

ENGINEERED GUY CABLES

A BETTER WAY TO STABILIZE
FREE-STANDING STRUCTURES

When wind, rain, snow, and extreme environmental conditions threaten the stability of tall structures, engineered guy cables provide the strength and reliability needed to keep them standing. From broadcast towers and radio antennas to mobile communication systems and other critical infrastructure, guy cables must withstand constant tension while delivering long-term performance.

Cortland International's engineered synthetic guy cables offer a lighter, stronger alternative to traditional steel guy wires. Manufactured using advanced high-performance fibers, these assemblies deliver exceptional strength while dramatically reducing weight, simplifying installation, and improving handling in the field.

Unlike steel, synthetic fibers provide outstanding dielectric properties, acting as a natural electrical insulator while eliminating many of the challenges associated with conventional EHS steel cable, including electromagnetic interference (EMI), radio frequency interference (RFI), signal suppression, directional irregularities, and white-noise arcing. Combined with low stretch, low creep, excellent UV resistance, and outstanding weather durability, synthetic guy cables provide long-lasting performance in demanding environments.

For more than 30 years, Cortland has been engineering high-performance synthetic fiber solutions utilizing materials including Kevlar®, Vectran®, HMPE, and PBO. Our proprietary manufacturing techniques optimize the inherent strength, stiffness, and lightweight characteristics of these advanced fibers to produce engineered guy cable systems built for mission-critical applications.

Cortland is the only manufacturer to offer a fully synthetic guy cable system - including synthetic terminations - providing maximum corrosion resistance, electrical insulation, and weight savings without sacrificing strength or reliability.

Designed to integrate seamlessly into existing infrastructure, Cortland synthetic guy cables utilize the same geometry as conventional steel cable fittings, allowing for straightforward replacement or incorporation into new designs. Their lightweight, flexible construction also makes them ideal for both permanent installations and rapidly deployable mobile systems.

Every solution begins with your application. Our engineering team works closely with customers to evaluate load requirements, cable length, service life, interface geometry, environmental conditions, and protective jacket or coating requirements to deliver an optimized solution.



To learn how engineered synthetic guy cables can improve your next project, contact Cortland International at contact@cortlandinternational.com.

Features

- Engineered specifically for guying applications
- High strength-to-weight ratio
- Fully synthetic system, including terminations
- Low stretch and low creep
- Excellent dielectric properties
- Corrosion resistant
- UV and weather resistant
- Lightweight and easy to install
- Compatible with existing steel cable geometries

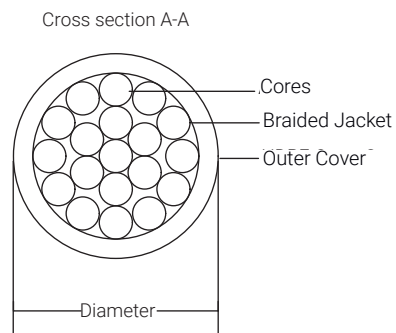
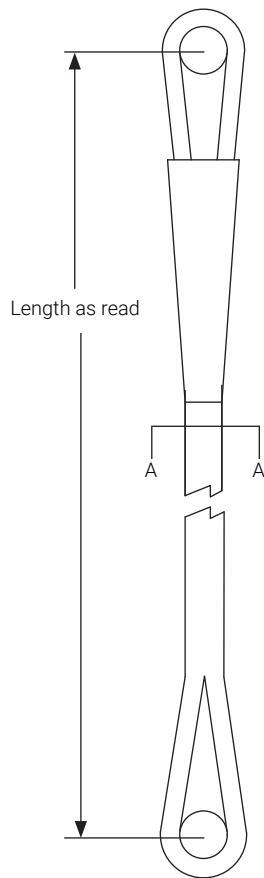
Applications

- Broadcast towers
- Communication and radio towers
- Mobile communication towers
- Antenna systems
- Fixed structures
- Static and dynamic structural guying applications

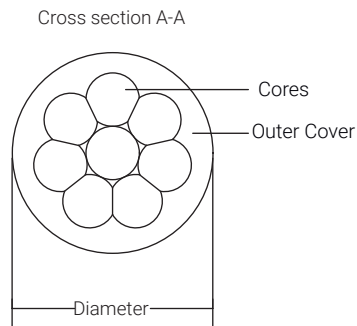
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Engineered Guy Cables

Part No.	Equivalent EHS Size (in)	Outside Dia. (in)	Minimum Break Strength (lbs)	Linear Density (lbs/ft)	Recommended Pin Size (in)	Recommended Shackle Size (in)	Recommended Thimble Size (in)
3031	-	0.19	2,800	0.016	1/2	1/4	5/16" Galvanized Steel
3001	3/16	0.28	5,800	0.02	1/2	3/4	5/16" Galvanized Steel
3022	1/4	0.37	10,350	0.045	1	3/4	3/8" Galvanized Steel
3027	9/32	0.41	15,300	0.071	1	3/4	1/2" Galvanized Steel
3048	5/16	0.5	20,250	0.087	1-1/4	1	1/2" Galvanized Steel
3045	3/8	0.55	25,830	0.114	1-1/4	1	5/8" Galvanized Steel
3049	7/16	0.62	32,000	0.142	1-1/2	1-1/4	5/8" Galvanized Steel
3047	1/2	0.76	41,300	0.224	2	1-3/4	3/4" HD Galvanized Steel
3112	9/16	1	65,700	0.322	1-1/2	1-1/4	HDPE Bearing Pad
3114	5/8	1.11	100,300	0.403	1-3/4	1-1/2	HDPE Bearing Pad
3116	3/4	1.23	109,800	0.476	2	1-3/4	HDPE Bearing Pad
3115	7/8	1.28	118,000	0.548	2	1-3/4	HDPE Bearing Pad
3118	1	1.44	160,000	0.755	2-1/4	2	HDPE Bearing Pad
3121	1-1/2	1.56	186,300	0.833	2-1/4	2	HDPE Bearing Pad



Cross section for diameters 3/16"-9/16"



Cross section for diameters 5/8"-1-1/2"

Email contact@cortlandinternational.com for an initial discussion, or visit us online at cortlandinternational.com.