



# TATA TISCON SUPERLINKS MANUAL



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# Preface

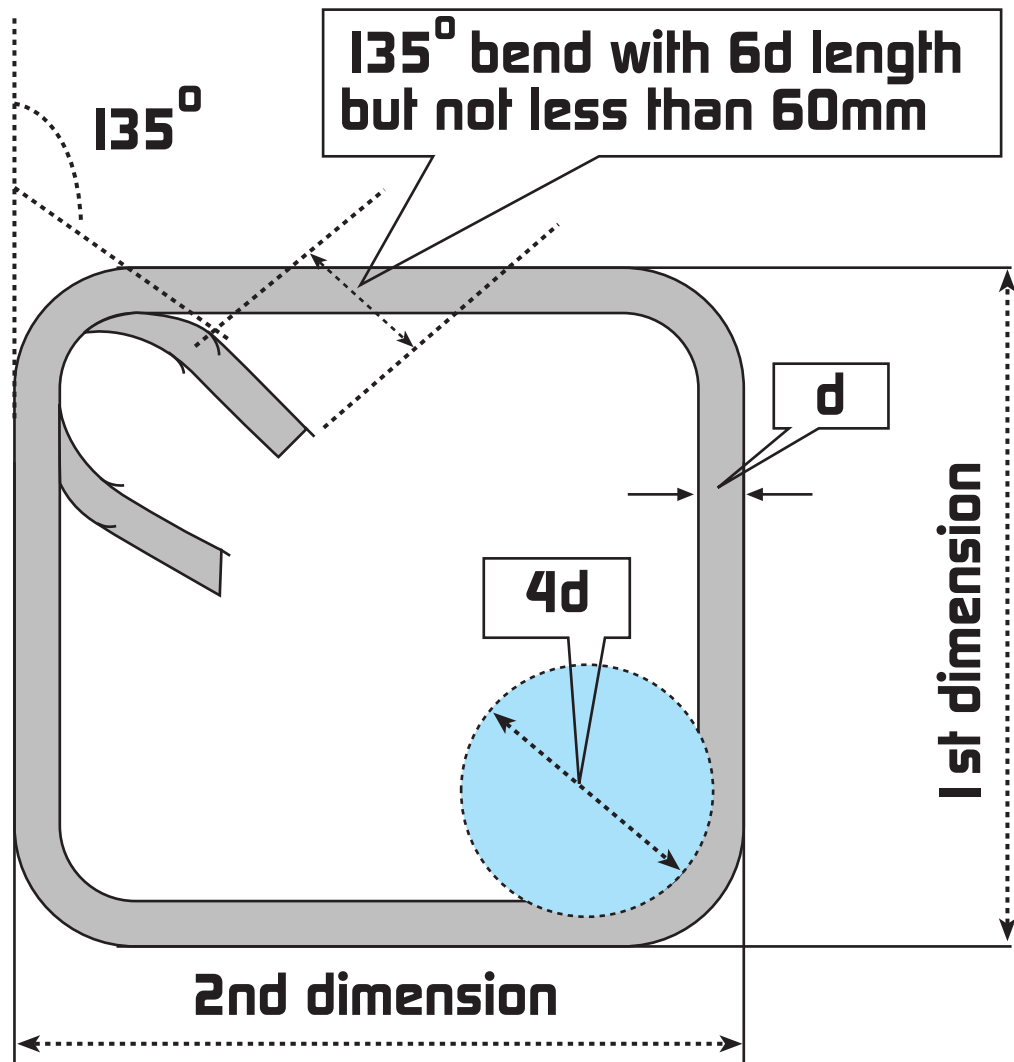
A stirrup is a loop which is embedded in any concrete structure to hold the main reinforcement bars together. The stirrups prevent the columns and beams from collapsing under severe forces like the ones experienced during earthquakes. Stirrups can be of various shapes depending on the design and shape of the load bearing member eg. circular, polygonal, a U-stirrup or a crosstie. However the most commonly used shape in normal construction is a rectangular or a square one. The ends of the stirrups should ideally be locked together in the shape of a hook for better utilization of the main reinforcement bars with the concrete structure. This ensures that a closed stirrup does not open up under any lateral or shear force.

Over the years, a good amount of awareness has been generated among the Indian consumers about the usage of good quality reinforcement bars for the safety and longevity of any concrete structure. However, the complete safety of the building can be ensured only if the main reinforcement bars are supported by stirrups of good quality. Traditionally, in India, the stirrups are made manually at the construction site by the bar benders using rudimentary ways. In most cases, such stirrups do not comply with the prescribed standards. Besides dimensional inaccuracies, this can lead to improper locking of the ends thereby increasing the chances of failure during earthquakes. Such a manual practice of making stirrups, besides leading to wastages, also takes more time as well as needs more space at the site.

In a path breaking initiative, TATA TISCON, the pioneers of TMT technology, in India, have recently launched TATA TISCON Superlinks. These are manufactured using automatic machines under strict quality control.

In order to enhance consumer convenience TATA TISCON Superlinks has been conveniently packed in a unique carry case. Packaging distinguishes one product from the other and a great deal of research goes behind the creation of a product entity. Packaging also makes it easy for consumers to choose a superior product over the ordinary. This led us to ensure that TATA TISCON Superlinks are packed in a manner that makes it easier for the Individual Home Builder to buy and carry this product. This manual details the way TATA TISCON Superlinks will be packed, besides giving the product design specifications. The manual has been created in an easy to use step by step way. It should be referred to while fabricating and packing TATA TISCON Superlinks thereby maintaining product consistency.

# Design of TATA TISCON Superlinks



- 135° inter-lock at the ends to ensure rigidity under severe shear force experienced during earthquakes
- Adhering to various building codes: RCC Code of practice IS 456, IS 2502, SP - 34 and Indian Ductility Detailing Code IS - 32920

# Packaging Material



**Metal Seals/Clips**

## SPECIFICATIONS OF METAL SEALS/CLIPS

**Material:** Metallic seals/clips  
**Width:** 34mm +/- 0.5mm  
 Suitable for 32mm Strap  
**Length:** 35mm +/- 3mm  
**Colour:** Bright Metallic  
**Thickness:** 26 Gauge (0.5mm) +/- 10%



**Plastic handle with TATA TISCON Superlinks embossing**

## SPECIFICATIONS OF PLASTIC HANDLE

**Size:** Width - 76mm  
 Height - 50mm  
 Thickness - 7mm  
**Weight:** 10.5 grams approx  
**Design:** As per approved design  
 suitable for 32mm straps to be inserted  
 crosswise inside the handle



**TATA TISCON Superlinks Product tag**

**TATA TISCON Superlinks Product tag**  
 will be provided by TATA TISCON  
 Marketing and Sales



**Plastic straps bearing the Tata Steel and the TATA TISCON Superlinks logo**

## SPECIFICATIONS OF PLASTIC STRAP

**Material:** Plastic Strap 100% Virgin Grade  
**Width:** 32mm +/- 0.5mm  
**Thickness:** 0.8mm +/- 0.5mm  
**Colour:** Approved yellow  
**Printing:** Blue colour as approved with matter  
**Weight per mtr.:** 16 grams  
**Elongation:** 30%  
**Tensile Strength:** 5000N  
**Density:** 0.90

# Packaging Equipment



Manual Sealer/Crimper

## SPECIFICATIONS OF MANUAL SEALER/CRIMPER

Material: Make Plastochem  
Required for crimping the seals  
Suitable for seals of width 32mm  
Thickness: 0.5mm Max



Manual Tensioner

## SPECIFICATIONS OF MANUAL TENSIONER

Material: Make Plastochem  
Required for tightening of the straps  
Suitable for strap of width of 32mm  
Thickness: 1 mm Max

# Packaging in Twelve Steps

## Step 1 of 12:



- Place the metal clip through the plastic strap

## Step 2 of 12:



- The metal clip must go around the plastic strap



## Step 3 of 12:



- Place the two straps on the floor in a plus formation with clips at the ends

## Step 4 of 12:



- Stack the stirrups in a formation so that the corners with hooks are complimented by each other in sequence of every four stirrups

## Step 5 of 12:



- The plastic handle is to be inserted into the yellow strap

## Step 6 of 12:



- The plastic strap is to pass through the metal clip

## Step 7 of 12:



- Tighten the straps with the Tensioner

## Step 8 of 12:



- Crimp the clip after proper lightening of the strap

# Step 9 of 12:



- Insert the Product Tag through the other plastic strap

## Step 10 of 12:



- Repeat the process with the second strap which is held crosswise to the first strap
- Make sure the second strap and the handle are inserted in the seal



## Step 11 of 12:



- Tighten the second strap with the Tensioner and use the Sealer to crimp it (repetition of steps 7 and 8)

# Step 12 of 12:



- Use the plastic handle to lift the TATA TISCON Superlinks bundle





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