Axiscore
Solutions Pvt Ltd
WHERE VISION MEETS STRUCTURE

Mechanical Bar Couplers

The Ultimate Splicing Solutions

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Who are we

At AxisCore Solutions Private Limited, we are driven by a commitment to strength, precision, and reliability in construction. With a leadership team rooted in engineering excellence and strategic vision, seasoned industry experts — we bring innovation and accountability to every connection we create.

As a forward-thinking construction solutions company, we specialize in delivering high-performance mechanical rebar couplers and other critical infrastructure materials. Our approach is grounded in quality, transparency, and long-term partnerships. Whether for mega infrastructure projects or premium residential developments, we ensure every product meets the highest industry standards — because we believe in building futures that last.

What We Do

We manufacture and supply engineered mechanical rebar couplers designed for optimal structural reinforcement. Our product range includes:

- **Standard Couplers**
- **Position Couplers**
- **Transition Couplers**
- **Weldable Couplers**
- **Custom Threaded Solutions**

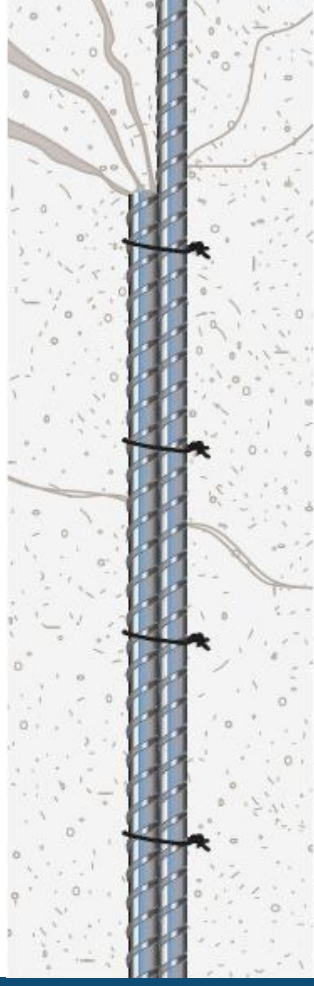
Our couplers are precision-machined using **EN8, C45, and END8** grade materials, ensuring superior tensile strength and fatigue resistance. Each batch undergoes rigorous quality control, testing, and certification to match national and international construction norms.

Beyond product supply, AxisCore Solutions Pvt. Ltd. offers complete support — from technical consultation and sizing to on-site guidance and timely delivery. We empower engineers, contractors, and developers to create stronger, safer, and more efficient structures with reduced steel wastage and faster construction timelines.

Innovative Solutions for Better Future

Lap Splicing

Lap Splicing



IS IT RELIABLE?

- Lap splices develop their strength from interaction with concrete
- The higher the yield stress, the greater the lap length required
- Lap splices have poor cyclic performance
- To prevent concrete splitting, additional rebar may be required for confinement

DESIGN-CONSTRICTIVE

- Lap length required for bars in tension is normally longer than same size bars in compression
- Lap splices double the number of bars leading to rebar congestion which can restrict the flow of aggregates

HIDDEN COSTS

- The bigger the bar diameter, the longer the lap
- The lower the concrete strength, the longer the lap length required
- Corrosion-resistant coated bars are expensive and longer lengths may be used
- Lap splicing involves time consuming calculations, possible calculation mistakes, and overestimating

Mechanical Splicing

Mechanical Splicing

PROVEN RELIABLE

- Lap splices develop their strength from interaction with concrete
- The higher the yield stress, the greater the lap length required
- Lap splices have poor cyclic performance
- To prevent concrete splitting, additional rebar may be required for confinement

DESIGN-FRIENDLY

- Reduces rebar congestion and improves concrete consolidation
- Improves steel-to-concrete ratio
- Eliminates lap splices in high stress regions
- Allows greater flexibility in design options

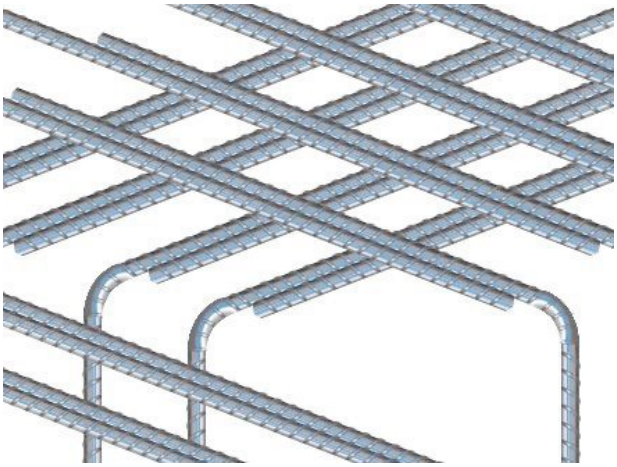
ECONOMICAL

- Requires no special skills and reduces labor costs
- Accelerates construction schedules for reduced cost and improved efficiency
- Saves valuable crane time
- Reduces material costs because less rebar is used

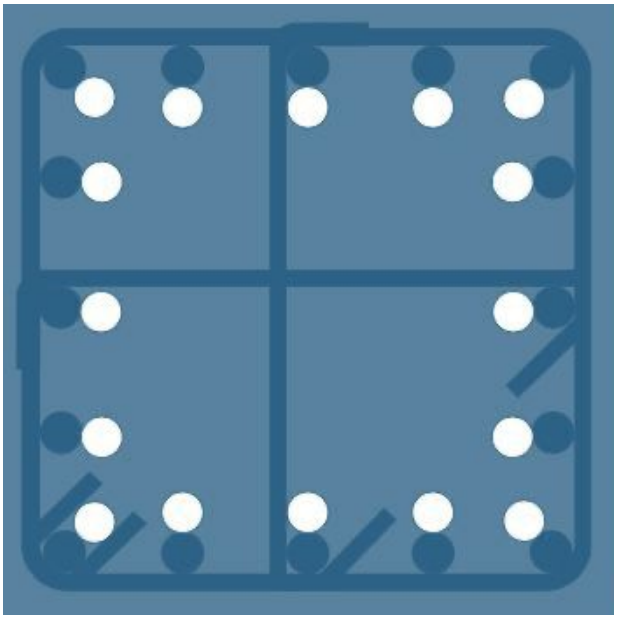
ADDITIONAL ADVANTAGES

- It offers an excellent current carrying capacity, or strike path, for grounding buildings
- Resistant to impact loads during man-made or natural events
- Increased column shear load capacity
- Promotes low cycle fatigue performance

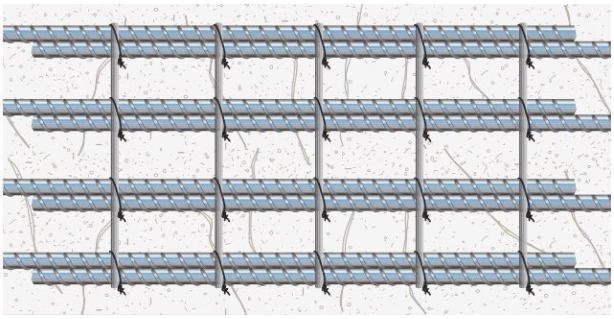
Lap Splicing



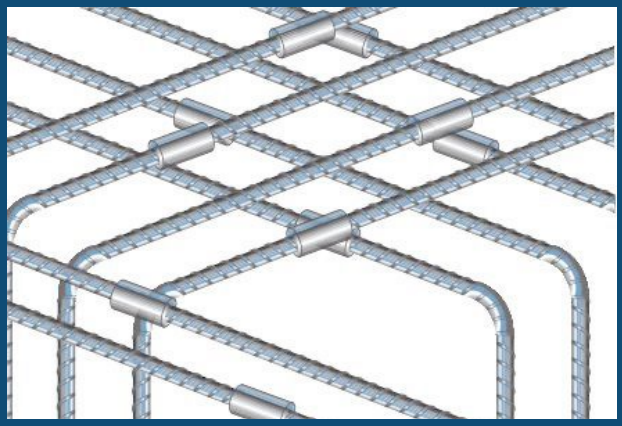
Design-Constructive



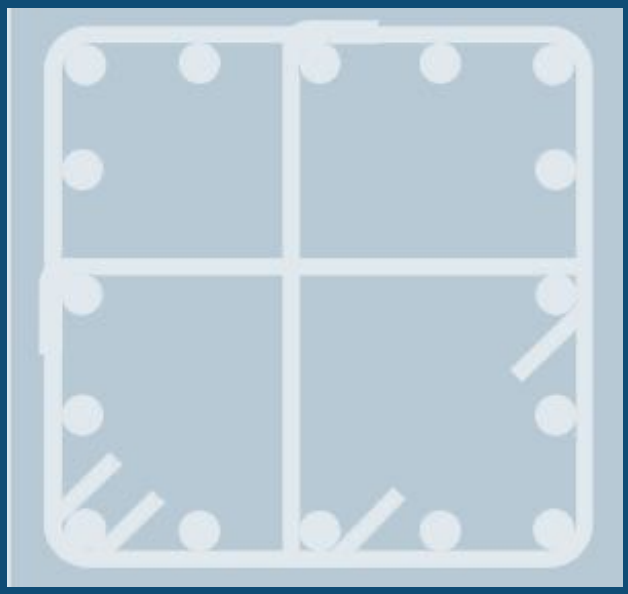
Lap splice – additional rebar in the lap zone.



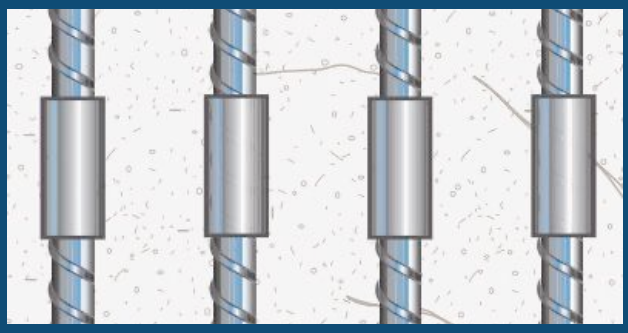
Hidden Costs



Design-Friendly



Mechanical splice – ideal balance of steel and concrete.



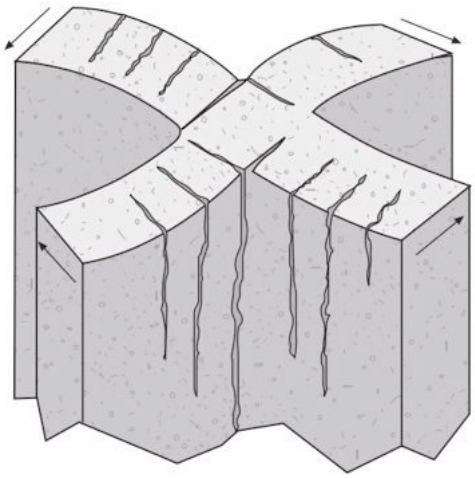
Cost Savings

Mechanical Splicing

AXISCORE MECHANICAL SPLICES ARE AS GOOD AS HAVING MONEY IN THE BANK!

Consider the many benefits of mechanical splicing, cost over time is a lot less than expected.

- *One of the fastest methods of splicing rebar*
- *Self centering and self aligning*
- *Helps eliminate construction delays due to rebar congestion challenges*
- *Helps accelerate construction schedules*
- *Enhances job site safety*



Your Choice of AxisCore Mechanical Splices Will Withstand the Test of Time

PROVIDES CONTINUITY IN ECONOMY OF DESIGN

It improves steel-to-concrete ratio by eliminating half of the bars necessary in the "lap zone" of a column. Use of lap splicing may exceed the concrete to steel ratio of many international standards.
With AxisCore splices, you can design smaller columns and create maximum floor space, while reducing your form costs. Form sizes can also be established for more cost savings, and AxisCore couplers are excellent for future
extension applications.

PROVIDES CONTINUITY IN QUALITY AND STRENGTH

AxisCore couplers are manufactured from high strength, high quality steel. All AxisCore design and manufacturing facilities are certified as per Indian Standards.

WITHSTANDS THE TEST OF TIME

SEISMIC CONSIDERATIONS

Lap splices may pull apart during seismic loads. AxisCore couplers offer more strength than lap splices during seismic, man-made blasts or other natural events as their performance is independent of surrounding concrete.
AxisCore splices provide you with the ability to design and build concrete structures that meet or exceed today's stringent construction codes and regulations regarding seismic frame construction. AxisCore couplers are
superior to other current methods of splicing in withstanding seismic, man-made blasts and other natural events by providing reinforcing splices for rebar.

PROVIDES CONTINUITY IN PROJECT ECONOMICS

It reduces the amount of additional rebar that is required in a lap system. The system can be installed in a matter of seconds, with no special skills or bulky equipment required. Construction schedules can be accelerated to achieve optimum costs. The benefit-to-cost ratio using the AxisCore system is often superior to lap splicing.

CORROSION CONSIDERATIONS

Corrosion increases the size of the rebar causing the concrete cover to spall and crack. As lap splices depend on the "bond" between concrete and steel for strength, concrete degradation caused by corrosion results in lap splice failure. With AxisCore couplers, structural integrity is maintained even with the loss of the concrete cover because mechanical couplers perform similar to a continuous piece of rebar.

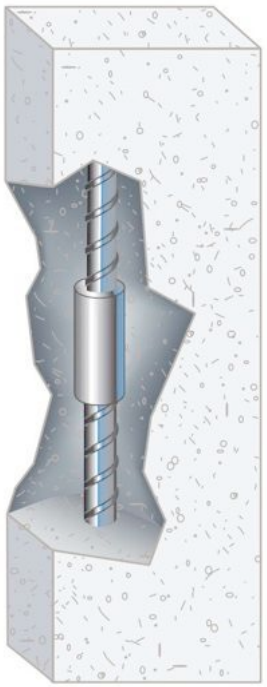
Lap splices transfer their load through the concrete and will fail as concrete cover degrades.

DESIGN BENEFITS

- Allows maximum bar cross-section to be used
- Short length and slim design ensure the least disturbance to uniform stiffness
- Splice strength is independent of rebar deformation
- Unique tapered thread requires no lock nuts and provides a positive locking, no-slip connection
- Any length, shape, diameter or combination of bar sizes can be mechanically spliced

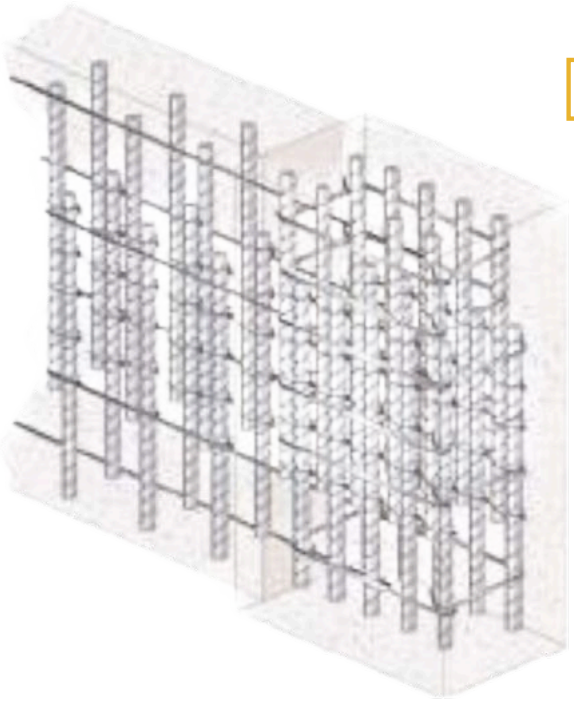
INSTALLATION BENEFITS

- Takes approximately 4.5 turns to engage
- Prevents cross-threading
- Fastest system to install:
  - No special tools or skills require
  - No power required for installation
  - Splice inspection is quick and easy
  - Reduces crane time
- Bar threader is easy to use and can be set up on-site or at the fabricator
- Because most of the work is done in the fabrication shed, construction schedules are accelerated

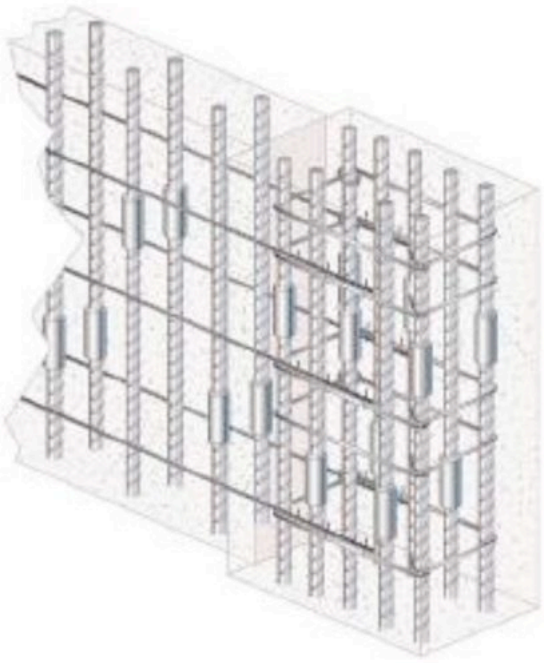


AxisCore mechanical couplers perform similar to a continuous length of rebar regardless of concrete condition.

Mechanical Splicing System Applications



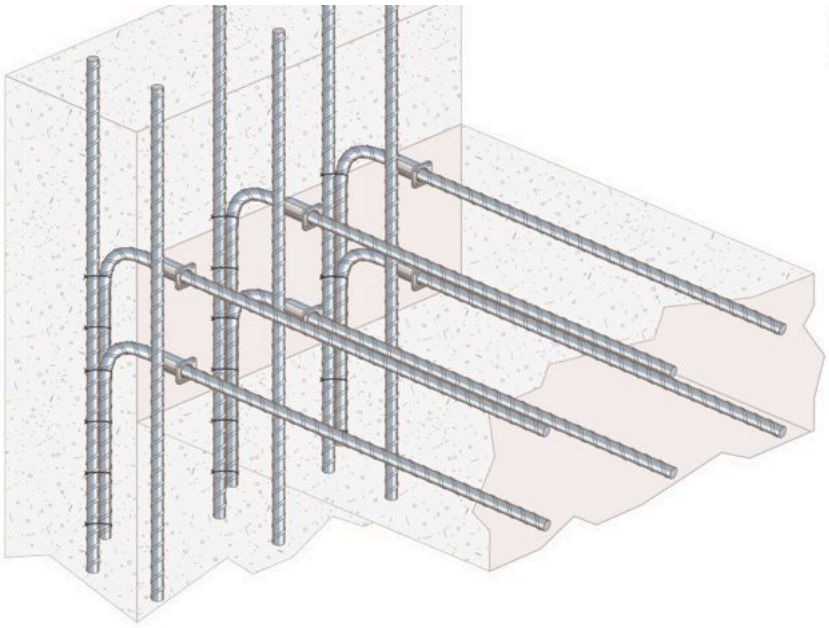
SHEAR WALL



Lap Splice requires more rebar.

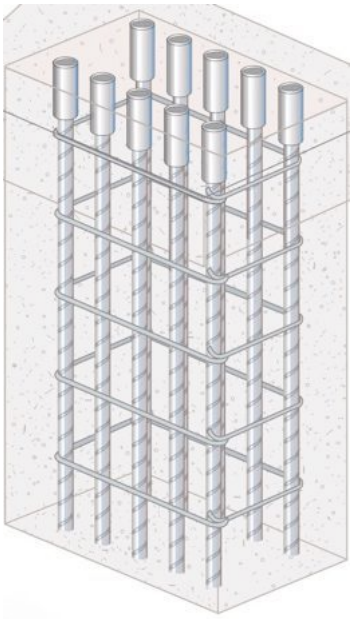
Mechanical Splice reduce congestion, and are ideal for fast and easy rebar placing when using sliding or climbing formwork.

WALL SLAB

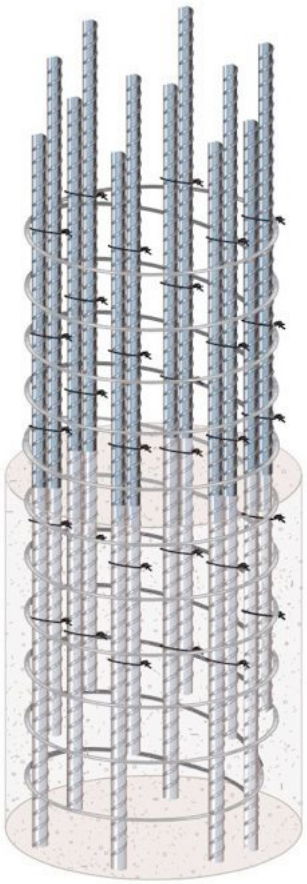


Eliminate the need to penetrate the formwork. Indispensible when using sliding or climbing formwork.

FUTURE EXTENSION



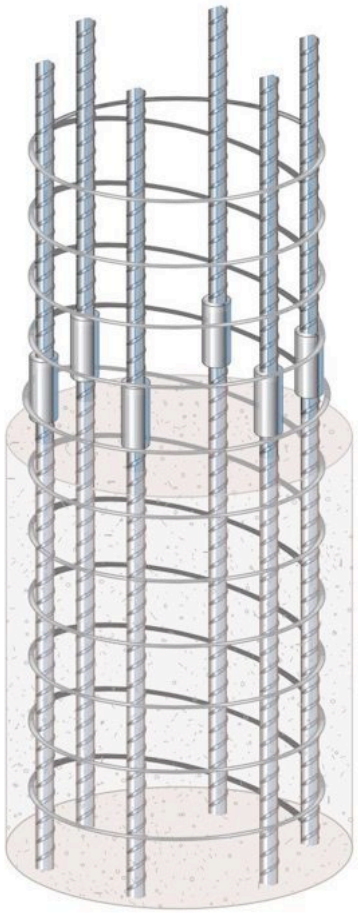
All couplers are supplied with thread-protective plastic caps, which can be removed to expose the coupler when construction recommences. Heavy duty steel caps are available on request.



COLUMN

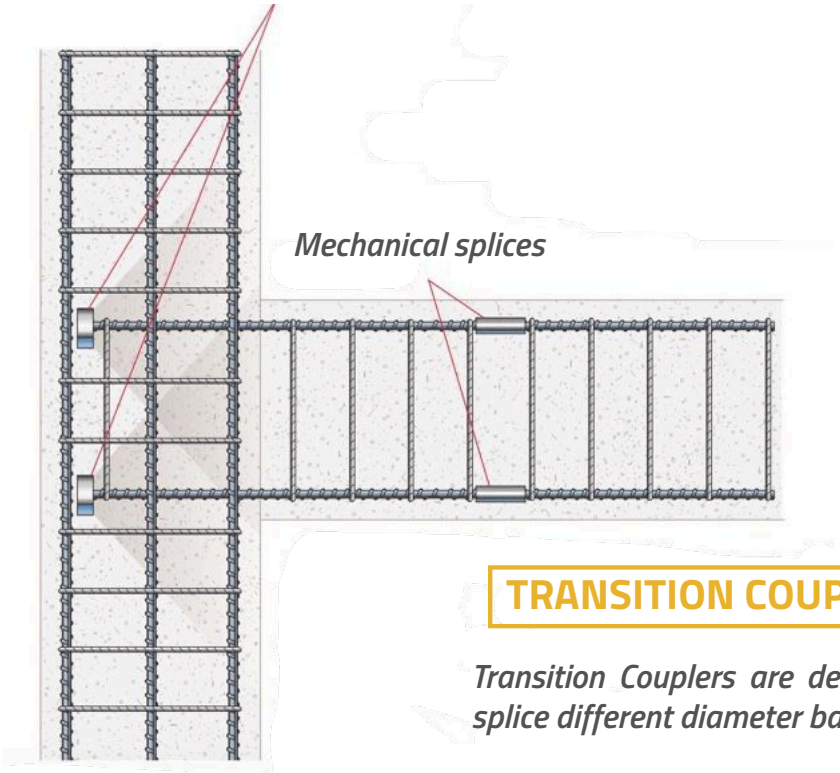
Lap splicing inhibits concrete consolidation

Mechanical splices



BEAM JOINTS

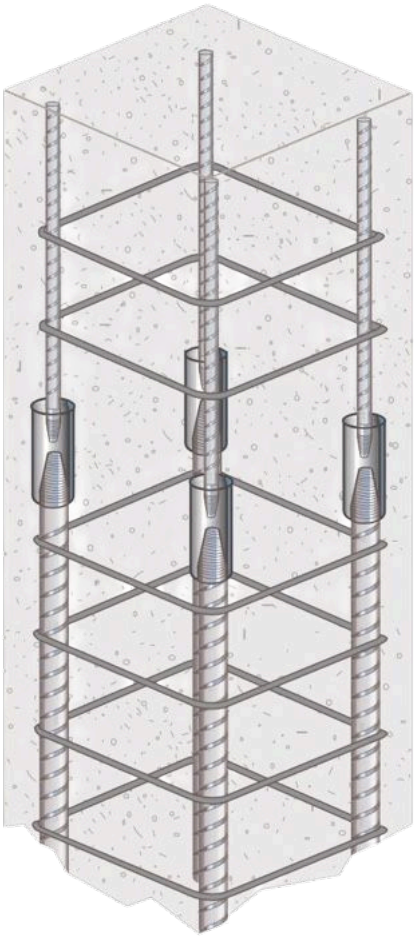
Terminator is ideal for rebar anchorage applications to eliminate hooked rebar, reduce congestion and simplify bar placement.



Mechanical splices

TRANSITION COUPLERS

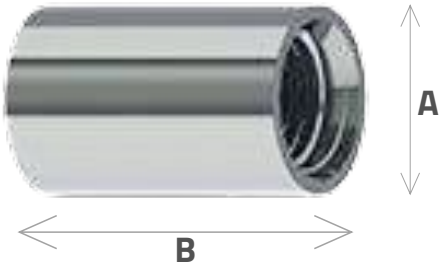
Transition Couplers are designed to splice different diameter bars.



Technical Datasheet

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.

A = Outer Diameter
B = Length of coupler



STANDARD COUPLERS

COLD FORGE

Rebar Size (mm)	"A" (mm)	"B" (mm)
16	28	40
20	32	50
25	40	63
28	40	70
32	50	80
36	50	90
40	60	100

ROLL TEC

Rebar Size (mm)	"A" (mm)	"B" (mm)
16	25	40
20	32	50
25	36	63
28	40	70
32	50	80
36	50	90
40	60	100

2.5X Standard Length

TRANSITION COUPLERS

COLD FORGE

Rebar Size (mm)	"A" (mm)	"B" (mm)
16 to 12	28	60
20 to 16	32	50
25 to 20	40	63
28 to 25	40	70
32 to 28	50	80
36 to 32	50	90
40 to 36	60	100

ROLL TEC

Rebar Size (mm)	"A" (mm)	"B" (mm)
16 to 12	25	60
20 to 16	32	50
25 to 20	36	63
28 to 25	40	70
32 to 28	50	80
36 to 32	50	90
40 to 36	60	100

Rebar Preparation

Rebar Preparation

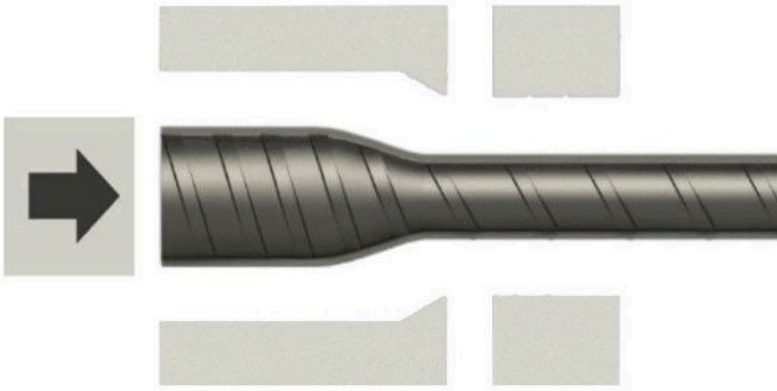
A 3 STEP PROCESS - COLD FORGE

STEP 1: CUTTING

The end of the reinforcing bar is sawn square.

STEP 2: COLD FORGING

The sawn end of the reinforcing bar is then enlarged by a patented cold forging process. The core diameter of the bar is increased to a pre-determined size.



STEP 3: THREADING

Finally, the enlarged end of the rebar is threaded to the required length.

A 2 STEP PROCESS - ROLLTEC

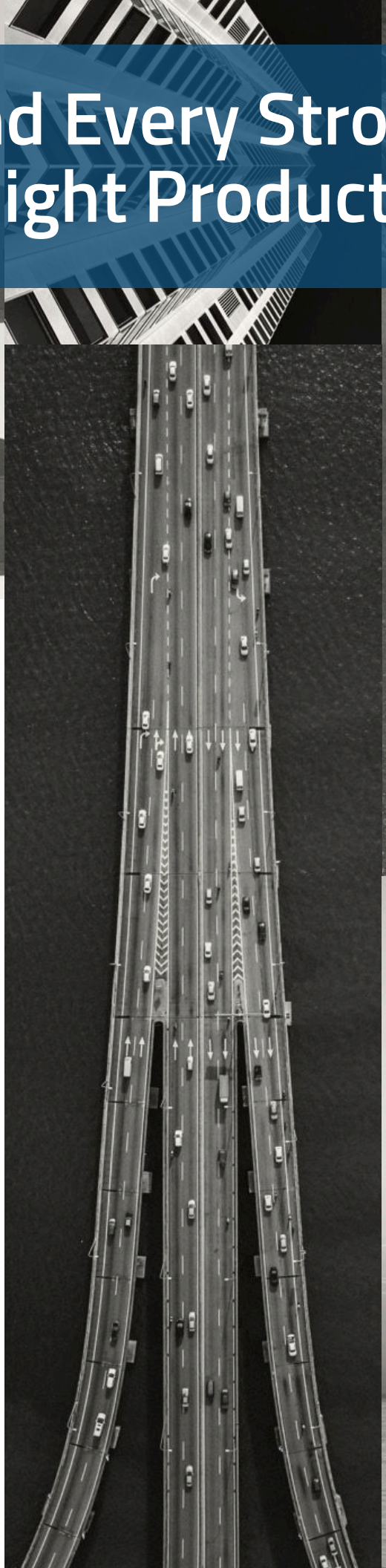
STEP 1: CUTTING

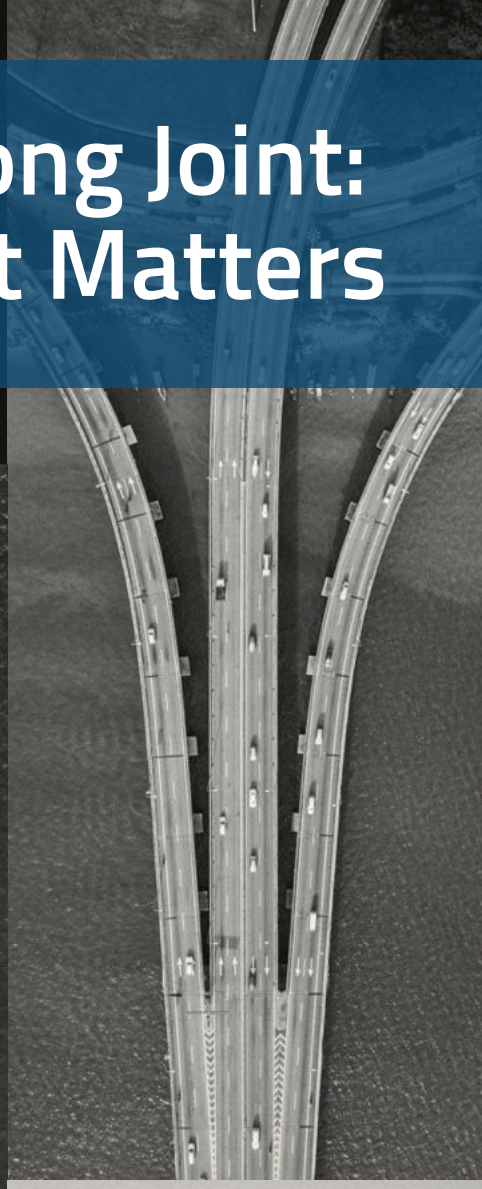
The end of the reinforcing bar is sawn square.

STEP 2: TURN & THREAD

Rebar end is turned and roll threaded by roll threading machine.

Behind Every Strong Joint: The Right Product Matters





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