

Wire Rope Clip Size Chart — Clips, Turnback & Torque

Minimum number of U-bolt clips, rope turnback length and bolt-nut tightening torque by wire rope diameter, for 6x19 and 6x36 class rope.

A wire rope clip (U-bolt grip) forms an eye or termination by clamping the rope tail back against the live part of the rope. The number of clips, the length of rope turned back, and the tightening torque are set by the rope diameter. The values below follow the Crosby G-450 forged-clip application data and the installation requirements of EN 13411-5 and US Federal Specification FF-C-450. A correctly fitted set develops about 80% of the rope breaking force below 1 in diameter and about 90% at 1 in and above.

Rope dia. (in)	Min. no. of clips	Turnback length (in)	Torque (ft-lb)
1/8	2	3-1/4	4.5
3/16	2	3-3/4	7.5
1/4	2	4-3/4	15
5/16	2	5-1/4	30
3/8	2	6-1/2	45
7/16	2	7	65
1/2	3	11-1/2	65
9/16	3	12	95
5/8	3	12	95
3/4	4	18	130
1	5	26	225

Torque values assume a clean, lightly oiled thread. Consult the manufacturer's table for that size; confirm again after loading.

Fitting the clips correctly

- Saddle on the live end — fit each clip saddle on the live (load) end. The guiding end of the rope goes over the nut.
- First clip — fit the first clip one saddle on the live end. Tighten the nuts evenly to the table torque.
- Second clip — fit the next clip as close to the first as possible. Slack but do not fully tighten yet.
- Remaining clips — space the rest evenly. Tighten alternately so each clip is loaded evenly.
- Re-torque after loading — apply the torque after the rope seats and reduces in diameter under load.

Selecting clips

Match the clip size to the nominal rope diameter. Do not use a larger or smaller rope. Use the minimum number of clips for efficiency of the termination. The number of clips for 6x19 or 6x36 class, fibre core or IWRC rope. For additional clips — follow the rope and clip manufacturer's instructions.

Reference compiled by cBallast from the Crosby G-450 application data, EN 13411-5 and US Federal Specification FF-C-450. Crosby is the controlling standard and the clip manufacturer's name is the property of their respective owners.