

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 speed are available.

MATERIAL

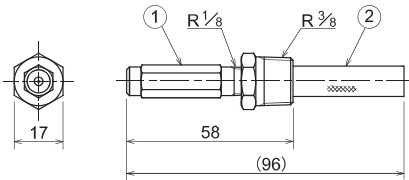
- Nozzle tip : Cemented carbide or Ruby
- Nozzle case : Stainless steel (standard material : JIS SUS303)

APPLICATIONS

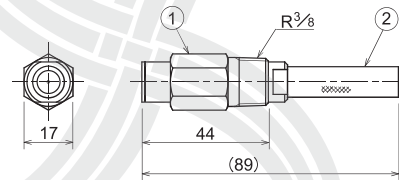
- Trim cutter (edge cutting), Tail cutter

SHAPES AND DIMENSION

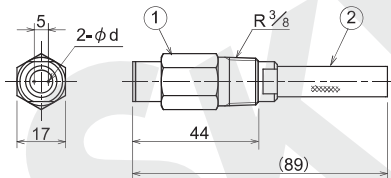
- $\frac{1}{8}$ KCJ ... D type
- $\frac{1}{8}$ KRJ ... D type



- $\frac{3}{8}$ KCJ ... D type
- $\frac{3}{8}$ KRJ ... D type

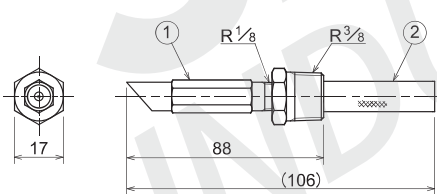


- $\frac{3}{8}$ KCJ ... D x 2 type (double-needle type)
- $\frac{3}{8}$ KRJ ... D x 2 type (double-needle type)

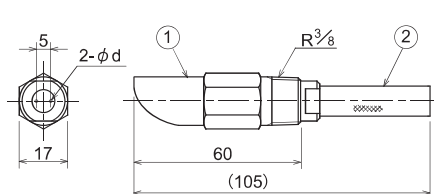


| No. | Part name | Model | Weight (g) |
|-----|-----------|-------------------------|------------|
| 1 | Nozzle | $\frac{1}{8}$ KCJ...D | 45 |
| 2 | Filter | $\frac{3}{8}$ KCJ...D | 60 |
| | | $\frac{3}{8}$ KCJ...Dx2 | 60 |

- $\frac{1}{8}$ KCJK ... D type (Papar powder prevention type)
- $\frac{1}{8}$ KRJK ... D type (Papar powder prevention type)

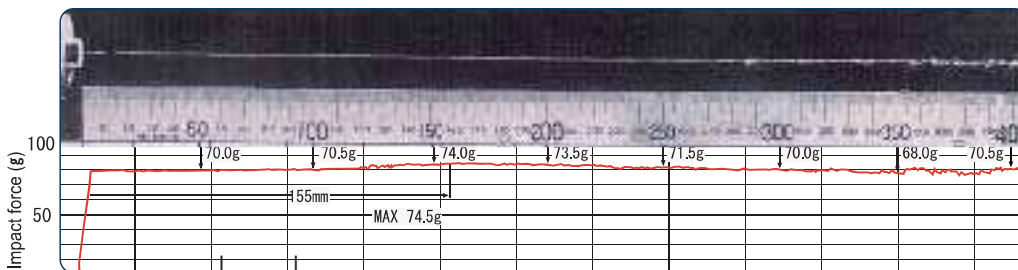


- $\frac{3}{8}$ KCJK ... D x 2 type (Papar powder prevention type)
- $\frac{3}{8}$ KRJK ... D x 2 type (Papar powder prevention type)



NPT thread is also available.

The Scatter Of Spray



Straightened aminar f ow up to 200mm without scatter and impact force is maximized distance at 150mm.

Double-needle Type



STANDARD TYPE MODEL NUMBER LIST

● : Model availability

| Connecting threads | Model | | Model number | Orifice dia. (mm) | Flow rate (ℓ/min) at following pressure (MPa) | | | | | | | Filter (mesh) | |
|--------------------|-------|-----|--------------|-------------------|---|------|------|------|------|------|------|---------------|----|
| | KCJ | KRJ | | | 0.3 | 1 | 1.5 | 2 | 2.5 | 3 | 4 | | 5 |
| 1/8 | ● | ● | 0.3D | 0.3 | 0.07 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.25 | 0.28 | 80 |
| | ● | ● | 0.4D | 0.4 | 0.12 | 0.22 | 0.27 | 0.31 | 0.35 | 0.38 | 0.44 | 0.49 | |
| | ● | ● | 0.5D | 0.5 | 0.19 | 0.34 | 0.42 | 0.48 | 0.54 | 0.59 | 0.68 | 0.77 | |
| | ● | ● | 0.6D | 0.6 | 0.27 | 0.49 | 0.60 | 0.70 | 0.78 | 0.85 | 0.99 | 1.10 | |
| 3/8 | ● | ● | 0.7D | 0.7 | 0.37 | 0.67 | 0.82 | 0.95 | 1.06 | 1.16 | 1.34 | 1.49 | 50 |
| | ● | ● | 0.8D | 0.8 | 0.48 | 0.88 | 1.07 | 1.24 | 1.39 | 1.52 | 1.75 | 1.96 | |
| | ● | ● | 0.9D | 0.9 | 0.61 | 1.11 | 1.36 | 1.57 | 1.76 | 1.92 | 2.2 | 2.5 | |
| | ● | ● | 1.0D | 1.0 | 0.75 | 1.37 | 1.68 | 1.94 | 2.2 | 2.4 | 2.7 | 3.1 | |
| | ● | ● | 1.2D | 1.2 | 1.08 | 1.97 | 2.4 | 2.8 | 3.1 | 3.4 | 3.9 | 4.4 | |

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

STANDARD TYPE MODEL NUMBER LIST (Double-needle type)

● : Model availability

| Connecting threads | Model | | Model number | Orifice dia. (mm) | Flow rate (ℓ/min) at following pressure (MPa) | | | | | | | Filter (mesh) | |
|--------------------|-------|-----|--------------|-------------------|---|------|------|------|------|------|------|---------------|----|
| | KCJ | KRJ | | | 0.3 | 1 | 1.5 | 2 | 2.5 | 3 | 4 | | 5 |
| 3/8 | ● | ● | 0.3D × 2 | 0.3 | 0.14 | 0.24 | 0.29 | 0.34 | 0.38 | 0.42 | 0.48 | 0.54 | 80 |
| | ● | ● | 0.4D × 2 | 0.4 | 0.24 | 0.44 | 0.54 | 0.62 | 0.70 | 0.76 | 0.88 | 0.98 | |
| | ● | ● | 0.5D × 2 | 0.5 | 0.38 | 0.68 | 0.84 | 0.96 | 1.08 | 1.18 | 1.36 | 1.52 | |
| | ● | ● | 0.6D × 2 | 0.6 | 0.54 | 0.98 | 1.20 | 1.40 | 1.56 | 1.70 | 1.98 | 2.2 | |
| 3/8 | ● | ● | 0.7D × 2 | 0.7 | 0.74 | 1.34 | 1.64 | 1.90 | 2.1 | 2.3 | 2.7 | 3.0 | 50 |
| | ● | ● | 0.8D × 2 | 0.8 | 0.96 | 1.76 | 2.2 | 2.5 | 2.8 | 3.1 | 3.5 | 3.9 | |
| | ● | ● | 0.9D × 2 | 0.9 | 1.22 | 2.2 | 2.7 | 3.1 | 3.5 | 3.9 | 4.4 | 5.0 | |
| | ● | ● | 1.0D × 2 | 1.0 | 1.50 | 2.7 | 3.4 | 3.9 | 4.3 | 4.8 | 5.5 | 6.1 | |
| | ● | ● | 1.2D × 2 | 1.2 | 2.2 | 3.9 | 4.8 | 5.6 | 6.2 | 6.8 | 7.9 | 8.8 | |

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

• Double orifices with different diameter (ex. 0.3 x 0.4) is available. If material of the tip is cemented carbide, different hole diameters (ex. 0.45mm, 0.55mm) are also available.

NEEDLE JET NOZZLES TYPE D

Model and Model number representing

3/8
Connecting threads

K C J
Nozzle tip material
C - cemented carbide
R - ruby

0.5 D
Model number

X 2
Number of orifices
No symbol - 1
x 2 - 2