

AR® Snubber

Low Frequency Galloping Control
for Guy Cables and Broadcast Towers



APPLICATIONS

The AR Snubber System uses twisting to control galloping of the guy cables supporting communications and broadcast towers. When galloping conditions cause the guy cable to move upwards, the Snubber pull down from its horizontal position, a change of 90° from the set position. This action by the Snubber causes the cable to twist, which serves to interrupt the galloping motion. Snubbers are mounted along the cable at pre-selected positions from the end of the guy cable. A Helical Grip safety link system attaches to the anchor with a certain amount of coiled slack. Multiple units may be required depending on the size and length of the guy cable. Snubbers are anchored either to the ground or back to the tower, depending upon the terrain surrounding the communications tower.

Snubbers are used to control movement during abnormal conditions that include wind and ice formation along the guys. Snubbers allow for free movement of a guy cable during regular conditions, but when galloping conditions occur, the aerodynamics of the Snubber design and placement cause the cable to twist and thereby off load the ice foils.

Expert engineering customizes the product application and installation to the design features of the tower and guy cables. This galloping control system is optimized by the size

of the clamps, the number of units and length of tether cable to the safety link system.

HOW IT WORKS

The AR Snubber System mounts perpendicular to the guy cable and horizontal to the ground. Each Snubber unit has one AR Clamp (sized to the guy cable diameter), a Helical Grip, a tether line connected to a Safety Link system. When galloping conditions occur, the AR Clamp causes the cable to twist and off load any ice formation along the guy itself. When an impulse event occurs, the Snubber System is activated and acts as a restraint device against the galloping. The Snubber is rugged enough to resist heavy ice and hurricane force winds.

PERFORMANCE TESTED

AR®Snubbers have been in service for more than 10 years, with no reported failures. The SAFE-Link system is designed to withstand wind-force galloping up to 4000 lbs., at which point it breaks to protect the guy cable.

AR®Clamps have been strength tested at Helical Line Products. Slipping tests found clamp strength to exceed 1000 lbs. In tension tests, the clamp withstood 8000 lbs.

SPECIFICATIONS

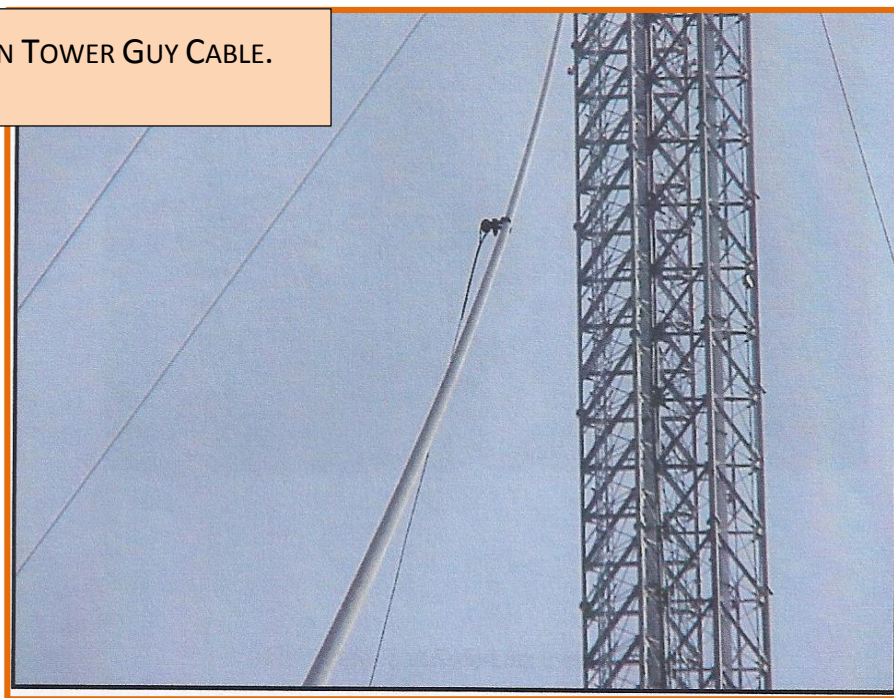
- AR Clamp Sized to fit guy cables (xx to xx" diameter)
- Hardware 5/8 – 3" Hex Bolt, ANCO and split lock washer

CONSTRUCTION AND IMPACT ON THE CABLE

AR®Clamps are forged aluminum casting. A single galvanized bolt and ANCO lock-nut secure the clamps to a 0.25" twisting, galvanized steel cable grip by Helical Grip. There is minimal structural loading on the cable because of its low profile, compact design and weight.

The smooth, round inner edges of the clamp and flexibility in clamp sizes makes the AR Snubber System suitable for a range of guy sizes and tower designs. Total weight is 6 lbs.

SNUBBER INSTALLED ON TOWER GUY CABLE.



AR® Snubber Systems are anti-galloping dampers. Installed horizontally on the guy cable, the Clamp can rotate towards the ground up to 90 degrees. This twisting action helps arrest the galloping motion.

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