

湖南元拓实业集团有限公司



























Rebar Connection System



ADTO Group is established in 1998, Headquarters is located in Changsha, Hunan, Rebar coupler factory in Shang dong province.

Our company has strong technical force and mechanical laboratory, which has passed ISO9001 international quality system certification. And the annual output of mechanical equipment is over 3 million sets, rebar coupler are more than 10 million. Our mechanical joints all passed inspection, the tensile strength, secant modulus, ultimate stress and residual deformation this four indicators all can meet the requirements of the standard of the Ministry of construction of China (JGJ107-2016) for class I and class II joints, also meet the U.S. standard (UBC1997), British Standard (bs8110), German standard (din1045) and other foreign standards for SA level and A-level joints. And there are applicable to the mechanical connection of HRB335 and HRB500 bars in the foundation, beam column, slab, wall and other structures of reinforced concrete structures in a large number of civil, industrial, tunnel, bridge, nuclear power, water conservancy, subway and various buildings.

And our company is approved by the industry with good faith Strength and product quality. The product is sold to China and around the world every year such as Dubai, Brazil, Korea, Vietnam and other more than 30 countries and regions. We firmly believe that we will win a better tomorrow as long as the market —oriented innovation-driven, quality —based and development —oriented growth.

We believe that our products will connect to the world

Certification Of Company

ISO

Certificate No.: 04616Q13666R0I

Trading Co., Ltd.

Date of Expiry: 2019-10-18

GB/T19001-2016 / ISO9001:2015

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Changsha Xiangjia Metal Material

The certificate is valid to the following product(s)/service: Selling of Steel Products and Hardware

Registration Address/ Physical Address: Room 1605-1609, Mingcheng International

CE FOR Machine









CE FOR Rebar coupler



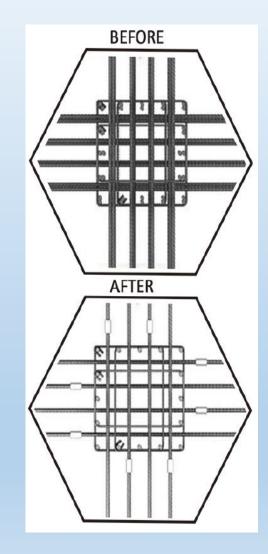
Why CHOOSE ADTO MECHANICAL SPLICE?

ADTO Rebar Couplers are parallel threaded Mechanical splicing system for reinforcing bars diameter 16-40mm and are designed to provide full tensile strength.

Due to the growing technical challenges faced in today's construction industry, traditional methods for connecting rebar, it provides such as lapping or welding. It is no longer the best method to connect rebar

More and more construction codes are specifying a mechanical coupler because it provides better structural integrity while minimizing costs. Some of the benefits of using a ADTO mechanical coupler.

ADTO Rebar Couplers are manufactured in compliance with BS8810, ACI318, DIN1045 and other international Standard.

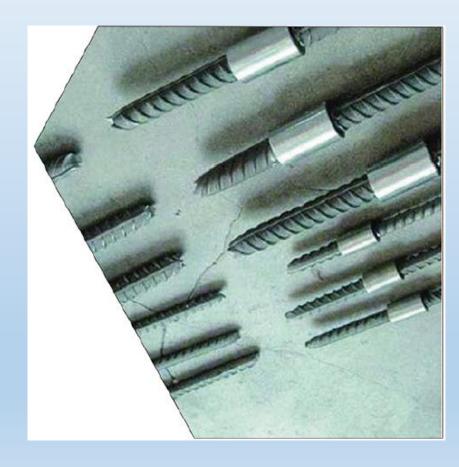


100% Bar Break Performance

ADTO Bar splice is a parallel thread mechanical splicing system designed for the connection of concrete reinforcing bars from 16-40.

Main Features:

- 1.More reliable and more structural integrity than lap splices because they are no longer reply on the concrete for load transfer
- 2.Lowers the risk of rock and air pockets by reducing rebar congestion efficient and easy design options result in smaller and stronger columns with the maximum amount of useful area.
- 3. Avoids dilling or cutting forms, especially in crane, elevator opening, and stairwells.
- 4.Install easily and quickly.
- 5.Reduces the amount of rebar, which reduces the labor and crane time-improving and the construction schedule.
- 6.No lapping length necessary-reduces inventory
- 7.Lower cost
- 8.Better splice inspection lowers quality control costs
- 9. Allows for same line splicing
- 10.No staggered splice
- 11. Minimizes rebar waste



Splicing Coupler Features

1. Material (threaded rebar coupler): #45C round bar steel, structural seamless pipe

45#C Mechanical Property			
Item	Performance Index		
Yield Strength (Mpa)	>=355Mpa		
Tensile Strength (Mpa)	>=600 Mpa		
Elongation(%)	>=16%		
Hardness(HRBW)	≤ 197 HBS		

Material (cold extraction rebar coupler): 10#/20# structural carbon steel; or Q235 /Q275

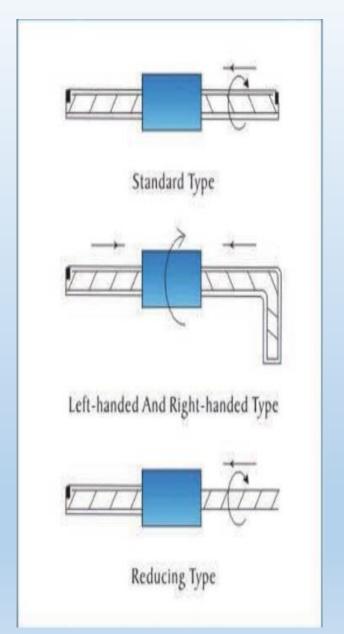
Cold Extrustion Rebar Coupler Material Mechanical Property			
Item	Performance Index		
Yield Strength (Mpa)	205-350Mpa		
Tensile Strength (Mpa)	335-500 Mpa		
Elongation(%)	≥20		
Hardness (HRBW)	50-80HBS		

Degree: 60/75° thread angle

Standard: BS 4449, B500, JG/T 163-2013, HRB 400, HRB 500

BS8810, ACI318, DIN1045

Rebar Coupler Category











MECHANICAL PROPERTIES OF STEEL REBAR

Standard	Grade	Nominal Diameter mm	Yield Strength MPa (min)	TENSILE Strength Mpa(min)	Tensile to Yield Ratio (min)	Elogation in 200mm%(min)	Elongation Grade (AS)%(Min)	Agt % (min)
ASTM A615	40	10 14-18	280	420	N/A	<u>11</u> 12	N/A	N/A
ASTWIA013	60	$\frac{10-19}{20-25}$ >25	420	620	N/A	9 8 7	N/A	N/A
ASTM A615	460B	10-40	460	N/A	1.08	N/A	14	5
BS4449,2005	B500B	10-32	500	N/A	1.08	N/A	N/A	5
GCC Standard	4B400BR B400BWR O	10-40	400	N/A	1.08	N/A	14	5
GSO/ISO	B500BR B500BWR	10-32	500	N/A	1.08	N/A	14	5

CHEMICAL COMPOSITION OF STEEL REBARS

			Chemical Composition % (Maximum)						
Standard	Grade	C	Si	Mn	S	P	N	Cu	C.E.V.
ASTM A615	60					0.060			
BS4449 1997	460B	0.250			0.050	0.050	0.012		0.510
BS4449 :200 5	B500B	0.220			0.050	0.050		0.800	0.500
GCC Standard GSO6/ISO 6935-2/2007	B400BR/B50 0BR B400BWR B500BWR				0.600	0.600			
		0.220	0.600	1.600	0.050	0.050	0.012		0.500

TYPE OF COUPLER

















Splicing Coupler Size

Size	Out Diameter MM	Length MM	Pitch
D16	24	38	2.5
D18	27	43	2.5
D20	30	46	2.5
D25	32.5	51	3.0
D28	37	58	3.0
D30	41.5	63	3.0
D32	47.5	71	3.0
D36	53	78	3.0
D40	59	88	3.0



GB Standard Rebar Coupler

Size	Out Diameter MM	Length MM	Pitch
D16	22	61	2.0
D18	27	71	2.0
D20	27	88	2.0
D25	33	91	2.0
D28	33	96	2.0
D30	37	101	2.0
D32	42	107	2.0
D36	46	121	2.0
D40	55	138	2.0



Taper Rebar Coupler

Size	Out Diameter MM	Length MM	Rebar size
GQTQ12	44	250	Dia12
GQTQ14	46	280	Dia14
GQTQ16	48	315	Dia16
GQTQ18	50	345	Dia18
GQTQ20	52	375	Dia20
GQTQ22	54	410	Dia22
GQTQ25	58	455	Dia25
GQTQ28	62	505	Dia28
GQTQ32	68	570	Dia32
GQTQ36	74	635	Dia36
GQTQ40	82	705	Dia40



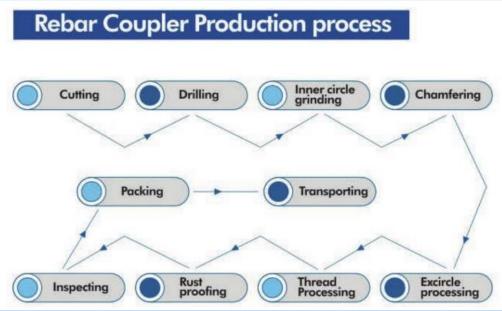
Grouting Rebar Coupler

Size	Out Diameter MM	Length MM	Rebar size
JY4 16	30	110	Dia12
JY4 18	34	118	Dia14
JY4 20	36	120	Dia16
JY4 22	40	132	Dia18
JY4 25	45	150	Dia20
JY4 28	50	168	Dia22
JY4 32	56	192	Dia25



Cold Extrusion Rebar Coupler

Production line





Testing & Packing















	Main Technical Parameters					
Type	45E	65E	50E			
Rebar Dia	14mm-32mm	14mm-40mm	14mm-40mm			
Motor Power	4000w	4000w	4000w			
Voltage	380Volt 50HZ	380Volt 50HZ	380Volt 50HZ			
Spindle speed	1450 RPM					
Maximum thread length	100mm	200mm	100mm			
Thread Angle	60/75	60/75	60/75			
Weight	450KG/SET	470KG/SET	520KG/SET			
Working Life	1-2 Years	3-5 Years	7 years			



- 1. This machine can process standard thread coupler and also can process the right and left hand coupler, rib and thread at one time, and the tooth fullness, size accurate
- 2. Adopting unique spiral angle lifting technology, convenient and rapid for thread tightening ,improving working efficiency
- 3. Optimized adjusting the size of rolling threads at one time, no replacement of tool rests
- 4. Adopting eccentric shaft design, inter tooth plate adjustment, high machining efficiency
- 5. Three points in one time, high concentricity, high stability

Thread rolling

machine

6. Rebar realizes easy feeding, automatic return thread rolling of the machine tools ,daily production of 600-1000pcs of thread head every day



Features

- 1.Structure reasonable
- 2. Portable and flexible
- 3. Easy Operation
- 4. High Efficiency

Taper thread machine

	Main Technical Parameters			
	Maximum size of rebar which can be used with this machine	16mm-32mm		
	Motor Power	4000w		
Tamper thread	Voltage	380Volt 50HZ		
roller machine	Spindle speed	50/mius		
	Rebar length	>=300mm		
	Dimension	1200*700*1100		
	Weight	400KG/SET		











Cold Extrusion Machine is used to process the rebar end, No Specific requirement on the weld ability of the rebar

The Features

- 1.Strong intensity connector, stable and reliable
- 2.No specific requirements on the weld ability of the rebar
- 3.Not limited by power capacity ,has flexible structure and and suitable for operation on several machine
- 4. About ten times faster than ordinary welding

Cold extrusion machine Main Technical Parameters						
High-pressure pump	Maximum size of rebar which can be used with this machine	16mm-40mm				
pamp	Operational stroke:	45mm				
	Voltage	380Volt 50HZ				
	Powder	4000w				
	Rated pressure	80MPA				
	Dimension	790*540*785				
	Capacity of tank:	30L				
	weight	96kg/set				
Hydraulic tool	Rated pressure	80Mpa				
·	Rated press force	900KN				
	Weight	34kg				
	Size	160mm*500				
Pipe	length	5m				
Mold	size	12/14/16/18/20/22/25/28/32/36/40				

- 5. No flammable gases, not affected by rainy or cold weather
- 6. No Professional and experienced worker needed, able to connect changed steel bar of different diamaters
- 7. Relieve congestion of the connecting point ,facilitated concrete pouring
- 8. The technology is assessed by the Ministry of Construction as "world advanced ,high quality , high efficiency, safe ,and economical thick diameter distorted steel bar connection technology which can be widely used in the construction industry"



		Main Technical Parameters				
_	Upsetting forging	Maximum size of rebar which can be used with this machine	16mm-32mm			
mac	chine	Total power of electric (al) motor	7500w			
		Voltage	380Volt 50HZ			
		Maximum working pressure	<=25MPA			
		Dimension	1550*570*1100mm			
		Weight	950KG /SET			

Specifications

- 1. Use upset forging machine to forging rebar coupler
- 2. Use rebar thread cutting machine to process thread
- 3. Use rebar coupler to joint two threaded ends of rebar

Advantages:

- 1 The tensile strength can be reach 1.1times of steel bar, make sure 100% bar break.
- 2. Easy operation
- 3. High efficiency, forging and threading one rebar end only cost no more than one minute.



Cold Forged Machine	Main Technical Parameters	
	Maximum size of rebar which can be used with this machine	Φ14mm~Φ40mm
	Power rating	4000w
	Voltage	380Volt 60HZ/50HZ
	Thread length	Maximum 100mm
	Dimension	1450*700*1600mm
	Weight	750KG /SET

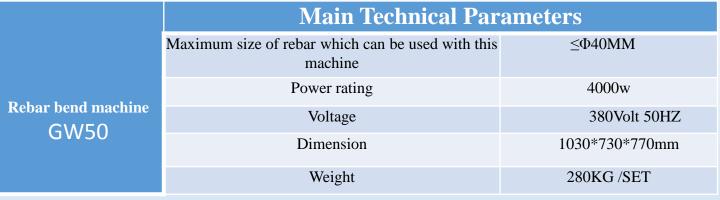
Thread Cutting Machine	Maximum size of rebar which can be used with this machine	Ф14mm~Ф40mm
	Power rating	4000w
	Thread Angle	60/75
	Thread Pitch	2MM;2.5MM;3MM;3.5MM
	Voltage	380Volt 60HZ/50HZ
	Thread length	Maximum 100mm
	Dimension	1450*700*1600mm
	Weight	750KG/SET



Rebar Bend Machine



Full-automation threading rebar machine



	Main Technical Parameters	
Rebar bend machine GW40	Maximum size of rebar which can be used with this machine	≤Φ40MM
	Power rating	4000w
	Voltage	380Volt 50HZ
	Dimension	930mm*730mm*730mm
	Weight	350kg(+/-5)



Grouting machine

Accessories



BLADE



Spanner



Thread Head





Eccentric Shaft



Torque wrench

Project



Kuwait University Town



Olaya Tower(Saudi Arabia)



South Korea Incheon Airport



Vladivostok Cross-sea Bridge



Sri Lanka National Art Theatre