

# DYNA-HANGER™ Rods

## INSTALLATION GUIDELINES

1. Be sure to read and completely understand this procedure before applying this product. This procedure covers the application of DYNA-HANGER™ Rods without machine parts. For the application of DYNA-HANGER™ Rods associated with a DYNA-HANGER™ Suspension System refer to the PMI Special Procedure (SP) for that system.
2. PMI helical products are precision formed devices that should be handled carefully. To minimize grit loss, distortion, or damage they should be safely stored until used.
3. PMI DYNA-HANGER™ Rods are designed for use on cables and hose bundles to provide abrasion and bending protection, and (after installation) a suitable base for PMI or synthetic gripping products. When applied on un-jacketed steel armored cables, the DYNA-HANGER™ Rods must have the same lay direction as the cable armor. For other uses please contact PMI Industries, Inc.
4. PMI DYNA-HANGER™ Rods may be removed and re-installed only once, upon initial installation and prior to any loading. If removal of the DYNA-HANGER™ Rods is necessary after they have been installed the rods must be replaced.
5. When DYNA-HANGER™ Rods are being used on cables with fairing to grip the cable and support tensile loading (as opposed to abrasion & bend protection) the following preparation should be followed. Hair fairing (i.e. braided DACRON® with loose strands or "hair") increases the cable diameter with material which is not uniformly round or dense. These properties can subtract from the holding performance of helical gripping products. Therefore, to maximize the performance of the DYNA-HANGER™ Rods on cables with fairing, the fairing "hair" should be removed (cut) from the braid. This installation approach provides a uniform diameter and density for transferring the helical gripping rods' radial clamping pressure through the braid and into the underlying cable.

## SAFETY CONSIDERATIONS

1. For proper performance and personal safety be sure to select the proper size product for your application.
2. This application procedure is not intended to supersede any company safety standards. This procedure is offered only to illustrate safe application for the individual. Failure to follow these procedures may result in personal injury.
3. Leather work gloves and eye protection should be worn when handling and installing this product.
4. When passing this product over a sheave, the sheave diameter needs to be at least 40 times the diameter over the helical rods (cable + applied rods). To prevent the rod ends from lifting off the cable when passing over a sheave, use tape and/or metal bands to serve the rods ends in place.

## APPLICATION SEQUENCE

1. Locate the section of cable where the DYNA-HANGER™ Rods are to be applied. If required remove the fairing “hair” for the length of the rods.

**NOTE:** It is recommended to suspend the section of cable designated for the DYNA-HANGER™ Rods between two workbench vises (if available). Suspending the cable off the deck will allow clearance for wrapping on the rods. For flexible cables, apply rods with the cable under some tension. The stiffer the cable, the easier it is to apply the rods.

2. Apply the DYNA-HANGER™ Rods to the cable one subset at a time. Align the colormark of the first rod subset (located at the center of the rods) with the center of the designated cable section. Begin at the colormark and lay the rod subset against the cable. While holding the rod subset firmly in position, wrap the subset around the cable on one side of the colormark. Apply about three wraps of the subset onto the cable so that the rods will stay on. Avoid winding the cable into the rods as this will make it difficult to fit the remaining rod subsets onto the cable. Be careful during handling not to permanently bend the rods. Now, wrap the rod subset about the cable on the other side of the color mark. See Figure 1.

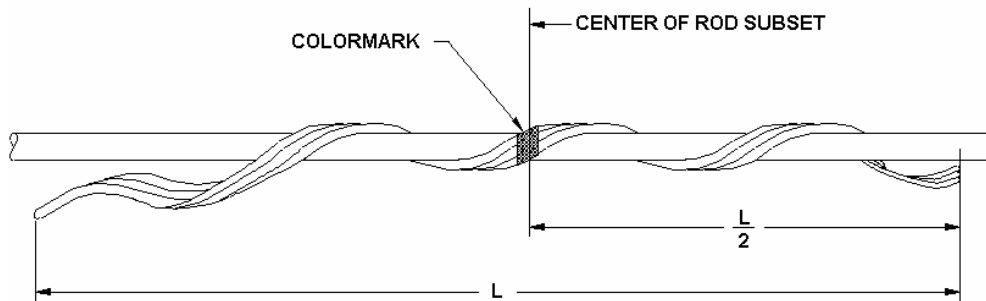


Figure 1.  
One subset partially wrapped onto cable.

3. Apply each remaining rod subset in the same manner. Use the colormark to align each subset with the applied subsets. Continue to wrap the rod subsets about the cable until the rod layer is completely applied. Make sure no rods are crossed. Rod subsets may be split into single rods for the last 1 or 2 pitch lengths in a case where snapping in a subset becomes difficult. If necessary, tap rods down with a rubber mallet to help rods lie flat. See Figure 2.

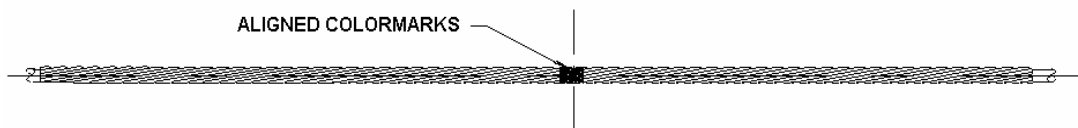


Figure 2.  
All subsets applied with colormarks aligned.

4. If additional layers of DYNA-HANGER™ Rods are being installed, apply each layer over the inner rod layer one subset at a time. Align the colormark of the outer rod layer subset to the colormark on the inner rod layer. Begin at the colormark and lay the rod subset against the cable. While holding the rod subset firmly in position, wrap the subset around the inner rod layer. Apply about three wraps of the subset onto the cable so that the rods will stay on (first in one direction then the other). Repeat Step 3.
5. Tape and/or metal bands should be used to serve the rod ends of each rod layer to avoid snagging or rod end un-wrapping, especially when handled over deck & cable gear.

