



**Installation Instructions
For Wire Mesh Pulling Grips
On Prysmian Premises Fiber Optic Cables**

**MP – 1020
Issue 1
June 2010**



**DISCLAIMER OF WARRANTIES AND
LIMITATION OF LIABILITIES**

The practices contained herein are designed as a guide. Since there are numerous practices which may be utilized, Prysmian has tested and determined that the practices described herein are effective and efficient. The recommended practices are based on average conditions.

In addition, the materials and hardware referenced herein appear as examples, but in no way reflect the only tools and materials available to perform these evaluations.

Prysmian Communications Cables and Systems USA make no representation of nor assume any responsibility for its accuracy or completeness. Local, State, Federal and Industry Codes and Regulations, as well as manufacturers requirements, must be consulted before proceeding with any project. Prysmian Communications Cables and Systems USA disclaim any liability arising from any information contained herein or for the absence of same.

For further information or assistance, contact:

Prysmian Communications Cables and Systems USA
Field Services Department
700 Industrial Drive
Lexington, SC 29072-3799
803-951-4800
FAX (803) 957-4628

Table of Contents

1.0	General Information	4
2.0	Preparation Notes	4
3.0	Installation Procedure for Premises Cable	5
4.0	Appendix A - Explanation of Wavy Condition Sometimes Found In Premises Cables	7

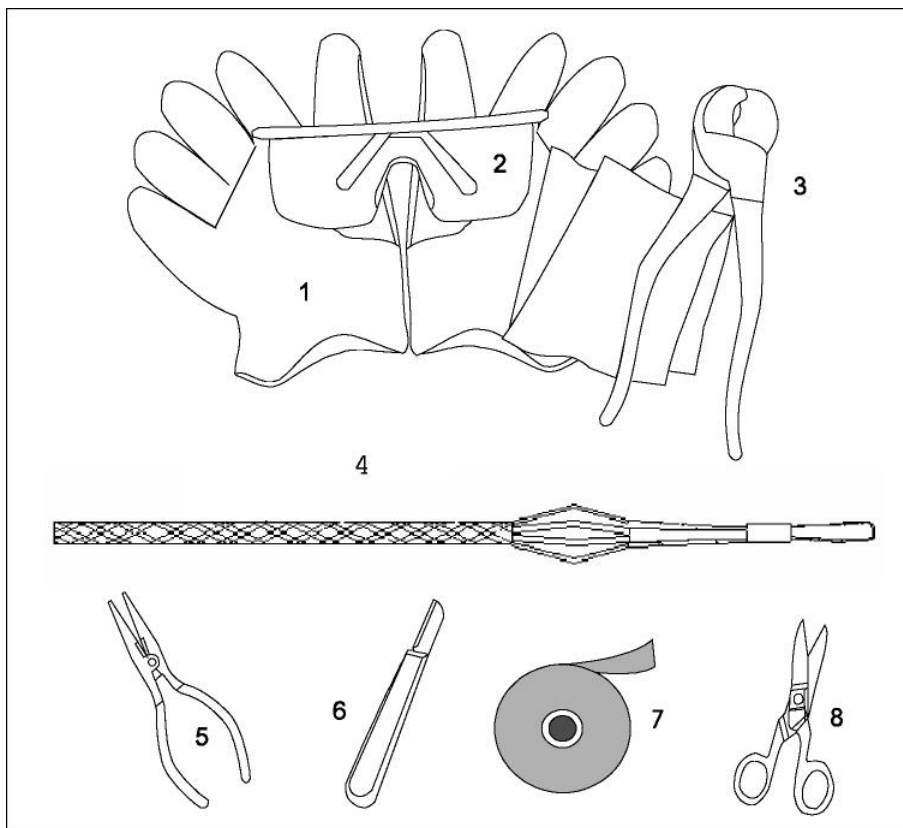
10 General Information

The purpose of this document is to provide a set of step by step instructions describing the installation of wire mesh pulling grips on Prysmian's Premises cables. The methods and procedures contained herein are designed as a guide. Since there are numerous methods which may be utilized, Prysmian has tested and determined that the methods described herein are the most effective and efficient. The recommended procedures are based on average conditions.

In addition, the materials and hardware referenced herein appear as the recommended choice of Prysmian, but in no way reflect the only tools and materials available to perform these evaluations.

20 Preparation Notes-Tools & Materials

1. Gloves
2. Safety Glasses
3. Diagonal Cutter
4. Wire Mesh Pulling Grip
5. Pliers
6. Utility knife with hook blade or cable knife
7. Friction Tape & Vinyl Tape
8. Scissors



3.0 Installation Procedure for Premises Cable

- 3.1** Select the proper size grip for the cable on which the grips are to be installed. Measure the outside diameter (OD) of the cable and select the appropriate grip size for that diameter as specified by the pulling grip manufacturer.

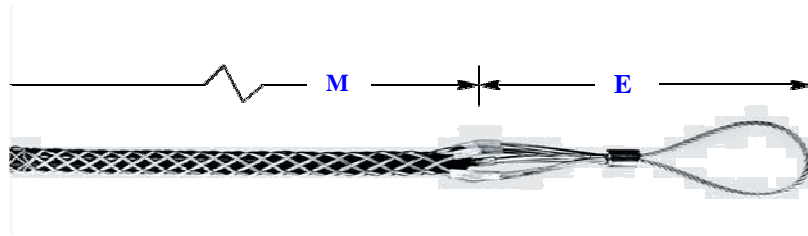


Table 1. Cable Grip Selection

Cable Diameter Range Inches (cm)	Approx. Breaking Strength Lbs. (N)	E Approx. Inches (cm)	M Approx. Inches (cm)	Kellems Catalog #
.10”-.22 (.25-.56)	900 (4,003)	7.5” (19)	10” (25)	033291193
.21”-.35” (.53-.89)	1,400 (6,227)	7.5” (19)	14” (36)	033291194
.32”-.48” (.81-1.22)	2,000 (8,896)	8.5” (22)	19” (48)	033291195
.42”-.61” (1.07-1.55)	2,500 (11,120)	8.5” (22)	21” (53)	033291196
.53”-.74” (1.35-1.88)	3,000 (13,344)	8.5” (22)	23” (58)	033291197
.64”-.87” (1.63-2.21)	4,200 (18,682)	8.5” (22)	25” (64)	033291198
.75”-1.00” (1.90-2.54)	4,200 (18,682)	8.5” (22)	28” (71)	033291199

M - Mesh length at nominal diameter

E- Grip Eye length

- 3.2** Slide the grip over the cable passing the end and leaving 48 inches of cable beyond the cable end. The cable grip should be positioned such that the eye of the grip is pointing towards the cable end.
- 3.3** Place a mark on the cable at a distance specified in table 2 for the pulling grip size. (This is the length of cable jacket to be removed). Use the knife to cut and remove the cable jacket. Take precaution not to disturbed the Aramid strength members.

Mesh Length		Jacket Removal Length	
In.	Cm	In.	cm
10	25	12	31
14	36	16	41
19	48	21	53
21	53	23	59
28	71	30	76

Table 2. Jacket Removal

CAUTION:

When making ring cuts with a hook blade or cable knife, do not cut all the way through the outer jacket - doing so may damage the sub units or other cable components which lie immediately below it.

- 3.4** Starting at the point where the Aramid strength members are exposed outside of the cable jacket, wrap **one layer of friction tape** around the cable core and strength member as you move towards the end of the cable. Cover the entire length making sure the tape overlaps. Cut the tape and secure the end tightly.

IMPORTANT:

Do not use black electrical tape in place of friction tape. Electrical tape has a slick outer surface and could affect the pulling grip's performance.

- 3.5** Slide the pulling grip over the exposed taped core until the tip of the cable is within the grip cage where the mesh begins. Tighten the grip over the cable by grasping the eye of the grip and smoothing the mesh to draw it tight over the cable.
- 3.6** Starting with the cable jacket at least 1 inch beyond the wire mesh, tightly wrap with vinyl tape over the mesh overlapping the tape as you move towards the end of the cable grip.
- 3.7** The cable is now ready for installation.

NOTE:

A BREAKAWAY SWIVEL SHOULD ALWAYS BE USED DURING INSTALLATION AND THE CABLE TENSION MONITORED TO ENSURE THE RATED LOAD OF THE CABLE IS NOT EXCEED

- 3.8** After completion of the pull, cut the cable behind the grip. Place a protective cap over the exposed cable end and tape in place to prevent water intrusion.

Appendix A

4.0 Explanation of Wavy Condition Sometimes Found in Premises Cables

- 4.1** Pictures below are typical representation of wavy premises cables which is common with these small diameter Riser and Plenum designs after being subjected to excessive tension.
- 4.2** This condition is typically an end condition and it will disappear or improve in appearance with time. For the most part this wavy condition is cosmetic and should not have any effect on the attenuation performance of the cable.
- 4.3** If the condition is present after the cable is installed it is recommended that the attenuation of all the fibers are measured to assure the cable attenuation is within the specified limits.

