

## Extra Egypt



Apr. 2021

15 Of May City, industrial area Magmoaa6 Wing 3,

Mobile No : 01006527484 - 01111797697

Office Tel : 0225680054 - 0225680355

Website : [www.extra-egypt.com](http://www.extra-egypt.com)

مدينة 15 مايو - المنطقة الصناعية - مجموعة 6 جناح 3

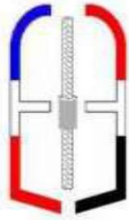
01006527484 - 0111797697 :

0225680355 - 0225680054 :

Mail : [extra\\_egypt@hotmail.com](mailto:extra_egypt@hotmail.com)

موبايل

تليفون



**Extra Egypt**  
For  
Mechanical Couplers



## About us

On 2004, Extra Egypt had started in the Egyptian market for manufacturing and supply of Mechanical Splices (Couplers) for reinforcement bars using cold forged parallel thread system. As a result of the faithful and hard efforts, Extra Egypt was able to expand continuously and rapidly in the market to be the leading company in this field using their own system being completely manufactured locally in their production yards and workshops in full compliance with the highest level Egyptian and international standards. On their path to development and success, Extra Egypt has increased its capacity and added more rebar mechanical splicing systems and products such as rolled up parallel thread coupling systems and end bearing plates for reinforcement steel bars known as Headed Bars or Terminators. In addition, Extra Egypt was able to support their clients with some other selective products such as anchor bolts.

As a leading company in the Egyptian market in the field of Mechanical splicing, Extra Egypt is continuously keeping an eye on the latest technologies which improve their capacity and ensure the top level of quality. Our products meet as a minimum the requirements of most international codes and standards such as:

ECP 203    ACI 318M BS 8110-1    ISO 15835-1    ISO 15835-2

As a result of the continuous efforts to maintain quality, in 2019 Extra Egypt received its quality certification for meeting the requirements of ISO 9001:2015

*In Extra Egypt,*

***“High quality is our policy, and customer satisfaction is our goal”***

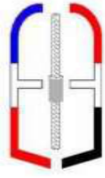


# **Extra Egypt**

For  
**Mechanical Couplers**

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**Extra Egypt**  
For  
Mechanical Couplers

**MANAGING DIRECTOR**  
**Mohamed Khireldin**



**TECHNICAL MANAGER**  
**Zaki Eldin Tohamy**



**QA/QC**



**QUALITY OFFICER**  
**Ayman Mahmoud**

**PRODUCTION**



**GEN. SUPERVISOR**  
**Saad Abdul Hafez**



**MAINTENANCE**  
**Ahmed El Hawary**



**PRODUCTION**  
**CREW**

**ADMINISTRATIVE  
& FINANCIAL**



**OFFICE MANAGER**  
**Wafaa Saad**



**PURCHASING**  
**Abdul Mohsen Abdul**



**ACCOUNTANT**  
**Tamer Hussain**





# CERTIFICATE

*This is to Certify that the  
Quality Management System  
of*

**Extra Egypt**

**INDUSTRIAL AREA, MAGMOAA 6, WING 3,  
15 OF MAY CITY, EGYPT**

**has been independently assessed and is compliant  
with the requirements of**

**ISO 9001:2015**

**This Certificate is applicable to the following product or service ranges:**

**MECHANICAL COUPLERS & THREADING**

**:: Certificate No :: EG85044A**

Date of initial registration	14 March 2019
Date of this Certificate	14 March 2019
Surveillance audit on or before	13 March 2020
Recertification Due / Certificate expiry	13 March 2022

This Certificate is property of LMS Certifications and remains valid  
subject to satisfactory surveillance audits.

**Director**

For verification and updated information concerning the present certificate visit to [www.lmscert.com](http://www.lmscert.com)  
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MSCB-132

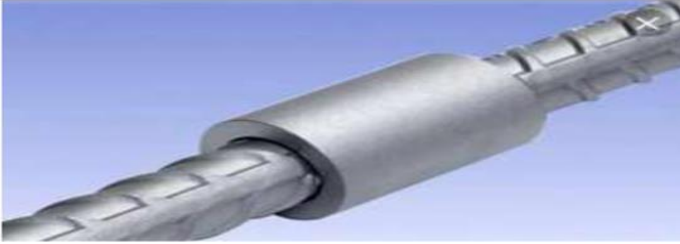


**LMS Certification Limited**  
35 Park Hill, Huddersfield, West Yorkshire, HD2 1QG.  
Phone : +44 2089355094  
Visit :- [www.lmscert.com](http://www.lmscert.com)  
E-mail :- [info@lmscert.com](mailto:info@lmscert.com)



LMS/IAS/F109Q/17/REV02

# Products



## Standard splice

Easy connection by bar rotation until full thread engagement.

No risk of thread mis-match.

No risk of cross-threading.

## One Touch Coupler

Splicing new reinforcement bars to existing rebar in old concrete, in many cases, is a crucial obstacle for the engineer. This is mainly needed when it is required to implement structural modifications to existing buildings or to solve a site problem when splicing reinforcement bars was not considered. The ONE TOUCH COUPLER or in other words QUICK COUPLER is one of the best engineering solutions for such obstacle for the following reasons: Both feasible and reliable.



## Headed Bars

Also called "End Anchors" they are convenient alternative to hooked bars to provide end anchorages in congested areas. Extra Egypt® standard anchorage heads are circular and have a net bearing area of 4 times or 9 times the cross-section of the bar



## Transition splice

When there is a need to splice bars of different sizes, it is allowable in most cases to reduce the size of the larger bar and to use a standard coupler.

## Weldable couplers

For composite construction where concrete reinforcement bars must be welded to structural steel, use Extra Egypt® weldable couplers, which are specially made from low carbon steel and which have a large chamfer for bevel welding.

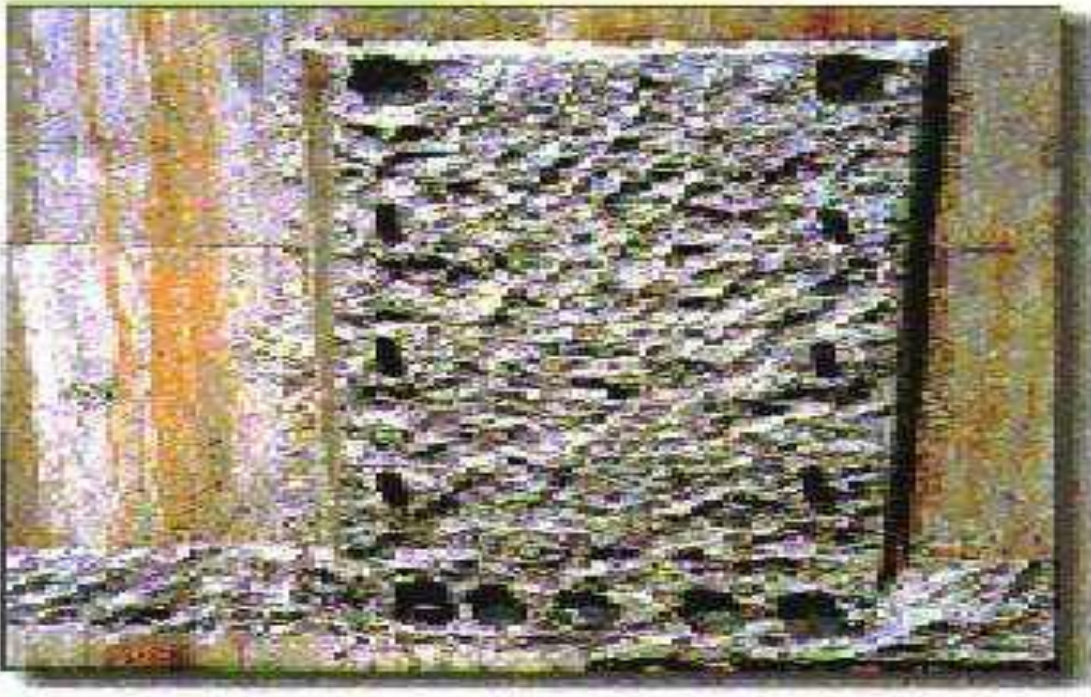




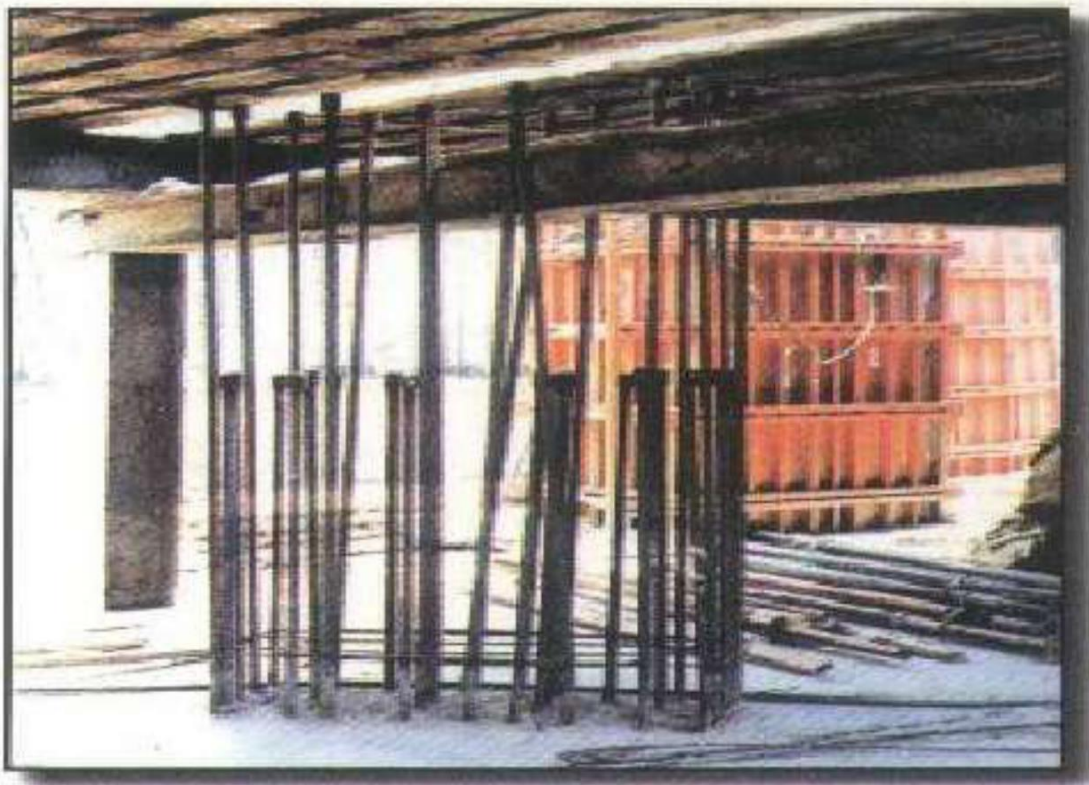
## Most Common Applications of Couplers



Slab Connections



Future Extension



Temporary Obstruction



Diaphragm Walls





Top – Down Construction



Columns and Piles

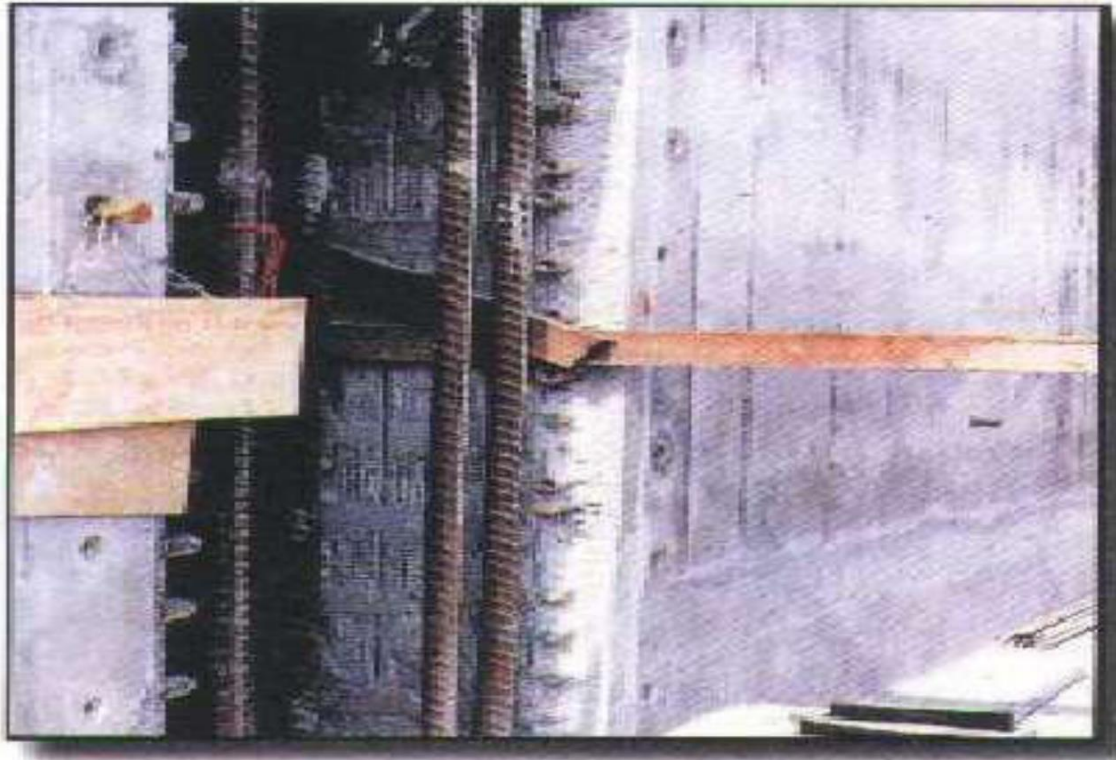


Mitigate Congestion

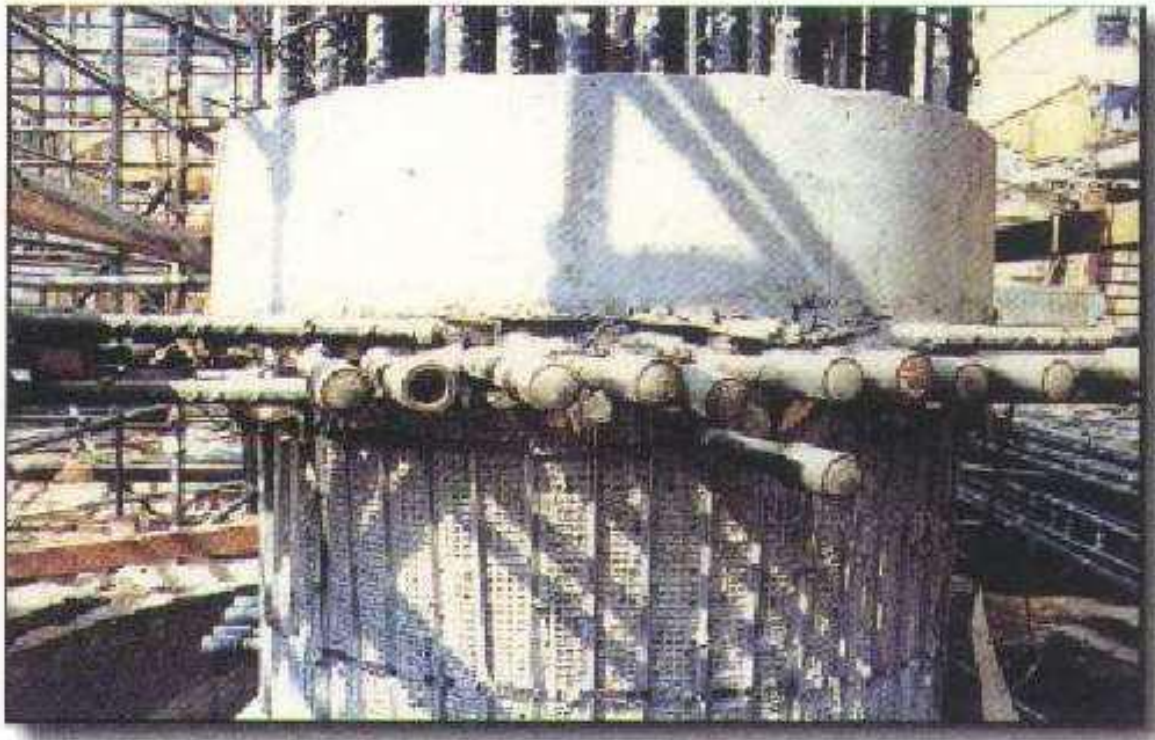


Formwork Damage Mitigation

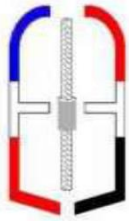




Temporary Opening



Beam Connections



## Extra Egypt For Mechanical Couplers

### Product features

Extra Egypt is a rolled parallel threaded mechanical splicing system designed for the connection of concrete reinforcing bars from Ø16 to 32 mm (ASTM #4 to #18).

Extra Egypt couplers comply with ACI 318, ECP, IBC 2006, BS 8110, Eurocode 2, DIN 1045, CalTrans, ASME Sec III Div 2

### Benefits

Practical and economical alternative to laps.

- Simple process:  
only one machine, one operator.
- Fast cycle time:  
less than 30 seconds per thread!
- Same coupler model for standard splicing and position splicing (when none of the rebar can rotate).
- Shortens construction cycle times.

### Rebar preparation: 2-Steps process

Step 1 :-The end of the reinforcing bar is peeled

Step 2:-Threads are then formed on the peeled end of

Reinforcing bar by cold rolling.



## Splicing methods

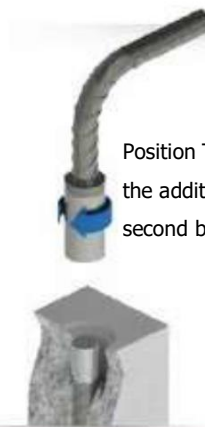
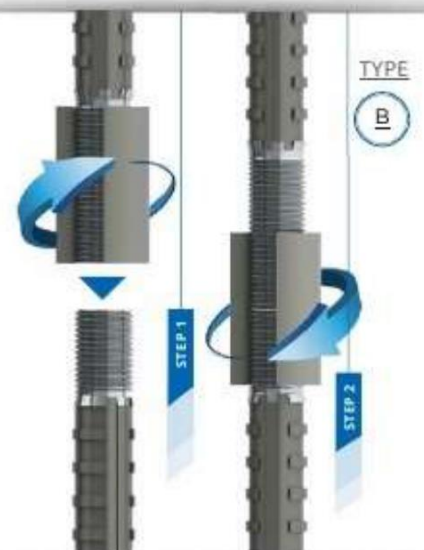
### Standard splice

Easy connection by bar rotation until full thread engagement (type A method). Thanks to its parallel thread: no risk of mis-match or cross-threading



### Position splice

Even when both bars cannot be turned, the Extra Egypt system uses the same standard coupler. The coupler is fully engaged onto the extended thread of the connecting bar (step 1). The assembly is simply completed by butting the bars end to end and screwing back the coupler onto the first bar until full engagement (step 2).



Position Type C is similar to Type B, with the addition of a lock-nut to maintain the second bar in position.





## Extra Egypt For Mechanical Couplers

### Mechanical Splices “Couplers”

Extra Egypt Mechanical splice systems are produced in two systems:

- Extra Egypt Forging Thread System, and
- Extra Egypt Rolling Thread System

Both systems meet both local and international standards such as:

ECP 203 ACI 318M BS 8110-1 ISO 15835-1 ISO 15835-2

In addition, both systems satisfy the requirements of both “Type 1” and “Type 2” where,

#### 21.2.6 — Mechanical splices

21.2.6.1 — Mechanical splices shall be classified as either Type 1 or Type 2 mechanical splices, as follows:

(a) Type 1 mechanical splices shall conform to 12.14.3.2;

(b) Type 2 mechanical splices shall conform to 12.14.3.2 and shall develop the specified tensile strength of the spliced bar.

#### R21.2.6 — Mechanical splices

In a structure undergoing inelastic deformations during an earthquake, the tensile stresses in reinforcement may approach the tensile strength of the reinforcement. The requirements for Type 2 mechanical splices are intended to avoid a splice failure when the reinforcement is subjected to expected stress levels in yielding regions. Type 1 splices are not required to satisfy the more stringent requirements for Type 2 splices, and may not be capable of resisting the stress levels expected in yielding regions. The locations of

ACI 318 Building Code and Commentary

For using both types of Extra Egypt systems, namely Forging Threading and Rolling Threading, can be used as position couplers where the rotation of the reinforcement bars are restricted. In this case we just need to use an extended thread to one end of the connected bars. This system is referred to in range as “**Type B Splice**”.



## **Extra Egypt**

**For**  
**Mechanical Couplers**

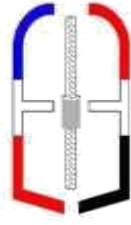
### **Why use mechanical splices “Couplers”:**

**It is very essential and common practice to use rebar splices on construction to connect two bars. This may be needed to use steel rebar longer than that lengths available in the market (normally 12 meters) or as a necessity in some cases such as:**

- Connecting different members. Core walls and slabs are a typical case as an example.**
- For temporary openings in walls and slabs.**
- At construction joints especially for future extensions.**

**Rebar overlapping is commonly used for rebar splicing. In many cases this way proved impractical for many reasons. Therefore, the mechanical splicing appeared to give a perfect and easy solution to overcome this obstacle. There are a verity of reasons mechanical splices are used in reinforced concrete construction today. Some of them are as follows:**

- a. Congestion Mitigation - As the elimination of the development length required for the overlap splices helps to reduce rebar congestion.**
- b. Required by Design - Such as connecting core walls to slabs and for future extensions.**
- c. Eliminates Crack Induction – As the force is transferred between the connected bars without employing the contact between the concrete and reinforcement steel.**
- d. Mitigates Formwork Damage – When required, one part of the connected bar will be terminated to the formwork with a coupler without the need to protrude out of the formwork.**
- e. Mandatory by the Codes for Large Size Reinforcement Steel Bars – Some codes limit the use of lap splicing up to 36 mm bar size, while other codes go stricter and limit it to 30 mm bar size.**
- f. Saves time and cost – As the saving of the overlap length of steel specially for big rebar sizes proved higher than the cost of the mechanical splice.**



**Extra Egypt**  
For  
Mechanical Couplers

# **Extra Egypt**

## **Forging Thread System**



# Extra Egypt Forging Thread System Mechanical Coupler

The essence of the Extra Egypt system is to build a parallel thread on a cold-forged end of reinforcing bar. They are then spliced together by means of a mechanical coupler. This unique process has proven itself over a decade to be the perfect splice for the construction industry.



## Cutting

The end of the reinforcing bar is sawn square.



## Cold Forging

The sawn end of the reinforcing bar is then enlarged by cold forging process.

The core diameter of the bar is increased to a predetermined diameter.

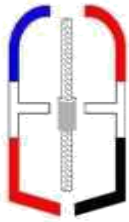


## Threading

Finally, the enlarged end is cut (or rolled) to a standard metric thread.



The Complete Joint



# Extra Egypt

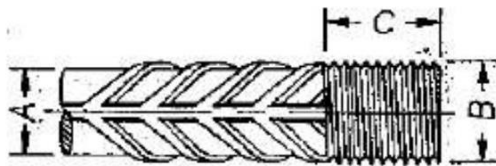
For  
Mechanical Couplers

**Type "A" Splice – Standard splice where bars are free to rotate.**

**Type "B" Splice – Position splice where bars are restricted to rotate.**

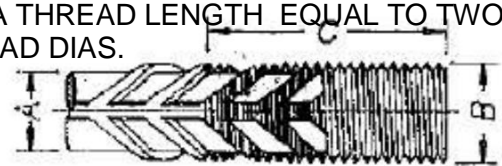
## TYPE "A" SPLICE

BOTH BARS HAVE A THREAD LENGTH EQUAL TO ONE THREAD DIAMETER.



## TYPE "B" SPLICE

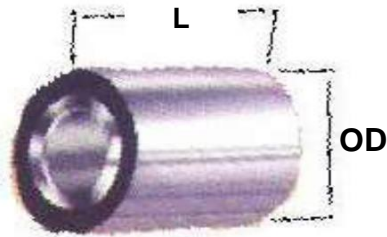
ONE BAR HAS A THREAD LENGTH EQUAL TO ONE THREAD DIAMETER, THE OTHER HAS A THREAD LENGTH EQUAL TO TWO THREAD DIAS.



A	B	C	A	B	C
12	M14X2.0	14 – 16 mm	12	M14X2.0	28 – 30 mm
16	M20X2.5	20 - 22.5mm	16	M20X2.5	40 - 42.5mm
18	M22X2.5	22 - 24.5mm	18	M22X2.5	44 - 46.5mm
20	M24X3.0	24 – 27 mm	20	M24X3.0	48 – 51 mm
22	M27X3.0	27 – 30 mm	22	M27X3.0	54 – 57 mm
25	M30X3.5	30 - 33.5mm	25	M30X3.5	60 - 63.5mm
28	M33X3.5	33 - 36.5mm	28	M33X3.5	66 - 69.5mm
32	M36X4.0	36 – 40 mm	32	M36X4.0	72 – 76 mm
36	M39X4.0	39 – 43 mm	36	M39X4.0	80 – 84 mm
40	M45X4.0	45 – 49 mm	40	M45X4.0	90 – 94 mm



**Extra Egypt  
For  
Mechanical Couplers**



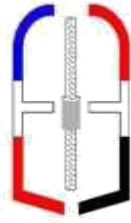
**EXTRA FORGING THREAD SYSTEM**

**Dimensions of Couplers (all units are in millimeters)**

Bar Dia. (mm)	Metric Thread x Pitch	Standard Coupler		
		Code	L	OD
12	M14X2.0	C12M14	28	25
16	M20X2.5	C16M20	40	26
18	M22X2.5	C18M22	44	30
20	M24X3.0	C20M24	48	32
22	M27X3.0	C22M27	52	36
25	M30X3.5	C25M30	60	40
28	M33X3.5	C28M33	66	44
32	M36X4.0	C32M36	72	50
36	M39X4.0	C36M39	80	56
40	M45X4.0	C40M45	90	60

L. = Length

OD = Outer Diameter

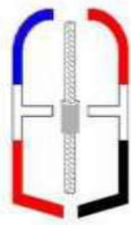


**Extra Egypt**  
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Mechanical Couplers

# **Extra Egypt**

## **Rolling Thread System**

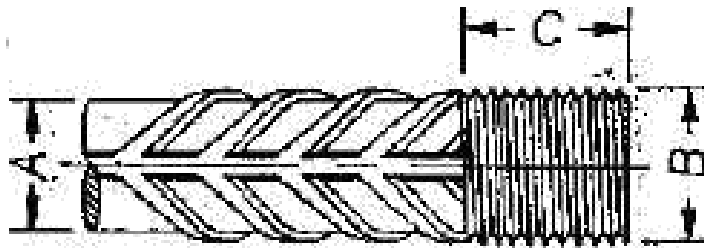




**Extra Egypt**  
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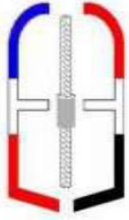


### Parameter of Rolling Thread System



A	B	C
16	M16.5X2.0	25 – 27 mm
18	M18.5 X2.5	27.5 -29.5 mm
20	M20.5X2.5	27.5 -29.5 mm
22	M22.5X2.5	30 – 32mm
25	M25.5X3.0	32.50 – 34 mm
32	M32.5X3.0	40 – 42 mm
36	M36.5X3.0	42 – 44 mm
40	M40.5X3.0	45 – 48 mm

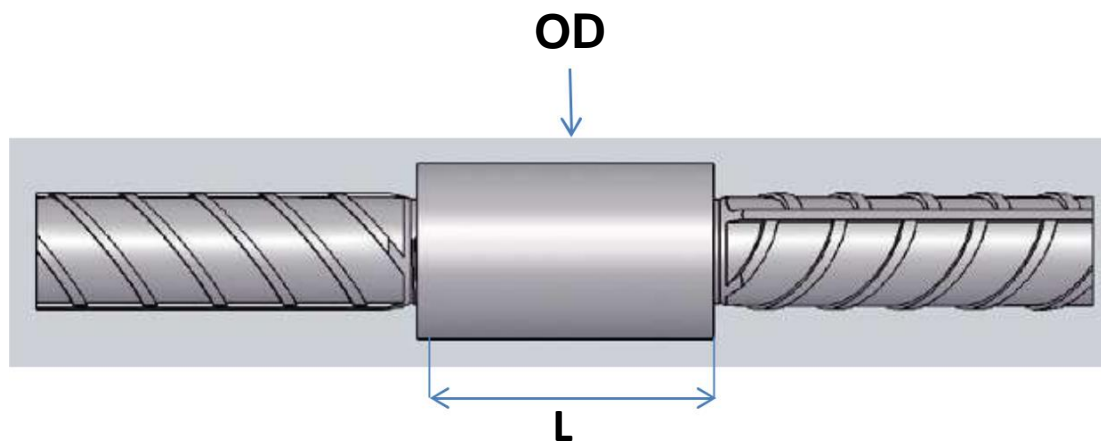




**Extra Egypt**  
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Mechanical Couplers



## Couplers of Rolling System



Bar Dia. mm	OD ( $\pm 1\text{mm}$ )	L ( $\pm 1\text{mm}$ )	Thread (mm)
12	23	28	M12.0X1.75
16	25	50	M16.0X2.0
18	27	55	M18.0 X2.5
20	30	55	M20.0X2.5
22	35	60	M22.0X2.5
25	38	65	M25.0X3.0
32	50	80	M32.0X3.0
36	53	84	M36.0X3.0
40	60	90	M40.0X3.0

# Headed Bars (Terminators)



# **Headed Bars**

## **(Terminators)**

Extra Egypt product of the Headed Bars bearing plate, normally known as “Terminators”, meets or exceeds most local and international standards. Extra Egypt Terminators are produced in two size ranges for bar sizes from 12 mm up to 40 mm. The Extra Egypt Standard Size Terminator meets or exceeds the requirements of having the net bearing area  $\geq 4$  times the cross area of the terminated bar, while, The Extra Egypt Large Size Terminator is being produced on demand to achieve a bigger net bearing area with the concrete  $\geq 9$  times the cross area of the terminated bar.

### **Why use Headed Bars?**

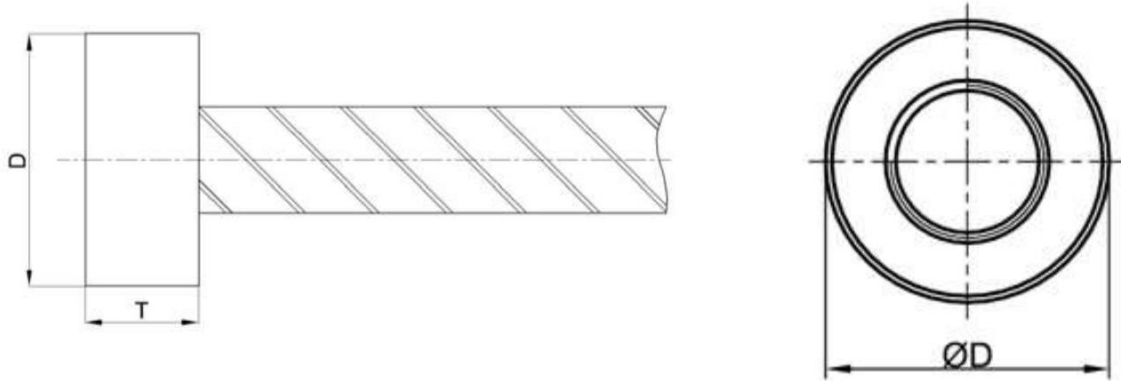
The use of Headed Bars had become a necessity in construction field for its high advantages compared with hooks and bent bars. Here are some advantages of using Headed Bars:

- Better anchorage between the reinforcement bars and concrete.
- Eliminates the need for hooks and reduces bar development length.
- Reduce reinforcement contingency.
- Easier and faster installation of reinforcement bars on site.
- Significant reduction in reinforcement bar lengths and hence significant cost saving.

# Headed Bar (Terminator)

## I. Standard Size Terminator

(Net bearing area at least **4 times** the normal cross-section area of the bar)



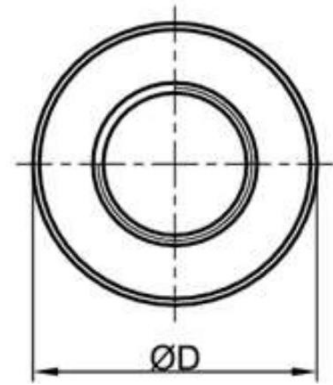
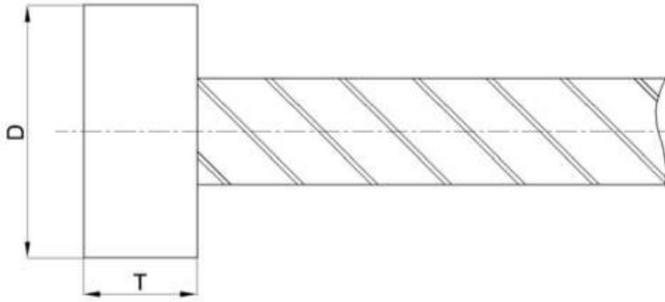
Bar Dia.	ØD mm	T mm	Net bearing Area mm <sup>2</sup>	Marking
12	30	20	593	Extra Egypt C12MM
16	36	23	804	Extra Egypt C16MM
18	40	25	1017	Extra Egypt C18MM
20	45	25	1256	Extra Egypt C20MM
22	50	26	1583	Extra Egypt C22MM
25	60	30	2335	Extra Egypt C25MM
28	65	32	2701	Extra Egypt C28MM
32	75	40	3612	Extra Egypt C32MM
36	80	46	4654	Extra Egypt C36MM



# Headed Bar (Terminator)

## II. Large Size Terminator

(Net bearing area at least **9 times** the normal cross-section)



Bar Dia.	ØD mm	T mm	Net bearing Area mm <sup>2</sup>	Marking
12	40	20	1143	Extra Egypt C12MM
16	52	23	1922	Extra Egypt C16MM
18	60	25	2572	Extra Egypt C18MM
20	65	25	3003	Extra Egypt C20MM
22	75	26	4036	Extra Egypt C22MM
25	80	30	4533	Extra Egypt C25MM
28	90	32	5743	Extra Egypt C28MM
32	105	40	7851	Extra Egypt C32MM
36	120	46	10287	Extra Egypt C36MM

# One Touch Coupler

Splicing new reinforcement bars to existing rebar in old concrete, in many cases, is a crucial obstacle for the engineer. This is mainly needed when it is required to implement structural modifications to existing buildings or to solve a site problem when splicing reinforcement bars was not considered.

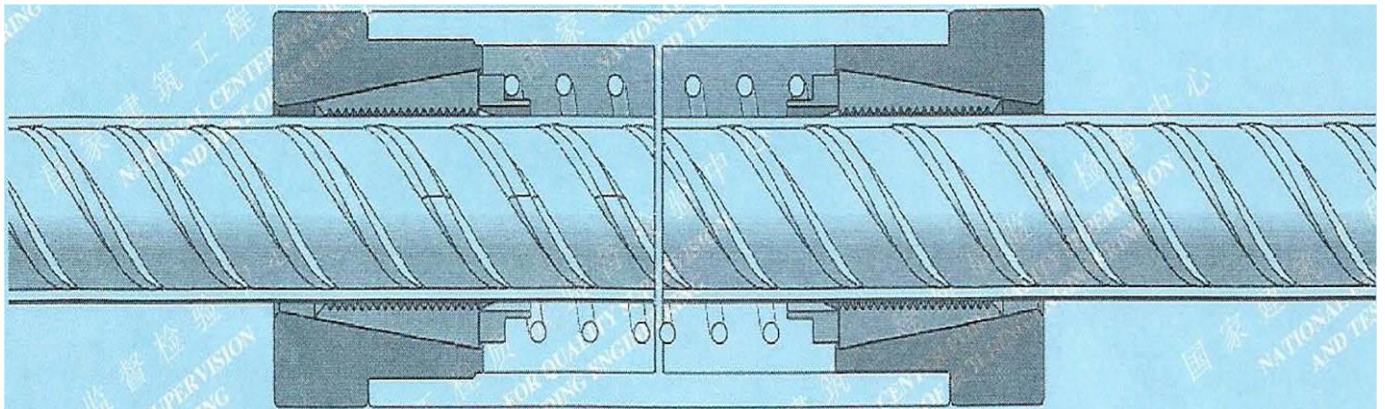
The ONE TOUCH COUPLER or in other words QUICK COUPLER is one of the best engineering solutions for such obstacle for the following reasons:

Both feasible and reliable.

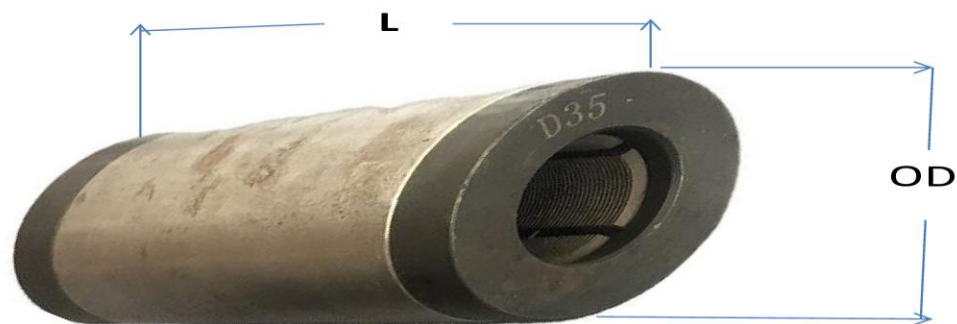
Easy to apply.

Does not need skilled labors to install.

Does not need any tools or machining.

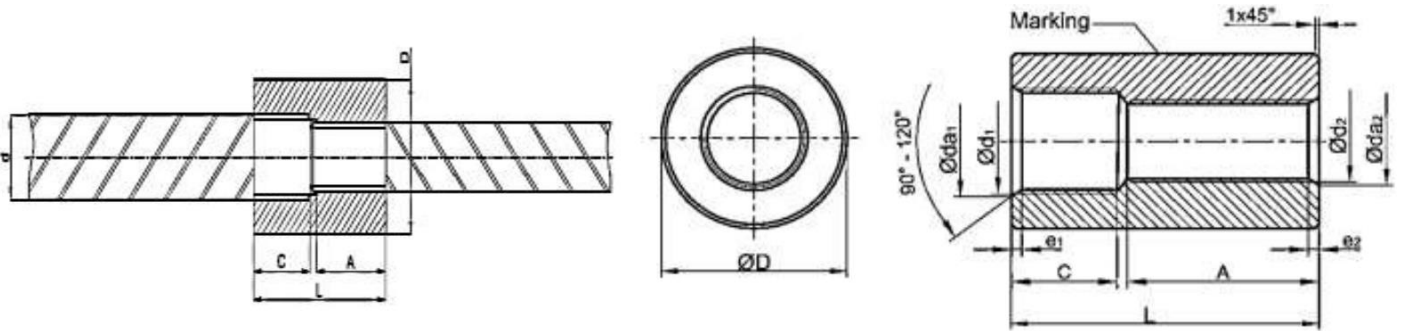


# One Touch Coupler Specification Table



Item	Length (mm)	Outer Diameter(mm)	Wight (Kg)
D13	90	33	0.38
D16	99	37	0.50
D19	107	40	0.62
D22	123	48	1.00
D25	131	53	1.26
D29	142	58	1.58
D32	153	65	2.15
D35	167	71	2.52

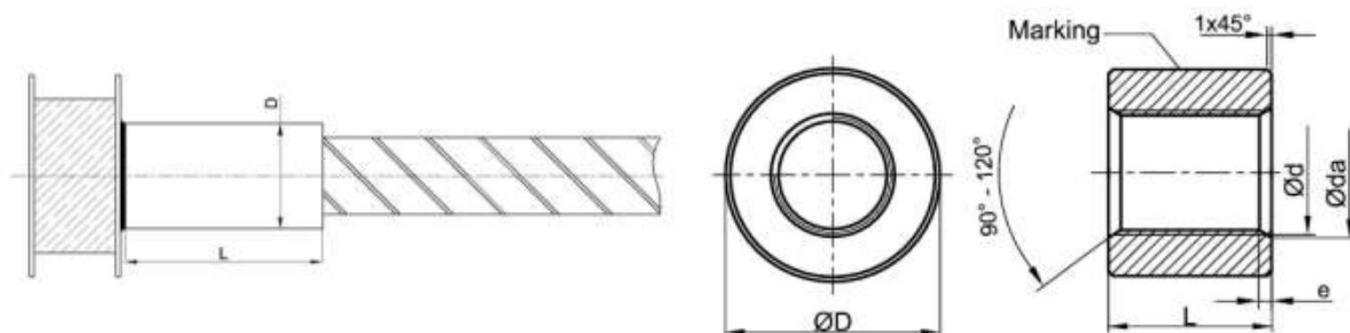
# Transition Coupler



Rod Dia.	Ød1	Ød2	ØD	Øda1	Øda2	e1	e2				Marking
18\16	M 22	M 20	30	22	20	2.5	2.5	48	22	25	Extra Egypt C18 /16MM
20\16	M 24	M 20	35	24	20	3	2.5	52	22	28	Extra Egypt C20 /16MM
20\18	M 24	M 22	35	24	22	3	2.5	54	25	28	Extra Egypt C20/18MM
22\20	M 27	M 24	38	27	24	3	3	60	28	30	Extra Egypt C22/20MM
25\20	M 30	M 24	40	30	24	3.5	3	64	28	33	Extra Egypt C25/20MM
25\22	M 30	M 27	40	30	27	3.5	3	65	30	33	Extra Egypt C25/22MM
28\25	M 33	M 30	45	33	30	3.5	3.5	71	33	36	Extra Egypt C28/25MM
32\25	M 36	M 30	50	36	30	4	3.5	73	33	38	Extra Egypt C32/25MM
32\28	M 36	M 33	50	36	33	4	3.5	76	36	38	Extra Egypt C32/28MM
36\32	M 42	M 36	60	42	36	4.5	4	85	38	45	Extra Egypt C36/32MM
40\25	M 45	M 30	63	45	30	4.5	3.5	86	33	48	Extra Egypt C40/25MM
40\28	M 45	M 30	63	45	33	4.5	3.5	88	36	48	Extra Egypt C40/28MM
40\32	M 45	M 36	63	45	36	4.5	4	90	38	48	Extra Egypt C40/32MM
40\36	M 45	M 42	63	45	42	4.5	4.5	95	45	48	Extra Egypt C40/36MM



## Weld To Structure Coupler



Rod Dia.	Ød	ØD	Øda	e	L <sup>-1</sup>	Marking
12	M14	22	14	2	14	Extra Egypt C12MM
16	M20	30	20	2.5	20	Extra Egypt C16MM
18	M22	36.5	22	2.5	22	Extra Egypt C18MM
20	M24	36	24	3	24	Extra Egypt C20MM
22	M27	41	27	3	27	Extra Egypt C22MM
25	M30	46	30	3.5	30	Extra Egypt C25MM
28	M33	50	33	3.5	33	Extra Egypt C28MM
32	M36	55	36	4	36	Extra Egypt C32MM
36	M42	65	42	4.5	42	Extra Egypt C36MM
40	M45	70	45	4.5	45	Extra Egypt C40MM

# COUPLERS

## Test Reports



# **I. TEST REPORTS**

## **FOR**

### **EXTRA EGYPT FORGING THREAD SYSTEM**



**TYPICAL BREAK FOR FORGING SYSTEM IN TENSION**

**Certificate of Mechanical Test**  
**Certificate No.: 14/2020**

**Customer : Hassan Allam**

**Customer Address : 15 Hassan Mohamed Allam St. El Saba Emarat Sq., Heliopolis , Cairo**

Please Confirm The Following Report For Samples:

Sampling drawn and prepared by the client.

**Sample Description:** 4 Rebar Samples , D32 mm with Couplers

**Received on:** 18/11/2020

**Received by:** Central lab. foreman.

**Test Lab.:** Central lab

**Issue Date:** 19/11/2020

**Date of Request :** 11/11/2020

**Date of performing test :** 18/11/2020

**Grade:** ---

**Operator Code :** 7573

Temp.(°C)	R.H( %)	Temp.humidity Ser.No
23 °C	67	N.HYT-21/3

Sample ID	Rp0.2 (N/mm2)	Tensile Strength (N/mm2)	Permanent elongation at 60 % Proof Strength
1	514	689	0.08
2	562	703	0.05
3	550	690	0.06
4	549	698	0.02

- Used Equipment : UTM Zwick 120 Ton. (729595)
- Applied Standard Test Method: ASTM A370-19
- Uncertainty Values are available upon request.
- The above results represents only the tested sample. Any other aspects are not the response of the lab.
- This report will not be reproduced except completely.

Eng.	Mgr.	S.M
<i>Heiba</i>	<i>[Signature]</i>	<i>Adel Y. Roushdy</i> 22-11-2020

Page 1 of 1  
2020 Revision



Report No.: B0390-A/2020  
Date: 14/11/2020

## Report of Tension Tests for Rebar Mechanical Splices

**Client** : شركة حسن علام للطرق والمباني  
**Project** : الكوبري الكهربائي - كوبري محطة (2) بالعاصمة الإدارية الجديدة  
**Owner** : الهيئة القومية للأنفاق  
**Consultant** : حطيب و علمي  
**Main Contractor** : Avic & Creec  
**Specimens** : 3 Steel rebar mechanical splices (couplers) - Diameter 32 mm

This report was prepared upon the request of client to perform tension tests on "3" rebar mechanical splices. Tests were conducted according to Egyptian Code for Design and Construction of Concrete Structures (ECP 203-2018).

### I. Delivered Specimens:

"3" specimens of 32 mm nominal diameter spliced with couplers as presented in Figure (1). Dimensions and data of the specimens are displayed in Table (1).

Specimens were delivered to the "Research Center of Properties and Testing of Materials and Quality Control, Faculty of Engineering, Ain Shams University" by client on his sole responsibility on 04/11/2020.

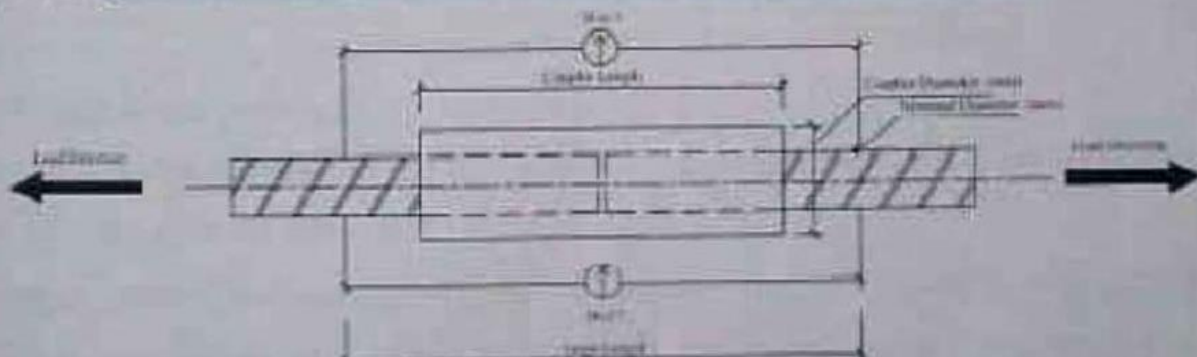


Figure (1) : Typical configuration of the rebar mechanical splice & test setup

Dr. Mohamed Galal

Dr. Mohamed Galal

1 / 4

Report No.: B0390-A/2020

Date: 14/11/2020

Table (1): Dimensions and data of delivered specimens.

Sample No.	Bar Diameter (mm)	Bar Grade (MPa)	Coupler Diameter (mm)	Coupler Length (mm)
1	32	B500BWR	53	72
2				
3				

## 2. Test Results

Tension tests were performed on the delivered specimens. Loads and corresponding slippages were recorded. Moreover, both the failure loads and the modes of failure were recorded. Test results are presented in Table (2).

Table (2): Test results

Sample No.	Rate of Loading*	Bar Diameter (mm)	Failure Load (ton)	Mode of Failure
1	Slow	32	56.20	Rebar failure
2			56.60	Rebar failure
3	Fast		58.00	Rebar failure

\* Fast rate of loading is approximately 50 times slow rate of loading.

## 3. Code Requirements:

According to the Egyptian Code for Design and Construction of Concrete Structures ECP 203-2018, item (7-3-2-2);

- Failure load of the mechanical splices should exceed 125% of the rebar yield load.
- Permanent slippage in the mechanical splice should be less than/ or equal 0.1 mm at the working load.

2/4

Dr. Mohamed G. El

Dr. Mohamed G. El



Report No.: B0390-A/2020  
Date: 14/11/2020

#### 4. Conclusions:

##### 4.1. Failure load

It is concluded from the preceded test results, that all specimens (three tested mechanical splices), fulfill code requirements with respect to the failure load as presented in Table (3).

Table (3): Summary of test results for failure load

Sample No.	Bar Diameter (mm)	Rebar Nominal Area (cm <sup>2</sup> )	Failure Load (ton)	Min Value* (ton)	Comply/ Not comply
1	32	8.04	56.20	51.26	Comply
2			56.60		Comply
3			58.00		Comply

\*According to ECP 203-2018, item (7-3.3-2) knowing that the yield stress equal to 500 N/mm<sup>2</sup>.

##### 4.2. Permanent Slippage

It is concluded from the preceded test results, that all specimens (three tested mechanical splices), fulfill code requirements with respect to the permanent slippage. The permanent slippage for all tested specimens in addition to maximum allowable value are presented in Table (4).

Dr. Mahmoud Ghalaf



Report No.: B0390-A/2020  
Date: 14/11/2020

Table (4): Summary of test results for Slippage

Sample No.	Bar Diameter (mm)	Average Slip (mm)	Max allowable Value* (mm)	Comply/Not comply
1	32	0.055	0.1	Comply
2		0.075		Comply
3		0.070		Comply

\* According to ECP 203-2018, Item (7-3-2-2).

تم إجراء الاختبار في حضور كلا من:

- (1) م/ أحمد فخر محبت (الهيئة القومية للأغذية)
- (2) م/ عبد الوهاب مصطفى (خطيب وعلمي)
- (3) م/ أحمد محمود عبد الفتاح (شركة حسن عالم طرق وكناري)
- (4) م/ زكي الدين مصطفى (شركة أكسيرا إيجيبت)

Prepared by  
Eng. M. Mostafa

Revised by  
Dr. Mahmoud Gabl

Head of Center  
Dr. Mohamed R. A. Masoud  
وحدة أبحاث خواص واختبار المواد  
مفلية الهندسة - جامعة عين شمس





## Mechanical Testing Unit

### Tensile Test Report

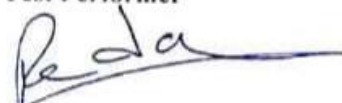
Customer name : Extra Egypt  
Sample receiving date : 15/4/2019  
Sample code number : 1203/19  
project name : Chinee Towers ( CSCEC ) in New Capital  
Number of samples : One Sample  
Testing date : 18/4/2019  
Issue date : 18/4/2019  
Testing apparatus : Universal Testing Machine  
Test conditions : Temperature: 23.2 °C Humidity: 32%  
Report number : 97/11\*  
File number : 475

### Test Results

Sample Code No.	Sample Shape	Yield Strength N/mm <sup>2</sup>	Ultimate Strength N/mm <sup>2</sup>	Max. Load KN	Fracture Place
1203/19	Rienforcement Steel bar with coupler 25 mm ( Forging- M30 )	425	712	349.5	In the Rod

- The reported results represent the received samples only.
- Test reports are confidential and not allowed to be handled with other customers.
- The rest of samples cannot be returned after 30 days from receiving the report.

Test Performer

  
Eng. Mohamed Abd Elhameed

Technical Manager

  
Eng. Khaled Sadek

Head of TSD

  
Eng. Wassef Gomaa

Page No: 1/1

# CEL

Consulting Engineering Bureau & Laboratories

مكتب ومعامل الاستشارات الهندسية

Company

**Hassan Allam Construction Company**

Project : Ministries district 5A - 6A - New Administrative Capital.  
Delivery Date : 09/11/2017  
Report Date : 11/11/2017  
Type of Sample : Mechanical test for couplers for reinforcing steel 22 mm.  
Source of coupler : Extra.  
Source of Steel : EZZ  
Report No. : HAC/MD/CU-ME/06

**RESULTS OF MECHANICAL PROPERTIES OF STEEL BARS**  
**ES 262/2009**

Property	Results
Bar Nominal Dia. (mm)	22
Yield Strength (MPa)	569.0
Ultimate tensile Strength (MPa)	735.8
Coupler length (mm)	53.5
Coupler diam (mm)	40.0

Mode of Failure : The fracture occurred in the steel bar not in the coupler.

Signature /



3 El Malek El Afdal Street  
Zamalek, Cairo.  
Tel.& Fax : 27367231 - 27363093



3 شارع الملك الأفضل  
الزمالك - القاهرة  
تليفون + فاكس : ٢٧٣٦٧٢٣١ - ٢٧٣٦٣٠٩٣  
www.cel-egypt.com

# CEL

Consulting Engineering Bureau & Laboratories

مكتب ومعامل الاستشارات الهندسية

Company

**Hassan Allam Construction Company**

Project : Ministries district 5A - 6A - New Administrative Capital.  
Delivery Date : 09/11/2017  
Report Date : 11/11/2017  
Type of Sample : Mechanical test for couplers for reinforcing steel 25 mm.  
Source of coupler : Extra.  
Source of Steel : EZZ  
Report No. : HAC/MD/CU-ME/04

**RESULTS OF MECHANICAL PROPERTIES OF STEEL BARS**  
ES 262/2009

Property	Results
Bar Nominal Dia. (mm)	25
Yield Strength (MPa)	502.3
Ultimate tensile Strength (MPa)	664.1
Coupler length (mm)	60
Coupler diam (mm)	45.5

Mode of Failure : The fracture occurred in the steel bar not in the coupler.

Signature / 



3 El Malek El Afdal Street  
Zamalek, Cairo.  
Tel. & Fax : 27367231 - 27363093



3 ش الملك الأفضل  
الزمالك - القاهرة  
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## Mechanical Testing Unit

### Tensile Test Report

Customer name : Extra Egypt  
Sample receiving date : 22/3/2018  
Sample code number : 1620/18 : 1621/18  
Number of samples : 2 Samples  
Testing date : 22/3/2018  
Releasing date : 25/3/2018  
Testing apparatus : Universal Testing Machine  
Test conditions : Temperature: 22 °C Humidity: 38%  
Report number : 122/11\*  
File number : 499

### Test Results

Sample Code No.	Sample Shape	Max. Load KN	Fracture Place
1620/18	Rod 16 mm With Coupler In The Middle	129.19	In the Rod
1621/18	Rod 18 mm With Coupler In The Middle	157.16	In the Rod

- The reported results represent the received samples only.
- Test reports are confidential and not allowed to be handled with other customers.
- The rest of samples cannot be returned after 30 days from receiving the report.

Test Performer

*Mohamed*

Eng. Mohamed Abd Elhameed

Technical Manager

*A/Ramadan*

Eng. Khaled Sadek

Head of ESD

*Eng. Nasser Goman*

Page No: 1/1



## Mechanical Testing Unit

### Tensile Test Report

Customer name : Extra Egypt  
Sample receiving date : 20/11/2017  
Sample code number : 4088/17  
Number of samples : One Sample  
Testing date : 22/11/2017  
Releasing date : 22/11/2017  
Testing apparatus : Universal Testing Machine  
Test conditions : Temperature: 22 °C Humidity: 38%  
Report number : 317/11\*  
File number : 1418

### Test Results

Sample Code No.	Sample Shape	Max. Load KN	Fracture Place
4088/17	Rod With Coupler In The Middle	242.13	In the Rod

- The reported results represent the received samples only.
- Test reports are confidential and not allowed to be handled with other customers.
- The rest of samples cannot be returned after 30 days from receiving the report.

Test Performer

Mohamed Abd Elhameed  
Eng. Mohamed Abd Elhameed

Technical Manager

A/Mohamed  
Eng. Khaled Sadek

Head of TSD

22/11  
Nasser Gomaa  
Eng. Nasser Gomaa

Page No: 1/1



## TENSILE TEST REPORT

Report No.:-	994-14-2017	Reference test No.	3388/451/14/2017
Test date:-	2/11/2017	Report date:-	2/11/2017
Tested by:-	M. TARBOOSH	Number of pages:-	2
Customer :-	شركة نيوكوتراكتينج فيجين (NCV) - موقع بيراميدز هيلز بالمسادس من أكتوبر - الاستشاري لكتيف برنز (ABCG)		
Date of request:-	2/11/2017	File Name:-	MT-105-11-2017

### Test Identification :-

Four different specimens were provided by the customer, each specimen is two reinforcement steel bars (identical) connected to each other using a steel coupler, each specimen has a total length of 70 cm.

### Testing Method:-

The test was carried out in accordance with customer requirements.

### Reference Standard :-

A 400 kN ZWICK Universal Testing Machine is used to test specimens and it is calibrated against a reference standard force transducer with relative expanded uncertainty ( $\pm 0.02\%$ ) and coverage factor  $k = 2$  with confidence level 95 %. The reference standard force transducer used is traceable to the primary standard of force measurements at the National Institute for Standard (NIS), which realizes SI units.

### Test Results

Specimen Code	Reinforcement steel dia. (mm)	Tensile force (ton)	Notes
984/14/25mm-1	25	31.548	The failure occurred in the reinforcement steel not in the coupler
984/14/25mm-2	25	32.833	
984/14/25mm-3	25	31.063	
984/14/32mm-1	32	39.673	

This report does not pass judgement on tested specimens but it provides the customer with the measured values of the given parameters. It also notes down any remarks on the behaviour of tested specimens during the test.

Tested By :-

*M. J.*

Technical manager

*G. Mohamed*





## TEST REPORT

### تقرير اختبار

Report No: 984/14 /2017

- NIS Lab : Force and Material Metrology  
اسم المختبر
- Issued For : شركة نيوكونتر اكتينج فيجين (NCV) - موقع بيراميدز هيلز بالماداس من أكتوبر -  
الاستشاري اكتيف برنر (ABCG)  
صاحب الشئ
- Sample Specification : Four reinforcement steel bars with couplers  
نمونه العينة Specimens
- Manufacturer : N/A  
اسم الشركة المنتجة
- Code : Mentioned in Page no.2  
تاريخ
- Reference Number of Test : 3388/451/14/2017  
رقم الاختبار المرجعي
- Date of Receipt : 2 Nov,2017  
تاريخ الاستلام
- Date of Test : 2 Nov,2017  
تاريخ الاختبار
- Issue Date : 7 Nov,2017  
تاريخ الإصدار

Head of Laboratory

Approved by

NIS President

Prof. Dr. Ahmed Aly M. El-Sayed

Prof. Dr. Mohamed A. Amer



## Mechanical Testing Unit

### Tensile Test

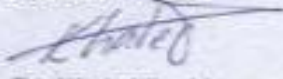
Customer name : Extra Egypt  
Standard used : Non-Standard  
Sample shape : Reinforced steel bar (Ø 25 mm ) with joint at the middle  
Sample receiving date : 12/8/2008  
Sample code number : 4928/8  
Number of samples : One Sample  
Testing date : 12/8/2008  
Testing apparatus : Universal Testing Machine  
Test conditions : Temperature: 31.2°C Humidity: 28%  
Report number : 156/8

### Test Results

Sample No.	Maximum Load (KN)	Comments
Reinforced steel bar (Ø 25 mm )	321.4	Failure has been occurred at the rod

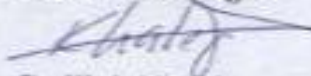
- The reported results represent the received samples only.
- Test reports are confidential and not allowed to be handled with other customers.
- The rest of samples cannot be returned after 30 days from receiving the report.

Test Performer



Dr. Khaled Ibrahim

Technical Manager



Dr. Khaled Ibrahim

Head of TSD



Eng. Nawal El-Safaty

Page no: 1/1



## **II. TEST REPORTS**

**FOR**

**EXTRA EGYPT ROLLING THREAD SYSTEM**



**TYPICAL BREAK FOR ROLLING SYSTEM IN TENSION**



## Tensile Test for coupler Report

Date : 21/07/2019  
Client : China State Construction Engineering Corporation LTD(Egypt)  
Project : The Central Business District of the New Administrative Capital City of Egypt  
Testing Date : 21/07/2019  
Coupler size : D=35 mm  
:L=55 mm  
Reference NO: :03/C08-C07/CSCEC

### TEST CERTIFICATE

#### Steel Test Report :

The ribbed reinforcing bars (  $\Phi 20$  mm ) showed the following resistance

Reinforcing Bars	Coupler from	Manufacture Bar	Yield strength ReH N/mm <sup>2</sup>	Tensile strength (Rm ) N/mm <sup>2</sup>	Rm / ReH	Failure Mode and Location
711	Extra	EZZ	567	739	1.30	Bar fractured approximately (0) mm away from the coupler
712	Extra	EZZ	560	738	1.32	Bar fractured approximately (0) mm away from the coupler
713	Extra	EZZ	556	732	1.32	Bar fractured approximately (0) mm away from the coupler

#### Remarks :

The Specimens comply with the requirements of ES 262 - 2015 ( grade B500DWR )



## Tensile Test for coupler Report

Date	: 21/07/2019
Client	: China State Construction Engineering Corporation LTD(Egypt)
Project	: The Central Business District of the New Administrative Capital City of Egypt
Testing Date	: 21/07/2019
Coupler size	.D =30 mm .L=55 mm
Reference NO	:03/C08-C07/CSCEC

## TEST CERTIFICATE

Steel Test Report :

The ribbed reinforcing bars (  $\Phi 18$  mm ) showed the following resistance

Reinforcing Bars	Coupler from	Manufacture Bar	Yield strength ReH N/mm <sup>2</sup>	Tensile strength (Rm ) N/mm <sup>2</sup>	Rm / ReH	Failure Mode and Location
285-1	Extra	EZZ	588	742	1.26	Bar fractured approximately (0) mm away from the coupler
285-2	Extra	EZZ	555	722	1.30	Bar fractured approximately (0) mm away from the coupler
285-3	Extra	EZZ	546	723	1.32	Bar fractured approximately (0) mm away from the coupler

Remarks :

The Specimens comply with the requirements of ES 262 - 2015 ( grade B500DWR )

Checked By :





## Tensile Test for coupler Report

Date	: 21/07/2019
Client	: China State Construction Engineering Corporation LTD(Egypt)
Project	: The Central Business District of the New Administrative Capital City of Egypt
Testing Date	: 21/07/2019
Coupler size	D =40 mm L=64 mm
Reference NO.	:03/C08-C07/CSCEC

## TEST CERTIFICATE

Steel Test Report :

The ribbed reinforcing bars (  $\Phi 25$  mm ) showed the following resistance

Reinforcing Bars	Coupler from	Manufacture Bar	Yield strength ReH N/mm <sup>2</sup>	Tensile strength (Rm ) N/mm <sup>2</sup>	Rm / ReH	Failure Mode and Location
708	Extra	EZZ	543	661	1.22	Bar fractured approximately (0) mm away from the coupler
709	Extra	EZZ	549	655	1.19	Bar fractured approximately (0) mm away from the coupler
710	Extra	EZZ	545	651	1.19	Bar fractured approximately (0) mm away from the coupler

Remarks :

The Specimens comply with the requirements of ES 262 - 2015 ( grade B500DWR )







20, Haroun St. Dokki, GIZA - Arab Republic Of Egypt  
Phone : (+202) 37485199 - 37488164 - 37492276 - 33368891  
Fax : (+202) 37486253  
E-mail: misraymond@rmsgroup.net

٢٠ شارع هارون - الدقي - الجيزة - ج.م.ع  
تليفون : ٣٣٣٦٨٨٩ - ٣٧٤٩٢٢٧٦ - ٣٧٤٨٨١٦٤ - ٣٧٤٨٥١٩٩  
فاكس : ٣٧٤٨٦٢٥٣

## Tensile Test for coupler Report

Date : 29/08/2019  
Client : China State Construction Engineering Corporation LTD(Egypt)  
Project : The Central Business District of the New Administrative Capital City of Egypt  
Testing Date : 29/08/2019  
Coupler size : D = 25.8 mm  
: L = 50 mm  
Reference NO: : 08/CSCEC/C08-C07/CSCEC

### TEST CERTIFICATE

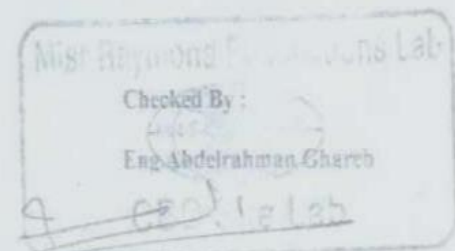
#### Steel Test Report :

The ribbed reinforcing bars ( 16 mm ) showed the following resistance

Reinforcing Bars	Coupler from	Manufacture Bar	Yield strength ReH N/mm <sup>2</sup>	Tensile strength (Rm ) N/mm <sup>2</sup>	Rm / ReH	Failure Mode and Location
377	EXTRA	EZZ	581	712	1.23	Bar fractured approximately (0) mm away from the coupler
378	EXTRA	EZZ	597	713	1.19	Bar fractured approximately (0) mm away from the coupler
379	EXTRA	EZZ	589	710	1.21	Bar fractured approximately (0) mm away from the coupler

#### Remarks :

The Specimens comply with the requirements of ES 262 - 2015 ( grade B500DWR )



# **III. HEADED BAR (TERMINATOR) Test Reports**



**MTL**

Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
413004B(3)



معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Test Report

Test Request #	152	Specimen(s) ID	1-21/371
----------------	-----	----------------	----------

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017  
Accreditation Status Tensile, Hardness, impact, chemical tests are accredited in accordance with ISO 17025:2017

Date of request:	24/1/2021	Number of pages:	1
Test(s) Required:	Tensile		
Test method (Mechanical)	Tension (ASTM E8/16)		
Test item description:	Headed Bars (Terminators) by Extra Egypt $\phi$ 25		
Owner	National Authority For Tunnels - NAT		
Contractor	Consortium Bombardier Transportation, Orascom Construction and Arab Contractors		
Project	New Administrative Capital – Cairo and 6 <sup>th</sup> October- Giza Monorail Project		
Date of Performing Test	1/2/2021	Test Report Date	1/2/2021
Temperature, °C	23	Humidity, %	37
<ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul>			

**Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.  
Serial No.: 124105000018

Test Specimen	1-21/371
Diameter, mm	25
Ultimate Tensile stress, MPa	610
Fracture Position	الكسر في القلاووظ

Test conducted by: m.m

Signature:

- The test results represent a sample provided – by the customer – to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other part.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

Technical Advisor	Lab. Manager / Lab. Supervisor
Signature:	Signature:

Tel -Fax/Mobile: 0235678005 0235696953 - 01005607023

Email: - MTLCU02@yahoo.com

Building 32-Faculty of Engineering-Cairo University-El Gamiaa St.-Giza

Issue No/Rev No: 1/2

Page 1 of 1

MTL-F-7.8.1





Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
413004B(3)



معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Test Report

Test Request #	152	Specimen(s) ID	1-21/373
----------------	-----	----------------	----------

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017  
Accreditation Status Tensile, Hardness, Impact, chemical tests are accredited in accordance with ISO 17025:2017

Date of request:	24/1/2021	Number of pages:	1
Test(s) Required:	Tensile		
Test method (Mechanical)	Tension (ASTM E8/16)		
Test item description:	Headed Bars( Terminators) by Extra Egypt $\phi$ 25		
Owner	National Authority For Tunnels - NAT		
Contractor	Consortium Bombardier Transportation, Orascom Construction and Arab Contractors		
Project	New Administrative Capital – Cairo and 6 <sup>th</sup> October- Giza Monorail Project		
Date of Performing Test	1/2/2021	Test Report Date	1/2/2021
Temperature, °C	23	Humidity, %	37
<ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul>			

**Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.  
Serial No.: 124105000018

Test Specimen	1-21/373
Diameter, mm	25
Ultimate Tensile stress, MPa	605
Fracture Position	الكسر في القلاووظ

Test conducted by: m.m

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other part.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

Technical Advisor	Lab. Manager / Lab. Supervisor
Signature:	Signature:

Tel -Fax/Mobile: 0235678005 0235696953 - 01005607023

Email: - MTLCU02@yahoo.com

Building 32-Faculty of Engineering-Cairo University-El Gamaa St.-Giza.

Issue No/Rev No: 1/2

Page 1 of 1

MTL-F-7.8.1



**Extra Egypt**  
For  
**Mechanical Couplers**



# APPROVALS

الاعتمادات



**INTERNATIONAL  
ACCREDITATION  
SERVICE®**



IAF MLA signatory for Certification of Persons,  
Product Certification and Management System  
Certification (QMS, EMS, ISMS, EnMS, FSMS)





### *Project: 10th of Ramadan Railway Project*

**Ref. HAC-L14H3-CO-CER-QAQC-150-0005-2**

**Subject: Prequalification of EXTRA EGYPT COMPANY FOR MECHANICAL COUPLER**  
(second revision)

KAE-L14H3-CO-CER-QAQC-150-0005

Documents attached analyzed:

1. Reference List
2. Extra Egypt for Mechanical couplers CEO Letters
3. ISO 9001 Certificate
4. Products
5. Approvals
6. Tests
7. Index (page 61 of the document)
8. Organization Chart
9. Quality Control activities

Comments:

Documentation analyzed is concerned to the document ref HAC-L14H3-CO-CER-QAQC-150-0005-2 (second revision) dated 22th of March and related to mechanical couplers proposed to be supplied by Extra Egypt Company and to be used for reinforcement connection where applicable. Document HAC-L14H3-CO-CER-QAQC-150-0005-1 (First revision) was commented by the Organization on November 2019 and sent to Contractor with document reference TD/2019/1917/690.

Required written documentation mentioned on Organization comments were checked as following documents:

Organization Chart → Included in the submitted documentation.

Quality Plan and ITP of manufacturer → Company ISO 9001 certificate was included in the submitted documentation. Quality control activities description were included. ITP not included.

Steel Grade of coupler → Steel grade was recorded in Inspection certificates included into Tests chapter. Rebar grade in mentioned in Rolling Couplers System data sheet.



### *Project: 10th of Ramadan Railway Project*

Missing data in tests reports → Coupler dimensions were included. Test carried out at Misr. Raymond Lab certificated that specimens comply with ES 262. Heat number was not recorded and traceability was not evidenced. Testing Speed & Elongation was not included.

Cycling Loading Tests reports were not included.

A site visit to factory should also be arranged for NAT and its Representative. Invitation to a site visit was missing and it is required.

Contractor needs to better organize the submitted documentation for its proper benefit. For example, an Index is not to be included in the middle of documentation and submitted documentation should not be repetitive (duplicate copies).

#### **Conclusion**

Contractor is required to respond to the above-mentioned comments for a formal approval.

CODE B – Approved with Comments.

**Report prepared by:**

JOSE CASTRO



# BAHR EL-BAQAR TREATMENT PLANT



ARAB REPUBLIC OF EGYPT  
MINISTRY OF DEFENSE  
PUBLIC WORK ADMINISTRATION



K & A CONSULTANTS - KHATIB & ALAMI

ORASCOM CONSTRUCTION & THE ARAB CONTRACTORS  
JOINT VENTURE



The Arab Contractors  
Damen Ahmed Osman & Co

Initiator

Orascom Construction

Project Code	Area / Location	Initiator	Trade / Activity	Document Type	Serial No.	Revision	Sheet	COLOR
B T P S O C			C R F	P M S L	0 0 0 3 4	01	Sheets: 45 Annexes:	B & W
Document type:							Sheet Size: A4 Scale: NA	
PROCUREMENT DOCUMENTS								

Document Name:

Mechanical Coupler & threading (coupler) (extra egypt) (MATERIAL SUBMITTAL)

Supplier / Vendor / Consultants:

Name : OC

Specification:

Initiator Number:

BTP-00-OC-CP-PMSL-00030

Review Response by Employer

☐ YES

☐ NO

Name: ☐ Code A: Approved  
☒ Code B: Approved as Noted  
Signature: ☐ Code C: Revise and Resubmit  
☐ Code F: For Information  
Date: ☐ Code D: Void, No Longer in Use

\* tests is required at independent laboratory on our sample before delivery  
\* random sample will be taken for every shipments

Rev.	Date	DESCRIPTION	PRE.	CHK.	APP.
01	02.08.2020	Issued for Approval	PR	TH	SL
00	02.12.2019	Issued for Approval	FN	TH	SL
			PRE	CHK	APP





مشروع إنشاء المركز الوطني، ليدك القاهرة والعاصمة الإدارية الجديدة جلد (25A3)

الإستشاري: جماعة المهندسين الإستشاريين (ECG) / المجموعة الإستشارية شاكر (SCG)  
المقاول: شركة سامكريت مهندسون ومقاولون

المالك : بنك القاهرة

### طلب اعتماد مستندات

الرقم : SAM-BC.2602-DS-ST-0108 إصدار رقم : (00) يوم : الأحد بتاريخ : ٢٠٢٠/٠٧/١٩

الموضوع : اعتماد شركة extra Egypt لتنفيذ الوصلات الميكانيكية couplers

<input type="checkbox"/> البرامج الزمنية	<input checked="" type="checkbox"/> اختبارات	<input checked="" type="checkbox"/> نتائج	<input checked="" type="checkbox"/> نشرة تقنية	<input checked="" type="checkbox"/> شهادة	<input type="checkbox"/> عينات	<input type="checkbox"/> أخرى
--	--	---	--	---	--------------------------------	-------------------------------

<input checked="" type="checkbox"/> تشي	<input type="checkbox"/> مصري	<input type="checkbox"/> كهرباء	<input type="checkbox"/> ميكانيكا	<input checked="" type="checkbox"/> مساحه	<input type="checkbox"/> تكييف	<input type="checkbox"/> أخرى
---	-------------------------------	---------------------------------	-----------------------------------	---	--------------------------------	-------------------------------

<input checked="" type="checkbox"/> للاعتماد	<input type="checkbox"/> للمعلومات
--	------------------------------------

مهندس المقاول : م/ كريستين عزت التوقيع : ..... بتاريخ : ٢٠٢٠/٠٧/١٩

استلام الإستشاري : ..... بتاريخ : ٢٠٢٠ / /

المرفقات : material data sheet

### ملاحظات

The prequalification is accepted in principle and the tests to be submitted to the supervision team before importing.



<input type="checkbox"/> A معتمد.
<input type="checkbox"/> B معتمد مع ملاحظات ويمكن للعمل أن يستمر بناء على الملاحظات.
<input type="checkbox"/> C الطلب مرفوض وبعاد للتقديم مرة أخرى.
<input type="checkbox"/> D الطلب مرفوض ولا يعاد تقديمه.

استلام المقاول : الاسم : ..... التوقيع : ..... التاريخ : ٢٠٢٠ / /

---

56



dar  
- 7 JUL 2019  
REC- MED  
Date: 07 Jul 2019

Date: 07 Jul 2019

Request no: MAT-CSCEC-07-ST-SC-0013-01

Project No. & Title: E18066-0200S - The Central Business District of the New Administrative Capital of Egypt

Employer:	Engineer:	Contractor:
 中國建築股份有限公司 CHINA STATE CONSTRUCTION CORP. CO., LTD.	 中國建築股份有限公司 CHINA STATE CONSTRUCTION CORP. CO., LTD.	 中國建築股份有限公司 CHINA STATE CONSTRUCTION CORP. CO., LTD.

<b>1. Material description (one item only on this form) :</b> Mechanical Splicing System	
Area of application : Reinforced Concrete Columns, Beams, Slabs, etc	
Drawing ref. : _____	B.O.Q. ref. no. : _____
Specification Ref. : _____	Standards : _____
Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.	
<b>2. Manufacturer / supplier</b>	
Company Name : Extra Egypt	
Address : Industrial Ar.15 of May City, No., 1,2,3 Wing 3, Magmoaa 6 Cairo, Egypt	
Local agent : _____	
<b>3. Delivery :</b>	
Country of origin : Egypt	
<div style="border: 1px solid black; padding: 5px;">           Availability :            <input checked="" type="radio"/> Locally Manufactured            <input type="radio"/> Overseas         </div>	
Delivery :	<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> <span>Ex-works/ total duration</span> <span>[                      ] [                      ]</span> </div> <div style="display: flex; justify-content: space-between;"> <span>Estimated time of arrival on site</span> <span>[                      ]</span> </div> </div>
Program :	
<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> <span>Date material required on site</span> <span>[                      ]</span> </div> <div style="display: flex; justify-content: space-between;"> <span>Latest date for order</span> <span>[                      ]</span> </div> </div>	

dar

Dar Al-Masara

Project No. : 001/99 - 0000  
 Received :  
 Date :  
 Adil Sidiqi

Dar Egypt

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by Shen Tongjia

Signature: \_\_\_\_\_

<p>4. Engineer's Representative comments:</p> <p>1- No objection to apply Extra for all diameters in general.</p> <p>2- Same comments as Rev 0.0.</p> <p>Signature: _____</p> <p>Date: 7/07/2019</p>	<p><input type="checkbox"/> Approved</p> <p><input checked="" type="checkbox"/> Approved as noted</p> <p><input type="checkbox"/> Revise and resubmit</p> <p><input type="checkbox"/> Rejected</p> <p><input type="checkbox"/> Sample required</p> <p><input type="checkbox"/> Tests required</p> <p><input type="checkbox"/> Additional information required</p> <p><input type="checkbox"/> Manufacturer's guarantee required</p>
--	---

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

S-PRC-SS-02(F26) Rev 2

Cscoc Ltd. (Egypt)  
 Received  
 27 JUL 2013  
 CED Project in New  
 Administrative Capital

dar



New National Cancer Institute  
Project (NNCI)

Hill International

REQUEST FOR INFORMATION (RFI)

Contract No: PEG - 1088

Package No: EP03 - Shoring at AL-Bostan Road

RFI No: 1088-EP03-CN-AC- RFI- 0012

Date: 15/01/2018

To: ENG. MOSTAFA ATEF

DISCIPLINE: Civil works - Temporary Soil Nails

REFERENCE:

SPECIFICATION: Attached 1 paper ( Email form Dr . Yasser El Mossalmy about this issue )

BOQ ref

DRAWING:

Location/Zone: Diaphragm Wall at El Bostan Road

Information Requested: Approval for details of SPECS of Manufacturing of Temporary Soil Nails ;  
Length: 18 meter (17.70 m in soil and 0.30 m outside ) - using Coupler after 12 m

Reason Requested: To Identify the SPECS of Temporary Soil Nails and start  
Manufacturing of them

15-01-2018  
RFI DATE

REQUESTED BY

CONTRACTOR'S AUTHORISED REP.

PMC Received:

Hill International  
Site Received

18 JAN. 2018

Consultant Received

18 JAN 2018

PMC NNCI

Returned From

Consultant

23 JAN. 2018

Contractor Received:

23 JAN 2018

NNCI Project

RESPONSE TO CONTRACTOR

Response: *Handwritten Arabic text*  
(SUB # 22)

50 Sep 14th F.L. Zohar

CONSTRUCTION SUPERVISION CONSULTANT DATE

22/1/2018

HILL PROJECT MANAGER

23-1-18

NOTE: This is not a variation document. If the CONTRACTOR considers any part of this response a variation to its cost or time of performance, the CONTRACTOR is required to give notice in accordance with the terms of the General Conditions of Contract.





Copies to ☐ Client ☒ Construction Supervision Consultant ☐ Hill Project Manager ☐ Contractor

Request For Information (RFI) Procedures  
New National Cancer Institute Project

Received  
A.B.C.G.  
NNCI  
Date: 18/1/2018

Document No: PEG-1088-PP-09-02-FM Rev 0  
Feb-2013



 	New National Cancer Institute Project (NNCI)	 Hill International	 rmc
---	---	---	--

SUBCONTRACTOR SUBMITTAL / APPROVAL FORM - (SAR)	
Contract No: PEG - 1088	Work Package: EP03 - Shoring AL-Bostan Road Package

TITLE: Extra Egypt CO.	SUBMITTAL NO.: 1088-EP03-CN-AC-SAR-0022
TO: ENG.MOSTAFA ATEF PROJECT MANAGER HILL INTER.	DATE: 2017/08/05
FROM: ENG.MOHAMED ABOUD PROJECT MANAGER ARAB CONTRACTOR	REVISION NO.: 00
ATTN.: Company Catalogue (10 PAPER A4)+ General Info (10 PAPER A4)+ CERTIFICATES(21PAPER A4)+CD	C/REF: 1088-EP03-CN-AC-HI-TRN-AN-0031

SUBCONTRACTOR / SUPPLIER SUBMISSION DESCRIPTION	
Discipline: Other	
Company Name :- Extra Egypt CO.	ISO Certification:
Local Status:	Specification:
Registered Address:- 6 Industrial Zone, 15 <sup>th</sup> of May City	BOQ: (01) Ser.(03)
Head Office Address:-	Description of Attachments Company Catalogue (10 PAPER A4)+ General Info (10 PAPER A4)+ CERTIFICATES(21PAPER A4)+CD
Activity to be Undertaken:- Supplying Mechanical Splice (Coupler) For temporary soil nails	Comparison in case of Alternative Submittal:
CONTRACTOR SIGNATURE:	Date: 2017/08/05

PMC RECEIVE 	CONSULTANT RECEIVE 	RETURNED FROM CONSULTANT 	CONTRACTOR RECEIVE 
--	---	--	---

Name: \_\_\_\_\_ Signature:  Date: 05.8.17

EMPLOYER'S COMMENTS (optional)

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

SUPERVISION CONSULTANT'S COMMENTS

For the temporary nails & Tension Lab tests should be done at least on three Coupler samples on following Labs: @ Ain Shams University (Material Lab) @ Cairo University (Material Lab)

☐ A-APPROVED 
 ☒ B-APPROVED AS NOTED, WORK MAY PROCEED - INCORPORATE COMMENTS 
 ☐ C- REVISE / RESUBMIT 
 ☐ D- REJECTED

For & On behalf of (rmc)

Name:  Signature:  Date: 8/8/17

Housing and Building National Research Center (HBRC)

# Submittal for approval of materials



Date: 30-Sep-17  
Request no: HAC/MAT/SSC/E28 Rev C0

Project no. & title: E16104-04005/T-02/Ministerial Buildings on Plots 5A & 6A

Employer: 	Engineer: <b>dar</b>	Contractor: <b>HASSAN ALLAM</b> <b>DAI</b>
---------------	-------------------------	--

1. Material description (one item only on this form):  
Trading & Coublers

Area of application: All Buildings	B.O.Q. ref. no.:
Drawing ref.:	Standards:
Specification Ref.:	
Attach all relevant technical literature marks to identify relevant description, current Test Certificates, samples as appropriate.	

2. Manufacturer / supplier

Company Name: Extra Egypt  
Address: Industrial Area, 15 of May City, No., 1,2,3 Wing 3, Maghara 6 Cairo Egypt.  
Local agent:

3. Delivery:

Country of origin: Local  
Availability: ☒ Locally Manufactured ☐ Overseas

Delivery:	Ex-works/ total duration		
	Estimated time of arrival on site		
Program:	Date material required on site		
	Latest date for order		

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by: Mohamed Elhussieny Signature: [Signature]

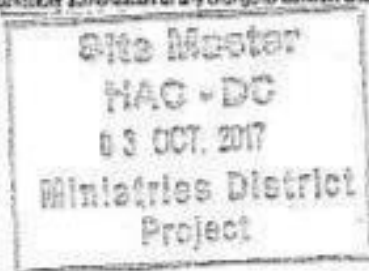
4. Engineer's Representative comments:

Submit a recent test.  
Submit sample.

<input type="checkbox"/> Approved
<input checked="" type="checkbox"/> Approved as noted
<input type="checkbox"/> Revise and resubmit
<input type="checkbox"/> Rejected
<input checked="" type="checkbox"/> Sample required
<input checked="" type="checkbox"/> Tests required
<input type="checkbox"/> Additional information required
<input type="checkbox"/> Manufacturer's guarantee required

Signature: A. Ramadan Date: 3/10/17

Approval shall not relieve Contractor of his full responsibility under the Contract or constitute authorization of any change to Contract Documents.



**dar**



# PORT SAID TUNNELS UNDER SUEZ CANAL



**ARAB REPUBLIC OF EGYPT  
MINISTRY OF DEFENCE**

**ENGINEERING AUTHORITY FOR EGYPTIAN ARMED FORCES**

**SYSTRA**

**ECG** **مراجعة الهندسة والبناء**  
ENGINEERING CONSULTANTS GROUP S.A. CAIRO-EGYPT



**The Arab Contractors**  
Osman Ahmed Osman & Co

**ORASCOM**  
CONSTRUCTION

**THE ARAB CONTRACTORS & ORASCOM CONSTRUCTION  
JOINT VENTURE**

**Issuer**

**Arab Contractors & Orascom Construction - JV**

Project Code	Area / Location	Initiator	Track	Document Type	Serial Number	Revision	Sheet	COLOR
P S T	G E O O	O C	C R F	P M S L	0 0 0 4 5	0 0 A	Sheet: 01 / 43 Appendix: 00 / 00	
Document type :							Sheet Size A4	Scale NA
								B & W

Document Name :

**MECHANICAL THREADING AND COUPLERS  
FROM EXTRA EGYPT FOR  
ALL IMPLANTING WORK IN SITE.**

Contractor Reference Number :  
PST-GE00-OC-CRF-PMSL-00045 (00A)

Initiator Reference Number :

**Review Response by Employer**

Code A ☐ No Comments  
Code B ☐ Comments, No Re-submittal  
Code C ☐ Resubmit according to Comments  
Code D ☐ Rejected  
Code E ☐ For Information

Name: .....

Signature: .....

Date: .....

Rev.	Date	DESCRIPTION	PRE.	CHK.	APP.
00A	29/06/2016	ISSUE FOR APPROVED			

## TRANSMITTAL OF CONTRACTOR'S SUBMITTAL

Date 27/06/2016	Part said tunnel site preparation	Project No. 373	Original <input checked="" type="checkbox"/> Rev <input type="checkbox"/>
EMPLOYER: IV	ENGINEER'S REPRESENTATIVE:	Client Ref: PST-6100-CC-OR-PMN-0006	

### 1-Submittal Discipline:

☒ Civil ☐ Structural steel ☐ Electrical ☐ Mechanical ☐ Others

### 2-Submittal Contents:

1	<input type="checkbox"/> Shop Drawing	5	<input type="checkbox"/> Schedule		
2	<input type="checkbox"/> Technical Data	6	<input type="checkbox"/> QA / QC Document		
3	<input type="checkbox"/> Catalog	7	<input type="checkbox"/> Samples		
4	<input type="checkbox"/> Method Statement	8	<input type="checkbox"/> Others		

### 3-Detailed Description of Submittal Content:

NO.	DESCRIPTION	AREA	REV.	Ref.	DWG.	REVISION	REMARKS
1	Mechanical Coupler Extra Egypt	General	00				
2							
3							
4							
5							
6							

### 4-Submittal For:

☒ Approval ☐ Information ☐ Review & Comment ☐ Others

5-Submittal For: CONTRACTOR'S Checklist From Contract Docs, Or Its Previous Submittal.

Yes ☐ No ☐

Technical Manager:

Name: Ehab Farag

Signature: *Ehab Farag* 27/6/2016

Project Manager:

Name: Shadih Ismail

Signature: *Shadih Ismail* 27/6/2016

### 6-Engineer's Comments:

	A. Approved
	B. Approved As Notes
	C. Revise And Resubmit
	D. Rejected

Signature:

Date:

A. Approved

B. Approved As Notes

C. Revise And Resubmit

D. Rejected





وزارة الدفاع  
لجنة هندسية للقوات المسلحة  
إدارة المهندسين العسكريين



الاستشاري العام  
سعد الدولية للاستشارات  
الهندسية

HASSAN ALLAM  
CONSULTING ENGINEER

المقاول  
شركة أبناء مصر للتعمير  
أبناء حسن علام

مشروع إنشاء كباري تطوير مداخل الإسماعية

طلب اعتماد

2017031301

رقم الطلب  
2932017-3  
صفحة  
1 من 1

التاريخ:	29/03/2017	اليوم: <input type="checkbox"/> ث <input type="checkbox"/> ن <input type="checkbox"/> ح <input type="checkbox"/> س
الظابط المشرف على الأعمال:	م. / عبد الله سعد	
مدير مشروع الاستشاري:	م. / أحمد حمدي	اربع <input checked="" type="checkbox"/> خم <input type="checkbox"/> ج <input type="checkbox"/>
مدير مشروع المقاولات:	م. / أحمد الوزير	
المرجع:-		

سبب تقديم طلب الاعتماد :

☐ الاستفسار عن معلومات

☒ الاعتماد

الفرع

بيان الاعتماد

☐ فحص واستلام  
☐ رسومات تنفيذية  
☐ نتائج اختبارات  
☐ أخرى  
☐ نشرة فنية

وصف الطلب

نتائج الاختبارات الخاصة بالوصلات الميكانيكية المستخدمة في الكمرات سابقة الصب

المرفقات:

م	نوع	الوصف
1	عدد 1 نسخة مطبوعة A4	نتائج الاختبارات الخاصة بالوصلات الميكانيكية المستخدمة في الكمرات سابقة الصب
2		

الرد على الطلب:-

<input checked="" type="checkbox"/>	معتمد (مقبول) A	<input type="checkbox"/>	C يجب إعادة التقديم
<input type="checkbox"/>	معتمد مع الملاحظات B	<input type="checkbox"/>	D مرفوض

توقيع الضابط المشرف

التاريخ 1 / 1

توقيع الاستشاري المشرف :-

التوقيع


تاريخ الاستلام ٢٠١٧ / ٤ / ١٧

التوقيع

تاريخ التسليم ٢٠١٧ / ٤ / ١٧



## طلب اعتماد اختبارات

<p>مقدم من : الهيئة الهندسية للقوات المسلحة ( ط ١٤ )</p> <p>اسم وتوقيع المرسل : </p> <p>بتاريخ : ٢٠١٦ / ١٧</p>	<p>الاستشاري : المجموعة الهندسية الاستشارية Cgman</p> <p>موجه إلى : مدير المشروع</p> <p>اسم وتوقيع المستلم : </p> <p>بتاريخ : ٢٠١٦ / ١٧</p>
--	--

رقم النموذج: - / م ٤١ / ت خ / 23

جدول رقم		حسب متطلبات المواصفات		عنوان النموذج / Mechanical Splice (Coupler) Tensile Test	
رمز المقايمة	رمز المواصفات	المصنع / المنتج	الموديل / الوصف	عدد التمسح	مسلسل
			Mechanical Splice (Coupler) Tensile Test (Rebar Diameter 32mm & Coupler outer Diameter 52mm)	1	1

عند المقاول المستأنت المرفقة تم تسليمها ومراجعتها من حيث توافرها مع العقد وتعتبر مشمولة للاستخدام في هذا المشروع مع كل النظم.

الملاحظات	الإعتماد بواسطة:	التوقي:	التاريخ
			٢٠١١/١١/١

تفقد النتائج ولأمان من استخدام الـ 'Couplers' في أعمال  
الحرمات المسلحة بمبني الميكانيكا.

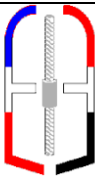
مستند = 1 ☒

ب = معتمد مع ملاحظات. يمكن للعمل أن يستمر بناء على الملاحظات

تاريخ	٢٠١١ / ١ / ٢٠	اعتماد الاستشاري	م. محمد
تاريخ	٢٠١١ / ١ / ٢٠	استلام المقاول	الاستلام بواسطة ١٧/١

التوزيع قبل الاعتماد :      التوزيع بعد الاعتماد

[illegible]

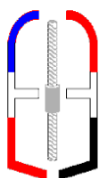


**EXTRA EGYPT**

**Mechanical Couplers**

## Reference List

Project	Country	Contractor	Consultant
Nile Amaranté Hotel	Egypt	Bauer Egypt	Dr. Aly Abdel Rahman
New Naga Hammadi Barrage & Hydro[ower Plant	Egypt	Ferrometalco / DSD	FMC
New American University	Egypt	Samsung / Samcrete JV	Dr. Aly Abdel Rahman
Air-force Club Building	Egypt	Sefi Fontec	PMS
El-Gezera Sheraton	Egypt	Bauer Egypt	Ehaf
South Court of Cairo	Egypt	Sefi Fontec	Moharam Bakhom (ECE)
Airport Terminal 3	Egypt	Nile Company	Dar El-Handasah (E.C.G.)
Airport Terminal 3	Egypt	TAV. Hold. J.V.	Dar El-Handasah (E.C.G.)
Airport Terminal 3	Egypt	TAV. Hold. J.V.	Dar El-Handasah (E.C.G.)



# LIST OF PROJECTS

**Extra Egypt**

**For**

**Mechanical Couplers**

*Mechanical Couplers*

Ain-Sokhna Port	Egypt	Orascom - Besix J.V.	
Tora Elasmant Co.	Egypt	Sefi Fontec	
Elswedey Factory	Egypt	Rewad Modern Engineering	
Meriedian Elharam	Egypt	Sefi Fontec	
Capital Business	Egypt	Sefi Fontec	
El-Geza Tunnel	Egypt	Arab Contractor Co.	Moharam Bakhom (ECE)
Saft Ellaban Bridge	Egypt	Arab Contractor Co.	Moharam Bakhom (ECE)
El-Marrioteya Bridge	Egypt	Arab Contractor Co.	Moharam Bakhom (ECE)
Dahshour Bridge	Egypt	Arab Contractor Co.	Moharam Bakhom (ECE)
Delta Flower Mall	Egypt	Sefi Fontec	Dr. Aly Abdel Rahman
Balm Hills	Egypt	Bauer Egypt	Dr. Aly Abdel Rahman
Nile Hilton Hotel Extention	Egypt	Bauer Egypt	Dr. Aly Abdel Rahman
Porto Elsokhna	Egypt	Bauer Egypt	
ABB Power-Plant (New Cairo)	Egypt	Rewad Modern Engineering	
Kerdasa Beam Factory	Egypt	Arab Contractor Co.	
Ain Sokhna Bridge	Egypt	Arab Contractor Co.	Engineering Authority for Egyptian Armed Forces
Aspire School - Future University	Egypt	Future University	
Sodec Villas	Egypt	ElRewad Co.	
Benha Bridge on Nile	Egypt	Nile Company	
Tobaz Villiage	Egypt	Bauer Egypt	
Biasera Village	Egypt	Bauer Egypt	



Eltalatiny Tunnel - Esmaelia	Egypt	Hassan allam sons	Engineering Authority for Egyptian Armed Forces
Ellewaa Lang Bridge	Egypt	orascom	
Extension of Elameria Drainage Station	Egypt	Arab Contractor Co.	
Sheraton Building Mall	Egypt	Sefi Fontec	
alkbash Bridge - Luxor	Egypt	Arab Contractor Co.	
Kattameya Bridge	Egypt	orascom	
Mountain View	Egypt	Bauer Egypt	
Palm Hills	Egypt	Bauer Egypt	
Alfardan Bridge	Egypt	Bauer Egypt	
Sicon Nill Tower	Egypt	Arabtec - SIAC J.V.	
Ismailia Bridge	Egypt	Hassan Allam sons	Engineering Authority for Egyptian Armed Forces
Suez Canal tunnels	Egypt	Arab Contractor Co - Orascom JV	Engineering Authority for Egyptian Armed Forces
Ring Road Rode El farag Bridg	Egypt	Arab Contractor Co.	Engineering Authority for Egyptian Armed Forces
Village of Orlando - Al Ain Sokhna	Egypt	Egyptian Foundation Technology.Co	
Village of Skye - Sheikh Zayed	Egypt	Egyptian Foundation Technology.Co	
Roxy Garage	Egypt	Arab Contractor Co.	
New El Alamein City	Egypt	Arab Contractor Co.	
National Institute of Hospital 500 500	Egypt	Arab Contractor Co.	
New Administrative Capital - Mansoura 8	Egypt	SIAC	
New Administrative Capital - Mansoura 3	Egypt	Red See Co	
China Towers - New Capital	Egypt	China State	Dar
Water Plant Baher Elbaker	Egypt	Arab Contractor Co.	Khatib &Alami
Museum of Civilization Bridge	Egypt	Hassan Allam sons	Engineering Authority for Egyptian Armed Forces
L.R.T	Egypt	Hassan Allam sons	Khatib &Alami

# CONTRIBUTION OF EXTRA EGYPT

## NEW ALALAMAIN CITY





## ROD EL-FARAG CABLE STAYED BRIDGE AND CORRIDOR





## BARHR EL-BAKAR WATER TREATMENT PLANT





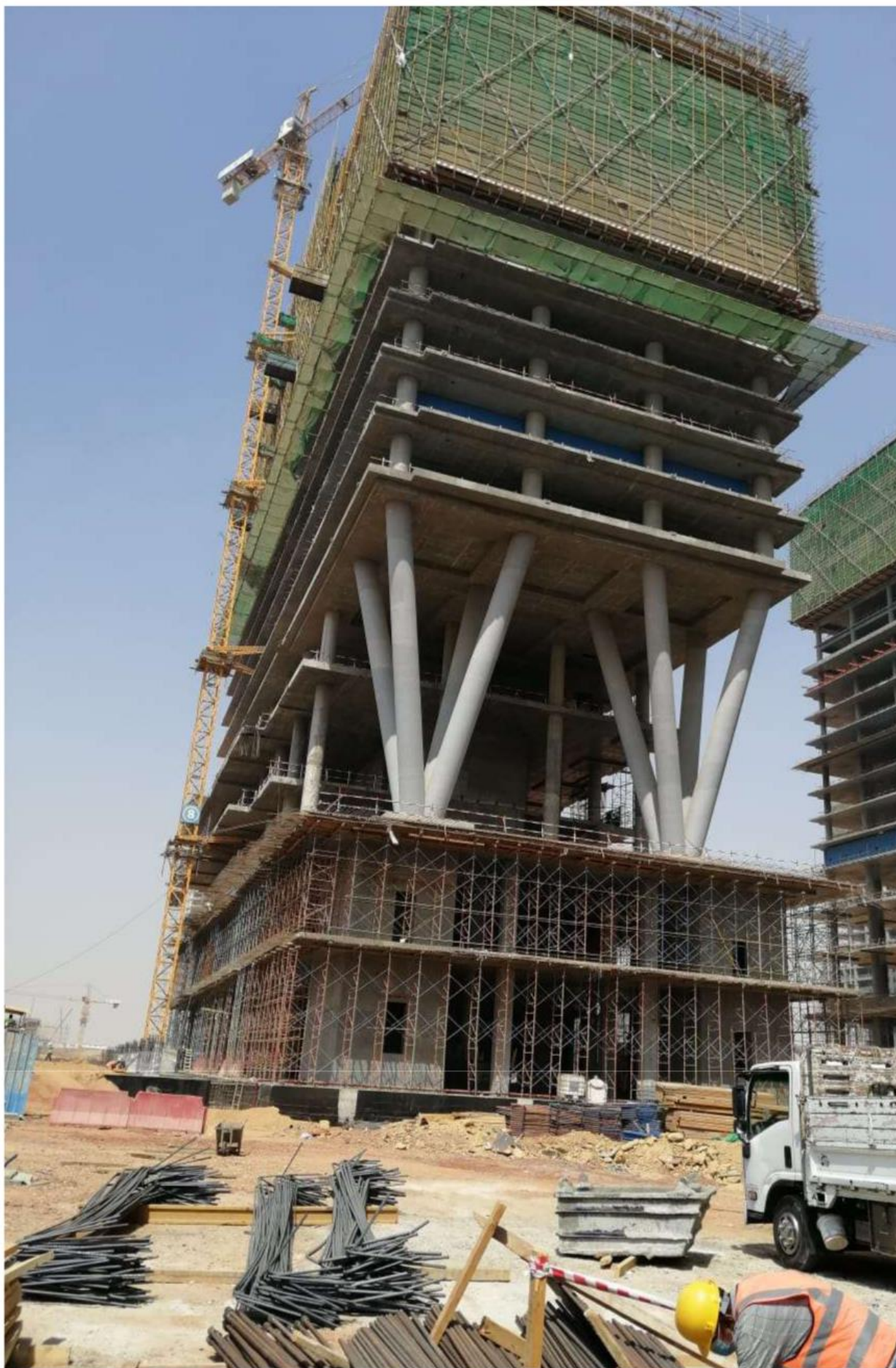
## NEW ADMINSTRATIVE CAPITAL





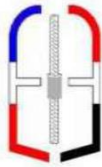
New Administrative Capital - Twin Towers – CSCEC Co.





New Administrative Capital – C03 & C04 Towers – CSCEC Co.





# Extra Egypt For Mechanical Couplers



IAF MLCA signatory for Certification of Persons,  
Product Certification and Management System  
Certification (QMS, EMS, ISMS, EHS, PSMS)

