



**K-LINE INSULATORS LIMITED**  
TORONTO, ONTARIO, CANADA

# Catalogue T-BP

## TRANSMISSION SILICONE INSULATORS

### *Braced Post*

### *69 kV to 230 kV*



ISO9001  
SAI GLOBAL  
FILE No. 000117

# Transmission Silicone Braced Post

Braced Post Insulators offer a high performance solution for modern high-voltage transmission systems. Operating between 69 kV and 230 kV, they have been designed to optimize both line compaction and mechanical strength. This is achieved through the combination of a horizontal line post with the tensile strength of a suspension brace insulator to deliver an assembly with high-strength tolerance. These assemblies provide the mechanical strength to withstand high wind and ice loading conditions, while also mitigating the conductor swing associated with traditional suspension assemblies.

**K-LINE INSULATORS LIMITED** silicone rubber Braced Post Insulators are manufactured and tested in accordance with industry-wide standards, CSA and ANSI.

**K-LINE INSULATORS LIMITED** is registered to ISO 9001 Quality Systems.

## PERFORMANCE BENEFITS

The performance benefits of **KLI** Braced Post Insulators are listed below.

- Improves Reliability (interruptions and outages due to vandalism, pole fires, and flashovers in all types of environments)
- Eliminates or Reduces Maintenance (such as washing and fewer trouble calls) and are compatible with existing installation
- Improves Power Quality (lower RI and TVI)
- Energy Efficiency (reduced losses due to lower leakage currents)
- Safety (light weight for handling and installation)
- Service Life (consistent performance over its service life)
- Life Cycle Cost (savings over ceramic insulators)
- High Strength Tolerance (mitigates conductor swing under wind & ice loading)

## APPLICATION

Braced Post insulators are used on overhead transmission lines operating between 69 kV and 230 kV. These insulators are installed horizontally on metal or wooden structures. A suspension insulator connects to the line-end of the post and attaches to the pole at a higher point forming a triangular brace for the transmission lines.

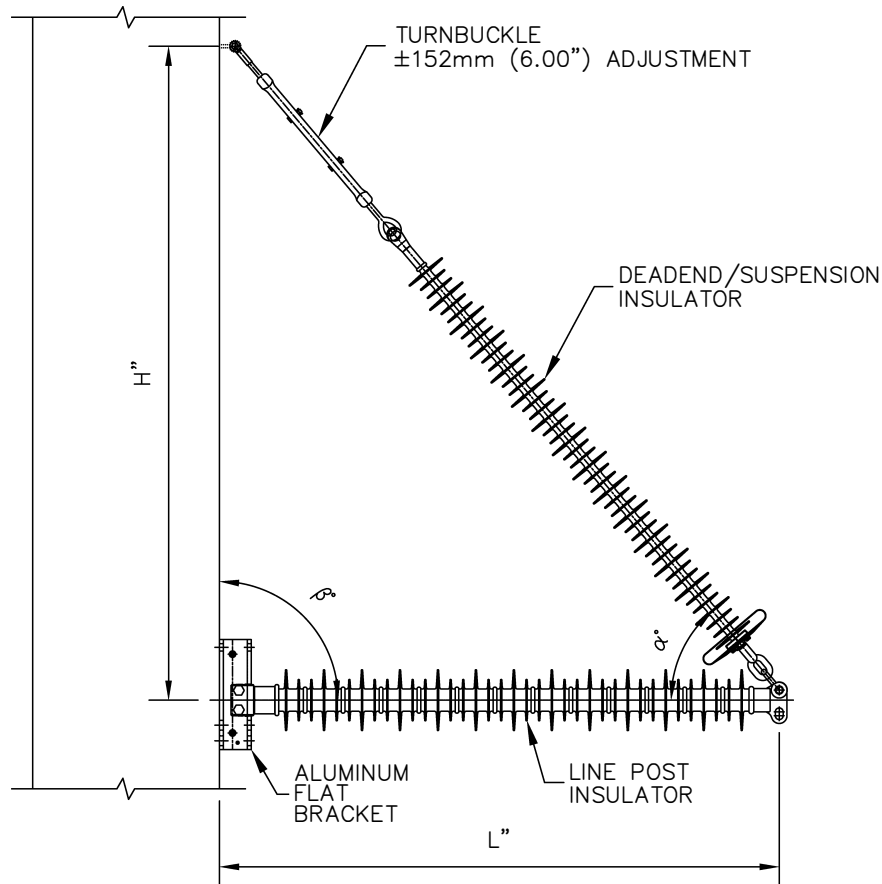
## CORE ROD

The core rod of the insulator is made of a high quality, epoxy resin, ECR rod that has been specially formulated for electrical and mechanical applications. Each and every rod is subjected to electrical testing to ensure the integrity of the core rods used in production of all insulators. KLI's rod have a higher torsion strength rating than standard requirements to support safer installation and line operation.

## HOUSING AND SHEDS

The housing (includes sheath and sheds) of the insulator is one piece, high temperature vulcanized, injection molded silicone rubber that is chemically bonded to the core rod. This ensures that the interface between the rubber and rod is impenetrable against moisture ingress. KLI uses its own proprietary silicone rubber formula in the manufacture of its insulators. The formulation has silicone rubber as the base polymer material with additives to enhance its performance in wet and contaminated environments.

# TRANSMISSION BRACED POST FIXED BASE AND FLAT BRACKET 69 kV to 230 kV

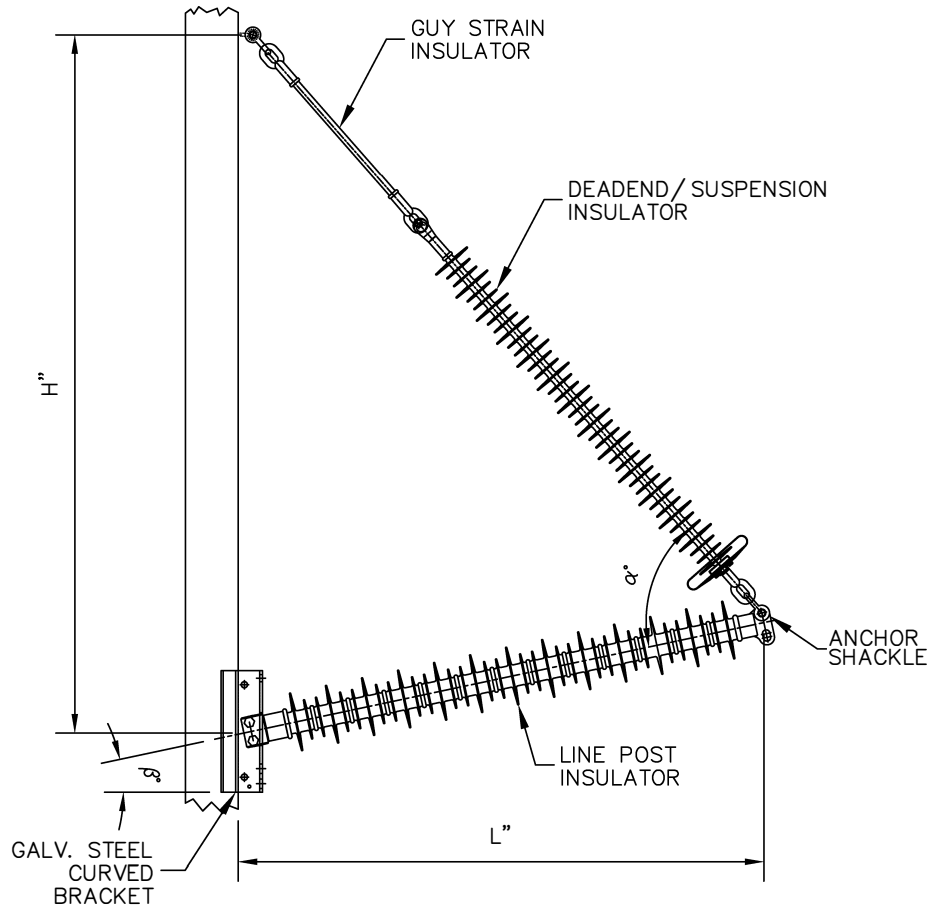


ITEM	SPECIFICATION	DATA
1	Operating Voltage (Phase to Phase)	kV
2	Mounting Arrangement Code (Refer to Table on Page x)	
3	Length "L"	in
4	Height "H"	in
5	Minimum Dry Arc Distance	in
6	Minimum Leakage Distance	in
7	Minimum Loading Capabilities - Vertical, Transverse, Longitudinal	lbs., lbs., lbs.
8	Alpha Angle ( $\alpha$ )	$^{\circ}$
9	Beta Angle ( $\beta$ )	$^{\circ}$
10	Minimum Hinge Angle For Pivot Base (X) - Must Be Included In	$^{\circ}$
11	Design Preference For Turnbuckle or Guy Strain	

**NOTE:**

1. IF ORDER SPECIFICATIONS ARE NOT AVAILABLE, PLEASE CONTACT KLI FOR DETAILS

# TRANSMISSION BRACED POST FIXED BASE AND CURVED BRACKET 69 kV to 230 kV

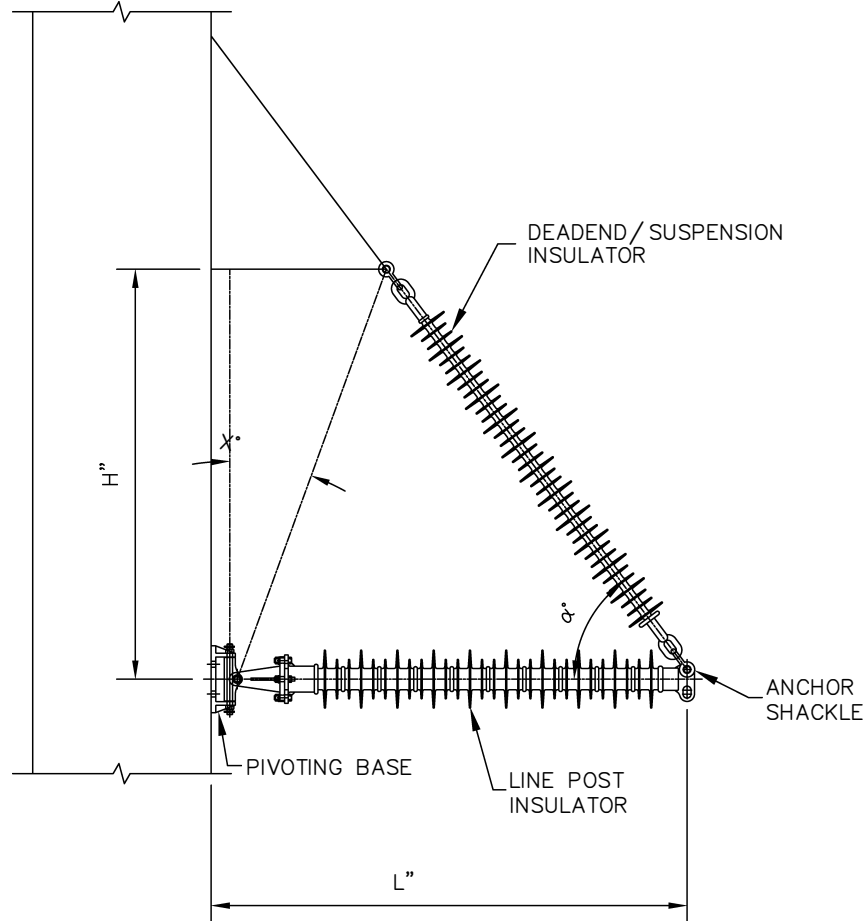


ITEM	SPECIFICATION	DATA
1	Operating Voltage (Phase to Phase)	kV
2	Mounting Arrangement Code (Refer to Table on Page x)	
3	Length "L"	in
4	Height "H"	in
5	Minimum Dry Arc Distance	in
6	Minimum Leakage Distance	in
7	Minimum Loading Capabilities - Vertical, Transverse, Longitudinal	lbs., lbs., lbs.
8	Alpha Angle ( $\alpha$ )	°
9	Beta Angle ( $\beta$ )	°
10	Minimum Hinge Angle For Pivot Base (X) - Must Be Included In	°
11	Design Preference For Turnbuckle or Guy Strain	

**NOTE:**

1. IF ORDER SPECIFICATIONS ARE NOT AVAILABLE, PLEASE CONTACT KLI FOR DETAILS

# TRANSMISSION BRACED POST PIVOTING BASE 69 kV to 230 kV



ITEM	SPECIFICATION	DATA
1	Operating Voltage (Phase to Phase)	kV
2	Mounting Arrangement Code (Refer to Table on Page x)	
3	Length "L"	in
4	Height "H"	in
5	Minimum Dry Arc Distance	in
6	Minimum Leakage Distance	in
7	Minimum Loading Capabilities - Vertical, Transverse, Longitudinal	lbs., lbs., lbs.
8	Alpha Angle ( $\alpha$ )	°
9	Beta Angle ( $\beta$ )	°
10	Minimum Hinge Angle For Pivot Base (X) - Must Be Included In	°
11	Design Preference For Turnbuckle or Guy Strain	

**NOTE:**

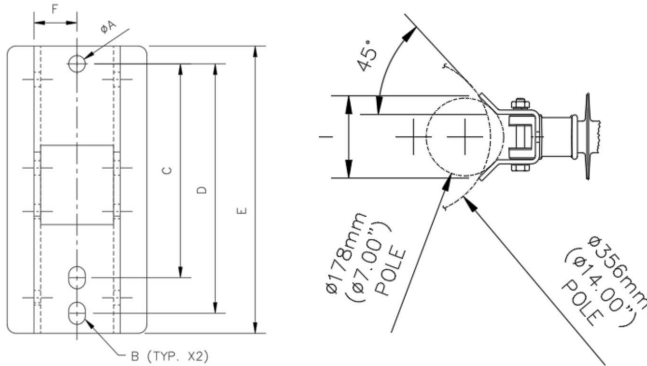
- IF ORDER SPECIFICATIONS ARE NOT AVAILABLE, PLEASE CONTACT KLI FOR DETAILS

# BASE BRACKETS

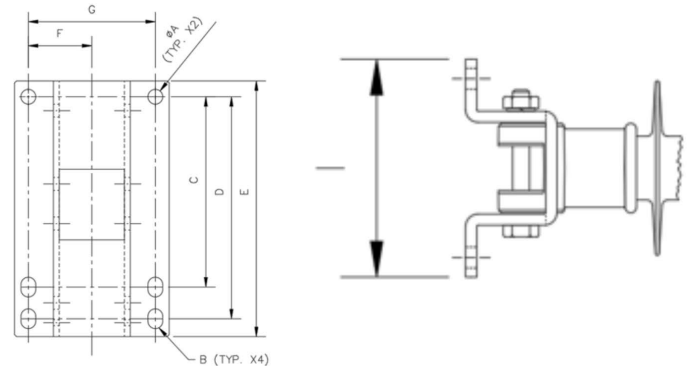
**K-LINE** Braced Post Insulators are available in several different base brackets as illustrated below. These brackets are manufactured from high strength steel or aluminum and are hot dipped galvanized to resist corrosion. The brackets are available in either a 12° or 90° orientations.

For other specialty brackets & configurations please contact **KLI**.

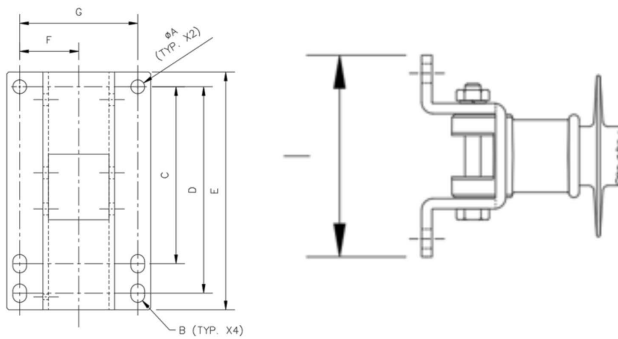
**B19/B8**



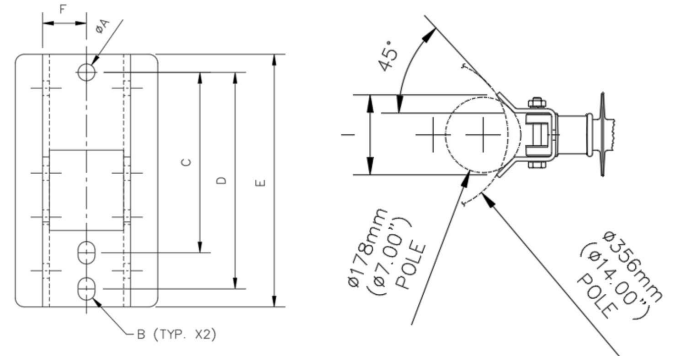
**B19F08/B5F08**



**B19/F8**



**B/B3**



**NOTE:**

1. BRACKETS AVAILABLE IN GALVANIZED STEEL AND ALUMINUM OPTIONS
2. ALTERNATIVE DESIGNS AND BOLT PATTERNS ARE AVAILABLE UPON REQUEST. PLEASE CONTACT KLI



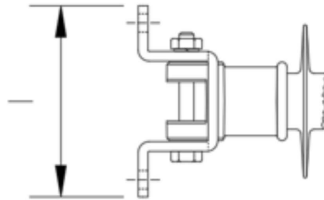
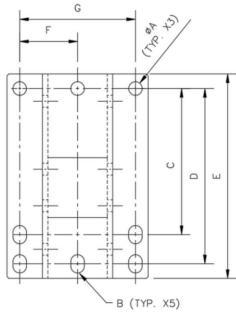
**K-LINE INSULATORS LIMITED**

50 Passmore Avenue, Toronto, Ontario, Canada M1V 4T1

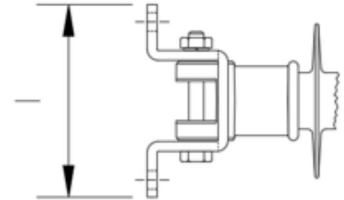
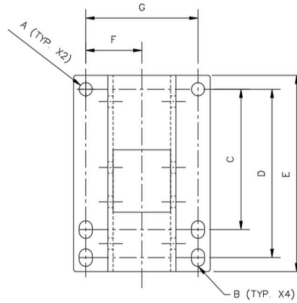
• Tel.: (416) 292-2008 • E-Mail: [insulators@k-line.net](mailto:insulators@k-line.net) • Web Page: [www.k-line.net](http://www.k-line.net)

# BASE BRACKETS

BF08/B3F08



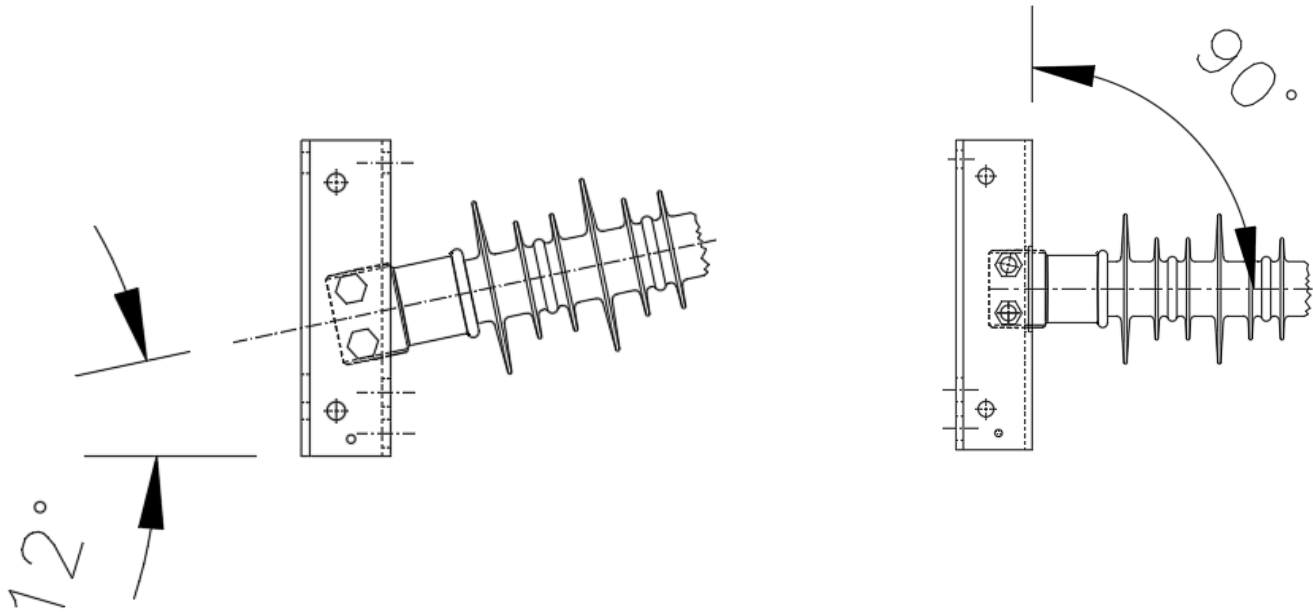
BF8/B3F8



**NOTE:**

1. BRACKETS AVAILABLE IN GALVANIZED STEEL AND ALUMINUM OPTIONS
2. ALTERNATIVE DESIGNS AND BOLT PATTERNS ARE AVAILABLE UPON REQUEST. PLEASE CONTACT KLI

## AVAILABLE ORIENTATIONS



## BASE END FITTING DIMENSIONS

Mounting Bracket Code	Flat/Curved/Pivot	Post Angle	Material	Dimensions (in.)							
				A	B	C	D	E	F	G	I
B/B3	Curved	12	Galv. Steel/Aluminum	0.938	0.938X1.250	10.000	12.000	14.000	2.425	-	7.405
BF8/B3F8	Flat	12	Galv. Steel/Aluminum	0.938	0.938X1.250	10.000	12.000	14.000	4.000	8.000	9.750
BF08	Flat	0	Galv. Steel	0.938	0.938X1.250	10.000	12.000	14.000	4.000	8.000	9.750
B19/B8	Curved	12	Galv. Steel/Aluminum	0.938	0.938X1.250	12.000	14.000	16.125	2.425	-	7.405
B19F8	Flat	12	Galv. Steel	0.938	0.938X1.250	12.000	14.000	16.125	4.000	8.000	9.750
B19F08/B5F08	Flat	0	Galv. Steel	0.938	0.938X1.250	12.000	14.000	16.125	4.000	8.000	9.750