

TKL Pipe Support Specification

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Technical Division

1. What is a proper PIPE SUPPORT?

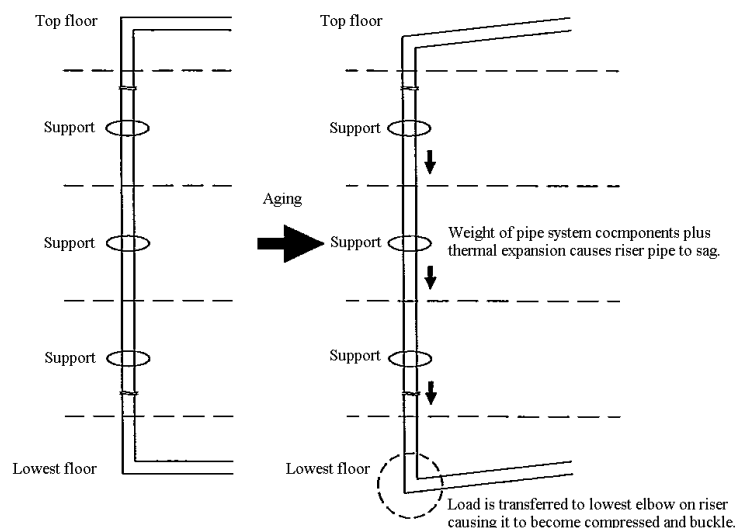
- **Conventional Piping Supported Risers:**
Installation with steel clamping mechanisms using a soft synthetic rubber or vinyl band which is needed to prevent galvanic corrosion. This type of support installation requires the soft band to bear the weight of the copper piping. This soft band is subject 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%.

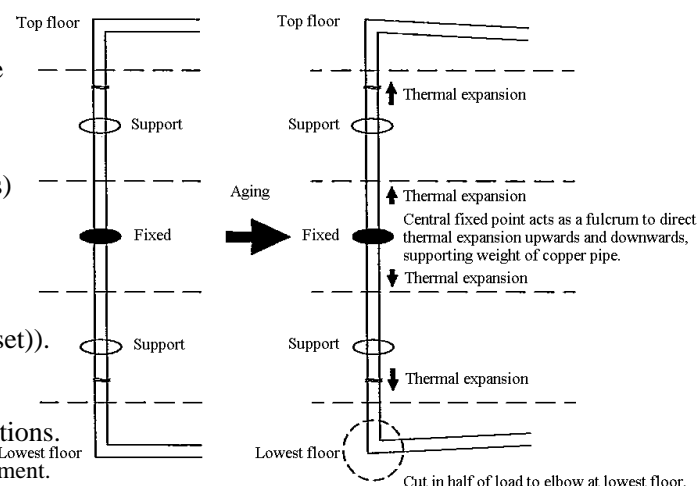
2. Features

- **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 piping installation:**
The split design is flexible and allows for retrofit applications.
Note : Modifications to existing support may be required for alignment.
See installation manual for details.
- **Easily adjustable:**
Slotted holes on mounting bracket allow for precise adjustments.

Conventional Installation



Typical Installation with PIPELOCK



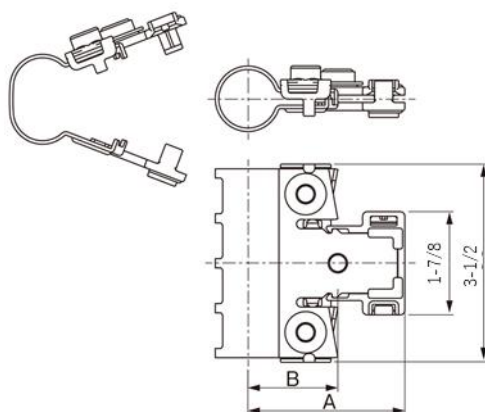
1. Applications

These Specifications applies to Pipe Support TKL.

2. Product Specifications

(1) Pipe Support (Non-Braze)

Dimensions



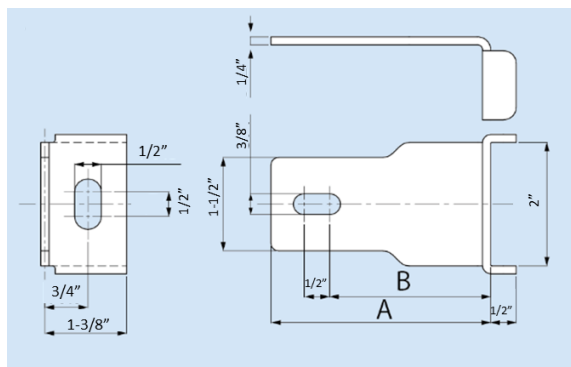
Unit : Inch

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

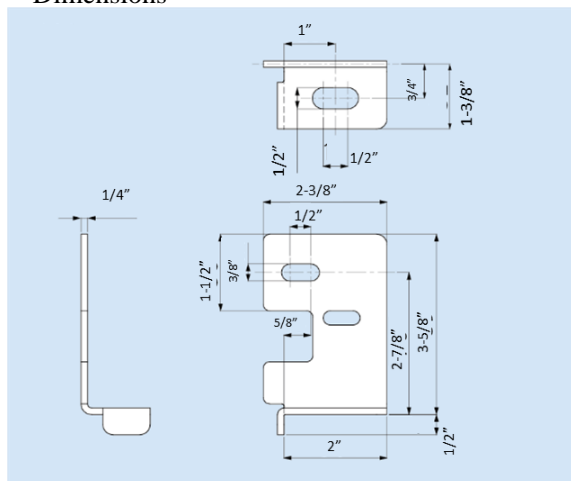


Models	A	B
TKL-B60	2-5/8"	1-3/4"
TKL-B70	3"	2-1/8"
TKL-B80	3-1/2"	2-1/2"
TKL-B90	3-7/8"	2-7/8"
TKL-B100	4-1/4"	3-3/8"

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

- Base bracket (top mounting)

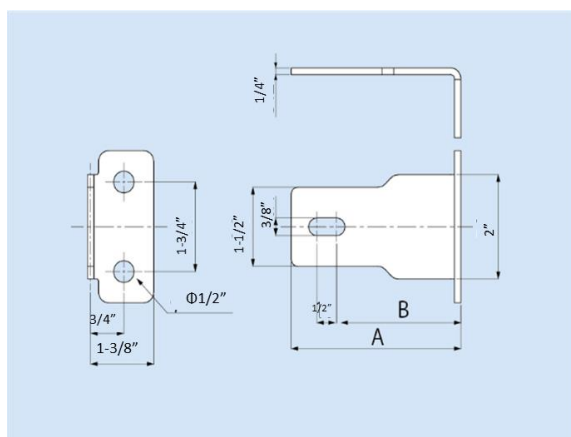
Dimensions



- Model: TKL-U00
- Material: Highly corrosion-resistant hot-dip galvanized steel sheets (Cation electrodeposition coating + acrylic paint)

- Base bracket (wall-mounting)

Dimensions

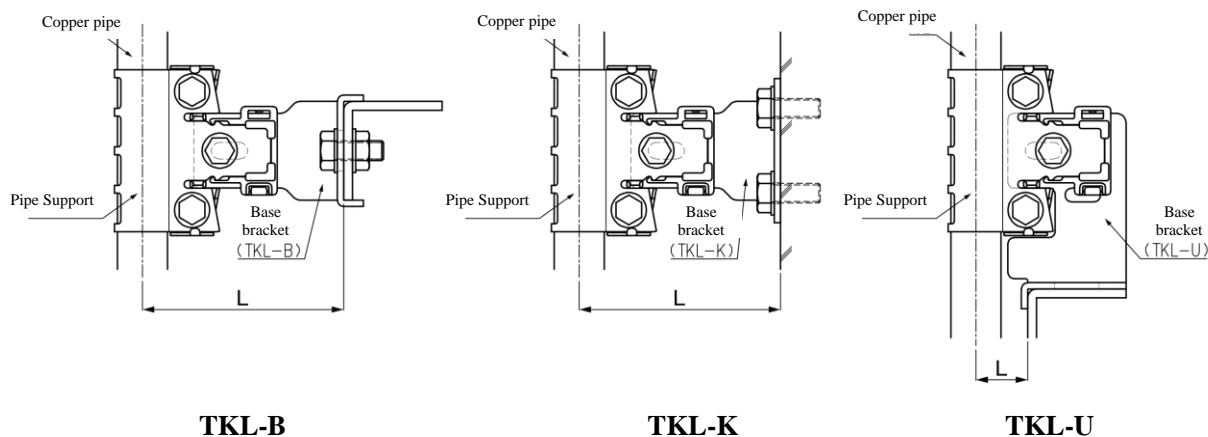


Models	A	B
TKL-K60	2-5/8"	1-3/4"
TKL-K70	3"	2-1/8"
TKL-K80	3-1/2"	2-1/2"
TKL-K90	3-7/8"	2-7/8"
TKL-K100	4-1/4"	3-3/8"

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

* 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)



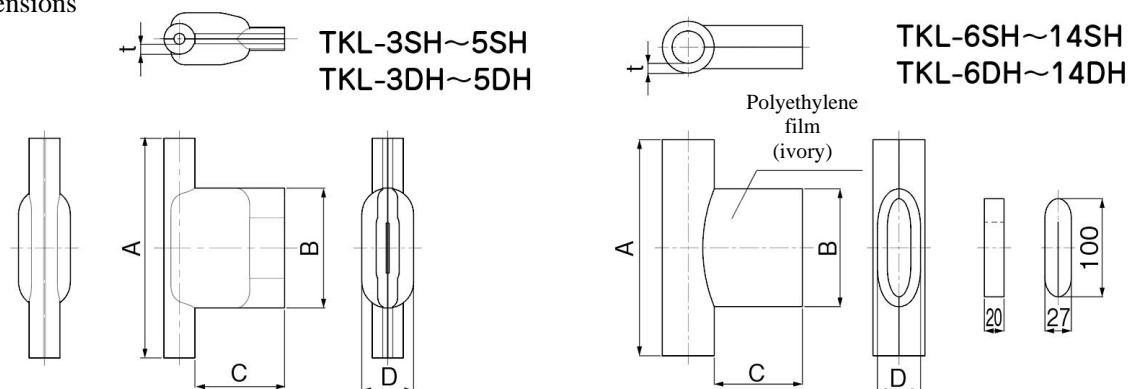
Distance L between the center of copper piping riser and the base bracket (wall) (inch)

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

Unit: inch

- Insulation material thickness: 3/8" type

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

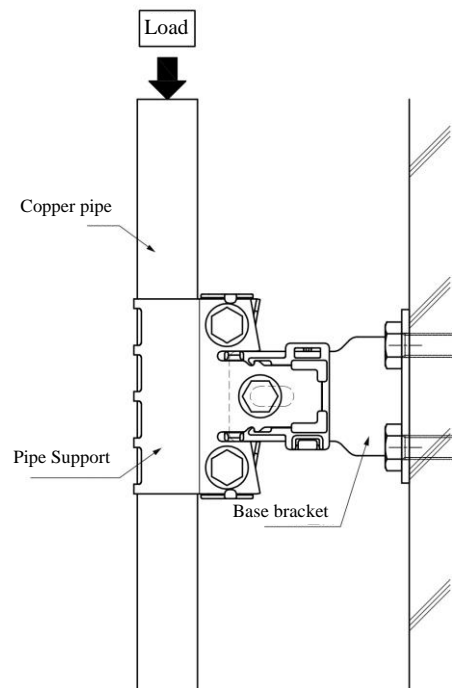
- Insulation material thickness: 7/8" type

Models	Compatible product models	Insulation thickness t	A	B	C	D
TKL-3DH	TK-3K	7/8	9-1/2	5-5/8	3-1/4	2-7/8
TKL-4DH	TK-4K	7/8	9-1/2	5-5/8	3-1/4	2-7/8
TKL-5DH	TK-5K	7/8	9-1/2	5-5/8	3-1/4	2-7/8
TKL-6DH	TK-6K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-7DH	TK-7K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-8DH	TK-8K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-9DH	TK-9K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-10DH	TK-10K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-11DH	TK-11K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-12DH	TK-12K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-13DH	TK-13K	7/8	9-1/2	5-5/8	3-1/4	2-5/8
TKL-14DH	TK-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	[lbs]	[N]
TKL-3K	169	755
TKL-4K	183	814
TKL-5K	319	1421
TKL-6K	339	1510
TKL-7K	368	1642
TKL-8K	405	1804
TKL-9K	449	2002
TKL-10K	493	2201
TKL-11K	542	2414
TKL-12K	595	2650
TKL-13K	652	2907
TKL-14K	714	3179



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.