

# Cryogenic Rebar Splicing Systems

## Features

- Designed for use in structures built in accordance with BS 7777 part 3 and EN 14620-3
- Utilizes the time-tested, field-proven taper thread
- Taper thread eliminates cross-threading
- Easy to install
- Slim coupler design-reduces need for concrete cover
- Reduces rebar congestion



-165°C / -265°F



Cryogenic Rebar Splicing systems are an extension to the LENTON® line of concrete reinforcement products available from ERICO. Our products provide the ideal splicing solution for joining rebar in cryogenic applications. By combining the LENTON taper-threaded couplers with state-of-the-art materials we have been able to develop one of the slimmest couplers on the market, while still maintaining top performance. LENTON brand of Cryogenic Rebar Splicing systems should be specified whenever cryogenic-grade rebar is used or when during normal operating or emergency conditions the temperature falls below  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ). Typical construction projects include LNG and LPG storage tanks.

## Benefits

- Improved performance and reliability at cryogenic temperatures ( $-165^{\circ}\text{C}$  /  $-265^{\circ}\text{F}$ )
- Available for a wide range of applications
- Small coupler diameter helps minimize cover and helps eliminate congestion
- Unique taper thread requires no lock nuts and provides a positive locking, no-slip connection
- Requires no special skill and reduces labor costs

## Performance

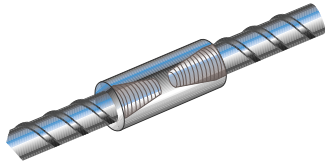
At ambient temperatures, the cryogenic couplers are intended for use in reinforced concrete structures designed and built in accordance with major international building codes such as ACI® 318 Types 1 & 2, DIN1045 and BS8110. At cryogenic temperatures the tensile strength of the splice meets or exceeds the yield strength of an unnotched bar. This is known as the Notch Sensitivity Ratio (NSR).\*

$$\text{NSR} = \frac{\text{Tensile strength for LENTON brand of Cryogenic Splice}}{\text{Lower yield strength of unnotched bar}} \geq 1$$

Uniform elongation at maximum load on cryogenic spliced bars is a minimum of 1%.

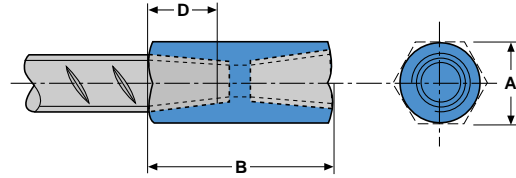
\*Note: In the absence of any current codes governing the use of splicing systems for cryogenic applications we have applied the reinforcing bar test criteria utilized in BS 7777 part 3 and EN 14620-3. Construction codes BS 7777 part 3 and EN 14620-3 are the most often applied standards for the design and construction of flat-bottomed, vertical, cylindrical storage tanks for low temperature service.

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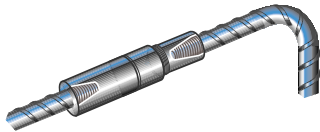
LENTON® standard couplers are designed to splice the same diameter bars where one bar can be rotated and the bar is not restricted in its axial direction. Reducers / Transitions available upon request.

A = diameter  
 B = length of coupler bar  
 D = bar engagement



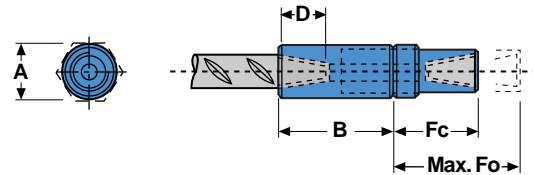
## A12

Rebar Size Designations				Part No.	"A" (Diameter)		"B" (Length)		"D"		Weight	
ASTM	Metric	Canadian	Soft Metric		In.	mm	In.	mm	In.	mm	lb	kg
#4	12	10 M	13	EL12A12CRN	0.75	20	1.96	50	0.75	19	0.2	0.09
	14		14	EL14A12CRN	0.75	20	2.19	56	0.83	21	0.2	0.09
#5	16	15 M	16	EL16A12CRN	1.00	25	2.41	61	0.94	24	0.4	0.16
#6	20	20 M	19	EL20A12CRN	1.25	30	3.41	87	1.38	35	0.8	0.32
#8	25	25 M	25	EL25A12CRN	1.38	35	3.80	97	1.57	40	1.0	0.44
#9	28	30 M	29	EL28A12CRN	1.50	40	3.97	101	1.65	42	1.1	0.61
#10	32		32	EL32A12CRN	1.75	45	4.23	108	1.77	45	1.7	0.79



The P14 style couplers are designed to splice two curved, bent or straight bars, when neither bar can be rotated and where the on-going bar is free to move in its axial direction. Typical applications for these couplers are for the splicing of pile cages. The P14 position coupler can be separated in two pieces for the application against form work. Reducers / Transitions available upon request.

A = diameter  
 B = length of coupler body  
 D = bar engagement  
 Fc = connector and jam nut (closed position) length  
 Max. Fo = connector and jam nut (fully open position) length



## P14

Rebar Size Designations				Part No.	"A" (Diameter Female)		"B" (Length Female)		"Fc"		"Fo" (Max)		"D"		Weight	
ASTM	Metric	Canadian	Soft Metric		In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	lb	kg
#4	12	10 M	13	EL12P14LCRN	1.00	25	1.82	46	2.03	51	2.29	58	0.75	19	0.6	0.27
	14		14	EL14P14LCRN	1.00	25	2.01	51	2.11	54	2.37	60	0.83	21	0.6	0.27
#5	16	15 M	16	EL16P14LCRN	1.25	30	2.13	54	2.26	58	2.53	65	0.94	24	1.1	0.45
#6	20	20 M	19	EL20P14LCRN	1.38	35	2.98	76	3.00	76	3.45	88	1.38	35	1.8	0.78
#8	25	25 M	25	EL25P14LCRN	1.75	45	3.37	86	3.27	83	3.71	95	1.57	40	2.9	1.36
#9	28	30 M	29	EL28P14LCRN	2.00	50	3.54	90	3.36	85	3.81	97	1.65	42	3.9	1.77
#10	32		32	EL32P14LCRN	2.25	60	3.78	96	3.76	96	4.22	107	1.77	45	5.6	2.36

**WARNING**

ERICO products shall be installed and used only as indicated in ERICO's product instruction sheets and training materials. Instruction sheets are available at [www.erico.com](http://www.erico.com) and from your ERICO customer service representative. 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.

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