Certified Manufacturer
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Rebar Mechanical Splicing System

HEXA
SINERGI METRIKA

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Mechanical Splicing Technology

System A: Parallel Thread Rebar Splicing with Rolled End

System B: Parallel Thread Rebar Splicing with Upsetting End

System C: Taper Thread Rebar Splicing System

System D: Cold Forged Sleeve Splicing for Ribbed Rebar

Application Examples

Other Related Products

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System A:

Parallel Thread Rebar Splicing with Rolled Thread End

Rebar stripping and rolling parallel thread splicing technology is CABR's patent. This rebar mechanical splicing mode is very popular in China. CABR rebar parallel thread splicing system designed for the connection of concrete reinforcing bars from Φ12 to Φ50mm. We also could producing rebar thread and coupler as your technical requirements.

Rebar Thread Shaping Machine

Three Steps Manufacturing Process:

1. Cutting off the end of rebar;
2. Stripping the ribs at the end of rebar and then rolling thread;
3. Splicing rebars by coupler.

Features:

1) High splicing strength, which could exert ultimate tensile and compression strength of rebar, it could satisfy the requirements stipulated in the Chinese standard JGJ107, American standard UBC1997, British standard BS8110, French standard NF35-20-1, German standard DIN1045, ISO15835 and other requirements in the relevant standards;

2) Easy to operate and maintain, no need for technicians, fast splicing on construction site;

3) High production efficiency, 300 to 500 thread could be produced during one shift. The splicing could be produced in advance without influencing the construction period;

4) Inexpensive to purchase, maintain and repair.

5) Environment-friendly, safe, no environment and weather restrictions.

6) Manufactured under strict quality assurance plan ISO 9001.

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Parameters of Rolling Splicing

Rebar Dia. (mm)	Coupler Length (L) (mm)	Outside Diameter (D) (mm)	Thread Size (mm)	Thread Angle (°)	Weight (kg)
Z12	32	19.5	M12.7*1.75	60°/75°	0.048
Z14	36	23	M14.8*2	60°/75°	0.072
Z16	40	26	M16.5*2	60°/75°	0.091
Z18	46	29	M18.5*2.5	60°/75°	0.153
Z20	50	32	M20.5*2.5	60°/75°	0.21
Z22	54	35	M22.5*2.5	60°/75°	0.286
Z25	62	40	M25.6*3.0	60°/75°	0.381
Z28	68	44.5	M28.6*3.0	60°/75°	0.568
Z32	76	51	M32.6* 3.0	60°/75°	0.692
Z36	84	57	M36.5* 3.0	60°/75°	0.923
Z40	105	63	M40.2* 3.0	60°/75°	1.346
Z50	125	79	M50.4* 3.5	60°/75°	1.521
Rebar Grade	Yield strength: 500Mpa, Tensile strength: 630Mpa -In China its model: HRB500				
Material	45# High quality carbon steel or according to customers' requirements				

Parameters of Rebar Thread Shaping Machine

Name of Equipment	Rolling After Stripping Rib Machine			
Model	GHB22	GHB40	GHB50	GM350
Diameter of Rebar	12 - 22 mm	16 - 40 mm	25 - 50 mm	16 - 40 mm
Speed	87 RPM			87 RPM
Maximum Length of Thread	90mm			350mm
Rated Power	3 kW	4 kW	5.5 kW	4 kW
Voltage	380[V] - 50 [Hz] or customized			
Total Weight	500 kg	590 kg	680 kg	680KG
Dimension	-	-	-	

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System B:

Parallel Thread Rebar Splicing with Upsetting End

CABR rebar parallel thread splicing with upsetting thread end designed for the connection of concrete reinforcing bars from Φ12 to Φ40. We could produce coupler as your technical requirements. We also could provide complete rebar splicing solutions for you as your construction project's demands.

Threading Machine Hydraulic Oil Pump Upsetting Machine

Four Steps Manufacturing Process:

1) Cutting off the end of rebar;

2) Enlarging the end of rebars by upsetting;

3) Making parallel threads;

4) Splicing rebars by coupler.

Features:

1) High splicing strength, which could exert ultimate tensile and compression strength of rebar, it could satisfy the requirements stipulated in the Chinese standard JGJ107, American standard UBC1997, British standard BS8110, French Standard NF35-20-1, German standard DIN1045, ISO15835 and other requirements in the relevant standards;

2) Easy to operate and maintain, no need for technicians, fast splicing on construction site;

3) Several types of splicing, which could be suitable for rebar splicing when the rebar cage or the bending rebar is used;

4) High production efficiency, it only takes less than 1 minute to upset and make one thread on the site;

5) High adaptability, the splicing could be conducted when the power is off, or under water, or at super high position, or windy, rainy and snowy weather.

6) Environment-friendly, material-effective.

7) Inexpensive to purchase, maintain and repair.

8) The splicing could be produced in advance without influencing the construction period.

9) Manufactured under strict quality assurance plan ISO 9001.

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Parameters of Upsetting Splicing

Rebar Dia.(mm)	Outside Dia.(mm)	Coupler Length(mm)	Thread Size(mm)	Weight (kg)
D12	20	28	M14*2.0	0.048
D 14	23	28	M16*2.0	0.06
D 16	26	32	M18*2.0	0.09
D 18	30	36	M22*2.5	0.11
D 20	33	40	M24*2.5	0.15
D 22	35	44	M25*2.5	0.18
D 25	40	50	M29*3.0	0.27
D 28	46	56	M32*3.0	0.42
D 32	50	64	M36*3.0	0.53
D 36	58	72	M40.3*3.5	0.90
D 40	64	80	M45.3*3.5	1.08
Rebar Grade	Yield strength: 500Mpa, Tensile strength: 630Mpa - In China its model: HRB500			
Material	45# High quality carbon steel or according to customers' requirements			

Machine Models and Features of Upsetting System

Upsetting Machine

			
Model	**LD1200**	**LD1800**	**DC2500**
Working Capacity (mm)	16-32	16-40	16-40
Rated Forging Oil Pressure (Mpa)	35	35	35
Rated Upset Force (KN)	1200	1800	2500
Dimensions (mm)	660*360*360	810*410*410	1380*670*1240
Weight (kg)	380	625	1200

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Hydraulic Oil Pump

		
Model	**BSB6**	**DBS10/35**
Rated Oil Pressure (Mpa)	40	30
Rated Flow (L/MIN)	6.0	10-35
Power of Motor	4.0	7.5
Dimensions (mm)	460*460*640	1650*1000*1070
Weight (kg)	89	300

Threading Machine

	
Model	QTL-40
Power of Main Motor (kw)	4.0
Reductor Ratio	1: 35
Dimensions (mm)	1170*710*1140
Weight (kg)	484

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System C:

Taper Thread Rebar Splicing System

CABR rebar taper thread mechanical splicing system designed for the connection of concrete reinforcing bars from Φ16 to Φ40. We could produce coupler as your technical requirements. We also could provide complete rebar splicing solutions for you as your construction project's demands.

Taper Thread Cutting Machine

Three Steps Manufacturing Process:

1. Cutting off the end of rebar;
2. Bar end cutting taper thread
3. Splicing rebars by coupler.

Features:

1) High splicing strength, which could exert ultimate tensile and compression strength of rebar, it could satisfy the requirements stipulated in the Chinese standard JGJ107, American standard UBC1997, British standard BS8110, French standard NF35-20-1, German standard DIN1045, ISO15835 and other requirements in the relevant standards;

2) Fast, Economical, Reliable, and Low Maintenance.

3) Easy to operate and maintain, high production efficiency and fast installation, no need for skilled technicians.

4) Covers Full Range of Rebar Types and Grades /sizes

5) Inexpensive to purchase, maintain and repair.

6) The splicing could be produced in advance without influencing the construction period.

7) Manufactured under strict quality assurance plan ISO 9001.

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Parameters of Taper Thread Splicing

Rebar Dia. (mm)	Outside Dia. (D)(mm)	Coupler Length L (mm)	Thread Size (mm)	Thread Angle (°)	Taper Degree (°)
T16	Φ25	61	M17*1.25	60°/75°	6°
T 18	Φ30	72	M19*1.25	60°/75°	6°
T 20	Φ30	88	M21*2	60°/75°	6°
T 22	Φ33	91	M23*2	60°/75°	6°
T 25	Φ35	96	M26*2	60°/75°	6°
T 28	Φ38	101	M29*2	60°/75°	6°
T 32	Φ45	107	M33*2	60°/75°	6°
T 36	Φ50	121	M37*2	60°/75°	6°
T 40	Φ56	131	M41*2	60°/75°	6°
Rebar Grade	Yield strength: 500Mpa, Tensile strength: 630Mpa - In China its model: HRB500				
Material	45# High quality carbon steel or according to customers' requirements				

Technical Parameters of Taper Thread Cutting Machine

Model	GTS-40S
Working Capacity (Rebar Dia.) (mm)	Φ16 –Φ40
Working Speed (RPM)	50/63
Max. Length of Thread (mm)	70
Screw Pitch (mm)	P2.0, P2.5, P3.0
Rated Power (kw)	4
Voltage	380[V] - 50 [Hz] or customized
Overall Dimensions (L*W*H) (mm)	1800*1200*1600
Overall Weight (kg)	400

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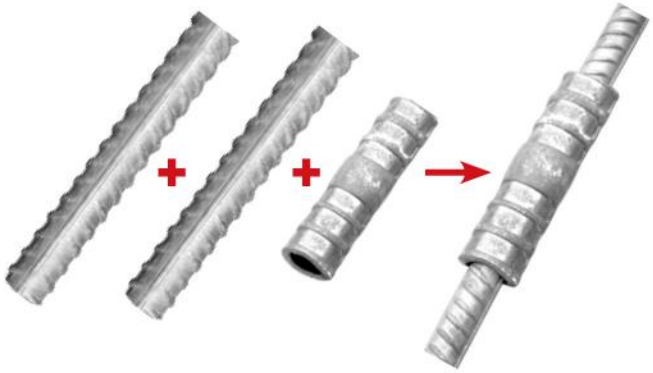
System D:

Cold Forged Sleeve Splicing for Ribbed Rebar

Principle:

By adopting the special pressing machine to press the coupler laterally, the steel coupler is plastically deformed and combined closely with the ribbed rebar, and therefore, the splicing of rebars is realized.



Features:

1) High splicing strength, which could exert ultimate tensile and compression strength of rebar, it could satisfy the requirements stipulated in the Chinese standard JGJ107, American standard UBC1997, British standard BS8110, French standard NF-35-20-1, German standard DIN1045, ISO15835 and other requirements in the relevant standards;

2) Easy to operate and maintain, no need for technicians, fast splicing on construction site;

3) Low power capacity, no power capacity restrictions on construction site;

4) Environment-friendly, safe, no environment and weather restrictions.

5) Full-Tension splicing, bar break under tensile tests.

6) Inexpensive to purchase, maintain and repair.

7) Manufactured under strict quality assurance plan ISO 9001.

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Parameters of Cold Forged Sleeve Splicing

Model	OD (mm)	Thickness(mm)	Length (mm)	Weight(kg)
G16	30	5.0	110	0.339
G18	32	5.0	115	0.383
G20	36	6.0	120	0.533
G22	40	6.5	140	0.752
G25	45	7.3	150	1.018
G28	50	8.0	168	1.392
G32	56	9.0	192	2.003
G36	63	10.5	216	2.936
G38	66	11	228	3.402
G40	70	11.5	240	3.982

Parameters of cold forging machine

ITEM	YJ32	YJ40
Diameter of Rebar	16-32mm	32-40mm
Speed	150-250 pieces/ 8hours	120-180 pieces/ 8hours
Max. Pressure	30-50MPa	40-60 MPa
Rated Power	2.2 KW	2.2KW
Voltage	380V	380V
Total Weight	170KG	180KG
Dimension	900X800X900	900X800X900

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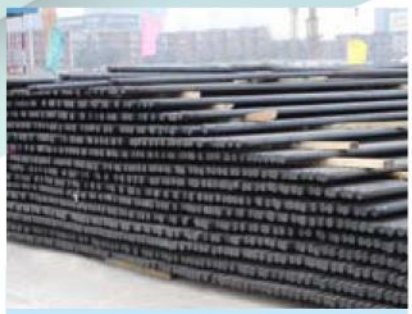
Construction site for Splicing

Auto. Rebar Thread End Making Line in site

50mm Rebar Thread End



Finished 50mm Rebar Thread End

Stripping and Rolling Rebar Thread End

Connecting Rebar Coupler

Parallel Thread Rebar Coupler

Weldable Coupler

Coupler for Connecting Rebars

Cold Forged Sleeve Connecting Rebars

Cold Forged Sleeve for Cage

Locking Sleeve Coupler for Cage

Lifting Rebar Cages

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Other Related Products

Anchor Plate

Features:

- Good anchorage performance;
- Reduce the anchorage length, save rebars;
- Simple process, high production efficiency, 300-500 thread ends can be produced during one shift;
- Overcome the congestion of rebar in traditional concrete structure and improve the quality of concrete.

Locking Sleeve Coupler

Features:

- Design for usage in column splicing, bridge, piling, splicing to cast in concrete, beams, chimney construction and other demanding splicing applications;
- No threading work on the rebar end;
- Save labor

Stainless Coupler

Features:

- Choice of an infinite lifetime;
- A solution for the corrosion resistance of reinforced concrete;
- Used for stainless steel connection;
- Used in HK-Zhuhai-Macao Bridge Project.

Weldable Rebar Coupler

Features:

- Reliable and Economical, Save Labor.
- Convenient and flexible to use, high production efficiency and fast installation.
- The thread could be produced in advance without influencing the construction period.

Auto. Rebar Thread End Production Line

Features:

- High efficiency for making rebar thread end, 2~4pcs/min;
- Easy operate and set-up, No need skilled worker;
- High precision and best quality.

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