

FULFIL TECHNOLOGY FOR THE BEST SOLUTIONS



NOZZLES FOR PULP AND PAPER

กระบวนการผลิตเยื่อและกระดาษที่ใช้หัวสเปรย์

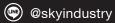








| MODEL | THREADS | MATERIAL |
|------------------------|----------------|---|
| ITF SERIES | 3/8 | Stainless 303 from japan |
| SELF-CLEANING NOZZLE | 1/2, 3/4 | Stainless steel (JIS SUS303 or SUS316) |
| SIDE SPRAY NOZZLES | 1/8 , 1/4, 3/8 | Stainless steel (JIS SUS303 or SUS316) |
| FLAT SPRAY NOZZLES | 1/4, 3/8 | Stainless steel (Standard material : JIS SUS303) |
| CAT'S-EYE NOZZLES | 1/4, 3/8 | Stainless steel (Standard material : JIS SUS303) |
| FLAT ATOMIZING NOZZLES | 1/4 | Stainless steel (Standard material : JIS SUS303) |





Itf Series





FEATURES

- · uniform flat distribution
- · orifice inside the pipe to prevent foreing
- · matter from staying on the orifice
- resistant to clogging and easy to clean
- easy to remove for Maintenance service type

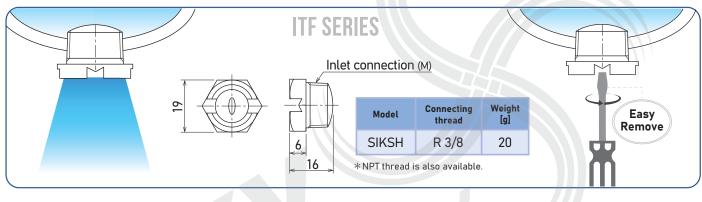
MATERIAL

• Materials Stainless 303 from japan

APPLICATIONS

- Steel Plant / Paper Plant / Other
- Washing & Cleaning of Felts, wire shower Spray
- Cooling

SHAPES AND DIMENSION



ITF SERIES

Males thread 3/8 PT standard







C

Model number

STANDARD TYPE MODEL NUMBER LIST

| Inlet connection | Mode number | Minimum orifice diameter | | Flow rate [L/min] at following pressure [MPa] | | | | | | | |
|------------------|----------------|--------------------------------|------|---|------|-----|--|--|--|--|--|
| | | [mm] | 0.2 | 0.3 | 0.7 | 0.3 | | | | | |
| | 0450 | 1.2 | 2.1 | 4 | 6.1 | 50° | | | | | |
| | 0550 | 1.3 | 3.4 | 5 | 7.6 | 50° | | | | | |
| | 0650 | 1.3 | 4 | 6 | 9.2 | 50° | | | | | |
| 3/8 | 0750 | 1.4 | 4.7 | 7 | 10.7 | 50° | | | | | |
| 3/6 | 0850 | 1.5 | 5.4 | 8 | 12.2 | 50° | | | | | |
| | 1050 | 1.6 | 6.7 | 10 | 15.3 | 50° | | | | | |
| | 1370 | 1.7 | 8.7 | 13 | 19.8 | 70° | | | | | |
| | 2070 | 2.2 | 13.4 | 20 | 30.5 | 70° | | | | | |





Self - Cleaning Nozzles





FEATURES

Even if the nozzle orifice is blocked with foreign matter, the orifice can open wider by the reduction in spray pressure to 0.03 MPa, hence blockages can be remove without detaching clogging by water quality.

MATERIAL

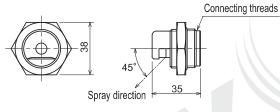
Stainless steel (JIS SUS303 or SUS316)

APPLICATIONS

- Cleaning wire and felts.
- Cleaning wire roll and press roll.
- · Cleaning by the equipment which is difficult to de-installation.

SHAPES AND DIMENSION

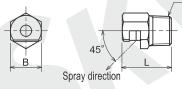
Straight pattern (straight threaded type)



| Model | Connecting threads | Weight (g) |
|-------|------------------------------------|------------|
| SCJ | $G^{3}/_{4}$ ϕ 28, 20 threads | 130 |

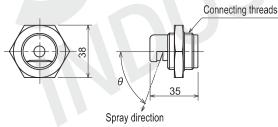
Straight pattern (taper threaded type)





| Model | Dimens | ion (mm) | Connecting | Weight |
|---------------------------------|--------|----------|-------------------------------|--------|
| Model | В | L | threads | (g) |
| 1/2 SCJ | 22 | 35 | R ¹ / ₂ | 75 |
| ³ / ₄ SCJ | 27 | 35 | R ³ /4 | 120 |
| | | | | |

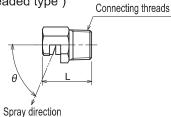
Flat pattern (straight threaded type)



| Model | Connecting threads | Weight (g) |
|-------|--------------------|------------|
| SCF | $G^{3/4}$ | 130 |

Flat pattern (taper threaded type)





| Model | Dimensi | on (mm) | Connecting | Weight |
|---------|---------|---------|-------------------------------|--------|
| Model | В | L | threads | (g) |
| ½ SCF | 22 | 35 | R ¹ / ₂ | 75 |
| 3/4 SCF | 27 | 35 | R ³ /4 | 120 |

- Spray direction within 70-85 degree.
- Maximum flow rate 6 ℓ /min at 0.3 MPa for thread size 1/2. Thread size 3/4 is for more flow rate.

NPT thread is a solavailable





Self - Cleaning Nozzles

Model and Model number representing

STRAIGHT THREADED TYPE

TAPER THREADED TYPE

J-straight pattern type F-flat pattern type

Model number

Connecting threads G3/4 - JIS G threaded No symbol - ϕ 28, 20 threads

Connecting threads

J-straight pattern type F-flat pattern type

Model number

STANDARD TYPE MODEL NUMBER LIST

| | | Equivalent orifice | | Flow rate (ℓ/min) at following pressure (MPa) | | | | | | | | | | |
|-------|-------------------------|--------------------|------|--|------|------------|----------|-----------|----------|----------|-------|------|------|---------------------------|
| Model | Mode l number | diameter (mm) | | | Flow | / rate (l | //min) a | it follow | ing pres | ssure (N | (IPa) | | | Spray angle at 0.3 MPa |
| | | (11111) | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | 1 | 2 | 3 | 4 | 5 | |
| | 0.5 | 0.5 | 0.16 | 0.23 | 0.28 | 0.32 | 0.37 | 0.43 | 0.52 | 0.73 | 0.90 | 1.04 | 1.16 | _ |
| | 0.6 | 0.6 | 0.24 | 0.33 | 0.41 | 0.47 | 0.53 | 0.63 | 0.75 | 1.06 | 1.30 | 1.50 | 1.68 | _ |
| | 0.7 | 0.7 | 0.32 | 0.46 | 0.56 | 0.65 | 0.72 | 0.85 | 1.02 | 1.45 | 1.77 | 2.0 | 2.3 | _ |
| SCJ | 8.0 | 0.8 | 0.42 | 0.60 | 0.73 | 0.84 | 0.94 | 1.12 | 1.33 | 1.89 | 2.3 | 2.7 | 3.0 | _ |
| 303 | 0.9 | 0.9 | 0.56 | 0.80 | 0.98 | 1.13 | 1.26 | 1.49 | 1.78 | 2.5 | 3.1 | 3,6 | 4.0 | _ |
| | 1.0 | 1.0 | 0.66 | 0.93 | 1.14 | 1.31 | 1.47 | 1.74 | 2.1 | 2.9 | 3.6 | 4.2 | 4.6 | _ |
| | 1.2 | 1.2 | 0.95 | 1.34 | 1.64 | 1.90 | 2.1 | 2.5 | 3.0 | 4.2 | 5.2 | 6.0 | 6.7 | _ |
| | 1.5 | 1.5 | 1.48 | 2.1 | 2.6 | 3.0 | 3.3 | 3.9 | 4.7 | 6.6 | 8.1 | 9.4 | 10.5 | _ |
| | 0215 | 1.3 | 1.15 | 1.63 | 2.0 | 2.3 | 2.6 | 3.1 | 3.7 | _ | _ | _ | _ | 15° |
| | 0240 | 1.3 | 1.15 | 1.63 | 2.0 | 2.3 | 2.6 | 3.1 | 3.7 | _ | _ | _ | _ | 40° |
| | 0280 | 1.3 | 1.15 | 1.63 | 2.0 | 2.3 | 2.6 | 3.1 | 3.7 | _ | _ | _ | _ | 80° |
| | 02130 | 1.3 | 1.15 | 1.63 | 2.0 | 2.3 | 2.6 | 3.1 | 3.7 | _ | _ | _ | _ | 130° |
| | 0415 | 1.9 | 2.3 | 3.3 | 4.0 | 4.6 | 5.2 | 6.1 | 7.3 | _ | _ | _ | _ | 15° |
| | 0440 | 1.9 | 2.3 | 3.3 | 4.0 | 4.6 | 5.2 | 6.1 | 7.3 | _ | _ | _ | _ | 40° |
| | 0480 | 1.9 | 2.3 | 3.3 | 4.0 | 4.6 | 5.2 | 6.1 | 7.3 | _ | _ | _ | _ | 80° |
| | 04130 | 1.9 | 2.3 | 3.3 | 4.0 | 4.6 | 5.2 | 6.1 | 7.3 | _ | _ | _ | _ | 130° |
| | 0615 | 2.3 | 3.5 | 4.9 | 6.0 | 6.9 | 7.7 | 9.2 | 11.0 | _ | _ | _ | _ | 15° |
| | 0640 | 2,3 | 3.5 | 4.9 | 6.0 | 6.9 | 7.7 | 9.2 | 11.0 | _ | _ | _ | _ | 40° |
| | 0680 | 2.3 | 3.5 | 4.9 | 6.0 | 6.9 | 7.7 | 9.2 | 11.0 | _ | _ | _ | _ | 80° |
| | 06130 | 2.3 | 3.5 | 4.9 | 6.0 | 6.9 | 7.7 | 9.2 | 11.0 | _ | _ | _ | _ | 130° |
| SCF | 1015 | 3.0 | 5.8 | 8.2 | 10.0 | 11.5 | 12.9 | 15.3 | 18.3 | _ | _ | _ | _ | 15° |
| | 1040 | 3.0 | 5.8 | 8.2 | 10.0 | 11.5 | 12.9 | 15.3 | 18.3 | _ | _ | _ | _ | 40° |
| | 1080 | 3.0 | 5.8 | 8.2 | 10.0 | 11.5 | 12.9 | 15.3 | 18.3 | _ | _ | _ | _ | 80° |
| | 10130 | 3.0 | 5.8 | 8.2 | 10.0 | 11.5 | 12.9 | 15.3 | 18.3 | _ | _ | _ | _ | 130° |
| | 1415 | 3.5 | 8.1 | 11.4 | 14.0 | 16.2 | 18.1 | 21.4 | 25.6 | _ | _ | _ | _ | 15° |
| | 1440 | 3.5 | 8.1 | 11.4 | 14.0 | 16.2 | 18.1 | 21.4 | 25.6 | _ | _ | _ | _ | 40° |
| | 1480 | 3.5 | 8.1 | 11.4 | 14.0 | 16.2 | 18.1 | 21.4 | 25.6 | _ | _ | _ | _ | 80° |
| | 14130 | 3.5 | 8.1 | 11.4 | 14.0 | 16.2 | 18.1 | 21.4 | 25.6 | _ | _ | _ | _ | 130° |
| | 1815 | 4.0 | 10.4 | 14.7 | 18.0 | 20.8 | 23.2 | 27.5 | 32.9 | _ | _ | _ | _ | 15° |
| | 1840 | 4.0 | 10.4 | 14.7 | 18.0 | 20.8 | 23.2 | 27.5 | 32.9 | _ | _ | _ | _ | 40° |
| | 1880 | 4.0 | 10.4 | 14.7 | 18.0 | 20.8 | 23.2 | 27.5 | 32.9 | _ | _ | _ | _ | 80° |
| | 18130 | 4.0 | 10.4 | 14.7 | 18.0 | 20.8 | 23.2 | 27.5 | 32.9 | _ | _ | _ | _ | 130° |





Side Spray Nozzles





FEATURES

- · Wide spray angle.
- · Simple structure for resistance to clogging.
- · No spraying interference by alternant layout of standard type and long type

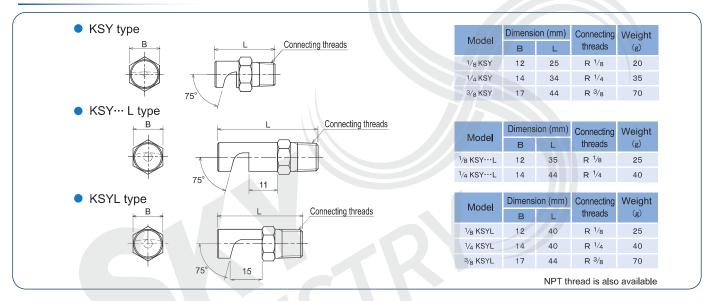
MATERIAL

Stainless steel (standard material: JIS SUS303)

APPLICATIONS

- Steel Plant / Paper Plant / Other
- Washing & Cleaning of Felts, wire shower Spray

SHAPES AND DIMENSION







Model and Model number representing

Connecting

Model

10

material threads S-stainless steel

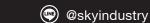
number

STANDARD TYPE MODEL NUMBER LIST

: Model availability

| Connecting threads | | Model Key L Keyl | | | Minimum orifice dia. | | Flow rat | te (ℓ/min |) at follov | ving pres | sure (MPa | a) | Spray pres | angle at follo ssure (MPa) | wing |
|--------------------|-----|------------------|------|--------|----------------------|------|----------|-----------|-------------|-----------|-----------|------|---------------|-------------------------------|--------|
| uneaus | KSY | KSY…L | KSYL | number | (mm) | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | 1.0 | 0.1 | 0.3 | 1.0 |
| | • | • | • | 01 | 1.1 | 0.58 | 0.82 | 1.00 | 1.15 | 1.29 | 1.53 | 1.83 | 127° | 140° | 148° |
| 1/ | • | • | • | 015 | 1.2 | 0.87 | 1.22 | 1.50 | 1.73 | 1.94 | 2.3 | 2.7 | 127° | 140° | 148° |
| 1/8 | • | • | • | 02 | 1.4 | 1.15 | 1.63 | 2.0 | 2.3 | 2.6 | 3.1 | 3.7 | 128° | 140° | 147° |
| | • | • | • | 03 | 1.7 | 1.73 | 2.4 | 3.0 | 3.5 | 3.9 | 4.6 | 5.5 | 128° | 140° | 147° |
| | • | • | • | 04 | 2.0 | 2.3 | 3.3 | 4.0 | 4.6 | 5.2 | 6.1 | 7.3 | 128° | 140° | 147° |
| | • | • | • | 06 | 2.4 | 3.5 | 4.9 | 6.0 | 6.9 | 7.7 | 9.2 | 11.0 | 128° | 140° | 147° |
| 1/4 | • | • | • | 80 | 2.9 | 4.6 | 6.5 | 8.0 | 9.2 | 10.3 | 12.2 | 14.6 | 128° | 140° | 147° |
| , , | • | • | • | 10 | 3.1 | 5.8 | 8.2 | 10.0 | 11.5 | 12.9 | 15.3 | 18.3 | 128° | 140° | 147° |
| | • | • | • | 15 | 3.9 | 8.7 | 12.2 | 15.0 | 17.3 | 19.4 | 22.9 | 27.4 | 128° | 140° | 147° |
| | • | | • | 20 | 4.4 | 11.5 | 16.3 | 20.0 | 23.1 | 25.8 | 30.6 | 36.5 | 130° | 140° | 146° |
| 3/8 | • | | • | 25 | 4.9 | 14.4 | 20.4 | 25.0 | 28.9 | 32.3 | 38.2 | 45.6 | 130° | 140° | 146° |
| ('0 | • | | • | 30 | 5.4 | 17.3 | 24.5 | 30.0 | 34.6 | 38.7 | 45.8 | 54.8 | 130° | 140° | 146° / |

- In general, in the case of using white water, it is said to be lower incidence rate of clogging by using nozzle with orifice diameter more than 3mm.
- Long nose type is relatively easy maintenance structure.







Flat Spray Nozzles





FEATURES

- · Simple structure for resistance to clogging.
- High impact force and large size droplets.

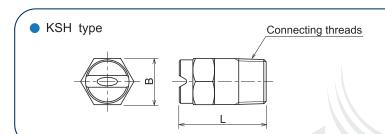
MATERIAL

• Stainless steel (standard material : JIS SUS303)

APPLICATIONS

- · Sheet knock shower, doctor shower
- · Cleaning for rolls or screens.

SHAPES AND DIMENSION



| Model | Dimensi | on (mm) | Connecting | Weight |
|---------------------------------|---------|---------|------------|--------|
| Model | В | L | threads | (g) |
| 1/4 KSH | 14 | 25 | R 1/4 | 25 |
| ³ ∕ ₈ KSH | 17 | 32 | R 3/8 | 45 |

NPT thread is also available

FLAT SPRAY NOZZLES

Model and Model number representing







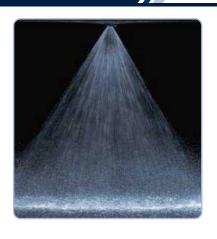
STANDARD TYPE MODEL NUMBER LIST

| Connecting | Model number | Minimum orifice diameter | | Flow rate (ℓ /min) at following pressure (MPa) | | | | | | | | Spray angle at following pressure (MPa) | | | | | |
|------------|-----------------|--------------------------|------|--|------|------|------|------|------|------|-----|---|-----|-----|-----|-----|--|
| | | (mm) | 0.05 | 0.1 | 0.2 | 0.3 | 0.5 | 0.7 | 1.0 | 1.5 | 0.1 | 0.2 | 0.3 | 0.5 | 1.0 | 1.5 | |
| | 0465 | 1.3 | 1.63 | 2.3 | 3.3 | 4.0 | 5.2 | 6.1 | 7.3 | 8.9 | 54° | 61° | 65° | 69° | 72° | 72° | |
| | 0480 | 1.1 | 1.63 | 2.3 | 3.3 | 4.0 | 5.2 | 6.1 | 7.3 | 8.9 | 67° | 75° | 80° | 85° | 88° | 88° | |
| | 0865 | 2.0 | 3.3 | 4.6 | 6.5 | 8.0 | 10.3 | 12.2 | 14.6 | 17.9 | 56° | 62° | 65° | 68° | 71° | 71° | |
| | 0880 | 1.7 | 3.3 | 4.6 | 6.5 | 8.0 | 10.3 | 12.2 | 14.6 | 17.9 | 68° | 76° | 80° | 84° | 86° | 86° | |
| 1/4 | 1065 | 2.3 | 4.1 | 5.8 | 8.2 | 10.0 | 12.9 | 15.3 | 18.3 | 22.4 | 56° | 62° | 65° | 68° | 70° | 70° | |
| '4 | 1080 | 2.0 | 4.1 | 5.8 | 8.2 | 10.0 | 12.9 | 15.3 | 18.3 | 22.4 | 70° | 77° | 80° | 83° | 85° | 85° | |
| | 1565 | 3.0 | 6.1 | 8.7 | 12.2 | 15.0 | 19.4 | 22.9 | 27.4 | 33.5 | 56° | 62° | 65° | 68° | 70° | 70° | |
| | 1580 | 2.5 | 6.1 | 8.7 | 12.2 | 15.0 | 19.4 | 22.9 | 27.4 | 33.5 | 70° | 77° | 80° | 83° | 85° | 85° | |
| | 3065 | 4.2 | 12.2 | 17.3 | 24.5 | 30.0 | 38.7 | 45.8 | 54.8 | 67.1 | 57° | 62° | 65° | 68° | 70° | 70° | |
| | 3080 | 4.0 | 12.2 | 17.3 | 24.5 | 30.0 | 38.7 | 45.8 | 54.8 | 67.1 | 72° | 77° | 80° | 83° | 85° | 85° | |
| | 3565 | 4.6 | 14.3 | 20.2 | 28.6 | 35.0 | 45.2 | 53.5 | 63.9 | 78.3 | 57° | 62° | 65° | 68° | 70° | 70° | |
| 3/ | 3580 | 4.4 | 14.3 | 20.2 | 28.6 | 35.0 | 45.2 | 53.5 | 63.9 | 78.3 | 72° | 77° | 80° | 83° | 85° | 85° | |
| 3/8 | 4065 | 5.0 | 16.3 | 23.1 | 32.7 | 40.0 | 51.6 | 61.1 | 73.0 | 89.4 | 57° | 62° | 65° | 68° | 70° | 70° | |
| | 4080 | 4.8 | 16.3 | 23.1 | 32.7 | 40.0 | 51.6 | 61.1 | 73.0 | 89.4 | 72° | 77° | 80° | 83° | 85° | 85° | |





Cat' S-eye Nozzles





FEATURES

- Minimum projection when installed on header. Useful for the very short spray distance or limited connecting space.
- Resistant to clogging due to an almost circular orifice section with an increased minimum orifice diameter.

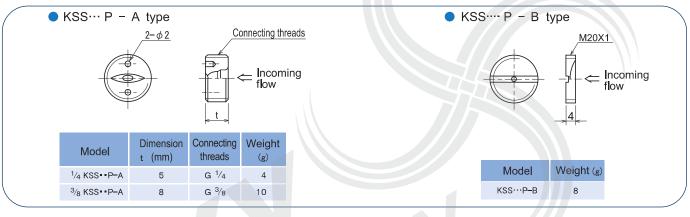
MATERIAL

• Stainless steel (standard material : JIS SUS303)

APPLICATIONS

- For wetting and low-pressure shower of Wire and Felt roll.
- · Inner washing of Suction Roll.

SHAPES AND DIMENSION



CAT' S-EYE NOZZLES

Model and Model number representing





number

P - A

STANDARD TYPE MODEL NUMBER LIST

■ : Model availability

| Connecting threads | Mo KSS | de l KSS | Model | Minimum Orifice dia. | | F l ow r | ate (ℓ/m | in) at fo ll d | Pa) | Spray angle at following pressure (MPa) | | | | | |
|--------------------|-----------|--------------------|--------|-------------------------|------|-----------------|----------|-----------------------|------|---|------|-----|-----|-----|-----|
| (P-A type) | P-A | P-B | number | (mm) | 0.05 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | 0.1 | 0.2 | 0.3 | 0.5 |
| | • | • | 00865 | 1.0 | 0.33 | 0.46 | 0.65 | 0.80 | 0.92 | 1.03 | 1.22 | 43° | 59° | 65° | 69° |
| | • | • | 0165 | 1.1 | 0.41 | 0.58 | 0.82 | 1.00 | 1.15 | 1.29 | 1.53 | 43° | 59° | 65° | 69° |
| | • | • | 0265 | 1.5 | 0.82 | 1.15 | 1.63 | 2.0 | 2.3 | 2.6 | 3.1 | 43° | 59° | 65° | 69° |
| | • | • | 0365 | 1.9 | 1.22 | 1.73 | 2.4 | 3.0 | 3.5 | 3.9 | 4.6 | 47° | 60° | 65° | 68° |
| | • | • | 0395 | 1.8 | 1.22 | 1.73 | 2.4 | 3.0 | 3.5 | 3.9 | 4.6 | 83° | 92° | 95° | 98° |
| 1/4 | • | • | 0565 | 2.5 | 2.0 | 2.9 | 4.1 | 5.0 | 5.8 | 6.5 | 7.6 | 47° | 60° | 65° | 68° |
| /4 | • | • | 0595 | 2.4 | 2.0 | 2.9 | 4.1 | 5.0 | 5.8 | 6.5 | 7.6 | 83° | 92° | 95° | 98° |
| | • | • | 0765 | 3.0 | 2.9 | 4.0 | 5.7 | 7.0 | 8.1 | 9.0 | 10.7 | 52° | 61° | 65° | 68° |
| | • | • | 0795 | 2.9 | 2.9 | 4.0 | 5.7 | 7.0 | 8.1 | 9.0 | 10.7 | 88° | 93° | 95° | 98° |
| | • | • | 1065 | 3.5 | 4.1 | 5.8 | 8.2 | 10.0 | 11.5 | 12.9 | 15.3 | 52° | 61° | 65° | 68° |
| | • | • | 1095 | 3.3 | 4.1 | 5.8 | 8.2 | 10.0 | 11.5 | 12.9 | 15.3 | 88° | 93° | 95° | 98° |
| | • | • | 1265 | 3.8 | 4.9 | 6.9 | 9.8 | 12.0 | 13.9 | 15.5 | 18.3 | 52° | 61° | 65° | 68° |
| | • | • | 1295 | 3.6 | 4.9 | 6.9 | 9.8 | 12.0 | 13.9 | 15.5 | 18.3 | 88° | 93° | 95° | 98° |
| | • | • | 1565 | 4.3 | 6.1 | 8.7 | 12.2 | 15.0 | 17.3 | 19.4 | 22.9 | 52° | 61° | 65° | 68° |
| 3/ | • | | 1595 | 4.1 | 6.1 | 8.7 | 12.2 | 15.0 | 17.3 | 19.4 | 22.9 | 88° | 93° | 95° | 98° |
| 3/8 | • | • | 1965 | 4.8 | 7.8 | 11.0 | 15.5 | 19.0 | 21.9 | 24.5 | 29.0 | 52° | 61° | 65° | 68° |
| | • | | 1995 | 4.6 | 7.8 | 11.0 | 15.5 | 19.0 | 21.9 | 24.5 | 29.0 | 88° | 93° | 95° | 98° |





Flat Atomizing Nozzles



SHAPES AND DIMENSION



FEATURES

- · Soft spraying of fine droplets.
- Simple structure and easy maintenance.

AS

· Many flow rate are obtainable by interchanging nozzle tip.

MATERIAL

• Stainless steel (standard material : JIS SUS303)

APPLICATIONS

- · Cleaning for gate roll.
- · Humidity regulation.



FLAT ATOMIZING NOZZLES

Model and Model number representing

1/4 Connecting threads

1080 Model number

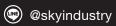
STANDARD TYPE MODEL NUMBER LIST

| Connecting threads | Model number | Minimum orifice diameter | | Flow rat | e (ℓ /mir | n) at follow | wing pres | ssure (M | Pa) | spray angle at following pressure (MPa) | | | | | Filter mesh |
|--------------------|-----------------|--------------------------------|-------|----------|-----------------|--------------|-----------|----------|------|---|-----|-----|-----|-----|-------------|
| unoddo | | (mm) | 0.1 | 0.2 | 0.3 | 0.5 | 0.7 | 1.0 | 1.5 | 0.1 | 0.3 | 0.5 | 1.0 | 1.5 | |
| | 00240 | 0.3 | 0.115 | 0.163 | 0.20 | 0.26 | 0.31 | 0.37 | 0.45 | 14° | 40° | 52° | 57° | 57° | |
| | 00250 | 0.3 | 0.115 | 0.163 | 0.20 | 0.26 | 0.31 | 0.37 | 0.45 | 30° | 50° | 61° | 67° | 67° | 200 |
| | 00265 | 0.25 | 0.115 | 0.163 | 0.20 | 0.26 | 0.31 | 0.37 | 0.45 | 43° | 65° | 75° | 82° | 82° | 200 |
| | 00280 | 0.25 | 0.115 | 0.163 | 0.20 | 0.26 | 0.31 | 0.37 | 0.45 | 56° | 80° | 87° | 92° | 92° | |
| | 00340 | 0.4 | 0.173 | 0.24 | 0.30 | 0.39 | 0.46 | 0.55 | 0.67 | 20° | 40° | 50° | 55° | 55° | |
| | 00350 | 0.3 | 0.173 | 0.24 | 0.30 | 0.39 | 0.46 | 0.55 | 0.67 | 35° | 50° | 59° | 64° | 64° | 200 |
| | 00365 | 0.3 | 0.173 | 0.24 | 0.30 | 0.39 | 0.46 | 0.55 | 0.67 | 45° | 65° | 74° | 80° | 80° | 200 |
| | 00380 | 0.3 | 0.173 | 0.24 | 0.30 | 0.39 | 0.46 | 0.55 | 0.67 | 58° | 80° | 86° | 90° | 90° | |
| | 00440 | 0.5 | 0.23 | 0.33 | 0.40 | 0.52 | 0.61 | 0.73 | 0.89 | 25° | 40° | 48° | 52° | 52° | |
| | 00450 | 0.4 | 0.23 | 0.33 | 0.40 | 0.52 | 0.61 | 0.73 | 0.89 | 38° | 50° | 57° | 61° | 61° | 100 |
| 1/4 | 00465 | 0.4 | 0.23 | 0.33 | 0.40 | 0.52 | 0.61 | 0.73 | 0.89 | 47° | 65° | 73° | 78° | 78° | 100 |
| '74 | 00480 | 0.4 | 0.23 | 0.33 | 0.40 | 0.52 | 0.61 | 0.73 | 0.89 | 60° | 80° | 86° | 90° | 90° | |
| | 00640 | 0.6 | 0.35 | 0.49 | 0.60 | 0.77 | 0.92 | 1.10 | 1.34 | 30° | 40° | 44° | 46° | 46° | |
| | 00650 | 0.6 | 0.35 | 0.49 | 0.60 | 0.77 | 0.92 | 1.10 | 1.34 | 39° | 50° | 56° | 59° | 59° | 100 |
| | 00665 | 0.5 | 0.35 | 0.49 | 0.60 | 0.77 | 0.92 | 1.10 | 1.34 | 49° | 65° | 72° | 76° | 76° | 100 |
| | 00680 | 0.5 | 0.35 | 0.49 | 0.60 | 0.77 | 0.92 | 1.10 | 1.34 | 62° | 80° | 86° | 90° | 90° | |
| | 00840 | 0.7 | 0.46 | 0.65 | 0.80 | 1.03 | 1.22 | 1.46 | 1.79 | 31° | 40° | 44° | 46° | 46° | |
| | 00850 | 0.7 | 0.46 | 0.65 | 0.80 | 1.03 | 1.22 | 1.46 | 1.79 | 39° | 50° | 56° | 59° | 59° | 50 |
| | 00865 | 0.6 | 0.46 | 0.65 | 0.80 | 1.03 | 1.22 | 1.46 | 1.79 | 51° | 65° | 71° | 75° | 75° | 50 |
| | 08800 | 0.6 | 0.46 | 0.65 | 0.80 | 1.03 | 1.22 | 1.46 | 1.79 | 64° | 80° | 85° | 88° | 88° | |
| | 0140 | 8.0 | 0.58 | 0.82 | 1.00 | 1.29 | 1.53 | 1.83 | 2.2 | 31° | 40° | 44° | 46° | 46° | |
| | 0150 | 0.8 | 0.58 | 0.82 | 1.00 | 1.29 | 1.53 | 1.83 | 2.2 | 40° | 50° | 55° | 58° | 58° | 50 |
| | 0165 | 0.7 | 0.58 | 0.82 | 1.00 | 1.29 | 1.53 | 1.83 | 2.2 | 51° | 65° | 71° | 75° | 75° | 50 |
| | 0180 | 0.6 | 0.58 | 0.82 | 1.00 | 1.29 | 1.53 | 1.83 | 2.2 | 66° | 80° | 85° | 88° | 88° | |



JET NOZZLES

| MODEL | THREADS | MATERIAL |
|---|----------------|---|
| needle jet nozzles | 1/8, 3/8 | Nozzle tip Cemented carbide or Ruby Nozzle case Stainless steel (standard material : JIS SUS303) |
| Straight Jet Nozzle | 1/8 , 1/4, 3/8 | Nozzle tip Stainless steel, cemented carbide, ceramics, sapphire, or ruby Nozzle casing Stainless steel (standard material : JIS SUS303) |
| Straight Jet Nozzle - type C - | 1/8 , 1/4 | Nozzle tip Stainless steel, cemented carbide, ceramics, sapphire, or ruby Nozzle casing Stainless steel (standard material : JIS SUS303) |
| self - cleaning nozzles double - needle | 1/2 , 3/4 | Stainless steel (JIS SUS303 or JIS SUS316) |





Needle Jet Nozzles



ruby type: enlargement of the nozzle orifice



FEATURES

- High impact force without scatter of spray.
- Nozzle orifice of highly wear-resistant material.
- · Any different diameters based upon paper weight and spee are available.

MATERIAL

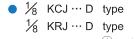
 Nozzle tip : Cemented carbide or Ruby

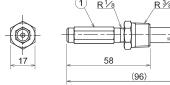
• Nozzle case : Stainless steel (standard material : JIS SUS303)

APPLICATIONS

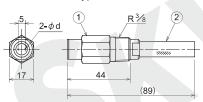
· Trim cutter (edge cutting), Tail cutter

SHAPES AND DIMENSION

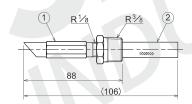


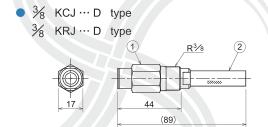


KCJ ··· D × 2 type (double-needle type) 3/8 KRJ ··· D × 2 type (double-needle type)



1/8 KCJK ··· D type (Papar powder prevention type) 1/8 KRJK ··· D type (Papar powder prevention type)

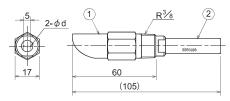




| No. | Part <mark>na</mark> me |
|-----|-------------------------|
| 1 | Nozzle |
| 2 | Filter |

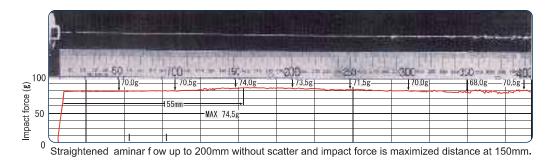
| Model | Weight (g) |
|-----------------------|------------|
| ¹/ ₈ KCJ⋯D | 45 |
| 3/8 KCJD | 60 |
| 3/8 KCJD×2 | 60 |

KCJK ··· D × 2 type (Papar powder prevention type) KRJK \cdots D × 2 type (Papar powder prevention type)



NPT thread is also available.

The Scatter Of Spray



Double-needle Type







Straight Jet Nozzle





FEATURES

- Highly excellent straightness and larger impact force for better cleaning effect.
- · Orifice of highly wear-resistant material such as cemented carbide, ruby, etc. (KCJ, KRJ, etc.)
- No increasing water flow rate much even if you use it for long time.

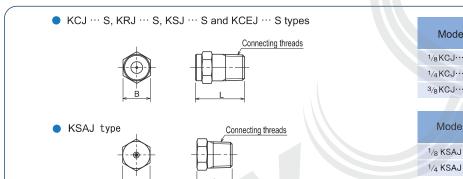
MATERIAL

- Nozzle tip : Stainless steel, cemented carbide, ceramics, sapphire, or ruby
- Nozzle casing : Stainless steel (standard material : JIS SUS303)

APPLICATIONS

• High pressure cleaning for wire, felts, coach roll, canvas, screen, etc.





| Model | Dimensi | on (mm) | Connecting | Weight |
|-------------|---------|---------|-------------------------------|--------|
| Model | В | L | threads | (g) |
| 1/8 KCJ···S | 10 | 18 | R 1/8 | 10 |
| 1/4 KCJ···S | 14 | 25 | R 1/4 | 30 |
| 3/8 KCJ…S | 17 | 32 | R ³ / ₈ | 50 |
| | | | | |
| Model | Dimensi | on (mm) | Connecting | Weight |
| Woder | В | L | threads | (g) |
| 1/8 KSAJ | 12 | 16 | R ½8 | 10 |

NPT thread is also available

STANDARD TYPE MODEL NUMBER LIST

:Model availability

20

| Connecting | | | Mode | | | Model | Orifice dia. | | Flo | ow rate (ℓ/r | min) at follo | wing press | ure (MPa) | | |
|------------|-----|-----|------|------|------|--------|--------------|------|------|--------------|---------------|------------|-----------|------|------|
| threads | KCJ | KRJ | KSJ | KCEJ | KSAJ | number | (mm) | 0,3 | 0.5 | 0.7 | 1 | 2 | 3 | 4 | 5 |
| | • | • | • | • | | 0.3 | 0.3 | 0.07 | 0.09 | 0.10 | 0.12 | 0.17 | 0.21 | 0.25 | 0.28 |
| | | • | • | | | 0.4 | 0.4 | 0.12 | 0.15 | 0.18 | 0.22 | 0.31 | 0.38 | 0.44 | 0.49 |
| | • | | • | • | • | 0.5 | 0.5 | 0.19 | 0.24 | 0.28 | 0.34 | 0.48 | 0.59 | 0.68 | 0.77 |
| | • | • | | | • | 0.6 | 0.6 | 0.27 | 0.35 | 0.41 | 0.49 | 0.70 | 0.85 | 0.99 | 1.10 |
| | • | • | • | • | • | 0.7 | 0.7 | 0.37 | 0.47 | 0.56 | 0.67 | 0.95 | 1.16 | 1.34 | 1.50 |
| | | | • | • | | 0.8 | 0.8 | 0.48 | 0.62 | 0.74 | 0.88 | 1.24 | 1.52 | 1.75 | 1.96 |
| | • | • | • | • | | 0.9 | 0.9 | 0.61 | 0.78 | 0.93 | 1.11 | 1.57 | 1.92 | 2.2 | 2.5 |
| 1/ | • | • | • | | • | 1.0 | 1.0 | 0.75 | 0.97 | 1.15 | 1.37 | 1.94 | 2.4 | 2.7 | 3.1 |
| 1/8 | • | | • | • \ | | 1.1 | 1.1 | 0.91 | 1.17 | 1.39 | 1.66 | 2.3 | 2.9 | 3.3 | 3.7 |
| 4.4 | | | • | | | 1.2 | 1.2 | 1.08 | 1.39 | 1.65 | 1.97 | 2.8 | 3.4 | 3.9 | 4.4 |
| 1/4 | | | | | | 1.3 | 1.3 | 1.27 | 1.64 | 1.93 | 2.3 | 3.3 | 4.0 | 4.6 | 5.2 |
| • • | | | | • | | 1.4 | 1.4 | 1.47 | 1.90 | 2.3 | 2.7 | 3.8 | 4.6 | 5.4 | 6.0 |
| 3/8 | | | | | | 1.5 | 1.5 | 1.69 | 2.2 | 2.6 | 3.1 | 4.4 | 5.3 | 6.2 | 6.9 |
| /8 | | | | | | 1.6 | 1.6 | 1.92 | 2.5 | 2.9 | 3.5 | 5.0 | 6.1 | 7.0 | 7.8 |
| | | | | | | 1.7 | 1.7 | 2.2 | 2.8 | 3.3 | 4.0 | 5.6 | 6.9 | 7.9 | 8.8 |
| | | | • | | | 1.8 | 1.8 | 2.4 | 3.1 | 3.7 | 4.4 | 6.3 | 7.7 | 8.9 | 9.9 |
| | | | | • | | 1.9 | 1.9 | 2.7 | 3.5 | 4.1 | 4.9 | 7.0 | 8.6 | 9.9 | 11.0 |
| | • | | • | • | | 2.0 | 2.0 | 3.0 | 3.9 | 4.6 | 5.5 | 7.7 | 9.5 | 10.9 | 12.2 |
| | • | | • | • | | 2.1 | 2.1 | 3.3 | 4.3 | 5.1 | 6.0 | 8.5 | 10.5 | 12.1 | 13.5 |
| | | | • | • | | 2.2 | 2.2 | 3.6 | 4.7 | 5.6 | 6.6 | 9.4 | 11.5 | 13.2 | 14.8 |
| | • | | • | • | | 2.3 | 2.3 | 4.0 | 5.1 | 6.1 | 7.2 | 10.2 | 12.5 | 14.5 | 16.2 |
| | | | • | • | | 2.4 | 2.4 | 4.3 | 5.6 | 6.6 | 7.9 | 11.1 | 13.7 | 15.8 | 17.6 |
| | | | • | • | | 2.5 | 2.5 | 4.7 | 6.0 | 7.2 | 8.6 | 12.1 | 14.8 | 17.1 | 19.1 |

Flow rates are just for reference as they depend on orifice diameter.

STRAIGHT JET NOZZLE

Model and Model number representing

1/4

Connecting threads

Nozzle tip material - cemented carbide - ruby

C - cemented
R - ruby
S - stainless
CE - ceramics
SA - sapphire - stainless steel

Model number









Straight Jet Nozzle-Type C





FEATURES

• when mounted on a pipe, the nozzle orifice projects inside the pipe, and is highly resistant to clogging. CL type (Long type) is higher clogging resistant.

MATERIAL

 Nozzle tip : Stainless steel, cemented carbide, ceramics,

sapphire, or ruby

• Nozzle casing : Stainless steel (standard material : JIS SUS303)

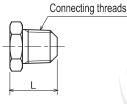
APPLICATIONS

· High pressure cleaning for wire, felts, etc.

SHAPES AND DIMENSION

KCJ ··· C, KRJ ··· C, KSJ ··· C and KCEJ ··· C types





| Model | Dimensi | on (mm) | Connecting | Weight |
|-------------|---------|---------|-------------------------------|--------|
| Model | В | L | threads | (g) |
| 1/8 KCJ···C | 12 | 15 | R ¹ / ₈ | 15 |
| 1/4 KCJ···C | 17 | 19 | R 1/4 | 25 |
| KCJC | 17 | 19 | M 14 | 25 |

KCJ ··· CL, KRJ ··· CL, KSJ ··· CL and KCEJ ··· CL types Connecting threads





| Model | Dimensi | on (mm) | Connecting | Weight | | |
|--------------|---------|---------|------------|--------|--|--|
| Model | В | L | threads | (g) | | |
| 1/8 KCJ···CL | 12 | 29 | R 1/8 | 20 | | |
| ¹∕₄ KCJ···CL | 17 | 29 | R 1/4 | 40 | | |

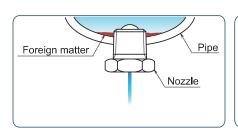
NPT thread is also available

STANDARD TYPE MODEL NUMBER LIST

| Connecting | | Mo | del | | Model | Orifice dia. | | Fle | ow rate (0 /ı | min) at follov | vina nressur | e (MPa) | | |
|------------|-----|-----|-----|------|--------|--------------|------|------|----------------|----------------|--------------|---------|------|------|
| threads | KCJ | KRJ | KSJ | KCEJ | number | (mm) | 0.3 | 0.5 | 0.7 | 1 | 2 | 3 | 4 | 5 |
| | • | • | | | 0.3 | 0.3 | 0.07 | 0.09 | 0.10 | 0.12 | 0.17 | 0.21 | 0.25 | 0.28 |
| | • | | | | 0.4 | 0.4 | 0.12 | 0.15 | 0.18 | 0.22 | 0.31 | 0.38 | 0.44 | 0.49 |
| | • | • | | | 0.5 | 0.5 | 0.19 | 0.24 | 0.29 | 0.34 | 0.48 | 0.59 | 0.68 | 0.77 |
| 1/ | • | | | | 0.6 | 0.6 | 0.27 | 0.35 | 0.41 | 0.49 | 0.70 | 0.85 | 0.99 | 1.10 |
| /8 | • | • | | | 0.7 | 0.7 | 0.37 | 0.47 | 0.56 | 0.67 | 0.95 | 1.16 | 1.34 | 1.50 |
| | • | • | | | 0.8 | 0.8 | 0.48 | 0.62 | 0.73 | 0.88 | 1.24 | 1.52 | 1.75 | 1.96 |
| 1/4 | • | • | | | 0.9 | 0.9 | 0.61 | 0.78 | 0.93 | 1.11 | 1.57 | 1.92 | 2.2 | 2.5 |
| | | | • | | 1.0 | 1.0 | 0.75 | 0.97 | 1.15 | 1.37 | 1.94 | 2.4 | 2.7 | 3.1 |
| | • | | | | 1.2 | 1.2 | 1.08 | 1.39 | 1.65 | 1.97 | 2.8 | 3.4 | 3.9 | 4.4 |
| | • | | • | | 1.5 | 1.5 | 1.69 | 2.2 | 2.6 | 3.1 | 4.4 | 5.3 | 6.2 | 6.9 |
| | • | | • | | 2.0 | 2.0 | 3.0 | 3.9 | 4.6 | 5.5 | 7.7 | 9.5 | 10.9 | 12.2 |

Flow rates are just for reference as they depend on orifice diameter.

EXAMPLE OF USE



STRAIGHT JET NOZZLE TYPE C

Model and Model number representing

Connecting threads

Nozzle tip material C - cemented carbide R - ruby S - stainless steel CE - ceramics SA - sapphire

Model number



Self-Cleaning Nozzles- Double Needle



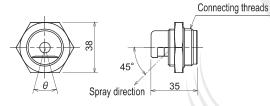


FEATURES

· Available to increase cleaning efficiency. More effective wire cleaning when just mounting both header end. Spray angle: 30° type and 45° type.

SHAPES AND DIMENSION

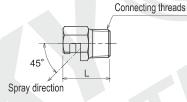
SCJ double-needle type (straight threaded type)



Weight Connecting Model threads (g) G 3/4 SCJ -- ×2 130 φ28, 20 threads

SCJ double-needle type (taper threaded type)





| Model | Dimens | ion (mm) | Connecting | Weight |
|----------------|--------|----------|-------------------|--------|
| Model | В | L | threads | (g) |
| 1/2 SCJ • • ×2 | 22 | 35 | R ¹ /2 | 75 |

 θ : Gap at each needle jets

27

3/4 SCJ ** ×2

NPT thread is also available

Model and Model number representing

STRAIGHT THREADED TYPE

SCJ 0.5X2

Model number G3/4

Connecting threads G3/4 - JIS G threaded No symbol - ϕ 28, 20 threads

Gap at each needle jets

TAPER THREADED TYPE

SCJ 0.5X2

Connecting

Model number Gap at each needle jets

30°

STANDARD TYPE MODEL NUMBER LIST

| Model | Model number | Equivalent orifice diameter | Flow rate (ℓ/min) at following pressure (MPa) | | | | | | | | | Spray angle | | |
|-------|-----------------|-----------------------------|--|------|------|------|------|------|------|------|------|-------------|------|------------|
| | Humber | (mm) | 0.1 | 0.2 | 0,3 | 0.4 | 0.5 | 0.7 | 1 | 2 | 3 | 4 | 5 | at 0.3 MPa |
| | 0.5 X 2 | 0.5 | 0.32 | 0.46 | 0.56 | 0.64 | 0.74 | 0.86 | 1.04 | 1.46 | 1.80 | 2.1 | 2.3 | _ |
| | 0.6 X 2 | 0.6 | 0.48 | 0.66 | 0.82 | 0.94 | 1.06 | 1.26 | 1,50 | 2.1 | 2.6 | 3.0 | 3.4 | _ |
| | 0.7 X 2 | 0.7 | 0.64 | 0.92 | 1.12 | 1.30 | 1.44 | 1.70 | 2.0 | 2.9 | 3.5 | 4.0 | 4.6 | _ |
| 001 | 0.8 X 2 | 8.0 | 0.84 | 1.20 | 1.46 | 1.68 | 1.88 | 2.2 | 2.7 | 3.8 | 4.6 | 5.4 | 6.0 | _ |
| SCJ | 0.9 X 2 | 0.9 | 1.12 | 1.60 | 1.96 | 2.3 | 2.5 | 3.0 | 3,6 | 5.0 | 6.2 | 7.2 | 8.0 | _ |
| | 1.0 X 2 | 1.0 | 1.32 | 1.86 | 2.3 | 2.6 | 2.9 | 3.5 | 4.2 | 5.8 | 7.2 | 8.4 | 9.2 | _ |
| | 1.2 X 2 | 1.2 | 1.90 | 2.7 | 3.3 | 3.8 | 4.2 | 5.0 | 6.0 | 8.4 | 10.4 | 12.0 | 13.4 | _ |
| | 1.5 X 2 | 1.5 | 3.0 | 4.2 | 5.2 | 6.0 | 6.6 | 7.8 | 9.4 | 13.2 | 16.2 | 18.8 | 21.0 | |

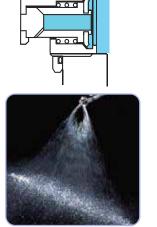




Self-Cleaning Nozzles- Double Needle

CLEANING PRINCIPLE

In normal operation (at increased pressure)



When cleaning foreign matters (at 0.03 MPa)



Flow rate should not exceed 10 ℓ /min for purging foreign substances.

NOZZLE WEAR

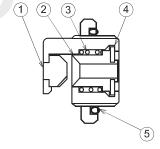
Sometime, Self cleaning nozzle has wear from a high-pressure process. Everloy nozzles can be manufactured from materials other than standard materials. (Coated nozzle, Nozzle tip and guide manufactured from anti-wear materials etc.) For more information, please contact our sales representatives.

REPAIR SERVICE

Everloy will offer assistance in good spray nozzle maintenance.

We can replacement of components and check the performance in our factory. (fare-paying services) Components mean Nozzle tip, Nozzle guide, Spring, Diaphragm and O-ring.

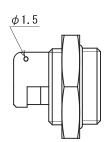
We can help your spray nozzle maintenance cost and time.



| Symbol | Name | Material |
|--------|-----------------------|----------|
| 1 | Nozz l e tip | SUS303 |
| 2 | Nozz l e guide | SUS303 |
| 3 | Spring | SUS316 |
| 4 | Diaphragm | Rubber |
| 5 | O ring | Rubber |

PROTECTION AGAINST FALLING NOZZLES

We can manufacture the pierced nozzles as shown the picture if you need. Lacing a wire through a hole, it is available to protect against falling nozzles.







| MODEL | THREADS | MATERIAL |
|----------------------|---------|---|
| Mini Atomize Nozzles | | |
| | | Stainless steel (standard material or SUS316) |
| Mini Mist Nozzles | | |
| | 1/8 | Stainless steel (standard material : JIS SUS303) |
| Air Mist Nozzles | | |
| | 1/8 | Stainless steel (standard material : JIS SUS303) |

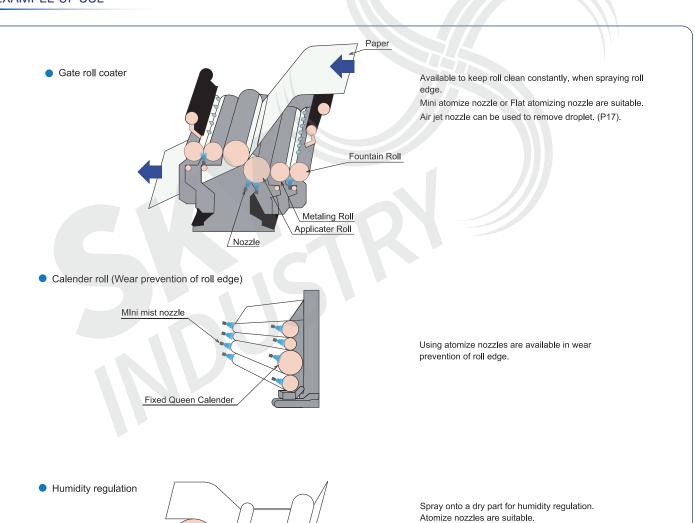




ATOMIZE NOZZLE FEATURES

| Model | Features |
|----------------------|---|
| Mini atomize nozzles | Unobstructed flow passages, which minimize clogging. Three part construction. Easy to maintain. Wide angle fullcone spray pattern. |
| Mini mist nozzles | Compact and lightwight. Wide angle flat spray pattern. |
| PV, PNV nozzles | PV type can change spray pattern freely from fullcone to flat spray. Non-drip feature can be provided by the automatic cylinder. |

EXAMPLE OF USE



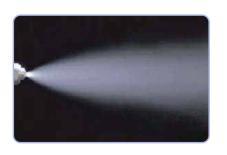
Gate roll sizing press

Mlni mist nozzle

Dryer



Mini Atomize Nozzles





MATERIAL

Stainless steel (standard material or SUS316)

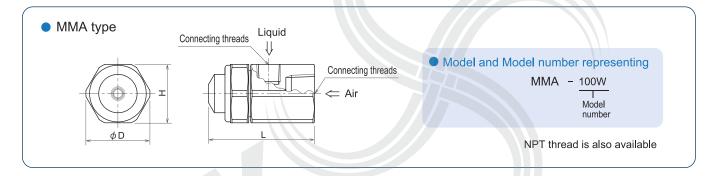
FEATURES

- Available as a pressure spray set-up or siphon spray set-up.
- Simple structure and easy maintenance.
- Fine droplets and wide full cone pattern.
- · Lowest flow available.
- · Anti-clogging

APPLICATIONS

- · Cleaning for gate roll, backing roll and size roll.
- Prevention of excessive "size agent" build up.
- Canvas chemical washing of dryer parts.
- Humidity regulation, Drying prevention.
- · Using in lower flow.

SHAPES AND DIMENSION

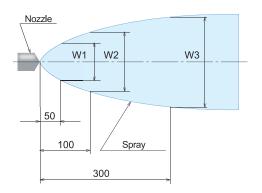


STANDARD TYPE MODEL NUMBER LIST

| Model | Minimum orifice diameter for liquid | Air flow rate (ℓ /min(Nor.)) | Water flow rate | Connectin | g threads | Weight | Dir | nensions | ; (mm) |
|--------|-------------------------------------|-------------------------------|-----------------|-----------|-----------|--------|-----|----------|--------|
| number | (mm) | (air pressure : 0.3MPa) | (m l/min) | Liquid | Air | (g) | D | Н | L |
| 50W | 1.5 | 50 | 5~100 | Rc⅓ | Rc ⅓ | 60 | 21 | 19 | 33 |
| 100W | 2.0 | 100 | 10~200 | Rc⅓ | Rc 1/4 | 80 | 23 | 21 | 38 |
| 200W | 2.0 | 200 | 25~500 | Rc⅓ | Rc 1/4 | 80 | 23 | 21 | 38 |
| 500W | 2.5 | 500 | 50~1000 | Rc1/4 | Rc½ | 280 | 35 | 32 | 58 |
| 1000W | 3.0 | 1000 | 100~2000 | Rc¼ | Rc½ | 280 | 35 | 32 | 58 |

- ※∙ MMA 50W~100W : When using siphon system, above the flow rate will be supplied over 0.1MPa air pressure.
- MMA 200W~1000W: Using pressure set-up is available with the all the above flow rate.
- In case of using high viscosity. Please contact our sales representatives for more information.

SPRAY WIDTH (AIR PRESSURE: 0.3 MPa, AT MINIMUM WATER FLOW RATE)



| Modo | l number | Spray width (mm) | | | | | | |
|------|----------|------------------|----------------|---------|--|--|--|--|
| Mode | Humber | W 1 | W 2 | W 3 | | | | |
| | 50W | 25~30 | 50 ~ 55 | 110~130 | | | | |
| | 100W | 30~35 | 55~60 | 130~150 | | | | |
| MMA | 200W | 30~35 | 55~60 | 130~150 | | | | |
| | 500W | 40~45 | 70~80 | 180~200 | | | | |
| | 1000W | 40~45 | 70~60 | 160~200 | | | | |

- Spray angle is approx. 30° at 0.3 MPa, will be wider less than 0.3 MPa as Air pressure.
- Air pressure of lower than 0.3 MPa, spray angle will be wider.





Mini Mist Nozzles





MATERIAL

· Stainless steel (standard material : JIS SUS303)

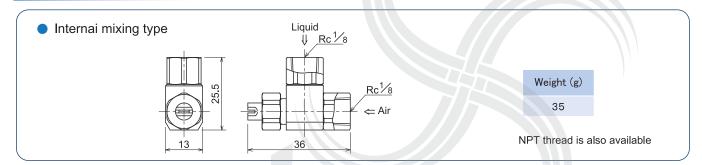
FEATURES

- · Flow rate controllable within a wide range, from very small to relatively large.
- · Compact and lightweight nozzles for connection in a limited space.
- Sprayed mist spreading over a large area due to a wide spray pattern.
- Quick-drying mist.
- Simple structure for resistance to clogging and for easy overhaul cleaning.

APPLICATIONS

- Mist-washing for roll
- Moisturizing to paper

SHAPES AND DIMENSION



KSMMS 015115 A11W035 MINI ATOMIZE NOZZLES Model and Model number representing Model Model Model number number of mixing body

STANDARD TYPE MODEL NUMBER LIST

| Model Model nu | | Model Model number number of mixing body | Model number | | Air pressure | | | rate (mℓ/ ater pres | | | rate (ℓ/n | nin(Nor.)) | at | pressure (M | , | ŭ |
|----------------|--------|--|--------------|----------|-----------------|-----|-------|------------------------|-------|-----|-----------|------------|----------|------------------|-----|---|
| number | | of mixing body | (MPa) | | 0. | .2 | 0. | 3 | 0 | .4 | 0. | .5 | (Spray o | listance : 500 i | nm) | |
| | | | (mm) | (IVII a) | Water | Air | Water | Air | Water | Air | Water | Air | 0.2 | 0.3 | 0.4 | |
| | | | | 0.1 | 64 | 16 | 107 | 15 | 121 | 15 | 129 | 15 | 800 | 800 | 900 | |
| | | | | 0.2 | 68 | 27 | 94 | 26 | 112 | 25 | 125 | 25 | 700 | 800 | 900 | |
| | 015115 | A11W035 | 0.35 | 0.3 | 50 | 36 | 79 | 35 | 100 | 34 | 117 | 33 | 600 | 800 | 900 | |
| | | | | 0.4 | 27 | 46 | 60 | 45 | 85 | 44 | 104 | 43 | 600 | 700 | 900 | |
| | | | | 0.5 | _ | _ | 41 | 54 | 71 | 53 | 92 | 52 | _ | 700 | 900 | |
| | | 5 A15W05 | 5W05 0.5 | 0.1 | 182 | 28 | 228 | 27 | 258 | 26 | 284 | 25 | 800 | 900 | 900 | |
| | | | | 0.2 | 146 | 47 | 200 | 45 | 248 | 43 | 280 | 41 | 800 | 800 | 900 | |
| KSMMS | 027115 | | | 0.3 | 102 | 65 | 168 | 63 | 222 | 61 | 259 | 59 | 700 | 800 | 900 | |
| | | | | 0.4 | 58 | 83 | 127 | 82 | 189 | 80 | 232 | 78 | 600 | 800 | 900 | |
| | | | | 0.5 | _ | _ | 92 | 97 | 158 | 96 | 207 | 95 | _ | 800 | 900 | |
| | | | | 0.1 | 256 | 43 | 315 | 41 | 357 | 40 | 390 | 38 | 800 | 900 | 900 | |
| | | | | 0.2 | 220 | 69 | 290 | 66 | 350 | 64 | 388 | 62 | 800 | 900 | 900 | |
| | 040115 | A18W06 | 0.6 | 0.3 | 276 | 97 | 252 | 96 | 318 | 95 | 372 | 93 | 700 | 800 | 900 | |
| | | | | 0.4 | 132 | 123 | 213 | 123 | 283 | 121 | 345 | 119 | 600 | 800 | 900 | |
| | | | | 0.5 | 89 | 149 | 176 | 146 | 249 | 146 | 313 | 145 | 600 | 800 | 900 | |

Note: Blanks indicate water spraying at a very low flow rate or air jet only. Please refer to external mixing type at our general catalog E31.







Air Mist Nozzles





MATERIAL

Stainless steel (standard material: JIS SUS303)

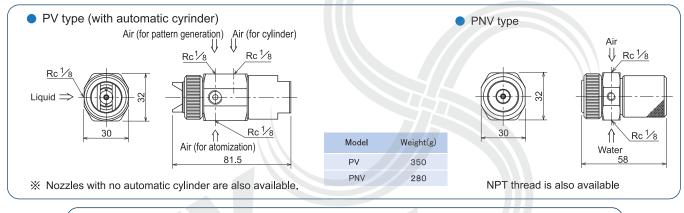
FEATURES

- · Wide range flowrate is controlled and dajustable on the value at hand.
- PV type can change spray pattern freely from fullcone to flat spray.
- No special tool required to overhaul.

APPLICATIONS

• Humidification, humidity control, spraying of deodorant, painting, cooling, sterilization dust deposition, washing, spraying of chemicals, etc.

SHAPES AND DIMENSION



AIR MIST NOZZLES

Model and Model number representing



STANDARD TYPE MODEL NUMBER LIST

| Model | Model | Minimum orifice diameter for water | Wate | er flow rate | (ℓ/min) at f | ollowing wa | ater pressu | re (MPa) | Air pressure | Air flow rate | Air flow rate for pattern generation (ℓ /min (Nor.)) |
|-------|--------|------------------------------------|------|--------------|-------------------|-------------|-------------|----------|--------------|---------------|--|
| | number | (mm) | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | (MPa) | (ℓ/min(Nor.)) | (PV only) |
| | | | | | | | | | 0.1 | 19 | 36 |
| | | | | | | | | | 0.2 | 28 | 54 |
| | 0.4 | 0.4 | 30 | 42 | 52 | 61 | 68 | 75 | 0.3 | 38 | 72 |
| | | | | | | | | | 0.4 | 48 | 90 |
| | | | | | | | | | 0.5 | 57 | 108 |
| | | | | | | | | | 0.1 | 23 | 36 |
| | | | | | | | | | 0.2 | 38 | 54 |
| | 0.5 | 0.5 | 47 | 67 | 82 | 95 | 106 | 106 116 | 0.3 | 53 | 72 |
| | | | | | | | | | 0.4 | 68 | 90 |
| | \ | | | | | | | | 0.5 | 83 | 108 |
| PV | | | | | 327 | | | | 0.1 | 27 | 36 |
| | | 1.0 | | | | | | | 0.2 | 43 | 54 |
| PNV | 1.0 | | 190 | 267 | | 378 | 423 | 463 | 0.3 | 59 | 72 |
| | | | | | | | | | 0.4 | 75 | 90 |
| | | | | | | | | | 0.5 | 90 | 108 |
| | | | | | | | | | 0.1 | 38 | 36 |
| | | | | | | | | | 0.2 | 56 | 54 |
| | 1.5 | 1.5 | 425 | 600 | 736 | 850 | 950 | 1040 | 0.3 | 76 | 72 |
| | | | | | | | | | 0.4 | 95 | 90 |
| | | | | | | | | | 0.5 | 113 | 108 |
| | | | | | | | | | 0.1 | 47 | 36 |
| | | | | 4070 | 4040 | 4540 | 4000 | 4050 | 0.2 | 66 | 54 |
| | 2.0 | 2.0 | 755 | 1070 | 1310 | 1510 | 1690 | 1850 | 0.3 | 87 | 72 |
| | | | | | | | | | 0.4 | 107 | 90 |
| | | | | | | | | | 0.5 | 127 | 108 |

Note: When a PV type is used to generate a flat spray pattern, its air flow rate is determined as the sum of the air flow rate for pattern generation and the air flow rate shown above. PV type is available with spray angle (20~90°) as full cone and flat spray pattern. PNV type is available with spray angle 20° as fullcone spray pattern.





AIR NOZZLES

| MODEL | THREADS | MATERIAL |
|--------------------|----------|---|
| needle jet nozzles | 1/4, 3/8 | - Stainless steel (standard material : JIS SUS303) - Brass - Aluminum |
| | 1/4 | - Stainless steel (standard material : JIS SUS304) - Aluminum - ABS resin |





AIR NOZZLES

Air Jet Nozzles



FEATURES

- · Simple structure and anti-clogging.
- Divergent internal structure allows supersonic blow.
- Tapered nose shape minimizes turbulent flow and reduction in rate.

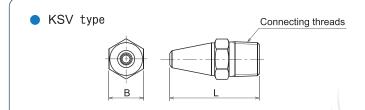
APPLICATIONS

- · Air purging for roll edge.
- · Blowing away paper dust.

MATERIAL

- Stainless steel (standard material : JIS SUS303)
- Brass
- Aluminum

SHAPES AND DIMENSION



| Model | Dimensi | on (mm) | Connecting threads | Weight (g) | |
|-----------------------------------|---------|---------|-------------------------------|------------|--|
| Wiodol | В | L / | threads | (g) | |
| ¹/₄KSV···C | 14 | 34 | R 1/4 | 33 | |
| ³ / ₈ KSV⋯C | 17 | 44 | R ³ / ₈ | 55 | |

We can also provide for pipe attachment type. (ϕ 6 and ϕ 8) For more information, please contact our sales representatives.

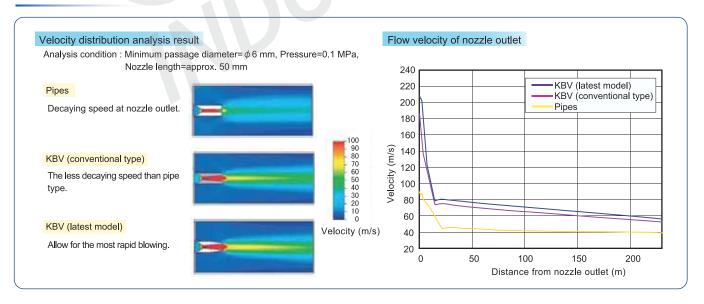
STANDARD TYPE MODEL NUMBER LIST

: Model availability

| Connecting | Model | | Model | Glamerer | | | | | | | | |
|------------|-------|-----|-------|----------|------|-----|-----|-----|-----|-----|------|------|
| threads | KSV | KBV | KAV | number | (mm) | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 |
| | | • | | 0300 | 1.75 | 48 | 72 | 72 | 120 | 143 | 167 | 191 |
| 4.4 | | | | 0400 | 2.04 | 64 | 96 | 96 | 159 | 191 | 223 | 254 |
| 1/4 | | | • | 0500 | 2.26 | 80 | 120 | 120 | 199 | 239 | 278 | 318 |
| | | | • | 0700 | 2.68 | 113 | 168 | 168 | 279 | 334 | 390 | 445 |
| | | | | 1000 | 3.22 | 161 | 240 | 240 | 398 | 478 | 557 | 636 |
| 3/ | | | • | 1400 | 3.80 | 225 | 336 | 447 | 558 | 669 | 780 | 890 |
| /8 | | | • | 2000 | 4.56 | 322 | 480 | 639 | 797 | 955 | 1110 | 1270 |

※ Spray angle: about 16°

Performance data







AIR NOZZLES

Air Blaster



SHAPES AND DIMENSION

FEATURES

- Uniform impact force.
- Wide blow width with s single nozzle.
- · Low noise.

APPLICATIONS

- · Paper guide.
- · Blowing away paper dust.
- · Air curtain.
- · Removal of drip.

MATERIAL

- Stainless steel (standard material : JIS SUS304)
- Aluminum
- · ABS resin

AB type 56 5.7 76.5

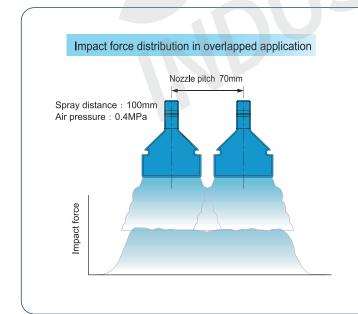
| Model | Material | Weight (g) | Heatproof temperature (°C) | Maximum service pressure (MPa) | |
|----------|-----------------|------------|----------------------------------|--------------------------------------|--|
| AB - 15P | ABS resin | 16 | 80 | 0.7 | |
| AB - 15A | Almuminum | 59 | 200 | 0.4 | |
| AB - 15S | Stainless steel | 165 | 200 | 0.4 | |

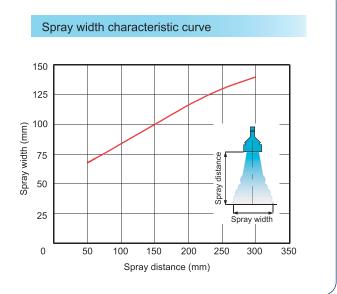
NPT thread is also available

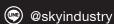
STANDARD TYPE MODEL NUMBER LIST

| Model | Model number | Minimum orifice diameter | A | Air flow rate (ℓ /min(Nor.)) at following pressure (MPa) | | | | | | | |
|-------|-----------------|--------------------------|-----|--|-----|-----|-----|-----|--|--|--|
| | Humber | (mm) | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | | | |
| AB | 15 | 0.9 | 230 | 350 | 470 | 590 | 710 | 950 | | | |

Performance data

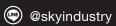








| MODEL | THREADS | MATERIAL |
|-------------------------------|----------|--|
| Slit Air Nozzles - Pipe type | | Stainless steel (standard material : JIS SUS304) |
| Slit Air Nozzles - Plate type | | - Stainless steel (standard material : JIS SUS304) - Aluminum alloy, Plastics (H-PVC, etc.) |
| Mist Header | | Stainless steel (standard material : JIS SUS304) |
| Brush Header | - | - Header : 304 Stainless steel - Brush : Plastics (PP) or Stainless steel |





Slit Air Nozzles - Pipe type



FEATURES

- · Compatibility with air from blower and compressor.
- · Available in producing a excellent unifrom air blow.
- Slit aperture from 0.15 to several millimeters.
- Overall length extendable to more than 2 m.
- · Weight saving.

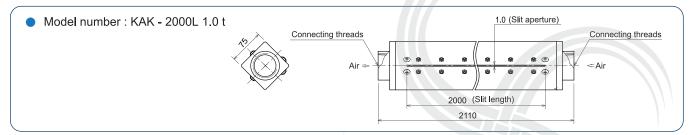
APPLICATIONS

- Air curtain
- · Air purging for roll

MATERIAL

• Stainless steel (standard material : JIS SUS304)

SHAPES AND DIMENSION



SLIT AIR NOZZLES - PIPE TYPE

Model and Model number representing



Performance data (Calculated value)

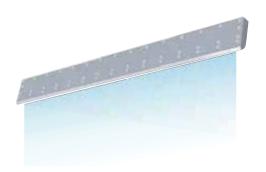
| Slit length | Slit aperture | | Air flow r | ate (m³/h(Nor.)) at | following pressure | e (MPa) | | | | | |
|-------------|---------------|-------|------------|---------------------|--------------------|---------|------|--|--|--|--|
| (mm) | (mm) | 0.005 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | | | | |
| | 0.15 | 23 | 33 | 46 | 57 | 66 | 73 | | | | |
| | 0.3 | 46 | 66 | 93 | 114 | 131 | 147 | | | | |
| 500 | 0.5 | 77 | 110 | 155 | 190 | 219 | 245 | | | | |
| | 0.8 | 124 | 175 | 248 | 303 | 350 | 392 | | | | |
| | 1.0 | 155 | 219 | 310 | 379 | 438 | 490 | | | | |
| | 0.15 | 46 | 66 | 93 | 114 | 131 | 147 | | | | |
| | 0.3 | 93 | 131 | 186 | 328 | 263 | 294 | | | | |
| 1000 | 0.5 | 155 | 219 | 310 | 379 | 438 | 490 | | | | |
| | 0.8 | 248 | 350 | 496 | 607 | 701 | 784 | | | | |
| | 1.0 | 310 | 438 | 619 | 759 | 876 | 979 | | | | |
| | 0.15 | 70 | 99 | 136 | 171 | 197 | 220 | | | | |
| | 0.3 | 139 | 197 | 279 | 341 | 394 | 441 | | | | |
| 1500 | 0.5 | 232 | 329 | 465 | 569 | 657 | 735 | | | | |
| | 0.8 | 372 | 526 | 743 | 910 | 1051 | 1175 | | | | |
| | 1.0 | 465 | 657 | 919 | 1138 | 1314 | 1469 | | | | |
| | 0.15 | 93 | 131 | 186 | 228 | 263 | 294 | | | | |
| | 0.3 | 186 | 263 | 372 | 455 | 526 | 588 | | | | |
| 2000 | 0.5 | 310 | 438 | 619 | 759 | 879 | 979 | | | | |
| | 0.8 | 496 | 701 | 991 | 1214 | 1402 | 1567 | | | | |
| | 1.0 | 619 | 876 | 1239 | 1517 | 1752 | 1569 | | | | |
| | 0.15 | 111 | 158 | 223 | 273 | 315 | 353 | | | | |
| | 0.3 | 223 | 315 | 446 | 546 | 631 | 705 | | | | |
| 2400 | 0.5 | 372 | 526 | 743 | 910 | 1051 | 1175 | | | | |
| | 0.8 | 594 | 841 | 1189 | 1457 | 1682 | 1880 | | | | |
| | 1.0 | 743 | 1051 | 1487 | 1821 | 2102 | 2351 | | | | |







Slit Air Nozzles - Plate type



FEATURES

- Remarkable uniformity over the entire width of spray
- · Suitable for compressed air.
- · Availble in removing residue water.
- Paper thin slit ranging from 0.05 to 0.3 mm.
- · Available in slit length over 3 m.

APPLICATIONS

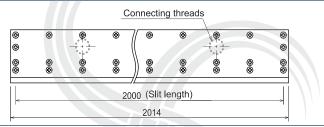
- Air curtain
- · Air purging for roll

MATERIAL

- Stainless steel (standard material: JIS SUS304)
- Aluminum alloy, Plastics (H-PVC, etc.)

SHAPES AND DIMENSION







SLIT NOZZLE 2 PIPIE TYPE

Mist Header

FEATURES

- · Two fluid nozzle
- · Available in easy mounting of piping area
- Availble in producing a excellent uniform flow and impact force

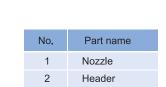
APPLICATIONS

- Roll cleaning
- Canvas washing with mist spray

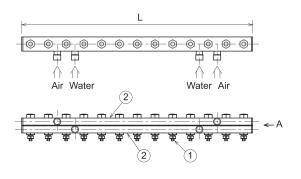
MATERIAL

• Stainless steel (standard material : JIS SUS304)

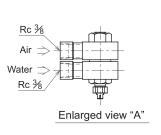
SHAPES AND DIMENSION



KSMMS WP type



@skyindustry



NPT thread is also available

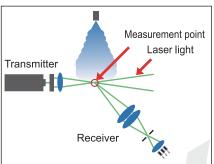


TEST EQUIPMENT

Kyoritsu Gokin conducts, various fluid tests and experiments. Typical test apparatuses include the PDPA system for the measurement of particle size and flow velocity, the particle size measurement system incorporating image analysis, the flow distribution measurement system, and the impact force distribution tester. Test results are utilized as fundamental data to improve the existing lines and to establish new technologies. Using these test apparatuses, we conduct tests and provide test results to meet your specific needs.

Phase Doppler Particle Analyzer (PDPA)





• This system is a particle analyzer making use of the phase doppler principle of the laser doppler system to measure the velocity and size of a particle simultaneously. The phase doppler principle is as follows. A lens placed on the transmitter allows two divided laser beams to cross each other. As particles pass the intersection, scattered rays form fringes. The receiver detects these fringes.

PDPA (using the phase doppler method) measures the particle size of a continuous spray without interference with the spray. It is capable of sampling many particles instantaneously and has become dominant in particle size analysis.

PDPA is suitable for the measurement of relatively small particles.

Flow distribution measurement system

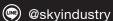


This system measures the distribution of spray flow density using an acrylic container grid, on which a liquid is sprayed, and the amounts of deposits are measured. It is also capable of measurement results in a flow distribution graph.

Impact force distribution tester



 This system determines the impact force distribution of a spray by running a pressure sensor underneath It is also capable of producing the spray. measurement results in an impact force distribution graph.





Brush Header



FEATURES

- · Continuous operation is possible in cleaning without spraying
- Up to 60° is available as spray angle.

APPLICATIONS

· Washing of galvanized sheets for steel-making.

· Shower pipe for paper-making.

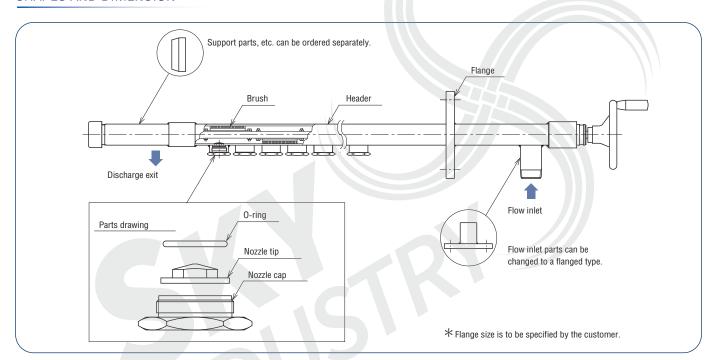
MATERIAL

• Header : 304 Stainless steel

• Brush : Plastics (PP) or Stainless steel



SHAPES AND DIMENSION



SHAPES AND DIMENSION

Ordering specifications

Please be selected and informed as follows.

· Pipe size : 40A, 50A (JIS standard) Maximum flow rate per pipe : 400 L/min (pipe size : 40A)

600 L/min (pipe size: 50A)

• Maximum header length : 4 m

 Maximum flow rate per nozzle: 30 L/min (at 0.3 MPa) Spray angle of each nozzle : 0°, 30°, 45°, 60°

• Minimum nozzle pitch







^{*} We can design and manufacture brush headers according to your operating conditions. (Nozzle flow rates, angles, nozzle pitches, etc.)











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