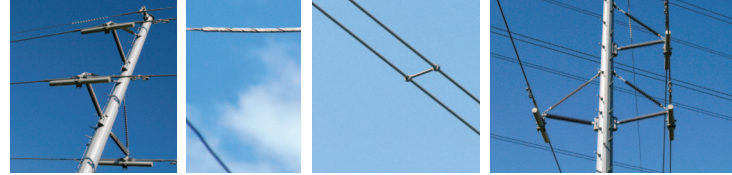


Shunt Splice



General Recommendations



Any electrical connections or splices that exist on overhead electrical power lines are subject to possible degradation over long periods of time in service. The causes for the possible degradation can include inadequate or aging inhibitor, material creep, inadequate cleaning or improper installation. The result is generally an increase of electrical resistance which produces excessive heat. Over time the excessive heat further degrades the connection until ultimately a failure (electrical and/or mechanical) occurs.

Preformed Aluminium Splice Shunts have been designed to restore the electrical and mechanical integrity of compression splices and the electrical integrity of deadends that have been found in a deteriorating state, either high temperature or high resistance. The shunt is designed so that the electrical conductivity of the complete set of rods is slightly greater than the conductivity of the conductor on which it is being installed. This means that shunt can electrically replace all of the aluminum strands of the conductor, and the resulting resistance of the compression splice, plus the shunt will be much lower than the adjacent conductor. As a result of the decreased resistance and the increase in aluminum mass and surface area, the temperature of the splice/shunt combination will be much lower than the conductor.

Because of the overall length of the shunt and the use of conductive grit on the inner bore of the rods, the shunt is designed to hold between 50% and 65% of the rated breaking strength of the conductor. This means that even if overheating has reduced the strength of or even melted some of the aluminum strands of the conductor, the shunt will restore much of the mechanical integrity.

For Application Procedures, visit the PLP website.
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