The flow of cooling water can be checked at a glance.

**Visibility**
Fluid flow from low flow rate (0.55 GPM) can be visually checked with the rotating two-colored impeller.

**Easy maintenance**
Flow Vane ASSY can be replaced without removing it from the piping (both models).

**Safety**
The stopper prevents unintended removal of the plastic parts.

**Easy installation**
The installation and replacement is easy since the screw part of T2 side rotates freely to the left and right.

---

Applicable fluid:
*Water*

*This product cannot be used for gas. If oil is used, the durability may reduce depending on the compatibility of the oil or additive with the plastic part. Please use the FLOW MONITOR after thorough evaluation. This product is not “CUPLA”.*
Fluid must flow in the direction of the arrows.

The recommended replacement time for this product is calculated based on the amount of wear on the internal parts of the Flow Vane ASSY. Refer to the graph below for the recommended replacement time. (The durability varies depending on the operating environment and conditions. [pressure, temperature, etc.])

Flow Vane ASSY

If the Flow Vane ASSY is dirty or cloudy and the impeller is difficult to see, replace it regardless of the recommended replacement time.

Models and Dimensions

- Model: FMC-30-3F, FMC-30-3F-NPT
  - Both Rc 3/8" or NPT 3/8"
  - Hex. 23 mm
  - Hex. 21 mm

- Model: FMC-30-4F, FMC-30-4F-NPT
  - Both Rc 1/2" or NPT 1/2"
  - Hex. 29 mm
  - Hex. 29 mm
- ø1.18" (30 mm)
- 3.19" (81 mm)
  - Hex. 21 mm
  - Hex. 23 mm

- ø1.26" (32 mm)
- 3.70" (94 mm)
  - Hex. 29 mm
  - Hex. 29 mm

Flow Rate – Pressure Loss Characteristics

For stable and accurate coolant flow rate.

FLOW METER

CUPLA related product / Flow meter with special valve

- Fluid flow can be bi-directional.

Flow Vane ASSY

Recommended replacement time (h)

<table>
<thead>
<tr>
<th>Model</th>
<th>FMC-30-3F</th>
<th>FMC-30-3F-NPT</th>
<th>FMC-30-4F</th>
<th>FMC-30-4F-NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (Thread)</td>
<td>Rc 3/8&quot;</td>
<td>NPT 3/8&quot;</td>
<td>Rc 1/2&quot;</td>
<td>NPT 1/2&quot;</td>
</tr>
<tr>
<td>Body material</td>
<td>Brass</td>
<td>Polycarbonate</td>
<td>Polypolyene</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Flow Vane ASSY material</td>
<td>Outer cylinder</td>
<td>Polycarbonate</td>
<td>Polypolyene</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Impeller</td>
<td>Polyamide</td>
<td>Polyamide</td>
<td>Polyamide</td>
<td>Polyamide</td>
</tr>
<tr>
<td>Inner sleeve, Stopper</td>
<td>Polyamide</td>
<td>Polyamide</td>
<td>Polyamide</td>
<td>Polyamide</td>
</tr>
<tr>
<td>Working pressure</td>
<td>1.0 MPa, 10 kgf/cm², 10 bar, 145 PSI</td>
<td>0.55 to 5.25 GPM (2 to 20 L/min)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working flow range</td>
<td>0.55 to 5.25 GPM (2 to 20 L/min)</td>
<td>0.55 to 5.25 GPM (2 to 20 L/min)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seal material (Mark)</td>
<td>Fluoro rubber (FKM)</td>
<td>Fluoro rubber (FKM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working temperature range</td>
<td>+50 °C to +140 °C (+100°F to +284°F)</td>
<td>+50 °C to +140 °C (+100°F to +284°F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass</td>
<td>0.37 lbs (167 g)</td>
<td>0.56 lbs (256 g)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Maximum Tightening Torque

- Nm (lb-in)

| Size (Thread) | Rc 3/8" or NPT | 1/2" (Rc or NPT) |
| Torque | 12 (106) | 30 (265) |

Flow Rate – Pressure Loss Characteristics

- Fluid: Water
- Temperature: 70˚F (23˚C)

<table>
<thead>
<tr>
<th>Flow rate in L/min</th>
<th>0.001</th>
<th>0.01</th>
<th>0.1</th>
<th>1</th>
<th>10</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure loss in MPa {kgf/cm²}</td>
<td>0.0001</td>
<td>0.001</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specifications

Model: FM-03-8
Size (Thread): Rc 3/8"
Body material: Brass
Graduated tube material: Polycarbonate
Working pressure | 0.5 MPa, 5 kgf/cm², 5 bar, 72.5 PSI |
| Working flow range | 1.35 to 4.75 GPM (5 to 18 L/min) |
| Seal material (Mark) | Nitrile rubber (NBR) |
| Working temperature range | +50 °F to +140 °F (+10°C to +60°C) |
| Mass | 0.42 lbs (190 g) |

Maximum Tightening Torque

- Nm (lb-in)

| Torque | 11 (97) |

Safety Guide

Read without fail and observe the “Instruction sheet” that comes with the product and the following pages in the Quick Connect Couplings General Catalog; [Precautions Relating to the Use of All CUPLA].

[trademark (CUPLA)] is registered in the United States.

NITTO KOHKI U.S.A., INC.

46 Chancellor Drive, Roselle, IL 60172, U.S.A.
Phone: (630) 924-9393 Toll Free: (800) 323-8828 Fax: (630) 924-0303 quickconnects@nittokohki.com www.nittokohki.com/

Specifications and designs are subject to change at any time without notice.

© Nitto Kohki U.S.A., Inc. 9/20