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Quick Connection Guide for YONUSA AP101 Insulator - Square Pitch Insulator

Introduction

This is a technical guide for the professional installation of step insulators, designed to safely slide the high-voltage line and prevent current leakage to intermediate poles.

YONUSA

Preparation for Crossing Post.

Before installing the step insulators, make sure the pole is properly anchored.

There are two types of posts

- Corner post
- **Crossing post**

You need to determine how many posts will be used for the fence, and what type they will be. To determine the type of posts, it is suggested to draw a diagram of the fence's perimeter.

1. - All poles that end at a corner or that cover a distance greater than 25 meters are called corner poles, since they withstand mechanical tension

2. -**All posts that only allow the passage of the driver are known as through posts.**

1. Preparation of the Step Post

Drilling: Use posts with pre-drilled holes (usually 5 levels for a standard fence).

Insertion: Insert the AP101 insulator into the hole in the pole. The square base of the insulator must fit snugly to prevent rotation or movement that could wear down the plastic over time.

A section of pipe 1.28 meters long is cut, measured and the 28 centimeters for anchoring are excluded, and the rest is divided every 20 centimeters for the placement of insulators, placing a mark as a sign.
In the case of the step post, at each of the marks a step insulator is placed with two 1/8 x 3/4 or No. 56 Pop aluminum rivets, making a hole for each rivet with a 9/64 metal drill bit.

2. Line Laying

Free Slide: Insert the wire (galvanized or aluminum) through the center hole of the insulator.
Important: Never tie knots, knots, or twist wires in a jump insulator. Its function is to allow the wire to run freely so that the tension applied from the ends (corner posts with turnbuckles) is uniform around the entire perimeter.

3. Alignment and Tension

Distance between Poles: It is recommended to place a step pole with AP101 insulators every 4 to 6 meters to prevent the wire from sagging ("buckling").
Leveling: Ensure all AP101 insulators are at the same height on all intermediate poles to maintain perfectly horizontal and aesthetically pleasing lines.

4. Security Verification

Distance to the Post: Verify that the wire passes exactly through the center of the insulator. The AP101 design ensures the necessary clearance to prevent the high voltage (12kV - 15kV) from jumping to the metal pole (electric arcing).

Cleaning: Make sure there are no metal burrs or wire tips near the insulator that could reduce the insulation distance.

Recommended Maintenance:

Visual Inspection: Check annually that the insulator does not have crystallization cracks or burn marks (carbon traces), which would indicate current leakage.

Dust Cleaning: In areas of high pollution, clean the insulators to maintain their dielectric property of 18 kV.