## COMPANY PROFILE



## MEET ONE OF THE LARGEST AND MOST REPUTABLE PRODUCERS OF REFRACTORY PRODUCTS



# WELCOME

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Once known as the "Egyptian Refractory Company", Asfour M & R has become one of the largest and most reputable refractory producers in the region. Since its inception, the organization has always maintained the slogan "highest in quality and greatest in service". This generation of highly trained engineers, technicians and managers is dedicated to the motto, ensuring that our customers come first.

The Asfour M & R production plant is designed to offer a wide range of products and serve multiple industries efficiently and effectively. We serve clients from a wide range of industries including:

Steel - Cement - Non ferrous industry - Fertilizers - Ceramics - Sugar manufacturing





At Asfour Mining and Refractories, our determined people create solutions, build sophisticated products, and deliver excellence in service. We aspire to become the largest producers of refractories in the region, and ultimately, the world.



HISTORY







Our mission is to provide our global customers with the highest quality refractory products and solutions. We take our clients' specifications very seriously, striving to accommodate their requirements and exceed their expectations.

#### The Egyptian Company for Refractories was established in the 1980's.

By 2007, the company had shifted from government to private ownership as Asfour M&R.

We are focusing beyond our sustainable growth in the local market to expansion across the globe, especially in the MENA region and Europe.

Today, Asfour M&R has become one of the largest refractory producers in the region, aspiring to become the largest by 2020.

## MESSAGE FROM THE CEO

**Asfour M&R** operates as a family with a passion exemplified in everything we do. Our people understand that our uniqueness is derived not just from our outstanding products and services, but also from our sense of collective unity in delivering such excellence. We are currently undergoing a series of changes aimed at improving our excellence in service and production whilst adhering to the highest standards of sustainable growth.

**Our vision** revolves around our capabilities, resources, and values. To those who we serve, we will constantly try to strengthen our relationship to ensure that we do not have 'clients', but partners. To those who we have not yet had the pleasure to serve, we would certainly like to extend our services to your facilities and prove to you that we have the right mix of quality products and competitive prices.

**Our growth,** despite recent social, political and economic challenges, continues to prove our resilience in tough times. While this has presented managerial challenges to our people, they have successfully managed to keep Asfour M&R's problems at home, and continue to deliver what the organization has promised. I believe that Asfour M&R can sustain this level of service quality by ensuring that customer satisfaction comes first on my agenda.

ENG. MOHAMED ASFOUR CHAIRMAN & CEO



### ENG. MOHAMED ASFOUR

#### **CHAIRMAN & CEO**

Eng. Mohamed Asfour is a mechanical engineer with over 30 years of professional experience in various manufacturing industries. Prior to the acquisition of Asfour for Mining and Refractories, he had helped establish a cutting-edge division for mechanical and maintenance workshops at Asfour Crystal, a global market-leader producing over 100 Tons of crystal per day. Today, Eng. Mohamed Asfour is behind the growth of Asfour M&R, which features a capacity of more than 60,000 tons of refractory material per year, produced by over 500 skilled workers, technicians, and industry leaders. He aims at setting Asfour M&R as the largest producer of refractories in the region by 2020, without compromising any of his core values; Integrity, Justice, and Innovation.

### ENG. **YASSIN ASFOUR**

VICE PRESIDENT

Mr. Yassin Asfour had obtained his MSc of Management, Organizations, and Governance from the London School of Economics. He has had prior experience in the consulting industry with PwC, the advertising industry with M&C Saatchi, and has held advisory roles with several start-ups. Today, he runs a gradual managerial restructuring program at Asfour M&R to help achieve the organization's 2020 vision. He believes that success can only be achieved through sustainable growth, happy employees, and weekly corporate football matches!

### MR. MOHAMED AHMED

### MR. **GAMAL YOUNIS**

"Our clients in the European market are more than partners. Our everlasting relationship is based on mutual trust, compatible core values, and similar depth in vision. We have succeeded in retaining some of the biggest refractory producers and consumers in Europe on our client list"

#### SALES SECTION HEAD - MENA

"Markets in the region have been growing despite sociopolitical turbulence. Our strategy in the MENA region is to remain resilient in providing quality refractory material in a timely manner despite fluctuations in energy prices, inflation spikes, and currency instability."

#### SALES SECTION HEAD - EUROPE



## PRODUCTS & SOLUTIONS

#### Shaped

- Alumina Dense Bricks
- Light Weight Bricks
- Acid Resistant Bricks
- Cordierite Bricks

#### Unshaped

- Castables
- Mortars

#### **Raw material**

- Calcined Kaolinite
- Chamotte Sanitary Ware

#### Services

• Post-Sale Installation



### PRODUCTS SHAPED

#### **ALUMINA** DENSE BRICKS

Alumina Dense bricks are composed of refractory ceramic material with various combinations of Alumina and Silica. A Refractory Brick is built primarily to withstand high temperature, but would also usually exhibit a low thermal conductivity for greater energy efficiency. Dense firebricks are typically used in applications involving extreme mechanical, chemical, or thermal stresses.

They are used for lining Furnaces, Kilns, Fireboxes, and Fireplaces

Our vast product range of Alumina Bricks is vital to the Steel, Aluminum, Cement, Sugar Petrochemicals, and Enamel kilns industries.

#### FIRE CLAY BRICKS

Fireclay Bricks or Fire Bricks are the most widely used Refractory Bricks due to their following properties:

- Low Thermal Conductivity.
- Good Thermal Insulation performance.
- High Resistance to Thermal shock, Abrasion, & Chemical attack thus prolonging product lifetime.
- Easy operation and installation.
- Broad application range.
- Economic Cost.

At Asfour M&R, we offer a comprehensive range of Fireclay Bricks ranging from 25%-45% Alumina, all of which exhibit excellent strength and endurance.

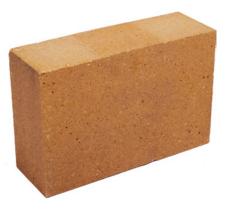
#### HIGH **ALUMINA** BRICKS

High Alumina Bricks possess key features such as:

- High temperature performance.
- High corrosion and wear resistance.
- High bulk density.
- Low Iron content.

High Alumina Bricks are extensively used in the Mining, Metallurgy, Cement, Chemical, Refinery, and Refractory industries.







#### LIGHT **WEIGHT** BRICKS

Weighing only a fraction of Concrete and Clay bricks, these revolutionary bricks have been designed with the following features:

- as
- opposed to Concrete or Clay bricks.

Light Weight Firebricks are used in a wide array of industrial furnaces and kilns such as:

#### ACID RESISTANT BRICKS

Acid Resistant or Acid Bricks are both chemically resistant and thermally durable. They are composed of high Silica Shale and are fired at very high temperatures. Acid brick benefits include:

- Allowing Plastic Membranes to operate in high temperature environments (up to 450° F).
- Resisting Mechanical and Physical Shock.
- Allovs or Glass Lined Vessels.

Our Acid Resistant bricks are used for Acid-Proof storage tanks, Chemical plants, Vessels/Reactors, Electroplating plants, Laboratories, and Heavy-Duty flooring.



Aluminum Cordierite Fire bricks and Mullite Cordierite Fire bricks are composed of Aluminum materials combined with Cordierite or Mullite to guarantee high compressional strength, thermal shock resistance, and low thermal expansion coefficient

These characteristics are ideal for Hot-Blast stoves, Kiln firing sections, Kiln roofing tiles, Tunnel Kiln cart assembly, and Porcelain and Sanitary ware industries



• They allow for faster and easier construction, therefore saving time and labor costs without compromising structural and load bearing requirements. • Their light weight mitigates several safety issues for bricklayers and builders

• They exhibit fire resistant gualities uncommon in the refractory industry.

 Hobby Kilns including Electric-Spiral Heater and Gas Burner Models. • Hot-Face furnace linings or Outer Back-up Heat lining insulation.



• Protecting vessels from Acids, Alkalis, Oxidizers, and Solvents. • Provide a more economic solution than other options such as





### PRODUCTS **UNSHAPED**





Castable Refractories are dry, granular refractory mixtures designed to be mixed on site with water and are capable of curing to a stable dimensional form through hydraulic or chemical setting. They can be used for molding complete furnace linings and other unique shapes at installation sites. Asfour M&R can supply a full line of refractory castables utilizing various bonding systems.

Our castables are commonly used in the Chemicals, Metal Foundries, Cement, Fertilizers, Ceramics, Oil refineries, Petrochemicals, Textile Plants and Paper industries.

We can customize our castables to our clients' specifications and requirements. Our typical castables include but are not limited to:

- 1. Alumina Silicate Castables
- 3. Light Weight Castables
- 2. Low Cement Castables
- 4. Cordierite Castables

PRODUCTS **UNSHAPED** 



Asfour MR produces Fire-clay and High Alumina mortars which are used to bind refractory bricks together and fill and seal any regular gaps between them.

HEAT-**SETTING MORTARS** 

AIR-**SETTING MORTARS** 



These products are distinguished by their high strength, permeability resistance, erosion resistance, superior mechanical properties, and convenient construction. They are commonly used to line the ceilings and walls of CFB boiler furnaces.

They are used as lining material, guaranteeing high refractoriness, long service life, and reduction of material consumption and manual operation. Low Cement Castables are used extensively in Steel Foundries, Aluminum Furnaces, Rotary Kilns, Incinerators, and Precast Shape Manufacturing.

These products contain refractory aggregates and powder, binders and other additives. Key features include low viscosity, casting and vibration molding options, and direct or fluid-mix application.

Lightweight castables are primarily used as insulation backup linings, however, they can also be used as working linings in non contact areas such as ceilings.

### **CORDIERITE CASTABLES**

LIGHT-

WEIGHT

**CASTABLES** 



Cordierite castables exhibit low thermal expansion and high thermal shock resistance. They are commonly used in the Kiln Furniture industry.





These Mortars are set by application of heat above room temperature at sintering (ceramic-bond formation) temperatures.



These Mortars require tempering with water to attain the desired consistency followed by air-drying to provide a strong-joint framework with near-monolithic strength.







Ground Chamotte with low thermal expansion is used as raw material within the Sanitary-Ware industry. Grain sizes include:

500 microns. 300 microns. 250 microns. 200 microns. 125 microns.



Refractory Chamotte is used for producing refractory bricks, castables, and mortars. Grain sizes can be customized and include the following ranges:

0-1 mm 1-3 mm 3-5 mm 5-10 mm 0-40 mm



## CUSTOMIZED REFRACTORY SOLUTIONS

We offer a uniquely wide selection of refractory products. We customize specific orders for various industries.

## EFFECTIVE INSTALLATION SERVICES

We do not just produce quality refractory we also offers unmatched insulation service It's our job to ensure a safe efficient and effective installation.

## CONTINUOUS PRODUCT DEVELOPMENT

Our products portfolio expands beyond just refractories we offer a diverse range of complementary refractory products and materials such as sanitary Chamotte, light weigh bricks.



## PRODUCTS SERVICE



As part of our commitment to our clients and excellence in refractory solutions, we offer a unique post-sale service which includes the full operational process of refractory material installation. This process has been widely recommended by our clients as it ensures optimal kiln performance.

Our Installation technical team consists of dynamic engineers and technicians who are willing to travel across borders to serve your facilities at your own convenience. We also offer the service as a stand-alone option; we can install Non-Asfour M&R products.

Nile Sugar Co Testimonial:



Asfour's installation service is incredibly rewarding. It involves a quick, efficient, and inexpensive operation that has guaranteed our kilns' successful performance for years after installation had been completed. 11



## RESEARCH **& DEVELOPMENT**

Our R&D section is the main fuel behind our growth in the last decade.

Our R&D facilities comprise state of the art technology which enable our personnel to innovate and respond promptly to our clients' rapidly changing requirements & specifications.

It is our aim to increase our capital expenditure in R&D even further in next year.

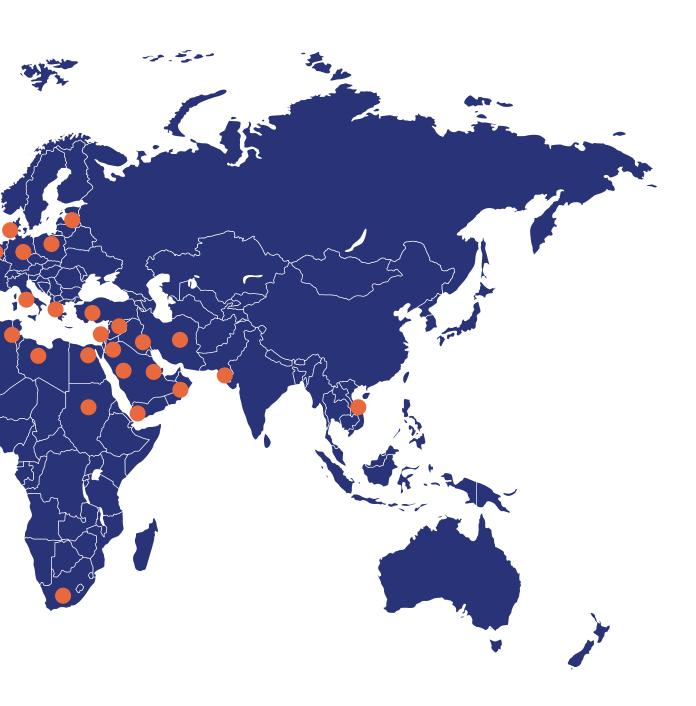




## DEALING WITH CLIENTS LOCATED IN +27 COUNTRIES AROUND THE WORLD

| Netherland |
|------------|
| Spain      |
| Italy      |
| Germany    |
| Greece     |
| England    |
| Latvia     |
| Portugal   |
| Denmark    |
| Poland     |
| Algeria    |
| Morocco    |
| Tunisia    |
| libya      |

Sudan Saudi Arabia Turkey Jordan Syria Iraq Yemen Pakistan South Africa Bahrain Iran Lebanon Oman Vietnam



## **OUR CLIENTS**

Refractories



**REFRA**TECHNIK



Kiln cart



Glass —



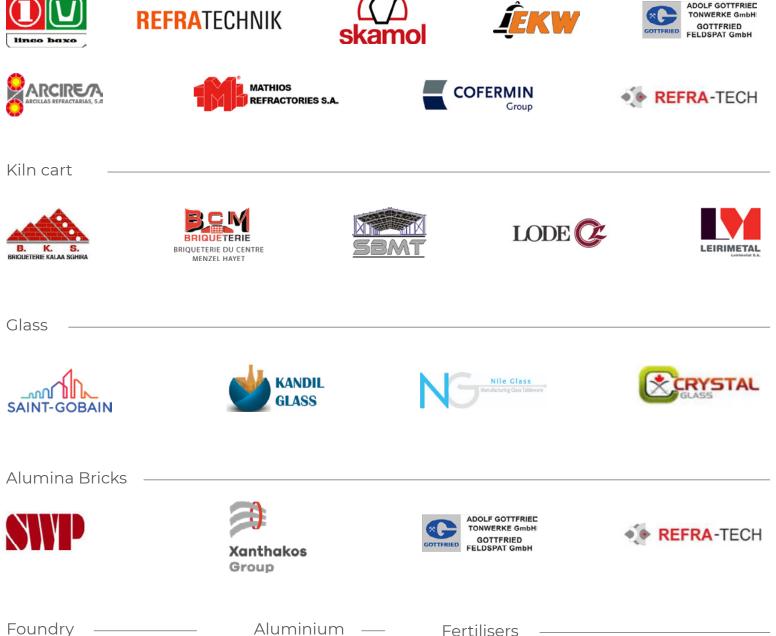


Foundry \_\_\_\_\_





| Cement                           |   |  |                |
|----------------------------------|---|--|----------------|
| Italcementi<br>Italcementi Group | LAFARGE<br>Building better cities <sup>**</sup> |  | ARABIAN CEMENT |
|                                  | CEMEX   | CINPOR<br>a member of O InterCement                    | CEMENT UK      |
| Sanitary ware ——                 |   |  |                |
| DURAVIT                          | STANDARC  |  | Lecico         |
| سیرامیکا گلوباترا جروب           | <b>IDEAL</b><br>SANITAIRE                       | Egyptian German Porcelain<br>fath Monood<br>Since 1942 | SADITAITES     |
| Steel                            |   |  |                |
| ezzsteel و O                     | EGYPTIAN<br>STEEL                               | المراكبي للصلب<br>BESHAY STEEL                         |                |
| Construction Co. —               |   | Sugar ————   |                |
| ORASCOM                          |   | مجموعة صافولا<br>nile sugar                            |                |







Fertilisers —







ADOLF GOTTFRIED

TONWERKE GmbH GOTTFRIED

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