WELDING 'ON THE GO'

Oliver Pohlus displays the shortlist certificate from Blechnet for Soyer's ACCU stud welding technology

ISMR SAYS:

"Mobility, flexibility and user-friendliness are key benefits for equipment in today's welding markets"

Soyer highlighted new stud welding innovations, for mobile welding applications, at this year's Blechexpo exhibition in Stuttgart.

Heinz Soyer Bolzenschweisstechnik GmbH has specialised in high-speed fastening technology for over 47 years. It 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 to large scale high-tech CNC stud welding machines. Its product range also encompasses welding studs and welding elements manufactured at its local production site.

At this year's Blechexpo exhibition in Stuttgart, it launched its newly developed 8kg stud welding inverter, BMK-8i ACCU, a portable, battery-powered stud welder with drawn arc ignition. With a welding power of 300 A, it enables stud welding up to a diameter of 8mm (up to M10 with Soyer HZ-1R welding studs), even for thin sheet processing. Oliver Pohlus, Soyer's export sales director, took *ISMR* through some of the company's latest welding innovations.

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

OP: I am delighted to say that we made the shortlist for the Blechnet award at Blechexpo for one of our new battery-operated stud welding systems. The BMS-9 ACCU with capacitor discharge and SRM technology is a newly launched product. This machine is here on our booth at Blechexpo – you can see it in operation. We will also be launching this in Asia in two weeks (at an exhibition in Thailand). It is portable – developed specifically for welding 'on the go'. When used with the PS-1K ACCU welding gun, weld studs of up to 8mm in diameter can be welded. It offers flexible use for assembly works without grid access and rapid battery change. We will continue developing this series so that it eventually will weld even larger studs. It unlocks opportunities for new welding applications.

On the automation side, we have sold a lot of automated machinery to the general sheet metal industry this year. We have also received a lot of orders until the end of the year and sold some machines here at our booth. Our new BMK-10i (600-amp version) on the booth here is equipped with a welding gun with integrated ground contact. This PH-9 SRM^{12}+G gun received a German Federal Prize in 2016. It offers spatter-free welding of up to 10mm diameter material (up to M12 with the Soyer HZ-1R weld stud).

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

OP: 2017 has been a great year for us, with terrific growth (our turnover is about 10-15% more than last year). We also made better profits. We have developed new accessories for the SRM technology, which has also helped to grow our business.

We are very optimistic for economic prospects next year – we have already confirmed our investment planning for 2018. We are investing in the optimisation of our fastener production facilities. This includes new machines and accessories which ensure faster and more efficient production, so that we can react more quickly to special customer requirements. We also are investing in a new test lab to provide added value for customers who may wish to test systems before using them in their production.


Examples of parts welded using Soyer systems

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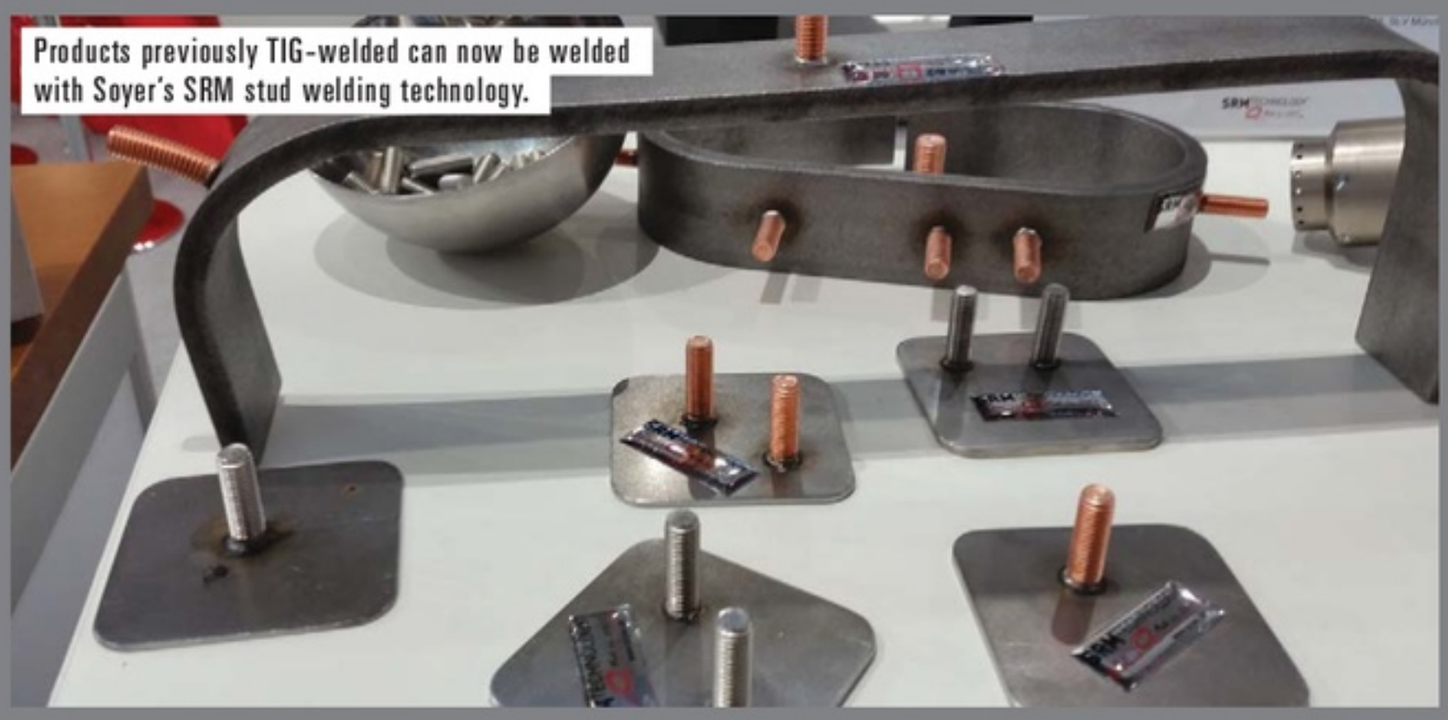
ISMR: Which trends do you see developing in sheet metal welding markets?

OP: The market is increasingly seeing the benefits of SRM technology, not just for optimising production but also improving product quality and reproducing quality. SRM technology has helped us to reach new markets because it can weld not just studs but also special and cylindrical parts for shipbuilding etc.

Stud welding in focus

Stud welding allows metal fasteners such as weld studs, weld pins and tapped studs, to be welded onto another metal object using an arc at lightning speed. As the whole surface of the weld stud is joined with the workpiece, the resulting weld joint is stronger than the stud or parent material. An arc is produced between the end of the stud and the surface of the workpiece, melting both parts. The return spring pressure forges the stud into the molten pool. The material solidifies and the stud is welded. The weld is uniform and has complete fusion across the flange.



Products previously TIG-welded can now be welded with Soyer's SRM stud welding technology.

Drawn arc stud welding is a welding procedure for maximum loads for the welding of weld fasteners measuring between 6mm and 25mm in diameter. The entire welding process is controlled and monitored by an electronic power source. The patented SRM stud welding process in the radial symmetrical magnetic field, in conjunction with the HZ-1 universal weld stud, features a plane end face and centring tip for the clean welding of weld studs, up to M16. In this process, ceramic rings are no longer needed. This procedure unlocks new possibilities, particularly for automated stud welding plants and large-scale component production.

> some applications require large fasteners to be welded to thin sheets

Oliver Pohlus demonstrates operation of the BMK-8i Accumulator

User-friendliness is a key trend for welding systems nowadays, especially as it is harder to find qualified welders. It is very important for users that systems are easy to use. We are a one-stop shop for fasteners, welding systems etc. for customers. Our systems must be versatile and easy to use, even for tricky welds or other types of fasteners. Energy savings are also important in today's markets.

The automotive sector is a key sector. Sheet metal is getting thinner but some applications require large fasteners to be welded to thin sheets, and SRM technology can do this. In shipbuilding, the sheet metal required is also getting thinner and it is becoming more difficult to get good welding results, with older welding technology, on thinner sheet. Our SRM technology is gentler, uses less energy and is more cost-effective.

A close-up of the BMK-8i ACCU stud welder in operation

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

OP: One major issue is the option to weld independently i.e. in remote locations where there is no power connection. Customers want highly flexible, cost-effective, economical welding systems and we designed the new BMK-8i ACCU welding system to meet this requirement for independent operation. It is environmentally-friendly and offers good energy savings. The major advantages are mobility and flexibility – there is no need to carry large cables or search for connection points. You can weld up to 450 welds (max. capacity of machine) and a full charge takes about three hours. A convenient carrying strap and its low weight of 8kg means that you can carry it for long distances. In terms of usability, it is not complicated to operate the machine.

We launched this new system, which took one year to develop, at the Schweissen and Schneiden exhibition in Dusseldorf. I believe that it really is unique in the market. ■

The Soyer BMK-12i series

CONTACT

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