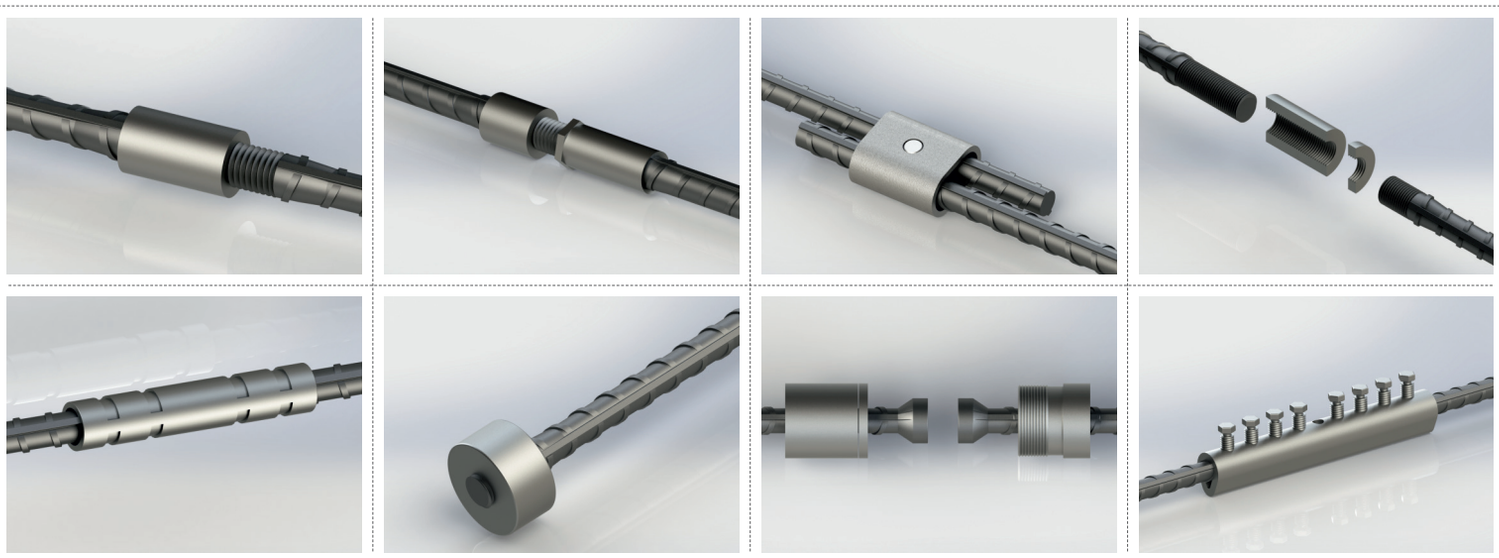
MECHANICAL REBAR COUPLER



REGBAR
CONSTRUCTION TECHNOLOGY SOLUTIONS

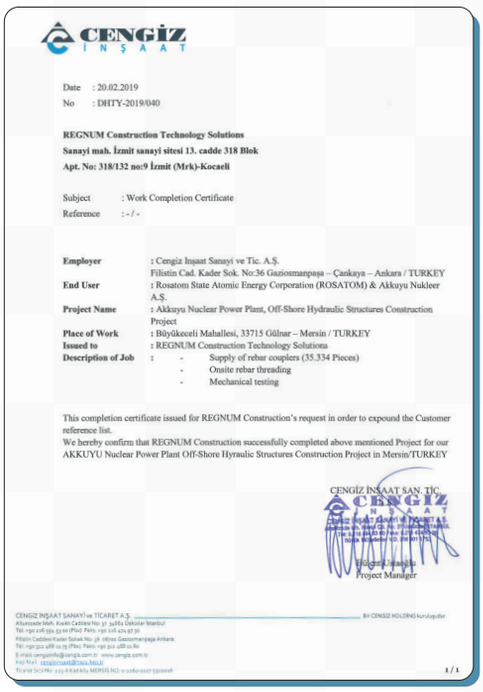
www.regbar.com / info@regbar.com

Who are we?

As REGBAR family, we have vast knowledge and international experience in the fields of engineering and applications as of 2010. We have carried out important domestic and international projects including on-site applications in many developing fields with regard to manufacturing Reinforcement Couplers, Anchorage, Rock Bolts, Tunnel and Soil Equipment, Pre and Post-Tensioning Systems, Fiber Reinforcements, Steel and Case, Shoring and Steel Constructions.

Quality

All REGBAR equipment are designed and manufactured to be installed and operate in factory and field. The machines have CE and related certificates and are used by technicians specialized in provision of high quality service. If needed, fast installation in the field is performed and on-site anchorage and coupler services are provided. REGBAR Couplers comply with; ASTM A706, ASTM A615, ASTM A996, TS708, BS8110, BS4449, ISO 15835 S2, ACI 318, BS8110, ISO 15835 S-1 / S-2, TS500,GOST 34278-2017 standards. All REGBAR products have been tested and approved by independent laboratories.



CENGİZ İNŞAAT

Date : 20.02.2019
No : DHTY-2019/040

REGNUM Construction Technology Solutions
Sanayi mah. İzmit sanayi sitesi 13. cadde 318 Blok
Apt. No: 318/132 no:9 İzmit (Mrk)-Kocaeli

Subject : Work Completion Certificate
Reference : - / -

Employer	: Cengiz İnşaat Sanayi ve Tic. A.Ş. Filistin Cad. Kader Sok. No:36 Gaziosmanpaşa – Çankaya – Ankara / TURKEY
End User	: Rosatom State Atomic Energy Corporation (ROSATOM) & Akkuyu Nukleer A.Ş.
Project Name	: Akkuyu Nuclear Power Plant, Off-Shore Hydraulic Structures Construction Project
Place of Work	: Büyükeceli Mahallesi, 33715 Gülnar – Mersin / TURKEY
Issued to	: REGNUM Construction Technology Solutions
Description of Job	: - Supply of rebar couplers (35.334 Pieces) - Onsite rebar threading - Mechanical testing

This completion certificate issued for REGNUM Construction's request in order to expound the Customer reference list.
We hereby confirm that REGNUM Construction successfully completed above mentioned Project for our AKKUYU Nuclear Power Plant Off-Shore Hyraulic Structures Construction Project in Mersin/TURKEY

CENGİZ İNŞAAT SAN. TİC.
CENGİZ İNŞAAT
Project Manager

CENGİZ İNŞAAT SANAYİ ve TİCARET A.Ş. Bir CENGİZ HOLDİNG kuruluşudur.
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Work Completion Certificate Rosatom State Atomic Energy Corporation Akkuyu Nuclear Power Plant

Innovative solutions for better future

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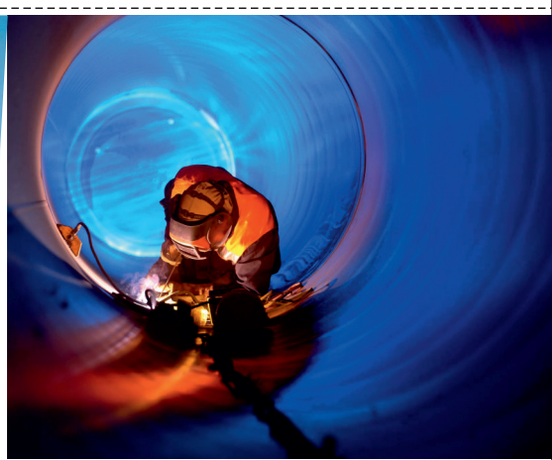




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MECHANICAL REINFORCING BAR SPLICING SYSTEM

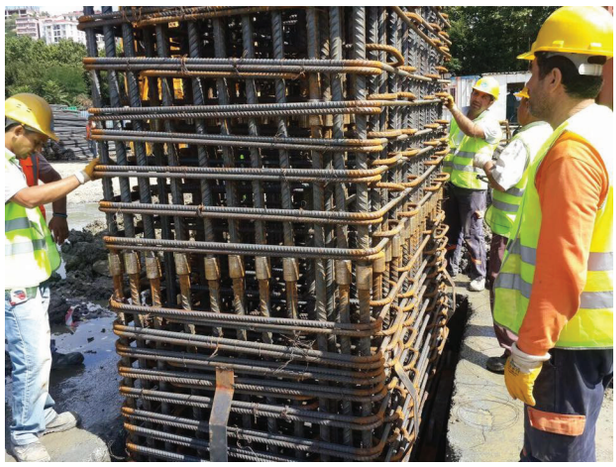
Why Reinforcement Coupler?

Conventional reinforcement connection methods such as overlapping and welding don't satisfy the need of overcoming the ever-increasing technical difficulties in construction industry any more.

In spite of this Coupled Joint Systems, a product of modern technology, reduce the costs and provide a more successful structural integrity.

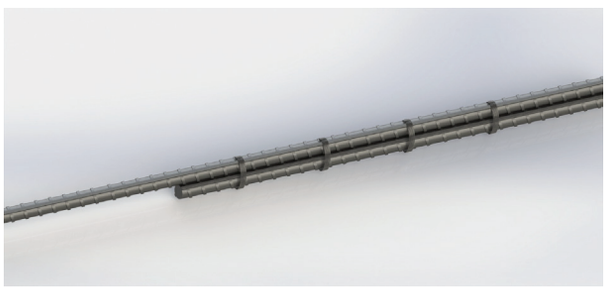
The low-cost Reinforcement Couplers will speed up your project and bring in competence. **Regbar Mechanical Reinforcement Couplers** provide solutions for construction reinforcement bundles such as overlapping and welding.

Our strategy is offering more affordable and extremely safe rebar inserts as compared to the options of overlapping and welding. **Regbar Mechanical Couplers** and the equipment are economic, safe, designer-friendly and easy to implement. In brief, REGBAR provides matchless benefits and higher earnings to its customers!



Coupled joint system has innumerable benefits.

We can list its main benefits as follows:



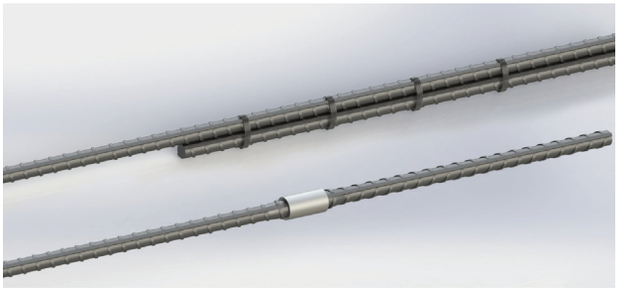
- Overlap method requires concrete for load transfer. In addition, when the reinforcement reaches the zone of leakage and its diameter changes, clamping ends and the joint doesn't work. In coupled joints on the other hand, such lock in is not required and the joint continues to take up load until the tensile strength. It delivers outstanding performance at cold joints formed between the floor columns.

- Provides uninterrupted structural continuity due to having higher strength than reinforcement. In this way, it offers static advantages especially in multi-storey buildings.

- Eliminates the problems of time and labor loss, formation of air voids at the joints and exceeding the percentage ratio. Reduces reinforcement density at joints zones.

- Reduction of reinforcement density increases architectural strength and this helps the design of small columns and increases the living space.

- It lowers the amount of reinforcement consumed in the project in such a way that this saving cannot be provided by any other item. It offers significant advantage in terms of purchase, logistics and in-field storage of reinforcement.
- Shortens project time by reducing worker and crane usage times and offers cost advantages.
- Allows rebar assembly without the need for lapping.





- Reduces the quality control frequency and provides quick and easy joining during assembly with no question marks.
- Quality control can be done easily with the existing test methods.
- Coupled joints have facilitated construction of heavy reinforcement systems with high strength values all over the world.
- Ensures continuity of reinforcement in top-down manufacturing used in subway and top-down projects.
- For these reasons, Turkish Construction Standard TS500 requires it to be used for diameters above 30 mm.
- Mechanical Couplers enable to get free from various calculations in overlapping and potential calculation errors.
- One of the biggest problems expressed by the employees in the construction site is that the concrete is not placed well in the structural elements due to the reinforcement frequency. The maximum percentage allowed by ACI 318 and TS500 are 8% and 6% respectively (TS allows this value only at the column-beam overlap point). Mechanical Couplers remove the overlap insert so that there is no coupling lengths and the percentage remains within bounds. However, it is more comfortable to place the concrete with the decrease of the reinforcement frequency.

- Reduces transportation, stock and crane costs.
- Since the early completion of rough construction will shorten the construction time, putting the structure into service earlier provides economic advantage. Since the reinforcement workmanship, number of ironsmiths and crane density are reduced, working environment will be calmer, safer and controlled.
- Mechanical Coupler ensures transfer of the load on the reinforcement on the same axis independent of concrete and ambient conditions. In seismic applications, mechanical couplers ensure the whole continuity of reinforcement when the reinforcement transits to a non-elastic state.



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- Plastic interlock zone often breaks the requirements for insertion standards. Since mechanical fasteners can be easily moved out of their high-tension zones, they ensure the integrity of the reinforcement without insertions in these zones.

- In regions where the weather is cold and causes crack formation in the concrete, on the shores and where the cross section of the concrete receives a blow, the concrete covering the overlap insert doesn't function. Thus, interlock length of the reinforcement becomes dysfunctional and the reinforcement doesn't work. Mechanical couplers ensure the continuity of reinforcements independently of this situation.

- Due to the increasing construction complexities and design requirements in recent years, the need for a more efficient joining (coupling) system is more apparent. Use of reinforced concrete reinforcement couplers can simplify the design and production of reinforced concrete and reduce the amount of required reinforcement.



Advantages of reinforced couplers over overlapping method:

- Blockage of reinforcement bars with reinforced inserts affects the integrity of the structure. This can be prevented by using high strength **Regbar Couplers**.

- Size of the zones with decreased concrete and floor areas are maximized and thus, the value of the building increases especially in the main areas of progress.

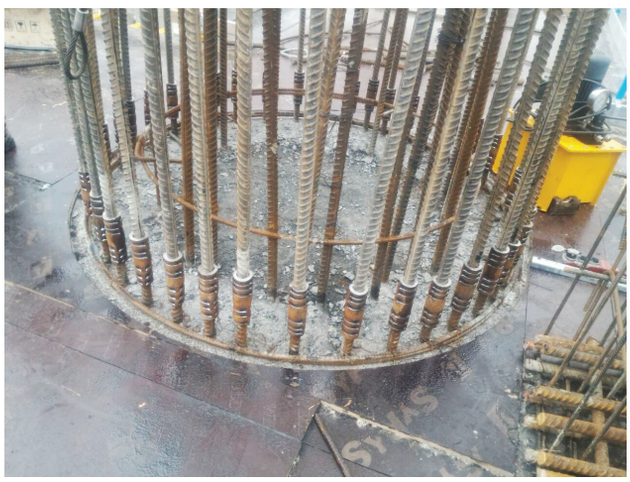
- Bearing the upholstered joint loads fully depends on adherence of the surrounding concrete. Deterioration of concrete may affect the performance of the joint.

- Bars can be coupled with **Regbar Couplers** by using a coupler and this can prevent the mold to be damaged.

- Provides material and cost savings because less steel is used.

- Creates a greener and lighter building. Compatible with Leed Certificates.







Quality Assurance

All REGBAR equipment is designed and manufactured to be installed and operate in factory and field. The machines have CE and related certificates and are used by technicians specialized in provision of high quality service. If needed, fast installation in the field is performed and on-site anchorage and coupler services are provided.

REGBAR Couplers comply with; ASTM A706, ASTM A615, ASTM A996, TS708, BS8110, BS4449, ISO 15835 S2, ACI 318, BS8110, ISO 15835 S-1 / S-2, TS500 standards. All REGBAR products have been tested and approved by independent laboratories.

Tracking codes are imprinted on all of our products within the scope of REGBAR® Quality Assurance Program. These codes enable us to keep track of the products up to the original steel lot and their manufacturers. Certified Material Test Reports are archived for future use when required. Our products provide breakage from the reinforcement under tensile tests.




REGNUM MÜHENDİSLİK İNŞAAT SANAYİ TİCARET LİMİTED ŞİRKETİ

ISO 14001:2015


REGNUM MÜHENDİSLİK İNŞAAT SANAYİ TİCARET LİMİTED ŞİRKETİ

OHSAS 18001:2007

REGBAR® Mechanical Couplers are designed in the manner that when used with Grade 60 rebar, they can exceed 125% of the yield strength specified in USA.

Bar Break performance for all standard rebar (Ø12 - Ø56)

REGBAR® Mechanical Connectors are designed to conform with the following:

ACI 318, IBC 2006, BS 8110, Eurocode 2, DIN 1045, TS 500

Our products have been tested by independent laboratories to meet the specified international standards. A detailed breakdown of test results can be downloaded from our website.


REGNUM MÜHENDİSLİK İNŞAAT SANAYİ TİCARET LİMİTED ŞİRKETİ

ISO 9001:2015


CERTIFICATE

of product conformity

PTC Technical Inspection and Certification

ATTESTATION OF COMPLIANCE

(UTGUNLUK ONAYI)


СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р

ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ

СЕРТИФИКАТ СООТВЕТСТВИЯ


HYUNDAI

SK engineering & construction

WORK COMPLETION CERTIFICATE

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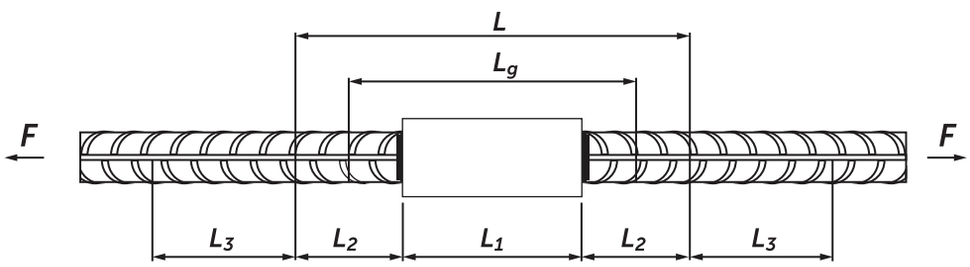
Performance **Tests**

The testing setups of reinforced concrete steels combined with couplers and expected results differ depending on values standards. Tests are subjected to couplers:

- Monotonic Tension Test: Measures the performance of sleeve combination under increasing tensile strength.
- Monotonic Compression Test: Measures the performance of coupling combination under the increasing force.
- Cyclic Load Test: Measures the performance of the volatile tensile and compressive strength of coupling combination under cyclic loading.
- High Cycle Fatigue Test: Determines the performance of coupling combination during volatile tensile loads or volatile tensile and compressive loads, under condition that steel armature of loadings remains below the yield strength.
- Slip Test: Test that measures the plastic displacements under tensile loads of the coupling combination.
- Low Temperature Test: Determines the performance of coupling combination required especially for nuclear structures at low temperature.

The most commonly used of these tests and the one which gives the most reliable and quick results is the Monotonic Tension Test. Other tests may be done according to the specifications of couplers. Details of the different tests are given below.

Preparation of the **Test Samples:**



The sample sizes according to the standard ISO 15835

F : Applied force

L : Length of the Mechanical Splice

L1: Coupler Length

L2: 2d where d is the nominal diameter of the reinforcing bar

L3: Minimum Free Length for the Measurement of Agt

Lg: Gauge Length for the Measurement of Slip

According to this formulation, the sample length calculated for Barcoup coupler with diameter of ø32 is 750mm.

Applications at **Different Regions**

1 - USA Application

In the United States applications may vary from state to state. Every state has its own available control mechanisms. The couple company which takes the approval of the state shows the certificate to the projects and it shall not be controlled further during the project performance.

a) Applied Tests: Regarding field of use Monotonic Tension Test, Monotonic Compression Test, Cyclic Load Test, High Cycle Fatigue Test, Slip Test and Low Temperature Test are performed. According to ACI 318 American Building Construction Standard and the most commonly used test method is the Monotonic Tension Test.

b) Monotonic tension test required performance: Performance criteria specified in the standard ACI 318 tensile / yield strength ratio is 1.25 or above.

25.5.7.1 A mechanical or welded splice shall develop in tension or compression, as required, at least **1.25f_y**, of the bar.	**R25.5.7.1** To ensure sufficent strength in splices so that yielding can be achieved in amember and thus brittle failure avoided, the 25 percent increase above the specifed yield strength was selected as both an adequate minimum for safety a practicable maximum for economy.

ACI 318 Mechanical Splice Performance Requirements

c) Related Standards:

i. ASTM A1034 – 10a Standard Test Methods for Testing Mechanical Splices for Steel Reinforcing Bars
ii. ASTM A615 - Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement
iii. ACI 318 - Building Code Requirements for Structural Concrete and Commentary

2 - Europe Application

a) Applied Tests: Due to the absence of a record about coupling combinations in Eurocode 2 there is an intense use of BS8110 in Europe. However, ISO 15835-1 and ISO 15835-2 standards are used in some projects. The most commonly used test method is the Monotonic Tension Test.

b) Preparation of Test Samples: Specified in the ISO 15835 standard test setup scheme. It is summarized in the page above.

c) Related Standards:

i. Eurocode 2: Design of concrete structures
ii. ISO 15835-1: Steels for the reinforcement of concrete - Reinforcement couplers for mechanical splices of bars
iii. ISO 15835-2: Steels for the reinforcement of concrete - Reinforcement couplers for mechanical splices of bars

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3 - Turkey Application

In Turkey, the tests for system couplers are in the development stage under the leadership of Regbar. The adequacy of test centers is inspected by Regbar and processed at Test Centers Form. Please contact us for information on certified test centers in your city.



a) Applied Tests: In Turkey, the most commonly used test method for system couplers is the monotonic tension test. However, the slip test is conducted also, according the properties of desired coupler.

b) Performance required during monotonic tension test: The performance criteria in TS500 which is the ratio of tensile / yield strength is 1.25 or above is the same as indicated in ACI 318 code. In order to test the performance of the system couplers the control sample is being drawn off and the value of 1.25 tensile / yield is expected to be met for control sample. In case this is not happens, the test is stopped or with the approval of the customer company officials the test will be continued without searching the 1.25 ratio.

9.2.3 - Mechanical Connections
Sleeve connections to be used for splicing reinforced concrete structural members should be tested both in tension and compression and the bar spliced with the sleeve should be proven to have a strength of 1.25 times the minimum characteristic yield strength investigated in the standard.

TS500 Mechanical Splice Performance Requirements

c) Performance required according to TBEC 2018: There are more criterions in TBEC 2018 for mechanical connections. These criterions have to be considered for the buildings to be constructed in seismic zones. Monotonic tension test required performance specified in this code is as follows. The strength of the test specimen should be

i. Equal to 100% of the characteristic ultimate strength of reinforcing bar
ii. Equal or greater than the 135% of the characteristic yield strength of reinforcing bar
iii. Equal or greater than the 120% of the measured yield strength of reinforcing bar

d) Preparation of test samples: There are no regulations in the existing standards for the preparation of test samples in Turkey.

e) Related Standards:

i. TS500: Design and Construction Rules for the Concrete Structures
ii. TS 708: Steel - For Concrete - Reinforcing Steel
iii. TBEC 2018 Turkish Building Earthquake Code 2018

MECHANICAL REINFORCING BAR SPLICING SYSTEM

TRACEABILITY OF **COUPLERS**

As a part of the Quality Policy of Regbar, full traceability starting with raw materials of mechanical splice is provided. The basic elements of traceability are the certification of raw materials, coating certificate (if covering), input quality control forms and order form number and stamped test reports. All of them are listed under Purchase Order Form.



There are three factors in product monitoring:

1- Box Labels

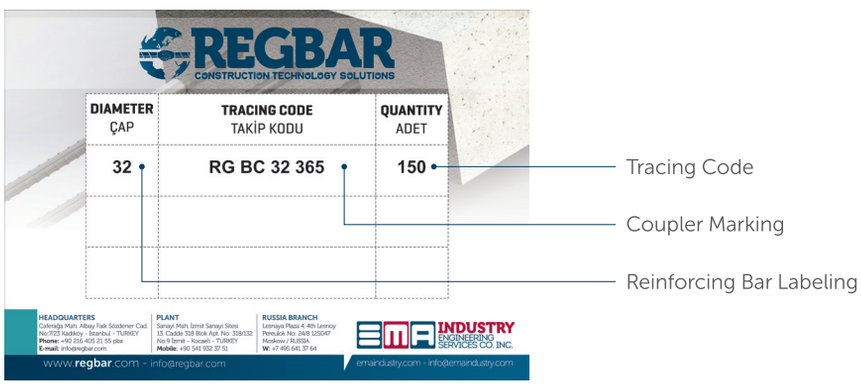
2- Coupler Marking

3- Reinforcing Bar Labeling

Box **Labels**

The wooden boxes used for the transporting and storage of Regbar couplers, are marked with sticker labels that show the information about couplers put inside.





There are two labels inside and outside the box which di splay the information about the diameter information, tracking code and quantity.

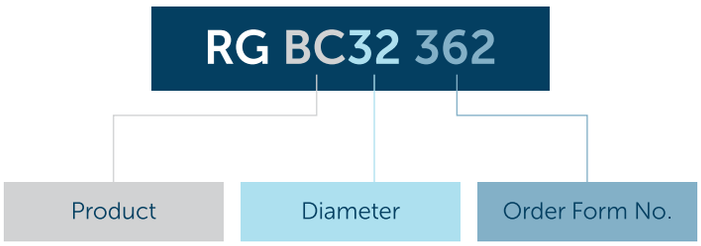
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Marking of **Coupler Circumference**

Every coupler the production of which has been completed and shipped to the user is marked on with production information. Even when the box is discarded, and the rebar couplers are used, there is still full traceability. Thus, any Regbar rebar coupler found in any location can be instantly identified.



Example for, **RG BC32 362,**

RG Letter: Represents Regbar.

BC Letter: Represents Barcoup product.

32: 32mm refers to the diameter of the reinforcing bar.

362: This variable number refers to the number of the order form. It can be traced back to all stages of the production of coupler with this number.

Reinforcing **Bar Labeling**

Batch of threaded reinforcing bars are also labeled with metal sheets according to;

- Bar size
- Thread type (roll or cut threaded)
- Thread length (short or long)
- Thread quantity (one side or both sides)
- Bar length

these entries indicate general information about the batch. All threads are controlled by quality control technician and metal sheet includes production place, controller's name and control date.



Coupler Name	Prefix marking number begin with
BARCOUP	BC
BARCOUPL	BC
TAPERCOUP	TC
SOSCOUP	SC
WELDCOUP	WC
TRANSCOUP	TRC
DOUBLECOUP	DC

Coupler Name	Prefix marking number begin with
FRICCOUP	FC
PRESCOUP	PRC
POSCOUP	PC
BRIDGECOUP	BRC
CRYOCOUP	CC
ROLLCOUP	RC
HEADCOUP	HC

MECHANICAL REINFORCING BAR SPLICING SYSTEM

Upset Parallel **Thread System**

Upset Parallel Thread System is based on square cutting, enlargement and tangential cut threading of rebar ends using Regbar equipment designed for this purpose.

This method provides a larger diameter of rebar ends for threading and balance cross section loss. In the other hand, a slight loss of rebar occurs due to square cutting and cold enlargement of rebar end that should be considered in structural design and rebar pre-cut by rebar fabricators / subcontractor.

Each rebar end should have been delivered to Regbar with below mentioned additional allowances to tolerate the reduction of square cut and upset on each bar splice.

Each coupler splice two rebar, therefore for each splice, loss on each rebar length should be multiplied by two.



INITIAL AND FINAL LENGTHS FOR COUPLED REBARS

Metric [mm]	Initial Unit Length [mm]	Square Cut Loss [mm]	Upset Loss [mm]	Total Loss [mm]
12	100	20	12	32
14	100	20	13	33
16	100	20	14	34
18	100	20	16	36
20	100	20	17	37
22	100	20	19	39
26	100	25	22	47
28	100	25	24	49
30	100	25	25	50
32	100	25	25	50
36	100	25	30	50
40	100	25	33	50

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Please note that, exceptionally distorted rebar ends due to improper cutting by shear cutter or cutting torch might need longer allowance depending on the case.

Dimensional quality of the rebar such as roundness and diameter must be carefully inspected since these are important issues for optimum upset and thread quality that affects performance of the splice.

Regbar recommends the use of professional rebar cutters that is highly productive, cost cutting, avoiding excessive rebar loss and reducing labor time.





Photos from production phases in plant.

Production **Phases**



There are two types of Upset Parallel Thread System. Threading with tangential chasers is called cut threading and threading with roll thread machine is called roll threading.

Regbar produces both products. BarCoup couplers are used with cut threaded reinforcing bars and RollCoup couplers are used with roll threaded reinforcing bars.

Regbar uses its own machines to produce high quality threads. Machines can be transported to anywhere with shipping container.







Photos from production phases in site.

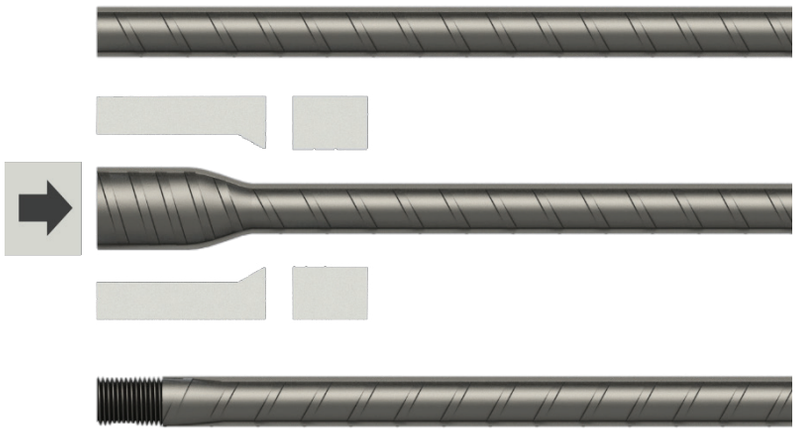
Cut Threading

UPT System with cut threading is based on square cutting, enlargement and tangential cut threading of rebar ends using Regbar equipment designed for this purpose.

1 **Rebar end cut square with band saw.**

2 **Rebar end enlarged by cold upsetting press.**

3 **Rebar end is cut threaded by Regbar threading machine.**



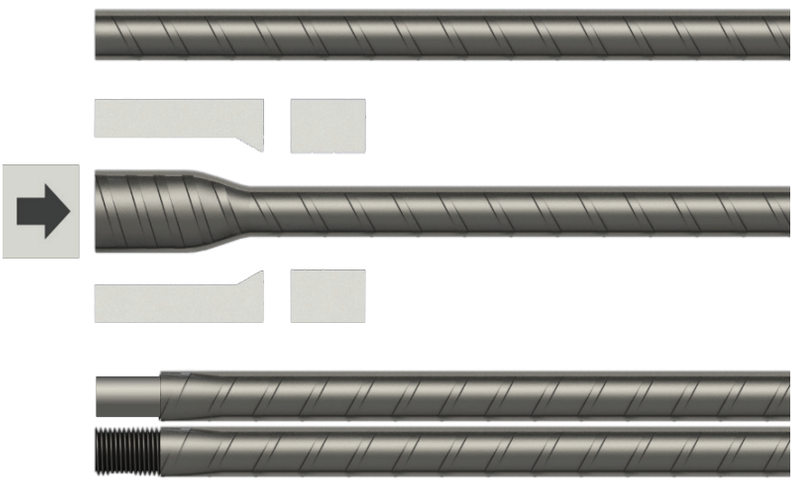
Roll Threading

UPT System with roll threading is based on square cutting, enlargement, turning and roll threading of rebar ends using Regbar equipment designed for this purpose.

1 **Rebar end cut square with band saw.**

2 **Rebar end enlarged by cold upsetting press.**

3 **Rebar end is turned and roll threaded by Regbar roll threading machine.**



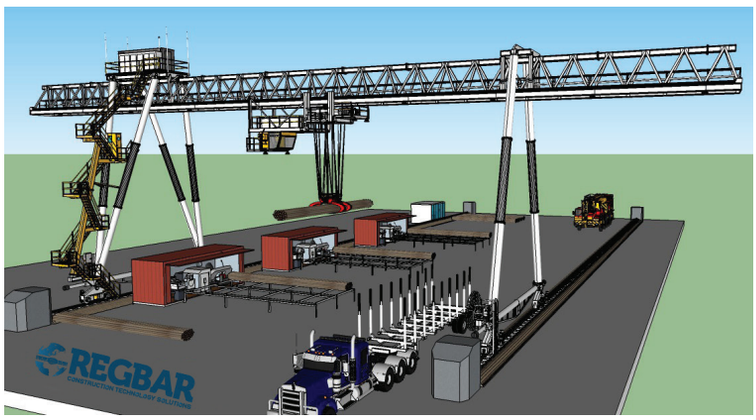
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Pereulok No: 24/8 125047
Moscow / RUSSIA

Equipment

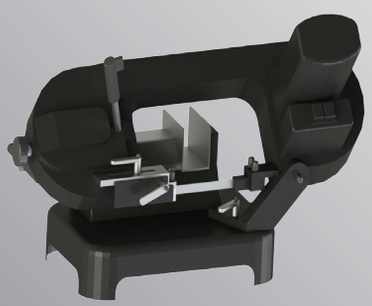




A Regbar Upset Parallel Thread Equipment Set is consisted of a rebar cutter or saw, an upsetting press and a cut threading machine designed for ribbed rebar.

A set of this equipment will be placed at jobsite or jobsite, usually close to rebar area. Equipment settlement plan is prepared for every project.

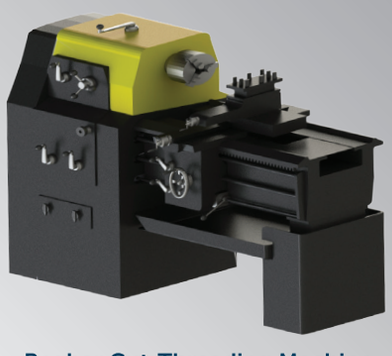
Regbar manufactures high quality and heavy duty equipment for reinforcing bar upsetting and threading. All equipment, tools, dies and accessories are designed and manufactured by Regbar.



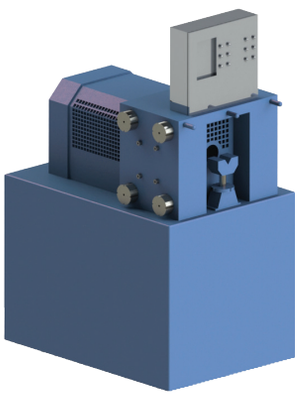
Band Saw Machine



Regbar Cold Upset Press



Regbar Cut-Threading Machine



Regbar Proof Loading Machine

The Regbar Proof Loading machine is designed for the precision production of cut or rolled threads required for reinforcing bar coupler systems.

It is designed, built and supplied for the safer processing of threaded ends of steel reinforcing bar in the range of 12mm - 50mm diameter, and capable of loading up to 15.000kN.

The machines can only be used with Regbar equipment and Regbar coupler system.

MECHANICAL REINFORCING BAR SPLICING SYSTEM

barCOUP Coupler

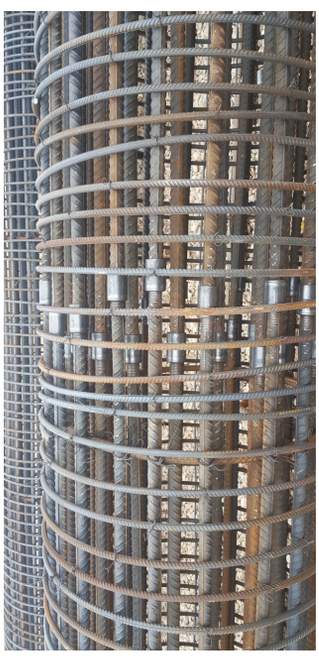
Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Upset Parallel Thread System eliminates losing of connection strength via slipping
- Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection



Barcoup Couplers are designed to splice the same diameter bars where at least one bar can be rotated and moved freely in its axial direction. The couplers are machined to have parallel threads inside which create a mechanical connection of two corresponding reinforcing steel.

Typical applications include splicing of the column bars (or shearwalls), splicing of the beam bars, future extensions and segmental pours of concrete.



Barcoup couplers are designed to meet or exceed major international building codes and Department of Transportation requirements, including:

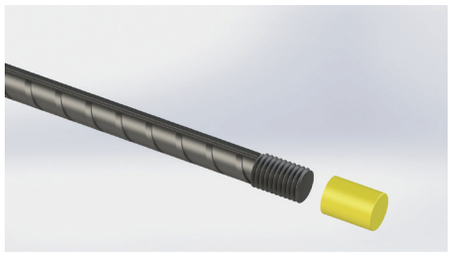
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	GOST 34278	US Army Corps of Engineers

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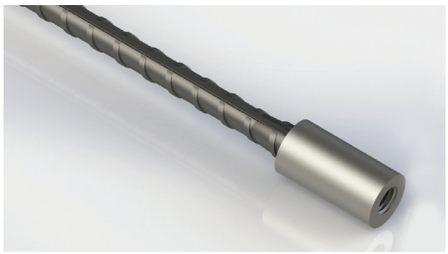
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RUSSIA BRANCH
Lesnaya Plaza 4, 4th Lesnoy
Pereulok No: 24/8 125047
Moscow / RUSSIA

Simple Installation



1. *Remove the protecting cap from the rebar.*



2. *Screw the coupler on the threaded bar.*



3. *Align the corresponding rebar. Rotate the rebar to the middle of coupler.*

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
BRCP12	12	#4	10M	19	3/4	38	1-1/2	0.05	0.12
BRCP14	14	-	-	24	15/16	42	1-21/32	0.09	0.2
BRCP16	16	#5	15M	29	1-9/64	47	1-27/32	0.14	0.31
BRCP18	18	-	-	34	1-11/32	50	1-31/32	0.21	0.47
BRCP20	20	#6	20M	34	1-11/32	54	2-1/8	0.22	0.49
BRCP22	22	#7	-	39	1-17/32	58	2-9/32	0.28	0.62
BRCP26	26	#8	25M	39	1-17/32	60	2-23/64	0.29	0.64
BRCP28	28	#9	30M	44	1-47/64	68	2-43/64	0.42	0.93
BRCP30	30	-	-	49	1-59/64	70	2-3/4	0.57	1.26
BRCP32	32	#10	-	49	1-59/64	72	2-53/64	0.58	1.28
BRCP36	36	#11	35M	54	2-1/8	78	3-5/64	0.78	1.72
BRCP40	40	-	-	59	2-21/64	80	3-5/32	0.91	2.01

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

barCOUP L Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Upset Parallel Thread System eliminates losing of connection strength via slipping
- Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection



Barcoup L Couplers are designed to splice the same diameter bars where none of the bars can be rotated. The couplers are machined to have parallel threads inside which create a mechanical connection of two corresponding reinforcing steel.
These rebars which will be connected are put together in site for mounting and the mounting is completed only by screwing the coupler by hand from right to left (with no need for extra torque wrench and controlling device).

Typical applications include splicing of the column bars (or shearwalls), splicing of the beam bars, future extensions and segmental pours of concrete.

Barcoup L couplers are designed to meet or exceed major international building codes and Department of Transportation requirements, including:

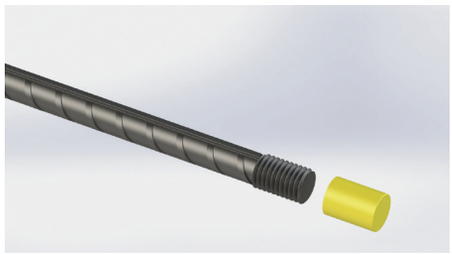
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	GOST 34278	US Army Corps of Engineers

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RUSSIA BRANCH
Lesnaya Plaza 4, 4th Lesnoy
Pereulok No: 24/8 125047
Moscow / RUSSIA

Simple Installation



1. *Remove the protecting cap from the rebar to be connected.*



2. *Align the corresponding two rebar.*



3. *Screw the coupler from where it is mounted to the other threaded bar.*

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
BRCPL12	12	#4	10M	19	3/4	38	1-1/2	0.05	0.12
BRCPL14	14	-	-	24	15/16	42	1-21/32	0.09	0.2
BRCPL16	16	#5	15M	29	1-9/64	47	1-27/32	0.14	0.31
BRCPL18	18	-	-	34	1-11/32	50	1-31/32	0.21	0.47
BRCPL20	20	#6	20M	34	1-11/32	54	2-1/8	0.22	0.49
BRCPL22	22	#7	-	39	1-17/32	58	2-9/32	0.28	0.62
BRCPL26	26	#8	25M	39	1-17/32	60	2-23/64	0.29	0.64
BRCPL28	28	#9	30M	44	1-47/64	68	2-43/64	0.42	0.93
BRCPL30	30	-	-	49	1-59/64	70	2-3/4	0.57	1.26
BRCPL32	32	#10	-	49	1-59/64	72	2-53/64	0.58	1.28
BRCPL36	36	#11	35M	54	2-1/8	78	3-5/64	0.78	1.72
BRCPL40	40	-	-	59	2-21/64	80	3-5/32	0.91	2.01

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation*

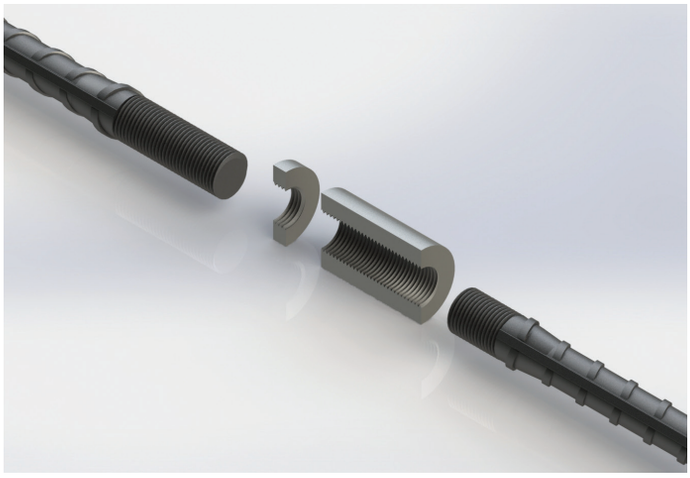
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

posCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Can be used for splicing pre-fabricated cages Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection



Poscoup Couplers are designed to splice the same diameter bars where at least one bar is not free to rotate. The couplers are machined to have parallel threads inside which create a mechanical connection of two corresponding reinforcing steel.

These rebars which will be connected are put together in site for mounting and the mounting is completed only by screwing the coupler by hand from right to left (with no need for extra torque wrench and controlling device). Typical applications include splicing of the column bars (or shearwalls), splicing of the beam bars, staircase connections.

Poscoup couplers are designed to meet or exceed major international building codes including:

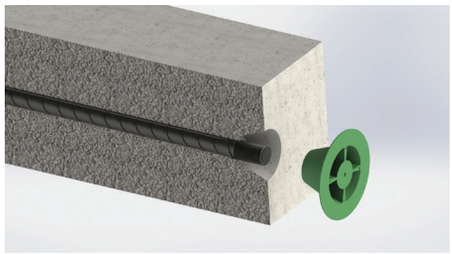
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	GOST 34278	US Army Corps of Engineers

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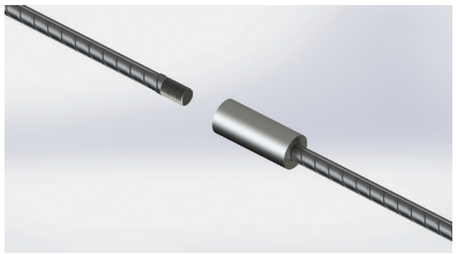
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Lesnaya Plaza 4, 4th Lesnoy
Pereulok No: 24/8 125047
Moscow / RUSSIA

Simple Installation



1. Remove the protecting concrete and thread cap from the rebar to be connected.



2. Align the corresponding two rebar. Screw the coupler and the nut from where it is mounted to the other threaded bar.

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
PSCP12	12	#4	10M	19	3/4	38	1-1/2	0.05	0.12
PSCP14	14	-	-	24	15/16	42	1-21/32	0.09	0.2
PSCP16	16	#5	15M	29	1-9/64	47	1-27/32	0.14	0.31
PSCP18	18	-	-	34	1-11/32	50	1-31/32	0.21	0.47
PSCP20	20	#6	20M	34	1-11/32	54	2-1/8	0.22	0.49
PSCP22	22	#7	-	39	1-17/32	58	2-9/32	0.28	0.62
PSCP26	26	#8	25M	39	1-17/32	66	2-19/32	0.29	0.64
PSCP28	28	#9	30M	44	1-47/64	68	2-43/64	0.42	0.93
PSCP30	30	-	-	49	1-59/64	70	2-3/4	0.57	1.26
PSCP32	32	#10	-	49	1-59/64	72	2-53/64	0.58	1.28
PSCP36	36	#11	35M	54	2-1/8	82	3-15/64	0.78	1.72
PSCP40	40	-	-	59	2-21/64	90	3-35/64	0.91	2.01

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

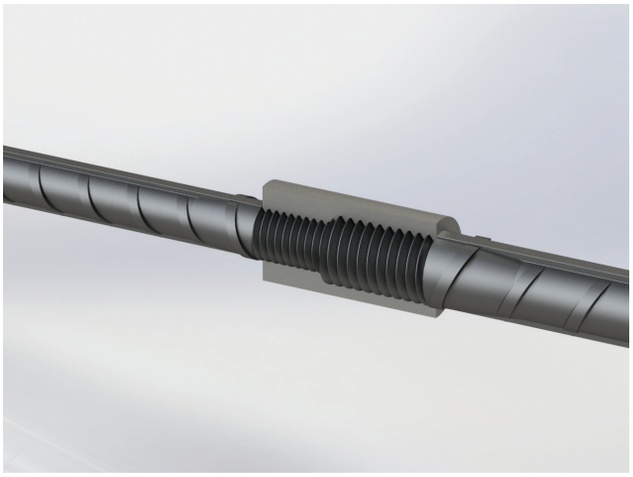
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

transCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Upset Parallel Thread System eliminates losing of connection strength via slipping
- Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection



Transcoup Couplers are designed to splice different diameter bars where at least one bar can be rotated and moved freely in its axial direction. The couplers are machined to have parallel threads inside which create a mechanical connection of two corresponding reinforcing steel.

Typical applications include splicing of the column bars (or shearwalls), splicing of the beam bars, future extensions and segmental pours of concrete.

Transcoup couplers are designed to meet or exceed major international building codes and Department of Transportation requirements, including:

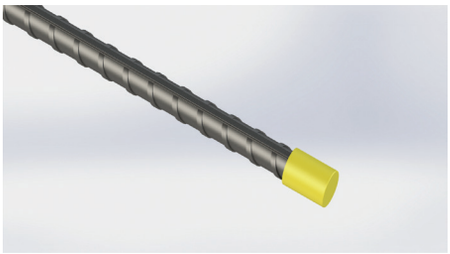
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	NEN EN 1992-1-1	US Army Corps of Engineers

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RUSSIA BRANCH
Lesnaya Plaza 4, 4th Lesnoy
Pereulok No: 24/8 125047
Moscow / RUSSIA

Simple Installation



1. *Remove the protecting cap from the rebar.*



2. *Screw the coupler on the threaded bar.*



3. *Align the corresponding two rebar. Rotate the rebar to the middle of coupler.*

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
TRCP16	16/12	#5/#4	15M/10M	29	1-9/64	43	1-11/16	0.1	0.23
TRCP20	20/16	#6/#5	20M/15M	34	1-11/32	51	2-1/64	0.18	0.4
TRCP26	26/20	#8/#6	25M/20M	39	1-17/32	60	2-23/64	0.26	0.58
TRCP28A	28/20	#9/#6	30M/20M	44	1-47/64	61	2-13/32	0.32	0.71
TRCP28	28/26	#9/#8	30M/25M	44	1-47/64	67	2-41/64	0.36	0.8
TRCP32	32/26	#10/#8	-	49	1-59/64	69	2-23/32	0.44	0.98
TRCP36	36/32	#11/#10	-	54	2-1/8	77	3-1/32	0.68	1.5
TRCP40	40/32	-	-	59	2-21/64	81	3-3/16	0.75	1.66

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *Additional diameters available upon request.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

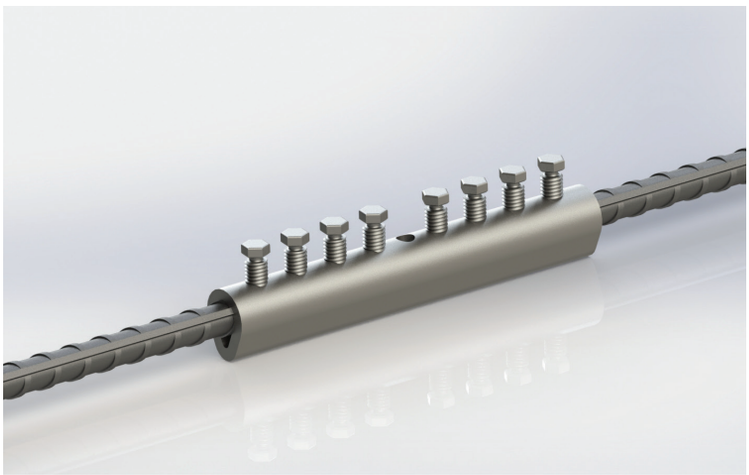
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

sosCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Installs easily and fast
- Requires no bar-end threading, sawing or swaging
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection



Soscoup couplers allow easy and simple field installation since there is no need to prepare, saw or swing bar-end. The couplers can be mounted with a standard wrench or impact wrench depending on the size of the coupler. The bolt heads will shear off when the correct installation tightness is achieved, allowing visual inspection. Typical applications include repair, bent bar, retrofit, precast closure pour and new construction.

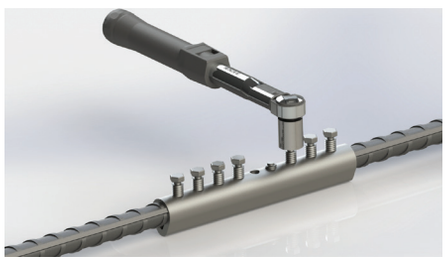
Soscoup couplers are designed to meet or exceed major international building codes including:

AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ACI 318 Type 1 (125% Specified Yield)	ACI 359	Eurocode 2	Turkish Seismic Code 2018

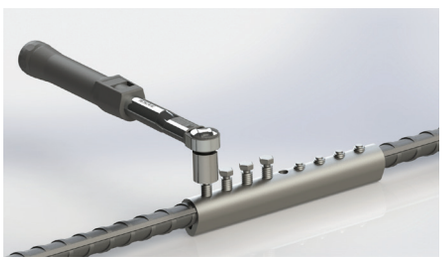
Simple Installation



1. *Place the rebar in the coupler until the center stop pin is in contact.*



2. *Strengthen bolts from the inside to the outside to secure on bar 1.*



3. *Repeat steps 1 and 2 on the other side of the coupler with bar 2.*

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RUSSIA BRANCH
Lesnaya Plaza 4, 4th Lesnoy
Pereulok No: 24/8 125047
Moscow / RUSSIA

Product Spesifications

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
SOSCP12	12	#4	10M	29	1-9/64	99	3-57/64	0.40	0.89
SOSCP14	14	-	-	35	1-3/8	109	4-19/64	0.60	1.33
SOSCP16	16	#5	15M	35	1-3/8	109	4-19/64	0.60	1.33
SOSCP18	18	-	-	44	1-47/64	153	6-1/32	1.30	2.87
SOSCP20	20	#6	20M	44	1-47/64	153	6-1/32	1.30	2.87
SOSCP22	22	#7	-	48	1-57/64	173	6-13/16	1.80	3.97
SOSCP26	26	#8	25M	54	2-1/8	173	6-13/16	2.30	5.08
SOSCP28	28	#9	30M	60	2-23/64	173	6-13/16	2.80	6.18
SOSCP30	30	-	-	60	2-23/64	173	6-13/16	2.80	6.18
SOSCP32	32	#10	-	65	2-9/16	220	8-21/32	4.00	8.82
SOSCP36	36	#11	35M	72	2-53/64	286	11-17/64	6.20	13.67
SOSCP40	40	-	-	80	3-5/32	400	15-3/4	11.60	25.58

Bolt Specifications

Coupler Product Code	Bar Sizes			Socket Size		Average Bolt Torque		Number of Bolts
	Metric [mm]	US	Canada	[mm]	["]	[N-m]	[ft-lb]	
SOSCP12	12	#4	10M	13	1/2	205	150	4
SOSCP14	14	-	-	13	1/2	205	150	4
SOSCP16	16	#5	15M	13	1/2	205	150	4
SOSCP18	18	-	-	13	1/2	205	150	6
SOSCP20	20	#6	20M	13	1/2	205	150	6
SOSCP22	22	#7	-	16	5/8	340	250	6
SOSCP26	26	#8	25M	16	5/8	475	350	6
SOSCP28	28	#9	30M	16	5/8	475	350	6
SOSCP30	30	-	-	16	5/8	475	350	6
SOSCP32	32	#10	-	21	13/16	750	550	10
SOSCP36	36	#11	35M	21	13/16	750	550	12
SOSCP40	40	-	-	21	13/16	820	600	12

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical. The length of the bolt can vary after the heads of the bolt are sheared off.*
- *Check the air pressure, torque rating and air flow requirements before starting the installation with the air impact wrench.*
- *It is recommended to use an impact wrench rated 2x the bolt torque.*
- *When the appropriate bolt torque is achieved, bolt heads need not be removed.*

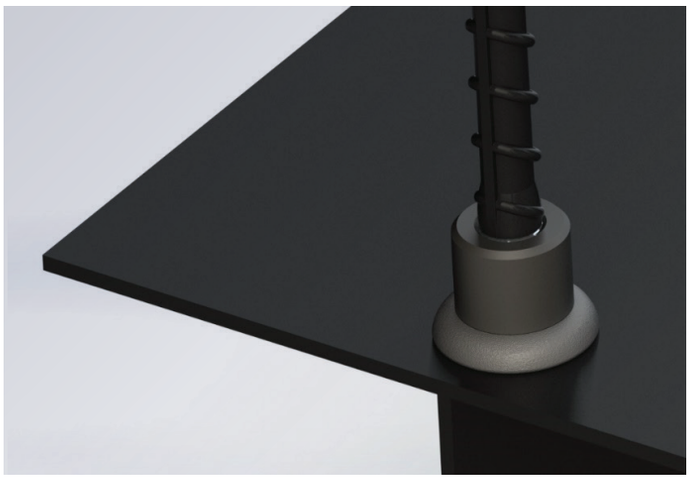
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

weldCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- Machined from weldable steel grades
- Special chamfer geometry reduces the required welding area
- Connects structural steel sections or plates to strengthening bar
- Upset Parallel Thread System eliminates losing of connection strength via slipping
- Easy to weld
- Available in sizes 12 mm - 40 mm



Weldcoup Couplers are designed to provide a fast connection between reinforcing steel bar perpendicular to structural steel sections and plates. These couplers are machined from weldable steel grades in order to facilitate simple welding process. Typical applications include connecting rebar to structural steel columns and beams. Structural integrity is established by welding before pouring concrete.

Weldcoup couplers are designed to meet or exceed major international building codes and Department of Transportation requirements, including:

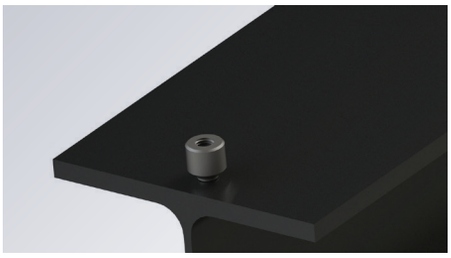
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	NEN EN 1992-1-1	US Army Corps of Engineers

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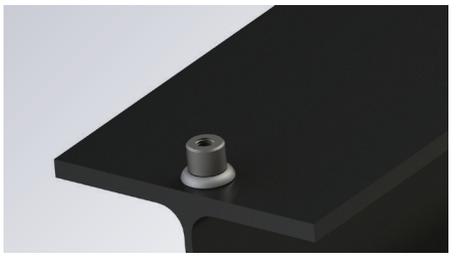
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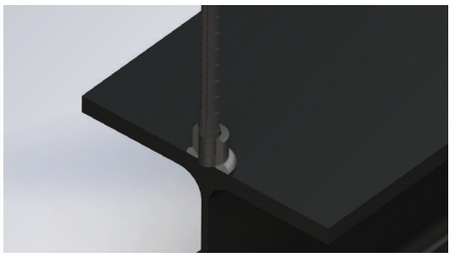
Simple Installation



1. *Fit the coupler flush to the material surface.*



2. *Tack-weld the coupler at least in three positions. Fillet weld to ensure that the coupler is correctly connected.*



3. *Align the corresponding rebar. Rotate the rebar to the middle of coupler.*

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
WDCP10	10	#3	-	27	1-1/16	27	1-1/16	0.03	0.07
WDCP12	12	#4	10M	29	1-9/64	32	1-17/64	0.06	0.14
WDCP14	14	-	-	37	1-29/64	39	1-17/32	0.08	0.18
WDCP16	16	#5	15M	39	1-17/32	40	1-37/64	0.12	0.27
WDCP18	18	-	-	42	1-21/32	40	1-37/64	0.13	0.29
WDCP20	20	#6	20M	44	1-47/64	45	1-49/64	0.16	0.36
WDCP22	22	#7	-	48	1-57/64	50	1-31/32	0.17	0.38
WDCP26	26	#8	25M	49	1-59/64	53	2-43/64	0.24	0.53
WDCP28	28	#9	30M	54	2-1/8	55	2-3/32	0.33	0.73
WDCP30	30	-	-	59	2-21/64	55	2-3/32	0.34	0.75
WDCP32	32	#10	-	64	2-33/64	60	2-23/64	0.45	1.00
WDCP36	36	#11	35M	64	2-33/64	65	2-9/16	0.52	1.15

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *Coupler sizes not shown may be available by special order.*
- *It is recommended to store away the thread protecting caps for reuse.*

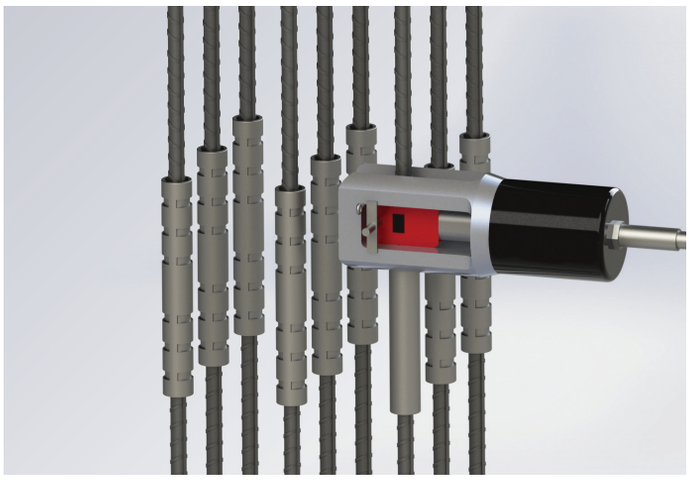
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

presCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- No reduction of the cross section of the bar.
- Installs easily and fast
- No need to end shop-preparing
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection





Prescoup cold-swaged Couplers are designed to splice bars in situ. A hydraulic swaging press with special dies deform the sleeve around the ends of the bars to be spliced. This method creates a mechanical connection between reinforcing bars. Different sizes of reinforcing bars can be spliced with this system. This mechanical splice can also be used for joining reinforcing bars to structural steel components. Portable and bench type cold swaging press machines are provided by Regbar Construction. Typical applications include splicing tunnel eye bars, splicing of the column bars (or shearwalls), splicing of the beam bars, future extensions and segmental pours of concrete, repair applications.

Prescoup couplers are designed to meet or exceed major international building codes and Department of Transportation requirements, including:

AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	NEN EN 1992-1-1	US Army Corps of Engineers

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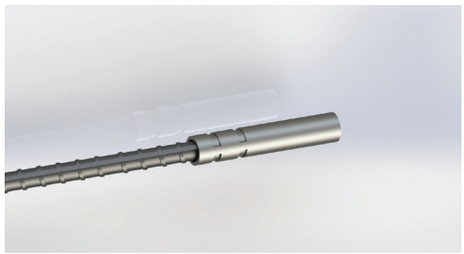
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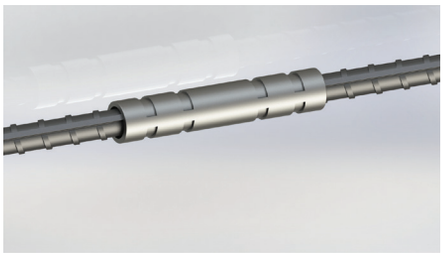
Simple Installation



1. *Mark the rebar with a marker pen half of coupler length from the end.*



2. *Place the rebar in sleeve and swage the sleeve with press.*



3. *Repeat step 2 with the corresponding reinforcing bar to be spliced.*

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)		Press Pressure		
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]	[MPa]	[ksi]	Number of Grooves
PRSCP12	12	#4	10M	24	15/16	109	4-19/64	0.3	0.67	40	5.9	4
PRSCP14	14	-	-	26	1-1/32	115	4-17/32	0.35	0.78	40	5.9	4
PRSCP16	16	#5	15M	30	1-3/16	130	5-1/8	0.52	1.15	40	5.9	4
PRSCP18	18	-	-	34	1-11/32	130	5-1/8	0.67	1.48	40	5.9	4
PRSCP20	20	#6	20M	36	1-27/64	150	5-29/32	0.83	1.83	40	5.9	4
PRSCP22	22	#7	-	40	1-37/64	170	6-11/16	1.17	2.58	44	6.4	6
PRSCP26	26	#8	25M	45	1-49/64	190	7-31/64	1.59	3.51	53	7.7	6
PRSCP28	28	#9	30M	50	1-31/32	210	8-17/64	2.23	4.92	55	8	8
PRSCP30	30	-	-	57	2-1/4	190	9-29/64	3.48	7.68	57	8.3	10
PRSCP32	32	#10	-	57	2-1/4	190	9-29/64	3.48	7.28	57	8.3	10
PRSCP36	36	#11	35M	63	2-31/64	270	10-5/8	4.45	9.82	48	7	12
PRSCP40	40	-	-	70	2-3/4	300	11-13/16	6.11	13.48	52	7.6	14

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *Check the press pressure before swaging.*
- *Number of grooves indicates the total press count of two sides of coupler.*
- *Do not press more than the number of grooves specified in the chart which will result in cracks in sleeve.*

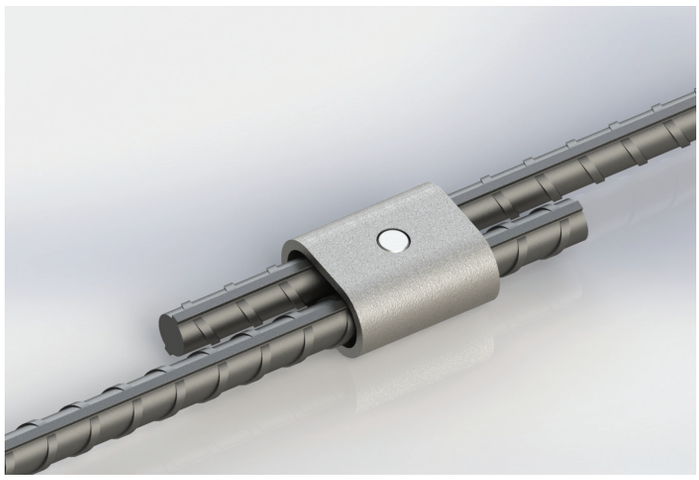
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

fastCOUP Coupler

Properties

- No special bar-end treatment gives the ability to connect virtually any bar condition
- Only one-man needed to operate portable pin-driver
- Installs easily and fast
- Easy field adjustability provides greater job site versatility
- Available in sizes 12 mm - 20 mm
- Allows simple visual inspection





Fastcoup compatible Pin Driver is supplied by Regbar upon request.

Fastcoup Couplers consists of an oval shaped steel sleeve and a wedge pin. The sleeve is placed around two steel bars that overlap. The wedge pin is placed on the sleeve and inserted into a handheld hydraulic pin driver. The pin is then driven to complete the connection through the pre-drilled hole in the sleeve and between the bars. In seconds, a pin is driven.

Typical applications include road repair, bridge repair, precast elements, spiral reinforcement connection, stirrups and ties.

Bridgecoup couplers are designed to meet or exceed major international building codes including:

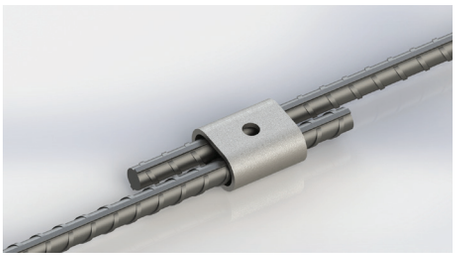
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	Eurocode 2	GOST 34278
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018

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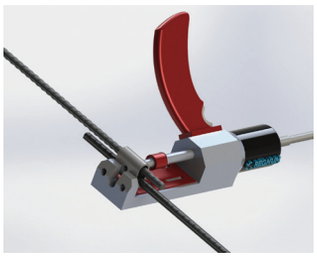
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Simple Installation



1. *Position the sleeve onto the rebar; bar ends must be at least flush with sleeve ends.*



2. *Position the pin-driver on the coupler and drive the pin.*

	Bar Sizes			Length*		Width*		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
FSCP12	12	#4	10M	48	1-5/8	27	1-1/16	0.2	0.45
FSCP16	16	#5	15M	57	1-15/16	33	1-5/16	0.34	0.75
FSCP20	20	#6	20M	70	2-3/8	40	1-15/16	0.62	1.37

(*) Dimensions and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *Refer to the complete product installation instructions before starting the installation.*

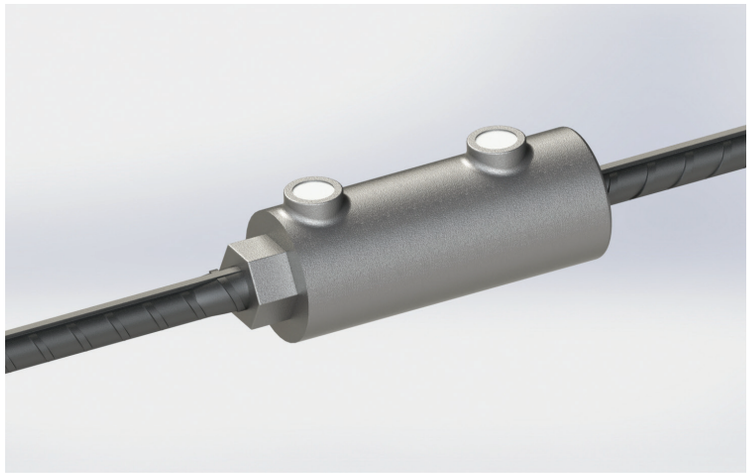
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

groutCOUP Coupler

Properties

- Provides structural integrity between precast elements.
- Eliminates field welding
- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Installs easily and fast
- Available in sizes 16 mm - 40 mm
- Allows simple visual inspection



Groutcoup Couplers are specifically designed to structurally join precast structural elements such as columns and shearwalls. The sleeve is assembled to the Regbar threaded rebar and positioned within the form at the precast plant. Groutcoup sleeve is filled with a high performance cementitious grout, creating an interlocking bond between the coupler and the adjoining bar at the jobsite. Threaded bars can be purchased from Regbar or Regbar can provide a threading machine to precast supplier.

Typical applications include splicing of the precast constructions such as column to column, column to foundation, shear wall to foundation, shear wall to shear wall, panel to panel, walls to floor slab.

Groutcoup couplers are designed to meet or exceed major international building codes including:

IBC Type 1 (125% Specified Yield)	IBC Type 2 (Specified Ultimate)	ACI 318 Type 1 (125% Specified Yield)	ACI 318 Type 2 (Specified Ultimate)
Turkish Seismic Code 2018			

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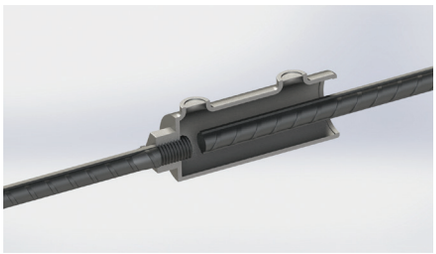
Simple Installation



1. *Screw the coupler on the threaded bar. Cast the concrete element.*



2. *Align the corresponding precast element.*



3. *Fill the coupler with special grout to ensure connection.*

	Bar Sizes			Outside Diameter (*)		Length		Embedment Length	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[mm]	["]
GRCP16	16	#5	15M	199	7-13/16	65	6-1/8	156	7/8
GRCP20	20	#6	20M	199	7-13/16	65	6-1/8	156	1-1/8
GRCP22	22	#7	-	199	7-13/16	65	6-1/8	156	1-1/4
GRCP26	26	#8	25M	219	8-5/8	68	7	178	1-3/8
GRCP28	28	#9	30M	248	9-3/4	72	8	203	1-1/2
GRCP32	32	#10	-	275	10-13/16	76	9	229	1-9/16
GRCP36	36	#11	35M	303	11-15/16	79	9-7/8	251	1-11/16
GRCP40	40	-	-	386	15-3/16	94	12-3/4	324	2-1/4

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *Refer to the complete product installation instructions before starting the installation.*

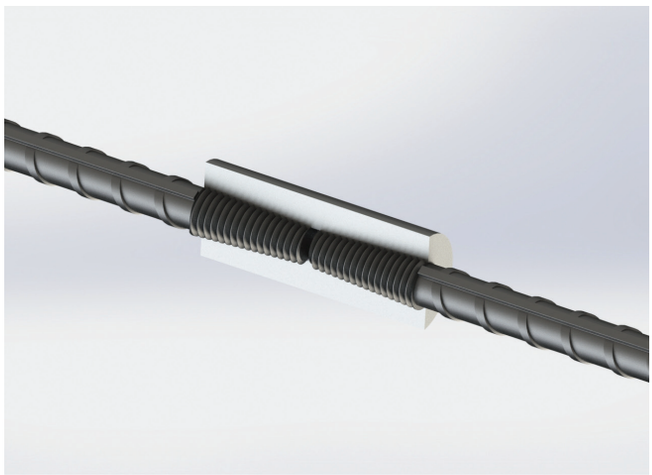
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

taperCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Cross threading is eliminated with taper threaded design
- Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection



Tapercoup Couplers are designed to splice the same diameter bars where at least one bar can be rotated and moved freely in its axial direction. The couplers are machined to have taper threads inside which create a mechanical connection of two corresponding reinforcing steel.

Typical applications include splicing of the column bars (or shearwalls), splicing of the beam bars, future extensions and segmental pours of concrete.

Tapercoup couplers are designed to meet or exceed major international building codes and Department of Transportation requirements, including:

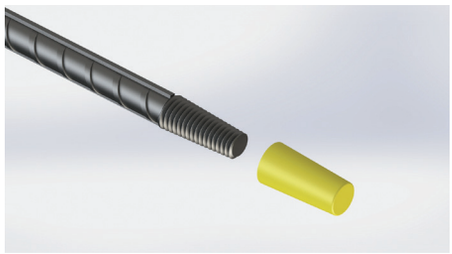
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	NEN EN 1992-1-1	US Army Corps of Engineers

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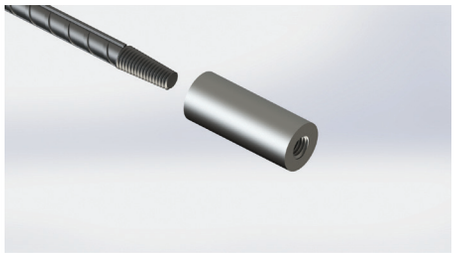
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Moscow / RUSSIA

Simple Installation



1. Remove the protecting cap from the rebar.



2. Screw the coupler on the threaded bar.



3. Align the corresponding two rebar. Rotate the rebar to the middle of coupler. Lock the splice using a wrench.

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)		Torque Values	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]	[Nm]	[ft-lb]
TPCP12	12	#4	10M	17	43/64	50	1-31/32	0.05	0.12	40	30
TPCP14	14	-	-	22	55/64	56	2-13/64	0.11	0.25	80	60
TPCP16	16	#5	15M	22	55/64	61	2-13/32	0.10	0.23	120	90
TPCP18	18	-	-	27	1-1/16	72	2-53/64	0.2	0.45	150	110
TPCP20	20	#6	20M	27	1-1/16	87	3-27/64	0.21	0.47	180	130
TPCP22	22	#7	-	30	1-3/16	91	3-37/64	0.27	0.6	220	160
TPCP26	26	#8	25M	35	1-3/8	97	3-13/16	0.38	0.84	270	200
TPCP28	28	#9	30M	40	1-37/64	101	3-15/16	0.57	1.26	270	200
TPCP30	30	-	-	40	1-37/64	121	4-49/64	0.60	1.33	300	200
TPCP32	32	#10	-	45	1-49/64	108	4-1/4	0.75	1.66	300	200
TPCP36	36	#11	35M	50	1-31/32	121	4-49/64	1.01	2.23	300	200
TPCP40	40	-	-	55	2-11/64	131	5-5/32	1.30	2.87	350	200

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *Locking the splices using a wrench is a must. Torque values are shown in the table above.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

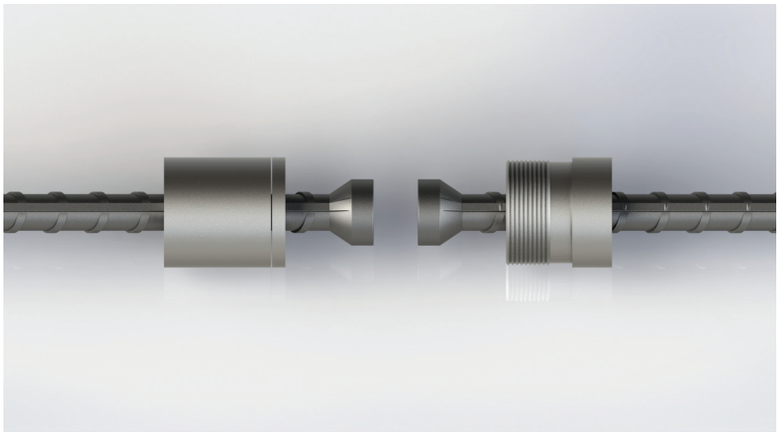
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

doubleCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Upset heads can be field or shop fabricated
- Installs easily and fast
- Available in sizes 12 mm - 36 mm
- Allows simple visual inspection



Doublecoup Couplers are designed to splice the same diameter bars where none of the bars can be rotated and moved freely in its axial direction. Two parts of the coupler are machined to get parallel threads inside which create a mechanical sleeve between corresponding reinforcing steels. Upsetting of rebar ends can be fabricated in field or shop.

Typical applications include splicing of the column bars (or shearwalls), bent bars, pre-tied cages, splicing of the beam bars, future extensions.

Barcoup couplers are designed to meet or exceed major international building including:

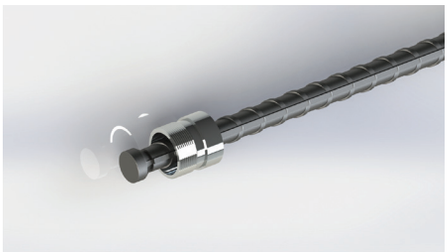
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	GOST 34278	US Army Corps of Engineers

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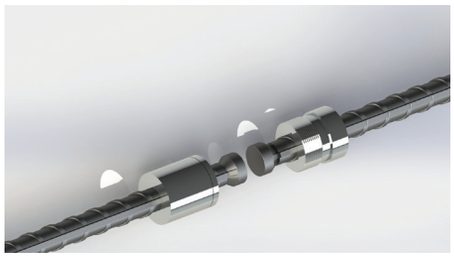
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RUSSIA BRANCH
Lesnaya Plaza 4, 4th Lesnoy
Pereulok No: 24/8 125047
Moscow / RUSSIA

Simple Installation



1. Assemble the first part of the coupler to the reinforcing bar.



2. Align the corresponding rebar. Rotate the other part of coupler to create a mechanical connection.

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
DBCP12	12	#4	10M	35	1-3/8	51	2	0.07	0.16
DBCP16	16	#5	15M	38	1-1/2	54	2-1/8	0.16	0.36
DBCP20	20	#6	20M	41	1-5/8	60	2-3/8	0.24	0.53
DBCP22	22	#7	-	48	1-7/8	73	2-7/8	0.31	0.69
DBCP26	26	#8	25M	54	2-1/8	79	3-1/8	0.34	0.75
DBCP28	28	#9	30M	60	2-3/8	89	3-1/2	0.49	1.09
DBCP32	32	#10	-	67	2-5/8	95	3-3/4	0.68	1.5
DBCP36	36	#11	35M	73	2-7/8	108	4-1/4	0.91	2.01

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *Refer to the complete product installation instructions before starting the installation.*

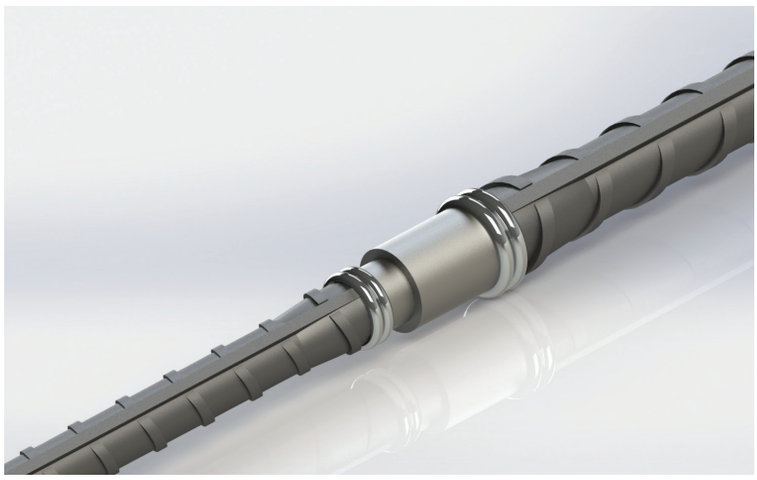
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

fricCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Production in plants with CNC lathes results in high quality product with more accurate & consistent threads
- Installs easily and fast
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection



Friccoup Couplers are designed to splice the same diameter bars where at least one bar can be rotated and moved freely in its axial direction. Rotary Friction Welding (RFW) is a solid-state welding process that generates heat through mechanical friction between workpieces in relative rotation motion to one another, with the addition of a lateral force called "upset" to plastically displace and fuse the materials.

Regbar Friccoup Coupler parts are welded onto the appropriate reinforcing bars using the computer controlled Friction Welder System. This process is faster than the threading of rebars required by other systems. Typical applications include splicing of the column bars (or shearwalls), splicing of the beam bars, future extensions, top-down constructions and segmental pours of concrete.

Barcoup couplers are designed to meet or exceed major international building codes, including:

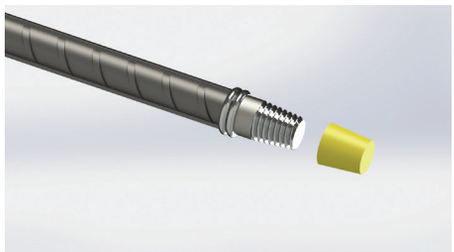
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	GOST 34278	US Army Corps of Engineers

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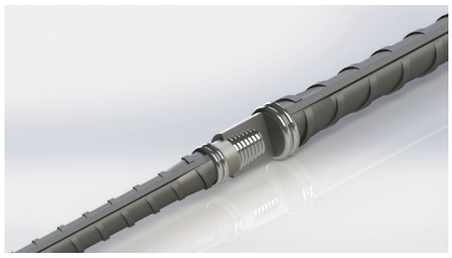
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RUSSIA BRANCH
Lesnaya Plaza 4, 4th Lesnoy
Pereulok No: 24/8 125047
Moscow / RUSSIA

Simple Installation



1. *Remove the protecting cap from the rebar with male friccoup coupler.*



2. *Align the corresponding rebar with female friccoup. Rotate the rebar until there is no further movement availablebetween the two sections.*

	Bar Sizes			Male Outside Diameter (*)		Male Part Length		Female Outside Diameter (*)		Female Part Length		Total Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[mm]	["]	[mm]	["]	[kg]	[lb]
FRCP12	12	#4	10M	14	35/64	38	1-1/2	19	3/4	29	1-9/64	0.06	0.14
FRCP16	14	-	-	18	45/64	41	1-39/64	25	63/64	32	1-17/64	0.1	0.23
FRCP20	16	#5	15M	19	3-2019	43	1-11/16	25	63/64	40	1-37/64	0.12	0.27
FRCP26	18	-	-	25	63/64	55	2-11/64	34	1-11/32	50	1-31/32	0.27	0.6
FRCP28	20	#6	20M	28	1-7/64	60	2-23/64	38	1-1/2	60	2-23/64	0.38	0.84
FRCP32	22	#7	-	32	1-17/64	63	2-31/64	42	1-21/32	63	2-31/64	0.51	1.13
FRCP40	26	#8	25M	40	1-37/64	75	2-61/64	53	2-3/32	70	2-3/4	0.92	2.03

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

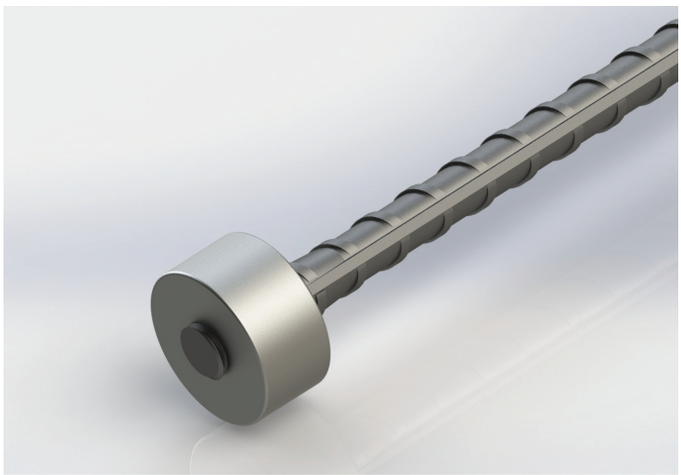
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

headCOUP Anchorage

Properties

- Meets or exceeds the requirements of major international building codes
- Eliminates rebar hook
- Upset Parallel Thread System eliminates losing of connection strength via slipping
- Minimizes development lengths
- Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection





Headcoup Anchorage is designed to create a sufficient hook in concrete based on shear cone theory. It offers an alternative way to create a simpler and more efficient anchorage of the rebar end than the traditional hooked rebar in the concrete. The front face of the coupler is designed to carry the full tension load of the rebar when the anchor is bearing against concrete or structural steel.

The anchorages are machined to have parallel threads inside which create a mechanical connection with reinforcing steel. Typical applications include ending of column bars(or shearwalls), ending of beams.

Headcoup anchorages are designed to meet or exceed major international building codes and Department of Transportation requirements, including:

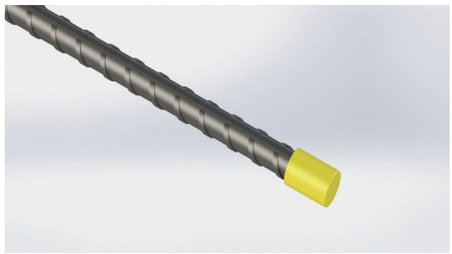
BS8110	DIN 1045	Eurocode 2
UBC	IBC	ACI 318
AS3600	TS500	

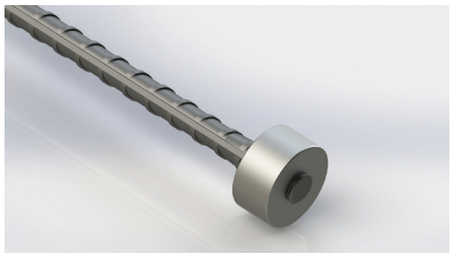
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Moscow / RUSSIA

Simple Installation





1. *Remove the protecting cap from the rebar.* ***2.*** *Screw the Headcoup on the threaded bar.*

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
HDCP12	12	#4	10M	29	1-9/64	17	43/64	0.07	0.16
HDCP14	14	-	-	34	1-11/32	19	3/4	0.11	0.25
HDCP16	16	#5	15M	38	1-1/2	22	55/64	0.15	0.34
HDCP18	18	-	-	43	1-11/16	24	15/16	0.21	0.47
HDCP20	20	#6	20M	47	1-27/32	27	1-1/16	0.28	0.62
HDCP22	22	#7	-	52	2-3/64	28	1-7/64	0.35	0.78
HDCP26	26	#8	25M	59	2-21/64	32	1-17/64	0.52	1.15
HDCP28	28	#9	30M	64	2-33/64	35	1-3/8	0.66	1.46
HDCP30	30	-	-	69	2-23/32	37	1-29/64	0.81	1.79
HDCP32	32	#10	-	74	2-29/32	38	1-1/2	0.99	2.19
HDCP36	36	#11	35M	84	3-5/16	41	1-39/64	1.41	3.11
HDCP40	40	-	-	90	3-35/64	45	1-49/64	1.95	4.3

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

bridgeCOUP Coupler

Properties

- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Upset Parallel Thread System eliminates losing of connection strength via slipping
- Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection



BridgeCoup splices are widely used in cages manufacturing. When the bars cannot be brought butt to butt (as it happens often in cages manufacturing), BridgeCoup Caging splices can be used. Both bars are threaded with a standard upset parallel thread, and a BridgeCoup Set is used to connect them. This set is constituted of three pieces preassembled together: a caging stud, a long caging coupler and a lock-nut. The end of the caging stud bears a female thread that fits on one bar (Preferably the top bar in case of vertical cages).

BridgeCoup couplers are designed to meet or exceed major international building codes including:

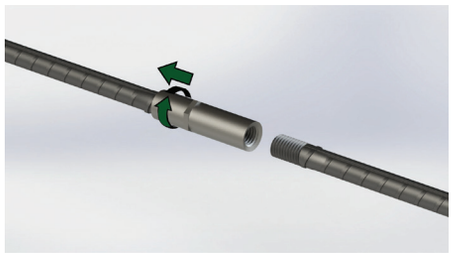
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	GOST 34278	US Army Corps of Engineers

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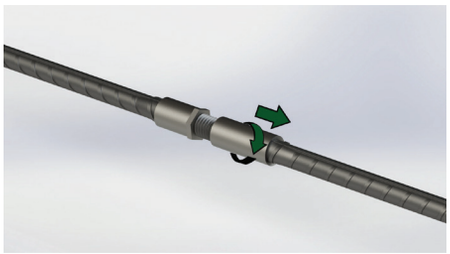
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RUSSIA BRANCH
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Pereulok No: 24/8 125047
Moscow / RUSSIA

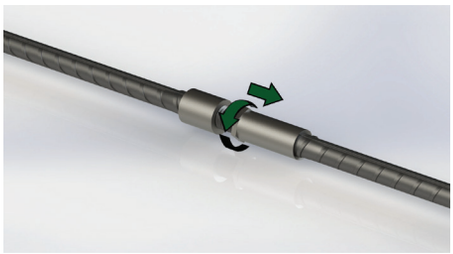
Simple Installation



1. Screw the bridging set onto the bar.



2. Screw the bridging coupler out of the female bridging assembly set and onto the other bar.



3. Screw the nut out of the female bridging assembly set.

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
BGCP12	12	#4	10M	19	3/4	77	3-1/32	0.11	0.25
BGCP14	14	-	-	24	15/16	90	3-35/64	0.2	0.45
BGCP16	16	#5	15M	29	1-9/64	103	4-1/16	0.31	0.69
BGCP18	18	-	-	34	1-11/32	116	4-9/16	0.49	1.09
BGCP20	20	#6	20M	34	1-11/32	132	5-13/64	0.54	1.2
BGCP22	22	#7	-	39	1-17/32	143	5-5/8	0.7	1.55
BGCP26	26	#8	25M	39	1-17/32	164	6-29/64	0.73	1.61
BGCP28	28	#9	30M	44	1-47/64	183	7-13/64	1.14	2.52
BGCP30	30	-	-	49	1-59/64	191	7-33/64	1.56	3.44
BGCP32	32	#10	-	49	1-59/64	199	7-53/64	1.61	3.55
BGCP36	36	#11	35M	54	2-1/8	225	8-55/64	2.15	4.74
BGCP40	40	-	-	59	2-21/64	247	9-23/32	2.5	5.52

(*) Bar diameters and weights may vary by country.

NOTES

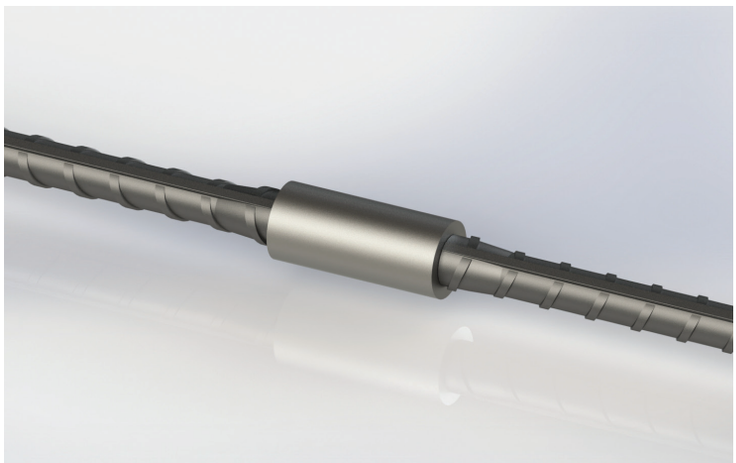
- *Dimensions shown in chart are typical.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

rollCOUP Coupler

Properties



- Meets or exceeds the requirements of major international building codes
- A wide range of international rebar grades and deformation patterns can be used
- Rolled Parallel Thread System gives a clear look and eliminates losing of connection strength via slipping
- Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 40 mm
- Allows simple visual inspection

Rollcoup is a rolled parallel threaded mechanical splicing system designed for the connection of concrete reinforcing bars. Rollcoup is designed to splice the same diameter bars where at least one bar can be rotated and moved freely in its axial direction. The couplers are machined to have parallel threads inside which create a mechanical connection of two corresponding reinforcing steel. Thanks to its rolled threading process, the fatigue resistance of Rollcoup is much better than that specified in the AASHTO code.

Typical applications include splicing of the column bars (or shearwalls), splicing of the beam bars, future extensions and segmental pours of concrete.

Rollcoup couplers are designed to meet or exceed major international building codes and Department of Transportation requirements, including:

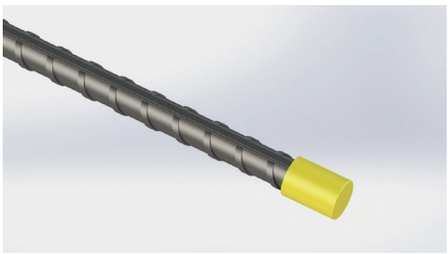
AASHTO	ACI 349	IBC Type 1 (125% Specified Yield)	NF A 35-020-1
ABNT NBR 8548:1984	ACI 359	IBC Type 2 (Specified Ultimate)	NF EN 1992-1-1
ACI 318 Type 1 (125% Specified Yield)	AS3600	ISO 15835	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	Eurocode 2	GOST 34278	US Army Corps of Engineers

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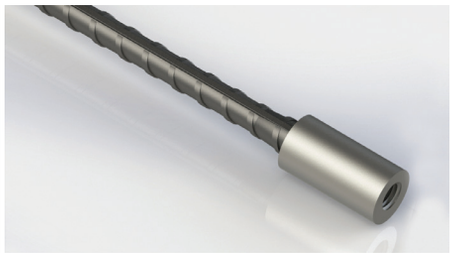
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Moscow / RUSSIA

Simple Installation



1. *Remove the protecting cap from the rebar.*



2. *Screw the coupler on the threaded bar.*



3. *Align the corresponding rebar. Rotate the rebar to the middle of coupler.*

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
RLCP12	12	#4	10M	19	3/4	38	1-1/2	0.05	0.12
RLCP14	14	-	-	24	15/16	42	1-21/32	0.09	0.2
RLCP16	16	#5	15M	29	1-9/64	47	1-27/32	0.14	0.31
RLCP18	18	-	-	34	1-11/32	50	1-31/32	0.21	0.47
RLCP20	20	#6	20M	34	1-11/32	54	2-1/8	0.22	0.49
RLCP22	22	#7	-	39	1-17/32	58	2-9/32	0.28	0.62
RLCP26	26	#8	25M	39	1-17/32	66	2-19/32	0.29	0.64
RLCP28	28	#9	30M	44	1-47/64	68	2-43/64	0.42	0.93
RLCP30	30	-	-	49	1-59/64	70	2-3/4	0.57	1.26
RLCP32	32	#10	-	49	1-59/64	72	2-53/64	0.58	1.28
RLCP36	36	#11	35M	54	2-1/8	82	3-15/64	0.78	1.72
RLCP40	40	-	-	59	2-21/64	90	3-35/64	0.91	2.01

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

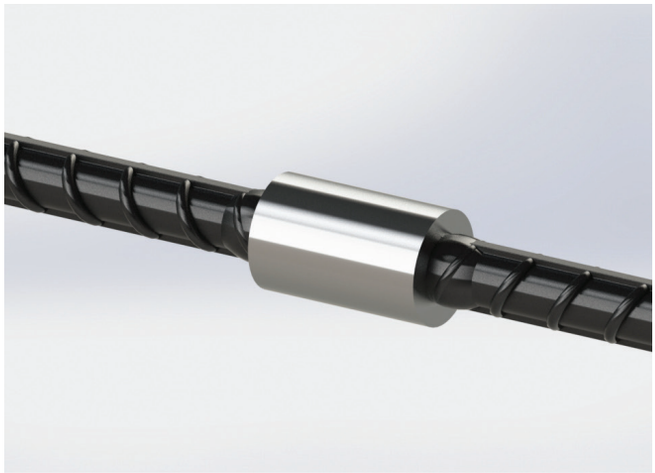
Regbar Construction Technology

MECHANICAL REINFORCING BAR SPLICING SYSTEM

cryoCOUP Coupler

Properties

- Improved performance and stability at cryogenic temperatures (-168 °C / -270 °F)
- Installs easily and fast
- Slim design reduces concrete cover
- Available in sizes 12 mm - 32 mm
- Allows simple visual inspection
- Suitable for use with cryogenic reinforcing bars



Regbar Cryocoup Couplers are designed to splice the same diameter bars where at least one bar can be rotated and moved freely in its axial direction. Cryocoup couplers should be specified whenever cryogenic-grade reinforcing bar is used, or during normal operating or emergency conditions where the temperature falls below -20 °C (-4 °F). These couplers are suitable for use in structures built in accordance with EN 14620-3:2006. Typical applications include splicing of the reinforcing bars in LNG and LPG storage tanks.

Crycoup couplers are designed to meet or exceed major international building codes, including

Eurocode 2	IBC Type 1 (125% Specified Yield)	ISO 15835	BS 7777
ACI 318 Type 1 (125% Specified Yield)	IBC Type 2 (Specified Ultimate)	GOST 34278	Turkish Seismic Code 2018
ACI 318 Type 2 (Specified Ultimate)	AS3600	BS EN 1992-1-1	EN 14620-3*

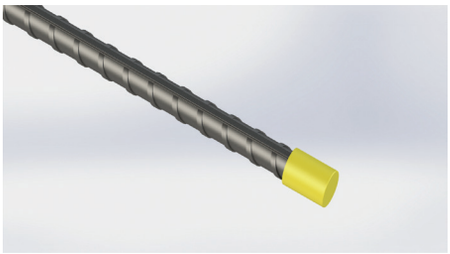
**EN 14620-3:2006 specifies the general requirements for materials, design and construction of all concrete components of site-built, vertical, cylindrical, flat-bottomed steel tanks for the storage of refrigerated, liquefied gases with operating temperatures between 0°C and -165°C.*

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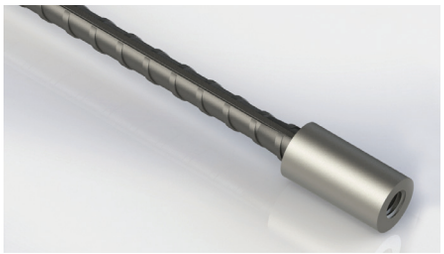
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Simple Installation



1. Remove the protecting cap from the rebar.



2. Screw the coupler on the threaded bar.



3. Align the corresponding rebar. Rotate the rebar to the middle of coupler.

	Bar Sizes			Outside Diameter (*)		Length		Unit Weight (*)	
Product Code	Metric [mm]	US	Canada	[mm]	["]	[mm]	["]	[kg]	[lb]
BRCP12	12	#4	10M	19	3/4	38	1-1/2	0.05	0.12
BRCP14	14	-	-	24	15/16	42	1-21/32	0.09	0.2
BRCP16	16	#5	15M	29	1-9/64	47	1-27/32	0.14	0.31
BRCP20	20	#6	20M	34	1-11/32	54	2-1/8	0.22	0.49
BRCP26	26	#8	25M	39	1-17/32	66	2-19/32	0.29	0.64
BRCP28	28	#9	30M	44	1-47/64	68	2-43/64	0.42	0.93
BRCP32	32	#10	-	39	1-17/32	66	2-19/32	0.29	0.64

(*) Bar diameters and weights may vary by country.

NOTES

- *Dimensions shown in chart are typical.*
- *It is recommended to lock the splices using a wrench. No specific torque needed.*
- *It is recommended to store away the thread protecting caps for reuse.*
- *Refer to the complete product installation instructions before starting the installation.*

Performance

Tensile test requirements at cryogenic temperatures indicated in EN 14620-3 Annex A.3. The tensile strength of the splice should meet or exceed the yield strength of an unnotched bar. This is known as the Notch Sensitivity Ratio (NSR).

$$NSR = \frac{\text{Tensile strength for Regbar Crycoup Splice}}{\text{lower yield strength of unnotched bar}} \geq 1$$

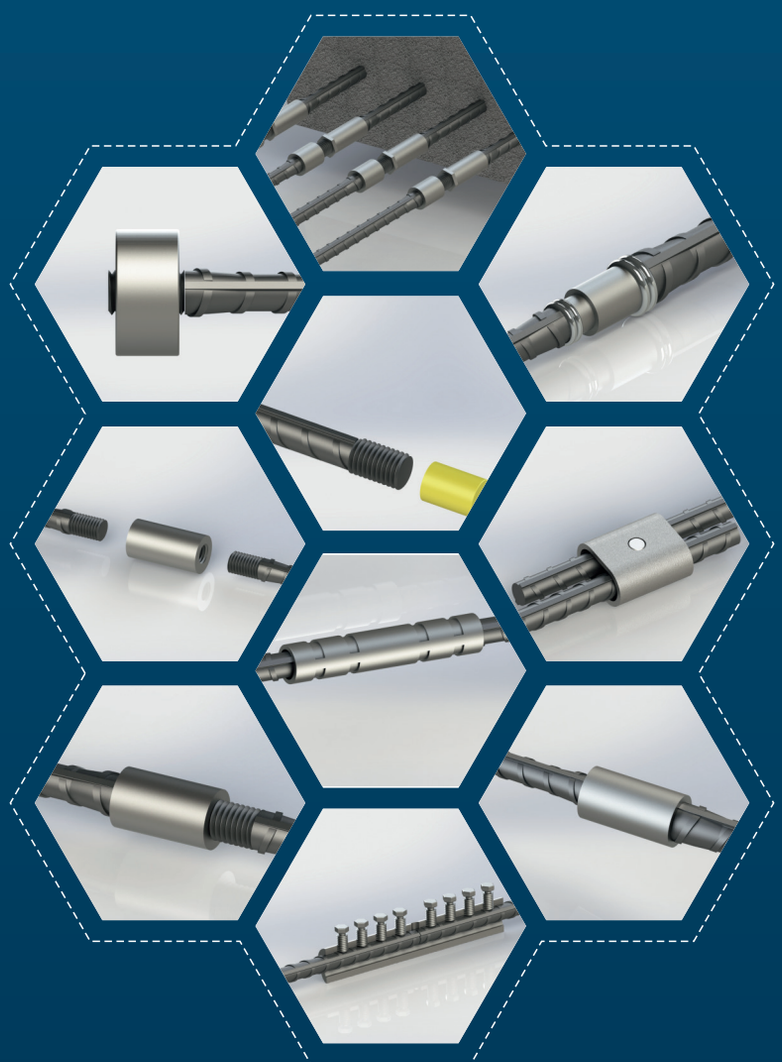
Note:

Regbar offers reinforcing bar test criteria used in EN 14620-3 where there is not any current codes governing the use of splicing systems for cryogenic applications. BS 7777 part 3 and EN 14620- 3 construction codes are the most frequently applied standards for the design and construction of flat- bottomed, vertical, cylindrical storage tanks for low- temperature service.

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