

# CONCRETE CONNECTION SYSTEM

**Unitop Machinery Co.,Ltd.**

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UMC (Unitop Machinery Co.,Ltd.) is a professional precision casting & machining manufacturer. The company was established in 1995, located in Ningbo nearby Shanghai. UMC specializes in manufacturing high quality rock drilling & anchoring tools and other engineering parts related to underground & surface mining, tunneling, construction, and slope stabilization projects around the globe. The products are suited for all kinds of geological conditions, no matter what kinds of clay, loose or hard rock, or other special formations.

UMC adopted multiple types of manufacturing process in productions. We have water glass & silica sol processes in casting production, so we can satisfy all of you with different surfaces & material types requirement. We have kinds of CNC machines in Machining production, and we can satisfy you all with exact size requirement. We also have a long-term and professional cemented carbide supplier to provide high quality products for us. All of those basis keep us having further good cooperation with our customers.

Meanwhile, UMC has been certificated ISO9001-2008. We have a strict quality guarantee system and an excellent technical team with over 20 years experience in steel casting and machining production industry, so we have enough knowledge and confidence to find a better solution and provide you with better quality, and saving all of your purchasing costs directly. We sincerely hope, all our customers can experience our superior service in the future, so we warmly welcome you to choose UMC!

Lifting Clutch and Ring coupling are mainly used for Connecting Lifting Anchors (Capstan Anchor, Head Anchor, Spherical Head Anchor) and Eye Anchors, and then Lifting these anchors during the Concrete Transportation. UMC provides 3 types of ring couplings and 5 types of lifting clutches. They can be used many times, but normally not suggested to be used more than 2 years, and it need to be inspected carefully every year Normally.



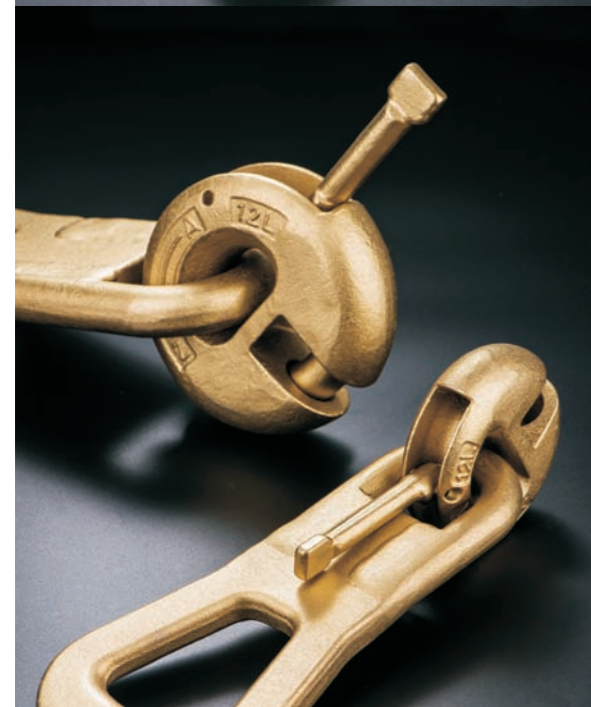
## KK

The KK anchors are used for lifting of different precast components, like beams, slabs and pipes.

KK anchor is installed in the concrete with a hemispherical recess former. This allows a direct transfer of the horizontal force into the concrete via the T-spherical head during diagonal pull.

Lifting anchors shall be covered and protected against corrosion for example with mortar layer otherwise cracking of the concrete or surface soiling due to anchor corrosion might occur.

Part Number	Name	Spec	Material	Surface	Working Load (TON)	Ultimate Load (TON)	Safety Factor
CCSK-1.3T	RR Ring Coupling	1--1.3T	42CrMo/35CrMo	Zinc	≤1.3	1.3x5	5:1
CCSK-2.5T		1.5--2.5T			≤2.5	2.5x5	
CCSK-5T		3-5T			≤5	5x5	
CCSK-10T		6-10T			≤10	10x5	
CCSK-20T		12-20T			≤20	20x5	



## RR

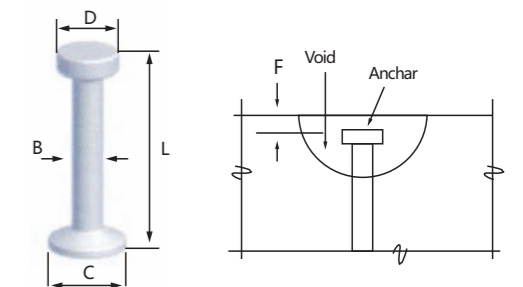
The RR coupling is manufactured from high-quality steel. It consists of the coupling head and the flexible, in all directions movable hanging binder. The coupling head is equipped with a smooth-running, forged latch, which serves the sure and quick connection of coupling and RR-anchors. The design always implies a correct and unambiguous allocation of a RR coupling to a RR anchor. A wrong allocation of coupling and anchor is technically not possible.

Part Number	Name	Spec	Material	Surface	Working Load (TON)	Ultimate Load (TON)	Safety Factor
CCSR-2.5T	RR Ring Coupling	0.7-2.5T	42CrMo/35CrMo	Zinc	≤2.5t	2.5x5	5:1
CCSR-5T		3-5T			≤5t	5x5	
CCSR-10T		5.3-10T			≤10t	10x5	

## Spherical Head Lifting Anchor

Material: 20Mn2/Q345D Surface: PLAIN/ZINC/HDG

Part Number	Spec	Material	Surface	Length (L)	Body Dia. (B)	Head Dia. (D)	Base Dia. (C)	Head Recess (F)	SWL Tension (TON)
CCSA-1.3T055	1.3T	20Mn2/Q235	Plain/Zinc/HDG	55	10	19	25	10	4
CCSA-1.3T065				65	10	19	25	10	4
CCSA-1.3T085				85	10	19	25	10	4
CCSA-1.3T120				120	10	19	25	10	4
CCSA-1.3T205				205	10	19	25	10	4
CCSA-2.5T055	2.5T	20Mn2/Q235	Plain/Zinc/HDG	55	14	26	35	11	8
CCSA-2.5T075				75	14	26	35	11	8
CCSA-2.5T085				85	14	26	35	11	8
CCSA-2.5T120				120	14	26	35	11	8
CCSA-2.5T140				140	14	26	35	11	8
CCSA-2.5T170	170	14	26	35	11	8			
CCSA-2.5T280	280	14	26	35	11	8			
CCSA-5T075	5T	20Mn2/Q235	Plain/Zinc/HDG	75	20	36	50	15	15
CCSA-5T095				95	20	36	50	15	15
CCSA-5T110				110	20	36	50	15	15
CCSA-5T120				120	20	36	50	15	15
CCSA-5T140				140	20	36	50	15	15
CCSA-5T160	160	20	36	50	15	15			
CCSA-5T180	180	20	36	50	15	15			
CCSA-5T240	240	20	36	50	15	15			
CCSA-5T340	340	20	36	50	15	15			
CCSA-10T120	10T	20Mn2/Q235	Plain/Zinc/HDG	120	28	47	70	15	30
CCSA-10T135				135	28	47	70	15	30
CCSA-10T150				150	28	47	70	15	30
CCSA-10T170				170	28	47	70	15	30
CCSA-10T220				220	28	47	70	15	30
CCSA-10T250	250	28	47	70	15	30			
CCSA-10T340	340	28	47	70	15	30			
CCSA-10T680	680	28	47	70	15	30			
CCSA-20T250	20T	20Mn2/Q235	Plain/Zinc/HDG	250	38	70	98	16	60
CCSA-20T500				500	38	70	98	16	60



## Rubber Recess Former

Material: Rubber Color: Plain, black, blue, yellow

Consist of: Each rubber recess former requires one wing nut, plate, and stud set to attach it.

Load Capacity: RR 2.5T, 5T and 10T KK 1.3T, 2.5T 5.0T, 7.5T, 10.0T and 20.0T

Design Instruction:

In order to ease the identification of the load group the formers are produced in different colors. Recess formers are used with threaded plates which may be either rod or socket.

Advantage:

- 1) More than 10 years experience
- 2) The rubber recess former is constant in shape even when heated up to 120 °C or in contact with oil. It can be used several times.
- 3) Professional inspectors, make tension test before shipping

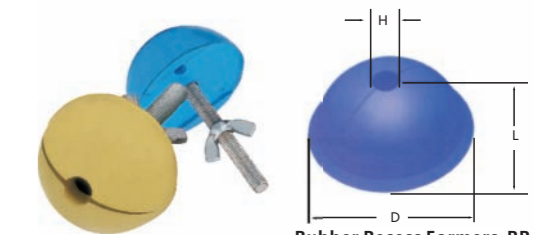
Application:

Rubber recess former for precast anchor can receive all our anchors in load groups of 1.3T to 20T. The features are as follows:

- 1) 4-Hole recess former
- 2) Fast, accurate installation due to the positioning 4 holes
- 3) Easy to be fastened to the formwork with the mounting plate
- 4) Protects the anchor head from the concrete

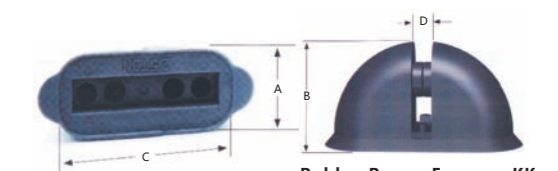
Relevant Products:

- 1) Lifting eye, rubber recess former, lifting socket, lifting insert, lifting Loop, and spread anchor.
- 2) These construction accessories widely vary in application including connecting, reinforcing and fastening building components.



Rubber Recess Formers-RR

Part Number	Spec	A	B	C	D
CCSFK-2.5T	2.5T	43	45	103	103
CCSFK-5T	5.0T	54	59	132	132
CCSFK-10T	10.0T	80	84	198	198



Rubber Recess Formers-KK

Part Number	Spec	Dia.(D)	Height (L)	Hole Dia (D)
CCSFK-1.3T	1.3T	60	30	10
CCSFK-2.5T	2.5T	74	37	14
CCSFK-5T	5.0T	94	48	20
CCSFK-10T	10.0T	117	59	24
CCSFK-20T	20.0T	162	59	38