CHEERON

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COUPLERS
FOR REBAR

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CHEERON REBAR COUPLER

BROCHURE

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Non-Threaded Coupler Catalogue

MBT COUPLER

MBT (Mechanically Bolted Tension) Coupler is a mechanical connector used in reinforced concrete construction to join reinforcing steel bars (rebar) end-to-end without requiring threading or rotation of the bars.

It is designed for efficiency, reliability, and structural integrity, particularly in situations where one rebar is already fixed in place or space is limited, making traditional lap splicing or hydraulic pressing impractical.

Dimension

*(Custom configurations available upon request.)

Rebar Size	Outside(mm)	Length (mm)	Bolt Qty	Bolt Size	Net Wei
12mm	35	127	6	M14	0.
16mm	40	159	6	M14	0.
20mm	45	191	8	M14	1.
22mm	50	273	10	M16	2.32
25mm	55	311	10	M16	3.51
32mm	65	396	10	M21	5.96

MBT sleeve connections can be made on-site for vertical, horizontal, or any angled HRB, TMT, and other high-strength reinforcing bars ranging from 12 to 50 mm (#4 to #14).

Advantages of Cheeeron's sleeves

01 High-Grade Materials

S45C/40Cr steel ensures superior strength and corrosion resistance.

02 Seismic Performance

Fatigue-resistant for high-performance in seismic zones.

03 Certified Compliance

Meets ISO 15835, 9001, and CCC standards.

04 Broad Applications

Ideal for precast concrete, bridges, tunnels, and industrial structures.

Applications

MBT couplers offer particular advantages in projects requiring rapid installation, seismic resistance, or connections in confined spaces, providing a reliable and durable solution for reinforced concrete structures.

CRIMPING REBAR COUPLER

The cold extrusion sleeve is directly fitted onto the reinforcement bars and formed in a single squeeze using a cold extrusion machine.

Cold-extruded sleeve connections are particularly suitable for specific projects requiring high seismic resistance and precise alignment (such as nuclear power plants and hospitals), large-diameter rebar (≥25mm), or areas subject to dynamic loads.

Dimensions

*(Custom configurations available upon request.)

MODEL	L (mm)	OUT DIA (mm)	THK (mm)	W (kg)
Φ16	100	30	4.5	0.28
Φ18	118	34	5.7	0.47
Φ20	120	36	6	0.53
Φ22	132	40	6.8	0.74
Φ25	150	45	7.5	1.04
Φ28	168	50	8	1.45
Φ32	192	55	9	2
Φ36	216	63	10	2.83
Φ40	240	70	11	3.84

Crimping Rebar Coupler can be made on-site for vertical, horizontal, or any angled HRB, TMT, and other high-strength reinforcing bars ranging from 12 to 50 mm (#4 to #14).

01 High joint strength

Team efficiency depends on cloud services, servers, software tools, and development frameworks' quality and scalability.

02 High Efficiency

Easy operation and fast speed improve work efficiency.

03 Safety and Protection

No sparks or toxic gases are generated, preventing air pollution and minimizing the possibility of fire.

Applications

The sleeve has low requirements for construction conditions, such as when the reinforcement bar is fixed and cannot be rotated, for instance, in the case of connecting reinforcement cages. It is also suitable for environments with high fire resistance requirements, such as tunnels.

ONE TOUCH REBAR COUPLER

Working Principle

When two rebars are inserted into the sleeve, the self-locking mechanism inside the sleeve automatically locks the rebars in place through rotation or pressure, thereby achieving a stable connection.

Efficiency

Compared to traditional welding , one touch rebar sleeves require no specialized skills or complex tools, enabling quick and easy connection operations and significantly reducing construction time.

Stability

The unique self-locking mechanism inside the sleeve ensures that the connected reinforcing bars have extremely high stability, meeting the safety and stability requirements of construction projects.

Reusability

Self-locking reinforcing bar connection sleeves can be reused multiple times, reducing material costs while also benefiting environmental sustainability.

Dimensions

Supports multiple rebar standards, including ASTM, HRB, TMT, etc., suitable for various diameters (e.g., 12mm to 50mm), and can be customized to meet project requirements.

Rebar Size	Outside(mm)	Length (mm)	Bolt Qty	Bolt Size	Net Weight (kg)
12mm	35	127	6	M14	0.616
16mm	40	159	6	M14	0.921
20mm	45	191	8	M14	1.42
22mm	50	273	10	M16	2.32
25mm	55	311	10	M16	3.51
32mm	65	396	10	M21	5.96

One touch rebar connection sleeves are widely used in construction projects such as bridges, high-rise buildings, and tunnels.

Installation Process

Prepare: Clean rebar ends, no pre-threading needed.

Connect: Insert rebar ends into the connector, then apply hand pressure or light tapping to engage the one-touch internal clamping mechanism for a secure lock.

Proceed: Verify connection and pour concrete.

GROUT COUPLER

Connection Principle

The ribbed threaded reinforcement bar is inserted into a grouting sleeve with a concave-convex inner surface. By injecting specialized grouting material into the gap between the sleeve and the reinforcement bar, the grouting material solidifies, anchoring the reinforcement bar within the sleeve to achieve the connection of the reinforcement bars.

Types of Grouting Sleeves

A grout sleeve is a sleeve consisting of one grout inlet and one grout outlet, available in two types: half-grouted and fully-grouted.

Whole Grout Sleeve

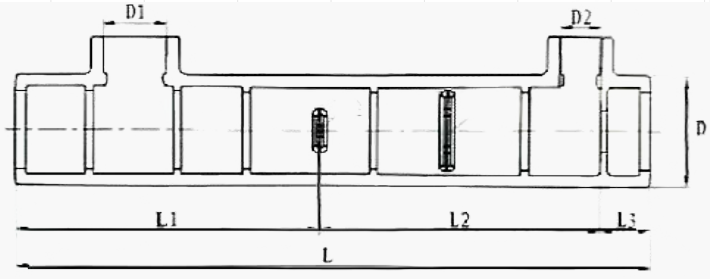
A grout sleeve with sleeve grout connections at both ends.

Suitable for connecting rebars with diameters of 12–40mm in precast monolithic concrete structures

Dimensions

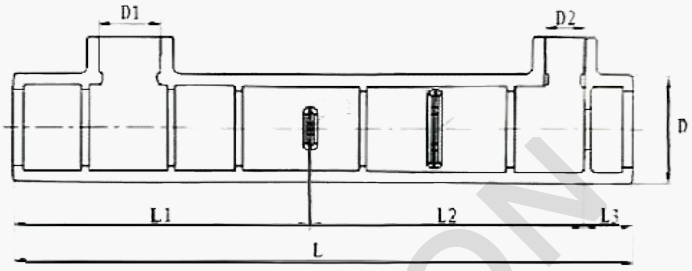
*(Custom configurations available upon request.)

Rebar Dia(mm)	Standard sizes(mm)						
	L	L1	L2	L3	D	D1	D2
12	250	120	108.5	21.5	44	25	16
14	280	135	123.5	21.5	46	25	16
16	310	150	138.5	21.5	48	25	16
18	350	170	158.5	21.5	50	25	16
20	370	180	168.5	21.5	52	25	16
22	410	200	188.58	21.5	54	25	16
25	450	220	208.5	21.5	58	25	16
28	505	250	233.5	21.5	62	25	16
32	570	280	268.5	21.5	66	25	16
32	650	320	308.5	21.5	75	25	16
36	650	320	308.5	21.5	75	25	16
40	810	405	362.5	21.5	95	17.5	17.5



Half Grouting Sleeve

A grout sleeve with a sleeve grout connection at one end and a mechanical connection for rebar at the other end.



Dimensions

Rebar Dia(mm)	Standard Sizes(mm)				
	L	D	L1	D1	D2
12	140	112	24	13	36
14	157	125	24	14.7	38
16	174	150	30	16.5	40
18	193	160	31	19	42
20	206	168	33.5	21	44
22	231	185	39	23	48
25	259	212	43	26	53

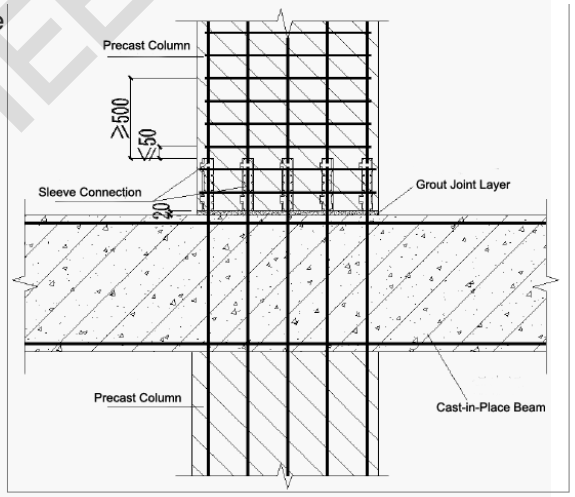
Suitable for connecting rebars with diameters of 12–40mm in precast monolithic concrete structures

*(Custom configurations available upon request.)

Cheeron Precast Splice Application

In the factory, the grout sleeve is connected to the rebar within the precast component (the grout sleeve is embedded in the concrete component). The sleeve is installed and fixed on the formwork, and the grout inlet and outlet pipes are connected to the sleeve. At the installation site, grout is injected into the sleeve through the grout pipe from outside the precast component to complete the rebar connection.

- For vertical precast components, the connection of load-bearing reinforcing bars can use either half-grouted sleeves or fully grouted sleeves.
- For horizontal precast components, the connection of longitudinal load-bearing reinforcing bars at cast-in-place joints can use fully grouted sleeve connections.

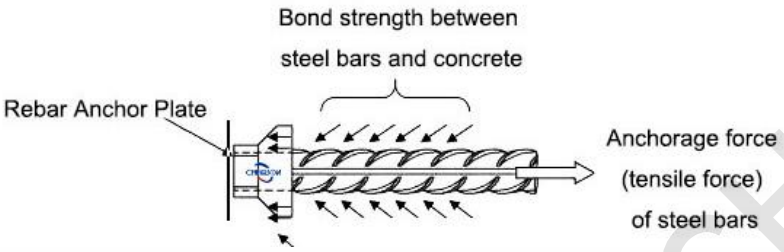


HEADED BAR

A headed bar reinforcement is a steel headed bars used in concrete structures, with a head (typically a steel plate or disc) attached to one or both ends.

Principle

The anchoring force of the steel bars is entirely borne by the anchor plate/disc, or jointly borne by the anchor plate/disc and the bond between the steel bars and concrete.



Headed Rebar Type 1: REBAR ANCHOR PLATE

What is a rebar anchor plate?

The rebar anchor plate, which integrates the base plate (load-bearing plate) and the nut (connection end), is mechanically anchored by connecting to the straight threads at the top of the reinforcing bar.

Dimensions

Headed Bar can be made on-site for vertical, horizontal, or any angled HRB, TMT, and other high-strength reinforcing bars ranging from 12 to 50 mm (#4 to #14).
*(Custom configurations available upon request.)

Specifications	Size (Diameter*Thickness)	Pitch	Weight(KG)
12	33*15.5	2.0	0.08
14	33*15.5	2.5	0.08
16	38*16	2.5	0.08
18	43*18	2.5	0.13
20	49*20	2.5	0.15
22	52*22	2.5	0.20
25	60.5*25.5	3.0	0.30
28	66*29	3.0	0.38
32	76.5*32	3.0	0.58
36	85*36	3.0	1.00
40	95*40	3.0	1.30

Headed Rebar Type 2: REBAR ANCHOR DISC

What is a rebar anchor disc ?

It features a steel bar with a head disc attached to one end, designed to optimize performance in various construction applications.

The Headed Bar Reinforcement is a premium steel rebar solution engineered to strengthen concrete structures with enhanced anchorage capabilities.

Advantages of Headed Rebar

- Reduce congestion and binding difficulties in densely arranged steel bars
- Improve the load-bearing performance of joints
- Enhance the quality of concrete pouring

Applications

Headed bars can be factory-produced and commercially supplied, replacing traditional bent reinforcement anchoring and straight reinforcement anchoring to save steel and facilitate construction.

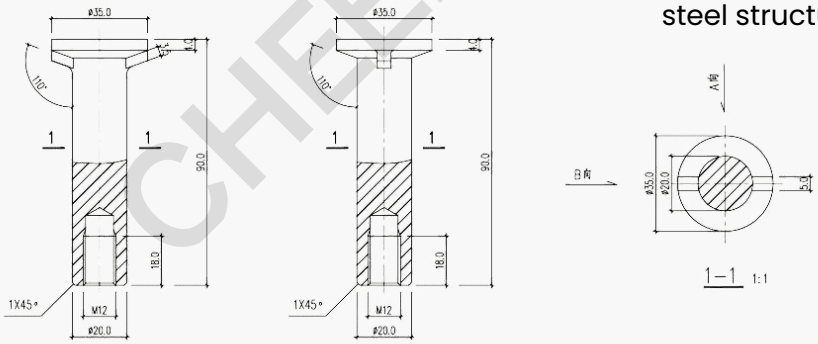
Headed bar reinforcement have a wide range of applications, including civil engineering projects such as building construction, bridges, water conservancy and hydropower, nuclear power plants, and subways, all of which require significant reinforcing bar anchoring technology.

STAINLESS STEEL

PRECAST COUPLER

Stainless steel embedded sleeve is a type of pre-installed component used in building structures, made of stainless steel with excellent corrosion resistance and durability. The rebar coupler is tubular, featuring internal threads to facilitate attachment to external components via bolts.

It is embedded in the structure before concrete is poured, serving as a fixing or connection point for other components, such as pipes, equipment, or steel structures.



Dimensions

Advantages of Cheeeron's Precast sleeves

1. Corrosion-resistant, made from 304/316 stainless steel
2. Factory-prefabricated embedded sleeves enable standardized production, eliminating on-site drilling and installation.
3. Enhances construction efficiency, avoids intensive tunnel construction, and enables rapid installation.

Applications

Precast Couplers have been widely used in railway construction projects, effectively solving the problem of fixing pipeline brackets, contact network brackets, and evacuation platform brackets in tunnels, and have become a standard design solution for installation and fastening in tunnels.