Veri*Lite™ LINE POST INSULATORS

for 15-69kV Applications

Experience & Reliability

OHIO BRASS®

HUBBELL®

Catalog Number Key - Veri*Lite Line Post Insulators - Silicone

8	0	S	0	6	9	0	2	0	9

Polymer Type

80S = Veri*Lite SR Polymer

Hardware Finish

0 = Standard

Rating

15 = 15kV (1.5" rod)
25 = 25kV (1.5" rod)
28 = 35kV (1.5" rod)
46 = 46kV (1.75" rod)
69 = 69kV (1.75" rod)

Dimensioning

0 = ANSI C29.18 Quality Conformance Tests
6 = Sample Tests
9 = Special

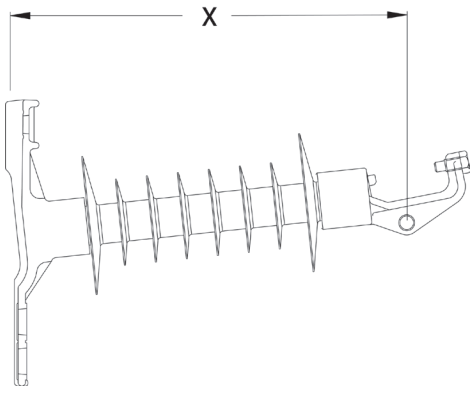
Top End Fitting

0 = Teardrop Blade*
1 = Horizontal Clamptop
2 = Vertical Clamptop
5 = 5" B.C. Through
6 = Horizontal Clamptop (longer pintle bolt)
A = Vertical Clamptop (longer pintle bolt)
F = 'F' Neck
H = Hotstick Operable Universal Clamp
K = Universal Clamp
B = Universal Clamp w/ Eyenut

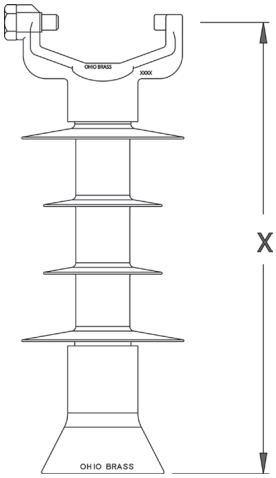
*Teardrop Blade only available for 46-69kV

Bottom End Fitting

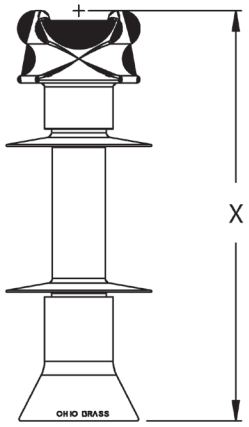
00 = Gain Base-Transverse
09 = 3/4" Stud Base
10 = 7/8" Stud Base



Horizontal Clamptop & Gain Base (0100)



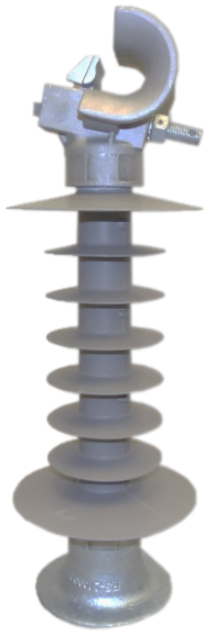
Vertical Clamptop & Stud Base (0209 & 0210)



F-Neck & Stud Base (0F09 & 0F10)

Veri*Lite™ Silicone Rubber Line Post Insulators with Universal Clamp for 15-69kV Applications

The Ohio Brass Universal Clamp end fitting is used with the Veri*Lite™ Line Post (VLLP) insulator family. Combining the proven direct bond silicone technology of the Ohio Brass VLLP design, the Universal Clamp offers a flexible range-taking connection that can be installed in either the vertical or horizontal direction. The Universal Clamp design eliminates the need for a separate additional conductor clamp; saving both money and installation time. In addition, the optional hotstick-operable feature provides flexibility for live-line work.



Design Features

- Proven direct bond interface
- Weathersheds molded with proprietary silicone rubber compound
- Universal clamp works for a conductor diameter range of 0.30" (7.6 mm) to 1.34" (34 mm) to provide flexibility in the field
- Hot Stick option allows for live-line operability
- Can be installed in vertical or horizontal directions, thus reducing inventory
- Integral design eliminates need for additional trunnion clamp
- Meets requirements of the latest edition of CSA 411.6 and ANSI C29.18

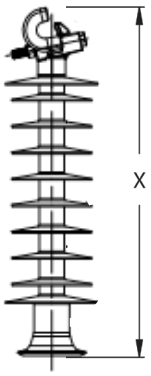
Line Post Mechanical and Electrical Characteristics

kV	Post Style	Line	Base	Catalog Number	ANSI C29.18 Class	CEA LWI-WG-02 Class	"X" Dimension Inches (mm)	Line & Ground End Shed Dia. Inches (mm)	Intermediate Shed Quantity	Intermediate Shed Dia. Inches (mm)	Dry Arc Distance Inches (mm)
15	Horz	Clamptop	Gain	80S015-0100	51-31	LP-15	12.5 (318)	4.8 (121)	0		7.4 (188)
	Horz	Clamptop	3/4 - 10 Tap	80S015-0109	51-21		13.3 (339)				
	Vert	Clamptop	3/4 - 10 Tap	80S015-0209	51-11		12.8 (324)				
	Vert	F-Neck	3/4 - 10 Tap	80S015-0F09	51-1F		12.4 (315)				
	Vert	U-Clamp	3/4 - 10 Tap	80S015-0K09	--		13.2 (334)				
25	Horz	Clamptop	Gain	80S025-0100	51-32	LP-25	14.3 (362)	5.2 (132)	2	3.8 (96)	9.6 (244)
	Horz	Clamptop	3/4 - 10 Tap	80S025-0109	51-22		15.1 (383)				
	Vert	Clamptop	3/4 - 10 Tap	80S025-0209	51-12		14.5 (368)				
	Vert	F-Neck	3/4 - 10 Tap	80S025-0F09	51-2F		14.2 (360)				
	Vert	U-Clamp	3/4 - 10 Tap	80S025-0K09	--		14.9 (379)				
35	Horz	Clamptop	Gain	80S028-0100	51-33	LP-28M	16.5 (420)	5.1 (130)	4	4.6 (117)	11.7 (297)
	Horz	Clamptop	3/4 - 10 Tap	80S028-0109	51-23		17.4 (441)				
	Vert	Clamptop	3/4 - 10 Tap	80S028-0209	51-13		16.8 (425)				
	Vert	F-Neck	3/4 - 10 Tap	80S028-0F09	51-3F		16.5 (418)				
	Vert	U-Clamp	3/4 - 10 Tap	80S028-0K09	--		17.2 (438)				
46	Horz	Blade	Gain	80S046-0000	--	LP-46	19.2 (488)	7.1 (179)	6	4.4 (112)	14.4 (390)
	Horz	Blade	3/4 - 10 Tap	80S046-0009	--		20.0 (508)				
	Horz	Clamptop	Gain	80S046-0100	51-34		19.0 (482)				
	Horz	Clamptop	3/4 - 10 Tap	80S046-0109	51-24		19.8 (504)				
	Vert	Clamptop	3/4 - 10 Tap	80S046-0209	51-14		20.1 (510)				
	Vert	F-Neck	3/4 - 10 Tap	80S046-0F09	51-4F		19.5 (495)				
	Vert	U-Clamp	3/4 - 10 Tap	80S046-0K09	--		19.6 (498)				
69	Horz	Blade	Gain	80S069-0000	--	LP-69M	25.8 (656)	7.5 (190)	8	5.2 (132)	22.3 (566)
	Horz	Blade	3/4 - 10 Tap	80S069-0009	--		26.6 (676)				
	Horz	Clamptop	Gain	80S069-0100	51-36		25.6 (650)				
	Horz	Clamptop	3/4 - 10 Tap	80S069-0109	51-26		26.5 (672)				
	Vert	Clamptop	3/4 - 10 Tap	80S069-0209	51-15		26.8 (680)				
	Vert	F-Neck	3/4 - 10 Tap	80S069-0F09	--		26.1 (663)				
	Vert	U-Clamp	3/4 - 10 Tap	80S069-0K09	--		26.2 (667)				

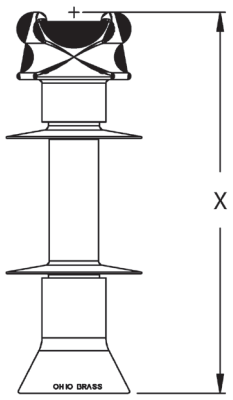
NOTES:

1. Maximum Design Tension for Clamptop is 2500 pounds (11 kN) - See addendum #1
2. 15, 25 & 28 kV Units use 1.5 inch (38 mm) Diameter Rod
3. 46 & 69 kV Units use 1.75 inch (44 mm) Diameter Rod
4. Maximum Design Tension for Teardrop Blade is 5000 pounds (22 KN)

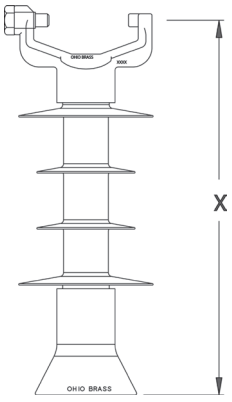
Leakage Distance Inches (mm)	Dry-kV	Wet-kV	Impulse Critical Flashover Pos. kV	Impulse Positive Withstand kV	SCL pounds (kN)	MDCL/WCL pounds (kN)	Net Weight pounds (kg)	Carton	Pallet	Max/Crate	kV
11.0 (279)	90	70	150	140	2800 (12.5)	1235 (5.5)	9.8 (4.5)	3	36	--	15
							6.9 (3.1)		60		
							6.5 (2.9)		60		
							6.6 (3.0)		60		
							6.9 (3.1)		60		
17.3 (439)	110	75	185	170	2800 (12.5)	1235 (5.5)	10.3 (4.7)	3	36	--	25
							7.3 (3.3)		60		
							7.0 (3.2)		60		
							7.1 (3.2)		60		
							7.3 (3.3)		60		
26.1 (662)	135	100	215	200	2800 (12.5)	1235 (5.5)	11.2 (5.1)	3	36	--	35
							8.2 (3.7)		60		
							7.8 (3.5)		60		
							8.0 (3.6)		60		
							8.2 (3.7)		60		
34.3 (872)	170	125	260	235	2800 (12.5)	1235 (5.5)	19.7 (8.9)	--	--	14/21/28/35	46
							14.6 (6.6)			70	
							18.6 (8.4)			14/21/28/35	
							13.5 (6.1)			70	
							14.1 (6.4)			70	
							13.9 (6.3)			70	
							13.5 (6.1)			70	
58.2 (1478)	230	180	360	330	2470 (11.0)	1235 (5.5)	22.1 (10.0)	--	--	14/21/28/35	69
							16.9 (7.7)			35	
							21.0 (9.5)			14/21/28/35	
							15.9 (7.2)			35	
							16.5 (7.5)			35	
							12.0 (5.4)			35	
							15.9 (7.2)			35	



Universal Clamptop & Stud Base (0K09 & 0K10)

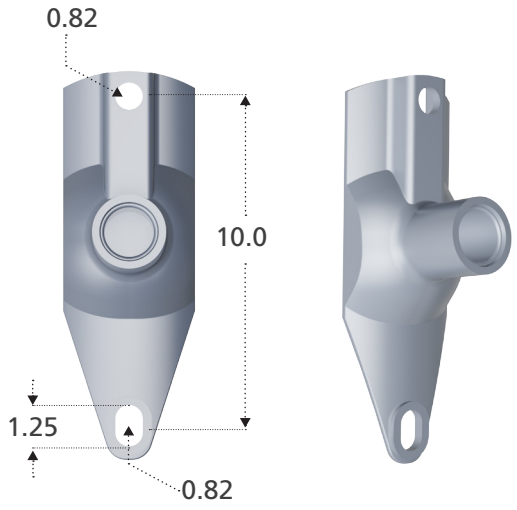


F-Neck & Stud Base (0F09 & 0F10)

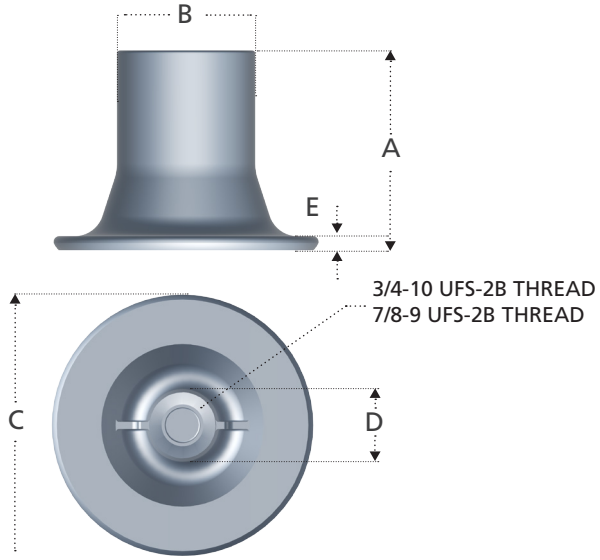


Vertical Clamptop & Stud Base (0209 & 0210)

Post Base Fittings Dimensions

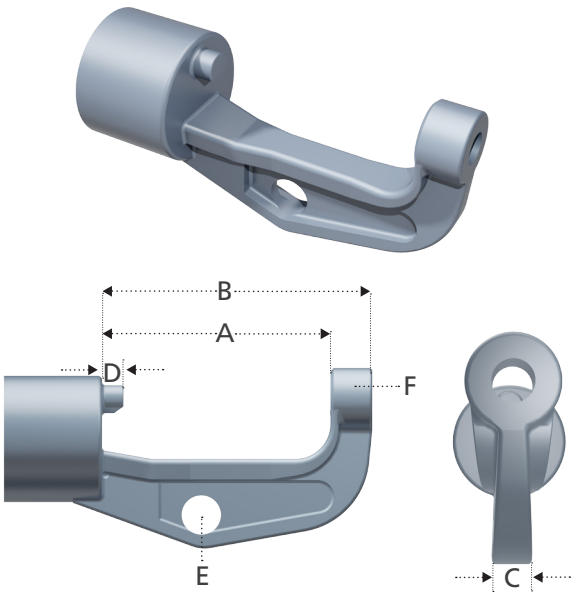


15, 25 & 35 kV Horizontal Gain Base

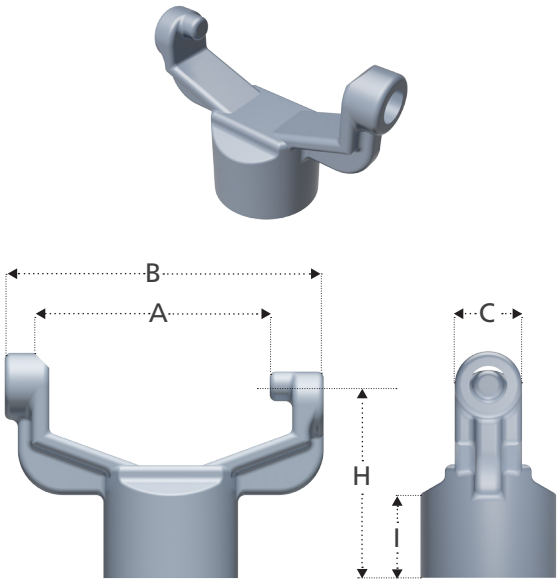


15, 25 & 35 kV Stud Base

Post Line Fittings Dimensions (In Inches)



15-69 kV
Horizontal Clamptop Cap

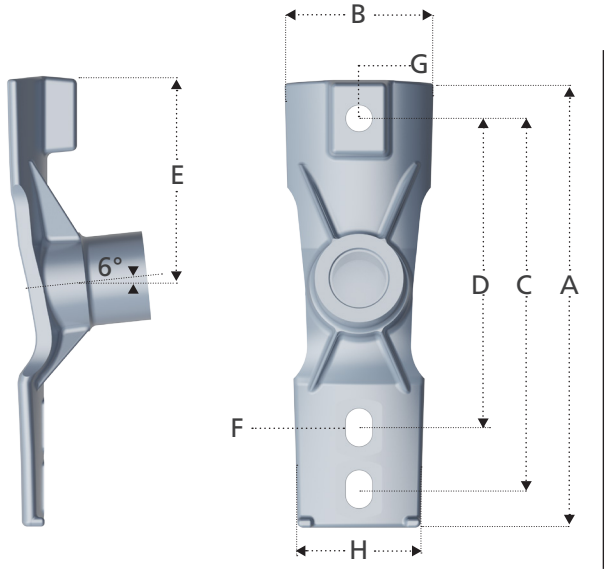


15-69 kV
Vertical Clamptop Cap

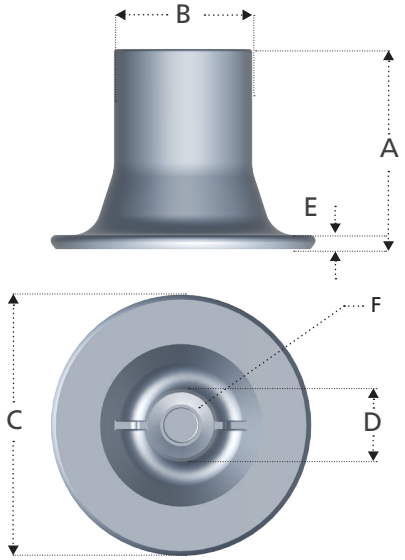
Line Post Fittings Dimensions (in inches)

Type	A	B	C	D	E	F	H	I	Material
Stud Base	4.06	2.25	4.40	1.38	0.50	3/4-10 UFS-2B	-	-	60-40-18 DI
H. Clamptop Cap	4.00	4.75	0.62	0.38	0.69	5/8-11 UFS-2B	-	-	60-40-18 DI
V. Clamptop Cap	4.00	5.38	1.12	0.38	-	5/8-11 UFS-2B	3.38	1.63	60-40-18 DI

Post Base Fittings Dimensions

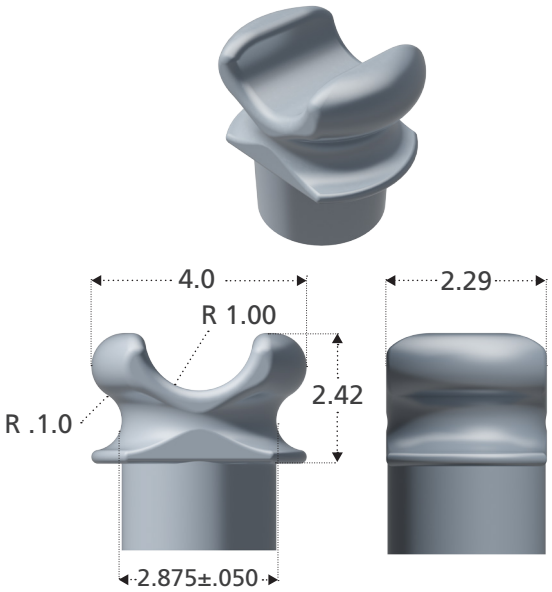


46 & 69 kV Horizontal Gain Base

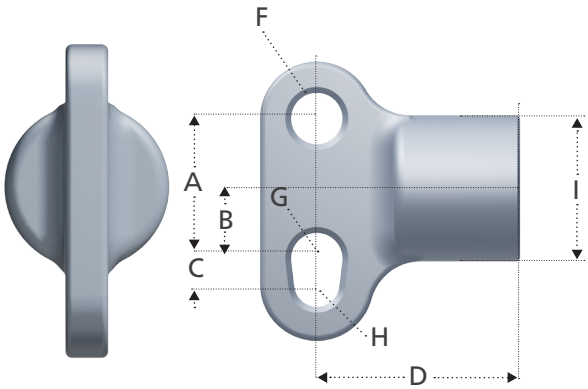


46 & 69 kV Stud Base

Post Line Fittings Dimensions (In Inches)



15-69 kV F-Neck Cap



46 & 69 kV Two Hole Blade

Line Post Fittings Dimensions (in inches)

Type	A	B	C	D	E	F	G	H	Material
H. Gain Base	14.50	7.00	12.00	10.00	6.75	1.25 x 0.88	0.88	4.00	60-40-18 DI
Stud Base	4.22	2.875	5.50	1.50	0.50	3/4-10 UFS-2B or 7/8-9 UFS-2B	-	-	60-40-18 DI
Two Hole Blade	2.75	1.38	0.50	4.00	0.75	1.00 Dia.	0.50 R	0.44 R	60-40-18 DI

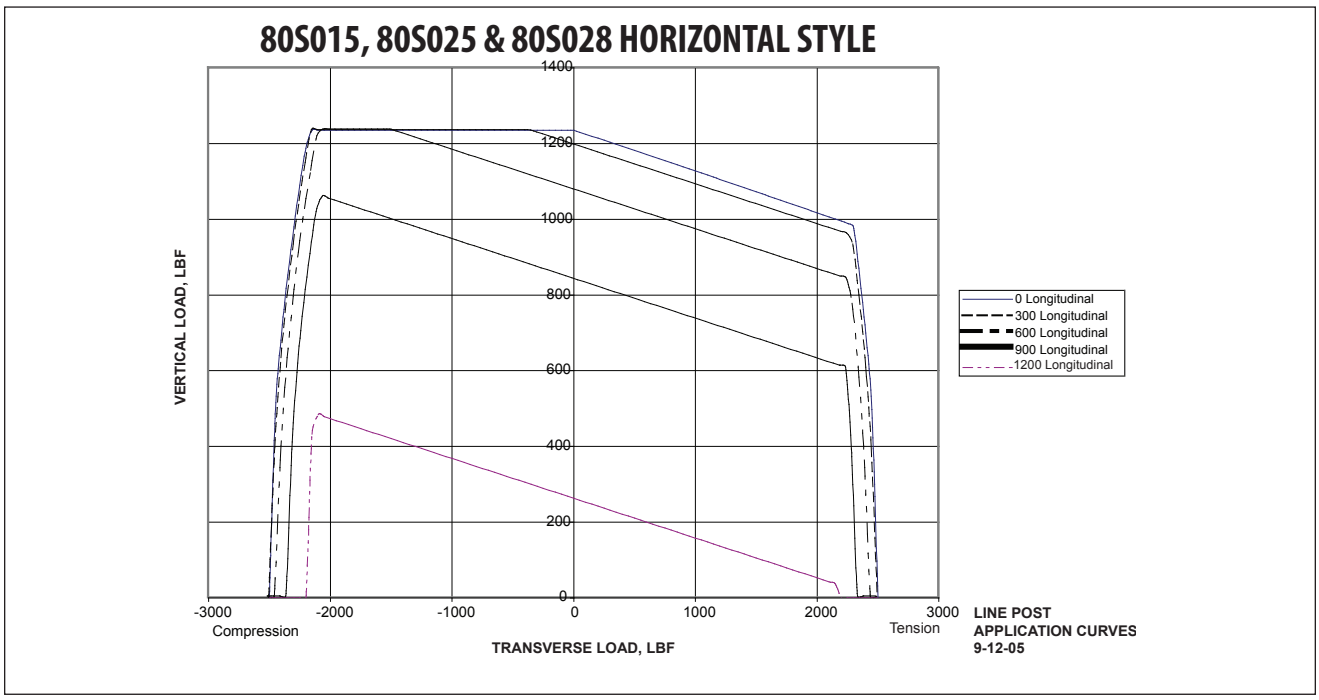
Application Curves for Veri*Lite Insulators

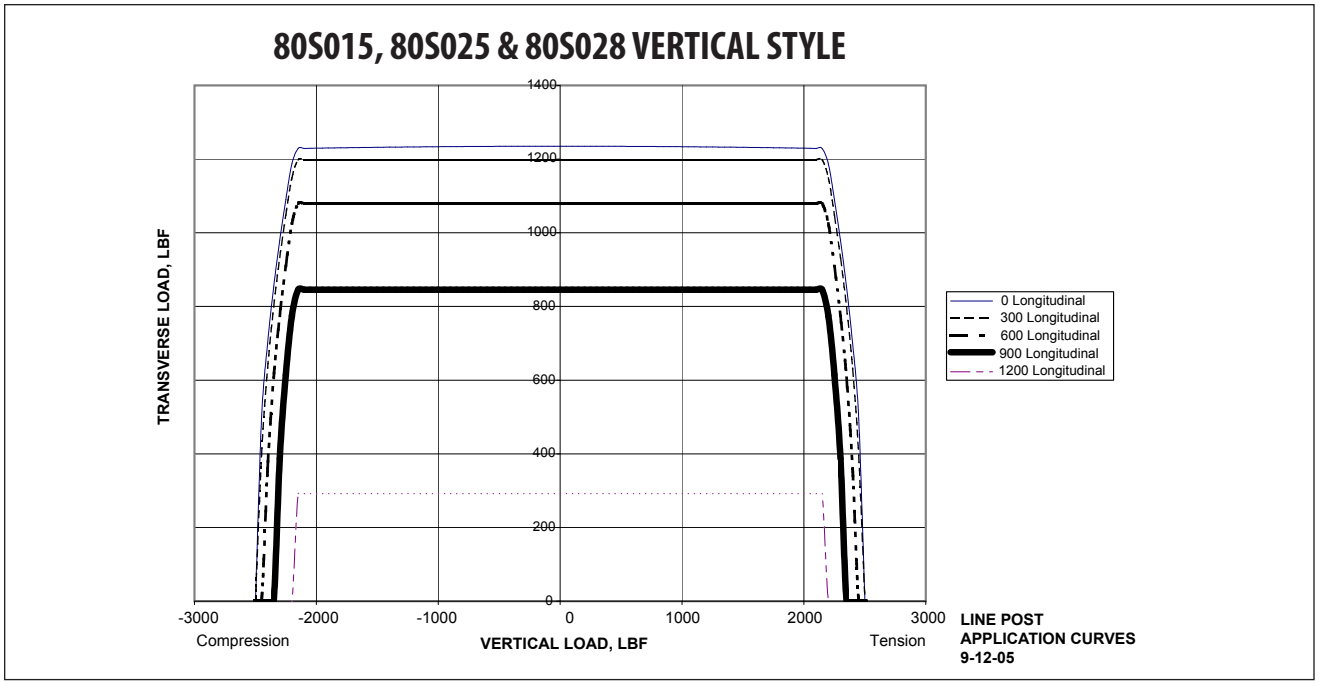
How to use the application curves. After you have established the loading cases, you can use the curves to determine whether a specific Veri*Lite unit meets your loading requirement.

For example, consider the installation of a Veri*Lite post number 80S025-0100 on a line with a vertical cantilever load of 800 pounds and a compression load of 900 pounds. By entering the curve at these values, find the allowable longitudinal load to be 900 pounds.

When the posts are loaded in tension the cantilever loading due to the combined effects of longitudinal, vertical and tensile loads should not exceed the rated tension working value.

IMPORTANT: The application curves should not be extrapolated.





Maximum deflection for any of the post styles is approximately 1.75" at SCL.
Curves are shown using a 2.0 safety margin to SCL

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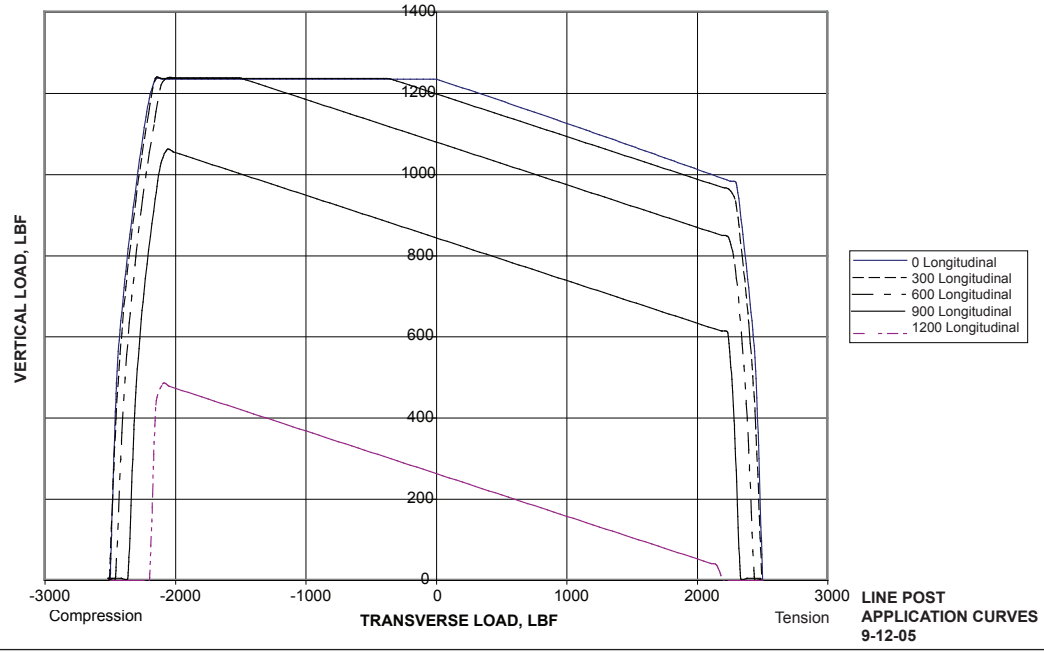
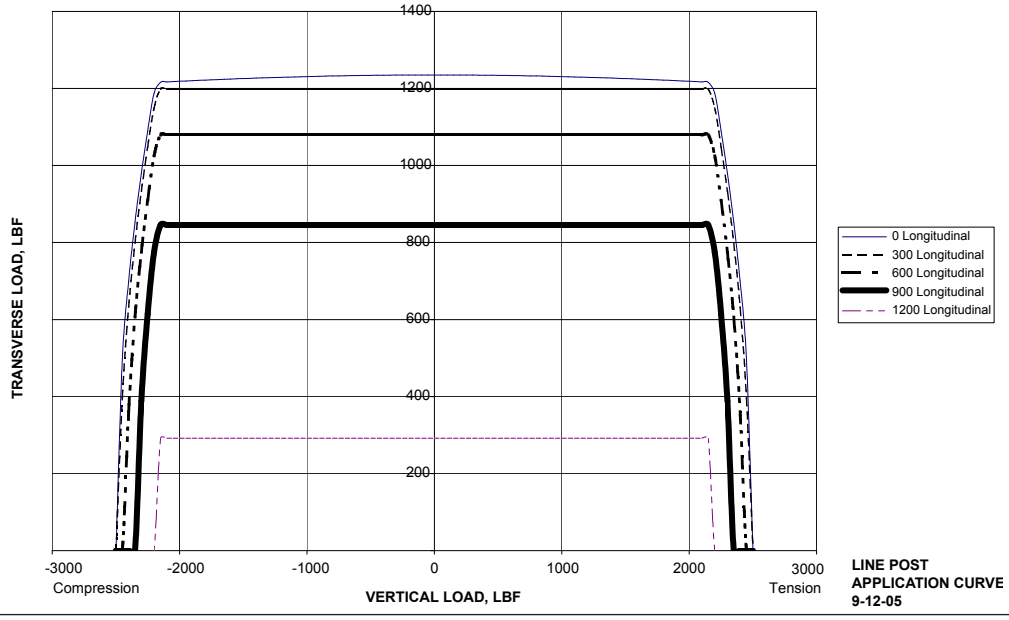
80S046 & 80S069 HORIZONTAL STYLE



80S046 & 80S069 VERTICAL STYLE



Maximum deflection for any of the post styles is approximately 1.75" at SCL.
Curves are shown using a 2.0 safety margin to SCL

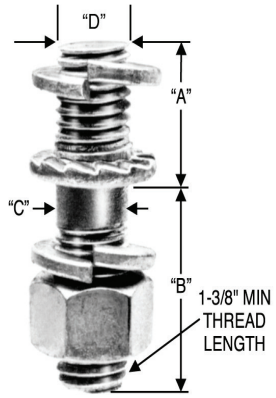
Line Post Insulator Studs

DF19M Series

Serrated collar and lockwasher secure unit to line post insulator and prevent accidental disassembly. Cut threads above serrated collar, rolled threads below collar.

For Steel Crossarms

Catalog No.	Dimensions (in.)				Hardware Included	Standard Package	Weight 100 Pcs.
	A	B	C	D			
DF19M1	1-1/8	1-3/4	5/8	3/4	(1) reg. hexnut and (2) spring lockwashers	100 pcs.	43 lbs.
DF19M3	1-1/8	1-3/4	3/4	3/4	(1) reg. hexnut and (2) spring lockwashers	100 pcs.	54 lbs.
875833001	1-3/8	2	7/8	7/8	(1) reg. hexnut and (2) spring lockwashers	100 pcs.	85 lbs.

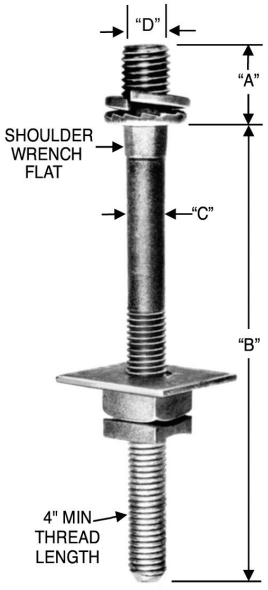


DF19M3

For Wood Crossarms

Catalog No.	Dimensions (in.)				Hardware Included	Standard Package	Weight 100 Pcs.
	A	B	C	D			
DF19M2	1-1/8	7	5/8	3/4	(1) sq. nut, (1) sq. washer (1) spring lockwasher, (1) MF locknut	50 pcs.	102 lbs.
DF19M4	1-1/8	7	3/4	3/4	(1) sq. nut, (1) sq. washer (1) spring lockwasher, (1) MF locknut	40 pcs.	140 lbs.
DF19M19	1-1/8	10	5/8	3/4	(1) sq. nut, (1) sq. washer (1) spring lockwasher, (1) MF locknut	25 pcs.	176 lbs.
DF19M20	1-1/8	12	5/8	3/4	(1) sq. nut, (1) sq. washer (1) spring lockwasher, (1) MF locknut	25 pcs.	192 lbs.
*DF19M29	1-1/8	14	3/4	3/4	(1) sq. nut, (1) sq. washer (1) spring lockwasher, (1) MF locknut	20 pcs.	234 lbs.
*DF19M32	1-1/8	24	3/4	3/4	(1) sq. nut, (1) sq. washer (1) spring lockwasher, (1) MF locknut	15 pcs.	342 lbs.
875843001	1-3/8	8	7/8	3/4	(1) sq. nut, (1) sq. washer (1) spring lockwasher, (1) MF locknut	50 pcs.	277 lbs.

*DF19M29 and DF19M32 include (1) additional double coil lockwasher.



DF19M2

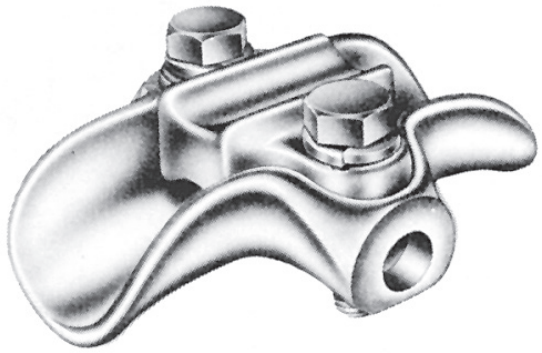
Suspension Trunnion Bolted Aluminum Clamptop Clamps

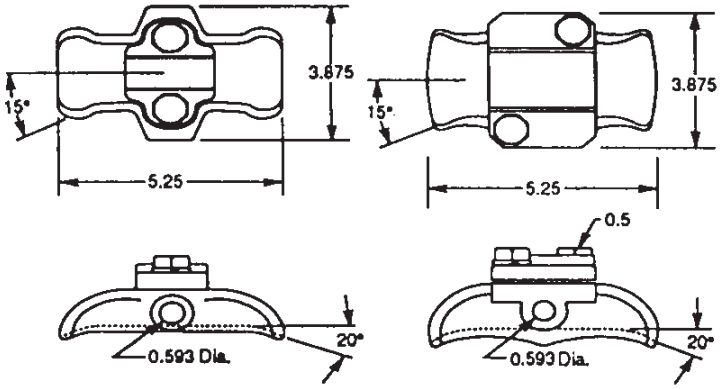
For standard voltage applications with all aluminum, ACSR or aluminum alloy conductor.

Designed for use on tangent suspension spans with horizontal or vertical post insulators.

Keeper is reversible for proper fit on different size conductors.

Material: Body and Keeper—356-T6 aluminum alloy
Hardware—Galvanized steel
Anti-static spring 302 stainless steel



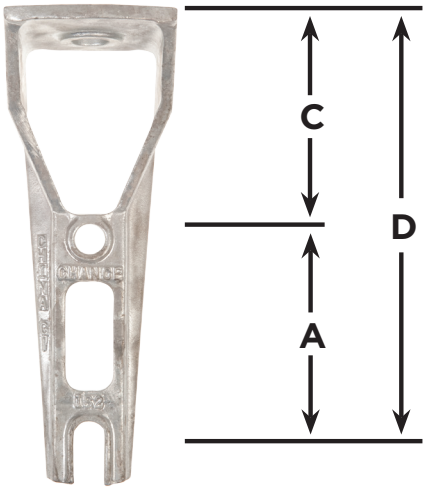


Catalog Number	Former Catalog Number	Fig. No.	Clamping Range Inches (mm)	Ultimate Body Strength lbs. (kN)	Dimension Inches (mm)			Approx Wt. Each lbs. (kg)
					L	W	J	
TSC57	270660-3002	1	0.25-0.57 (6.3-14.4)	2,800 (12.46)	5-1/4 (133.3)	3-7/8 (98.4)	1/2 (12.7)	0.42 (0.19)
TSC86	-	1	0.35-0.86 (8.8-21.8)	2,800 (12.46)	5-1/4 (133.3)	3-7/8 (98.4)	1/2 (12.7)	0.45 (0.20)
TSC106	270661-3002	1	0.50-1.06 (12.7 - 26.9)	2,800 (12.46)	5-1/4 (133.3)	3-7/8 (98.4)	1/2 (12.7)	0.62 (0.28)
TSC150	270662-3002	1	1.00-1.50 (25.4-38.1)	2,800 (12.46)	5-1/4 (133.3)	3-7/8 (98.4)	1/2 (12.7)	0.64 (0.29)
TSC200	270663-3002	2	1.50-2.00 (38.1-50.8)	2,800 (12.46)	5-1/4 (133.3)	3-7/8 (98.4)	1/2 (12.7)	0.75 (0.34)

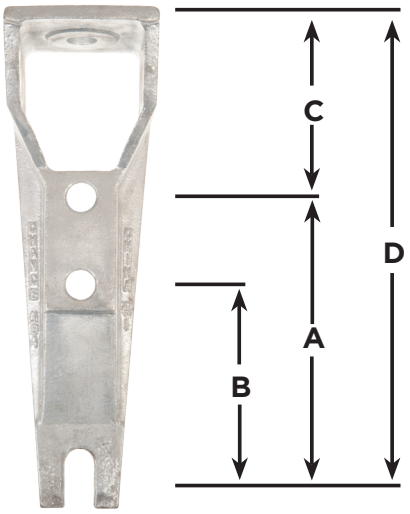
NOTES:
1. Recommended torque on bolts; 1/2"—480 in. lbs.
2. Anti-static spring can be supplied by adding "ARIV" to catalog number. Example, TSC57ARIV.
3. Clamptop clamps can be mounted directly on Veri*Lite posts, if the posts are ordered with the horizontal or vertical clamptop option.

Pole Top Insulator Bracket

Typical Side View



IB2



IB3, IB4, IB5, IB6

Mounts post or pin type insulator to top of pole. Variety of bolt hole locations for mounting to pole.

Catalog Number	Minimum Ultimate Bending Moment at Base	Accepts Insulator Stud Dia.	Accepts Mounting Bolt Dia.	Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Top Plate (width x depth)	Approx. Ship Wt. Each
IB2	20,000 in-lbs	5/8" or 3/4"	5/8"	5"	N/A	5"	10 3/4"	1"	3 3/4" Sq.	4.2 lbs.
IB3*	30,000 in-lbs			8"	5 1/4"		13"	1 1/2"		6.2 lbs.
IB4	40,000 in-lbs		5/8" or 3/4"	8"	5 1/4"		13 3/4"	1"	4" x 3 3/4"	7.0 lbs
IB5	50,000 in-lbs			8"	5 1/2"		14"	1 1/4"	4" Sq.	9.8 lbs.
IB6	60,000 in-lbs			8"	5 3/4"	6"	15"	1 1/2"	4 1/2" Sq.	11.9 lbs.

* RUS Listed, eb - Bracket, pole top

Pole Top Insulator Bracket

Angle Crossarm Bracket

Mounts post insulators at 30° angle on crossarm for use on running corners.

Catalog No.	Crossarm Size	Mtg. Bolt Diameter	Stud Bolt Diameter	Approx. Ship Wt. Lbs per 100 pcs.
1XAB	3-3/4" x 4-3/4" Max. and Round Crossarms	3/4"	3/4"	610

Ductile iron per ASTM A-536
Hot dipped galvanized per ASTM A-153

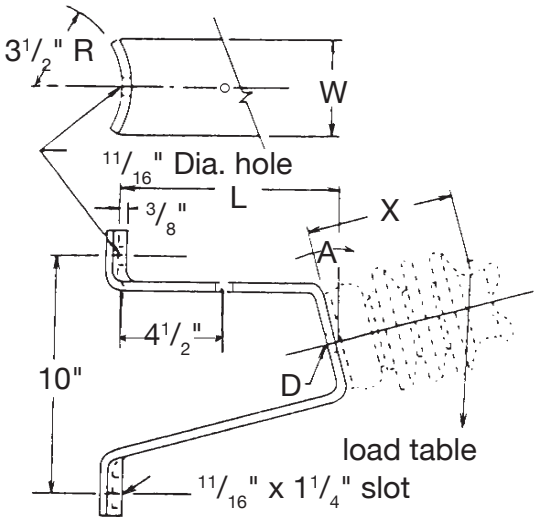
Post Insulator Curved Base Bracket

This bracket can be used for mounting distribution post-type insulators from 15 kV to 34.5 kV on the side of the pole. The base has a pole-shape back for convenient installation. Brackets can be placed in a phase-over-phase arrangement or can be mounted on opposite sides of the pole for "armless" construction.

Insulators not included.

Catalog No.	Dimension (in)			Angle A	Approx. Ship Wt. Lbs per 100 pcs.
	L	D	W		
*C2060009	9-1/2	13/16	4	15°	1220
†*C2060010	12	13/16	4	15°	1669
C2060011	15	13/16	4	15°	2066

*These brackets have 13/16" stringing block holes.
†RUS listed



C2060009

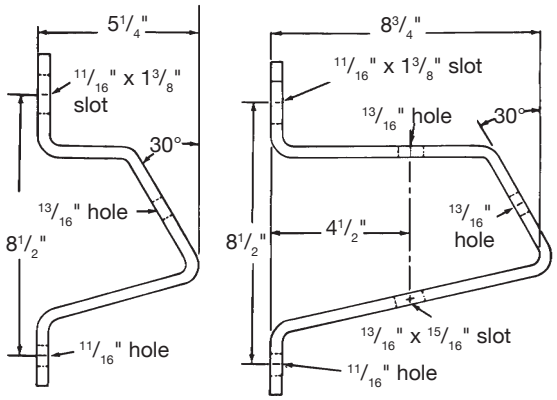
Pole Top Insulator Bracket

Post Insulator Side Mounted Brackets

The bracket is formed from high-quality 3/8" x 2-1/2" bar steel and hot dip galvanized. It can be utilized to mount distribution post insulators from 15 kV to 34.5 kV.

Catalog No.		Pole Mounting Bolts Required	Insulator Stud Bolts Required	Approx. Ship Wt. Lbs per 100 pcs.
13/16" Hole	11/16" Hole			
†*C2060209	16919	Two 5/8"	3/4"	650
C2060162	-	Two 5/8"	3/4"	440

*This bracket is designed to facilitate a stringing block.
†RUS listed



C2060162 **C2060209**

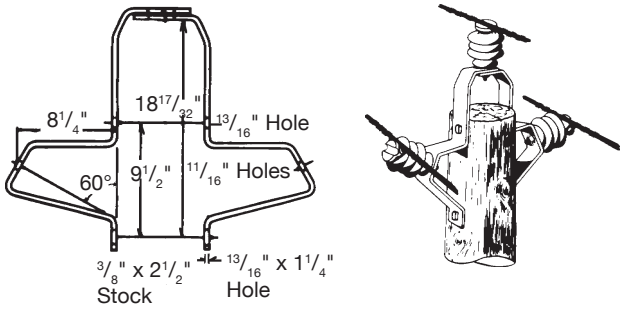
Post Insulator Uni-Brackets

Chance Uni-Brackets are a clean-appearing, low-cost method of mounting three post-type insulators atop a pole completely eliminating the crossarm. The brackets can be installed on the pole in less than five minutes, requiring only two 3/4" bolts for attachment. Uni-Brackets fit poles having a pole-top diameter from 6" to 8-1/2". Slot on top is 11/16" x 2-1/4".

No. 9183 brackets can be adapted to a variety of distribution construction using post-type insulators from 15kV through 34.5 kV.

Catalog No.	Insulator Stud Bolts Required	Approx. Ship Wt. Lbs per 100 pcs.
†9183	5/8"	2100

†Includes both sections of bracket



No. 9183

Notes

About Hubbell Power Systems

Hubbell Power Systems (HPS) manufactures a wide variety of transmission, distribution, substation, OEM and telecommunications products used by utilities. HPS products are also used in the civil construction, transportation, gas and water industries. Our product line includes construction and switching products, tools, insulators, arresters, pole line hardware, cable accessories, test equipment, transformer bushings and polymer precast enclosures and equipment pads.

Because Hubbell has a policy of continuous product improvement. We reserve the right to change design and specifications without notice.

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Catalog CA_08_051_E

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