

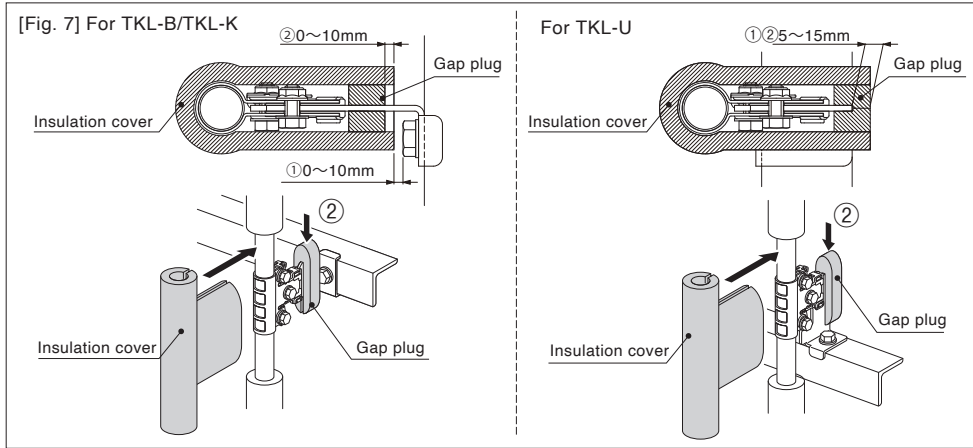
4 Mounting an insulation cover (for dew proofing)

For dew proofing, mount a TKL insulation cover (our company's model: TKL-SH, TKL-DH) on the Pipe Support.

1. With reference to [Fig. 7], cut the end of the insulation cover (dimension (1)).

* A gap plug is included in the package of TKL insulation cover (TKL-6SH/6DH~14SH/14DH).

(This is not required for TKL-3K~5K, and it is not included in the package of TKL-3SH/3DH~5SH/5DH)



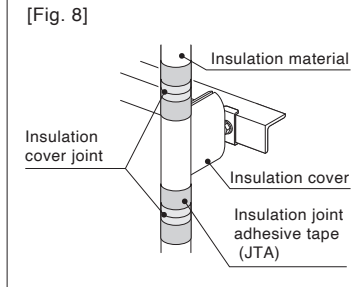
2. Place an insulation joint adhesive tape (our company's model: JTA) around the joint between the insulation cover and the insulation material of the piping, overlapping it at least 10 mm on the circumference. [Fig. 8]

(Note)

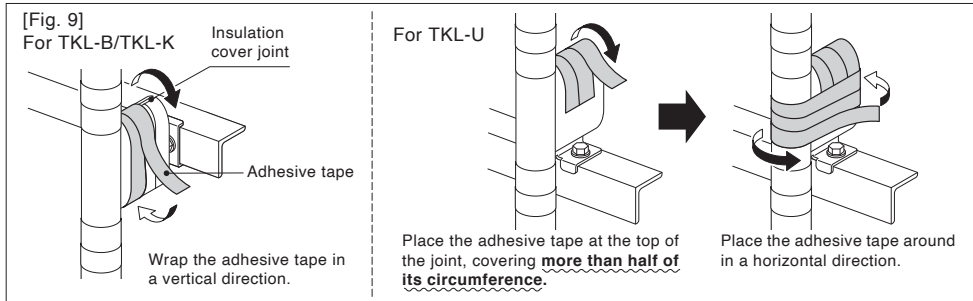
Clean and remove all dusts and stains from the surface where the insulation joint adhesive tape is placed.

(Note)

When placing the insulation joint adhesive tape at the edge of the T-portion of the insulation cover, use your hand to press the tape wrinkles and push the tape into the embossed shape (concave and convex shapes) so that the tape adheres tightly to the material.



3. Place an adhesive tape (our company's model: HF, HV, HR) around the joint of the insulation cover on the base bracket to prevent the joint from opening. [Fig. 9]



For customers

- For mounting work, always contact a professional contractor.
- Keep this instruction manual in a safe place.
- For inquiries, contact one of the offices listed at the end of the document.

For installation contractors

- Be sure to read this instruction manual carefully and then install the product properly.
- Be sure to hand this instruction manual to the customer.
- This instruction manual is valid only in Japan.

Read this first (for proper and safe use)

This product is only for air conditioning piping. Do not use this for refrigerating or freezing equipment piping.

- The following describes categories of possible risks and damages that may occur when the product is used improperly without complying with the instruction.

Caution	Improper handling of the product may cause injury to the user.
Warning	Improper handling of the product may cause property damages.

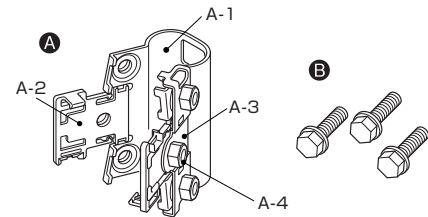
- To prevent risks to the user or other people and property damages, the following instructions must be followed.

Caution	<ul style="list-style-type: none"> ● Always wear work gloves, helmets, etc. while at work.
Warning	<ul style="list-style-type: none"> ● If there is a possibility of damage to the elbow at the uptake or downtake part of vertical piping, use an expansion elbow (expansion loop, expansion offset, etc.) to absorb thermal expansion and contraction of the copper tube. ● Always use a dedicated TKL base bracket for installation. ● Do not use strap bolts as these are not strong enough. ● Fixation bands cannot be reused as they are deformed when opened after they are closed once. ● Make sure that the fixation band size matches the copper tube size before use.

- **Note** *The product may not achieve its expected functions or performance if the following instructions are not observed.

- A pipe support is required at each floor/level. Use a flexible piping band (model: HBR) for supporting the piping.
- Apply ultraviolet shielding measures for outdoor use. Or, the insulation material may deteriorate.

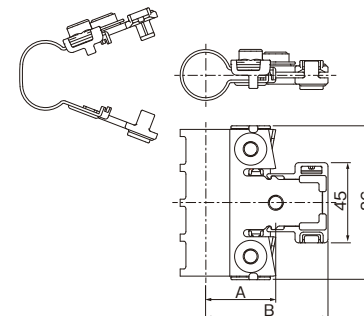
Details of the unit, part names, specifications



Details of the unit

Symbols	Names	Material	Quantity
A	Main body (Pipe Support TKL)		1
	A-1: Fixation band x 1	SUS304	
	A-2: Spacers x 2	PC	
	A-3: Temporary nut fixation plate x 1	PP	
	A-4: Hex nut M8 x 3	SUS	
B	Hex bolt M8 x 23L	SUS	3
—	Instruction Manual	—	1

Dimensions



Unit: mm

Models	Compatible pipe sizes	A	B
TKL-3K	φ 9.52	30	59
TKL-4K	φ12.70	32	61
TKL-5K	φ15.88	34	63
TKL-6K	φ19.05	36	65
TKL-7K	φ22.22	37	66
TKL-8K	φ25.40	39	68
TKL-9K	φ28.58	41	70
TKL-10K	φ31.75	43	72
TKL-11K	φ34.92	44	73
TKL-12K	φ38.10	46	75
TKL-13K	φ41.28	48	77
TKL-14K	φ44.45	49	78

1 Determining the mounting position

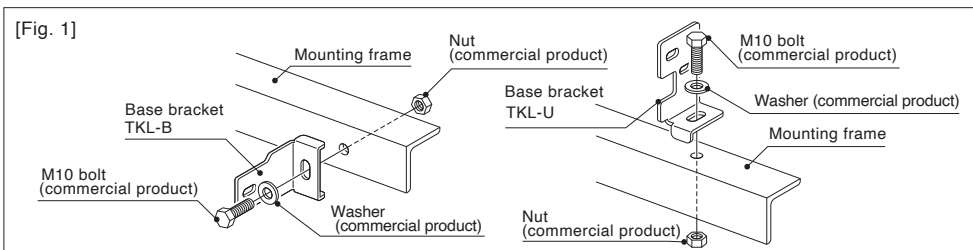
Determining the mounting position of the Pipe Support at the center of the vertical piping length.

Warning If there is a possibility of damage to the elbow at the uptake or downtake part of vertical piping, use an expansion elbow (expansion loop, expansion offset, etc.) to absorb thermal expansion and contraction of the copper tube.

2 Mounting the base bracket

Mount a specific TKL base bracket (our company's model: TKL-B, TKL-K, TKL-U) on the mounting frame or the wall.

Warning Always use a specific TKL base bracket for installation. Do not use strap bolts as these are not strong enough.



(Note) Use commercially available M10 bolts, nuts and washers. (Use a washer also for protecting the paint)
 (Note) The mounting frame, on which the base bracket is mounted (model: TKL-B, TKL-U), must be designed carefully for the weight of the vertical piping.
 (Note) For mounting a wall-mounting base bracket (model: TLK-K), the wall must have sufficient strength.

* For selecting a specific TKL base bracket (our company's models: TKL-B, TKL-K, TKL-U), see "Distance L (mm) between the center of copper tube and the mounting frame (wall)" described in the Specifications (separate document).

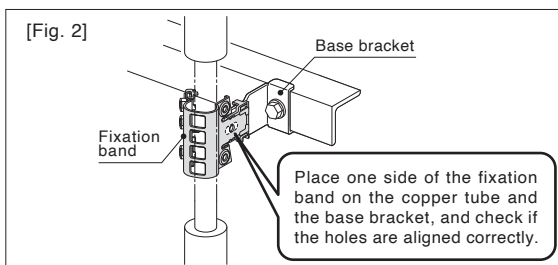


3 Mounting the main body (Pipe Support TKL)

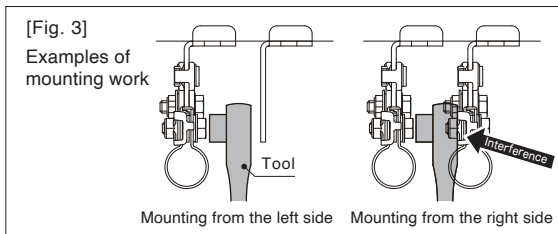
Warning Fixation bands **cannot be reused** as they are deformed and not capable of supporting the piping when opened after they are closed once. Make sure that the fixation band size matches the copper tube size before use.

1. Check before mounting

(1) Make sure that the hole of the fixation band and the hole of the base bracket are aligned before starting to work. [Fig. 2]



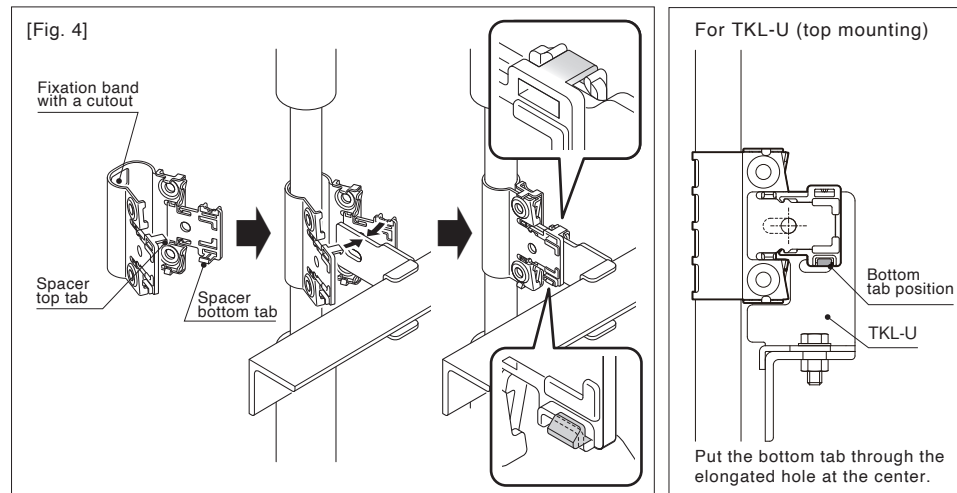
(2) If other pipes are located closely, consider the tool size and determine the work sequence. (Tools may interfere with each other depending on the sequence) [Fig. 3]



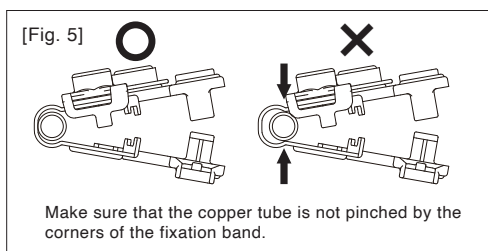
[2]

2. Temporary fixation of the fixation band

Press the side of the fixation band, which has a cutout, against the copper tube and close the fixation band. When closing the band, make sure that the tabs located at the top and bottom of the spacer go over the opposite spacer to secure them temporarily. [Fig. 4]



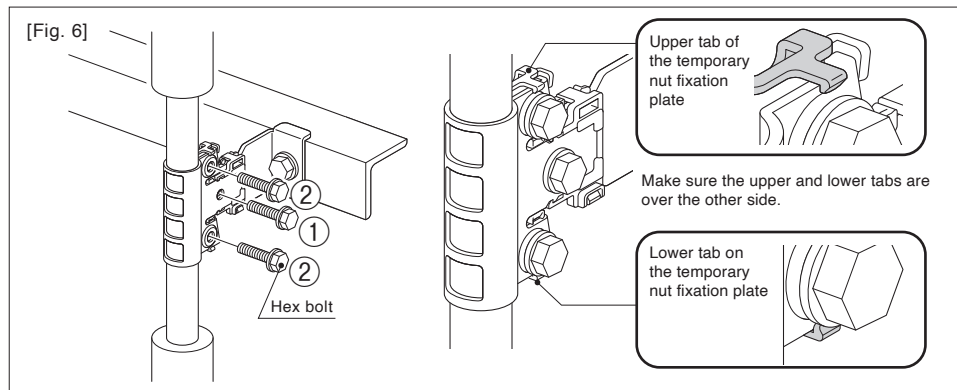
(Note) When closing this, be careful not to pinch the copper tube with the corners of the fixation band. (In particular, be careful when using a small-diameter copper tube) [Fig. 5]



3. Tightening the bolts

Tighten the hex bolts, included in the package, starting from the center position ①. [Tightening torque: 12.5 N·m or more]

Tighten the upper and lower hex bolts ② alternately little by little until the upper and lower tabs on the temporary nut fixation plate go over the other side. (When the tabs go over the other side, tightening is completed) [Fig. 6]



One point advice For tightening the bolt and nut, if you turn the bolt, tightening can be completed at a lower torque than turning the nut.

[3]