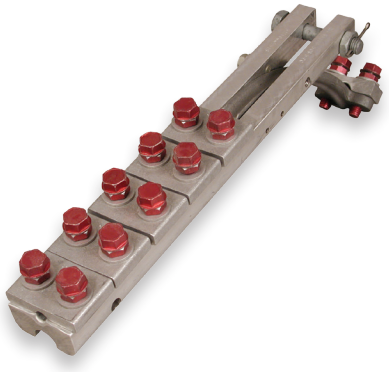


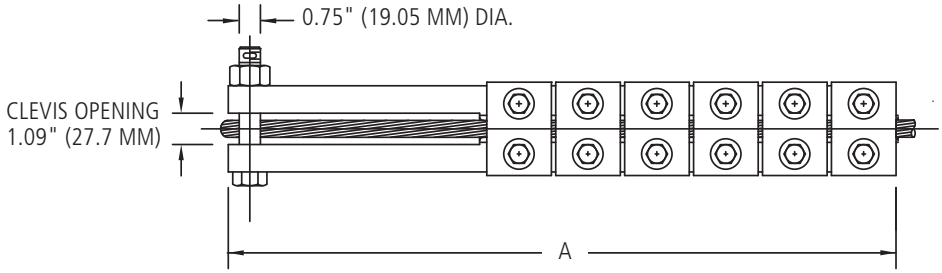
Bolted Dead End with Cable Guide

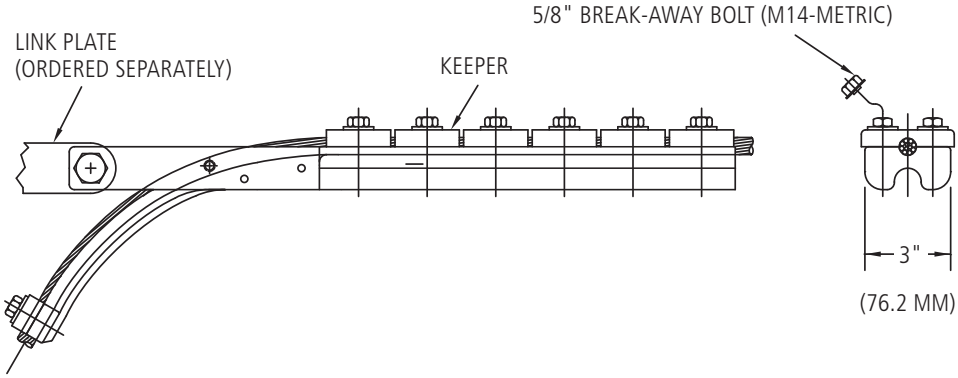
Bolted Dead End for OPGW

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)

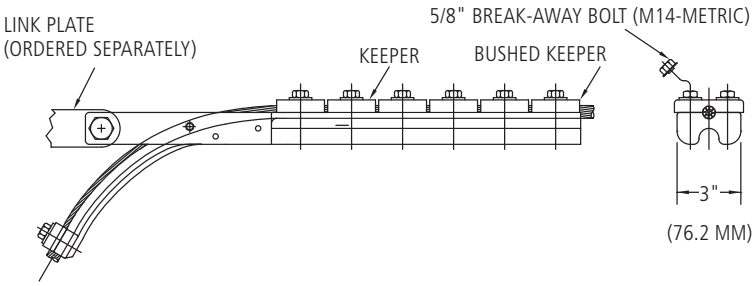




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Bolted Dead End for OPGW

(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, click here.
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
- 109 — CABLE DIA.
- 45 — CROSS SECTIONAL AREA OF ALUMOWELD (MM2)
- 673 — 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

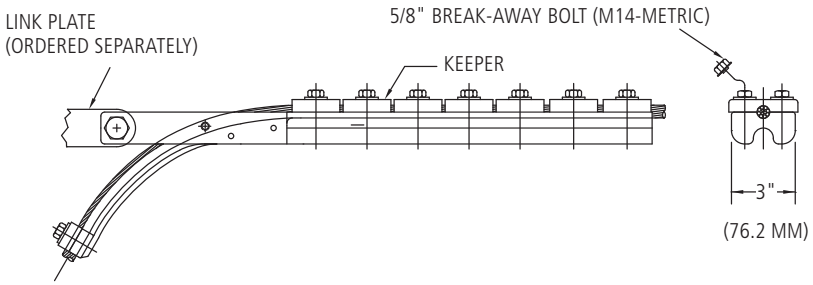
AFL NO.	CABLE DIAMETER RANGE	
	MIN	MAX
ODES490/499GXX	0.490	0.499
ODES500/509GXX	0.500	0.509
ODES510/519GXX	0.510	0.519
ODES520/529GXX	0.520	0.529
ODES530/539GXX	0.530	0.539
ODES540/549GXX	0.540	0.549
ODES550/559GXX	0.550	0.559
ODES560/569GXX	0.560	0.569
ODES570/579GXX	0.570	0.579
ODES580/589GXX	0.580	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

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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, click here.
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

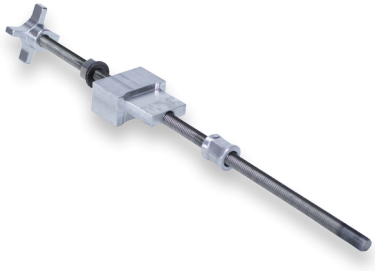
AFL NO.	CABLE DIAMETER RANGE	
	MIN	MAX
ODEC490/499GXX	0.490	0.499
ODEC500/509GXX	0.500	0.509
ODEC510/519GXX	0.510	0.519
ODEC520/529GXX	0.520	0.529
ODEC530/539GXX	0.530	0.539
ODEC540/549GXX	0.540	0.549
ODEC550/559GXX	0.550	0.559
ODEC560/569GXX	0.560	0.569
ODEC570/579GXX	0.570	0.579
ODEC580/589GXX	0.580	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

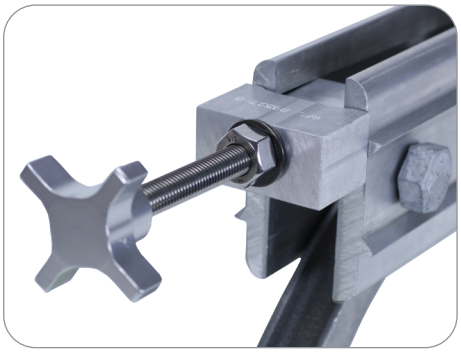
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OPGW Wedge Dead End



Removal Tool for OPGW Wedge Dead End



Removal Tool inserted into OPGW Wedge Dead End

Wedge Dead End for Optical Ground Wire (OPGW)

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

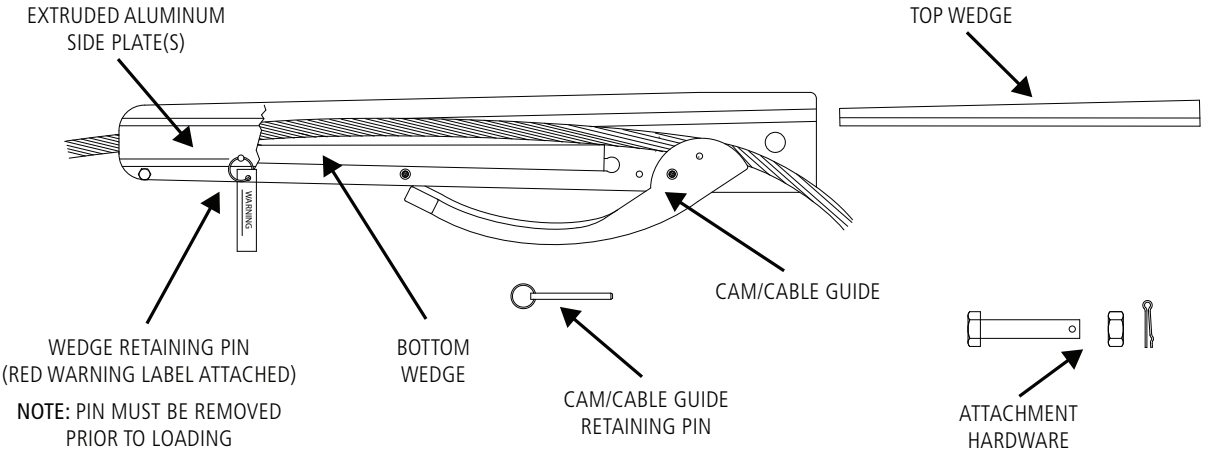
AFL NO.	OPGW DIAMETER RANGE				WEIGHT	
	inches		mm		lbs	kg
ODEW377/397	0.377	0.397	9.56	10.08	16.0	7.3
ODEW398/418	0.398	0.418	10.09	10.62	16.0	7.3
ODEW419/439	0.419	0.439	10.63	11.15	16.0	7.3
ODEW440/460	0.440	0.460	11.16	11.68	16.0	7.3
ODEW461/481	0.461	0.481	11.69	12.22	16.0	7.3
ODEW482/502	0.482	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	15.43	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 10,000 lbs)	B9527-B

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Wedge Dead End for Optical Ground Wire (OPGW)

Components of OPGW Wedge Dead End





Link Plate

Dead End Link Plate

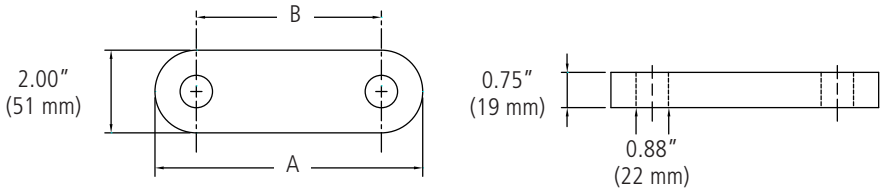
The Dead End Link Plate is made from galvanized steel and has an ultimate strength of 40,000 lbs. (18,140 kg).

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)

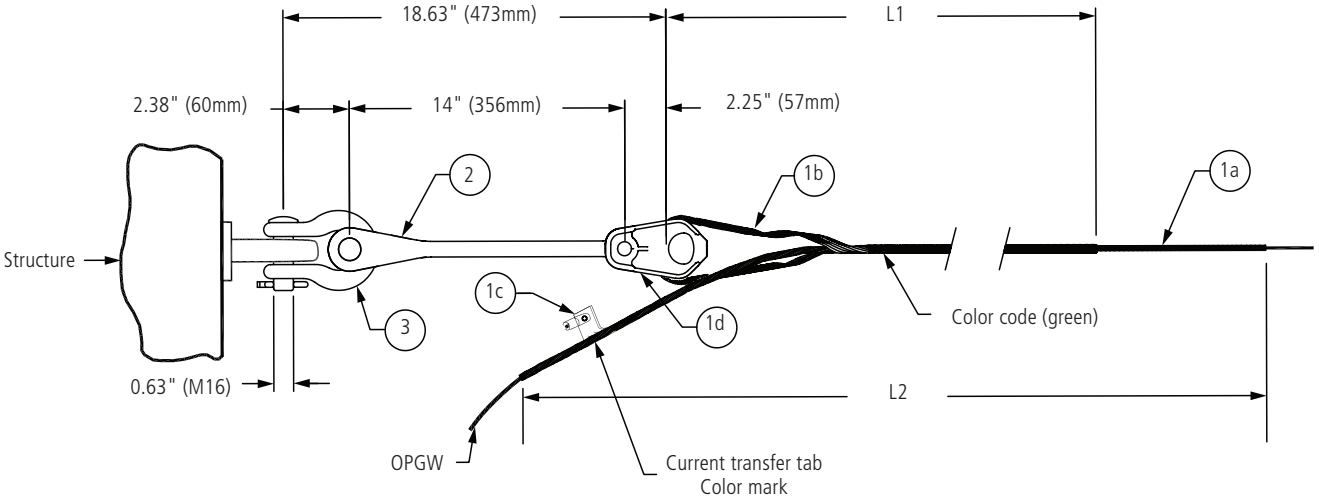
Material: Galvanized Steel; Ultimate Strength: 40,000 lbs. (18,140 kg)

Dimensions



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Formed Wire Dead End for OPGW Cable



Features

- Line or elevation angles greater than 30°
- Specify right or left lay direction
- Designed for 95% of the cable's rated breaking strength up to rated component strength (see table)
- Dead end component may be reused once during initial installation

Item	Description	Material
1a	Reinforcing Rods (SRR)	Aluminum clad Steel
1b	Formed Wire Dead-End	Aluminum clad Steel
1c	Current Transfer Tab	High Strength Aluminum
1d	Thimble Clevis	Galvanized Ductile Iron
2	Extension Link	Galvanized Steel
3	Anchor Shackle	Galvanized Steel

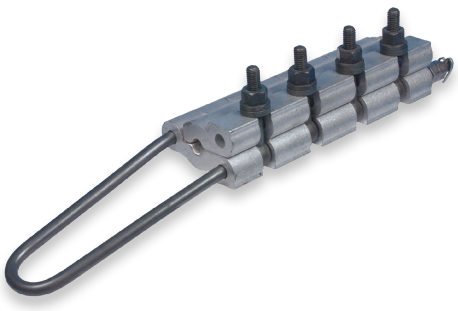
Ordering Information

AFL NO.[1]	DIAMETER RANGE				COLOR CODE	RATED COMPONENT STRENGTH	DEAD END COMPONENT LENGTH "L1" IN. (M)	STRUCTURAL REINFORCING ROD LENGTH "L2" IN. (M)
	MIN. (IN)	MAX. (IN)	MIN. (MM)	MAX. (MM)				
OWD355/399C	0.355	0.399	9	10.1	Blue	20,000	34 (0.86)	37 (0.94)
OWD400/449C	0.4	0.449	10.2	11.4	Blue	20,000	36 (0.91)	40.5 (1.03)
OWD450/504C	0.45	0.504	11.5	12.8	Red	25,000	39 (0.99)	45 (1.14)
OWD505/555C	0.505	0.555	12.9	14.1	Orange	25,000	42 (1.07)	47.5 (1.21)
OWD556/610C	0.556	0.61	14.2	15.5	Black	25,000	45 (1.14)	51.5 (1.31)
OWD611/680C	0.611	0.68	15.6	17.2	Green	25,000	49 (1.24)	56 (1.42)
OWD681/755C	0.681	0.755	17.3	19.1	Pink	25,000	64 (1.63)	71.5 (1.82)
OWD756/830C	0.756	0.83	19.2	21.1	Yellow	25,000	68 (1.73)	76 (1.93)
OWD831/925C	0.831	0.925	21.2	23.5	Brown	25,000	73 (1.85)	81.5 (2.06)
OWD926/1030C	0.926	1.03	23.6	26.2	Purple	25,000	79 (2.01)	89.5 (2.27)

Add suffix "L" for lefthand lay or "R" for righthand lay.

Ordering Example: For 0.360" lefthand lay OPGW cable, the AFL number is OWD355/399CL.

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Comealong for Optical Ground Wire – OCA Series

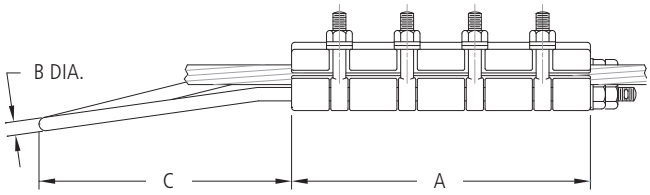
OPGW Comealongs are stringing tools designed for pulling optical ground wire up to initial sag tensions. If the required tension is greater than the rated tension of a single comealong, two or more comealongs should be used (refer to Installation Instructions). When desired sag tension is reached, the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

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
- Approved for use without testing on cables designed to meet OPGW cable standard IEEE 1138

Specifications



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 139.

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.

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.

continued

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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

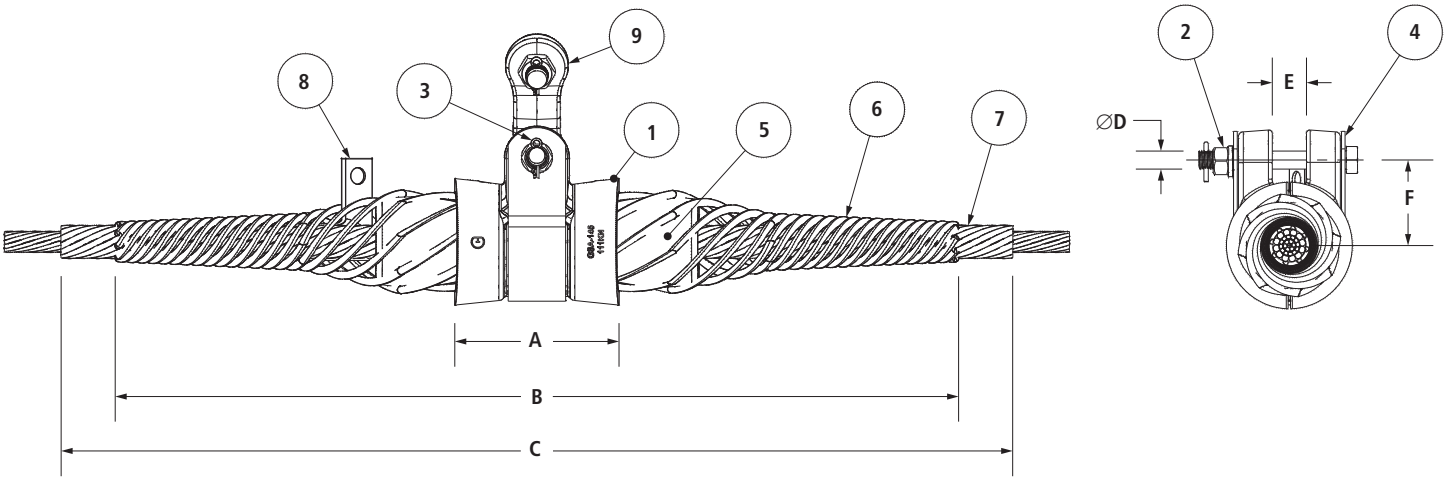
AFL NO.	CABLE DIAMETER RANGE (INCHES)	
	MIN	MAX
OCA660/669	.660	.669
OCA670/679	.670	.679
OCA680/689	.680	.689
OCA690/699	.690	.699
OCA700/709	.700	.709
OCA710/719	.710	.719
OCA720/729	.720	.729
OCA730/739	.730	.739
OCA740/749	.740	.749
OCA750/759	.750	.759
OCA760/769	.760	.769
OCA770/779	.770	.779
OCA780/789	.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.

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Double Layer Formed Wire Suspension for OPGW – Single



Item	Description	Material
1	Housing	Aluminum
2	Bolt, Split Washer, Nut	Galvanized Steel
3	Cotter Pin	Stainless Steel
4	Strap	Aluminum
5	Insert	EPDM & Aluminum
6	Outer Rods	Aluminum
7	Inner Rods	Aluminum
8	Current Transfer Tab	Aluminum
9	Y-Clevis Eye (optional)	Galvanized Steel

Features

- Single suspension for line or elevation angle changes up to 30°
- Slip load initially 10% to 20% of standard OPGW rated breaking strength
- Suspension components cannot be reused

Ordering Information

OSU	YYY/YYY	C	L
Double Layer Formed Wire Suspension for OPGW – Single	Cable Range Code in Decimal Inches (see table on following page)	C = Y-Clevis Eye C90 = Y-Clevis Eye 90 Blank = No Clevis Eye	L = Left Hand Lay R = Right Hand Lay

Example: For Standard Left Hand Lay OPGW with diameter of 0.571 inches and Y-Clevis Eye, order AFL No. OSU566/573CL.

continued

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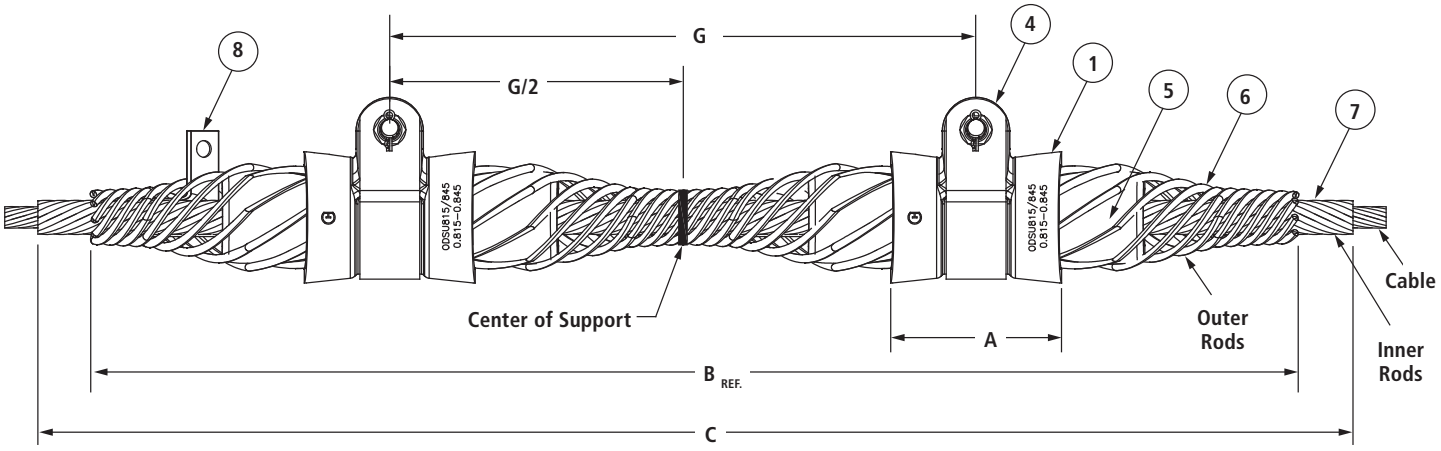
Double Layer Formed Wire Suspension for OPGW – Single (cont.)

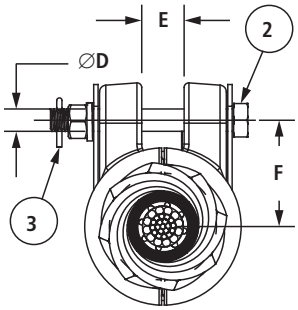
CABLE RANGE (in decimal inches)	RODS PER SET		HOUSING	OUTER RODS	INNER RODS	BOLT DIA.	CLEVIS SPACING	BOLT CENTER TO FIBER CENTER	COLOR CODE
	INNER	OUTER	A	B	C	D	E	F	
354/381	9	11	3.86	42.00	66.00	0.63	0.75	2.32	BLUE
382/398									GREEN
399/418	10								YELLOW
419/439	10	11	3.86	42.00	67.00	0.63	0.75	2.32	BLACK
440/458	11			43.00	68.00				WHITE
459/461	10	10	4.53	46.00	72.00		0.88	2.38	ORANGE
462/476									PURPLE
477/503	11				73.00				ORANGE
504/511	12	10	4.53	46.00	76.00	0.63	0.88	2.38	PURPLE
512/536	11	11		49.00					BLUE
537/559					77.00				GREEN
560/565			5.00					2.68	GREEN
566/573		12			79.00				BLACK
574/598				54.00					WHITE
599/625					81.00				BROWN
626/632	11	11	5.71	63.00	94.00	0.63	1.19	2.93	RED
633/666									BLUE
667/682									GREEN
683/710									YELLOW
711/728	12	12	5.71	63.00	94.00	0.63	1.19	2.93	BLACK
729/744									WHITE
745/750									WHITE
751/786									BROWN
787/814	11	11	6.10	72.00	100.00	0.75	1.25	3.36	GREEN
815/845	11	11	6.10	72.00	100.00	0.75	1.25	3.36	YELLOW
846/855									BLUE
856/894				80.00					BLACK
895/907	12	12							WHITE
908/916	12	12	6.10	80.00	100.00	0.75	1.25	3.36	PURPLE
917/929									BROWN
930/942									RED
943/977	13	13							ORANGE

continued

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Double Layer Formed Wire Suspension for OPGW – Double





Item	Description	Material
1	Housing	Aluminum
2	Bolt, Nut	Galvanized Steel
3	Cotter Pin	Stainless Steel
4	Strap	Aluminum
5	Insert	EPDM & Aluminum
6	Outer Rods	Aluminum
7	Inner Rods	Aluminum
8	Current Transfer Tab	Aluminum

Features

- Double suspension for line or elevation angle changes from 30° to 60°
- Slip load initially 10% to 20% of standard OPGW rated breaking strength
- Suspension components cannot be reused

Ordering Information

ODSU	YYY/YYY	L
Double Layer Formed Wire Suspension for OPGW – Double	Cable Range Code in Decimal Inches (see table on following page)	L = Left Hand Lay R = Right Hand Lay

Example: For Standard Left Hand Lay OPGW with diameter of 0.571 inches, order AFL No. ODSU566/573L.

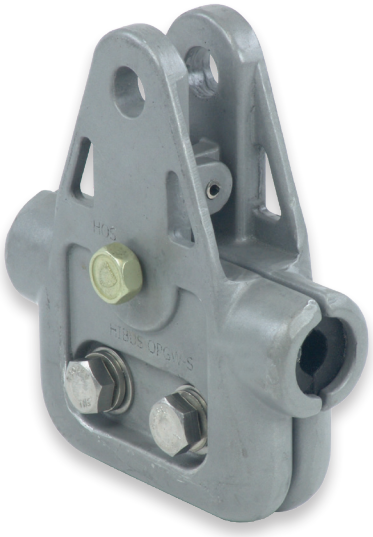
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Double Layer Formed Wire Suspension for OPGW – Double (cont.)

CABLE RANGE (in decimal inches)	VERTICAL ULTIMATE STRENGTH (lbs)	RODS PER SET		HOUSING	OUTER RODS	INNER RODS	BOLT DIA.	CLEVIS SPACING	BOLT CENTER TO FIBER CENTER	HOUSING CENTER TO HOUSING CENTER	COLOR CODE
		INNER	OUTER	A	B	C	D	E	F	G	
354/381	15,000	9	11	3.86	60.00	84.00	0.63	0.75	2.32	18.00	BLUE
382/398											GREEN
399/418		10									YELLOW
419/439											BLACK
440/458		11			61.00						WHITE
459/461	20,000	10	10	4.53	64.00	90.00	0.63	0.88	2.38	18.00	ORANGE
462/476											PURPLE
477/503		11									ORANGE
504/511		12									PURPLE
512/536		11	11		67.00	94.00					BLUE
537/559											GREEN
560/565				5.00					2.68	22.00	GREEN
566/573			12		76.00	102.00					BLACK
574/598											WHITE
599/625											BROWN
626/632	25,000	11	11	5.71	89.00	120.00	0.63	1.19	2.93	26	RED
633/666											BLUE
667/682											GREEN
683/710											YELLOW
711/728		12	12								BLACK
729/744											WHITE
745/750											WHITE
751/786											BROWN
787/814	25,000	11	11	6.10	101.00	129.00	0.75	1.25	3.36	29.00	GREEN
815/845											YELLOW
846/855			12								BLUE
856/894		12			112.00	132.00					BLACK
895/907											WHITE
908/916											PURPLE
917/929											BROWN
930/942											RED
943/977		13	13								ORANGE

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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.

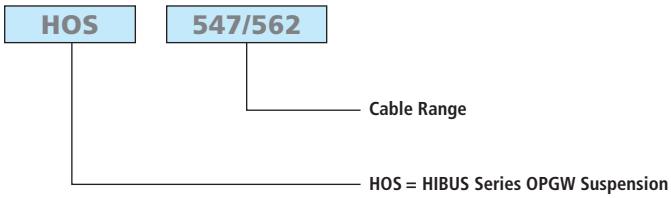
Test reports available include vibration test, slip test, ultimate strength and angle test.

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

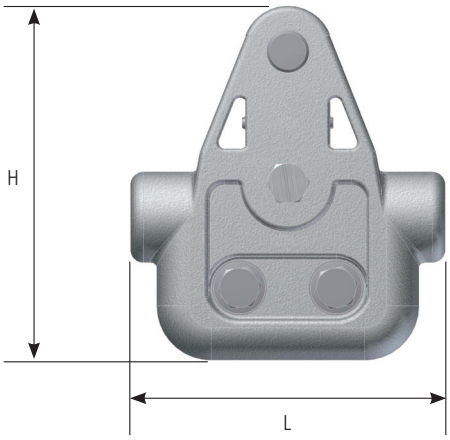


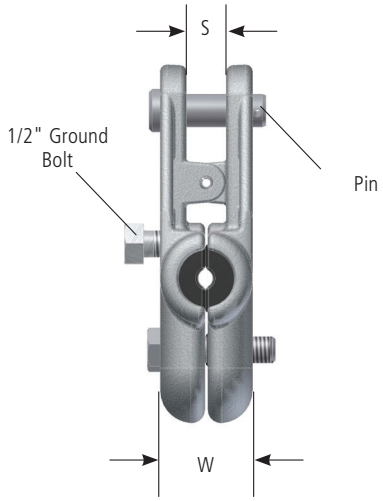
ORDERING EXAMPLE:
For a HIBUS Series OPGW Suspension with a 0.547"- 0.562" cable range, the part number is HOS547/562.

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HIBUS® Series OPGW Suspension



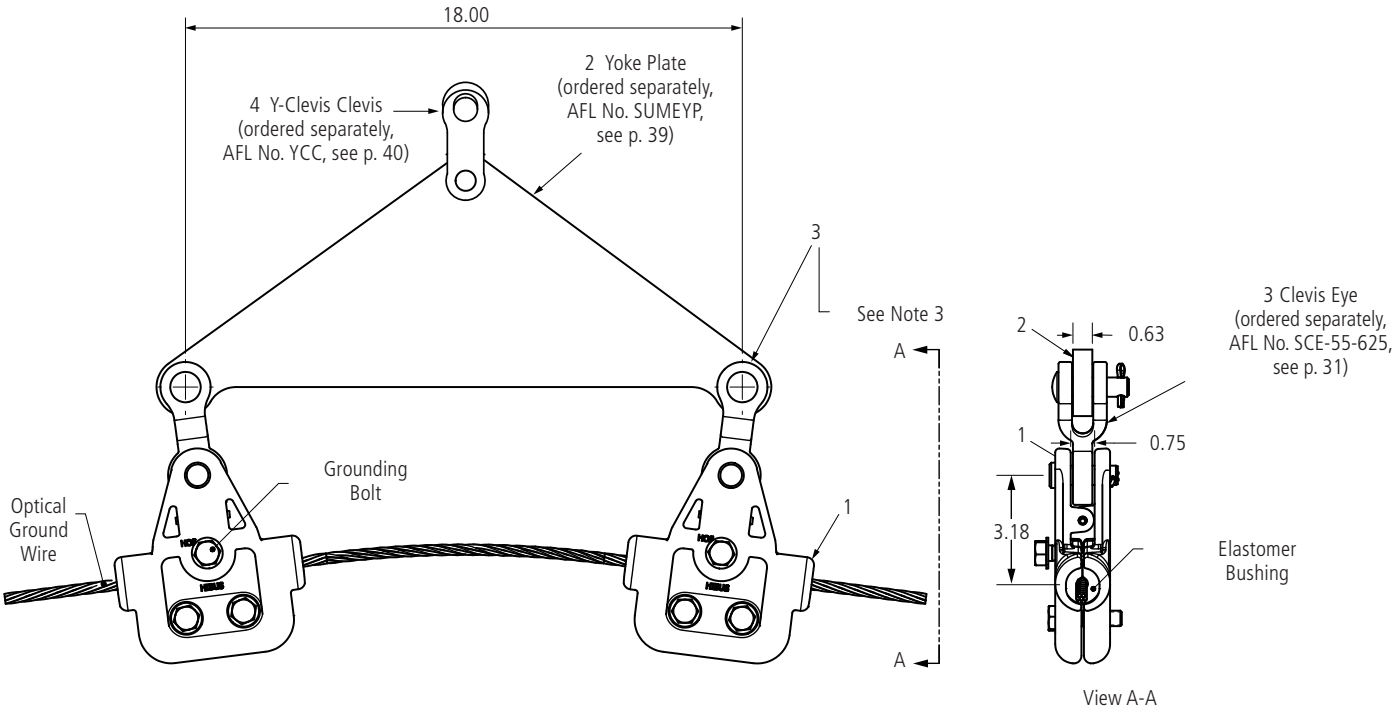


AFL NO.	RANGE (IN)		RANGE (MM)		LENGTH (L)	HEIGHT (H)	WIDTH (W)	CLEVIS WIDTH (S)	WEIGHT (LBS)	VERT. LOAD RATING (LBS)	PIN SIZE
	MIN	MAX	MIN	MAX							
HOS335/345	0.335	0.345	8.51	8.76	6.1"	6.8"	1.75"	.75"	3.4	20,000	0.625" x 2.00"
HOS346/360	0.346	0.360	8.77	9.14							
HOS361/375	0.361	0.375	9.15	9.53							
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							
HOS547/562	0.547	0.562	13.88	14.27							
HOS563/577	0.563	0.577	14.28	14.66							
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							

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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.

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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.

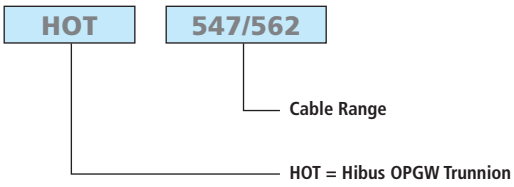
Test reports available include vibration test, slip test, ultimate strength, and angle test.

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

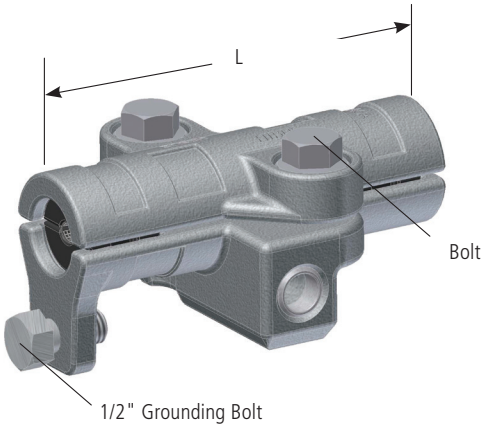


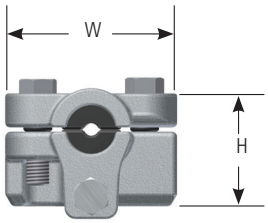
ORDERING EXAMPLE:
For a HIBUS Series OPGW Trunnion with a 0.547"- 0.562" cable range, the part number is HOT547/562.

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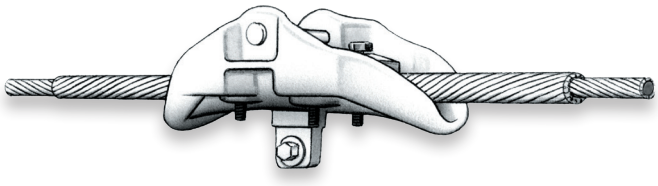
HIBUS® Series OPGW Trunnion



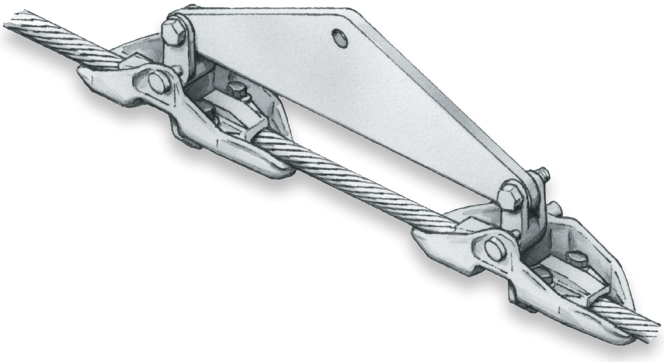


AFL NO.	RANGE (IN)		RANGE (MM)		LENGTH (L)	HEIGHT (H)	WIDTH (W)	WEIGHT (LBS)	VERT. LOAD RATING (LBS)
	MIN	MAX	MIN	MAX					
HOT335/345	0.335	0.345	8.51	8.76	6.1"	2.5"	3.8"	2.3	20,000
HOT346/360	0.346	0.360	8.77	9.14					
HOT361/375	0.361	0.375	9.15	9.53					
HOT376/390	0.376	0.390	9.54	9.91					
HOT391/406	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					

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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

- Compact design:
  - Single Suspension = 34" in length
  - Double Suspension = 48" in length
- 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

Qualifications

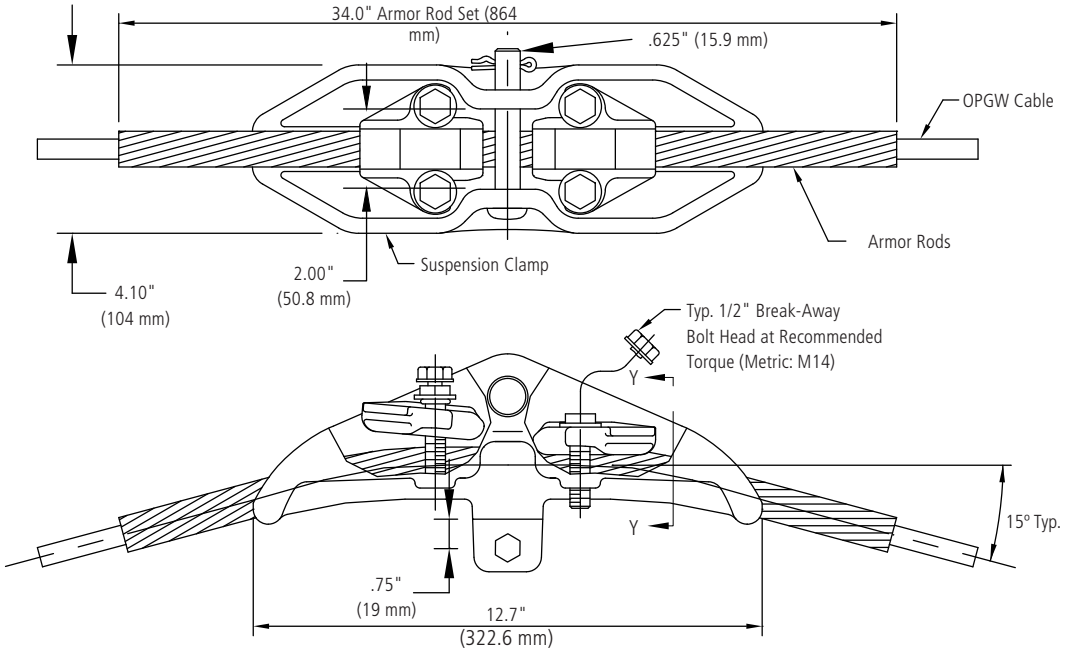
GOVERNING BODY	STANDARD CODE	TESTS
IEEE	1138	Vibration Galloping

continued

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Specifications are subject to change without notice.

Mechanical Suspensions—Single and Double (cont.)

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

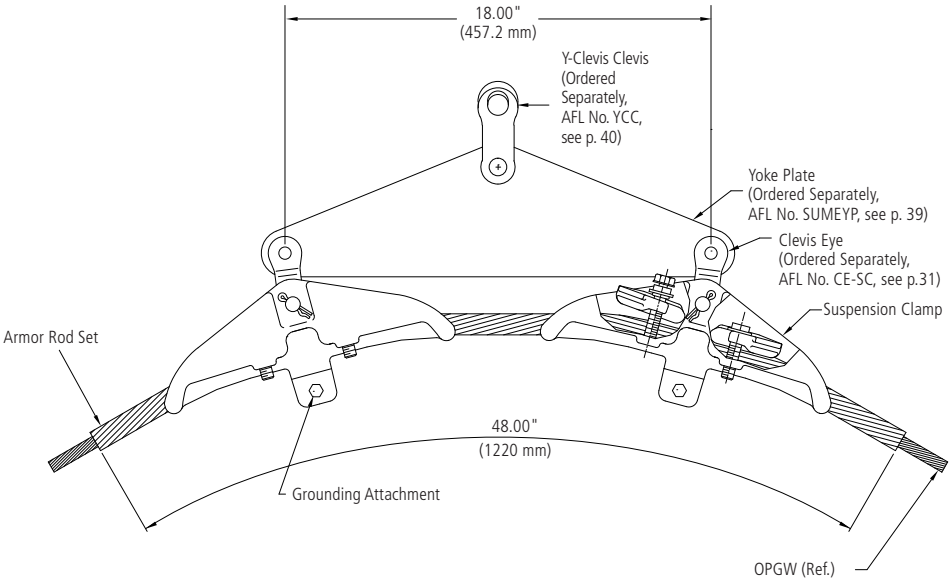
For 0.512" diameter cable, the part number is SUME500/527.

NOTES:
1. For metric hardware, add suffix "M" to part number.
2. Contact AFL for OPGW cable over 0.770 inch diameter.
3. Installation instructions are available online for the Single Mechanical Suspension.

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Mechanical Suspensions—Single and Double (cont.)

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 0.512" 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 31.
4. Y-Clevis Clevis sold separately, see page 40.
5. Contact AFL for OPGW cable over 0.770 inch diameter.
6. Installation instructions are available online for the Double Mechanical Suspension.

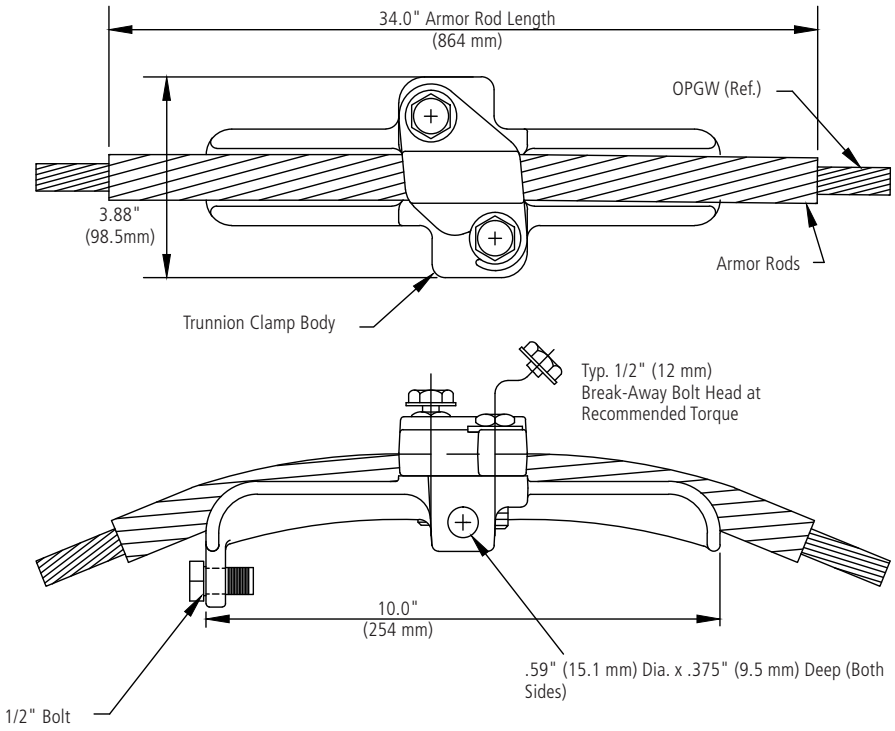
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Specifications are subject to change without notice.

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 ensure proper installation torque.
- Clamp assembly includes Armor Rod set.
- Weight: 3.5 lbs. (1.6 kg)
- Line angles up to 20°

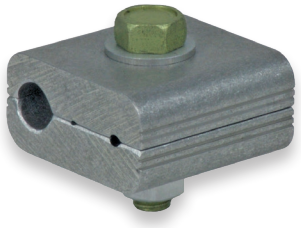


Ordering Information

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 136.

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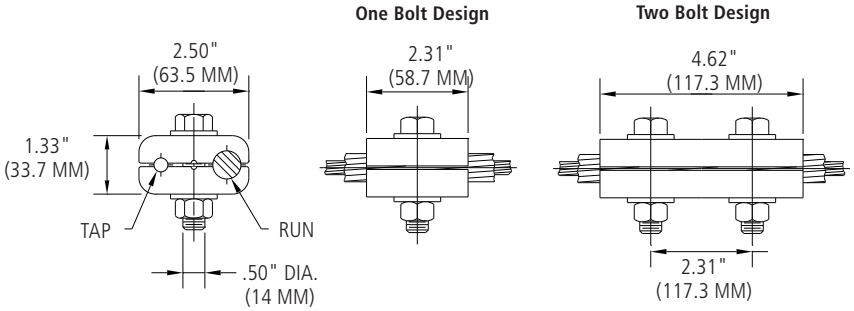
Bonding Clamps for OPGW

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.

Features

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

Specifications



Ordering Information

O	BC	XX	YY	#
OPGW	Bonding Clamp	Run Groove Code	Tap Groove Code	Number of Bolts

1 = One Bolt Design
2 = Two Bolt Design

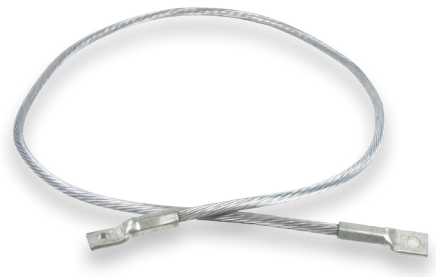
GROOVE CODE	GROOVE RANGE (inches)
A1	.112" - .126"
B1	.127" - .141"
C1	.142" - .156"
D1	.157" - .171"
E1	.172" - .186"
F1	.187" - .201"
G1	.202" - .216"
H1	.217" - .231"
J1	.232" - .246"
K1	.247" - .261"
L1	.262" - .276"
M1	.277" - .291"
N1	.292" - .306"
P1	.307" - .321"
Q1	.322" - .336"
R1	.337" - .351"
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 148.

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Aluminum Bonding Wire

The Bonding Wire is used in conjunction with our dead end and suspension clamps to provide a path to ground from the OPGW cable to the tower. Bonding Wires are available in multiple lengths, lug sizes, and terminal angle options.

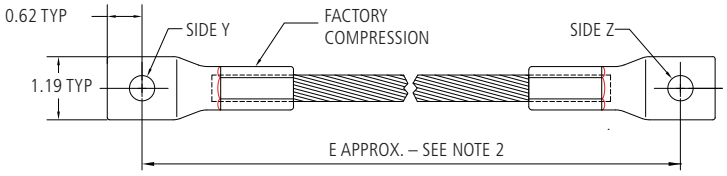
For more information on AFL's bonding assembly product offerings, applications, and configurations, please review the "OPGW and OHGW Bonding Assembly Selection" technical white paper at https://learn.aflglobal.com/white-papers

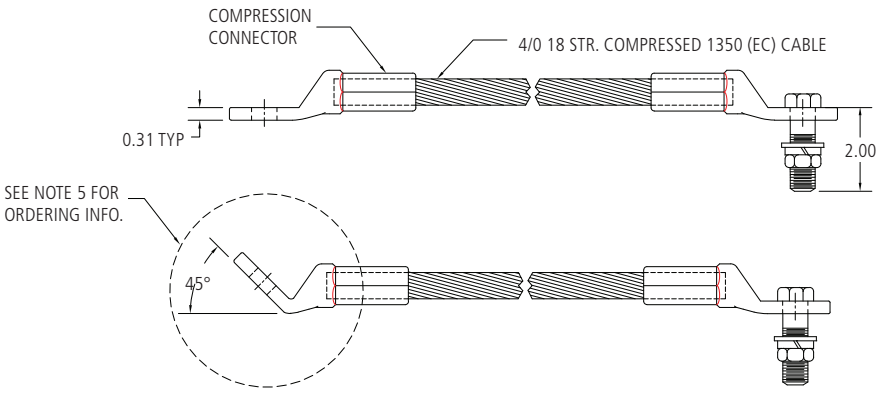
Ordering Information

BWAL	YY		H	/	ZZ		H	–	LL
Aluminum Bonding Wire	**Terminal Selection Code – Side Y –** (Smaller End)	**Terminal Angle** Blank = 0° Bend D = 45 ° Bend	**Hardware** H = Hardware Blank = No hardware		**Terminal Selection Code – Side Z –** (Larger End)	**Terminal Angle** Blank = 0° Bend D = 45 ° Bend	**Hardware** H = Hardware Blank = No hardware		**Length in Inches** (See Chart) *

DIMENSION "E"	TERMINAL		
(length in inches)*	SELECTION CODE**	HARDWARE SIZE	MOUNT HOLE DIAMETER
24	38	3/8"	0.438
36	50	1/2"	0.531
40	62	5/8"	0.688
60	75	3/4"	0.812
68			

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. (**) To order 45° angled terminal, add suffix 'D' to selection code. Example: (BWAL50DH/50D-36).





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Tinned Copper Flexible Braided Bonding Strap

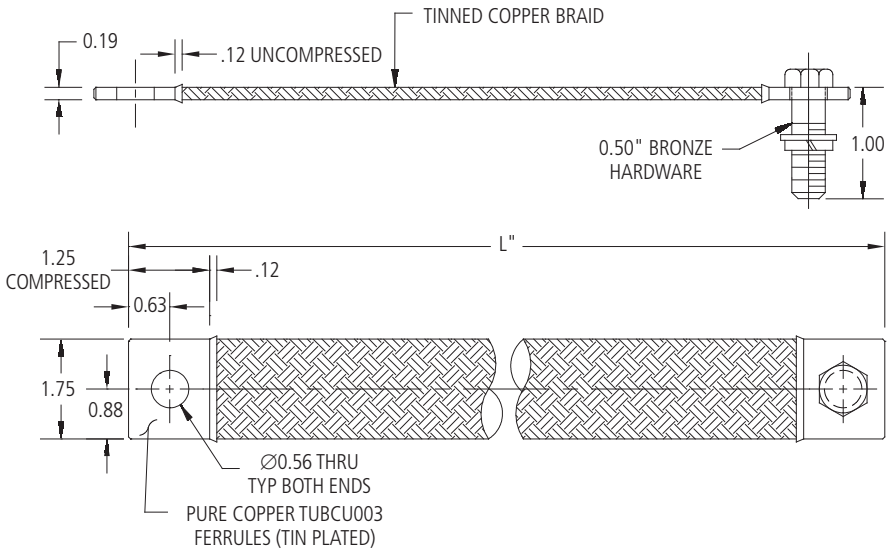
The Braided Bonding Strap is used in conjunction with our dead end and suspension clamps to provide a path to ground from the OPGW cable to the tower. Bonding straps are available in multiple lengths as shown in the table below.

For more information on AFL's bonding assembly product offerings, applications and configurations, please review the "OPGW and OHGW Bonding Assembly Selection" technical white paper at https://learn.aflglobal.com/white-papers.

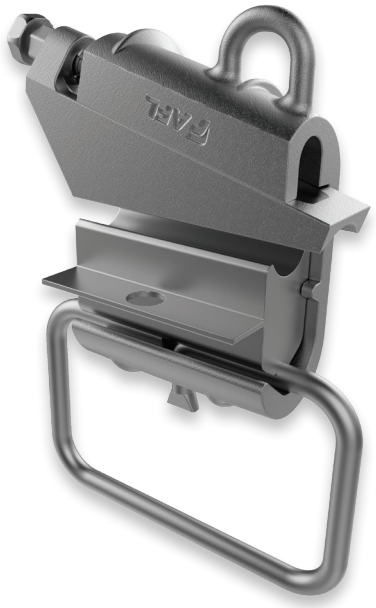
Ordering Information

BWCF	50SN	NH100	/	50SN	–	LL
Tinned Copper Flexible Braided Bonding Strap	Terminal Hole for 1/2" Hardware	1" Bolt, Flat Washer, Split Washer		Terminal Hole for 1/2" Hardware		Length in Inches (See Chart) *

AFL NO.	L (inches)
BWCF50SNH100/50SN-60	60
BWCF50SNH100/50SN-48	48
BWCF50SNH100/50SN-36	36
BWCF50SNH100/50SN-24	24



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Hotline Stirrup Connectors for OPGW

AFL's OPGW Clamps are used to connect the optical ground wire in a manner providing protection to both the cable strands and underlying optical fibers. The bolted wedge technology makes installations quicker, easier and safer when compared with traditional tap connectors by eliminating the need for specialized tooling for the same type of connection. Once the appropriate pressure is obtained by the wedge, the breakaway bolt will shear off giving a visual indication that a correct installation has been made.

This connector is reusable and can easily be removed by backing out the bolt, which will drive out the wedge. AFL recommends replacing the bolt and applying more inhibitor grease when reusing.

The wedge stirrup connectors are comprised of high strength aluminum castings, a breakaway bolt, a tin-plated copper bail and a highly conductive aluminum interface, providing a secure, reliable solution with an installation that is both fast and simple.

Features

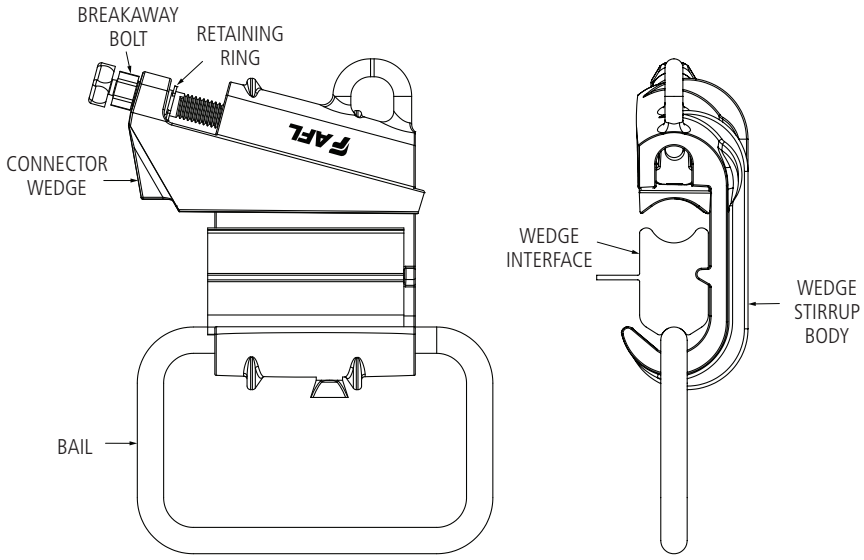
- Material
  - Wedge Stirrup Body—Aluminum Alloy
  - Connector Wedge—Aluminum Alloy
  - Wedge Interface—Aluminum Alloy
  - Bail— Tin Plated Copper
  - Breakaway Bolt—Aluminum Alloy
  - Retaining Ring—Steel
- Breakaway Bolt Torque: 10 ft-lbs

Standard Packaging

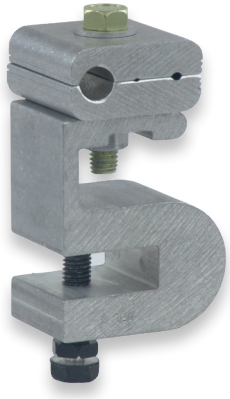
QUANTITY	WEIGHT
25	25 lbs

Ordering Information

LINE NO.	AFL NO.	CONDUCTOR DIAMETER RANGE	BAIL SIZE	BAIL AMPACITY
1	SCA-162/292B1	0.162" - 0.292"	1/0	550
2	SCA-292/398B1	0.292" - 0.398"		
3	SCA-414/522B1	0.414" - 0.522"		
4	SCA-502/574B1	0.502" - 0.574"		
5	SCA-586/724B1	0.586" - 0.724"		



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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 0.25" - 0.72" C = Lattice Adapter for web thickness 0.72" - 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"

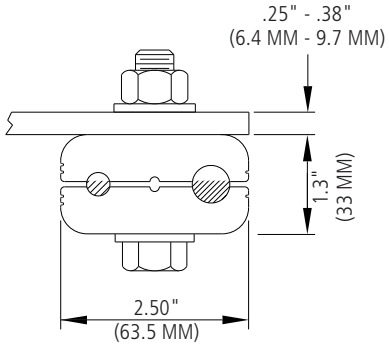
GROOVE CODE	GROOVE RANGE (inches)
T1	.367" - .381"
U1	.382" - .396"
V1	.397" - .411"
W1	.412" - .424"
X1	.425" - .440"
Y1	.441" - .454"
Z1	.455" - .464"
A2	.465" - .480"
B2	.481" - .495"
C2	.496" - .510"
D2	.511" - .525"
E2	.526" - .540"
F2	.541" - .555"
G2	.556" - .570"
H2	.571" - .585"
J2	.586" - .600"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

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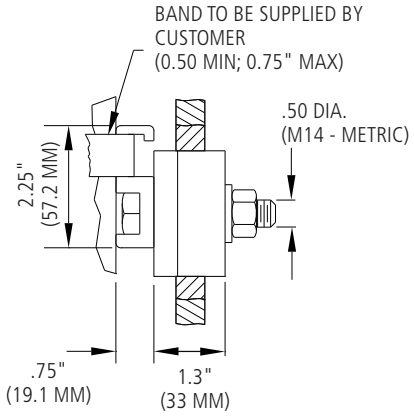
Guide Clamps for OPGW

Guide Clamps and Optional Guide Clamp Adapters



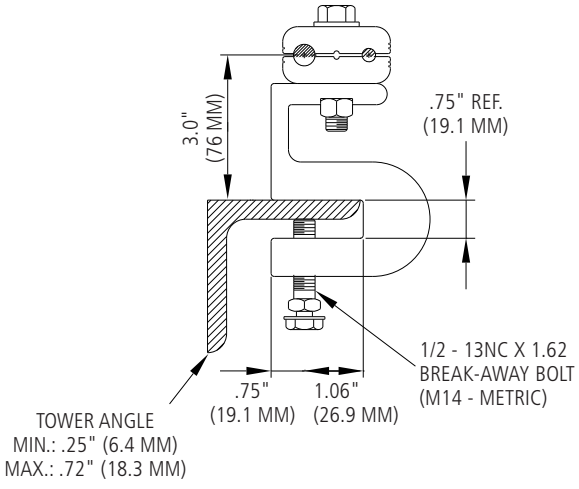
OGCXXYY

No Adapter



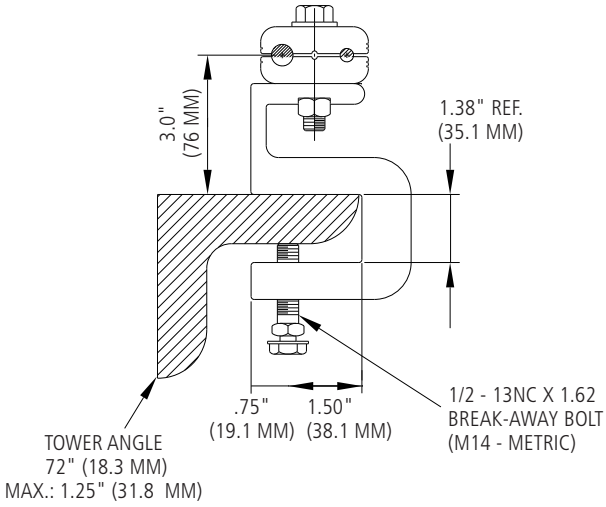
OGCXXYYA

TYPE A ADAPTER (BAND-
ING)
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)

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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
Fiber Downlead	**OPGW and ADSS**	**Groove Code** (Larger Cable)	**Groove Code** (Smaller Cable)	**Indicates Adapters** A = Banding Adapter B = Lattice Adapter for web thickness 0.25" - 0.72" C = Lattice Adapter for web thickness 0.25" - 1.25" D = 3/8" diameter X 4" lag bolt Omit = No adapter desired

Ordering Example:
For 0.528" dia. OPGW and 0.484 ADSS with pole banding (Type A), the part number is FDOA-B4B5A.

NOTES: 1. See next page for optional downlead clamp adapters.
2. For installation instructions, see page 143.

continued

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Download Clamps for OPGW

Dimensions

FIG. 1

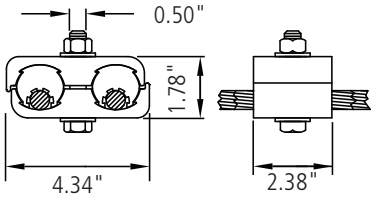
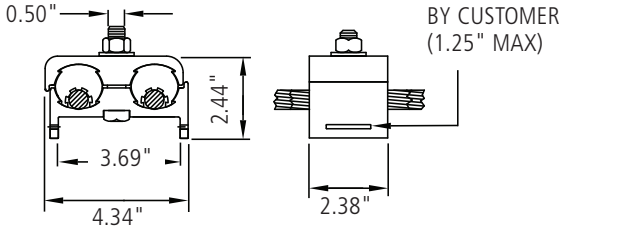
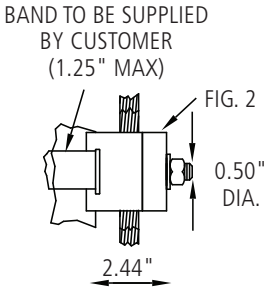


FIG. 2



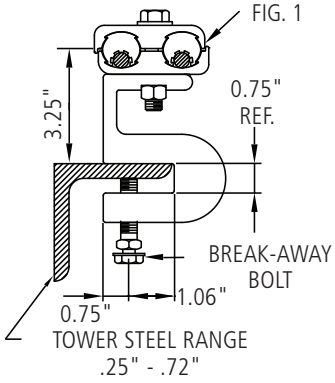
FDOA XXYY
NO ADAPTER

Download Clamp Adapters



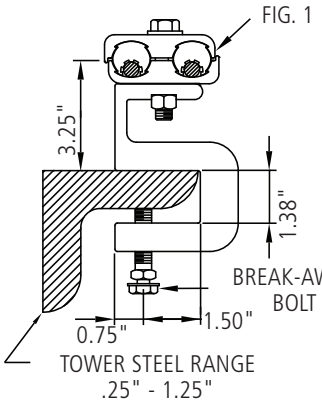
FDOA XXYYA

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



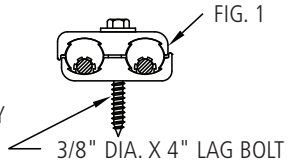
FDOA XXYYB

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.

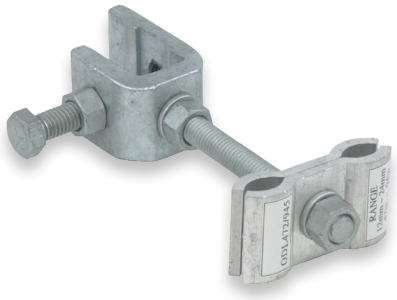


FDOA XXYYD

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

continued

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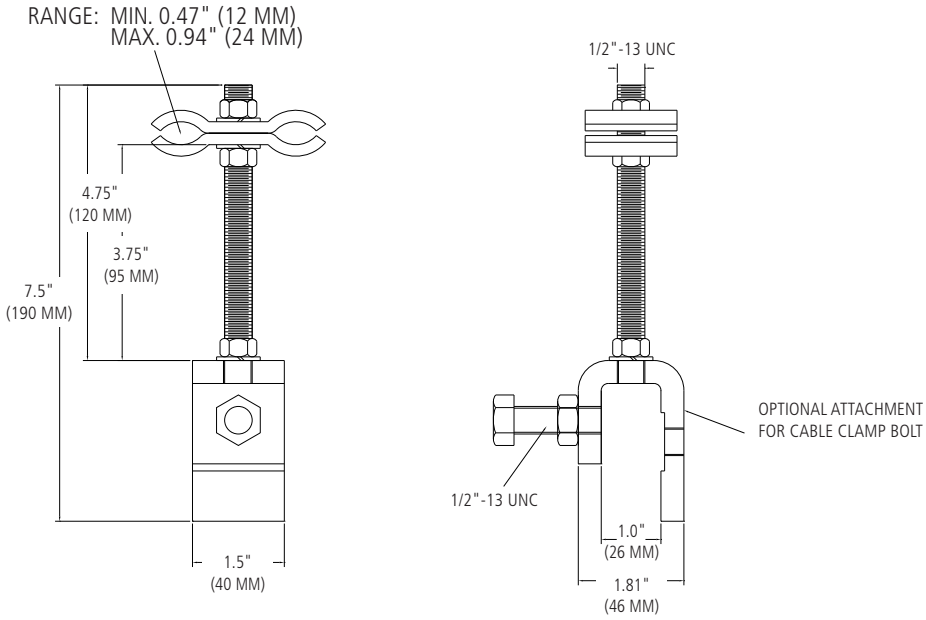


Downlead Clamps for OPGW

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.

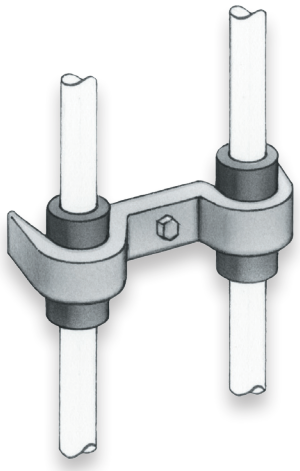
Ordering Information

AFL NO.	CABLE DIAMETER RANGE inches (mm)	
	MIN	MAX
ODL472/945	0.472 (12)	0.945 (24)



continued

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Specifications are subject to change without notice.



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.

Features

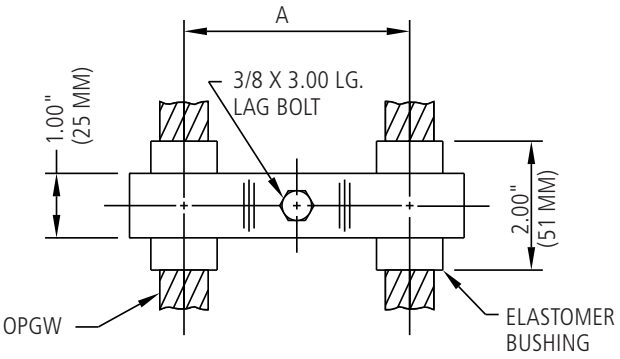
- Slip strength: >100 lbs.

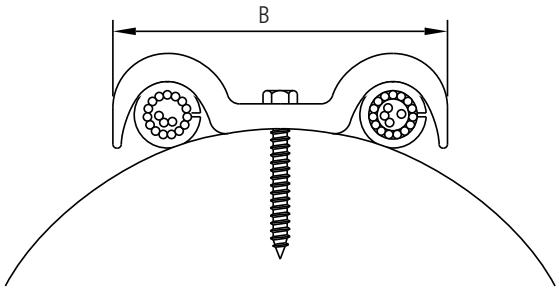
Ordering Information – Wood Pole Clamp

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

OPGW DIAMETER IN. (MM)	DIMENSIONS IN. (MM)		WEIGHT LBS. (KG)	AFL NO.
	A	B		
0.469 - 0.561 (11.9 - 14.2)	2.81 (71)	4.25 (108)	0.33 (0.15)	OGW469/561
0.562 - 0.655 (14.3 - 16.6)	3.50 (89)	5.19 (132)	0.46 (0.21)	OGW562/655
0.656 - 0.750 (16.7 - 19.1)	3.50 (89)	5.19 (132)	0.46 (0.21)	OGW656/750

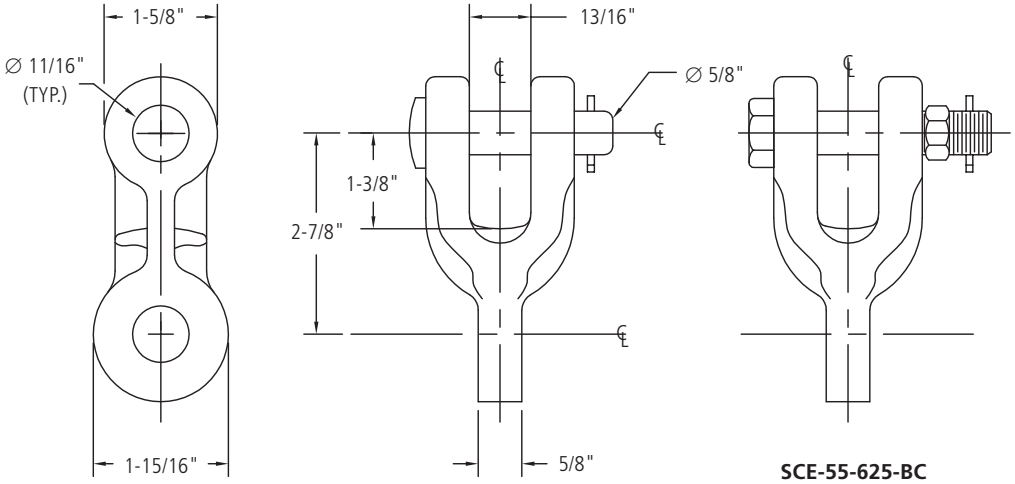
Ordering Example: For AC-64/528 AlumaCore OPGW, the part number is OGW469/561.





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Standard Clevis Eye



SCE-55-625-BC

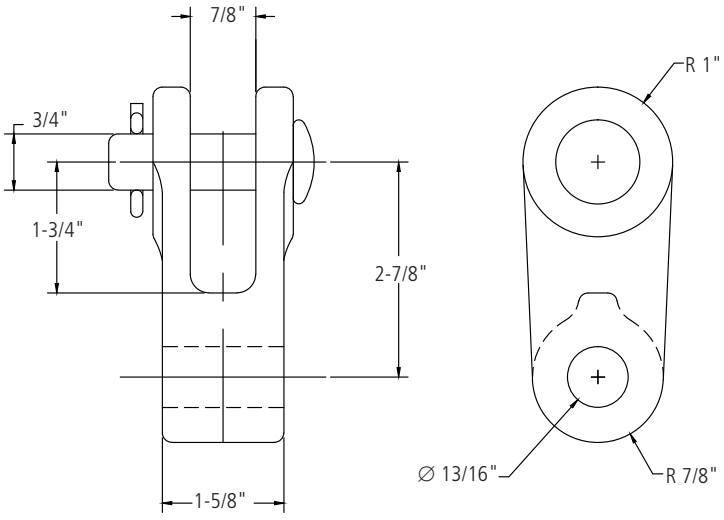
MATERIAL
Hot Dip Galvanized Ductile Iron

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



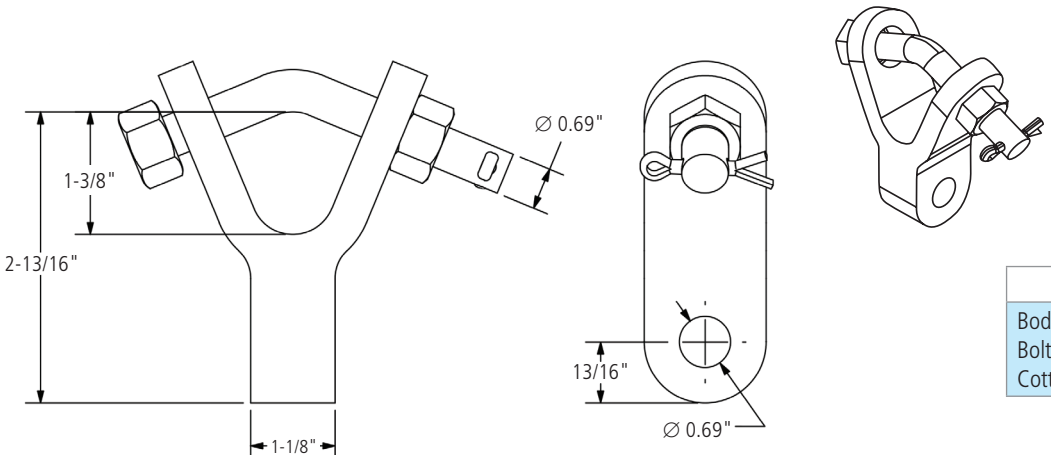
MATERIAL
Body – Ductile Iron Pin – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

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

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Y Clevis Eye

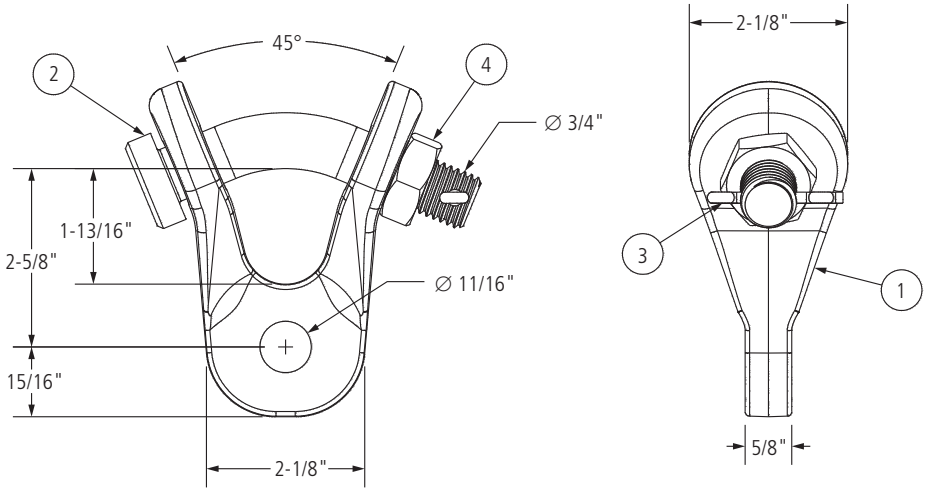


MATERIAL
Body – Forged Steel Bolt, Nut – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

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

Y Clevis Eye 90°



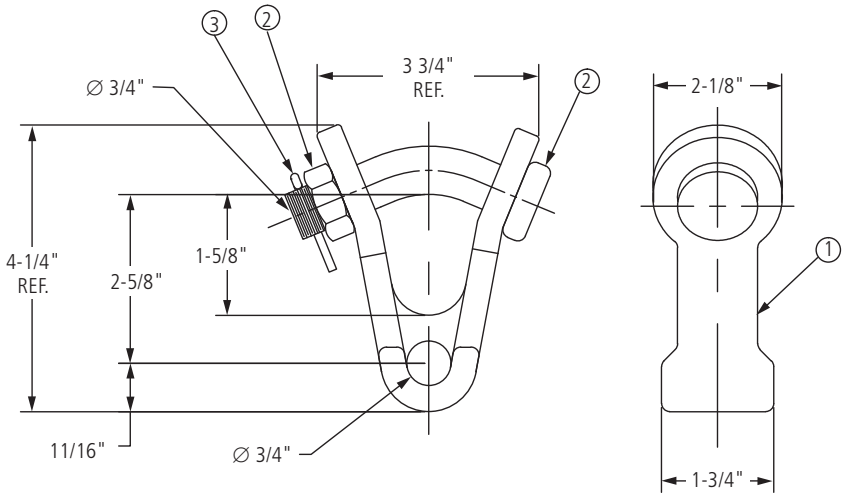
ITEM	DESCRIPTION	MATERIAL
1	Body	Forged Steel
2	Bolt	Galvanized Steel
3	Cotter Pin	Stainless Steel
4	Nut	Galvanized Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT (LBS.)	APPLICATION
YC90E-688-625	30,000	2.2	HIBUS Suspension

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Y Clevis Eye 90° (for Mechanical Suspensions)

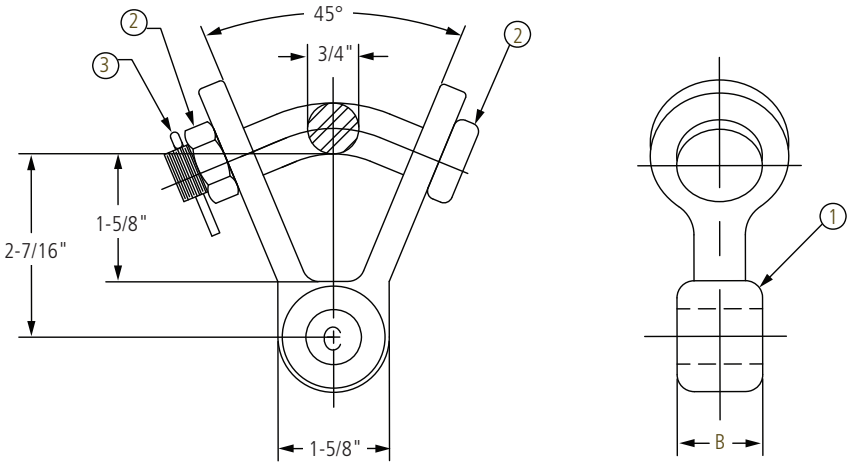


ITEM	DESCRIPTION	MATERIAL
1	Body	Forged Steel
2	Bolt, Nut	Galvanized Steel
3	Cotter Pin	Stainless Steel

Ordering Information

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

Y Clevis Eye 90° (for Use with Formed Wire Suspension)



ITEM	DESCRIPTION	MATERIAL
1	Body	Forged Steel
2	Bolt, Nut	Galvanized Steel
3	Cotter Pin	Stainless Steel

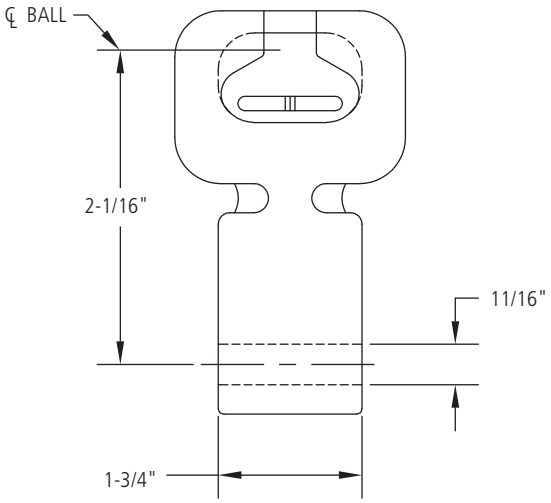
Ordering Information

AFL NO.	CABLE DIAMETER RANGE		APPROX. DIMENSIONS In. (mm)		ULTIMATE STRENGTH (LBS.)	APPLICATION NOTES
	(In.)	(mm)	B	C		
YCE90FS354/458	0.354-0.458	9.0-11.6	5/8 (15.0)	11/16 (17.5)	15,000	Formed Wire Suspension
YCE90FS459/625	0.459-0.625	11.7-15.9	3/4 (19.1)	11/16 (17.5)	20,000	
YCE90FS626/1057	0.626-1.057	16.0-26.8	1 1/16 (27)	13/16 (20.6)	25,000	

NOTE: For use with formed wire hardware.

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Socket Eye SC

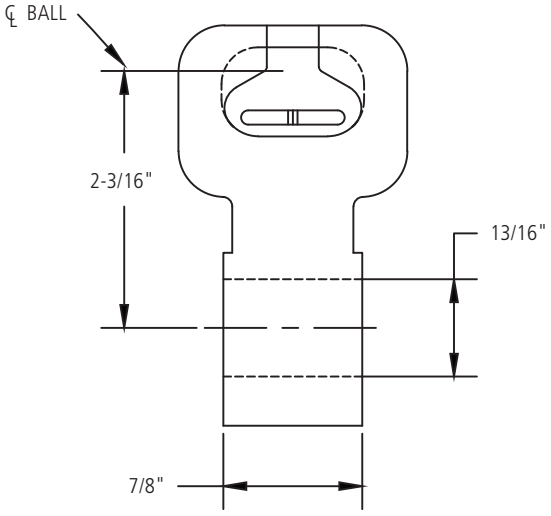


MATERIAL
Body, Clevis Bolt – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

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

Socket Eye BDE



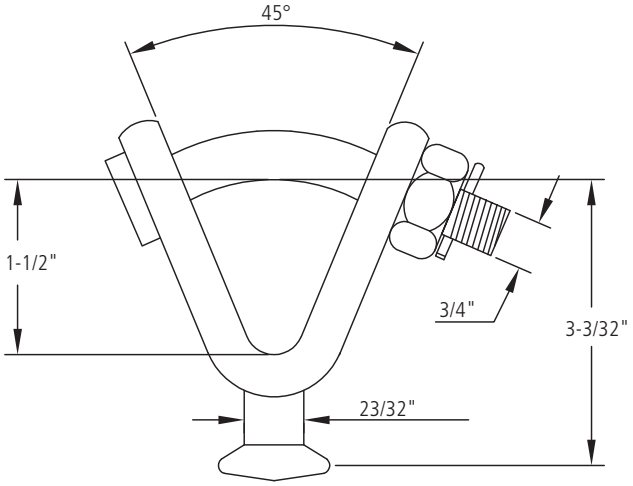
MATERIAL
Galvanized Ductile Iron

Ordering Information

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

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Ball Y Clevis

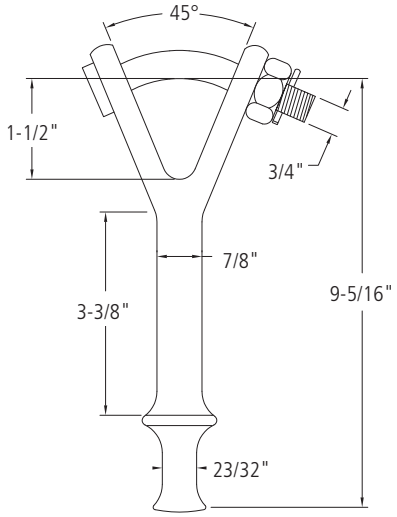


MATERIAL
Body, Clevis Bolt – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

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

Hot Line Y Clevis Ball



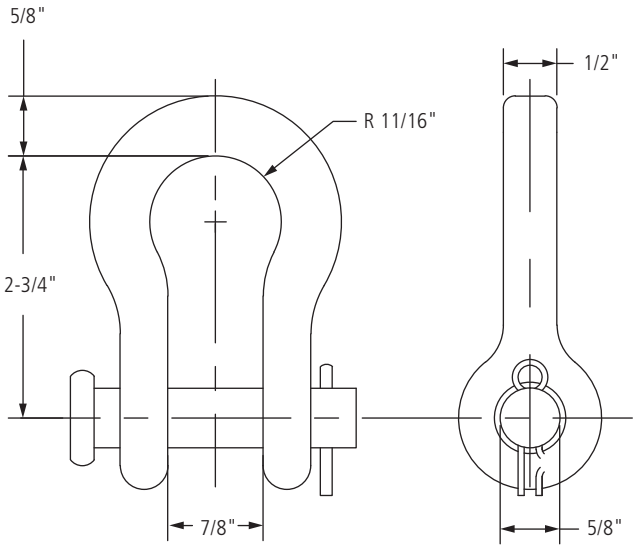
MATERIAL
Body, Clevis Bolt – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

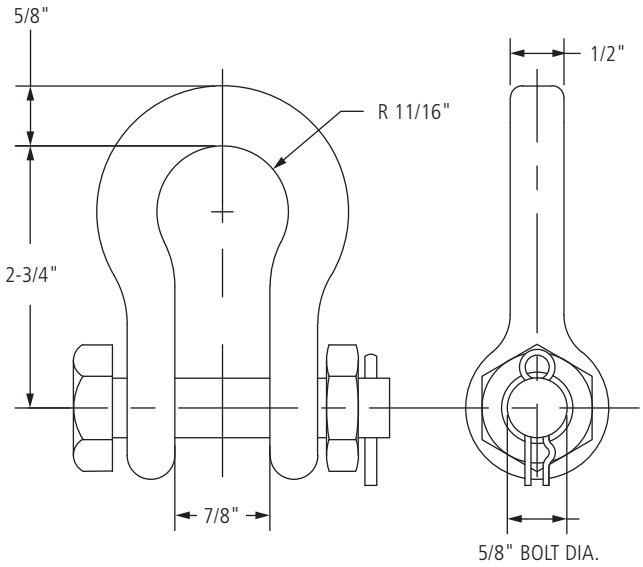
AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
YCBHL	30,000	2.80

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Anchor Shackle 30L



Anchor Shackle 30L-BNC



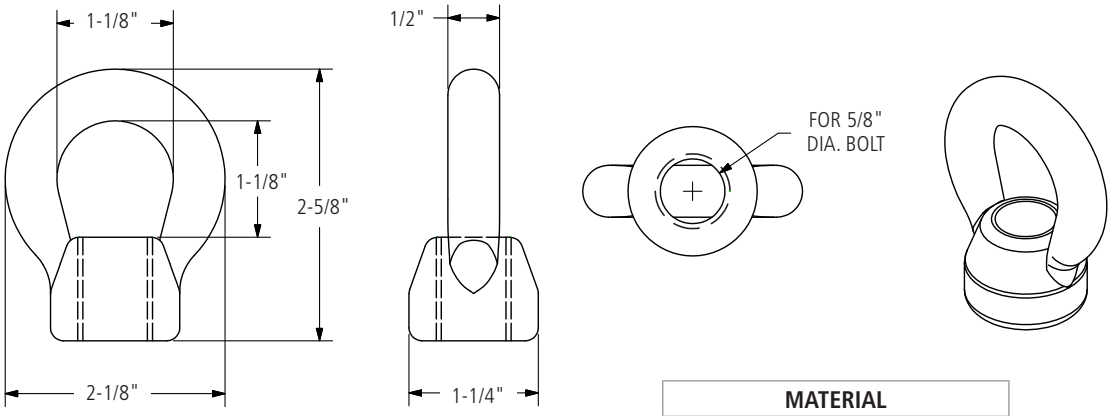
MATERIAL
Body – Forged Steel Bolt – Galvanized Steel Cotter Pin – Stainless Steel

Ordering Information

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

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Oval Eye Nut

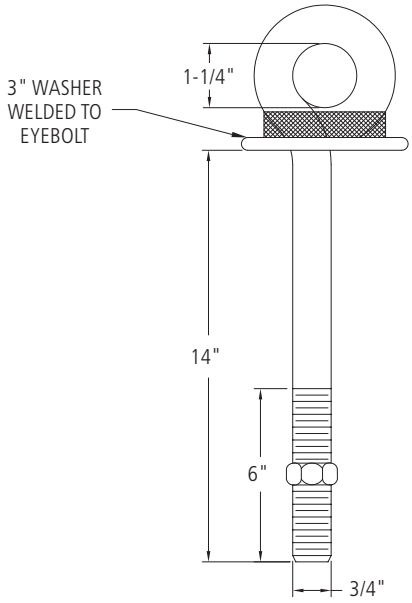


MATERIAL
Forged Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)
PSM00221	12,400	0.46

Shoulder Eye Bolt



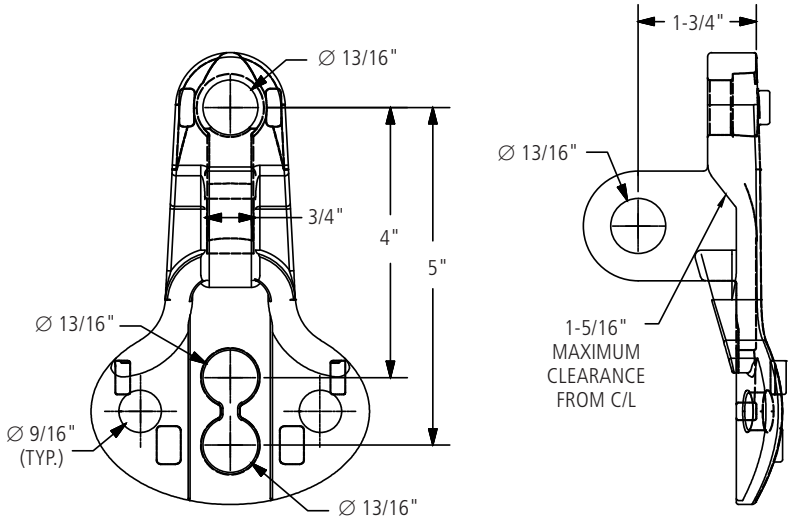
MATERIAL
Eyebolt – Galvanized Steel Nut – Stainless Steel

Ordering Information

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

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Pole Eye Plate

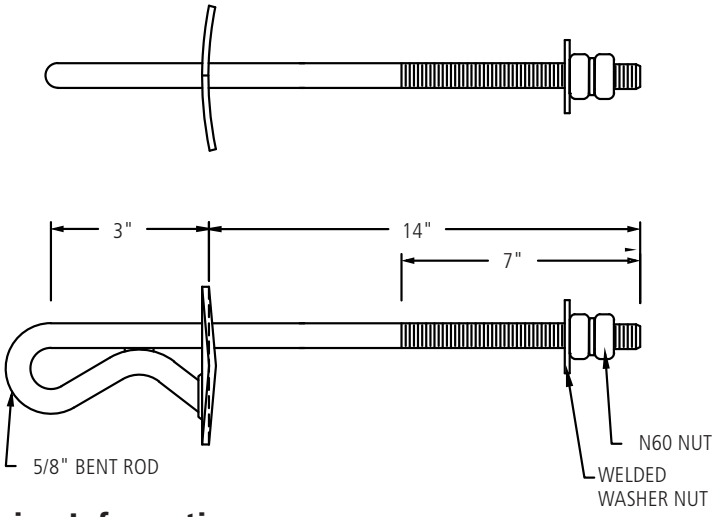


MATERIAL
Hot Dip Galvanized Ductile Iron

Ordering Information

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

Shield Wire Support



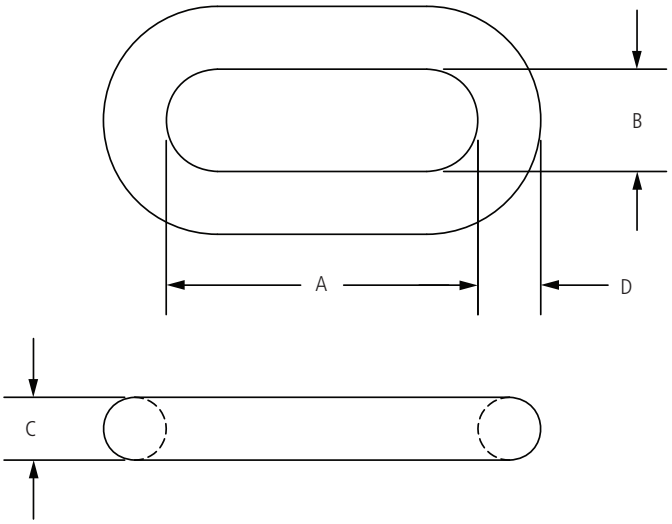
MATERIAL
Galvanized Steel

Ordering Information

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

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Chain Link

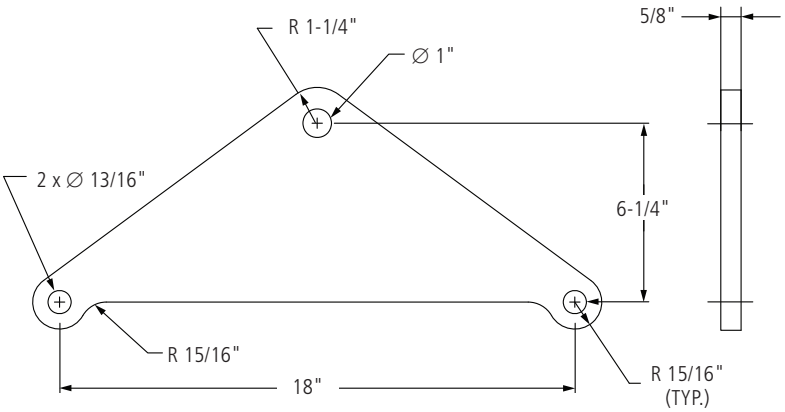


MATERIAL
Forged Steel

Ordering Information

AFL NO.	ULTIMATE STRENGTH (LBS.)	DIMENSIONS IN INCHES			
		A	B	C	D
CL-4	30,000	2-1/4	1	1/2	1/2
CL-5	40,000	3-1/4	1	5/8	5/8

Yoke Plate



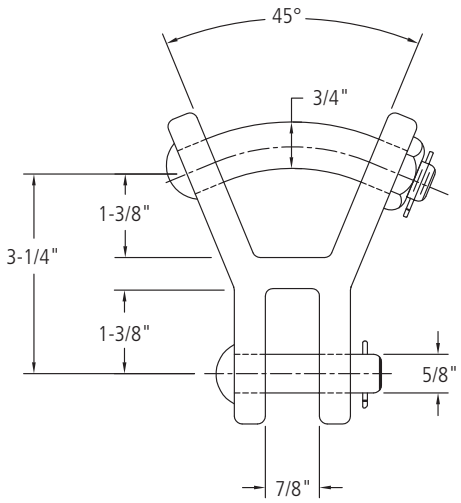
MATERIAL
Galvanized Steel

Ordering Information

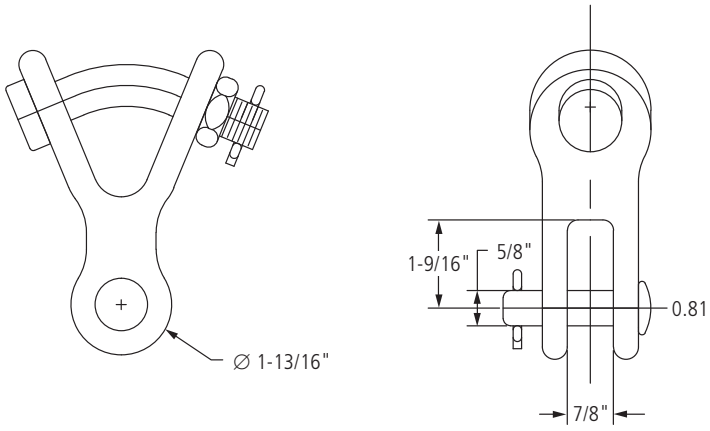
AFL NO.	ULTIMATE STRENGTH (LBS.)	APPROX. WEIGHT EACH (LBS.)	APPLICATION
SUMEYP	40,000	14.8	Double Mechanical Suspension

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Specifications are subject to change without notice.

Y Clevis Clevis



Y Clevis Clevis 90°



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
YCC-90	30,000	1.50	

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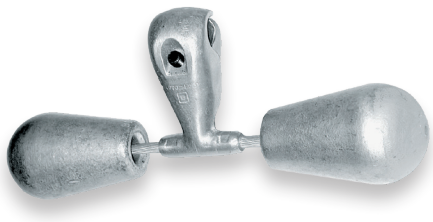
Stainless Steel Tube Straightening Tool

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

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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 AFL 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 135.
4. Vibration recommendation form on page 138.

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OPGW Anti-Rotational Device

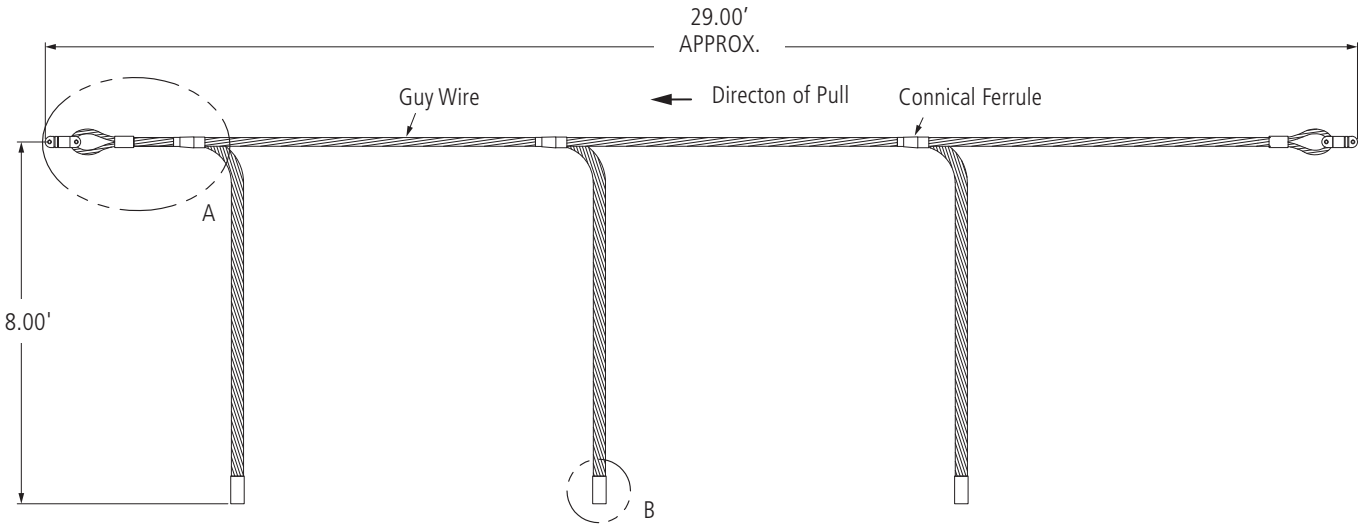
The Anti-Rotational Device provides a means of stringing fiber optic cable without introducing torsion stress. This unique concept prevents the cable from twisting as it travels over the pulling blocks. Left uncontrolled, the optical cable's delicate fibers could be permanently damaged during installation.

Ordering Information

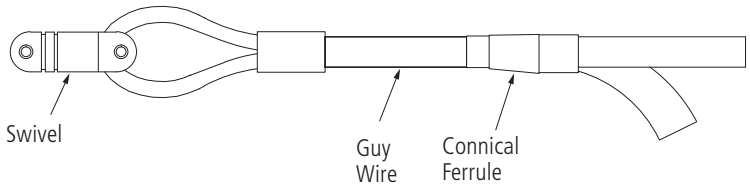
AFL NO.
ARD-OPGW-29

Notes

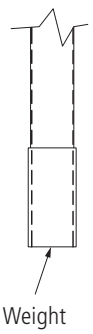
1. Make sure all hoses and guy grip fall in the direction of the pull.
2. Connical ferrules allow easy transition through sheave.
3. Estimated weight of attachment is 14 lbs. each.
4. Working load is 5,000 lbs.



DETAIL A



DETAIL B



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26 kV Isolator Kit for OPGW

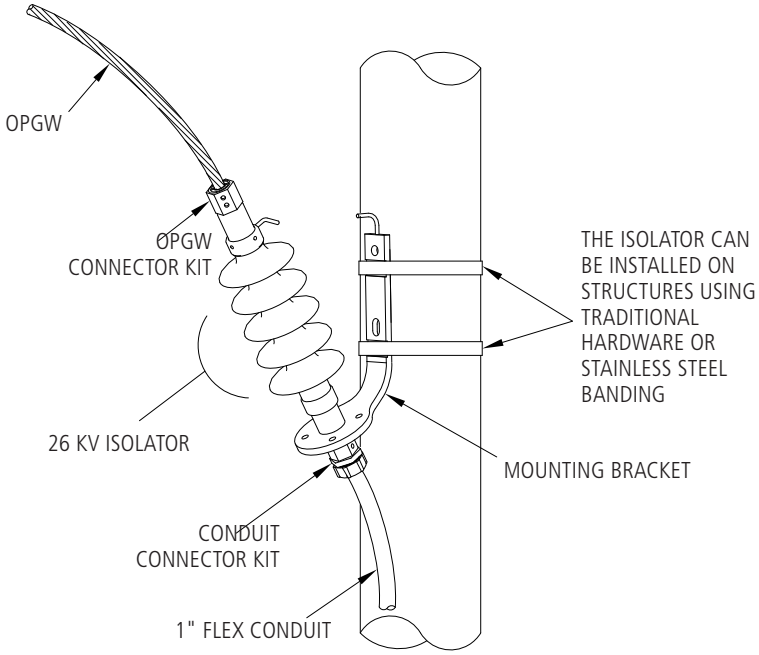
The 26 kV Isolator Kit is designed for aerial optical cable system applications in which complete electrical discontinuity is required. The isolator kit provides reliable interruption of electrical current, at voltages up to 26 kV and is a critical component of optical conductor and neutral systems, 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.)



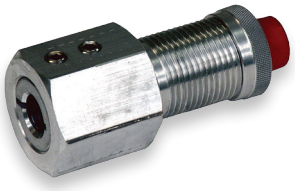
Ordering Information

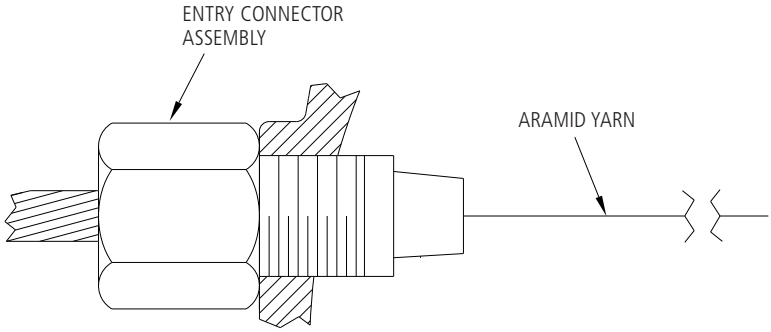
ISOL	P	XX/YY	ZZZ
Isolator	Blank = Standard Bracket (as shown) P = 90° Bracket for Routing Cable Parallel to Pole	Cross Sectional Area Aluminum Strands / AW Strands (mm^2)	Cable OD (Decimal Inches)

Ordering Example: ISOL47/53/680

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Connector Kit for Isolator



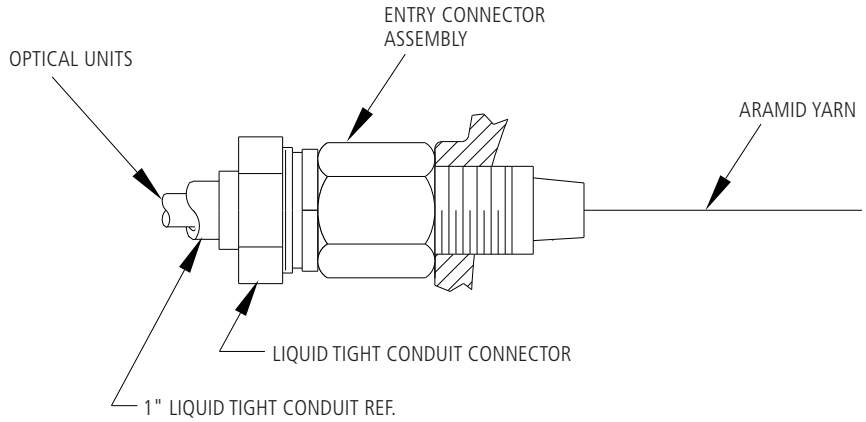


Ordering Information

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

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