

# Bare Overhead Conductor



XINWIRE

新钢金属

# Transmit electricity with

Higher energy efficiency,

Better corrosion proof,

More flexibility,

by advanced material.



*Aluminum clad steel wire*

*High conductivity wire*

*6201 Al alloy wire*

*Galvanized wire*

*Rust proof, conductivity, thermal stability*

*Energy saving, conductivity 61.5~62.5%*

*High tensile, energy saving as core*

*Competitive material cost*



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### **Advantages of Bekaert Conductors Material**

|                                  |  |
|----------------------------------|--|
| <i>Aluminum clad steel wire</i>  | <i>Rust proof, conductivity, thermal stability</i> |
| <i>Bezinal Wire</i>              | <i>Rust proof, high tensile, thermal stability</i> |
| <i>High conductivity Al wire</i> | <i>Energy saving, conductivity 61.5~62.5%</i>      |
| <i>6201 Al alloy wire</i>        | <i>High tensile, energy saving as core</i>         |
| <i>Galvanized wire</i>           | <i>Competitive material cost</i>                   |

### **Applications**

- Power transmission, up to 1000kV.
- ACSR/AW for coast area and industrial area.
- ACSS, ACSS/AW for thermal upgrading.
- AAC & AAAC for power distribution.
- ACAR for less energy consumption in transmission and distribution lines.
- ACSR (Higher conductivity Al wire) also for energy consumption in transmission and distribution lines.

### **Packing**

All wires can be delivered in coils, plywood spools, corrugated steel spools or Steel-wooden spools.  
Spool size: 1000~2500mm (39.4~98inch).

Arbor hole size: 100mm (3.94inch) or specified by the customer.

*Standard product data sheet is available upon request.*

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# Handling & Stringing Guide for Overhead Conductor

## Handling

Handle the reels always with care. Load one reel only each time and keep arbor hole in horizontal direction. Friction, impact and corrosive chemicals could damage surface of conductor. For safety, bind or tie two positions between cutting places before cutting the conductor.

## Stringing the Conductors

Always follow the Guide or industry code, such as IEEE Std 524-2003. Following is for reference only.

1) Positioning of reels & bullwheel: The reel should be positioned so that it will rotate in the same direction as the bullwheels. Allowing enough distance between the reel and tensioner to permit the strand looseness to distribute along the intervening length of conductor and simultaneously maintaining enough back tension on the reel to stretch the core and inner strands to sufficiently tighten the outer strands. Free the tail end of the conductor before unwinding for releasing the cable torsion.

2) Wrapping the conductor on bullwheel: When receiving the bull-wheels of a tensioner with the conductor entering and leaving the wheel from the top facing in the direction of pull, the conductor should enter from the left and leave from the right for right-hand lay (standard for aluminum conductor) and enter from the right and leave from the left for left-hand lay (standard for ground wire, including OPGW). This procedure will avoid the tendency to loosen the outer layer of strands as the conductor passes around the bullwheels.

3) Tension between reel and bullwheel: Light and steady back tension, sufficient to prevent over-run in case of a sudden stop, should be maintained on the conductor reels at all times. It is recommended that the back tension or braking tension of the conductor reel not exceed 1000 lb (4.5 kN), since drawing down of the conductor into the lower layers on the reel may cause surface damage. For smaller diameters, the back tension should be considerably less.

The tension must also be sufficient to cause the conductor to lie snugly in the first groove of the bull-wheel and to prevent slack in the conductor between bull-wheels. It may be necessary periodically to loosen the brake on the reel stand as the conductor is paid off to prevent the conductor to wedge into the underlying layers on the reel.

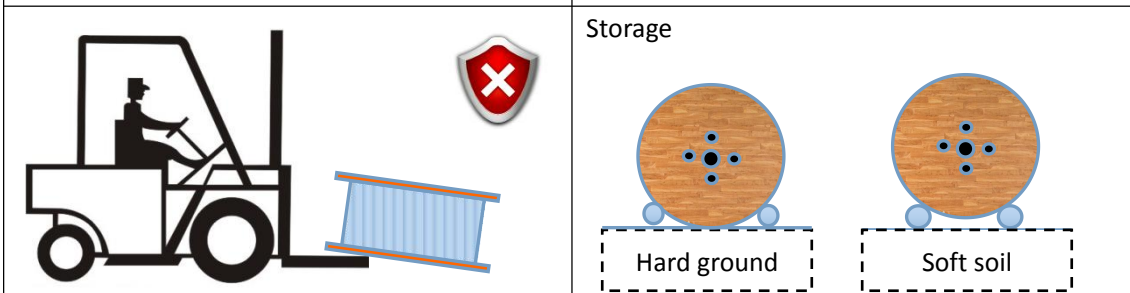
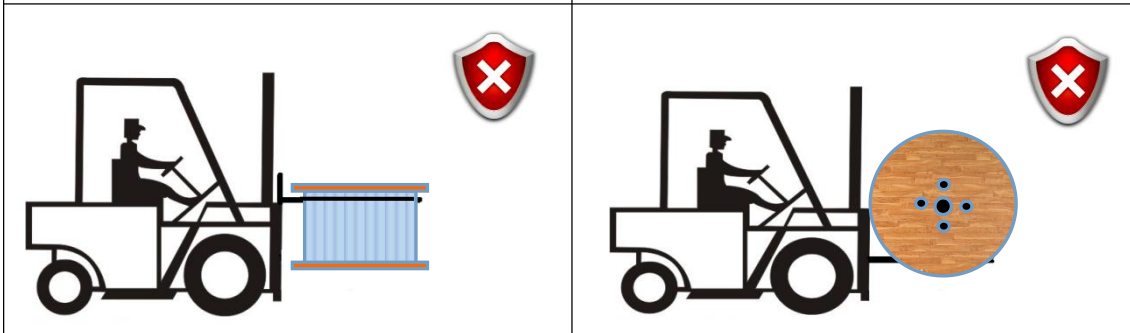
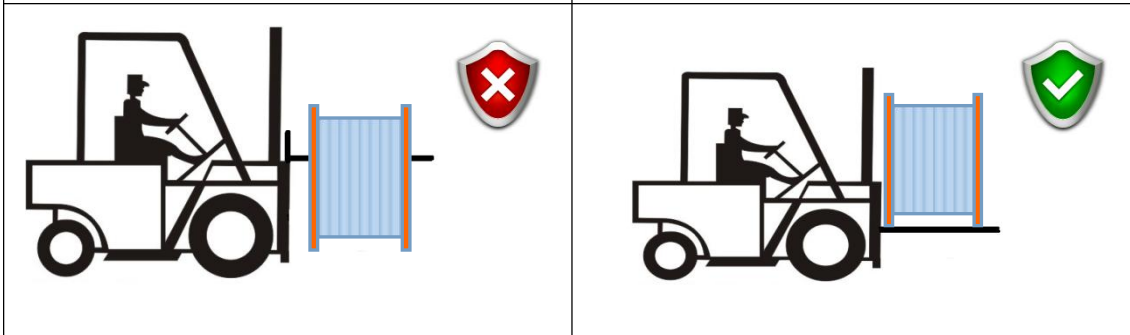
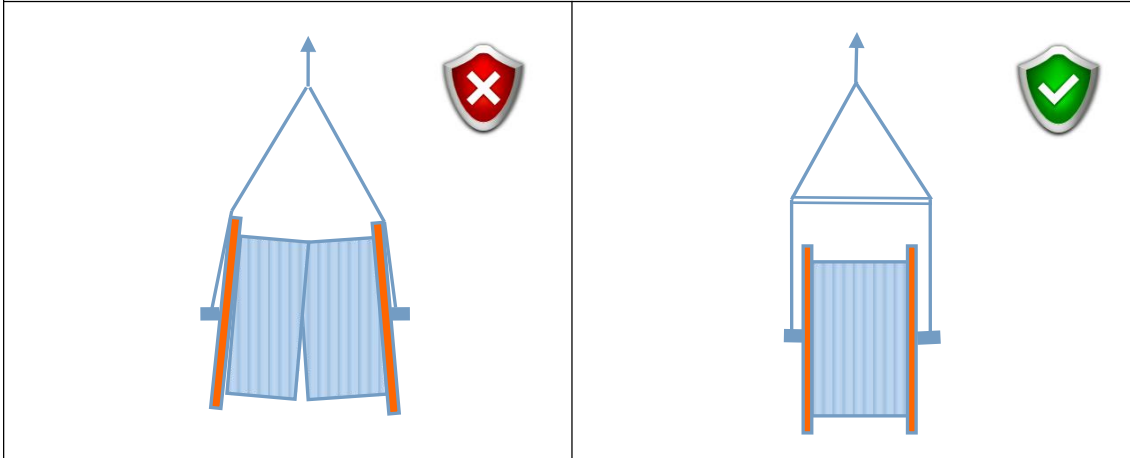
4) Pulling tension & speed: The maximum tension imposed on a conductor during stringing operations should not exceed that necessary to clear obstructions on the ground. Pulling speed of 5-8km/h is recommended for smooth passage.

5) Size of sheave and wheel: The sheave diameters should be not less than 20 times the conductor diameter. The size of sheave groove should be larger than diameter of conductor. High friction by sheaves may cause twisting on conductor leaving bullwheel. The tendency of Birdcaging is less for larger bullwheel size.

6) Other cautions: The long continuous length, poor alignment, or any factors which may increase friction will reduce the speed of torsion stress release.

## Reel Handling Recommendation

**Unloading from truck:** Caution for reel damage! Never drop the reels from truck, use forklift, hydraulic gate or hoist only.



**For safety,** Rolling should be avoided, if have to, rolling of the reel on the floor should always be slowly, be sure you will be able to stop it when needed and only in direction opposite to the stringing direction marked on the flange.

**Storage:** Flange in vertical direction is recommended. Stacking on top of each other should be avoided. Reel should keep dry for long term storage.

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