

Forged Wire Rope Clips

SEE APPLICATION AND WARNING INFORMATION
 Para Español: www.thecrosbygroup.com On Page 56

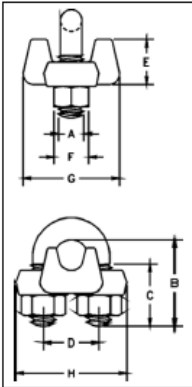
G-450



- Each base has a Product Identification Code (PIC) for material traceability, the name CROSBY or CG, and a size forged into it.
- Based on the catalog breaking strength of wire rope, Crosby wire rope clips have an efficiency rating of 80% for 1/8" - 7/8" sizes, and 90% for sizes 1" through 3-1/2".
- Entire Clip-Galvanized to resist corrosive and rusting action.
- Sizes 1/8" through 2-1/2" and 3" have forged bases.
- All Clips are individually bagged or tagged with proper application instructions and warning information.
- Clip sizes up through 1-1/2" have rolled threads.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these wire rope clips meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Look for the Red-U-Bolt®, your assurance of Genuine Crosby Clips.

Crosby Clips, all sizes 1/4" and larger, meet the performance requirements of Federal Specification FF-C-450 TYPE 1 CLASS 1, except for those provisions required of the contractor. For additional information, see page 444.

G-450 Crosby® Clips



| Rope Size | | G-450 Stock No. | Std. Package Qty. | Weight Per 100 (lbs.) | Dimensions (in.) | | | | | | | |
|-----------|----------|-----------------|-------------------|-----------------------|------------------|-------|------|------|------|------|------|------|
| (in.) | (mm) | | | | A | B | C | D | E | F | G | H |
| 1/8 | 3-4* | 1010015 | 100 | 6 | .22 | .72 | .44 | .47 | .37 | .38 | .81 | .99 |
| 3/16* | 5* | 1010033 | 100 | 10 | .25 | .97 | .56 | .59 | .50 | .44 | .94 | 1.18 |
| 1/4 | 6-7 | 1010051 | 100 | 19 | .31 | 1.03 | .50 | .75 | .66 | .56 | 1.19 | 1.43 |
| 5/16 | 8 | 1010079 | 100 | 28 | .38 | 1.38 | .75 | .88 | .73 | .69 | 1.31 | 1.66 |
| 3/8 | 9-10 | 1010097 | 100 | 48 | .44 | 1.50 | .75 | 1.00 | .91 | .75 | 1.63 | 1.94 |
| 7/16 | 11 | 1010113 | 50 | 78 | .50 | 1.88 | 1.00 | 1.19 | 1.13 | .88 | 1.91 | 2.28 |
| 1/2 | 12-13 | 1010131 | 50 | 80 | .50 | 1.88 | 1.00 | 1.19 | 1.13 | .88 | 1.91 | 2.28 |
| 9/16 | 14-15 | 1010159 | 50 | 109 | .56 | 2.25 | 1.25 | 1.31 | 1.34 | .94 | 2.06 | 2.50 |
| 5/8 | 16 | 1010177 | 50 | 110 | .56 | 2.25 | 1.25 | 1.31 | 1.34 | .94 | 2.06 | 2.50 |
| 3/4 | 18-20 | 1010195 | 25 | 142 | .62 | 2.75 | 1.44 | 1.50 | 1.39 | 1.06 | 2.25 | 2.84 |
| 7/8 | 22 | 1010211 | 25 | 212 | .75 | 3.12 | 1.62 | 1.75 | 1.58 | 1.25 | 2.44 | 3.16 |
| 1 | 24-26 | 1010239 | 10 | 252 | .75 | 3.50 | 1.81 | 1.88 | 1.77 | 1.25 | 2.63 | 3.47 |
| 1-1/8 | 28-30 | 1010257 | 10 | 283 | .75 | 3.88 | 2.00 | 2.00 | 1.91 | 1.25 | 2.81 | 3.59 |
| 1-1/4 | 32-34 | 1010275 | 10 | 438 | .88 | 4.44 | 2.22 | 2.34 | 2.17 | 1.44 | 3.13 | 4.13 |
| 1-3/8 | 36 | 1010293 | 10 | 442 | .88 | 4.44 | 2.22 | 2.34 | 2.31 | 1.44 | 3.13 | 4.19 |
| 1-1/2 | 38 | 1010319 | 10 | 544 | .88 | 4.94 | 2.38 | 2.59 | 2.44 | 1.44 | 3.41 | 4.44 |
| 1-5/8 | 41-42 | 1010337 | Bulk | 704 | 1.00 | 5.31 | 2.62 | 2.75 | 2.66 | 1.63 | 3.63 | 4.75 |
| 1-3/4 | 44-46 | 1010355 | Bulk | 934 | 1.13 | 5.75 | 2.75 | 3.06 | 2.92 | 1.81 | 3.81 | 5.24 |
| 2 | 48-52 | 1010373 | Bulk | 1300 | 1.25 | 6.44 | 3.00 | 3.38 | 3.03 | 2.00 | 4.44 | 5.88 |
| 2-1/4 | 56-58 | 1010391 | Bulk | 1600 | 1.25 | 7.13 | 3.19 | 3.88 | 3.19 | 2.00 | 4.56 | 6.38 |
| 2-1/2 | 62-65 | 1010417 | Bulk | 1900 | 1.25 | 7.69 | 3.44 | 4.13 | 3.69 | 2.00 | 4.69 | 6.63 |
| ** 2-3/4 | ** 68-72 | 1010435 | Bulk | 2300 | 1.25 | 8.31 | 3.56 | 4.38 | 4.88 | 2.00 | 5.00 | 6.88 |
| 3 | 75-78 | 1010453 | Bulk | 3100 | 1.50 | 9.19 | 3.88 | 4.75 | 4.44 | 2.38 | 5.31 | 7.61 |
| ** 3-1/2 | ** 85-90 | 1010426 | Bulk | 4000 | 1.50 | 10.75 | 4.50 | 5.50 | 6.00 | 2.38 | 6.19 | 8.38 |

* Electro-plated U-Bolt and Nuts. ** 2-3/4" and 3-1/2" base is made of cast steel.

- Each base has a Product Identification Code (PIC) for material traceability, the name CROSBY or "CG", and a size forged into it.
- Entire clip is made from 316 Stainless Steel to resist corrosive and rusting action.
- All components are Electro-Polished.
- All Clips are individually bagged or tagged with proper application instructions and warning information.

CROSBY® CLIPS WARNINGS AND APPLICATION INSTRUCTIONS



⚠ WARNING

- Failure to read, understand, and follow these instructions may cause death or serious injury.
- Read and understand these instructions before using clips.
- Match the same size clip to the same size wire rope.
- Prepare wire rope end termination only as instructed.
- Do not use with plastic coated wire rope.
- Apply first load to test the assembly. This load should be of equal or greater weight than loads expected in use. Next, check and retighten nuts to recommended torque (See Table 1).

Efficiency ratings for wire rope end terminations are based upon the minimum breaking force of wire rope. The efficiency rating of a properly prepared loop or thimble-eye termination for clip sizes 1/8" through 7/8" is 80%, and for sizes 1" through 3-1/2" is 90%.

The number of clips shown (see Table 1) is based upon using RRL or RLL wire rope, 6 x 19 or 6 x 36 Class, FC or IWRC; IPS or XIP, XXIP. If Seale construction or similar large outer wire type construction in the 6 x 19 Class is to be used for sizes 1 inch and larger, add one additional clip. If a pulley (sheave) is used for turning back the wire rope, add one additional clip.

The number of clips shown also applies to rotation-resistant RRL wire rope, 8 x 19 Class, IPS, XIP, XXIP sizes 1-1/2 inch and smaller; and to rotation-resistant RLL wire rope, 19 x 7 Class, IPS, XIP, XXIP sizes 1-3/4 inch and smaller.

For other classes of wire rope not mentioned above, we recommend contacting Crosby Engineering to ensure the desired efficiency rating.

For elevator, personnel hoist, and scaffold applications, refer to ANSI A17.1 and ANSI A10.4. These standards do not recommend U-Bolt style wire rope clip terminations. The style wire rope termination used for any application is the obligation of the user.

For OSHA (Construction) applications, see OSHA 1926.251.

1. Refer to Table 1 in following these instructions. Turn back specified amount of rope from thimble or loop.



Figure 1

Apply first clip one base width from dead end of rope. Apply U-Bolt over dead end of wire rope – live end rests in saddle (Never saddle a dead horse!). Use torque wrench to tighten nuts evenly, alternate from one nut to the other until reaching the recommended torque. (See Figure 1)

2. When two clips are required, apply the second clip as near the loop or thimble as possible. Use torque wrench to tighten nuts evenly, alternating until reaching the recommended torque. When more than two clips are required, apply the second clip as near the loop or thimble as possible, turn nuts on second clip firmly, but do not tighten. (See Figure 2)



Figure 2

3. When three or more clips are required, space additional clips equally between first two – take up rope slack – use torque wrench to tighten nuts on each U-Bolt evenly, alternating from one nut to the other until reaching recommended torque. (See Figure 3)



Figure 3

4. If a pulley (sheave) is used in place of a thimble, add one additional clip. Clip spacing should be as shown. (See Figure 4)

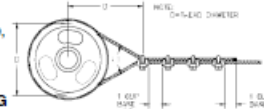


Figure 4

5. WIRE ROPE SPLICING PROCEDURES:

The preferred method of splicing two wire ropes together is to use inter-locking turnback eyes with thimbles using the recommended number of clips on each eye (See Figure 5).

An alternate method is to use twice the number of clips as used for a turnback termination. The rope ends are placed parallel to each other, overlapping by twice the turnback amount shown in the application instructions. The minimum number of clips should be installed on each dead end (See Figure 6). Spacing, installation torque, and other instructions still apply.



Figure 5

6. **IMPORTANT**
Apply first load to test the assembly. This load should be of equal or greater weight than loads expected in use. Next, check and use torque wrench to retighten nuts to recommended torque. In accordance with good rigging and maintenance practices, the wire rope end termination should be inspected periodically for wear, abuse, and general adequacy.

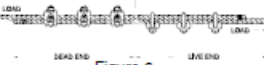


Figure 6

| Clip Size (In.) | Rope Size (In.) | Minimum No. of Clips | Amount of Rope to Turn Back in Inches | * Torque in FLLbs. |
|-----------------|-----------------|----------------------|---------------------------------------|--------------------|
| 1/8 | 1/8 | 2 | 3-1/4 | 4.5 |
| 3/16 | 3/16 | 2 | 3-3/4 | 7.5 |
| 1/4 | 1/4 | 2 | 4-3/4 | 15 |
| 5/16 | 5/16 | 2 | 5-1/4 | 30 |
| 3/8 | 3/8 | 2 | 6-1/2 | 45 |
| 7/16 | 7/16 | 2 | 7 | 65 |
| 1/2 | 1/2 | 3 | 11-1/2 | 65 |
| 9/16 | 9/16 | 3 | 12 | 95 |
| 5/8 | 5/8 | 3 | 12 | 95 |
| 3/4 | 3/4 | 4 | 18 | 130 |
| 7/8 | 7/8 | 4 | 19 | 225 |
| 1 | 1 | 5 | 26 | 225 |
| 1-1/8 | 1-1/8 | 6 | 34 | 225 |
| 1-1/4 | 1-1/4 | 7 | 44 | 360 |
| 1-3/8 | 1-3/8 | 7 | 44 | 360 |
| 1-1/2 | 1-1/2 | 8 | 54 | 360 |
| 1-5/8 | 1-5/8 | 8 | 58 | 430 |
| 1-3/4 | 1-3/4 | 8 | 61 | 590 |
| 2 | 2 | 8 | 71 | 750 |
| 2-1/4 | 2-1/4 | 8 | 73 | 750 |
| 2-1/2 | 2-1/2 | 9 | 84 | 750 |
| 2-3/4 | 2-3/4 | 10 | 100 | 750 |
| 3 | 3 | 10 | 106 | 1200 |
| 3-1/2 | 3-1/2 | 12 | 149 | 1200 |

If a pulley (sheave) is used for turning back the wire rope, add one additional clip. See Figure 4.

If a greater number of clips are used than shown in the table, the amount of turnback should be increased proportionately.

*The tightening torque values shown are based upon the threads being clean, dry, and free of lubrication.