SNTP
MECHANICAL SPLICING SYSTEM

SNTP Technologies

IS 16172
CM/L No. 8800140512

BIS Certified - ISI Mark Rebar Coupler

INDIA'S FIRST ISI MARK

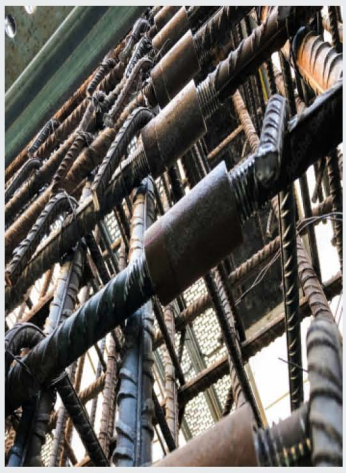
REINFORCEMENT COUPLERS

*Approved By
NHAI, CMRL, NAGPUR METRO, BRIDGE & ROOF NMRC (NOIDA),
RVNL, DFCCIL, NBCC & Various Other Govt. & Private Organizations

THE VERY BEST IN MECHANICAL SPLICING

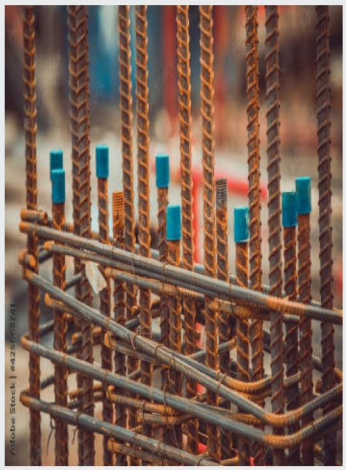
A BIS Awarded Company

ABOUT US



Established in 2015, SNTP Technologies has rapidly grown to become one of the biggest and leading manufacturers of BIS Certified - ISI Mark Reinforcement Couplers in India. This achievement is a testament to the dedication and hard work of the team behind SNTP Technologies.

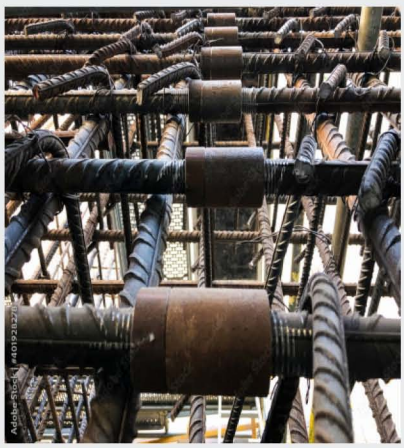
SNTP's journey began in 2015, a time when the construction industry in India was experiencing significant growth and demand for high-quality construction materials. The company was founded with the vision of providing innovative solutions to meet the evolving needs of the construction sector. Through its focus on research and development, SNTP Technologies quickly established itself as a pioneer in the field of Reinforcement Couplers, setting new standards for quality and reliability.



One of the key figures behind the success of SNTP Technologies is its founder's with a background in engineering and a passion for innovation there leadership and strategic vision have guided SNTP Technologies to become a trusted name in the construction industry, known for its commitment to excellence and customer satisfaction.

By producing BIS Certified - ISI Mark products, the company has set a new benchmark for quality and safety in the industry. Its products are widely used in major building &infrastructure projects across India, contributing to the strength and durability of concrete structures. SNTP Technologies has also played a key role in promoting sustainable construction practices, by offering eco-friendly solutions that reduce material wastage and carbon footprint.

REBAR/REINFORCEMENT COUPLERS



Reinforcement couplers are crucial components in the construction industry, used to connect two steel bars in reinforced concrete structures. These couplers provide a more efficient and cost-effective method of joining reinforcement bars compared to traditional methods such as lap splicing. The use of reinforcement couplers has become increasingly popular in recent years due to their numerous benefits, including increased construction speed, reduced material waste, cost-effectiveness and improved structural integrity.

The need for efficient and reliable methods of connecting reinforcement bars led to the invention of various coupler systems. Over time, these systems have been refined and improved to meet the evolving demands of modern construction projects.

These couplers offer significant benefits in terms of construction speed and efficiency. By eliminating the need for time-consuming and labour-intensive processes such as lap splicing

From a positive perspective, reinforcement couplers offer numerous advantages that make them a preferred choice for construction projects. These coupler systems are available in threaded and non-threaded variants and are suitable for all seismic zones. These couplers provide a strong and reliable connection between reinforcement bars, ensuring the structural integrity of the finished concrete structure. Additionally, the use of couplers reduces the risk of errors and inconsistencies that can occur with traditional connection methods, leading to a more consistent and uniform construction quality.

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मानकः पथप्रदर्शकः

Why ISI Mark Couplers..?

The ISI mark ensures that all products manufactured in India comply with stringent quality standards set by the Bureau of Indian Standards (BIS). These standards are designed to protect consumers from substandard goods, while also creating trust in the market for manufacturers who meet these requirements. Additionally, customers who buy goods with an ISI mark can rest assured that they are receiving a safe product that has been tested against various parameters such as safety, performance, and durability

Benefits

- Construction cycle time reduced
- Allows full ductile elongation of bars
- No congestion of bars
- Steel wastage reduced
- Suitable for seismic areas
- Staggering of bars not required
- Dowels can be avoided enabling re-use of form work
- Easy Installation
- Avoid use of expensive starter bar boxes.
- Avoid formation of voids or honey comb in concrete element.
- Avoid bend and re-bend of bigger reinforcement bars in construction of diaphragm walls.

Applications

- Bridges
- Ports
- Airports
- Infrastructure Projects
- Metro Rail Projects
- Health Care Infrastructure
- Buildings
- Nuclear Power Projects
- Dams
- Storage Tanks
- Oil & Gas

SNTP Technologies

Range of Couplers

P-BAR Couplers (Upset Parallel Threaded Couplers)

SNTP P-Bar Couplers are our BIS (Bureau of Indian Standards) certified - ISI (Indian Standards Institute) Marked Upset Parallel threaded Rebar Couplers which offer a full strength connection together with enhanced Slip and Fatigue resistance. Available for Bar sizes 12mm-50mm, they are suitable for projects of all sizes, including those requiring a major high volume of couplers, such as Roads, Metro Rail , Bridges, Ports, Damns, Nuclear Power, Group housing and High rise Skyscrapers etc.

There is absolutely no reduction of the cross-section area of the TMT Bar after threading, which not only enhances the strength of the joint but also enhances the Mechanical properties of the Joint due to Cold Forging methodology.

SNTP P-Bar Couplers are designed to achieve failure loads up to 130% fy of the grade to be spliced (Fe 500, Fe 500D & Fe 550D) rebar. The application of the parallel thread differentiates P-Bar from other threaded rebar systems. It is the combination of these processes that provide the connection with enhanced fatigue resistance. P-Bar Couplers also achieve full strength of upto 700 N/mm2 on hand tightening. P-Bar Couplers withstand high fatigue load above 2 million cycles and have been tested for the same.

SNTP P-Bar Couplers are manufactured in compliance with IS 16172: 2023, BS EN 1992-1-1: 2004 (Eurocode 2), ACI 918, BS 8110 and all other international codes for mechanical splices.

METHODOLOGY

- Each end of the rebar is square cut and enlarged using a cold forge process.
- A thread is then formed on the enlarged bar end using the SNTP Threading machine.
- The thread is formed in such a manner that the cross-sectional area of the bar ends are not reduced ensuring the strength of the connection matches or exceeds that of the parent bars.
- SNTP P-Bar Couplers can easily be installed also by hand tightening only. Use of a pipe wrench in not mandatory but recommended in some cases for tightening of the rebar to the coupler.

THREADING TYPE

TYPE A Threading system: The SNTP Type A system utilizes internally threaded couplers with a single right hand thread and is suitable for applications where the continuation bar can be rotated. The ends of the bars are upset forged and threaded for half the length of the coupler as shown in Fig. 1.0

TYPE B Threading System: The SNTP Type B Threading System uses the same coupler as the Type A system, but one bar is threaded for a full coupler length. It is used for applications where it is difficult but not impossible to rotate the continuation bar. The Fig. 1.2 visually depicts the procedure

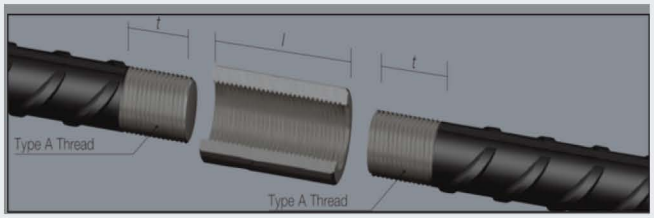


Fig. 1.0 (Where't' is the half Length of the Coupler)

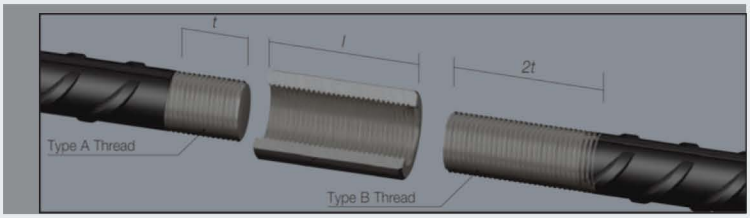


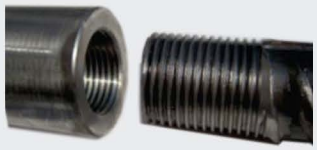
Fig 1.2

BENEFITS

- No reduction in the Bar cross-section area.
- Allows full ductile elongation of Bars.
- One standard coupler for all applications (Position & Standard)
- Suitable for seismic areas
- Tested under reverse cyclic conditions
- Solves Bar congestion problems.

SNTP Technologies

R-B COUPLERS



R-B Coupler is a Parallel Threaded Mechanical Splicing System designed for the connection of concrete reinforcing bars from 12mm to 40mm. The thread formed on the TMT Bar is by Rolling the thread on the bar. This avoids the reduction of steel on the cross section area of the TMT Bar. Only a single Machine is required for thread preparation. This system is recommended for projects in which the TMT Bars supplied are uniformly cylindrical. R-B Couplers comply with IS16172:2023, ACI 318, IBC 2006, BS 8110, Eurocode 2, DIN 1045 & ASME Sec IIIDiv and all international codes for Reinforcement Couplers.

*NOTE - The occurrence and impact of play between the reinforcement bars and the coupler should be kept in consideration when using such splicing systems. The effect of reduction in bar diameter at the end due to threading, on strength capacity of the reinforcement bar should also be kept in consideration.

T-BAR COUPLERS

SNTP T-Bar Couplers are Taper Threaded Rebar Couplers which are suitable for the majority of applications of joining of the rebars. Available to suit bar sizes 12mm to 40mm.

SNTP T-Bar Couplers have a unique locking mechanism due to its self-aligning thread. They are designed to achieve failure loads in excess of 130% of the characteristic strength of grade of rebar to be spliced such as Fe500 and Fe 550D rebar.
They are normally fitted to the end of the threaded bar and require only the engagement and tightening of the adjoining rebar on site using a Pipe wrench.

T-Bar Couplers are installed with quick and ease on site without the need for specially trained engineers or specialised and expensive machinery. The couplers are normally fitted to the end of threaded bar, requiring only the engagement and tightening of the adjoining rebar on site.

SNTP T-Bar Couplers are designed for use in concrete structures to meet the requirements of IS 16172: 2023, BS EN 1992-1-1: 2004 (Eurocode 2), ACI 918 & BS 8110 for mechanical splices.

T-Bar Couplers are ideal for use in vertical applications.

METHODOLOGY

- The bar ends are square cut and a tapered thread is cut onto the bar.
- Engagement of the bar within the coupler is simplified by the tapered thread design which aids alignment.
- When the bar is fully engaged within the coupler, the continuation bar is tightened using a Pipe wrench and in order to ensure correct installation, SNTP recommends the use of SNTP's Calibrated Torque Wrench to check the tightening of the joints.

COUPLERS FOR SPECIFIC APPLICATIONS

SnapFit® Couplers

SNTP Technologies introduces **SnapFit Couplers**, a cutting-edge solution designed to enhance the efficiency, safety, and cost-effectiveness of rebar connections. With an innovative one-touch mechanism, SnapFit® Couplers eliminate the need for threading, reduce labor requirements, and ensure high-strength bonding.

Key Features

Advanced hardness intensification through special heating treatment **ensures a never-loosening** connection.

100% Bar-Break is Guaranteed.

One-click connection mechanism enables a single person to connect within **10 seconds** without requiring any special tools.

Universally designed for multiple rebar rib patterns and international standards such as **India(IS) ,ASTM (US), BS (British), KS (Korea), JIS (Japan), and more**.

SnapFit Couplers allow engineers to visually **confirm the insertion depth** of the rebar, minimizing material waste and ensuring precise alignment.

Drastic reduction in rebar waste, labor costs, and installation time compared to traditional methods.

Easy Assembly with six parts, delivered ready for immediate use and simplifies rebar installation.

Technical Comparison & Labor Analysis

Labor Analysis & Cost Efficiency

Model Type	Time per Connection	Daily Workload(Approx.)	Total Days (50,000 connections)
CrimpIT Coupler	10 minutes	50 connections	736 days
Wedge Coupler	3 minutes	160 connections	313 days
SNTP SnapFit Coupler	**10 seconds**	**2,880 connections**	**18 days**

Outer Dia (mm)	40	46	56	65	70	78	83
Length (mm)	106	123	143	166	170	190	200
Weight (kg)	0.63	0.85	1.45	2.05	2.55	3.5	4.6
Model	D16	D20	D25	D28	D32	D36	D40

POSITIONAL COUPLERS

The SNTP Taper Threaded Position coupler is used in applications in which neither bar can be rotated. It can be used as a closer between fixed bars, due to having a span of adjustability. A locknut is used to secure the connection when the correct degree of adjustability has been achieved. SNTP recommends that all components must be tightened using an SNTP Calibrated Torque Wrench.

QUALITY & CERTIFICATIONS

BIS Certification-ISI Marking

SNTP is India's first and only BIS Certified - ISI Mark Reinforcement Coupler Manufacturing Company. We were granted this license after several quality control audits and rigorous sampling by the Bureau of Indian Standards (BIS).

Presence of ISI mark, known as the Standard Mark, on a product is an assurance of conformity as per the relevant IS Code i.e IS 16172. A fully functional testing lab has been setup at our manufacturing facility as per BIS guidelines.

At SNTP, we provide you with BIS Quality Management Systems Certification license.

- Clear indication of its Quality Manufacturing Capabilities
- Strong records and evidence of its commitment to quality
- Assurance of consistency in the manufacturing of the quality of product/service with timely delivery;
- Reduces the incidence of product failure, in-turn improves credibility of the firm.
- Leads to reduced low material wastage
- International recognition.
- Better choice and monitoring of the firm's supplies.
- Motivates all employees, staff and also ensures their involvement.

BENEFITS TO THE CUSTOMERS

- Provides assurance and satisfaction that their needs for superior quality will be met.
- Saves time and money by reducing the requirement for assessment of their suppliers.
- Reduced incoming inspection/testing costs.
- Work with limited inventory levels, effecting significant cost reductions.
- Simplifies purchasing decisions.
- Better service, better and quick complaint resolution

ISO 9001:2015

SNTP is also an ISO 9001:2015 certified manufacturer of Rebar Couplers.

In order to perform our continuous quality control in the most efficient way, we have set up our own material testing lab fitted with modern and high performance testing equipment. Our products are designed, manufactured, inspected and tested to ensure that every single piece is according to the desired specifications. Every step of the process is being monitored by our stringent internal QC procedures and QC staff.

Our Lab. Is fully compliant to the testing schemes and procedures of the Indian code IS 16172:2023.

OTHER PRODUCTS AND ACCESSORIES

TMT BAR THREADING MACHINE

SNTP makes one of the top-notch TMT Bar threading Machines available for diameters 12mm-40mm. SNTP Threading machine is ideal for use with SNTP Rebar Couplers and is available in two models. Total Accuracy with chaser die head. 3 Adjustable speed gear levels with High production capability. Coolant supply tank and all other standard accessories. Can be used for TMT Bar grades upto Fe600

Machine Type : Chaser thread cutting
Model type : 12mm-32mm, 12mm-40mm

TMT BAR COLD FORGING / UPSET FORGING MACHINE

SNTP's TMT Bar Cold Forging machine is a double hydraulic cylinder based press and is ideal for increasing the cross sectional threading area of the TMT Bars prior to threading. Its suitable for TMT Bars from dia 12mm-40mm. Available in two models and can be used for TMT Bar grades upto Fe600.

Machine Type : Hydraulic cylinder Press with power pack
Motor Type : Induction motor
Model Type : 12mm-32mm, 12mm-40mm

REBAR THREAD CAP (PVC, LD)

SNTP Rebar threading cap is ideal for protects the threaded portion of the TMT Bar from corrosion and concrete. Easy to use and available for dia's 16mm, 20mm, 25mm, 28mm, 32mm, 36mm and 40mm. Available in PVC(Poly Vinyl Chloride) and LD(Low Density Polyethylene) material both.

SNTP CALIBRATED TORQUE WRENCH

SNTP Torque Wrench is suitable for tightening/checking of Rebar Couplers spliced with TMT Bars. One Torque Wrench is suitable for all bar sizes. Easy to use, just rotate and set the Torque to the desired value. The torque automatically clicks if the TMT Bar is tightened.

IS 16172

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मानक: पथप्रदर्शक:

CERTIFIED ISO 9001:2015 COMPANY

BIS Certified - ISI Mark Rebar Coupler

SNTP Technologies

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