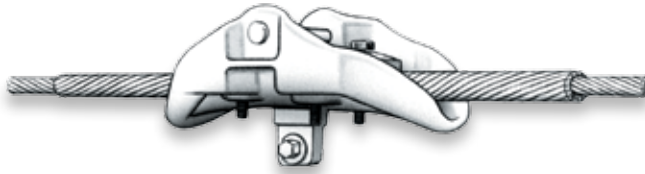


Mechanical Suspensions – Single and Double

Supporting spans of Optical Ground Wire cable through a wide range of line angle changes, the unique design of the lightweight AFL Mechanical Suspension installs easily while supporting vertical, transverse, longitudinal unbalanced loads and angle pulls without damaging the cable strands or affecting optical fiber performance. Breakaway bolts ensure proper installation torque while eliminating the need for specialized torque wrenches. The assemblies are designed for fast installation to minimize costs.



SINGLE SUSPENSION



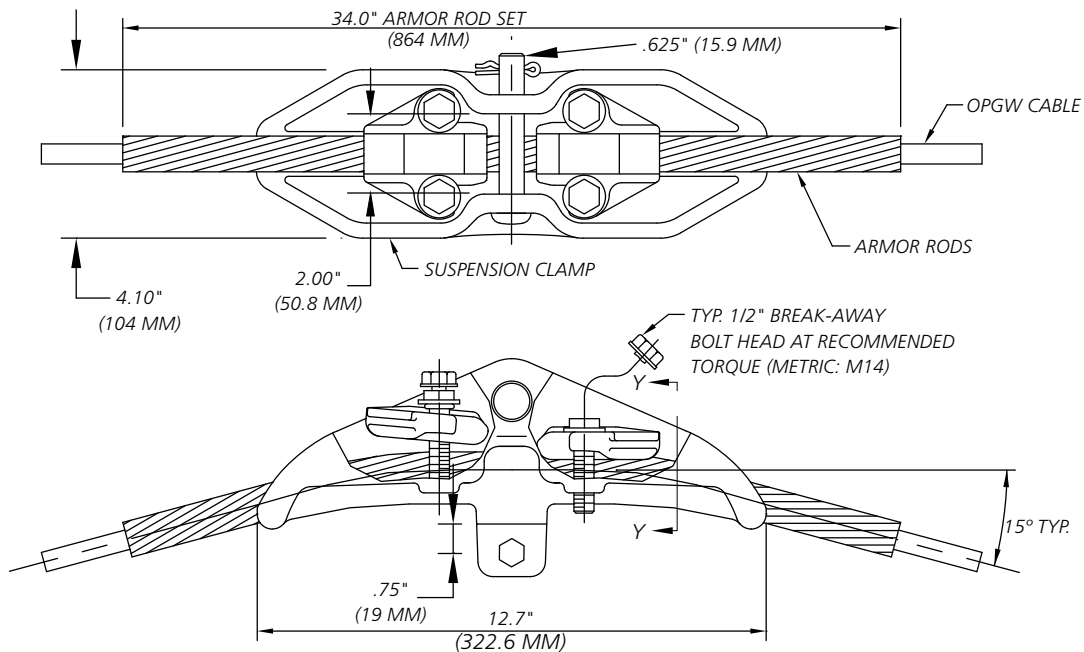
*DOUBLE SUSPENSION SHOWN WITH
OPTIONAL YOKE PLATE AND CLEVIS EYES*

Features

- Slip strengths: Single Suspension > 1,500 lbs.
Double Suspension > 3,000 lbs.
(depending on cable design)
- Vertical load rating: Single Suspension = 25,000 lbs.
Double Suspension = 50,000 lbs.
- Compact design: Single Suspension = 34" in length
Double Suspension = 48" in length
- Meets IEEE 1138 Vibration and Galloping tests
- Ideal for helicopter installation
- Unique keeper design allows installation without removing bolts (fewer loose parts)
- Grounding lug included, eliminating additional accessories for electrical bonding
- Shorter than formed wire suspensions, allowing installation from the support structure
- Standard assembly includes suspension unit and rods

Mechanical Suspensions – Single and Double

Single Mechanical Suspension for OPGW



Ordering Information - Single

Assembly includes suspension and rods. For line or elevation angle changes up to 30°.

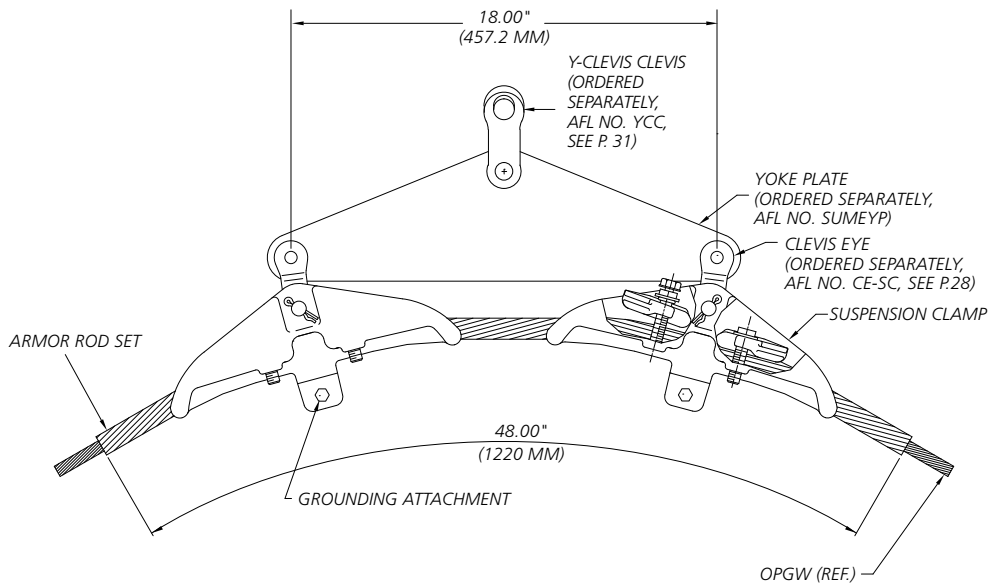
OPGW DIAMETER		EST. WEIGHT		AFL NO.
INCHES	MILLIMETERS	LBS.	KG	
0.350 - 0.389	8.89 - 9.88	5.7	2.6	SUME350/389
0.390 - 0.420	9.91 - 10.67	5.7	2.6	SUME390/420
0.421 - 0.449	10.69 - 11.40	5.8	2.6	SUME421/449
0.450 - 0.475	11.43 - 12.07	5.8	2.6	SUME450/475
0.476 - 0.499	12.09 - 12.67	5.8	2.6	SUME476/499
0.500 - 0.527	12.70 - 13.39	5.8	2.6	SUME500/527
0.528 - 0.555	13.41 - 14.10	5.8	2.6	SUME528/555
0.556 - 0.584	14.12 - 14.83	6.3	2.9	SUME556/584
0.585 - 0.614	14.86 - 15.60	6.3	2.9	SUME585/614
0.615 - 0.646	15.62 - 16.41	6.3	2.9	SUME615/646
0.647 - 0.679	16.43 - 17.25	6.3	2.9	SUME647/679
0.680 - 0.714	17.27 - 18.14	6.3	2.9	SUME680/714
0.715 - 0.770	18.16 - 18.54	6.3	2.9	SUME715/770

Ordering Example: For .512" diameter cable, the part number is SUME500/527.

- NOTES:**
1. For metric hardware, add suffix "M" to part number.
 2. Contact AFL for OPGW cable over 0.770 inch diameter.
 3. For installation instructions, see page 118.

Mechanical Suspensions – Single and Double

Double Suspension for OPGW



Ordering Information - Double

Standard unit includes suspensions and rods. For line or elevation angle changes from 31° to 60°.

OPGW DIAMETER		EST. WEIGHT		AFL NO.
INCHES	MILLIMETERS	LBS.	KG	
0.350 - 0.389	8.89 - 9.88	5.7	2.6	ODSME350/389
0.390 - 0.420	9.91 - 10.67	5.7	2.6	ODSME390/420
0.421 - 0.449	10.69 - 11.40	5.8	2.6	ODSME421/449
0.450 - 0.475	11.43 - 12.07	5.8	2.6	ODSME450/475
0.476 - 0.499	12.09 - 12.67	5.8	2.6	ODSME476/499
0.500 - 0.527	12.70 - 13.39	5.8	2.6	ODSME500/527
0.528 - 0.555	13.41 - 14.10	5.8	2.6	ODSME528/555
0.556 - 0.584	14.12 - 14.83	6.3	2.9	ODSME556/584
0.585 - 0.614	14.86 - 15.60	6.3	2.9	ODSME585/614
0.615 - 0.646	15.62 - 16.41	6.3	2.9	ODSME615/646
0.647 - 0.679	16.43 - 17.25	6.3	2.9	ODSME647/679
0.680 - 0.714	17.27 - 18.14	6.3	2.9	ODSME680/714
0.715 - 0.770	18.16 - 18.54	6.3	2.9	ODSME715/770

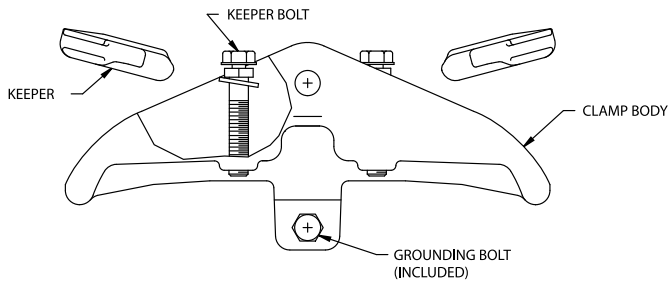
Ordering Example: For .512" diameter cable, the part number is ODSME500/527.

- NOTES:**
1. For metric hardware, add suffix "M" to part number.
 2. For optional yoke plate (as shown), order separately as SUMEYP.
 3. Clevis eyes sold separately, see page 28.
 4. Y-Clevis Clevis sold separately, see page 31.
 5. Contact AFL for OPGW cable over 0.770 inch diameter.
 6. For installation instructions, see page 120.

Installation Instructions for OPGW Suspension Unit

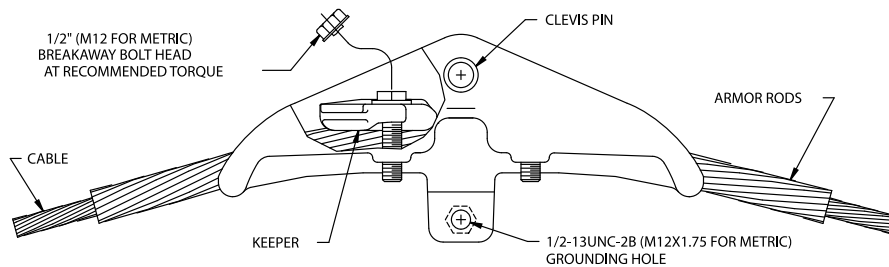
1. Mark center of clamp location on OPGW cable with ink (not tape).
2. Install armor rods on cable aligning center mark of armor rods with center mark on OPGW cable (per **Step 1**).
3. Remove clamp clevis pin. Loosen, but do not remove clamp keeper bolts. Remove clamp keepers. See **Figure 1**.

FIGURE 1:



4. Place clamp body on OPGW cable and center clamp on armor rod center mark.
5. Attach clamp to tower attachment with clevis pin and install cotter pin in clevis pin.
6. Place keepers in clamp and slide keepers under keeper bolts (if double sided keeper, diameter range faces cable and armor rods).
7. Tighten keeper bolts finger tight and insure that keepers are not cocked on OPGW cable.
8. Tighten keeper bolts on each keeper in 5 ft-lb (7 nm for metric) increments, alternating tightening to insure keepers are not cocked in clamp. Tighten until break-away bolt head shears off (20-25 ft-lb or 28-35 nm for metric). See **Figure 2**.

FIGURE 2:

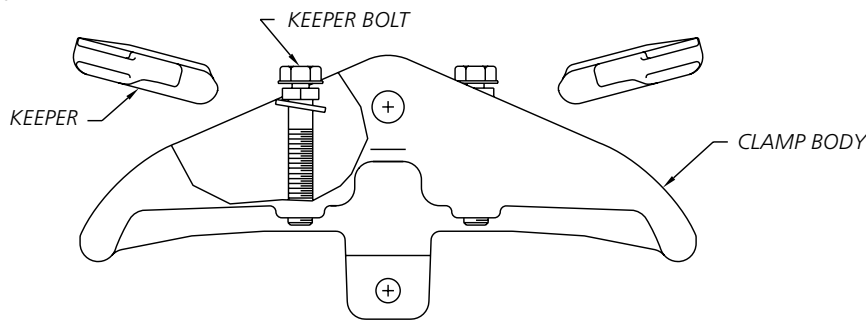


9. Attach grounding lug to grounding pad on bottom of suspension clamp (using 1/2"-13 or m12x1.75 Thread tapped hole) if grounding is required.

Installation Instructions for OPGW Double Suspension Unit

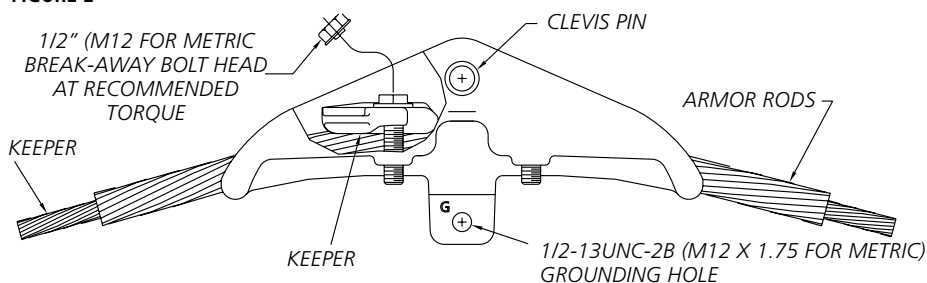
1. Mark center of clamp location on cable with ink (not tape).
2. Install the armor rods on cable aligning center mark of armor rods with center mark on OPGW (per Step 1).
3. Mark centers of clamp locations on armor rods with ink (not tape). This distance is equal to 1/2 the dimension between attachment holes on the yoke plate.
4. Remove clamp clevis pin. Loosen, but do not remove clamp keeper bolts. Remove the clamp keepers (see Figure 1).

FIGURE 1



5. Place clamp body on OPGW and center clamp on one of the center marks (per Step 3).
6. Place keepers in clamp and slide keepers under keeper bolts.
7. Tighten keeper bolts finger tight and insure that keepers are not cocked on OPGW.
8. Tighten keeper bolts on each keeper in 5 ft-lb increments, alternating tightening to insure keepers are not cocked in clamp. Tighten until break-away bolt head shears off (see Figure 2).

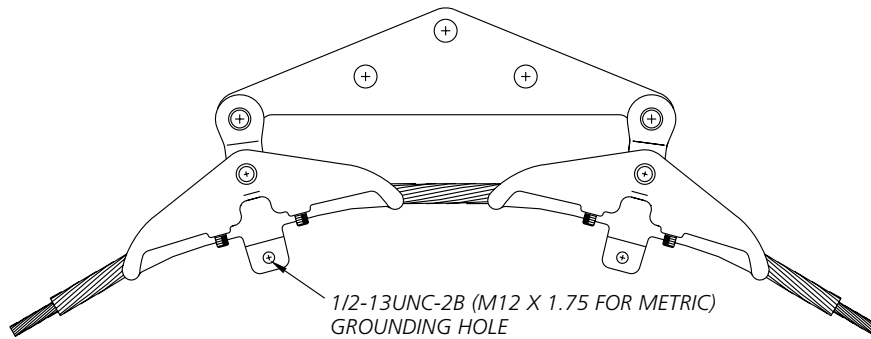
FIGURE 2



Installation Instructions for OPGW Double Suspension Unit (cont.)

9. Repeat steps 4 through 8 for the other clamp.
10. Attach clevis eye to clamp bodies with clevis pins and install cotter pins in clevis pins.
11. Attach clevis eyes to yoke plate.

FIGURE 3 - COMPLETED ASSEMBLY



12. Attach completed assembly to tower attachment (see Figure 3).
13. Attach grounding lug to grounding pad (side marked "G") on bottom of suspension clamp (using 1/2"-13 thread tapped hole) if grounding is required.