

How to maximize the high cantilever load rating of Hendrix visetop and pin type insulators?

All Hendrix visetop and pin type insulators are tested according to ANSI C29.5 for cantilever loading. All of the insulators meet the 3000 lbs. cantilever load requirement. However, this test is a temporary cantilever load test and not intended to have the insulator at this loading for an extended time period. ANSI often requires a safety factor of 2 for the cantilever rating. More importantly, in order to maximize the cantilever rating of the insulators the following conditions have to be met.

- Conductor installs around the insulator's neck
- The pin de-rating value needs to meet the allowable cantilever load rating.
- The overall construction design capacity needs to be considered; for instance pole rating, conductor span, conductor angles, environmental effect (wind, ice) just to name a few.

Suggestions of pin types that can be used to help maximizing cantilever load. These pins typically have higher de-rating values:

- Flared base closed neck pins
- Ridge pins
- Large shank pins
- Double cross-arm construction (use two insulators to help reduce the load on each insulator).

The insulator allowable percentage load rating is guided by NESC Safety Code 2011 Table 277-1. The load rating for Hendrix visetop and pin type insulators is 1500 lbs. (50% of the tested load). Pin strength values are provided by the pin manufacturers. The maximum design load of any construction is the smaller load between the pin de-rating value and the insulator load rating.