ANDREW®
an Amphenol company

7 best practices for coax cable handling - Europe

During installation, coaxial cable must be handled carefully to avoid damaging internal structure and seriously compromising its RF performance. Here are seven best practices to make your installations succeed.

Use the right tool for the job

Use the appropriate cable prep tool—usually available from cable's manufacturer—to cut and prep cable ends. Never use a saw, as it leaves metal filings behind that cause poor electrical performance and problems with passive intermodulation (PIM).

Watch those tricky curves

Different cable types have different degrees of allowable bend radii, or flexibility. You must observe the manufacturer's prescribed bend radius for your cable to ensure its specified performance. Bending too tightly can lead to poor electrical performance in coaxial cable; overbending the coax cable can cause stress cracks that may also cripple performance.

Keep your cables consistent

When possible, use RF jumper cables from the same manufacturer to ensure tight connections. Doing so provides consistent RF performance and guarantees PIM performance.

Ensure proper cable support

Manufacturers publish specifications describing how to support lengths of cable, both vertically and horizontally. Your specific guidelines will depend on your cable's construction, size and weight. If possible, use support clamps from the same manufacturer to avoid damaging the cable and loss of performance. Using third-party clamps may also invalidate your warranty.

Use the right hoisting grips

Hoisting cables up a cell tower is difficult. Using the correct hoisting grip helps lift the cable into position without damaging it. Hoisting grips come in several types and sizes; ensure yours matches your cable's specifications.

Proper cable grounding

Grounding the cable is very important to prevent damage from lightning strikes. Best practices dictate at least three grounding points: at the top of the tower, bottom of the tower, and just outside the entrance to the outbuilding, shelter or cabinet.

Weatherproofing connections

Connectors are particularly vulnerable to the infiltration of moisture. As soon as the connections are made, you should weatherproof them. Butyl tape is the preferred method but, in tight spaces, like those atop the antenna tower, you can opt for heat-shrink tubing applied with a heat gun.

By following these recommendations, you can help ensure the cabling used in your cell site will operate at peak efficiency with minimal maintenance. Reduced maintenance means fewer truck rolls, which lowers your CO2 emissions and your overall carbon footprint.

ANDREW.COM **Visit our website or contact your local ANDREW representative for more information.**