

# TKL Pipe Support Specification

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## 1. What is a proper PIPE SUPPORT?

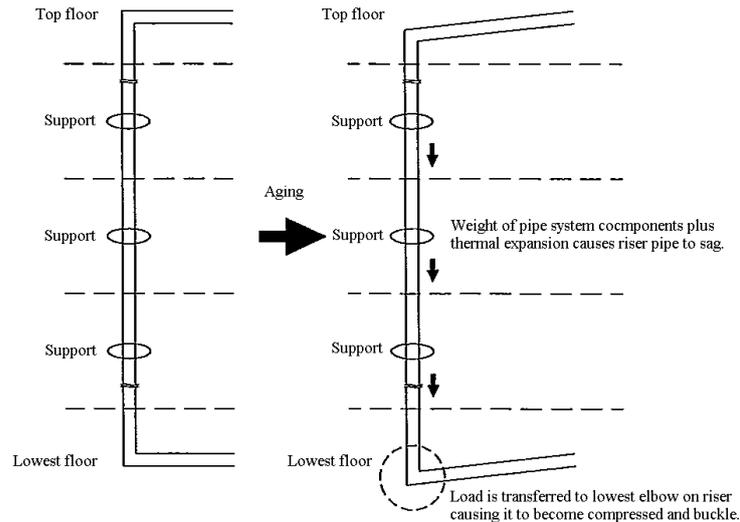
- **Conventional Piping Supported Risers:** Installation with steel clamping mechanisms using a soft synthetic rubber or vinyl band which is needed to prevent galvanic corrosion. This type of support installation requires the soft band to bear the weight of the copper piping. This soft band is subject to degradation due to UV rays and once degraded, exposes the copper piping to the steel clamps which may lead to galvanic corrosion due to the dissimilar metals touching. Thermal expansion and contraction then causes the weight to transfer to lowest elbow on the riser causing it to become compressed and buckles.

- **TKL PIPE SUPPORT** is a clamping system for A/C vertical piping that supports the weight of copper pipe and reduces the thermal expansion load on the lowest elbow by 50%.

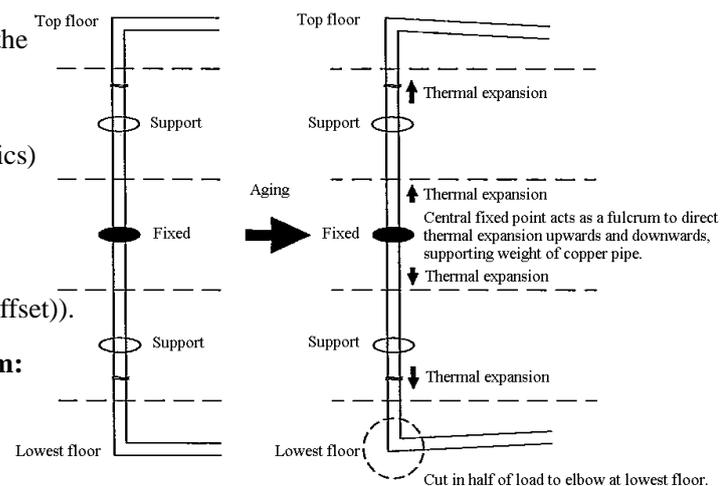
## 2. Features

- **Reduces weighted load on vertical riser:** Unlike conventionally supported vertical riser installations, **TKL PIPE SUPPORT** is clamped to vertical copper riser using Stainless steel clamping components which does not cause galvanic corrosion and reduces the loading on the lowest fitting created by the weight of the entire riser.
- **Reduces thermal expansion load by 50%:** In conventional installations, the lowest elbow of the pipe system often carries the full load of the riser itself plus the extra stresses imposed by thermal expansion. Installing **TKL PIPE SUPPORT** in the center of the vertical riser reduces the load created by the system components as well as the thermal expansion by 50%.  
(Always follow local code authority for support specifics)  
**TKL PIPE SUPPORT** requires less space than the Conventional provision for thermal expansion and contraction at rise and fall outlet from fulcrum (Flexible expansion pipe (expansion loop, expansion offset)).
- **TKL Can be applied after installation of pipe system:** Because the pipe support clamp is split, it can be easily fitted onto the riser and adjusted *after* the pipe system has been installed.
- **Easily adjustable:** Slotted holes on mounting bracket allow for precise adjustments.

### Conventional Installation



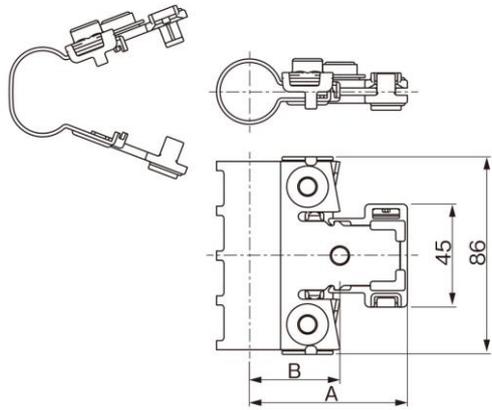
### Typical Installation with PIPELOCK



## 1. Product Specifications

### (1) Pipe Support (Non-Braze)

Dimensions



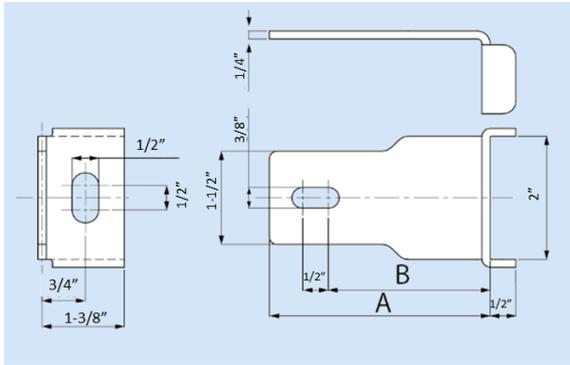
Unit: mm

Models	Compatible pipe sizes	A	B
TKL-3K	3/8"	2-3/8	1-1/4
TKL-4K	1/2"	2-1/2	1-3/8
TKL-5K	5/8"	2-1/2	1-3/8
TKL-6K	3/4"	2-5/8	1-1/2
TKL-7K	7/8"	2-5/8	1-1/2
TKL-8K	1"	2-3/4	1-5/8
TKL-9K	1-1/8"	2-7/8	1-5/8
TKL-10K	1-1/4"	2-7/8	1-3/4
TKL-11K	1-3/8"	2-7/8	1-3/4
TKL-12K	1-1/2"	3	1-7/8
TKL-13K	1-5/8"	3-1/8	2
TKL-14K	1-3/4"	3-1/8	2

- - Material: Main body: Fixation band: SUS304  
Nut fixation plates: PP  
Hex nuts M8 (3 pieces): SUS  
Hex bolts: M8 x 23L (3 pieces) SUS

(2) Base bracket

- Base bracket

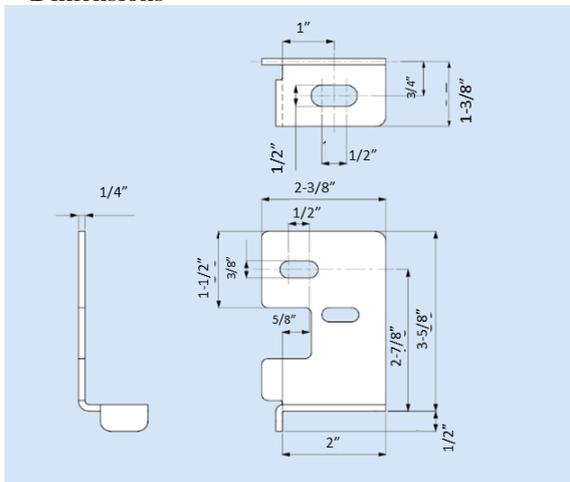


Models	A	B
TKL-B60	2-5/8"	1-3/4"
TKL-B70	3"	2-1/8"

● Material: Highly corrosion-resistant hot-dip galvanized steel  
(Cation electrodeposition coating + acrylic paint)

- Base bracket (top mounting)

Dimensions

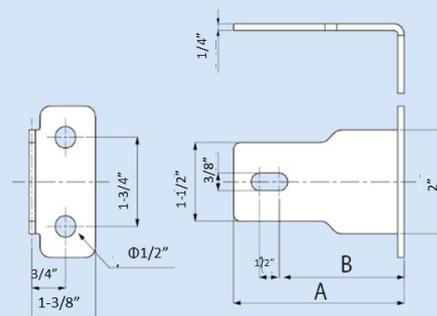


- Base bracket (wall-mounting)

Dimensions

Models	A	B
TKL-K60	2-5/8"	1-3/4"
TKL-K70	3"	2-1/8"
TKL-K80	3-1/2"	2-1/2"
TKL-K90	3-7/8"	2-7/8"
TKL-K100	4-1/4"	3-3/8"

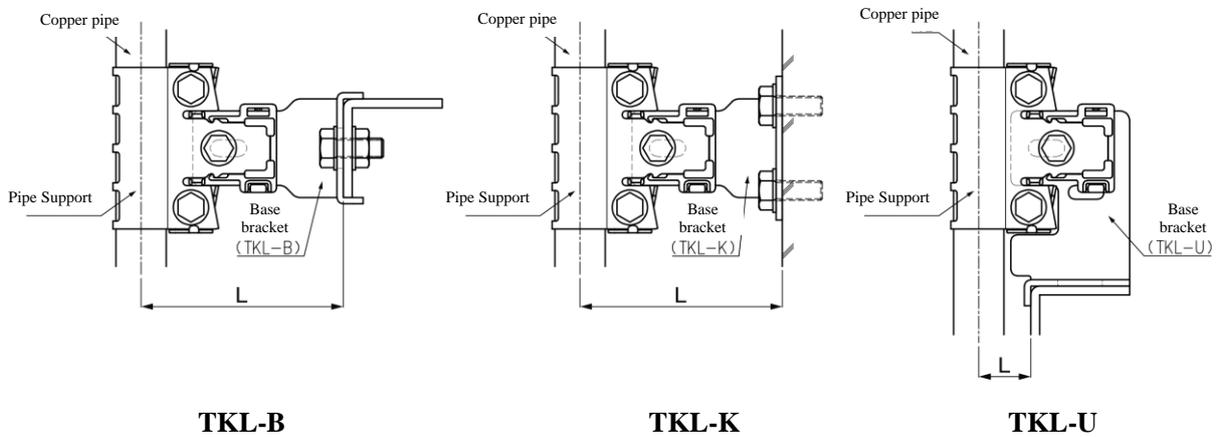
- Material: Highly corrosion-resistant



## \* Selecting a base bracket (TKL-B, TKL-K, TKL-U)

With reference to the table below, identify the distance L (the distance between the center of copper piping and the base bracket), and select the appropriate base bracket.

(When the distance L (between the center of copper pipe and the mounting frame) is within the range shown in the table, the mounting position can be adjusted with the elongated hole of the base bracket)



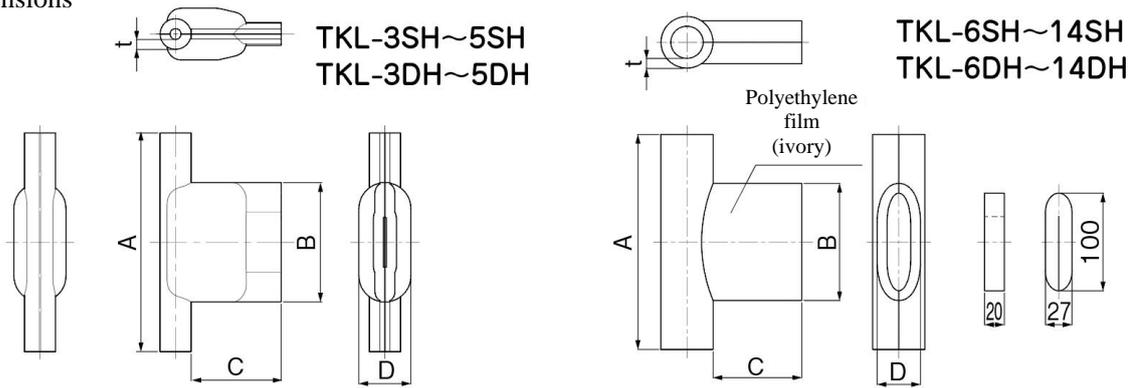
Distance L between the center of copper piping riser and the base bracket (wall) (inch)

Models	TKL-B60 TKL-K60	TKL-B70 TKL-K70	TKL-B80 TKL-K80	TKL-B90 TKL-K90	TKL-B100 TKL-K100	TKL-U00 Insulation cover TKL-SH	TKL-U00 Insulation cover TKL-DH
TKL-3K	2-7/8" ~ 3-3/8	~ 3-5/8	~4	~ 4-1/2	~ 4-7/8	3/4 ~ 1-1/8	1-1/8
TKL- 4K	3 ~ 3-3/8	~ 3-3/4	~ 4-1/4	~ 4-5/8	~ 5	3/4 ~ 1-1/4	1-1/4
TKL- 5K	3-1/8 ~ 3-1/2	~ 3-7/8	~ 4-1/4	~ 4-5/8	~ 5	7/8 ~ 1-1/4	1-1/4
TKL- 6K	3-1/8 ~ 3-5/8	~ 4	~ 4-3/8	~ 4-3/4	~ 5-1/8	1 ~ 1-3/8	1-3/8
TKL- 7K	3-1/4 ~ 3-5/8	~ 4	~ 4-3/8	~ 4-3/4	~ 5-1/8	1 ~ 1-3/8	1-3/8
TKL- 8K	3-1/4 ~ 3-5/8	~ 4-1/8	~ 4-1/2	~ 4-7/8	~ 5-1/4	1-1/8 ~ 1-1/2	1-1/2
TKL- 9K	3-3/8 ~ 3-3/4	~ 4-1/8	~ 4-1/2	~ 5	~ 5-3/8	1-1/8 ~ 1-1/2	1-1/2
TKL-10K	3-1/2 ~ 3-7/8	~ 4-1/4	~ 4-5/8	~ 5	~ 5-3/8	1-1/4 ~ 1-5/8	1-5/8
TKL-11K	3-1/2 ~ 3-7/8	~ 4-1/4	~ 4-5/8	~ 5	~ 5-1/2	1-1/4 ~ 1-5/8	1-5/8
TKL-12K	3-5/8 ~ 4	~ 4-3/8	~ 4-3/4	~ 5-1/8	~ 5-1/2	1-3/8 ~ 1-3/4	1-3/4
TKL-13K	3-5/8 ~ 4	~ 4-3/8	~ 4-7/8	~ 5-1/4	~ 5-5/8	1-1/2 ~ 1-7/8	1-7/8
TKL-14K	3-5/8 ~ 4-1/8	~ 4-1/2	~ 4-7/8	~ 5-1/4	~ 5-5/8	1-1/2 ~ 1-7/8	1-7/8

- These are recommendations for piping support based on factory tests
- Always check with the local code authority for specifics or requirements that are more stringent

## (3) Insulation cover

## Dimensions



- Material: Polyethylene foam with factor of 30

- Insulation material thickness: 3/8" type

Models	Compatible product models	Insulation thickness t	A	B	C	D
TKL-3SH	TKL-3K	3/8	8-3/4	4-3/4	3-5/8	2-1/8
TKL-4SH	TKL- 4K	3/8	8-3/4	4-3/4	3-5/8	2-1/8
TKL-5SH	TKL- 5K	3/8	8-3/4	4-3/4	3-5/8	2-1/8
TKL-6SH	TKL- 6K	3/8	8-3/4	4-3/4	3-5/8	1-3/4
TKL-7SH	TKL- 7K	3/8	8-3/4	4-3/4	3-5/8	1-3/4
TKL-8SH	TKL- 8K	3/8	8-3/4	4-3/4	3-5/8	1-3/4
TKL-9SH	TKL- 9K	3/8	8-3/4	4-3/4	3-5/8	1-3/4
TKL-10SH	TKL-10K	3/8	8-3/4	4-3/4	3-5/8	1-3/4
TKL-11SH	TKL-11K	3/8	8-3/4	4-3/4	3-5/8	1-3/4
TKL-12SH	TKL-12K	3/8	8-3/4	4-3/4	3-5/8	1-3/4
TKL-13SH	TKL-13K	3/8	8-3/4	4-3/4	3-5/8	1-3/4
TKL-14SH	TKL-14K	3/8	8-3/4	4-3/4	3-5/8	1-3/4

- Insulation material thickness: 7/8" type

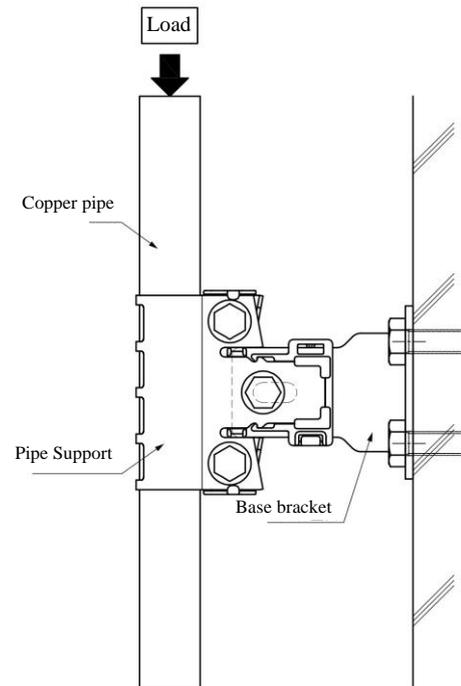
Models	Compatible product models	Insulation thickness t	A	B	C	D
TKL-3DH	TKL-3K	7/8	9-1/2	5-5/8	3-1/4	2-7/8
TKL-4DH	TKL- 4K	7/8	9-1/2	5-5/8	3-1/4	2-7/8
TKL-5DH	TKL- 5K	7/8	9-1/2	5-5/8	3-1/4	2-7/8
TKL-6DH	TKL- 6K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-7DH	TKL- 7K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-8DH	TKL- 8K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-9DH	TKL- 9K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-10DH	TKL-10K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-11DH	TKL-11K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-12DH	TKL-12K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-13DH	TKL-13K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-14DH	TKL-14K	7/8	9-1/2	5-5/8	3-1/4	2-5/8

### 3. Load capacity

The following describes the product load capacity.

Load capacity

Models	[kg]	[N]	LBS
TKL-3K	279	1245	615
TKL-4K	293	1304	645
TKL-5K	319	1421	700
TKL-6K	339	1510	745
TKL-7K	368	1642	810
TKL-8K	405	1804	890
TKL-9K	449	2002	985
TKL-10K	493	2201	1085
TKL-11K	542	2414	1190
TKL-12K	595	2650	1310
TKL-13K	652	2907	1435
TKL-14K	714	3179	1570



Note: The load capacity indicates the load that the test piece is capable of supporting the copper pipe when load is given to that test piece.