

IDEAL[®]

FLASH WELDING MACHINES

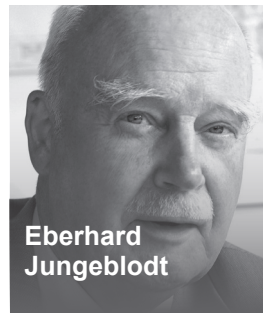




**Clemens
Jungeblodt sen.**



**Clemens
Jungeblodt**



**Eberhard
Jungeblodt**

IDEAL – The Pioneering Spirit of a Medium-Sized Company

In december 1923 the family business was founded - at that time under the name Elektro Apparate Bau GmbH (EAB). After a short time the company name changed and already the first electrical apparatuses were called IDEAL.

The name IDEAL is composed of „Jungeblodt Deutschland Elektro Apparatebau Lippstadt“, but one day the J became the I. In 1970, EAB was officially renamed IDEAL-Werk C.+E. Jungeblodt GmbH+Co. KG. Since then, the name IDEAL has stood for constant innovation and quality in mechanical and plant engineering. The company's core competence is resistance welding. In 2020, Dorothee Jungeblodt and Max Clemens Jungeblodt step down as managing directors and lead the company as third-generation shareholders.

In the same year, Dipl.-Ing. Katrin Goldhahn takes over the management and leads the company with a wealth of knowledge and experience.

The expansion of the European business and the advancement of digitalization - two major and important topics of the strategy, which drives the company under the leadership of Mrs. Goldhahn. Of course, the corporate strategy also includes the topic of sustainability. This means, for example, saving raw materials and using renewable energies. The installation of a photovoltaic system will be successfully completed in 2022.



**The shareholders:
Dorothee Jungeblodt and
Dipl.-Ing. Max Clemens Jungeblodt**



**The management:
Dipl.-Ing. Katrin Goldhahn**



The IDEAL world of welding Innovation, quality and passion at IDEAL!



Since our foundation in 1924, we proudly stand for constant innovation and outstanding quality in mechanical and plant engineering. As a family business in its third generation, we are firmly anchored in our values and traditions.

Our core expertise is in resistance welding. With years of experience and expertise, we are leaders in this field and offer customised solutions for a wide range of applications. Our ultra-modern and high-performance welding machines enable our customers to connect worlds with each other.

We are proud of the fact that we not only offer products, but also comprehensive services. From consulting and planning to installation and maintenance, we are at our customers' side. Our experts work closely with our partners to fulfil their individual requirements and meet their individual requirements and achieve optimum results.

But IDEAL is not just about machines and technology. We want to shape the everyday lives of our partners for a lifetime. With our innovative products, services and data, we create an ideal world of welding. We set trends and shape developments in the industry.

We cordially invite you to find out more about us and our welding machines. Discover how our passion for quality and innovation are changing the world of welding.

Please contact us for further information or a personal consultation.

Your reliable service

We help you quickly and easily with the selection and ordering of spare parts. Provision of spare and wear parts lists for stocking.



Inhouse repairs

When we receive your machine, it will be checked by our IDEAL service technicians and a cost estimate will be prepared:

After approval of the cost estimate, the repair will be carried out.



Maintenance and inspections

For this we can offer you the following:

Maintenance contracts (Our service technicians maintain your machines at your plant)

Installation services (Should a repair still be necessary at your site, we provide a fast and reliable repair service)



Digital remote maintenance

IDEAL can intervene in a supportive manner with remote access in the event of a fault. For this purpose, we recommend digital remote maintenance to our customers.

The use of a router with PLC interface and a CLOUD service is essential so that the IDEAL service technician can connect to the machine.



Assisted Reality

audiovisual service from IDEAL

Safe, fast, inexpensive and very close – IDEAL's audio visual service makes machine maintenance child's play and repair a simple exercise.

Downtime is minimised with the Assisted Reality connection. Our customers are supported via mobile phone, tablet or virtual data glasses by our service engineers in the best possible way.

With live audiovisual transmission, our specialists receive detailed information allowing them to swiftly identify problems and to quickly correct them with the aid of instructions and projection.



Upgrades - Retrofit

If your IDEAL machine is getting on in years - we can offer you „upgrades“ for it:

- Control conversion (S7 or also Schneider > Siemens)
- Router with interface (Siemens requirement)
- New stop system (BAS 300 series)
- Thyristor shutdown (series)
- NC underwire feeding (retrofitable to all underwire machines of the type GAM 530)
- Welding control conversion

Our machine talks IDEAL 4.0

Via the internationally known communication medium OPC-UA, we are able to provide all production-relevant and all energy-relevant data of the production infrastructure.

As an option, a „monitoring function“ is possible via WLAN.



AS Flash welding machines

In order to achieve a maximum tensile strength and the fulfilment of standard requirements that this entails, type AS IDEAL flash welding machines are the perfect choice.

- Top weld quality with metallurgically pure joints
- Short welding time
- Low demands on the preparation of the workpiece ends
- High level of reproducibility of the welding parameters
- High dimensional accuracy

Typical applications

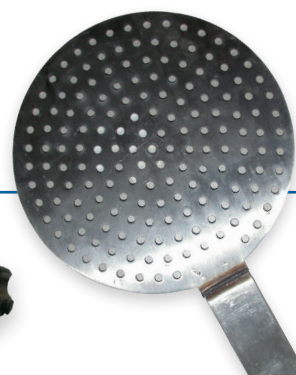
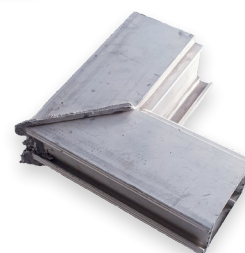
- concrete steel connections
- drill extensions
- wire items
- wire frames
- wire rings
- wire cables
- moulded parts from round and profile wire
- household cutlery
- cable work
- medicinal instruments
- steel cord connections
- PortaBand saw bands
- band knife
- coil-to-coil joints
- rims

The technical details of the AS welding machines at a glance

- Upsetting force max. 15 - 500 kN
- Transformer 30 - 1200 kVA
- Weight 1,2 - 22 t
- Welding cross-sections

unalloyed steel	15 - 10.000 mm ²
alloyed steel, BSt	15 - 8.000 mm ²
stainless steel	15 - 4.000 mm ²
aluminium	15 - 2.500 mm ²
- Dimensions of basic machine

Width	150 - 400 cm
Height	170 - 280 cm
Depth	120 - 250 cm



Flash welding - the technology

The flash welding process is broken down into pre-heating, flashing and upsetting. A high current generates concentrated heat at the surfaces to be welded. The metal melts at the contact point and splashes. The flashing of the surface material that starts at a specific temperature results in a smooth and clean joint. The evaporating metal creates a protective atmosphere, so welding consumables like shielding gas are no longer required. The melting loss consists of molten and oxidised material.

Then the upsetting begins, and the two surfaces are pressed together with great force to ensure a flawless joint. The upsetting causes a thin, brittle welding burr. The burr can be easily removed by grinding, milling or similar procedures. Deburring is particularly efficient in the welding machine. It's done either by a planing deburrer or a shear deburring device. The deburring is done when the workpiece is still red-hot. Depending on the length of the weld seam, it takes no more than a few seconds.



Type	Max. upsetting force	(Pr) Transformer	(WCS) unalloyed steel	(WCS) alloyed steel (BST)	(WCS) stainless steel	(WCS) aluminium	Weight of basic machine (approx.)
	kN	kVA	mm ²	mm ²	mm ²	mm ²	kg
AS0 015	15	70	50 - 400	up to 250	up to 120	15 - 80	1200
AS0 025	25	70	150 - 800	up to 400	up to 250	40 - 120	1700
AS0 040	40	120	200 - 1300	up to 650	up to 330	50 - 200	2500
AS0 050	50	120 / (200)	250 - 1600	up to 800	up to 400	50 - 250	3000
AS0 100	100	200 / (400)	400 - 2500	up to 1600	up to 800	100 - 500	5000
AS0 160	160	500	600 - 4000	up to 2600	up to 1300	200 - 800	7000
AS0 220	220	800	800 - 5000	up to 3500	up to 1800	300 - 1100	11000
AS0 320	320	800	1000 - 6000	up to 5000	up to 2600	400 - 1600	14000
AS0 500	500	1200	1500 - 10000	up to 8000	up to 4000	500 - 2500	25000

(Pr) = rated power

(WCS) = welding cross section

The perfect solution for every requirement

IDEAL builds and develops not only welding machines – IDEAL offers efficient and cost effective welding solutions for nearly every requirement.

Whether small devices for perfect individual welds or fully automated welding systems for high volumes with exactly reproducible welding parameters, IDEAL is your partner for innovative and sustainable welding technology “Made in Germany”.



AS0 015 mobil



AS0 015 D front



STS 020

Wire and rings

Speed, dimensional accuracy, reproducibility – these are the demands and requirements our customers want from our welding machines. Whether structural steel joints, tool extensions, chain links, lugs, rings – with our AS15 or AS25, you will be on the safe side when welding smaller cross-sections.

An extensive range of accessories meets virtually all customer wishes – from a manual solution for small volumes up to fully automated systems.



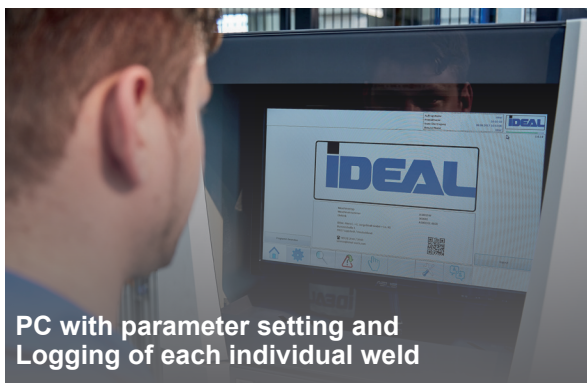
Automatic material handling



DD0 104 Double pressure welding machine with handling and peel deburring



High productivity, supported through fast set-up



PC with parameter setting and Logging of each individual weld

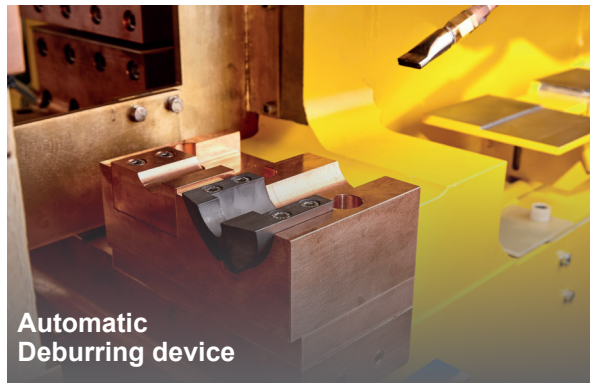


Fully automatic AS15 for Steel-stainless steel joints

Profiles and flat material

Profile-T or angle connections, coil joints, etc., pose great challenges to individual and easily installable material feeds in order to provide a consistent and reproducible welding result.

Larger welding cross-sections make the **AS40** to **AS220** ideal for such tasks.



Rims, rings, wreaths

Rims and rings demand a great deal from welding. Important are, among other things: very flexible material clamping devices that are also able to build up a targeted and high contact pressure – with very small tolerances.

Demanding and sophisticated industries, such as automotive or medical engineering, are therefore working with welding machines by IDEAL. The AS220 to AS500 are the first choice here.

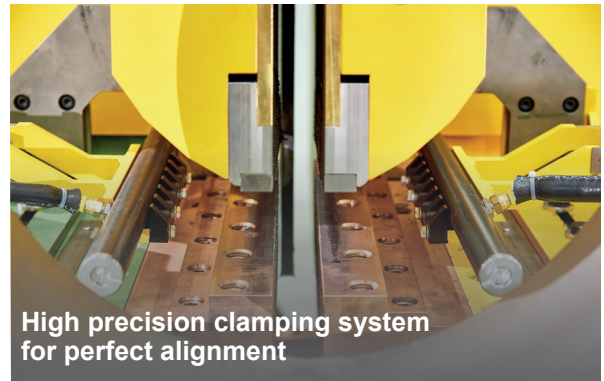


Bicycle rim

Car rim seam



Alligator quick clamping device for ergonomic loading



High precision clamping system for perfect alignment



Automatic ejection system - faster and safer



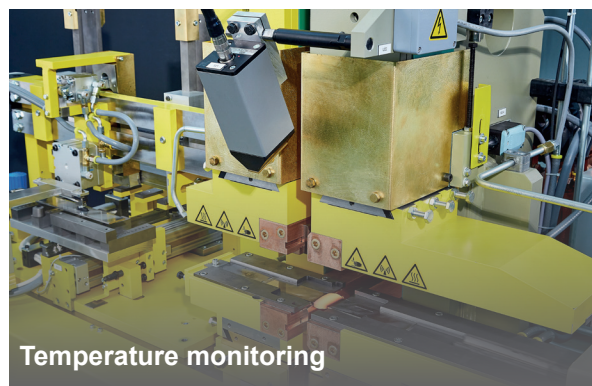
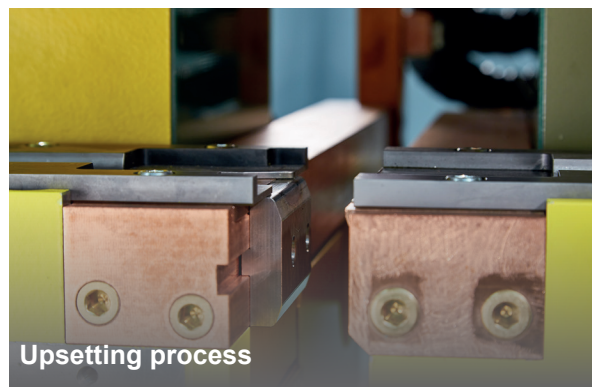
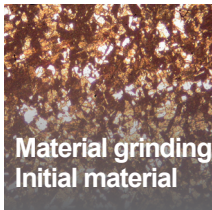
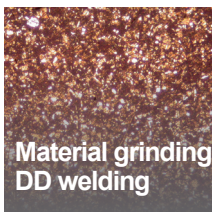
AS220 AF für Auto-LKW- und Traktorfelgen

Special solutions

DD & WES

Due to an additional upsetting shock, DD double pressure welding systems create connections with extremely high tensile strength during the welding process, because the heataffected material is almost completely pressed out of the welding zone. The result is a significantly finer grain structure of the material and an extremely high tensile and bending strength.

The **WES** resistance upsetting machines produce bolster upsettings e.g. on professional knife blades. The material is heated by a high current and then upset.



ideal[®]



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