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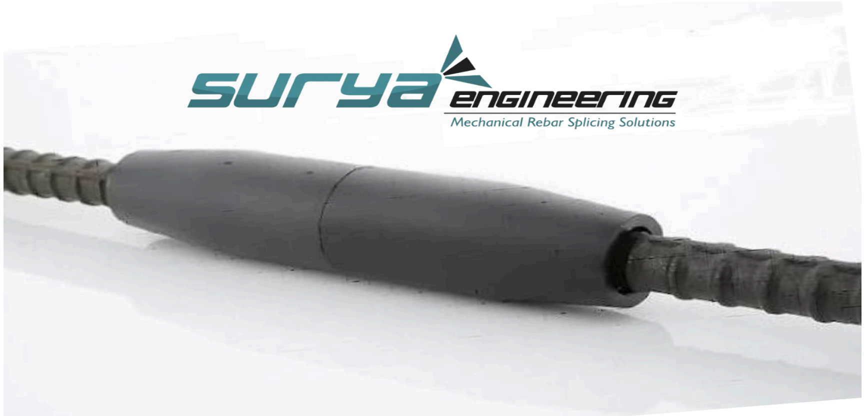

What Is One Touch Rebar Coupler ?

The **One Touch Rebar Coupler** by **Surya Engineering** is a **push-fit mechanical splice coupler** designed to join two TMT/rebar bars quickly **without threading, welding, or rotating the bars**. It's marketed as a time-saving alternative to conventional threaded couplers while delivering full-tension mechanical splices suitable for modern construction.

What it is

- Also called **Push Fit Rebar Coupler** or **One Touch Mechanical Coupler**.
- Connects two reinforcement bars by **pushing the bar ends into the coupler** until they seat, eliminating thread cutting and bar-end preparation.
- Intended for **TMT bar joints** in residential, commercial, industrial, and infrastructure projects

Key Technical Specifications :

Parameter	**Technical Details**
Product Name	Heavy-Duty One Touch / Push-Fit Rebar Coupler
Material Grade	High-Tensile Alloy Steel / EN8D Carbon Steel / Precision Forged Steel
Internal Mechanism	Tapered Conical Internal Wedges & Spring Lock / Tooth Engagement
Suitable Bar Sizes	12 mm, 16 mm, 20 mm, 25 mm, 28 mm, 32 mm, 36 mm, and 40 mm TMT Bars
Installation Method	Manual Push-Fit / Tool-Free Insertion
Splice Category	Type II Mechanical Splice (Full Tension & Compression Load Transfer)
Tensile Capacity	Exceeds **650MPa** of parent rebar yield strength
Compliance Standards	**IS 16172:2014**, IS 1786, ISO 15835, ACI 318, BS 8110

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How it works (application principle):

- Bars are cut square, deburred, and then **pushed directly into the coupler** until they bottom out or reach the designed stop.
- The coupler’s internal geometry (often tapered/locking elements) creates a **full-tension mechanical splice** without needing a torque wrench or thread engagement checks.
- This reduces installation time and skill dependency compared to traditional lap splicing or threaded couplers.

Typical applications in construction

One Touch / push-fit couplers are used wherever fast, reliable rebar continuity is needed:

- **High-rise buildings** – column and wall vertical bars, where lap length is costly in steel and space.
- **Bridges & flyovers** – long reinforcement runs and precast connections.
- **Industrial structures** – heavy foundations, machine bases, and large slabs.