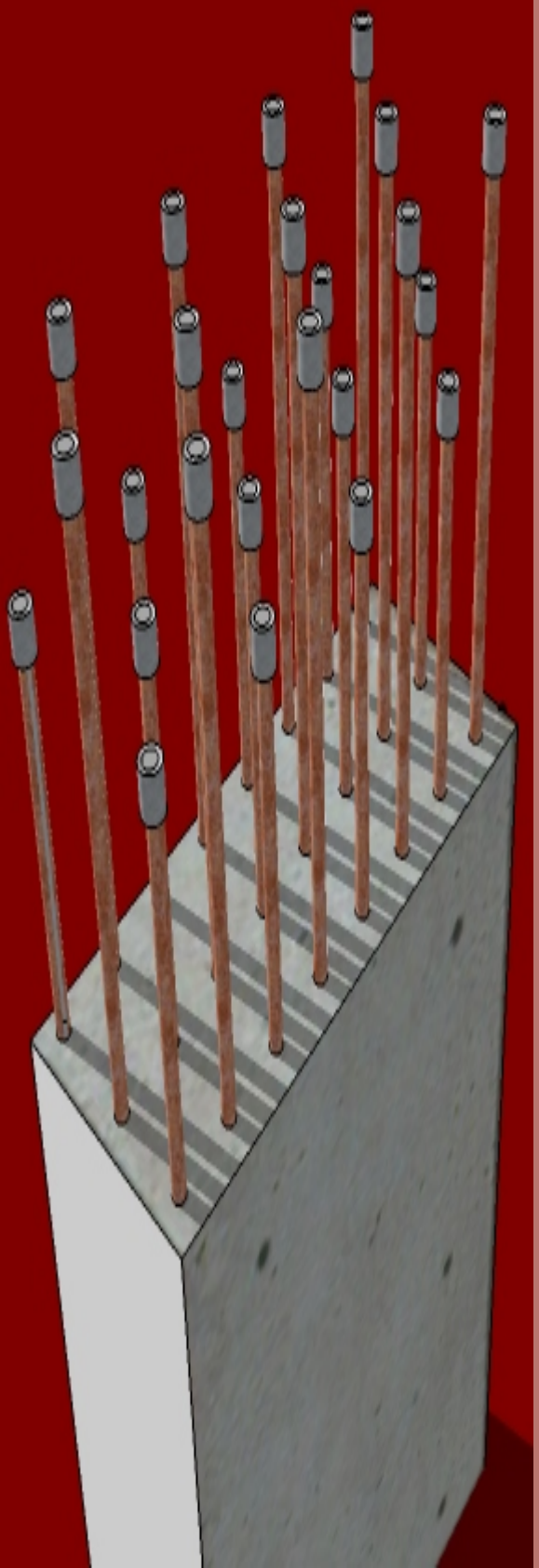

SGHightech

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SG Hightech is one of the India's fastest growing manufacturer of engineered products for diverse niche applications in Industrial, Construction and mechanical sector. Its state of art manufacturing facilities produce quality products & services that have aided growth in India. Headquartered in Maharashtra, India SG Hightech has sales network serving whole Country.

Of course, like any successful business, providing impeccable customer service is a given. But here, we carry it a step further, providing unequaled service to our customers is an integral part of our company culture and we are strengthening ourself gradually.

Integrity

We believe in acting what we commit and take decisions in a manner those are fair, ethical and honest with a high professionalism.

SGH is pretty well aware of the importance of each day in construction projects. Even a day saved in delivery time is huge on expenses and reputation of a our client.

Customer satisfaction is our priority.

Strength

Technical excellence is our strength. Most of our team members are either Mechanical or Civil Engineers with handful experience in core areas.

State of art manufacturing unit with well mechanized facility in the heart of India can arrange the supply of goods or services with optimum schedule in almost every part of our country.

Quality

Quality of our product is utmost important for us.

We are aware couplers are the most integral and critical part of civil structure. We value the human lives.

Manufacturing process includes:

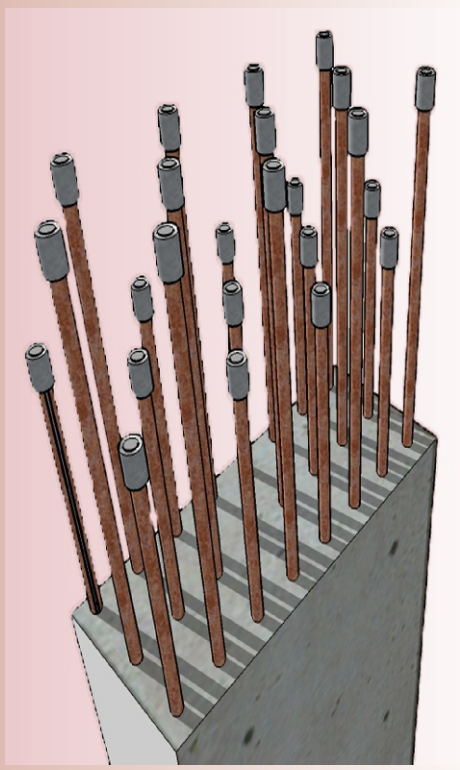
- Raw material quality check
- CNC production
- Quality control
- Packaging & supply.

Couplers

Couplers or Mechanical Splicing is a safe and economical alternative to overlaps in steel reinforcement bar.

In a conventional practice whenever the rebar needs to be extended, a joint is made by lapping another bar of 50D length (as per IS:456-2000). While couplers make a butt joint to splice two rebar.

We manufacture couplers from 12mm to 40mm diameter. We also manufacture reducers to join two different diameter rebar.

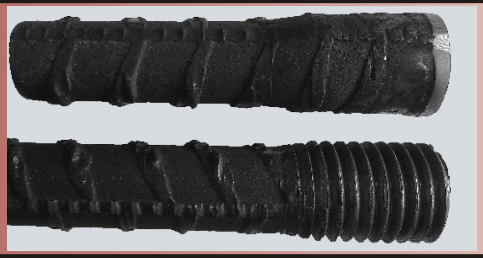


Advantages

- Its more economical than overlapping the rebar
- Reduction in number of joints, as no need to follow lap zone.
- Reduction in wastage of steel
- Less congestion and thus no honeycombing.
- Easy to handle and easy to install.
- Faster construction, reduction in project duration.

SGH - FRGD

(Cold Forged Parallel threaded Coupler)


Description

SGH-FRGD is most widely used form of coupler for rebar splicing in Civil constructions projects. Unlike inclined or tapered couplers, which require high precision, skill & constant supervision, it has straight threads and is very quick and easy to install. It qualifies ACI 318 & BS-8110 requirements for mechanical splicing.

In forged type of threading the cross sectional area of rebar does not reduce, as it does in rolled or tapered threading. The density of rebar is increased by applying lateral forces at the tip of rebar. Then threading is processed and hence there is no reduction in diameter of rebar.

Operations

Couplers: Manufacturing of couplers is done on CNC machines in our fully mechanised factory and will be sent ready made as per requirement.

Threading to Rebar: Threading on to the rebar is done at project site with our machineries installed and operated by SGH. It involves:

Forging/Upsetting rebar:
In this operation, a lateral force is applied at the tip of rebar which in turn increases its density and diameter.

Threading:
After forging the rebar is threaded to specified pitch on a threading machine

Features

- Easy to install Parallel threading.
- No reduction in rebar diameter
- Tensile strength is more than Lap splices.
- Less supervision, even hand tighten joint is safe.
- Rebar threads are straight and will pass Go & NoGo Ring gauge test.
- Qualifies Type 2 Coupler requirement.
- Good for structure undergoing inelastic deformations during an earthquake.

SGH - ROLL

(Cold Rolled Parallel threaded coupler)



Description

SGH-ROLL is one of a type of parallel threaded coupler for rebar splicing in Civil constructions projects. Although, there is a reduction in cross sectional area its longer in length and it transfer load on more no. of threads. Its also a straight threaded coupler and is very quick and easy to install. It qualifies ACI 318 & BS-8110 requirements for mechanical splicing.

It's a Type-I mechanical splicing.

Operations

Couplers: Manufacturing of couplers is done on CNC machines in our fully mechanised factory and will be sent ready made as per requirement.

Threading to Rebar: Threading on to the rebar is done at project site with our machineries installed and operated by SGH. It involves:

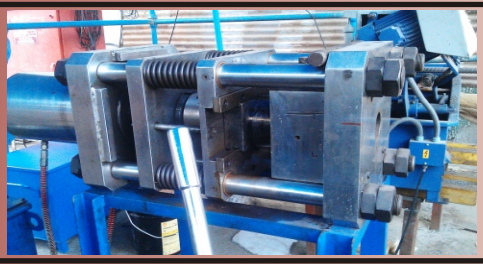
Cold rolling the rebar:
In this operation, the rebar is cold rolled to remove the ribs and to get a uniform surface for threading.

Threading:
After rolling the rebar is threaded to specified pitch on a threading machine

Features

- Length of coupler is more compared to forged one.
- Higher productivity at site in a days shift. Compact threading machine, less space required.
- Less power consumption.
- Easy to install Parallel threading.
- Tensile strength is more than Lap splices.
- Rebar threads are straight and will pass Go & NoGo Ring gauge test.
- Qualifies Type 1 Coupler requirement.
- Joint should be in Lap Zone.

THREADING MACHINE



FORGING MACHINE

PRODUCTION ON CNC

TECHNICAL STANDARDS FOR SPLICING

Couplers majorly follow American & British standards and based on ACI-318, BS-8110, ASME_2004 Sec-III Div-2.

As per ACI-318 Mechanical Splices shall be classified as either Type-I & Type-II is a safe and economical alternative to overlaps in steel reinforcement bar.

Type-I: This type of mechanical splice shall develop strength in tension or compression at least 1.25*fy* of the bar. Type-I couplers should be provided in lapping zone only.

Type-II: This type of mechanical splice shall develop strength in tension or compression at least 1.25*fy* of the bar and shall develop the specified tensile strength of a spliced bar. Type-II mechanical splice shall be used at any location.

As per ACI-318, at the time of earthquake, only Type-II mechanical splices are intended to avoid splice failure when the reinforcement is subjected to expected stress levels in yielding regions.

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