Attaching Hardware to Fiberglass Crossarms

Drilling Fiberglass Crossarms – It is recommended that a Carbide Drill Bit be used. Proper ventilation and safety equipment should be used when drilling any fiberglass product. Special care must be taken in the drilling of the crossarms to ensure correct hardware location and orientation. A clear sealant or protective lacquer should be applied to any exposed fibers.

Suggested Hardware – MPS patented curved washers for deadends or 4”x4” washers (3/8” thick) are recommended on both sides of the crossarm for horizontal loading. This will allow for the full load applied to the crossarm to be spread over the entire surface of the crossarm. 4”x4” washers (1/4” thick) are also recommended for use with insulator pins when extreme transverse or longitudinal loads are encountered. MPS patented curved washers are normally included with all deadend crossarms. Consult factory if extra washers are required.

Fiberglass Crossarms have inherent properties that are very different than wood crossarms. Care should be taken during installation of hardware not to damage the outer surface of the crossarm.

Recommended Torque Values (Deadend and Tangent) – When attaching hardware to the crossarm or mounting crossarm to a pole, torque values should not exceed 25 foot-pounds. (Fiberglass does not expand and contract like wood, and therefore higher torque values do not ensure a tighter fit. Typical installations on wood crossarms may involve sinking the hardware into the wood in order to insure a tight fit as the wood arm shrinks over time. Double spring lock washers are sometimes used on pin attachments for this purpose as well and are not recommended for fiberglass installations. Any pin attachments or other hardware with cleats that are meant to dig into wood crossarms are also discouraged from use.)

Assembly of Crossarm to the Pole – For ease of installation and safety, it is recommended that the keyhole on the top of the center mount be used. The keyhole is designed to support the weight of the crossarm during installation.

Loading of Fiberglass Crossarms

MPS crossarms have a published “Ultimate Load” and “Deflection” characteristic:

Ultimate Load is the maximum load that should be applied to the crossarm per side of the arm. Ultimate loading values per phase are dependent upon the number and position of phases. Loads above this level may cause damage to the crossarm.

Deflection is the displacement of the crossarm under load and is published in inches of displacement per 1000 lbs of load applied.