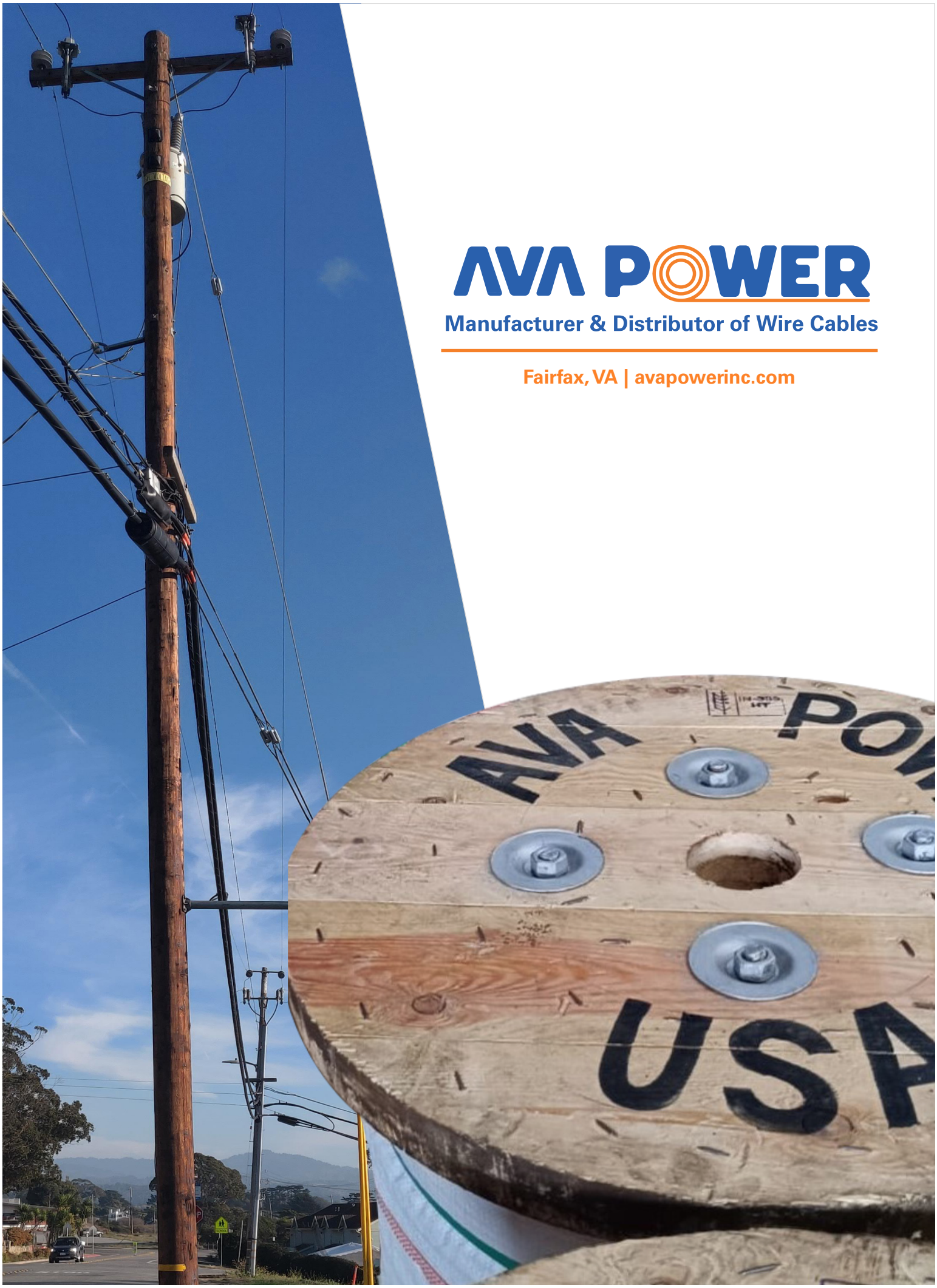
AVA POWER

Manufacturer & Distributor of Wire Cables

Fairfax, VA | avapowerinc.com



ABOUT US

AVA Power Inc, where quality meets innovation in wire solutions. Founded on a passion for precision and durability, we specialize in providing high-performance guy strand & lashing wire for a variety of applications, including telecom unications, utility, and construction.

OUR MISSION

At AVA Power, our mission is to deliver exceptional wire products that exceed industry standards while ensuring the safety and reliability of your projects. We are dedicated to fostering strong partnerships with our clients, offering expert support and being a one-stop solution for all your wire needs.

OUR VALUES

Quality: We prioritize high-quality materials and rigorous testing to ensure our products stand the test of time.

Integrity: We believe in honest communication and transparency, building trust with our customers and partners.

Innovation: We stay ahead of industry trends, continuously improving our products and services to provide cutting-edge solutions.

OUR PRODUCTS

We offer a wide range of guy strand wire, including galvanized, Galfan coated, and stainless steel options. Each product is engineered for strength and durability, ensuring your projects are secure and long-lasting.

OUR TEAM

Our dedicated team of professionals brings years of experience and expertise to the table. We are committed to understanding your specific requirements and providing the best possible solutions for your projects.

WHY CHOOSE US?

Expertise: With years of industry experience, we understand the challenges you face and are here to help.

Customer Focus: Your satisfaction is our priority. We work closely with you to ensure your needs are met.

Sustainability: We are committed to environmentally responsible practices, ensuring our processes are as sustainable as possible.

INDUSTRIES WE SERVE

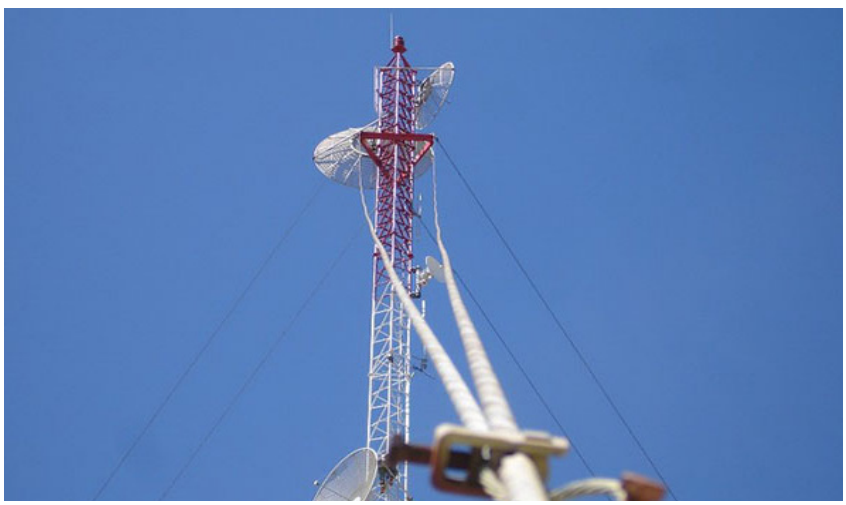
Wire strand, a thin, flexible strand or rod made of metal, has multiple uses and is commonly used in various industries. One of our flagship usages of wire strand is for guying. Guy strand wire, also known as guy wire or tension wire, is a crucial component in utility and telecommunications infrastructure. It is designed to provide stability and support to structures such as utility poles, communication towers, and other vertical installations.

Agriculture & Poultry

- Poultry Housing
- Fencing
- Shade Structures
- Greenhouses
- Irrigation Systems

Utility & Telecommunication

- Telecommunication Towers
- Utility Poles
- Wind Turbines



Infrastructure

- Bridge Construction
- Traffic Signal and Lighting Poles
- Guardrails and Barriers

AGRICULTURAL FENCING

BARBED WIRE

A helical structure with thorn like projections finding its utility in protection and covering the fencing elements in household, roads and perimeter walls.

Part#	Barbs	Barbs Spacing	Roll Length	Gauge	Finish	Weight/EA
	Pts	In	In.	Ga.	Class - HDG	Lbs.
ABW-25155	2	5	1320	15.5	3	42
ABW-45155	4	5	1320	15.5	3	45
ABW-2514	2	5	1320	14	3	42
ABW-4514	4	5	1320	14	3	45
ABW-43155	4	3	1320	15.5	3	80

ELECTRIC SMOOTH WIRE

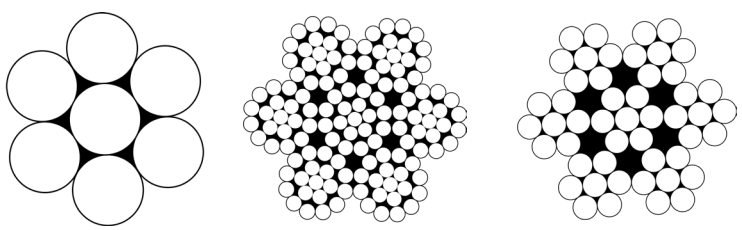
An electric smooth wire enhances the capability of a barbed wire. For instance, we are aware about the protection capability of barbed wire, now imagine the barbed wire carries electricity. This is aided by an electric smooth wire.

12.5 ga smooth wire fence is high tensile and best option for permanent electric fencing. While, 14 and 17ga electric fence wire is low carbon and best option for temporary electric fencing.

Wide range of diameter – 12.5 ga, 14 ga & 17 ga
Length – Spools of custom length
Finish – Commercial & Class 3 coating

CABLE WIRE ROPE

Cable wire rope is a type of rope made from multiple strands of wire twisted together to form a strong and flexible cable. It is designed for high-strength applications and is often used in various industries, including construction, shipping, and mining.
These are available in SS 304, SS 316 and Galvanized Steel.



1 x 7 7 x 7 7 x 19

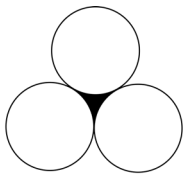
Part #	Diameter	Type	Breaking Strength (Lbs)	Wt (Lbs)/ 1,000 Ft
ACWR107-116H	1/16"	1 x 7	480	10
ACWR707-018H	1/8"	7 x 7	1700	28
ACWR707-014H	1/4"	7 x 7	6100	106
ACWR719-018H	1/8"	7 x 19	2000	29
ACWR719-014H	1/4"	7 x 19	7000	111
ACWR719-516H	5/16"	7 x 19	9800	173
ACWR719-038H	3/8"	7 x 19	14400	243

Also available in 3/64", 1/16", 3/32", 5/32", 3/16", 5/16".

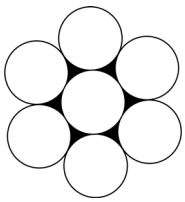
UTILITY & TELECOMMUINICATION

GUY STRAND

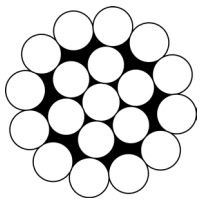
A guy strand wire is a tensioned cable or wire that's used to support and stabilize structures. We offer Guy Wire in following wire combinations –



1 x 3



1 x 7

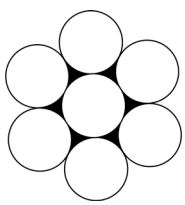


1 x 19

Wide range of diameter – 1/8", 3/16", 7/32", 1/4", 9/32", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4", 7/8", 1"
Length – Reels of 2500', 5000' or any custom length required by you.
Available Grade – Utility, Common, Siemens-Martin, High Strength & Extra High Strength
HDG Coating – Class A, Class B & Class C

MESSENGER WIRE

A messenger wire is a type of wire used to support overhead cables, especially in telecommunications and electrical distribution. It acts as a tension member, typically made of steel or another durable material, to hold up the main wires or cables. The messenger wire provides stability and helps maintain the proper distance between the cables, ensuring they don't sag too much and can withstand environmental factors like wind and ice.
We offer Messenger wire in following strand combination –



1 x 7

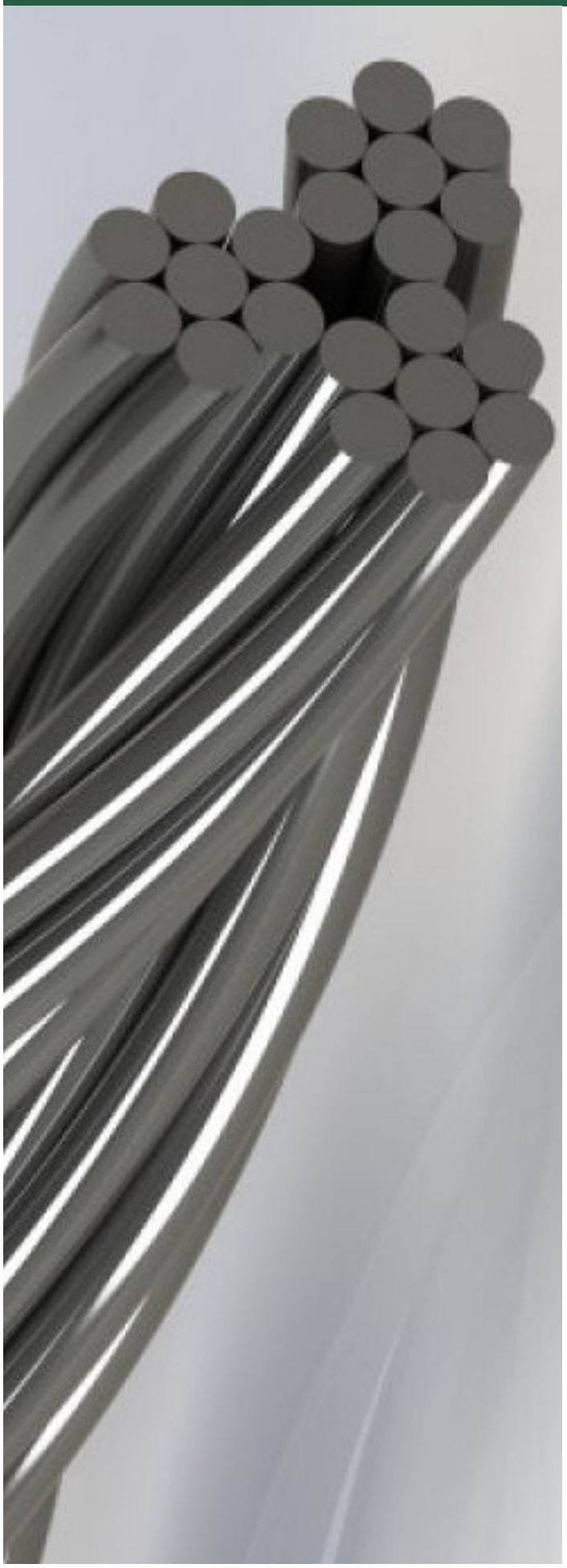
LASHING WIRE

Lashing wire is a single strand stainless steel wire used to secure or lash the messenger wire and fiber optic cable together. They are manufactured in a controlled annealing process, which yields a uniform, fine grain structure throughout the wire length and cross section for best results.

Part#	Average Tensile Strength	Stainless Steel	Wire Dia	Coil Size
	PSI	Type	In	Ft.
ALW-38160-302	102000	302	0.038	1600
ALW-45120-430	79000	430	0.045	1200
ALW-45120-302	104000	302	0.045	1200
ALW-45120-316	104000	316	0.045	1200

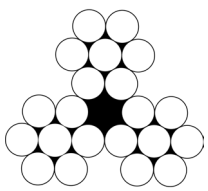
Also available in 0,065"dia.

INFRASTRUCTURE



CABLE GUARD RAIL BARRIER

A cable barrier, also known as cable guardrail, wire rope safety barrier, is the mainly type of flexible highway fences for keeping vehicles within the limits of correct way. Three or four high tensile wire ropes, mounted on the post, will absorb the maximum energy by flexing to cushion the unavoidable impact. Compared to other steel highway guardrail, this one is relatively cheaper and easy to install with a high effectiveness of redirection of errant vehicles when it is installed in a right way.
We offer cable barrier in the following wire combinations –



3 x 7

Wide range of diameter – 1/2" to 9/16"
Length – Reels or Hand Coils of custom length
Finish – HDG – EHS

STRUCTURAL BRIDGE GUY STRAND

Structural bridge guy strand refers to a type of high-strength cable used to provide support and stability to bridges, particularly those with cable-stayed or suspension designs. These strands are typically made from steel and are designed to withstand significant tensile loads. They help secure the bridge's structural components, ensuring proper tension and balance. Guy strands are crucial in maintaining the integrity and safety of the bridge by preventing excessive movement or deformation under load.

Part#	Strand dia	Wires per strand	Coated wire dia	Approx. strand weight	Breaking Strength
	in	No.	in	/1000 ft (lbs)	lbs
ASG-191116-UA	11/16	19	10/73	999	58000
ASG-19034-UA	3/4	19	3/20	1155	68000
ASG-19078-UA	7/8	19	17/96	1581	92000
ASG-19001-UA	1	19	1/5	2073	122000

WIRE CABLE ACCESSORIES

WIRE THIMBLES – GALVANIZED

Part #	Cable Size	Wt (Lbs)/100 Pcs
ACA-T018	1/8"	3.02
ACA-T316	3/16"	3.16
ACA-T014	1/4"	3.75
ACA-T516	5/16"	4
ACA-T038	3/8"	6.25
ACA-T012	1/2"	12

ALUMINUM SLEEVE

Part #	Cable Size	Wt (Lbs)/ 100 Pcs
ACA-S018	1/8"	0.63
ACA-S316	3/16"	1.55
ACA-S014	1/4"	2.53
ACA-S038	3/8"	5.92

Also available in 1/16", 5/64", 3/32", 5/32".

PULLEYS

Part #	Pulley Dia	Bearing	Material	Pieces/ Ctn	Wt (Lbs)/ Ctn
ACA-P312BP	3-1/2"	Bearingless	Plastic	50	37.5
ACA-P312BCI	3-1/2"	Bearingless	Cast Iron	25	37.5
ACA-P312NBCI	3-1/2"	Needle Bearing	Cast Iron	25	58

WIRE ROPE CLIPS

Part #	Cable Size	Wt (Lbs)/100 Pcs
ACA-C014	1/4"	12
ACA-C516	5/16"	14
ACA-C038	3/8"	22
ACA-C012	1/2"	38

Also available in 1/16", 1/18", 3/16".

GALVANIZED GUY STRAND

MANUFACTURING SPECIFICATIONS

ASTM A363 –This specification covers concentric lay stranded steel wire composed of three or seven wires with a Class A coating specifically intended for use as overhead ground/shield wires for transmission lines. ASTM A475 –This specification covers the five grades of class A zinc-coated steel wire strand, Utilities, Common, Siemens-Martin, High-Strength, and Extra High-Strength, suitable for use as guy and messenger wires. ASTM B498 –This specification covers round, class A zinc-coated, steel core wire used for the reinforcement of ACSR conductors.

NOMENCLATURE

1	2	3		4	5		6
A	GS	3	-	516	U	-	A

Digit-1-Mfg.Identification

AVA-A

Digit-2-Product Category

GS - Guy Strand
LW - Lashing Wire
TW - Tie Wire
RB - Cable Guard Rail Barrier
SG - Structural Guy Strand
BW - Barbed Wire
WW - Welded Wire
SW- Smooth Wire

Digit-3-No. of Strand

3	-	3
7	-	7
19	-	19

Digit-5-Grade of Steel

U - Utility
C - Common
S - Siemens
H- High Strength
E- Extra High Strength

Digit- 4-Strand Dia

1/8	-	018
3/16	-	316
7/32	-	732
1/4	-	014
9/32	-	932
5/16	-	516
3/8	-	038
7/16	-	716
1/2	-	012
9/16	-	916
5/8	-	058
3/4	-	034
7/8	-	078
1	-	001

Digit-6-Class of Galvanizing

A - Class A
B - Class B
C - Class C

GALVANIZED GUY STRAND

Guy wire is a concentric-lay stranded steel wire that uses tension to secures structures such as Transmission Towers & Distribution Utility Poles, Telecommunications lines & towers, Radio masts, Wind turbines, Traffic & Railway signals, to name a few. Guy wire has several names, including guy strand wire, power line guy wire, guy rope, and guy line.

APPLICATIONS

Guy strand wires are connected, on one end, to the vertical structure they are intending to secure and the other end is attached to an anchor that is drilled into the ground. Their strength to weight ratio makes it ideal for supporting large structures to the ground. The process is called "guying" where the wire holds the vertical structure with stability, making an angle between the structure and the ground.

ADVANTAGES

Guy wires are known to provide advanced safety and quality to secure large structures. Their advantages are as follows -

Corrosion Resistance - Our galvanized steel wire provide high-quality zinc-aluminum alloy coasting that prevents oxidation.

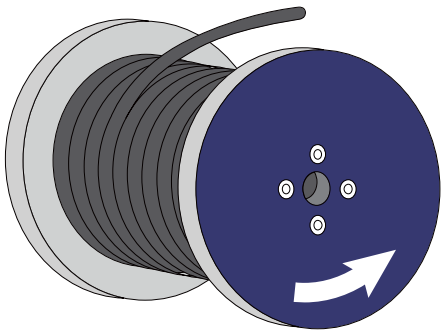
Stability & Strength - With options of 3, 7 and 19 strands, Guy wires are incredibly strong and can be relied upon to withstand high speed winds and resist snapping.

Durability - Glven its stability, strength and corrosion resistant nature, Guy Wires are built to stand the test of times.

SPECIFICATIONS

	Strand diameter		Wires / strand	Coated wire diameter	Approx. strand weight		Minimum Breaking Strength (lbs)					Minimum Weight of zinc coating (Oz./Sq. Ft.)		
SN	in	mm	No.	in	kg/m	lbs/1000 ft (lbs)	Utility grade	Common grade	Siemens-Martin grade	High strength grade	Extra high strength grade	Class A	Class B	Class C
1	1/4	6.4	3	0.120	0.17	117	3150	1860	3040	4730	6740	0.85	1.70	2.55
2	1/4	6.4	3	0.120	0.17	117	4500	...	...	...	...	0.85	1.70	2.55
3	5/16	7.9	3	0.145	0.25	171	6500	2490	4090	6350	9100	0.90	1.80	2.70
4	3/8	9.5	3	0.165	0.33	220	8500	3330	5560	8360	11800	0.90	1.80	2.70
5	1/8	3.2	7		0.03	23	...	...	...	1330	1830	0.40	0.80	
6	3/16	4.8	7	0.062	0.11	73	...	1150	1900	2850	3990	0.50	1.00	1.50
7	3/16	4.8	7	0.065	0.12	80	2400	...	...	...	...	0.50	1.00	1.50
8	7/32	5.6	7	0.072	0.15	98	...	1540	2560	3850	5400	0.50	1.00	1.50
9	1/4	6.4	7	0.080	0.18	121	...	1900	3150	4750	6650	0.60	1.20	1.80
10	9/32	7.1	7	0.093	0.24	164	4600	2570	4250	6400	8950	0.70	1.40	2.10
11	5/16	7.9	7	0.104	0.31	205	...	3200	5350	8000	11200	0.80	1.60	2.40
12	5/16	7.9	7	0.109	0.33	225	6000	...	...	...	...	0.80	1.60	2.40
13	3/8	9.5	7	0.120	0.41	273	11500	4250	6950	10800	15400	0.85	1.70	2.55
14	7/16	11.1	7	0.145	0.59	399	18000	5700	12100	14500	20800	0.90	1.80	2.70
15	1/2	12.7	7	0.165	0.77	517	25000	7400	9350	18800	26900	0.90	1.80	2.70
16	9/16	14.3	7	0.188	1.00	671	...	9600	15700	24500	3500	1.00	2.00	3.00
17	5/8	15.9	7	0.207	1.21	813	....	11500	19100	29600	42400	1.00	2.00	3.00
18	1/2	12.7	19	0.100	0.75	504	...	7620	12700	19100	26700	0.70	1.40	2.10
19	9/16	14.3	19	0.113	0.95	637	...	9640	16100	24100	33700	0.80	1.60	2.40
20	5/8	15.9	19	0.125	1.18	796	...	11000	18100	28100	40200	0.85	1.70	2.55
21	3/4	19.1	19	0.150	1.72	1155	...	16000	26200	40800	58300	0.90	1.80	2.70
22	7/8	22.2	19	0.177	2.35	1581	...	21900	35900	55800	79700	0.90	1.8	2.70
23	1	25.4	19	0.200	3.08	2073	...	28700	47000	73200	104500	1.00	2.00	3.00

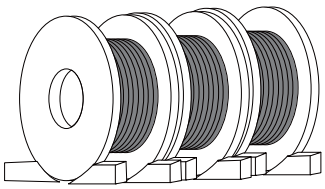
REEL HANDLING RECOMMENDATION



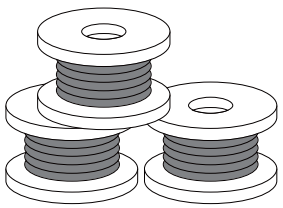
Roll reel in the direction indicated by the arrow.

YES

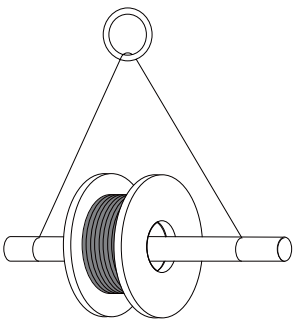
NO



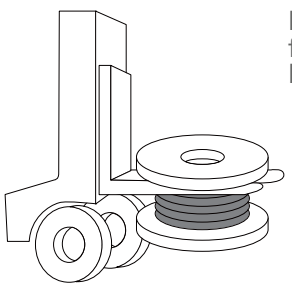
Always load and store reels upright on their flanges and block securely.



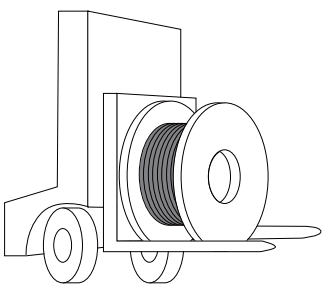
Upended heavy reels will often be damaged.



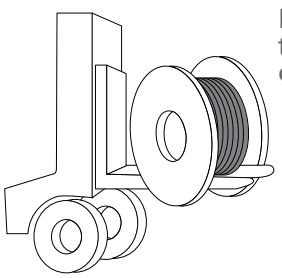
Reels can be hoisted with a properly secured shaft extending through both flanges.



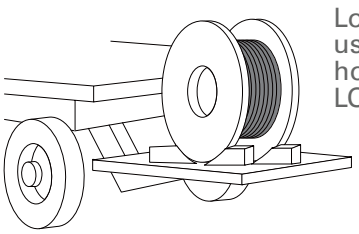
Do not lift by a single reel flange. Cable or reel may be damaged.



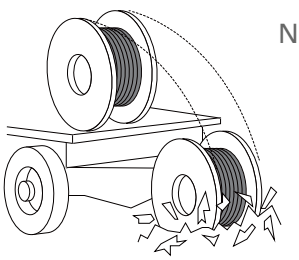
Cradle both reel flanges between fork tines.



Never allow fork tines to touch the cable surface or reel wrap.

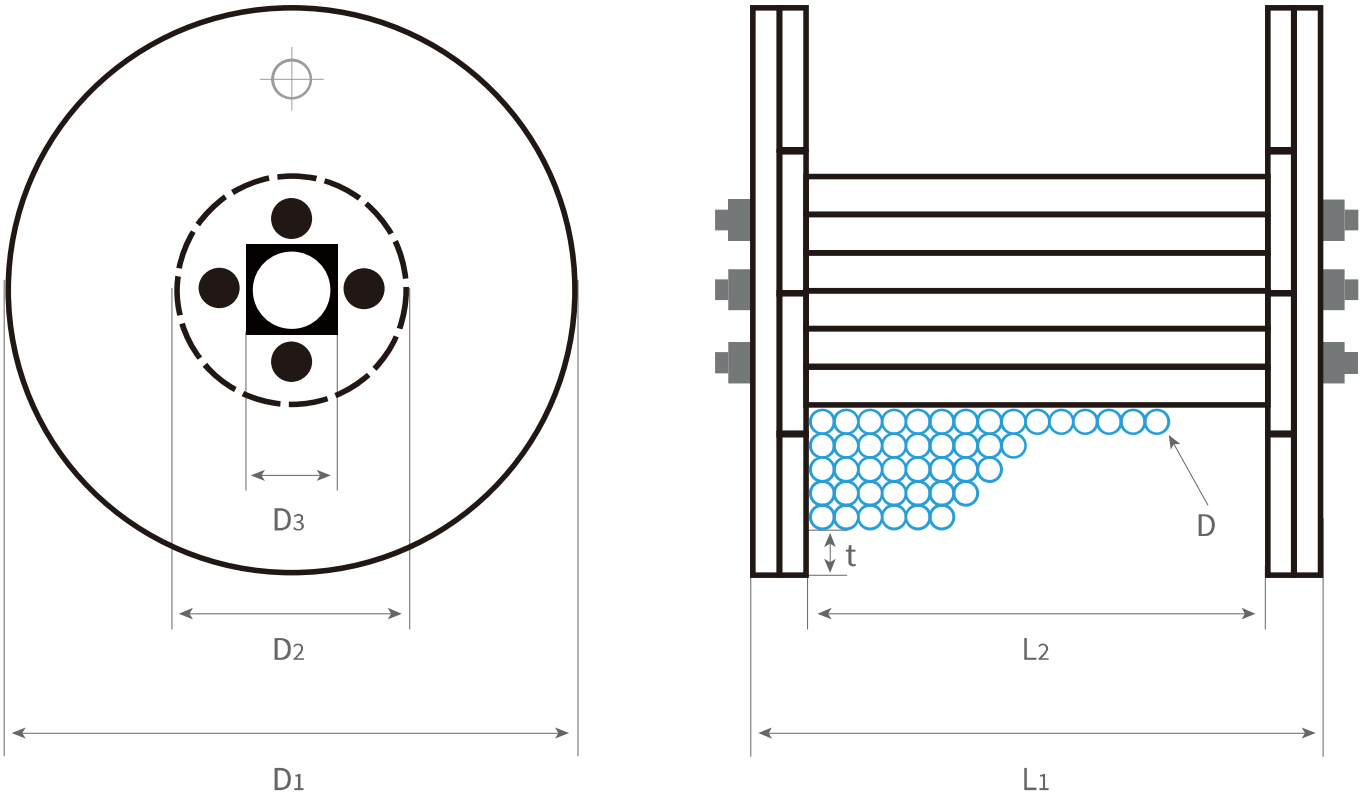


Lower reels from a truck using a hydraulic gate, hoist or fork lift. LOWER CAREFULLY.



Never drop reels.

STRUCTURE OF CABLE REELS (DRUMS) & SPECIFICATION



D_1 - Drum Overall Diameter
D_2 - Drum Core Overall Diameter
L_1 - Drum Width
L_2 - Width Between Sides
L - Length Capaity

D - Cable Overall Diameter
p - Cable Reeling Layer
n - Number of Cables per Layer
t - Free Margin

$L = L = \pi pn(d_2+pD) /1000$

*Note -- p = (D1-D2-2t)/2D
n = (0.95) L2/D

Drum Length Capaity Caculation Formula

Drum Overall Diameter(mm)	D1	D2	L1	L2
	Drum Overall Diameter(mm)	Inner Diameter(mm)	Outer Width (mm)	Inner Width (mm)
600	630	315	450	370
800	800	400	600	520
1000	1000	500	710	610
1250	1250	630	810	710
1400	1400	710	930	810
1600	1600	900	1100	980
1800	1800	1120	1100	960
2000	2000	1250	1100	960
2200	2240	1400	1350	1190
2500	2500	1500	1350	1190

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Note: