



**MEDICAL
AUTOMOTIVE
MILITARY
MARINE
AERONAUTICS
CUSTOM DESIGN
INDUSTRIAL HF/RF MACHINES**

A detailed image of an astronaut in a white space suit with red and orange stripes, floating in space. The Earth's horizon is visible in the background, with a bright sun or star in the upper left corner.

**TECH
NOLOGY
WITH
THE
HUMAN
TOUCH**

zemat

Technology Group

Advanced Radio Frequency welding and sealing technology helped the human race reach the Moon. Today, humans are looking in the direction of landing on Mars. The IR heat bonded and HF welded technical textiles and other bipolar RF weldable polymer materials will play a key role in this development.

The healthcare industry requires clean, reliable, and cutting-edge technology for improved patient care and research. At **Zemat Technology Group**, we are passionate about technology development, improving and saving the lives of patients through design and manufacturing high quality, innovative medical materials' converting machines.

In parallel, the quality of any high value product like automobile, boat or a plane must be assured by the perfection of manufacturing. Therefore, we are at the forefront of bonding, HF heat sealing and RF welding technology to develop and deliver the **best quality, efficiency and fabrication cost saving solutions**. Our philosophy is based on technical superiority and service with a "no nonsense" policy. We provide the best manufacturing solutions for the most demanding and **innovative medical, automotive and other industries**.

Zemat Technology Group is a **leading global designer and manufacturer** of industrial machines and devices incorporating thermoplastics welding, sealing and cutting technologies, integrated automation projects and customized manufacturing solutions. We strongly believe that providing the right technology and machines, we will enable your company to further improve its manufacturing process, while helping to strengthen your corporate identity. In our development, design and production process we implement over **65 years of expertise** in the Radio Frequency welding and sealing (also known as High Frequency, RF welding, Dielectric sealing), a technology that uses electromagnetic energy to form a permanent bond in polymers, as strong as the original thermoplastic material.

Machines and tools built by Zemat Technology Group are fully CE/UL compliant and made in accordance with ISO9001 standards.



MEGA100kW

Fast, efficient, reliable
Electron Tube and Solid-State LDMOS
Radio Frequency HF welding and sealing technologies
for medical, automotive, military, aeronautics, marine
and other industries

HIGH POWER CUSTOM BUILD HF MACHINES FOR DEMANDING INDUSTRIES

The perfection of manufacturing which encompasses all the small details which build up the brand's end effect, the final look and functionality of the car, airplane, motor-boat or yacht or any other product can be assured only by the best machines using proven technology.

We are passionate about providing the most efficient RF/HF and ECO-friendly manufacturing solutions for the most demanding and innovative production companies.

Applying highest quality standards, we design and build customized High Frequency machines for large and small projects (with worktables as large as 2500x4000 mm / 98x160") incorporating the traditional HF welding (up to 100 kW and downstroke pressure of 50 T), as well as Solid State technologies (200 W to 10 kW) for ultimate sealing and bonding process control.

All machines have advanced process programming functionality, VPN remote diagnostics, ATSTM Auto-tuning and WCSSTM System and all necessary safety and EMC systems.



MEGA



SIGNA





SHUTTLE HF MACHINES FOR THE MOST COMPLEX APPLICATIONS

- AUTOMOTIVE
- MILITARY
- MEDICAL
- SAFETY
- PACKAGING
- AND OTHER

The most versatile flat table **single** or **double** shuttle HF welding machines with 10-60 kW output power, 2-50 T pressure and custom-made work table sizes. These machines are widely used by various industries, including: **automotive interior finishing, military gear, ballistic & safety vests, embossing, rehab orthosis, DVT braces, oxygen delivery gear** etc.

Our ability to design and fabricate not only **customized machines** but also specialized tooling (electrodes, feeders, pick-and-place systems) enhances the manufacturing systems, providing cost reducing solutions by using scalable, simplified modular equipment design. We can **integrate fully automatic or manual process** machines with single or double shuttle operation.

Applying the **highest quality and safety standards** we provide the **process control system** for the standards of continuous auditing of the manufacturing process required by the automotive, medical and military sector. Our machines may be equipped with controller and software, capable to calculate Process Capability Factors (Cp and Cpk) which are a part of the Statistical Process Control usually required by end customers.





SIGNA DUO

**HELPING TO DELIVER
THE HIGHEST STANDARDS
OF FINAL PRODUCT
MANUFACTURING**



OPTIMA

HF Turntable Welder/Sealer

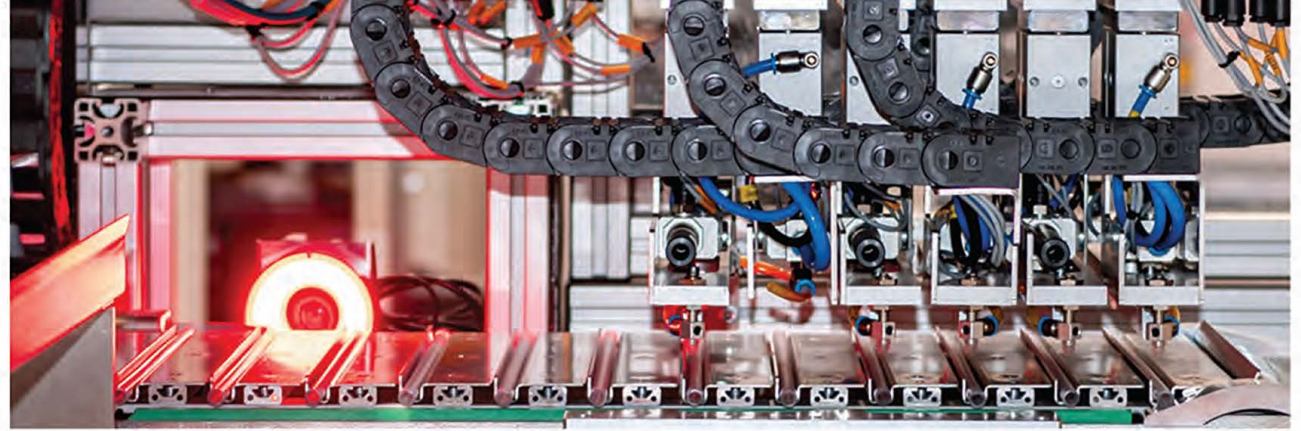
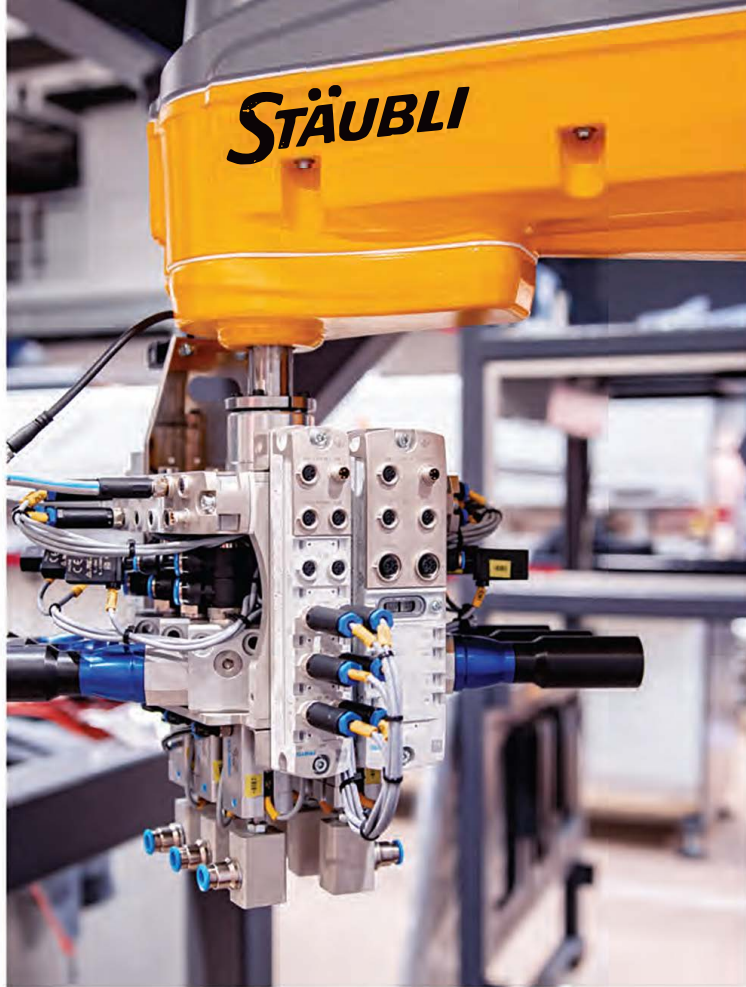


Many products require highly specialized manufacturing techniques, tools and automation, i.e. pneumatic and manual lumbar support systems, medical accessories, car seats embossing, fashion enhancement products.

Our **OPTIMA series rotary turntable HF welders with 2-4-6-8 work stations, 10-30 kW power outputs** and single or multi-head HF welding capabilities provide unsurpassed productivity and efficiency. Continuously evaluated quality systems ensure strict control of production specifications and timeliness as well as full manufacturing process validation.

Many of the HF welders and sealers we build are powered by our proprietary **Solid State RFT Gen-7 HF generator with unique DMS™ (RF Dynamic Matching System)**. Our QC system is compliant with Medical Device Quality System Regulations 21 CFR 820 for **Class I, Class II and Class III medical device and components manufacturing** - allowing you to perform High Frequency RF welding on various materials within **ISO Class 7 and 8 clean room** which are suitable for sterilized medical environment.



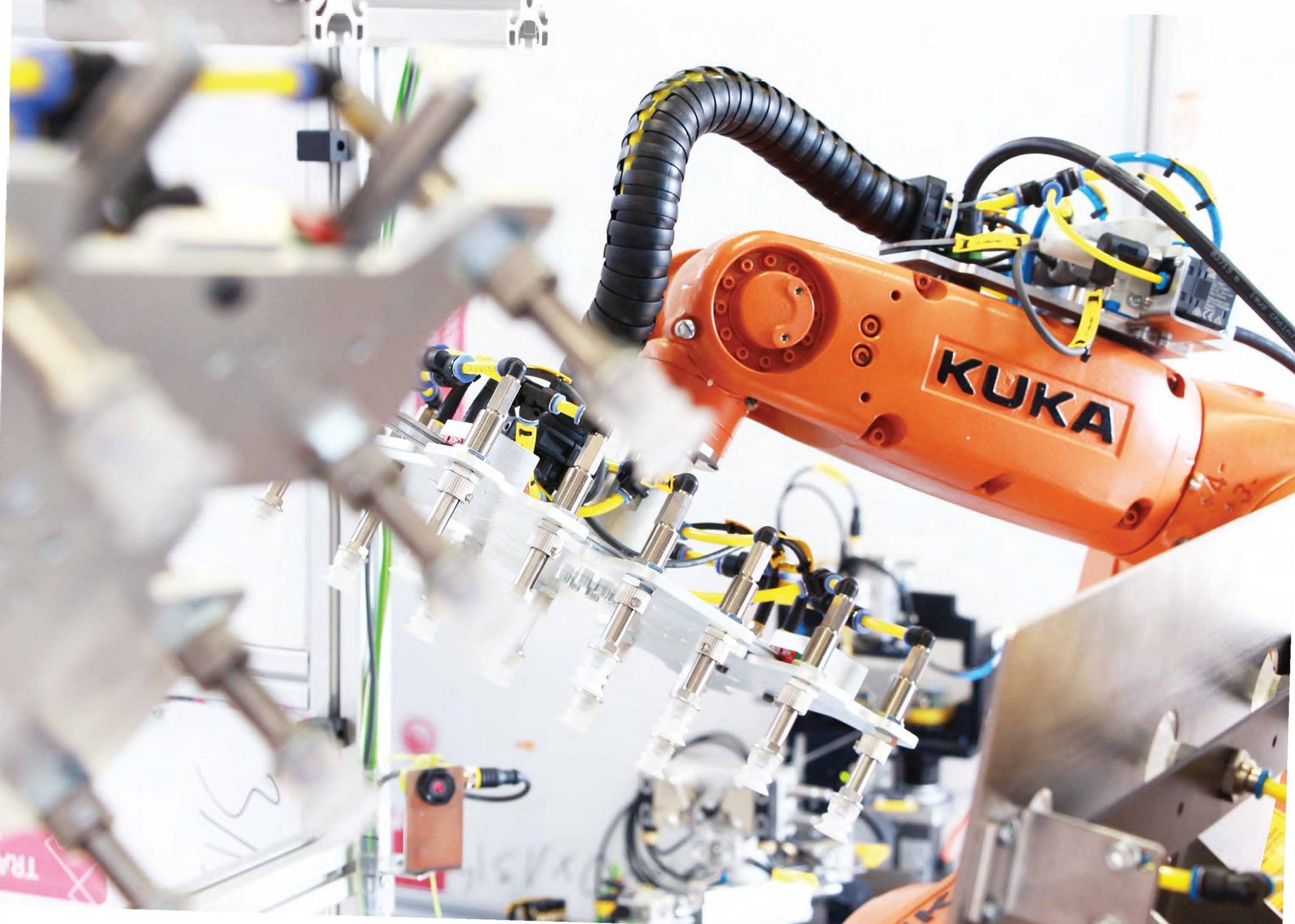


INTELLIGENT **ROBOTIC SOLUTIONS** WHERE THE HUMAN TOUCH GIVES LIFE TO TECHNOLOGY

The present demanding industrial production environments require the use of the most advanced multi-axis and SCARA robotic systems. Our company **designs and builds fully automatic manufacturing solutions** based on the robotic technology, VR visual recognition modules, precision servo-drives and IQC intelligent quality control systems.

From work cycle support systems to **fully automatic production lines** the robotic and automation solutions increase productivity, eliminate human error and create **eco-friendly work environment**. We specialize in integration of High Frequency welding and sealing technology with robotic systems.





Trusted Us:

arjo



smiths medical



PANGAEA



Honeywell

AM MEGA



3M



ABB

HITACHI



SIEMENS



forbo



abeko
CITERNES SOUPLES

B.
BLUMENBECKER
WIR LIEFERN ANTWORTEN



NEWMAT.
DESIGN SOLUTIONS

CHIORINO
1906



B/S/H/



The Zemat Technology Group has always made the **environmental sustainability** a top priority, producing **eco-friendly machines** within an eco-friendly facility. We promote environmental protection. We carry out activities respecting the environment, to leave a clean and pleasant world for future generations.

Sustainability is not a niche topic — for our company it's one of the main goals as well as **leaving as small carbon foot print on our planet as possible.**

We save resources with the use of durable products and parts, while always striving to achieve efficiency and sustainability which makes business sense, because for many users of our machines the profitability of the company has the highest priority. Our engineers and designers are tirelessly working on achieving **the best efficiency** of our machines, so the power consumption to operate them will be the least.

We are a modern, quality oriented, primary European manufacturer with over **65 years of experience in designing and manufacturing** various machines using advanced technology for thermoplastics welding and sealing. Our global reach is supported by wide network of distributors and service centers on every continent with **thousands of machines operating worldwide.** Setting the standard in customer support, we have several technical service teams providing service calls directly to our customers' locations, nationally and internationally, as well as telephone or video conference technical service and support 24/7.



In terms of the EU Environmental Safety Regulations, our company has a **Certified MobilAB laboratory and Quality Control Unit**, using state-of-the-art testing equipment for electro-magnetic energy disturbances, providing inhouse and remote testing. Each machine built by Zemat Technology Group has not only the CE mark - which is included with the technical documentation we provide to you - but it's fully tested and receives environmental mark before it leaves our factory.

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