AFL

FIBER OPTIC CABLE HARDWARE

OPGW Hardware | ADSS Hardware | Closures

Founded in 1984, AFL is a global leader providing fiber optic products, equipment, and engineering services to the telecommunications, electric utility, wireless, energy, private network and OEM markets. AFL also serves a diverse mix of industry segments that include service providers, military and defense, mining, oil and gas, and biomedical.

AFL brings years of experience in developing solutions for customers, fostering a creative culture to drive and deploy innovative technologies that will improve communications for years to come. Our product line consists of fiber optic cable, optical connectivity, fusion splicers and test equipment as well as fiber management systems, closures and accessories.

AFL is dedicated to bringing our customers a quality product as well as delivering superior value.

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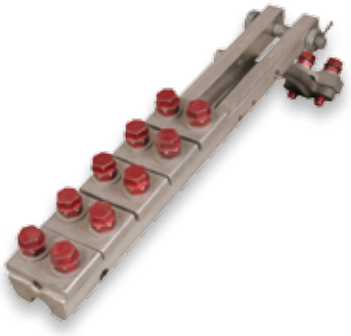


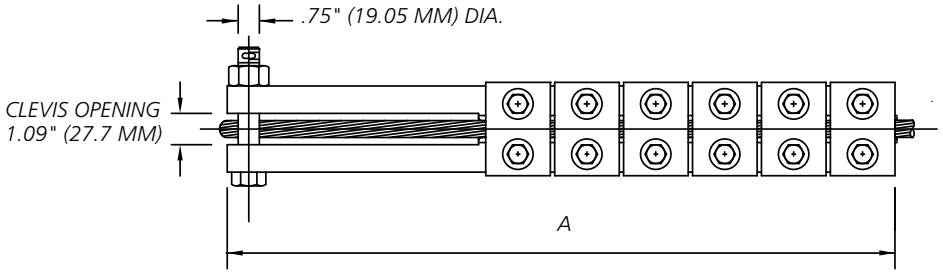
Bolted Dead End with Cable Guide

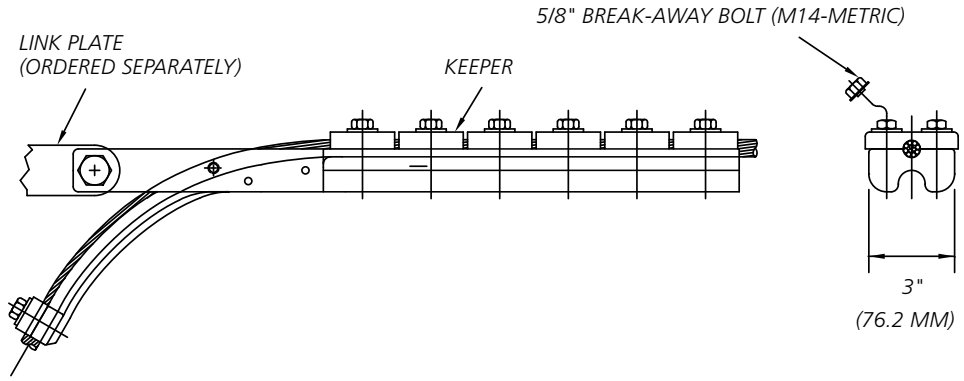
Bolted Dead End for OPGW

The AFL Dead End is a full tension termination for Optical Ground Wire cable. Break-away head bolts are used to apply a precise gripping force to hold the cable without affecting optical fiber performance.

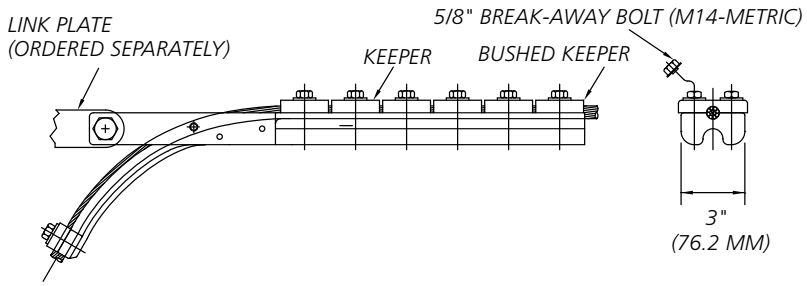
Features

- Performance: Sustained load equivalent to 95% of cable RBS
- Ultimate mechanical strength of dead end components: 40,000 lbs.
- Break-away bolts ensure proper installation torque while eliminating the need for specialized torque wrenches
- Optional Cable Guide (recommended) to train Optical Ground Wire down or around structure
- Drilled and tapped for grounding lug, eliminating additional accessories for electrical bonding
- Shorter than formed wire dead ends, allowing installation from the support structure
- Faster installation than competitive designs, reducing installation costs
- Optional link plate available for extension from structures (see next page)





Bolted Dead End for OPGW
(Stranded Stainless Steel Tube Type Cable)



HexaCore
ODES

MiniCore
ODES

ODE	S	YYY/YYY	X	##
OPGW Dead End	S for Standed Stainless (See Valid Cable Types)	Range code in Decimal Inches (See Table 1)	"G" for Cable Guide, "N" for No Cable Guide	Number of Keepers (See Table 1, Keeper Designation and Calculating Cross Sectional Area of Alumoweld)

NOTES: 1. For installation instructions, see pg 115.
2. Bushed end keeper not considered in number of keepers.
3. Cables above 26,000 lbs RBS have to be tested.
4. This deadend is approved only for AFL cables.

TABLE 1

OPGW RBS	PERCENT ALUMOWELD > 33%			PERCENT ALUMOWELD LESS THAN 33%		
	NO. OF * KEEPERS	KEEPER DESIGNATION	DIMENSION "A"	NO. OF * KEEPERS	KEEPER DESIGNATION	DIMENSION "A"
14000 OR LESS	7	07	28.38	8	08	30.78
14001-17000	8	08	30.78	9	09	33.18
17001-21000	9	09	33.18	10	10	35.58
21000-26000	10	10	35.58	11	11	37.98
26001-ABOVE**	11	11	37.98	11	11	37.98

** NUMBER OF KEEPERS DOES NOT INCLUDE THE END BUSHED KEEPER.*
** NUMBER OF KEEPERS NOT TO EXCEED 11.*
** * SEE NOTE 3.*

CALCULATING CROSS SECTIONAL AREA OF ALUMOWELD (PERCENT)

*AW AREA PERCENT= ((AW AREA)/(AW AREA + ALUMINUM AREA)) * 100*
IF THE AW AREA PERCENT IS LESS THAN 33%, ADD ONE KEEPER.

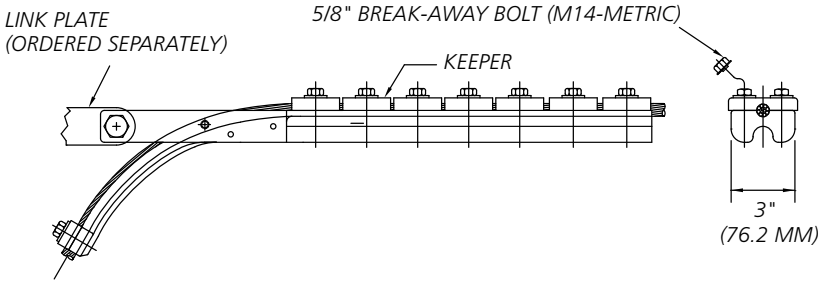
AFL CABLE DESCRIPTION
S3—109/45/673
- CABLE DIA.
- CROSS SECTIONAL AREA OF ALUMOWELD (MM2)
- CROSS SECTIONAL AREA OF ALUMINUM (MM2)

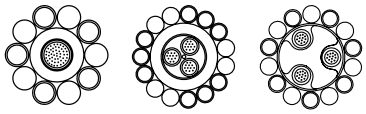
AFL NO.	CABLE DIAMETER RANGE	
	MIN	MAX
ODES350/359GXX	0.350	0.359
ODES360/369GXX	0.360	0.369
ODES370/379GXX	0.370	0.379
ODES380/389GXX	0.380	0.389
ODES390/399GXX	0.390	0.399
ODES400/409GXX	0.400	0.409
ODES410/419GXX	0.410	0.419
ODES420/429GXX	0.420	0.429
ODES430/439GXX	0.430	0.439
ODES440/449GXX	0.440	0.449
ODES450/459GXX	0.450	0.459
ODES460/469GXX	0.460	0.469
ODES470/479GXX	0.470	0.479
ODES480/489GXX	0.480	0.489

AFL NO.	CABLE DIAMETER RANGE	
	MIN	MAX
ODES490/499GXX	0.490	0.499
ODES500/509GXX	0.500	0.509
ODES510/519GXX	0.510	0.519
ODES520/529GXX	0.520	0.529
ODES530/539GXX	0.530	0.539
ODES540/549GXX	0.540	0.549
ODES550/559GXX	0.550	0.559
ODES560/569GXX	0.560	0.569
ODES570/579GXX	0.570	0.579
ODES580/589GXX	0.580	0.589
ODES590/599GXX	0.590	0.599
ODES600/609GXX	0.600	0.609
ODES610/619GXX	0.610	0.619
ODES620/629GXX	0.620	0.629

AFL NO.	CABLE DIAMETER RANGE	
	MIN	MAX
ODES630/639GXX	0.630	0.639
ODES640/649GXX	0.640	0.649
ODES650/659GXX	0.650	0.659
ODES660/669GXX	0.660	0.669
ODES670/679GXX	0.670	0.679
ODES680/689GXX	0.680	0.689
ODES690/699GXX	0.690	0.699
ODES700/709GXX	0.700	0.709
ODES710/719GXX	0.710	0.719
ODES720/729GXX	0.720	0.729
ODES730/739GXX	0.730	0.739
ODES740/749GXX	0.740	0.749

Bolted Dead End for OPGW
(Core Tube Type Cable)





CentraCore ***ODEC*** *AlumaCore* ***ODEC*** *Slotted Core* ***ODEC***

ODE	C	YYY/YYY	X	##
OPGW Dead End	Used for Alumacore, Centracore, and Slotted Core	Range code in Decimal Inches (See Table 1)	"G" for Cable Guide, "N" for No Cable Guide	Number of Keepers (See Table 1, Keeper Designation)

NOTES: 1. For installation instructions, see pg 115.
2. This deadend is approved only for AFL cables.
3. Cables above 30,000 lbs RBS have to be tested.

TABLE 1			
OPGW RBS	**NO. OF * KEEPERS**	**KEEPER DESIGNATION**	**DIMENSION "A"**
14000 OR LESS	7	07	25.98
14001 - 17000	8	08	28.38
17001 - 21000	9	09	30.78
21000 - 26000	10	10	33.18
26001 - 30000	11	11	35.58
IF > 30001*	12	12	37.98

** SEE NOTE 3*

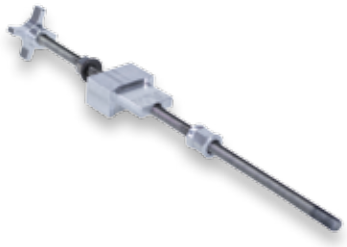
AFL NO.	CABLE DIAMETER RANGE	
	MIN	MAX
ODEC350/359GXX	0.350	0.359
ODEC360/369GXX	0.360	0.369
ODEC370/379GXX	0.370	0.379
ODEC380/389GXX	0.380	0.389
ODEC390/399GXX	0.390	0.399
ODEC400/409GXX	0.400	0.409
ODEC410/419GXX	0.410	0.419
ODEC420/429GXX	0.420	0.429
ODEC430/439GXX	0.430	0.439
ODEC440/449GXX	0.440	0.449
ODEC450/459GXX	0.450	0.459
ODEC460/469GXX	0.460	0.469
ODEC470/479GXX	0.470	0.479
ODEC480/489GXX	0.480	0.489

AFL NO.	CABLE DIAMETER RANGE	
	MIN	MAX
ODEC490/499GXX	0.490	0.499
ODEC500/509GXX	0.500	0.509
ODEC510/519GXX	0.510	0.519
ODEC520/529GXX	0.520	0.529
ODEC530/539GXX	0.530	0.539
ODEC540/549GXX	0.540	0.549
ODEC550/559GXX	0.550	0.559
ODEC560/569GXX	0.560	0.569
ODEC570/579GXX	0.570	0.579
ODEC580/589GXX	0.580	0.589
ODEC590/599GXX	0.590	0.599
ODEC600/609GXX	0.600	0.609
ODEC610/619GXX	0.610	0.619
ODEC620/629GXX	0.620	0.629

AFL NO.	CABLE DIAMETER RANGE	
	MIN	MAX
ODEC630/639GXX	0.630	0.639
ODEC640/649GXX	0.640	0.649
ODEC650/659GXX	0.650	0.659
ODEC660/669GXX	0.660	0.669
ODEC670/679GXX	0.670	0.679
ODEC680/689GXX	0.680	0.689
ODEC690/699GXX	0.690	0.699
ODEC700/709GXX	0.700	0.709
ODEC710/719GXX	0.710	0.719
ODEC720/729GXX	0.720	0.729
ODEC730/739GXX	0.730	0.739
ODEC740/749GXX	0.740	0.749

Wedge Dead End for Optical Ground Wire (OPGW)

OPGW Wedge Dead End



Removal Tool for OPGW Wedge Dead End

Removal Tool inserted into OPGW Wedge Dead End

AFL's Optical Ground Wire (OPGW) wedge dead end improves the ease and speed of installing OPGW as compared to bolted and formed wire devices. The wedge dead end is sold mostly assembled and only requires connecting three components (the body, top wedge and locking pin) during preparation. The unique cam action in the pivoting cable guide ensures proper alignment of the wedges prior to loading and the wedges automatically provide the necessary gripping action to meet the holding strength requirements. A removal tool (sold separately) is available to unlock the wedges for situations requiring additional adjustment of the dead end.

Advantages

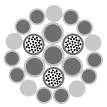
- Three loose components as compared to 15+ with bolted dead ends
- No bolts to torque – self locking wedge design secures the cable
- Eliminates human error associated with proper torque on bolted dead ends
- Shorter and easier to install than formed wire dead ends
- Optional removal tool allows wedges to be easily unlocked when required
- Quicker installation times as compared to bolted and formed wire models
- No special tools required for installation

Features

- Range: 0.375 - 0.750 in. (9.5 - 19.0 mm)
- Designed for 95% of the cables rated breaking strength up to 25,000 lbs. (11,340 kg)
- Cable Guide (not optional) to train OPGW down or around structure
- Optional link plate available for extension from structures
- Approved for use with AlumaCore, CentraCore and HexaCore OPGW designs

CentraCore

AlumaCore



HexaCore

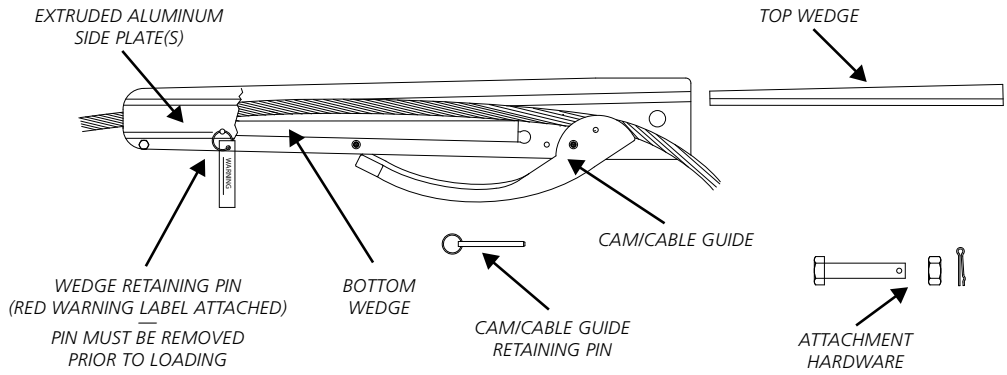
Ordering Information

AFL NO.	OPGW DIAMETER RANGE				WEIGHT	
	INCHES		MM		LBS	KG
ODEW377/397	0.377	0.397	9.56	10.08	16.0	7.3
ODEW398/418	0.398	0.418	10.09	10.62	16.0	7.3
ODEW419/439	0.419	0.439	10.63	11.15	16.0	7.3
ODEW440/460	0.440	0.460	11.16	11.68	16.0	7.3
ODEW461/481	0.461	0.481	11.69	12.22	16.0	7.3
ODEW482/502	0.482	0.502	12.23	12.75	16.0	7.3
ODEW503/523	0.503	0.523	12.76	13.28	16.0	7.3
ODEW524/544	0.524	0.544	13.29	13.82	16.0	7.3
ODEW545/565	0.545	0.565	13.83	14.35	16.0	7.3
ODEW566/586	0.566	0.586	14.36	14.88	16.0	7.3
ODEW587/607	0.587	0.607	14.89	15.42	16.0	7.3
ODEW608/628	0.608	0.628	14.43	15.95	16.0	7.3
ODEW629/649	0.629	0.649	15.96	16.48	16.0	7.3
ODEW650/670	0.650	0.670	16.49	17.02	16.0	7.3
ODEW671/691	0.671	0.691	17.03	17.55	16.0	7.3
ODEW692/712	0.692	0.712	17.56	18.08	16.0	7.3
ODEW713/733	0.713	0.733	18.09	18.62	16.0	7.3
ODEW734/754	0.734	0.754	18.63	19.15	16.0	7.3

DESCRIPTION	AFL NO.
Removal Tool for OPGW Wedge Dead End (sold separately, effective up to 75% RBS)	B9527-B

Wedge Dead End for Optical Ground Wire (OPGW)

Components of OPGW Wedge Dead End



Link Plate

Dead End Link Plate

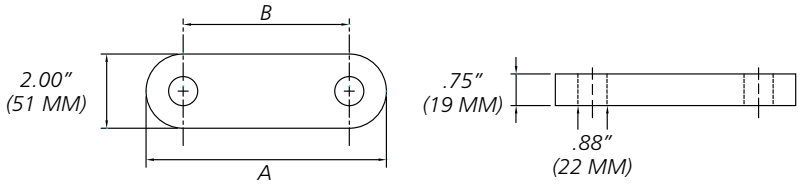
The Dead End Link Plate is made from galvanized steel and has an ultimate strength of 40,000 lbs. (18,140 kg).

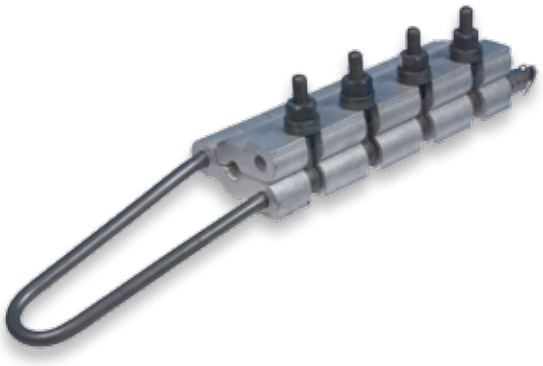
Ordering Information

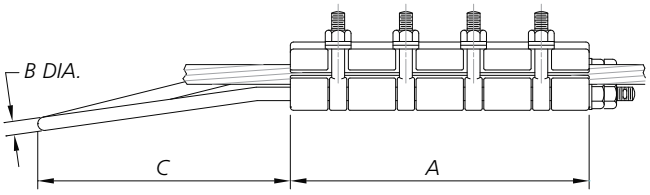
AFL NO.	DISTANCE A	DISTANCE B	WEIGHT
ODELP05	7 inches (177 mm)	5 inches (127 mm)	2.42 lbs. (1.1 kg)
ODELP10	12 inches (304 mm)	10 inches (254 mm)	4.40 lbs. (2.0 kg)
ODELP15	17 inches (432 mm)	15 inches (381 mm)	6.16 lbs. (2.8 kg)

Material: Galvanized Steel; Ultimate Strength: 40,000 lbs. (18,140 kg)

Dimensions







OPGW DIAMETER RANGE (IN.)	EYEBOLTS		DIMENSIONS						WEIGHT	
			A		B		C			
	DIA.	NO.	IN.	MM	IN.	MM	IN.	MM	LB.	KG
0 -.820	1/2"	4	11	279	.5	13	8	203	9	4.08
.821-1.000	5/8"	4	12.5	318	.62	16	8	203	16	7.26

For installation instructions, see page 106.

Comealong for Optical Ground Wire - OCA Series

OPGW Comealongs are stringing tools designed for pulling optical ground wire up to initial sag tensions. If the required tension is greater than the rated tension of a single comealong, two or more comealongs should be used (refer to Installation Instructions). When desired sag tension is reached, the cable should be dead ended promptly and the comealong removed.

Comealongs must receive periodic maintenance. This practice should consist of a thorough cleaning with close inspection for nicked or rough cable grooves, cracked body, bent eye bolts, or damaged bail. The eyebolts should be kept clean and oiled. The cable groove should be kept clean and dry. After each six months use and at the beginning of each job, all comealongs should be subjected to a pull test equal to its rated strength. If any damage is found, the comealong should be disposed of or sent to AFL for rework and recertification.

Features

- Highly engineered product
- Extruded aluminum body for greater strength and tolerance control
- Bails are magnafluxed for quality assurance
- Double lock nuts with cotter pins on the bail
- Peened 1/2" eye bolts prevent loss of nuts and washers
- Angled bail provides clearance between the conductor and the hoist to protect the cable from damage
- Approved for use on AFL cable only

Ordering Instructions

Refer to charts on next page for part numbers.

OCA + **Cable Diameter Range**

Ordering Example: For OCA Series Comealong with a .500" to .509" cable diameter range the part number is OCA500/509.

continued on next page –>

LOAD RATING: Maximum tension limit is 50% of the rated strength of the OPGW or 5,000 pounds, whichever value is smaller.

WARNING: Comealongs are not intended for use as dead ends and are not recommended to hold conductors at sag tension limits for longer than 6 hours.

Comealong for Optical Ground Wire - OCA Series (cont.)

AFL NO.	CABLE DIAMETER RANGE (INCHES)	
	MIN	MAX
OCA310/319	.310	.319
OCA320/329	.320	.329
OCA330/339	.330	.339
OCA340/349	.340	.349
OCA350/359	.350	.359
OCA360/369	.360	.369
OCA370/379	.370	.379
OCA380/389	.380	.389
OCA390/399	.390	.399
OCA400/409	.400	.409
OCA410/419	.410	.419
OCA420/429	.420	.429
OCA430/439	.430	.439
OCA440/449	.440	.449
OCA450/459	.450	.459
OCA460/469	.460	.469
OCA470/479	.470	.479
OCA480/489	.480	.489
OCA490/499	.490	.499
OCA500/509	.500	.509
OCA510/519	.510	.519
OCA520/529	.520	.529
OCA530/539	.530	.539
OCA540/549	.540	.549
OCA550/559	.550	.559
OCA560/569	.560	.569
OCA570/579	.570	.579
OCA580/589	.580	.589
OCA590/599	.590	.599
OCA600/609	.600	.609
OCA610/619	.610	.619
OCA620/629	.620	.629
OCA630/639	.630	.639
OCA640/649	.640	.649
OCA650/659	.650	.659

AFL NO.	CABLE DIAMETER RANGE (INCHES)	
	MIN	MAX
OCA660/669	.660	.669
OCA670/679	.670	.679
OCA680/689	.680	.689
OCA690/699	.690	.699
OCA700/709	.700	.709
OCA710/719	.710	.719
OCA720/729	.720	.729
OCA730/739	.730	.739
OCA740/749	.740	.749
OCA750/759	.750	.759
OCA760/769	.760	.769
OCA770/779	.770	.779
OCA780/789	.780	.789
OCA790/799	.790	.799
OCA800/809	.800	.809
OCA810/819	.810	.819
OCA820/829	.820	.829
OCA830/839	.830	.839
OCA840/849	.840	.849
OCA850/859	.850	.859
OCA860/869	.860	.869
OCA870/879	.870	.879
OCA880/889	.880	.889
OCA890/899	.890	.899
OCA900/909	.900	.909
OCA910/919	.910	.919
OCA920/929	.920	.929
OCA930/939	.930	.939
OCA940/949	.940	.949
OCA950/959	.950	.959
OCA960/969	.960	.969
OCA970/979	.970	.979
OCA980/989	.980	.989
OCA990/999	.990	.999

LOAD RATING: Maximum tension limit is 50% of the rated strength of the OPGW or 5,000 pounds, whichever value is smaller.

WARNING: Comealongs are not intended for use as dead ends and are not recommended to hold conductors at sag tension limits for longer than 6 hours.

HIBUS® Series OPGW Suspension

The Hinged Bushing Suspension is designed to reduce the static and dynamic stress at the attachment point on all types of OPGW fiber cables without the use of protective rods. Eliminating the need for the rods was achieved by the use of a unique bushing system that allows the OPGW cable to better withstand the effects of aeolian vibration. Test results have proven its ability to provide superior protection for your fiber system. The hinged concept on the suspension configuration provides self alignment of the housing halves. All of the hardware is captive except for the attachment pin.

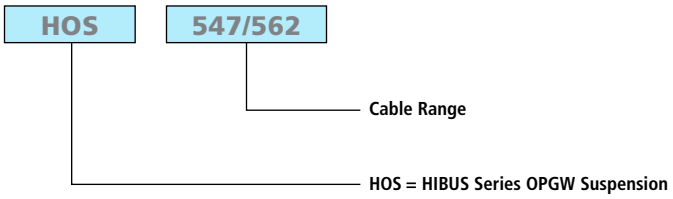
Test reports available include vibration test, slip test, ultimate strength and angle test.

Clamp rated slip load at 20% of RBS for cables with less than 25,000 lbs breaking load. Contact AFL for slip rating on cables greater than 25,000 lbs RBS.

Features

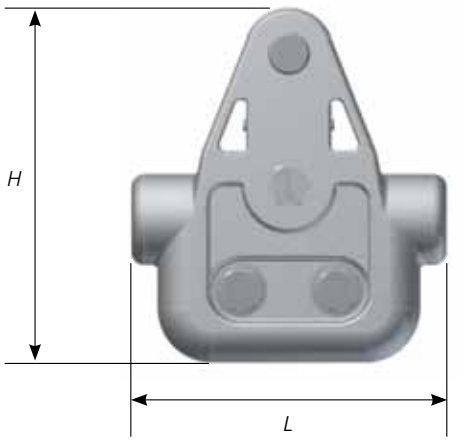
- Self-aligning housing halves
- Stress relief bushing system
- Aluminum clamp body with captive stainless steel mounting bolts
- Galvanized steel mounting pin with cotter pin
- Line angles up to 20° for single unit, up to 40° for two units using an 18" yoke plate.

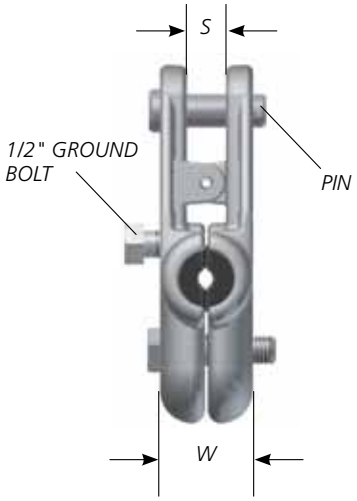
Ordering Information



ORDERING EXAMPLE: For a HIBUS Series OPGW Suspension with a .547"-.562" cable range, the part number is HOS547/562.

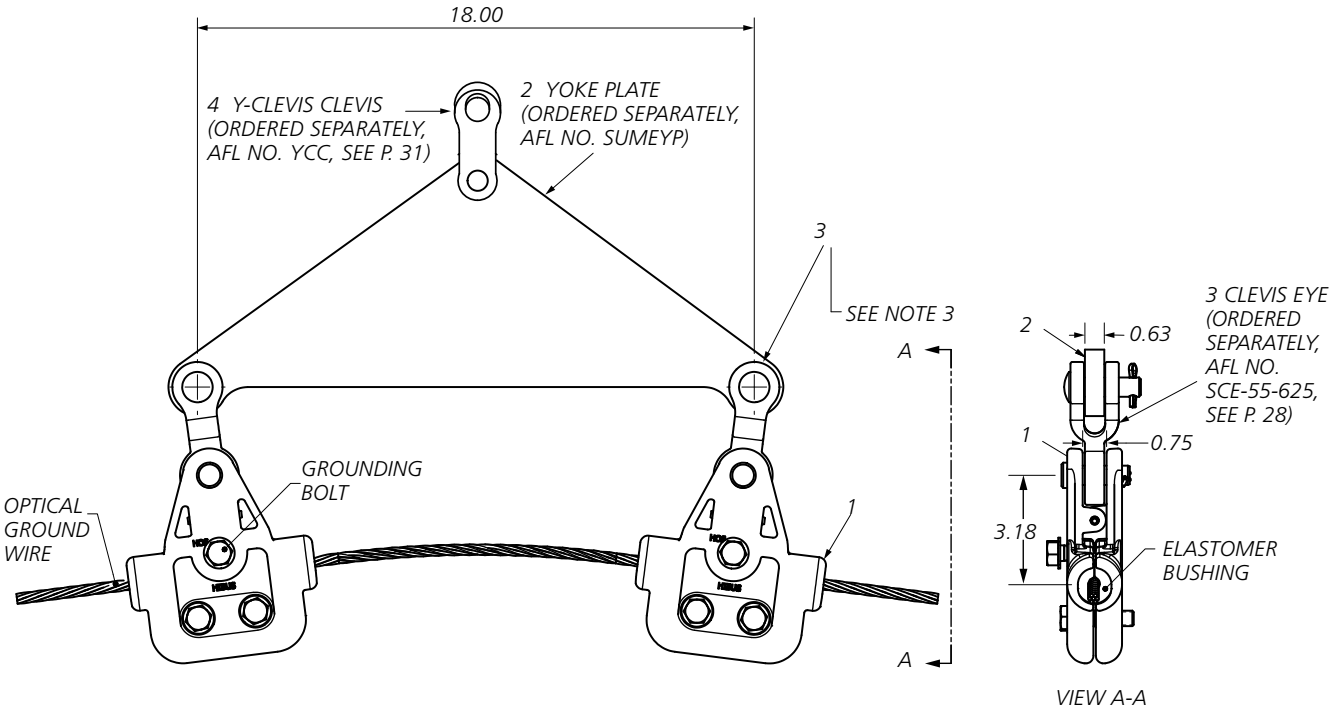
HIBUS® Series
OPGW Suspension





AFL NO.	RANGE (IN)		RANGE (MM)		LENGTH (L)	HEIGHT (H)	WIDTH (W)	CLEVIS WIDTH (S)	WEIGHT (LBS)	VERT. LOAD RATING (LBS)	PIN SIZE
	MIN	MAX	MIN	MAX							
HOS335/345	0.335	0.345	8.51	8.76							
HOS346/360	0.346	0.360	8.77	9.14							
HOS361/375	0.361	0.375	9.15	9.53							
HOS376/390	0.376	0.390	9.54	9.91							
HOS391/406	0.391	0.406	9.92	10.31							
HOS407/418	0.407	0.418	10.32	10.62							
HOS419/434	0.419	0.434	10.63	11.02							
HOS435/448	0.435	0.448	11.03	11.38							
HOS449/465	0.449	0.465	11.39	11.81							
HOS466/480	0.466	0.480	11.82	12.19							
HOS481/500	0.481	0.500	12.20	12.70							
HOS501/516	0.501	0.516	12.71	13.11							
HOS517/531	0.517	0.531	13.12	13.49							
HOS532/546	0.532	0.546	13.50	13.87							.625"
HOS547/562	0.547	0.562	13.88	14.27	6.1"	6.8"	1.75"	.75"	3.4	20,000	x
HOS563/577	0.563	0.577	14.28	14.66							2.00"
HOS578/584	0.578	0.584	14.67	14.83							
HOS585/599	0.585	0.599	14.84	15.21							
HOS600/614	0.600	0.614	15.22	15.60							
HOS615/629	0.615	0.629	15.61	15.98							
HOS630/644	0.630	0.644	15.99	16.36							
HOS645/659	0.645	0.659	16.37	16.74							
HOS660/666	0.660	0.666	16.75	16.92							
HOS667/681	0.667	0.681	16.93	17.30							
HOS682/696	0.682	0.696	17.31	17.68							
HOS697/711	0.697	0.711	17.69	18.06							
HOS712/726	0.712	0.726	18.07	18.44							
HOS727/741	0.727	0.741	18.45	18.82							
HOS742/750	0.742	0.750	18.83	19.05							

HIBUS OPGW Double Suspension Configuration Assemblies



Bill of Material

ITEM	DESCRIPTION	AFL OR DWG. NO.	REQ'D
1	HIBUS OPGW Suspension Clamp Assembly	HOS XXX/XXX	2
2	Yoke Plate	SUMEYP	1
3	Clevis Eye	SCE-55-625	2
4	Y-Clevis Clevis	YCC	1

Strength Rating Information

1. *HIBUS OPGW [OPTICAL GROUND WIRE] SUSPENSION CLAMP - ITEM (1) ULTIMATE STRENGTH RATING: 20,000 LBS.*

2. *HIBUS OPGW [OPTICAL GROUND WIRE] SUSPENSION CLAMP RATED SLIP LOAD @ 20% OF RTS FOR CABLES WITH LESS THAN 25,000 BREAKING LOAD. CONTACT AFL FOR SLIP LOAD RATING ON CABLES GREATER THAN 25,000 LBS. RTS.*

3. *ATTACHMENT HARDWARE:*

   YOKE PLATE - ITEM (2) - ULTIMATE STRENGTH RATING: 40,000 LBS.
   CLEVIS EYE - ITEM (3) - ULTIMATE STRENGTH RATING: 25,000 LBS.
   Y-CLEVIS CLEVIS - ITEM (4) - ULTIMATE STRENGTH RATING: 30,000 LBS.

4. *MAX LINE ANGLE IS 40 DEGREES.*

HIBUS® Series OPGW Trunnion

The HIBUS Trunnion is designed to reduce the static and dynamic stress at the attachment point on all types of OPGW fiber cables without the use of protective rods. Eliminating the need for the rods was achieved by the use of a unique bushing system that allows the OPGW cable to better withstand the effects of aeolian vibration. Test results have proven its ability to provide superior protection for your fiber system. All of the hardware is captive except for attachment pin.

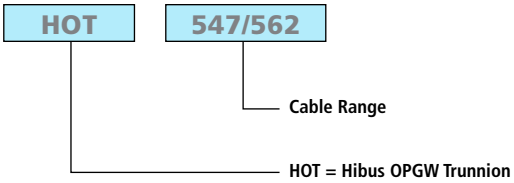
Test reports available include vibration test, slip test, ultimate strength, and angle test.

Clamp rated slip load at 20% of RBS for cables with less than 25,000 lbs breaking load. Contact AFL for slip rating on cables greater than 25,000 lbs RBS.

Features

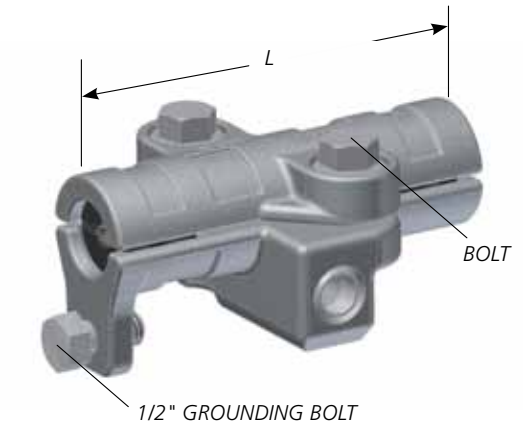
- Stress relief bushing system
- Aluminum clamp body with stainless steel captive securing bolts
- Line angles up to 20°

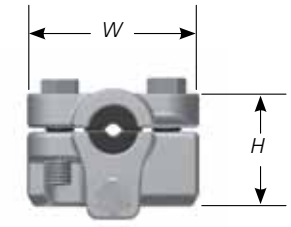
Ordering Information



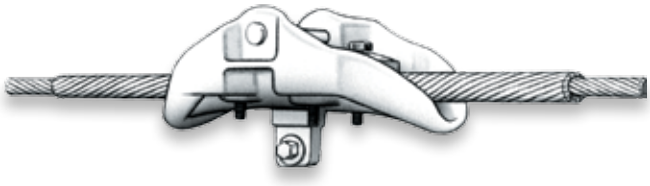
ORDERING EXAMPLE: For a HIBUS Series OPGW Trunnion with a .547"-.562" cable range, the part number is HOT547/562.

HIBUS® Series
OPGW Trunnion

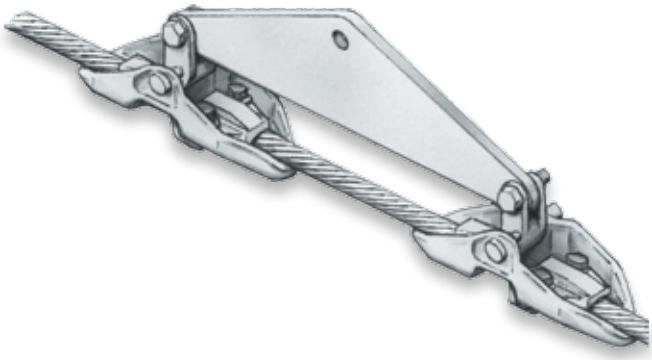




AFL NO.	RANGE (IN)		RANGE (MM)		LENGTH (L)	HEIGHT (H)	WIDTH (W)	WEIGHT (LBS)	VERT. LOAD RATING (LBS)
	MIN	MAX	MIN	MAX					
HOT335/345	0.335	0.345	8.51	8.76	6.1"	2.5"	3.8"	2.3	20,000
HOT346/360	0.346	0.360	8.77	9.14					
HOT361/375	0.361	0.375	9.15	9.53					
HOT376/390	0.376	0.390	9.54	9.91					
HOT391/406	0.391	0.406	9.92	10.31					
HOT407/418	0.407	0.418	10.32	10.62					
HOT419/434	0.419	0.434	10.63	11.02					
HOT435/448	0.435	0.448	11.03	11.38					
HOT449/465	0.449	0.465	11.39	11.81					
HOT466/480	0.466	0.480	11.82	12.19					
HOT481/500	0.481	0.500	12.20	12.70					
HOT501/516	0.501	0.516	12.71	13.11					
HOT517/531	0.517	0.531	13.12	13.49					
HOT532/546	0.532	0.546	13.50	13.87					
HOT547/562	0.547	0.562	13.88	14.27					
HOT563/577	0.563	0.577	14.28	14.66					
HOT578/584	0.578	0.584	14.67	14.83					
HOT585/599	0.585	0.599	14.84	15.21					
HOT600/614	0.600	0.614	15.22	15.60					
HOT615/629	0.615	0.629	15.61	15.98					
HOT630/644	0.630	0.644	15.99	16.36					
HOT645/659	0.645	0.659	16.37	16.74					
HOT660/666	0.660	0.666	16.75	16.92					
HOT667/681	0.667	0.681	16.93	17.30					
HOT682/696	0.682	0.696	17.31	17.68					
HOT697/711	0.697	0.711	17.69	18.06					
HOT712/726	0.712	0.726	18.07	18.44					
HOT727/741	0.727	0.741	18.45	18.82					
HOT742/750	0.742	0.750	18.83	19.05					



SINGLE SUSPENSION



DOUBLE SUSPENSION SHOWN WITH OPTIONAL YOKE PLATE AND CLEVIS EYES

Mechanical Suspensions – Single and Double

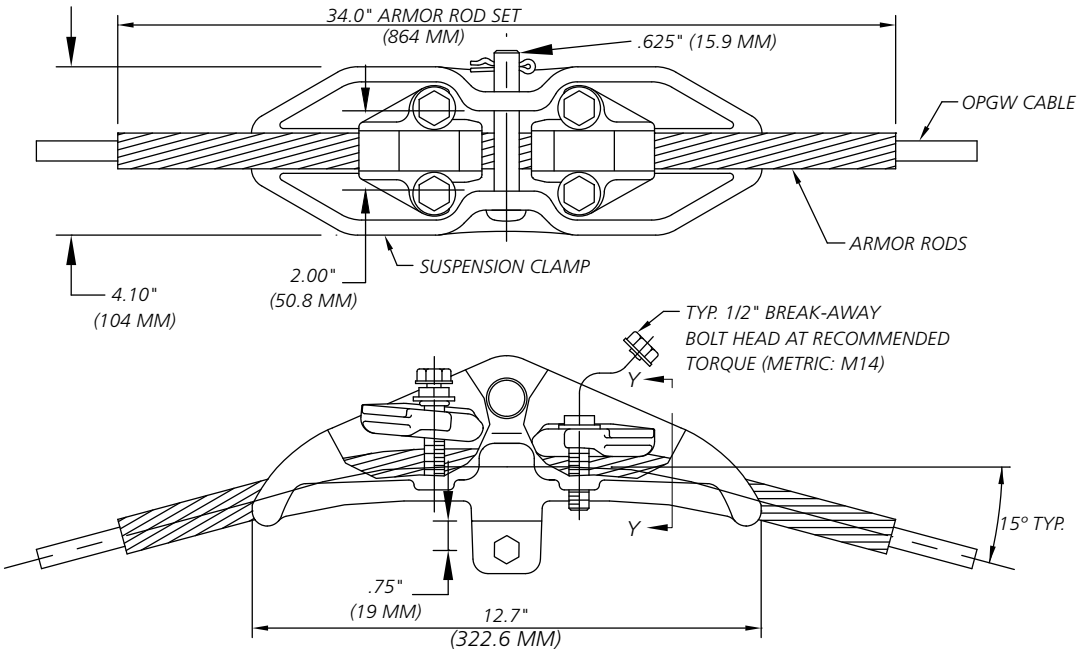
Supporting spans of Optical Ground Wire cable through a wide range of line angle changes, the unique design of the lightweight AFL Mechanical Suspension installs easily while supporting vertical, transverse, longitudinal unbalanced loads and angle pulls without damaging the cable strands or affecting 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.

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°.

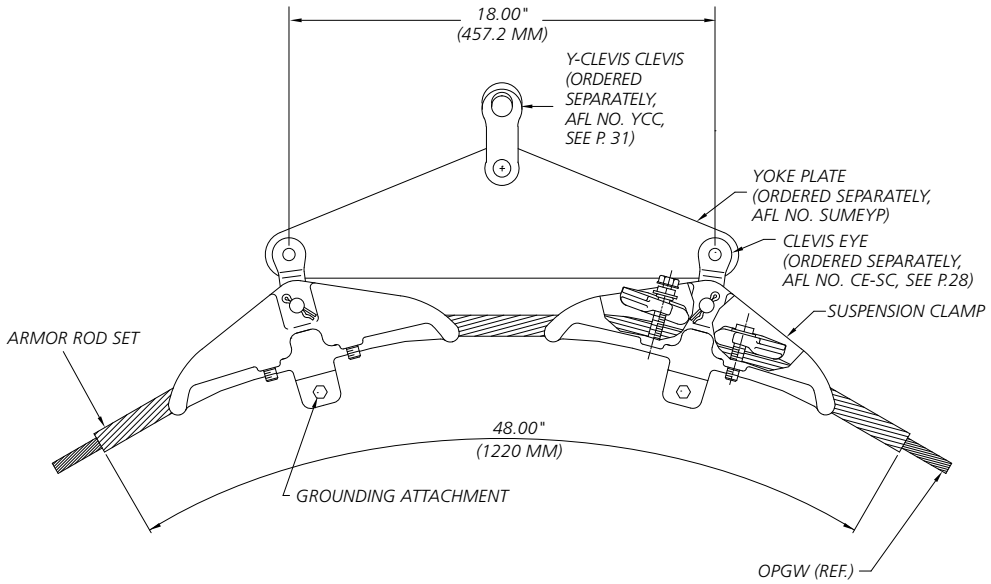
OPGW DIAMETER		EST. WEIGHT		AFL NO.
INCHES	MILLIMETERS	LBS.	KG	
0.350 - 0.389	8.89 - 9.88	5.7	2.6	SUME350/389
0.390 - 0.420	9.91 - 10.67	5.7	2.6	SUME390/420
0.421 - 0.449	10.69 - 11.40	5.8	2.6	SUME421/449
0.450 - 0.475	11.43 - 12.07	5.8	2.6	SUME450/475
0.476 - 0.499	12.09 - 12.67	5.8	2.6	SUME476/499
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.*

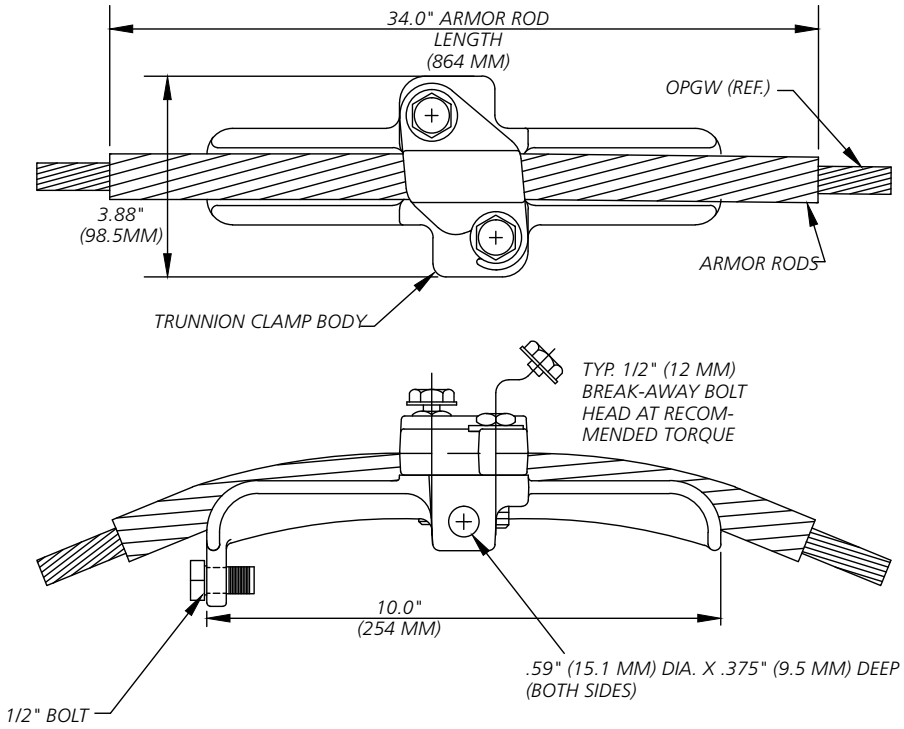
NOTES:
1. *For metric hardware, add suffix "M" to part number.*
2. *For optional yoke plate (as shown), order separately as SUMEYP.*
3. *Clevis eyes sold separately, see page 28.*
4. *Y-Clevis Clevis sold separately, see page 31.*
5. *Contact AFL for OPGW cable over 0.770 inch diameter.*
6. *For installation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

Trunnion for OPGW

The trunnion support clamp is used to secure the OPGW cable to a trunnion type bracket configuration. Either mounted directly to the tower or an insulator, the clamp provides enough force to maintain the designed slip load without causing cable attenuation. For more information, contact factory regarding slip load capabilities.

Features

- Keeper is designed for easy installation without removal of keeper bolts. Break-away head bolts assure proper installation torque.
- Clamp assembly includes Armor Rod set.
- Weight: 3.5 lbs. (1.6 kg)
- Line angles up to 20°



Ordering Information

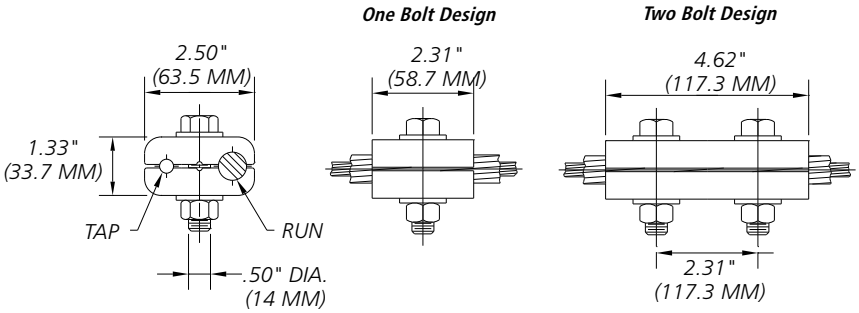
AFL NO.	OPGW CABLE DIAMETER RANGE	
	INCHES	MILLIMETERS
OTR421/449G	.421 - .449	10.69 - 11.40
OTR450/475G	.450 - .475	11.43 - 12.07
OTR476/499G	.476 - .499	12.09 - 12.67
OTR500/527G	.500 - .527	12.70 - 13.39
OTR528/555G	.528 - .555	13.41 - 14.10
OTR556/584G	.556 - .584	14.12 - 14.83
OTR585/614G	.585 - .614	14.86 - 15.60
OTR615/646G	.615 - .646	15.62 - 16.41
OTR647/679G	.647 - .679	16.43 - 17.25
OTR680/714G	.680 - .714	17.27 - 18.14
OTR715/750G	.715 - .750	18.16 - 19.05

NOTE: *For installation instructions, see page 121.*

Bonding Clamps for OPGW

The Bonding Clamp is used to ground OPGW to the tower by attaching to the tower grounding wire. Specific requirements vary from one utility to another. The product is an aluminum extruded parallel groove clamp. The clamp is available with one or two bolts, depending on the application requirements.

Specifiications



Features

- Hardware is high strength aluminum
- Clamp grooves are coated with NO-OX-ID and prefilled with Alnox.
- Recommended bolt torque: 25 ft.-lbs.

Ordering Information

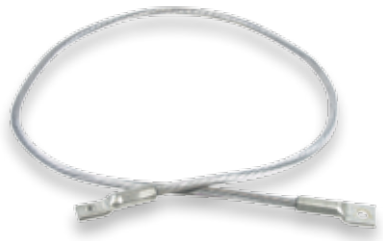
O	BC	XX	YY	#	M
OPGW	Bonding Clamp	Run Groove Code	Tap Groove Code	Number of Bolts 1 = One Bolt Design 2 = Two Bolt Design	Hardware M = Metric

GROOVE CODE	GROOVE RANGE (inches)
A1	.112" - .126"
B1	.127" - .141"
C1	.142" - .156"
D1	.157" - .171"
E1	.172" - .186"
F1	.187" - .201"
G1	.202" - .216"
H1	.217" - .231"
J1	.232" - .246"
K1	.247" - .261"
L1	.262" - .276"
M1	.277" - .291"
N1	.292" - .306"
P1	.307" - .321"
Q1	.322" - .336"
R1	.337" - .351"
S1	.352" - .366"

GROOVE CODE	GROOVE RANGE (inches)
T1	.367" - .381"
U1	.382" - .396"
V1	.397" - .411"
W1	.412" - .424"
X1	.425" - .440"
Y1	.441" - .454"
Z1	.455" - .464"
A2	.465" - .480"
B2	.481" - .495"
C2	.496" - .510"
D2	.511" - .525"
E2	.526" - .540"
F2	.541" - .555"
G2	.556" - .570"
H2	.571" - .585"
J2	.586" - .600"
K2	.601" - .615"

GROOVE CODE	GROOVE RANGE (inches)
L2	.616" - .630"
M2	.631" - .645"
N2	.646" - .660"
P2	.661" - .675"
Q2	.676" - .690"
R2	.691" - .705"
S2	.706" - .720"
T2	.721" - .735"
U2	.736" - .750"
V2	.751" - .765"
W2	.766" - .780"
X2	.781" - .795"
Y2	.796" - .810"
Z2	.811" - .825"
A3	.826" - .840"
B3	.841" - .855"

***NOTE**: For installation instructions, see page 123.*



Aluminum Bonding Wire

The Bonding Wire is used in conjunction with our HIBUS and SUME suspension clamps to provide a path to ground from the OPGW cable to the tower. Bonding Wires are available in multiple length and lug size attachment options.

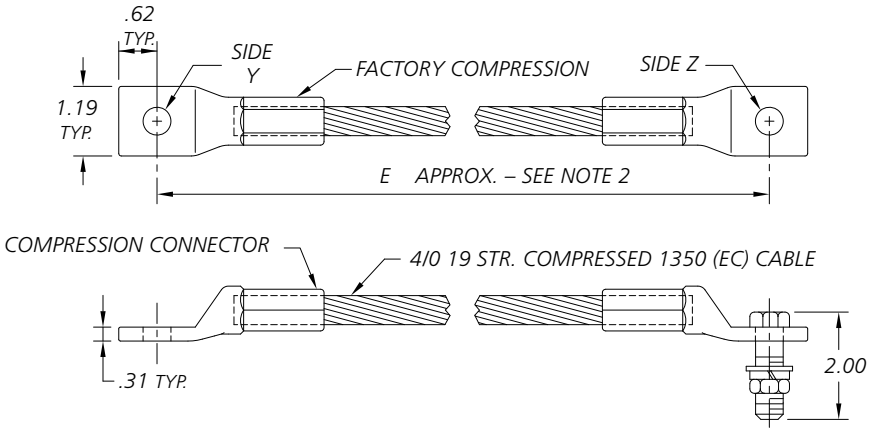
Ordering Information

BWAL	YY	H	/	ZZ	H	LL
Aluminum Bonding Wire	Terminal Selection Code – Side Y – (Smaller End)	Hardware H = Hardware Blank = No hardware †		Terminal Selection Code – Side Z – (Larger End)	Hardware H = Hardware Blank = No hardware †	Length in Inches (See Chart) *

DIMENSION "E" (length in inches)*
24
36
40
60
68

TERMINAL		
SELECTION CODE	HARDWARE SIZE	MOUNT HOLE DIAMETER
38	3/8" †	.438
50	1/2"	.531
62	5/8"	.688
75	3/4" †	.812

NOTES: *1. Connectors to be pre-compressed onto cable at factory.*
2. If assembly does not contain two hole diameter codes, one terminal is supplied, and dimension "E" references wire end.
*3. (*) For additional lengths not found in chart, contact AFL.*
4. (†) Hardware available for 1/2" and 5/8" only.

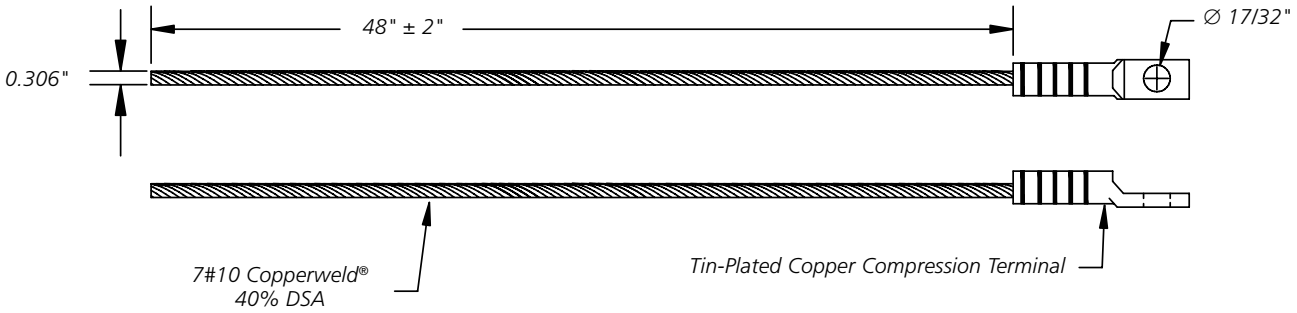


Copperweld® Bonding Wire

The Copperweld Bonding Wire is used in conjunction with AFL's HIBUS, SUME suspension clamps and bolted dead ends to provide a path to ground from the OPGW cable to the tower.

Ordering Information

BWCU	50	—	48
Copperweld® Bonding Wire	**Terminal Selection Code** For use with 1/2" bolt		**Length** 48" long



Guide Clamp Shown with Adaptor

Guide Clamps for OPGW

The Guide Clamp is used to guide OPGW cable down steel towers, steel poles, concrete poles and wood poles to splice locations. The Guide Clamps may be bolted to the tower or poles. Additionally, adapters are available for the steel towers and steel & concrete poles.

Guide Clamps are typically two groove clamps spaced five to eight feet apart to help maintain alignment of and support the OPGW down the towers or poles.

Features

- Hardware is high strength aluminum
- Clamp grooves are coated with NO-OX-ID and prefilled with Alnox.
- Recommended bolt torque: 25 ft.-lbs.

Ordering Information

O	GC	XX	YY	Z	M
OPGW	**Guide Clamp**	**Groove Code** (Larger Cable)	**Groove Code** (Smaller Cable)	**Indicates Adapters** A = Banding Adapter B = Lattice Adapter for web thickness .25" - .72" C = Lattice Adapter for web thickness .72" - 1.25" Omit = No adapter desired	**Hardware** M = Metric

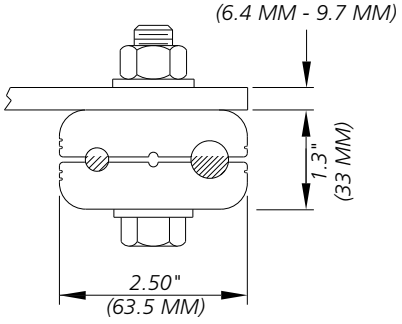
GROOVE CODE	GROOVE RANGE (inches)
A1	.112" - .126"
B1	.127" - .141"
C1	.142" - .156"
D1	.157" - .171"
E1	.172" - .186"
F1	.187" - .201"
G1	.202" - .216"
H1	.217" - .231"
J1	.232" - .246"
K1	.247" - .261"
L1	.262" - .276"
M1	.277" - .291"
N1	.292" - .306"
P1	.307" - .321"
Q1	.322" - .336"
R1	.337" - .351"
S1	.352" - .366"

GROOVE CODE	GROOVE RANGE (inches)
T1	.367" - .381"
U1	.382" - .396"
V1	.397" - .411"
W1	.412" - .424"
X1	.425" - .440"
Y1	.441" - .454"
Z1	.455" - .464"
A2	.465" - .480"
B2	.481" - .495"
C2	.496" - .510"
D2	.511" - .525"
E2	.526" - .540"
F2	.541" - .555"
G2	.556" - .570"
H2	.571" - .585"
J2	.586" - .600"
K2	.601" - .615"

GROOVE CODE	GROOVE RANGE (inches)
L2	.616" - .630"
M2	.631" - .645"
N2	.646" - .660"
P2	.661" - .675"
Q2	.676" - .690"
R2	.691" - .705"
S2	.706" - .720"
T2	.721" - .735"
U2	.736" - .750"
V2	.751" - .765"
W2	.766" - .780"
X2	.781" - .795"
Y2	.796" - .810"
Z2	.811" - .825"
A3	.826" - .840"
B3	.841" - .855"

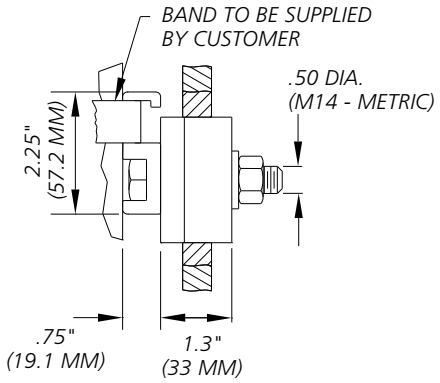
Guide Clamps for OPGW

Guide Clamps and Optional Guide Clamp Adapters



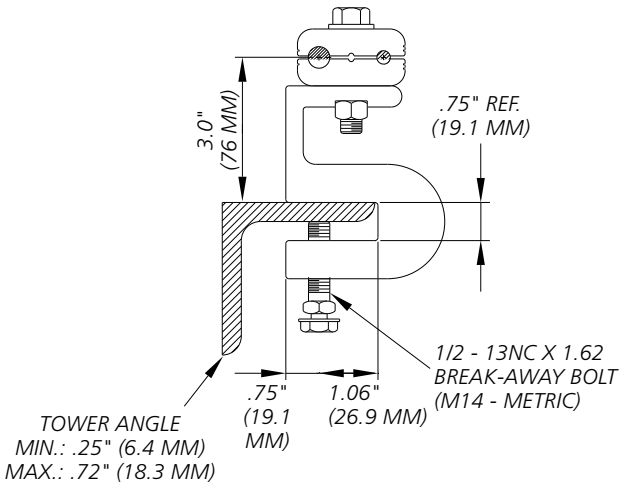
OGCXXYY

No Adapter



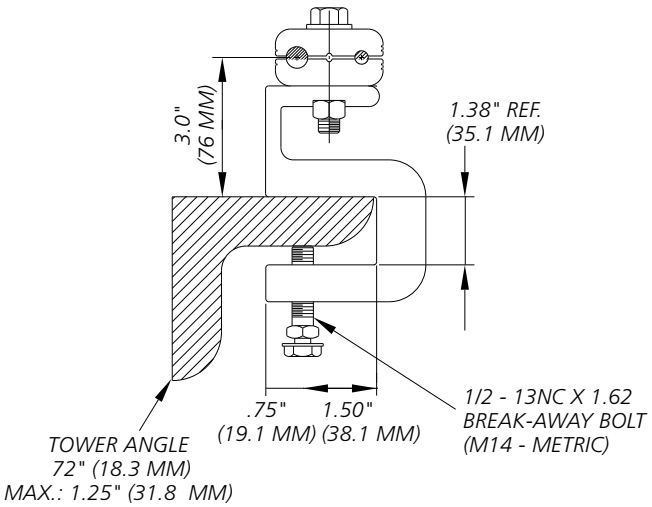
OGCXXYYA

TYPE A ADAPTER
(BANDING)
EST. WT.: .96 LBS.
(.44 KG)



OGCXXYYB

TYPE B ADAPTER (LATTICE)
EST. WT.: 1.98 LBS. (.90 KG)



OGCXXYYC

TYPE C ADAPTER (LATTICE)
EST. WT.: 2.20 LBS. (1.00 KG)

Downlead Clamp shown with Adapter B

Downlead Clamps for OPGW and ADSS

AFL Downlead Clamps are used to guide Optical Ground Wire from the top of the structure to the splice box. AFL's Downlead Clamps install easily and provide proper spacing and hold strength without damage to the cable. From poles to towers, AFL offers a full line of OPGW Downlead Clamps to meet the needs of any application.

Features

- Slip strength: >100 lbs.
- Lattice adapters provided with break-away bolts for precise torque during installation
- Steel tower guide clamps available with adapters to eliminate the need for drilling
- Banding adapters available

Ordering Information – Downlead Clamp & Adapter

GROOVE CODE	OPGW DIAMETER (inches)	COLOR CODE
B4	0.350 - 0.500	Red
B5	0.501 - 0.600	Green
B6	0.601 - 0.700	Yellow
B7	0.701 - 0.800	Blue
B8	0.801 - 0.900	White
B9	0.901 - 1.000	Black
B10	1.001 - 1.100	Orange

FD	OA	XX	YY	Z	M
Fiber Downlead	**OPGW and ADSS**	**Groove Code** (Larger Cable)	**Groove Code** (Smaller Cable)	**Indicates Adapters** A = Banding Adapter B = Lattice Adapter for web thickness .25" - .72" C = Lattice Adapter for web thickness .72" - 1.25" D = 3/8" diameter x 3" lag bolt E = Lattice Adapter for web thickness .25" - 1.25" Omit = No adapter desired	**Hardware** M = Metric

***Ordering Example**: For .528" dia. OPGW and .484 ADSS with pole banding (Type A), the part number is FDOA-B4B5A.*

***NOTES**: 1. If metric hardware is desired, add a "M" suffix to the end.*
2. See next page for optional downlead clamp adapters.
3. For installation instructions, see page 123.

Downlead Clamps for OPGW

Dimensions

FIG. 1

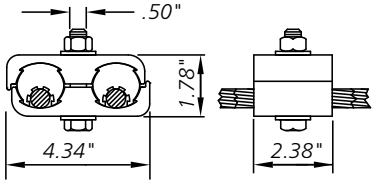
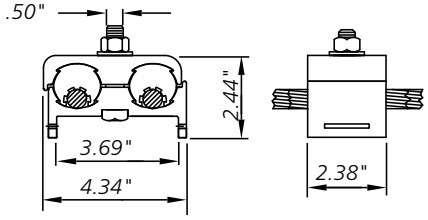


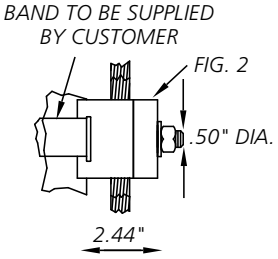
FIG. 2



FDOA XXYY

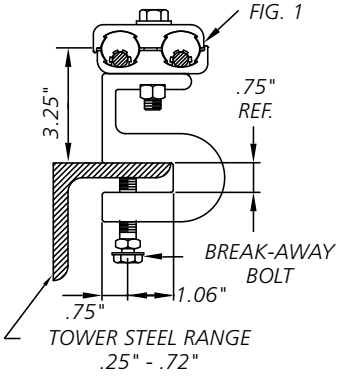
NO ADAPTER

Downlead Clamp Adapters



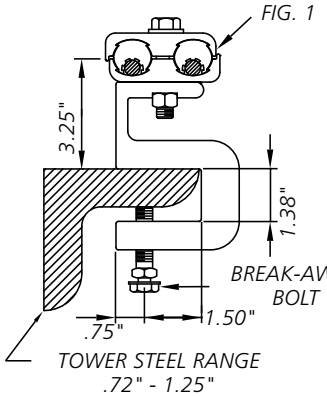
FDOA XXYYA

TYPE A ADAPTER WITH FIGURE 2 BANDING CONFIGURATION EST. WEIGHT: .96 LBS.



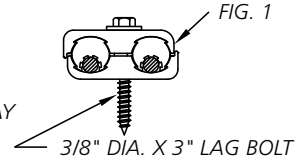
FDOA XXYYB

TYPE B ADAPTER WITH FIGURE 1 LATTICE CONFIGURATION EST. WEIGHT: 1.98 LBS.



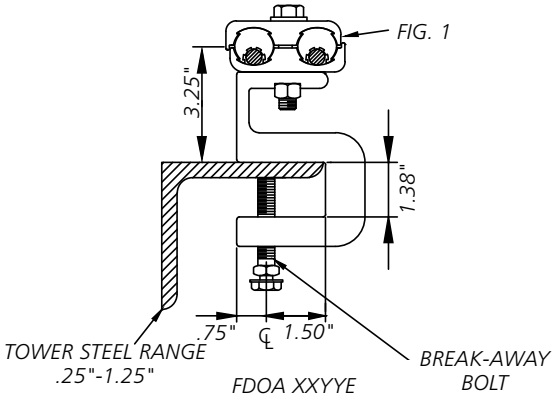
FDOA XXYYC

TYPE C ADAPTER WITH FIGURE 1 LATTICE CONFIGURATION EST. WEIGHT: 2.20 LBS.



FDOA XXYYD

TYPE D ADAPTER WITH FIGURE 1 LATTICE CONFIGURATION EST. WEIGHT: .96 LBS.



FDOA XXYYE

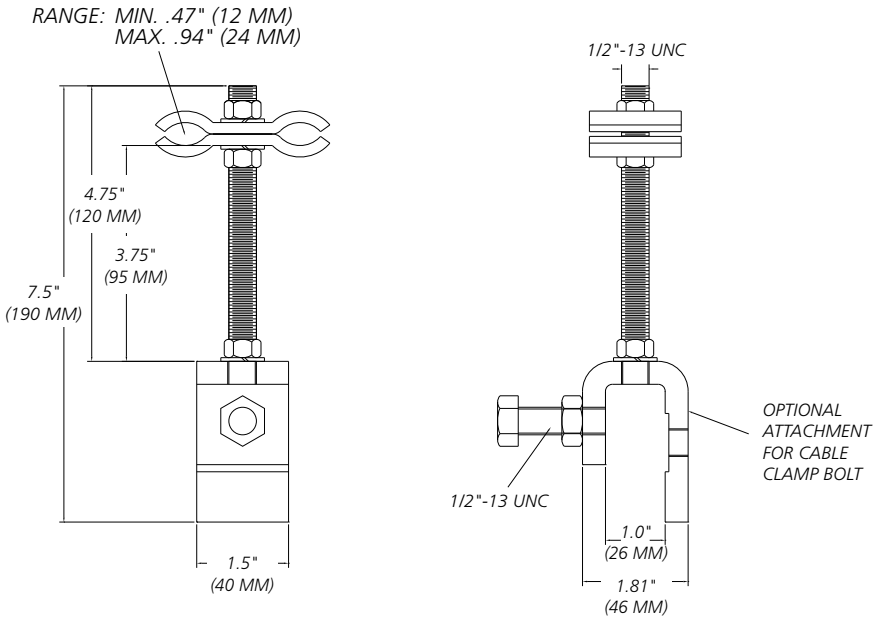
TYPE E ADAPTER WITH FIGURE 1 LATTICE CONFIGURATION EST. WEIGHT: 2.20 LBS.

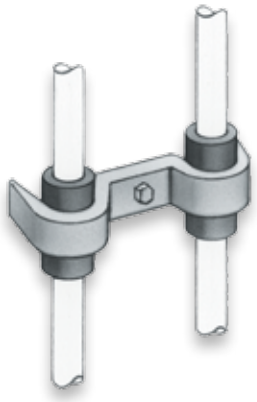
Downlead Clamps for OPGW

Downlead clamps are used to secure the OPGW fiber optic cable as it is trained down the pole or tower. AFL's downlead clamp incorporates a unique design feature that allows the clamp to cover a broad cable range. This feature reduces the customer's stocking requirements when dealing with numerous cable diameters. The clamp has four attachment options that provide the versatility needed when dealing with a variety of wood or steel poles and lattice towers. Normal spacing for downloead clamps is six to eight feet.

Ordering Information

	CABLE DIAMETER RANGE inches (mm)	
AFL NO.	MIN	MAX
ODL472/945	.472 (12)	.945 (24)





Wood Pole Clamp

Wood Pole Clamps for OPGW

Guide clamps are typically two groove clamps used to guide the cable to splice locations. Clamps are spaced 5 to 8 feet apart to help maintain alignment of the cable down the towers or poles. Not applicable to OGW series.

Ordering Information – Wood Pole Clamp

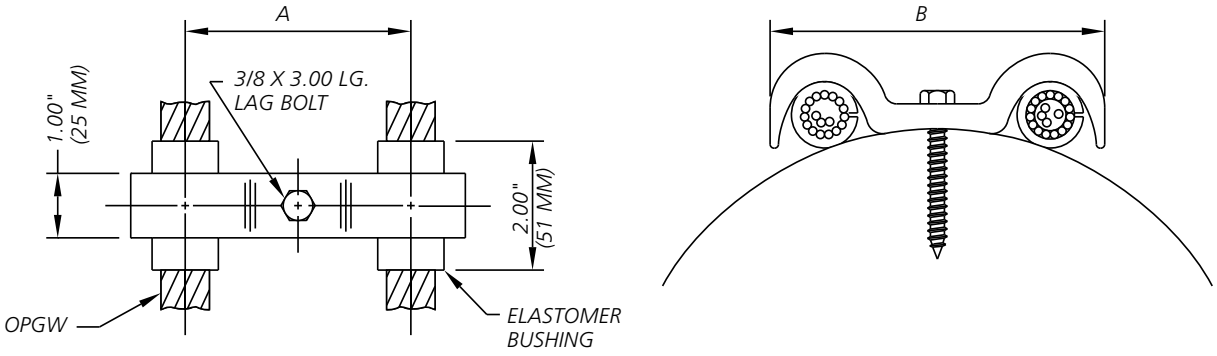
(Note: not available with metric hardware; 3/8" x 3" lag bolt included)

OPGW DIAMETER - IN. (MM)	DIMENSIONS - IN. (MM) A	B	WEIGHT - LBS. (KG)	AFL NO.
0.469 - 0.561 (11.9 - 14.2)	2.81 (71)	4.25 (108)	.33 (.15)	OGW469/561
0.562 - 0.655 (14.3 - 16.6)	3.50 (89)	5.19 (132)	.46 (.21)	OGW562/655
0.656 - 0.750 (16.7 - 19.1)	3.50 (89)	5.19 (132)	.46 (.21)	OGW656/750

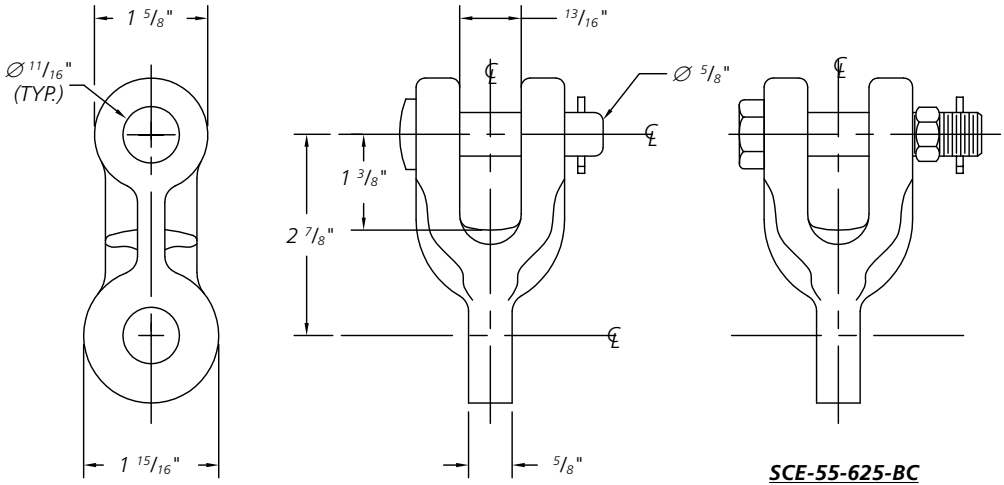
Ordering Example: *For AC-64/528 AlumaCore OPGW the part number is OGW469/561*

Features

- Slip strength: >100 lbs.



Standard Clevis Eye



SCE-55-625-BC

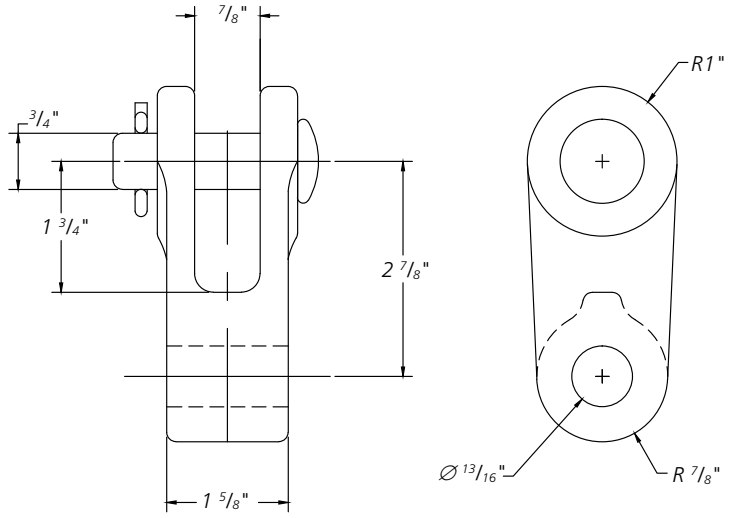
MATERIAL
Hot Dip Galvanized Ductile Iron

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)	APPLICATION
SCE-55-625	25,000	1.35	HIBUS Double Suspension

NOTE: *For Bolt, Nut and Cotter instead of Clevis Pin and Cotter, add suffix "-BC" to AFL number.*

Clevis Eye

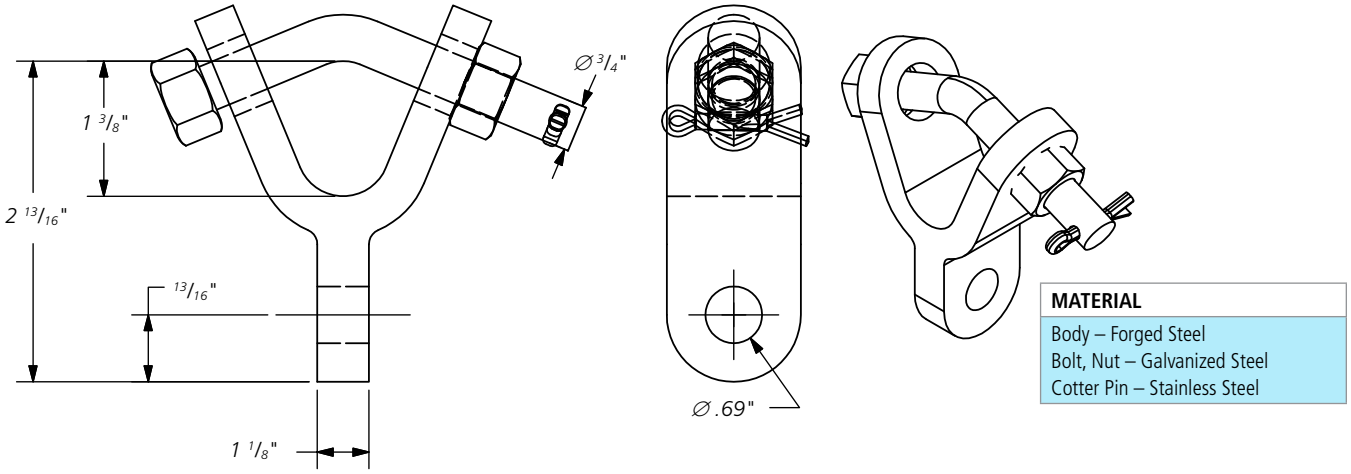


MATERIAL
Body – Ductile Iron Pin – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT (LBS.)	APPLICATION
CE-SC	35,000	1.7	Mechanical Double Suspension

Y Clevis Eye

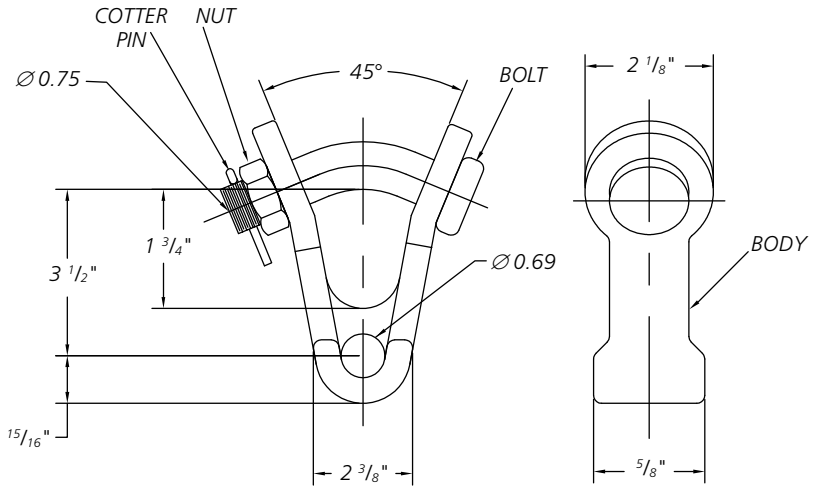


MATERIAL
Body – Forged Steel
Bolt, Nut – Galvanized Steel
Cotter Pin – Stainless Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT (LBS.)
YCE-690-1125	30,000	2.0

Y Clevis Eye 90°

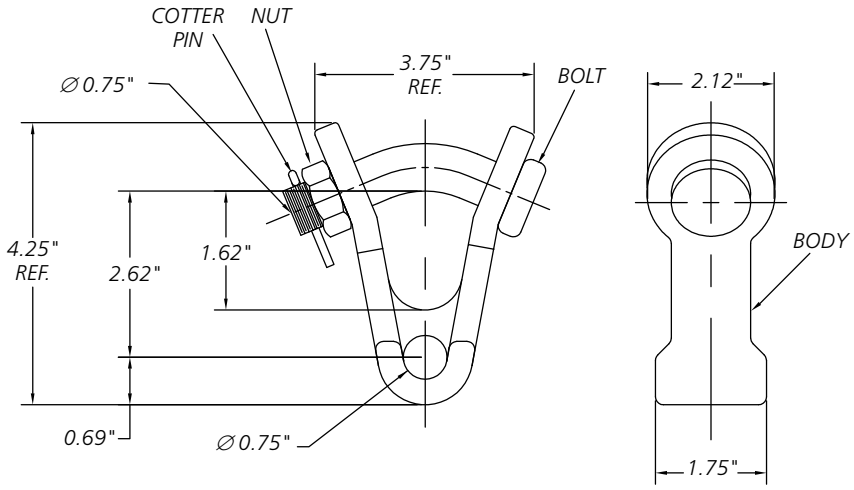


MATERIAL
Body – Forged Steel
Bolt, Nut – Galvanized Steel
Cotter Pin – Stainless Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT (LBS.)	APPLICATION
YCE-65-625A	30,000	2.2	HIBUS Suspension

Y Clevis Eye 90°

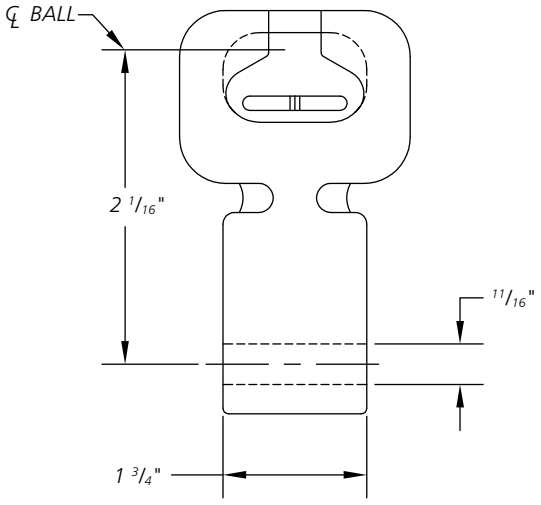


MATERIAL
Body – Forged Steel Bolt, Nut – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT (LBS.)	APPLICATION
YC90E-750-1750	30,000	2.4	Mechanical Suspension

Socket Eye

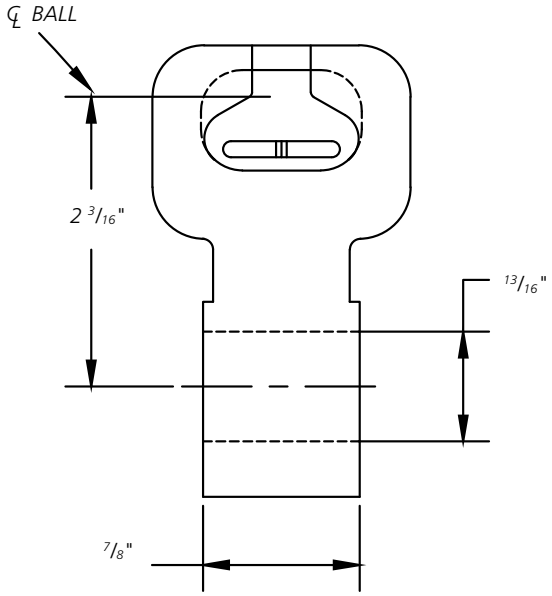


MATERIAL
Body, Clevis Bolt – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
SE-SC	30,000	1.80

Socket Eye

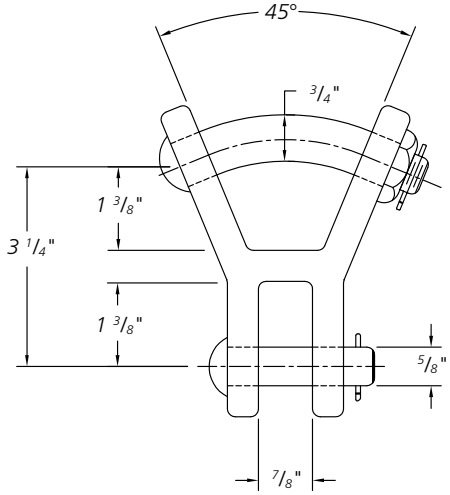


MATERIAL
Galvanized Ductile Iron

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
SE-BDE	30,000	1.21

Y Clevis Clevis

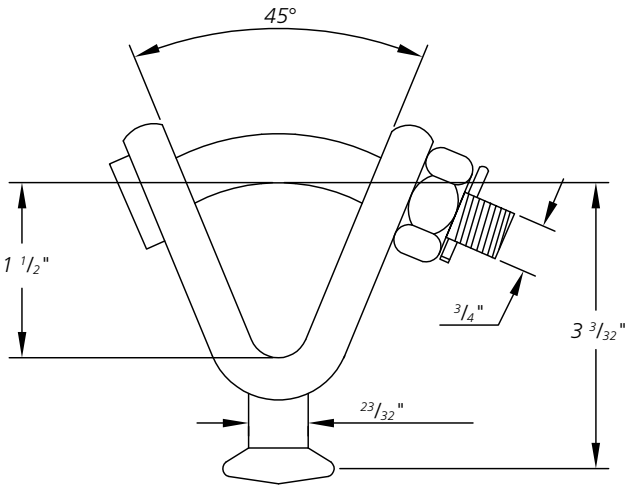


MATERIAL
Body – Galvanized Ductile Iron Hardware – Galvanized Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT (LBS.)	APPLICATION
YCC	30,000	2.50	HIBUS Double Suspension and Mechanical Double Suspension

Ball Y Clevis

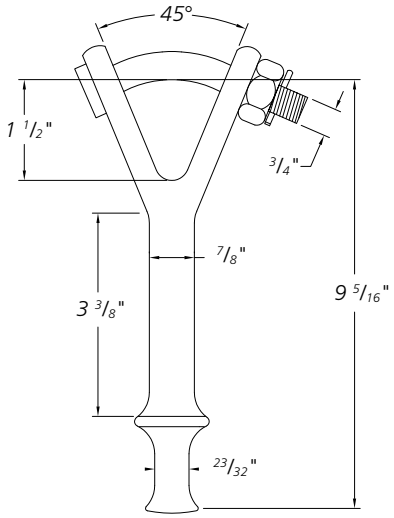


MATERIAL
Body, Clevis Bolt – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
YCBS	30,000	1.90

Hot Line Y Clevis Ball

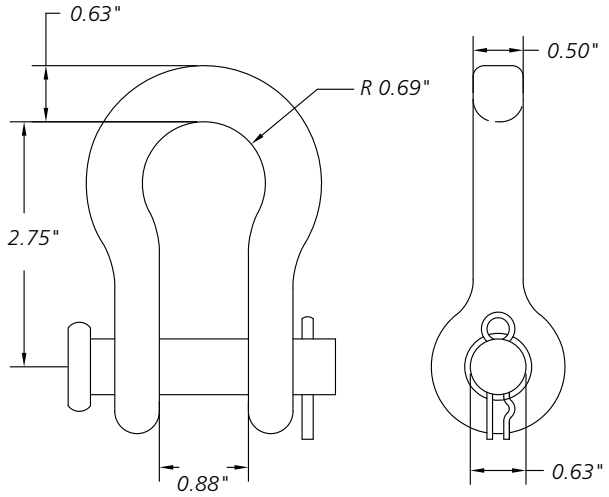


MATERIAL
Body, Clevis Bolt – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
YCBHL	30,000	2.80

Anchor Shackle

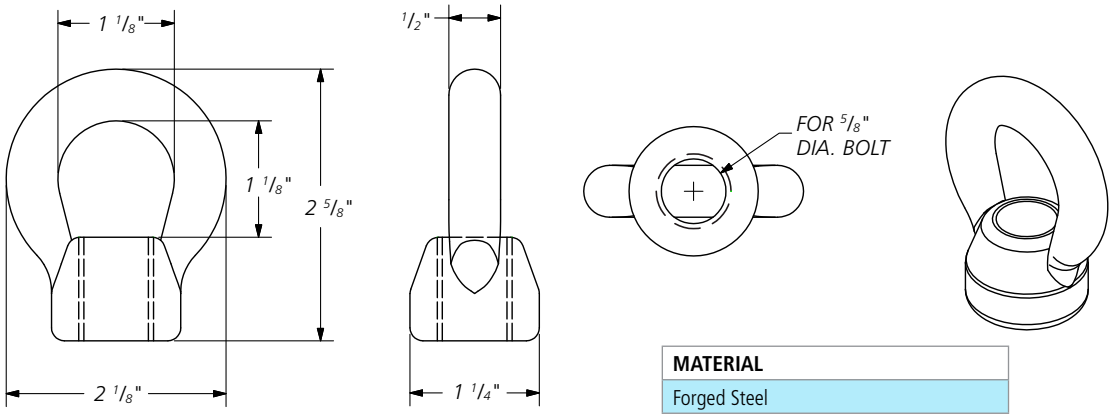


MATERIAL
Body – Galvanized Steel Bolt, Nut – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
ANSH30L	30,000	1.1

Oval Eye Nut

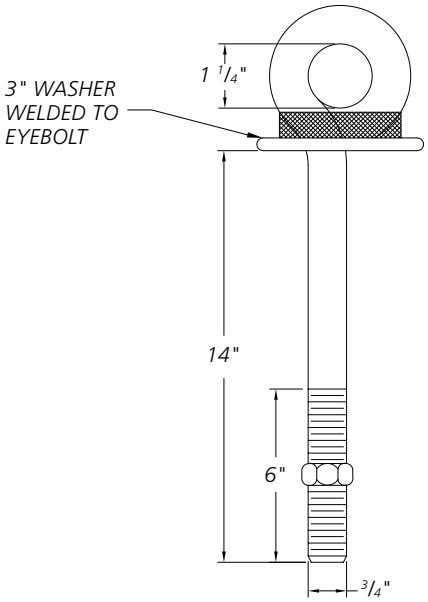


MATERIAL
Forged Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
PSM00221	12,400	.46

Shoulder Eye Bolt

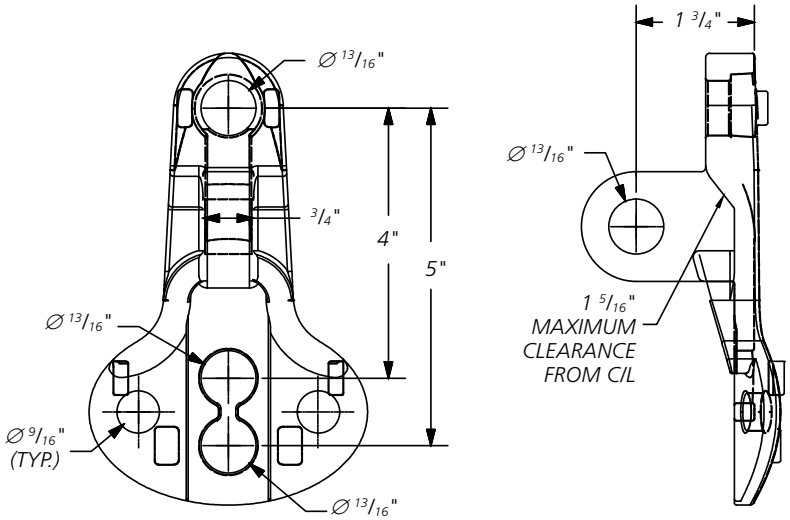


MATERIAL
Eyebolt – Galvanized Steel Nut – Stainless Steel

Ordering Information

AFL NO.	MINIMUM TENSILE STRENGTH (LBS.)	APPROX. WEIGHT PER 100 PIECES (LBS.)
SEB-3/4-14	18,350	320

Pole Eye Plate

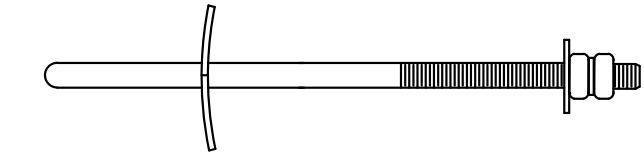


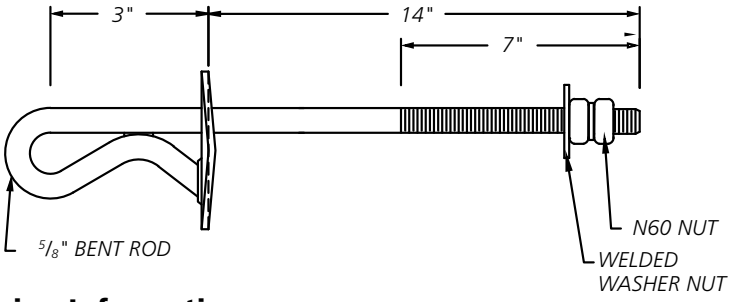
MATERIAL
Hot Dip Galvanized Ductile Iron

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
EP1	21,000	2.2

Shield Wire Support





MATERIAL
Galvanized Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT PER BOX OF 4 PIECES (LBS.)
SFOSB-WP-14	5,000	2.50

Stainless Steel Tube Straightening Tool

The Stainless Steel Tube Straightening Tool is used to straighten the stainless steel buffer tubes on stranded stainless steel tube OPGW cables.

Ordering Information:

AFL NO.
SSTS

Vibration Damper

Vibration Dampers work to cancel damaging fatigue caused by wind-induced vibration. Most tuned damping devices operate best near their natural frequencies. AFL vibration dampers are designed for efficient transfer and dissipation of energy over a wide spectrum of frequencies. They feature all aluminum clamp construction to match expansion/contraction of conductor and break-away bolts for easy installation and proper torque.

Ordering Information

OPGW CABLE DIAMETER (inches)	AFL NO.
0.360 - 0.460	OVD360/460
0.461 - 0.570	OVD461/570
0.571 - 0.675	OVD571/675
0.676 - 0.770	OVD676/770
0.771 - 0.870	OVD771/870
0.871 - 0.970	OVD871/970

Ordering Example: *For AC-64/528 AlumaCore OPGW the part number is OVD461/570*

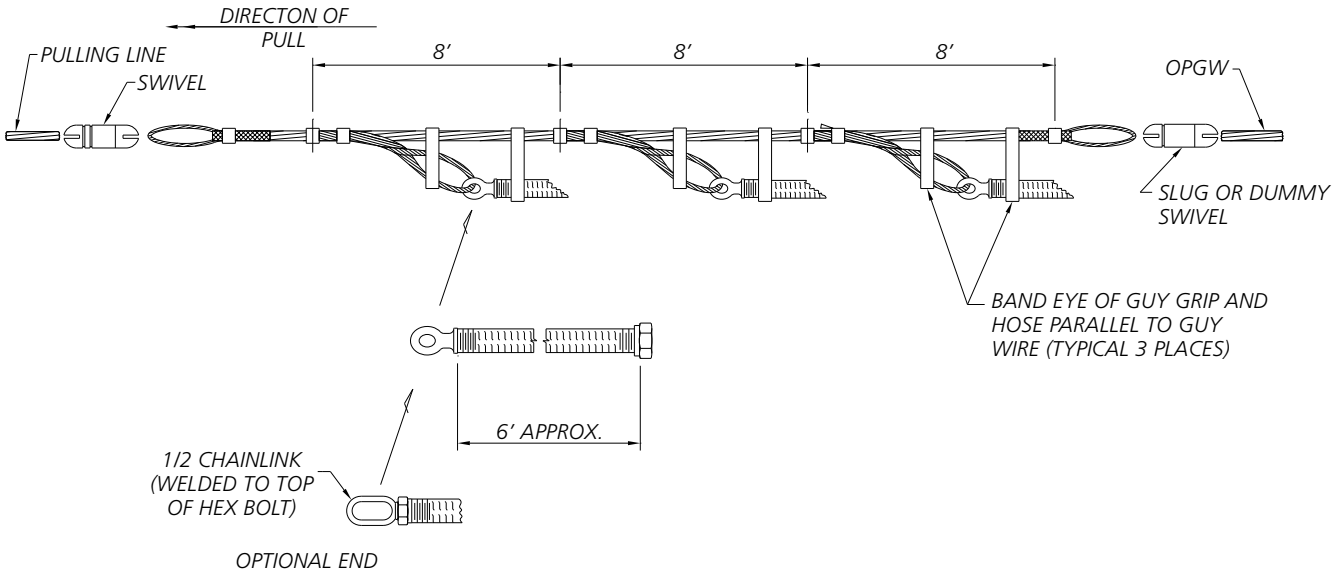
NOTES: *1. For metric hardware, add suffix "M" to item number.*
2. Line evaluations and recommendations (including usage and placement) available upon request.
3. Installation instructions on page 122.
4. Vibration recommendation form on page 125.

Anti Rotational Device

The Anti-Rotational Device provides a means of stringing fiber optic cable without introducing torsion stress. This unique concept prevents the cable from twisting as it travels over the pulling blocks. Left uncontrolled, the optical cable's delicate fibers could be permanently damaged during installation.

Ordering Information:

AFL NO.
C8782-C



26 kV Isolator Kit for OPGW

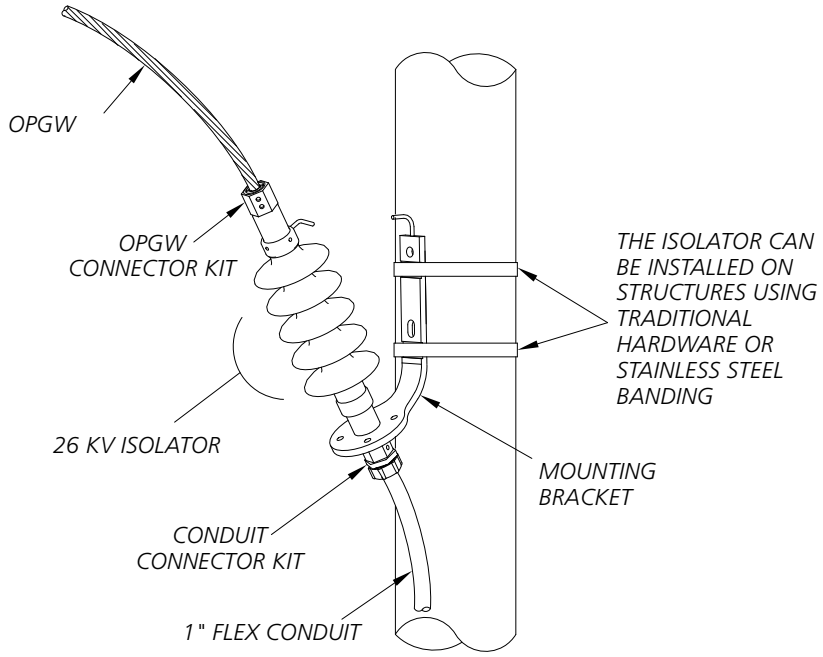
The 26 kV Isolator Kit is designed for aerial optical cable system applications in which complete electrical discontinuity is required. The isolator kit provides reliable interruption of electrical current, at voltages up to 26 kV and is a critical component of optical conductor and neutral systems, as well as optical ground-wire systems in which sectionalization of transient currents is required. The isolator can be installed on structures using traditional hardware or stainless steel banding.

Kit Includes

- OPGW Connector Kit
- 26 kV Isolator
- Conduit Connector Kit
- Mounting Bracket
- For use on AFL AlumaCore cables only

Specifications

PARAMETER	VALUE
Max. Voltage	26 kV
Weight	5 lbs. (approx.)

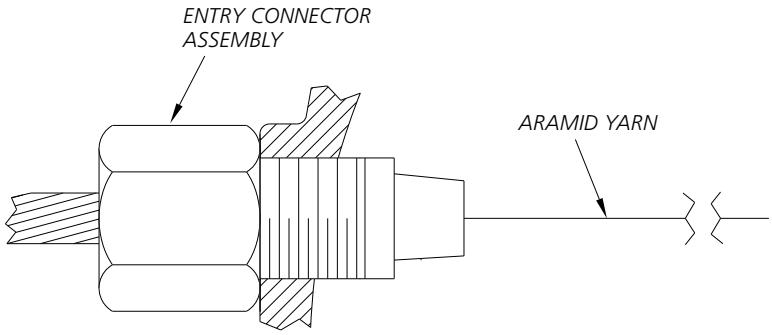


Ordering Information

ISOL	P	XX/YY	ZZZ
Isolator	Blank = Standard Bracket (as shown) P = 90° Bracket for Routing Cable Parallel to Pole	Cross Sectional Area Aluminum Strands / AW Strands (mm^2)	Cable OD (Decimal Inches)

Ordering Example: *ISOL47/53/680*

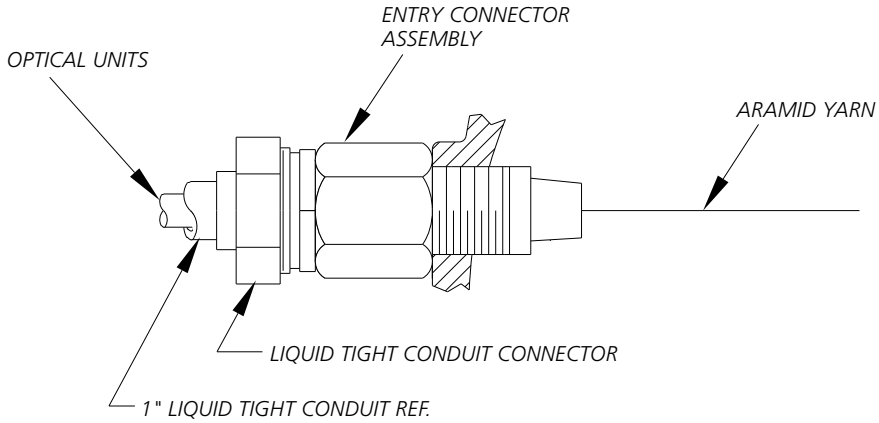
Connector Kit for Isolator



Ordering Information

OI	CK	YYY/YY	XXX
Isolator	Connector Kit	Cross Sectional Area of OPGW Strands (mm^2)	Diameter of Cable in Decimal Inches

Connector Kit for Isolator with Liquid Tight Conduit



Ordering Information

OI	CK	YYY/YY	XXX	LTM
Isolator	Connector Kit	Cross Sectional Area of OPGW Strands (mm^2)	Diameter of Cable in Decimal Inches	LTM for 1 inch Liquid Tight Conduit

ADESDFW2-256 & 307

ADELD2E-323T & 383T

ADELD2E-424005TE
* *shown with optional thimble eye*

ADEMS484

Mini-Dead Ends

The Mini-Dead Ends are designed for fast and easy installation of your ADSS Mini-Span® cable. The Mini-Dead End is ideal in crowded distribution environments where its shorter length allows for efficient installation. This unique low-cost product is used in typical spans with 1%-2% installation sag.

Features

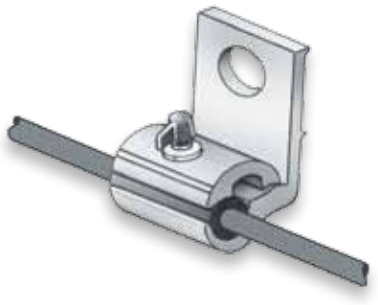
- Easy and quick installation
- No special tools or hardware required for installation
- Small, requiring less storage space

Ordering Information

APPLICATION & DESCRIPTION	AFL NO.
Aerial Drop 256 150 ft NESC heavy, 275 ft NESC medium, 550 ft NESC light	ADESDFW2-256
Aerial Drop 307 220 ft NESC heavy, 400 ft NESC medium, 675 ft NESC light	ADESDFW2-307
ADSS Mini-Span 323 175 ft NESC heavy, 300 ft NESC medium, 500 ft NESC light	ADELD2E-323T
ADSS Mini-Span 383 180 ft NESC heavy, 300 ft NESC medium, 450 ft NESC light	ADELD2E-383T
ADSS Mini-Span 424 275 ft NESC heavy, 450 ft NESC medium, 600 ft NESC light	ADELD2E-424005
ADSS Mini-Span 484 275 ft NESC heavy, 400 ft NESC medium, 525 ft NESC light	ADEMS484

NOTE: *Part numbers ADEMS484, ADEW10J1-AL535, and ADEW16J1-AL693 attach to structure via common pole hardware sold separately such as thimble eye, ram's head, guy hooks, etc.*

For spans greater than the span lengths above, contact Customer Service.



Mini-Bracket

Mini-Bracket

Mini Brackets are used for short and medium spans of ADSS fiber optic cable as well as Aerial Drop cables. Mini Brackets are sized to fit specific ADSS diameters. Standard Mini Brackets are employed with fitted bushings to provide a good support/groove fit and to prevent the support from damaging the cable. The bolted supports are supplied with aluminum captive bolts to simplify installation with no loose parts.

Features

- Maximum one side angle: 8.5 degrees
- Estimated weight: 2.9 lbs. (1.3 Kg)
- Maximum rated strength: 3,000 lbs.
- Hand tighten bolt to 25 in.-lbs. (2.8 N-m)
- Slip load at 4 to 6% of RBS

Ordering Information

DESCRIPTION	AFL NO.
Aerial Drop 256 maximum line angle =17° (150 ft NESC heavy, 275 ft NESC medium, 550 ft NESC light)	AMBB256
Aerial Drop 307 maximum line angle =17° (220 ft NESC heavy, 400 ft NESC medium, 675 ft NESC light)	AMBB307
ADSS Mini-Span 424 maximum line angle =17° (275 ft NESC heavy, 450 ft NESC medium, 600 ft NESC light)	AMBB424
ADSS Mini-Span 484 maximum line angle =17° (275 ft NESC heavy, 400 ft NESC medium, 525 ft NESC light)	AMBB484-535
ADSS Mini-Span 535 maximum line angle =17° (350 ft NESC heavy, 550 ft NESC medium, 675 ft NESC light)	AMBB484-535

ATS 321/330
ATS 371/383

Mini Formed Wire Tangent Support (FTS)

Formed Wire Tangent Supports (FTS) are used with ADSS Mini-Span® 323 and Mini-Span® 383 for short span applications. Tangent supports provide a method of attaching AFL's smallest ADSS Mini-Span designs with excellent unbalanced load capability and bend relief support. This product is designed to connect directly to J-hooks on wood poles for an economical solution.

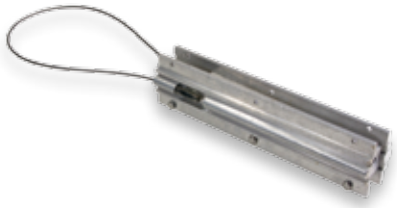
Ordering Information

DESCRIPTION	AFL NO.
ADSS Mini-Span 323 maximum line angle = 20°(175 ft NESC heavy, 300 ft NESC medium, 500 ft NESC light)	ATS321/330
ADSS Mini-Span 383 maximum line angle = 20°(180 ft NESC heavy, 300 ft NESC medium, 450 ft NESC light)	ATS371/383

Wedge Dead End

(to be used only on Standard ADSS Cable up to 0.890" diameter, 144 fibers)

AFL offers wedge dead ends that ease and speed ADSS cable installation. The ADSS Wedge Dead End is ideal in crowded distribution environments because its shorter length allows for safer and efficient installation. The Wedge Dead End comes with all parts assembled. The side plates are properly aligned with spacers and self-locking hex bolts, as well as retainers. Lubricated wedges are pre-installed inside the body of the dead end.



ADEW10J1-AL535

ADEW16J1-AL693

Caution: The load ratings shown here are based on performance results of certain cable configurations and may not be representative of all manufacturers' ADSS cable designs. AFL strongly recommends that before using this product, you contact AFL to obtain the recommended load rating and to verify that the wedge dead end has been qualified for use with the proposed cable. AFL will perform a qualification test at no charge.

Specifications

PARAMETER	VALUE
Wedge Length	10" or 16" depending on cable characteristics
Cable O.D.	0.512" to 0.890" (13 mm to 22.6 mm)
Hold Strength	100% of Maximum Rated Cable Load (MRCL)
Maximum Attenuation Change	0.05 dB at 100% MRCL

APPLICATION & DESCRIPTION	AFL NO.
ADSS Mini-Span® 535 500 ft NESC heavy, 700 ft NESC medium, 875 ft NESC light Maximum loading capability is 1500 lbs.	ADEW10J1-AL535
ADSS Mini-Span 693 500 ft NESC heavy, 600 ft NESC medium, 750 ft NESC light Maximum loading capability is 1500 lbs.	ADEW16J1-AL693

Benefits

- Wedge-type design is safer than spiral wrap style dead ends
- Fewer parts, smaller and easier to store
- Attaches to structure via common pole hardware sold separately (thimble eye, ram's head, etc.)

Features

- Easier and faster installation
- Lower total system costs
- No special tools or hardware required for installation

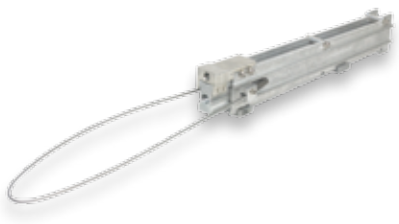
Ordering Information for Double Jacket Cables

ADE W 16 J2 - AL YYY

- **ADE** — ADSS Dead End
- **W** — Wedge Type Dead End
- **16** — Length of wedge component: 16 = 16 inch type; Max. Load Rating = 3000 lbs.
- **J2** — ADSS Jacket Type: J2 = Double Layer
- **AL** — Cable Manufacturer Code: AL = AFL
- **YYY** — Cable Diameter (in inches)

Application Notes:

1. For use with ADSS cables with polyethylene jackets only. Not for use on track resistant ADSS cable.
2. AFL fiber optic cable and related hardware are designed to work as a system. Dead ends may not be available for cable from other manufacturers.

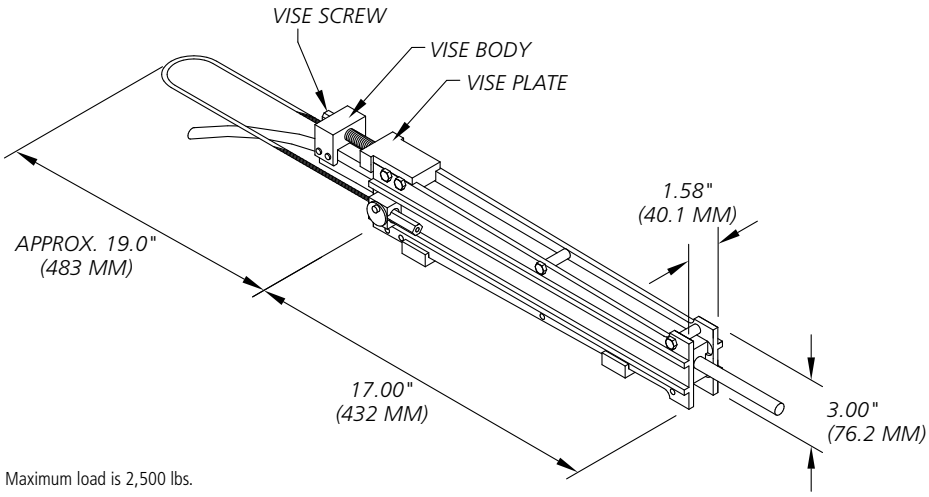


Temporary Grip

Temporary Grips are used in stringing the ADSS during sagging and where it is necessary to make short term catch on the ADSS.

The Temporary grip for ADSS is a high strength aluminum body designed to hold 2,500 pounds or 50% of MRCL of the cable.

Application Notes:
1. Mechanical Grip for Use with Polyethylene Outer Jackets Only



Maximum load is 2,500 lbs.

Thimble Clevis is included to attach temporary grip bail to chain hoist.

Ordering Information

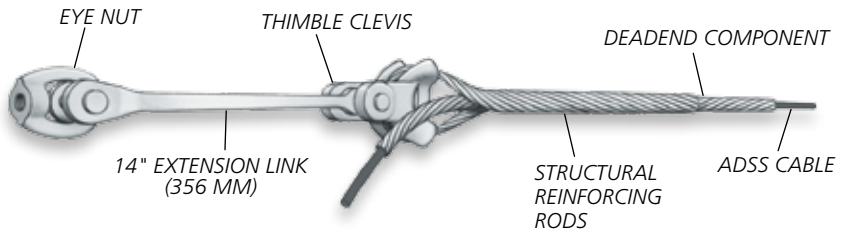
A	TG	MEM	XXX	A
ADSS	Temporary Grip		ADSS Cable Diameter (in Decimal Inches)	

Ordering Information for Additional Wedges

A	TG	W	XXX
ADSS	Temporary Grip	Wedge Set	Cable O.D. in Inches x 1000 (Max Cable Dia. = .890")

CAUTION: **The Temporary Grip is only to be used for AFL ADSS cables with standard polyethylene jackets with a maximum O.D. of .890 or less.**

Formed Wire Dead End for ADSS Cable



THIMBLE CLEVIS, EXTENSION LINK AND EYE NUT INCLUDED

Ordering Information

"S" Deadends
(maximum loaded tension < 2500 lbs.)

CABLE O.D.				AFL NO.
(IN)		(MM)		
0.400	0.424	10.2	10.8	ADESE400/424C
0.425	0.451	10.8	11.5	ADESE425/451C
0.452	0.481	11.5	12.2	ADESE452/481C
0.482	0.51	12.2	13.0	ADESE482/510C
0.511	0.542	13.0	13.8	ADESE511/542C
0.543	0.577	13.8	14.7	ADESE543/577C
0.578	0.613	14.7	15.6	ADESE578/613C
0.614	0.651	15.6	16.5	ADESE614/651C
0.652	0.692	16.6	17.6	ADESE652/692C
0.693	0.737	17.6	18.7	ADESE693/737C
0.738	0.784	18.7	19.9	ADESE738/784C
0.785	0.834	19.9	21.2	ADESE785/834C
0.835	0.889	21.2	22.6	ADESE835/889C
0.89	0.945	22.6	24.0	ADESE890/945C
0.946	1.007	24.0	25.6	ADESE946/1007C
1.008	1.073	25.6	27.3	ADESE1008/1073C
1.074	1.14	27.3	29.0	ADESE1074/1140C
1.141	1.212	29.0	30.8	ADESE1141/1212C
1.213	1.288	30.8	32.7	ADESE1213/1288C

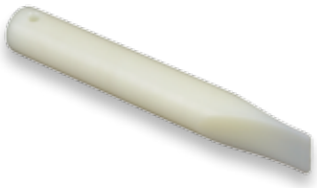
"M" Deadends
(maximum loaded tension < 4000 lbs.)

CABLE O.D.				AFL NO.
(IN)		(MM)		
0.511	0.542	13.0	13.8	ADEME511/542C
0.543	0.577	13.8	14.7	ADEME543/577C
0.578	0.613	14.7	15.6	ADEME578/613C
0.614	0.651	15.6	16.5	ADEME614/651C
0.652	0.692	16.6	17.6	ADEME652/692C
0.693	0.737	17.6	18.7	ADEME693/737C
0.738	0.784	18.7	19.9	ADEME738/784C
0.785	0.834	19.9	21.2	ADEME785/834C
0.835	0.889	21.2	22.6	ADEME835/889C
0.89	0.945	22.6	24.0	ADEME890/945C
0.946	1.007	24.0	25.6	ADEME946/1007C
1.008	1.073	25.6	27.3	ADEME1008/1073C
1.074	1.14	27.3	29.0	ADEME1074/1140C
1.141	1.212	29.0	30.8	ADEME1141/1212C
1.213	1.288	30.8	32.7	ADEME1213/1288C

"L" Deadends
(maximum loaded tension < 7200 lbs.)

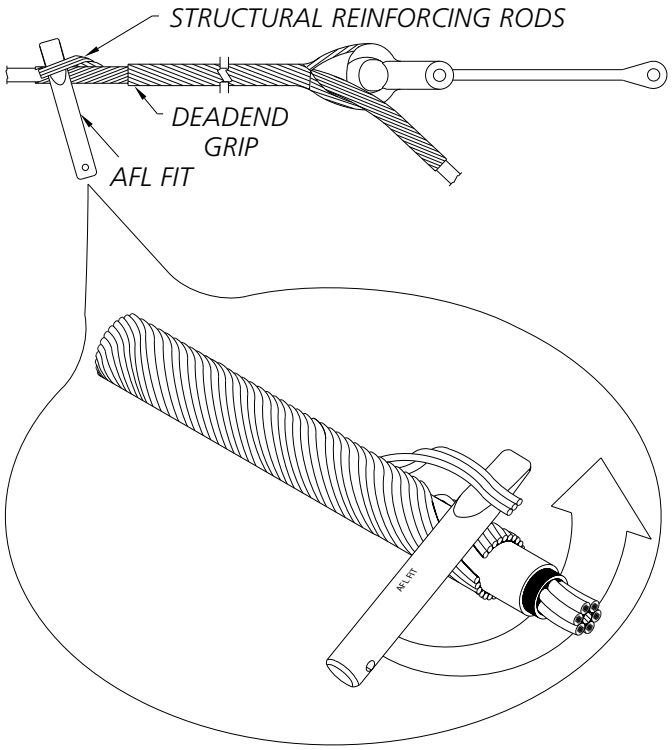
CABLE O.D.				AFL NO.
(IN)		(MM)		
0.511	0.542	13.0	13.8	ADELE511/542C
0.543	0.577	13.8	14.7	ADELE543/577C
0.578	0.613	14.7	15.6	ADELE578/613C
0.614	0.651	15.6	16.5	ADELE614/651C
0.652	0.692	16.6	17.6	ADELE652/692C
0.693	0.737	17.6	18.7	ADELE693/737C
0.738	0.784	18.7	19.9	ADELE738/784C
0.785	0.834	19.9	21.2	ADELE785/834C
0.835	0.889	21.2	22.6	ADELE835/889C
0.89	0.945	22.6	24.0	ADELE890/945C
0.946	1.007	24.0	25.6	ADELE946/1007C
1.008	1.073	25.6	27.3	ADELE1008/1073C
1.074	1.14	27.3	29.0	ADELE1074/1140C
1.141	1.212	29.0	30.8	ADELE1141/1212C
1.213	1.288	30.8	32.7	ADELE1213/1288C

Application Notes:
1. For use with ADSS cables with polyethylene jackets only. Not for use on track resistant ADSS cable.
2. For line or elevation angle changes greater than 30°.



AFL FIT
(Formed Wire Installation Tool)

The nonmetallic AFL Fit Tool is used to install formed wire components without damaging the cable. Use of metal instruments to aid in the installation of formed wire components can result in cable damage.



Ordering Information:

AFL NO.
AFL-FIT

Trunnion Assemblies

AFL offers trunnions with various mounting capabilities: bolted, banded, or standoff. Trunnions reduce installation costs by functioning as a pull-through during installation (maximum line angle for stringing is 15° total, 7.5° per side, number of structures not to exceed 30). No block or pulley is needed provided these conditions are met.

Features

- May be used as a pull-through by removing the bushing inserts
- High-strength aluminum
- Smaller and more compact design
- Facilitates faster installation
- Color-coded range taking inserts for easy identification
- Versatile mounting styles to fit different structure types: bolted, banded or standoff
- Banding and pole hardware supplied by customer
- Lowers the total cost of installation
- Span Length: 600 ft. - NESC Heavy
  1,200 ft. - NESC Light

Ordering Information

CABLE O.D. RANGE		EST. WEIGHT		BUSHING COLOR	AFL NO.
INCHES	MILLIMETERS	LBS.	KG		
0.475" - 0.525"	12.07 - 13.34	2.05	.930	Blue	ATGN475/525
0.526" - 0.575"	13.36 - 14.61	2.05	.930	Orange	ATGN526/575
0.576" - 0.625"	14.63 - 15.88	2.04	.925	Brown	ATGN576/625
0.626" - 0.675"	15.90 - 17.15	2.04	.925	Green	ATGN626/675
0.676" - 0.725"	17.17 - 18.42	2.03	.921	White	ATGN676/725
0.726" - 0.775"	18.44 - 19.69	2.03	.921	Red	ATGN726/775
0.776" - 0.825"	19.71 - 20.96	2.02	.916	Purple	ATGN776/825
0.826" - 0.875"	20.98 - 22.23	2.02	.916	Yellow	ATGN826/875
0.876" - 0.925"	22.25 - 23.50	2.02	.916	Pink	ATGN876/925

Application Notes:
1. For use with ADSS cables with polyethylene jackets only. Not for use on track resistant ADSS cable.
2. As a stringing block:
   Maximum line angle = 15° (7.5° per side)
   Maximum number of structures = 30
3. For final installation:
   Maximum line angle = 22° (11° per side)

NOTE: correct orientation of bushing shown above.

ADSS Suspension Unit

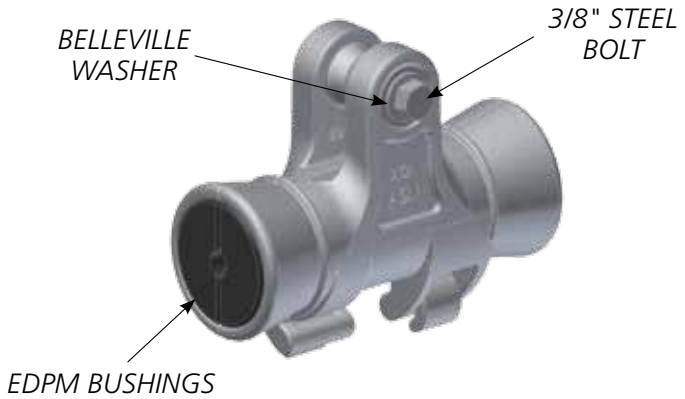
AFL's ADSS suspension unit is used to provide long term performance for spans up to 1200 feet (see span rating below). The interlocking halves of the aluminum body clamp provides positive alignment and utilize our proven EDPM bushings to gently grip the cable. The 3/8" mounting bolt is held captive by an o-ring. This product cannot be used as a stringing device.

Specifications

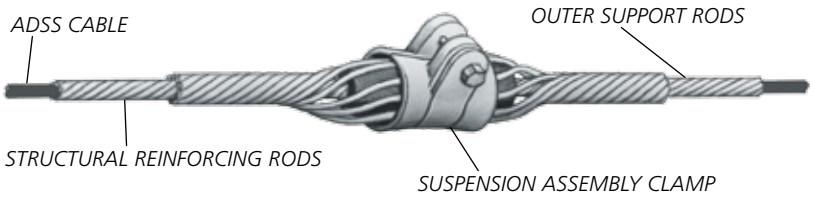
PARAMETER	VALUE
Span Length Rating	600 feet (200 meters) NESC Heavy 900 feet (274 meters) NESC Medium 1200 feet (365 meters) NESC Light
Vertical Load Rating	5000 lbs
Torque Requirement	Mounting bolt should be tightened to 25 ft-lb
Mounting Hardware	5/8" oval eye nut and anchor shackle (both parts not shown) can be included in the assembly by adding the suffix "AS01" to the part number
Line Angle	Max line angle is 30 degrees
Cable Types Recommended	For use on standard polyethylene jackets only DO NOT USE on track resistant cables
Slip Strength	Contact AFL for specific slip strength requirements

Ordering Information

AFL NO.	CABLE RANGE		WEIGHT		BRUSHING COLOR
	INCHES	MM	LBS	KG	
ASN420/474	0.420 - 0.474	10.7 - 12.0	2.2	1.0	Black
ASN475/525	0.475 - 0.525	12.1 - 13.3			Blue
ASN526/575	0.526 - 0.575	13.4 - 14.6			Orange
ASN576/625	0.576 - 0.625	14.6 - 15.9			Brown
ASN626/675	0.626 - 0.675	15.9 - 17.1			Green
ASN676/725	0.676 - 0.725	17.2 - 18.4			White
ASN726/775	0.726 - 0.775	18.4 - 19.7			Red
ASN776/825	0.776 - 0.825	19.7 - 21.0			Purple
ASN826/875	0.826 - 0.875	21.0 - 22.2			Yellow
ASN876/925	0.876 - 0.925	22.3 - 23.5			Pink
ASN926/959	0.926 - 0.959	23.5 - 24.4			—
ASN960/1045	0.960 - 0.1045	24.4 - 26.5			Gray



Formed Wire Suspension for ADSS Cable



Application Notes:
1. For use with ADSS cables with polyethylene jackets only. Not for use on track resistant ADSS cable.
2. For line or elevation angle changes less than 30°.

Ordering Information

	STRUCTURAL REINFORCEMENT RODS				OUTER RODS				
CABLE O.D. RANGE	LENGTH (INCHES)	ROD DIA. (INCHES)	RODS PER SET	COLOR CODE	LENGTH (INCHES)	ROD DIA. (INCHES)	RODS PER SET	COLOR CODE	AFL NO.
0.399" - 0.418"	80	.146	10	Yellow	42	.204	11	Yellow	ASU399/418
0.419" - 0.439"	80	.146	10	Black	42	.204	11	Black	ASU419/439
0.440" - 0.458"	81	.146	11	White	43	.204	11	White	ASU440/458
0.459" - 0.461"	84	.167	10	Purple	46	.250	10	Orange	ASU459/461
0.462" - 0.476"	84	.167	10	Purple	46	.250	10	Purple	ASU462/476
0.477" - 0.503"	84	.146	12	Orange	46	.250	10	Orange	ASU477/503
0.504" - 0.511"	84	.146	12	Red	46	.250	10	Purple	ASU504/511
0.512" - 0.536"	87	.167	11	Blue	49	.250	11	Blue	ASU512/536
0.537" - 0.559"	87	.167	11	Green	49	.250	11	Green	ASU537/559
0.560" - 0.565"	87	.167	11	Green	49	.250	11	Green	ASU560/565
0.566" - 0.573"	92	.182	11	Black	54	.250	12	Black	ASU566/573
0.574" - 0.598"	92	.182	11	Black	54	.250	12	White	ASU574/598
0.599" - 0.625"	92	.182	12	Brown	54	.310	12	Brown	ASU599/625
0.626" - 0.632"	102	.204	11	Red	63	.310	11	Red	ASU626/632
0.633" - 0.666"	102	.204	11	Red	63	.310	11	Blue	ASU633/666
0.667" - 0.682"	102	.204	12	Yellow	63	.310	11	Green	ASU667/682
0.683" - 0.710"	102	.204	12	Yellow	63	.310	11	Yellow	ASU683/710
0.711" - 0.728"	102	.204	12	White	63	.310	12	Black	ASU711/728
0.729" - 0.744"	102	.204	12	White	63	.310	12	White	ASU729/744
0.745" - 0.750"	102	.204	12	White	63	.310	12	White	ASU745/750
0.751" - 0.786"	102	.204	13	White	63	.310	12	Brown	ASU751/786
0.787" - 0.814"	111	.250	11	Green	72	.365	11	Green	ASU787/814
0.815" - 0.845"	111	.250	12	Yellow	72	.365	11	Yellow	ASU815/845
0.846" - 0.855"	111	.250	12	Green	72	.365	12	Blue	ASU846/855
0.856" - 0.894"	119	.250	12	Black	80	.365	12	Black	ASU856/894
0.895" - 0.907"	119	.250	12	White	80	.365	12	White	ASU895/907
0.908" - 0.916"	119	.250	13	Purple	80	.365	12	Purple	ASU908/916
0.917" - 0.929"	119	.250	13	Brown	80	.365	12	Brown	ASU917/929
0.930" - 0.942"	119	.250	13	Red	80	.365	12	Red	ASU930/942
0.943" - 0.977"	119	.250	13	Orange	80	.365	13	Orange	ASU943/977

Downlead Clamp shown with Adapter B

Downlead Clamp for ADSS
(with or without Unequal Diameters)

The AFL Downlead Clamps are used to guide ADSS wire from the top of the structure to the splice box. Our clamps install easily and provide proper spacing and hold strength without damage to the cable. From poles to towers, we offer a full line of ADSS Downlead Clamps to meet the needs of any application.

Features

- Slip strength: >100 lbs.
- Lattice adapters provided with break-away bolts for precise torque during installation
- Steel tower guide clamps available with adapters to eliminate the need for drilling
- Banding adapters available

Ordering Information – Downlead Clamp & Adapter

BUSHING DESIGNATION	DIAMETER (INCHES)	COLOR CODE
B4	0.350 - 0.500	red
B5	0.501 - 0.600	green
B6	0.601 - 0.700	yellow
B7	0.701 - 0.800	blue
B8	0.801 - 0.900	white
B9	0.901 - 1.000	black
B10	1.001 - 1.100	orange

FD	OA	XX	YY	Z	M
Fiber Downlead	**OPGW and ADSS**	**Bushing Designation** (Smaller Dia.)	**Bushing Designation** (Larger Dia.)	**Indicates Adapters** A = Banding Adapter B = Lattice Adapter for web thickness .25" - .72" C = Lattice Adapter for web thickness .72" - 1.25" D = 3/8" diameter x 3" lag bolt E = Lattice Adapter for web thickness .25" - 1.25" Omit = No adapter desired	**M for Metric Hardware**

***Ordering Example**: For .528" dia. OPGW and .484 ADSS with pole banding (Type A), the part number is FDOA-B4B5A.*

***NOTES**: 1. If metric hardware is desired, add a "M" suffix to the end.*
2. See next page for optional downlead clamp adapters.

Downlead Clamp and Optional Downlead Clamp Adapters

Dimensions

FIG. 1

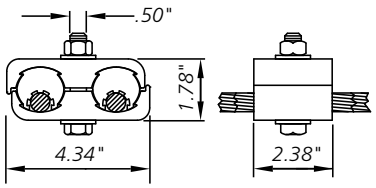
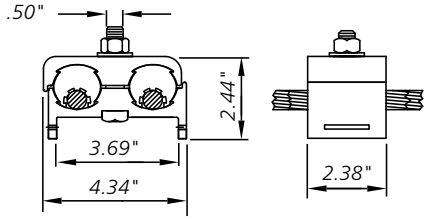


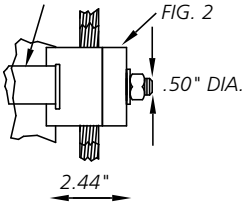
FIG. 2



FDOA XXYY

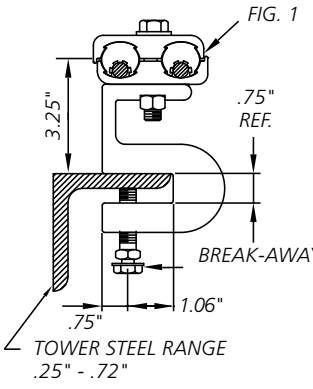
NO ADAPTER

Downlead Clamp Adapters



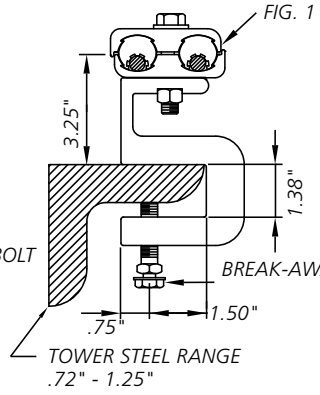
FDOA XXYYA

TYPE A ADAPTER
WITH FIGURE 2
BANDING CONFIGURATION
EST. WEIGHT: .96 LBS.



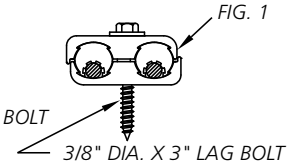
FDOA XXYYB

TYPE B ADAPTER
WITH FIGURE 1
LATTICE CONFIGURATION
EST. WEIGHT: 1.98 LBS.



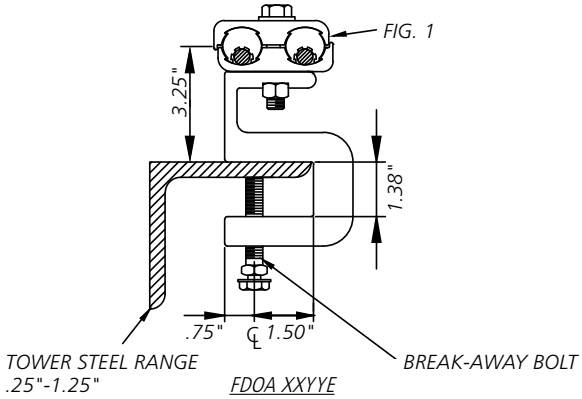
FDOA XXYYC

TYPE C ADAPTER
WITH FIGURE 1
LATTICE CONFIGURATION
EST. WEIGHT: 2.20 LBS.



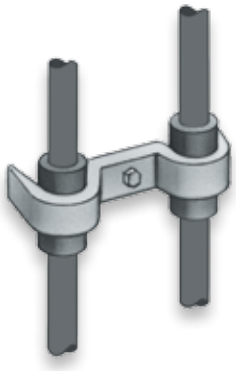
FDOA XXYYD

TYPE D ADAPTER
WITH FIGURE 1
LATTICE CONFIGURATION
EST. WEIGHT: .96 LBS.



FDOA XXYYE

TYPE E ADAPTER
WITH FIGURE 1
LATTICE CONFIGURATION
EST. WEIGHT: 2.20 LBS.



Wood Pole Clamp

Wood Pole Guide Clamp for ADSS Cable

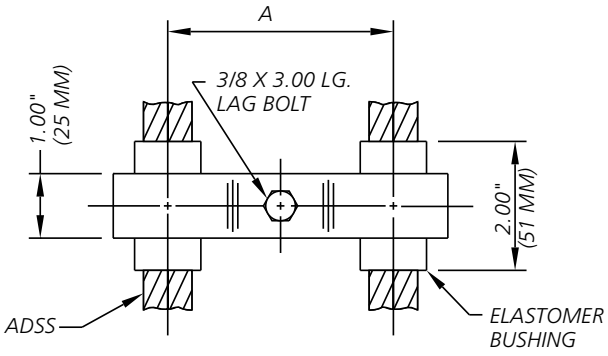
Guide clamps are typically two groove clamps used to guide the cable to splice locations. Clamps are spaced 5 to 8 feet apart to help maintain alignment of the cable down the towers or poles. The clamps may be bolted to the tower or poles or adaptors, and can be supplied for the steel towers, steel poles and concrete poles.

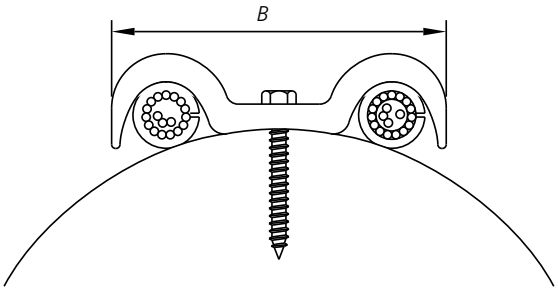
Ordering Information – Wood Pole Clamp

(**Note:** not available with metric hardware; 3/8" x 3" lag bolt included)

ADSS DIAMETER - IN. (MM)	DIMENSIONS - IN. (MM)		WEIGHT - LBS. (KG)	AFL NO.
	A	B		
0.182 - 0.274 (4.6 - 7.0)	2.81 (71)	4.25 (108)	.33 (.15)	AGW182/274
0.275 - 0.376 (7.0 - 9.6)	2.81 (71)	4.25 (108)	.33 (.15)	AGW275/376
0.377 - 0.468 (9.6 - 11.9)	2.81 (71)	4.25 (108)	.33 (.15)	AGW377/468
0.469 - 0.561 (11.9 - 14.2)	2.81 (71)	4.25 (108)	.33 (.15)	AGW469/561
0.562 - 0.655 (14.3 - 16.6)	3.50 (89)	5.19 (132)	.46 (.21)	AGW562/655
0.656 - 0.750 (16.7 - 19.1)	3.50 (89)	5.19 (132)	.46 (.21)	AGW656/750

Ordering Example:
For .512" diameter ADSS, the part number is AWG 469/561





Spiral Vibration Damper for ADSS Cable

Spiral Vibration Dampers have a helically formed damping section sized for interplay of damper and cable to provide the action/reaction motion that opposed the natural vibration wave. A smaller gripping section gently grips the cable so that cable and fiber are not damaged or distorted and there is no optical signal loss. Spiral dampers are recommended for the ADSS cable when the combination of span length and tension indicate by vibration review that external vibration protection is required.

Ordering Information

Mini-Span®, Standard ADSS Designs

CABLE O.D. RANGE (INCHES)	CABLE O.D. RANGE (MM)	AFL NO.
0.250" - 0.326"	6.35 - 8.28	AVD250/326
0.327" - 0.461"	8.31 - 11.71	AVD327/461
0.462" - 0.563"	11.73 - 14.30	AVD462/563
0.564" - 0.770"	14.33 - 19.56	AVD564/770
0.771" - 0.876"	19.58 - 22.25	AVD771/876
0.877" - 1.000"	22.28 - 25.40	AVD877/1000
1.001" - 1.210"	25.43 - 30.86	AVD1000/1210

Fiber Storage Units for ADSS Fiber Optic Cable

Fiber Storage Units (FSU) are used to conveniently store an extra length of cable along the ADSS cable run for later use. Furnished as pairs (kit contains two Fiber Storage Units and two sets of hanger brackets), these FSU's are constructed from UV stabilized PPE thermoplastic. All basic hardware for attachment to the ADSS cable is provided. ADSS cable mount support brackets meet Telcordia specifications. Epoxy coated clamping devices meet ASTM specifications A153 and B695.

The mounting bracket features an angled, tent-profile, epoxy-coated bracket for standard ADSS cable mounting.

Features

- Small profile and side facing channel minimizes ice and leaf loading
- Constructed from UV stabilized PPE thermoplastic
- Basic hanging hardware (bolts, nuts, washers) and strand clamps all included
- Tie-wrap slots for securing cable
- Epoxy-coated strand clamps

Specifications

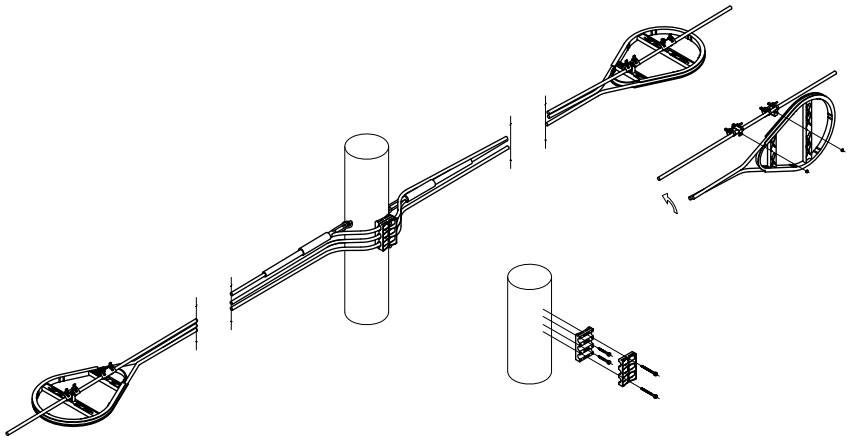
PARAMETER	FOS18-AD-4010
Nominal Channel Width - in. (cm)	1.00
Minimum Bend Diameter - in. (cm)	17.5

Ordering Information

AFL NO.	FOS18-AD-4010

Kits contain one pair of FOSP and two sets of hanger brackets.

Typical Installation Diagram



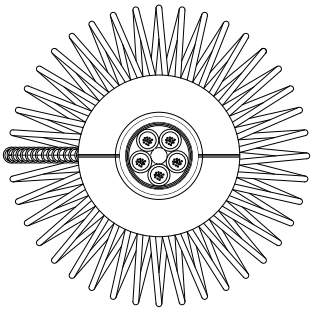
Corona Ring for ADSS Cable

Corona Ring

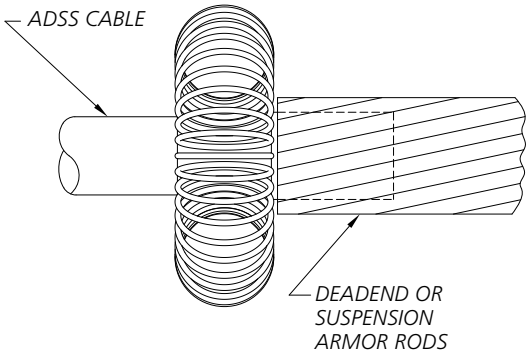
Ordering Information

A	CR	XXX
ADSS CABLE	Corona Ring	Cable Diameter in Decimal Inches

Ordering Example:
For a .685" diameter ADSS, the AFL number is ACR685



CORONA RING ASSEMBLY



Note: Corona coil clamp component should be installed under the rods of the dead end or suspension.

Opti-Guard™ Splice Enclosure

The Opti-Guard Splice Enclosure from AFL offers an impressive spectrum of features which makes it the best selection for your splice protection needs. Its unique and flexible design was created with the "real-world" technician in mind. The Opti-Guard combines optimized system performance with unparalleled ease of use. It is resistant to water, ultraviolet rays, temperature and ballistics. Opti-Guard installs easily without messy tapes or adhesives. It provides the flexibility needed to handle the most demanding installation scenarios.

Features

- Accomodates up to 504 single fusion splices
- Craft friendly design requires no specialized tools to install and minimizes required training
- Easy to maintain and re-enter; no re-entry kit required
- Unit is lightweight and mounts to many types of structures
- May be bolted or banded; no special adapters needed
- Specially designed non-metallic housing
- Environmentally sealed to protect fibers
- Accepts up to six individual cables
- Accommodates most cable types in most environments
- Versatile cable tie-off system resists up to 100 pounds of tension per cable

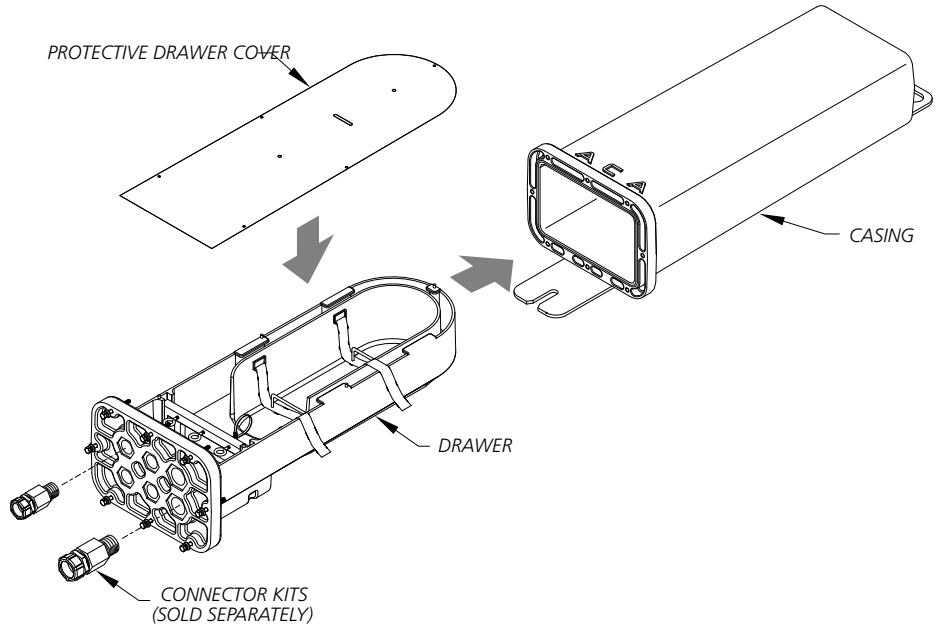
Ordering Information

DESCRIPTION	MODEL	AFL NO.
Supplied without Splice Trays or Cable Connectors. These items ordered separately	Opti-Guard Splice Enclosure	OG03
Capacity of up to 72 single fusion splices per tray	Opti-Guard Splice Tray	OGST01-72*
Required for Opti-Guard Enclosures purchased prior to April 2006 to utilize OGST01-72 Splice Tray	Splice Tray Adapter Kit	TAK-02
60mm, Fujikura FP3 (standard) 40mm, Fujikura FP3-40 (special applications only) *Sold in packs of ten (not included with splice trays)*	Splice Protection Sleeves	SPS60 SPS40
Ballistic shield for Opti-Guard™ Splice Enclosure	Opti-Guard Bullet Guard	OGBG01
Order one kit for each stainless steel tube	Opti-Guard Fiber Routing Kit	OGFKO1
Used for Optical Ground Wire	Connector Kit	SLCK, SCK, APCK
Used for All-Dielectric Self-Supporting (ADSS) Cable and Loose Tube Cable	Connector Kit	BCK
Used to store extra length of optical ground wire cable	External Coil Bracket	CB-44

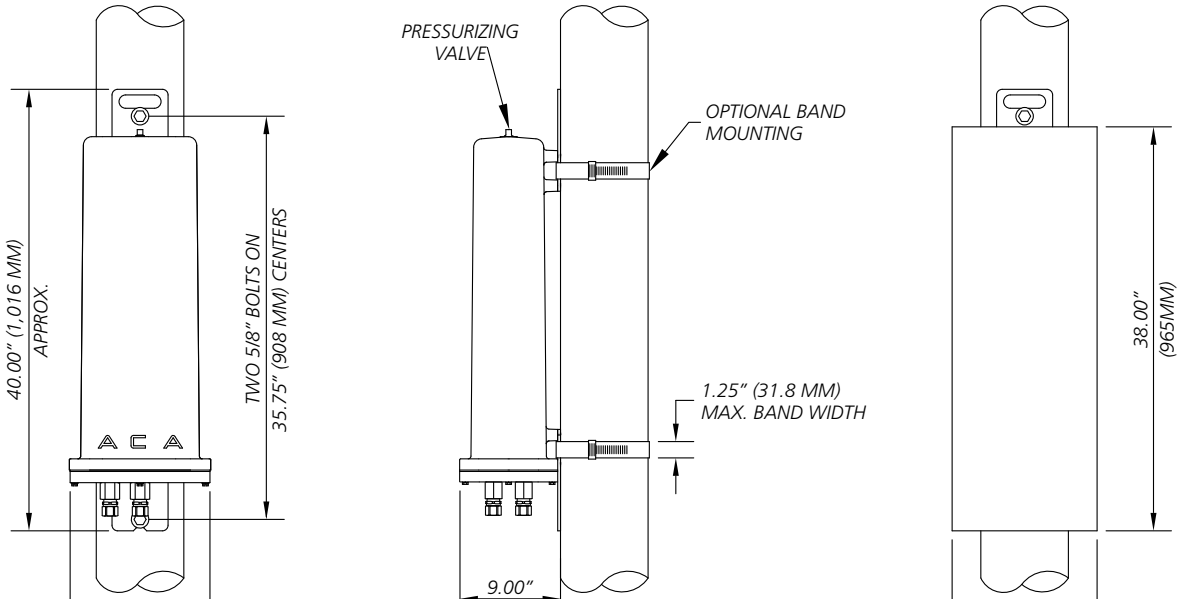
NOTE: Refer to page on connector kit AFL number set-up.
** Requires TAK-02 Adapter Kit for Opti-Guard Splice Enclosures purchased prior to April 2006.*

Opti-Guard™ Splice Enclosure

Exploded View



Mounting Details and Options



Connector Kits for Opti-Guard™ Splice Enclosures – OPGW Cable

Optical Ground Wire Connector Kit

Connector Kit: Optical Ground Wire

SLCK — **OPGW Connector Kit Cable Type**
SLCK = Slotted Core
SCK = MiniCore, HexaCore or PentaCore
APCK = CentraCore, AlumaCore

Y — **Range Code in Decimal Inches (see Table 1)**

XXX/XXX — **Range Code in Decimal Inches (see Table 2)**

Ordering Example: For 0.571" diameter SX-67/49/571, which has a layer 1 total diameter of 0.358", the AFL number is SCKB569/583.

Table 1

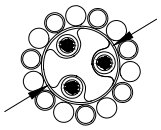
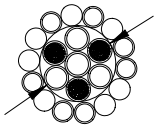
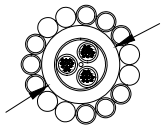
RANGE CODE	 SLOTTED CORE DIAMETER	 MINICORE, HEXACORE OR PENTACORE LAYER 1 DIAMETER	 CENTRACORE OR ALUMACORE PIPE DIAMETER
A	.185 - .227	.000 - .230	.185 - .227
B	.228 - .264	.231 - .500	.228 - .264
C	.265 - .300	.501 - .636	.265 - .300
D	.301 - .374	—	.301 - .374
E	.375 - .479	—	.375 - .479
F	.480 - .550	—	.480 - .550
G	.551 - .630	—	.551 - .630
H	.631 - .700	—	.631 - .700

Table 2

RANGE CODE	CABLE DIAMETER RANGE	
	MIN.	MAX.
225/240	.225	.240
241/255	.241	.255
256/271	.256	.271
272/286	.272	.286
287/302	.287	.302
303/318	.303	.318
319/333	.319	.333
334/349	.334	.349
350/365	.350	.365
366/380	.366	.380
381/396	.381	.396
397/412	.397	.412
413/427	.413	.427
428/443	.428	.443
444/459	.444	.459
460/474	.460	.474
475/490	.475	.490

RANGE CODE	CABLE DIAMETER RANGE	
	MIN.	MAX.
491/506	.491	.506
507/521	.507	.521
522/537	.522	.537
538/553	.538	.553
554/568	.554	.568
569/583	.569	.583
584/599	.584	.599
600/615	.600	.615
616/630	.616	.630
631/646	.631	.646
647/662	.647	.662
663/677	.663	.677
678/693	.678	.693
694/708	.694	.708
709/727	.709	.727
728/740	.728	.740

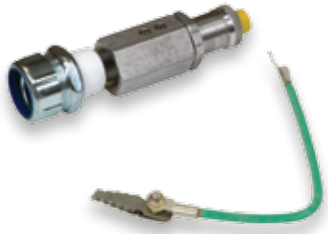
Connector Kits for Opti-Guard™ Splice Enclosures – Black Jacket Cable

All-Dielectric Self-Supporting Connector Kit

Connector Kit: All-Dielectric Self-Supporting Fiber Optic Cable

BCK	XXX/XXX	F
Black Jacket Cable Connector Kit	Range Code in Decimal Inches (see Table 1 below)	Blank = No Additional Connector Assembly Required F = 1" Flex Conduit Connector Required

Ordering Example: For 0.528" diameter ADSS, the AFL number is BCK522/537.



Armored Loose Tube Connector Kit

Connector Kit: Loose Tube Fiber Optic Cable

BCK	XXX/XXX	B
Black Jacket Cable Connector Kit	Range Code in Decimal Inches (see Table 1 below)	Options Blank = No Additional Connector Assembly Required F = 1" Flexible Conduit Connector Required A = Armor Ground Assembly Required B = Armor Ground Assembly and 1" Flexible Conduit Connector Required

Ordering Example: For 0.510" armored loose tube (duct) cable with flexible conduit and armor ground connections, the AFL number is BCK507/521B.

Table 1

RANGE CODE	CABLE DIAMETER RANGE	
	MIN.	MAX.
225/240	.225	.240
241/255	.241	.255
256/271	.256	.271
272/286	.272	.286
287/302	.287	.302
303/318	.303	.318
319/333	.319	.333
334/349	.334	.349
350/365	.350	.365
366/380	.366	.380
381/396	.381	.396
397/412	.397	.412
413/427	.413	.427
428/443	.428	.443
444/459	.444	.459
460/474	.460	.474
475/490	.475	.490

RANGE CODE	CABLE DIAMETER RANGE	
	MIN.	MAX.
491/506	.491	.506
507/521	.507	.521
522/537	.522	.537
538/553	.538	.553
554/568	.554	.568
569/583	.569	.583
584/599	.584	.599
600/615	.600	.615
616/630	.616	.630
631/646	.631	.646
647/662	.647	.662
663/677	.663	.677
678/693	.678	.693
694/708	.694	.708
709/727	.709	.727
728/740	.728	.740

Opti-Guard Splice Tray

Opti-Guard™ Splice Tray

The Opti-Guard Splice Tray is specifically designed to be used with the Opti-Guard Splice Enclosure.

Features

- 72 fiber splice capacity
- Manifolds are easily removed for lower fiber counts
- Clear cover for easy fiber identification

Ordering Information

MODEL	AFL NO.
Opti-Guard Splice Tray	OGST01-72
Splice Tray Adapter Kit	TAK-02
60 mm Splice Protection Sleeve	SPS60
40 mm Splice Protection Sleeve	SPS40

NOTE: Opti-Guard splice enclosures purchased prior to April 2006 require a TAK-02 Splice Tray Adapter Kit to accommodate the OGST01-72 Splice Tray.

Opti-Guard Bullet Guard

Opti-Guard Bullet Guard

The Opti-Guard Bullet Guard is designed to supplement the ballistic resistance of the Opti-Guard Splice Enclosure.

Features

- Can be retrofitted onto existing installations without disturbing cables
- Only a standard flat-blade screwdriver required for installation

Ordering Information

MODEL	AFL NO.
Opti-Guard Bullet Guard	OGBG01

Opti-Guard Fiber Routing Kit

Opti-Guard Fiber Routing Kit

The Opti-Guard Fiber Routing Kit provides all of the materials to properly route fibers from a stainless steel tube to the OGST01-72 splice tray inside the Opti-Guard splice enclosure.

Features

- Primary transition tubing leads fiber from stainless steel tube to splice tray
- Heat Shrink tubing guides fibers as they exit the stainless steel tube
- Cable ties provided to secure tubing to the tray and the end of the stainless steel tube

Ordering Information

MODEL	AFL NO.
Opti-Guard Fiber Routing Kit	OGFK01

NOTE: Order one kit for each stainless steel tube.

SB01

SB01 with 12 splice capacity tray

SB01 with 72 splice capacity tray

SB01 Splice Enclosure

AFL's splice enclosure provides protection from all types of elements. From weather to bullets, the iron and steel construction requires no additional protective covering. Furnished with four plugged cable ports (2 aluminum and 2 plastic) for either All-Dielectric Self-Supporting (ADSS) or Optical Ground Wire (OPGW) cables, the splice enclosure can be pre-mounted to a structure before completion of the splicing phase.

With an internal capacity to store approximately 25 feet of buffer tube, the closure is more cost-effective, eliminating the need for an external coil storage bracket (with exception to stainless steel tube optical ground wire designs). The 72-fiber circular fiber tray, constructed of high impact-resistant Lexan®, enables management of up to 144 fibers. The tray's black base and clear lid enable easy accessibility.

Ideal for electric utilities and optical cable installers, the splice enclosure is versatile and cost-effective for new and existing installations.

Features

- Up to 144-fiber splice capacity, depending on cable design
- Customizable kit with no special re-entry kits required
- Splice tray constructed of high impact-resistant Lexan®
- Manufactured of iron and steel; bullet-resistant
- Pre-mountable enabling easy re-entry and access

Ordering Instructions – Step 1

DESCRIPTION	AFL NO.
Splice Enclosure including one splice tray for 12 single fused fiber capacity, sealant, organizer tray for additional trays.	SB01
Splice Enclosure including one splice tray for 72 single fused fiber capacity. **Protection sleeves not included.**	SB01-72
Splice Enclosure including two splice trays for 72 single fused fiber capacity, a total of 144 splices. **Protection sleeves not included.**	SB01-144

Cable connector kits required to complete installation are sold separately. Refer to "Ordering Instructions" Steps 2 and 3 on the following pages to complete your order.

Ordering Instructions – Step 2

CONNECTOR KIT	APPLICATION
SLCK, SCK, APCK	Optical Ground Wire
BCK	All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable Loose Tube Fiber Optic Cable

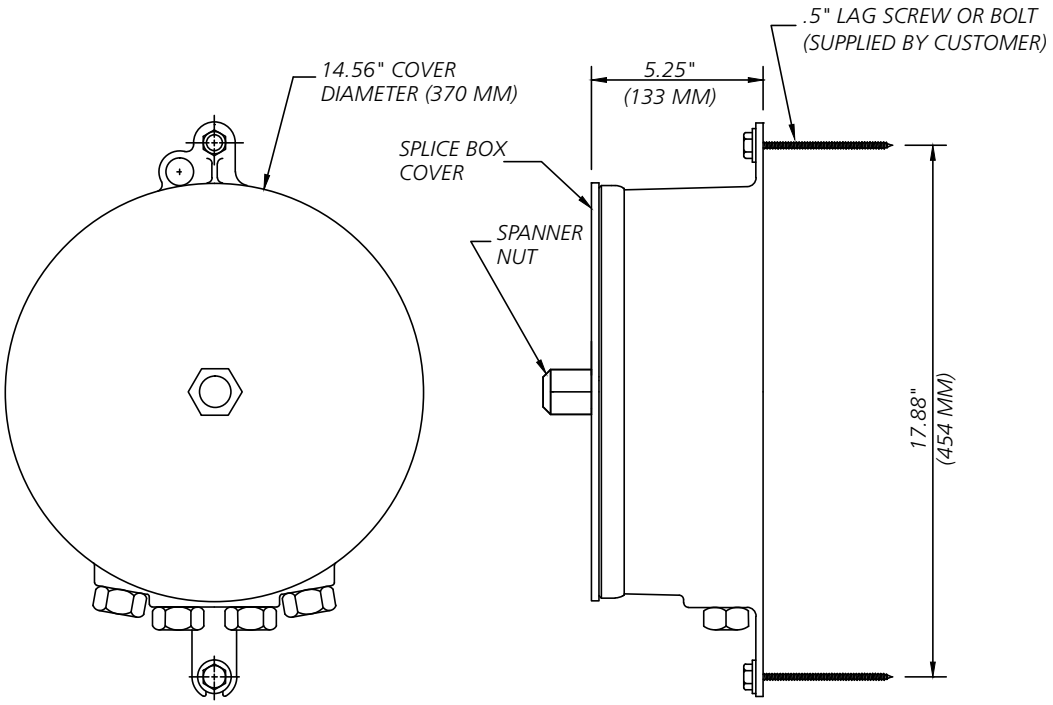
Refer to page on connector kits for AFL number set-up.

SB01 Splice Enclosure

Specifications

PARAMETER	VALUE
Maximum Tray Capacity (depending on tray type)	4 ST1 Trays or 2 ST72 Trays
Maximum Fiber Count (depending on tray type)	48 with ST1; 144 with (2) ST72
Weight	52 lbs. (23.57 kg)
Diameter	14.56 in. (370 mm)
Height (with cover)	5.25 in (133.35 mm)
Mounting Distance (hole to hole)	17.88 in (454.15 mm)

Dimensions



NOTE: Banding and steel tower adapters are available in lieu of bolts.

Connector Kits for SB01 Splice Enclosures – OPGW Cable

Optical Ground Wire Connector Kit

Connector Kit: Optical Ground Wire

SLCK	Y	XXX/XXX
OPGW Connector Kit Cable Type SLCK = Slotted Core SCK = MiniCore, HexaCore or PentaCore APCK = CentraCore, AlumaCore	Range Code in Decimal Inches (see Table 1)	Range Code in Decimal Inches (see Table 2)

Ordering Example: For 0.571" diameter SX-67/49/571, which has a layer 1 total diameter of 0.358", the AFL number is SCKB569/583.

Table 1

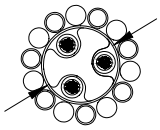
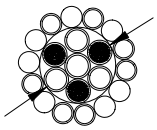
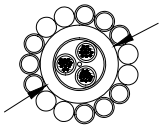
RANGE CODE	 SLOTTED CORE DIAMETER	 MINICORE, HEXACORE OR PENTACORE LAYER 1 DIAMETER	 CENTRACORE OR ALUMACORE PIPE DIAMETER
A	.185 - .227	.000 - .230	.185 - .227
B	.228 - .264	.231 - .500	.228 - .264
C	.265 - .300	.501 - .636	.265 - .300
D	.301 - .374	—	.301 - .374
E	.375 - .479	—	.375 - .479
F	.480 - .550	—	.480 - .550
G	.551 - .630	—	.551 - .630
H	.631 - .700	—	.631 - .700

Table 2

RANGE CODE	CABLE DIAMETER RANGE	
	MIN.	MAX.
225/240	.225	.240
241/255	.241	.255
256/271	.256	.271
272/286	.272	.286
287/302	.287	.302
303/318	.303	.318
319/333	.319	.333
334/349	.334	.349
350/365	.350	.365
366/380	.366	.380
381/396	.381	.396
397/412	.397	.412
413/427	.413	.427
428/443	.428	.443
444/459	.444	.459
460/474	.460	.474
475/490	.475	.490

RANGE CODE	CABLE DIAMETER RANGE	
	MIN.	MAX.
491/506	.491	.506
507/521	.507	.521
522/537	.522	.537
538/553	.538	.553
554/568	.554	.568
569/583	.569	.583
584/599	.584	.599
600/615	.600	.615
616/630	.616	.630
631/646	.631	.646
647/662	.647	.662
663/677	.663	.677
678/693	.678	.693
694/708	.694	.708
709/727	.709	.727
728/740	.728	.740

Connector Kits for SB01 Splice Enclosures – Black Jacket Cable

All-Dielectric Self-Supporting Connector Kit

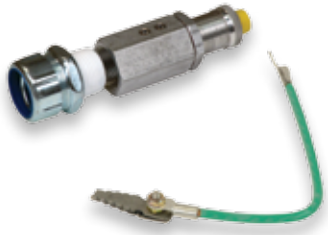
Connector Kit: All-Dielectric Self-Supporting Fiber Optic Cable

BCK — Black Jacket Cable Connector Kit

XXX/XXX — Range Code in Decimal Inches (see Table 1 below)

F
- Blank = No Additional Connector Assembly Required
- F = 1" Flex Conduit Connector Required

Ordering Example: For 0.528" diameter ADSS, the AFL number is BCK522/537.



Armored Loose Tube Connector Kit

Connector Kit: Loose Tube Fiber Optic Cable

BCK — Black Jacket Cable Connector Kit

XXX/XXX — Range Code in Decimal Inches (see Table 1 below)

B — Options
- Blank = No Additional Connector Assembly Required
- F = 1" Flexible Conduit Connector Required
- A = Armor Ground Assembly Required
- B = Armor Ground Assembly and 1" Flexible Conduit Connector Required

Ordering Example: For 0.510" armored loose tube (duct) cable with flexible conduit and armor ground connections, the AFL number is BCK507/521B.

Table 1

RANGE CODE	CABLE DIAMETER RANGE	
	MIN.	MAX.
225/240	.225	.240
241/255	.241	.255
256/271	.256	.271
272/286	.272	.286
287/302	.287	.302
303/318	.303	.318
319/333	.319	.333
334/349	.334	.349
350/365	.350	.365
366/380	.366	.380
381/396	.381	.396
397/412	.397	.412
413/427	.413	.427
428/443	.428	.443
444/459	.444	.459
460/474	.460	.474
475/490	.475	.490

RANGE CODE	CABLE DIAMETER RANGE	
	MIN.	MAX.
491/506	.491	.506
507/521	.507	.521
522/537	.522	.537
538/553	.538	.553
554/568	.554	.568
569/583	.569	.583
584/599	.584	.599
600/615	.600	.615
616/630	.616	.630
631/646	.631	.646
647/662	.647	.662
663/677	.663	.677
678/693	.678	.693
694/708	.694	.708
709/727	.709	.727
728/740	.728	.740

SB01 Splice Enclosure Accessories

Ordering Instructions – Step 3

The SB01 comes with accessories for 12 fiber splicing. Where more than 12 fibers will be spliced, add to your order the following accessories by AFL number and quantity accordingly.

DESCRIPTION	AFL NO.
Splice Tray 12 single fused fiber capacity, including 13 splice protection sleeves	ST1
Splice Tray 72 single fused fiber capacity; protection sleeves not included	ST1-72
Transition Tray To be used for stainless steel tube optical ground wire designs. Not necessary for AlumaCore optical ground wire designs. One tray holds 48 fibers. **Not required for ST72 tray.**	TT1
Furcation Kit To be used for stainless steel designs where fiber must be separated into groups. One kit required for each fiber carrying steel tube (maximum 48 fibers per tube).	SB01FK
External Coil Bracket Used to store extra length of optical ground wire cable	CB-44

ST1 – Splice Tray

TT1 – Transition Tray

ST1-72 – Splice Tray

SB01FK – Furcation Kit

CB-44 External Coil Bracket

LightGuard™ Sealed Fiber Optic Splice Closures

The AFL family of Sealed Fiber Optic Splice Closures is designed to simplify splice management. Quality engineering reduces the installation time, training and complexity associated with fiber splicing in the field. No heat, adhesives, drills or powered equipment for installation or re-entry are required. These durable, easy-to-install closures will increase productivity, reduce labor expenses and last the life of your plant.

Features

- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry using common hand tools
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

Specifications

DESCRIPTION	MODEL					
	LG-55-U-0	LG-150-U-0	LG-250-U-0	LG-350-U-0	350-AC	LG-350XL-U-0
Splice Capacity (Max.) - Single, Mass, Mechanical	24, n/a, n/a	48, 144, 24	96, 288, 36[1]	384, 1152, 108[2]	144, 288, 36	864, 2592, 288
Number of Splice Trays (Max.) - Single, Mass, Mechanical	1, n/a, n/a	4, 3, n/a	4, 2, 3	12, 8, 8	4, 3	9, 9, n/a
Cable Entrance Configuration	In-line / Butt	Butt	Butt	Butt	Butt	Butt
Cable Ports	2	5	5	5	2 (Express Grommets) 3 (4-Drop Grommets)	5 (7 using dual port grommet Express sides)
Cable Sizes (Max. O.D.)	2 @ 0.60" (splice) 2 @ 0.77" (ground / bond)	5 @ 0.62"	5 @ 0.62"	3 @ 0.80" 2 @ 1.00"	2 @ 1.0" 12 @ 0.312" Flat or 0.250" Round	3 @ 1.25" 2 @ 1.35"
Testing - Cable Retention (100 lbs) - Water Resistance (waterhead) - Impact Resistance (0-40 °C) - Chemical Resistance - Cable Flexing	 Passed 20 ft. Passed Passed Passed	 Passed 20 ft. Passed Passed Passed	 Passed 20 ft. Passed Passed Passed	 Passed 20 ft. Passed Passed Passed	 Passed 20 ft. Passed Passed Passed	 Passed 20 ft. Passed Passed Passed
Dimensions - (L x D) in. (cm)	14.00 x 4.00 (35.60 x 10.16)	18.25 x 8.75 (46.36 x 22.23)	19.00 x 8.75 (48.26 x 22.23)	28.00 x 10.00 (71.12 x 25.40)	20 x 10	31.00 x 12.00 (78.74 x 30.48)
Weight - lbs. (kg)	3.0 (1.36)	10.5 (4.76)	11.5 (5.23)	14 (6.35)	13 (5.89)	25 (11.34)

NOTES: 1. For the LG-250-U-0; 36 mechanical splices only using the LL-2448 splice tray.
2. For the LG-350-U-0; 108 mechanical splices only using the LL-2448 splice tray.

Expandable to support various cable diameters

Ease of installation (no tapes, washers, or glue)

Multiple layers of sealing protection

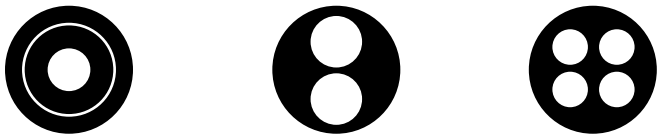
LightGuard™ Peel and Seal Grommet Systems™ for Sealed Fiber Optic Closures

AFL's cable sealing grommet technology for the LightGuard (LG) Sealed Fiber Optic Closures improves sealing technology utilitizing MULTICENTRIC® Grommets that do away with time consuming tasks such as installing washers and messy sealing tapes for cable entry. MULTICENTRIC® Grommets are designed to accept a wide range of cable diameters, eliminating the need to stock a variety of diameter-specific grommet kits.

Conversion kits for old LG-100, LG-200, and LG-300 closures allows for "Peel and Seal" grommet technology to be used without changing out the existing closure.

Features

- All Peel and Seal Grommet Systems support loose tube, core tube, dielectric and armored cable designs
- Installation and re-entry using common hand tools
- Accepts a wide range of cable diameters
- Fast and easy to install
- Fits existing AFL LightGuard sealed closures
- Fully sealed to protect fiber and splices ensuring longevity
- Full conversion kits and dual cable entry port kits
- Designed and tested to Telcordia® GR-771 & RUS 515 closure requirements



Single Dual Quad

Ordering information

SEALED CLOSURE FULL CONVERSION KITS (SINGLE AXIS CABLE ENTRY)

DESCRIPTION	AFL NO.
3 Port Drop Grommet (LG-150/250)	FC000655
Dual Express Grommets for LG-350	FC000337
Quad Express Grommets for LG-350	FC000421
Single Cable Grommet Kit, Drop Port	FC000628
4 Port Drop Grommet (LG-350 / LG-350-AC)	FC000422
LG-350 Express Single Cable Grommet Kit	FC000726
LG-350 Drop Single Cable Grommet Kit	FC000727

LightGuard™ 55 Sealed Fiber Optic Splice Closure

Designed with versatility in mind, the LightGuard (LG) 55 sealed closure from AFL offers a variety of solutions including repair and distribution splicing, grounding for Fiber-in-the-Loop applications, and for use as an isolation gap with armored cables. This closure accepts stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations and can be utilized in a butt or in-line configuration.

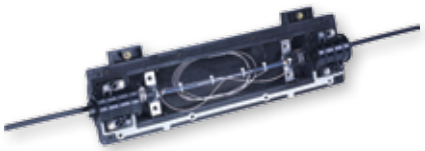
The LG-55 closure incorporates a unique cable clamp design sealing the cable, allowing both of the cover halves to be removed without disturbing the contents. In addition, AFL's Peel & Seal Grommet System™ is incorporated to ensure a tight fit on various cable diameters, fully sealing the closure and protecting the fiber while eliminating cumbersome tape and washers – making installation fast and easy.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – Single, Mass, Mechanical	24, n/a, n/a
Number of Splice Trays (Max.) – Single, Mass, Mechanical	1, n/a, n/a
Cable Entrance Configuration	In-line / Butt
Cable Ports	2 (3 using dual cable entry port kit)
Cable Sizes (Max. O.D.)	2 @ 0.60" (for in-line splice configuration) 2 @ 0.77" (for in-line ground / bond configuration) 2 @ 0.45" (for butt splice configuration)
Dimensions – (L x D) in. (cm)	14 x 4 (34.30 x 10.16)
Weight – lbs. (kg)	3.0 (1.36)

Features

- Accommodates cables to 0.77" O.D. for splicing and grounding / bonding
- Incorporates the Peel & Seal Grommet System, fully sealing the closure
- Includes removable, integral central splicing module and individual cable retention clamps



Inline Repair Closure (IRC) for repair of flat or round drop cables

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-55 Sealed Fiber Optic Splice Closure – 24 fusion splice capable and includes (2) cable kits for sealing / retention, (2) Cable Grounding Kits, (1) Dual Cable Entry Port Kit and a grounding terminal. Splice tray not included.	LG-55-U-0	FC000034-PS
LG-55 In-line Repair Closure	LG-55-IRC	FC000793-PS
LG-55 with Stainless Steel Hardware for Harsh Environments	LG-55-U-SS	FC000711
LG-55 Splice Tray – Stores 24 single fusion splices and includes base, cover, (3) eight-position splice holders and tie-wraps. Maximum of (1) tray in the LG-55.	LL-2425	FC000247
Dual Cable Entry Port Kit – Allows two cables to enter closure from each cable port. Includes one dual port cable grommet to increase the closure to four ports.	Dual Cable Entry Port Kit	FC000337
Cable Grounding Kit – Includes harness and hose clamp (one kit required per cable entry)	CGH-1	FC000003
Cable Grounding Harness Kit – Includes (4) 8" long ground harnesses constructed of #6 AWG conductor.	CGH-4	FC000024

LightGuard™ 55-SC
Sealed Fiber Optic Splice Closure

AFL's LightGuard (LG) 55-SC sealed closure retains all the features of the LG-55, but includes a unique patching system that utilizes pre-terminated SC fiber assemblies or field installable connectors such as the FAST™ SC.

An innovative solution that can be used to facilitate a link between traffic control cabinets and entrance cables, the LG-55-SC closure allows for rapid restoration and minimal damage to a fiber optic cable should an impact disable the cabinet. A breakable tie wrap secures the pre-connectorized cable to one side of the closure (traffic control cabinet), while the main entrance cable is secured with a more rugged cable clamp, allowing the system to separate during a damaging impact.

Features

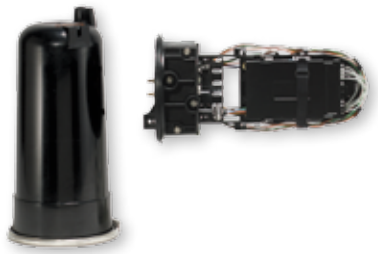
- Durable cover assembly that provides protection for all internal components and acts as an interface / anchor to the cable clamps
- Unique cable clamp seal to anchor the cable to the cover assembly
- Movable sheath retention bracket keeps cable bends at a minimum
- Accommodates up to four SC/UPC connectors
- Utilizes AFL's Peel & Seal Grommet System™, ensuring a tight fit on various cable diameters while eliminating cumbersome tape and washers

Specifications

PARAMETER	VALUE
Maximum Cable Diameter	0.65"
Minimum Cable Diameter	0.30"
Maximum Cable Entry	2 ports (one each end)
Overall Dimensions	14" Length x 4" Diameter

Ordering Information

MODEL NO.	AFL NO.
LG-55-SC	FC000481-PS
Dual Cable Entry Port Kit – Allows two cables to enter closure from each cable port. Includes one dual port cable grommet to increase the closure to four ports.	FC000337
Cable Grounding Kit – Includes harness and hose clamp (one kit required per cable entry).	FC000003
Cable Grounding Harness Kit – Includes (4) 8" long ground harnesses constructed of #6 AWG conductor.	FC000024



LightGuard™ 150 Sealed Fiber Optic Splice Closure

The LightGuard (LG) 150 is a sealed dome closure designed for small count fiber splicing (≤ 48 single or 192 mass) in a butt configuration. Utilized in aerial or underground environments where a sealed closure is required, the LG-150 is ideal for express or ring applications and requires no tools for re-entry.

Features

- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry using common hand tools
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install five cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – Single, Mass, Mechanical	48, 192, n/a
Number of Splice Trays (Max.) – Single, Mass, Mechanical	4, 3, n/a
Cable Entrance Configuration	Butt
Cable Ports	5
Cable Sizes (Max. O.D. - Min. O.D.)	5 (0.62" - 0.30")
Dimensions – (L x D) in. (cm)	18.25 x 8.75 (46.36 x 22.23)
Weight – lbs. (kg)	10.5 (4.76)

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-150 Sealed Fiber Optic Splice Closure – 36 Single or 192 mass fusion capable, includes (5) cable kits for sealing / retention and a grounding terminal. Cable Grounding Kits, hanger brackets and splice trays not included.	LG-150-U-0	FC000001-PS
LL-2450 Splice Tray – Stores (12) single fusion splices, includes base, cover, (2) six position single splice holders and tie-wraps. Maximum of (3) splice trays in the LG-150.	LL-2450	91957-00
LL-4850 Splice Tray – Stores (8) mass fusion splices, includes base, cover, (2) four position ribbon splice holders and tie-wraps. Maximum of (3) splice trays in the LG-150.	LL-4850	91958-00
LL-1248 Splice Tray – Stores (12) single fusion splices or (4) mass fusion splices, includes base, cover, (2) six position single splice holders, (1) four position ribbon splice holder and tie-wraps. Maximum of (3) splice trays in the LG-150.	LL-1248	911221-00-00
3-Flat Drop Grommet Kit – For use with standard flat drop cable	Flat Drop Grommet Kit	FC000655
Cable Grounding Kit – Includes harness and hose clamp. One kit needed per cable entry. For use with LG-150/250/350.	CGH-1	FC000003
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-150/250/350.	CGH-5	FC000040
Universal Aerial Offset Strand Hanger Kit – For use with LG-150/250/350.	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit – For use with LG-150/250/350.	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket – For use with LG-150/250/350.	PWK	FC000592
OPGW Cable Bracket Kit for use when installing Sealed Closures (LG-150 / LG-250 / LG-350) to OPGW Cable. See details in Accessory section on page 13.	OPGW Bracket	FC000685
1X6 Fiber Router Kit	Router	FC000070
O-Ring Replacement Kit – For use with LG-150/250.	O-Ring Replacement	FC000004
LLAS-200-12SC Terminal Adapter. Used with LG-150 and LG-250. See details in Accessory section on page 14.	LLAS-200-12SC	FC000068

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

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LightGuard™ 250 Sealed Fiber Optic Splice Closure

The LightGuard (LG) 250 is a sealed dome closure designed for medium count fiber splicing (< 96 single or 288 mass) in a butt configuration. Utilized in aerial or underground environments where a sealed closure is required, the LG-250 is ideal for express or ring applications and requires no tools for re-entry.

Features

- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry using common hand tools
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install five cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – Single, Mass, Mechanical	96, 288, 48
Number of Splice Trays (Max.) – Single, Mass, Mechanical	4, 2, 4
Cable Entrance Configuration	Butt
Cable Ports	5
Cable Sizes (Max. O.D. - Min. O.D.)	5 (0.62" - 0.30")
Dimensions – (L x D) in. (cm)	19 x 8.75 (48.26 x 22.23)
Weight – lbs. (kg)	11.5 (5.23)

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-250 Sealed Fiber Optic Splice Closure – 96 Single or 288 mass fusion capable, includes (5) cable kits for sealing / retention and a grounding terminal. Cable Grounding Kits, hanger brackets and splice trays not included.	LG-250-U-0	FC000002-PS
LL-2400 Splice Tray – Stores (24) single fusion splices, includes base, cover, (1) twenty-four position single splice holder and tie-wraps. Maximum of (4) trays in the LG-250.	LL-2400	91710-06
LL-2448 Splice Tray – Stores (24) single fusion or (4) mass fusion splices, includes base, cover, (1) twenty-four position single splice holder, (1) four position ribbon splice holder and tie-wraps. Maximum of (3) trays in the LG-250.	LL-2448	911289-00-02
LL-4800 Splice Tray – Stores (4) mass fusion splices, includes base, cover, (1) four position ribbon splice holder and tie-wraps. Maximum of (10) trays in the LG-300XL.	LL-4800	91711-07
LL-4848 Splice Tray – Stores (12) mass fusion splices, includes base, cover, (1) twelve position ribbon splice holder and tie-wraps. Maximum of (1) tray in the LG-250.	LL-4848	911437-00-02
Single Fusion Splice Tray for 48 Single Fused Fiber*	LL-2448-48S	FA000045
3-Flat Drop Grommet Kit – For use with standard flat drop cable	Flat Drop Grommet Kit	FC000655
OPGW Cable Bracket Kit for use only when installing closure on OPGW cable.	OPGW Bracket	FC000683
OPGW 250 Two-Cable Retention and Splicing Package	OPGW 250	FC000831
OPGW 250 Four-Cable Retention and Splicing Package	OPGW 250	FC000832
1X6 Fiber Router Kit	Router	FC000070
Cable Grounding Kit – Includes harness and hose clamp. One kit needed per cable entry. For use with LG-150/250/350.	CGH-1	FC000003
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-150/250/350.	CGH-5	FC000040
O-Ring Replacement Kit – For use with LG-150/250	O-Ring Replacement	FC000004
Universal Aerial Offset Strand Hanger Kit – For use with LG-150/250/350	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit – For use with LG-150/250/350.	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket – For use with LG-150/250/350	PWK	FC000592
Terminal Adapter – Houses 12 SC bulkhead adapters, for use with LG-150/250	LLAS-200-12SC	FC000068

* NOTE: When using LL-2448-48S capacity increases to 144 single splices. Capacity is cable OD driven.

* See pages 14 through 17 for Accessory Specifications.

* See page 24 for Splice Tray Specifications.

MuxGuard™ 250 Sealed Fiber Optic Splice Closure

The MuxGuard 250 is a sealed dome closure designed with pre-installed Thin Film Filter (TFF) Compact Series CWDMs or DWDMs that allow for MUXing and DEMUXing within the same closure. The closure is also equipped with pre-installed splice trays that keep the bandwidth signals separated from each other, thus preventing accidental signal loss during maintenance activities. All fibers from the WDMs are routed to the appropriate splice tray through color-coded transition tubes. The closures are available with 4-channel or 8-channel units. As with other LG Series Sealed Closures, these closures require no tools for re-entry, and each closure may be padlocked as necessary.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – Single	96
Number of Splice Trays (Max.) – Single	4
Cable Entrance Configuration	Butt
Cable Ports	5
Cable Sizes (Max. O.D. - Min. O.D.)	5 (0.70" - 0.30")
Dimensions – (L x D) in. (cm)	19 x 8.75 (48.26 x 22.23)
Weight – lbs. (kg)	11.5 (5.23)

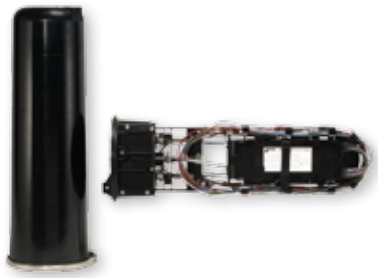
Features

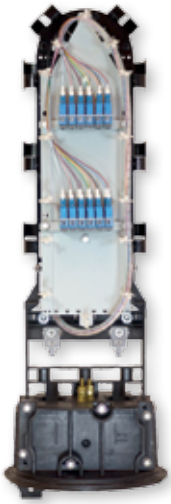
- Factory pre-installed devices
- Factory pre-installed transition tubes with fibers routed to appropriately designated bandwidth splice trays
- Color-coded transition tubes
- Installation and re-entry using common hand tools
- Fully sealed to protect fiber, splices and devices
- Fully kitted with all parts to install five cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
MuxGuard 250 Sealed Closure	LG-250-CWDM-8-301 (1471-1611) LG-250-CWDM-4-302 (1471-1531) LG-250-CWDM-4-303 (1551-1611) LG-250-CWDM-8-301-121-500	FC000800 FC000801 FC000802 FC000803
LL-2448 Splice Tray – Stores (24) single fusion or (4) mass fusion splices, includes base, cover, (1) twenty-four position single splice holder, (1) four position ribbon splice holder and tie-wraps. Maximum of (3) trays in the LG-250.	LL-2448	911289-00-02
1X6 Fiber Router Kit	Router	FC000070
O-Ring Replacement Kit – For use with LG-150/250	O-Ring Replacement	FC000004
Universal Aerial Offset Strand Hanger Kit – For use with LG-150/250/350	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit – For use with LG-150/250/350.	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket – For use with LG-150/250/350	PWK	FC000592
Terminal Adapter – Houses 12 SC bulkhead adapters, for use with LG-150/250	LLAS-200-12SC	FC000068

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.





LG-350 with LLAS-300-24SC

LightGuard™ 350 Sealed Fiber Optic Splice Closure

The LightGuard (LG) 350 is a sealed dome closure designed for large count fiber splicing (≤ 384 single or 1152 mass) in a butt configuration. Utilized in aerial or underground environments where a sealed closure is required, the LG-350 is ideal for express, ring or long haul applications and requires no tools for re-entry.

Features

- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Installation and re-entry using common hand tools
- Fully sealed to protect fiber and splices ensuring longevity
- Fully kitted with all parts to install five cables
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) Listed

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – Single, Mass, Mechanical	384, 1152, 108
Number of Splice Trays (Max.) – Single, Mass, Mechanical	12, 8, 8
Cable Entrance Configuration	Butt
Cable Ports / Cable Sizes (Max. O.D. - Min. O.D.)	5 / 7 (using dual cable configuration for Express ports) 2 Express (1.00" - 0.40") 3 Drop (0.80" - 0.30")
Dimensions – (L x D) in. (cm) / Weight - lbs. (kg)	28.0" x 10.0" (71.12 x 25.40) / 14 (6.35)

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

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LightGuard™ 350 Sealed Fiber Optic Splice Closure (cont.)

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-350 Sealed Fiber Optic Splice Closure – 384 single fusion or 1152 mass fusion capable, includes (5) cable kits for sealing / retention (single and dual calbe configurations for express ports) and a grounding terminal. Cable Grounding Kits, hanger brackets and splice trays not included.	LG-350-U-0	FC000009-PS
LL-2400 Splice Tray – Stores (24) single fusion splices, includes base, cover, (1) twenty-four position single splice holder and tie-wraps. Maximum of (12) trays in the LG-350.	LL-2400	91710-06
LL-2448 Splice Tray – Stores (24) single fusion or (4) mass fusion splices, includes base, cover, (1) twenty-four position single splice holder, (1) four position ribbon splice holder and tie-wraps. Maximum of (8) trays in the LG-350.	LL-2448	911289-00-02
LL-4800 Splice Tray – Stores (4) mass fusion splices, includes base, cover, (1) four position ribbon splice holder and tie-wraps. Maximum of (10) trays in the LG-300XL.	LL-4800	91711-07
LL-4848 Splice Tray – Stores (12) mass fusion splices, includes base, cover, (1) twelve position ribbon splice holder and tie-wraps. Maximum of (6) trays in the LG-350.	LL-4848	911437-00-02
LL-4896 Splice Tray – Stores (96) single fusion splices or (24) mass fusion splices, includes base, cover, (16) six position single splice holders, (6) four position ribbon splice holders and tie-wraps. Maximum of (4) trays using single fusion or (5) trays using mass fusion in the LG-350.	LL-4896	911676-00-02
LL-2448-48S Splice Tray – Stores (24) single fusion splices. May be installed in the LG-250, LG-350, LG-350-XL, LG-410, LG-500, LG-600 Splice Closures, the LL-400B and LL-400S Distribution Enclosures and the LL-2400 Pedestal.	LL-2448-48S	FA000045
LL-7644 Universal Splice Tray – Stores (60) single fusion splices or (288) mass fusion splices or a combination of both in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7644	FA000044
LL-7060 Splice Tray – Stores (60) single fusion splices in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7060	FA000042
LL-7144 Splice Tray – Stores (288) mass fusion splices in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7144	FA000043
4-Flat Drop Grommet Kit – For use with standard flat drop cable and round cable up to 0.256" O.D.	Flat Drop Grommet Kit	FC000422
Cable Grounding Kit – Includes harness and hose clamp. One kit needed per cable entry. For use with LG-150/250/350.	CGH-1	FC000003
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-150/250/350.	CGH-5	FC000040
O-Ring Replacement Kit – For use with LG-350.	O-Ring LG-300	912231-00-00
Universal Aerial Strand Hanger Kit – For use with LG-150/250/350.	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit – For use with LG-150/250/350.	Extended Offset Hanger	FC000208
Pole or Wall Mount Bracket – For use with LG-150/250/350.	PWK	FC000592
OPGW Cable Bracket Kit for use only when installing closure on OPGW cable.	PGW Bracket	FC000683
OPGW 350 Two-Cable Retention and Splicing Package	OPGW 350	FC000833
OPGW 350 Two-Cable Retention and Splicing Package	OPGW 350	FC000834
1X6 Fiber Router Kit	Router	FC000070
Terminal Adapter – Houses 24 SC bulkhead adapters, for use with LG-350	LLAS-300-24SC	FC000069
Terminal Adapter – Empty plate	LLAS-350-96LC	FC000736

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

LightGuard™ 350-AC Drop Access Sealed Fiber Optic Splice Closure

AFL's LightGuard (LG) 350-AC sealed dome closure is intended for utilization in aerial or underground environments where a sealed closure is required and space may be limited. Designed for "drop access" applications providing access for up to 12 drops, this closure is also versatile enough to be used for splicing up to 144 single splices in a butt configuration. Ideal for Fiber-to-the-Home installations in small hand-hole applications, the LG-350-AC requires no special tools or extra kits for re-entry.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – single, mass	144, 432
Number of Splice Trays (Max.) – single, mass	4, 3
Cable Entrance Configuration	Butt
Cable Ports	5 Ports (14 cables total using flat-drop grommets)
Cable Sizes (O.D.)	Express Side – 2 (0.4"–1.0") Drop Side – 12 (0.31" flat-drop or 0.25" round)
Dimensions (L x D) – inches (cm)	19.8" x 10.0" (50.3 x 25.4)
Weight - lbs. (kg)	12 (5.44)

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
Dome Closure, 144 single fusion capable (with additional trays), 5 cable entry kits for sealing and retention (2-single port for express and 3-quad port for drop), ground terminal, (1) LL-4808L splice tray. No cable grounding or hanger brackets are included.	LG-350-AC	FC000412
Single Fusion Splice Tray - Stores up to 36 single fused fibers (maximum of 4 trays in LG-350-AC)	LL-4808L	FA000021
Mass Fusion Splice Tray - Stores up to 144 mass fused fibers (maximum of 4 trays in LG-350-AC)	LL-4808R	FA000020
Single Cable Branch Grommet Kit	Branch Grommet Kit	FC000628
Cable Grounding Kit - For LG-150/250/350	CGH-1	FC000003
5 Cable Grounding Kits - For LG-150/250/350	CGH-5	FC000040
O-Ring Replacement Kit for the LG-350	O-Ring LG-300	912231-00-00
Universal Aerial Strand Hanger kit - For LG-150/250/350	Universal Hanger	FC000006
Extended Offset Strand Hanger Kit - For LG-150/250/350	Extended Offset Hanger	FC000208
Pole or Wall MT Bracket for use with LG150/250/350	PWK	FC000592
OPGW Cable Bracket Kit	OPGW Bracket	FC000683

* Unit available for Mass/Ribbon utilization. Consult customer service for details.

Features

- Less than 20" overall length; ideal for small hand-holes
- Supports standard loose tube, outside plant ribbon and Uniflex® fiber optic cables in both dielectric and armored configurations
- Installation and re-entry using common hand tools
- Fully sealed to protect fiber and splices, ensuring longevity
- Fully kitted with all parts to install two cables and up to 12 drops
- Designed and tested to Telcordia® GR-771 requirements
- Rural Utilities Service (RUS) listed

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* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

LightGuard™ 350XL
Sealed Fiber Optic Splice Closure

The LightGuard (LG) 350XL is a sealed dome closure designed for large count fiber splicing (up to 864 single or 2592 mass) in a butt configuration. Utilized in aerial or underground environments where a sealed closure is required, the LG-350XL requires no tools for re-entry.

Features

- Can accommodate up to 7 cables
- Supports stranded loose tube, Uniflex® or ribbon fiber cables in either armored or dielectric configurations
- Flanged O-Ring and T-bolt V-band for increased protection at 20' waterhead
- Oversized basket allows multiple configurations of slack storage
- Holds Pirelli™ 1152 fiber count cable at a diameter of 1.35"

Specifications

PARAMETER	VALUE	
Splice Capacity (Max.) – Single, Mass, Mechanical	864, 2592, 288	
Number of Splice Trays (Max.) – Single, Mass, Mechanical	9, 9, 9	
Cable Entrance Configuration	Butt	
Cable Ports / Cable Sizes (Max. O.D.)	5 ports / 7 with Dual Express Grommet	
	Express Port Single 1.18" - 0.40" Double 0.56" - 0.44"	**Drop Port** Single 1.08" - 0.30"
Dimensions - (L x D) in. (cm) / Weight - lbs. (kg)	31.0" x 12.0 (78.74 x 30.48) / 25 lbs. (11.3 kg)	

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-350XL Sealed Fiber Optic Splice Closure – 864 single fusion or 2592 mass fusion capable, includes (5) cable kits for sealing / retention (single and dual cable configurations) and a grounding terminal. Cable Grounding Kits, hanger brackets and splice trays not included	LG-300XL-U-0	FC000010-PS
LL-4896 Splice Tray – Stores (96) single fusion splices or (24) 288 mass fusion splices, includes base, cover, (16) six position single splice holders, (6) four position ribbon splice holders and tie-wraps. Maximum of (9) trays in the LG-350XL	LL-4896	911676-00-02
LL-2400 Splice Tray – Stores (24) single fusion splices, includes base, cover, (1) twenty-four position single splice holder and tie-wraps. Maximum of (12) trays in the LG-350XL.	LL-2400	91710-06
LL-2448 Splice Tray – Stores (24) single fusion or (4) mass fusion splices, includes base, cover, (1) twenty-four position single splice holder, (1) four position ribbon splice holder and tie-wraps. Maximum of (8) trays in the LG-350XL.	LL-2448	911289-00-02
LL-4800 Splice Tray – Stores (4) mass fusion splices, includes base, cover, (1) four position ribbon splice holder and tie-wraps. Maximum of (10) trays in the LG-300XL.	LL-4800	91711-07
LL-4848 Splice Tray – Stores (12) mass fusion splices, includes base, cover, (1) twelve position ribbon splice holder and tie-wraps. Maximum of (10) trays in the LG-350XL.	LL-4848	911437-00-02
LL-2448-48S Splice Tray – Stores (48) single fusion splices. May be installed in the LG-250, LG-350, LG-350-XL, LG-410, LG-500, LG-600 Splice Closures, the LL-400B and LL-400S Distribution Enclosures and the LL-2400 Pedestal.	LL-2448-48S	FA000045
LL-7060 Splice Tray – Stores (60) single fusion splices in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7060	FA000042
LL-7144 Splice Tray – Stores (288) mass fusion splices in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7144	FA000043
LL-7644 Universal Splice Tray – Stores (60) single fusion splices or (288) mass fusion splices or a combination of both in an easy-to-use, deep splice tray. For use with the LG-350 and LG-350XL Closures.	LL-7644	FA000044
LG-350XL Dual Axis Express Grommet	Dual Axis Exp	FC000664
Cable Grounding Kit (pack of 5) – Includes harness and hose clamp. For use with LG-350XL	Cable Bonding Kit - 300XL	FC000041
O-Ring Replacement Kit – For use with LG-300XL	O Ring - 300XL	FC000016
Strand Mount Hanger Bracket – For use with LG-300XL	XL Hangar Bracket	912215-00-00
1X6 Fiber Router Kit	Router	FC000070

* See page 84 for LL4896 Splice Tray Specifications.

LightGuard™ 700 Sealed Fiber Optic Splice Closure

With a capacity for up to 288 single fusion or 432 mass fusion splices, AFL's LightGuard (LG) 700 in-line sealed closure is suitable for use in underground and aerial applications. The LG-700 hosts a dry, permanent peripheral grommet seal that allows for easy re-entry, eliminating the need for a re-entry kit. The closure is equipped with eight cable entry ports (four at each end of the closure), which allows for additional cables to be installed without disturbing previously installed cables. The 3/8" stainless steel captive bolts require only a standard nut driver or 216 tool for installation or re-entry. The LG-700 features a grounding system that may be used for common or isolated/grounding applications.

Features

- Cable retention clamps provide pullout rating required by Telcordia®
- Dry, permanent peripheral grommet seal allows for easy re-entry
- Space for large amounts of buffer tubing with tie downs for organization and installation
- Eight cable entry ports; previously installed cables are not disturbed when installing additional cables
- Common or isolated grounding/bonding
- Designed and tested to Telcordia® GR-771 requirements

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) – single, mass	288, 432
Number of Splice Trays (Max.) – single, mass	12, 9
Cable Entrance Configuration	In-line, Butt
Cable Ports	8 Ports
Cable Sizes (O.D.)	4 @ 0.77" 4 @ 1.00"
Dimensions (L x D) – inches (cm)	24.5" x 10.7" x 4.7" (62.2 x 25.4 x 11.9)
Weight - lbs. (kg)	8.5 (3.85)

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
LG-700 Bonded Sealed In-line/Butt Closure - Equipped with (3) cable sealing/retention kits, (3) cable bonding kits, (2) single fusion splice trays	LG-700	911605-00-00
Single Fusion Splice Tray - Stores 24 single fused fibers, base, cover, (1) twenty-four position fusion splice holder, tie-wraps.	LL-2400	91710-06
Universal Splice Tray - Stores 24 single fused fibers or 4 mass fusion sleeves (48 fibers), base, deep cover, tie-wraps.	LL-2448	911289-00-02
Mass Fusion Splice Tray - Stores 12 mass fusion sleeves (144 fibers) Base, deep cover, (1) twelve position mass sleeve holder, tie-wraps.	LL-4848	911437-00-02

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

LightGuard™ Aerial Weathertight Fiber Optic Splice Closures

The AFL family of Aerial Weathertight Splice Closures is designed to provide a cost-effective solution for your aerial splicing needs. Quality engineering reduces the installation time, training and complexity associated with fiber splicing in the field. The closures have all been designed to be installed without the need for special tools, heat, adhesives, drills, or any powered equipment. Durable and easy to install, these closures will improve productivity, reduce labor expenses and last the life of the plant.

Features

- Individual, patented, self-sizing cable grommets and strength member tie downs provide for cable additions without disturbing those previously installed
- Unique tongue-in-groove closure seal and back-to-back grommet design provides for a weathertight and insect seal
- Closures are re-enterable without the need for any re-entry kits, special tools or sealants
- Designed and tested to Telcordia® GR-771 aerial weathertight closure requirements
- Rural Utilities Service (RUS) Listed

Specifications

PARAMETER	LG-410-U-0	LG-420-U-0	LG-500-U-0	LG-600-U-0
Splice Capacity (Max.) - Single, Mass, Mechanical	72, 288, 36	12, 48, 12	96, 432, 36	288, 1152, 96
Splice Tray Capacity - Single, Mass	3, 2	n/a, n/a	3, 2	12, 8
Cable Ports	4-8	4-6	4-8	6-12 (6 per end)
Cable Entrance	In-line, Butt	In-line (taut sheath)	In-line, Butt	In-line, Butt
Cable Sizes (O.D.)	4 @ 0.3-0.8" Up to 8 with Dual Grommet Kits 4 @ 0.3-0.65" 4 @ 0.3-0.5"	4 @ 0.3-0.8" Up to 6 with Dual Grommet Kits 2 @ 0.3-0.77" 2 @ 0.3-0.65" 2 @ 0.3-0.5"	4 @ 0.3-0.8" Up to 8 with Dual Grommet Kits 4 @ 0.3-0.65" 4 @ 0.3-0.5"	6 @ 0.4-0.87" Up to 12 with Dual Grommet Kits 6 @ 0.4-0.87" 6 @ 0.5"
CLOSURE TEST [1, 2]				
Cable Retention (100 lbs.)	Passed	Passed	Passed	Passed
Impact Resistance (0-40 °C)	Passed	Passed	Passed	Passed
Chemical Resistance	Passed	Passed	Passed	Passed
Cable Flexing	Passed	Passed	Passed	Passed
Dust (Weather Tightness)	Passed	Passed	Passed	Passed
Driving Rain	Passed	Passed	Passed	Passed
Rodent Test	Passed	Passed	Passed	Passed
Dimensions (L x W x D) in. (cm)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)	27.00 x 8.25 x 4.00 (68.58 x 20.96 x 10.16)	27.00 x 11.25 x 7.50 (68.58 x 28.58 x 19.05)
Weight lbs. (kg)	8.5 (3.86)	8.5 (3.86)	6.4 (2.90)	18 (8.16)

Note 1: Tested to Telcordia GR-771-Core and Aerial Strand requirements
Note 2: Not all Telcordia tests are listed due to space constraints; All closures are designed and tested to appropriate aerial test requirements

LightGuard™ 410 Aerial Weathertight Fiber Optic Splice Closure

The AFL LightGuard (LG) 410 Aerial Weathertight Fiber Optic Splice Closure is designed for small to medium count fiber splicing (< 72 single or 288 mass) in aerial applications and provides additional fiber bundle storage with its extended length design.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass, Mechanical	72, 288, 36
Number of Splice Trays (Max.) - Single, Mass	3, 2
Cable Entrance Configuration	In-line, Butt
Cable Ports	4-8
Cable Sizes (Max. O.D. – Min. O.D.)	4 @ 0.3-0.8" Up to 8 with Dual Grommet Kits 4 @ 0.3-0.65" 4 @ 0.3-0.5"
Dimensions - (L x D) in. (cm)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)
Weight - lbs. (kg)	8.5 (3.86)

Features

- Four individual, self-sizing grommeted cable ports (expandable to eight cable entrances)
- Splice trays available for single, mass or mechanical splicing
- Patented tongue-in-groove cover seal system
- Cable retention clamps provide pullout rating required by Telcordia
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
Aerial Weathertight Universal Fiber Optic Splice Closure, up to 72 Single fusion splices, 4 cable ports expandable to 8. Equipped w/ 4 self sealing ports, (2) grounding terminals and standard length aerial hangars. Does not include splice trays or cable grounding kits.	LG-410-U-0	FC000022
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	LG-400/500	911499-00-00
Single Fusion Splice Tray - Stores 24 Single fused fibers (maximum of 3 trays in LG-410)	LL-2400	91710-06
Universal Splice Tray - Stores 24 Single fusion or 4 Mass fusion sleeves/48 Fibers (maximum of 2 trays in LG-410)	LL-2448	911289-00-02
Mass Fusion Splice Tray - Stores 4 Mass fusion sleeves/48 fibers (maximum of 2 trays in LG-410)	LL-4800	91711-07
Single Fusion Splice Tray Stores 48 Single Fused Fibers	LL-2448-48S	FA000045
6-Port Grommet Kit	LG-400/500	FC000573
Dual Grommet Cable Expansion Kit - Includes (2) LG-400 Dual Grommets and Cable Hardware	LG-400/LG-500 Dual Grommet Kit	911386-00-01
Dual Grommet Replacement Kit - Includes: (10) Dual Grommets for the LG-400 Series Closures	LG-400-Dual-Kit	911495-00-00
Grommet Replacement Kit, Kit - Includes: (10) Standard (single port) Grommets for the LG-400 Series Closures	LG-400-S	911496-00-00
Cable Grounding Harness - Includes: (4) Harness 8" #6 AWG	CGH-4	FC000024
Extended Aerial Hanger Kit	LG-400/500	911497-00-00
Adjustable Aerial Hanger Bracket Kit	LG-400/500/600	FC000572

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

LightGuard™ 420 Aerial Weathertight Fiber Optic Splice Closure

The AFL LightGuard (LG) 420 Aerial Weathertight Fiber Optic Splice Closure is designed to allow for Taut Sheath (no slack) splicing in aerial applications such as repairing cable sheath and fibers or providing mid-span access.

Features

- Four individual, self-sizing grommeted cable ports (expandable to six cable entrances)
- Taut Sheath splice module accommodates up to twelve fusion splices and supports storage of up to twelve optical connector adapters
- Patented tongue-in-groove cover seal system
- Cable retention clamps provide pullout rating required by Telcordia
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Protective channel allowing taut fibers or bundles to pass through the closure
- Rural Utilities Service (RUS) Listed

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass, Mechanical	12, 48, 12
Number of Splice Trays (Max.) - Single, Mass	n/a, n/a
Cable Entrance Configuration	In-line (taut sheath)
Cable Ports	4-8
Cable Sizes (Max. O.D. – Min. O.D.)	4 @ 0.3-0.8" Up to 6 with Dual Grommet Kits 2 @ 0.3-0.8" 2 @ 0.3-0.65" 2 @ 0.3-0.5"
Dimensions - (L x D) in. (cm)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)
Weight - lbs. (kg)	8.5 (3.86)

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
Aerial Weathertight Universal Taut Sheath Splice Closure - Includes: (2) 6 fiber single fusion splice organizers, (2) Blank 6 adapter bulkeads (SC style), (2) grounding terminals and 4 individual self sealing ports. Expandable to 8 cable ports. Does not include cable grounding kits.	LG-420-U-0	FC000023
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	LG-400/500	911499-00-00
Dual Grommet Cable Expansion Kit - Includes (2) LG-400 Dual Grommets and Cable Hardware	LG-400/LG-500 Dual Grommet Kit	911386-00-01
Dual Grommet Kit - Includes (10) Dual Port Grommets	LG-400-Dual-Kit	911495-00-00
Grommet Replacement Kit, Kit - Includes: (10) Standard (single port) Grommets for the LG-400 Series Closures	LG-400-S	911496-00-00
Cable Grounding Harness - Includes: (4) Harness 8" #6 AWG	CGH-4	FC000024
Extended Aerial Hanger Kit	LG-400/500	911497-00-00
Adjustable Aerial Hanger Bracket Kit	LG-400/500/600	FC000572

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

(FC000099 Model)

LightGuard™ 420 FTTx Aerial Weathertight Fiber Optic Splice Closures

The AFL LightGuard (LG) 420 FTTx Aerial Weathertight Fiber Optic Splice Closures are designed to allow for Taut Sheath (no slack) splicing in aerial applications such as FTTx access networks. The LG-420 FTTx provides access for 1 to 16 subscriber drops.

Features

- Four individual, self-sizing grommeted cable ports:
  - 2 express ports
  - 2 multi-drop ports
- Up to 16 connections with use of LGX®118 duplex adapters
- Special multi-drop grommet and cable retention
- Special lock-out interior enclosure
- (2) 8-pack adapter plates
- Patented tongue-in-groove cover seal system
- Cable retention clamps provide pullout rating required by Telcordia
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Protective channel allowing taut fibers or bundles to pass through the closure
- Rural Utilities Service (RUS) Listed

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single	Up to 32
Number of Splice Trays (Max.) - Single	1, n/a
Cable Entrance Configuration	In-line (taut sheath)
Cable Ports	2 - express 2 - multi-drop
Cable Sizes (Max. O.D. – Min. O.D.)	0.3-0.77" express 0.22-0.38" drop
Dimensions - (L x D) in. (cm)	36.00 x 8.00 x 4.00 (91.44 x 20.32 x 10.16)
Weight - lbs. (kg)	8.5 (3.86)

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
Aerial Weathertight Fiber Optic Splice Closure for FTTx applications– Includes: splice tray to accommodate up to 32 single fusion splices, (2) Blank adapter bulkheads (SC style), (2) Grounding terminals and 4 individual self-sealing ports. With an LGX118 footprint can connect up to 16 subscribers. Special interior lock out protrective closure. Does not include cable grounding kits.	LG-420-U-FTTx	FC000099
Aerial Weathertight Fiber Optic Splice Closure with Grounding Kit for FTTx applications – Includes: splice tray to accommodate up to 32 single fusion splices, (2) Blank adapter bulkheads (SC style), (2) Grounding terminals and 4 individual self-sealing ports. With an LGX118 footprint can connect up to 16 subscribers. Special interior lock out protrective closure.	LG-420-FTTx	FC000206
For Taut Sheath applications	LG-420-U-O	FC000023
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	LG-400/LG-500	911499-00-00
Dual Grommet Cable Expansion Kit - Includes (2) LG-400 Dual Grommets and Cable Hardware	LG-400/LG-500 Dual Grommet Kit	911386-00-01
Dual Grommet Kit - Includes (10) Dual Port Grommets	LG-400-Dual-Kit	911495-00-00
Grommet Replacement Kit, Kit - Includes: (10) Standard (single port) Grommets for the LG-400 Series Closures	LG-400-S	911496-00-00
Cable Grounding Harness - Includes: (4) Harness 8" #6 AWG	CGH-4	FC000024
Extended Aerial Hanger Kit	LG-400/LG-500	911497-00-00
Adjustable Bracket	LG-400/LG-500	FC000572

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

LightGuard™ 500 Aerial Weathertight Fiber Optic Splice Closure

The AFL LightGuard (LG) 500 Aerial Weathertight Fiber Optic Splice Closure is designed for small to medium count fiber splicing (≤ 96 single, 432 using LL-2448-48S splice tray or 288 mass) in aerial applications. Compact in design for congested aerial construction.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass, Mechanical	96, 432, 36
Number of Splice Trays (Max.) - Single, Mass	3, 2
Cable Entrance Configuration	In-line, Butt
Cable Ports	4-8
Cable Sizes (Max. O.D. – Min. O.D.)	4 @ 0.3-0.77" Up to 8 with Dual Grommet Kits 4 @ 0.3-0.65" 4 @ 0.3-0.5"
Dimensions - (L x D) in. (cm)	27.00 x 8.25 x 4.00 (65.58 x 20.96 x 10.16)
Weight - lbs. (kg)	6.4 (2.90)

Features

- Four individual, self-sizing grommeted cable ports
- Splice trays available for single, mass or mechanical splicing
- Patented tongue-in-groove cover seal system
- Cable retention clamps provide pullout rating required by Telcordia
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
Aerial Weathertight Universal Compact Splice Closure - Includes: (4) cable retention kits, (2) grounding terminals, (4) self sealing ports and standard aerial hangars. Does not include splice trays or cable grounding kits.	LG-500-U-0	FC000026
Single Fusion Splice Tray - Stores 24 single fused fibers (maximum of 3 trays in LG-500)	LL-2400	91710-06
Universal Splice Tray - Stores 24 Single Fusion, 4 Mass fusion sleeves/48 fibers or 12 Mechanical (maximum of 2 trays in LG-500)	LL-2448	911289-00-02
Mass Fusion Splice Tray - Stores 4 Mass fusion sleeves/48 fibers (maximum of 2 trays in LG-500)	LL-4800	91711-07
Mass Fusion Splice Tray - Stores 12 Mass fusion sleeves/144 fibers (maximum of 2 trays in LG-500)	LL-4848	911437-00-02
Single Fusion Splice Tray - Stores 48 Single Fused Fibers	LL-2448-48S	FA000045
Dual Grommet Kit - Includes: (2) small grommets and hardware	Dual Grommet Kit	911386-00-01
Dual Grommet Kit - Includes: (10) Dual Port Grommets	LG-400-Dual-Kit	911495-00-00
Closure Extension Kit - Used to join multiple closures for extended sheath openings required to repair cable sheath and damaged fibers	LG-400/500	911499-00-00
Cable Grounding Harness - Includes: (4) Harness 8" #6 AWG	CGH-4	FC000024
Extended Aerial Hanger Kit	LG-400/500	911497-00-00
Adjustable Aerial Hanger Kit Bracket Kit (included with closure)	LG-400/500/600	FC000572
LG-500 6-Port Drop Cable Kit	6-Port Drop Kit	FC000573

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

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LightGuard™ 600 Aerial Weathertight Fiber Optic Splice Closure

The AFL LightGuard (LG) 600 Aerial Weathertight Fiber Optic Splice Closure is designed for high count fiber splicing (≤ 288 single or 1152 mass) in aerial applications where a cost-effective high cable entry closure is desired.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass, Mechanical	288, 1152, 96
Number of Splice Trays (Max.) - Single, Mass, Mechanical	12, 8, 8
Cable Entrance Configuration	In-line, Butt
Cable Ports	4-8
Cable Sizes (Max. O.D. – Min. O.D.)	6 @ 0.4-0.87" Up to 12 with Dual Grommet Kits 6 @ 0.4-0.87" 6 @ 0.5"
Dimensions - (L x D) in. (cm)	27.00 x 11.25 x 7.50 (68.58 x 28.58 x 19.05)
Weight - lbs. (kg)	18 (8.16)

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
Aerial Weathertight Universal High Capacity Splice Closure - Includes: (4) cable retention kits, (2) gounding terminals, (6) self sealing ports and standard length aerial hangars. Does not include splice trays or cable grounding kits.	LG-600-U-0	FC000029
Single Fusion Splice Tray - Stores 24 Single fused fibers (maximum of 12 trays in LG-600)	LL-2400	91710-06
Universal Splice Tray - Stores 24 Single Fusion or 4 Mass fusion sleeves/48 fibers (maximum of 8 trays in LG-600)	LL-2448	911289-00-02
Mass Fusion Splice Tray - Stores 4 Mass fusion Sleeves/48 fibers) (maximum of 8 trays in LG-600)	LL-4800	91711-07
Mass Fusion Splice Tray - Stores 12 Mass fusion sleeves /144 fibers (maximum of 6 trays in LG-300)	LL-4848	911437-00-02
Single Fusion Splice Tray to Accommodate 48 Splices	LL-2448-48S	FA000045
Dual Grommet Expansion Kit - Includes: (2) Dual Grommets, (1) CSM retention clamp, cable retention clamp and cable spacer	LG-600-DCEK	911406-00-00
Grommet Replacement Kit - Includes: (10) LG-600 Grommets	LG-600-S-Kit	91918-00
Cable Grounding Harness - Includes: (4) Harness 8" #6 AWG	CGH-4	FC000024
Extended Offset Aerial Hanger Kit	LG-600	91990-00
Adjustable Aerial Hanger Bracket Kit	LG-400/500/600	FC000572
SC 6-Pack Adapter Bracket	LG-600	FM001212
Multi-drop Cable Entry Kit - Allows six cable entries 0.23-0.48"	MDG-600	FC000352

* See pages 85-88 for Splice Tray Specifications.
For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

Features

- Six individual, self-sizing grommeted cable ports (expandable to twelve cable entrances)
- Splice trays available for single, mass or mechanical splicing
- Patented tongue-in-groove cover seal system
- Integrated grounding clamp through aerial hangers
- Cable retention clamps provide pullout rating required by Telcordia
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

Telcordia is a registered trademark of Telcordia Technologies, Inc.

LightGuard™ 600 FTTx Aerial Weathertight Fiber Optic Splice Closure

The AFL LightGuard (LG) 600 FTTx Aerial Weathertight Fiber Optic Splice Closure is designed for express slack loop fiber access splicing in aerial applications where up to 24 customer fiber drops are required.

Specifications

PARAMETER	VALUE
Splice Capacity (Max.) - Single, Mass	24, 48 (see FTTx Expansion Kit description in table below)
Number of Splice Trays (Max.) - Single, Mass, Mechanical	2, 2, 2
Cable Entrance Configuration	In-line, Butt
Cable Ports	6
Cable Sizes (Max. O.D. – Min. O.D.)	2 @ 0.4-0.87" 24 @ 0.23-0.48"
Dimensions - (L x D) in. (cm)	27.00 x 11.25 x 7.50 (68.58 x 28.58 x 19.05)
Weight - lbs. (kg)	18 (8.16)

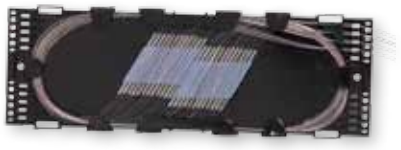
Features

- Six individual, self-sizing grommeted cable ports; 2 express ports, 4 drop ports
- Up to 24 FTTx drops
- Up to 12 adapters using the LG-600 expansion kit and SC 6-pack adapter brackets
- Special multi-drop grommets and cable retention
- Integrated aerial splicing work tray
- Splice trays available for single or mass splicing
- Patented tongue-in-groove cover seal system
- Integrated grounding clamp through aerial hangers
- Cable retention clamps provide pullout rating required by Telcordia
- Engineered thermoplastic to meet Telcordia® aerial and UV resistance requirements
- Rural Utilities Service (RUS) Listed

* See pages 85-88 for Splice Tray Specifications. For Accessory Specifications, refer to AFL's Fiber Outside Plant Catalog.

Ordering Information

DESCRIPTION	MODEL NO.	AFL NO.
Aerial Weathertight Universal High Capacity FTTx Splice Closure - Includes: (6) cable retention kits, (2) grounding terminals, (6) self sealing ports and standard length aerial hangars. Does not include splice trays or cable grounding kits.	LG-600-FTTx	FC000291
Single Fusion Splice Tray - Stores 12 Single fused fibers	LL-2450	91957-00
Universal Splice Tray - Stores 12 Single Fusion or 4 Mass fusion sleeves/48 fibers	LL-1248	911221-00-00
Mass Fusion Splice Tray - Stores 4 Mass fusion Sleeves/48 fibers)	LL-4850	91958-00-00
Dual Grommet Expansion Kit - Includes: (2) Dual Grommets, (1) CSM retention clamp, cable retention clamp and cable spacer	LG-600-DCEK	911406-00-00
Single Port Grommet Kit - 2 Grommets and LSM Hardware	SEG-600-1	FC000623
Single Cable Entry Grommet Kit	SEG-600	FC000356
Cable Grounding Harness - Includes: (4) Harness 8" #6 AWG	CGH-4	FC000024
Extended Offset Aerial Hanger Kit	LG-600	91990-00
Multi-drop Cable Entry Kit - Allows six cable entries 0.23-0.48"	MDG-600	FC000352
FTTx Expansion Kit - Includes: Stacker Module (1) LG-600 SC-6-Pack Bracket. Allows use of standard splice trays LL2400, 2448, 2448-48S, and 4848 plus 5 trays up to 120 single, 288 mass.	LG-600-FTTx	FC000620



LightLink™ Fiber Optic Splice Trays

AFL's LightLink series of Fiber Optic Splice Trays offers a variety of unique and flexible splice and storage possibilities. They are available in industry standard configurations (single, mass).

Features

- In-line or butt splice capability (see model descriptions)
- Pre-formed radiuses maintain bend requirements
- Interlocking base and cover provides tray stability without the use of a bolt
- Extended finger guides easily store and route loose fiber or ribbon

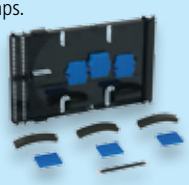
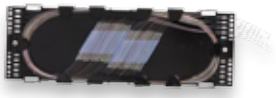
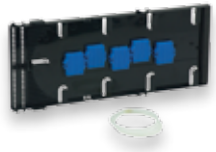
Ordering Information – Splice Trays for Sealed Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-55-U	LG-150-U	LG-250-U	LG-350-U	LG-350-AC	LG-350XL-U
For LG-55 only - Stores 24 single fused fibers, base, cover, (3) eight position splice holders, tie-wraps. 	LL-2425	FC000247	(1 tray max.) 24 Single	N/A	N/A	N/A	N/A	N/A
Stores 12 single fused fibers, base, cover, (2) six position splice holders, tie-wraps. 	LL-2450	91957-00	N/A	(3 trays max.) 36 Single	N/A	N/A	N/A	N/A
Stores 8 mass fusion sleeves, base, deep cover, (2) four position ribbon sleeve holders, tie-wraps. 	LL4850	91958-00	N/A	(3 trays max.) 144 Mass	N/A	N/A	N/A	N/A
Stores 12 single fused fibers or 4 mass fusion sleeves (48 fibers), base, cover, sleeve holders, tie-wraps. 	LL-1248	911221-00-00	N/A	(3 trays max.) 36 Single or 48 Mass	N/A	N/A	N/A	N/A
Stores 24 single fused fibers, base, cover, (1) twenty-four position sleeve holder, base, cover, tie-wraps. 	LL-2400	91710-06	N/A	N/A	(4 trays max.) 96 Single	(12 trays max.) 288 Single	N/A	(16 trays max.) 384 Single

NOTES: * Recommended no more than two trays in the LG-250 due to unique ribbon to ribbon application.
** This tray designed for LG-350 and LG-350XL only. The LG-350 requires special tray support bracket (either 911975 Standard or 911974 High Capacitiy)
*** Five trays can be installed in the LG-350 but it requires a 911974 High Capacity Support Bracket to allow for stacking all trays and not interfering with the dome.

LightLink™ Fiber Optic Splice Trays (cont.)

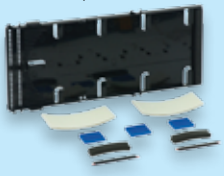
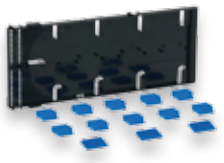
Ordering Information – Splice Trays for Sealed Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-55-U	LG-150-U	LG-250-U	LG-350-U	LG-350-AC	LG-350XL-U
Stores 36 single fused fibers or 12 mass fusion sleeves (144 Fibers), sleeve holders, base, cover, tie-wraps. 	LL-4808L-R	FA000037	N/A	N/A	N/A	N/A	(4 trays max.) 144 Single (3 trays max.) 432 Mass	N/A
Stores 24 single fused fibers, 4 mass fusion sleeves (48 Fibers) or 12 mechanical splices, base, deep cover, tie-wraps). 	LL-2448	911289-00-02	N/A	N/A	(3 trays max.) 72 Single or 144 Mass	(8 trays max.) 192 Singl or 384 Mass	N/A	(10 trays max.) 240 Single or 480 Mass
High density. Stores 48 single fused fibers, base, cover, (2) twenty-four position sleeve holders, tie-wraps. 	LL-2448-48S	FA000045	N/A	N/A	(2 trays max.) 96 Single	(6 trays max.) 288 Single	N/A	(18 trays max.) 864 Single
Stores 12 mass fusion sleeves (144 fibers), base, deep cover, (1) 12 position sleeve holder, tie-wraps. 	LL-4848	911437-00-02	N/A	N/A	(2 trays max.) 288 Mass*	(8 trays max.) 1152 Mass	N/A	(10 trays max.) 1440 Mass
High Density. Stores 96 single fused fibers or 24 mass fusion sleeves (288 Fibers), base, cover, (16) six position sleeve holders, (6) four position mass sleeve holders, tie-wraps. 	LL-4896	911676-00-02	N/A	N/A	N/A	(4 trays max.) 384 Single or 576 Mass** (5 trays max.) 480 Single 720 Mass***	N/A	(9 trays max.) 864 Single or 2592 Mass**
Stores 60 single fused fibers, base, cover, (10) splice holders, tie-wraps. 	LL-7060	FA000042	N/A	N/A	N/A	(5 trays max.) 144 Single	N/A	(15 trays max.) 864 Single

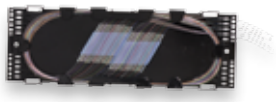
NOTES: * Recommended no more than two trays in the LG-250 due to unique ribbon to ribbon application.
** This tray designed for LG-350 and LG-350XL only. The LG-350 requires special tray support bracket (either 911975 Standard or 911974 High Capacitiy)
*** Five trays can be installed in the LG-350 but it requires a 911974 High Capacity Support Bracket to allow for stacking all trays and not interfering with the dome.

LightLink™ Fiber Optic Splice Trays (cont.)

Ordering Information – Splice Trays for LG-350 and LG-350XL-U Sealed Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-55-U	LG-150-U	LG-250-U	LG-350-U	LG-350-AC	LG-350XL-U
Stores 12 mass fusion sleeves (144 fibers), base, cover, mass splice holders, tie-wraps. 	LL-7144	FA000043	N/A	N/A	N/A	(2 trays max.) 432 Mass	N/A	(9 trays max.) 1296 Mass
Stores 60 single fused fibers or 12 mass fusion sleeves (144 fibers) or in combination, base, cover, splice holders, tie-wraps. 	LL-7644	FA000044	N/A	N/A	N/A	(5 trays max.) 144 Single (2 trays max.) 432 Mass	N/A	(15 trays max.) 864 Single (9 trays max.) 1296 Mass

Ordering information – Splice Trays for Aerial Weathertight Fiber Optic Splice Closures

DESCRIPTION	MODEL NO.	AFL NO.	LG-410-U	LG-420-U	LG-500-U	LG-600-U
Single Fusion Splice Tray - Stores 24 single fused fibers, base, cover, (1) twenty-four position fusion splice holder, tie-wraps. 	LL-2400	91710-06	(3 trays max.) 96 Single	N/A	(3 trays max.) 72 Single	(12 trays max.) 288 Single
Universal Splice Tray - Stores 24 single fused fibers or 4 mass fusion sleeves (48 fibers), base, deep cover, tie-wraps). 	LL-2448	911289-00-02	(2 trays max.) 48 Single or 96 Mass	N/A	(2 trays max.) 48 Single or 96 Mass	(8 trays max.) 192 Single or 384 Mass
Mass Fusion Splice Tray - Stores 12 mass fusion sleeves (144 fibers) Base, deep cover, (1) 12 position mass sleeve holder, tie-wraps. 	LL-4848	911437-00-02	(2 trays max.) 288 Mass	N/A	(2 trays max.) 288 Mass	(8 trays max.) 1152 Mass

Ordering Information – Splice Tray for Splicing Cabinets and Shelves

DESCRIPTION	MODEL NO.	AFL NO.
Telescoping Splice Tray - Stores up to 48 single fusion sleeves or 12 mass fusion sleeves (144 fibers). For use in the following products; LL-300, LL-288/576, LL-720/1440, OTSS-SYS1, OSS-SYS2 and OSS-SYS1. 	STF-48	911442-00-00

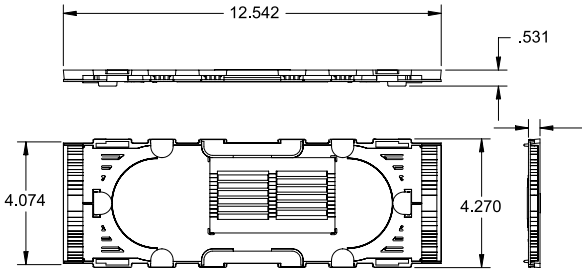
LightLink™ Fiber Optic Splice Trays (cont.)

Ordering Information – Splice Tray Accessories

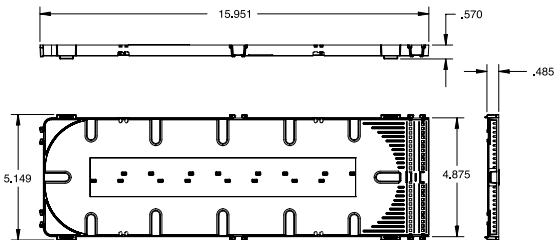
DESCRIPTION	MODEL NO.	AFL NO.
40 mm Fiber Protection Fusion Splice Sleeves, Telcordia® compliant (50 pcs. per bag)	FP-03(40)	S000206
60 mm Fiber Protection Fusion Splice Sleeves, Telcordia compliant (50 pcs. per bag)	FP-03	S000065
Core Tube Cable Fiber Router for routing fiber up to 8 directions. For all central core tube sizes.	1X8-CTR	911167-02
Loose Tube or Ribbon Router for routing fiber up to 6 directions. For all Loose Tube and up to 12 fiber Ribbon.	1X6-LRR	912085-00-00
FTTx Splice Tray Kit (2-4 SF splices)		DM000110

Dimensions

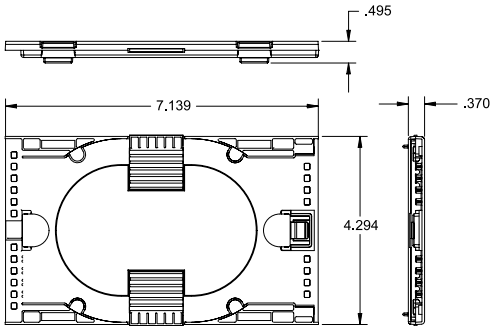
LL-2448 and LL-4848 Splice Trays



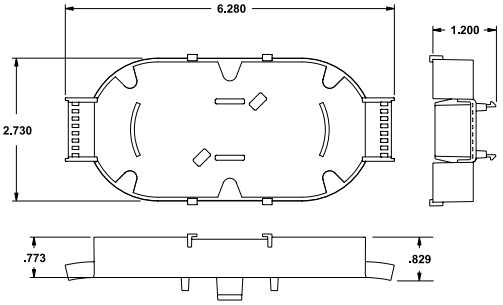
LL-4896 Splice Tray



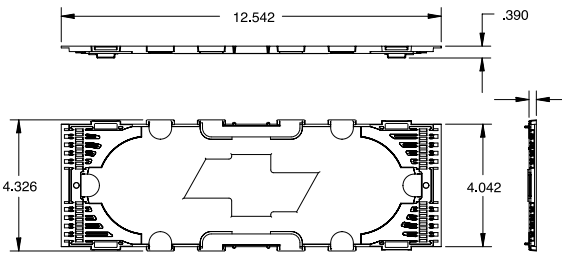
LL-1248, LL-2450 and LL-4850 Splice Trays



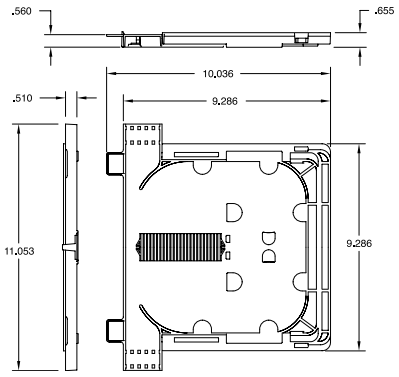
LL-2425 Splice Tray



LL-2400 Splice Tray



OEE Splice Tray



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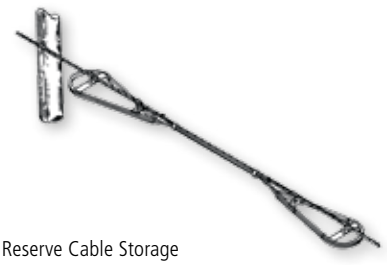
Fiber Storage Units

AFL Fiber Storage Units (FSU) are used to conveniently and safely store an extra length of cable along the support strand for later use. Furnished as pairs (kit contains two Fiber Storage Units and two sets of hanger brackets), these FSU's are constructed from either aluminum with a baked acrylic enamel finish or dielectric poypropylene with a UV inhibitor. All basic hardware for attachment to the support strand is provided. Strand mount support brackets meet Telcordia® specifications. Galvanized strand clamping devices accommodate 1/4" to 7/16" strand and meet ASTM specifications A153 and B695.

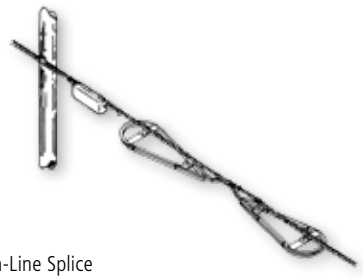
Features

- Small profile and side facing channel minimizes ice and leaf loading
- Metal versions feature an all aluminum construction with welded cross members and baked acrylic enamel paint finish with chromate pre-finish per MIL-6-5541-B
- Plastic versions feature thermoplastic polypropylene resin with carbon black UV inhibitor
- Basic hanging hardware (bolts, nuts, washers) and strand clamps all included
- Tie-wrap slots for securing cable from sliding
- Galvanized strand clamps accommodate 1/4" to 7/16" strand



Reserve Cable Storage

Butt Splice



In-Line Splice

Specifications

PARAMETER	FSU-10	FSU-12	FSU-16	FSU-18	FSU-20	FSU-24
Nom. Channel Width in. (cm)	0.63 (1.60)	0.92 (2.34)	1.12 (2.84)	1.75 (4.45)	1.75 (4.45)	1.745 (4.5)
Min. Bend Diameter in. (cm)	10 (25.4)	12 (30.48)	16 (40.64)	18 (45.72)	20 (50.80)	24.125 (61.3)

PARAMETER	FOSP-12-TMK	FOSP-17-TMK
Nom. Channel Width in. (cm)	0.63 (1.59)	0.95 (2.41)
Min. Bend Diameter in. (cm)	12.13 (30.80)	17.5 (44.45)

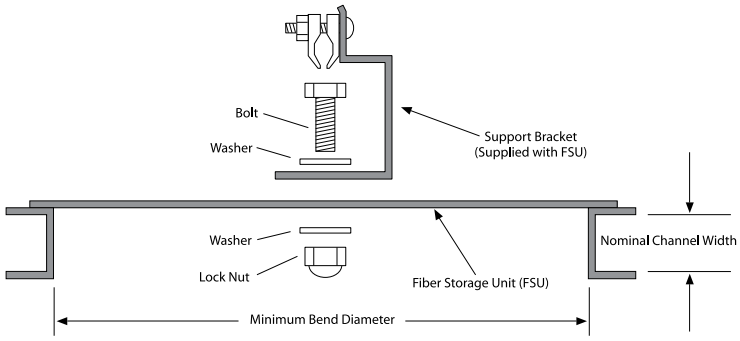
Ordering Information

DESCRIPTION	FSU-10	FSU-12	FSU-16	FSU-18	FSU-20	FSU-24
FSU Kit	911107-00	911108-00	911109-00	911110-00	911944-00-00	FA000095

DESCRIPTION	FOSP-12-TMK	FOSP-17-TMK
FOSP Kit (Dielecric)	FA000004	FA000002

Kits contain one pair of either FSU or FOSP and four mount brackets.

Hardware Diagram



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Sheath Stripper

The Fiber Optic Sheath Stripper is designed to longitudinally score the tight structure fiber units within certain AFL OPGW designs. A simple pull of the Sheath Stripper along the fiber unit ensures correct score depth allowing for easy removal of the overall unit sheath and access to the enclosed fibers. The reusable unit is easy to maintain and adjust. The kit includes the sheath stripper, replacement blades, adjustment tool, instructions and fiber unit samples for practice and blade adjustments.

Ordering Information

SHEATH SIZE (MM)	UNIT FIBER COUNT	AFL NO.
2.0	6 - 8	SSA2.0
2.5	10 - 12	SSA2.5

Note: For AlumaCore OPGW with a 12 fiber optical unit, order AFL number SSA2.5.

Stainless Steel Tube Cutter

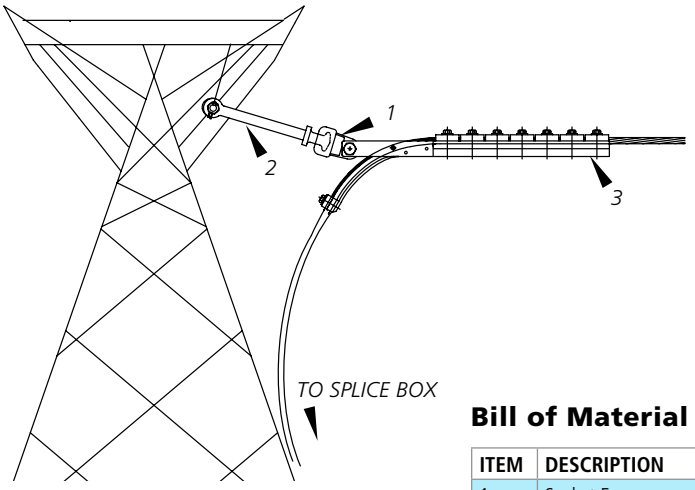
AFL offers a Stainless Steel Tube cutter that is used to access the fiber in our stainless steel tubes. The compact design and hardened steel blades make this a durable, easy to use tool.

Ordering Information

DESCRIPTION	AFL NO.
Stainless Steel Tube Cutter	SSCUTTER

CONFIGURATION ASSEMBLIES

OPGW Single Dead End Lattice Tower Configuration Assemblies



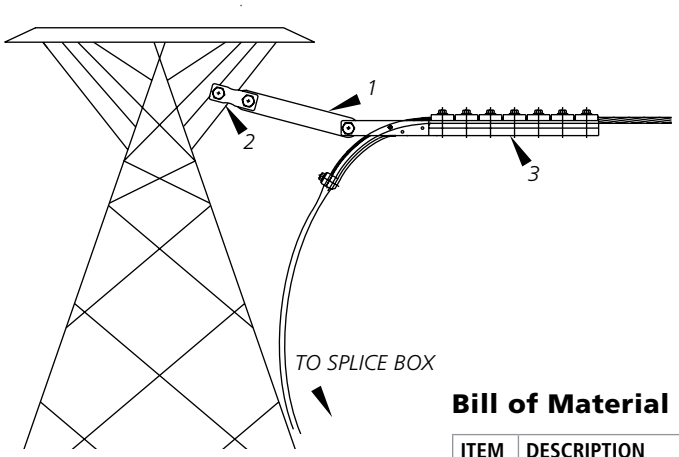
AFL NO.

OLTDE1 - DNOXXXX

Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	1	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	1	Pin Dia. = 0.75" (19 mm)
3	Bolted Dead End (Included)	Aluminum	Determined by AFL	1	



AFL NO.

OLTDE2 - DNOXXXX

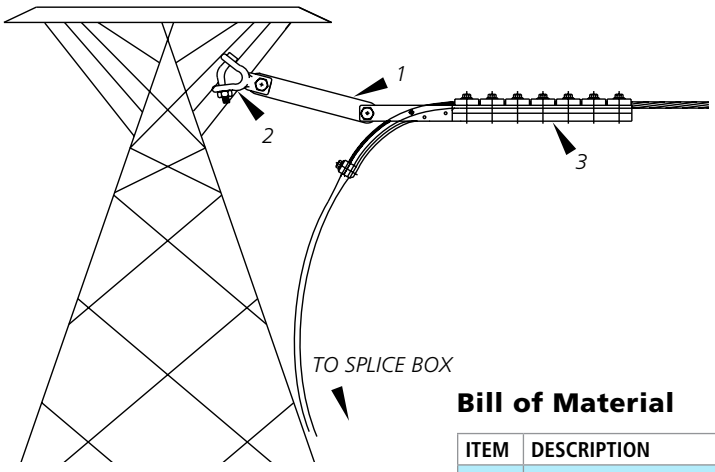
Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	1	
2	Y-Clevis Clevis	Galvanized Steel	YCC	1	Pin Dia. = 0.75" (19 mm)
3	Bolted Dead End (Included)	Aluminum	Determined by AFL	1	

Accessories enlarged for clarity

OPGW Single Dead End Lattice Tower Configuration Assemblies (cont.)



AFL NO.

OLTDE3 - DNOXXXX

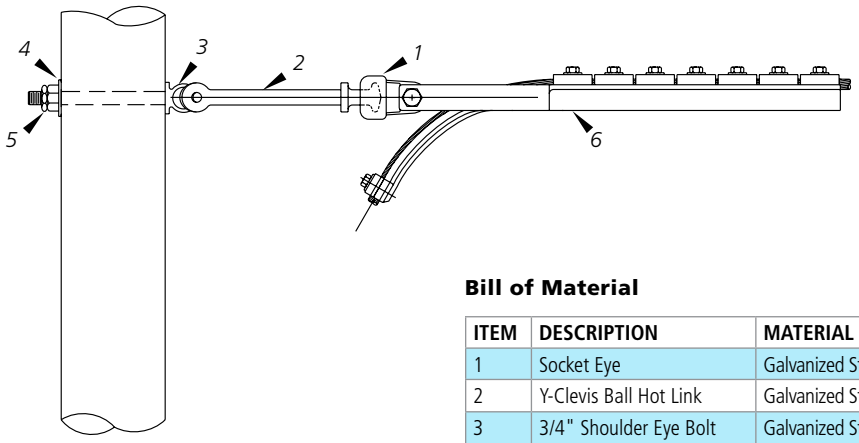
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	1	
2	Y-Clevis Clevis 90	Galvanized Steel	YCC-90	1	Pin Dia. = 0.75" (19 mm)
3	Bolted Dead End (Included)	Aluminum	Determined by AFL	1	

Accessories enlarged for clarity

OPGW Single Dead End Wood Pole/ H-Frame Configuration Assemblies



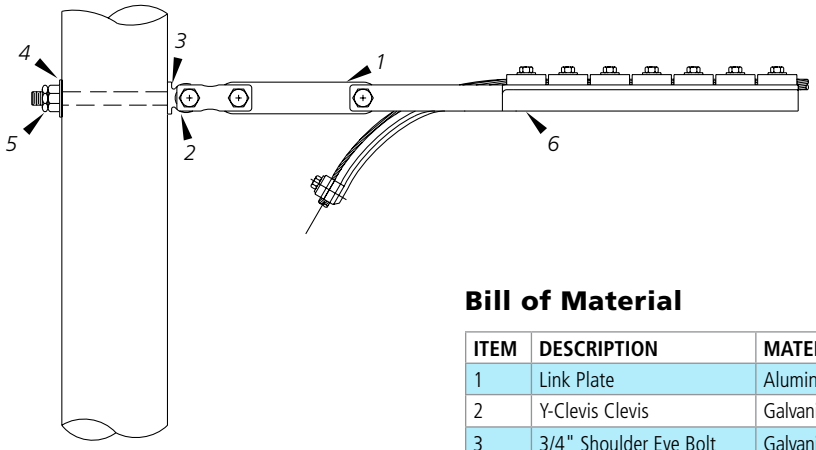
AFL NO.

OWPDE1 - DNOXXXX

Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	1	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	1	Pin Dia. = 0.75" (19 mm)
3	3/4" Shoulder Eye Bolt	Galvanized Steel	SEB-3/4-14	1	Length = 14"
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	1	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	1	
6	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	



AFL NO.

OWPDE2 - DNOXXXX

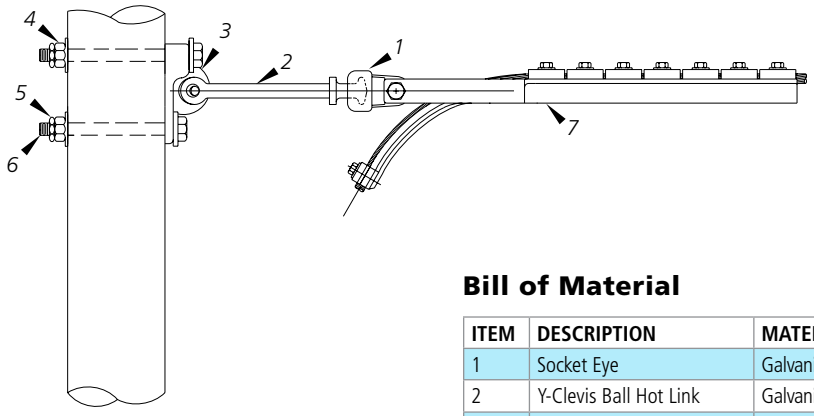
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	1	
2	Y-Clevis Clevis	Galvanized Steel	YCC	1	Pin Dia. = 0.75" (19 mm)
3	3/4" Shoulder Eye Bolt	Galvanized Steel	SEB-3/4-14	1	Length = 14"
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	1	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	1	
6	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	

Accessories enlarged for clarity

OPGW Single Dead End Wood Pole/ H-Frame Configuration Assemblies (cont.)



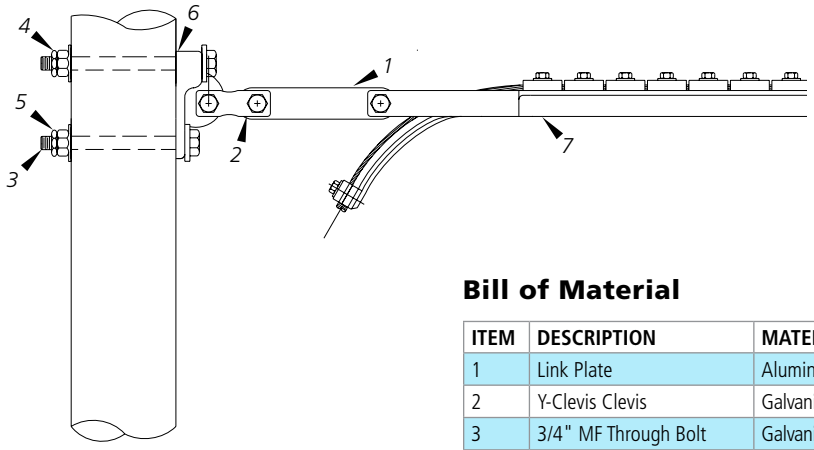
AFL NO.

OWPDE3 - DNOXXXX

Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	1	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	1	Pin Dia. = 0.75" (19 mm)
3	Eye Plate	Galvanized Steel	EP1	1	
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	2	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	2	
6	3/4" MF Through Bolt	Galvanized Steel	TB-3/4-14	2	Length = 14"
7	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	



AFL NO.

OWPDE4 - DNOXXXX

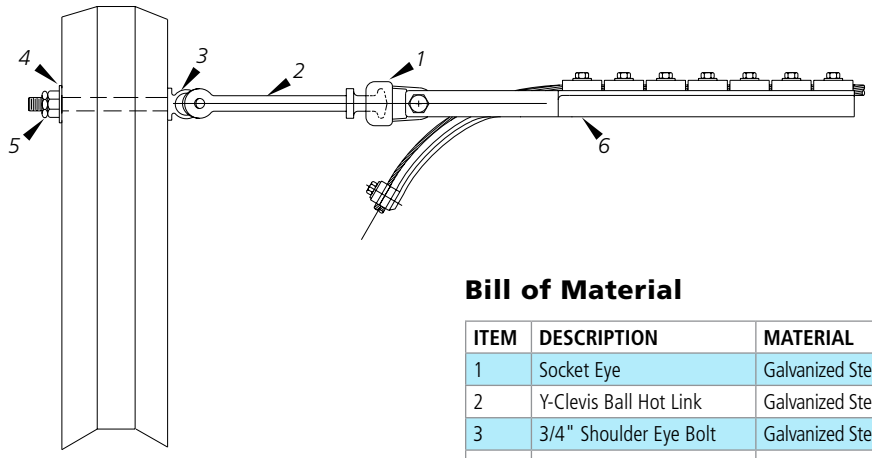
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	1	
2	Y-Clevis Clevis	Galvanized Steel	YCC	1	Pin Dia. = 0.75" (19 mm)
3	3/4" MF Through Bolt	Galvanized Steel	TB-3/4-14	2	Length = 14"
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	2	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	2	
6	Eye Plate	Galvanized Steel	EP1	1	
7	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	

Accessories enlarged for clarity

OPGW Single Dead End Steel Pole/ Drilled Configuration Assemblies



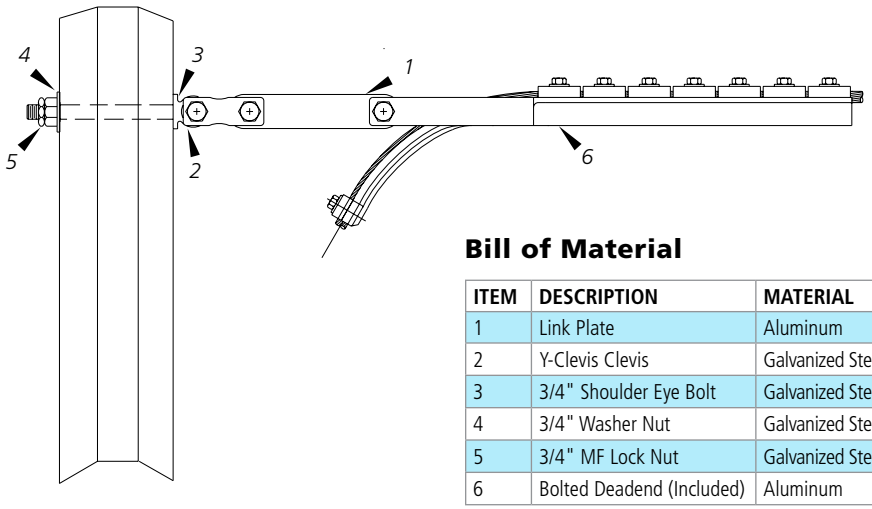
AFL NO.

OSPDE1 - DNOXXXX

Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	1	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	1	Pin Dia. = 0.75" (19 mm)
3	3/4" Shoulder Eye Bolt	Galvanized Steel	SEB-3/4-14	1	Length = 14"
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	1	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	1	
6	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	



AFL NO.

OSPDE2 - DNOXXXX

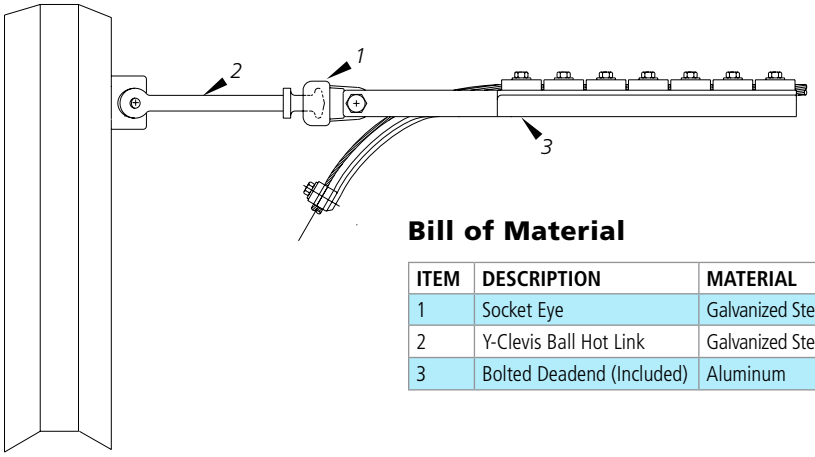
Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	1	
2	Y-Clevis Clevis	Galvanized Steel	YCC	1	Pin Dia. = 0.75" (19 mm)
3	3/4" Shoulder Eye Bolt	Galvanized Steel	SEB-3/4-14	1	Length = 14"
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	1	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	1	
6	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	

Accessories enlarged for clarity

OPGW Single Dead End Steel Pole/ Vang Configuration Assemblies



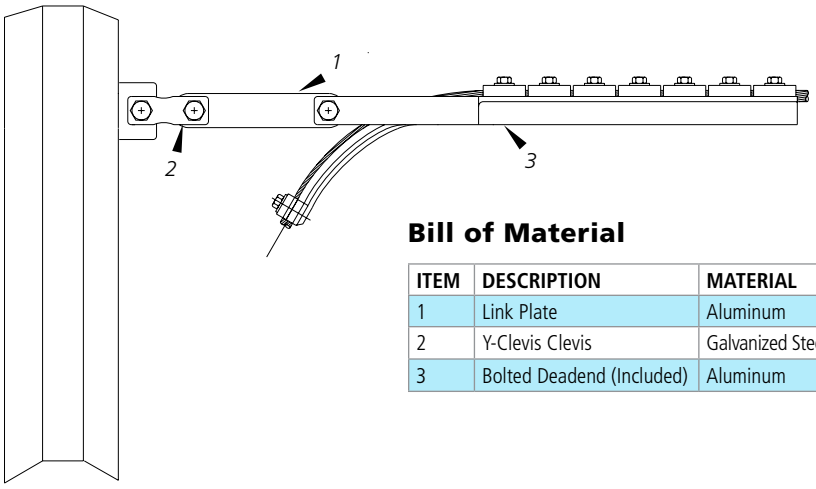
AFL NO.

OSPDE3 - DNOXXXX

Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	1	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	1	Pin Dia. = 0.75" (19 mm)
3	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	



AFL NO.

OSPDE4 - DNOXXXX

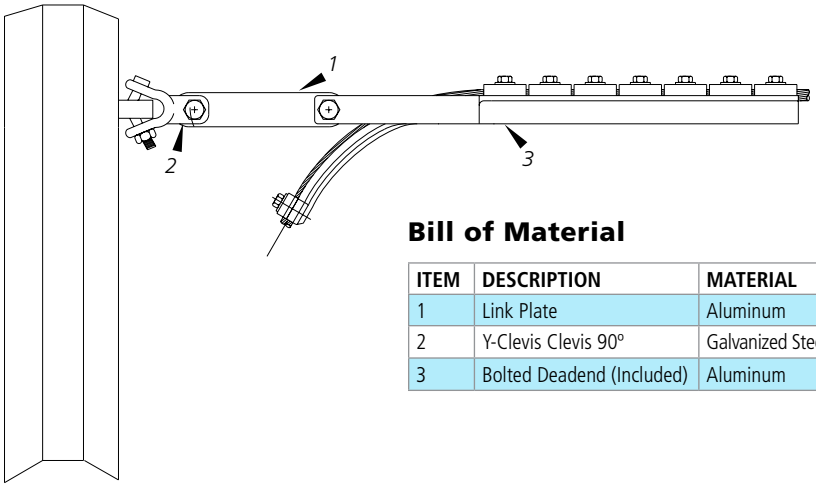
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	1	
2	Y-Clevis Clevis	Galvanized Steel	YCC	1	Pin Dia. = 0.75" (19 mm)
3	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	

Accessories enlarged for clarity

OPGW Single Dead End Steel Pole/ Vang Configuration Assemblies (cont.)



AFL NO.

OSPDE5 - DNOXXXX

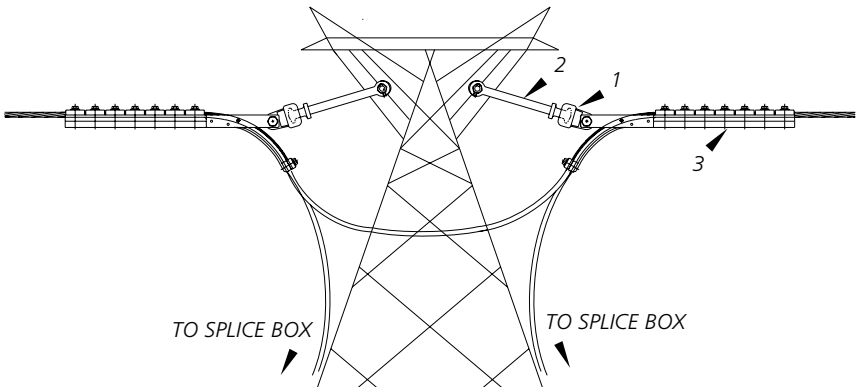
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	1	
2	Y-Clevis Clevis 90°	Galvanized Steel	YCC-90	1	Pin Dia. = 0.75" (19 mm)
3	Bolted Deadend (Included)	Aluminum	Determined by AFL	1	

Accessories enlarged for clarity

OPGW Double Dead End Lattice Tower Configuration Assemblies



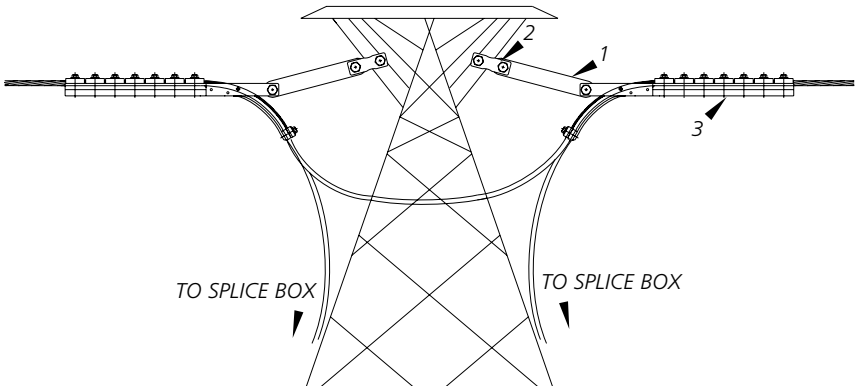
AFL NO.

OLTDD1 - DNOXXXX

Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	2	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	2	Pin Dia. = 0.75" (19 mm)
3	Bolted Dead End (Included)	Aluminum	Determined by AFL	2	



AFL NO.

OLTDD2 - DNOXXXX

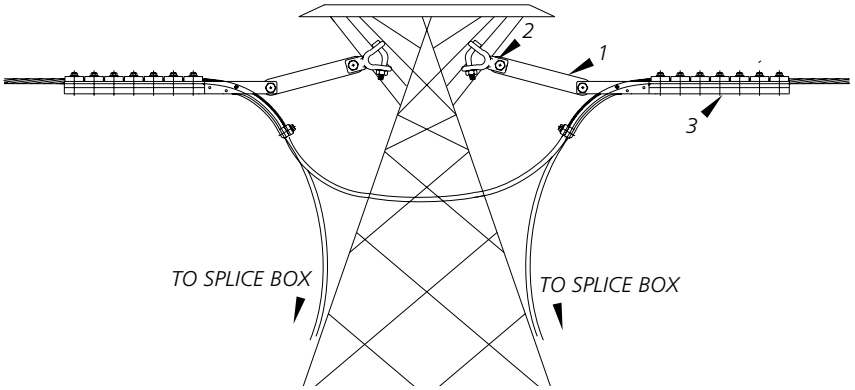
Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	2	
2	Y-Clevis Clevis	Galvanized Steel	YCC	2	Pin Dia. = 0.75" (19 mm)
3	Bolted Dead End (Included)	Aluminum	Determined by AFL	2	

Accessories enlarged for clarity

OPGW Double Dead End Lattice Tower Configuration Assemblies (cont.)



AFL NO.

OLTDD3 - DNOXXXX

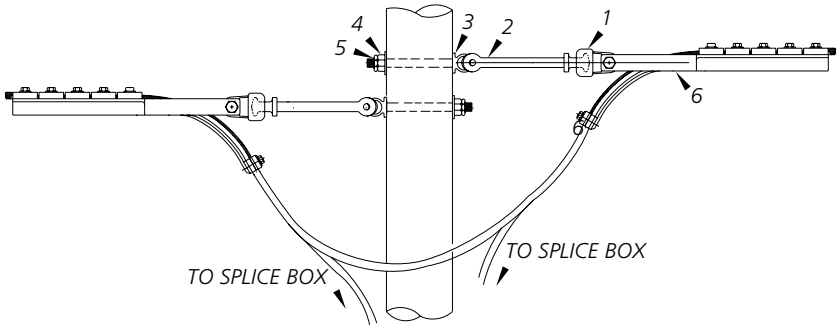
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	2	
2	Y-Clevis Clevis 90	Galvanized Steel	YCC-90	2	Pin Dia. = 0.75" (19 mm)
3	Bolted Dead End (Included)	Aluminum	Determined by AFL	2	

Accessories enlarged for clarity

OPGW Double Dead End Wood Pole/ H-Frame Configuration Assemblies



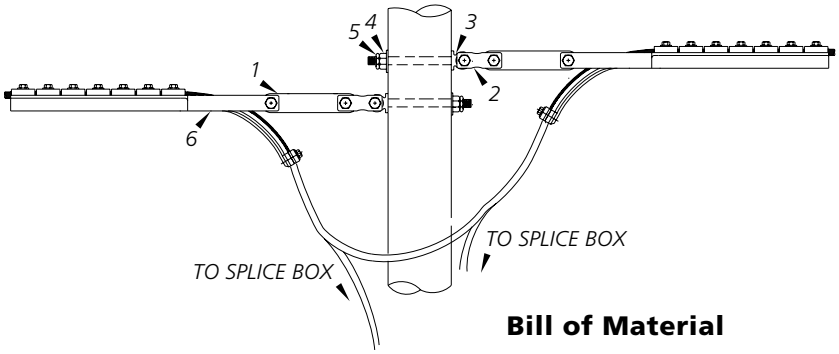
AFL NO.

OWPDD1 - DNOXXXX

Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	2	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	2	Pin Dia. = 0.75" (19 mm)
3	3/4" Shoulder Eye Bolt	Galvanized Steel	SEB-3/4-14	2	Length = 14"
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	2	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	2	
6	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	



AFL NO.

OWPDD2 - DNOXXXX

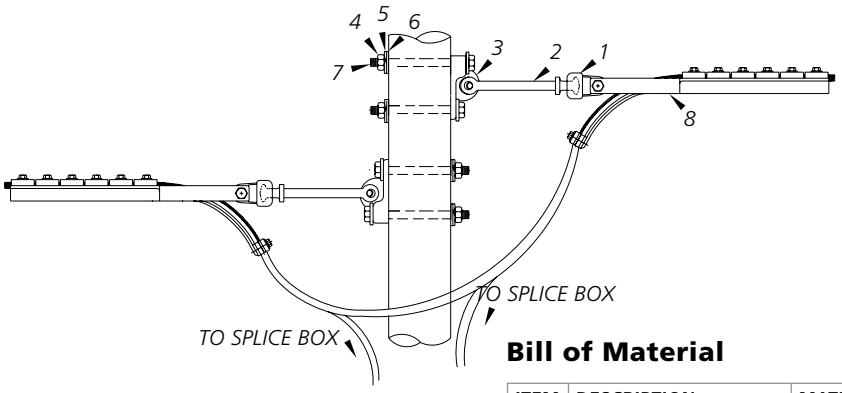
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	2	
2	Y-Clevis Clevis	Galvanized Steel	YCC	2	Pin Dia. = 0.75" (19 mm)
3	3/4" Shoulder Eye Bolt	Galvanized Steel	SEB-3/4-14	2	
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	2	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	2	
6	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	

Accessories enlarged for clarity

OPGW Double Dead End Wood Pole/ H-Frame Configuration Assemblies (cont.)



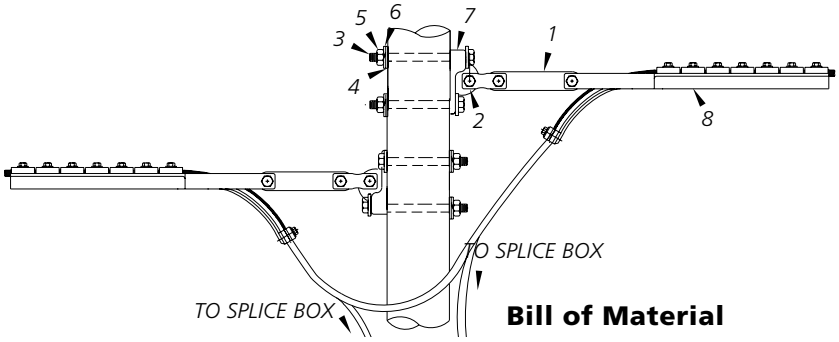
AFL NO.

OWPDD3 - DNOXXXX

Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	2	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	2	Pin Dia. = 0.75" (19 mm)
3	Eye Plate	Galvanized Steel	EP1	2	
4	3/4" Lock Washer Nut	Galvanized Steel	LW-3/4	4	
5	3/4" Nut	Galvanized Steel	HN-3/4	4	
6	3/4" Flat Washer	Galvanized Steel	FW -3/4	4	
7	3/4" Through Bolt	Galvanized Steel	TB-3/4-14	4	Length = 14"
8	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	



AFL NO.

OWPDD4 - DNOXXXX

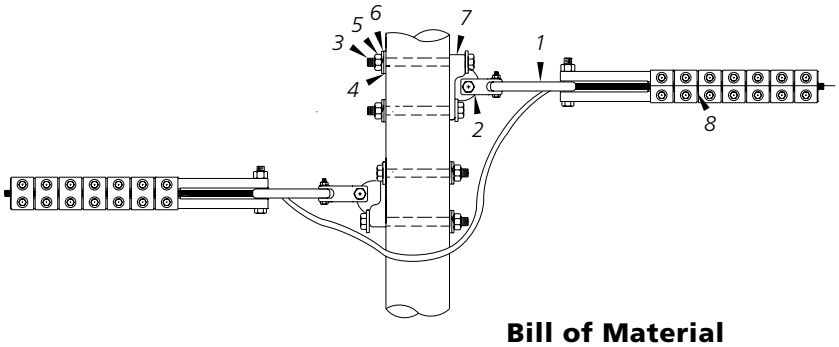
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	2	
2	Y-Clevis Clevis	Galvanized Steel	YCC	2	Pin Dia. = 0.75" (19 mm)
3	3/4" Through Bolt	Galvanized Steel	TB-3/4-14	4	Length = 14"
4	3/4" Flat Washer	Galvanized Steel	FN-3/4	4	
5	3/4" Nut	Galvanized Steel	HN-3/4	4	
6	3/4" Lock Washer	Galvanized Steel	LW-3/4	4	
7	Eye Plate	Galvanized Steel	EP1	2	
8	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	

Accessories enlarged for clarity

OPGW Double Dead End Wood Pole/ H-Frame Configuration Assemblies



AFL NO.

OWPDD5 - DNOXXXX

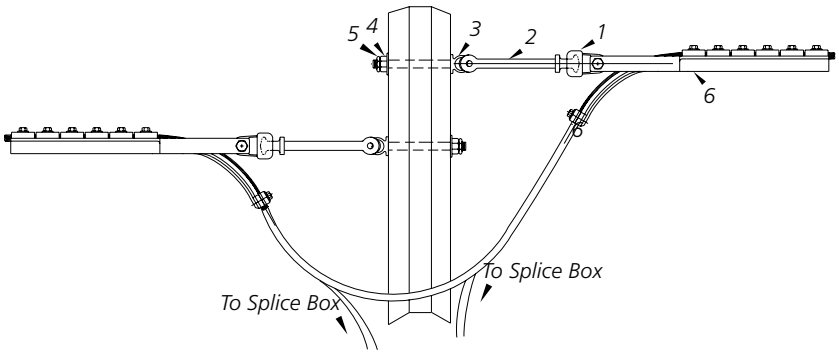
Assembly Code | Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	2	
2	Y-Clevis Clevis 90°	Galvanized Steel	YCC-90	2	Pin Dia. = 0.75" (19 mm)
3	3/4" Through Bolt	Galvanized Steel	TB-3/4-14	4	Length = 14"
4	3/4" Flat Washer	Galvanized Steel	FN-3/4	4	
5	3/4" Nut	Galvanized Steel	HN-3/4	4	
6	3/4" Lock Washer	Galvanized Steel	LW-3/4	4	
7	Eye Plate	Galvanized Steel	EP1	2	
8	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	

Accessories enlarged for clarity

OPGW Double Dead End Steel Pole/ Drilled Configuration Assemblies



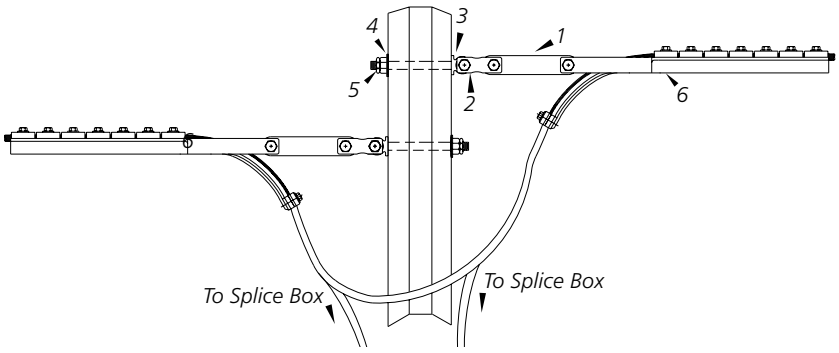
AFL NO.

OSPDD1 - DNOXXXX

Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	2	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	2	Pin Dia. = 0.75" (19 mm)
3	3/4" Shoulder Eye Bolt	Galvanized Steel	SEB-3/4-14	2	
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	2	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	2	
6	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	



AFL NO.

OSPDD2 - DNOXXXX

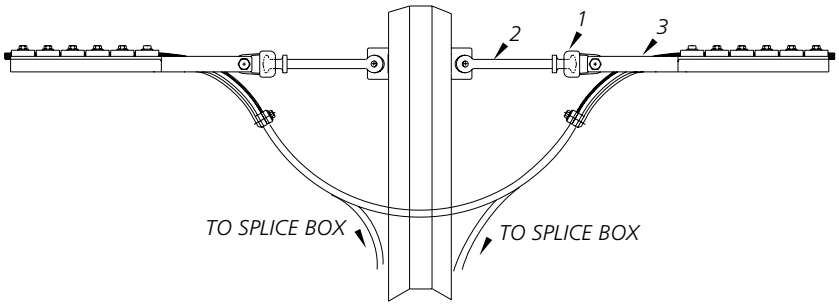
Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	2	
2	Y-Clevis Clevis	Galvanized Steel	YCC	2	Pin Dia. = 0.75" (19 mm)
3	3/4" Shoulder Eye Bolt	Galvanized Steel	SEB-3/4-14	2	
4	3/4" Washer Nut	Galvanized Steel	WN-3/4	2	
5	3/4" MF Lock Nut	Galvanized Steel	LN-3/4	2	
6	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	

Accessories enlarged for clarity

OPGW Double Dead End Steel Pole/ Vang Configuration Assemblies



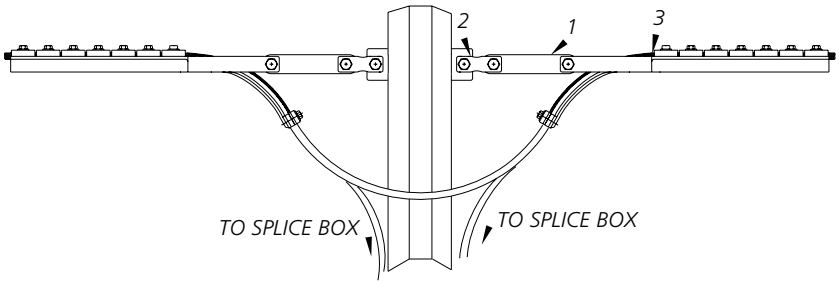
AFL NO.

OSPDD3 - DNOXXXX

Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-BDE	2	
2	Y-Clevis Ball Hot Link	Galvanized Steel	YCBHL	2	Pin Dia. = 0.75" (19 mm)
3	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	



AFL NO.

OSPDD4 - DNOXXXX

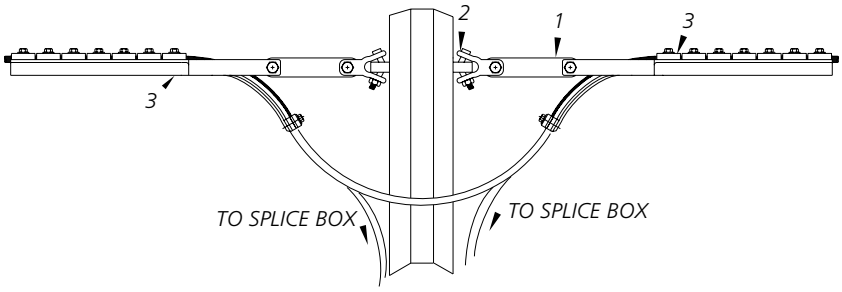
Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	2	
2	Y-Clevis Clevis	Galvanized Steel	YCC	2	Pin Dia. = 0.75" (19 mm)
3	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	

Accessories enlarged for clarity

OPGW Double Dead End Steel Pole/ Vang Configuration Assemblies (cont.)



AFL NO.

OSPDD5 - DNOXXXX

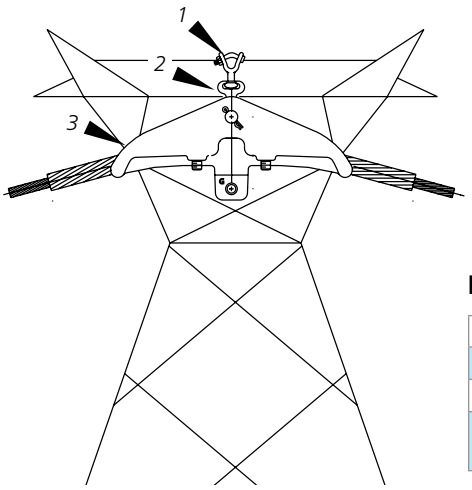
Assembly Code — Cable Spec. Number

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Link Plate	Aluminum	ODELP10	2	
2	Y-Clevis Clevis 90°	Galvanized Steel	YCC-90	2	Pin Dia. = 0.75" (19 mm)
3	Bolted Deadend (Included)	Aluminum	Determined by AFL	2	

Accessories enlarged for clarity

OPGW Single Suspension Lattice Tower Configuration Assemblies



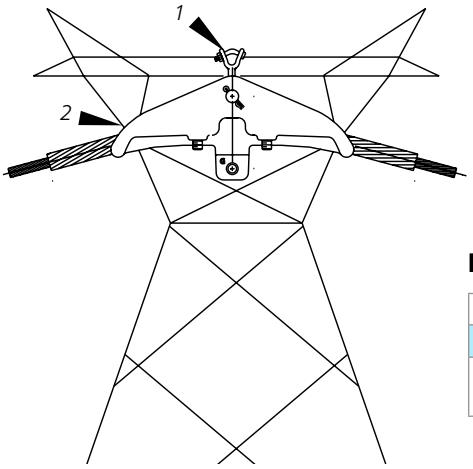
AFL NO.

OLTSP1 - XXX/XXX

Assembly Code — SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Ball	Galvanized Steel	YCBS	1	Pin Dia. = 0.75" (19 mm)
2	Socket Eye	Galvanized Steel	SE-SC	1	
3	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	



AFL NO.

OLTSP2 - XXX/XXX

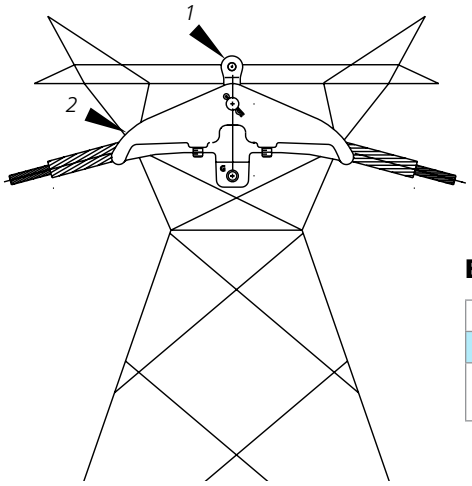
Assembly Code — SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Eye 90°	Galvanized Steel	YCE-90-SC	1	Pin Dia. = 0.75" (19 mm)
2	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Single Suspension Lattice Tower Configuration Assemblies (cont.)



AFL NO.

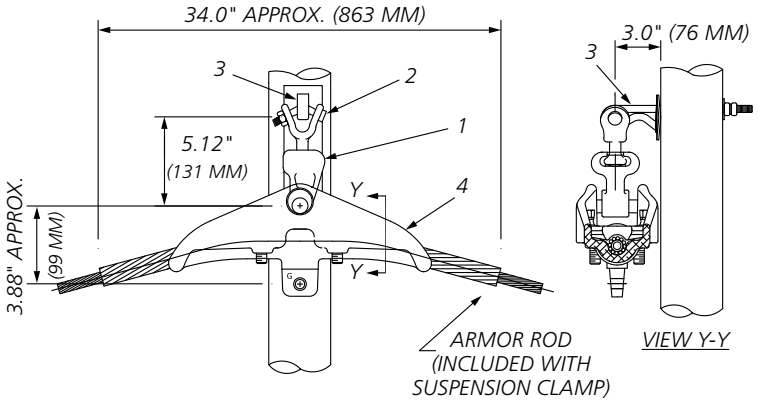
OLTSP3	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Eye	Galvanized Steel	YCE-11	1	Pin Dia. = 0.75" (19 mm)
2	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Single Suspension Wood Pole/ H-Frame Configuration Assemblies



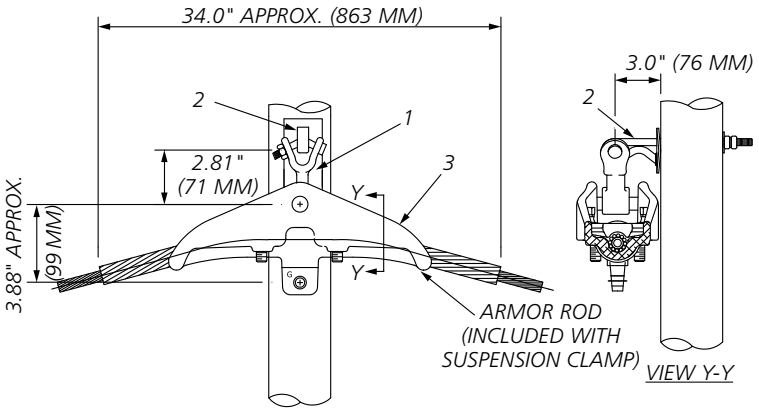
AFL NO.

OWPSP1 - XXX/XXX

Assembly Code | SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-SC	1	
2	Y-Clevis Ball	Galvanized Steel	YCBS	1	Pin Dia. = 0.75" (19mm)
3	Shield Wire Support Bracket	Galvanized Steel	SFOSB-WP-14	1	14" Bolt
4	Suspension Clamp Assembly (included)	Aluminum	SUME XXX/XXX	1	



AFL NO.

OWPSP2 - XXX/XXX

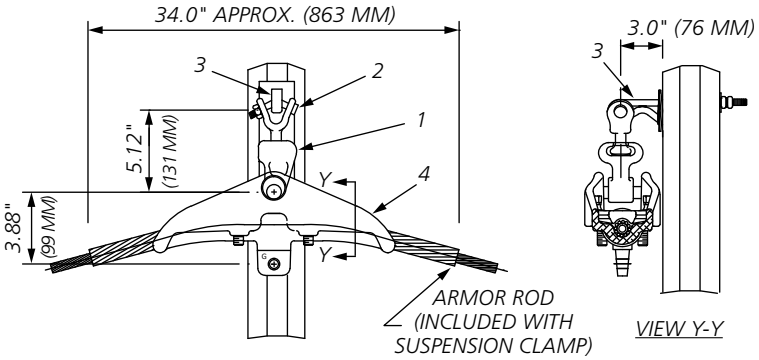
Assembly Code | SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Eye 90°	Galvanized Steel	YC90E-750-1750	1	Pin Dia. = 0.75" (19 mm)
2	Shield Wire Support Bracket	Galvanized Steel	SFOSB-WP-14	1	14" Bolt
3	Susp. Damp Assembley (included)	Aluminum	SUME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Single Suspension Steel Pole/ Drilled Configuration Assembly

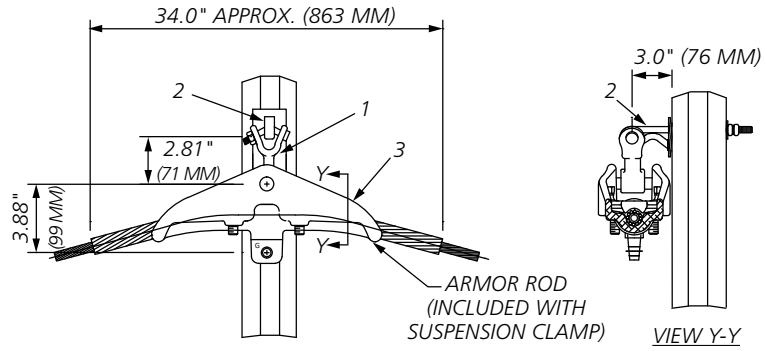


AFL NO.

OSPSP1	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-SC	1	
2	Y-Clevis Ball	Galvanized Steel	YCBS	1	Pin Dia. = 0.75" (19 mm)
3	Shield Wire Support Bracket	Galvanized Steel	SFOSB-SP-14	1	14" Bolt
4	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	



AFL NO.

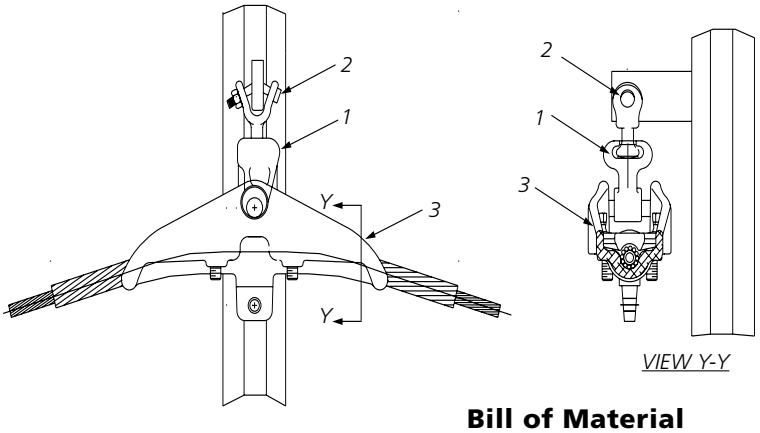
OSPSP2	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Eye 90°	Galvanized Steel	YC90E-750-1750	1	Pin Dia. = 0.75" (19 mm)
2	Shield Wire Support Bracket	Galvanized Steel	SFOSB-SP-14	1	14" Bolt
3	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Single Suspension Steel Pole/ Vang Configuration Assemblies



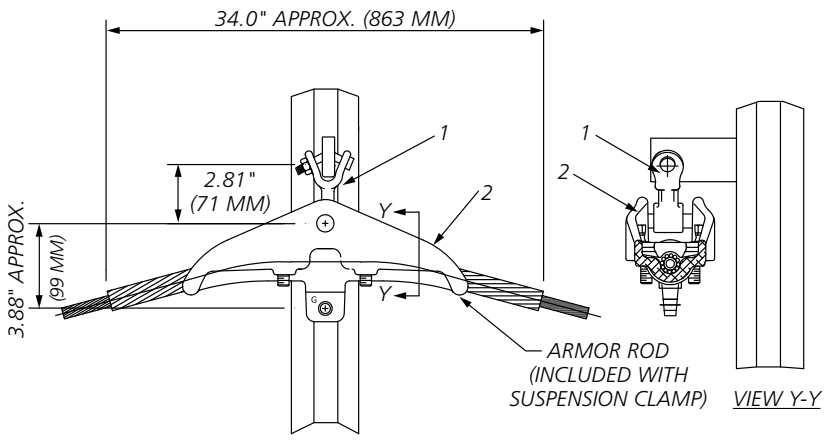
AFL NO.

OSPSP3 - XXX/XXX

Assembly Code — SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Eye	Galvanized Steel	SE-SC	1	
2	Y-Clevis Ball	Galvanized Steel	YCBS	1	Pin Dia. = 0.75" (19 mm)
3	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	



AFL NO.

OSPSP4 - XXX/XXX

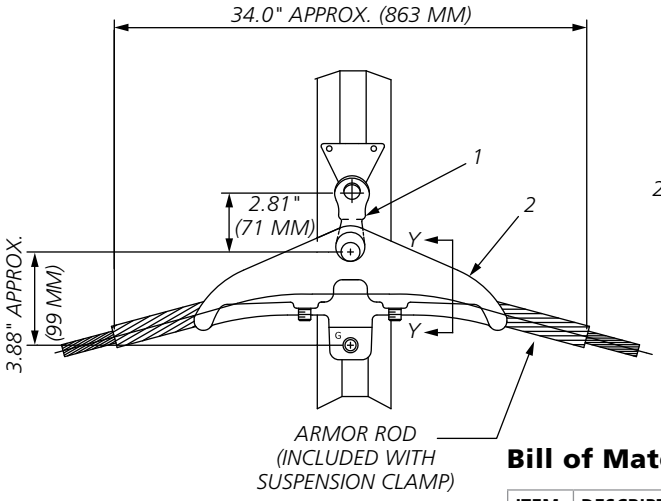
Assembly Code — SUME Range Code

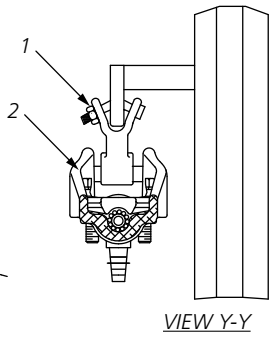
Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Eye 90°	Galvanized Steel	YC90E-750-1750	1	Pin Dia. = 0.75" (19 mm)
2	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Single Suspension Steel Pole/ Vang Configuration Assemblies (cont.)



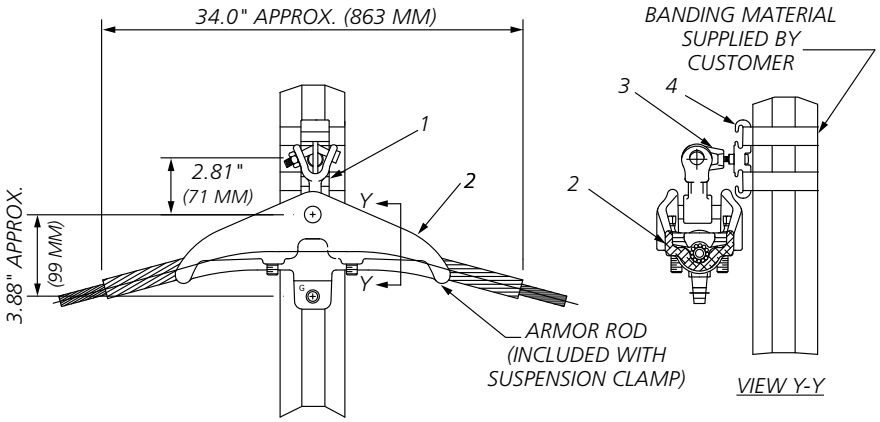


AFL NO.

OSPSP5	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Eye	Galvanized Steel	YCS-11	1	Pin Dia. = 0.75" (19 mm)
2	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	



AFL NO.

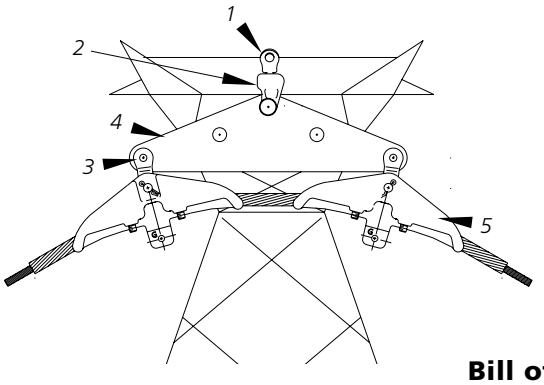
OSPSP6	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Eye 90°	Galvanized Steel	YC90E-750-1750	1	Pin Dia. = 0.75" (19mm)
2	Suspension Clamp Assembly (Included)	Aluminum	SUME XXX/XXX	1	
3	Eye Bolt	Galvanized Steel			
4	Banding Adaptor	Aluminum			

Accessories enlarged for clarity

OPGW Double Suspension Lattice Tower Configuration Assemblies

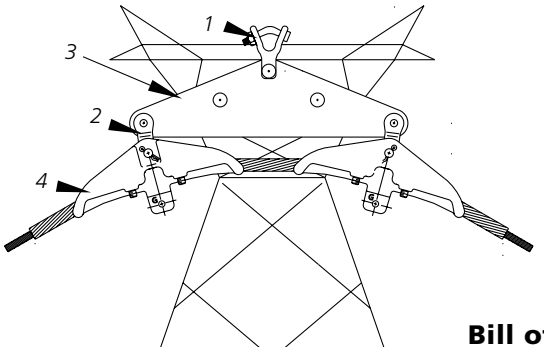


AFL NO.

OLTSS1	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Ball	Galvanized Steel	YCBS	1	Pin Dia. = 0.75" (19 mm)
2	Socket Clevis	Galvanized Steel	SC-YP	1	
3	Clevis Eye	Galvanized Steel	CE-SC	2	
4	Yoke Plate	Galvanized Steel	SUMEYP	1	
5	Double Suspension (included)	Aluminum	ODSME XXX/XXX	1	



AFL NO.

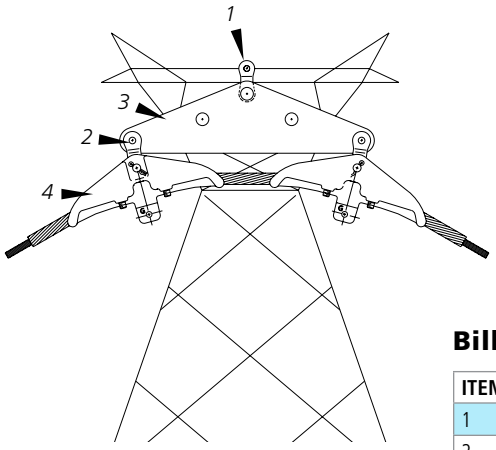
OLTSS2	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Clevis 90°	Galvanized Steel	YCC-90	1	Pin Dia. = 0.75" (19 mm)
2	Clevis Eye	Alum./Gal. Steel	CE-SC	2	
3	Yoke Plate	Alum./Gal. Steel	SUMEYP	1	
4	Double Suspension (included)	Alum./Gal. Steel	ODSME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Double Suspension Lattice Tower Configuration Assemblies (cont.)



AFL NO.

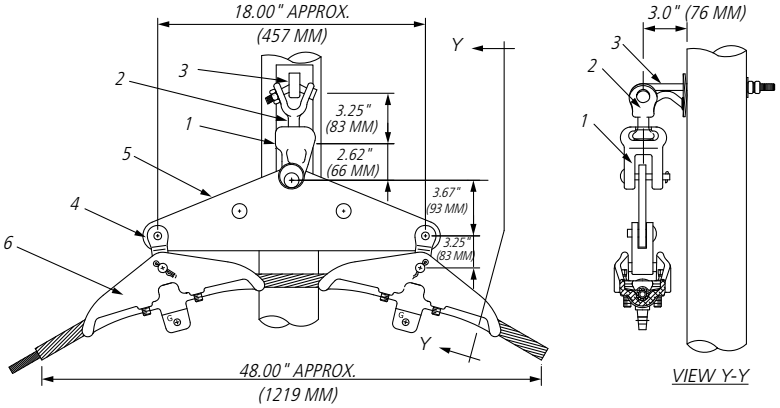
OLTSS3	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Clevis	Galvanized Steel	YCC	1	Pin Dia. = 0.75" (19 mm)
2	Clevis Eye	Galvanized Steel	CE-SC	2	
3	Yoke Plate	Galvanized Steel	SUMEYP	1	
4	Double Suspension (included)	Aluminum	ODSME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Double Suspension Wood Pole/ H-Frame Configuration Assemblies



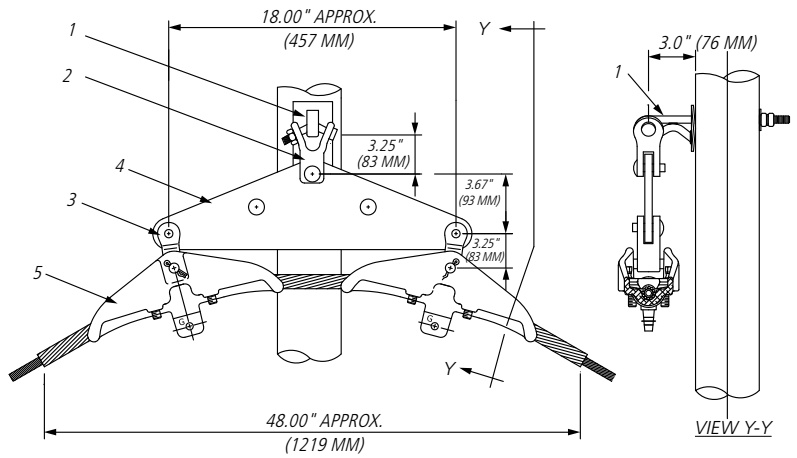
AFL NO.

OWPSS1 - XXX/XXX

Assembly Code — SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Clevis	Galvanized Steel	SC-YP	1	
2	Y-Clevis Ball	Galvanized Steel	YCBS	1	Pin Dia. = 0.75" (19 mm)
3	Shield Wire Support Bracket	Galvanized Steel	SFOSB-WP-14	1	14" Bolt
4	Clevis Eye	Galvanized Steel	CE-SC	2	
5	Yoke Plate	Galvanized Steel	SUMEYP	1	
6	Double Suspension (incl.)	Aluminum	ODSME XXX/XXX	1	



AFL NO.

OWPSS2 - XXX/XXX

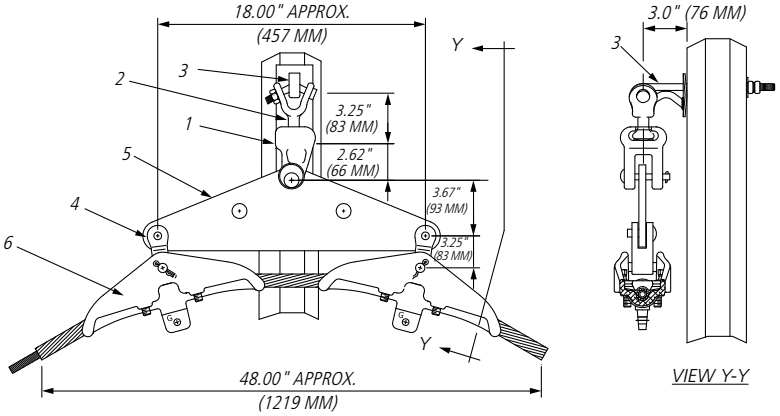
Assembly Code — SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Shield Wire Support Bracket	Galvanized Steel	SFOSB-WP-14	1	
2	Y-Clevis Clevis 90°	Galvanized Steel	YCC-90	1	Pin Dia. = 0.75" (19 mm)
3	Clevis Eye	Galvanized Steel	CE-SC	2	
4	Yoke Plate	Galvanized Steel	SUMEYP	1	
5	Double Suspension (Included)	Aluminum	ODSME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Double Suspension Steel Pole/ Drilled Configuration Assembly

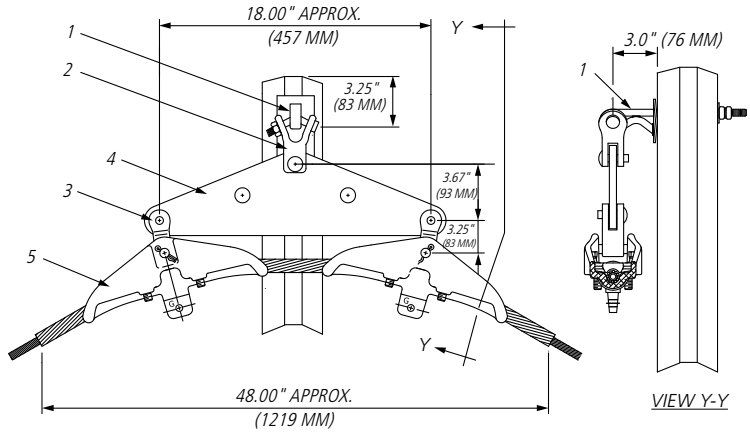


AFL NO.

OSPSS1	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Socket Clevis	Galvanized Steel	SC-YP	1	
2	Y-Clevis Ball	Galvanized Steel	YCBS	1	Pin Dia. = 0.75" (19 mm)
3	Shield Wire Support Bracket	Galvanized Steel	SFOSB-SP-14	1	14" Bolt
4	Clevis Eye	Galvanized Steel	CE-SC	2	
5	Yoke Plate	Galvanized Steel	SUMEYP	1	
6	Double Suspension (incl.)	Aluminum	ODSME XXX/XXX	1	



AFL NO.

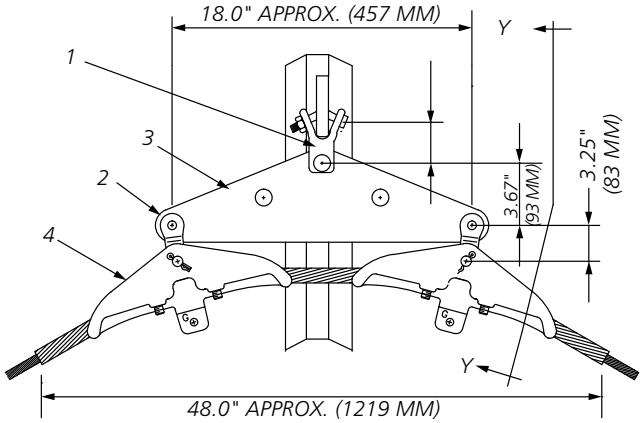
OSPSS2	-	XXX/XXX
Assembly Code		SUME Range Code

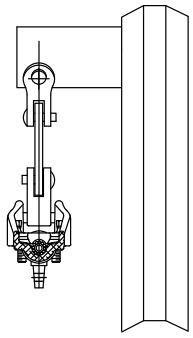
Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Shield Wire Support Bracket	Galvanized Steel	SFOSB-SP-14	1	14" Bolt
2	Y-Clevis Clevis 90°	Galvanized Steel	YCC-90	1	Pin Dia. = 0.75" (19 mm)
3	Clevis Eye	Galvanized Steel	CE-SC	2	
4	Yoke Plate	Galvanized Steel	SUMEYP	1	
5	Double Suspension (incl.)	Aluminum	ODSME XXX/XXX	1	

Accessories enlarged for clarity

OPGW Double Suspension Steel Pole/ Vang Configuration Assembly





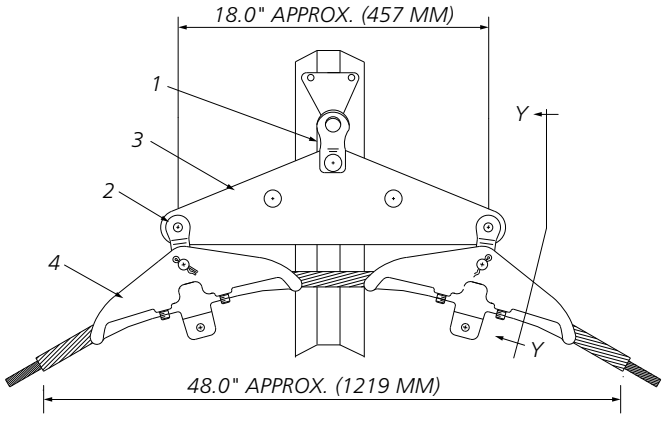
VIEW Y-Y

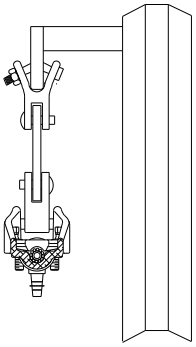
AFL NO.

OSPSS4	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Clevis 90°	Galvanized Steel	YCC-90	1	Pin Dia. = 0.75" (19 mm)
2	Clevis Eye	Galvanized Steel	CE-SC	2	
3	Yoke Plate	Galvanized Steel	SUMEYP	1	
4	Double Suspension (included)	Aluminum	ODSME XXX/XXX	1	





VIEW Y-Y

AFL NO.

OSPSS5	-	XXX/XXX
Assembly Code		SUME Range Code

Bill of Material

ITEM	DESCRIPTION	MATERIAL	AFL OR DWG. NO.	REQ'D	REMARKS
1	Y-Clevis Clevis	Galvanized Steel	YCC	1	Pin Dia. = 0.75" (19 mm)
2	Clevis Eye	Galvanized Steel	CE-SC	2	
3	Yoke Plate	Galvanized Steel	SUMEYP	1	
4	Double Suspension (Included)	Aluminum	ODSME XXX/XXX	1	

Accessories enlarged for clarity

INSTALLATION INSTRUCTIONS

Ref # INS-ACA015

Installation Instructions for OPGW Bolted Dead End

Procedure

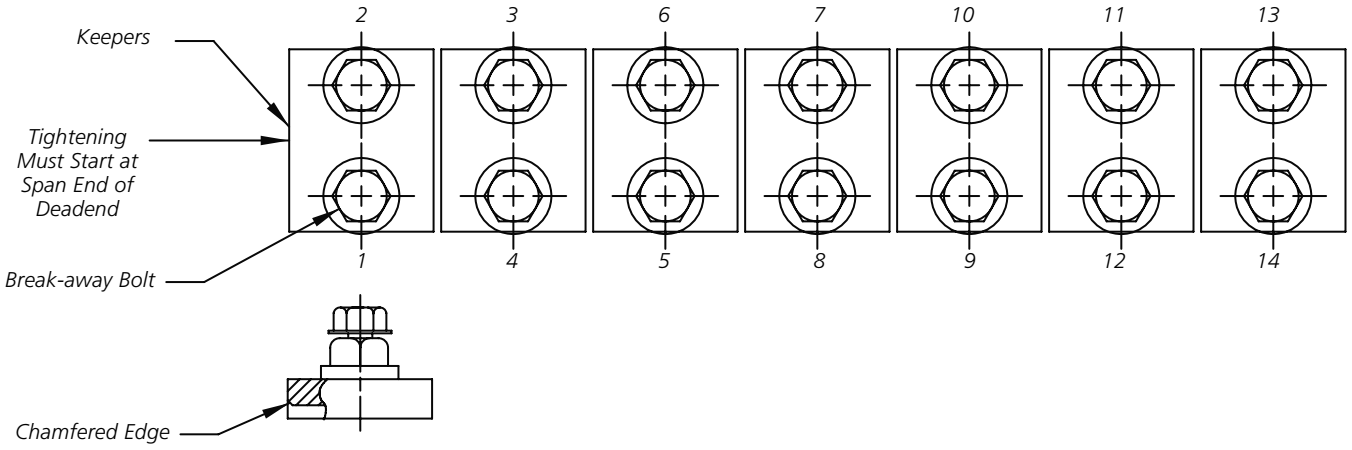
1. Disassemble dead end. Remove one bolt from the same side of each keeper. Loosen other bolts to permit conductor to be placed in the conductor groove. If keepers and bolts are removed completely, care must be taken to return the keeper closest to the span end of the dead end to its original position (chamfered edge towards span). Remove clevis hardware.

2. Straighten conductor removing set caused by reel.

3. Place conductor into groove and install dead end keepers with washers break-away bolts.

4. Care should be taken during installation to maintain the keepers squarely on the conductor with equal clearance on both sides of conductor.

5. Starting at the span end of the dead end, follow the tightening sequence shown below, tighten all bolts to approximately 5 ft.-lbs. (7 Nm for metric). Repeat to approximately 25 ft.-lbs. (33 Nm for metric). Then final pass until break-away head breaks off. The sequential pattern is set up to equalize the load in each bolt and to prevent the deadend keepers from cocking to one side during installation.



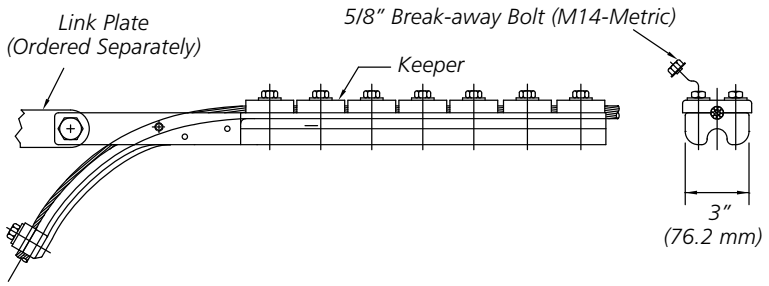
6. If cable guide is not supplied, proceed to step 8. Cable guide, if used, is provided to insure that minimum bending radius of OPGW is not violated. Care should be exercised to avoid undue stress on cable guide. Note: cable guide is not a structural member and adds nothing to the holding strength of the clamp. Train conductor to make it bottom along the cable guide groove. This is important to assure clearance for the link plate/connecting hardware.

7. After placing OPGW into cable guide groove, install cable guide keeper with washers and break-away bolts alternately tightening bolts per Steps 4 and 5.

8. Install connecting hardware with dead end clevis bolt. Check for clearance with OPGW.

9. If re-installation is necessary, bolts should be torqued according to the chart below. Installation with a torque wrench must be performed when break-away bolt is not present.

BOLT SIZE (IN.)	BOLT COLOR	BREAK-AWAY TORQUE (FT-LBS.)
1/2	Black	27-32
5/8	Red	35-40
5/8	Blue	40-45

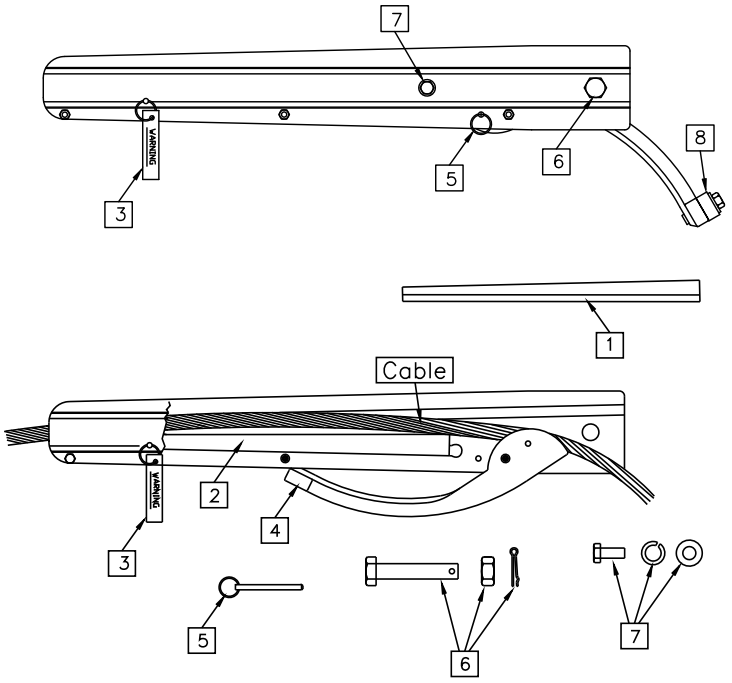


Ref # INS-ACA013

Installation Instructions for OPGW Wedge Dead End

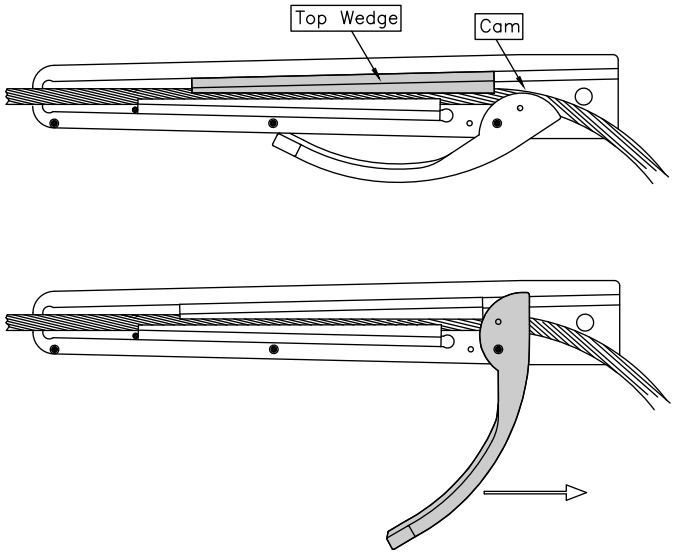
Parts of the Assembly

1. Top Wedge
2. Bottom Wedge
3. Wedge Retaining Pin (with Warning Label)
4. Cam/Cable Guide
5. Cable Guide Retaining Pin
6. Attachment Hardware
7. Grounding Hardware
8. Keeper



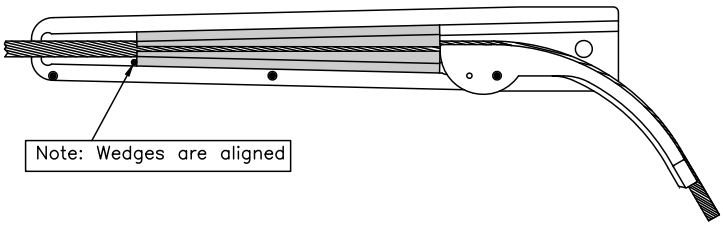
Installation Instructions

1. Hardware items (Items 6 & 7) are removed.
2. Top Wedge (Item 1) is removed.
3. Cable Guide Retaining Pin (Item 5) is removed.
4. Cam/Cable Guide (Item 4) is advanced as shown.
5. Cable is installed through the open top of the assembly and seated in Bottom Wedge.
6. Top wedge is installed and pushed beyond the "Cam" of the Cam/Cable Guide (Item 4).
7. The Cam/Cable Guide is pulled back to advance the top wedge.



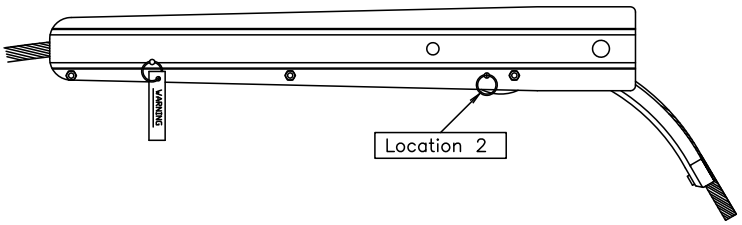
Installation Instructions for OPGW Wedge Dead End (cont.)

8. When Cam/Cable Guide is pulled back to position as shown, the Top Wedge will be inline with the Bottom Wedge.



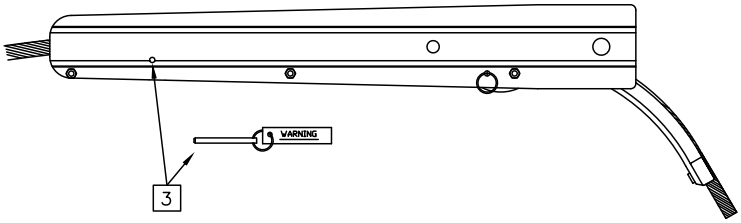
9. Replace Cable Guide Retaining Pin (Item 5) in "Location 2".

NOTE: Retaining Pin is installed through both side plates and holes shown at Location 2.



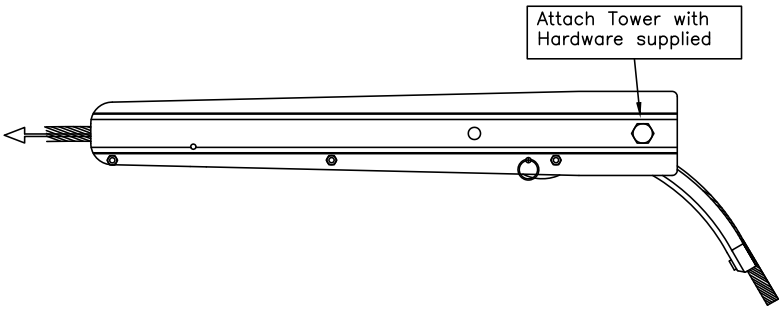
10. Remove Wedge Retaining Pin (Item 3).

NOTE: If Wedge Retaining Pin (Item 3) is not removed the dead end will not hold tension.



11. Attach OPGW Wedge Dead End to the tower with bolt, nut, and cotter pin supplied. Release tension on comealong. The wedges (Items 1 & 2) will advance, gripping the cable securely.

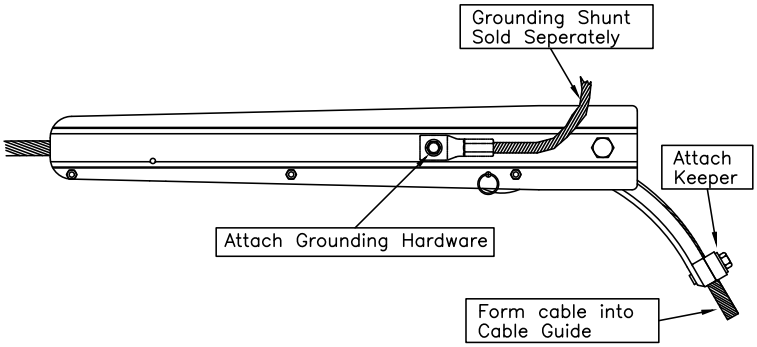
NOTE: A comealong is a temporary device which holds the cable during tensioning. The comealong is attached to a tensioning device, which is then attached to the tower. The comealong is located a distance from the end of the cable, leaving the end of the cable free to attaching the dead end.



12. Form cable into the groove of the Cam/Cable Guide, then attach keeper (Item 8) to hold in place. Torque bolts to 40 lbf.-ft. (54 N.m)

13. Attach grounding shunt with hardware provided. Torque bolts to 25 lbf.-ft. (34 N.m)

NOTE: Grounding Shunt sold separately. Contact customer service for ordering information.



14. Assembly is complete.

Ref # INS-ACA011

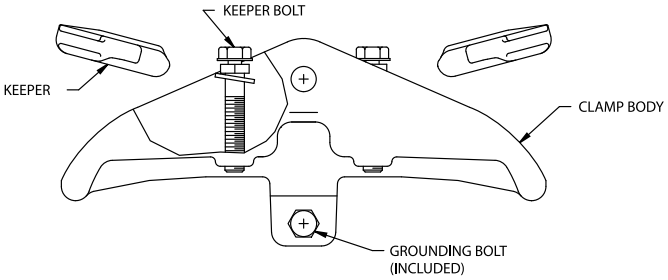
Installation Instructions for OPGW Suspension Unit

1. Mark center of clamp location on OPGW cable with ink (not tape).

2. Install armor rods on cable alligning 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.

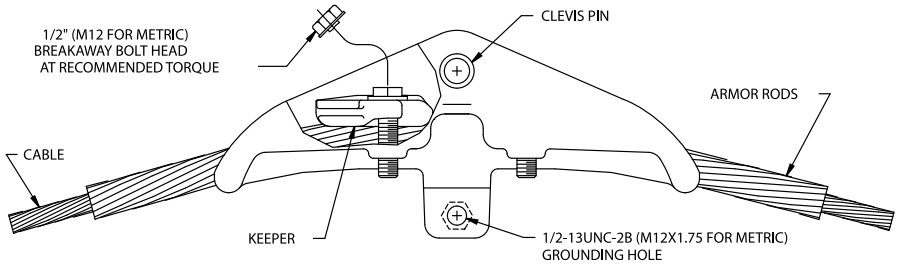
5. Attach clamp to tower attachment with clevis pin and install cotter pin in clevis pin.

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:



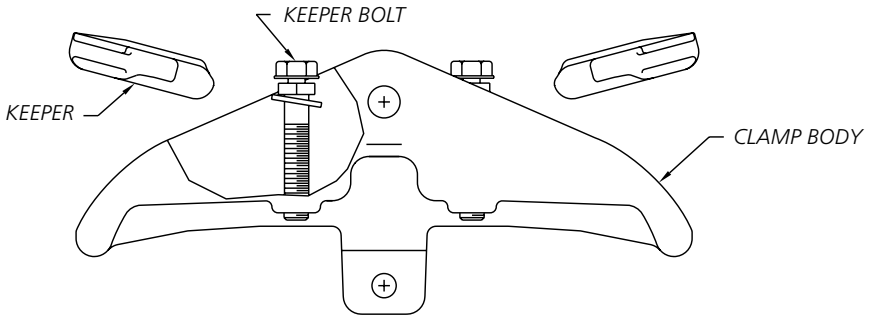
9. Attach grounding lug to grounding pad on bottom of suspension clamp (using 1/2"-13 or m12x1.75 Thread tapped hole) if grounding is required.

Ref L8880

Installation Instructions for OPGW Double Suspension Unit

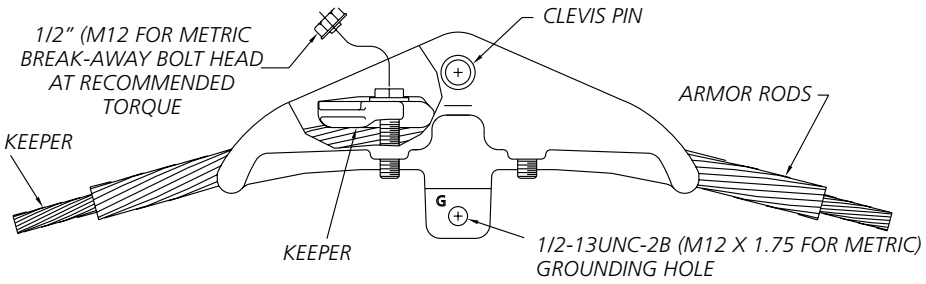
1. Mark center of clamp location on cable with ink (not tape).
2. Install the armor rods on cable aligning center mark of armor rods with center mark on OPGW (per Step 1).
3. Mark centers of clamp locations on armor rods with ink (not tape). This distance is equal to 1/2 the dimension between attachment 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



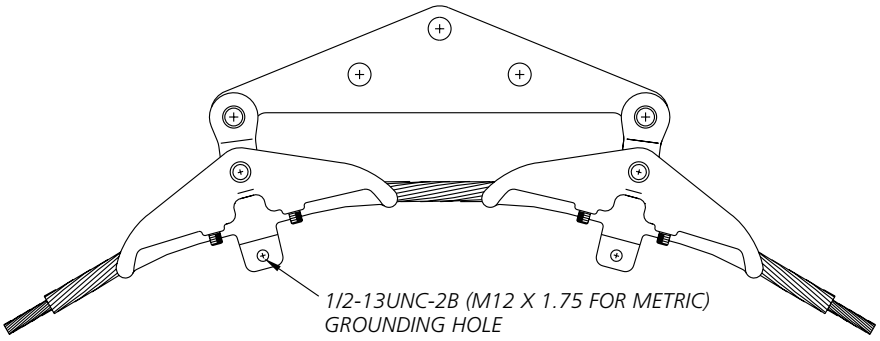
Installation Instructions for OPGW Double Suspension Unit (cont.)

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 completeed assembly to tower attachment (see Figure 3).

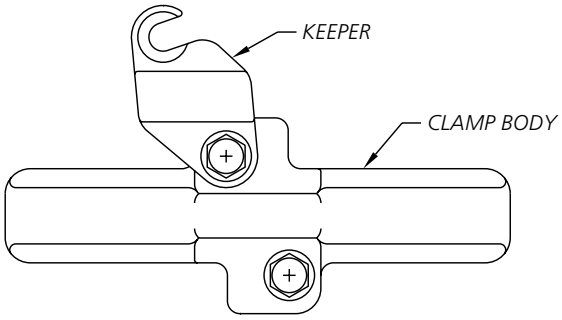
13. Attach grounding lug to grounding pad (side marked "G") on bottom of suspension clamp (using 1/2"-13 thread tapped hole) if grounding is required.

Ref L8881

Installation Instructions for OPGW Trunnion

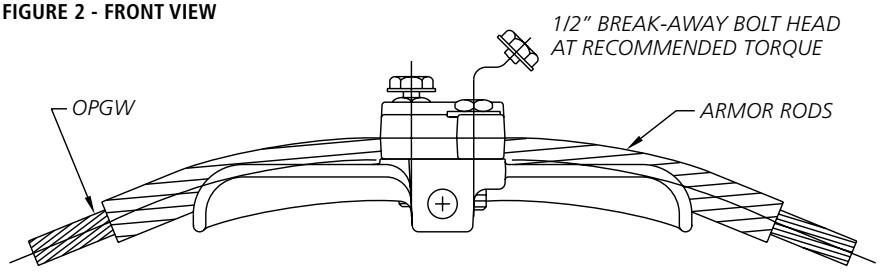
1. Mark center of clamp location on OPGW with ink (not tape).
2. Install armor rods on OPGW aligning center mark of armor rods with center mark on OPGW (per Step 1).
3. Loosen, but do not remove clamp keeper bolts. Rotate clamp keeper 180° from original position (see Figure 1).

FIGURE 1 - TOP VIEW



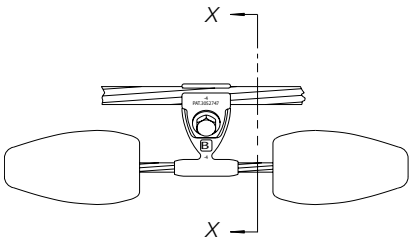
4. Place OPGW in clamp body and center clamp on armor rod center mark.
5. Return keeper to it's original position.
6. Tighten keeper bolts finger tight and insure that keeper is not cocked on OPGW.
7. Tighten keeper bolts on keeper in 5 ft-lb increments, alternating tightening to insure keepers are not cocked in clamp. Tighten until break-away bolt head shears off (see Figure 2).

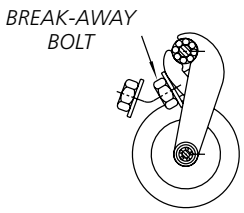
FIGURE 2 - FRONT VIEW



Installation Instructions for OPGW Vibration Damper

CABLE DIAMETER	BOLT SIZE	BREAK-AWAY TORQUE ft. lbs. (Nm)	
		MIN.	MAX.
.360 - .770	7/16 (M12)	18 (24)	23 (31)
.771 - .970	1/2 (M4)	20 (41)	25 (47)





General information and spacing recommendations:

AFL vibration dampers are produced with carefully designed and controlled dimensions. The dampers should be protected, preferably in their shipping containers, from dirt and foreign material prior to installation. Handling in the field should be with care to avoid mechanical damage.

AFL vibration dampers may be installed without disassembly of the clamp parts.

Obtain the required damper spacing from AFL.

Mechanical Suspension (See page 15)

"One end" applications require a damper installed a distance "B" from the center of the suspension clamp at one end of the span. "Both ends" applications require a damper installed a distance "B" from the center of the suspension clamp at each end of the span.

Armor Grip Type Suspension

"One end" applications require two dampers installed at one end of the span. Install the first damper at the end of the rods and the second damper a distance "D" from the first damper. "Both ends" applications require two dampers installed at each end of the span with the first damper installed at the end of the rods and the second damper installed at the specified "D" spacing.

AFL Bolted Deadend (See page 3)

"One end" applications require two dampers at one end of the span with the first damper spaced a distance "D" from the end or mouth of the deadend and the second damper spaced a distance "D" from the first damper attachment point. "Both ends" applications require two dampers at each end of the span with the first damper spaced a distance "D" from the end or mouth of the deadend and the second damper spaced "D" distance from the first damper attachment point.

Formed Wire Deadend (See page 45)

"One end" applications require two dampers at one end of the span with the first damper placed at the end of the armor rods and the second damper spaced a distance "D" from the first damper attachment point. "Both ends" applications require two dampers at each end of the span with the first damper placed at the end of the armor rods and the second damper spaced a distance "D" from the first damper attachment point.

NOTE: For those spans with a deadend at one end and a suspension unit at the other, a damper application required at one end should be applied to the suspension side of the span. Depending on the type of suspension unit, refer to the appropriate damper placement instructions listed previously.

1. Loosen the bolt so that the clamp may be opened sufficiently to permit cable entry into the clamp groove.

NOTE: The bolt need not be removed.

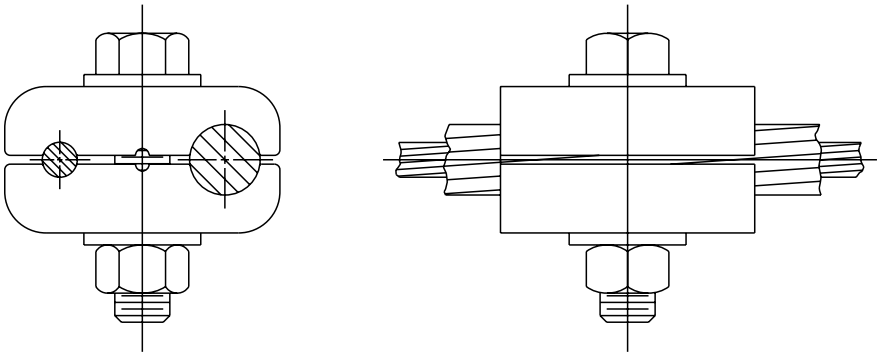
2. Hang the damper on the OPGW at the proper spacing specified and tighten the bolt finger tight.

3. Tighten the bolt with a suitable wrench until the break-away head shears off.

NOTE: The table to the right provides the typical clamp, bolt diameters, and break-away torque range for the OPGW dampers.

Ref L8883

Installation Instructions for OPGW Ground Clamp



1. Clean both run and tap conductors over the length to be clamped with a wire brush to remove oxides.

2. Place connector halves on the conductor, being careful to place the recommended run and tap conductor in the proper clamp groove and to distribute the alnox evenly over the conductor.

3. Bolt bonding P.G. clamp on conductors. Use a backup wrench to restrain the head of the bolt while tightening hardware to avoid bending the fiber optic composite cables. Tighten bolts to the recommended installation torque.
   (1/2" Bolt: 20-25 lbf-ft, M14 bolt: 27-34 Nm)

4. Do not remove alnox that squeezes out when clamp is tightened.

CAUTION: In order to avoid damage to the fiber optic composite cables, it is essential that they be clamped only in the recommended grooves and that the bolts be tightened only to the recommended installation torque.

Ref INS-ACA018

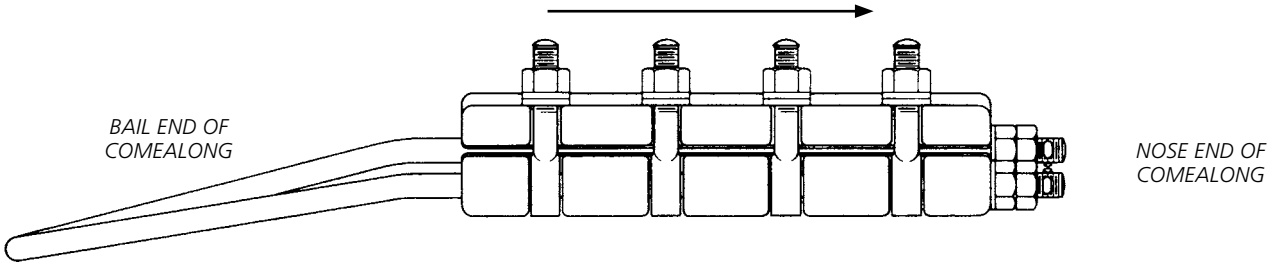
Installation Instructions for OCA Series Comealongs for Optical Ground Wire

Unused Comealongs

1. Loosen bolts so that the comealong may be opened sufficiently. Check for cleanliness of bore and permit cable entry into the cable groove.
2. Position the comealong a minimum of 10 feet from the dead end being installed.
3. Place the cable into the conductor groove of the comealong, then close the comealong and finger tighten the bolts.
4. Using a torque wrench, tighten bolts in sequence from bail end to nose of the comealong (see dia-gram below). It will take a minimum of 6 passes to achieve the correct torque on each bolt. On the first pass, tighten the bolts to 80% of the target torque (1/2" bolt - 32 lb ft). On each subsequent pass, tighten the bolts to the target torque (1/2" bolt - 40 lb ft), ensuring proper clamping force is achieved.

Used Comealongs

1. Before each job, thoroughly clean the comelaong and closely inspect for nicked or rough cable grooves, cracked body, bent eye bolts, or damaged bail. If any damage is found, the comealong should be disposed of or sent to AFL for rework and recertification.
2. After cleaning, each comealong should be subjected to a pull test equal to the rated strength stamped on the comealong.
3. Follow sequence 1 through 4 for Unused Comealongs above.



LOAD RATING: Maximum tension limit is 50% of the rated strength of the OPGW or 5,000 pounds, whichever value is smaller.

WARNING: Comealongs are not intended for use as dead ends and are not recommended to hold conductors at sag tension limits for longer than 6 hours.

Request for Vibration Information

Submit via email to:
spbacatechnical@afltele.com

Submit via fax to:
864-433-5434

Originator _____ Date _____

Utility _____ Tel/Fax _____

Project Name _____

For each ruling or deadend span, provide the following information:

1. OPGW Designation _____

2. Average Annual Minimum Temperature (AAMT) for Line (see www.vibrec.com) _____

3. Average Annual Temperature (AAT) for Line (usually 60°F) _____

4. Terrain or Wind Speed:
- ☐ Normal: 15 MPH
- ☐ Flat: 20 MPH
- ☐ Water Crossing: 25 MPH

River/Water Crossing:
- ☐ Yes
- ☐ No

Marker balls used:
- ☐ Yes
- ☐ No

5. Loading Zone:

CHECK ONE	ZONE	ICE (in)	WIND (#/ft²)	K (#/ft²)	TEMPERATURE (°F)
☐	NESC Heavy	0.50	4.00	0.30	0
☐	NESC Medium	0.25	4.00	0.20	15
☐	NESC Light	0.00	9.00	0.05	30
☐	Calif. Heavy	0.50	6.00	0.00	0
☐	Calif. Light	0.00	8.00	0.00	25
☐	Other				

6. Guards:

☐ No Guards (None) ☐ Line Guards (LG) ☐ Armor Rods (AR) ☐ Suspension (AGS) Guard length _____
(if not standard in inches)

7. Spans*:

RULING SPAN (ft)	SINGLE SPAN?	MAX SPAN (ft)	INITIAL TENSION @ AAMT BARE (lbs)	FINAL TENSION @ AAT (lbs)	SPAN LIST (optional) *EXAMPLE: 700, 750, 450, 950, ...*
	☐ Yes ☐ No				
	☐ Yes ☐ No				
	☐ Yes ☐ No				
	☐ Yes ☐ No				
	☐ Yes ☐ No				
	☐ Yes ☐ No				

*If more spans are needed please attach a spreadsheet with the above information to get damper quantities with the recommendation.

Notes

Notes

AFL

www.AFLglobal.com

CAT-03021

Please contact your AFL Sales Representative for information about our other products or services.

FIBER OPTIC CABLE (OPGW, ADSS, Loose Tube)

TEST AND INSPECTION EQUIPMENT

FUSION SPLICING SYSTEMS AND ACCESSORIES

FIELD-INSTALLABLE CONNECTORS

Along with a broad range of products, we also offer professional training through The Light Brigade. Over 40,000 people have completed a Light Brigade training course making us the leading fiber optic training provider in the world.

AFL