

## Instructions For The Safe Use Of Wire Rope And Cables



This document outlines the safe use of wire rope and cable and should be passed to the user of the equipment. The form covers best practice use only and may not cover all aspects of more specialised applications.

Additional advice on storage, handling, installation, inspection and discard is available on request.

### **ALWAYS:**

- Check that you have the correct rope for the application.
- Inspect the wire rope for damage, wear, corrosion or abuse at the start of each work period.
- Unwind the rope from the reel or coil smoothly without kinking.
- Ensure you are using the correct end terminations and rope anchors for the type and grade of rope you are using. (Contact us if in any doubt).
- Remove from service cables with damage to the cable structure such as kinking, crushing, bird caging, strand displacement or core protrusion.

### **NEVER:**

- Try to shorten a wire rope by knotting.
- Drag wire ropes over sharp edges or abrasive surfaces.
- Repeatedly bend wire ropes over small radii.
- Shock load wire ropes.
- Use wire ropes at extremes of temperature without consulting the supplier.
- Use wire ropes with obvious signs of mechanical, corrosive or heat damage without the advice of a competent person.
- Use wire ropes that are excessively worn, damaged or corroded.

### **Using Wire Ropes Safely**

Wire ropes are used in vast ranges of applications, each carrying their own attendant risks. Running wire ropes are particularly hazardous and should be closely supervised by a competent person while the rope is in motion.

Broken wires may develop during the working life of the rope and may present a safety hazard to unprotected hands. The cut ends of the wire ropes also contain sharp strands that need to be handled with care.

Eye protection should be worn when unfastening a wire rope from a reel or coil because of the inherent springiness of the product when it is released. Similarly, ensure that there are no people passing close by who might be at risk of being struck by the cable.

Take the utmost care when removing exhausted/failed wire ropes from equipment as they may be grossly distorted, springy, or tightly coiled.

Other risks will be dependant on the application, and should be quantified by a risk assessment carried out by a competent person.

### **Terminating The Cable**

When pressing or swaging a ferrule or other fitting onto a cable, ensure that the fitting is the correct diameter for the cable you are using - and use a swaging tool or press with the correct die size for the fitting. Ensure that there are no loose strands exposed that could ride up when inserting the end of the cable into a grip, ferrule or other fitting.

Plastic coated cables should always be stripped back for load-bearing applications, as terminating over the coating dramatically reduces the efficiency of the end fitting. Swaging fittings over the plastic coating is only suitable for non-load bearing applications such as security and decorative assemblies.

### **Working Load limits**

The Working Load Limit (WLL) is the maximum mass or force that the cable is authorised to support in general service, and will vary according to cable sizes and types. Details of WLLs for each cable that we stock can be found in our Webstore.

### **Storage And Handling Of Wire Ropes**

Wire ropes should be stored in a clean, well-ventilated, dry, undercover location, not subject to extremes of temperature. If the site conditions preclude inside storage, the rope should be covered with a waterproof material.

If ropes are to be stored for long periods, the reel or coil should be rotated periodically, particularly in warm environments to prevent migration of the rope lubricant. Consider wrapping the cable in a suitable material to help prevent moisture ingress.

**If in doubt please contact us:**

**T: +44 (0) 1278773510**

**E: [sales@tecni.uk](mailto:sales@tecni.uk)**

**W: <https://www.tecni.uk>**

### **Warning:**

**Failure to observe safety advice may result in death or serious injury.**