

THE INNOVATORS OF **THE ELECTRON BEAM**



ELECTRON

WELDING

BEAM

WELDING · DRILLING · SURFACE TREATMENT

Operating world-wide, as a middle-sized company we are leaders in both the development and the manufacturing of beam welding, drilling and surface treatment machines.

Throughout industries such as aero- and space technologies, all automotive divisions, manufacturing machines and electro-technological applications, including special applications – our customers world-wide profit by our know-how, our reliability, innovative technology and our years of experience as EB specialists.

WE ELECTRON BEAM

DISCOVERED IT



The physicist Dr. h.c. Karl-Heinz Steigerwald built the first electron beam manufacturing machine

1952



Steigerwald Strahltechnik GmbH was founded

1963



Messer Griesheim takes over SST and integrates Laser technology into the company

1980

SST produces the first machine for welding automotive airbags

1989

1958

Butt welding, 5 mm thick Zircaloy and thereby discovered the „deep-welding effect“

1968

The first machine delivered to Rolls Royce in UK

1983

Delivery of the first 3D-Laser processing machine for prototype production at VW

1995



Joining of igm Robotersysteme Wiener Neudorf



The innovative modular chamber system EBODISC is conceived



2013

Together with PTR Germany and PTR USA, the formation of GBT AG

2003

Delivery of the first 55 m³ machine for KHI in Japan

2005

41 m³ machine delivered to Siemens in Sweden (Energy sector)

2009

SST manufactures an 11 m³ machine for a high-energy research facility in Japan

2010



2012

SST delivers an 11 m³ machine to CERN's basic research centre in Geneva

Manufacturing and delivery of the largest SST Chamber machine, 61 m³ for a research institute in China

2013

2000

The first SST machine for welding at atmospheric pressure

2011

Development of the super-fast beam deflection system EBO Jump



2014

The next logical development: The laser goes into the vacuum



BOUNDARIES OVER

AERO-ENGINE AND AERO-SPACE TRAVEL

With the delivery of the first EB welding machine to the prominent aero-engine manufacturer Rolls Royce in the 1960's we laid the cornerstone of our company's continuous and intensive involvement in the aero-engine and aero-space industries.

Whether its Lufthansa or EADS – we make the right connection

YESTERDAY, TODAY AND TOMORROW!

ERCOME

EADS



At EADS in Munich, where the drive-rockets for the European Ariane were developed, we provide the EB production machine.

**WELT
MASCHINE**

Bundesministerium
für Bildung
und Forschung



TODAY TOMORROW

In many instances our EB machines are employed in research centres. We are very proud to have delivered a special development machine to CERN in Switzerland, the European Organisation for Particle Physics.

OW

DEVELOPMENT

RESEARCH & DEVELOPMENT

In collaboration with many of the leading Institutes and Universities we are developing process- and applications technologies and are ready and able to push even further. These research and development activities lead to both rationalisation and cost reduction in production whilst at the same time realising the possibility of processing a vast array of different materials.

Our strengths:

- Process- and applications development
- Machine concept and design optimisation
- Production process optimisation
- Production rationalisation and cost reduction
- Order development



INNOVATION FR

Standing still is a backward step – movement is the future.

That's why Steigerwald's Innovation-engine is always in motion and its thrust drives us from today towards a more successful future.

OM

TRADITION

NEW TECHNOLOGIES

The history of Steigerwald is driven by a particular philosophy. Namely, the continuous innovative thinking and ideas has been integral in the company's tradition, which will continue to shape our future.

We stand for:

- **Highest Quality Standards**
- **Continuous Research & Development**
- **Future-proofing our position**

SOLUTIONS FOR TODAY – VISIONS FOR THE FUTURE!



TODAY FOR TOMORROW



EBO Jump

Developed by Steigerwald's engineers, the super-fast Beam Deflection EBO Jump. This development is the basis for other technologies including electron optical viewing, automatic beam alignment, automatic seam tracking and multi-pool welding technology.



EBODISC

1, 2 or 3 concentric rotative discs create a rationalised rotation-system combination that provides the EB generator with movement and tilting capability in 3D, designed for spatially welding components.



LASVAC

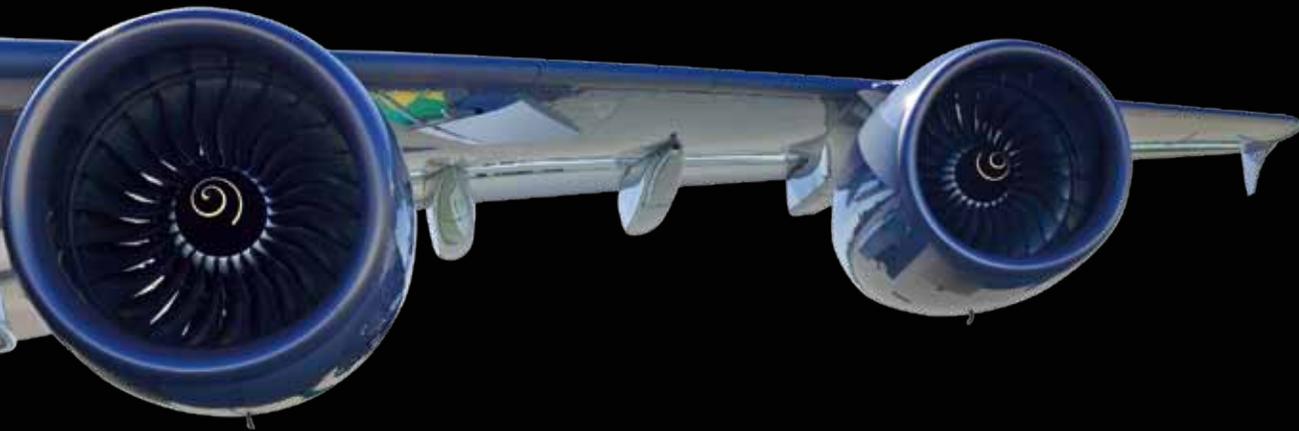
In collaboration with engineers from RWTH Aachen, we have developed a new form of welding LASVAC, the highly efficient Laser welding in vacuum.



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MEMBER OF



STEIGERWALD STRAHLTECHNIK GMBH

STEIGERWALD STRAHLTECHNIK GMBH

Emmy-Noether-Str. 2 · 82216 Maisach · Germany

Tel: +49 8141 3535-0 · Fax: +49 8141 3535-215

info@steigerwald-eb.de · www.steigerwald-eb.de