



Award-winning LSK-1 stud welding head

Heinz Soyer Bolzenschweißtechnik GmbH (SOYER®), which celebrates its 50th anniversary next year, specialises in high-speed fastening technology. The medium-sized, family-run business with around 70 employees in Wörthsee, near Munich, offers stud welding products from a single source and has been awarded numerous prizes and certifications. Equipment ranges from portable mini stud welding equipment, matching welding guns and welding heads as well as large-scale, high-tech CNC stud welding machines. Its product range also encompasses welding studs and welding elements manufactured at its local production site.

Oliver Pohlus, Soyer's export sales manager, sat down with *ISMR* to discuss some of the company's latest welding innovations, awards and new strategic initiatives.

ISMR: Please outline any recent successes, achievements or awards.

OP: We were awarded the Bavarian State Prize for special technical achievements in craftsmanship at the Handwerksmesse 2019 trade fair in Munich this year.

KEEPING CONNECTED

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Oliver Pohlus,
Export Sales
Manager,
Heinz Soyer

ISMR SAYS:

"Soyer has stepped into Industry 4.0 with its new, award-winning, connected LSK-1 automatic stud welding head"



Our LSK-1 automatic stud welding head with wear-free linear motor, exhibited at the trade fair, won the prize. This technical innovation, developed and produced in-house by Soyer, offers one welding head for all known stud welding processes (for the first time in the market). The universal welding head also meets every requirement for use in Industry 4.0 and can be fully connected with industrial production processes. All process-relevant functions can be digitally monitored to ensure a more efficient production process.

ISMR: What are your views on the current global business climate for sheet metal professionals?

OP: In 2008/2009, the international financial market crisis and associated recession dominated the global market. That depressed atmosphere can be felt again at the moment. Great uncertainty rules in the business world at the moment because of Brexit and the

continuing uncertainty over the manner of Great Britain's impending withdrawal from the EU, as well as the U.S. trade embargo. Overall, noticeably fewer investments are being made.

ISMR: Please explain your strategic and technical mission and objectives.

OP: In the next few years, we want to shift our focus to our stud production. We consider quality as hugely important and manufacture everything ourselves. SOYER® weld fasteners are available with certified proof of origin, 100% Made in Germany.

“In the next few years, we want to shift our focus to our stud production.**”**



Soyer's headquarters at Wörthsee, near Munich

Below: Soyer battery-operated BMS-9 ACCU stud welder



Quality inspection of weld studs

Innovation is also an important part of our corporate culture. For every innovation we first ask ourselves the question: how does the customer benefit from this? Innovations determine which company is ahead.

ISMR: Which issues are of prime importance for your customers and how are you addressing these issues for them?

OP: One of the requirements is still to weld large-diameter studs to thin sheets of metal. With our patented SRM technology®, it is now possible to weld M16 studs onto thin sheets of metal. SRM® eliminates the need for ceramic rings, saving time, money and resources, and crucially there is no longer any unwelcome flange or welding bead. This means that the welded-on studs can be used without post-processing i.e. one continuous screw connection up to the basic material is possible.

The benefits of this technology open up many new possible applications, primarily in the field of automated stud welding machines as well as in the large-scale production of components.

Other important topics are battery mobility for stud welding and automation. For this reason, we have supplemented our range of stud welders with particularly light-weight and high-performance battery-powered stud welding devices. In automation, we have developed our



CNC stud welding machine

LSK-1 universal welding head, which complies with all requirements for the application of Industry 4.0 and provides full networking possibilities in the industrial production process.

ISMR: What is your strategic focus/vision over the next few years?

OP: In addition to the production of stud welding devices, our focus is the expansion of our in-house production facility for weld fasteners. Our comprehensive range of products already includes – among other things – threaded studs, tapped studs, pins, insulating nails, cupped head pins as well as other special studs and special weld fasteners. We also have a broad range of various materials, dimensions and designs on offer. As we manufacture everything ourselves, most of our items can be shipped from our warehouse immediately.

We will further enhance the expansion of our production facilities and have already made significant investments in new machines for producing weld fasteners. The aim is to guarantee our customers, now and in the future, consistently high product quality which is a prerequisite for safe and flawless

welded connections. We're also accelerating the expansion of our sales network in Europe to expand and further strengthen our brand position.

ISMR: Which trends do you see developing in sheet metal stud welding markets?

OP: As far as the materials are concerned, a clear trend is developing. Aluminium is growing steadily in importance in stud welding. As a light metal, it is particularly sought after in vehicle construction, ship construction, the transport industry and in the building industry in general. Due to the efficiency of stud welding, it is also being increasingly used in solutions for applications in safety-critical areas.

Improving the welding quality of welded stud joints of up to 12mm in diameter for high reproducibility and associated process safety is paramount. That's why we received a grant for the "New aluminium stud welding process up to 12mm" research project from the Bavarian Research Foundation in May this year. Project partners for this technically demanding project are SLV Munich (Teaching and Research Institute for Welding Technology of Munich) and the UniBwM (Bundeswehr University Munich).

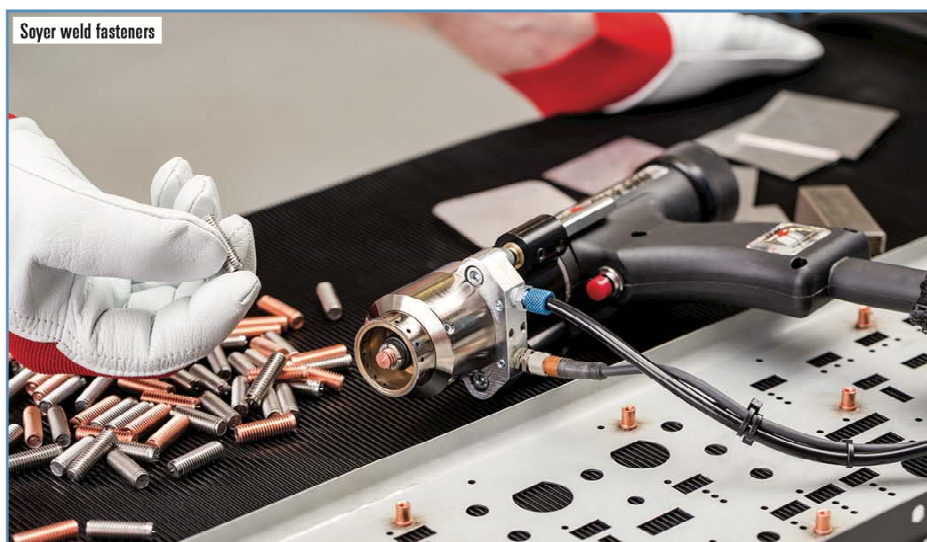
ISMR: Where do you see the greatest challenges and opportunities?

OP: Time plays a huge role these days. Customers want to be served immediately in keeping with the motto "ordered today, delivered immediately". Our online store has an increasingly important role. Today, many orders are placed at weekends and on holidays. As we make our products ourselves and have most items in stock, we're able to deliver immediately.

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In automation, we have developed our LSK-1 universal welding head, which complies with all requirements for the application of Industry 4.0

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Soyer weld fasteners

FACE TO FACE

One of Soyer's production halls for weld fasteners



Soyer welding equipment

A major challenge is remaining competitive as a European manufacturer in the global market, particularly when it comes to the Asian market. If you want to survive today, you have to be reliable, fast and cheap right from the start, and you have to be able to supply products of outstanding quality. We're well positioned as we have our own production facilities and are also able to deliver products with 100 % Made in Germany certified proof of origin. But 'standing still' is not an option. Our competition doesn't sleep, and every day is a new challenge.

ISMR: Are there any products/technologies that you have released or are releasing this year that you would like to discuss?

OP: Our LSK-1 automatic welding head is a new product patented in the EU. The welding head thinks and controls everything automatically, can be fully connected to

industrial processes and meets every requirement for use in Industry 4.0.

Further advanced, battery-powered stud-welding devices are suitable for mobile working where there is no access to electric-grid power. The battery can, when required, be charged using an external charging device or an integrated intelligent charging module. Despite the low maximum weight of 8kg, the stud welders have proved themselves to be compact, robust, powerful and very user-friendly pieces of equipment.

ISMR: Which exhibitions will you be attending this year?

OP: This year alone, we've taken part in roughly 40 trade fairs across the world. Still to come this year we have Blechexpo in Stuttgart, Germany (Hall 7, Stand 7502); Mactech in Cairo, Egypt (Hall 2, Stand F19); the International Industrial Forum in Kiev, Ukraine and the Metalex Show in Bangkok, Thailand.

ISMR: Is there anything else you wish to add?

OP: We are an industrial business. Nevertheless, we always keep protection of the environment in mind. We always try to minimise damage to the environment caused by us through continuous improvement of our environmental management system (as per DIN EN ISO-14001:2015).

To make our production as environmentally friendly as possible, we've been generating our own power since the middle of this year. At our four company buildings, there are photovoltaic systems with approx. 1500 modules and an output of 480kWh. That way, we ensure that we have a largely climate-neutral energy supply. Another contribution to the environment are the e-charging stations on our premises for the company's electric vehicles and for visitors to the company who use electric cars. ■

Soyer battery-operated stud welder



“To make our production as environmentally friendly as possible, we've been generating our own power since the middle of this year**”**

CONTACT

For further information, please see
www.soyer.com