

LENTON[®] LOCK



Features in \$4.8 Billion Brisbane Airport Link Project

Building on its remarkable success in projects throughout Australia and around the world, LENTON[®] LOCK From ERICO has also been used extensively by Thiess John Holland on the \$4.8 Billion Brisbane Airport Link Project.

LENTON[®] LOCK, is an in-situ rebar splice from ERICO that requires no bar-end preparation, sawing or swaging. It can be used for new construction, repair or retrofit applications. This versatile, patented mechanical rebar splice is designed for use in reinforced concrete applications, such as column splicing, bridge applications, piling, splicing to protruding dowels cast in concrete and beams.

The couplers can be installed with a standard wrench, impact wrench or a nut runner depending on coupler size. The bolt heads will shear off when proper installation tightness has been reached, which allows for completely visual inspection.

Gary Chalmers, Sales Manager, Australia, Pacific said that "before LENTON LOCK could be used on the Brisbane Airport Link project, ERICO had to perform testing on LENTON LOCK on Grade 500N rebar in a NATA Laboratory and provide those test results to Queensland Department of Main Roads for their Approval. Once this was completed, ERICO then submitted the results of the testing to the builders, Thiess John Holland joint venture, for their approval."

LENTON LOCK is trusted for its versatility and ease of installation and can be used as a transition coupler. Many piling contractors across Australia have used LENTON LOCK.

The LENTON LOCK coupler from ERICO features patented gripping technology that provides for the development of full rebar strength and improved overall structural integrity in tension, compression, stress-reversal, fatigue and dynamic applications. This unique design allows the coupler to be smaller and more streamlined than

other bolted splices currently available, and the completed connection performs similar to a continuous piece of rebar.'

Features

- Designed to meet or exceed major international building code requirements, including AS3600, NZS3101, Caltrans Ultimate Splice requirement, IBC[®], UBC[®] and ACI[®] 318 Type 2, DIN 1045 and BS8110, Sellafield Ltd. and BS5400
- Uses standard rebar; requires no bar-end preparation, such as sawing or swaging – ideal for in-situ splices
- Provides superior fatigue performance
- Works in repair, bent bar, retrofit, precast and new construction applications
- Ideal for use with a variety of standard US and international rebar grades
- Installs quickly and easily using simple hand tools – does not require special skilled labour
- Allows for simple visual inspection

Applications

This innovative mechanical rebar splice is designed to specification for use in column splicing, bridge applications, piling, splicing to protruding dowels cast in concrete, closure pours, beams, chimney construction and other demanding splicing applications.

Patented gripping technology

LENTON LOCK's patented gripping technology can be seen on the inside of the coupler and the patented round bolts on the outer edges of the coupler. LENTON LOCK, with the patented round end bolts, is designed to break the reinforcing bar remote from the rebar connector.

Impact Guns

Installing LENTON LOCK is a quick and easy process. Contact





ERICO for a list of recommended impact wrenches and sockets.

According to Guy McNaught, pile cage coordinator with Thiess John Holland on the Brisbane Airport Link Project, the LENTON LOCK coupler was particularly helpful in the process of cage fabrication and pile construction. "With the pouring of piles some 15 m deep or more, the concrete has to be placed using a tremmie pipe. With the design calling for cogged bars on the piles, the pouring of concrete down a tremmie pipe was not achievable," McNaught said.

"By utilising the LENTON LOCK, we were able to make the cage with straight bars, pour the pile and then attach the cogged bars with the couplers to achieve the design."

LENTON LOCK is able to be positioned facing outward, thus allowing safe access to achieve the tightening of the connection.

"When used in the TJH Airport Link project, LENTON LOCK eliminated the need for stilsons that would be difficult to tighten due to space limitations in the pile, and thus reducing the risk of injury to our employees," said McNaught.

The LENTON LOCK coupler has been used in a number of applications on the TJH Airport Link project, in addition to other LENTON products. LENTON LOCK was used in the piling works for the cut and cover structures. It has been used to extend the piles vertically into the capping beams. LENTON LOCK was also used in the bridges where the pile cage connects to the pile cap, where the projection bars have been required to be cogged to achieve a design level of anchorage within the pile cap.

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