Pneumatic Equipment

# To Use This Product Safely

Be sure to read this before use. Refer to Intro Page 27 for general precautions.

Individual Precautions: Air Blow Nozzle BN□ Series

## **During Design / Selection**

## **A** Warning

Speed Controller

Silencer

Tubing

Check

- ■Use the product within specifications. Consult with CKD when using the product for special applications.
- Use the product at below the maximum working pressure. Also avoid sudden pressure increase. It may cause the product to break or burst out.
- Use the product within the specified heat resistance temperature. It may cause the product to break or burst out.
- Avoid using the products in freezing environments. It may cause the product to break or burst out.
- Avoid installing this product outdoors or where it is exposed to direct sunlight.
- Avoid sudden pressure increase.
- The chemical resistance of nozzle material is shown below. Avoid using products in an atmosphere where these chemicals are contained in compressed air or atmosphere, or where they could adhere to parts.

| Chemical                        | Nozzle material        |                        |                         |    |     |
|---------------------------------|------------------------|------------------------|-------------------------|----|-----|
| Substance Name                  | Stainless<br>steel 303 | Stainless<br>steel 304 | Stainless<br>steel 316L | PP | PPS |
| Hydrochloric acid               | ×                      | ×                      | ×                       | 0  | 0   |
| Concentrated hydrochloric acid  | ×                      | ×                      | ×                       | Δ  | 0   |
| Sulfuric acid (35%)             | ×                      | ×                      | ×                       | 0  | 0   |
| Concentrated sulfuric acid      | ×                      | ×                      | 0                       | ×  | Δ   |
| Nitric acid (35%)               | 0                      | 0                      | 0                       | ×  | Δ   |
| Concentrated nitric acid        | Δ                      | 0                      | Δ                       | ×  | ×   |
| Acetic acid                     | Δ                      | 0                      | 0                       | 0  | 0   |
| Sodium hydroxide (Caustic soda) | 0                      | 0                      | 0                       | 0  | 0   |
| Aqueous ammonia                 | 0                      | 0                      | 0                       | 0  | 0   |
| Acetone                         | 0                      | 0                      | 0                       | 0  | 0   |
| Ethyl alcohol                   | 0                      | O                      | 0                       | 0  | 0   |
|                                 |                        |                        |                         |    |     |

O: Usable, △: Usable short-term, ×: Unusable

## Caution

- Confirm before use that the product will withstand the working environment.
- Before installing the nozzle, flush out the pipe to remove any foreign objects.

- For nozzle mounting, avoid attaching the bent pipe and elbow as much as possible. It may not achieve standard performance when turbulence occurs.
- When attaching the nozzle, after screwing it on by hand, retighten it with a tool. Check that the tool's hexagon face and wrench are the correct size. At this time, ensure that the tool does not interfere with the nozzle port. The nozzle may be damaged if gripped with a tool and screwed in with strong force.

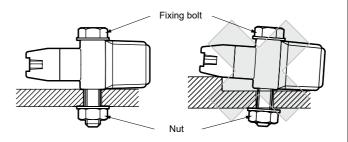
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| Connection Thread |                      | Tightening torque |  |
|-------------------|----------------------|-------------------|--|
| Size              | Material             | N∙m               |  |
| R1/8              | Stainless steel 303  | Q                 |  |
| K1/0              | Stainless steel 304  | 0                 |  |
| R1/4              | Stainless steel 303  |                   |  |
|                   | Stainless steel 304  | 15                |  |
|                   | Stainless steel 316L |                   |  |
|                   | PP                   | 2                 |  |
|                   | PPS                  | 3 to 3.5          |  |

- Use sealing tape on the threaded end of the nozzle.
- Do not tighten while pressure is applied.
- Do not damage the nozzle. Do not poke the nozzle's spray holes with anything hard (needles, nails, etc.).
- Periodically check that there is no clogging in the spray holes.
- When there is clogging in the spray holes, detach the nozzle from the pipe and remove the foreign object with a soft brush.
- Do not apply sudden impact or excessive force. Note that resin nozzles are different from metal nozzles and are easily damaged.
- Store in a clean, dust-free place.

#### BNE flat type

■ When using the fixing hole for the nozzle, use M4 bolts and nuts, and do not tighten with strong force. (Recommended Tightening Torque: 0.75 N·m) When tightening the bolt, be careful not to apply force to the screw. Do not fix the nozzle in a tilted position. There is a risk of damage.



Individual Precautions

Silencer

For cautions about mounting, installation, adjustment, use, and maintenance, refer to the CKD components Product Site (https://www.ckd.co.jp/kiki/jp/en/) → "Model No." → Instruction Manual

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