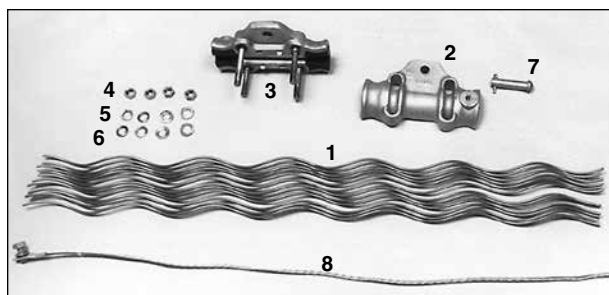


# FIBERLIGN® Cushion Clamp for OPGW



FIBERLIGN Cushion Clamp installed

## NOMENCLATURE

- 1. Structural Reinforcing Rods:** High strength aluminum alloy.
- 2. Cushion Clamp (keeper half):** An aluminum alloy clamp half with two factory installed elastomer cushion inserts and a 1/2"-13 female threaded boss for ground wire attachment. A galvanized 1/2"-13 x 3/4" long grounding bolt and lock washer are provided.
- 3. Cushion Clamp (U-bolt half):** An aluminum alloy clamp half with two factory installed elastomer cushion inserts and two captured 1/2"-13 galvanized steel U-bolts.
- 4. 1/2"-13 Hex Nuts (4):** Galvanized steel.
- 5. Lock Washers (4):** Galvanized steel.
- 6. Flat Washers (4):** Galvanized steel.
- 7. Pin and Cotter Key:** Pin is galvanized steel and Cotter Key is stainless steel.
- 8. Grounding Wire Assembly (ordered separately)**

## APPLICATION

The FIBERLIGN Cushion Clamp provides excellent protection to OPGW at support points. The combination of the Structural Reinforcing Rods and the elastomer inserts at the ends of the clamp body halves reduces bending stresses on the OPGW during aeolian vibration or galloping activity.

### Bonding:

Provisions for electrically bonding the OPGW to the supporting structure or ground lead are an integral part of the keeper half. The 1/2"-13 x 3/4" long bolt and lock washer are provided with the keeper half for lug terminal attachment.

### Grounding Wire Assembly Options:

A 4' ground wire with compression terminal can be provided. Two types of ground wire material are offered (copper or aluminum). The Ground Wire assemblies may be ordered with the Cushion Clamp by adding the appropriate suffix code (see next page).

### Ultimate Vertical Strength & Dimensions:

The ultimate vertical strength of the Cushion Clamp body is 20,000 pounds (89 kN). See the table on page 24-16 for dimension of body and associated fittings.

### Lay Direction:

The Cushion Clamp can accommodate either left-hand lay or right-hand lay OPGW.

### Slip Load:

The Cushion Clamp has a slip load of approximately 10-20% of the OPGW rated strength.

### Line Angles:

The maximum recommended line angle for a single FIBERLIGN Cushion Clamp is 30°. For OPGW line angles between 30° and 60°, the Cushion Clamp double is available, although double Dead-ending is another option.

### Fittings:

An appropriate fitting such as a Y-Clevis, Clevis Eye, or Anchor Shackle may be required to attach the Cushion Clamp to the structure or other hardware. To include these fittings, add the appropriate suffix code to the catalog number (see next page).

### Component Reuse:

Once installed, do not reuse the Structural Reinforcing Rods. The hardware components may be reused as long as they are in good condition. Do not modify any components.



# FIBERLIGN® Cushion Clamp for OPGW

## Single and Double FIBERLIGN Cushion Clamp for OPGW

**ORDERING INSTRUCTIONS:** Select the appropriate FIBERLIGN Cushion Clamp for OPGW from the following table.

**ACCESSORIES AND FITTINGS:** Ground wire assemblies and fittings may be ordered with the Cushion Clamp by adding the appropriate SUFFIX CODE from the adjacent table. Note: the suffix sequence is ground wire first and fittings second. Example - 4700100GYC includes a 4700100 Single Cushion Clamp with copper ground wire assembly (G) and Y-Clevis (YC).

Suffix Code	Description
G	4' (1) long #4 (7W) Copper Ground Wire with terminal on one end. Catalog No. 710010016
GA	4' (1) long 4/0 (7W) Aluminum Ground Wire with terminal on one end. Catalog No. 710010294
GA2	5' (1.5) long 95 mm <sup>2</sup> (7W) Aluminum Ground Wire with terminals at both ends

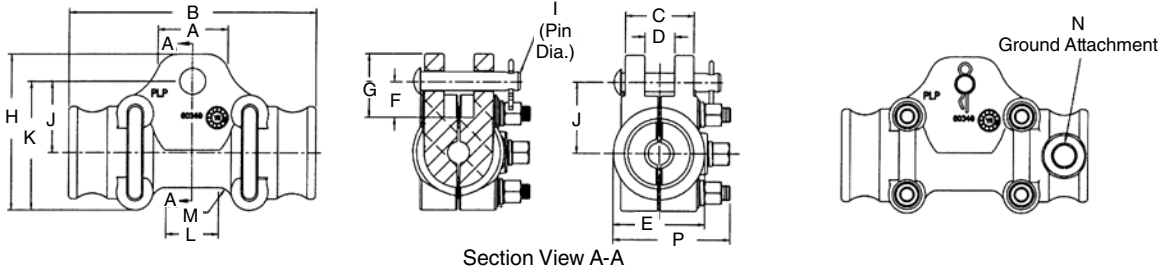
**CAUTION:** Determine appropriate material and size wire necessary to provide adequate grounding for your system before ordering the ground wire assemblies. For proper performance and personal safety be sure to select the proper ground wire before application.

S2	Anchor Shackle (Catalog no 72905002), 25,000#
YC	One (1) Y-clevis to fit selected suspension. Single suspension.
CE	One (1) clevis eye to fit selected suspension. Single suspension.
CEYP	Two (2) clevis eyes with yoke plate to fit selected suspension. Double suspension.
GA2	5' (1.5) long 95 mm <sup>2</sup> (7W) Aluminum Ground wire with terminals at both ends.

Catalog Number		Diameter Range				Structural Reinforcing Rods				Color Code
Single	Double	Min. (in)	Max. (in)	Min. (mm)	Max. (mm)	Single Length	Double Length	Rod Dia.	Rods per Set	
4700100	4700200	0.376	0.387	9.6	9.8	31	60	0.204	7	Orange
4700101	4700201	0.388	0.429	9.9	10.9	32	61	0.182	8	Red
4700102	4700202	0.430	0.459	11.0	11.6	33	62	0.167	9	Black
4700103	4700203	0.460	0.482	11.7	12.2	34	63	0.154	10	Green
4700104	4700204	0.483	0.507	12.3	12.8	35	64	0.182	10	Yellow
4700105	4700205	0.508	0.537	12.9	13.6	36	65	0.167	11	Purple
4700106	4700206	0.538	0.563	13.7	14.3	37	66	0.154	12	Pink
4700107	4700207	0.564	0.585	14.4	14.8	39	68	0.182	11	Brown
4700108	4700208	0.586	0.615	14.9	15.6	40	69	0.167	12	Blue
4700109	4700209	0.616	0.641	15.7	16.3	41	70	0.154	13	Orange
4700110	4700210	0.642	0.664	16.4	16.8	44	73	0.182	12	Red
4700111	4700211	0.665	0.694	16.9	17.6	45	74	0.167	13	Black
4700112	4700212	0.695	0.720	17.7	18.3	46	75	0.154	15	Green
4700113	4700213	0.721	0.742	18.4	18.8	48	77	0.182	13	Yellow
4700114	4700214	0.743	0.772	18.9	19.6	50	79	0.167	14	Purple
4700115	4700215	0.773	0.798	19.7	20.2	51	80	0.154	15	Pink
4700116	4700216	0.799	0.822	20.3	20.8	52	81	0.182	14	Brown
4700117	4700217	0.823	0.855	20.9	21.7	54	83	0.167	16	Blue
4700118	4700218	0.856	0.885	21.8	22.4	55	84	0.146	19	Orange
4700119	4700219	0.886	0.911	22.5	23.1	56	85	0.167	16	Red
4700120	4700220	0.912	0.941	23.2	23.9	57	86	0.154	19	Black
4700121	4700221	0.942	0.975	24.0	24.7	58	87	0.146	20	Green
4700122	4700222	0.976	1.005	24.8	25.5	60	89	0.167	18	Yellow
4700123	4700223	1.006	1.034	25.6	26.3	61	90	0.154	20	Purple

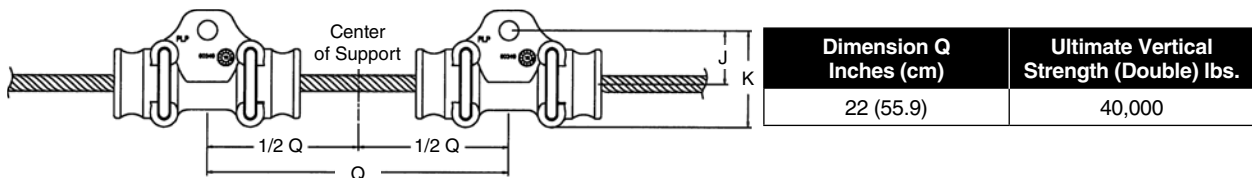
# FIBERLIGN® Cushion Clamp for OPGW

## FIBERLIGN Cushion Clamp Dimensions



Dimensions Inches (mm)															Ultimate Vertical Strength (Single) lbs.
A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	
2-23/64 (59.9)	8-11/32 (211.9)	2-11/32 (59.5)	13/16 (20.6)	3-7/64 (79.0)	1-5/32 (29.4)	2-1/8 (54.0)	5-1/4 (133.4)	5/8 (15.9)	2-11/32 (59.5)	3-41/64 (92.5)	1-25/32 (45.2)	31/64 (12.3)	1/2-13 UNC	3-15/16 (100.0)	20,000

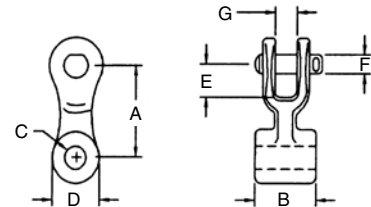
## FIBERLIGN Cushion Clamp: Double



## Fittings & Yoke Plate

### Clevis Eye

Catalog Number	Dimensions Inches (mm)							Ultimate Vertical Strength (lbs.)
	A	B	C	D	E	F	G	
CE-5261	3-1/8 (79.4)	3/4 (19.1)	11/16 (17.5)	1-1/2 (38.1)	1-1/2 (38.1)	5/8 (15.9)	13/16 (20.6)	20,000



### Yoke Plate

Catalog Number	Dimensions Inches (cm)						Plate Thickness
	L	H	D	R	Radius A	F	
YP-5909	22 (55.9)	7-1/4 (18.4)	1 (25.4)	15/16 (23.8)	1-1/4 (31.8)	4-3/16 (10.6)	5/8 (15.9 mm)

### Y-Clevis Eye

Catalog Number	Dimensions Inches (mm)		Ultimate Vertical Strength (lbs.)
	B	C	
YC-5207	3/4 (19.1)	11/16 (17.5)	20,000

