



## **BENEFITS OF IMPROVING STEP BOLT DESIGN** FOR STEEL UTILITY POLES

OF DISTRIBUTION

### Perfect For Reducing Costs In The Electrical Industry

#### THE CHALLENGE

A manufacturer of steel utility poles was experiencing production line bottle necks when welding step bolt attachment clips onto the poles.

- The clip welding process made it difficult to align the clips along the full length of the pole leading to clip misalignment, improper welds, missing clips, and damage during shipping.
- The full installation method utilized a welded clip and two hex nuts to attach hot dip galvanized step bolts.
- There were safety concerns due to the fact that the lineman had to install the step bolts using two hands while ascending the pole.

#### THE SOLUTION

Leveraging our engineering, tooling and manufacturing capabilities, Sherex developed the industry's first large size rivet nut product line.

- The large size rivet nut was designed with an oversized thread for use with hot dip galvanized step bolts.
- Sherex collaborated with its tooling partner, MDS, to develop the FLEX-18, an installation tool powerful enough to pull the large rivet nuts. This hydropneumatic tool provided the capability to pull 18,000lbs and allowed the operators to install rivet nuts accurately and efficiently.
- Utilizing the rivet nut solution, the manufacturer was able to laser cut holes into the pole to ensure each hole was properly spaced and in a straight line.
- The fast, turnkey solution eliminated the welding process, the clip, and one of the hex nuts, and allowed for the installation of the step bolts to become a one hand operation on the assembly line.

#### THE SAVINGS

Annual step bolt production: 25,000

COST SAVINGS: \$6.00 PER STEP = **UP TO \$150.000 IN SAVINGS!** 





## **ENGINEERED SOLUTIONS**



# REDEFINING THE WORLD OF DISTRIBUTION



EFC Is A Solutions Provider. Innovation Is The Engine That Fuels Our Dedication To Solving Problems.

NORTH AMERICA • EUROPE • ASIA/PACIFIC