CHEERON

CHEERON

COUPLERS
FOR REBAR

CHEERON
COMPANY

SINCE 1998

THREADED REBAR COUPLER

BROCHURE

Changzhou Cheeron Construction Machinery Equipment Co.,LTD

whatsapp：+86-13376275656

Email: sales@cheeron-rebar.com

www.cheeron-coupler.com

Threaded Rebar Coupler Catalogue

The Threaded Rebar coupling is one type of mechanical rebar connection
(the third generation of rebar joining technology, following welding and lapping).

Standard Straight Threaded Coupler

Cheeron's standard straight threaded coupler is a type of rebar connection in which the ends of the rebars are processed into straight threads using a rolling process, and two rebars are connected to each other using corresponding connection couplers.

- High strength
- Easy to operate
- Fast construction speed
- Not affected by weather conditions

Dimensions

*(Custom configurations available upon request.)

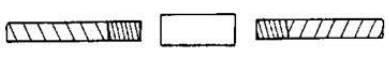
Rebar Dia(mm)	Out Dia (mm)	L (mm)
12.0	19.5	32.0
14.0	23.0	36.0
16.0	26.0	40.0
18.0	29.0	46.0
20.0	32.0	50.0
22.0	35.0	54.0
25.0	40.0	62.0
28.0	44.5	68.0
32.0	51.0	76.0
36.0	57.0	84.0
40.0	63.0	92.0
50.0	78.5	112.0

Threaded 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).

OEM/ODM Customization

How to install rebar coupler?

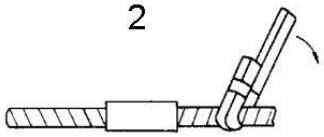
When connecting reinforcing bars, simply screw the threaded joints of the two bars into the ends to complete the connection. When using straight threaded sleeves for connection, the reinforcing bars must be rotated. The installation steps are as follows:



1

2

3



4

Cheeron's Threaded Rebar Coupler is a precision-engineered mechanical splice solution designed to connect steel reinforcement bars end-to-end in concrete structures.

Rib Stripping Thread Coupler

Rebar Coupler Application

Suitable for high-rise buildings, bridges, and large infrastructure projects with high seismic resistance, particularly for beams, columns, walls, and other load-bearing components.

Dimensions

Threaded 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).

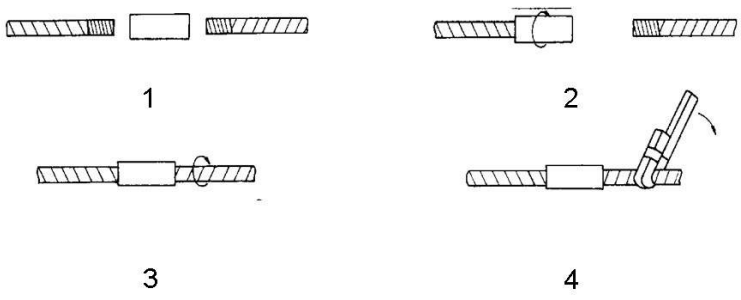
*(Custom configurations available upon request.)

Rebar Dia(mm)	Out Dia (mm)	L (mm)
12.0	19.0	32.0
14.0	22.5	36.0
16.0	25.5	40.0
18.0	28.5	46.0
20.0	31.5	50.0
22.0	34.5	54.0
25.0	39.5	62.0
28.0	44.0	68.0
32.0	50.5	76.0
36.0	56.5	84.0
40.0	62.5	92.0
50.0	78.0	112.0

How to install

Using a rib-removal and threading machine, the ends of the reinforcing bars are stripped of their ribs and rolled into straight threads.

Then, a specially designed straight thread sleeve is used for connection.



Upset Forging Rebar Coupler

What is it?

The upsetting coupler connection involves first using an upsetting machine to forge and enlarge one end of the rebar, followed by threading the upset section using a threading machine.

The connection is then formed by engaging the specially designed straight-threaded upsetting sleeve with the threaded rebar end to create an integrated rebar joint.

High construction efficiency

High connection strength

Upsetting

The upsetting process is a cold forging technique applied to the rebar end, which increases the cross-sectional area while simultaneously enhancing the steel's yield and ultimate strength.

Rebar Dia(mm)	Out Dia (mm)	L (mm)
12.0	20.0	24.0
14.0	23.5	28.0
16.0	26.5	32.0
18.0	29.5	36.0
20.0	32.5	40.0
22.0	36.0	44.0
25.0	41.0	50.0
28.0	45.5	56.0
32.0	51.5	64.0
36.0	57.5	72.0
40.0	63.5	80.0
50.0	—	—

*(Custom configurations available upon request.)

Application

Suitable for applications requiring high-strength rebar connections, such as in bridges, high-rise buildings, and other critical structures.

Transition Coupler

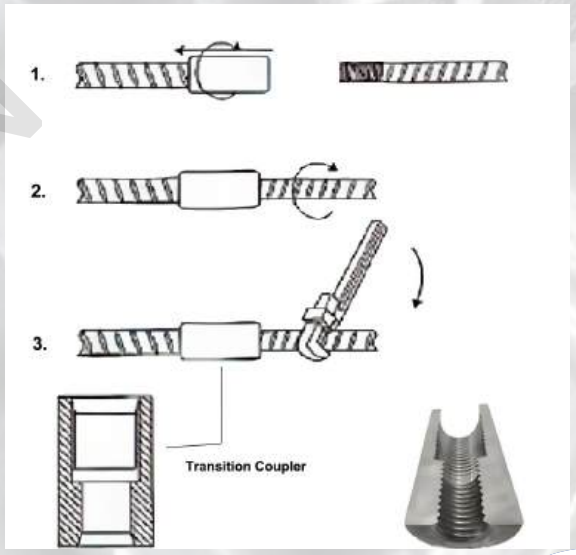
The variable diameter rebar straight thread connection system facilitates the connection of rebars with different diameters. It features threaded ends designed to connect a thicker rebar on one side and a thinner rebar on the other.

Dimensions

*(Custom configurations available upon request.)

Rebar Dia(mm)	Out Dia (mm)	L (mm)
12.0	19.0	32.0
14.0	22.5	36.0
16.0	25.5	40.0
18.0	28.5	46.0
20.0	31.5	50.0
22.0	34.5	54.0
25.0	39.5	62.0
28.0	44.0	68.0
32.0	50.5	76.0
36.0	56.5	84.0
40.0	62.5	92.0
50.0	78.0	112.0

How it works



Applications

This system is primarily used in scenarios where rebar diameters differ at each end:
In building columns, where rebar diameter typically decreases with increasing height, requiring a variable diameter rebar straight thread sleeve.

- Easy to construct, allowing for all-around, all-weather construction.
- High tensile strength, meeting ISO international standards.
- Customizable, accelerating project progress.
- Affordable, reducing project costs.

Left-Right Thread Coupler

How it works?

The two ends of the rebar are processed into positive and negative threads, respectively, and connected through a positive-negative thread sleeve.

★ Two steel bars can be loosened or tightened in one direction of rotation.

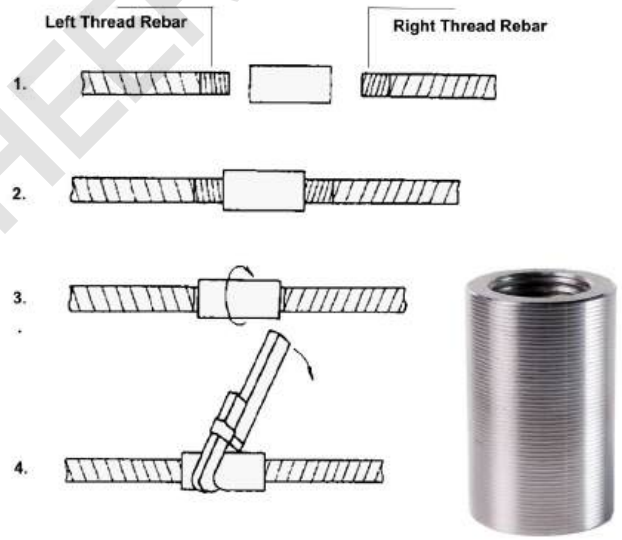
How to Install?

- First, screw the sleeve into the positive thread end of the rebar thread 2-3 threads.
- Then align the rebar to be connected with the reverse thread end of the sleeve, rotate the sleeve back 1-2 threads, At this point both sides of the rebar are screwed in 1-2 threads.
- Finally, use a rebar wrench to rotate the sleeve to complete the installation.

Dimensions

*(Custom configurations available upon request.)

Rebar Dia(mm)	Out Dia (mm)	L (mm)
12.0	19.0	32.0
14.0	22.5	36.0
16.0	25.5	40.0
18.0	28.5	46.0
20.0	31.5	50.0
22.0	34.5	54.0
25.0	39.5	62.0
28.0	44.0	68.0
32.0	50.5	76.0
36.0	56.5	84.0
40.0	62.5	92.0
50.0	78.0	112.0



Left-Right Thread Coupler

Solution

For rebar connections where the rebar cannot rotate but one end can move axially.

- Left-Right Thread Coupler should be used for the connection of rebar at the beam end and the cap.

Weldable Rebar Coupler

Connection Principle

Welded threaded connectors are used for the mechanical connection of rebar to steel structures (such as steel beams or columns).

One end of the connector is designed for threaded connection, while the other end is designed to be welded to a steel plate or other steel structures, such as in the connection between bridge piers and steel beams.

Advantages

The connector is made of S45C / 40Cr steel, ensuring the strength of the welded portion and the reliability of the threaded connection.

It provides both the flexibility of threaded connection and the high strength connection of steel structure welding.

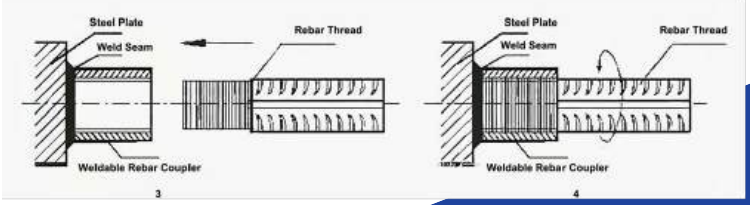
Dimensions

*(Custom configurations available upon request.)

Out Dia(mm)	L(mm)	Plate Size(mm) (Out Dia*In Dia*Thickness)	Coupler N.W.(kg)	N.W. of Plate(Kg)
22.2	43	51*51*1.5	0.1	0.03
25.4	52	51*51*1.5	0.14	0.03
28.6	54	51*51*1.5	0.18	0.03
31.8	64	51*51*1.5	0.25	0.03
38	76	51*51*1.5	0.44	0.03
44.5	90	76*76*1.5	0.75	0.07
51	103	76*76*1.5	1.14	0.07

How to install?

During connection construction, the conical end is first welded to the connection point, and the other end is then screwed into the straight threaded rebar to complete the rebar connection.



Lock Nut Threaded Coupler

What are lock nut rebar couplers?

One end of the rebar is processed into full threads, and the other end is processed into positive threads, connected through a locknut and a sleeve.

The use of a locknut enhances the reliability of the connection by preventing loosening due to vibrations or dynamic loads.

Rebar Dia(mm)	Out Dia (mm)	L (mm)
12.0	19.0	32.0
14.0	22.5	36.0
16.0	25.5	40.0
18.0	28.5	46.0
20.0	31.5	50.0
22.0	34.5	54.0
25.0	39.5	62.0
28.0	44.0	68.0
32.0	50.5	76.0
36.0	56.5	84.0
40.0	62.5	92.0
50.0	78.0	112.0

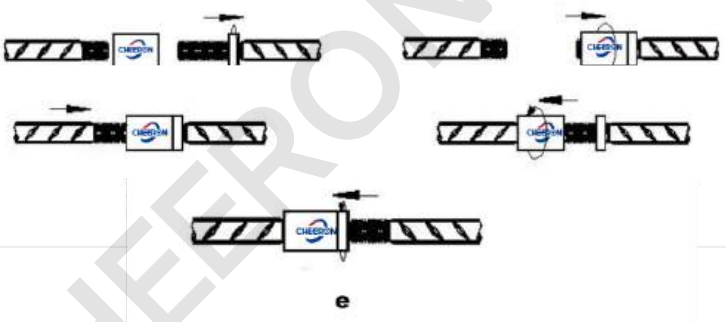
*(Custom configurations available upon request.)

Application

This is used in situations where the rebar cannot rotate at all, such as in bent rebar or the mutual connection of rebar cages in bridges, cast-in-place piles, etc.

How to install ?

Pre-tighten the lock nut and connecting sleeve into the extended thread, then screw the sleeve into the thread at the end of another rebar and lock the connecting sleeve with the lock nut.



Split Rebar Coupler

How it works

The split rebar coupler is a novel mechanical connection method for rebar.

The system comprises an inner sleeve, an outer sleeve, and a locknut, forming a secure connection through the coupling of internal and external threads with the rebar's threaded ends.

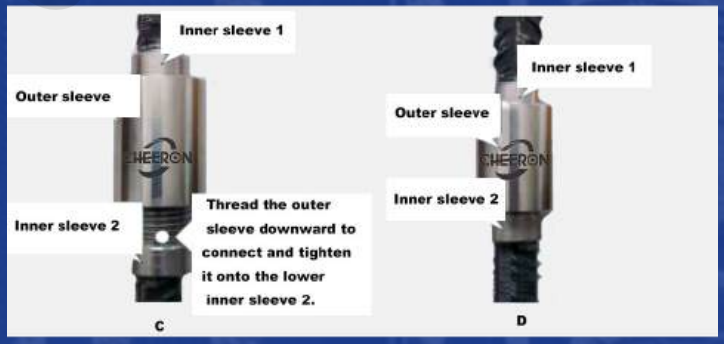
Application

Ideal for scenarios where rebar rotation is restricted, such as rebar cages, prefabricated components, diaphragm walls, and other structures where rebars cannot rotate.

Advantages

- Facilitates rapid on-site construction and simplifies operation
- Reduces rebar cage installation time by approximately 80%
- Ensures high-quality, reliable joints.

How to install



Dodecagonal Rebar Coupler

What is it?

The dodecagonal high-strength rebar coupler is a sleeve specifically designed for connecting steel bars, with a 12-sided cross-sectional shape.

Advantages

- Higher Strength
- Cost Savings
- More Stable Connection
- Faster Construction
- ISO certified, quality assured

Diameter	Dimensions	Thread Pitch	Quantity Per Piece (units)
16	24.5*45	2.5	250
18	27.5*50	2.5	200
20	30.5*55	2.5	140
22	33.5*60	2.5	120
25	37.5*65	3.0	80
28	42.5*70	3.0	70
32	48.5*75	3.0	50

*(Custom configurations available upon request.)

Application

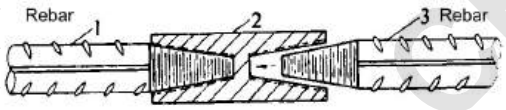
Widely used in various construction structures such as high-rise buildings, bridges, roads, and ports to ensure the stability and safety of the entire structure.

Taper Thread Coupler

Introduction

The taper thread coupler is a traditional mechanical rebar connection method. It involves machining a tapered thread at the rebar end, which is secured by tightening a sleeve with internal conical threads.

Dia of Rebar (mm)	Outer Dia (mm)	Length (mm)	H1 (mm)	H2 (mm)	Thread (P*T)
Φ16	24	65	30	30	16*2.5
Φ18	27	75	35	35	18*2.5
Φ20	29	85	40	40	20*2.5
Φ22	31	90	43	43	20*2.5
Φ25	35	95	45	45	25*2.5
Φ28	39	105	50	50	28*2.5
Φ32	44	115	55	55	32*2.5
Φ36	49	125	60	60	36*2.5
Φ40	54	135	65	65	40*2.5 (3)
Φ50	69	150	70	70	50*2.5(3)



Taper Thread Coupler

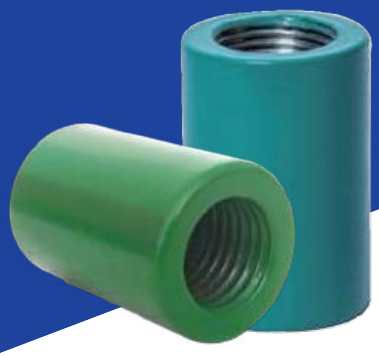
Advantages

- Rapid connection with excellent alignment.
- Safe, reliable, and user-friendly operation.
- Capable of withstanding both tensile and compressive forces.

Advancements

- Machining the rebar end into a conical shape reduces the cross-sectional area, weakening the interface.

Recent developments have enhanced the standard conical thread joint by incorporating pre-compression or forging processes at the rebar end. This has led to the creation of the GK-type rebar equal-strength conical thread joint, which matches the strength of the parent material.



Epoxy Coated Rebar Coupler

Epoxy coated rebar sleeves are manufactured by applying a protective epoxy resin coating to the surface of standard rebar sleeves using an electrostatic powder spraying and high-temperature fusion process.

Rebar Dia(mm)	Out Dia (mm)	L (mm)
12.0	19.0	32.0
14.0	22.5	36.0
16.0	25.5	40.0
18.0	28.5	46.0
20.0	31.5	50.0
22.0	34.5	54.0
25.0	39.5	62.0
28.0	44.0	68.0
32.0	50.5	76.0
36.0	56.5	84.0
40.0	62.5	92.0
50.0	78.0	112.0

Threaded 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).
*(Custom configurations available upon request.)

Epoxy Coating Process

The unique properties of epoxy resin powder, combined with advanced electrostatic spraying technology, ensure excellent adhesion between the coating and the steel surface of the rebar sleeve.

The coating offers high ductility, minimal shrinkage, and resistance to cracking under tensile stress, bending, or short-radius 180-degree bending tests.

Exceptional Corrosion Resistance

1. The coating is impermeable, effectively preventing corrosive agents such as water, oxygen, and chlorides from contacting the rebar sleeve.

2. Epoxy resin coating forms an insulating barrier on the rebar surface, preventing contact with external electrical currents, further enhancing its corrosion protection.