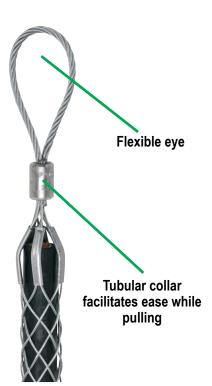
tWCC-2

BRYANT® Wire Management Products

Cord Grips Family Overview - Continued

Pulling Grips



Pulling Grips are designed to serve as reusable tools for light industrial pulling of electrical cable and for underground and industrial plant wiring and re-wiring. These grips offer protection from abrasion and ease the cable through bends and rough surfaces. They also serve as a temporary splice, when replacing old cable with new, and to pull slack in new construction or maintenance operations.

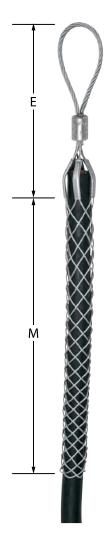
Light Duty Low Tension Pulling Grips

- Ideal for use in utility work, industrial and commercial building service lines, underground transmission line stringing
- Range 0.75 1.74 inches

Junior Low Tension Pulling Grips

- Ideal for use in utility work, industrial and commercial building service lines, underground transmission line stringing
- Range 0.25 1.24 inches

www.automationdirect.com Wire Management



PA150

E = Eye Length M = Mesh Length

BRYANT® Light Duty Low Tension **Pulling Grips**

Features

- Flexible eye
- Single weave variable mesh provides uniform positive gripping power
- High strength galvanized steel
- Easily mates with swivel and link type connections
- Tubular metal shoulders protect cable ends
- Easily installed on cable

Applications

- Utility work
- Service lines in industrial and commercial buildings
- Light-duty underground transmission lines stringing

Agency Approvals

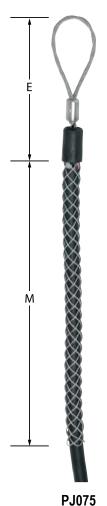
• CSA Certified File LR701228

Bryant® Flexible Eye, Closed Mesh Light Duty Low Tension Pulling Grips											
Part Number	Price 3 Range Strength 7 3 3 3										
PA075	\$;07!7:	PDF	0.75-0.99 [1.90-2.51]	4,000 [17,792]	6.0 [15.24]	12.0 [30.48]	0.3				
PA 100	\$;07!8:	PDF	1.00-1.24 [2.54-3.15]	5,300 [23,574]	7.0 [17.78]	13.0 [33.02]	0.4				
PA125	\$;07!9:	PDF	1.25-1.49 [3.17-3.78]	5,300 [23,574]	7.0 [17.78]	14.0 [35.56]	0.4				
PA150	\$;07!a:	PDF	1.50-1.74 [3.81-4.42]	6,800 [30,246]	8.0 [20.32]	15.0 [38.10]	0.6				



CAUTION: Never use grip to approximate breaking strength. Refer to technical data page for safety and working load factors. Banding is necessary to guard against accidental release of grip and provide maximum reliability.

RYANT® Junior Low Tension **Pulling Grips**



Features

- Single weave variable mesh provides uniform positive grip power
- · High strength galvanized steel
- Flexible eye easily attaches to pulling line snake or fish tape
- Reusable
- Pulls one or several cables
- · Installs easily over building wire

Applications

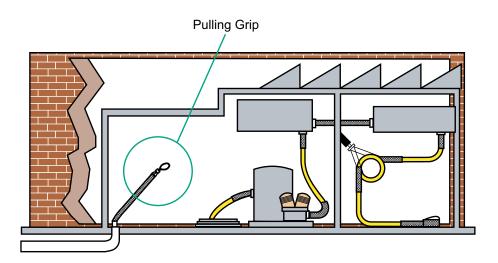
- Utility work
- · Service lines in industrial and commercial buildings
- Light-duty underground transmission lines stringing

Agency Approvals

CSA Certified File LR701228

Bryant® Flexible Eye, Closed Mesh Junior Low Tension Pulling Grips								
Part Number	Price	Drawing Link	Cable Diameter Range Inches [cm]	Approximate Breaking Strength [Pounds/Newtons]	Eye Length Inches [cm]	Mesh Length Inches [cm]	Weight [lb]	
PJ025	\$;07!b:	PDF	0.25-0.36 [0.63-0.91]	450 [2,002]	3.25 [8.25]	4.25 [10.79]	0.1	
PJ037	\$;07!c:	PDF	0.37-0.49 [0.94-1.24]	900 [4,003]	3.75 [9.52]	7.00 [17.78]	0.1	
<u>PJ050</u>	\$;07!d:	PDF	0.50-0.61 [1.27-1.55]	1,300 [5,782]	4.25 [10.79]	8.50 [21.59]	0.1	
PJ062	\$;07!e:	PDF	0.62-0.74 [1.57-1.88]	1,950 [8,674]	5.00 [12.70]	10.00 [25.40]	0.1	
PJ075	\$;;07!f:	PDF	0.75-0.99 [1.90-2.51]	2,800 [12,454]	5.75 [14.60]	10.00 [25.40]	0.2	
PJ100	\$;07!g:	PDF	1.00-1.24 [2.54-3.15]	3,900 [17,347]	6.50 [16.51]	11.50 [29.21]	0.3	

E = Eye Length M = Mesh Length



CAUTION: Never use grip to approximate breaking strength. Refer to technical data page for safety and working load factors. Banding is necessary to guard against accidental release of grip and provide maximum reliability.

Technical Data

Working Load Factors for Wire Mesh Grips

There are many variables associated with the use of wire mesh cable grips. Working load is an estimation of several factors including tension, cable diameter, number of cables gripped, gripping surface and more. Safety factors associated in the product's use must be considered together with the effects of abrasion, corrosion, prior use and abuse and other variables specific to the application.

The appropriate breaking strength of a Bryant® cable grip represents an average calculation based on data established from actual testing performed in our engineering laboratories. Under

normal usage conditions, the recommended factor of safety is 5 for pulling grips and 10 for support grips.

Any warranty as to quality, performance of fitness-for-use of the grips is always premised on the condition that the published 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	Part Number	Approximate Breaking Strength	Safety Factor	Max. Recommended Load
Pulling	PA075	4000 lbs.	5	800 lbs.
Support	<u>SPC150U</u>	1610 lbs.	10	161 lbs.

Note: The maximum recommended working load is the greatest tension to be exerted on a grip for any application, with a margin of safety to protect against unforeseen and unusual circumstances.

Wire Mesh Grip Materials

Material	Features	Product Group
Galvanized steel wire	High strength	Pulling grips
	Not subject to continuous outside environment	Bus drop grips
		Strain relief grips
Tin-Coated bronze wire	Corrosion-resistant for normal outside areas	Support grips
	Non-magnetic	
	Moderate strength	
Stainless steel wire [302/304]	Corrosion resistant	Strain relief grips

Applicable Code Requirements:

Bryant Economy Cable Grips meet the following requirements				
NEC® 300.19	Support of conductors in vertical raceways			
NEC® 350	Liquidtight flexible metal conduit termination			
NEC® 400.14	Flexible cord and cable protection			
NEC® 400.10	Strain relief at joints and terminals			

Operating Temperatures

Material	Temperature Range		
Aluminum	-40 to +300°F [-40 to +149°C]		
Aluminum Deluxe Cord Grips	-30 to +240°F [-34 to +115°C]		

Flammability [Non-metallic deluxe cord Grips will not support combustion]

Component	Rating
Mesh Grip	UL 94HB
Fitting	UL 94V-2

Hazardous Locations

	Product Categories
The product categories listed on the right are suitable	Deluxe cord grip, aluminum fitting
for use in hazardous locations per Class I Div. 2, Class II Div. 1 & 2, Class III Div. 1 & 2	Dust-tight strain relief grips

Wet Locations

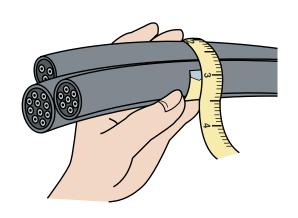
	Product Categories
The products noted to the right are suitable for use in wet locations when a listed sealing ring is used between box and fitting	Deluxe cord grip, aluminum fitting

Multiple Cable/Grip Selection Chart

Multiple Cable Selection Charts for Cables and Wires of Unequal Diameters

How to choose the correct grip size:

- 1. Find the grip circumference range by measuring the circumference of the bundle of different diameter cables to be gripped [see illustration].
- 2. Divide the bundle circumference by 3.14 to determine the diameter.
- 3. Choose a grip offering a range of cable diameters the same as the cable diameter.



Selection Chart for Determining Grip Size for Multiple Equal Diameter Cables Held in a Single Grip

- 1. Under "Number of Cables in One Grip", find the diameter range of your cables in vertical column. Read Grip Size and Grip Diameter Range to the left.
- 2. If your diameter is the maximum of the range shown, stay with the same size grip.
- 3. Example: 3 cables, each with 0.89" [2.26 cm] diameter, select a 1.50"-1.74" [3.81 cm 4.42 cm] range or 150 Grip Size.

Number of Cables in One Grip									
	Grip Size	Grip Dia. Range Inches [cm]	2	3	4	5	6 / 7	8	g
	50	0.50-0.61 [1.27-1.55]	0.30-0.38 [0.76-0.97]	0.25-0.31 [0.63-0.79]	0.22-0.27 [0.56-0.69]	0.19-0.24 [0.48-0.61]	0.17-0.22 [0.43-0.56]	0.15-0.19 [0.38-0.48]	0.14-0.18 [0.36-0.46]
	62	0.62-0.74 [1.57-1.88]	0.38-0.44 [0.97-1.12]	0.31-0.36 [0.79-0.91]	0.27-0.31 [0.69-0.79]	0.24-0.29 [0.61-0.74]	0.22-0.26 [0.56-0.66]	0.19-0.23 [0.48-0.58]	0.18-0.21 [0.46-0.53]
	75	0.75-0.99 [1.90-2.51]	0.44-0.59 [1.12-1.50]	0.36-0.49 [0.91-1.24]	0.31-0.42 [0.79-1.07]	0.29-0.38 [0.74-0.97]	0.26-0.34 [0.66-0.86]	0.23-0.31 [0.58-0.79]	0.21-0.28 [0.53-0.71]
	100	1.00-1.24 [2.54-3.15]	0.59-0.75 [1.50-1.90]	0.49-0.63 [1.24-1.60]	0.42-0.54 [1.07-1.37]	0.38-0.48 [0.97-1.22]	0.34-0.43 [0.86-1.09]	0.31-0.39 [0.79-0.99]	0.28-0.35 [0.71-0.89]
	125	1.25-1.49 [3.17-3.78]	0.75-0.90 [1.90-2.29]	0.63-0.76 [1.60-1.93]	0.54-0.65 [1.37-1.65]	0.48-0.58 [1.22-1.47]	0.43-0.52 [1.09-1.32]	0.39-0.46 [0.99-1.17]	0.35-0.42 [0.89-1.07]
ıpport	150	1.50-1.74 [3.81-4.42]	0.90-1.07 [2.29-2.72]	0.76-0.89 [1.93-2.26]	0.65-0.77 [1.65-1.96]	0.58-0.67 [1.47-1.70]	0.52-0.60 [1.32-1.52]	0.46-0.54 [1.17-1.37]	0.42-0.49 [1.07-1.24]
Pulling and Support	175	1.75-1.99 [4.44-5.05]	1.07-1.22 [2.72-3.10]	0.89-1.02 [2.26-2.59]	0.77-0.88 [1.96-2.24]	0.67-0.77 [1.70-1.96]	0.60-0.69 [1.52-1.75]	0.54-0.62 [1.37-1.57]	0.49-0.56 [1.24-1.42]
Pulling	200	2.00-2.49 [5.08-6.32]	1.22-1.53 [3.10-3.89]	1.02-1.28 [2.59-3.25]	0.88-1.10 [2.24-2.79]	0.77-0.96 [1.96-2.44]	0.69-0.86 [1.75-2.18]	0.62-0.77 [1.57-1.96]	0.56-0.71 [1.42-1.80]
	250	2.50-2.99 [6.35-7.59]	1.53-1.83 [3.89-4.65]	1.28-1.53 [3.25-3.89]	1.10-1.32 [2.79-3.35]	0.96-1.16 [2.44-2.95]	0.86-1.03 [2.18-2.62]	0.77-0.93 [1.96-2.36]	0.71-0.85 [1.80-2.16]
	300	3.00-3.49 [7.62-8.86]	1.83-2.14 [4.65-5.44]	1.53-1.79 [3.89-4.55]	1.32-1.54 [3.35-3.91]	1.16-1.35 [2.95-3.43]	1.03-1.20 [2.62-3.05]	0.93-1.08 [2.36-2.74]	0.85-0.99 [2.16-2.51]
	350	3.50-3.99 [8.89-10.13]	2.14-2.44 [5.44-6.20]	1.79-2.05 [4.55-5.21]	1.54-1.76 [3.91-4.47]	1.35-1.54 [3.43-3.91]	1.20-1.37 [3.05-3.48]	1.08-1.24 [2.74-3.15]	0.99-1.13 [2.51-2.87]
	400	4.00-4.49 [10.16-11.40]	2.44-2.75 [6.20-6.98]	2.05-2.30 [5.21-5.84]	1.76-1.98 [4.47-5.03]	1.54-1.74 [3.91-4.42]	1.37-1.55 [3.48-3.94]	1.24-1.39 [3.15-3.53]	1.13-1.27 [2.87-3.23]
	450	4.50-4.99 [11.43-12.67]	2.75-3.06 [6.98-7.77]	2.30-2.56 [5.84-6.50]	1.98-2.20 [5.03-5.59]	1.74-1.93 [4.42-4.90]	1.55-1.72 [3.94-4.37]	1.39-1.55 [3.53-3.94]	1.27-1.41 [3.23-3.58]

www.automationdirect.com