SILICON
Refractory Anchoring Systems
Constant Innovation and Metallurgical Consultancy

SILICON Headquarters
Monsterseweg 2
2291 PB, Wateringen
The Netherlands
T +31 (0) 174-225522
F +31 (0) 174-225529
info@silicon.nu

We take metal seriously.
Let’s do business.

Refractory Anchoring Systems
SILICON was founded in 1982 by Wouter Garot. Years of experience taught us many things and we have found that our global success comes from our passion for quality and ability to service our customers with high quality products, fast delivery times and competitive prices. Our innovations have been made possible by discussions with our customers and by being focused solely in solving their refractory problems.

Our goal is to educate and inform the refractory market and associated public on the anchoring technologies available and to offer the best cost effective refractory anchoring system for a particular application. We accomplish this by consulting the end users and installers of refractory anchors. We offer the market other- and self determined innovative products which improve the refractory lining, whilst maintaining a leading role in the refractory anchoring industry.

Our Refractory Anchoring Systems
- Brick Linings: Series B
- Concrete Linings: Series C
- Dual Linings: Series D
- Ceramic Fiber Linings: Series F
- Metallic Fibers

Rapid Arc Welding
A fast and easy solution to install Refractory Anchors.
If you have any questions about our refractory anchors or how they could be welded with our Rapid Arc Welding technology, feel free to contact us.

We offer:
- Metallurgical consultancy
- In-house Engineering
- Rapid Arc (Stud) Welding services
- Refractory anchor installation
- Competitive pricing
- Fast delivery worldwide

SILICON Corporate Mission
Our goal is to educate and inform the refractory market and associated public on the anchoring technologies available and to offer the best cost effective refractory anchoring system for a particular application.

We accomplish this by consulting the end users and installers of refractory anchors. We offer the market other- and self determined innovative products which improve the refractory lining, whilst maintaining a leading role in the refractory anchoring industry.

SILICON Headquarters
Monsterseweg 2
2291 PB, Wateringen
The Netherlands
T +31 (0) 174-225522
F +31 (0) 174-225529
info@silicon.nu

SILICON Rapid Arc Welding Contracting and Servicing
7322 Southwest Freeway Suite 1840 Houston, TX 77041, USA
T +713-911-6247
F +713-911-6245
info@silicon-usa.com

Cement
Petrochemical
Steel
Shipbuilding

SILICON
Refractory Anchoring Systems
Constant Innovation and Metallurgical Consultancy

“The difference between us and any other company in our branch is innovation, but our success comes from delivering what we promise.”
Several systems are available to retain brick linings, each model is custom made depending on the design and the application. Due to the relatively high temperatures at which these bricks are applied, care must be taken in the selection of the correct alloy. Our staple anchors (B-group of anchors) offer great retention of insulating bricks. For denser bricks, heavier staples can also be supplied. To hold refractory anchor bricks in specific positions from a wall or a ceiling our Screw clips or Brick Claws can be used. The bride refractory anchors are great for holding back brick anchors in side wall applications. We also create tailor-made concepts for many different applications.

**Concrete Linings**

Series C

We supply various anchoring systems for single component linings. All models can be corrugated or specially formed for superior holding power. We can produce the anchor in roll stud welding techniques, or the mechanical bolt-on technique of fastening to the vessel. We can produce the anchors to suit stud welding techniques, hand welding models can be corrugated or specially formed for superior holding power.

**SpeedCell®**

An easily applicable single-cell system with extremely high resistance to thermal shock used for wear resistant linings in the petrochemical industry. It is used together like pieces of a jigsaw puzzle, they prevent any catalyst from creating a crevice between the metal and the refractory. Moreover, with the possibility to apply a ceramic paper backing layer, no coke can be formed between the casing and the refractory material, commonly encountered in hex metal. Technical documentation and brochures on all our hex metal alternatives are available.

**Me-Mix - C-Mix**

Metallic fibers serve to reinforce the refractory concrete and aid in the prevention of cracking and spalling of the refractory material when exposed to thermal shock. SILICON offers a straight Mel Extracted (ME-Mix) version and a technically improved design in a corrugated fiber (C-Mix) which does not form a ‘ball’ during gunning or mixing. This fiber has been tested to be the easiest fiber to disperse within the concrete.

**Metallic Fibers**

Fastest growing materials for heat conservation is ceramic fiber over a range of temperatures. All the ceramic parts provided by us are made depending on the design and the application. Due to the relatively high temperatures at which these bricks are applied, care must be taken in the selection of the correct alloy. Our staple anchors (B-group of anchors) offer great retention of insulating bricks. For denser bricks, heavier staples can also be supplied. To hold refractory anchor bricks in specific positions from a wall or a ceiling our Screw clips or Brick Claws can be used. The bride refractory anchors are great for holding back brick anchors in side wall applications. We also create tailor-made concepts for many different applications.

**Ceramic Fiber Linings**

Series F

We offer several systems suitable for anchoring ceramic fiber over a range of temperatures. All the ceramic parts provided by us are made with either 60% or 99% Alumina (Al2O3) which provides the greatest range of temperatures. All the ceramic parts provided by us are made depending on the design and the application. We can produce the anchor in roll stud welding techniques, hand welding models can be corrugated or specially formed for superior holding power.

**Dual Linings**

Series D

One of the hottest materials for heat conservation is ceramic fiber in blanket, modules, and board form. These high temperature fibers provide full linings, operating flexibility and thermal shock resistance in periodic and tunnel kilns, heating, annealing furnaces, and petrochemical process furnaces.

We offer several systems suitable for anchoring ceramic fiber over a range of temperatures. All the ceramic parts provided by us are made depending on the design and the application. Due to the relatively high temperatures at which these bricks are applied, care must be taken in the selection of the correct alloy. Our staple anchors (B-group of anchors) offer great retention of insulating bricks. For denser bricks, heavier staples can also be supplied. To hold refractory anchor bricks in specific positions from a wall or a ceiling our Screw clips or Brick Claws can be used. The bride refractory anchors are great for holding back brick anchors in side wall applications. We also create tailor-made concepts for many different applications.

**Metallurgical Consultancy**

How to choose the right alloy

Deciding which alloy to apply for your application may make a difference in the services life time of high temperature process. Corrosion, creep, design and other metallurgical phenomena that can take place during service should be considered to obtain the most optimum performance. We offer customers extensive knowledge in this field to assist them in determining their appropriate choice of alloy.

We use prime material for our refractory anchors. With years of experience as high temperature alloy specialists we have experienced it all and can give the best advice on the critical matters. We therefore recommend you use prime material over second choice material alloys. We are always in a position to retrieve a material certificate (chemical and mechanical) from past orders, a claim that not every supplier can boast about. A detailed technical brochure is available to help in selecting the correct alloy for your applications.

**SILICON**

Your partner for Refractory Anchoring Systems

It has to make such a difference in the competitive market of refractory anchor manufacturing. You have every right to be skeptical. Our customers come back to the SILICON professionals because we listen. Besides that we own the biggest machine park and tooling collection for anchoring anchor production. Not only our sales and engineering staff work together quickly and effectively, besides that we own the biggest machine park and tooling collection for anchoring anchor production. Not only our sales and engineering staff work together quickly and effectively.

When we manufacture refractory anchors, they are not just “pieces of steel” to us. They are finely engineered components with your refractory applications in mind. We are here to help. Let us show you what difference we can make when you work with us.