

SILICON

Your partner for all refractory anchoring solutions



Rapid Arc Welding Technology

**Reliable technique for fixing refractory anchors
The safest, fastest and highest quality welding innovation**

RAW Services & Contracting

SILICON and our Rapid Arc Welding (RAW) technology have revolutionized the industry, leaving a significant positive impact. RAW represents a new era in welding technology, addressing longstanding issues encountered with conventional hand and stud welding methods. It's not only safe and user-friendly but also remarkably fast, delivering high-quality welds consistently.

Thanks to RAW, you can benefit from a highly cost-effective alternative to traditional methods of refractory anchor installation. We're committed to providing innovative solutions that enhance efficiency and performance while meeting your needs and budget.

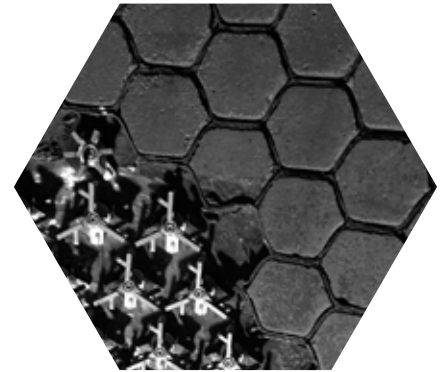
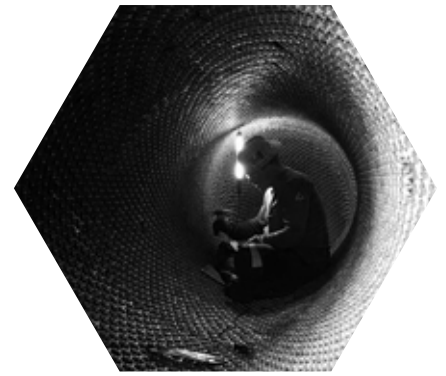
In the past, traditional welding techniques often resulted in inconsistent and poor-quality welds. Achieving efficient hand-welded anchors required significant expertise, with welders needing to meticulously monitor each weld individually, slowing down operations. Additionally, hand welding posed challenges in non-standard refractory areas such as corners, ceilings, and confined spaces due to safety regulations, limited machinery accessibility, and health risks associated with toxic fumes.

Recognizing these challenges prevalent in the stud and hand welding industry, the development of RAW technology was driven by a deep understanding of these issues.

In our experience, statistics demonstrate that a standard hand welding repair project requiring 20,000 anchors typically takes a team of 20 hand welders about 8 days to complete. However, with our RAW technology and a team of 10 RAW operators, we can finish the repair in approximately 2 days. This accelerated timeline not only saves time but also ensures a safe environment, thanks to our computerized and electrode-free equipment.

SILICON can adjust to your needs:

- Full team of welders and supervisors
- Supply machines, guns, chucks and other accessories
- Marking and grinding if needed
- Rapid Arc Welding quality inspection
- Metallurgic consultancy service
- Decrease turnaround downtime by welding at least 10 times faster than hand welding
- Utilizable in every industry
- Engineer your anchors into Rapid Arc Weldable versions to weld them faster and better





RAW Machines

SILICON's revolutionary RAW machines surpass past limitations, achieving what was once impossible.

Unlike traditional hand and stud welding methods, RAW is fully computer-controlled, automatically assessing material conditions and welding parameters at the welding point. This meticulous control ensures consistently high-quality welds, setting RAW apart from its predecessors.

Additionally, RAW technology minimizes the generation of toxic gases, promoting a safer work environment with reduced reliance on welders and heightened productivity.

PS12 - Portable Single Gun

This 800 amp single-gun unit answers the need for a smaller lighter RAW machine capable of undertaking high quality welding. Suitable for studs up to $\varnothing 12$ mm.

S16 - Single Gun

Our newest Single Gun machine is a hybrid version of our most popular machine D20NG and the PS12. It is lighter to transfer than the double gun machine with more welding capacity than the portable single gun machine. Designed especially for the high demand

of our popular moveable anchor system, the SpeedBolt®. Capacity up to $\varnothing 16$ mm stud.

D20 NG - Dual Gun

The RAW machine is the preferred welding machine for job sites, proven to shoot 90% of mainstream anchors in the petrochemical and other industries. It can also weld studs at a distance of 150 m (500 ft) from the machine. Suitable for studs up to $\varnothing 20$ mm.

D24 - Dual Gun

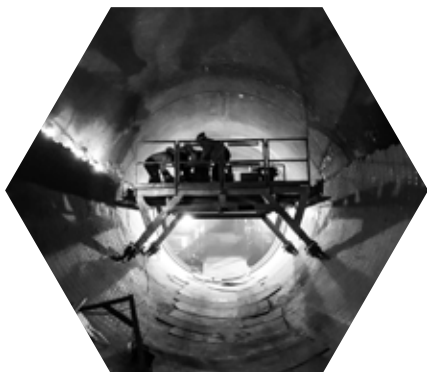
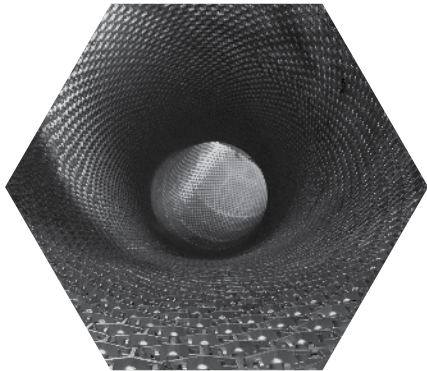
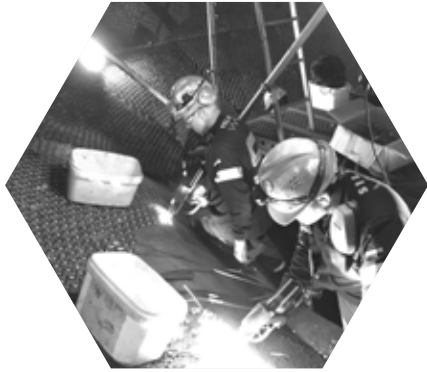
A compact dual gun package with a higher capacity than the D20 NG, perfect for middle-sized fabrication companies who want high welding productivity. Suitable for studs up to $\varnothing 24$ mm.

D36 NG - Dual Gun

This machine is the ultimate powerhouse, capable of welding larger diameter anchors, making it ideal for naval and heavy fabricating companies. Suitable for studs up to $\varnothing 36$ mm, with studs larger than 36 mm available only upon request.

All specific features and technical specifications of each machine can be found on our website:

www.silicon.nu



RDCA™

Remote Data Collection & Analysis

We have RDCA™ on all machines:

- Real-time weld quality logging
- Optimize welding machine remotely
- Back up your machine history and welding settings
- Real-time graphing of welding conditions
- Easily troubleshoot welding anomalies

RAW Guns & Accessories

SILICON is the inventor (and the only company in the world) that produces RAW machines and equipment.

We also engineer ferrules, chucks, ferrule plates, and other RAW accessories to facilitate welding for any position and for many applications - in between pipes, on pipes or even in extremely tight spaces.

RAW Guns

PUM25

A small and versatile gun that can reach into even the tightest corners.

PNG70/120

Our most powerful gun for heavy anchors.

PH70

For anchors that need more power and a better balance.

Chucks & Ferrules - Custom-Made

Our chucks (stud holders), ferrules and ferrule plates are engineered and custom-made for each of your anchors. They are incredibly durable when used correctly and can be used interchangeably on all of our guns.

Cables - Durable & Resistant

Our extension cables consist of a standard black welding current cable and a yellow computer (control) cable that relays communication between the gun and the machine. We have made our cables extremely durable and weather resistant.

RAPID ARC WELDING TECHNOLOGY

Fast and Reliable

Rapid Arc Welding (RAW) is a relatively new and innovative welding technology.

It has been engineered to solve many of the problems that conventional hand welding and stud welding technology have had for many years.

With RAW equipment it's finally possible to bridge the gap between efficiency and cost effectiveness.

Due to the nature of our technology we can weld studs up to $\varnothing 36$ mm+, in the most diverse areas where fast repairs for shutdowns are required.

Refractory Anchoring Systems

- Brick Linings: Series B
- Concrete Linings: Series C
- Dual Linings: Series D
- Ceramic Fiber Linings: Series F
- Metallic Fibers

We manufacture refractory anchoring systems for the petrochemical, cement, and furnace building industries in our purposely built facilities. We keep large stocks of various high temperature alloys such as alloy 310s, 330, 800, 601 and 625 in wire and plate, so we can confidently offer you short delivery times. Other alloys such as Haynes® are available on request. A detailed technical catalogue is available to help our customers select the correct alloy for their applications.

Working with SILICON means...

- Metallurgical consultancy
- In-house refractory anchor design and engineering
- Fast production and delivery worldwide
- Refractory Anchor installation using our revolutionary Rapid Arc Welding services
- Highly sustainable products and services
- Reduced safety risks
- Reduced Turnaround staff
- Reduced Turnaround time
- High quality welds

"The difference between us and any other company in our industry is innovation. Our success comes from delivering what we promise."

- Wouter Garot
CEO and Founder

APPLICABLE IN **MANY** INDUSTRIES



SILICON



Your partner for all refractory anchoring solutions

Corporate Vision

To positively impact industries by providing superior anchoring systems and time saving Rapid Arc Welding services.

Corporate Mission

To provide the technical and metallurgical expertise required to bring Refractory Anchors, and their installations, to the next level.



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