

BARTEC & LINXION parallel thread

INTRO | Reinforcement links: Cover vs Coupler

To assemble reinforcements in reinforced concrete constructions, the covering system can be used: two reinforcing bars are superimposed over a length of 50 or 75 diameters, then embedded in the concrete in order to secure them. Depending on the situation, this solution may pose safety issues: in fact, in the event of a concrete fracture (in the case of an accidental overload or an earthquake, for example), the two reinforcements are separated, immediately destabilizing the structure with risks of ruin of the work.

Therefore, in order to make the assembly of the reinforcements as secure as possible (while saving steel), reinforcing link solutions have been created. The most common of these are BARTEC rebar links patented in 1988 by the eponymous company, then "Pi Range" rebar links patented in 2013 under the LINXION brand. They allow the load to be transferred from one bar to another, without depending on the adhesion or integrity of the concrete. The coupler connects the two bars, ensuring optimal structural continuity in its performance and reliability.

Did you know ? The size affects the quality of the concrete!

The use of couplers considerably reduces the size of the bars, which facilitates the placement and compaction of concrete. Fewer rebars: less risk of concrete segregation due to excessive vibration and therefore improves concrete quality!

However, this rebar binding system requires preparation of the bars beforehand. There are different connection systems among which: the cold extruded sleeve system, conical thread or parallel thread with prior cold discharge.

BARTEC Company has been specializing for more than 30 years in parallel threading with upset, a know-how from which its new LINXION subsidiaries have benefited. This technique offers:

- Flexibility of use, allowing optimal productivity to be achieved
- Guaranteed safety, thanks to 100% Bar Break
- Simple and safe control for repeatable quality on site

The BARTEC / LINXION parallel thread: a coupler for all types of connections

BARTEC & LINXION offer complete ranges of connections to meet all issues (standard, fatigue, stainless steel, etc.). The fact of using a parallel thread allows one

and the same coupler to correspond to several possible combinations! One and the same coupler can be used regardless of the desired linkage: standard, position, adjustable spacing or lock nut, unlike taper thread or crimped couplers, where a special coupler will have to be used if the second bar cannot be turned.

BARTEC Company's equipment has been designed to achieve maximum daily productivity. All bars are prepared in the chain, in sequence: the speed of the cutting, cold upsetting and then threading processes guarantees excellent productivity.

A cold upsetting cycle for a 40mm bar lasts less than 20 seconds!

In fact, between 500 and 1200 threads depending on the diameter of the reinforcement can be made in 8 hours and the change from one diameter to another only takes 15 minutes. That is, two teams working on different diameters can produce more than 400,000 threads in one year, or 200,000 connections!

Parallel threading with cold discharge: a Bar Break solution

Unlike conical couplers, the BARTEC process of parallel threading with cold discharge allows a 100% BAR BREAK solution, that is to say that the connections have a resistance always greater than that of the parent bar, guaranteeing the total reliability of the structure.

The purpose of cold upsetting is to widen the end of the bar in order to proceed with a thread that does not reduce the resistance section of the bar, thus avoiding a weak point while respecting the integrity of the steel: the resistance of the parent rebars is therefore retained. It is this quality parallel threading, enabled by BARTEC machines produced by CERGIL Industry, the Italian subsidiary, and perfectly suited to BARTEC & LINXION couplers, which ensures a high-performance connection. This is the very important role of equipment specifically developed to ensure full control over the entire upsetting and threading process, as well as the quality and repeatability that only quality equipment can provide.

The preparation of threads is made easier thanks to machines designed for productivity and reliability: their development monitored with tools makes the threading operation completely controllable for any user. However, it is imperative that all the elements are produced with the same quality criteria to guarantee the entire structure after installation on site.

BARTEC rebar connection solutions: Quality & safety

All our couplers are made using CNC machines from quality cold drawn steel and according to a European Quality Management System (QMS). We follow strict and standardized control procedures (1 coupler tested every 1000 made).

Our links reduce bar concentration, improve structural integrity during all phases of construction, and provide better resistance against fatigue and earthquakes. Their installation is simple, quick and safe and facilitates visual inspection, made possible by the parallel thread.

Indeed, a simple visual check of the connections makes it possible to be certain of the quality of the assembly. This is the advantage of our process: if the procedure is followed, there should no longer be any visible threads. However, even if a net remained visible after installing a single link, the Bar Break effect is still guaranteed! This is the guarantee of the BARTEC & LINXION solution.

In addition, assembly by hand is sufficient: no need to tighten with a torque wrench to obtain the tightening torque, unlike conical connections.

Did you know ? BARTEC & LINXION connections withstand all tests!

Traction, fatigue, violent earthquake, shock and explosion ... The guarantee of maximum performance for all applications! BARTEC couplers are also efficient (and certified!) Against slipping. Guaranteed quality... and repeatable connections on site like those sent to certification bodies!

In short: a simple, fast and secure solution!

For more than 30 years, BARTEC Company and the new LINXION subsidiaries have been convinced by parallel threading with cold discharge.

Flexibility, productivity, safety and quality: BAR-TEC & LINXION rebar linkage solutions ensure:

- BAR BREAK performance, whatever the application or the project,
- Optimal security
- And ease of installation and control on construction sites

Whether in terms of fatigue, sliding, traction, earthquake ... BARTEC & LINXION rebar link solutions meet all issues and all international standards.

This is what makes parallel threading the most widely used system in the world!

For a rebar bonding solution that ensures maximum daily productivity in complete safety? BARTEC Company, Pragmatic innovation.