



MITRO INDUSTRIES

COMPANY PROFILE



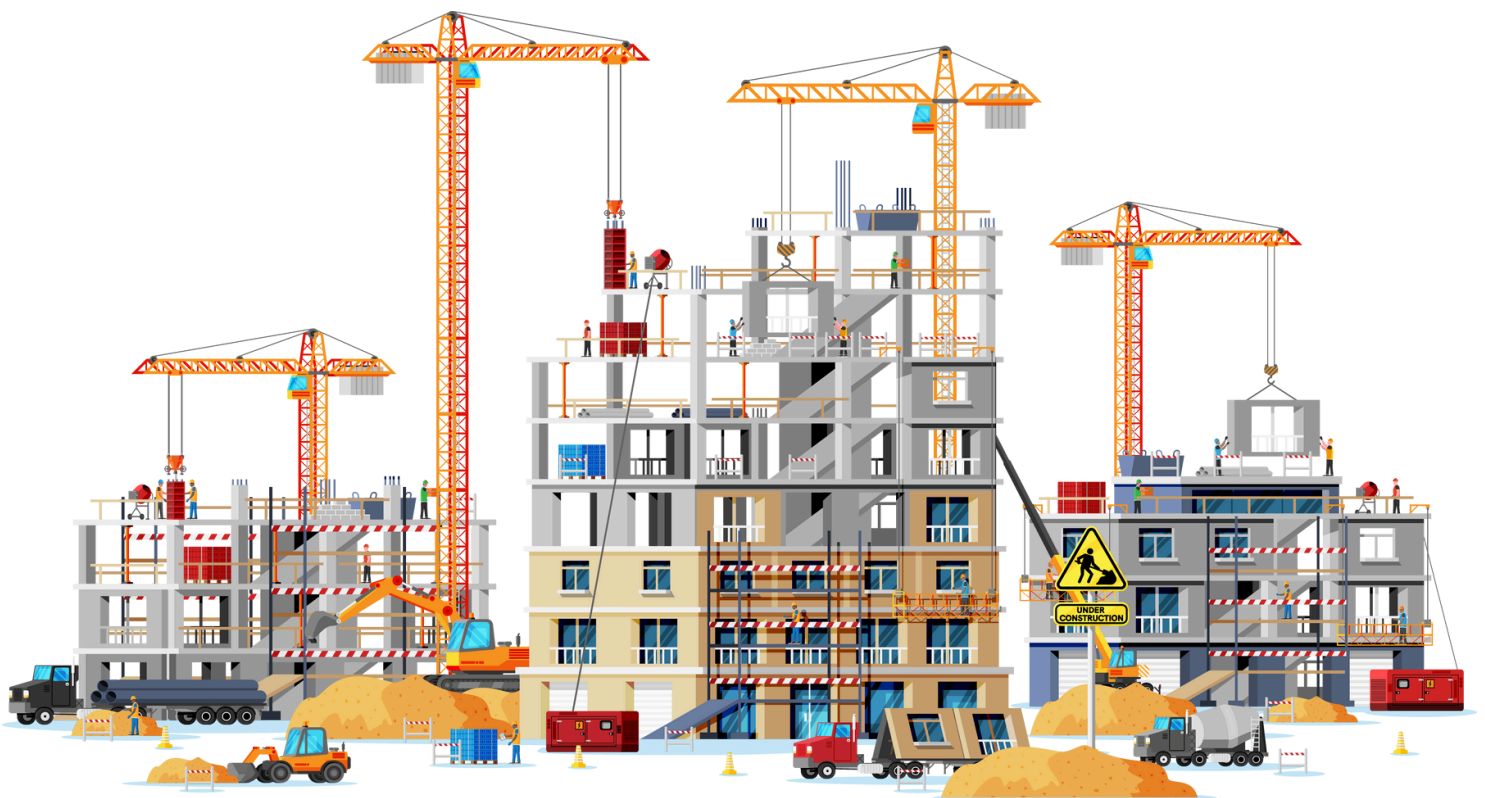
REBAR COUPLER SYSTEM

High Joint | Quick Connecting | Economical



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MITRO REINFORCING BAR COUPLER SYSTEM

- We are a reliable Manufacturer, Supplier and Exporter of Industrial Machines & Equipments and various other scaffolding products. Our company, well equipped with modern technology, and are capable of handling bulk production with surety of outstanding quality standards.
- Lapping is the most common & conventional practice for joining reinforced steel in construction. Additional usages of rebar in lapping lead to rebar congestion and damage structural integrity.
- We are presently a preferred supplier of rebar couplers to well-known companies in India and internationally in the general engineering, power and energy, construction, and mining industries, airport, bridges, metro station.



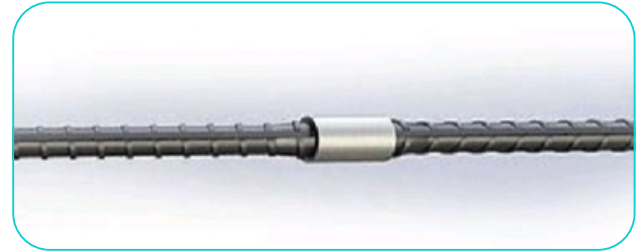
LAP SPLICE AND THE EQUIVALENT REBAR COUPLER SYSTEM



Lapping system

However, lap splicing is not always the proper means of connecting reinforcing bars for the following reasons:

- Use of lapped joints is time consuming in terms of design and installation
- Lead to serious congestion within the concrete due to the increased lapped rebar volume
- Lapped joints are very dependent upon the quality of the concrete for load transfer
- Poor compaction of the concrete will compromise the performance of the joint and might result in 'honeycombs'



Coupler system

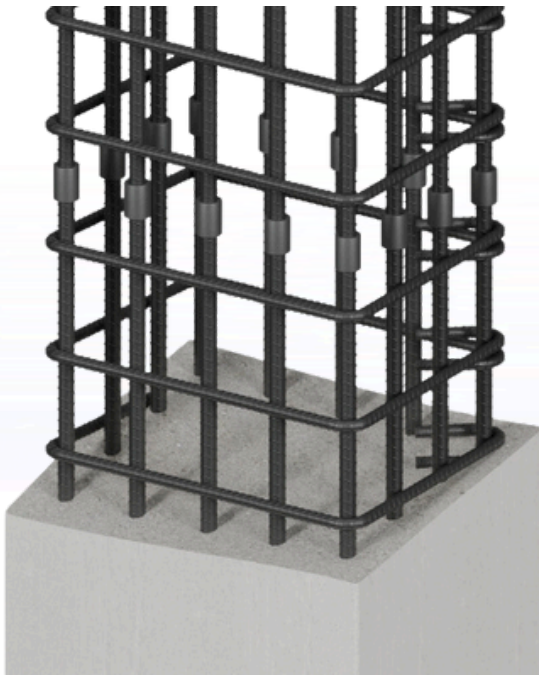
In general the use of coupler for rebar will:

- Improve structural integrity
- Improve design options
- Achieve an ideal balance of steel and concrete by eliminating unnecessary rebar
- Reduce the congestion and weight of the structure.
- Lessens the amount of embodied CO₂
- Reduce the rebar cost as lapping uses more steel than couplers



BENEFITS OF USING REBAR COUPLERS

- Provides continuity of reinforcing bars.
- No reduction of the bar cross section area.
- Full-Tension splice: Bar-break under tensile load.
- Allows full ductile elongation of bar.
- Practical alternative to lap splicing.
- Solves bar congestion problems.
- No staggering of splices bars required.
- Reduces steel wastage.
- Enables multiple re-use of formworks.



- Offers more strength.
- Meet today's stringent construction code.
- Shortens construction cycle time
- Couplers and threaded bars are protected by plastic caps.
- Easy installation, no torque wrench required.
- One standard coupler for all splicing requirements (Standard/Position).
- Much more reliable in case of any natural event.



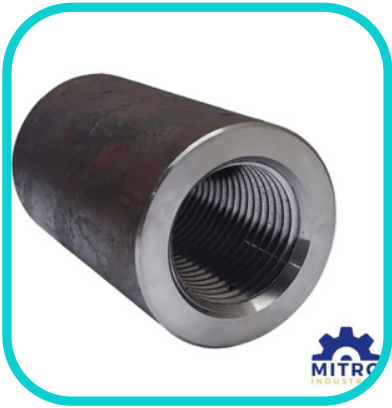
QUALITY ASSURANCE

Every application of severe quality checks at each phase of product development to ensure high-quality products. It is based on the concept that everyone involved in the product development process is responsible for the product's quality at the stage in which they are involved. Quality Assurance does not end after the product is finished, instead, it repeats the cycle, using any data gathered at each stage of the development process to better the following round. We are concerned with more than just the product's quality. We also emphasize the analysis of product development processes in order to eliminate waste. Waste is reduced by lowering the costs associated with flaws. The premise is that waiting until the last minute to find problems, shortly before the product is released, is costly.



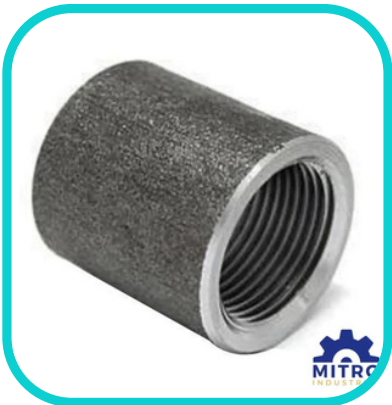
THREAD COUPLER TYPES

Parallel Threaded Couplers



Rebar (mm)	Outer Diameter	Length	Weight (g)	Thread Pitch
16 mm	25 mm	40 mm	90 mm	2.5 mm
20 mm	32 mm	50 mm	195 mm	2.5 mm
25 mm	40 mm	60 mm	355 mm	3 mm
32 mm	50 mm	80 mm	725 mm	3 mm
40 mm	60 mm	84 mm	1102mm	4 mm

Cold Forged Couplers



Rebar (mm)	Outer Diameter	Length	Weight (g)	Thread Pitch
16 mm	28 mm	32 mm	79 mm	2.5 mm
20 mm	32 mm	40 mm	120 mm	3 mm
25 mm	40 mm	50 mm	250 mm	3 mm
32 mm	50 mm	64 mm	525 mm	4 mm
40 mm	65 mm	80 mm	943 mm	4 mm

Transition Couplers (Reducer Couplers)



Rebar (mm)	Outer Diameter	Length	Weight (g)	Thread Pitch
20 x 16 mm	32 mm	45 mm	195 mm	2.5/2.5 mm
25 x 20 mm	40 mm	55 mm	370 mm	3/3 mm
32 x 20 mm	40 mm	65 mm	690 mm	3/2.5 mm
32 x 25 mm	50 mm	70 mm	710 mm	3/3 mm
40 x 32 mm	60 mm	82 mm	1206 mm	4/3 mm

BAR-END PREPARATION PROCESS

For Upset Parallel Threaded Coupler

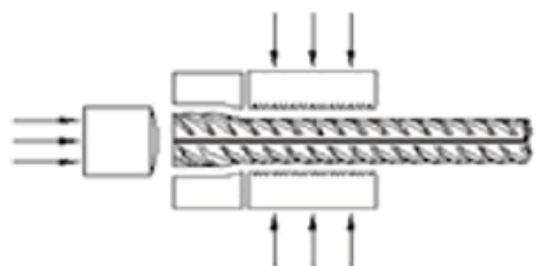
- First, the ends of the reinforcing bars are cut on a saw machine to achieve an end to end flat surface. This sawn end is then enlarged by cold forging process. This increases the core diameter of the bar to ensure that the joint is stronger than the bar, & makes it suitable for threading..
- Parallel standard ISO metric threads are then cut onto the enlarged ends that match the threaded coupler.
- Parallel threads reduce the risk of cross-threading and the risk of mismatch. The threaded ends are protected by external plastic caps.
- Finally mechanically splice the rebar with parallel threaded mitro couplers.
- Generally, a nominal allowance should be made per threaded bar end for the length consumed in cutting and cold forging, by adding extra length to the required length of the bar.

OPERATION 1



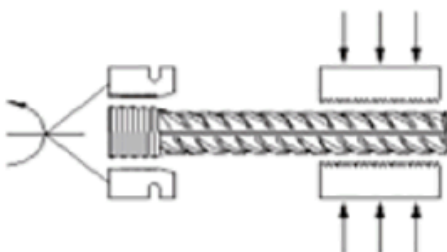
Make parallel face of bar by cutting in saw machine

OPERATION 2



The sawn cut end of the reinforcing bar is enlarged by cold forging process, thus increasing its diameter

OPERATION 3



Standard ISO metric threads are then cut on to the enlarged end & covered by plastic caps to protect the thread of rebar.

OPERATION 4



Finally splice the rebar by using threaded mitro rebar couplers.

BAR-END PREPARATION PROCESS

For Parallel Threaded Coupler

The mitro parallel threaded rebar coupler is suitable for small scale projects. It involves a simple process using only one machine & one operator for all the peeling, ribbing & threading operations. Mitro production facilities are ISO 9001 and ISO/TS 16949 certified. Our quality measures go beyond to include total traceability. Our patented E-code head marking system allows tracing of test records for each production lot.

CUTTING



The end of the reinforcing rebar is sawn square

PEELING



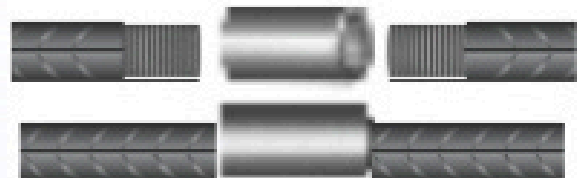
The transverse and longitudinal ribbing at the end of the rebar is peeled.

THREADING



Finally, the peeled end of the rebar is rolled thread.

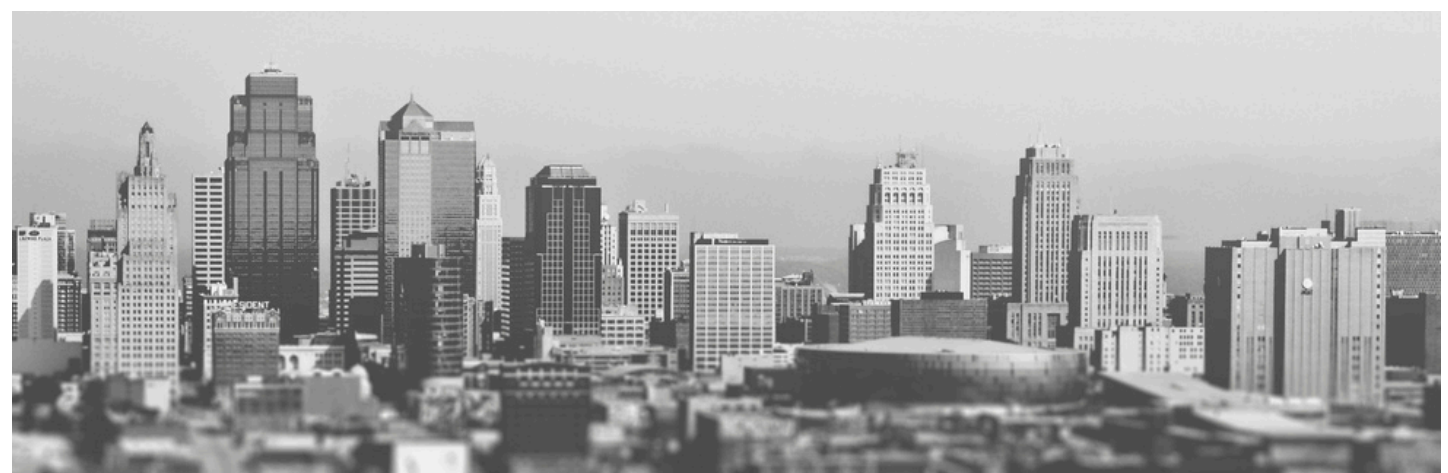
MECHANICAL SPLICE



Coupler can be used to connect the ends rebars of double steel rebar.



PROJECT WHERE REBAR COUPLER USED



CALL

NOW



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