

OVERVIEW

The following sag chart may be used to determine the minimum recommended installation sag for TFC's 0.625 inch cable with 3/16 (0.1875) inch stranded extra high strength steel messengered wire. The chart includes sag at three temperatures for various spans.

MINIMUM SAG

The chart is based on cable in a heavy loading district (i.e., 0.5 inch radial ice, 4 pounds/square foot wind, at 0° F, plus a 0.3 pound/foot constant per the NESC). Because all of the elements of the messengered cable are essentially bonded together, they act to support the cable. The cable, however, must be cut and separated from the steel strand to install taps. Any load on the cable is diverted to the 3/16 (0.1875) inch steel strand, thus loading the messengered wire further. Therefore, any given point on the chart is based on limiting the maximum tension on the entire assembly to 60 percent of the breaking strength of the steel strand.

The sags are not meant to be those which one should attempt to obtain. Rather, they should be considered the tightest sags for the cable to perform reliably. Wherever possible, additional sag should be used.

CAUTION

The chart is meant to minimize excessive stress on the cable. However, other factors such as clearance restrictions with other utilities and state, local, or other safety codes and practices that may apply must also be considered. Special hardware is necessary for proper use of messengered cable. A detailed description and proper use of the hardware should be obtained from the manufacturer.

Example: The minimum sag for a 165 foot span installed at 70° F is 1 percent. Actual sag: $0.01 \times 165 \text{ feet} = 1.65 \text{ feet}$ minimum sag.

