

LENTON[®] LOCK S-Series

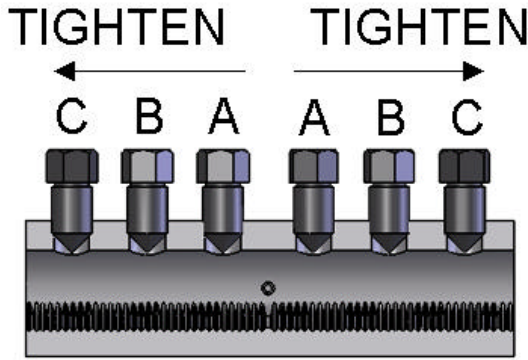


Figure 1 Assembly cross section

Step 1: Read all instructions and procedures before commencing splicing. Ensure the LENTON LOCK coupler is sized properly for the bars being spliced and per project plans. Product should arrive with bolts configured as shown in Figure 1 (round point bolts should be on the ends).

Step 2: Ensure the rebar is free of any excessive dirt, concrete slurry, rust, etc. which may affect product performance. Ensure maximum rebar lip does not exceed limits set in Figure 2. Excessive shear lip interferes with rebar installation.

Step 3: Insert rebar into LENTON LOCK coupler until contact is made with the center stop pin as shown in Figure 3. Rebar must be flush against center stop pin.

Step 4 for sizes 10-40:

Tighten bolts, beginning in the center of the coupler and working to the outside (A to C), until bolt heads shear off. A standard wrench, impact or nut runner may be utilized to tighten the bolts.

For rebar sizes 43 (#14) and 57 (#18) a nut runner must be used. See page 2, alternate “Step 4 for sizes 43 (#14) and 57 (#18) requiring two-step torque sequence”.

If bolt head does not shear, the installer should verify the appropriate torque was met (see Tables 1 and 2 on page 2). If a minimum cover must be maintained, the head can be cut off after the proper torque has been applied.

Repeat procedure for other end of the sleeve.

Note: If during installation the bolt strips, as defined by a loss of resistance to the applied torque, stop the installation immediately. Remove the un-sheared damaged bolt. Contact ERICO for LENTON Technical Support.

Rebar Size	Maximum Rebar Shear Lip Diameter (A)	
	in	mm
10 or 12 (#4)	0.57	14.5
14 or 16 (#5)	0.73	18.5
18 or 20 (#6)	0.93	23.5
22 (#7)	1.08	27.5
25 (#8)	1.16	29.4
28 or 30 (#9)	1.32	33.5
32 (#10)	1.48	37.5
34 or 36 (#11)	1.67	42.5
38 or 40	1.83	46.5
43 (#14)	2.07	52.5
57 (#18)	2.62	66.5

Figure 2 Maximum shear lip

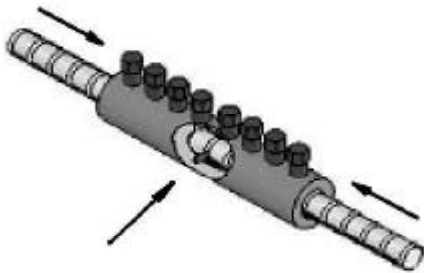


Figure 3 Solid contact between bar and stop pin as shown.

- WARNING**
1. ERICO products shall be installed and used only as indicated in ERICO product instruction sheets and training materials. Instruction sheets are available at www.erico.com and from your ERICO customer service representative.
 2. ERICO products must never be used for a purpose other than the purpose for which they were designed or in a manner that exceeds specified load ratings.
 3. All instructions must be **completely** followed to ensure proper and safe installation and performance.
 4. Improper installation, misuse, misapplication or other failure to completely follow ERICO's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death.
- The customer is responsible for:
- a. Conformance to all governing codes.
 - b. The integrity of structures to which the products are attached, including their capability of safely accepting the loads imposed, as evaluated by a qualified engineer.
 - c. Using appropriate industry standard hardware as noted above.

SAFETY INSTRUCTIONS:
All governing codes and regulations and those required by the job site must be observed. Always use appropriate safety equipment such as eye protection, hard hat, and gloves as appropriate to the application.

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Table 1. Torque values for coupler sizes #4 (12mm) through 40mm

Pre-Torque is not required for these sizes

Rebar Designation				Coupler	Socket Size		Average Torque to Shear Bolts		Number of Bolts
In-lb	Metric	Canada	Soft Metric		in	mm	ft-lb	N-m	
-	10	-	10	LL12S1	1/2	13	140	190	2
#4	12	10 M	13	LL12S1	1/2	13	140	190	4
-	14	-	-	LL16S1	1/2	13	140	190	4
#5	16	15 M	16	LL16S1	1/2	13	140	190	4
-	18	-	-	LL20S1	1/2	13	140	190	6
#6	20	20 M	19	LL20S1	1/2	13	140	190	6
#7	22	-	22	LL22S1	5/8	16	285	390	4
#8	25	25 M	25	LL25S1	5/8	16	315	430	6
#9	28	30 M	29	LL28S1	5/8	16	335	455	6
-	30	-	-	LL28S1	5/8	16	335	455	6
#10	32		32	LL32S1	13/16	21	645	875	6
-	34	-	-	LL36S1	13/16	21	645	875	6
#11	36	35 M	36	LL36S1	13/16	21	645	875	6
-	38	-	-	LL40S1	13/16	21	645	875	8
-	40	-	-	LL40S1	13/16	21	645	875	8

Step 4 for sizes 43 (#14) and 57 (#18) requiring two-step torque sequence:

Using a nut runner, pre-torque the bolts beginning in the center of the coupler and working to the outside (A to C) using pre-torque values in table 2. Then go back to bolt A and finish tightening the bolts, once again beginning in the center of the coupler and working to the outside (A to C), until bolt heads shear off. A nut runner must be utilized for the final tightening of the bolts.

If bolt head does not shear, the installer should verify the appropriate torque was met (see Table 2). If a minimum cover must be maintained, the head can be cut off after the proper torque has been applied.

Repeat procedure for other end of the sleeve.

Note: If during installation the bolt strips, as defined by a loss of resistance to the applied torque, stop the installation immediately. Remove the un-sheared damaged bolt. Contact ERICO for LENTON Technical Support

Table 2. Torque values for coupler sizes #14 (43mm) and #18 (57mm) requiring two-step torque sequence (see Alternate Step 4)

Pre-Torque the bolts to the specified torque before final tightening.

Rebar Designation				Coupler	Socket Size		Minimum Pre Torque All Bolts		Average Torque to Shear Bolts		Number of Bolts
In-lb	Metric	Canada	Soft Metric		in	mm	ft-lb	N-m	ft-lb	N-m	
#14	43	-	-	LL43S1	13/16	21	500	680	645	875	12
#18	57	-	-	LL57S1	1	25	750	1020	975	1322	14

Closure Pour Splices: When making splices between two potentially fixed members the center stop pin can be removed and the coupler placed completely on one rebar. The second rebar can then be positioned in line with the first rebar and the splice re-centered. When using the splice in this manner it is recommended to mark each rebar at one-half the length of the coupler to ensure proper coupler/rebar engagement. Refer to instruction sheet PDF113 for details. Additional copies of instructions and application information are available at www.erico.com

US patents: 7,107,735, 7,093,402
Additional patents in other countries