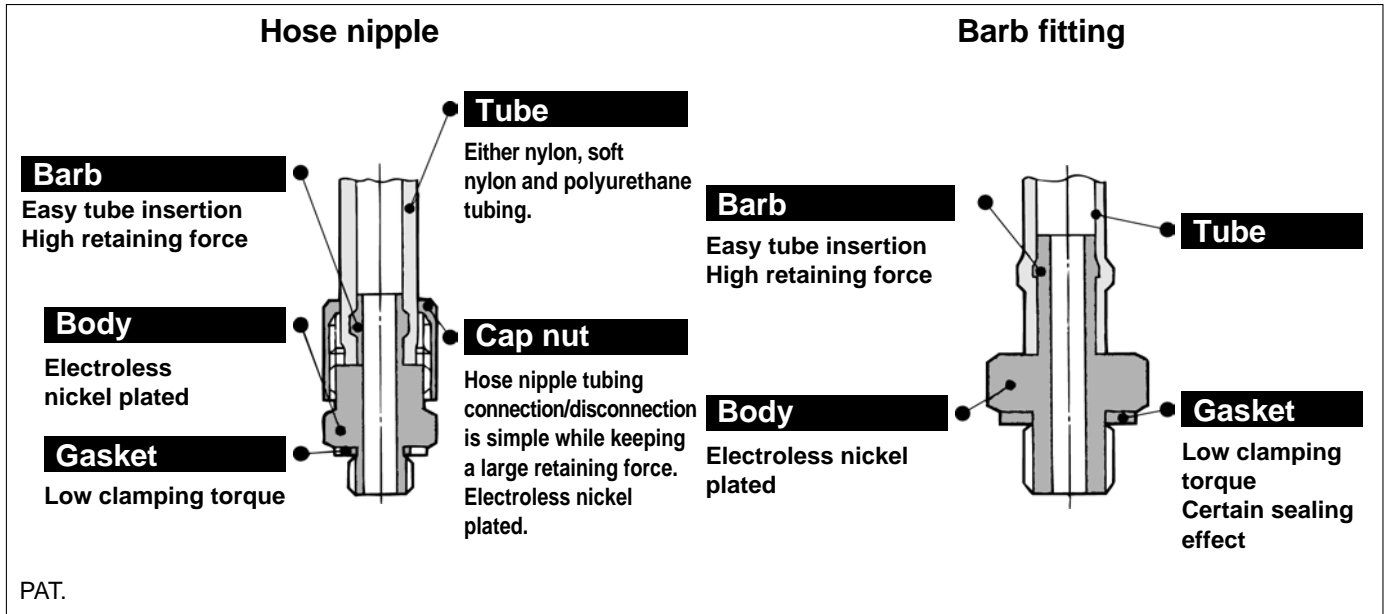


# Miniature Fittings

M3, M5, R(PT)1/8

# Series M



## Simple Connection/Disconnection

Hose nipple tubing connection/disconnection is simple while keeping a large retaining force.

## Miniature Size

For air connection in confined areas.

## Accepts Many Styles of Plastic Tubing

Hose nipple and hose elbow accepts nylon, soft nylon, and polyurethane tubing.



## Specifications

Applicable tube material		Nylon	Soft nylon	Polyurethane
Applicable tube dia.	M3	—	ø3.18/ø2.18	ø3.18/ø2, ø4/ø2.5
	M5-R(PT) 1/8	ø4/ø2.5 ø6/ø4		ø4/ø2.5 ø6/ø4
Max. operating pressure (at 20°C)		1.5MPa	1.0MPa	0.8MPa
Port size		M3, M5, R(PT)1/8		
Thread		JIS B0209 Class 2 (Metric coarse thread), JIS B0203 (Taper pipe thread)		

## Component Materials

Material	Body	C3604BD (Nipple M-3N, M-5N: Stainless steel (SUS 303))
	Gasket	PVC, Nylon66: GF30%









## Fitting Markings for Applicable Tube Material (Barb fitting, Barb elbow, Barb elbow (H))




Tube material determines the compatible fittings. (See diagram below.)














Connection	Tube	Fitting marking for applicable tube material			Surface treatment (Color)
		Barb fitting	Barb elbow	Barb elbow (H)	
M3	Soft nylon tube		—		Electroless nickel plated (Silver color)
	Polyurethane tube				
R(PT)1/8, M5	Nylon tube				Electroless nickel plated (Silver color)
	Soft nylon tube				Electroless nickel plated (Black color) [Except stud]
	Polyurethane tube				













## Series M3, R(PT)1/8

## Series M5

Series/Model	Style	Application	Note
M-3AU-3		For soft nylon tube	ø3.18/2.18 X M3
		For polyurethane tube	ø3.18/2 X M3
M-3AU-4		For soft nylon and polyurethane tube	ø4/2.5 X M3
M-3ALU-3		Soft nylon tube	ø3.18/2.18 X M3
M-3ALU-4		Body rotates 360° around the stud axis. polyurethane soft nylon and polyurethane	ø3.18/2 X M3 ø4/2.5 X M3
M-3UL		Body rotates at 360° around the stud axis	M3 female X M3 male
M-3UT		Body rotates at 360° around the stud axis	M3 female X M3 female X M3 male
M-3N		Fitting to workpiece and fitting - fitting connection possible	M3 male X M3 male
M-3P		To plug unused M3 port	
M-3G		To seal M3 thread	

Series/Model	Style	Application	Note
M-01AN-4		For nylon tube	ø4/2.5 X R(PT)1/8
M-01AN-6			ø6/4 X R(PT)1/8
M-01AU-4		For soft nylon and polyurethane tube	ø4/2.5 X R(PT)1/8
M-01AU-6			ø6/4 X R(PT)1/8
M-01H-4		For nylon, soft nylon and polyurethane tube	ø4/2.5 X R(PT)1/8
M-01H-6			ø6/4 X R(PT)1/8

Series/Model	Style	Application	Note
M-5AN-4		For nylon tube	ø4/2.5 X M3
M-5AN-6			ø6/4 X M5
M-5AU-3		For soft nylon tube	ø3.18/2.18 X M5
M-5AU-4			For polyurethane tube
M-5AU-6		For soft nylon and polyurethane tube	ø4/2.5 X M5 ø6/4 X M5
M-5ALN-4		● For nylon tube ● Body rotates at 360° around stud	ø4/2.5 X M5
M-5ALN-6			ø6/4 X M5
M-5ALU-3		Body rotates at 360° around the stud axis	soft nylon ø3.18/2.18 X M5
M-5ALU-4			polyurethane ø3.18/2 X M5
M-5ALU-6		soft nylon and polyurethane	ø4/2.5 X M5 ø6/4 X M5
M-5ALHN-4		Body rotates at 360° around the stud axis	For nylon tube ø4/2.5 X M5
M-5ALHN-6			ø6/4 X M5
M-5ALHU-3		Body rotates at 360° around the stud axis	soft nylon ø3.18/2.18 X M5
M-5ALHU-4			polyurethane ø3.18/2 X M5
M-5ALHU-6		soft nylon and polyurethane	ø4/2.5 X M5 ø6/4 X M5
M-5H-4		For nylon, soft nylon, and polyurethane tube	ø4/2.5 X M5
M-5H-6			ø6/4 X M5
M-5HL-4		● For nylon, soft nylon, and polyurethane tube	ø4/2.5 X M5
M-5HL-6			ø6/4 X M5
M-5HLH-4		● Body rotates at 360° around the stud axis	ø4/2.5 X M5
M-5HLH-6			ø6/4 X M5
M-5L		One-sided 90° elbow	M5 female X M5 female

Series/Model	Style	Application	Note
M-5T		Both sides allows 90° connection	M5 female X M5 female X M5 female
M-5UL		Body rotates at 360° around the stud axis	M5 female X M5 male
M-5UT			Universal tee
M-5J		Solid piece moves fitting up from workpiece	M5 male X M5 female
M-5N		Fitting to workpiece and fitting - fitting connection	M5 male X M5 male
M-5UN		Body rotates at 360° around the stud axis	M5 male X M5 male PAT
M-5E		Panel mount connection	M5 female X M5 female
M-5ER		Reduction from Rc(PT)1/8 to M5 and includes panel mounting	Rc(PT)1/8 X M5 female
M-5M		Rc(PT)1/8 can be diverted in up to 9, M5 stations, includes panel or bracket mounting	Rc(PT)1/8 X M5 female (9 stations)
M-5B		For reducing Rc(PT)1/8 female to M5 female	Rc(PT)1/8 X M5 female
M-5P		To plug unused M5 port	
M-5G1		To seal M5 thread	Material: PVC
M-5GH		M-5AL□-6 M-5ALH□-6 M-5HL-4, 6 M-5HLH-4, 6	Material: Nylon66 GF30%

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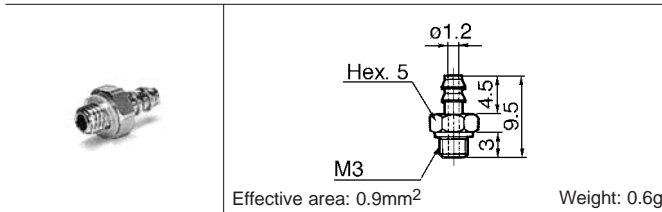
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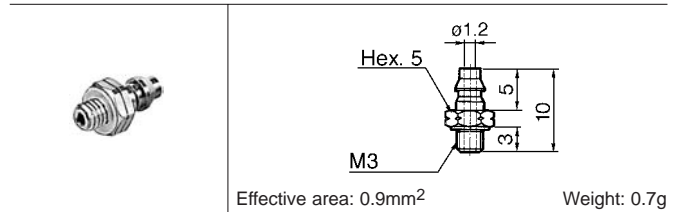
# Series M

## Series M3

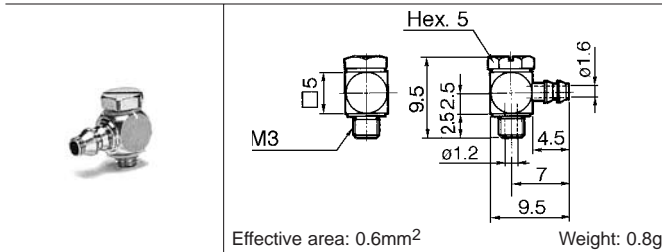
### Barb fitting for soft tube: M-3AU-3



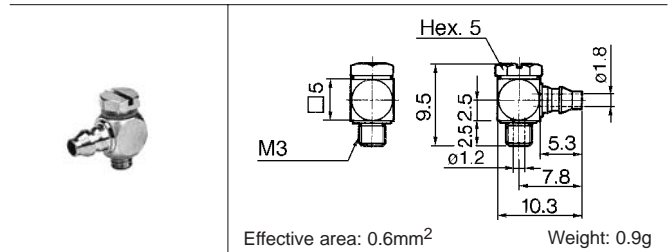
### Barb fitting for soft tube: M-3AU-4



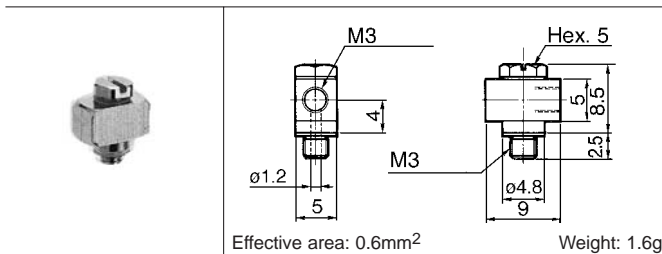
### Barb elbow for soft tube: M-3ALU-3



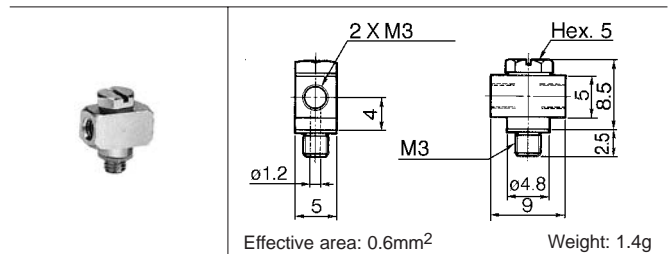
### Barb elbow for soft tube: M-3ALU-4



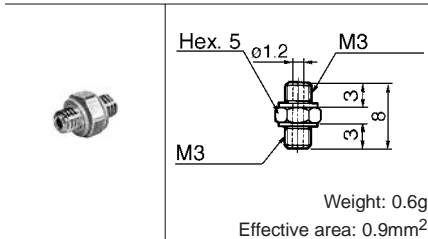
### Universal elbow: M-3UL



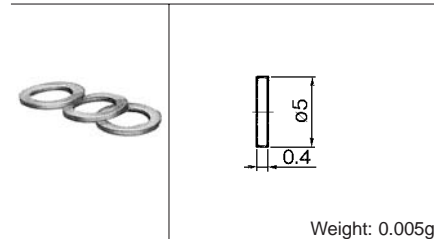
### Universal tee: M-3UT



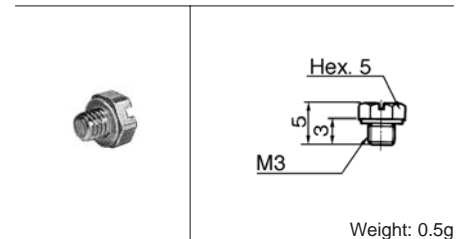
### Nipple: M-3N



### Gasket: M-3G



### Plug: M-3P



## Series R(PT)1/8

### Barb fitting for nylon tube, soft tube: M-01A□-4, -6

Tube	Part No.	A	B	øC	Effective area (mm <sup>2</sup> )	Weight (g)
Nylon tube	M-01AN-4	16	5	1.8	2.1	6.4
	M-01AN-6	18	7	2.5	4.0	6.6
Soft tube	M-01AU-4	16	5	1.8	2.1	6.5
	M-01AU-6	18	7	2.5	4.0	6.7

### Hose nipple: M-01H-4, -6

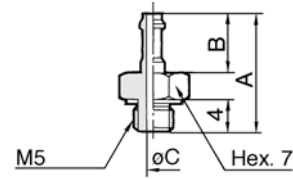
Part No.	A	B	øC	øD	E	Effective area (mm <sup>2</sup> )	Weight (g)
M-01H-4	19.5	8.5	1.8	6.5	7	2.1	7.1
M-01H-6	20.5	9.5	3	8.5	8	5.5	7.7

## Series M5

### Barb fitting for nylon tube: M-5AN-4, -6



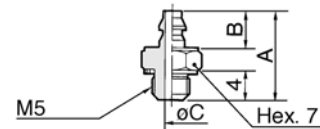
Part No.	A	B	øC	Effective area (mm <sup>2</sup> )	Weight (g)
M-5AN-4	12	5	1.8	2.1	1.6
M-5AN-6	14	8	2.5	4.0	1.7



### Barb fitting for soft tube: M-5AU-3, -4, -6



Part No.	A	B	øC	Effective area (mm <sup>2</sup> )	Weight (g)
M-5AU-3	11.5	4.5	1.6	1.7	1.5
M-5AU-4	12	5	1.8	2.1	1.6
M-5AU-6	14	7	2.5	4.0	1.8



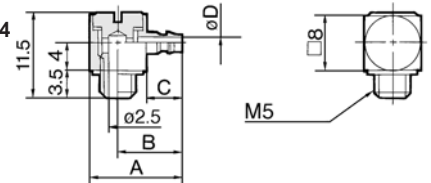
### Barb elbow for nylon tube: M-5ALN-4, -6

### Barb elbow for soft tube: M-5ALU-3, -4, -6

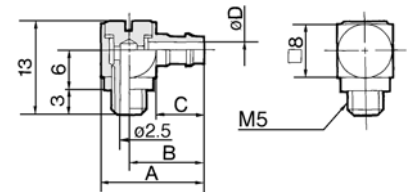


Part No.	A	B	C	øD	Effective area (mm <sup>2</sup> )	Weight (g)
M-5ALN-4	13	9	5	1.8	1.4	4.0
M-5ALN-6	15	11	7	2.5	2.4	4.4
M-5ALU-3	12.5	8.5	4.5	1.6	1.1	4.0
M-5ALU-4	13.3	9.3	5	1.8	1.4	4.1
M-5ALU-6	15.3	11.3	7	2.5	2.4	4.5

M-5ALN-4  
M-5ALU-3, -4



M-5ALN-6  
M-5ALU-6



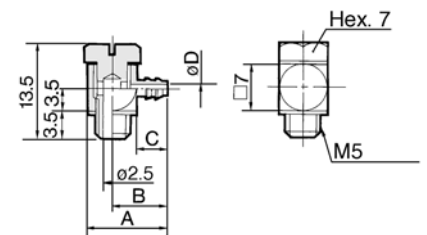
### Barb elbow for nylon tube: M-5ALHN-4, -6

### Barb elbow for soft tube: M-5ALHU-3, -4, -6

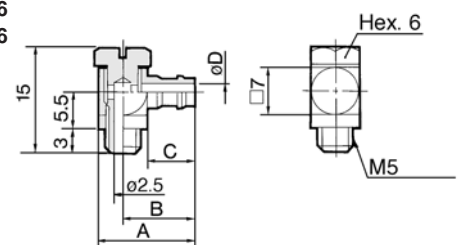


Part No.	A	B	C	øD	Effective area (mm <sup>2</sup> )	Weight (g)
M-5ALHN-4	12	8.5	5	1.8	1.4	3.2
M-5ALHN-6	14	10.5	7	2.5	2.4	3.7
M-5ALHU-3	11.5	8	4.5	1.6	1.1	3.2
M-5ALHU-4	12.3	8.8	5	1.8	1.4	3.3
M-5ALHU-6	14.3	10.8	7	2.5	2.4	3.9

M-5ALHN-4  
M-5ALHU-3, -4



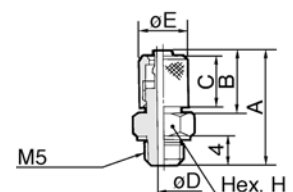
M-5ALHN-6  
M-5ALHU-6



### Hose nipple: M-5H-4, -6



Part No.	A	B	C	øD	øE	H	Effective area (mm <sup>2</sup> )	Weight (g)
M-5H-4	15.5	8.5	7	1.8	6.5	7	2.1	2.7
M-5H-6	16.5	9.5	8	2.5	8.5	8	4.0	3.9



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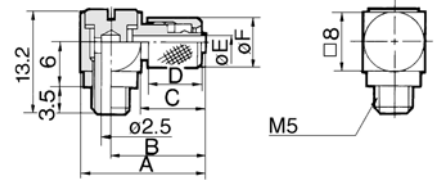
# Series M

## Series M5

### Hose elbow: M-5HL-4, -6



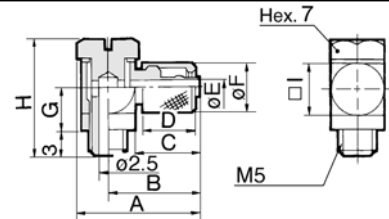
Part No.	A	B	C	D	øE	øF	Effective area (mm <sup>2</sup> )	Weight (g)
M-5HL-4	16.5	12.5	8.5	7	1.8	6.5	1.4	4.4
M-5HL-6	17.5	13.5	9.5	8	2.5	8.5	2.4	5.2



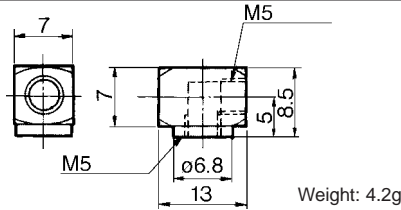
### Hose elbow: M-5HLH-4, -6



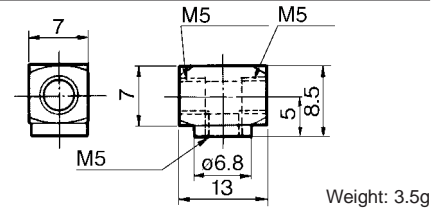
Part No.	A	B	C	D	øE	øF	G	H	□	Effective area (mm <sup>2</sup> )	Weight (g)
M-5HLH-4	15.5	12	8.5	7	1.8	6.5	5.5	15	7	1.4	4.5
M-5HLH-6	17.5	13.5	9.5	8	2.5	8.5	6	16	8	2.4	6.6



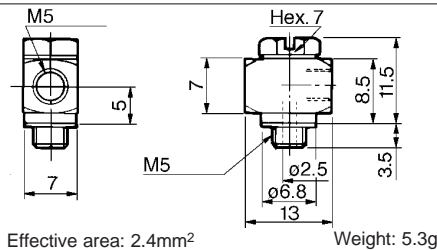
### Elbow: M-5L



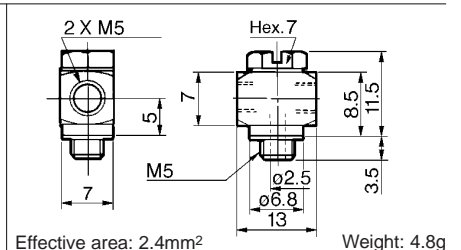
### Tee: M-5T



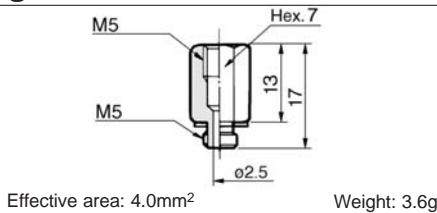
### Universal elbow: M-5UL



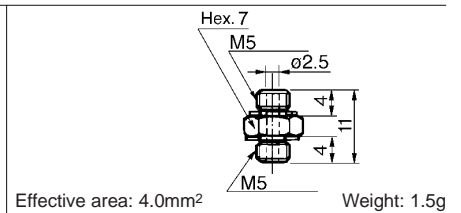
### Universal tee: M-5UT



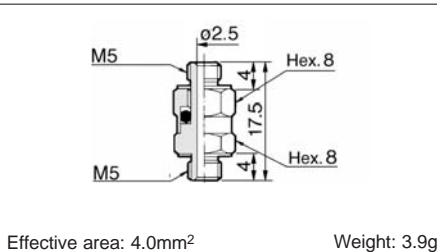
### Extension fitting: M-5J



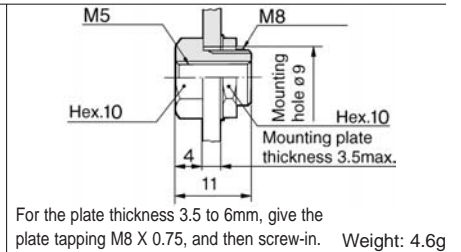
### Nipple: M-5N



### Universal nipple: M-5UN

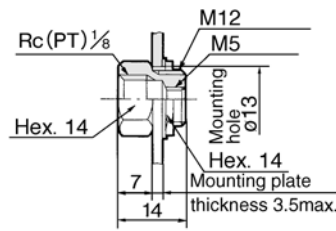


### Bulkhead union: M-5E



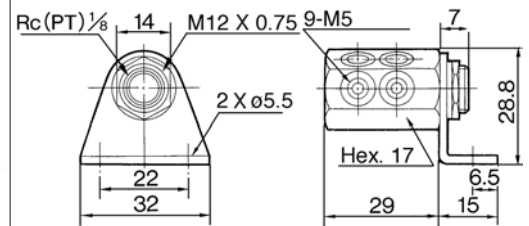
## Series M5

### Bulkhead reducer: M-5ER



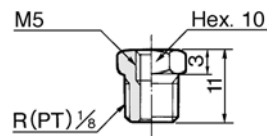
For the plate thickness 3.5 to 6mm, give the plate tapping M12 X 0.75, and then screw-in. Weight: 12g

### Manifold: M-5M



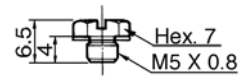
Panel mounting plate thickness max. 3.5mm  
For the plate thickness 3.5 to 6mm, give the plate tapping M12 X 0.75, and then screw-in. Weight: 59g

### Bushing: M-5B



Weight: 5.8g

### Plug: M-5P



Weight: 1.3g

### Gasket: M-5G1



Weight: 0.01g

### Gasket: M-5GH



Weight: 0.04g

## ⚠ Precautions

**Be sure to read before handling.**  
**Refer to p.0-26 and 0-27 for Safety Instructions and common precautions on the products mentioned in this catalogue, and refer to p.2.0-7 and 2.0-8 for more detailed precautions of every series.**

### Tightening of M3 or M5 thread

#### ⚠ Caution

- ① Tighten by hand, and give it an additional 1/4 rotation with wrench. (The additional rotation should be doubled to 1/2 when using the universal elbow, universal tee, etc. which have two gaskets.) If tightened too much, thread portion may be damaged and gasket may be deformed. This will cause air leakage. On the contrary, if tightening is not sufficient, thread may loosen causing air leakage.

### Use of tubing with hose nipple

#### ⚠ Caution

- ① Cut the tube perpendicularly to the tube axis to a little longer length than required length. (Use tube cutter "TK-1", "TK-2" or "TK-3".)
- ② Pass the tubing through the cap nut.
- ③ Push the tube until it comes to the end of the barb portion, or it may cause air leakage or hose releasing.
- ④ Tighten the cap nut firmly by hand on the fitting.

### Use of tube with barb fitting

#### ⚠ Caution

- ① Cut the tube perpendicularly to the tube axis with a little longer length than required length. (Use tube cutter "TK-1", "TK-2" or "TK-3".)
- ② Push the tube in until it comes to the end of the barb portion, or it may cause air leakage or hose releasing.

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