



## FIBERLIGN® CUSHION CLAMP

The **FIBERLIGN Cushion Clamp** uses a combination of structural reinforcing rods (SRR) and elastomer inserts at the ends of the clamp halves to protect the OPGW from damage at support points.

### FEATURES AND BENEFITS

- Reduces negative effects of wind-induced cable motion, such as aeolian vibration, galloping, and sway
- Can accommodate either left-hand lay or right-hand lay OPGW
- A galvanized 1/2"-13 x 3/4" UNC bolt and lock washer are provided with one of the clamp halves to attach a ground wire assembly with a terminal lug to it for bonding OPGW to the supporting structure or a ground lead
- Each clamp half has two factory-installed elastomer cushion inserts to minimize stress at clamp ends
- Clamp halves have a machined central groove that ensures a proper fit and provides electrical continuity
- Clamp halves are secured with two captured 1/2"-13 galvanized steel U-bolts
- Clamp halves and SRR are high-strength aluminum alloy. Fastening hardware is galvanized steel.
- An optional ground wire assembly can be included with the cushion clamp
- SRR cannot be reused after they have been installed. Hardware components can be reused as desired if they are in good condition.
- The FIBERLIGN Cushion Clamp has been thoroughly tested for vibration, mechanical loading, and optical attenuation in accordance with IEEE Standard 1138 and IEEE Standard 1591.1

# HOLDING STRENGTHS AND LINE ANGLES

| Characteristic        | Specification                                                            |
|-----------------------|--------------------------------------------------------------------------|
| Unbalanced/Slip Load  | 10%–20% of standard OPGW rated strength                                  |
| Maximum Vertical Load | 20,000 lb                                                                |
| Maximum Line Angle    | 30 degrees for single cushion clamp; 60 degrees for double cushion clamp |

# ATTACHMENT FITTINGS

- An Anchor Shackle (Catalog Number: AS-5L) can be included with Single or Double Cushion Clamps.
- A Y-Clevis (Catalog Number: YC-5207) or Clevis Eye (Catalog Number: CE-5261) can be included with Single Cushion Clamps.
- A Yoke Plate (Catalog Number: YP-5909) with two Clevis Eyes (Catalog Number: CE-5261) can be included with Double Cushion Clamps.



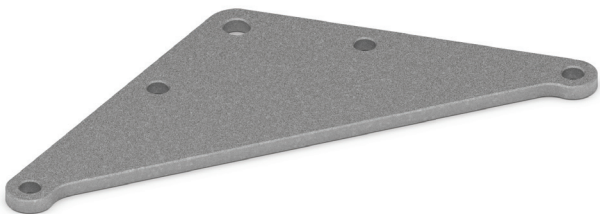
30,000 lb Anchor Shackle  
(Catalog Number: AS-5L)



20,000 lb Y-Clevis Eye  
(Catalog Number: YC-5207)

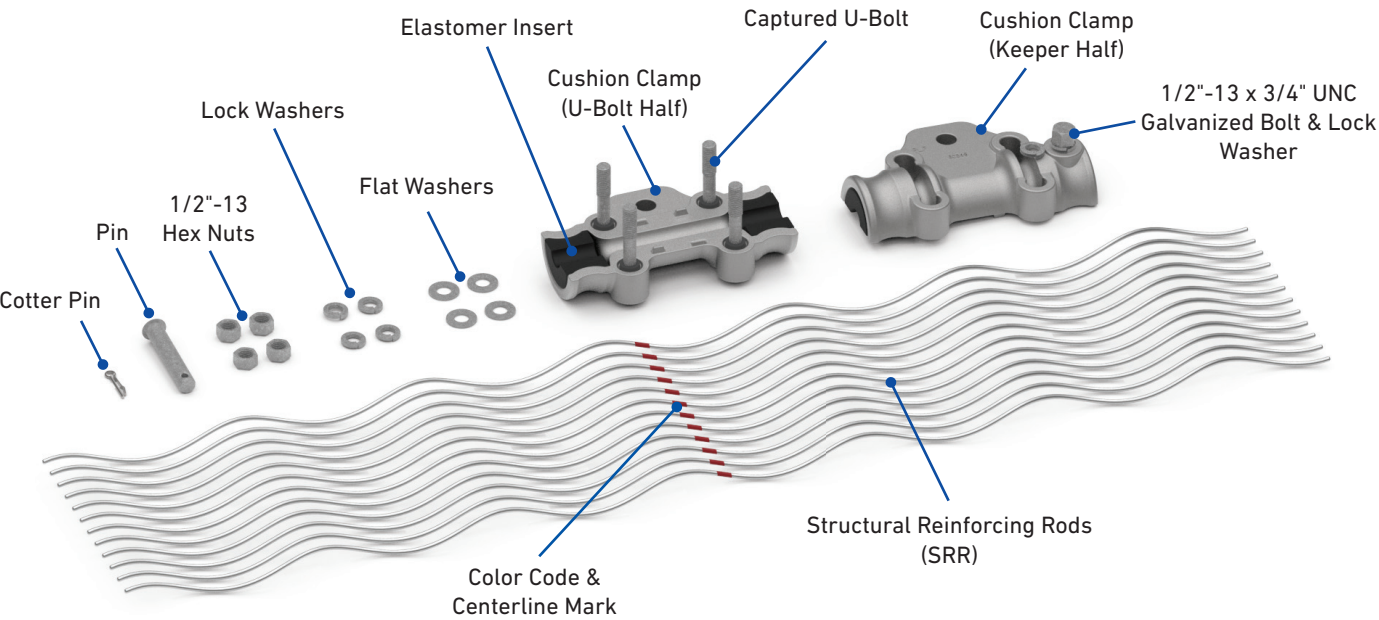


20,000 lb Clevis Eye  
(Catalog Number: CE-5261)



22" Yoke Plate  
(Catalog Number: YP-5909)

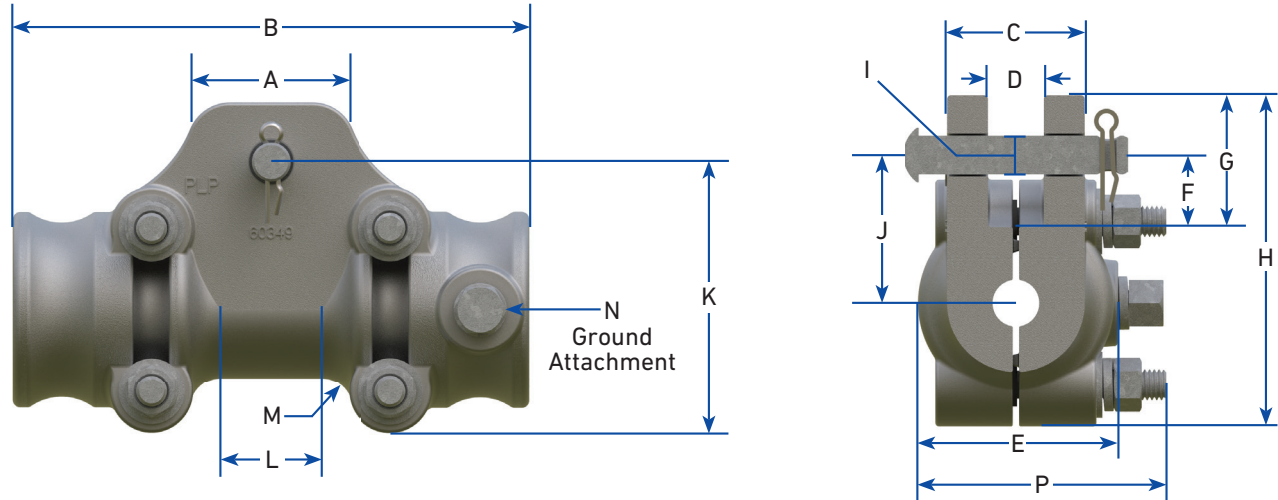
# COMPONENTS





## DIMENSIONS

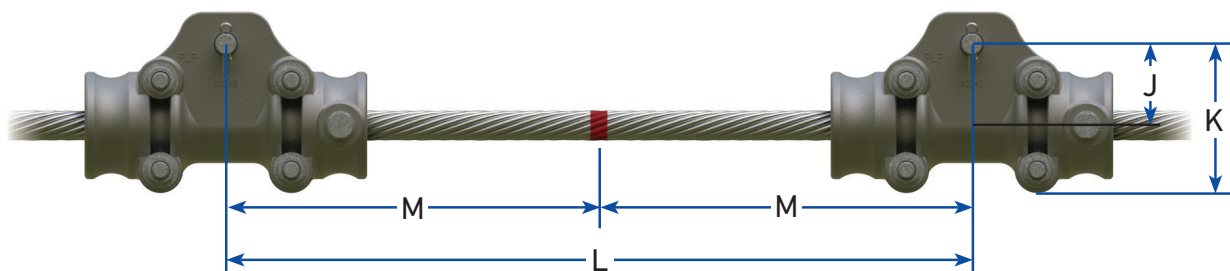
### Single Cushion Clamp



### FIBERLIGN Single Cushion Clamp

| Dimensions        |                    |                   |                 |                  |                  |                 |                  |               |                   |                   |                   |                 |               |                    | Maximum<br>Vertical Load |
|-------------------|--------------------|-------------------|-----------------|------------------|------------------|-----------------|------------------|---------------|-------------------|-------------------|-------------------|-----------------|---------------|--------------------|--------------------------|
| in<br>(mm)        |                    |                   |                 |                  |                  |                 |                  |               |                   |                   |                   |                 |               |                    |                          |
| A                 | B                  | C                 | D               | E                | F                | G               | H                | I             | J                 | K                 | L                 | M               | N             | P                  | lb                       |
| 2-23/64<br>(59.9) | 8-11/32<br>(211.9) | 2-11/32<br>(59.5) | 13/16<br>(20.6) | 3-3/32<br>(79.0) | 1-5/32<br>(29.4) | 2-1/8<br>(54.0) | 5-1/4<br>(133.4) | 5/8<br>(15.9) | 2-11/32<br>(59.5) | 3-21/32<br>(92.5) | 1-25/32<br>(45.2) | 16/32<br>(12.3) | 1/2-13<br>UNC | 3-15/16<br>(100.0) | 20,000                   |

### Double Cushion Clamp

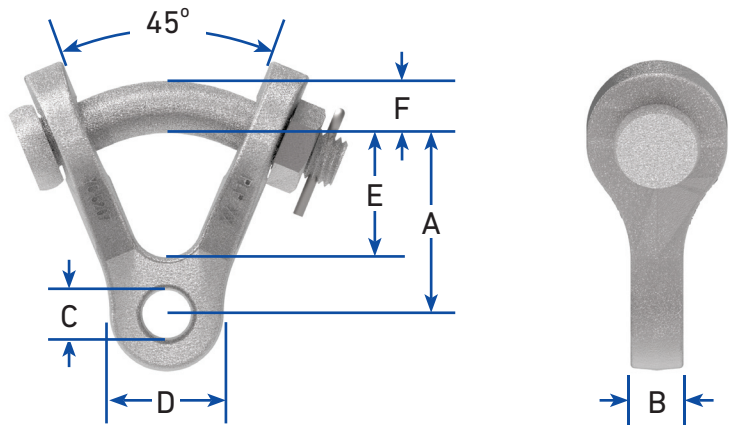


### FIBERLIGN Double Cushion Clamp

| Dimensions     |                |            |            | Maximum<br>Vertical Load |
|----------------|----------------|------------|------------|--------------------------|
| in (mm)        |                |            |            |                          |
| J              | K              | L          | M          | lb                       |
| 2-11/32 (59.5) | 3-21/32 (92.5) | 22 (558.8) | 11 (279.4) | 40,000                   |

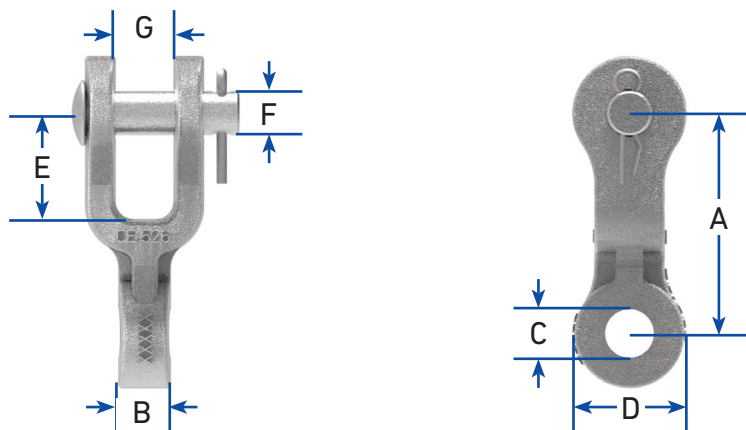
# DIMENSIONS

## Hardware Fittings



### Y-Clevis Eye

| Catalog Number | Dimensions       |               |                 |                 |                 |               | Maximum Vertical Load |
|----------------|------------------|---------------|-----------------|-----------------|-----------------|---------------|-----------------------|
|                | in (mm)          |               |                 |                 |                 |               |                       |
|                | A                | B             | C               | D               | E               | F             | lb                    |
| YC-5207        | 2-7/16<br>(61.9) | 3/4<br>(19.1) | 11/16<br>(17.5) | 1-5/8<br>(41.3) | 1-5/8<br>(41.3) | 3/4<br>(19.1) | 20,000                |



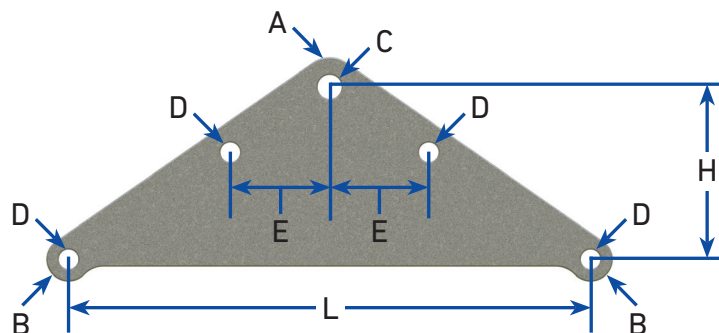
### Clevis Eye

| Catalog Number | Dimensions      |               |                 |                 |                 |               |                 | Maximum Vertical Load |
|----------------|-----------------|---------------|-----------------|-----------------|-----------------|---------------|-----------------|-----------------------|
|                | in (mm)         |               |                 |                 |                 |               |                 |                       |
|                | A               | B             | C               | D               | E               | F             | G               | lb                    |
| CE-5261        | 3-1/8<br>(79.4) | 3/4<br>(19.1) | 11/16<br>(17.5) | 1-1/2<br>(38.1) | 1-1/2<br>(38.1) | 5/8<br>(15.9) | 13/16<br>(20.6) | 20,000                |



## DIMENSIONS

### Hardware Fittings

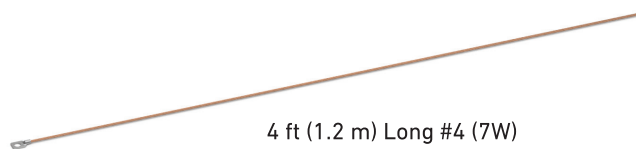


### Yoke Plate

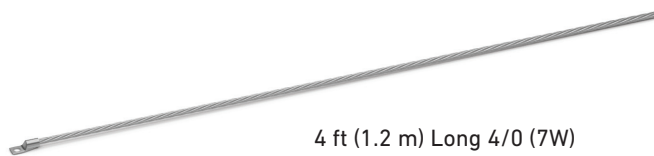
| Catalog Number | Dimensions      |                 |              |                 |                   |               |                  | Plate Thickness | Maximum Vertical Load |
|----------------|-----------------|-----------------|--------------|-----------------|-------------------|---------------|------------------|-----------------|-----------------------|
|                | in (mm)         |                 |              |                 |                   |               |                  |                 |                       |
|                | A (Radius)      | B (Radius)      | C (Dia.)     | D (Dia.)        | E                 | L             | H                | in (mm)         | lb                    |
| YP-5909        | 1-1/4<br>(31.8) | 15/16<br>(23.8) | 1"<br>(25.4) | 13/16<br>(20.6) | 4-3/16<br>(106.4) | 22<br>(558.8) | 7-1/4<br>(184.2) | 5/8<br>(15.9)   | 40,000                |

## ACCESSORIES

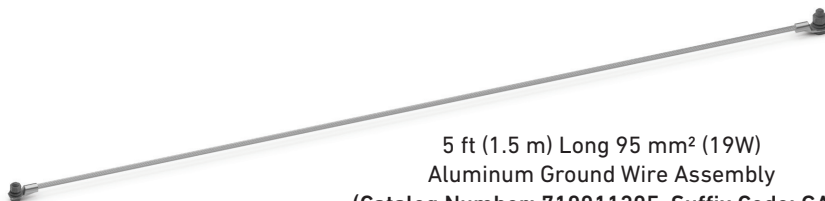
| Catalog Number  | Suffix Code | Description                                                                                                                                                                                                   |
|-----------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 710010016       | G           | 4 ft (1.2 m) Long #4 (7W) Copper Ground Wire Assembly with One Terminal for 1/2" Bolt                                                                                                                         |
| 710010294       | GA          | 4 ft (1.2 m) Long 4/0 (7W) Aluminum Ground Wire Assembly with One Terminal for 1/2" Bolt                                                                                                                      |
| 710011205       | GA2         | 5 ft (1.5 m) Long 95 mm <sup>2</sup> (19W) Aluminum Ground Wire Assembly with One Terminal for M12 Bolt and One Terminal for M16 Bolt – Includes bolts, washers, lock washers, and hex nuts for each terminal |
| AS-5L           | S2          | 30,000 lb Anchor Shackle                                                                                                                                                                                      |
| YC-5207         | YC          | 20,000 lb Y-Clevis Eye                                                                                                                                                                                        |
| CE-5261         | CE          | 20,000 lb Clevis Eye                                                                                                                                                                                          |
| CE-5261 (Qty 2) | CEYP        | (2) 20,000 lb Clevis Eyes and (1) 40,000 lb 22" Yoke Plate - For Double Cushion Clamps only                                                                                                                   |
| YP-5909 (Qty 1) |             |                                                                                                                                                                                                               |



4 ft (1.2 m) Long #4 (7W)  
Copper Ground Wire Assembly  
(Catalog Number: 710010016, Suffix Code: G)



4 ft (1.2 m) Long 4/0 (7W)  
Aluminum Ground Wire Assembly  
(Catalog Number: 710010294, Suffix Code: GA)



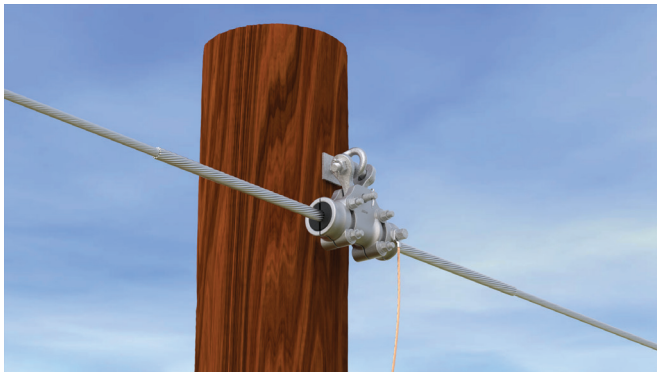
5 ft (1.5 m) Long 95 mm<sup>2</sup> (19W)  
Aluminum Ground Wire Assembly  
(Catalog Number: 710011205, Suffix Code: GA2)

## ORDERING INFORMATION

- Select the appropriate catalog number for the Cushion Clamp from the table below based on the diameter of the OPGW.
- Add the appropriate suffix code(s) to the Cushion Clamp catalog number to include a ground wire assembly and/or attachment fittings (**ex: Catalog Number: 4700100GYC, 4700100GACE, or 4700100GA2S2CEYP**) – see ACCESSORIES on the previous page for suffix codes.
- When adding suffix codes to the Cushion Clamp catalog number, make sure that the suffix code for the ground wire assembly comes **before** the suffix code(s) for the attachment fittings

### FIBERLIGN Cushion Clamp

| Catalog Number |         | Cable Diameter Range |             | SRR Specifications |           |              |     |              |            |
|----------------|---------|----------------------|-------------|--------------------|-----------|--------------|-----|--------------|------------|
|                |         |                      |             | Rod Length         |           | Rod Diameter |     | Rods per Set | Color Code |
|                |         |                      |             | Single             | Double    |              |     |              |            |
| Single         | Double  | in                   | mm          | in (m)             | in (m)    | in           | mm  |              |            |
| 4700100        | 4700200 | 0.376 – 0.387        | 9.6 – 9.8   | 31 (0.79)          | 60 (1.52) | 0.204        | 5.2 | 7            | Orange     |
| 4700101        | 4700201 | 0.388 – 0.429        | 9.9 – 10.9  | 32 (0.81)          | 61 (1.55) | 0.182        | 4.6 | 8            | Red        |
| 4700102        | 4700202 | 0.430 – 0.459        | 11.0 – 11.6 | 33 (0.84)          | 62 (1.57) | 0.167        | 4.2 | 9            | Black      |
| 4700103        | 4700203 | 0.460 – 0.482        | 11.7 – 12.2 | 34 (0.86)          | 63 (1.60) | 0.154        | 3.9 | 10           | Green      |
| 4700104        | 4700204 | 0.483 – 0.507        | 12.3 – 12.8 | 35 (0.89)          | 64 (1.63) | 0.182        | 4.6 | 10           | Yellow     |
| 4700105        | 4700205 | 0.508 – 0.537        | 12.9 – 13.6 | 36 (0.91)          | 65 (1.65) | 0.167        | 4.2 | 11           | Purple     |
| 4700106        | 4700206 | 0.538 – 0.563        | 13.7 – 14.3 | 37 (0.94)          | 66 (1.68) | 0.154        | 3.9 | 12           | Pink       |
| 4700107        | 4700207 | 0.564 – 0.585        | 14.4 – 14.8 | 39 (0.99)          | 68 (1.73) | 0.182        | 4.6 | 11           | Brown      |
| 4700108        | 4700208 | 0.586 – 0.615        | 14.9 – 15.6 | 40 (1.02)          | 69 (1.75) | 0.167        | 4.2 | 12           | Blue       |
| 4700109        | 4700209 | 0.616 – 0.641        | 15.7 – 16.3 | 41 (1.04)          | 70 (1.78) | 0.154        | 3.9 | 13           | Orange     |
| 4700110        | 4700210 | 0.642 – 0.664        | 16.4 – 16.8 | 44 (1.12)          | 73 (1.85) | 0.182        | 4.6 | 12           | Red        |
| 4700111        | 4700211 | 0.665 – 0.694        | 16.9 – 17.6 | 45 (1.14)          | 74 (1.88) | 0.167        | 4.2 | 13           | Black      |
| 4700112        | 4700212 | 0.695 – 0.720        | 17.7 – 18.3 | 46 (1.17)          | 75 (1.91) | 0.154        | 3.9 | 15           | Green      |
| 4700113        | 4700213 | 0.721 – 0.742        | 18.4 – 18.8 | 48 (1.22)          | 77 (1.96) | 0.182        | 4.6 | 13           | Yellow     |
| 4700114        | 4700214 | 0.743 – 0.772        | 18.9 – 19.6 | 50 (1.27)          | 79 (2.01) | 0.167        | 4.2 | 14           | Purple     |
| 4700116        | 4700216 | 0.773 – 0.798        | 19.7 – 20.2 | 51 (1.30)          | 80 (2.03) | 0.154        | 3.9 | 15           | Pink       |
| 4700117        | 4700217 | 0.799 – 0.822        | 20.3 – 20.8 | 52 (1.32)          | 81 (2.06) | 0.182        | 4.6 | 14           | Brown      |
| 4700118        | 4700218 | 0.823 – 0.855        | 20.9 – 21.7 | 54 (1.37)          | 83 (2.11) | 0.167        | 4.2 | 16           | Blue       |
| 4700119        | 4700219 | 0.856 – 0.885        | 21.8 – 22.4 | 55 (1.40)          | 84 (2.13) | 0.146        | 3.7 | 19           | Orange     |
| 4700120        | 4700220 | 0.886 – 0.911        | 22.5 – 23.1 | 56 (1.42)          | 85 (2.16) | 0.167        | 4.2 | 16           | Red        |
| 4700121        | 4700221 | 0.912 – 0.941        | 23.2 – 23.9 | 57 (1.45)          | 86 (2.18) | 0.154        | 3.9 | 19           | Black      |
| 4700122        | 4700222 | 0.942 – 0.975        | 24.0 – 24.7 | 58 (1.47)          | 87 (2.21) | 0.146        | 3.7 | 20           | Green      |
| 4700123        | 4700223 | 0.976 – 1.005        | 24.8 – 25.5 | 60 (1.52)          | 89 (2.26) | 0.167        | 4.2 | 18           | Yellow     |
| 4700124        | 4700224 | 1.006 – 1.034        | 25.6 – 26.3 | 61 (1.55)          | 90 (2.29) | 0.154        | 3.9 | 20           | Purple     |



Single Cushion Clamp Attached to Wood Pole



Double Cushion Clamp Attached to Steel Pole