 | 510 | 560 | 610 | 720 | 1020 | 1350 | 49° | 50° | 51° | 53° |
| | 501500 | | | | | | | | | | | | ● | 22.6 | 187 | 340 | 485 | 600 | 690 | 770 | 840 | 910 | 1080 | 1530 | 2020 | 49° | 50° | 51° | 52° |
| | 502000 | | | | | | | | | | | | ● | 26.2 | 250 | 460 | 650 | 790 | 910 | 1020 | 1120 | 1210 | 1440 | 2040 | 2700 | 49° | 50° | 51° | 52° |
| 40° | 4001 | ● | ● | ● | ● | | | | | | | | | 0.66 | | | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 1.3 | 26° | 40° | 52° | 59° |
| | 40015 | ● | ● | ● | ● | | | | | | | | | 0.79 | | | 0.48 | 0.59 | 0.68 | 0.76 | 0.84 | 0.90 | 1.1 | 1.5 | 2.0 | 27° | 40° | 52° | 59° |
| | 4002 | ● | ● | ● | ● | | | | | | | | | 0.91 | | 0.46 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | 1.4 | 2.0 | 2.7 | 29° | 40° | 51° | 58° |
| | 4003 | ● | ● | ● | ● | | | | | | | | | 1.1 | | 0.68 | 0.97 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.2 | 3.1 | 4.0 | 30° | 40° | 50° | 57° |
| | 4004 | ● | ● | ● | ● | | | | | | | | | 1.3 | | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | 30° | 40° | 50° | 56° |
| | 4005 | ● | ● | ● | ● | | | | | | | | | 1.4 | | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | 31° | 40° | 49° | 55° |
| | 4006 | ● | ● | ● | ● | | | | | | | | | 1.6 | | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | 31° | 40° | 49° | 55° |
| | 4008 | ● | ● | ● | ● | | | | | | | | | 1.8 | 1.0 | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | 31° | 40° | 47° | 53° |
| | 4010 | | | | | ● | ● | ● | | | | | | 2.0 | 1.2 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | 32° | 40° | 45° | 48° |
| | 4015 | | | | | ● | ● | | ● | | | | | 2.4 | 1.9 | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 32° | 40° | 45° | 48° |
| | 4020 | | | | | ● | ● | ● | ● | | | | | 2.8 | 2.5 | 4.6 | 6.5 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 20 | 27 | 32° | 40° | 45° | 48° |
| | 4030 | | | | | ● | ● | ● | | | | | | 3.6 | 3.7 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 33° | 40° | 45° | 48° |
| | 4040 | | | | | ● | ● | ● | | | | | | 4.0 | 5.0 | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 41 | 54 | 34° | 40° | 45° | 48° |
| | 4050 | | | | | | ● | ● | | | | | | 4.4 | 6.2 | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | 35° | 40° | 45° | 48° |
| | 4060 | | | | | | ● | ● | ● | | | | | 4.8 | 7.5 | 13.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 43 | 61 | 81 | 35° | 40° | 45° | 48° |
| | 4070 | | | | | | ● | ● | ● | | | | | 5.2 | 8.7 | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 71 | 94 | 35° | 40° | 45° | 48° |
| | 40100 | | | | | | | ● | ● | | | | | 6.4 | 12.5 | 23 | 32 | 39 | 46 | 51 | 56 | 60 | 72 | 102 | 135 | 34° | 40° | 43° | 46° |
| | 40150 | | | | | | | ● | ● | | | | | 7.5 | 18.7 | 34 | 48 | 59 | 68 | 76 | 84 | 90 | 108 | 153 | 205 | | 40° | 43° | 44° |
| | 40200 | | | | | | | | ● | | | | | 8.7 | 25 | 46 | 64 | 79 | 91 | 102 | 112 | 121 | 144 | 205 | 270 | 36° | 40° | 42° | 44° |
| 25° | 2501 | ● | ● | ● | ● | | | | | | | | | 0.66 | | | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 1.3 | 14° | 25° | 34° | 42° |
| | 2502 | ● | ● | ● | ● | | | | | | | | | 0.91 | | 0.46 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | 1.4 | 2.0 | 2.7 | 15° | 25° | 33° | 40° |
| | 2503 | ● | ● | ● | ● | | | | | | | | | 1.1 | | 0.68 | 0.97 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.2 | 3.1 | 4.0 | 15° | 25° | 33° | 40° |
| | 2504 | ● | ● | ● | ● | | | | | | | | | 1.3 | | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | 16° | 25° | 32° | 39° |
| | 2505 | ● | ● | ● | ● | | | | | | | | | 1.4 | | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | 16° | 25° | 32° | 39° |
| | 2506 | ● | ● | ● | ● | | | | | | | | | 1.6 | | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | 17° | 25° | 31° | 38° |
| | 2508 | ● | ● | ● | ● | | | | | | | | | 1.8 | | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | 17° | 25° | 31° | 38° |
| | 2510 | ● | ● | ● | ● | ● | ● | ● | | | | | | 2.0 | | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | 18° | 25° | 31° | 37° |
| | 2515 | | | | | ● | ● | | ● | | | | | 2.4 | | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 18° | 25° | 31° | 37° |
| | 2520 | | | | | ● | ● | ● | ● | | | | | 2.8 | 2.5 | 4.6 | 6.5 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 20 | 27 | 19° | 25° | 31° | 37° |
| | 2530 | | | | | ● | ● | ● | | | | | | 3.6 | 3.7 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 20° | 25° | 30° | 36° |
| | 2540 | | | | | | ● | ● | | | | | | 4.0 | 5.0 | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 41 | 54 | 21° | 25° | 29° | 35° |
| | 2550 | | | | | | ● | ● | ● | | | | | 4.4 | 6.2 | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | 21° | 25° | 29° | 35° |
| | 2560 | | | | | | ● | ● | ● | | | | | 4.8 | 7.5 | 13.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 43 | 61 | 81 | 22° | 25° | 29° | 35° |
| | 2570 | | | | | | ● | ● | ● | | | | | 5.2 | 8.7 | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 71 | 94 | 22° | 25° | 29° | 35° |
| | 25100 | | | | | | | ● | ● | | | | | 6.4 | 12.5 | 23 | 32 | 39 | 46 | 51 | 56 | 60 | 72 | 102 | 135 | 23° | 25° | 28° | 32° |
| | 25150 | | | | | | | ● | ● | | | | | 7.5 | 18.7 | 34 | 48 | 59 | 68 | 76 | 84 | 90 | 108 | 153 | 205 | 24° | 25° | 28° | 30° |
| | 25200 | | | | | | | | | | | | | 8.7 | 25 | 46 | 64 | 79 | 91 | 102 | 112 | 121 | 144 | 205 | 270 | 24° | 25° | 26° | 29° |
| | 25500 | | | | | | | | | | | | | 13.1 | 62 | 114 | 161 | 197 | 230 | 255 | 280 | 300 | 360 | 510 | 680 | 24° | 25° | 26° | 29° |
| | 25750 | | | | | | | | | | | | | 15.9 | 94 | 171 | 240 | 295 | 340 | 385 | 420 | 455 | 540 | 770 | 1010 | 24° | 25° | 26° | 28° |
| | 251000 | | | | | | | | | | | | | 18.7 | 125 | 230 | 325 | 395 | 455 | 510 | 560 | 610 | 720 | 1020 | 1350 | 24° | 25° | 26° | 28° |
| 15° | 1501 | ● | ● | ● | ● | | | | | | | | | 0.66 | | | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 1.3 | | 15° | 24° | 28° |
| | 1502 | ● | | ● | | | | | | | | | | 0.91 | | | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | 1.4 | 2.0 | 2.7 | 6° | 15° | 22° | 27° |
| | 1503 | ● | ● | ● | ● | | | | | | | | | 1.1 | | | 0.97 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.2 | 3.1 | 4.0 | 6° | 15° | 22° | 27° |
| | 1504 | ● | ● | ● | ● | | | | | | | | | 1.3 | | | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | 7° | 15° | 21° | 26° |
| | 1505 | ● | ● | ● | ● | | | | | | | | | 1.4 | | | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | 7° | 15° | 21° | 26° |
| | 1506 | ● | ● | ● | ● | | | | | | | | | 1.6 | | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | 8° | 15° | 21° | 26° |
| | 1508 | ● | ● | ● | ● | | | | | | | | | 1.8 | | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | 9° | 15° | 20° | 25° |
| | 1510 | ● | ● | ● | ● | ● | ● | | | | | | | 2.0 | | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | 10° | 15° | 19° | 24° |
| | 1515 | | | | | ● | ● | ● | | | | | | 2.4 | | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 10° | 15° | 19° | 24° |
| | 1520 | | | | | ● | ● | ● | | | | | | 2.8 | | 4.6 | 6.5 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 20 | 27 | 10° | 15° | 19° | 23° |
| | 1530 | | | | | ● | ● | ● | | | | | | 3.6 | | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 10° | 15° | 19° | 21° |
| | 1540 | | | | | ● | ● | ● | | | | | | 4.0 | | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 41 | 54 | 10° | 15° | 18° | 21° |
| | 1550 | | | | | | ● | ● | ● | | | | | 4.4 | | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | 11° | 15° | 18° | 21° |

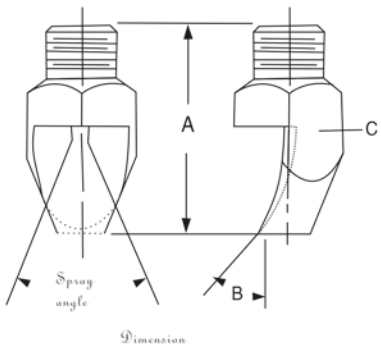




## V

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






Dimension

## 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.

## common application

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

## ordering info

**V** – **3/8** – **SS** – **5060**

| Nozzle type | Inlet size | Material code | Capacity size |
|---|---|---|---|

Remark:Brass
SS-stainless steel
316SS-316 stainless steel

## Performance data

| Spray angle (3 bar) | Nozzle Inlet Conn. NPT or BSPT | | | | | Capacity Size | Rated Orifice Dia. (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 Deflection angle | 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 | 60° | 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 | 28 | 40 | 49 | 57 | 64 | 70 | 75 | 90 | 38° | 50° | 59° | 72 | 38° | 31.8 | 0.31 |
| | | | ● | | | 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 |
| 40° | | | ● | | | 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 |
| | | | ● | | | 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 |
| 35° | ● | | | | | 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° | 15.9 | 0.06 |
| | | ● | ● | | | 3520 | 2.8 | 4.6 | 6.4 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 24° | 35° | 40° | 42 | 30° | 19.1 | 0.06 |
| | | | ● | | | 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 |
| | | | | ● | | 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 |
| 25° | | ● | | | | 2540 | 3.6 | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 15° | 25° | 34° | 65 | 25° | 19.1 | 0.11 |
| 15° | | ● | | | | 1510 | 2.0 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | | 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 | | 15° | 19° | 54 | 19° | 15.9 | 0.06 |
| | | | ● | | | 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 |

# Common Wide-angle Spray Nozzle

**W**

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

## Nozzle Dimension

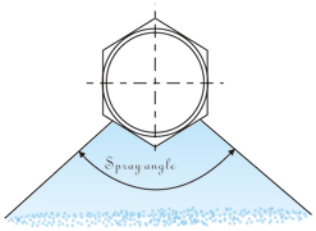
| Nozzle type | | |
|---|---|---|
| Nozzle Dimension | Hexagonal(mm) | Nozzle length (mm) |
| 1/8 | 14.3 | 31 |
| 1/4 | 14.3 | 34 |

## Common application

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

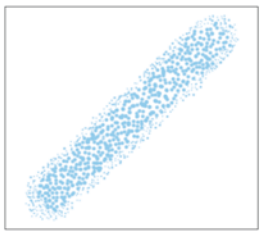


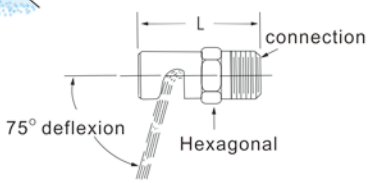





## Dimension and weight

For the higgest for each style:






## W Common Wide-angle Spray Nozzle design features

W Common Wide-angle Spray Nozzle can prodece 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 | Rated Orifice Dia. (mm) | Air capcity (L/ m) | | | | Steam capcity (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 | 76 | 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 |

## 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 | ½ | 3/4 | 1 | | | 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 | | | 0.64 | 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 | 2.3 | 98° | 122° | 133° |
| ● | ● | ● | | | | 3 | 1.4 | | 0.75 | 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 | 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 | 113° | 125° | 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 | 12.9 | 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° | 140° |
| | | | ● | | | 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 | 128 | 118° | 127° | 135° |
| | | ● | | ● | | 160 | 11.1 | 33 | 40 | 52 | 61 | 73 | 89 | 103 | 126 | 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

# 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





MG
Tip retainer

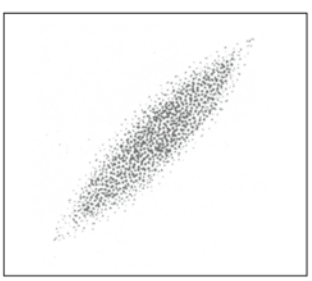
## Design features

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

Spray pattern with uniform distribution, Samll-to medium sized drops. Specially uniform distridution with 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 .





GLQ
Screen strainer

## common application

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

## Nozzle body

Nozzl 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 ½″ (Male or female )

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

## Strainer information

| The choice for the orifice of the strainer | |
|---|---|
| Equivalent spray orifice | Suggested size of steel strainer's orifice |
| less than 0.46mm | 200 |
| 47mm -0.79mm | 100 |
| 0.8mm or larger | 50 |



SJVE
MALE body



SJVL
Female body

## ordering info

**SJVE + SJVC – 11001 – SS**

| Thread body | Nozzle type | Capacity size | Material code |
|---|---|---|---|
| SJVE | SJVC | 11001 | SS |

**SJVE + GLQ +SJVC+ 11001 – SS**

| Thread body | Strainer | Nozzle type | Capacity size | Material code |
|---|---|---|---|---|
| SJVE | GLQ | SJVC | 11001 | SS |

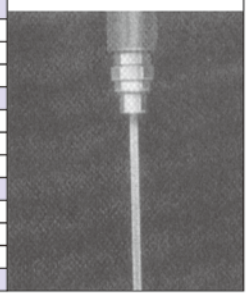
**SJVE + GLQ +SJVW+ 11005 – SS**

| Thread body | Strainer | Wide angle spray tip | Capacity size | Material code |
|---|---|---|---|---|
| SJVE | GLQ | SJVW | 11005 | SS |

## Performance data

| Spray angle (3 bar) | Capacity Size | Equivalent spray orifice(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 | 0.56 | 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 | 7.6 | 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 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 105° | 110° | 117° | 118° |
| 95° ≈ 80° ≈ 65° ≈ 50° ≈ 45° ≈ 25° ≈ 15° | 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° |
| | 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° |
| | 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° |
| | 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° | 100° | 105° |
| | 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 | 20 | 90° | 95° | 100° | 100° |
| | 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 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 91° | 95° | 95° | 105° |
| | 40 | 4.0 | 5.0 | 9.1 | 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 | 28 | 30 | 36 | 51 | 68 | 93° | 95° | 95° | 103° |
| | 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 | 0.7 | 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 | 0.68 | 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 | 0.76 | 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 | | | | |
| | 0004 | 1.4 | 0.50 | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | | | | |
| | 0005 | 1.5 | 0.62 | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | | | | |
| | 0006 | 1.7 | 0.75 | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | | | | |
| | 0008 | 2.0 | 1.0 | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | | | | |
| | 0010 | 2.2 | 1.2 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | | | | |
| | 0015 | 2.7 | 1.9 | 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 | | | | |

0°
solid stream



## Wide angle fan cone performace data

| Nozzle Inlet Conn. NPT or BSPT(male) | | Capacity Size | Rated Orifice Dia. (mm) | Capacity (L/min) | | | | | | | | | Spray angle | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 1/4 | | | 0.2bar | 0.3bar | 0.5bar | 0.7bar | 1bar | 1.5bar | 2bar | 3bar | 4bar | 0.5bar | 1.5bar | 4bar |
| ● | | 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 | | | 0.64 | 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 | 2.3 | 98° | 122° | 133° |
| ● | ● | 3 | 1.4 | | 0.75 | 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 | 6.7 | 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 | 113° | 125° | 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° |

# SJVA Hollow Cone Spray Nozzle Tip

## Design features

SJVA Hollow Cone Spray Nozzle consists of SJV male( or female) body, screen strainer, spray tip and tip retainer. Fine misting effect attained to the relatively low pressure and uniform spray distribution with the hollow cone spray performance, also forming ring spray area. The nozzle body can be reuse with low cost, just need change the nozzle tips.



Common Angle Type




Wide-angle Type

*The nozzle tip should use with SJV body and tip retainer together

## Performance Data

### SJVA Common Angle Type

* in the specified pressure(bar)

| Capacity Size | Groove Width *Depth (mm) | Rated Orifice Dia. | Capacity (L/h)* | | | | | | | | | Spray Angle (°)* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | (mm) | 1.5 | 2 | 3 | 4 | 6 | 7 | 10 | 15 | 25 | 1.5 | 3 |
| .60 | single slot 0.30 x 0.25 | 0.36 | | | | 2.7 | 3.4 | 3.6 | 4.3 | 5.3 | 6.8 | | |
| 1 | single slot 0.41 x 0.38 | 0.51 | | 3.2 | 3.9 | 4.6 | 5.6 | 6.0 | 7.2 | 8.8 | 11.4 | | 54 |
| 1.25 | single slot 0.51 x 0.51 | 0.56 | | 4.0 | 4.9 | 5.7 | 7.0 | 7.5 | 9.0 | 11.0 | 14.2 | | 59 |
| 1.5 | single slot 0.61 x 0.51 | 0.61 | | 4.8 | 5.9 | 6.8 | 8.4 | 9.0 | 10.8 | 13.2 | 17.1 | | 63 |
| 2 | single slot 0.71 x 0.61 | 0.71 | 5.6 | 6.4 | 7.9 | 9.1 | 11.2 | 12.1 | 14.4 | 17.7 | 23 | 40 | 68 |
| 2.5 | single slot 0.76 x0 .74 | 0.79 | 7.0 | 8.1 | 9.9 | 11.4 | 14.0 | 15.1 | 18.0 | 22 | 28 | 48 | 70 |
| 3 | single slot 0.91 x 0.86 | 0.86 | 8.4 | 9.7 | 11.8 | 13.7 | 16.8 | 18.1 | 22 | 26 | 34 | 57 | 72 |
| 4 | single slot 1.0 x 0.86 | 1.0 | 11.2 | 12.9 | 15.8 | 18.2 | 22 | 24 | 29 | 35 | 46 | 61 | 73 |
| 5 | double slot0.81 x 0.81 | 1.1 | 14.0 | 16.1 | 19.7 | 23 | 28 | 30 | 36 | 44 | 57 | 63 | 73 |
| 6 | double slot1.0 x 0.81 | 1.2 | 16.8 | 19.3 | 24 | 27 | 34 | 36 | 43 | 53 | 68 | 65 | 74 |
| 8 | double slot1.0 x 0.91 | 1.4 | 22 | 26 | 32 | 36 | 45 | 48 | 58 | 71 | 91 | 66 | 74 |
| 10 | double slot1.3 x 0.76 | 1.5 | 28 | 32 | 39 | 46 | 56 | 60 | 72 | 88 | 114 | 68 | 75 |
| 12 | double slot1.3 x 0.86 | 1.7 | 34 | 39 | 47 | 55 | 67 | 72 | 86 | 106 | 137 | 69 | 76 |
| 14 | double slot1.4 x 0.86 | 1.8 | 39 | 45 | 55 | 64 | 78 | 84 | 101 | 124 | 160 | 70 | 76 |
| 18 | double slot1.5 x 0.79 | 2.0 | 50 | 58 | 71 | 82 | 101 | 109 | 130 | 159 | 205 | 71 | 77 |
| 22 | double slot1.7 x 0.76 | 2.2 | 61 | 71 | 87 | 100 | 123 | 133 | 159 | 194 | 251 | 71 | 78 |
| 26 | double slot1.7 x 0.76 | 2.4 | 73 | 84 | 103 | 119 | 145 | 157 | 187 | 230 | 296 | 72 | 78 |

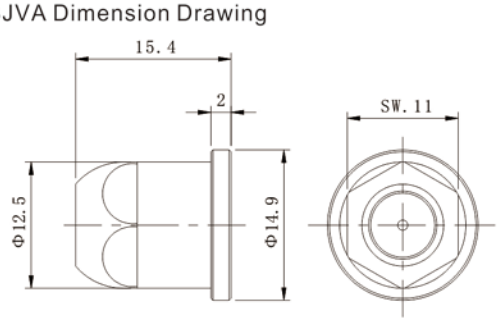
All the spray angle are 80degree, working under 7 bar.

### SJVA-W Wide-angle Type

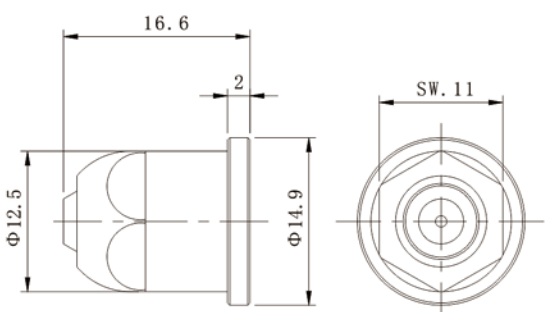
* in the specified pressure(bar)

| Capacity Size | Groove Width *Depth (mm) | Rated Orifice Dia. (mm) | Capacity (L/h)* | | | | | | | | Spray Angle (°)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0.7 | 1 | 1.5 | 2 | 3 | 4 | 6 | 7 | 1.5 | 3 | 6 |
| 2W | double slot 0.41 x0.38 | 0.79 | 3.8 | 4.6 | 5.6 | 6.4 | 7.9 | 9.1 | 11.2 | 12.1 | 130 | 140 | 136 |
| 3W | double slot 0.51 x 0.48 | 0.99 | 5.7 | 6.8 | 8.4 | 9.7 | 11.8 | 13.7 | 16.8 | 18.1 | 138 | 140 | 137 |
| 4W | double slot 0.61 x 0.53 | 1.1 | 7.6 | 9.1 | 11.2 | 12.9 | 15.8 | 18.2 | 22 | 24 | 140 | 140 | 138 |
| 5W | double slot 0.71 x 0.69 | 1.3 | 9.5 | 11.4 | 14.0 | 16.1 | 19.7 | 23 | 28 | 30 | 140 | 140 | 138 |
| 6W | double slot 0.81 x 0.66 | 1.4 | 11.4 | 13.7 | 16.8 | 19.3 | 24 | 27 | 34 | 36 | 140 | 140 | 138 |
| 8W | double slot 0.91 x 0.74 | 1.6 | 15.3 | 18.2 | 22 | 26 | 32 | 36 | 45 | 48 | 140 | 140 | 136 |
| 10W | double slot 1.0 x 0.76 | 1.8 | 19.1 | 23 | 28 | 32 | 39 | 46 | 56 | 60 | 140 | 140 | 136 |
| 12W | double slot 1.1 x 0.74 | 2.0 | 23 | 27 | 34 | 39 | 47 | 55 | 67 | 72 | 140 | 140 | 136 |

### SJVA Dimension Drawing




Common angle type




Wide-angle type

# SJVB Full Cone Spray Nozzle tip

## Design features

SJVB Full Cone Spray Nozzle consists of SJV male ( or SJV female) body, spray tip and tip retainer.

The impact shape is round spray.

Unique vane design and large flow channels ensured excellent control and uniform spray distribution.

It is very easy to change the nozzle tips just by unscrewing the nozzle out.

Low cost- Reuse- Change the nozzle tip.



Common Angle type Wide-angle Type Square type

*The nozzle tip should use with SJV body and tip retainer together

## Performance Data

### SJVB Common Angle Type

* in the specified pressure(bar)

| Nozzle Inlet Conn. Size (in.) | Flow Code | Rated Orifice Dia.(mm) | Max Hole Dia.(mm) | Capacity (L/h)* | | | | | | | | | | Spray Angle (° )* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0.4 | 0.5 | 0.7 | 1.5 | 2 | 3 | 4 | 6 | 7 | 10 | 0.5 | 1.5 | 6 |
| 1/4 | 0.3 | 0.51 | 0.41 | | | | 0.16 | 0.19 | 0.22 | 0.25 | 0.31 | 0.33 | 0.39 | | 50 | 61 |
| | 0.4 | 0.56 | 0.46 | | | | 0.22 | 0.25 | 0.30 | 0.34 | 0.41 | 0.44 | 0.52 | | 56 | 63 |
| | 0.5 | 0.61 | 0.51 | | | | 0.27 | 0.31 | 0.37 | 0.42 | 0.51 | 0.55 | 0.65 | | 56 | 63 |
| | 0.6 | 0.69 | 0.51 | | | | 0.32 | 0.37 | 0.45 | 0.51 | 0.61 | 0.66 | 0.78 | | 54 | 62 |
| | 0.7 | 0.76 | 0.51 | | | | 0.38 | 0.43 | 0.52 | 0.59 | 0.72 | 0.77 | 0.91 | | 54 | 63 |
| | 1 | 0.94 | 0.64 | | | | 0.54 | 0.62 | 0.74 | 0.85 | 1.0 | 1.1 | 1.3 | | 58 | 53 |
| | 2 | 1.19 | 1.0 | | | 0.76 | 1.1 | 1.2 | 1.5 | 1.7 | 2.0 | 2.2 | 2.6 | | 50 | 46 |
| | 3 | 1.57 | 1.0 | | | 1.1 | 1.6 | 1.9 | 2.2 | 2.5 | 3.1 | 3.3 | 3.9 | | 65 | 59 |
| | 3.5 | 1.70 | 1.3 | | | 1.3 | 1.9 | 2.2 | 2.6 | 3.0 | 3.6 | 3.8 | 4.5 | | 50 | 46 |
| | 5 | 2.08 | 1.3 | | | 1.9 | 2.7 | 3.1 | 3.7 | 4.2 | 5.1 | 5.5 | 6.5 | | 65 | 59 |
| | 6.5 | 2.38 | 1.6 | 1.9 | 2.1 | 2.5 | 3.5 | 4.0 | 4.8 | 5.5 | 6.7 | 7.1 | 8.4 | 45 | 50 | 46 |
| | 10 | 3.18 | 1.6 | 2.9 | 3.3 | 3.8 | 5.4 | 6.2 | 7.4 | 8.5 | 10.2 | 11.0 | 13.0 | 58 | 67 | 61 |

The Max. Hole Diameter indicated above is the maximum diameter of the particles that can pass through thechannel and do not block.

### SJVB Wide-angle Type

* in the specified pressure(bar)

| Nozzle Inlet Conn. Size (in.) | Tip Model (SJVB-W) | Flow Code | Rated Orifice Dia.(mm) | Max Hole Dia.(mm) | Capacity (L/h)* | | | | | | | | | Spray Angle (° )* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SJVB-W | | | | 0.4 | 0.5 | 0.7 | 1 | 1.5 | 2 | 3 | 4 | 6 | 0.4 | 0.7 | 6 |
| 1/8, 1/4 | ● | 2.8W | 1.6 | 1.0 | .83 | .91 | 1.1 | 1.3 | 1.5 | 1.7 | 2.1 | 2.4 | 2.9 | | 120 | 102 |
| | ● | 4.3W | 2.0 | 1.0 | 1.3 | 1.4 | 1.6 | 1.9 | 2.3 | 2.7 | 3.2 | 3.7 | 4.4 | | 120 | 102 |
| | ● | 5.6W | 2.4 | 1.0 | 1.7 | 1.8 | 2.1 | 2.5 | 3.0 | 3.5 | 4.2 | 4.8 | 5.7 | | 120 | 102 |
| | ● | 8W | 2.4 | 1.3 | 2.4 | 2.6 | 3.0 | 3.6 | 4.3 | 4.9 | 6.0 | 6.8 | 8.2 | | 120 | 103 |
| 1/4 | ● | 10W | 2.8 | 1.3 | 2.9 | 3.3 | 3.8 | 4.5 | 5.4 | 6.2 | 7.4 | 8.5 | 10.2 | 112 | 120 | 103 |
| | ● | 12W | 3.2 | 1.3 | 3.5 | 3.9 | 4.6 | 5.4 | 6.5 | 7.4 | 8.9 | 10.2 | 12.3 | 114 | 120 | 103 |
| | ● | 14W | 3.6 | 1.6 | 4.1 | 4.6 | 5.3 | 6.3 | 7.6 | 8.6 | 10.4 | 11.9 | 14.3 | 114 | 120 | 103 |

The Max. Hole Diameter indicated above is the maximum diameter of the particles that can pass through thechannel and do not block.

### SJVB Square Type

* in the specified pressure(bar)

| Nozzle Inlet Conn. Size (in.) | Flow Code | Rated Orifice Dia.(mm) | Max Hole Dia.(mm) | Capacity (L/h)* | | | | | | | | | | Spray Angle (° )* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0.4 | 0.5 | 0.7 | 1.5 | 2 | 3 | 4 | 6 | 7 | 10 | 0.5 | 1.5 | 6 |
| 1/4 | 6SQ | 2.4 | 1.3 | 1.8 | 2.0 | 2.3 | 3.2 | 3.7 | 4.5 | 5.1 | 6.1 | 6.6 | 7.8 | 60 | 66 | 60 |
| | 8SQ | 2.5 | 1.3 | 2.4 | 2.6 | 3.0 | 4.3 | 4.9 | 6.0 | 6.8 | 8.2 | 8.8 | 10.4 | 70 | 75 | 68 |
| | 10SQ | 2.8 | 1.6 | 2.9 | 3.3 | 3.8 | 5.4 | 6.2 | 7.4 | 8.5 | 10.2 | 11.0 | 13.0 | 62 | 66 | 60 |
| | 12SQ | 3.2 | 1.6 | 3.5 | 3.9 | 4.6 | 6.5 | 7.4 | 8.9 | 10.2 | 12.3 | 13.2 | 15.5 | 70 | 75 | 68 |

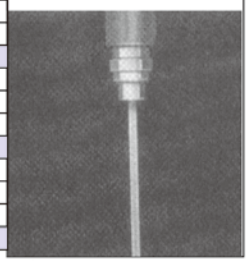
# SJVB Flat Fan Spray Nozzle tip



## Performance Data

| Spray Angle (3bar) | Capacity Code | Rated Orifice Dia(mm) | Capacity (L/min) | | | | | | | | | | | Spray Angle (。)* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0.3bar | 1bar | 2bar | 3bar | 4bar | 5bar | 6bar | 7bar | 10bar | 20bar | 35bar | 1. 5bar | 3bar | 6bar | 14bar |
| 110°≈95°≈80°≈65°≈50°≈45°≈25°≈15° | 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° |
| | 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° |
| | 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° |
| | 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° | 100° | 105° |
| | 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 | 20 | 90° | 95° | 100° | 100° |
| | 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 | 6. 8 | 9. 7 | 11. 8 | 13. 7 | 15. 3 | 16. 7 | 18. 1 | 22 | 31 | 40 | 91° | 95° | 95° | 105° |
| | 40 | 4. 0 | 5. 0 | 9. 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 | 28 | 30 | 36 | 51 | 68 | 93° | 95° | 95° | 103° |
| | 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° | 0 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. 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 | | | | |
| | 0004 | 1. 4 | 0. 50 | 0. 91 | 1. 3 | 1. 6 | 1. 8 | 2. 0 | 2. 2 | 2. 4 | 2. 9 | 4. 1 | 5. 4 | | | | |
| | 0005 | 1. 5 | 0. 62 | 1. 1 | 1. 6 | 2. 0 | 2. 3 | 2. 5 | 2. 8 | 3. 0 | 3. 6 | 5. 1 | 6. 7 | | | | |
| | 0006 | 1. 7 | 0. 75 | 1. 4 | 1. 9 | 2. 4 | 2. 7 | 3. 1 | 3. 3 | 3. 6 | 4. 3 | 6. 1 | 8. 1 | | | | |
| | 0008 | 2. 0 | 1. 0 | 1. 8 | 2. 6 | 3. 2 | 3. 6 | 4. 1 | 4. 5 | 4. 8 | 5. 8 | 8. 2 | 10. 8 | | | | |
| | 0010 | 2. 2 | 1. 2 | 2. 3 | 3. 2 | 3. 9 | 4. 6 | 5. 1 | 5. 6 | 6. 0 | 7. 2 | 10. 2 | 13. 5 | | | | |
| | 0015 | 2. 7 | 1. 9 | 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 | | | | |

0° Solid Stream



# SJVW Wide Angle Flat Fan Spray Nozzle Tip



## Wide-angle Data Table

| Nozzle Inlet Conn. NPT or BSPT(male) | | Capacity Code | Rocteed Orifiadia (mm) | Capacity (L/min) | | | | | | | | | Spray Angle (。)* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 1/4 | | | 0.2巴 | 0.3巴 | 0.5巴 | 0.7巴 | 1巴 | 1.5巴 | 2巴 | 3巴 | 4巴 | 0.5巴 | 1.5巴 | 4巴 |
| ● | | 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 | | | 0.64 | 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 | 2.3 | 98° | 122 | 133° |
| ● | ● | 3 | 1.4 | | 0.75 | 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 | 6.7 | 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 | 113° | 125° | 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° |

# QJJ SS Dismantling Nozzle

## QB



full cone quick
dismantling nozzle tip



Gasket



1/4-1/2QJJ
Male nozzle body

## QC



flat fan quick
dismantling nozzle tip



Gasket



1/4-1/2QJJ
male nozzle body

## QCL



narrow angle
flat fan nozzle tip



Gasket



1/8-1/2 QJ
female nozzle body

## QV



narrow angle flat fan
quick dismantling nozzle tip



Gasket



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 | |
|---|---|---|
| | (Flmale) | (Male) |
| | QJ | QJJ |
| 1/8 | | ● |
| 1/4 | | ● |
| 3/8 | ● | |
| 1/2 | ● | |

## ordering info

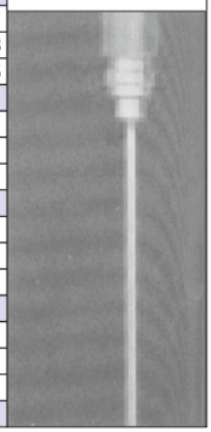
**QB — 1/4 — SS — 11010**

| Nozzle type | Inlet size | Material code | Capacity size |
|---|---|---|---|

## 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 |
| 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 | 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° | 121° | 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° | | 121° | 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° | 121° | 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° | 121° | 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° | 121° | 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° | | 121° | 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° | 121° | 119° |
| | 11015 | | | 2.4 | 1.9 | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 104° | 110° | 121° | 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° | 121° | 118° |
| 95° ≈ 80° ≈ 65° ≈ 50° ≈ 40° ≈ 25° ≈ 15° | 9501 | | | 0.66 | 0.12 | 0.23 | 0.32 | 0.39 | 0.46 | 0.51 | 0.56 | 0.60 | 0.72 | 1.0 | 1.3 | 81° | 95° | 105° | 113° |
| | 95015 | | | 0.79 | 0.19 | 0.34 | 0.48 | 0.59 | 0.68 | 0.76 | 0.84 | 0.90 | 1.1 | 1.5 | 2.0 | 82° | 95° | 105° | 113° |
| | 9502 | | | 0.91 | 0.25 | 0.46 | 0.64 | 0.79 | 0.91 | 1.0 | 1.1 | 1.2 | 1.4 | 2.0 | 2.7 | 82° | 95° | 105° | 113° |
| | 9503 | | | 1.1 | 0.37 | 0.68 | 0.97 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.2 | 3.1 | 4.0 | 83° | 95° | 104° | 111° |
| | 9504 | | | 1.3 | 0.50 | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | 84° | 95° | 103° | 108° |
| | 9505 | | | 1.4 | 0.62 | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | 84° | 95° | 102° | 107° |
| | 9506 | | | 1.6 | 0.75 | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | 86° | 95° | 101° | 106° |
| | 9508 | | | 1.8 | 1.0 | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | 87° | 95° | 100° | 105° |
| | 9510 | | | 2.0 | 1.2 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | 89° | 95° | 100° | 105° |
| | 9515 | | | 2.4 | 1.9 | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | 90° | 95° | 100° | 105° |
| | 9520 | | | 2.8 | 2.5 | 4.6 | 6.5 | 7.9 | 9.1 | 10.2 | 11.2 | 12.1 | 14.4 | 20 | 27 | 90° | 95° | 100° | 105° |
| | 9530 | | | 3.6 | 3.7 | 6.8 | 9.7 | 11.8 | 13.7 | 15.3 | 16.7 | 18.1 | 22 | 31 | 40 | 91° | 95° | 101° | 105° |
| | 9540 | | | 4.0 | 5.0 | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 41 | 54 | 92° | 95° | 100° | 105° |
| | 9550 | | | 4.4 | 6.2 | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | 93° | 95° | 99° | 103° |
| | 9560 | | | 4.8 | 7.5 | 13.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 43 | 61 | 81 | 93° | 95° | 99° | 103° |
| | 9570 | | ● | 5.2 | 8.7 | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 71 | 94 | 93° | 95° | 99° | 103° |
| | 95100 | | | 6.4 | 12.5 | 23 | 32 | 39 | 46 | 51 | 56 | 60 | 72 | 102 | 135 | 93° | 95° | 99° | 102° |
| | 95150 | | | 7.5 | 18.7 | 34 | 48 | 59 | 68 | 76 | 84 | 90 | 108 | 153 | 205 | 93° | 95° | 99° | 102° |
| 0° | 000009 | ● | | 0.20 | 0.01 | 0.02 | 0.03 | 0.35 | 0.04 | 0.45 | 0.05 | 0.06 | 0.07 | 0.09 | 0.12 | | | | |
| | 000012 | ● | | 0.25 | 0.02 | 0.03 | 0.14 | 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 | 0.68 | 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 | 0.76 | 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 | | | | |
| | 0004 | ● | | 1.4 | 0.50 | 0.91 | 1.3 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 4.1 | 5.4 | | | | |
| | 0005 | ● | | 1.5 | 0.62 | 1.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.8 | 3.0 | 3.6 | 5.1 | 6.7 | | | | |
| | 0006 | ● | | 1.7 | 0.75 | 1.4 | 1.9 | 2.4 | 2.7 | 3.1 | 3.3 | 3.6 | 4.3 | 6.1 | 8.1 | | | | |
| | 0008 | ● | | 2.0 | 1.0 | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 8.2 | 10.8 | | | | |
| | 0010 | | | 2.2 | 1.2 | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 10.2 | 13.5 | | | | |
| | 0015 | | | 2.7 | 1.9 | 3.4 | 4.8 | 5.9 | 6.8 | 7.6 | 8.4 | 9.0 | 10.8 | 15.3 | 20 | | | | |
| | 0020 | | | 3.2 | 2.5 | 4.6 | 6.5 | 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 | | | | |
| | 0050 | | | 4.4 | 6.2 | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | 51 | 68 | | | | |
| | 0060 | | | 4.8 | 7.5 | 13.7 | 19.3 | 24 | 27 | 31 | 33 | 36 | 43 | 61 | 81 | | | | |
| | 0070 | | | 5.2 | 8.7 | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 71 | 94 | | | | |
| | 0080 | | | 5.2 | 10.0 | 18.2 | 26 | 32 | 36 | 41 | 45 | 48 | 58 | 82 | 108 | | | | |
| | 00100 | | | 6.0 | 12.5 | 23 | 32 | 39 | 46 | 51 | 56 | 60 | 72 | 102 | 135 | | | | |
| | 00120 | | | 6.4 | 15.0 | 27 | 39 | 47 | 55 | 61 | 67 | 72 | 86 | 122 | 162 | | | | |
| | 00150 | | | 7.5 | 18.7 | 34 | 48 | 59 | 68 | 76 | 84 | 90 | 108 | 153 | 205 | | | | |
| | 00200 | | | 8.3 | 25 | 46 | 64 | 79 | 91 | 102 | 112 | 121 | 144 | 205 | 270 | | | | |
| | 00250 | | | 9.5 | 31 | 57 | 81 | 99 | 114 | 127 | 140 | 151 | 180 | 255 | 340 | | | | |

0°
solid stream



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

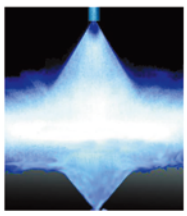
Easy split nozzle; Made of Glass Fiber PP (25%), Carbon Fiber PP (40%) and PVDF,featured high intensity, wearability and anticorrosion; Suitable for washing and rinsing of corrosive solution, such as phosphate, acid & solvent; Max temperature for Glass Fiber PP is 82°C; Max temperature for Carbon Fiber 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



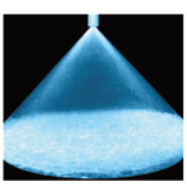


Fan Fan

### Easy-dismantling Flat Fan Spray Tip

| nozzle type (Spraying angle under 3 bar pressure) | | | | | 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 | 0.50 | 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 | 5.6 | 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 |





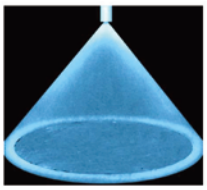
Full Cone

### 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 | 6bar |
| 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° | 98° |
| 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 |
| QJJB1/4 | 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 tip



Gasket



Gasket



Nozzle body



Nozzle body

## common application

new mold appearance



the specific models of new mold appearance, you can consult with our sales engineer.

## ordering info

| nozzle type | Nozzle Inlet Conn. (Inch) |
|---|---|
| QJJN1/8 | 1/8 |
| QJJN1/4 | 1/4 |
| QJJN3/8 | 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 tip



Gasket



Gasket



Nozzle body



Nozzle body

## common application

imitation appearance



the specific models of imitation appearance ,you can consult with our sales engineer.

## ordering info

| nozzle type | Nozzle Inlet Conn. (Inch) |
|---|---|
| QJJP1/8 | 1/8 |
| QJJP1/4 | 1/4 |
| QJJP3/8 | 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 tip



Gasket



Gasket



Nozzle body



Nozzle body

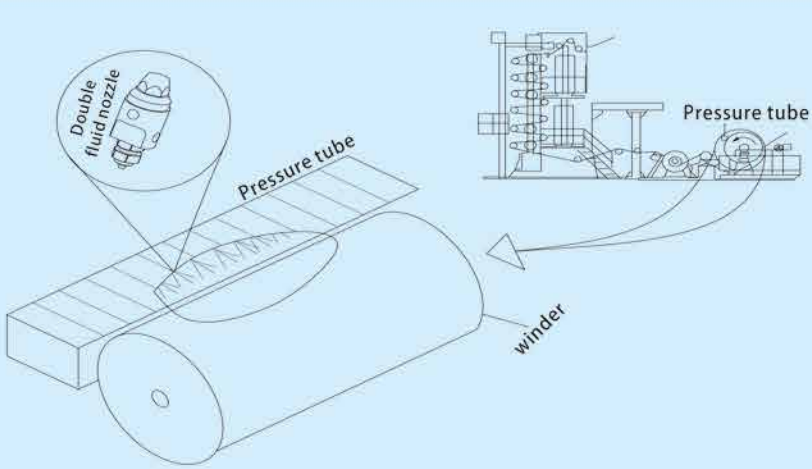
# D Series Atomizing Nozzle











# Air Atomizing Nozzle

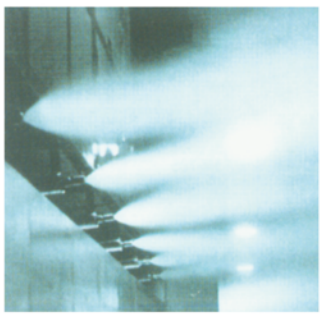
## Design features

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.



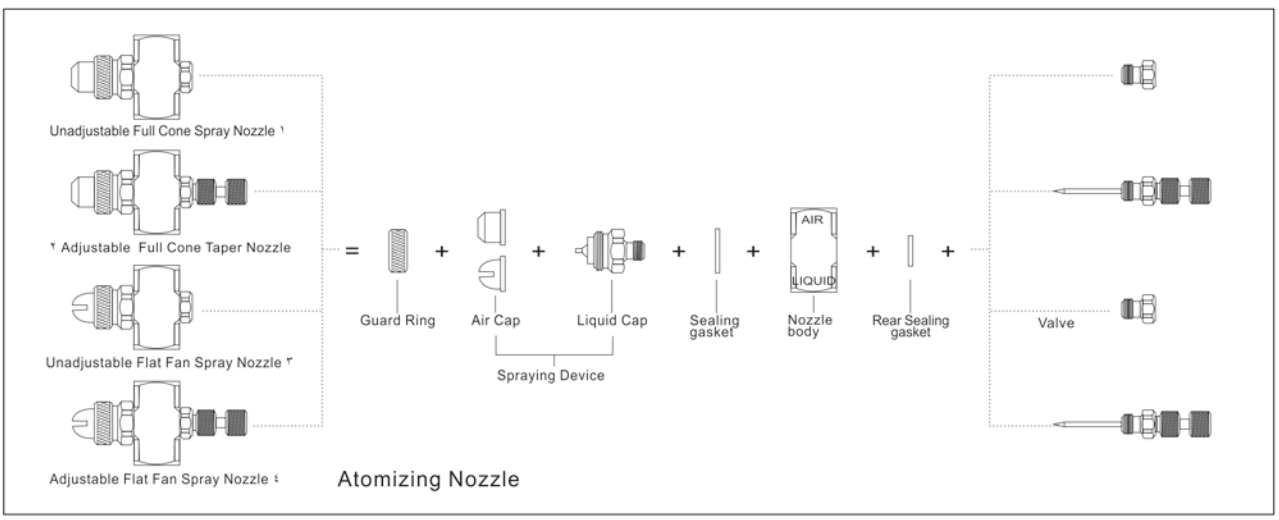
## common application

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



**Efficient Moisture**
**Ideal choice of location with efficient moisture**

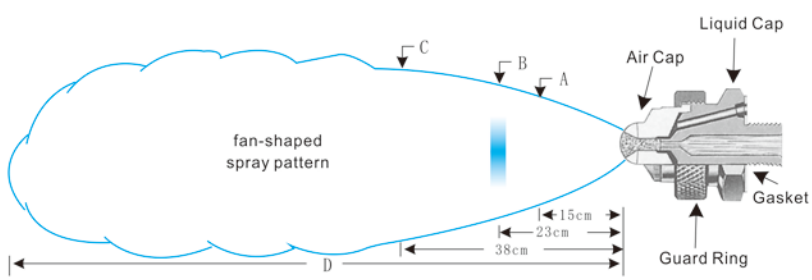
## Structure




## Pressure Air Atomizing

## Performance data

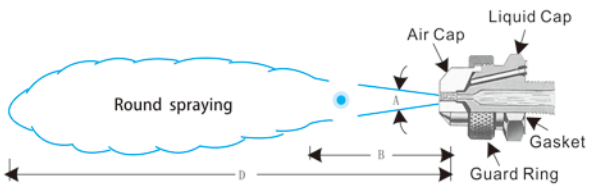
For flat spray, A/B/C size is the distance to nozzle, while "D" is the maximum. distance to nozzle as the right chart.



## flat Spray

| spray device model | spray device consists of air cap and fluid cap | liquid flow (L/min)and flow (L/min) Water pressure (bar) | | | | | | | | | | | | | | | | Size | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.7bar | | | 1.5bar | | | 2bar | | | 3bar | | | 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) | | | | | | |
| SUC13A | Liquid Cap 2050 and Air Cap 73328 | 0.7 | 5.5 | 24 | 1.3 | 9.1 | 31 | 2.0 | 8.6 | 42 | 2.7 | 11.2 | 52 | 3.9 | 12.0 | 69 | 1.1 | 0.7 | 25 | 36 | | 2.6 |
| | | 0.85 | 4.7 | 27 | 1.5 | 7.7 | 36 | 2.2 | 7.5 | 47 | 3.0 | 10.1 | 56 | 4.6 | 9.7 | 81 | 2.1 | 1.5 | 36 | 48 | 66 | 3.0 |
| | | 1.0 | 4.1 | 31 | 1.8 | 6.5 | 42 | 2.5 | 6.2 | 52 | 3.2 | 9.1 | 62 | 5.3 | 7.5 | 93 | 2.8 | 2.0 | 38 | 53 | 76 | 3.2 |
| | | 1.1 | 3.5 | 34 | 2.1 | 5.4 | 47 | 2.8 | 5.2 | 57 | 3.5 | | 66 | 6.0 | 5.3 | 104 | 3.5 | 3.0 | 47 | 61 | 86 | 3.4 |
| | | 1.3 | 3.0 | 37 | 2.4 | 4.3 | 52 | 3.1 | 4.2 | 63 | 4.2 | 5.4 | 79 | 6.3 | 4.3 | 110 | 6.0 | 4.0 | 56 | 74 | 94 | 4.0 |
| | | 1.4 | 2.5 | 40 | 2.7 | 3.3 | 57 | 3.2 | 3.7 | 65 | 4.6 | 4.2 | 85 | 5.7 | 3.3 | 116 | | | | | | |
| | | 1.5 | 2.0 | 44 | 2.8 | 2.8 | 60 | 3.4 | 3.2 | 68 | 4.9 | 3.1 | 91 | 7.0 | 2.4 | 122 | | | | | | |
| SUC13 | Liquid Cap 2850 and Air Cap 73328 | 0.85 | 8.2 | 19.8 | 1.4 | 14.4 | 27 | 2.1 | 13.5 | 36 | 2.7 | 19.1 | 42 | 4.6 | 16.1 | 69 | 1.1 | 0.7 | 36 | 46 | | 2.1 |
| | | 1.0 | 6.8 | 23 | 1.7 | 11.9 | 32 | 2.4 | 11.4 | 42 | 3.0 | 17.1 | 46 | 4.9 | 13.8 | 76 | 2.1 | 1.5 | 43 | 61 | 71 | 2.4 |
| | | 1.1 | 5.5 | 27 | 2.0 | 9.5 | 37 | 2.7 | 9.2 | 47 | 3.2 | 15.1 | 52 | 5.3 | 11.5 | 83 | 3.0 | 2.0 | 51 | 66 | 81 | 2.6 |
| | | 1.3 | 4.1 | 30 | 2.1 | 8.3 | 40 | 3.0 | 7.1 | 53 | 3.5 | 13.1 | 57 | 5.6 | 9.3 | 90 | 3.5 | 3.0 | 58 | 76 | 89 | 2.7 |
| | | 1.4 | 2.9 | 34 | 2.2 | 7.1 | 43 | 3.2 | 5.0 | 59 | 4.2 | 8.1 | 72 | 6.0 | 7.3 | 97 | 5.6 | 4.0 | 58 | 76 | 97 | 3.2 |
| | | | | | 2.4 | 6.1 | 46 | 3.4 | 4.0 | 63 | 4.6 | 5.9 | 79 | 6.3 | 5.6 | 104 | | | | | 97 | |
| | | | | | 2.5 | 5.1 | 49 | 3.5 | 3.3 | 66 | 4.9 | 4.0 | 66 | 6.7 | 4.3 | 112 | | | | | | |
| SUNC13 | Liquid Cap 2850 and Air Cap 73335 | 1.0 | 9.0 | 25 | 2.0 | 10.4 | 41 | 2.4 | 11.6 | 48 | 3.1 | 15.6 | 56 | 4.2 | 17.1 | 73 | 1.4 | 0.7 | 10 | 13 | | 3.0 |
| | | 1.1 | 7.8 | 30 | 2.1 | 9.3 | 45 | 2.5 | 10.4 | 51 | 3.2 | 14.6 | 59 | 4.6 | 15.0 | 80 | 2.5 | 1.5 | 13 | 15 | 17 | 3.7 |
| | | 1.3 | 6.6 | 32 | 2.2 | 8.2 | 48 | 2.7 | 9.4 | 54 | 3.4 | 13.7 | 62 | 4.9 | 12.8 | 87 | 3.2 | 2.0 | 13 | 17 | 20 | 4.0 |
| | | 1.4 | 5.2 | 36 | 2.5 | 6.1 | 55 | 3.0 | 7.3 | 61 | 3.8 | 10.8 | 71 | 5.3 | 11.0 | 94 | 3.8 | 3.0 | 15 | 22 | 22 | 4.2 |
| | | 1.7 | 3.1 | 44 | 2.8 | 4.3 | 62 | 3.2 | 5.5 | 68 | 4.2 | 8.5 | 82 | 5.6 | 9.4 | 103 | 5.3 | 4.0 | 20 | 25 | 28 | 4.8 |
| | | 2.0 | 2.0 | 50 | 3.1 | 3.0 | 69 | 3.5 | 4.1 | 75 | 4.9 | 5.2 | 98 | 6.3 | 7.2 | 119 | | | | | 33 | |
| | | 2.2 | 1.1 | 56 | 3.4 | 2.0 | 75 | 3.8 | 2.9 | 81 | 6.0 | 2.3 | 120 | 7.0 | 6.1 | 134 | | | | | | |
| SUC14 | Liquid Cap 2850 and Air Cap 73320 | 1.3 | 3.9 | 30 | 2.1 | 7.4 | 40 | 3.0 | 6.1 | 52 | 3.9 | 9.4 | 60 | 5.3 | 10.2 | 78 | 1.5 | 0.7 | 25 | 33 | | 1.8 |
| | | 1.4 | 3.0 | 33 | 2.4 | 5.3 | 45 | 3.1 | 5.3 | 54 | 4.2 | 7.2 | 67 | 5.6 | 8.3 | 84 | 2.7 | 1.5 | 36 | 51 | 46 | 2.0 |
| | | 1.5 | 2.3 | 35 | 2.5 | 4.4 | 47 | 3.2 | 4.5 | 57 | 4.6 | 5.3 | 73 | 6.0 | 6.6 | 69 | 3.2 | 2.0 | 58 | 74 | 69 | 2.0 |
| | | 1.7 | 1.8 | 38 | 2.7 | 3.7 | 50 | 3.4 | 3.8 | 59 | 4.9 | 3.8 | 80 | 6.3 | 5.1 | 98 | 4.2 | 3.0 | 61 | 74 | 91 | 21 |
| | | 1.8 | 1.3 | 41 | 2.8 | 3.1 | 52 | 3.5 | 3.2 | 62 | | | | | | | 5.6 | 4.0 | 64 | 76 | 94 | 2.3 |
| | | 2.0 | 0.95 | 44 | 3.0 | 2.6 | 55 | 3.9 | 1.8 | 68 | | | | | | | | | | | 97 | |
| | | | | | 3.1 | 2.1 | 57 | | | | | | | | | | | | | | | |
| SUNC23 | Liquid Cap 60100 and Air Cap 125340 | 1.0 | 17.0 | 23 | 2.0 | 24 | 44 | 2.4 | 28 | 51 | 3.4 | 38 | 72 | 3.9 | 65 | 75 | 1.1 | 0.7 | 10 | 13 | | 2.4 |
| | | 1.1 | | 27 | 2.1 | 18.9 | 50 | 2.5 | 23 | 59 | 3.5 | 33 | 80 | 4.2 | 53 | 89 | 2.1 | 1.5 | 10 | 13 | 15 | 3.0 |
| | | 1.3 | 7.6 | 33 | 2.2 | 14.4 | 56 | 2.7 | 18.9 | 66 | 3.7 | 28 | 89 | 4.6 | 40 | 108 | 2.8 | 2.0 | 13 | 17 | 17 | 3.4 |
| | | 1.4 | 3.2 | 40 | 2.4 | 10.6 | 63 | 2.8 | 15.1 | 74 | 3.8 | 23 | 97 | 4.9 | 30 | 127 | 3.7 | 3.0 | 15 | 20 | 22 | 3.6 |
| | | | | | 2.5 | 7.2 | 71 | 3.0 | 11.7 | 79 | 3.9 | 19.7 | 105 | 5.3 | 21 | 149 | 4.9 | 4.0 | 20 | 25 | 28 | 4.0 |
| | | | | | | | | | | | 4.2 | 13.1 | 120 | 5.6 | 13.8 | 173 | | | | | 35 | |
| | | | | | | | | | | | 4.6 | 7.2 | 138 | 6.3 | 3.2 | 225 | | | | | | |
| SUC23B | Liquid Cap 40100 and Air Cap 125328 | 1.1 | 11.2 | 54 | 2.1 | 18.0 | 79 | 2.7 | 19.6 | 93 | 3.5 | 27 | 112 | 4.6 | 33 | 137 | 1.4 | 0.7 | 15 | 18 | | 3.0 |
| | | 1.3 | 8.5 | 60 | 2.2 | 15.8 | 84 | 2.8 | 17.3 | 98 | 3.7 | 25 | 116 | 4.9 | 28 | 149 | 2.4 | 1.5 | 23 | 28 | 20 | 3.2 |
| | | 1.4 | 6.5 | 65 | 2.4 | 13.6 | 89 | 3.0 | 15.2 | 103 | 3.8 | 23 | 121 | 5.3 | 24 | 161 | 3.0 | 2.0 | 25 | 33 | 33 | 3.4 |
| | | 1.5 | 5.0 | 71 | 2.5 | 11.6 | 95 | 3.1 | 13.2 | 109 | 3.9 | 21 | 126 | 5.6 | 19.7 | 174 | 3.7 | 3.0 | 30 | 38 | 46 | 3.5 |
| | | 1.7 | 3.8 | 77 | | | | 3.2 | 11.4 | 114 | 4.1 | 18.9 | 132 | 6.0 | 15.7 | 187 | 5.3 | 4.0 | 33 | 41 | 46 | 4.0 |
| | | | | | | | | | | | 4.2 | 17.0 | 137 | 6.3 | 12.4 | 200 | | | | | 48 | |
| SUC23 | Liquid Cap 60100 and Air Cap 125340 | 0.85 | 27 | 33 | 1.8 | 38 | 55 | 2.4 | 39 | 67 | 3.2 | 58 | 76 | 4.6 | 59 | 106 | 1.1 | 0.7 | 18 | 23 | | 3.4 |
| | | 1.0 | 20 | 38 | 2.1 | 28 | 66 | 2.7 | 30 | 77 | 3.5 | 47 | 87 | 5.3 | 40 | 132 | 2.4 | 1.5 | 23 | 30 | 30 | 3.5 |
| | | 1.1 | 15.9 | 45 | 2.2 | 24 | 71 | 3.0 | 24 | 87 | 3.8 | 38 | 97 | 5.6 | 32 | 145 | 3.2 | 2.0 | 25 | 33 | 41 | 3.7 |
| | | 1.3 | 12.5 | 48 | 2.4 | 21 | 76 | 3.2 | 17.8 | 98 | 3.9 | 34 | 103 | 6.0 | 26 | 158 | 3.9 | 3.0 | 30 | 38 | 43 | 3.8 |
| | | 1.4 | 10.2 | 56 | 2.5 | 17.8 | 62 | 3.4 | 15.1 | 103 | 4.2 | 27 | 113 | 6.3 | 20 | 172 | 6.0 | 4.0 | 33 | 41 | 48 | 4.4 |
| | | 1.5 | 7.6 | 62 | 2.7 | 15.1 | 87 | 3.5 | 12.9 | 109 | 4.6 | 20 | 128 | 6.7 | 15.9 | 185 | | | | | 51 | |
| | | | | | | | | 3.7 | 10.6 | 114 | 4.9 | 14.8 | 140 | 7.0 | 12.7 | 198 | | | | | | |
| SUC43 | Liquid Cap 100150 and Air Cap 189351 | 1.0 | 29 | 90 | 1.8 | 56 | 117 | 2.1 | 100 | 119 | 3.0 | 126 | 140 | 4.1 | 140 | 181 | 1.0 | 0.7 | 18 | 20 | | 3.4 |
| | | 1.1 | 18.9 | 108 | 2.0 | 40 | 133 | 2.1 | 79 | 133 | 3.1 | 110 | 151 | 4.2 | 125 | 193 | 1.8 | 1.5 | 25 | 30 | 25 | 3.8 |
| | | | | | | | | 2.4 | 62 | 147 | 3.2 | 95 | 163 | 4.6 | 89 | 225 | 2.4 | 2.0 | 25 | 30 | 43 | 4.3 |
| | | | | | | | | 2.5 | 48 | 162 | 3.4 | 78 | 184 | 4.9 | 58 | 265 | 3.4 | 3.0 | 33 | 41 | 46 | 4.6 |
| | | | | | | | | 2.7 | 36 | 177 | 3.5 | 62 | 193 | 5.3 | 34 | 305 | 4.9 | 4.0 | 36 | 43 | 53 | 5.2 |
| | | | | | | | | | | | 3.7 | 48 | 210 | 5.6 | 16.7 | 340 | | | | | 58 | |
| | | | | | | | | | | | 3.8 | 37 | 225 | | | | | | | | | |

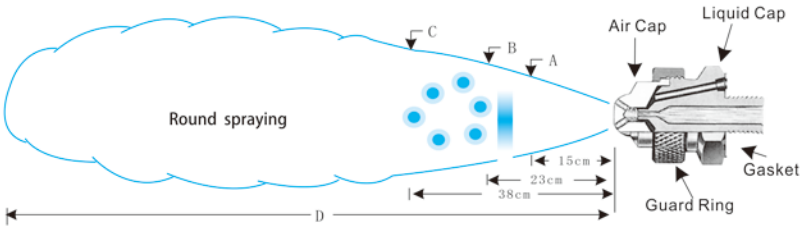
For round spray, it keeps the spraying angle "A" within distance "B", and changes to be overfall and be sprayed to distance "D" if it goes beyond distance "B" as the right chart.




## Round spray

| spray device model | spray device consists of air cap and fluid cap | liquid flow (L/min)and flow (L/min) Water pressure (bar) | | | | | | | | | | | | | | | Size | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.7bar | | | 1.5bar | | | 2bar | | | 3bar | | | 4bar | | | Air (bar) | Liquid (bar) | Spray angle A | B (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) | | | | | |
| SUC11 | Liquid Cap 2050 and Air Cap 67147 | 0.7 | 2.5 | 15.6 | 1.1 | 6.4 | 11.9 | 1.4 | 6.4 | 13.9 | 2.7 | 6.2 | 23 | 3.5 | 7.8 | 28 | | | | | |
| | | 0.85 | 1.8 | 19.0 | 1.4 | 5.0 | 15.0 | 1.7 | 5.5 | 16.7 | 2.8 | 5.7 | 25 | 3.7 | 7.3 | 29 | 0.85 | 0.7 | 13° | 30 | 2.7 |
| | | 1.0 | 1.4 | 22 | 1.7 | 4.1 | 18.7 | 2.0 | 4.5 | 19.8 | 3.0 | 5.2 | 27 | 3.9 | 6.4 | 33 | 1.7 | 1.5 | 13° | 33 | 3.0 |
| | | | | | 1.8 | 3.4 | 20 | 2.2 | 3.4 | 24 | 3.1 | 4.7 | 29 | 4.2 | 5.5 | 38 | 2.5 | 2.0 | 13° | 36 | 3.4 |
| | | | | | 2.0 | 3.0 | 23 | 2.4 | 3.0 | 26 | 3.2 | 4.3 | 31 | 4.5 | 4.5 | 43 | 3.1 | 3.0 | 14° | 39 | 3.8 |
| | | | | | 2.1 | 2.6 | 25 | 2.5 | 2.5 | 28 | 3.4 | 3.9 | 33 | 4.6 | 4.1 | 45 | 4.5 | 4.0 | 15° | 44 | 4.4 |
| | | | | | 2.2 | 2.0 | 27 | 2.7 | 2.3 | 31 | 3.7 | 3.0 | 38 | 4.8 | 3.7 | 47 | | | | | |
| SUC12A | Liquid Cap 2050 and Air Cap 73160 | 0.7 | 2.5 | 18.7 | 1.4 | 5.7 | 27 | 1.7 | 6.7 | 29 | 2.2 | 9.2 | 34 | 2.8 | 11.9 | 39 | | | | | |
| | | 0.85 | 2.0 | 22 | 1.5 | 5.2 | 29 | 1.8 | 6.4 | 31 | 2.5 | 8.2 | 39 | 3.1 | 11.0 | 43 | 0.85 | 0.7 | 12° | 43 | 3.7 |
| | | 1.0 | 1.6 | 26 | 1.7 | 4.8 | 32 | 2.0 | 5.8 | 34 | 2.8 | 7.2 | 44 | 3.4 | 10.1 | 47 | 1.5 | 1.5 | 13° | 46 | 4.0 |
| | | | | | 1.8 | 4.3 | 35 | 2.1 | 5.2 | 37 | 3.0 | 6.7 | 47 | 3.7 | 9.2 | 52 | 2.4 | 2.0 | 13° | 48 | 4.3 |
| | | | | | 2.0 | 3.9 | 37 | 2.2 | 4.8 | 40 | 3.1 | 6.3 | 49 | 3.9 | 8.4 | 58 | 3.0 | 3.0 | 13° | 51 | 4.6 |
| | | | | | 2.1 | 3.4 | 40 | 2.4 | 4.3 | 43 | 3.2 | 5.9 | 52 | 4.2 | 7.6 | 62 | 3.9 | 4.0 | 15° | 56 | 5.2 |
| | | | | | | | | 2.7 | 3.6 | 48 | 3.4 | 5.5 | 55 | 4.5 | 6.8 | 68 | | | | | |
| SUC12 | Liquid Cap 2850 and Air Cap 73160 | 0.85 | 4.8 | 21 | 1.7 | 8.4 | 31 | 2.0 | 10.7 | 33 | 2.7 | 16.5 | 37 | 3.4 | 20 | 43 | | | | | |
| | | 1.1 | 4.1 | 27 | 1.8 | 7.5 | 35 | 2.1 | 9.6 | 37 | 2.8 | 15.4 | 38 | 3.7 | 18.4 | 47 | 1.5 | 0.7 | 12° | 48 | 4.0 |
| | | 1.4 | 3.4 | 33 | 2.0 | 7.0 | 37 | 2.4 | 8.2 | 42 | 3.1 | 13.6 | 43 | 3.9 | 16.8 | 50 | 2.5 | 1.5 | 13° | 51 | 4.3 |
| | | 1.5 | 3.1 | 35 | 2.2 | 5.7 | 44 | 2.7 | 6.8 | 48 | 3.4 | 11.8 | 49 | 4.2 | 15.2 | 55 | 3.0 | 2.0 | 13° | 53 | 4.6 |
| | | 1.7 | 3.0 | 39 | 2.5 | 4.8 | 49 | 3.0 | 5.9 | 55 | 3.7 | 10.4 | 55 | 4.5 | 13.8 | 60 | 3.4 | 3.0 | 14° | 56 | 4.9 |
| | | 1.8 | 2.9 | 41 | 2.8 | 4.1 | 54 | 3.2 | 5.0 | 59 | 3.9 | 9.1 | 61 | 4.8 | 12.4 | 65 | 4.2 | 4.0 | 15° | 60 | 5.3 |
| | | 2.0 | 2.8 | 44 | 3.1 | 3.6 | 59 | 3.5 | 4.1 | 65 | 4.2 | 7.9 | 65 | 4.9 | 11.8 | 68 | | | | | |
| SUC22B | Liquid Cap 40100 and Air Cap 1401110 | 1.1 | 13.0 | 76 | 2.2 | 17.8 | 116 | 2.8 | 20 | 136 | 3.4 | 32 | 149 | 4.6 | 37 | 193 | | | | | |
| | | 1.4 | 8.9 | 91 | 2.5 | 13.1 | 130 | 3.1 | 16.3 | 149 | 3.9 | 25 | 170 | 5.3 | 29 | 220 | 1.7 | 0.7 | 18° | 66 | 4.9 |
| | | 1.5 | 7.2 | 90 | 2.8 | 9.5 | 143 | 3.4 | 11.9 | 163 | 4.6 | 15.9 | 205 | 5.6 | 25 | 235 | 2.8 | 1.5 | 20° | 76 | 6.1 |
| | | 1.7 | 5.8 | 105 | 3.1 | 7.0 | 157 | 3.9 | 7.0 | 187 | 5.3 | 9.1 | 240 | 6.0 | 21 | 250 | 3.9 | 2.0 | 20° | 81 | 6.7 |
| | | 1.8 | 4.7 | 112 | 3.4 | 4.9 | 171 | 4.2 | 4.7 | 205 | 5.6 | 6.8 | 255 | 6.3 | 17.4 | 270 | 5.3 | 3.0 | 21° | 91 | 7.9 |
| | | 2.0 | 3.6 | 119 | 3.5 | 4.2 | 179 | 4.6 | 3.0 | 220 | 6.0 | 5.0 | 275 | 6.7 | 14.0 | 290 | 6.0 | 4.0 | 21° | 97 | 9.1 |
| | | 2.1 | 2.7 | 127 | | | | | | | 6.3 | 3.6 | 290 | 7.0 | 11.0 | 305 | | | | | |
| SUC22 | Liquid Cap 60100 and Air Cap 1401110 | 0.85 | 31 | 57 | 1.4 | 61 | 69 | 2.1 | 53 | 96 | 2.7 | 80 | 103 | 3.8 | 88 | 135 | | | | | |
| | | 1.0 | 25 | 66 | 1.5 | 64 | 76 | 2.4 | 41 | 112 | 3.0 | 69 | 117 | 4.2 | 73 | 156 | 1.0 | 0.7 | 17° | 61 | 4.9 |
| | | 1.1 | 18.5 | 75 | 1.7 | 48 | 85 | 2.7 | 31 | 127 | 3.2 | 59 | 130 | 4.6 | 61 | 176 | 1.8 | 1.5 | 18° | 69 | 5.8 |
| | | 1.3 | 12.9 | 85 | 1.8 | 41 | 93 | 2.8 | 26 | 136 | 3.5 | 49 | 146 | 4.9 | 46 | 196 | 2.8 | 2.0 | 20° | 76 | 6.7 |
| | | | | | 2.0 | 35 | 102 | 3.0 | 22 | 144 | 3.7 | 44 | 154 | 5.3 | 39 | 215 | 3.5 | 3.0 | 20° | 79 | 7.0 |
| | | | | | 2.1 | 30 | 110 | | | | 3.8 | 37 | 161 | 5.6 | 31 | 240 | 4.9 | 4.0 | 21° | 91 | 8.5 |
| | | | | | 2.2 | 25 | 119 | | | | 3.9 | 35 | 170 | 6.0 | 23 | 260 | | | | | |
| SUC42 | Liquid Cap 100150 and Air Cap 1891125 | 1.0 | 44 | 86 | 1.4 | 125 | 79 | 2.0 | 123 | 108 | 2.2 | 199 | 86 | 3.0 | 250 | 99 | | | | | |
| | | 1.1 | 32 | 102 | 1.5 | 106 | 91 | 2.1 | 108 | 119 | 2.5 | 174 | 110 | 3.2 | 225 | 120 | 1.0 | 0.7 | 19° | 89 | 6.1 |
| | | | | | 1.7 | 87 | 105 | 2.2 | 95 | 130 | 2.8 | 146 | 133 | 3.5 | 205 | 141 | 1.7 | 1.5 | 20° | 99 | 7.0 |
| | | | | | 1.8 | 70 | 118 | 2.4 | 79 | 143 | 3.1 | 121 | 154 | 3.8 | 182 | 163 | 2.4 | 2.0 | 21° | 104 | 7.6 |
| | | | | | 2.0 | 55 | 130 | 2.5 | 64 | 155 | 3.2 | 108 | 166 | 4.1 | 159 | 184 | 3.1 | 3.0 | 21° | 107 | 7.9 |
| | | | | | | | | 2.7 | 52 | 166 | 3.4 | 95 | 176 | 4.6 | 121 | 225 | 3.5 | 4.0 | 22° | 117 | 9.1 |
| | | | | | | | | 2.8 | 42 | 178 | 3.5 | 84 | 187 | 4.9 | 93 | 255 | | | | | |

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

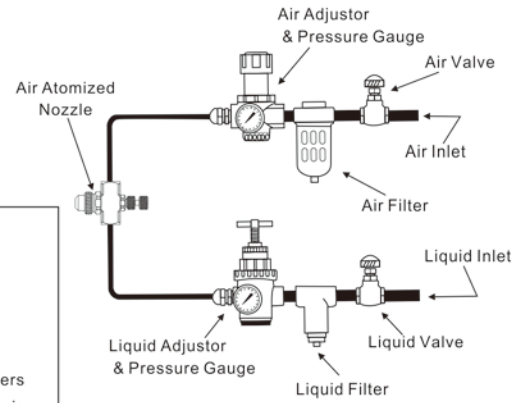
## Performance date

| spray device model | spray device consists of air cap and fluid cap | liquid flow (L/min)and flow (L/min) Water pressure (bar) 0.7bar Air pressure (bar) | 0.7bar Water (L/h) | 0.7bar Air (L/min) | 1.5bar Air pressure (bar) | 1.5bar Water (L/h) | 1.5bar Air (L/min) | 2bar Air pressure (bar) | 2bar Water (L/h) | 2bar Air (L/min) | 3bar Air pressure (bar) | 3bar Water (L/h) | 3bar Air (L/min) | 4bar Air pressure (bar) | 4bar Water (L/h) | 4bar Air (L/min) | Size Air (bar) | Liquid (bar) | A (cm) | B (cm) | C (cm) | D (cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SUK16 | Liquid Cap 2050 and Air Cap 67-6-20-70° | 0.6 | 5.3 | 10.2 | 1.1 | 6.1 | 13.3 | 1.5 | 8.1 | 16.4 | 2.4 | 8.9 | 22 | 3.1 | 10.5 | 24 | 0.7 | 0.7 | 14 | 18 | 23 | 1.5 |
| | | 0.7 | 4.3 | 12.2 | 1.3 | 7.0 | 15.0 | 1.8 | 6.6 | 21 | 2.7 | 8.1 | 26 | 3.4 | 9.7 | 28 | 1.4 | 1.5 | 15 | 19 | 24 | 1.8 |
| | | 0.85 | 3.0 | 14.2 | 1.4 | 6.4 | 17.0 | 2.1 | 4.9 | 25 | 3.0 | 6.4 | 30 | 3.9 | 7.8 | 36 | 1.8 | 2.0 | 16 | 20 | 25 | 2.1 |
| | | 1.0 | 1.7 | 17.0 | 1.5 | 5.5 | 19.0 | 2.4 | 3.2 | 29 | 3.2 | 4.9 | 34 | 4.2 | 6.1 | 42 | 3.0 | 3.0 | 16 | 20 | 26 | 2.7 |
| | | | | | 1.7 | 4.5 | 22 | | | | 3.4 | 4.2 | 37 | 4.6 | 4.4 | 47 | 3.9 | 4.0 | 19 | 23 | 30 | 4.0 |
| | | | | | 1.8 | 3.5 | 24 | | | | 3.5 | 3.4 | 40 | 4.9 | 2.8 | 54 | | | | | | |
| SUK26B | 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 | | | | | | |
| | | 1.0 | 2.1 | 62 | 1.8 | 9.8 | 79 | 2.1 | 15.1 | 76 | 3.0 | 22 | 92 | 3.8 | 28 | 105 | 0.85 | 0.7 | 18 | 24 | 31 | 1.8 |
| | | | | | | | | 2.2 | 11.7 | 85 | 3.1 | 18.5 | 101 | 3.9 | 26 | 113 | 1.7 | 1.5 | 19 | 25 | 33 | 2.4 |
| | | | | | | | | | | | 3.2 | 15.1 | 119 | 4.1 | 23 | 122 | 2.1 | 2.0 | 19 | 25 | 33 | 3.2 |
| | | | | | | | | | | | 3.4 | 12.1 | 130 | 4.2 | 20 | 130 | 3.2 | 3.0 | 20 | 26 | 26 | 4.1 |
| | | | | | | | | | | | 3.5 | 9.1 | 142 | 4.6 | 13.6 | 153 | 4.1 | 4.0 | 21 | 28 | 28 | 5.9 |
| | | | | | | | | | | | 3.7 | 6.1 | 65 | 4.9 | 6.8 | 183 | | | | | | |
| SUK26 | Liquid Cap 60100 and Air Cap 140-6-37-70° | 0.7 | 24 | 32 | 1.4 | 43 | 37 | 2.1 | 33 | 66 | 2.8 | 52 | 76 | 3.7 | 63 | 68 | | | | | 36 | |
| | | 0.85 | 13.6 | 44 | 1.5 | 35 | 49 | 2.2 | 26 | 78 | 3.0 | 46 | 87 | 3.8 | 68 | 79 | 1.85 | 0.7 | 19 | 25 | 37 | 2.1 |
| | | 1.0 | 7.6 | 57 | 1.7 | 28 | 61 | 2.4 | 18.9 | 89 | 3.1 | 39 | | 3.9 | 52 | 101 | 1.5 | 1.5 | 20 | 27 | 37 | 3.2 |
| | | | | | 1.8 | 21 | 71 | 2.5 | 11.7 | 100 | 3.2 | 33 | 99 | 4.2 | 41 | 111 | 2.4 | 2.0 | 20 | 27 | 38 | 4.1 |
| | | | | | | | | | | | 3.4 | 26 | 110 | 4.6 | 27 | 138 | 3.2 | 3.0 | 20 | 28 | 38 | 5.0 |
| | | | | | | | | | | | 3.5 | 19.5 | 122 | 4.9 | 15.9 | 166 | 3.9 | 4.0 | 20 | 28 | 39 | 6.8 |
| | | | | | | | | | | | 3.7 | 13.2 | 133 | | | | | | | | | |
| SUK29 | 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 | | | | | | |
| | | 1.5 | 29 | 102 | 2.4 | 51 | 130 | 3.2 | 50 | 163 | 4.9 | 51 | 230 | 6.0 | 68 | 260 | 2.0 | 0.7 | 20 | 25 | 33 | 5.5 |
| | | 1.8 | 23 | 117 | 2.7 | 45 | 143 | 3.4 | 47 | 170 | 5.6 | 40 | 265 | 6.3 | 62 | 280 | 3.0 | 1.5 | 20 | 27 | 34 | 6.4 |
| | | 2.0 | 19.7 | 125 | 3.0 | 39 | 157 | 3.5 | 45 | 177 | 6.0 | 34 | 285 | 6.7 | 56 | 295 | 3.9 | 2.0 | 22 | 28 | 37 | 8.2 |
| | | 2.1 | 16.7 | 133 | 3.2 | 33 | 170 | 3.9 | 38 | 194 | 6.3 | 28 | 300 | 7.0 | 51 | 315 | 6.0 | 3.0 | 23 | 29 | 38 | 9.1 |
| | | 2.3 | 14.0 | 142 | 3.5 | 28 | 185 | 4.6 | 25 | 230 | 6.7 | 22 | 320 | | | | 6.3 | 4.0 | 24 | 32 | 41 | 10.4 |
| | | 2.4 | 11.4 | 149 | 4.2 | 13.6 | 220 | 4.9 | 18.5 | 245 | 7.0 | 17.8 | 335 | | | | | | | | | |
| SUK30 | Liquid Cap 40100 and Air Cap 120-6-35-60° | 1.1 | 12.3 | 40 | 2.2 | 16.3 | 62 | 2.7 | 21 | 69 | 4.2 | 19.3 | 100 | 5.6 | 22 | 130 | | | | | | |
| | | 1.3 | 9.9 | 45 | 2.5 | 12.1 | 71 | 3.0 | 16.3 | 78 | 4.6 | 14.6 | 113 | 6.0 | 17.6 | 142 | 1.5 | 0.7 | 15 | 19 | 23 | 2.7 |
| | | 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 | 3.0 | 1.5 | 16 | 20 | 24 | 4.6 |
| | | 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 | 3.4 | 2.0 | 16 | 20 | 24 | 5.5 |
| | | 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 | 5.3 | 3.0 | 18 | 22 | 25 | 7.3 |
| | | 1.8 | 3.9 | 62 | 3.2 | 5.5 | 91 | 3.9 | 6.4 | 105 | 6.0 | 4.9 | 157 | | | | 6.3 | 4.0 | 19 | 24 | 30 | 9.4 |
| | | 2.0 | 3.1 | 67 | 3.4 | 4.7 | 95 | 4.2 | 4.7 | 115 | 6.3 | 4.0 | 167 | | | | | | | | | |
| SUK46 | Liquid Cap 100150 and Air Cap 189-6-62-70° | 1.7 | 25 | 156 | 3.0 | 39 | 230 | 3.4 | 50 | 250 | 4.6 | 62 | 320 | 6.0 | 93 | 395 | 2.0 | 0.7 | 24 | 33 | 46 | 5.5 |
| | | 1.8 | 19.7 | 167 | 3.1 | 33 | 240 | 3.5 | 43 | 260 | 4.9 | 47 | 345 | 6.3 | 77 | 425 | 3.2 | 1.5 | 25 | 34 | 47 | 6.4 |
| | | 2.0 | 15.1 | 178 | 3.2 | 27 | 255 | 3.7 | 41 | 275 | 5.3 | 36 | 375 | 6.7 | 62 | 460 | 3.9 | 2.0 | 28 | 37 | 51 | 7.3 |
| | | 2.1 | 11.4 | 193 | 3.4 | 23 | 265 | 3.9 | 27 | 300 | 5.6 | 26 | 405 | 7.0 | 52 | 495 | 5.3 | 3.0 | 29 | 38 | 53 | 7.9 |
| | | 2.3 | 7.6 | 205 | 3.5 | 18.5 | 280 | 4.1 | 23 | 310 | 6.0 | 18.9 | 435 | | | | 6.3 | 4.0 | 33 | 42 | 58 | 9.8 |
| | | | | | 3.7 | 14.8 | 290 | 4.2 | 18.9 | 320 | 6.3 | 13.6 | 460 | | | | | | | | | |
| | | | | | | | | 4.4 | 15.9 | 335 | | | | | | | | | | | | |

## 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 /water pipe Dia.is ٨-٦mm.common air




## ordering info

**D–1/4–SS+SUC13–SS**

| nozzle type | Inlet size | material code | The number of spraying device | capacity size |
|---|---|---|---|---|

Remark:

BRASS

SS-stainless steel

316SS-316 stainless steel

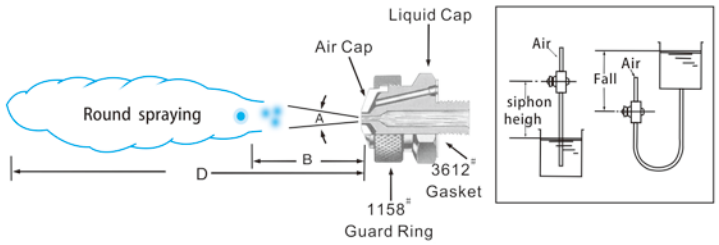
Please contact our sales engineers for detail. Besides, customized order is available.

# 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.

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

### round spray

| spray device model | spray device consists of air cap and fluid cap | atomized air | | fluid volumn(L/H) | | | | | | | | spray dimensions of 20cm siphon height. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Gravity-head | | | siphon heigh | | | | | | | | |
| | | air pressure bar | air volumn (L/Min) | 45 (CM) | 30 (CM) | 15 (CM) | 10 (CM) | 20 (CM) | 30 (CM) | 60 (CM) | 90 (CM) | air pressure bar | Spray angle A | B ( CM) | D ( CM) |
| SU1A | Liquid Cap1650 and Air Cap 64 | 0.7 | 11.3 | 1. 5 | 1. 3 | 1. 1 | 0.87 | 0.68 | 0.53 | | 0.76 | 0.7 | 18° | 28 | 1.8 |
| | | 1.5 | 17.0 | 1.8 | 1.7 | 1.5 | 1.3 | 1.2 | 1.1 | 0.62 | 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 Cap2050 and Air Cap64 | 0.7 | 13.3 | 2.4 | 2.1 | 1.7 | 1.5 | 1.2 | 0.79 | | | 0.7 | 18° | 30 | 2.1 |
| | | 1.5 | 20 | 2.8 | 2.6 | 2.4 | 2.1 | 1.9 | 1.6 | 0.91 | | 1.5 | 18° | 33 | 2.3 |
| | | 3.0 | 32 | 3.4 | 3.1 | 2.9 | 2.8 | 2.6 | 2.4 | 1.7 | 1.2 | 3.0 | 18° | 38 | 2.6 |
| | | 4.0 | 41 | 3.7 | 3.4 | 3.3 | 3.1 | 2.9 | 2.7 | 2.1 | 2.0 | 4.0 | 19° | 43 | 3.0 |
| SU2A | Liquid Cap2050 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 2850 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 Cap100150 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 |

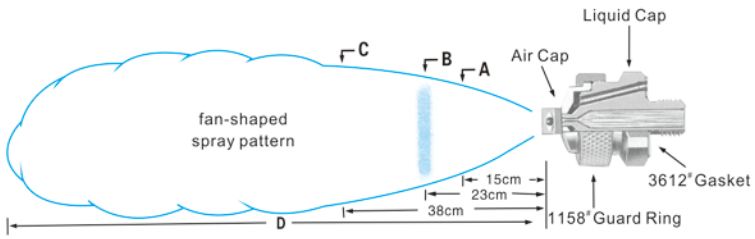
### flat spray

| spray device model | spray device consists of air cap and fluid cap | atomized air | | fluid volumn(L/H) | | | | | | | | spray dimensions of 20cm siphon height. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Gravity-head | | | siphon heigh | | | | | | | | | |
| | | air pressure bar | air volumn (L/Min) | 45 (CM) | 30 (CM) | 15 (CM) | 10 (CM) | 20 (CM) | 30 (CM) | 60 (CM) | 90 (CM) | Air pressure bar | A ( CM ) | B ( CM ) | C ( CM ) | D ( CM ) |
| SUF1 | Liquid Cap2850 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 |
| | | 2.0 | 50 | 0.82 | 0.76 | 0.68 | 0.57 | 0.50 | | | | 2.0 | 23 | 30 | 38 | 1.8 |
| SUF2C | Liquid Cap35100 and Air Cap 120432 | 1.5 | 56 | 3.7 | 3.5 | 3.3 | 2.9 | 2.8 | 2.5 | 2.3 | 2.1 | 1.5 | 23 | 32 | 38 | 2.7 |
| | | 2.0 | 65 | 3.4 | 3.3 | 3.1 | 2.8 | 2.7 | 2.6 | 2.4 | 2.2 | 2.0 | 24 | 34 | 42 | 2.7 |
| | | 3.0 | 87 | 2.8 | 2.7 | 2.5 | 2.4 | 2.2 | 2.1 | 1.9 | 1.7 | 3.0 | 27 | 37 | 46 | 3.0 |
| | | 4.0 | 110 | 1.9 | 1.8 | 1.6 | 1.5 | 1.3 | 1.2 | | | 4.0 | 28 | 39 | 48 | 2.7 |
| SUF3B | Liquid Cap 40100 and Air Cap 122435 | 1.5 | 68 | 5.1 | 4.8 | 4.5 | 3.8 | 3.7 | 3.5 | 3.0 | 2.4 | 1.5 | 19 | 23 | 27 | 3.4 |
| | | 2.0 | 78 | 4.9 | 4.7 | 4.4 | 3.6 | 3.4 | 3.2 | 2.9 | 2.3 | 2.0 | 20 | 25 | 28 | 3.4 |
| | | 3.0 | 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 | | | | | | | | | | |
| SUF4B | Liquid Cap40100 and Air Cap 122440 | 1.5 | 63 | 7.6 | 7.2 | 6.6 | 5.7 | 5.4 | 5.1 | 4.6 | 3.7 | 1.5 | 17 | 22 | 27 | 3.4 |
| | | 2.0 | 73 | 7.6 | 7.3 | 6.8 | 5.9 | 5.7 | 5.5 | 5.0 | 4.2 | 2.0 | 18 | 23 | 29 | 3.4 |
| | | 3.0 | 96 | 6.4 | 6.1 | 5.7 | 5.0 | 4.5 | 4.1 | 3.3 | | 3.0 | 20 | 27 | 33 | 3.4 |
| | | 3.5 | 110 | 4.2 | 3.7 | 3.2 | 2.6 | | | | | | | | | |

# Flat Pressure Air Atomizing(external mix)

## Design features

With the exiernal mixing, the air pressure can be changed to control atomizing without changing the liquid flow rate.As the pic ture 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 air cap and fluid cap | liquid flow (L/min)and flow (L/min) Water pressure (bar) 0.2bar Air pressure (bar) | 0.2bar Water (L/h) | 0.2bar Air (L/min) | 0.3bar Air pressure (bar) | 0.3bar Water (L/h) | 0.3bar Air (L/min) | 0.7bar Air pressure (bar) | 0.7bar Water (L/h) | 0.7bar Air (L/min) | 1.5bar Air pressure (bar) | 1.5bar Water (L/h) | 1.5bar Air (L/min) | 4bar Air pressure (bar) | 4bar Water (L/h) | 4bar Air (L/min) | Size Air (bar) | Liquid (bar) | A (cm) | B (cm) | C (cm) | D (cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SUE 15B | Liquid Cap 1650 and Air Cap 67228-45° | 0.2 | 25.2 | | 0.35 | 26.3 | | 0.7 | 31.2 | | 1.4 | 45.3 | | 2.8 | 73.6 | | 0.2 | 0.2 | 9 | 15 | 23 | 0.9 |
| | | 0.35 | 26.3 | | 0.7 | 31.2 | | 1.05 | 39.6 | | 1.75 | 53.8 | | 3.5 | 85.0 | | 1.05 | 0.2 | 9 | 15 | 23 | 1.2 |
| | | 0.7 | 31.2 | | 1.05 | 39.6 | | 1.4 | 45.3 | | 2.1 | 59.5 | | 4.2 | 102 | | 1.4 | 0.35 | 10 | 15 | 23 | 1.2 |
| | | 1.05 | 39.6 | 2.8 | 1.4 | 45.3 | 3.5 | 1.75 | 53.8 | 5.3 | 2.8 | 73.6 | 7.8 | 4.9 | 119 | 11.0 | 1.4 | 1.4 | 11.5 | 18 | 25 | 1.5 |
| | | 1.4 | 45.3 | | 1.75 | 53.8 | | 2.1 | 59.4 | | 3.5 | 85.0 | | 5.3 | 127.5 | | 1.75 | 0.7 | 11.5 | 15 | 24 | 1.5 |
| | | 1.75 | 53.8 | | 2.1 | 59.4 | | 2.8 | 73.6 | | 4.2 | 102 | | 5.6 | 139 | | 2.8 | 1.4 | 13 | 18 | 28 | 1.8 |
| | | 2.1 | 59.4 | | 2.8 | 73.6 | | 3.5 | 85.0 | | 5.6 | 139 | | 6.3 | 159 | | 4.9 | 2.8 | 15 | 18 | 24 | 2.4 |
| SUE 18B | Liquid Cap 1650 and Air Cap 67228-45° | | | | | | | | | | | | | | | | 0.4 | 0.3 | 20 | 28 | 33 | 1.2 |
| | | 0.35 | 22 | | 0.35 | 22 | | 0.4 | 25 | | 0.6 | 28 | | 0.7 | 34 | | 0.6 | 0.7 | 23 | 30 | 40 | 1.8 |
| | | 0.4 | 25 | | 0.4 | 25 | | 0.6 | 28 | | 0.7 | 34 | | 1.1 | 45 | | 0.6 | 1.5 | 28 | 35 | 46 | 1.8 |
| | | | | 2.8 | | | 3.5 | | | 5.3 | | | 7.8 | | | 11.0 | 1.1 | 1.5 | 28 | 33 | 43 | 2.4 |
| | | 0.5 | 27.5 | | 0.6 | 28 | | 0.7 | 34 | | 1.1 | 45 | | 1.8 | 62 | | 1.4 | 1.5 | 25 | 30 | 41 | 2.7 |
| | | 0.6 | 28 | | 0.7 | 34 | | 0.85 | 40 | | 1.4 | 54 | | 2.5 | 79 | | 1.1 | 2.0 | 28 | 35 | 48 | 2.6 |
| | | | | | | | | | | | | | | | | | 1.4 | 3.0 | 30 | 38 | 51 | 2.7 |
| SUE 15A | Liquid Cap 2050 and Air Cap 67228-45° | 0.35 | 26.3 | | 0.7 | 31.2 | | 1.05 | 39.6 | | 1.75 | 53.8 | | 3.15 | 82 | | 0.35 | 0.2 | 7.5 | 14 | 22 | 1.0 |
| | | 0.7 | 31.2 | | 1.05 | 39.6 | | 1.4 | 45.3 | | 2.1 | 59.4 | | 3.5 | 85 | | 1.4 | 0.2 | 9 | 15 | 22 | 1.7 |
| | | 1.05 | 39.6 | | 1.4 | 45.3 | | 1.75 | 53.8 | | 2.8 | 73.6 | | 4.2 | 102 | | 1.75 | 0.35 | 10 | 16.5 | 23 | 1.8 |
| | | 1.4 | 45.3 | 4.5 | 1.75 | 53.8 | 5.5 | 2.1 | 59.4 | 8.3 | 3.5 | 85.0 | 12.2 | 4.9 | 119 | 16.6 | 1.75 | 1.4 | 13 | 19 | 29 | 2.1 |
| | | 1.75 | 53.8 | | 2.1 | 59.4 | | 2.8 | 73.6 | | 4.2 | 102 | | 5.25 | 127 | | 2.1 | 0.7 | 13 | 18 | 25 | 1.8 |
| | | 2.1 | 59.4 | | 2.8 | 73.6 | | 3.5 | 85.0 | | 5.6 | 119 | | 6.3 | 159 | | 3.5 | 1.4 | 13 | 22 | 0 | 2.4 |
| | | 2.8 | 73.6 | | 3.5 | 85.0 | | 4.2 | 102 | | 6.3 | 159 | | 6.7 | 164 | | 5.3 | 2.8 | 15 | 19 | 25 | 3.0 |
| SUE 18A | Liquid Cap 2050 and Air Cap 62240-60° | | | | | | | | | | | | | | | | 0.7 | 0.2 | 13 | 16.5 | 25 | 1.2 |
| | | 0.35 | 22 | | 0.35 | 22 | | 0.6 | 28 | | 0.7 | 34 | | 1.1 | 45 | | 1.75 | 0.2 | 13 | 16.5 | 25 | 1.8 |
| | | 0.6 | 28 | | 0.7 | 34 | | 0.7 | 34 | | 1.4 | 54 | | 1.4 | 54 | | 2.1 | 0.35 | 13 | 18.0 | 24 | 1.8 |
| | | | | 4.5 | | | 5.5 | | | 8.3 | | | 12.2 | | | 33 | 2.5 | 1.4 | 14 | 20 | 32 | 1.8 |
| | | 0.7 | 34 | | 1.1 | 45 | | 1.4 | 54 | | 2.1 | 71 | | 2.1 | 71 | | 2.8 | 0.7 | 14 | 19 | 30 | 2.3 |
| | | 1.1 | 45 | | 1.4 | 54 | | 2.1 | 71 | | 2.5 | 79 | | 2.5 | 79 | | 4.2 | 1.4 | 14 | 20 | 36 | 3.0 |
| | | | | | | | | | | | | | | | | | 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 | | 2.5 | 68 | | 3.5 | 85 | | 0.7 | 0.2 | 13 | 16.5 | 25 | 1.2 |
| | | 1.05 | 39.6 | | 1.4 | 45.3 | | 1.75 | 53.8 | | 2.8 | 73.6 | | 4.2 | 102 | | 1.75 | 0.2 | 13 | 16.5 | 25 | 1.8 |
| | | 1.4 | 45.3 | | 1.75 | 53.8 | | 2.1 | 59.4 | | 3.5 | 85 | | 4.9 | 119 | | 2.1 | 0.35 | 13 | 18.0 | 24 | 1.8 |
| | | 1.75 | 53.8 | 8.5 | 2.1 | 59.4 | 10.4 | 2.8 | 73.6 | 15.9 | 4.2 | 102 | 23 | 5.3 | 127 | 33 | 2.5 | 1.4 | 14 | 20 | 32 | 1.8 |
| | | 2.1 | 59.4 | | 2.8 | 73.6 | | 3.5 | 85.0 | | 4.9 | 119 | | 5.6 | 139 | | 2.8 | 0.7 | 14 | 19 | 30 | 2.3 |
| | | 2.8 | 73.6 | | 3.5 | 85 | | 4.2 | 102 | | 5.6 | 139 | | 6.3 | 159 | | 4.2 | 1.4 | 14 | 20 | 36 | 3.0 |
| | | 3.5 | 85 | | 4.2 | 102 | | 4.9 | 119 | | 6.3 | 159 | | 7.0 | 176 | | 5.3 | 2.8 | 16.5 | 20 | 30 | 4.0 |
| SUE 18 | Liquid Cap 2850 and Air Cap 62240-60° | | | | | | | | | | | | | | | | 0.6 | 0.3 | 35 | 48 | 61 | 1.8 |
| | | 0.4 | 25 | | 0.4 | 25 | | 0.4 | 25 | | 0.7 | 34 | | 1.4 | 54 | | 0.6 | 0.7 | 35 | 48 | 63 | 1.5 |
| | | 0.5 | 27.5 | | 0.6 | 28 | | 0.6 | 28 | | 0.85 | 40 | | 1.8 | 62 | | 0.7 | 1.5 | 38 | 48 | 63 | 1.8 |
| | | | | 8.5 | | | 10.4 | | | 15.9 | | | 23 | | | 33 | 1.1 | 1.5 | 41 | 51 | 66 | 2.1 |
| | | 0.6 | 28 | | 0.65 | 31 | | 0.7 | 34 | | 1.1 | 45 | | 2.1 | 71 | | 1.4 | 1.5 | 43 | 53 | 66 | 2.4 |
| | | 0.7 | 34 | | 0.7 | 34 | | 0.85 | 40 | | 1.4 | 54 | | 2.5 | 79 | | 1.8 | 2.0 | 41 | 51 | 69 | 2.7 |
| | | | | | | | | | | | | | | | | | 2.1 | 3.0 | 41 | 51 | 69 | 2.9 |

## Air Atomizing Nozzle Parts

### Thick wall



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

### Top inlet



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

### Back connect



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 ½ inch NPT or BSPT(female).

# Air Atomizing Nozzle Device

## fan-shaped spraying. (extenal mix)

| spray device model | spray device consists of air cap and fluid cap | liquid flow (L/min)and flow (L/min) Water pressure (bar) 0.2bar Air pressure (bar) | 0.2bar Water (L/h) | 0.2bar Air (L/min) | 0.3bar Air pressure (bar) | 0.3bar Water (L/h) | 0.3bar Air (L/min) | 0.7bar Air pressure (bar) | 0.7bar Water (L/h) | 0.7bar Air (L/min) | 1.5bar Air pressure (bar) | 1.5bar Water (L/h) | 1.5bar Air (L/min) | 4bar Air pressure (bar) | 4bar Water (L/h) | 4bar Air (L/min) | Size Air (bar) | Liquid (bar) | A (cm) | B (cm) | C (cm) | D (cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SUE 25B | Liquid Cap 35100 and Air Cap 134255-45° | 0.7 | 85 | 13.4 | 1.0 | 102 | 16.4 | 1.4 | 116 | 25 | 2.5 | 178 | 37 | 3.2 | 212 | 52 | 0.7 | 0.2 | 13 | 19 | 25 | 1.7 |
| | | 1.0 | 102 | | 1.4 | 116 | | 1.8 | 139 | | 2.8 | 195 | | 3.5 | 232 | | 1.8 | 0.2 | 13 | 19 | 25 | 2.7 |
| | | 1.4 | 116 | | 1.8 | 139 | | 2.1 | 156 | | 3.5 | 227 | | 3.9 | 255 | | 2.1 | 0.35 | 15 | 19 | 28 | 3.0 |
| | | 1.8 | 139 | | 2.1 | 156 | | 2.5 | 178 | | 4.2 | 266 | | 4.2 | 275 | | 2.5 | 0.7 | 15 | 22 | 28 | 3.5 |
| | | 2.1 | 156 | | 2.8 | 195 | | 2.8 | 195 | | 4.9 | 312 | | 4.9 | 314 | | 2.5 | 1.4 | 16.5 | 23 | 36 | 3.7 |
| | | 2.8 | 195 | | 3.5 | 227 | | 3.5 | 227 | | 5.6 | 360 | | 5.6 | 360 | | 4.2 | 1.4 | 16.5 | 23 | 37 | 4.3 |
| | | 3.5 | 227 | | 4.2 | 266 | | 4.2 | 266 | | 6.3 | 411 | | 6.3 | 411 | | 4.9 | 2.8 | 16.5 | 22 | 32 | 4.9 |
| SUE 28B | Liquid Cap 35100 and Air Cap 122281-60° | | | 13.4 | | | 16.4 | | | 25 | | | 37 | | | 52 | 1.4 | 0.3 | 33 | 38 | 48 | 3.8 |
| | | 0.6 | 91 | | 0.7 | 102 | | 1.4 | 156 | | 2.1 | 210 | | 3.2 | 285 | | 2.1 | 0.7 | 33 | 40 | 56 | 4.3 |
| | | 0.7 | 102 | | 1.1 | 130 | | 2.1 | 210 | | 2.8 | 260 | | 4.2 | 360 | | 2.1 | 1.5 | 35 | 46 | 58 | 4.0 |
| | | | | | | | | | | | | | | | | | 3.2 | 1.5 | 38 | 48 | 66 | 4.6 |
| | | 1.1 | 130 | | 1.8 | 184 | | 2.5 | 235 | | 3.5 | 310 | | 5.3 | 430 | | 4.2 | 1.5 | 38 | 48 | 64 | 5.2 |
| | | 1.4 | 156 | | 2.1 | 210 | | 2.8 | 260 | | 4.2 | 360 | | 5.6 | 455 | | 3.9 | 2.0 | 41 | 51 | 69 | 4.6 |
| | | | | | | | | | | | | | | | | | 4.2 | 3.0 | 38 | 51 | 71 | 4.9 |
| SUE 25A | Liquid Cap 40100 and Air Cap 134255-45° | 0.7 | 85 | 17.6 | 1.4 | 116 | 22 | 1. 8 | 139 | 33 | 2.8 | 195 | 48 | 3.5 | 232 | 68 | 0.7 | 0.35 | 15 | 19 | 27 | 2.1 |
| | | 1.0 | 102 | | 1.8 | 139 | | 2.1 | 156 | | 3.2 | 212 | | 4.2 | 275 | | 1.8 | 0.7 | 15 | 19 | 27 | 3.0 |
| | | 1.4 | 116 | | 2.1 | 156 | | 2.5 | 178 | | 3.5 | 227 | | 4.9 | 314 | | 2.5 | 1.4 | 15 | 22 | 33 | 3.4 |
| | | 1.8 | 139 | | 2.5 | 178 | | 2.8 | 195 | | 4.2 | 266 | | 5.3 | 340 | | 2.8 | 1.4 | 15 | 22 | 36 | 3.8 |
| | | 2.1 | 156 | | 2.8 | 195 | | 3.5 | 227 | | 4.9 | 312 | | 5.6 | 360 | | 2.8 | 1.4 | 16.5 | 25 | 37 | 4.0 |
| | | 2.8 | 195 | | 3.5 | 227 | | 4.2 | 266 | | 5.6 | 360 | | 6.3 | 411 | | 4.2 | 2.1 | 16.5 | 25 | 37 | 4.9 |
| | | 3.5 | 227 | | 4.2 | 266 | | 4.9 | 312 | | 6.3 | 411 | | 6.6 | 428 | | 5.3 | 2.8 | 18 | 23 | 36 | 5.8 |
| SUE 28A | Liquid Cap 40100 and Air Cap 122281-60° | | | 17.6 | | | 22 | | | 33 | | | 48 | | | 68 | 1.1 | 0.2 | 33 | 38 | 51 | 3.5 |
| | | 0.6 | 91 | | 0.7 | 102 | | 1.1 | 130 | | 2.5 | 235 | | 3.5 | 310 | | 1.8 | 0.7 | 35 | 48 | 64 | 3.0 |
| | | 1.1 | 130 | | 1.4 | 156 | | 1.8 | 184 | | 3.2 | 285 | | 4.6 | 380 | | 2.5 | 1.5 | 38 | 46 | 64 | 3.8 |
| | | | | | | | | | | | | | | | | | 3.2 | 1.5 | 33 | 43 | 61 | 4.3 |
| | | 1.4 | 156 | | 1.8 | 184 | | 2.5 | 235 | | 3.9 | 330 | | 6.0 | 475 | | 4.2 | 1.5 | 30 | 43 | 58 | 4.9 |
| | | 1.8 | 184 | | 2.1 | 210 | | 2.8 | 260 | | 4.2 | 360 | | 6.7 | 525 | | 4.2 | 2.0 | 33 | 43 | 61 | 5.2 |
| | | | | | | | | | | | | | | | | | 4.9 | 3.0 | 33 | 43 | 61 | 4.0 |
| SUE 28 | Liquid Cap 60100 and Air Cap 122281-60° | | | 36 | | | 45 | | | 68 | | | 100 | | | 141 | 2.1 | 0.3 | 40 | 56 | 76 | 3.0 |
| | | 0.7 | 102 | | 1.1 | 130 | | 1.8 | 184 | | 3.2 | 285 | | 5.3 | 430 | | 2.8 | 0.7 | 46 | 58 | 81 | 4.0 |
| | | 1.1 | 130 | | 1.4 | 156 | | 2.1 | 210 | | 3.5 | 310 | | 6.0 | 475 | | 3.2 | 1.5 | 48 | 58 | 79 | 4.3 |
| | | | | | | | | | | | | | | | | | 4.6 | 1.5 | 43 | 53 | 76 | 4.9 |
| | | 1.4 | 156 | | 2.1 | 210 | | 2.8 | 260 | | 4.9 | 405 | | 6.7 | 525 | | 5.6 | 1.5 | 38 | 51 | 66 | 5.8 |
| | | 1.8 | 184 | | 2.5 | 235 | | 3.2 | 285 | | 5.9 | 455 | | 7.0 | 550 | | 3.9 | 2.0 | 48 | 64 | 84 | 4.3 |
| | | | | | | | | | | | | | | | | | 6.3 | 3.0 | 41 | 56 | 79 | 5.8 |
| SUE 25 | Liquid Cap 60100 and Air Cap 134255-45° | 1.0 | 102 | 36 | 1.8 | 139 | 45 | 2.5 | 178 | 68 | 3.2 | 212 | 100 | 3.9 | 255 | 141 | 1.0 | 0.2 | 15 | 20 | 25 | 2.7 |
| | | 1.4 | 116 | | 2.1 | 156 | | 2.8 | 195 | | 3.5 | 227 | | 4.2 | 275 | | 2.1 | 0.2 | 15 | 22 | 29 | 3.0 |
| | | 1.8 | 139 | | 2.5 | 178 | | 3.2 | 212 | | 3.9 | 246 | | 4.6 | 297 | | 2.8 | 0.35 | 18 | 24 | 36 | 3.5 |
| | | 2.1 | 156 | | 2.8 | 195 | | 3.5 | 227 | | 4.2 | 266 | | 4.9 | 314 | | 3.2 | 1.4 | 20 | 28 | 39 | 3.7 |
| | | 2.5 | 178 | | 3.2 | 212 | | 4.2 | 266 | | 4.9 | 312 | | 5.6 | 360 | | 3.5 | 0.7 | 19 | 27 | 38 | 4.0 |
| | | 2.8 | 195 | | 3.5 | 227 | | 4.9 | 312 | | 5.6 | 360 | | 6.3 | 411 | | 4.2 | 1.4 | 20 | 28 | 39 | 4.3 |
| | | 3.5 | 227 | | 4.2 | 266 | | 5.6 | 360 | | 6.3 | 411 | | 7.0 | 453 | | 5.6 | 2.8 | 18 | 24 | 38 | 5.9 |
| SUE 45B | Liquid Cap 60150 and Air Cap 200278-45° | 1.8 | 235 | 36 | 1.8 | 235 | 45 | 2.5 | 300 | 68 | 3.9 | 410 | 100 | | | | 1.8 | 0.2 | 15 | 20 | 29 | 3.0 |
| | | 2.1 | 260 | | 2.1 | 260 | | 2.8 | 330 | | 4.2 | 445 | | | | | 2.8 | 0.2 | 15 | 20 | 30 | 3.4 |
| | | 2.5 | 300 | | 2.5 | 300 | | 3.2 | 355 | | 4.6 | 480 | | | | | 2.8 | 0.3 | 15 | 20 | 30 | 4.0 |
| | | 2.8 | 330 | | 2.8 | 330 | | 3.5 | 380 | | 4.9 | 529 | | | | | 3.5 | 0.7 | 17 | 22 | 32 | 4.3 |
| | | 3.2 | 355 | | 3.2 | 355 | | 3.9 | 410 | | 5.3 | 565 | | | | | 3.9 | 1.5 | 17 | 22 | 34 | 4.6 |
| | | 3.5 | 380 | | 3.5 | 380 | | 4.2 | 445 | | 5.6 | 600 | | | | | 4.2 | 1.0 | 17 | 23 | 33 | 4.7 |
| | | 4.2 | 445 | | 4.2 | 445 | | 4.9 | 520 | | 6.3 | 685 | | | | | 4.9 | 1.5 | 17 | 23 | 34 | 5.5 |
| SUE 45A | Liquid Cap 80150 and Air Cap 200278-45° | 2.1 | 260 | 64 | 2.8 | 330 | 78 | 3.9 | 410 | 119 | 4.9 | 520 | 175 | | | | 2.1 | 0.2 | 17 | 24 | 34 | 3.5 |
| | | 2.5 | 300 | | 3.2 | 355 | | 4.2 | 445 | | 5.3 | 565 | | | | | 3.2 | 0.2 | 18 | 24 | 36 | 4.3 |
| | | 2.8 | 330 | | 3.5 | 380 | | 4.6 | 480 | | 5.6 | 600 | | | | | 3.9 | 0.3 | 18 | 25 | 36 | 4.9 |
| | | 3.2 | 355 | | 3.9 | 410 | | 4.9 | 520 | | 6.0 | 640 | | | | | 4.9 | 0.7 | 18 | 25 | 36 | 5.5 |
| | | 3.5 | 380 | | 4.2 | 445 | | 5.3 | 565 | | 6.3 | 685 | | | | | 4.9 | 1.5 | 20 | 25 | 38 | 5.5 |
| | | 4.2 | 445 | | 4.9 | 520 | | 5.6 | 600 | | | | | | | | 5.3 | 1.0 | 18 | 25 | 38 | 5.8 |
| | | 4.9 | 520 | | 5.6 | 600 | | 6.3 | 685 | | | | | | | | 5.6 | 1.5 | 20 | 25 | 38 | 6.1 |
| SUE 45 | Liquid Cap 100150 and Air Cap 200278-45° | 2.8 | 330 | 102 | 3.5 | 380 | 125 | 4.6 | 480 | 192 | 5.6 | 600 | 280 | | | | 2.8 | 0.2 | 19 | 25 | 36 | 4.6 |
| | | 3.2 | 355 | | 3.9 | 410 | | 4.9 | 520 | | 6.0 | 640 | | | | | 3.9 | 0.2 | 20 | 25 | 37 | 4.9 |
| | | 3.5 | 380 | | 4.2 | 445 | | 5.3 | 565 | | 6.3 | 685 | | | | | 4.6 | 0.3 | 20 | 25 | 37 | 5.2 |
| | | 3.9 | 410 | | 4.6 | 480 | | 5.6 | 600 | | | | | | | | 5.3 | 0.7 | 22 | 27 | 38 | 5.5 |
| | | 4.2 | 445 | | 4.9 | 520 | | 6.0 | 640 | | | | | | | | 5.6 | 1.0 | 22 | 27 | 41 | 5.5 |
| | | 4.6 | 480 | | 5.3 | 565 | | 6.3 | 685 | | | | | | | | 5.6 | 1.5 | 22 | 27 | 41 | 5.8 |
| | | 4.9 | 520 | | 5.6 | 600 | | | | | | | | | | | 6.0 | 1.5 | 22 | 27 | 41 | 6.1 |

## air atomizing nozzle discreteness

### Minitype fitting



The minitype fitting is only 1.3cm deep, its facies is quadrate sized 2.9cm by 3.2cm.The maximal distance from the top of nozzle to its surface is 3cm, this depends on the spray fitting in use. The size of inlet connection is 1/8 inch NPT or BSPT(female).

### Top inlet



The air and liquid inlet on the top is vertical to the spray line. The size of inlet connection are 1/8 and 1/4 inch NPT or BSPT (female).

### Thin wall



Thin wall commutators add locked nut and gasket to thick wall commutator,to insure installation without accident under thin wall condition.They are availble for only 1/8J and 1/4J fittings,with locked nut and gasket.

### Bidirectional spray



Bidirectional spray discreteness has two rightabout spray fittings, its air and liquid inlet is vertical to the spray line.Air and liquid come into the nozzle body at opposite directions,across an inlet size of 1/4 inch (1/4-2J) and 1/2 inch (½-2J) NPT or BSPT(female).

# DJ Automatic Air Atomizing Nozzle

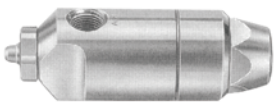
## Standard type

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

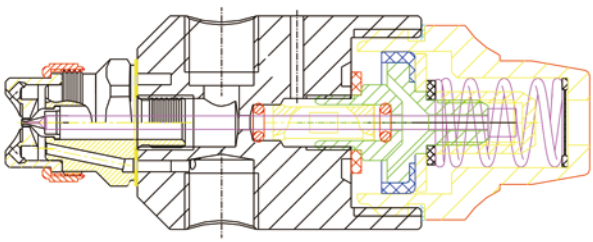
1/8 DJ spray nozzle is a compact , automatic atomizing nozzle,with a pipeline for single gas,it's designed to be used in small area. The size of screw thread air and liquid inlet is 1/8 inch NPT or BSPT(inner).



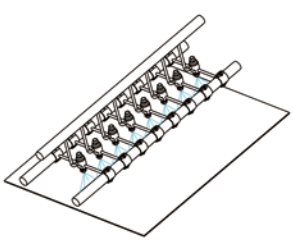
## Design features

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.

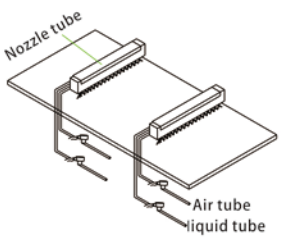
All the parts of spray nozzle are made accurately at strict quality control standard, to insure running smoothly and long service lifetime.The nozzle can be made of nickel-plating brass or stainless steel.Each nozzle has a stainless steel needle valve, a stainless steel flow cap and a stainless steel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



## common application



Lubricate




corrugating board humidify

## 45°

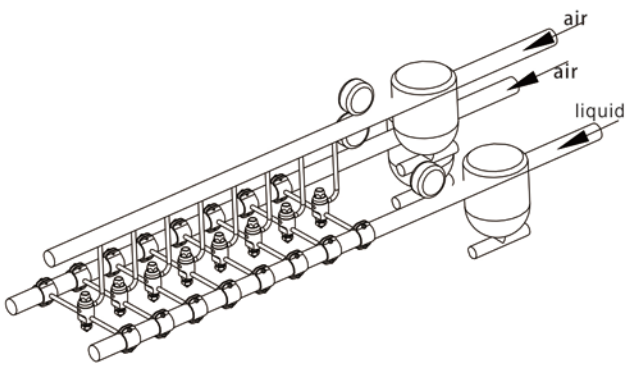
1/8 DJ spray nozzle is a compact,automatic atomizing nozzle,with a single inlet for atomizing gas and driver gas. It keeps 45 degree angle between the inlet line and spray line.



## 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.





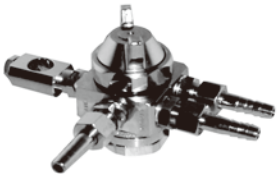

## ordering info

**1/8DJ——316SS+SUCB-316SS**

| Nozzle type | Material code | Nozzle device number *Refering to D series parameter |
|---|---|---|

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

# 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 alterring 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 |
|---|---|---|---|
| | 0.21bar | 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 | Atomizing air pressure (bar) | liquid 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 | | |
| spray device modell SX-CC006 Made up of Vf100-BRASS liquid cap and Va 125-BRASS air cap | 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 | 28 | 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 | 28 | 25 | 30 | 43 |
| | | 0.7 | 6.4 | 8.9 | 12.7 | 8.9 | 11.4 | 15. 2 | 10.2 | 12.7 | 17.8 | 15.2 | 20 | 27 | 28 | 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 firepower 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

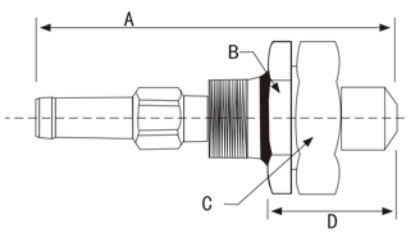




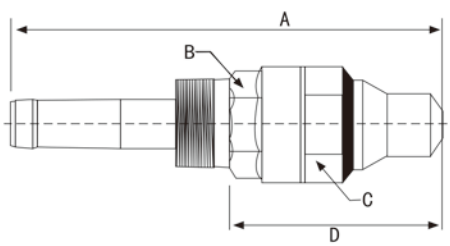
## DE spray equipment,spiral tip and size

| Tube diameter | spray angle | spray nozzle number | spray angle | spray pattern | maximum droplet size mm | spiry 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 |
| | | DE 308 | 90° | | 2. 69 | | | | | | |
| | | DE310 | 60° | wide round angle | 2. 69 | | | | | | |
| | | DE402 | 90° | | 4. 22 | | | | | | |
| | | DE404 | 60° | flat round | 4. 22 | | | | | | |
| | 20 | DE103 | 20° | narrow round angle | 6. 60 | 20 | 148 | 50. 8 | 50. 8 | 50. 8 | 0. 64 |
| | | DE307 | 90° | | 3. 48 | | | | | | |
| | | DE309 | 60° | wide round angle | 3. 48 | | | | | | |
| | | DE401 | 90° | | 5. 21 | | | | | | |
| | | DE403 | 60° | flat round | 5. 21 | | | | | | |
| 11/2" | 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



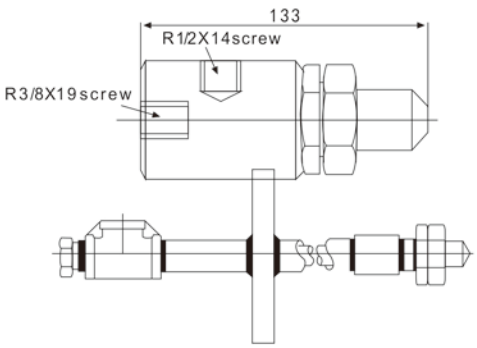

DE 1"




1-1/2" DE

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 egineering department of CYCO. We can offer a engineering manual of the DE series.






The way for install length pipe



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.

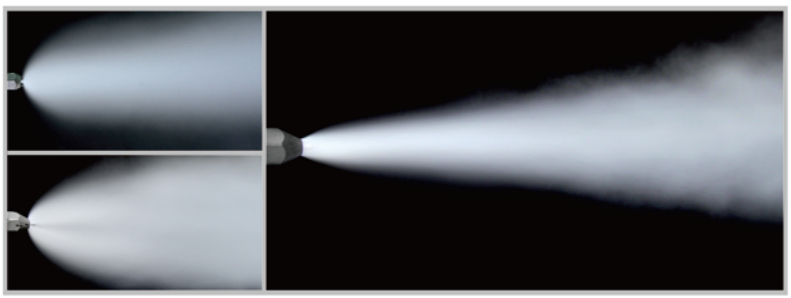
narrow angle,wide angle and flat fan,1" to1½" BSPT or NPT

| 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 | Liquid bar | Air $nm^3/h$ | Liquid l/min | Liquid bar | Air $nm^3/h$ | Liquid l/min | Liquid bar | Air $nm^3/h$ | Liquid l/min | Liquid bar | Air $nm^3/h$ | Liquid l/min | Liquid bar | Air $nm^3/h$ | Liquid l/min | Liquid bar | Air $nm^3/h$ | Liquid l/min | 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 | 2 | 5.7 | 137 | 2 | 6.4 | 149 |
| | | 3 | 0.9 | 20.2 | 3 | 1.9 | 39.0 | 3 | 2.8 | 56.8 | 3 | 3.8 | 79.8 | 3 | 4.7 | 97.9 | 3 | 5.7 | 136 | 3 | 6.5 | 146 |
| | | 4 | 1.0 | 17.3 | 4 | 2.0 | 29.1 | 4 | 2.9 | 50.8 | 4 | 3.8 | 73 | 4 | 4.8 | 88.9 | 4 | 5.9 | 123 | 4 | 6.5 | 134 |
| | | | | | 5 | 2.0 | 26.8 | 5 | 3.0 | 43.8 | 5 | 3.9 | 64.8 | 5 | 4.8 | 82.6 | 5 | 5.9 | 110 | 5 | 6.6 | 117 |
| | | | | | 6 | 2.1 | 24.4 | 6 | 3.0 | 41.2 | 6 | 3.9 | 57.9 | 6 | 4.9 | 78.3 | 6 | 6.1 | 100 | 6 | 6.7 | 112 |
| | | | | | 7 | 2.1 | 21.9 | 7 | 3.0 | 38.5 | 7 | 4.0 | 53.2 | 7 | 5.0 | 69.9 | 7 | 6.2 | 94.9 | 7 | 6.8 | 107 |
| | | | | | | | | 8 | 3.1 | 35.4 | 8 | 4.1 | 49.9 | 8 | 5.0 | 66.7 | 8 | 6.2 | 88.9 | 8 | 6.9 | 100 |
| | | | | | | | | | | | 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 |
| | | | | | | | | | | | | | | | | | 12 | 6.6 | 68.4 | 12 | 7.3 | 80.3 |
| | 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 | 4 | 5.6 | 180 |
| | | 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 | 8 | 6.0 | 163 |
| | | | | | 11 | 1.9 | 35.8 | 11 | 2.9 | 56.3 | 11 | 3.8 | 78.0 | 11 | 4.6 | 101 | 11 | 5.3 | 125 | 11 | 6.0 | 151 |
| | | | | | 15 | 2.1 | 26.8 | 15 | 3.0 | 45.8 | 15 | 3.9 | 65.2 | 15 | 4.8 | 85.2 | 15 | 5.6 | 105 | 15 | 6.4 | 126 |
| | | | | | 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 | 19 | 6.7 | 116 |
| | | | | | 23 | 2.4 | 21.8 | 23 | 3.3 | 36.7 | 23 | 4.2 | 51.6 | 23 | 5.1 | 67.2 | 23 | 5.9 | 82.8 | 23 | 6.8 | 96.7 |
| | | | | | | | | 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 |
| 1½" | 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 | 189 |
| | | | | | | | | 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.

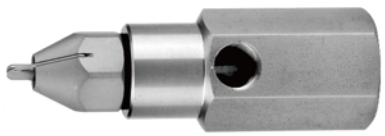
# Ultrasonic Atomizing Nozzle

## Spray Performance

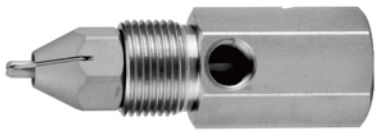


## Installation

The ultrasonic atomizing nozzle can connect by the two different adapters, common type and thin-wall types.



Common types



The thin-wall types(With tight cap)

## Atomizing principle and Characteristic

2 Steps to finish atomization :

- Step 1, Preliminary atomization: Fine water stream was sheared by high-speed flowing air.
- Step 2, Fine particle water mist: The initial atomized water droplets mixed high-speed air flow, impinging on the vibrating head.

Advantages:

- The average droplets are small and uniform. It is very important for the dust suppression.
- The vibration of the impinging head and high-speed air can avoid the dust adhere to the spray hole. It is reliable and less fixed.

## Nozzle Appearance



SK508 SV882 SV980

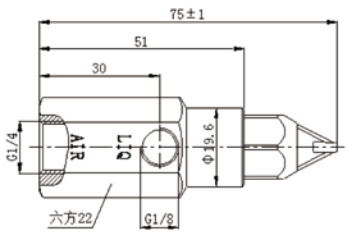
## Technical Datas

Please see the following parameters:

| Model Type | Air Pressure (bar) | Water Pressure (bar) | Air Flow (L/min) | Water Flow (L/min) | Water Flow ($m^3$/Hr) | Average Droplets ( μm ) | Spray Distance ( m ) <without wind> | Angle ( ° ) |
|---|---|---|---|---|---|---|---|---|
| SK508 | 5.0 | 1.0 | 112 | 0.359 | 0.022 | Testing Height0.5m :18.02 | ≈2 | 80 |
| SV882 | 5.0 | 1.0 | 240 | 0.746 | 0.045 | Testing Height1.5m :23.79 | ≈3. 5 | 60 |
| SV980 | 3.0 | 0.5 | 307 | 0.688 | 0.041 | Testing Height2.0m :35.82 | ≈4 | 30 |

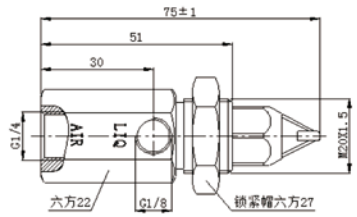
## Common types

Common types can be welded or other methods to Fix at the working point water inlet thread is G1/8, Air inlet thread is G1/4.




## The thin-wall types

The thin-wall types install on the thin wall, the bottom thread fit into the thin wall openings, and use the caps to fix it on the wall.



# Hollow Cone、Full Cone Spiral Nozzle

## Design features

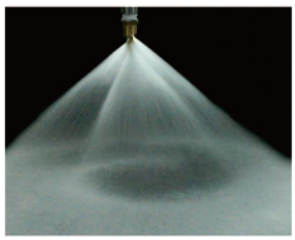
SPJT Nozzle is hollow/full cone with spraying angle from 60°C to 170°C. Under 3 Bar pressure, the flowing rate of liquid is 5.5-4140 L/min.

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 connetion 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 |
| | ● | ● | ● | ● | ● | 82 | 7.9 | 3.2 | 31 | 46 | 65 | 99 | 187 |
| ½ | ● | ● | ● | ● | ● | 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 | 80 | 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 |
| 1-1/2 | ● | ● | ● | ● | ● | 640 | 22.2 | 7.9 | 245 | 355 | 505 | 770 | 1460 |
| | ● | ● | ● | ● | ● | 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

SIZE

| 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° |
| ½ | 79.4 | 60° ,150° and 170° |
| ½ | 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

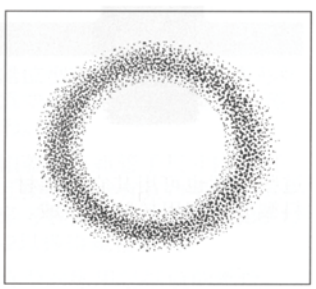
## Design features

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.





**S P J T**



## common application

- Flue gas desulfurizating
- Dust removing
- Gas cooling

## 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 | 7660 |
| 4 inch Flange | ● | ● | ● | | 5250 | 63.5 | 15.9 | 2000 | 2930 | 4140 | 6330 | 11960 |

## ordering info

**4 —— SPJT —— SiC —— 90 —— 5250**

- 4 → Flarge size
- SPJT → Nozzle type
- SiC → Material code
- 90 → Spray angle
- 5250 → Capacity size

# AAZ Fine Atomized Nozzle



**LNN**



Built-in filter
1/4 inch NPT
or BSPT (male)

**NN**



1/4 inch NPT
or BSPT (male)

**LN**



Built-in filter
1/4 inch NPT
or BSPT (male)

**N**



1/4 inch NPT
or BSPT (male)

**M**



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

**LNN–W**



Built-in filter
Wide-angle spray
1/4 inch NPT
or BSPT (male)

**LN–W**



Built-in filter
Wide-angle spray
1/4 inch NPT
or BSPT (male)

## Common application

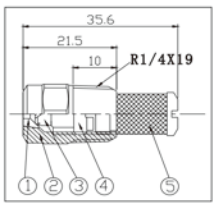
- Moistening in air control chamber
- Cooling for gas and metal
- Liquid medicine spraying
- humidity conditioning
- evaporative cooling

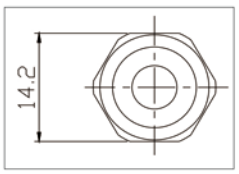
## Design features

Fine atomizing nozzle utilizes the fluid pressure to produce the extremely fine particle, and the pray 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 dismantled for excaming and washing.

All the above nozzles have strainers.




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

## Performance data

| LNN NN | LN N | M | Rated Orifice Dia. (mm) | Core Type | Capacity(L/h) | | | | | | | | | Spray angle | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 2bar | 5bar | 10bar | 15bar | 20bar | 30bar | 40bar | 50bar | 70bar | 3bar | 6bar | 20bar |
| 0.6 | 0.6 | 0.6 | 0.41 | 206 | | | 4. 3 | 5. 3 | 6. 1 | 7. 5 | 8. 6 | 9. 7 | 11. 4 | | 35° | 65° |
| 1 | 1 | 1 | 0.51 | 210 | | 5. 1 | 7. 2 | 8. 8 | 10. 2 | 12. 5 | 14. 4 | 16. 1 | 19. 1 | 45° | 62° | 72° |
| 1.5 | 1.5 | 1.5 | 0.51 | 216 | 4. 8 | 7. 6 | 10. 8 | 13. 2 | 15. 3 | 18. 7 | 22 | 24 | 29 | 65° | 70° | 72° |
| 2 | 2 | 2 | 0.71 | 216 | 6. 4 | 10. 2 | 14. 4 | 17. 7 | 20 | 25 | 29 | 32 | 38 | 70° | 75° | 77° |
| 3 | 3 | 3 | 0.71 | 220 | 9. 7 | 15. 3 | 22 | 26 | 31 | 37 | 43 | 48 | 57 | 65° | 70° | 73° |
| 4 | 4 | 4 | 1.1 | 220 | 12. 9 | 20 | 29 | 35 | 41 | 50 | 58 | 64 | 76 | 72° | 81° | 84° |
| 6 | 6 | 6 | 1.1 | 225 | 19. 3 | 31 | 43 | 53 | 61 | 75 | 86 | 97 | 114 | 73° | 79° | 81° |
| 8 | 8 | 8 | 1.5 | 225 | 26 | 41 | 58 | 71 | 82 | 100 | 115 | 129 | 153 | 85° | 89° | 91° |
| 10 | 10 | 10 | 1.6 | 420 | 32 | 51 | 72 | 88 | 102 | 125 | 144 | 161 | 191 | 82° | 84° | 86° |
| 12 | 12 | 12 | 1.9 | 420 | 39 | 61 | 86 | 106 | 122 | 150 | 173 | 193 | 230 | 78° | 82° | 85° |
| 14 | 14 | 14 | 1.9 | 421 | 45 | 71 | 101 | 124 | 143 | 175 | 200 | 225 | 265 | 85° | 88° | 90° |
| 18 | 18 | 18 | 1.9 | 422 | 58 | 92 | 130 | 159 | 183 | 225 | 260 | 290 | 345 | 81° | 84° | 86° |
| 22 | 22 | 22 | 1.9 | 625 | 71 | 112 | 159 | 194 | 225 | 275 | 320 | 355 | 420 | 70° | 72° | 75° |
| 26 | 26 | 26 | 2.2 | 625 | 84 | 133 | 187 | 230 | 265 | 325 | 375 | 420 | 495 | 73° | 74° | 77° |

Strainer specification: 0.6# with 200 strainer mesh, 1-3# with 100 strainer mesh, 4-26# with 50 strainer mesh

## Wide angle performance

| LNN-W LN-W | NN-W N-W | Rated Orifice Dia. (mm) | Core Type | Capacity(L/h) | | | | Spray angle | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 1bar | 2bar | 3bar | 5bar | 3bar | 6bar |
| 2W | 2W | 0.99 | 210 | | 6.4 | 7.9 | 10.2 | | 165° |
| 3W | 3W | 0.99 | 216 | 6.8 | 9.7 | 11.8 | 15.3 | | 157° |
| 4W | 4W | 1.5 | 220 | 11.4 | 16.1 | 19.7 | 25 | 156° | 155° |
| 8W | 8W | 1.5 | 225 | 18.2 | 26 | 32 | 41 | 152° | |

## Size and weight

| Type | Length (mm) | Adapter (hexagonal) (mm) | Nozzle tip (hexagonal) (mm) | Weight |
|---|---|---|---|---|
| LN&LN–W | 47.5 | 20.6 | 17. 4 | 90 |
| LNN&LNN–W | 51.5 | 20.6 | 17.4 | 90 |
| N&N–W | 31.5 | 17.4 | 17.4 | 40 |
| NN&NN–W | 33.9 | 17.4 | 17.4 | 40 |
| M | 21.5 | 14.2 | ---- | 10 |

## ordering info

**AAZ1/4 — LNN — SS — 0.6**

- AAZ1/4 → thread size
- LNN → Nozzle type
- SS → Material code
- 0.6 → Capacity size

## ordering info

**AAZ1/4 — LNN — SS — 2W**

- AAZ1/4 → thread size
- LNN → Nozzle type
- SS → Material code
- 2W → Capacity size

# FD Anti-drip High Pressure Misting Nozzle

Nozzle body is made of nickel plated brass,303SS or 316SS, with ceramic insert and stainless steel insert.

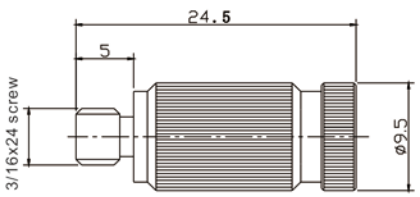
Working pressure is 7-70 bar with 5 different orifice diameters.

Thread size can fit different types: 10/24,12/24, 1/8, 3/16'.



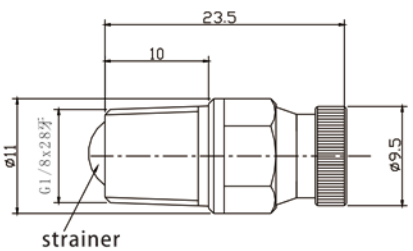
## Performance data

| Part No. | Orifice Dia (mm) | Thread Size | Pressure (Bar) | Flow Rate(L/M) |
|---|---|---|---|---|
| FD 1 | 0.15 | 10/24, 12/24, 1/8, 3/16" | 20–70 | 0.029–0.046 |
| FD 2 | 0.2 | | 20–70 | 0.049–0.089 |
| FD 3 | 0.3 | | 15–70 | 0.065–0.145 |
| FD 4 | 0.4 | | 7–70 | 0.056–0.178 |
| FD 5 | 0.5 | | 7–70 | 0.077–0.248 |




## Adavantages

1. With ceramic insert and anti-drip;
2. Durable and wear resistance misting nozzles;
3. Customized OEM make.




## Common Application

- Wetting & rust removal
- Chemical treatment
- Chemical agent spraying
- Liquid coating
- Humidify for tabacco 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
- dust suppression

## ordering info

**FD —— 1/8 —— NPB —— CER**

| Nozzle type | Thread size | Material code | Insert code |
|---|---|---|---|

**Remarks:**

CER = ceramic insert

NPB = nickel plated brass

# JM Impingement Mist Nozzle

## Design Features

- High energy efficiency
- One-piece, compact construction
- No whirl vanes or internal parts
- 1/8" or 1/4" male connection
- 100-mesh screen, 20 micron paper filter or 70 micron polypropylene filter optional
- Optional welded pin and optional safety wire hole

## Spray Characteristics

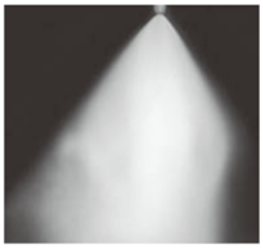
- Finest fog of any direct pressure nozzle

**Spray pattern:** Cone-shaped Fog

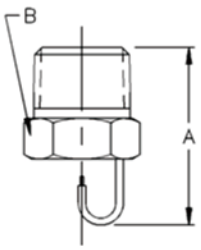
**Spray angle:** 90°. For best 90° pattern operate nozzle at or above 4 bar

**Flow rates:** 0.043 to 5.34 l/min

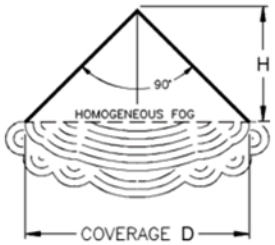




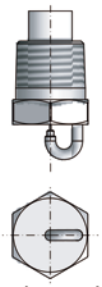
Fog




Male




Fog Pattern



JM **with polypropylene filter**

Dimensions are approximate. Check with CYCO for critical dimension applications.

| Male Pipe Size | Nozzle Number | K Factor | LITERS PER MINUTE @ BAR | | | | | | | | Approx. Orifice Dia. (mm) | Approx. Cov. D (mm) | Approx. Spray Height H (mm) | Pipe Size | Dim. (mm) | | Wt. (g) Metal |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2 bar | 3 bar | 5 bar | 10 bar | 20 bar | 30 bar | 50 bar | 70 bar | | | | | A | B | |
| 1/8 OR 1/4 | JM6 | 0. 0137 | | | 0. 031 | 0. 043 | 0. 061 | 0. 075 | 0. 097 | 0. 114 | 0. 152 | 203 | 103 | 1/8 | 19.1 | 11.1 | 7 |
| | JM8 | 0. 0259 | | | 0. 058 | 0. 082 | 0. 116 | 0. 142 | 0. 183 | 0. 217 | 0. 203 | 254 | 127 | | | | |
| | JM10 | 0. 0387 | | 0. 067 | 0. 087 | 0. 123 | 0. 173 | 0. 212 | 0. 274 | 0. 324 | 0. 254 | 254 | 127 | | | | |
| | JM12 | 0. 0524 | | 0. 091 | 0. 117 | 0. 166 | 0. 234 | 0. 287 | 0. 371 | 0. 439 | 0. 305 | 254 | 127 | | | | |
| | JM15 | 0. 0843 | 0. 119 | 0. 146 | 0. 189 | 0. 267 | 0. 377 | 0. 462 | 0. 596 | 0. 705 | 0. 381 | 254 | 127 | | | | |
| | JM20 | 0. 153 | 0. 216 | 0. 264 | 0. 341 | 0. 483 | 0. 683 | 0. 836 | 1. 08 | 1. 28 | 0. 508 | 310 | 155 | 1/4 | 24.6 | 14.2 | |
| | JM24 | 0. 228 | 0. 322 | 0. 395 | 0. 510 | 0. 721 | 1. 02 | 1. 25 | 1. 61 | 1. 91 | 0. 610 | 400 | 200 | | | | |
| | JM28 | 0. 296 | 0. 419 | 0. 513 | 0. 662 | 0. 937 | 1. 32 | 1. 62 | 2. 09 | 2. 48 | 0. 711 | 460 | 230 | | | | |
| | JM32 | 0. 410 | 0. 902 | 0. 710 | 0. 917 | 1. 297 | 1. 83 | 2. 25 | 2. 90 | 3. 43 | 0. 813 | 560 | 280 | | | | |
| | JM40 | 0. 638 | 0. 902 | 1. 11 | 1. 43 | 2. 02 | 2. 85 | 3. 49 | 4. 51 | 5. 34 | 1. 02 | 610 | 305 | | | | |

Flow Rate ( l/min ) =K √ bar

Standard Materials: Brass, 303 Stainless Steel, and 316 Stainless Steel

Spray angle performance varies with pressure. Contact CYCO for specific data on critical applications.

# 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 gurantee 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 oxvgen content in the air, making a most friendly-environmental place to live.

## Spray applications



















# Adjustable Clamp nozzle





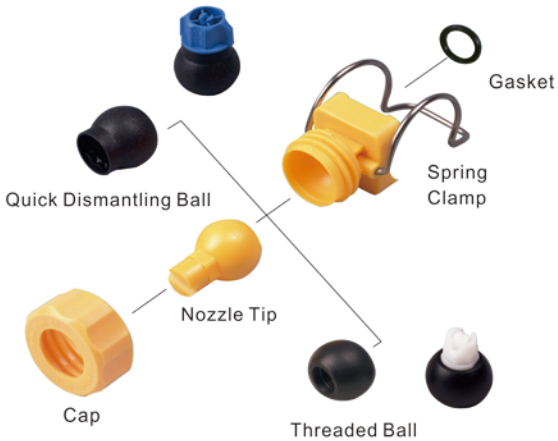
155 Series



27988 Series



26988 Series




## 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.

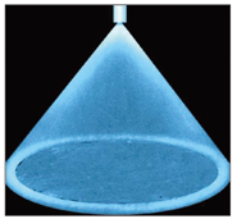
Adjusting Ball-Type Nozzle provides hollow cone spray pattern, solid cone spray pattern and flat fan spray pattern. It meets various needs by directly connecting ball spray tip or by indirectly connecting spray tip with threaded ball or quick dismantling ball. It permits accurate alignment and convenient 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.

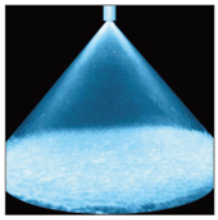
### Clamp Nozzle Specification

| 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 | |

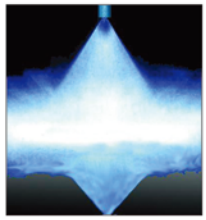
### Spray Pattern



Hollow cone



solid cone



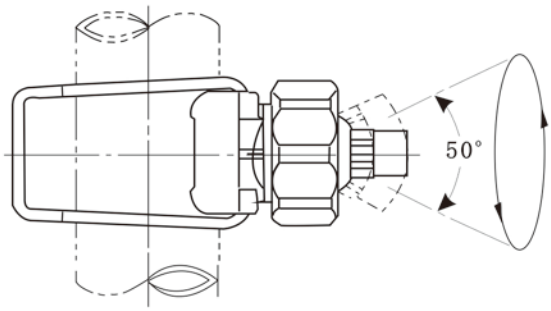
flat fan

### Threaded Nozzle Specification

| Type | Connection Thread Size (inch) |
|---|---|
| 155 | 1/8 |
| | 1/4 |
| | 3/8 |
| | ½ |

## common application

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




## material charaterictics

| Parts | Materials |
|---|---|
| Cap<br>Spray Tip<br>Base | Fiber-glass-reinforced PP(25%fiber) with maximum temperature of 82°C good performance on chemical resistance |
| | carbon fber-glass-reinforced PP(40%fiber) with maximum temperature of 120°C good performance on chemical resistance and abrasion resistance |
| Spring Clamp | Spring Clamp/hardened 304 stainless steel |
| Gasket | butadiene acrylonitrile rubber |
| | 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 | 38° | 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 |
| | CT2560 | 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 | 0.62 | 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° |

## ordering info

**26988 — 1 — D14 — PP + CT 6530 — PP**

| Nozzle type | clamp size | Pipe orifice 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 Adjustabe 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.

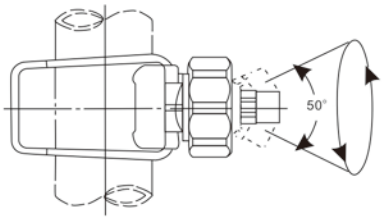
The spray tip can be quickly oriented and direct disassembled without other tools.

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 |
| | CT2560 | 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**

- 26988RS: Nozzle series
- 1-1/4: Clamp size
- D14: Pipe orifice Dia.
- SS: Material code
- BI2: Threaded Ball
- SS: Material code
- CC1/4: Nozzle type
- SS 6505: 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 amidocyanogen with good antiaging performance.



### Wide scope and long life

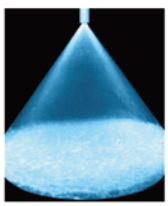
Available sizes of PVDF nozzle: 1/8", 1/4" & 3/8" Three available size for common pipes with different spraying capacity and angle to meet various requirements. As high hardness material, it is wearable and impact resistant with high-intensity.

## Performance Data



### BB-KY Nozzle

| 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° |

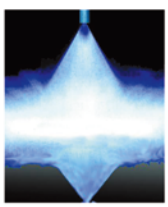


Full Cone

### CC-KY Series



| 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 |
| | 6508 | 8008 | 9508 | 12008 | 1. 0 | 1. 8 | 2. 6 | 3. 2 | 3. 6 | 4. 1 | 4. 5 | 4. 8 | 5. 8 |
| 1/4 | 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 |



Flat Fan

## Ordering Information

**BB-KY — 1/8 — 4**

- BB-KY: Nozzle eries
- 1/8: Inlet connection
- 4: Flow rate code

**CC-KY — 1/4 — 6510**

- CC-KY: Nozzle eries
- 1/4: Inlet connection
- 6510: 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
½″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.

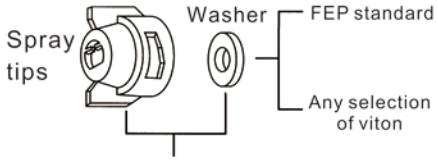
| Part No | Folder tube |
|---|---|
| JK7421–1/2–NYB | ½″Lamp |
| JK7421–3/4–NYB | 3/4″lamp |
| JK7421–1–NYB | 1″clamp |



The standard material for gasket is PPwhile Viton is available.Gaskets fixed in spray caps are instaled 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.

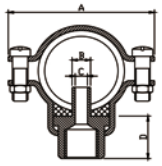



Quick removeable e tips and gasket

| Spray tips tips are replaced used | | Quick removeable e tips | Part No | |
|---|---|---|---|---|
| | | | Spray tips | Quick removeable e tips and gasket |
|  | Standard model No of flat fan spray tip (on the small side flow ) to SJC-CC-08 |  | CP25611–NY | 25612–NYR |
|  | Standard model Noflat fan spray tip(comparativelylarge flow ) is SJC-CC-10 to SJC-CC-20 |  | 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.

## Ordering Information

**7521 — B — 1 X 1/4**

- 7521 — Connector Model
- B — Material code
- 1 — Clamp size
- X 1/4 — Outlet connection NPT or BSPT (Outside)

## 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. Pressure (bar) | Max. liquid (L/MIN) | Size | | | | Net weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pipe size (inch) | Outer pipe dia.(mm) | | | | | 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 1/4 | 39–43 | | 1/4 | 3/8 | 1/2 | ● | ● | ● | 9 | 45 | 70 | 17.5mm | 11.1 or 14.3mm | 20 | 0.17 |
| | 1 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

# K1 Air Absorption Flat Fan Spray Nozzle

## Features

- Air or steam flat fan spraying
- The shortest continuing distance for the effective spray angle.which is different from liquid
- Compressed air: cleaning, dust-removing, drying,, air curtain
- Steam:humidifying, temparature-adjusting, humidity-adjusting and so on。

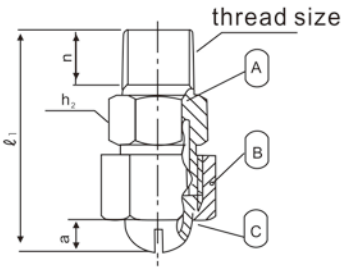
standard pressure 3 bar

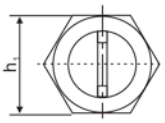
## Major application

- Compressed air: cleaning, dust-removing, drying,air curtain。
- Steam:humidifying, temparature-adjusting, humidity -adjusting and so on。








A. combined base B. Cap C spray tip

(Note:It may look a little different because of different model material. )

## K1 Series

| | K1 Series |
|---|---|
| Construction | consists of jet tip, cap and joint parts, only the cap of the nozzle tip can be changed, the joint parts can be changed with the standard flat fan spray nozzle (for liquid) |
| Material | brass. Ss303 ss316 and others。 |

| Series | thread size | Size (mm) | | | | | Weight (gr. ) | |
|---|---|---|---|---|---|---|---|---|
| | | $l_1$ | $h_1$ | $h_2$ | a | n | BRASS | S303 |
| K1 | 1/4 | 43 | 19 | 17 | 6.5 | 10.5 | 47 | 44 |
| | 3/8 | 48.5 | 23 | 21 | 9.5 | 11 | 78 | 73 |

## Performance Data

| Nozzle type | slot width | Air Capacity liters per minute | | | | Steam flow rate | | | | The coverage of nozzle for distance is 150mm | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 Bar | 2 Bar | 4 Bar | 7 Bar | 1 Bar | 2 Bar | 4 Bar | 7 Bar | 1 Bar | 4 Bar |
| L | 0.20 | 21 | 38 | 65 | 102 | 0.75 | 1.4 | 2.3 | 3.7 | 275 | 419 |
| P | 0.33 | 41 | 60 | 99 | 153 | 1.5 | 2.1 | 3.6 | 5.5 | 152 | 254 |
| Q | 0.58 | 77 | 111 | 190 | 305 | 2.8 | 4.0 | 6.8 | 11.5 | 228 | 330 |
| R | 1.1 | 132 | 198 | 345 | 540 | 4.7 | 7.1 | 12.3 | 19.5 | 158 | 241 |
| U | 1.1 | 210 | 335 | 570 | 880 | 7.6 | 12.0 | 20.3 | 32 | 275 | 368 |
| V | 2.3 | 430 | 700 | 1150 | 1725 | 15.3 | 25 | 42 | 63 | 238 | 343 |

## Ordering info

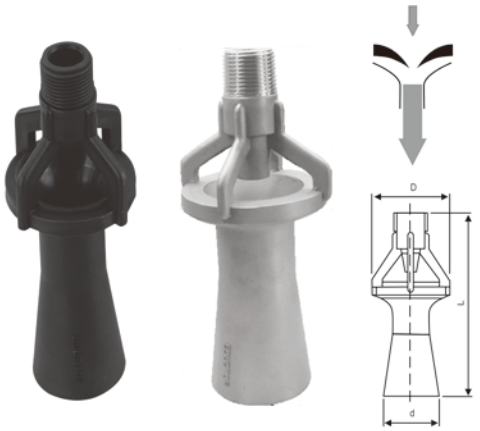
**1/4 — k1 — L — SS**

- 1/4 — Specifications 1/4 3/8
- k1 — Nozzle series
- L — Capacity code
- SS — Material BRASS SS 303

# K2 Mixing Fluid Nozzle

## material characteristic

- Constructed of carbon fiber-glass-reinforced Polypropylene of SS316。
- maximum operation temperature 120°C,300°C for stainless steel。
- Corrosion resistance and aging resistance。

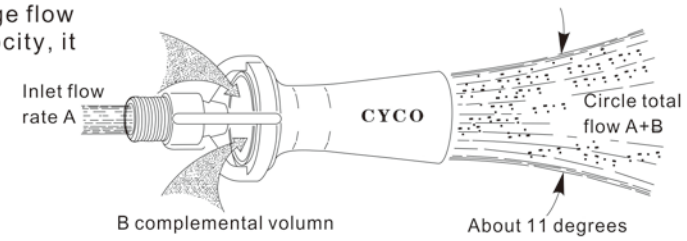


## Functions

- provides a honogeneous fluid mix withour the use if air agitation precluding oxidative deconpasition of air agitation of the solutions。
- improves circulation of the turbuient flow and optimized mixture of the solutions。
- assures unifiorm mixture of solutions and improve product quality。

## Design features

- Designed on the basis of the berboulli theory, fluid under pressure is pumped into the nozzle through its large flow opening, as the liquid exits the nozzle at high velocity, it draws surrounding solution through the nozzle's "flow-through"chamber that's designed to eliminate internal material build-up. The additional liquid flow mixes with the pumped solution. That is, the nozzle can pull in 4 gallons of surrounding solution for every 1 gallon pumped through the nozzle.




## Performance Data

| Inlet conn NPT or BSPT(M) | large acreage flow rate | hydraulic pressure input | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 0.5 Bar | 1 Bar | 1.5 Bar | 2 Bar | 2.5 Bar | 3 Bar | 3.5 Bar | 4 Bar |
| 1/4 | Inlet flow rate(L/min) "A" | 11.3 | 16.0 | 19.5 | 23 | 25 | 28 | 30 | 32 |
| 3/8 | | 29 | 42 | 51 | 59 | 65 | 70 | 77 | 82 |
| 3/4 | | 43 | 64 | 74 | 85 | 97 | 106 | 116 | 124 |
| 1-1/2 | | 106 | 151 | 184 | 215 | 243 | 259 | 288 | 308 |
| 1/4 | complemental volumn(L/min) "B" | 42 | 59 | 72 | 84 | 93 | 102 | 110 | 118 |
| 3/8 | | 116 | 168 | 204 | 236 | 260 | 280 | 308 | 328 |
| 3/4 | | 172 | 256 | 298 | 340 | 388 | 424 | 464 | 496 |
| 1-1/2 | | 424 | 604 | 736 | 860 | 972 | 1036 | 1152 | 1232 |
| 1/4 | Circle total flow (L/min) A+B | 53.3 | 75 | 91.5 | 107 | 118 | 130 | 140 | 150 |
| 3/8 | | 145 | 210 | 255 | 295 | 325 | 350 | 385 | 410 |
| 3/4 | | 215 | 320 | 370 | 425 | 485 | 530 | 580 | 620 |
| 1-1/2 | | 530 | 755 | 920 | 1075 | 1215 | 1295 | 1440 | 1540 |
| 1/4 | Effective range(m) | 0.91 | 1.5 | 2.1 | 2.6 | 3.0 | 3.7 | 4.3 | 5.2 |
| 3/8 | | 1.2 | 1.8 | 2.4 | 3.0 | 3.7 | 4.3 | 4.9 | 6.7 |
| 3/4 | | 1.5 | 2.4 | 3.4 | 4.3 | 5.2 | 6.1 | 7.3 | 10.1 |
| 1-1/2 | | 2.3 | 3.7 | 4.9 | 6.1 | 7.3 | 8.8 | 10.4 | 14.0 |

## K2 Series

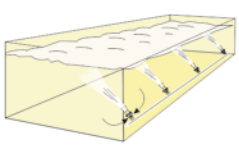
| Model | Inlet conn (Inch) | L(mm) | D(mm) | D(mm) |
|---|---|---|---|---|
| K2 40 | 1/4 | 70 | 30 | 23 |
| K2 60 | 3/8 | 115 | 50 | 38 |
| K2 90 | 1/2 | 115 | 50 | 38 |
| K2 130 | 3/4 | 165 | 65 | 50 |

## Ordering info

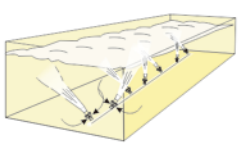
K2 40——3/8——PP

Model　Entrance size　Material

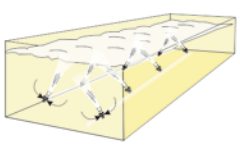
In large solution tank, annular distribution of the mix fluid nozzle is more effective than mono-distribution, and horizontal arrangement is the lowest efficiency. The mixing fluid nozzle shound be installed at the bottom of the tank in order to get to a maximum circulation rate. Below are some of the typical distribution of the mixing fluid nozzle.



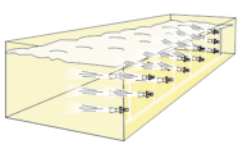
Rectangle or square stirred tank



Stratification stirred tank



Spare parts rinse bath



Grid structured plating bath

# F Wind Jet Nozzle

## Design Features



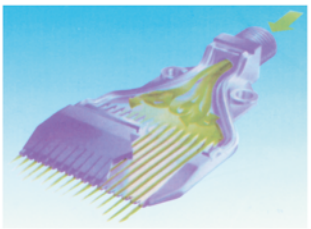
F WindJet Nozzle features a high impact,flat fan distribution of compressed air.

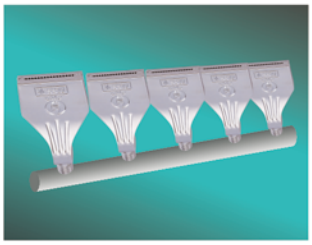
It is available in durable ABS plastic or aluminum alloy.It produces a quiet,efficient ,controlled flat fan distribution of compressed air.The air stream is discharged through 16precision orifices that ensure uniform distribution and spray pattern integrity.

It fits through 1/4 inch inlet connection wity BSPT male screw thread.Two convenient mounting holes on the ABS model ensure correct positioning on the header or manifold or fixed applications,offering uniform distribution of air curtain.

Plastic F WindJet Nozzle withstands temperatures up to 77℃ at 7 bar.

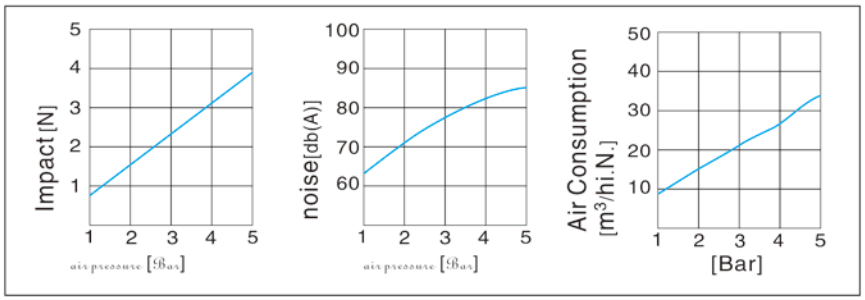
While aluminum alloy F WindJet Nozzle withstands temperature of 250℃ and pressure about 30 bar.



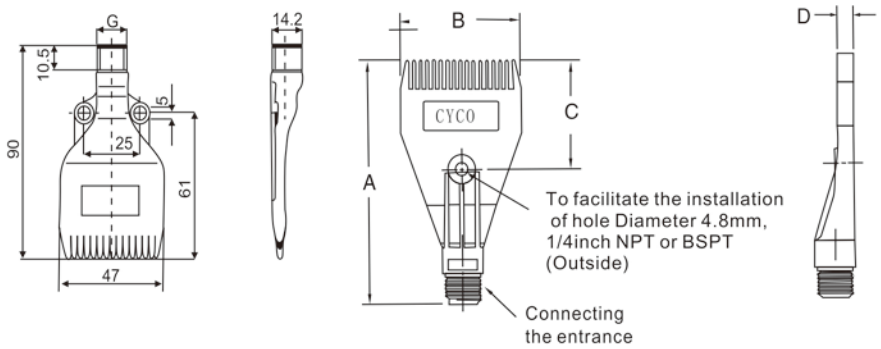




## Performancedata




## Dimensions




## Application

- Parts cooling
- Parts drying
- Parts washing
- Material moving
- Threading

## Ordering info

| | |
|---|---|
| F1/4-ALMA | Aluminum alloy material |
| F1/4-ABS | Plastic material |

# K4 Tank Wash Nozzle

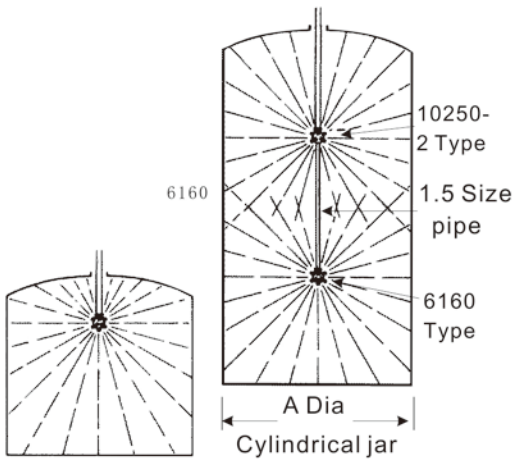
## Design features

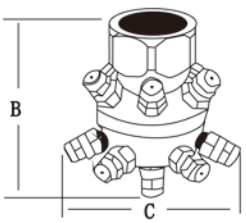
The 6160 fixed tank washing nozzle assembly features a large flow capacity for cleaning tanks up to 3.1 meters in diameter .

The flow rates can be changed by using the size of 1/4″ or 1/8″ full cone spray nozzle .The 6160 nozzle can pass throught tank mouth of 130mm of large in diameter .

For cleaning large tanks where extra-large flow capacity is use to clean the tank which diameter reaches 6.7 meter. It uses size of1/2", 3/4 "or 1" full cone to change the flow rates

The 10250-1 nozzle assembly can pass throught tank mouth of 230mm in diameter .For deep tanks the 10250-1 version is available with a 1.5 inch bottom outlet connection for use with a pipe extension and a 6160 nozzle assembly.






6160 Type



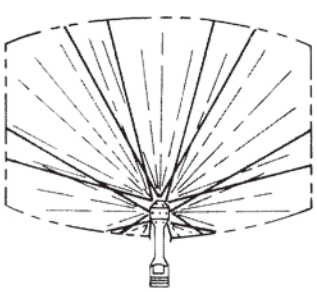
10250 Type

## On Application

- Washbox defoaming
- Stock tank cleaning

## Performancedata

| Pipe size NPT or BSPT (female) | Nozzle in the first order number | Flow rate (L/Min) at diferent pressures & Aprox. Max.Tank Dia | | | | | | | | Tank dia A (m) | Size | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.5 Bar | | 2 Bar | | 3 Bar | | 3.5 Bar | | | Height B (mm) | Dia C (mm) |
| | | L / min | Diameter jar A (m) | L / min | Diameter jar A (m) | L / min | Diameter jar A (m) | L / min | Diameter jar A (m) | | | |
| 3 Inch | 10250-1-1/2 | 280 | 3.0 | 320 | 3.5 | 390 | 3.5 | 415 | 4.0 | | 166 | 191 |
| | 10250-1-3/4 | 580 | 3.5 | 660 | 4.0 | 800 | 4.5 | 860 | 5.0 | | 174 | 210 |
| | 10250-1-1 | 1000 | 4.0 | 1130 | 5.0 | 1370 | 6.0 | 1470 | 6.5 | | 183 | 229 |
| 1 ½ Inch | 6160-1/4GG5 | 35 | | 40 | | 48 | | 52 | | 1.2 | 114 | 114 |
| | 6160-1/4GG10 | 70 | | 80 | | 97 | | 104 | | 2.1 | 114 | 114 |
| | 6160-3/8GG22 | 155 | | 177 | | 215 | | 230 | | 3.0 | 121 | 127 |





9800 model

## Design Features

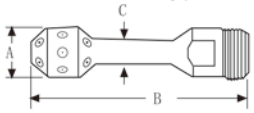
The 9800 washing nozzle is designed for effective cleaning of small containers .

The nozzles is available in a choice of 15 or 21 full cone spray tips that can provide complete coverage of the interior surface of the small containers at pressure up to 10 bar.

The 9800 nozzle fit throught a standard drum mouth .It can be installed on a self driven drum washer .The biggest diameter of the spray tip is 35mm with a 16mm reduced neck design .Constructed of SS,this nozzle is an ideal application when max. corrosion resistance is required.

## Diamensions and weight

Based on largest /heaviest version of each type




| Nozzle serial number | 9800- |
|---|---|
| Pipe joints NPT or BSPT(male) | 1 Inch |
| A(mm) | 35 |
| B(mm) | 156 |
| C(mm) | 16 |
| Net Weight(Kg) | 0.51 |

## Performance data

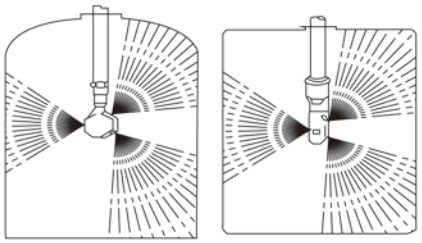
| Nozzle order number | Capacity (L/min) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1Bar | 2Bar | 3Bar | 4Bar | 5Bar | 6Bar | 7Bar | 10Bar |
| 9800-15-SS | – | – | – | 20 | 23 | 25 | 26 | 31 |
| 9800-21-SS | – | – | – | 28 | 31 | 34 | 36 | 43 |

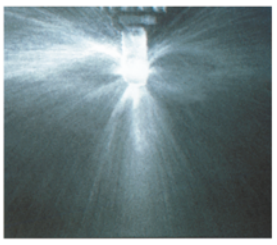
## 36250



## 28250







Container cleaning

## Design features

Feature of 36250/28250 Compact Nozzle:

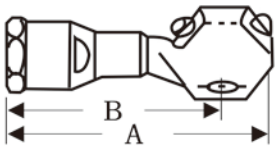
There are three high-pressure flat fan spray nozzles at the rotary spray head. The spray tip should be precisely oriented, in order to well wash all inner surface.

Therefore, there two models of nozzle can be used to effectively wash inner of small bottle, jarand barrel.

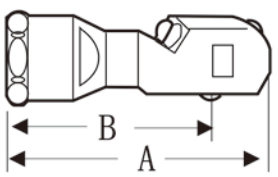
36250 Nozzle body is made of anticorrosive plastic, and bearing spring is made of hard stainless steel for max. wearable life and high pressure washing with max. Pressure of 5 bar.

28250 Impact Nozzle can pass inlet with diameter of 42 mm. The sector spray head with low flux has good effect to wash small container. The spray body is made of 316 stainless steel for max. wearable life and high pressure washing with max. pressure of 7 bar.

## Size and weight




36250




28250

## Performance Data

| Nozzle Order Number | Capacity (L/min) | | | | | |
|---|---|---|---|---|---|---|
| | 1Bar | 1.5Bar | 2Bar | 2.5Bar | 3Bar | 4Bar |
| 36250-STCN16-PP | 49 | 59 | 68 | 76 | 84 | 94 |
| 36250-STCN18-PP | 101 | 121 | 140 | 159 | 179 | 201 |
| 28250-STCN27-316SS | 22 | 27 | 32 | 38 | 43 | 49 |
| 28250-STCN29-316SS | 40 | 48 | 55 | 62 | 70 | 79 |

| Nozzle Model | Joint NPT or BSPT (Female) | A (mm) | B (mm) | C (mm) | Hexagon (mm) | Net Weight (KG) |
|---|---|---|---|---|---|---|
| 36250— | 3/4inch | 145 | 115 | 85 | 75 | 0.55 |
| 28250— | 3/4inch | 122 | 100 | 56 | 44.5 | 0.68 |

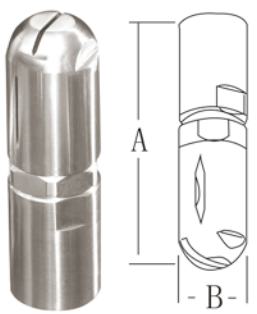
## 19250

## Design features

19250 Compact Nozzle can generate self-rotary drive for side spraying by two flat fan spray tip with 25 mm hole. The top hatch makes a whole global spraying available.

The main material is 316 stainless steel, while axletree and axletree circle are made of rigid stainless steel for longest wearability life.

The max. pressure is 13 bar and max temperature is 180 centigrade.



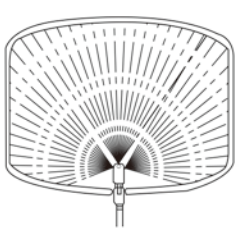

Diameter

## Performance Data

| Nozzle Order Number | Capacity (L/min) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1.5Bar | 3Bar | 4Bar | 5Bar | 6Bar | 8Bar | 10Bar | 12Bar |
| 19250-STCN5-316SS | 14.0 | 19. 7 | 23 | 25 | 28 | 32 | 36 | 39 |
| 19250-STCN6-316SS | 15.9 | 22 | 26 | 29 | 32 | 37 | 41 | 45 |
| 19250-STCN7-316SS | 19.5 | 28 | 32 | 36 | 39 | 45 | 50 | 55 |
| 19250-STCN8-316SS | 22 | 32 | 36 | 41 | 45 | 52 | 58 | 63 |
| 19250-STCN9-316SS | 28 | 39 | 46 | 51 | 56 | 64 | 72 | 79 |

## Size and weight

| Nozzle Number | 19250 |
|---|---|
| A(mm) | 89 |
| B(mm) | 25.4 |
| Net Weight(KG) | 0.23 |

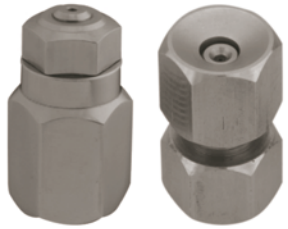


## Ordering info

The above three models can be made of brass. For other materials, please mark out.

# K5 Spray–Dry Nozzle

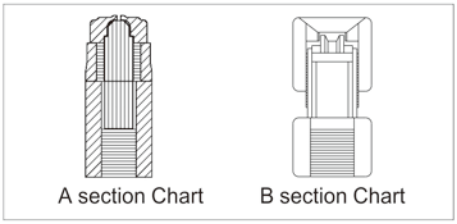
The nozzle body is mainly made of stainless steel, with harden SS, alloy or gem for accessories. With a swirl leading chest inside, the liquid is changed into centrifugal mist with little spraying drop. It can close contact with hot air, and widely applied in food, ceramic, pharmacy, Chemical, dyeing and metallurgy, etc.

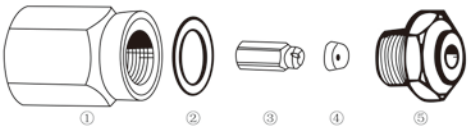


## K5 for drying spraying Nozzle

| | K5 Series |
|---|---|
| Structure | SS 303 for nozzle body, and selective materials for cover, taper or spray hole. |
| Material | SS303, SS316, Harden SS, Alloy or Gem |

| A Spec | Inlet joint female/male screw thread | | Size | | |
|---|---|---|---|---|---|
| | 1/4Inch | 3/8Inch | )mm)A Hexagon | B length | Net Weight |
| | | | 25.4 | 41.5or47.6 | 0.142/0.1156 |




1、Holder 2、Sealing Cushion 3、Rotary Core 4、Inlayer 5、Nozzle tip

Dry Nozzle Head Diagram

## Performance Data

| Inlet conn NPT or BSPT(M) | Capacity | Rating Spray Hole . Dia (mm) | Capacity (L/min) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 3Bar | 4Bar | 5.5Bar | 7Bar | 10Bar | 15Bar | 20Bar | 35Bar | 50Bar | 70Bar | 100Bar | 135Bar | 170Bar | 210Bar | 275Bar | 340Bar |
| 1/4 | 1 | 1.4 | 0.67 | 0.77 | 0.91 | 1.0 | 1.2 | 1.5 | 1.7 | 2.3 | 2.7 | 3.2 | 3.9 | 4.5 | 5.1 | 5.6 | 6.4 | 7.1 |
| 3/8 | | | 68° | 72° | 73° | 74° | 75° | 76° | 71° | 67° | 62° | 57° | 55° | 53° | 51° | 50° | 48° | 46° |
| 1/4 | 1.5 | 1.8 | 1.1 | 1.2 | 1.4 | 1.6 | 1.9 | 2.4 | 2.8 | 3.6 | 4.4 | 5.1 | 6.2 | 7.2 | 8.0 | 8.9 | 10.2 | 11.4 |
| 3/8 | | | 78° | 82° | 83° | 84° | 80° | 77° | 75° | 72° | 65° | 59° | 57° | 55° | 53° | 51° | 49° | 47° |
| 1/4 | 2 | 2.0 | 1.3 | 1.5 | 1.8 | 2.1 | 2.5 | 3.0 | 3.5 | 4.6 | 5.5 | 6.5 | 7.8 | 9.0 | 10.1 | 11.2 | 12.9 | 14.3 |
| 3/8 | | | 77° | 81° | 81° | 81° | 80° | 79° | 73° | 68° | 62° | 57° | 55° | 53° | 51° | 50° | 48° | 46° |
| 1/4 | 3 | 2.4 | 2.1 | 2.4 | 2.8 | 3.1 | 3.7 | 4.6 | 5.3 | 7.0 | 8.4 | 9.9 | 11.9 | 13.8 | 15.5 | 17.2 | 20 | 22 |
| 3/8 | | | 78° | 79° | 79° | 78° | 77° | 76° | 67° | 59° | 53° | 48° | 46° | 44° | 41° | 39° | 37° | 35° |
| 1/4 | 4 | 2.8 | 2.6 | 3.0 | 3.5 | 4.0 | 4.8 | 5.8 | 6.7 | 8.9 | 10.6 | 12.6 | 15.0 | 17.5 | 19.6 | 22 | 25 | 28 |
| 3/8 | | | 76° | 76° | 77° | 78° | 77° | 76° | 67° | 59° | 53° | 48° | 46° | 44° | 41° | 38° | 35° | 33° |
| 1/4 | 5 | 3.3 | 3.4 | 3.9 | 4.5 | 5.1 | 6.1 | 7.5 | 8.7 | 11.5 | 13.7 | 16.2 | 19.4 | 23 | 25 | 28 | 32 | 36 |
| 3/8 | | | 91° | 91° | 88° | 86° | 82° | 79° | 71° | 63° | 56° | 50° | 46° | 45° | 43° | 40° | 37° | 34° |
| 1/4 | 6 | 3.5 | 4.0 | 4.6 | 5.4 | 6.1 | 7.3 | 8.9 | 10.3 | 13.6 | 16.3 | 19.3 | 23 | 27 | 30 | 33 | 38 | 42 |
| 3/8 | | | 89° | 89° | 86° | 83° | 80° | 78° | 69° | 61° | 56° | 52° | 48° | 46° | 43° | 42° | 40° | 38° |
| 1/4 | 7 | 3.6 | 4.3 | 5.0 | 5.8 | 6.6 | 7.9 | 9.6 | 11.1 | 14.7 | 17.6 | 21 | 25 | 29 | 32 | 36 | 41 | 46 |
| 3/8 | | | 91° | 88° | 85° | 83° | 80° | 78° | 69° | 60° | 59° | 58° | 55° | 53° | 51° | 48° | 45° | 42° |
| 1/4 | 8 | 4.0 | 5.4 | 6.2 | 7.3 | 8.2 | 9.8 | 12.0 | 13.9 | 18.3 | 22 | 26 | 31 | 36 | 40 | 45 | 51 | 57 |
| 3/8 | | | 92° | 89° | 86° | 83° | 78° | 74° | 65° | 57° | 54° | 52° | 51° | 50° | 48° | 46° | 44° | 42° |
| 1/4 | 10 | 4.5 | 7.1 | 8.3 | 9.7 | 10.9 | 13.0 | 16.0 | 18.4 | 24 | 29 | 35 | 41 | 48 | 54 | 60 | 68 | 76 |
| 3/8 | | | 94° | 87° | 85° | 83° | 79° | 75° | 67° | 59° | 57° | 55° | 48° | 46° | 44° | 42° | 40° | 38° |
| 1/4 | 15 | 5.4 | 11.6 | 13.4 | 15.7 | 17.7 | 21 | 26 | 30 | 40 | 47 | 56 | 67 | 78 | 87 | 97 | 111 | 123 |
| 3/8 | | | 86° | 82° | 80° | 78° | 73° | 68° | 60° | 52° | 51° | 50° | 46° | 44° | 43° | 40° | 36° | 32° |
| 1/4 | 20 | 6.4 | 17.8 | 21 | 24 | 27 | 32 | 40 | 46 | 61 | 73 | 86 | 103 | 119 | 134 | 149 | 170 | 189 |
| 3/8 | | | 80° | 80° | 80° | 80° | 72° | 64° | 55° | 47° | 46° | 45° | 42° | 39° | 37° | 35° | 30° | 32° |

## Ordering info

**K5** — **1/4( Inside)** — **1.5** — **SS**

- K5 — Nozzle Model
- 1/4( Inside) — Interior ı/ε Screw Thread
- 1.5 — Capacity
- SS — Material

# 12810 Tanb Wash Nozzle

## Design Featues

The 12810 nozzle is a compact, easy install small rotating Rotary cleaning nozzle, which can extends into the bottle neck as diameter 25 mm for an effective cleaning.

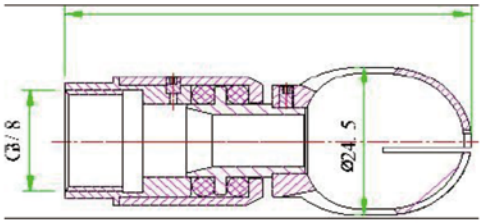
The unique design, the four flat fan spray nozzle produce a driving force for their special positions to the tank for 360 degree.

So the 12810 is very effective for the small tank and drum cleaning.



## Tech Datas

| Order No. | Capacity ( L/ mi n) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1bar | 1.5bar | 2bar | 3bar | 4bar | 5bar | weight ( g ) |
| 12810- 3/ 8 | 23. 2 | 28. 6 | 33.8 | 45.2 | 49.4 | 56 | 72 |




**Order info** : 12810- 3/ 8-303SS

12810 - Nozzle series

3/ 8 - Thread

303SS - Material code

(Remark: We can customized according to the customers'requirement. )

# M–50 Rotating Tauk Wash Nozzle




## Design Features

- Compact design fits through small openings. O.D.: M50-49mm
- Superior cleaning at low pressures and low flow rates for greater economy
- Self cleaning
- No ball bearing to corrode

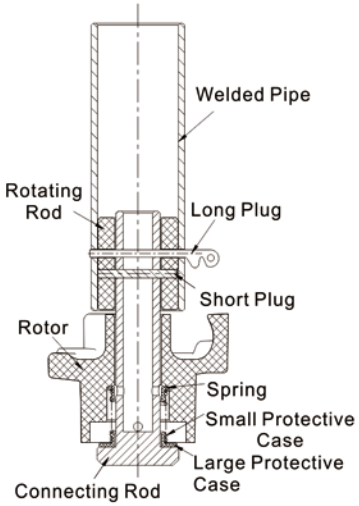
## Spray Characteristics

- High impact scrubbing action
- Slow rotation speed provides better cleaning
- Wide coverage

Flow rate: 76 to 132 l/min

## M-50 Nozzle Components

M-50 consists of the welded pipe of 304SS, long plug, short plug, spring, small protective case of Teflon, big protective case of Teflon, rotating rod of POM, rotor and connecting rod of 316SS.




Schematic

## Technical Datas

| Technical Datas | Flow Rates(L/m) | | Spray Radius (m/ft) |
|---|---|---|---|
| | US | GPM | |
| 1.4/20 | 76 | 20 | 1.8/6 |
| 2.1/30 | 95 | 25 | 2.1/7 |
| 2.8/40 | 110 | 29 | 2.1/7 |
| 3.4/50 | 125 | 33 | 1.8/6 |
| 4.1/60 | 132 | 35 | 1.5/5 |

## Common Application

- Food Industry
- Pharmaceuticals Industry
- Beverage
- Chemical Treatment

*The other flow rates can be decided by the customers requirements

*The common slot is 10, and the other selections can be 2, 4, 6 and 8 slot

## Ordering info

M-50 — 40 — 10 — POM

Model — Pressure — Capacity — Material Code

## High pressure ceramic solid stream nozzle & Deckle edge trimming solid stream nozzle

**CY38170 Brass With ceramic core**



**CY38171headerand CY 38172 strainer**



**Needlerubycore**



HRBY

**Tungsten aloy**



TCK

**Ceramic core**



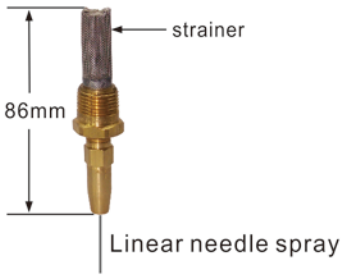
BCTC

This kind of nozzle is used for the trimming of the paper that supply a precise,clean cut.It can produce a straight needle solid stream. It can work at high pressure of 140bar. This nozzle orifice material we have the SS316 and ceramic.

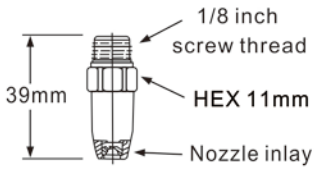
## Performance Data

| nozzle type | Serial number | orifice dia. (mm) | Capacity (L/min) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 7Bar | 10Bar | 20Bar | 30Bar | 40Bar | 50Bar | 60Bar | 70Bar | 100Bar | 138Bar |
| The only aperture ruby | 15 | 0. 38 | 0. 17 | 0. 21 | 0. 29 | 0. 36 | 0. 41 | 0. 46 | 0. 50 | 0. 54 | 0. 65 | 0. 76 |
| CY38170/CY38171 | 20 | 0. 51 | 0. 31 | 0. 36 | 0. 52 | 0. 63 | 0. 73 | 0. 82 | 0. 89 | 0. 96 | 1. 2 | 1. 4 |
| CY38170/CY38171 | 25 | 0. 64 | 0. 48 | 0. 57 | 0. 81 | 0. 99 | 1. 1 | 1. 3 | 1. 4 | 1. 5 | 1. 8 | 2. 1 |
| CY38170/CY38171 | 30 | 0. 76 | 0. 69 | 0. 82 | 1. 2 | 1. 4 | 1. 6 | 1. 8 | 2. 0 | 2. 2 | 2. 6 | 3. 1 |
| CY38170/CY38171 | 35 | 0. 89 | 0. 93 | 1. 1 | 1. 6 | 1. 9 | 2. 2 | 2. 5 | 2. 7 | 3. 0 | 3. 5 | 4. 2 |
| CY38170/CY38171 | 40 | 1. 0 | 1. 2 | 1. 5 | 2. 1 | 2. 5 | 2. 9 | 3. 3 | 3. 6 | 3. 9 | 4. 6 | 5. 4 |
| CY38170/CY38171 | 45 | 1. 1 | 1. 5 | 1. 9 | 2. 6 | 3. 2 | 3. 7 | 4. 1 | 4. 5 | 4. 9 | 5. 8 | 6. 9 |
| CY38170/CY38171 | 50 | 1. 3 | 1. 9 | 2. 3 | 3. 2 | 4. 0 | 4. 6 | 5. 1 | 5. 6 | 6. 0 | 7. 2 | 8. 5 |
| CY38170/CY38171 | 60 | 1. 5 | 2. 8 | 3. 3 | 4. 6 | 5. 7 | 6. 6 | 7. 3 | 8. 0 | 8. 7 | 10. 4 | 12. 2 |

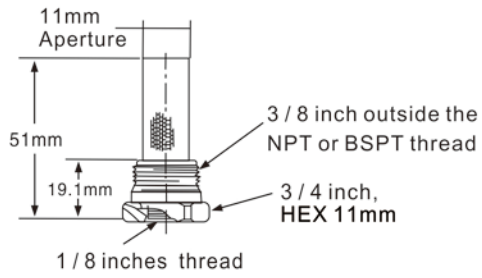
## Dimesion




CY 28170 model
**header with** strainer




CY 38171 Type
Needle without water strainer




CY 38172 Type
Adapter / strainer combination

## Note Material

CY 38170 brass nozzles for the main materials, filter materials for stainless steel, ceramic nozzle for the inlay.

## Ordering info

**Order package**

CY38170 — 20 — CER

Model | Serial number | Ceramic inlay

**Only ordered water needle**

CY 38171 — 20 — CER

Model | Serial number | Ceramic inlay

**Only order strainer**

CY 38172 – 20

Model | Serial number

# Shower high pressure needle nozzle

**CY 27149 Type**



nozzle without gasket type

**CY64160Type**



nozzle with gasket type

**CY50709 Type**



Nozzle without gasket type

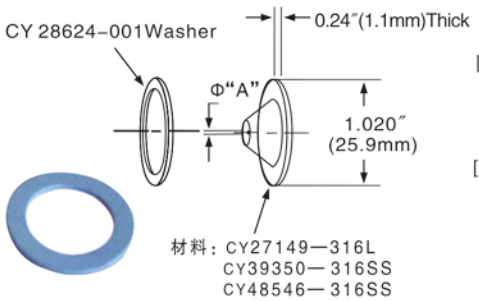
**CY48546/CY39350 Type**

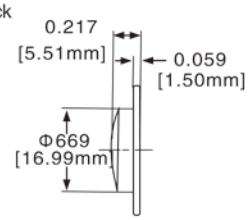


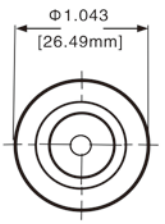
nozzle with gasket type

**Application**

- High pressure cleaning of long net part
- High pressure cleaning of squeezing part
- Cleaning of blind hole roller
- Cleaning of groove roller




**CY27149/CY39350/CY48546 Type**

Common SS | SS with ceramic | SS with ruby

**50709Type**

SS with ruby

## CY27149 Performace Data

| Nozzle size | Orifice diameter (mm) | Capacity(L/min) | | | | | Spray angle 4bar |
|---|---|---|---|---|---|---|---|
| | | 1.5Bar | 3Bar | 7Bar | 20Bar | 55Bar | |
| CY27149-00004 | 0.3 | 0.11 | 0.16 | 0.24 | 0.41 | 0.68 | 0° |
| CY27149-00007 | 0.4 | 0.20 | 0.28 | 0.42 | 0.71 | 1.2 | |
| CY27149-00009 | 0.5 | 0.25 | 0.36 | 0.54 | 0.92 | 1.5 | |
| CY27149-0001 | 0.6 | 0.36 | 0.51 | 0.78 | 1.3 | 2.2 | |
| CY27149-0002 | 1.0 | 0.64 | 0.91 | 1.4 | 2.3 | 3.9 | |
| CY27149-0003 | 1.2 | 0.92 | 1.3 | 2.0 | 3.4 | 5.6 | |
| CY27149-0004 | 1.5 | 1.2 | 1.7 | 2.6 | 4.4 | 7.3 | |
| CY27149-0008 | 1.9 | 2.2 | 3.1 | 4.8 | 8.1 | 13.4 | |
| CY27149-0012 | 2.4 | 3.5 | 4.9 | 7.5 | 12.6 | 21 | |
| CY27149-0020 | 3.2 | 5.5 | 7.8 | 11.9 | 20 | 33 | |

## CY39350 Performace Data

| Nozzle size | Orifice diameter (mm) | Capacity (L/min) | | | | | Spray angle 4bar |
|---|---|---|---|---|---|---|---|
| | | 1.5Bar | 3Bar | 7Bar | 20Bar | 55Bar | |
| CY39350-00005 | 0.5 | 0.14 | 0.20 | 0.31 | 0.52 | 0.86 | 0° |
| CY39350-00008 | 0.64 | 0.22 | 0.31 | 0.45 | 0.81 | 1.34 | |
| CY39350-0001 | 0.76 | 0.32 | 0.45 | 0.69 | 1.16 | 1.93 | |
| CY39350-00015 | 0.9 | 0.43 | 0.61 | 0.94 | 1.58 | 2.62 | |
| CY39350-0002 | 1.0 | 0.56 | 0.80 | 1.22 | 2.06 | 3.42 | |
| CY39350-00025 | 1.1 | 0.72 | 1.01 | 1.54 | 2.61 | 4.33 | |
| CY39350-0003 | 1.3 | 0.88 | 1.25 | 1.91 | 3.22 | 5.34 | |
| CY39350-00045 | 1.5 | 1.27 | 1.80 | 2.75 | 4.64 | 7.7 | |

## CY48546 Performace Data

| Nozzle Model | Inch |
|---|---|
| CY48546-00003-316RBY | 0.015"[0.38mm] |
| CY48546-00005-316RBY | 0.020"[0.51mm] |
| CY48546-00008-316RBY | 0.025"[0.64mm] |
| CY48546-00011-316RBY | 0.030"[0.76mm] |
| CY48546-00015-316RBY | 0.035"[0.89mm] |
| CY48546-00020-316RBY | 0.040"[1.02mm] |
| CY48546-00025-316RBY | 0.045"[1.14mm] |

## CY50709 Performace Data

| Nozzle Model | Inch |
|---|---|
| CY50709-00003-316RBY | 0.015"[0.38mm] |
| CY50709-00005-316RBY | 0.020"[0.51mm] |
| CY50709-00008-316RBY | 0.025"[0.64mm] |
| CY50709-00011-316RBY | 0.030"[0.76mm] |
| CY50709-00015-316RBY | 0.035"[0.89mm] |
| CY50709-00020-316RBY | 0.040"[1.02mm] |
| CY50709-00025-316RBY | 0.045"[1.14mm] |

## Ordering info

When ordering ordinary stainless steel nozzles

**CY27149—0002—316L**

Model | Series | Material

When ordering ceramic inlay nozzle

**CY39350—0002—316SS**

Model | Series | Material

When ordering Ruby inlay nozzle

**CY48546— 00020 — 316RBY**

Model | Size | 316SS+ Ruby inlay

**CY50709— 00020 — 316RBY**

Model | Size | 316SS+Ruby inlay

When asked order pads with the nozzle size one, please indicate special.

# Pagoda High Pressure Needle Nozzle

## 一、 Basic Style

**CY19124/CYB1/4PT**



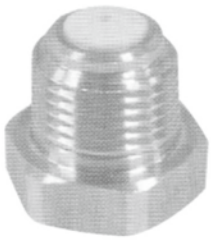
Common stainess steel

**CYB1/4PTL**



Commonstainess steel
for lengthen type

**CYB1/4PT-SSCER**



Standard SS with ceramic

**CYB1/4PTL-SSCER**



Common SS with ceramic
for lengthen type

**CY48460/CYB1/4PT-SSRBY**



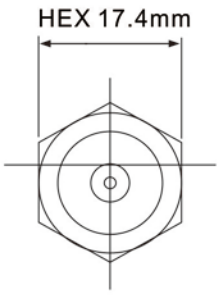
Standard SS with ruby

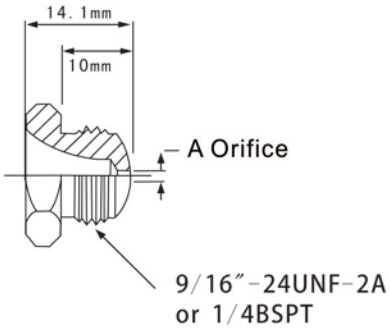
**CYB1/4PTL-SSRBY**



Common SS with ruby
for lengthen type

## 二、Basic size




## Application

- High pressure swing cleaning of long net part
- High pressure swing cleaning of squeezing part
- Cleaning of blind hole roller
- Cleaning of groove roller

## Performance Data

| Nozzle size | Equivalent diameter nozzle | Capacity liters per minute | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 3Bar | 4Bar | 5Bar | 7Bar | 15Bar | 30Bar | 40Bar | 50Bar | 60Bar |
| CY19124-14-316SS | 0.36 | 0.12 | 0.13 | 0.15 | 0.17 | 0.25 | 0.37 | 0.42 | 0.47 | 0.51 |
| CY19124-28-316SS | 0.71 | 0.42 | 0.48 | 0.54 | 0.63 | 0.93 | 1.3 | 1.5 | 1.7 | 1.9 |
| CY19124-33-316SS | 0.84 | 0.62 | 0.73 | 0.81 | 0.95 | 1.4 | 2.0 | 2.4 | 2.7 | 2.9 |
| CY19124-40-316SS | 1.02 | 0.89 | 1.0 | 1.1 | 1.4 | 2.0 | 2.8 | 3.2 | 3.6 | 3.9 |
| CY19124-55-316SS | 1.40 | 1.6 | 1.9 | 2.1 | 2.4 | 3.6 | 5.0 | 5.8 | 6.5 | 7.0 |
| CY19124-70-316SS | 1.78 | 2.7 | 3.1 | 3.5 | 4.2 | 6.1 | 8.8 | 10 | 11 | 13 |
| CY19124-94-316SS | 2.39 | 4.5 | 5.2 | 5.9 | 7.0 | 10 | 15 | 18 | 20 | 22 |
| CY19124-125-316SS | 3.18 | 7.3 | 8.5 | 9.6 | 11 | 17 | 25 | 30 | 33 | 37 |

## PT Performance Da t a <BSPT1/4Thread>

| Nozzle Model | | Orifice diameter (mm) | Capacity(L/min) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Standard | lengthen | | 3Bar | 5Bar | 7Bar | 10Bar | 15Bar | 20Bar | 30Bar | 40Bar | 50Bar | 60Bar | 70Bar | 80Bar |
| CYB1/4PT-SS | CYB1/4PTL-SS | 0.8 | 0.54 | 0.70 | 0.83 | 1.00 | 1.22 | 1.41 | 1.73 | 2.00 | 2.23 | 2.45 | 2.64 | 2.83 |
| | | 0.9 | 0.69 | 0.89 | 1.05 | 1.26 | 1.55 | 1.79 | 2.19 | 2.53 | 2.83 | 2.10 | 3.35 | 3.58 |
| | | 1.0 | 0.85 | 1.10 | 1.30 | 1.56 | 1.91 | 2.21 | 2.70 | 3.12 | 3.49 | 3.83 | 4.13 | 4.42 |
| CYB1/4PT-SSCER | CYB1/4PTL-SSCER | 1.2 | 1.23 | 1.59 | 1.88 | 2.25 | 2.75 | 3.18 | 3.90 | 4.50 | 5.03 | 5.51 | 5.95 | 6.36 |
| | | 1.5 | 1.92 | 2.48 | 2.94 | 3.51 | 4.30 | 4.97 | 6.09 | 7.03 | 7.86 | 8.61 | 9.30 | 9.95 |
| CYB1/4PT-RBY | CYB1/4PTL-RBY | 1.8 | 2.77 | 3.58 | 4.23 | 5.06 | 6.20 | 7.16 | 8.77 | 10.1 | 11.3 | 12.4 | 13.4 | 14.3 |
| | | 2.0 | 3.42 | 4.42 | 5.23 | 6.25 | 7.66 | 8.84 | 10.8 | 12.5 | 13.9 | 15.3 | 16.4 | 17.6 |

## CY 48460 Ruby Inlay

| Nozzle Model | Inch | Nozzle Model | Inch |
|---|---|---|---|
| CY48460-15-316RBY | 0.015″[0.38mm] | CY48460-35-316RBY | 0.035″[0.89mm] |
| CY48460-20-316RBY | 0.020″[0.51mm] | CY48460-40-316RBY | 0.040″[1.02mm] |
| CY48460-25-316RBY | 0.025″[0.64mm] | CY48460-40-316RBY | 0.045″[1.14mm] |
| CY48460-30-316RBY | 0.030″[0.76mm] | | |

### Ordering info

### 一、Stainless Steel Series

1、CYM19124—40—316SS(M14x1.0 thread connection)
Model / Aperture Series / Material

2、CYB19124—40—316SS (BSPT 1/4 Thread Interface)
Model / Aperture Series / Material

3、CY19124—40—316SS(9/16-24UNF-2A thread connection)
Model / Aperture Series / Material

4、CYB1/4PT—SS1.0 (BSPT 1/4 Thread Interface)
Standard / Aperture Series

5、CYB1/4PTL—SS1.0 (BSPT 1/4 Thread Interface)
Model / Aperture Series

### 二、Ceramic inlay Series

6、CYB1/4PT—SSCER—1.0(BSPT1/4 Thread Interface)
Standard / Ceramic inlay stainless steel / Aperture

7、CYB1/4PTL—SSCER—1.0 (BSPT 1/4 Thread Interface)
lengthen / Ceramic inlay stainless steel / Aperture

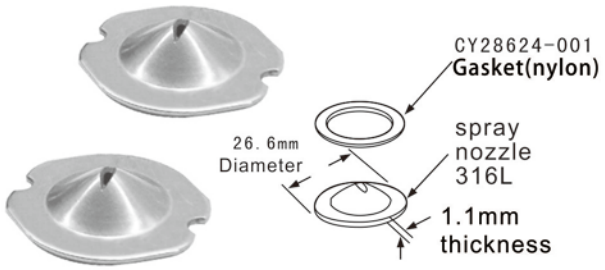
### 三、Ruby Series

8、CYB1/4PT—SSRBY—1.0(BSPT1/4Thread Interface)
Standard / Ruby the main stainless steel inlay / Aperture

9、CYB1/4PTL—SSRBY—1.0 (BSPT 1/4 Thread Interface)
lengthen / Ruby the main stainless steel inlay / Aperture

10、CY48460—20—316RBY(9/16-24UNF-2A Thread Interface)
Model / Aperture Series / 316 stainless steel main Ruby inlay

# CCTC Series disc flat fan nozzle




CCTC nozzle is specially designed for brush type showers. Spray angle of 0° , 30° , 60 °and 75° are available. It needs to use the CCTC28624-001 gasket when Install the nozzle.

**Ordering info**

CCTC — CY6008 — 316L

Model | Spray angle and Capacity code | Material

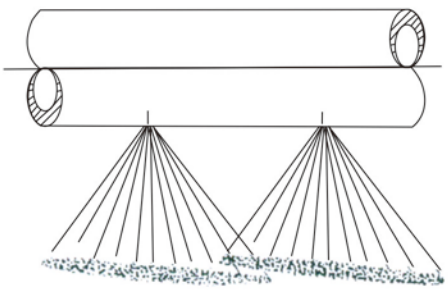
## Performance Data

| Nozzle size | Orifice diameter (mm) | Capacity(L/min) | | | | | Spray angle 4bar |
|---|---|---|---|---|---|---|---|
| | | 1.5Bar | 3Bar | 7Bar | 20Bar | 55Bar | |
| CCTC-0002 | 1. 0 | 0. 64 | 0. 91 | 1. 4 | 2. 3 | 3. 9 | 0° |
| CCTC-0003 | 1. 2 | 0. 92 | 1. 3 | 2. 0 | 3. 4 | 5. 6 | |
| CCTC-0004 | 1. 5 | 1. 2 | 1. 7 | 2. 6 | 4. 4 | 7. 3 | |
| CCTC-0006 | 1. 8 | 1. 7 | 2. 4 | 3. 7 | 6. 2 | 10. 3 | |
| CCTC-0008 | 2. 0 | 2. 2 | 3. 1 | 4. 8 | 8. 1 | 13. 4 | |
| CCTC-0010 | 2. 2 | 2. 8 | 4. 0 | 6. 2 | 10. 4 | 17. 2 | |
| CCTC-3012 | 2. 5 | 3. 5 | 4. 9 | 7. 5 | 12. 6 | 21 | 30° |
| CCTC-3016 | 2. 8 | 4. 5 | 6. 3 | 9. 7 | 16. 4 | 27 | |
| CCTC-3020 | 3. 0 | 5. 5 | 7. 8 | 11. 9 | 20 | 33 | |
| CCTC-3025 | 3. 5 | 7. 2 | 10. 1 | 15. 5 | 26 | 43 | |
| CCTC-3031 | 4. 0 | 8. 8 | 12. 4 | 18. 9 | 32 | 53 | |
| CCTC-3040 | 4. 5 | 11. 3 | 15. 9 | 24 | 41 | 68 | |
| CCTC-3049 | 5. 0 | 13. 7 | 19. 4 | 30 | 50 | 83 | |
| CCTC-3078 | 6. 0 | 22 | 31 | 48 | 81 | 135 | |
| CCTC-3099 | 7. 0 | 29 | 39 | 60 | 101 | 167 | |
| CCTC-30124 | 8. 0 | 35 | 49 | 75 | 126 | 210 | |
| CCTC-6002 | 1. 0 | 0. 64 | 0. 91 | 1. 4 | 2. 3 | 3. 9 | 60° |
| CCTC-6003 | 1. 2 | 0. 92 | 1. 3 | 2. 0 | 3. 4 | 5. 6 | |
| CCTC-6004 | 1. 5 | 1. 2 | 1. 7 | 2. 6 | 4. 4 | 7. 3 | |
| CCTC-6006 | 1. 8 | 1. 7 | 2. 4 | 3. 7 | 6. 2 | 10. 3 | |
| CCTC-6008 | 2. 0 | 2. 2 | 3. 1 | 4. 8 | 8. 1 | 13. 4 | |
| CCTC-6010 | 2. 2 | 2. 8 | 4. 0 | 6. 2 | 10. 4 | 17. 2 | |
| CCTC-6012 | 2. 5 | 3. 5 | 4. 9 | 7. 5 | 12. 6 | 21 | |
| CCTC-6016 | 2. 8 | 4. 5 | 6. 3 | 9. 7 | 16. 4 | 27 | |
| CCTC-6020 | 3. 0 | 5. 5 | 7. 8 | 11. 9 | 20 | 33 | |
| CCTC-6025 | 3. 5 | 7. 2 | 10. 1 | 15. 5 | 26 | 43 | |
| CCTC-6031 | 4. 0 | 8. 8 | 12. 4 | 18. 9 | 32 | 53 | |
| CCTC-3040 | 4. 5 | 11. 3 | 15. 9 | 24 | 41 | 68 | |
| CCTC-6049 | 5. 0 | 13. 7 | 19. 4 | 30 | 50 | 83 | |
| CCTC-6078 | 6. 0 | 22 | 31 | 47 | 80 | 133 | |
| CCTC-6099 | 7. 0 | 28 | 39 | 60 | 101 | 167 | |
| CCTC-60124 | 8. 0 | 35 | 49 | 75 | 126 | 210 | |
| CCTC-7502 | 1. 0 | 0. 64 | 0. 91 | 1. 4 | 2. 3 | 3. 9 | 75° |
| CCTC-7503 | 1. 2 | 0. 92 | 1. 3 | 2. 0 | 3. 4 | 5. 6 | |
| CCTC-7504 | 1. 5 | 1. 2 | 1. 7 | 2. 6 | 4. 4 | 7. 3 | |
| CCTC-7506 | 1. 8 | 1. 7 | 2. 4 | 3. 7 | 6. 2 | 10. 3 | |
| CCTC-7508 | 2. 0 | 2. 2 | 3. 1 | 4. 8 | 8. 1 | 13. 4 | |
| CCTC-7510 | 2. 2 | 2. 8 | 4. 0 | 6. 2 | 10. 4 | 17. 2 | |
| CCTC-7512 | 2. 5 | 3. 5 | 4. 9 | 7. 5 | 12. 6 | 21 | |
| CCTC-7516 | 2. 8 | 4. 5 | 6. 3 | 9. 7 | 16. 4 | 27 | |
| CCTC-7520 | 3. 0 | 5. 5 | 7. 8 | 11. 9 | 20 | 33 | |
| CCTC-7525 | 3. 5 | 7. 2 | 10. 1 | 15. 5 | 26 | 43 | |
| CCTC-7531 | 4. 0 | 8. 8 | 12. 4 | 18. 9 | 32 | 53 | |
| CCTC-7541 | 4. 5 | 11. 3 | 15. 9 | 24 | 41 | 68 | |
| CCTC-7549 | 5. 0 | 13. 7 | 19. 4 | 30 | 50 | 83 | |
| CCTC-7578 | 6. 0 | 22 | 31 | 48 | 81 | 133 | |
| CCTC-7599 | 7. 0 | 28 | 39 | 60 | 101 | 167 | |
| CCTC-75124 | 8. 0 | 35 | 49 | 75 | 126 | 210 | |

# Low Pressure Flat Fan Spray Nozzle

**CTC Fan Spray Nozzle**





## Product Description

When the distance between the spray poles and the nets or the blanket is small, this nozzle is your best choice. It is made of SS303 or SS316 which is durable and incorrodible.

## 一、CTC Performance Data

| Model of Nozzle | Equivalent aperture (mm) | Material | | Capacity(L/min) | | | | | | | | Spray angle under pressure of 3kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *SS | 316SS | 1Bar | 2Bar | 3Bar | 4Bar | 5Bar | 6Bar | 7Bar | 10Bar | |
| CTC-2510 | | · | | 2.3 | 3.2 | 3.9 | 4.6 | 5.1 | 5.6 | 6.0 | 7.2 | 25° |
| CTC-3580 | 6.4 | · | | 18.2 | 26 | 32 | 36 | 41 | 45 | 48 | 58 | 35° |
| CTC-4040 | | · | | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | 40° |
| CTC-4047 | 4.7 | · | | 10.7 | 15.1 | 18.6 | 21 | 24 | 26 | 28 | 34 | |
| CTC-4067 | | · | | 15.3 | 22 | 26 | 31 | 34 | 37 | 40 | 48 | |
| CTC-4070 | 5.5 | · | | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | |
| CTC-4085 | 6.4 | | · | 19.4 | 27 | 34 | 39 | 43 | 47 | 51 | 61 | 43° |
| CTC-4308 | 1.9 | · | | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | |
| CTC-4313 | 2.4 | · | · | 3.0 | 4.2 | 5.1 | 5.9 | 6.6 | 7.3 | 7.8 | 9.4 | 50° |
| CTC-50033 | 1.2 | · | | 0.75 | 1.1 | 1.3 | 1.5 | 1.7 | 1.8 | 2.0 | 2.4 | |
| CTC-5024 | 3.2 | · | | 5.5 | 7.7 | 9.5 | 10.9 | 12.2 | 13.4 | 14.5 | 17.3 | |
| CTC-5033 | 4.0 | | | 7.5 | 10.6 | 13.0 | 15.0 | 16.8 | 18.4 | 19.9 | 24 | |
| CTC-5037 | | · | | 8.4 | 11.9 | 14.6 | 16.9 | 18.9 | 21 | 22 | 27 | 55° |
| CTC-55054 | 1.6 | · | | 1.2 | 1.7 | 2.1 | 2.5 | 2.8 | 3.0 | 3.3 | 3.9 | |
| CTC-5508 | 1.9 | · | | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | 58° |
| CTC-5824 | 3.2 | · | · | 5.5 | 7.7 | 9.5 | 10.9 | 12.2 | 13.4 | 14.5 | 17.3 | |
| CTC-5833 | 4.0 | | · | 7.5 | 10.6 | 13.0 | 15.0 | 16.8 | 18.4 | 19.9 | 24 | 60° |
| CTC-60054 | 1.6 | | · | 1.2 | 1.7 | 2.1 | 2.5 | 2.8 | 3.0 | 3.3 | 3.9 | 65° |
| CTC-65054 | 1.6 | · | | 1.2 | 1.7 | 2.1 | 2.5 | 2.8 | 3.0 | 3.3 | 3.9 | |
| CTC-6513 | 2.4 | · | · | 3.0 | 4.2 | 5.1 | 5.9 | 6.6 | 7.3 | 7.8 | 9.4 | |
| CTC-6519 | 2.8 | · | · | 4.3 | 6.1 | 7.5 | 8.7 | 9.7 | 10.6 | 11.5 | 13.7 | |
| CTC-6533 | 4.0 | · | | 7.5 | 10.6 | 13.0 | 15.0 | 16.8 | 18.4 | 19.9 | 24 | |
| CTC-6550 | 4.7 | · | | 11.4 | 16.1 | 19.7 | 23 | 25 | 28 | 30 | 36 | |
| CTC-6570 | 5.5 | · | | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 68° |
| CTC-6824 | 3.2 | · | | 5.5 | 7.7 | 9.5 | 10.9 | 12.2 | 13.4 | 14.5 | 17.3 | |
| CTC-6840 | | | · | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | |
| CTC-6864 | | | · | 14.6 | 21 | 25 | 29 | 33 | 36 | 39 | 46 | |
| CTC-6870 | 5.5 | | · | 16.0 | 23 | 28 | 32 | 36 | 39 | 42 | 50 | 70° |
| CTC-70023 | 1.0 | · | | 0.52 | 0.74 | 0.91 | 1.0 | 1.2 | 1.3 | 1.4 | 1.7 | 80° |
| CTC-80032 | 1.2 | · | | 0.73 | 1.0 | 1.3 | 1.5 | 1.6 | 1.8 | 1.9 | 2.3 | |
| CTC-80054 | 1.6 | · | | 1.2 | 1.7 | 2.1 | 2.5 | 2.8 | 3.0 | 3.3 | 3.9 | |
| CTC-8008 | 1.9 | · | | 1.8 | 2.6 | 3.2 | 3.6 | 4.1 | 4.5 | 4.8 | 5.8 | |
| CTC-80084 | 1.9 | · | | 1.9 | 2.7 | 3.3 | 3.8 | 4.3 | 4.7 | 5.1 | 6.1 | |
| CTC-8013 | 2.4 | | · | 3.0 | 4.2 | 5.1 | 5.9 | 6.6 | 7.3 | 7.8 | 9.4 | |
| | | · | | | | | | | | | | |
| CTC-8024 | 3.2 | · | | 5.5 | 7.7 | 9.5 | 10.9 | 12.2 | 13.4 | 14.5 | 17.3 | |
| CTC-8033 | 4.0 | · | | 7.5 | 10.6 | 13.0 | 15.0 | 16.8 | 18.4 | 19.9 | 24 | |
| CTC-8040 | | | | 9.1 | 12.9 | 15.8 | 18.2 | 20 | 22 | 24 | 29 | |
| CTC-90016 | 0.79 | · | | 0.36 | 0.52 | 0.63 | 0.73 | 0.82 | 0.89 | 0.96 | 1.2 | 90° |
| CTC-90054 | 1.6 | · | | 1.2 | 1.7 | 2.1 | 2.5 | 2.8 | 3.0 | 3.3 | 3.9 | |
| CTC-9013 | 2.4 | · | | 3.0 | 4.2 | 5.1 | 5.9 | 6.6 | 7.3 | 7.8 | 9.4 | |

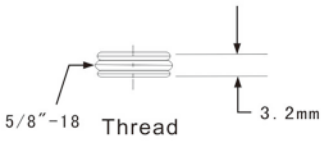
Dimension and the installation

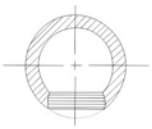


Front side



Back side



Cut Side

## 二、CTY Performance Data

| Model of Nozzle | Equivalent aperture (mm) | Capacity(L/min) | | | | | | | | spray angle under pressure of 3kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 10Bar | 20Bar | 30Bar | 40Bar | 60Bar | 80Bar | 100Bar | 150Bar | |
| CTY-35084 | 0. 076 | 0. 42 | 0. 59 | 0. 73 | 0. 84 | 1. 0 | 1. 2 | 1. 3 | 1. 6 | 35° |
| CTY-3524 | 0. 125 | 1. 2 | 1. 7 | 2. 0 | 2. 45 | 2. 9 | 3. 3 | 3. 7 | 4. 6 | 35° |
| CTY-3572 | 0. 218 | 3. 5 | 5. 0 | 6. 2 | 7. 2 | 8. 8 | 10. 1 | 11. 3 | 14. 0 | 35° |
| CTY-4513 | 0. 093 | 0. 66 | 0. 93 | 1. 1 | 1. 3 | 1. 6 | 1. 8 | 2. 0 | 2. 5 | 43° |
| CTY-3513 | 0. 093 | 0. 65 | 0. 93 | 1. 1 | 1. 3 | 1. 6 | 1. 8 | 2. 0 | 2. 5 | 50° |
| CTY-3524 | 0. 125 | 1. 2 | 1. 7 | 2. 0 | 2. 4 | 2. 9 | 3. 3 | 3. 7 | 4. 6 | 50° |
| CTY-55054 | 0. 062 | 0. 27 | 0. 38 | 0. 47 | 0. 54 | 0. 66 | 0. 76 | 0. 84 | 1. 0 | 55° |
| CTY-6513 | 0. 093 | 0. 66 | 0. 93 | 1. 1 | 1. 3 | 1. 6 | 1. 8 | 2. 0 | 2. 5 | 65° |
| CTY-6824 | 0. 125 | 1. 2 | 1. 7 | 2. 0 | 2. 4 | 2. 9 | 3. 3 | 3. 7 | 4. 6 | 68° |
| CTY-70054 | 0. 062 | 0. 27 | 0. 38 | 0. 47 | 0. 54 | 0. 66 | 0. 76 | 0. 84 | 1. 0 | 70° |
| CTY-8013 | 0. 093 | 0. 65 | 0. 93 | 1. 1 | 1. 3 | 1. 6 | 1. 8 | 2. 0 | 2. 5 | 80° |
| CTY-8024 | 0. 125 | 1. 2 | 1. 7 | 2. 0 | 2. 4 | 2. 9 | 3. 3 | 3. 7 | 4. 6 | 80° |
| CTY-8054 | 0. 187 | 2. 7 | 3. 8 | 4. 7 | 5. 4 | 6. 6 | 7. 6 | 8. 5 | 10. 5 | 80° |
| CTY-90054 | 0. 062 | 0. 27 | 0. 38 | 0. 47 | 0. 54 | 0. 66 | 0. 76 | 0. 84 | 1. 0 | 90° |
| CTY-9013 | 0. 093 | 0. 66 | 0. 93 | 1. 1 | 1. 3 | 1. 6 | 1. 8 | 2. 0 | 2. 5 | 90° |

## Application

- Low pressure washing
- knife sopping and lubricating

## Ordering info

CTC — 6513 — SS

nozzle model | Serial number code | Material

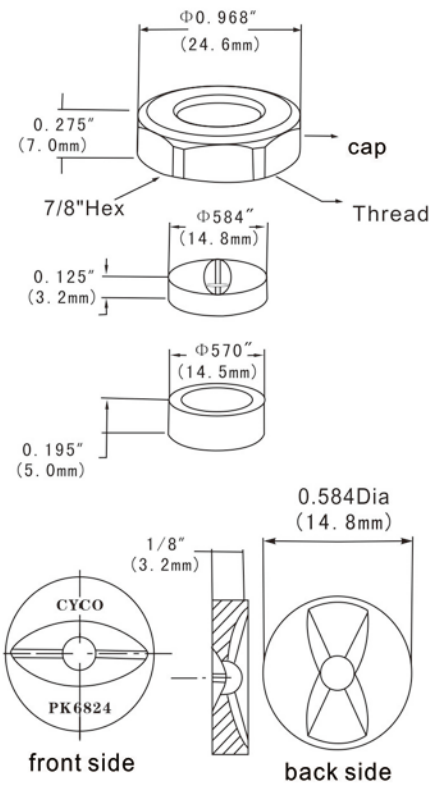
Material： 303SS-SS
316SS-316SS

CTY — 6513 — SS

nozzle model | Serial number code | Material

Material： 303SS-SS
316SS-316SS

## Dimension and the installation

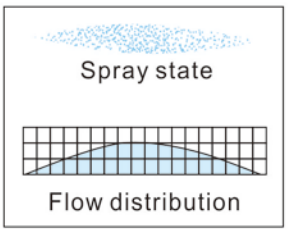


# EQ Series Self-clean Spay Nozzle

**Features**

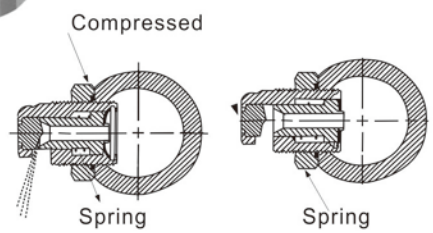
It features an automatic increase of pressure in case of orifice clogging, thus the orifice diameter is enlarged and the clogging mathers are cleared away. Then the spray orifice returns to normal. In the elliptical orifice design, the axis of the spray pattern is a continuation of the axis of the inlet pipeconnection. The tapering edges of the flat fan spray nozzles are useful in establishing overlapping patterns between adjacent sprays on a mutiple nozzle header.






**Common applications:**

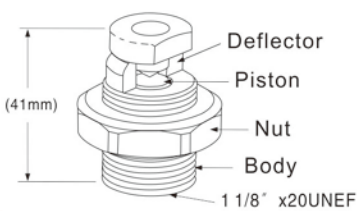
- ■Paper making:meshwork cleaning,felt cleaning and roller cleaning
- ■Steel plate cleaning in Continuous Casting Machine.
- ■Water treatment:filter screen squeezer cleaning,conveyor,squeezer cleaning,deaerating and surface cleaning of aerating filter-sand.
- ■Electronics:PCB cleaning
- ■Automotive and household appliances:pretreatment before coating.

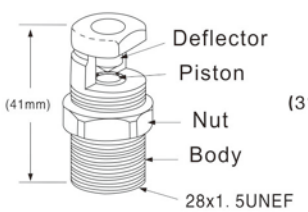


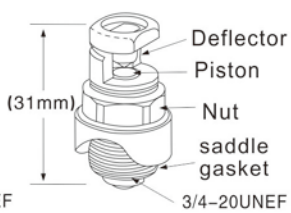

**Ordering info**

EQ — 1506 — 316SS

- EQ — nozzle type
- 1506 — Orifice diameter
- 316SS — Material




## Performance Data

| spray angle at 2.8 Bar | Orifice diameter | Capacity(L/min) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.5Bar | 2Bar | 2.5Bar | 3Bar | 3.5Bar | 4Bar | 4.5Bar | 5Bar | 4.5Bar | 6Bar | 7Bar | 8Bar | 10Bar | 15Bar |
| 0° | 00012 | 0.034 | 0.039 | 0.043 | 0.047 | 0.051 | 0.055 | 0.058 | 0.061 | 0.064 | 0.067 | 0.072 | 0.077 | 0.086 | 0.11 |
| | 000026 | 0.073 | 0.084 | 0.094 | 0.10 | 0.11 | 0.12 | 0.125 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 |
| | 000053 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.30 | 0.32 | 0.34 | 0.38 | 0.47 |
| | 00007 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.39 | 0.42 | 0.45 | 0.50 | 0.62 |
| | 0001 | 0.28 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.48 | 0.51 | 0.53 | 0.56 | 0.60 | 0.64 | 0.72 | 0.88 |
| | 00017 | 0.47 | 0.55 | 0.61 | 0.67 | 0.72 | 0.77 | 0.82 | 0.87 | 0.91 | 0.95 | 1.0 | 1.1 | 1.2 | 1.5 |
| | 0002 | 0.56 | 0.64 | 0.72 | 0.79 | 0.85 | 0.91 | 0.97 | 1.0 | 1.07 | 1.1 | 1.2 | 1.3 | 1.4 | 1.8 |
| | 00025 | 0.70 | 0.81 | 0.90 | 0.99 | 1.0 | 1.1 | 1.2 | 1.3 | 1.34 | 1.4 | 1.5 | 1.6 | 1.8 | 2.2 |
| | 00032 | 0.89 | 1.0 | 1.2 | 1.3 | 1.4 | 1.5 | 1.55 | 1.6 | 1.7 | 1.8 | 1.9 | 2.1 | 2.3 | 2.8 |
| | 00043 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 2.0 | 2.1 | 2.2 | 2.3 | 2.4 | 2.6 | 2.8 | 3.1 | 3.8 |
| | 0005 | 1.4 | 1.6 | 1.8 | 2.0 | 2.1 | 2.3 | 2.4 | 2.5 | 2.7 | 2.8 | 3.0 | 3.2 | 3.6 | 4.4 |
| | 0006 | 1.7 | 1.9 | 2.2 | 2.4 | 2.6 | 2.7 | 2.9 | 3.1 | 3.2 | 3.3 | 3.6 | 3.9 | 4.3 | 5.3 |
| | 0008 | 2.2 | 2.6 | 2.9 | 3.2 | 3.4 | 3.6 | 3.9 | 4.1 | 4.3 | 4.5 | 4.8 | 5.2 | 5.8 | 7.1 |
| | 0010 | 2.8 | 3.2 | 3.6 | 3.9 | 4.3 | 4.6 | 4.8 | 5.1 | 5.3 | 5.6 | 6.0 | 6.4 | 7.2 | 8.8 |
| 15° | 1506 | 1.7 | 1.9 | 2.2 | 2.4 | 2.6 | 2.7 | 2.9 | 3.1 | 3.2 | 3.3 | 3.6 | 3.9 | 4.3 | 5.3 |
| 30° | 3005 | 1.4 | 1.6 | 1.8 | 2.0 | 2.1 | 2.3 | 2.4 | 2.5 | 2.7 | 2.8 | 3.0 | 3.2 | 3.6 | 4.4 |
| | 3013 | 3.6 | 4.2 | 4.7 | 5.1 | 5.5 | 5.9 | 6.3 | 6.6 | 6.9 | 7.3 | 7.8 | 8.4 | 9.4 | 11.5 |
| | 3014 | 3.9 | 4.5 | 5.0 | 5.5 | 6.0 | 6.4 | 6.8 | 7.1 | 7.5 | 7.8 | 8.4 | 9.0 | 10.1 | 12.4 |
| | 3040 | 11.2 | 12.9 | 14.4 | 15.8 | 17.1 | 18.2 | 19.3 | 20 | 21 | 22 | 24 | 26 | 29 | 35 |
| 40° | 4012 | 3.3 | 3.9 | 4.3 | 4.7 | 5.1 | 5.5 | 5.8 | 6.1 | 6.4 | 6.7 | 7.2 | 7.7 | 8.6 | 10.6 |
| | 1013 | 3.6 | 4.2 | 4.7 | 5.1 | 5.5 | 5.9 | 6.3 | 6.6 | 6.9 | 7.3 | 7.8 | 8.4 | 9.4 | 11.5 |
| | 4014 | 3.9 | 4.5 | 5.0 | 5.5 | 6.0 | 6.4 | 6.8 | 7.1 | 7.5 | 7.8 | 8.4 | 9.0 | 10.1 | 12.4 |
| | 4020 | 5.6 | 6.4 | 7.2 | 7.9 | 8.5 | 9.1 | 9.7 | 10.2 | 10.7 | 11.2 | 12.1 | 12.9 | 14.4 | 17.7 |
| | 4032 | 8.9 | 10.3 | 11.5 | 12.6 | 13.6 | 14.6 | 15.5 | 16.3 | 17.1 | 17.9 | 19.3 | 21 | 23 | 28 |
| | 4045 | 12.6 | 14.5 | 16.2 | 17.8 | 19.2 | 21 | 22 | 23 | 24 | 22 | 27 | 29 | 32 | 40 |
| 45° | 4516 | 4.5 | 5.2 | 5.8 | 6.3 | 6.8 | 7.3 | 7.7 | 8.2 | 8.6 | 8.9 | 9.6 | 10.3 | 11.5 | 14.1 |
| | 4525 | 7.0 | 8.1 | 9.0 | 9.9 | 10.7 | 11.4 | 12.1 | 12.7 | 13.4 | 14.0 | 15.1 | 16.1 | 18.0 | 22 |
| | 4542 | 11.7 | 13.5 | 15.1 | 16.6 | 17.9 | 19.1 | 20 | 21 | 22 | 23 | 25 | 27 | 30 | 37 |
| 50° | 5032 | 8.9 | 10.3 | 11.5 | 12.6 | 13.6 | 14.6 | 15.5 | 16.3 | 17.1 | 17.9 | 19.3 | 21 | 23 | 28 |
| 60° | 6016 | 4.5 | 5.2 | 5.8 | 6.3 | 6.8 | 7.3 | 7.7 | 8.2 | 8.6 | 8.9 | 9.6 | 10.3 | 11.5 | 14.1 |
| | 6031 | 8.7 | 10.0 | 11.2 | 12.2 | 13.2 | 14.1 | 15.0 | 15.8 | 16.6 | 17.3 | 18.7 | 16.1 | 22 | 27 |
| | 6038 | 10.6 | 12.2 | 13.7 | 15.0 | 16.2 | 17.3 | 18.4 | 19.4 | 20 | 21 | 23 | 27 | 27 | 34 |
| 80° | 8003 | 0.84 | 0.97 | 1.1 | 1.2 | 1.3 | 1.4 | 1.45 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 2.2 | 2.6 |
| | 8003 | 1.4 | 1.6 | 1.8 | 2.0 | 2.1 | 2.3 | 2.4 | 2.5 | 2.7 | 2.8 | 3.0 | 3.2 | 3.6 | 4.4 |
| | 8011 | 3.1 | 3.5 | 4.0 | 4.3 | 4.7 | 5.0 | 5.3 | 5.6 | 5.9 | 6.1 | 6.6 | 7.1 | 7.9 | 9.7 |
| | 8019 | 5.3 | 6.1 | 6.8 | 7.5 | 8.1 | 8.7 | 9.2 | 9.7 | 10.2 | 10.6 | 11.5 | 12.2 | 13.7 | 16.8 |
| | 8030 | 8.4 | 9.7 | 10.8 | 11.8 | 12.8 | 13.7 | 14.5 | 15.3 | 16.0 | 16.7 | 18.1 | 19.3 | 22 | 26 |
| | 8036 | 10.0 | 11.6 | 13.0 | 14.2 | 15.3 | 16.4 | 17.4 | 18.3 | 19.2 | 20 | 22 | 23 | 26 | 32 |
| | 8046 | 12.8 | 14.8 | 16.6 | 18.2 | 19.6 | 21 | 22 | 23 | 25 | 26 | 28 | 30 | 33 | 41 |
| 100° | 10011 | 3.1 | 3.5 | 4.0 | 4.3 | 4.7 | 5.0 | 5.3 | 5.6 | 5.9 | 6.1 | 6.6 | 7.1 | 7.9 | 9.7 |
| | 10020 | 5.6 | 6.4 | 7.2 | 7.9 | 8.5 | 9.1 | 9.7 | 10.2 | 10.7 | 11.2 | 12.1 | 12.9 | 14.4 | 17.7 |
| 120° | 12008 | 2.2 | 2.6 | 2.9 | 3.2 | 3.4 | 3.6 | 3.9 | 4.1 | 4.3 | 4.5 | 4.8 | 5.2 | 5.8 | 7.1 |
| 130° | 13016 | 4.5 | 5.2 | 5.8 | 6.3 | 6.8 | 7.3 | 7.7 | 8.2 | 8.6 | 8.9 | 9.6 | 10.3 | 11.5 | 14.1 |

# 155RS Metal Adjustable Spray Nozzle

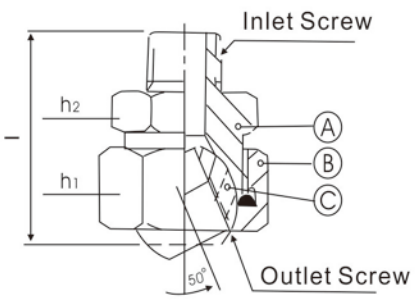
155RS Metal Adjustable Global Spray Nozzle is made of 304#, 303#,316# stainless steel or brass(Depending on customers requirement).With the connecting of globe and metal sprayhead,you can precisely adjust the spraying direction to keep it in best state. The spray head can be disassembled directly without tools.It is widely applied in auto show testin,such as shower testing line of Yantai General Motors bodywork Factory,Shuzhou Hangtian Automobile Factory,Wuhu Qurui Auto-mobile Factory an Beijing.Modern Automobile Factory.

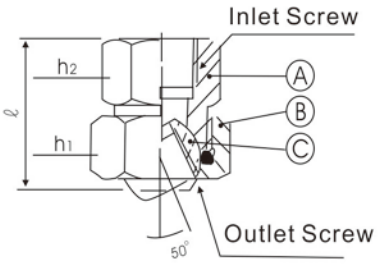


## 155RS Series

| | 155RS Series |
|---|---|
| Material | BRASS、S303(SUS303)material<br>S316(SUS316),other |

| Screw thread | Nozzle type | Screw on base | Screw on Spray tip | Size(mm) | | | Weight(gr.) | |
|---|---|---|---|---|---|---|---|---|
| | | | | L | $h_1/h_2$(Subtense) | | BRASS | SUS |
| male | 155RS | 1/8 | 1/8 | 32 | 22 | 21 | 60 | 56 |
| | 155RS | 1/4 | 1/4 | 36 | 22 | 21 | 65 | 60 |
| | 155RS | 1/4 | 1/4 | 39 | 29 | 24 | 110 | 110 |
| | 155RS | 3/8 | 3/8 | 40 | 29 | 24 | 115 | 105 |
| | 155RS | 3/8 | 3/8 | 47 | 35 | 30 | 205 | 190 |
| | 155RS | 1/2 | 1/2 | 54 | 41 | 41 | 350 | 325 |
| | 155RS | 3/4 | 3/4 | 61 | 50 | 46 | 525 | 490 |
| Female | 155RS | 1/8 | 1/8 | 28 | 22 | 21 | 69 | 63 |
| | 155RS | 1/4 | 1/8 | 28 | 22 | 21 | 63 | 58 |
| | 155RS | 1/4 | 1/4 | 33 | 29 | 24 | 120 | 110 |
| | 155RS | 3/8 | 1/4 | 33 | 29 | 24 | 110 | 100 |
| | 155RS | 3/8 | 3/8 | 44 | 35 | 30 | 235 | 220 |
| | 155RS | 1/2 | 1/2 | 48 | 41 | 41 | 405 | 375 |
| | 155RS | 3/4 | 3/4 | 55 | 50 | 46 | 600 | 560 |




Ⓐ Holder Ⓑ Cover Ⓒ Screw Globe

| Nozzle specifications | Model |
|---|---|
| Selective;and you can check our catalogue for details (Common Metal Spray Nozzle) | Brass,SS |

## Ordering Information

**155RS** —— **3/8**(Outside) —— **CT 6540** —— **3/8** —— **SS** —— **SS**

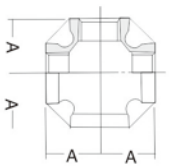
| 155RS | 3/8(Outside) | CT 6540 | 3/8 | SS | SS |
|---|---|---|---|---|---|
| Spray Nozzle | Outer Size | Model | Spray tip Size | Body Material | Spray tip Materiall |

# Metal Connectors

## Screwed Nipple Spare Parts List



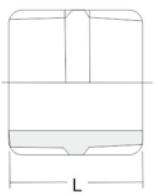
Cross adapter




| Dimension | A |
|---|---|
| 6A 1/8B | |
| 8 1/4 | 19 |
| 10 3/8 | 23 |
| 15 ½ | 27 |
| 20 3/4 | 32 |
| 25 1 | 38 |



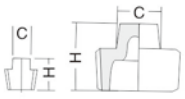
Pipe nipple




| Dimension | L | Dimension | L |
|---|---|---|---|
| 6A 1/8B | 20 | 32A 1/8B | 50 |
| 8 1/4 | 26 | 40 1 1/2 | 50 |
| 10 3/8 | 28 | 50 2 | 58 |
| 15 ½ | 34 | 65 2½ | 70 |
| 20 3/4 | 38 | 80 3 | 78 |
| 25 1 | 43 | 100 4 | 90 |



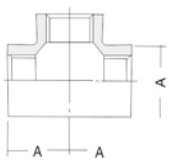
Quadro- plug




| Dimension | H | C | Dimension | H | C |
|---|---|---|---|---|---|
| 6A 1/8B | 14 | 7 | 32A 1 1/4B | 35 | 22 |
| 8 1/4 | 18 | 9 | 40 1 1/2 | 37 | 25 |
| 10 3/8 | 20.5 | 12 | 50 2 | 41 | 31 |
| 15 ½ | 25 | 14 | 65 2½ | 48 | 41 |
| 20 3/4 | 27 | 17 | 80 3 | 53 | 46 |
| 25 1 | 32 | 19 | 100 4 | 62 | 58 |



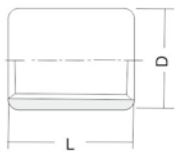
Tee adapter




| Dimension | A | Dimension | A |
|---|---|---|---|
| 6A 1/8B | 19 | 32A 1 1/4B | 46 |
| 8 1/4 | 19 | 40 1 1/2 | 48 |
| 10 3/8 | 23 | 50 2 | 57 |
| 15 ½ | 27 | | |
| 20 3/4 | 32 | | |
| 25 1 | 38 | | |



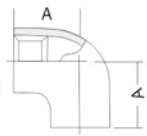
Round socket




| Dimension | D | L | Dimension | D | L |
|---|---|---|---|---|---|
| 6A 1/8B | 14 | 20 | 32A 1 1/4B | 47 | 48 |
| 8 1/4 | 17 | 25 | 40 1 1/2 | 53 | 48 |
| 10 3/8 | 21 | 26 | 50 2 | 66 | 56 |
| 15 ½ | 25 | 34 | 65 2½ | 82 | 65 |
| 20 3/4 | 31 | 36 | 80 3 | 95 | 71 |
| 25 1 | 38 | 43 | 100 4 | 121 | 83 |



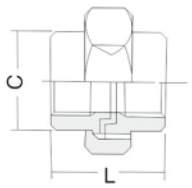
Elbow bend adapter



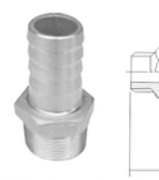

| Dimension | A | Dimension | A |
|---|---|---|---|
| 6A 1/8B | 19 | 32A 1 1/4B | 46 |
| 8 1/4 | 19 | 40 1 1/2 | 48 |
| 10 3/8 | 23 | 50 2 | 57 |
| 15 ½ | 27 | | |
| 20 3/4 | 32 | | |
| 25 1 | 3/8 | | |



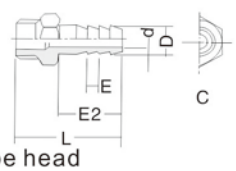
Adapter




| Dimension | C | L | Nut | Dimension | C | L | Nut |
|---|---|---|---|---|---|---|---|
| 6A 1/8 | 17 | 30 | 26(hexangular) | 32A 1 1/4B | 50 | 56 | 69(10角) |
| 8 1/4 | 20 | 34 | 32(octagonal) | 40 1 1/2 | 56 | 60 | 78(10角) |
| 10 3/8 | 25.5 | 37 | 38(octagonal) | 50 2 | 69 | 67 | 93(10角) |
| 15 ½ | 29 | 40 | 41(octagonal) | 65 2½ | 86 | 84 | 112(10角) |
| 20 3/4 | 33 | 48.5 | 50(octagonal) | 80 3 | 99 | 92 | 127(10角) |
| 25 1 | 41 | 52 | 59(decagonal) | | | | |



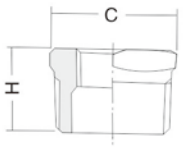
Water pipe head




| Dimension | C | L | E2 | D | d | ExNo. | Dimension | C | L | E2 | D | d | Ex数 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6A 1/8B | | | | | | | 32A 1 1/4B | | | | | | |
| 8 1/4 | 14 | 39 | 20 | 8 | 5 | 4x4 | 40 1 1/2 | 43 | 94 | 60 | 34 | 25 | 10x4 |
| 10 3/8 | 17 | 45 | 25 | 10.5 | 8 | 5x4 | 50 2 | 49 | 97 | 60 | 40.5 | 31 | 10x4 |
| 15 ½ | 22 | 53 | 30 | 14 | 11 | 6x4 | | 61 | 110 | 69 | 52.5 | 42 | 10x4 |
| 20 3/4 | 27 | 67 | 40 | 20 | 16 | 8x4 | | | | | | | |
| 25 1 | 34 | 81 | 50 | 26.5 | 22 | 10x4 | | | | | | | |



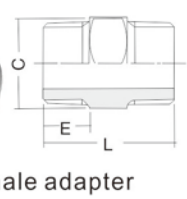
Hexangular




| Dimension | C | H | Minor diameter size | Dimension | C | H | Minor diameter size |
|---|---|---|---|---|---|---|---|
| 6A 1/8B | | | | 32A 1 1/4B | 43 | 30 | 2. 5A. 20A. 15A |
| 8 1/4 | 14 | 17 | 6A | 40 1 1/2 | 49 | 32 | 32A. 25A. 20A. 15A |
| 10 3/8 | 17 | 18 | 8A. 6A | 50 2 | 61 | 36 | 40A. 32A. 25A. 20A |
| 15 ½ | 22 | 21 | 10A. 8A. 6A | 65 2½ | 80 | 39 | 50A. 40A |
| 20 3/4 | 27 | 24 | 15A. 10A. 8A | 80 3 | 95 | 44 | 65A.50A.40A |
| 25 1 | 34 | 27 | 20A. 15A. 10A. 8A | 100 4 | 120 | 51 | 80A. 65A. 50A. 40A |

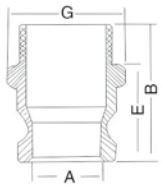


Hexangular male adapter




| Dimension | C | L | E | Dimension | C | L | E |
|---|---|---|---|---|---|---|---|
| 6A 1/8B | 12 | 28 | 10 | 32A 1 1/4B | 43 | 56 | 22 |
| 8 1/4 | 14 | 34 | 12 | 40 1 1/2 | 49 | 60 | 23 |
| 10 3/8 | 17 | 36 | 13 | 50 2 | 61 | 66 | 25 |
| 15 ½ | 22 | 42 | 16 | 65 2½ | 80 | 73 | 28 |
| 20 3/4 | 27 | 47 | 18 | 80 3 | 95 | 81 | 32 |
| 25 1 | 34 | 52 | 20 | 100 4 | 120 | 92 | 37 |

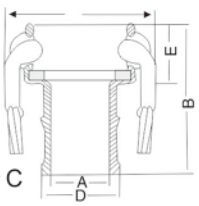





Quick-install adapter F

| DIM | ½ | 3/4 | 1 | 1–1/4 | 1–1/2 | 2 | 2–1/2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 21 | 21 | 34 | 28.5 | 36 | 45 | 56.5 | 73 | 98 | 122 | 148 |
| B | 56 | 56 | 72 | 80 | 84 | 88 | 100 | 106 | 114 | 121 | 130 |
| C | 32 | 32 | 40 | 48 | 56 | 67 | 83 | 96 | 127 | 154 | 190 |
| E | 38 | 38 | 48 | 56 | 60 | 62 | 69 | 73 | 78 | 81 | 86 |

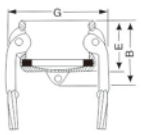





Quick-install adapter C

| DIM | ½ | 3/4 | 1 | 1–1/4 | 1–1/2 | 2 | 2–1/2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 14 | 14 | 20 | 25 | 31 | 43 | 55 | 67 | 92 | 115 | 140 |
| B | 92 | 92 | 105 | 118 | 121 | 138 | 155 | 164 | 175 | 187 | 214 |
| D | 20 | 20 | 26 | 33 | 39 | 52 | 65 | 77 | 103 | 130 | 155 |
| E | 32 | 32 | 40 | 48 | 49 | 54 | 59 | 60 | 62 | 62 | 72 |
| G | 53 | 54 | 61 | 79 | 83 | 94 | 109 | 130 | 158 | 184 | 219 |

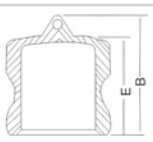





Quick-install adapterDC

| DIM | | 3/4 | 1 | 1–1/4 | 1–1/2 | 2 | 2–1/2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B | 45 | 45 | 54 | 65 | 69 | 78 | 83 | 88 | 94 | 94 | 112 |
| E | 35 | 35 | 42 | 51 | 52 | 59 | 64 | 65 | 70 | 70 | 82 |
| G | 53 | 54 | 61 | 79 | 83 | 94 | 109 | 130 | 158 | 184 | 219 |

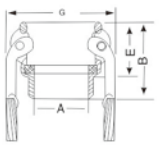





Quick-install adapterDP

| DIM | ½ | 3/4 | 1 | 1–1/4 | 1–1/2 | 2 | 2–1/2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B | 37 | 37 | 44 | 55 | 64 | 68 | 70 | 80 | 80 | 80 | 98 |
| E | 26 | 25 | 32 | 41 | 44 | 48 | 50 | 57 | 56 | 56 | 66 |

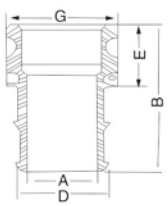





Quick-install adapterB

| DIM | ½ | 3/4 | 1 | 1–1/4 | 1–1/2 | 2 | 2–1/2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 14 | 19 | 24 | 28 | 35 | 48 | 58 | 72 | 98 | 122 | 145 |
| B | 52 | 52 | 64 | 72 | 73 | 80 | 90 | 94 | 101 | 102 | 118 |
| E | 32 | 32 | 40 | 48 | 49 | 54 | 59 | 60 | 62 | 62 | 72 |
| G | 53 | 54 | 61 | 79 | 83 | 94 | 109 | 130 | 158 | 184 | 219 |

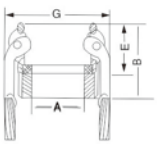





Quick-install adapter E

| DIM | ½ | 3/4 | 1 | 1–1/4 | 1–1/2 | 2 | 2–1/2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 14 | 14 | 20 | 25 | 31 | 43 | 55 | 67 | 92 | 115 | 140 |
| B | 98 | 98 | 110 | 121 | 125 | 140 | 158 | 170 | 182 | 196 | 220 |
| C | 33 | 33 | 39 | 48 | 56 | 66 | 80 | 102 | 132 | 154 | 184 |
| D | 20 | 20 | 26 | 33 | 39 | 52 | 65 | 77 | 102 | 130 | 155 |
| E | 40 | 40 | 46 | 53 | 56 | 60 | 64 | 66 | 69 | 71 | 78 |

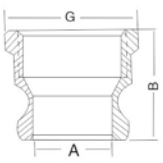





Quick-install adapter D

| DIM | ½ | 3/4 | 1 | 1–1/4 | 1–1/2 | 2 | 2–1/2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 16 | 19 | 26 | 33 | 39 | 50 | 61 | 75 | 92 | 122 | 145 |
| B | 52 | 52 | 62 | 68 | 71 | 78 | 85 | 90 | 96 | 102 | 118 |
| E | 32 | 32 | 40 | 48 | 49 | 54 | 59 | 60 | 62 | 62 | 72 |
| G | 53 | 41 | 61 | 79 | 83 | 94 | 109 | 130 | 158 | 184 | 219 |





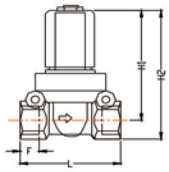

Quick-install adapter A

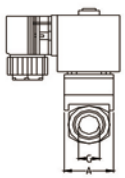
| DIM | ½ | 3/4 | 1 | 1–1/4 | 1–1/2 | 2 | 2–1/2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 16 | 21 | 24 | 28. 5 | 36 | 45 | 56. 5 | 73 | 98 | 122 | 150 |
| B | 38 | 38 | 48 | 56 | 60 | 64 | 87 | 73 | 78 | 95 | 86 |
| C | 32 | 32 | 40 | 48 | 56 | 67 | 83 | 96 | 127 | 154 | 190 |

# Solenoid Valves

## piloted two-way type



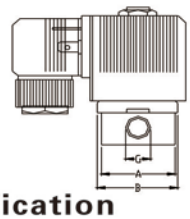


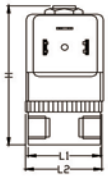


| Path | Female inlet connection | External Dimensions | | | | |
|---|---|---|---|---|---|---|
| DN | G | L | H1 | H2 | A | F |
| 4-8 | 1/4 | | | | | |
| 10 | 3/8 | 70 | 75 | 65 | 97 | 16 |
| 15 | ½ | | | | | |
| 20 | 3/4 | 91 | 96 | 117 | 56 | 16 |
| 25 | 1 | 115 | 98 | 122 | 71 | 22 |

## direct-acting two-position and 3-way type







| Path | Female inlet connection | External Dimensions | | | | |
|---|---|---|---|---|---|---|
| DN | G | L1 | L2 | H | A | B |
| 1 | 1/8-1/4 | 25 | | 56 | 20 | |
| 2 | | 32 | 34 | 67 | 32 | 34 |
| | | | 25 | 56 | | 20 |
| | | 32 | 34 | 67 | 32 | 34 |
| 3 | 1/4 | 46 | 48 | | | |
| 4 | | | | | | |
| 5 | | | | | | |

## standard specification

| Model | Dimension | Female (BSPT) Thread | Body material | Sealing material | Valve action model | Maximum pressure bar | Orifice size |
|---|---|---|---|---|---|---|---|
| Two-way type | CY-2CF-1/8 | 1/8 | Brass or stainless steel | nitrile rubber or fluorizate rubber | Direct-acting | 16 | 2 |
| | CY-2CF-1/4 | 1/4 | | | | 6 | 5 |
| | CY-2CF-3/8 | 3/8 | | | pilote type | 10 | 10 |
| | CY-2CF-1/2 | 1/2 | | | | | 15 |
| | CY-2CF-3/4 | 3/4 | | | | 16 | 20 |
| | CY-2CF-1 | 1 | | | | | 25 |
| 3-way type | CY-3CF-1/8 | 1/8 | | | Direct-acting | 16 | 1 |
| | CY-3CF-1/4 | 1/4 | | | | | 3 |

**Product application**

Electromagnetic valve is used for automatic operation system which requires switch flowing. It is widely used in the corollary equipment of air compressor, bottle blowing machine, fire safety, stage equipment, Food processor, cleaning equipment, ordnance equipment, petrochemical equipment, machinofacture as well as other autocontrol equipment of related industry.

**Design Features**

Electromagnetic valve, with a structure of piston, is durable, hasing a compect and fine design. It is also low-temparature and noiseless, leakless, gleg and high frequency. As the medium has impurities,the filter should be install in front of the valve,(mesh 82mesh/m2).then it would not solidify and crystallize. The piston is usually close. Between 5 oC to90 oC, it can be safely used in air and liquid channel. The material of the valve can be stainless steel and brass. The sealing element can be nitrile rubber or fluorizate rubber. The action model can be direct-acting, multiple step acting and pilote type. The connection type can be two-way type and two-position-and-three-way type

**Choosing requirements**

If you haven't decide the model, please offer relative parameter for us, like inside nominal diameter, tpye of medium, operating pressure, voltage rating connection style, installation way, medium temparature, environmental temparature, valve material, and other specific function such as normal open or normal close,signal feedback or non-return, hand priming device, viscosity and corrosivity of the medium.

**Choosing considerations**

一、According to the parameter of channel: DN and way of connection

- with reference to the diameter and the flow rate of the practical channel to decide DN
- normally choosing flanged joint when it is lager than DN50, otherwise it can be freely chosen by customers.

二、According to the parameter of fluid: material and temparature group.

- corrosive fluid: choosing corrosive magnatic valve and that of fully-made by stailess steel. Edible superclean fluid: choosing magnatic valve made by edible grade stailess steel
- high-temparature fluid: choosing the piston-type magnatic valve made by high temperature resistance material and sealing material
- fluid state: normally has gaseity, liquid and mixed state, please distinguishing when you order
- fluid viscosity: usually can be randomly chosen the the viscosity is below 50ost, otherwise you shoud choose high viscosity magnatic valve.

三、According to the parameter of pressure: principle and structure

- nominal pressure :this parameter is the same as other definition of common valve which is set by the nominal pressure of the channel.
- operating pressure: if it is low, then you must choose direct-acting or multiple step acting type. When the differential pressure is more than 0.04mpa, all types can be used.

四、Electric chosen: voltage specification should be AC220V or DC24 which is more convenient.

五、According to the length of working hours: normal close, nomal open or sustainable electrified.

- when the magnatic valve should be opened for a long time and seldome closed, normal open type should be chosen.
- if the duration is short and not opened frequently, normal close type should be chosen.
- sometime when it is used for safeguards, like monitoring the stove and fire, then it can be chosen as nomal open type, but the long term current carrying type.

# Liquid Filter

To1-PP



Polypropylene strainer body and strainer head, 10 bar,1/2 inch-3/4 inch NPT or BSPT(inner)

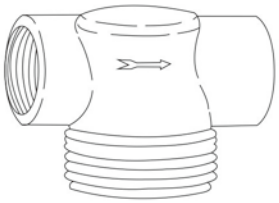
To2-PC



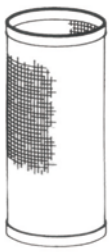
Polycarbonate strainer body and Polypropylene strainer head, 10 bar,1/2 inch-3/4 inch NPT or BSPT(inner)

Liquid filter





Polypropylene filter head



The framework of polypropylene with stainless steel mesh filter with a variety of sizes

## Design features

To1 type water filter ideal for small container under medium pressure .

To1-PP type has polypropylene strainer body and strainer head,so it's unattackable and chemical resistant

Both of their strainer body can be taken down by hand.The size of their strainer are various.

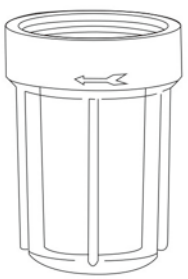
The maximum pressure of 1/2 type strainers is 10 bar.They have inlet connection whose size is 1/2 inch or 3/4 inch NPT or BSPT(inner).

To2-PC type has polypropylene strainer head and transparent polycarbonate strainer body which is resistant to ultraviolet radiation,so that it's convenient to check-up inner strainer by eye.

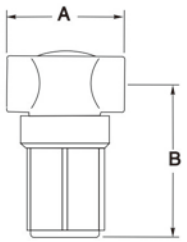
| Strainer porthole | |
|---|---|
| Mesh size | Porthole size |
| 16 | 1.1mm |
| 30 | 0.53mm |
| 50 | 0.28mm |
| 80 | 0.18mm |
| 100 | 0.15mm |
| 200 | 0.08mm |



Second propylene rubber Seal circle



Polypropylene strainer body




## Dimension and weight

| Strainer type | Inlet joint NPT or BSPT (female) | Crust material | Strainer | | | | | Size | | Net Weight (KG) | Approximate flow rate when the pressure is reduced by 0.35 bar |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Single strengthenn mesh | Strainer | Total area | Open space | | A(mm) | B(mm) | | |
| | | | | | | Main-cm | By intake acreage | | | | |
| To1-1/2-PP | ½ | Polypropylene | 16 | 16nets-1-304SS | 49.7 | 25 | 13 | 79 | 92 | 0. 1 | 45 |
| | | | 30 | 30nets-2-304SS | | 20 | 10. 5 | | | | |
| | | | 50 | 50nets-3-304SS | | 15 | 7. 7 | | | | |
| To2-1/2-PC | | Polycarbonate | 80 | 80nets-4-304SS | | 15.5 | 8. 0 | | | | |
| | | | 100 | 100nets-5-304SS | | 15.4 | 8. 0 | | | | |
| | | | 200 | 200nets-7-304SS | | 16.4 | 8. 5 | | | | |
| To1-3/4-PP | 3/4 | Polypropylene | 16 | 16nets-1-304SS | | 25 | 13 | | | | 60 |
| | | | 30 | 30nets-2-304SS | | 20 | 10. 5 | | | | |
| | | | 50 | 50nets-3-304SS | | 15 | 7. 7 | | | | |
| To2-3/4-PC | | Polycarbonate | 80 | 80nets-4-304SS | | 15.5 | 8. 0 | | | | |
| | | | 100 | 100nets-5-304SS | | 15.4 | 8. 0 | | | | |
| | | | 200 | 200nets-7-304SS | | 16.4 | 8. 5 | | | | |

## Ordering info

**CYT01 —— 1/2 —— PP —— 50**

- CYT01: Strainer type
- 1/2: Entrance Exit size
- PP: Material code
- 50: Strainer size

# Y Shape Liquid Strainer

Y shape thread-connection



Y shape flanged connection



product features

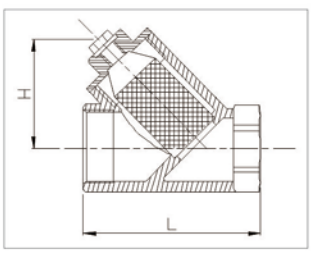
The strainer inside is made of stainless steel which is double decked, it is very durable. It also has the features of advanced structure, large flow area, small flow resistance, easy blowdown and soon. It can be used in water, steam, oil, nitric acid and other corrosive liquids. Our clients can set the mesh number according to their requirement. Normoally, the mesh number of hydrographic net is 18-30, and that of aeration net is 100-480.It is one of the necessary device which are used for conveying fluid. It is usually installed in the entrance end of hydraulic control valve, reducing valve, relief valve, definite-level valve and so on, which is used to remove the impurities from the medium and prevent the particulate medium from entering and blocking the channel. So it can keep the parts that are in the channel not being worn away and jammed.

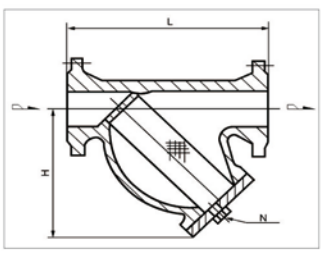
Application range

It is applied to steam, air, water, oil and other duct system, protecting various devices such as metrologic instrument, pump, valve and all kinds of spray nozzles. When washing it, it is easy and convenient that take the withdrawable filter cartridge out, cleaning the medium on it, and reinstalling it again.

technical parameter

| | | | |
|---|---|---|---|
| Hard surface material | Brass/SS | Way of connection | Threads. Flange |
| frame and mesh material | Stainless steel | nominal pressure(Mpa) | 0.6~5.0 |
| sealing element material | flexible graphite, polyfluortetraethylene | filter fineness( mesh/in) | 10~300 |
| environmental temparature | –30~400 | | |




Dimension

| Inside nominal diameter | Screw threads | Dimension L | Dimension H |
|---|---|---|---|
| 6 | 1/4 | 63. 5 | 42 |
| 10 | 3/8 | 64 | 42 |
| 15 | 1/2 | 65 | 43 |
| 20 | 3/4 | 80 | 50 |
| 25 | 1 | 89 | 60 |
| 32 | 1–1/4 | 107 | 64 |
| 40 | 1–1/2 | 118 | 70 |
| 50 | 2 | 140 | 88 |
| 65 | Flange 2-1/2 inch | 260 | 165 |
| 80 | Flange 3 inch | 280 | 195 |
| 100 | Flange 4 inch | 320 | 230 |
| 125 | Flange 5 inch | 350 | 300 |
| 150 | Flange 6inch | 380 | 335 |

**Ordering info**

**Y1/2 —— SS —— 30**

- Y1/2 — Model and thread connection size
- SS — Materials
- 30 — Mesh number

# Pressure Gauge

## Common type




## Stainless steel aseismatic type




## Design Features

This watch joint and its accessory which contact liquid are all made of brass, it use for test copper and copper-alloy non-caustic, non-volatile, non-crystal, non-deposit gas or liquid pressure. This watch when it is working, it work place should plumb installation, loading steady, plus or minus loading should even, surrounding environment temperature is 20 + 5 C. (if use temperature departure 20+/-5 C. the temperature error less than 0.4% 10℃

| Model | Outer dia | Measuring range | Accuracy grade | Join t thread |
|---|---|---|---|---|
| Y40 | ϕ40 | 0.6,1,1.6,2.5,4,6 | 2. 5 | M10x1 |
| Y60 | ϕ60 | 0.6,1,1.6,2.5,4 6,10,16,25,40 60,100 | 2. 5 | M10X1或M14x1.5 |
| Y100 | ϕ100 | | 1. 6 | M20x1.5 |
| Y150 | ϕ150 | | 1. 6 | M20x1.5 |
| Y200 | ϕ200 | | 1. 6 | M20x1.5 |
| Y250 | ϕ250 | | 1. 6 | M20x1.5 |

## Design Features

This watch was close structures and the housing was whole stainless steel, it efficient protect the inner accessory avoid the environment effect and dirtiness inrush, for the watch which fill liquid (As, silicon oil and glycerin) in the housing, it can resist the work environment shake and reduce the pulsant impact of medium pressure. It is extensive use for industry department of oil, chemical industry, chemical fiber, metallurgy, electricity station etc. it is aim at endure erodent, aseismatic -those special craftwork process measure the pressure of all kinds of liquid material.

| Model | Outer dia | Measuring range | Accuracy grade | Join thread |
|---|---|---|---|---|
| Y60 | ϕ60 | 0.6,1,1.6,2.5,4 6,10,16,25,40 60 | 2. 5 | M10x1 orG1/4 |
| Y100 | ϕ100 | | 1. 6 | M20X1.5 orG1/2 |
| Y150 | ϕ150 | | 1. 6 | M20x1.5 orG1/2 |

