LENTON LOCK
B SERIES

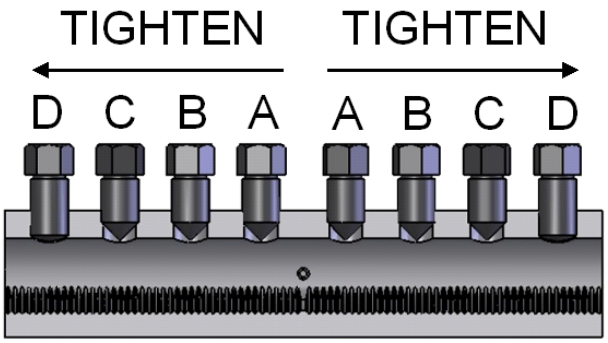
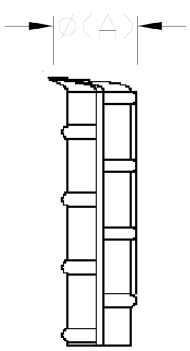


Figure 1 Assembly cross section



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

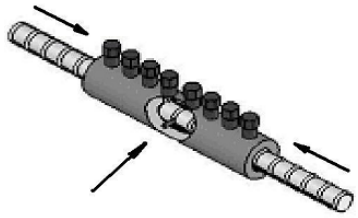


Figure 3 Solid contact between bar and stop pin as shown.

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. One round point bolt should be on each end for sizes 10 (#3) through 40mm. Two round point bolts should be on each end for sizes 43 (#14) and 57 (#18).

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 coupler sizes 12(#4) – 36(#11):
For rebar sizes 40 through 57(#18), follow '**Alternate step 4**' on the next page.

For Caltrans Ultimate performance on sizes 32(#10) and 36(#11), also follow '**Alternate step 4**' on the next page.

To avoid bolts from vibrating loose, it is suggested that each bolt be pre-torqued (Approximately <50% is recommended torque) prior to applying final bolt torque.

Tighten bolts, beginning in the center of the coupler and working to the outside (A to D). A standard wrench, impact wrench or nut runner may be utilized to tighten the bolts.

*When using an air impact wrench it is recommended to use a wrench with double the torque rating identified. Impact sockets should always be used when using an impact wrench. Additionally, check the air pressure and air flow requirements prior to installation. Refer to complete installation instructions provided with the product or available at erico.pentair.com prior to commencing installation.

WARNING:
1. Pentair products shall be installed and used only as indicated in Pentair product instruction sheets and training materials. Instruction sheets are available at www.erico.pentair.com and from your Pentair customer service representative.
2. Pentair 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 Pentair's instructions and warnings may cause product malfunction, property damage, serious bodily injury and/or death, and void your warranty.

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.

Table 1. Torque values for coupler sizes #4 (12mm) through #9 (30mm)

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	LL12B1	1/2	13	150	205	6
#4	12	10 M	13	LL12B1	1/2	13	150	205	6
-	14	-	-	LL16B1	1/2	13	150	205	6
#5	16	15 M	16	LL16B1	1/2	13	150	205	6
-	18	-	-	LL20B1	1/2	13	150	205	8
#6	20	20 M	19	LL20B1	1/2	13	150	205	8
#7	22	-	22	LL22B1	5/8	16	250	340	8
#8	25	25 M	25	LL25B1	5/8	16	350	475	8
#9	28	30 M	29	LL28B1	5/8	16	350	475	10
-	30	-	-	LL28B1	5/8	16	350	475	10

Alternate Step 4:

Alternate Step 4 is required for sizes 40 through 57(#18), and for Caltrans Ultimate requirements sizes 32(#10) and 36(#11).

Pre-torque the bolts beginning in the center of the coupler and working to the outside (A to D). See 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 D). The head of the bolt shears off when the proper torque is achieved. A standard wrench, impact wrench or nut runner may be utilized for the final tightening of the bolts.

Table 2. Alternate Step 4: Two-step torque sequence for coupler sizes 32(#10) and larger

Rebar Designation				Coupler	Socket Size		Pre Torque (all bolts if required)		Average Torque to Shear Bolts		Number of Bolts
In-lb	Metric	Canada	Soft Metric		in	mm	ft-lb	N-m	ft-lb	N-m	
#10	32	-	32	LL32B1	13/16	21	400	545	500	680	8
-	34	-	-	LL36B1	13/16	21	400	545	550	750	10
#11	36	35 M	36	LL36B1	13/16	21	400	545	550	750	10
-	38	-	-	LL40B1	13/16	21	400	545	580	790	12
-	40	-	-	LL40B1	13/16	21	400	545	580	790	12
#14	43	45 M	43	LL43B1	1	25	675	915	960	1300	14
#18	57	55 M	57	LL57B1	1	25	675	915	960	1300	18

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.

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 Pentair for LENTON Technical Support

Repeat procedure for other end of the sleeve.

Transition Splices: LENTON LOCK is designed for use as a one-step transition/reducer splice on all types of rebar. Contact Pentair for details.

Closure Pour Splices: Refer to instruction sheet PDF113 for details. Additional copies of instructions and application information are available at erico.pentair.com