# Kellems<sup>®</sup>Wire Management Products Overhead Multiple Strength Pulling Grips Pulling Grips

# HUBBELL

#### **Features**

 Designed for pulling aluminum or copper bare conductor, ground wirres, messenger strands, wire rope and insulated cables

## **Ordering Information**

Description	Color Code	Cable	UPC	Catalog Number
Rotating Eye, Triple, Double, Single Weave	Dark Blue	1.75"-2.24" (4.44-5.69)	783585314549	03302028

#### Listings

**CSA** Certified

#### **Specifications**

Strand Galvanized Steel

Eye Steel

Shoulders Aluminum

Bushing Steel

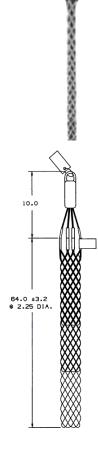
Tag Mylar

# **Performance**

#### Mechanical

Approximate Breaking Strength
Cable Diameter Range
Working Load

48,000 (213,504) Lbs. (N)
1.75"-2.24" (4.44-5.69)
9,600 (42,700.8) Lbs. (N)



#### **Related Products**

Punch-Lok® Bands Swivels

#### **Online Resources**

Customer Sales Drawings eCatalog Installation Instructions



Please review all SAFETY INFORMATION for grips on the following page.



# **Pulling Grip Safety Information**

Kellems Pulling Grips are reusable tools for pulling electrical cable, bare conductor or rope. They are easy and fast to install, providing the user with a smooth, slim profile that allows for easy passage through ducts and conduit. Kellems Pulling Grips are made of the highest quality galvanized steel strand which assures the user of a long lasting grip. There is a Kellems Pulling Grip for every pulling job.

# CAUTION

It is very important to comply with all of the following precautions. Failure to do so may result in property damage, personal injury or death.

- 1. Pulling grips are to be installed by a qualified individual in accordance with all applicable national and local safety, electrical and rigging codes.
- 2. Ensure that the correct grip is selected for your specific needs.
- 3. Do not use a pulling grip for any application other than pulling cable.
- 4. Thoroughly examine the grip for damage. Do not use a damaged grip.
- 5. Ensure that the recommended work load of the grip is suitable for the application. Never use grips at their approximated rated breaking strength. A safety factor of 5 is recommended for pulling grips.
- 6. Do not alter grips in any way. For example, do not modify pulling eyes, shoulders, fittings or lugs.
- 7. Do not attach any type of pulling hardware to any point on the grip other than the pulling eye. The pulling eye is the only acceptable means of attachment to external hardware.
- 8. Always apply 2 bands at 1" and 2" respectively, from the tail end of the mesh to guard against accidental release of the grip.

  Accidental release can occur if an object contracts and pushes against the tail end of the mesh, thereby expanding and releasing its hold.

### Select The Correct Pulling Grip

Each Kellems Grip is designed to work on a specific range of cable diameters.

- **Step 1** To determine the style of grip best suited for your application.
- **Step 2** Determine your cable outside diameter.
- **Step 3** Find the grip size that encompasses your cable diameter.
- Step 4 Estimate the tension to be put on the grip, establish the working load you require and compare this to the listed approximate breaking strength of the grip to insure that the grip will be strong enough. Refer to product installation instruction for safety and working load factors.

#### Safety And Working Load Factors For Pulling Grips

The broad application of Kellems grips on a wide variety of objects requires that adequate safety factors be used to establish working loads. The approximate breaking strength of a Kellems grip represents an average calculation based on data established from actual direct tension testing done in our engineering laboratories.

It is impossible to catalog or guarantee a safety factor suitable for all applications as operating conditions are never the same. The tension, diameter, movement, number of objects gripped, gripping surface, and the attachments used are just some of the factors which vary with each application. These factors, together with the effects of abrasion, corrosion, prior use or abuse and any other variables of a specific application, must be considered by the user and the grip replaced as

appropriate. Where the conditions of the application are not well defined or known, or where risk of injury to persons or property is involved, a greater safety factor should be utilized.

Under normal conditions, Kellems' recommended factor of safety is five for catalog listed pulling grips.

Any warranty as to quality, performance or fitness for use of grips is always premised on the condition that the published breaking strengths apply only to new, unused grips, and that such products are properly stored, handled, used, maintained and inspected by the user at a frequency appropriate for the use and condition of the grip.

#### **Example**

Grip Style	Approx. Breaking Strength Lbs. (N)	Safety Factor	Max. Recommended Load Lbs. (N)	Catalog Number
Pulling Grips	27,200 (120,986)	5	5,440 (24,197)	03301027

The maximum recommended working load is the tension to be exerted on the grip in application with a margin of safety to take care of unforeseen and unusual circumstances.

It is the end-user's decision to determine how much of a safety factor is acceptable for the application.

The metric unit of measure (force) for breaking strength and load is newtons (N). To convert from newtons to the metric unit of weight (kilograms) the conversion factor is 9.808 newtons/kilogram.