

**EPCO** is specialized in construction technologies, founded to meet the rising needs of the Egyptian market.

Investment Law No. 43/1974. And is currently working under the Investment Law No. 8/1977 as a joint stock company, it's issued and paid capital is 25,000,000 EGP. The services and activities of the company spread throughout Egypt and the Arab countries and its headquarter is in Cairo and supported by their warehouses in the largest industrial areas to serve all existing and future contracts making it one of the most integrated companies in the construction services, This is based on the principle of the company to provide all clients needs through effective and distinct management and participate in the success and development to maintain the name of the company and excellence, and to establish strong relations with our business partners.

#### **Services & Products**

- Slipform
- Heavy Lifting
- Contracting and Consulting
- Chemical Resistant Bricks
- Acid Resistant Refractory Units
- Refractories
- Vitrified Clay Pipes



## **Vision**



We aim to be the leading company in our fields of experience locally and internationally. Moreover, to promote Slipforming techniques to keep pace with the continuous evolution and development of the engineering world.

We believe that operating major projects that depend on the mentioned systems will upgrade the construction techniques in Egypt and put it in line with the global development in construction where our work would reflect our efforts.

## **Values**

- Quality
- Experience
- Comitment
- Client-Company Relationship
- Customer Service







## **Slipform**

It eases the progression of concrete pouring during day and night while moving vertically within the Slipform framework. It moves consistently and steadily towards the top from one part to another before the first mixture fully dries out to avoid sticking with the Slipform's body and to qualify the required structural strength. From the previous explanation, it's clear that the accuracy of determining the Slipform lifting rate is the sole reason for the success of this process and the aforementioned average rate ranges between 15-30 cm/hour.

#### **Types of Slipform**

- Standard Slipform
- Gantry Slipform
- Conical Slipform

#### **Applications**

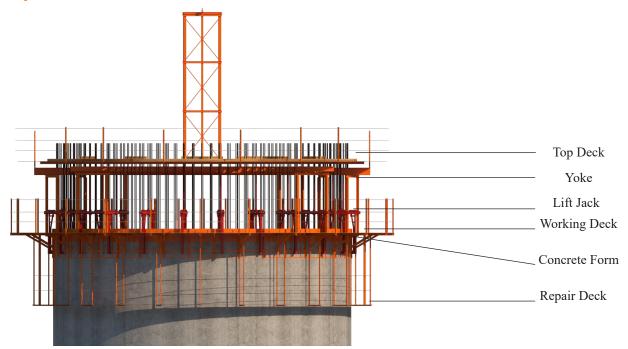
- Chimney Construction
- Construction of Water Towers
- Construction of Regular high-rise core structures

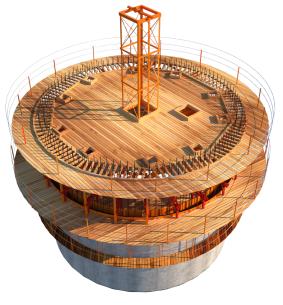
#### **Benefits**

- Cost effective
- Time efficient
- Increases productivity
- Good quality finish
- High safety factor



## **Slipform Illustration**









#### **6 Tons Jacks**

Capacity: 6 tons Length of Stroke: 25 mm Jack Rod Diameter: 32 mm Jack Tube Diameter: 34 mm Level Control: Yes





#### T15-S-18 Climber

Capacity: 12 tons
Length of Stroke: 200 mm
Jack Rod Diameter: –

Dyformed PC-strand: Dia 18 mm



#### Pump Unit 20-CP61

Capacity: 12-40 L/min Working Pressure: 160 Bar Motor Size: 5.5 kW

## **Projects**





#### El-Fattah Al-Aleim Mosque

- Construction of the main dome
- Steel work
- Concrete pouring and curing



#### **Alamein old City Mosque**

- Construction of minarets
- Construction of small & medium domes
- Slipform
- Steel work
- Concrete pouring and curing



#### **West Shorouk Mosque**

- Construction of minarets
- Construction of the domes
- Slipform
- Steel work
- Concrete pouring and curing

## **Projects**



#### Suez Thermal Power Plant,

#### 1 Unit X 650 MW (2013 - 2014)

- Design
- Furnishing
- Construction of chimney work
- Electric work installation
- Supply and install of chemical resistant bricks for flue lining



#### Walidia Power Plant (2017)

- Demolishing
- Furnishing
- Supply and install of chemical resistant bricks for flue lining
- External steel and concrete coating
- Electrical work rehabilitation.



#### El-Tebbin Power Plant,

#### 2 Unit X 350 MW (2009)

- Designing
- Furnishing
- Supply and install of chemical resistant bricks for 2 flue lines





#### Sidi-Krir Thermal Power Plant,

#### 2 Units X 325 MW

- Design
- Furnishing
- Supply and install of chemical resistant bricks for 2 flue lines



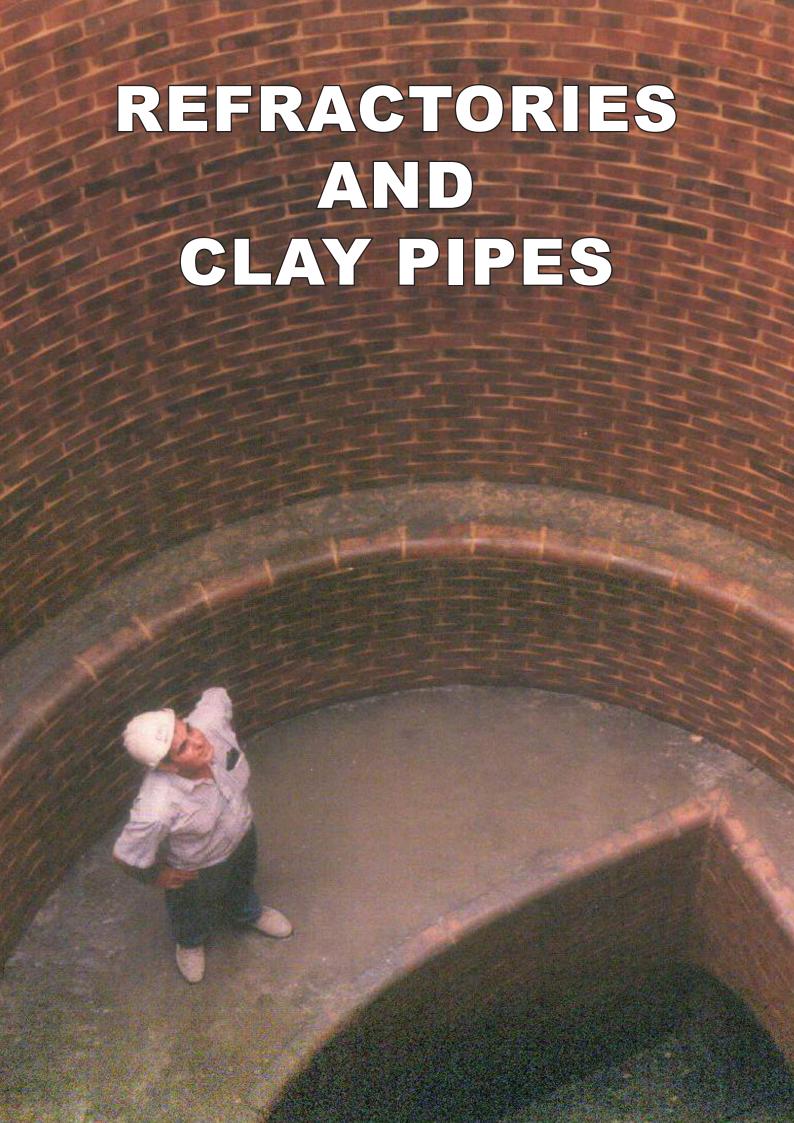
## South-Helwan Thermal Power Plant, 3 Units X 650 MW (2017)

- Design
- Furnishing
- Slipform
- Supply and install of chemical resistant bricks for flue lining
- External Steel



#### Cairo West Thermal Power Plant, 1 Unit X 650 MW (2018)

- Design, Furnishing & Slipform
- Supply and install of chemical resistant bricks for flue lining
- External steel
- Electric work installation



## **Vitrified Clay Pipes**



The Arab Company for Ceramic Products, KEPCO, produces Vitrified Clay Pipes with diameters varying from 150mm up to 1,000 mm and with lengths 1500–2000 mm. This is acquired by adopting the latest technology equipment in the lines of preparation, shaping, handling, drying, and firing of the pipes through tunnel kilns which have been imported from the largest German and English specialized firms in this field. The kilns are operated and controlled by PLC to allow and guarantee the highest standards of quality which comply with

- The Egyptian Standards (No. 56/2005, and the Cabinet Decision No. 277/2000
- International American Standards ASTM C700
- International European Standards EN 295

KEPCO's Vitrified Clay Pipes undergoes several tests throughout its production cycle by our Quality Control Department.

KEPCO's Vitrified Clay Pipes undergo continuous inspection and testing, both of the product itself and its production cycle, by the National Organization for Potable Water and Sanitary Drainage, the Administration of Testing and Industrial Supervision, through its stationed representatives who, issue test certificate that KEPCO products comply with **Egyptian Standard (No. 56 / 2005)** testing certificates.

After excelling in the production of the Vitrified Clay Pipes, KEPCO then went on to produce clay pipes with flexible joints comply with the same **Standard ES56/05** It is therefore inevitable, that KEPCO's Vitrified Clay Pipes, both with and without flexible joints, has shared in all national projects all over **A.R.E.** 

Characteristics if KEPCO's Vitrified Clay Pipes:

KEPCO's Vitrified Clay Pipes are self-glazed all the pipe's body is vitrified and this is due to the very high techniques used in preparing the raw material in the lines of grinding, mixing, shaping, drying, and firing, where the latest technology equipment used, operated & controlled by PLC.



Diameter	Length	Weight /Kg
6" - 150 mm	1.50	41.00
7" - 175 mm	1.50	46.00
8" - 200 mm	1.50	55.00
9" - 225 mm	1.50	64.00
10" - 250 mm	1.50	72.00
12" - 300 mm	2.00	133.00
15" - 375 mm	2.00	187.00
18" - 450 mm	2.00	254.00
20" - 500 mm	2.00	344.00
24" - 600 mm	2.00	456.00
30" - 750 mm	2.00	535.00
36" - 900 mm	2.00	684.00

#### **KEPCO's Pipes**

- Easy to install
- 100+ years life expectancy
- Environmental Friendly
- Produced from locally abundant clay material
- High resistance to all types of aggressive soil
- Low percentage of water absorption
- Efficient hydraulic liquid-passing properties
- High resistance for acids, alkalis, fungi, and reptiles.
- Highest resistance to abrasion & corrosion and not affected by eddy currents.
- Not affected by chemical substances or gases produced as a byproduct due to the reactions of the components of the sewage, except Hydrofluoric Acid (HF).

We offer full verification guarantees against any defects on the external or internal surface, making them superior to Glazed Pipes.

Possibility of production according to **European Standards EN 295** upon request.

Comply with both The Egyptian and International Standards for their mechanical and chemical characteristics.









## **Clay Pipes Reference List**

Company Name	Quantity/ml
ARAB CONTRACTORS (OSMAN AHMED OSMAN &CO.)	600,000
SOCIETE EGYPTIANNE (MOUKHTAR IBRAHIM)	900,000
INDUSTERIAL & ENGINEERING ENTERPRISES CO.	300,000
HASSAN ALLAM SONS CO.	80,000
MISR CONCRETE DEVELOPMENT CO.	50,000
AL-NASR CONTRACTING CO. (HASSAM MOHAMED ALLAM)	400,000
EGYPTIAN ARAB CONTRACTING (EAC)	150,000
SAFCO FOR CONTRACTING Co.	250,000
THE NILE GENERAL CO. FOR REINFORCED	40,000
SAAD HANNA SONS TRADE &CONTRACTING	50,000
NASR CO. FOR UTILITIES AND ERECTION (N.U.E)	35,000
SAFA MISR CONTRACTING TRADING CO.	15,000
CONCORD FOR ENGINEERING & CONTRACTING CO.	200,000
DAHAB CONTRACTING CO.	350,000
EL-NAZER FOR ENGINEERING WORKS CO.	12,000
NASE Co. FOR CIVIL WORKS CO.	500,000
SPECIALIZED CONTRACT & INDUSTRIES CO.	20,000
EL NASR BUILDING &CONSTRUCTION CO.	15,000
AL BEHAIRA SHARING CO.	18,000
GENERAL CO. FOR RECLAMATIONOF LAND	50,000

In addition to the supplied quantities for the contractors of the private sector with an average amount of  $5{,}000~\rm{km}$ .

#### **Chemical Resistant Bricks**

KEPCO manufactures Chemical Resistant Bricks, commercially known as Blue Bricks, which are mainly used in drainage systems. The product is manufactured under

- The Egyptian Standard No. 41 of 2005 a
- German Standard No. 1230/80 Part III
- British Standard No. 3679.

KEPCO's product of Chemical Resistant Bricks is subjected during its manufacturing process to test by our Quality Control Department.

Consequently, they attain a high level of mechanical properties. Moreover, they are molded accurately. Hence, the thinnest layer of mortar can be applied easily on top of it.

Blue Bricks are used in...

- The lining of sewage tunnels
- Sludge tanks and manholes
- Lining of chimneys

KEPCO supplied around 94% of its special products to line the tunnels of sewage in Greater Cairo. Equivalent to 43.935 million bricks out of 46.630 million bricks used in this project. Moreover, KEPCO also provided blue bricks to the lining of the tunnels of Alexandria Governorate.

Test Description	KEPCO's Result (Average)	Egyptian Standsards (41/2005)
Acid Resistance	2.8%	3.5%
Water Absorption	3.5%	6%
Compressive Strength	63.7 N/mm²	29.43 N/mm²









Contractor	Quantity	Project Name
Orascom	700,000	Golf View, 6th of October City.
Orascom	500,000	Police Academy, 1st Settlement.
Orascom	250,000	Air Defense Stadium, Axis Marshal.
Arab Contractors Company	825,000	Housing Unions, Dahshur.
Arab Contractors Company	500,000	Police Academy, 1st Settlement.
Palm Hills	800,000	Palm Hills, Coast Hills.
Palm Hills	500,000	Palm Hills, 5th Settlement.
Nile Valley Contracting Buildings	900,000	Residential complex of 150 acres of National Defense Council, October Oasis.
Upper Egypt Contracting	2,000,000	Residential complex of 150 acres of National Defense Council, October Oasis.
Arab Company for Construction	1,000,000	Residential complex of 150 acres of National Defense Council, October Oasis.
Arab Office Decoration	900,000	Residential complex of 150 acres of National  Defense Council, October Oasis.
Carpenter Conracting	350,000	Residential complex of 150 acres of National  Defense Council, October Oasis.
Khalidiya Company	200,000	Residential complex of 150 acres of National  Defense Council, October Oasis.
Target Company	100,000	Residential complex of 150 acres of National  Defense Council, October Oasis.
Yathrib Company	150,000	Residential complex of 150 acres of National  Defense Council, October Oasis.
Amer Group	250,000	Porto New Cairo
Amer Group	300,000	Porto Coast
SIAC	500,000	Zewail City, October.
Dora Group	600,000	Palm Hills, October.
SIAC	375,000	Industrial West, 10th of Ramadan.
The Pioneers of Modern Engineering	500,000	Maxim Mall, New Cairo.
The Pioneers of Modern Engineering	300,000	Sharm Hotel, Sharm El-Shaikh.

## **Acid Resistant Refractory Masonary Units**

KEPCO's Chemical Resistant Bricks have very high resistance to any chemicals making them perfectly suitable for industrial chimneys, especially for power and cement plants. KEPCO alone is specialized in this production in Egypt. Its quality super ceded to that of the imported ones, and this is why importation of such units was banned and this saved foreign currency for Egypt's economy.

KEPCO's production complies with ASTM C279 and C980 (American Standard) and DIN 1057 Parts I, II, and III (German Standard), ES 4130/2003

Туре	Dimension	WEIGHT/Kg
Acid Resistant Brick	25 x 11.5 x 6.5	4.15
Acid Resistant Brick	23 x 11.5 x 3.0	1.90
Acid Resistant Ruler Brick	22 x 5.5 x 3.0	1
Acid Resistant Perforated Brick	22 x 11 x 6.5	2.70
Acid Resistant Black Brick	20 x 10 x 5	2.20
Acid Resistant Manhole A Brick	22 x 10.5 x 7.3	3.70
Acid Resistant Manhole B Brick	22 x 10.5 x 7.3	3.70
Acid Resistant Manhole C Brick	22 x 10.5 x 7.3	3.70









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## Sewage and Manhole Projects Executed with KEPCO's Acid Resistant Bricks

Projects	Quantity	Executed by	
Contract no.1 Al-Ameria manhole project	415,000	Cristiani Misr	
Contract no.3A Al saida Zainab sewage tunnels	3,300,000	El- Nasr General Co. for Contractors	
Contract no.4 Cairo West manhole	1,200,000	Lili Misr	
Contract no.5A	1,805,500	Arab Contractors	
Contract no.5A (continue)	600,000	Arab Contractors	
Contract no.12 Al saida Zainab sewage tunnel	1,200,000	C.W.C	
Contract no.15 Misr El Qadema sewage tunnel	3,800,000	C.W.C	
Contract no.21-22 West of Nile manhole project	5,200,000	FRU-CON	
Contract no.24A West of Nile manhole project	147,500	El- Nasr General Co. for Contractors	
Contract no.25A West of Nile manhole project	2,000,000	FULLER	
Contract no.14	2,790,000	C.W.C	
Contract no.14 (continue)	320,000	C.W.C	
Manhole project Nazlet El- Saman	132,000	Hassan Allam Sons	
Sewage project Nazlet El-Saman	400,000	Societe Egyptienne D, Enterprises	
Contract 20A West of Nile manhole project	71,000	Harbert Jones	
Sewage project No. 27	250,000	Harbert Jones	
Manhole project – Western Bank.	740,000	Different Company	
Sewage net projects for new cities – Aswan	400,000	MORRISON KNUDSEN	
Contract no.16 Sewage project-El-Gabal El-Asfar	218,000	Misr Concrete Development Co.	
Contract no.24A	213,000	Industrial & Engineering Enterprises Co.	
Contract no.24K-24L-24I	333,000	Industrial & Engineering Enterprises Co.	

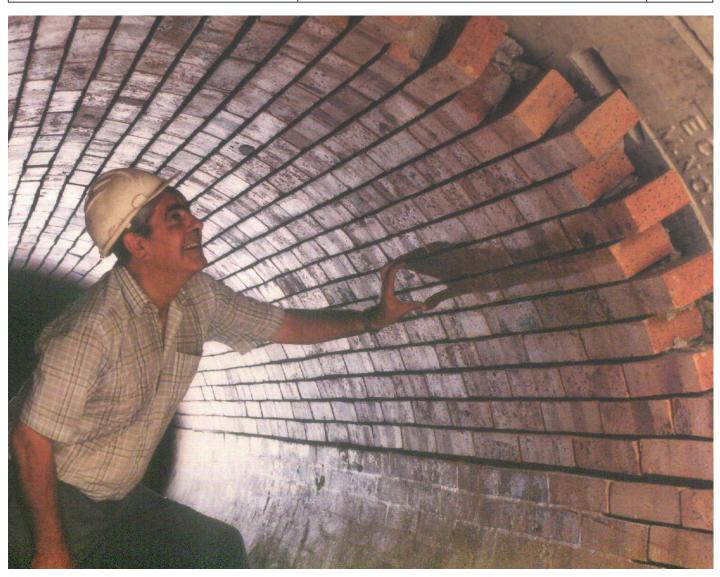
Project	Quantity	Executed by	
Contract no. 13 Maadie, Masr El Qadema manhole sewage project	3,500,000	Misr El-Mostakbal for Specialized Contracts Zublin Co.	
Sewage project – Sendoub	100,000	EL Nasr for Building & Constructions (Egyco), Middle of Delta	
Culverts from Khossous to El Gabal El- Asfar Project	7,500,000	SOCIETE EGYPTIANNE Co.	
Culvert sewage project – El Khosos, El-gabal El Asfer	3,500,000	SOCIETE EGYPTIANNE Co.	
Contract no.16 Sewage project – El Gabal El-Asfar	55,000	EL Nasr for Building & Constructions (Egyco), Cairo	
Sewage manhole project – Agamy, Alex- andria	150,000	Arab Contractors	
Abu Rawash culvert enlargement project	710,000	El- Nasr General Co. for Contractors	
Abu Rawash project for Sewage plant enlargements	175,000	Arab Contractors	
Sewage manhole project Al Ameria	250,000	Arab Contractors	
Sewage manhole project – Agamy, Kafer Tohormose Geza	40,000	Concord for Engineering Contracting Co.	
Sewage project Arab Al madabegh Asiot	57,000	Arab Contractors	
Abu Rawash culvert enlargement project	178,000	Arab Contractors	
Sewage manhole project Al Ameria	430,000	Arab Contractors	
Sewage manhole project Ain Shams	440,000	Arab Contractors	
El Qahera El Fatemia Project	100,000	Arab Contractors	
Sewage project – EL Marg	300,000	Arab Contractors	
Sewage project – AL Mansura	60,000	Arab Contractors	

The total quantity of acid resistant bricks delivered by **KEPCO** is around 43,100,000 Brick. KEPCO also exports chemical resistant bricks to many countries in The Middle East.



# Projects of sewage lining and cladding products implemented by our acid-resistant bricks

Project Name	Description	Date
Manhole project main sewage station at Ain Shams Main Contractor: Arab Contractors Helwan Branch	Coating and lining of the main manhole The internal diameter of the building is 48m Depth of 20 meters Coating and lining of 3 sub-sections with diameters of an average of approximately 13 m with a total area of 6000m2	2015- 2014
Manhole project main sewage station at Al Ameria Main Contractor: Arab Contractors Management of bridges and specialized constructions	Coating and lining of the main manhole The interior diameter of the building is 42m The depth of the manhole is 32m	2013- 2014



### Refractories

KEPCO's Refractories include mainly fire clay alumina silicate types having alumina contents up to 42%. They are processed in standard brick size, special shapes or specifically demanded lightweight insulating bricks.

Furthermore, Refractory Mortar and Refractory Concrete are produced. These products are highly demanded in...

- Ceramic Factories
- Clay Bricks Factories
- Cements Factories
- Iron Factories
- Steel Factories

They are used in kiln insulation and kiln car furniture, which leads to sparing energy consumption and the weight of the car. Adding to that, these products are exported to many Arab countries.

Brick Type	Dimension	Kg
	26 x 11.5 x 7.5	4.70
Refractory Brick 40 - 42%	25 x 11.5 x 7.0	3.80
	26 x 11.5 x 3.5	2.40
Refractory with a Round Edge 40 - 42%	27 x 12 x 6.5	4.35
	25 x 11.5 x 7	3.80
Refractory Brick 36 - 38%	23 x 11 x 7	3.40
	25 x 11.5 x 4	2.00
Commercial Bricks	20 x 10 x 6	2.20
Commercial Bricks	23 x 11 x 7	3.40
Refractory Brick	23 x 11.5 x 4	1.75
Refractory Ruler	26 x 6 x 2.3	0.75
Refractory Perforated	24 x 11.5 x 6.5	3.70
Refractory Forms	24 x 11 x 6/4	2.80



















Company Name	Alumina %	Quantity in Tons
Misr Brick Co.	36 – 38 %	2000
Ismailia Brick Co.	36 – 38 %	1000
El Fayoum Brick Co.	36 – 38 %	560
El Behera Bricks Co.	36 – 38 %	700
Qena Bricks Co.	36 – 38 %	480
Bany souif Co.	36 – 38 %	530
Giza Brick Co.	36 – 38 %	412
Arab Contractors (El Sadat Factory Bricks )	36 – 38 %	480
Misr Iran Brick Co.	36 – 38 %	800
Hassan Allam Bricks Co.	36 – 38 %	320
Mineral Welth Brick Co.	36 – 38 %	475
Tora Cement Co.	36 – 38 %	130
Leseco Misr Co.	36 – 38 %	140
Alexandria For Steel Co. in Dekhela	36 – 38 %	180
Al Ahleia for metal industries Co.	36 – 38 %	115
Metal X for metal industries Co.	36 – 38 %	115
18 <sup>th</sup> military Factory	36 – 38 %	75
El Nasr for Chemical Medicine Co.	36 – 38 %	100
Standard Company (NOVA)	36 – 38 %	60
Dr. Grish for Glass Co.	36 – 38 %	55
G.M.G for Glass Co.	40 – 42 %	80
El Nasr for Coke Co.	36 – 38 %	50
Arasemco Co.	36 – 38 %	70
El Ahlea company for Pipes and Bricks Co	36 – 38 %	380
Kafer El Zaiat for Pipes Co	36 – 38 %	300
Petrojet COST + The General Petroleum Co.	40 – 42 %	180
Egyptian Japanese for Steel works	36 – 38 %	90
The General Petroleum Corporation—Al Kolenga Heaters (750& 1500)	40 – 42 %	260
Arab Contractors (Draft Steel Blocks Factory)	36 – 38 %	85
Tatco (Export – Lebanon)	36 – 38 %	160
Maade (Export – Denmark)	40 – 42 %	200
Jay's Refractories (Export – England)	40 – 42 %	180
Some of Foundries (Export – Al Sudan )	36 – 38 %	1200
Al masria Al uonania Bricks Co.	40 – 42 %	105
A.S.G. Co. (Export – Greece)	36 – 38 %	40
ElGod Co. (Export – Syria)	36 – 38 %	60
GRACI Company (Export – Maroc)	36 – 38 %	1800









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#### **Partners of Success**

























# KEPCO®











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