

dialog

December issue 2017

Container Systems

Whatever you need,
we have the right KEG!

IT-Systems

Quality creates
satisfaction

Perforated Metal

Metal processing that's
simply world class

EMW

What's the current trend
in the automobile industry?



“The dream of flying...!”
Made possible by SCHÄFER Container Systems

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Theo Schäfer, managing partner at SCHÄFER WERKE and EMW Steel Service Centre

Dear readers!

Our success on the market and the growth we've achieved by our own efforts in recent years are reason enough for us to be optimistic about the future.

The restructuring of our Interior Systems division is our response to customers' wishes for future-proof investments. Merging production locations within the SCHÄFER Group in combination with an optimised product portfolio have resulted in modular and long-lasting solutions for workshops and factories now being available to our sales partners. You can find out more about the restructuring of SCHÄFER Interior Systems on page 12 of this new edition of our employee and customer magazine, dialog.

On the following pages, you will be able to read about interesting topics from the steel sector and our company, such as our lead story „Above the clouds...“ from the Container Systems division. Find out what that's all about in our Top Topic on page 4.

There are also reports on our participation in the major trade fairs which are important for us, the drinktec in Munich and the BLECHexpo in Stuttgart, (see pages 6 and 14) where we presented new products and solutions for these significant market segments.

I would like to take this opportunity to express my sincere thanks to all our employees, our customers and suppliers for their commitment and team spirit that has contributed to the results we have achieved in 2017 and for the trust and confidence they have placed in our company.

I would like to wish you and your families a very happy Christmas, God's blessing and all the very best for the new year.

Theo Schäfer

Managing partner at SCHÄFER WERKE and EMW Steel Service Centre

Credits

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Better informed – providing all employees with the same information at the same time

An information area, sometimes simply referred to as a „notice board“, is an important place for communication and obtaining information. However, it can be difficult to make sure everyone gets the same information at the same time, especially in production, where not all staff have access to a computer, or when shift work is in operation.

All information areas at SCHÄFER and EMW are shortly to be redesigned. The idea is to create a place with a bright, pleasant atmosphere with plenty of space, so that employees can find out about the latest company news and exchanges views.

A pilot project was already launched in the SCHÄFER Perforated Metal division in September. Here, a large screen was installed in the break room, permanently displaying news from the works council and general company information.

The content shown covers things like introducing new members of staff, anniversaries, new product presentations, trade fair participations, training courses, internal

relocations of employees or departments, works agreements, introducing works council members, first aid officers and collective wage agreements.

To ensure a uniform level of information, it's important to update such "news" quickly and regularly and to receive suggestions for improvement or alteration from the employees themselves so they can be acted upon. Once all divisions have been equipped with an information system, the second phase is to be introduced, in which touch-screen functions are to be activated to make interactive communication possible.

This will then guarantee that all target groups will be able to access the same information in the same place at the same time.

Trade fairs 2018

1. HALF-YEAR PERIOD



Ausbildungsmesse
SüdSieglerland

erfolgreich starten.

South Siegerland Vocational Training Fair

07.02.2018, Neunkirchen

light+building

**Light + Building - The world's leading
trade fair for lighting and building
services technology**

18. – 23.03.2018, Frankfurt



**International Supplier Fair for the
Food and Beverages Industry**

20. – 23.03.2018, Köln



Metalforum Posen

Exhibition for the metal working industry

05. – 08.06.2018, Posen/PL

ACHEMA2018

**World Forum and Leading Show
for the Process Industries**

11. – 15.06.2018, Frankfurt



**Siegen Chamber of Commerce
(IHK) Training Fair**

20. – 21.06.2018, Siegen



Above the clouds...

Travelling further, higher and safer thanks to robot-welded fuel tanks from SCHÄFER.

"Noise gradually fades away and from this bird's eye perspective everything down below looks like a miniature world, appearing so clean, tidy and still. The only sound is the burner, occasionally blasting hot air powerfully into the balloon envelope.

Here and there, occasional shouts of 'Hello' can be heard from people waving on the ground, looking longingly up to the sky. This feeling of freedom is the passion that drives us to produce hot air balloons and give people the chance to share this dream and its unique feeling of freedom," says Petr Kubiček from Kubiček Balloons.

Kubiček Balloons, based in Brno (Czech Republic) is one of the world's most significant balloon manufacturers, producing all manner of equipment and accessories for the famous Montgolfier invention. The product range covers hot-air balloons in various sizes and designs, from one-man balloons to 24-person passenger systems. All the components of hot-air balloons – envelopes, baskets, burners – are manufactured by Kubiček themselves. This even includes their own purpose-designed balloon fabric, which also enables them to supply an incredible range of designs and colours. Kubiček's first hot air balloons hit the skies in 1983 and after 30 successful years,

they produced their 1,000th balloon in 2013, coinciding with the company jubilee.

But for long time, there was one significant gap in their product range; their own fuel tanks. This is now no longer the case. Approximately one year ago, two new fuel tank models called "King Size" and "Queen Size" were added to the product range and immediately took the market by storm. The first series was sold out in no time at all!

Beside the standard demands placed on tanks intended for use in balloons, such as high strength, very low weight and absolute reliability, there is also an unbelievable number of formal and legal requirements that need



So the next time you look longingly up to the heavens to admire a hot-air balloon carrying its passengers silently and safely through skies, you may well be looking at a Kubíček balloon equipped with SCHÄFER technology.



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to be fulfilled. Firstly, the tanks' suitability as pressure cylinders for LPG has to be proven and certified, secondly, EASA (European Aviation Safety Agency) certification is needed to prove they are safe for use in aviation and thirdly, independent ADR certification needs to be achieved for legal road transport.

It's plain to see just how high the quality requirements are and therefore easy to understand that only top-level production technology can fulfil them. For such a high-precision task, manual welding is out of the question, as it always incorporates the human element and the inevitable potential for mistakes which that involves. Therefore, Kubíček Balloons went in search of a technology capable of removing this risk as much as possible. And,

they found it at SCHÄFER-SUDEX, the Czech subsidiary of SCHÄFER WERKE, which offers high-end robotic welding technology, delivering not only perfect quality, but also, more importantly, the same consistently flawless results every time.

Besides stainless steel containers for liquids or solid bulk materials, SCHÄFER, as a manufacturer of IBCs (intermediate bulk containers) and special containers, also supplies tailor-made solutions for a wide range of industrial applications in many different sectors and also guarantees the utmost safety and security, even for sensitive transport and storage requirements.

Thanks to this combination of SCHÄFER-SUDEX stainless steel tanks with capacities of 72 or 97 litres and Kubíček's flange-mounted connections, all the certification processes were successfully completed and Kubíček Balloons were able to launch their new tanks onto the market. And they have been very well accepted, as they offer some unique features, like the highest volume on the market (the reason behind its name – King Size), first-class ergonomics and, last but not least, the best price, too.

SCHÄFER 
CONTAINER SYSTEMS

- Standard and special containers in stainless steel
- Hazardous goods containers
- Ion exchangers

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SCHÄFER Container Systems: Whatever you need, we have the right KEG!

The drinktec is the hot spot for the food and beverages industry, with all the leading manufacturers from across the globe presenting their latest products and technologies. The world's leading trade fair for the beverage and liquid food industry took place in Munich's exhibition centre from 11th to 15th September 2017.

On a stand of approx. 280 m², SCHÄFER Container Systems and SSI SCHÄFER presented their products and services together. As the KEG sector's leading inno-

vator, SCHÄFER was also the main sponsor of this year's Beer Sommelier World Championships, which were held during the drinktec. This year, SCHÄFER's guests were once again

in the competent hands of Karl Schiffner, the first Beer Sommelier world champion, who treated them to a selection of Czech beers and the right appetizers to go with them.





Talking business at the trade fair



The stand shared with SSI SCHÄFER

The trade fair talk focussed on the great variety of available beverage container (KEGs) solutions. In keeping with the motto "MORE KEG – MORE DIVERSITY", the company presented its extensive KEG assortment. No matter what you need, which drink you need it for or what size it should be – SCHÄFER KEGs can always provide the most efficient solution for beverage bottlers. The reusable KEG range covers numerous types: 100% steel KEGs, ECO KEGs with top and bottom polypropylene rings, fully coated PLUS KEGs and self-sufficient dispensing systems. In addition, besides different volumes, KEGs offer beverage producers an enormous range of branding possibilities. Diverse labelling procedures and coloured design elements can

be customised individually to strengthen the brand appearance permanently. All SCHÄFER KEGs can be provided with permanent coding, such as character code, barcode, QR code or a transponder. In particular the use of transponders with a small battery-free RFID memory chip is becoming increasingly common in intralogistics. RFID transponders have an individual number code that can be read without any visual contact. As soon as the transponder is within the receiver's range, the data can be read and recorded, enabling alterations in the inventory management system or the inventory itself, for instance, to be processed accurately in a matter of seconds. The identification of objects is carried out by means of electro-

magnetic waves. And this is where the KEG diversity and intralogistics come together. SSI SCHÄFER is, among other things, the specialist for the planning and modification of distribution centres and the modernisation of intralogistics. At the 2017 drinktec SCHÄFER WERKE and SSI SCHÄFER bundled their expertise together to guarantee a holistic approach to providing advice and support for breweries.



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The highly motivated SCHÄFER trade fair team



Reflecting company and philosophy

Italian craft brewery Hordeum: bringing corporate identity to life with ECO KEGs von SCHÄFER Container Systems.

Understanding local heritage is when an old, disused factory with a deep regional significance is transformed into a brewery. Ecological sustainability is also added to the mix when the high-quality ingredients used are exclusively locally grown. This corresponds precisely to the self-perception and corporate identity of the Hordeum brewery from Novara in the Italian province of Piedmont, which brews craft beers with special ingredients that reflect the unique flavours of the region. It's not just that each individual brew embodies the flavour of Piedmont, the beer's origins should be clearly displayed in the barrels, too. After searching long and

hard for a partner able to reflect this feeling in their barrels' appearance, the brewery finally came across SCHÄFER Container Systems. The German KEG manufacturers were able to capture the great beer variety in a uniform look and feel.

Hordeum is one of the few agricultural breweries in Piedmont. In keeping with its close regional ties, the ingredients it uses are also local and consequently instrumental in capturing the very different and distinctive flavours in the beers themselves. As a result, the brewery's seven partners and four employees produce different representatives of Piedmont in their craft brews. Though each of them

stands for the region in their own special way, they all differ in the nature of the beer and the predominant flavour. Examples are brews like Regina, a lager beer based on Carnaroli rice, Hermes, a Vienna-type lager, using Erbes rice, Iside, a Belgian Dubbel or Moka, an imperial Stout coffee.

In search of the right KEG

"We were troubled by the fact that the same product had a different taste from one order to the next, as we didn't have a uniform stock of KEGs", says Paolo Carbone, the Hordeum manager. "We were well aware of just how essential it is to have our own, representative



Regina

Hermes

Venus

Contina

India

Era

Iside

Ruber

Moka

Evo

and, of course, reliable stock. Firstly to communicate our values and corporate identity to the outside world, and secondly, to be taken seriously as a reputable company. After trying out KEGs, including used ones, from lots of different manufacturers, we decided to purchase a high-quality product. We spent some time

comparing the various products on offer, before we were finally convinced by SCHÄFER, not only in terms of their product but also, later, on a personal level, due to the competent and flexible nature of the partnership."

Since then, Hordeum has been using 20.5-litre Junior ECO KEGs. In keeping with the brewery's

look, the barrels have black top and bottom rings and a logo applied by electrochemical signature. Generally, the ECO KEG has plenty of scope for branding. The top and bottom rings, for instance, can be adapted to the brand image not only by colour but also by using in-mould labelling or embossing. Branding alternatives for the stainless steel body include silk screening, laser printing or electrochemical signature. Other arguments that convinced Carbone were the tracking possibilities provided by coding, the availability of spare parts and the KEG's ability to withstand robust handling.

Designed for the long term

Growing demand has proven the Hordeum strategy right. Plans for a capacity extension with a greater ECO KEG stock have already been completed and old barrels are gradually being replaced by SCHÄFER KEGs.



One of the Hordeum founders, Paolo Carbone

SCHÄFER
CONTAINER SYSTEMS



■ Reusable container systems
for the beverage industry

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Quality creates satisfaction

A succession of different projects for different locations:

Globalways and SCHÄFER IT-Systems in cooperation.

With success comes growth. In this event, it makes good sense for providers of IT infrastructures to operate from several locations. The dependencies are then rarely identical. Consequently, this often results in very different requirements and, sometimes, even modernisation measures as well. That was the case with Globalways AG. To continue providing their IT services in the Stuttgart area at the desired level, the company first of all went on the lookout for a modern cooling infrastructure for one of its local data centres. The one they found came from SCHÄFER IT-Systems, who really proved themselves during the course of the collaboration. This quickly led to further orders for other locations, each of which had a completely different focus: from separate cooling solutions and complete cold-aisle enclosures right up to racks and PDUs (power distribution units).

Globalways AG can be counted among the leading providers of IT infrastructures in the German-speaking region. The company's portfolio includes location networking, housing, hosting, corporate networks and IT infrastructure outsourcing. Besides the high-performance data centre at the head office in Stuttgart, the service provider also operates data centres in Frankfurt am Main, Munich and, since quite recently, in Leverkusen, too. Betzdorf-based SCHÄFER IT-Systems is a manufacturer and developer of network and server cabinets, data centre solutions and is part of the internationally operating SCHÄFER Werke in Neunkirchen. For Globalways, the company was able to implement a great number of individual solutions.

It started with the Sidecooler

The first cooperation project began in early 2016 on the "STG1" site in Stuttgart. As Globalways had already been operating an initial data centre there for many years, the side coolers used up to then were to be replaced by more

modern appliances. An overhaul would have been too time-consuming and expensive. So, after SCHÄFER had proven their quality during the inspection visit at the Betzdorf site in April, the project was realised in November. Four new CW (cold water) side coolers were installed in the data centre. They cool the racks by using cold water in an open-loop system and feeding cold air into a cold aisle enclosure. Despite minor stumbling blocks on the customer's part – for instance, the lift wasn't large enough to transport the side cooler to its location, so a crane was needed - precise planning ensured that installation itself was completed in only two days.

Parallel to this, an order was received in Summer for the second Stuttgart data centre "STG2", which, during the initial talks and inspection visit for the "STG1", hadn't been planned. "We received the follow-up order because we had convinced them with our service even before the first installation was completed. Specific project conditions, whether spatial or infrastructural, are nothing new for us. We have a very specialised team and can adapt to individual needs quickly, thanks to our methodical approach", says Markus Haaser, SCHÄFER's area sales manager South West, who was in charge of the project. In contrast to "STG1", the cooling for data centre "STG2" was already in place. Here, Globalways needed new racks and





PdUs, so in July, 3 standard racks were defined. Also in November, a cold aisle was installed with seven double-width Colo racks, 34 server racks 600 mm, four 800 mm network racks and 46 basic PdUs.

From Stuttgart to Leverkusen

Since May of this year, Globalways has been operating North-Rhine Westphalia's most modern data centre in Leverkusen. Here too, SCHÄFER IT-Systems has implemented part of the IT infrastructure, after receiving the order in October.

In December 2016, the first racks were delivered and set up in the carrier rooms. Some of them were even installed before the building phase ended to ensure the new data centre could be connected up to the existing one. One after another, the other data centre rooms were equipped. In just five months, the first building phase was completed and the data centre put into operation. The second phase was finished in mid July. For the project in Leverkusen, two different rack versions with different PDU configurations were defined for

network and server components and installed in enclosures. They are based on the SCHÄFER IS-1 system platform. For these complete cabinets, however, various modification requests and specifications were developed. SCHÄFER installed a total of 102 racks and 235 multi-coloured basic PdUs in five cold aisles.

A previous on-site inspection and analysis of the work that had been completed up to then eliminated the need for any special support at commissioning and installation went smoothly for this project, too. Minor structural modifications, such as cable runs that were too deep for the enclosures, were dealt with on site without any complications. More detailed instruction in how to use the devices wasn't needed subsequently either, as commissioning was just a formality.

"In comparison to other providers on the market, SCHÄFER offered the best performance and customer service and they provided it later in practice, too. We got to see the company from two sides: quantity and quality, and each side dealt with our individual wishes extremely well", said Wolfgang Kaufmann,

the Globalways chairman. "That's why further follow-up projects are already being planned."



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SCHÄFER 
IT-SYSTEMS

- IT rack solutions for server and network cabinets
- Data centre and water-cooled server cabinet solutions

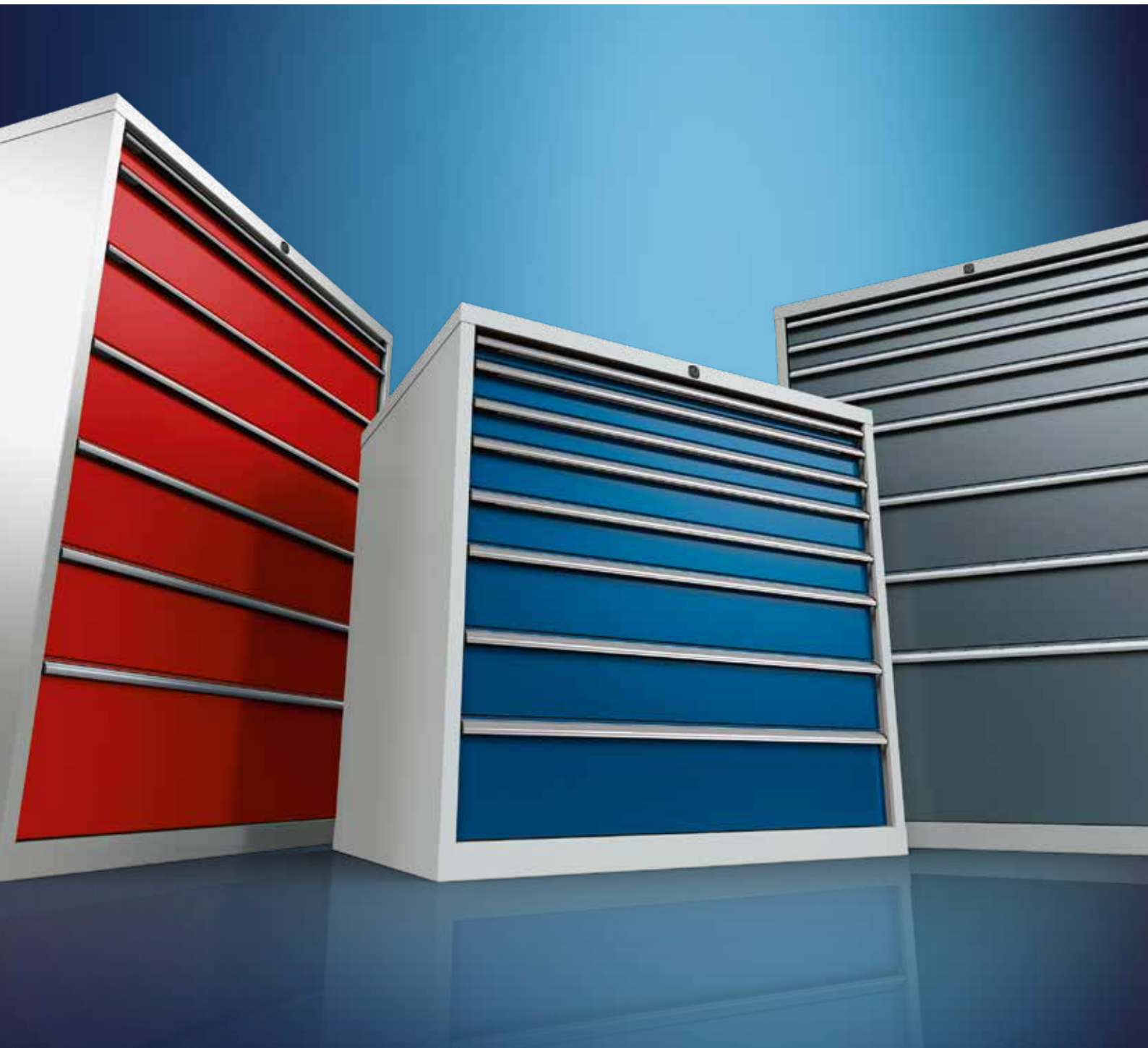
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SCHÄFER Interior Systems: New markets for workshop and factory floor

Within the SCHÄFER Group, the term "Interior Systems" has been redefined.

Merging production locations and putting together an optimised product portfolio have resulted in modular and long-lasting solutions for workshops and factories now being available to our sales partners.





Focussing totally on the customer! That's one way of describing the intention behind the planned changes in processes and structures in the SCHÄFER Group's workshop and factory floor segment. So that the entire added value process can be geared even more closely to customers' needs, the SCHÄFER Group has now merged these capacities and competencies into one organisational unit. For this purpose, the different product ranges of the two separate areas are being reviewed and, in cooperation with customers and sales partners, complemented to form a much

broader and deeper full-range assortment. The structure and procedures for the new production processes needed to achieve this are being completely redesigned. The equipment and machinery will be modernised, extended and optimised to achieve the desired cost-effective production. Sales and distribution activities will be bundled and offered to customers in the various channels from a single source.

"This new full-range assortment for workshop and factory floor furnishings is our response to our customers' desire for future-proof

investments. The modular concept means that today's solutions can be extended and can grow in line with tomorrow's demands for optimised work processes. Whether you need pre-configured or individually configurable varieties – SCHÄFER Interior Systems has the solutions to cover almost any workshop and factory floor requirements," says Rainer Bröcher, managing director at SCHÄFER Werke.

From drawer cabinets, multipurpose cabinets, wardrobe and locker cabinets to work benches and mobile workshop systems, the new full-range assortment leaves nothing to be desired in the field of workshop and factory furnishings. Further outstanding features are the great variety of colours, the modular compatibility of the products, the demand-related product variations and the precise accomplishment of delivery and assembly. SCHÄFER Interior Systems is the specialist with more than 50 years' experience and expertise in providing complex, intelligent and individual solutions for workshops and factories.



www.schaefer-werke.com



SCHÄFER 
INTERIOR SYSTEMS

- Drawer cabinets
- Work benches
- Multi-purpose cabinets
- Wardrobe/locker cabinets

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Metal processing that's simply world class

The practical trade fair duo of BLECHexpo and Schweisstec takes place every two years at the state exhibition centre in Stuttgart and is the only event on the international calendar dealing with the complementary technologies of sheet metal processing and joining technology. The declared objective of these two fairs is to present the entire process chain for cold-forming sheet metal processing as well as the associated thermal and mechanical cutting, joining and fastening technologies.

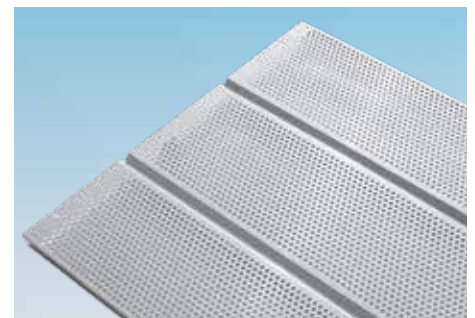
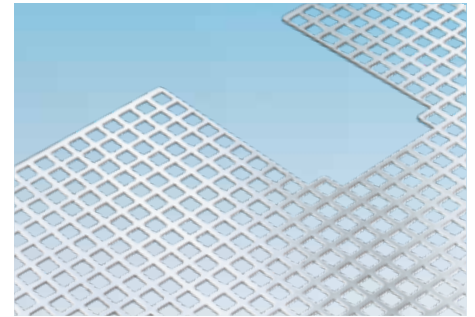
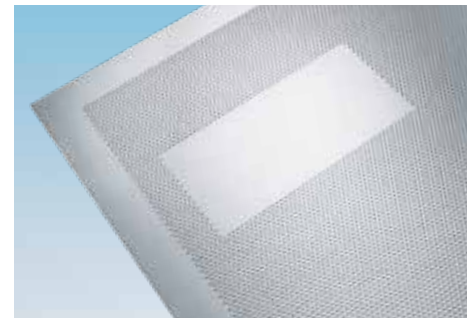


SCHÄFER Perforated Metal and the EMW Steel Service Centre joined forces at this year's BLECHexpo in November to present their combined steel processing expertise on 140 square metres. The generously dimensioned stand provided sufficient space to present numerous services which highlight synergies between these two sister enterprises that are quite unique in the German steel sector. Besides the broad range of steel

grades and perforation patterns for the metal processing, automotive and recently the agricultural industry, too, the companies' focus this year lay on the different machining possibilities.

The services and product ranges of these two SCHÄFER Werke divisions harmonise perfectly. As one of the largest independent steel service centres, EMW manufactures coils, slit strip, cut-to-size sheets and circular

blanks from a range of different steels. On an area of 32,000 square metres, up to 150,000 tons in all current market grades – standard and special grades, mainly hot-dip and electrolytically galvanised, cold-rolled, hot-rolled and hot-dip aluminised – are permanently in stock, ready for delivery at any time. On five slitting and three multi-blanking lines, EMW processes metal sheet in thicknesses of 0.4 to 4.5 millimetres with coil weights of up



to 32 tons. Among the company's specialities are a wide range of high-quality automobile grades, high-tensile steels, grades for enamelling and the highly efficient organisation of transport logistics.

Customers of SCHÄFER Perforated Metal are also beneficiaries of the short supply lines between these two Pfannenberg "next-door neighbours", as their raw materials come directly from EMW. The rapid availability of raw materials means that the former is permanently able to supply customers with a broad spectrum of perforation patterns in the shortest possible time. With its extensive machinery and in-house tool-making, SCHÄFER Perforated Metal can react flexibly to customer-specific demands. Important areas of application for perforated metal are sound protection, shop fittings and architecture. With well over 400 perforation patterns available as standard, SCHÄFER Perforated Metal can supply customised designs for facade cladding and noise protection barriers, but also for shelf systems and seating furniture. The great variety of tools and machinery guarantees an extensive range of possibilities for manufacturing perforated metal sheets in steel, stainless steel and aluminium.

However, the extensive machining portfolio in particular is one of the company's greatest assets, as the available machinery allows customised processing and machining of perforated sheets from a single source. Laser cutting, notching, bending, de-greasing, powder-coating and anodising can be pro-

vided by SCHÄFER's highly qualified staff, as well as other processes on request. This saves customers unnecessary investments and creates the scope for activities with a higher value creation, as the high production volume means that machining services at SCHÄFER can be carried out at very low unit costs. In addition, orders can be processed extremely quickly and selected perforated sheet formats can be ordered straight from stock, as great importance is attached to integrating the machined perforated sheet solutions precisely into customers' workflow.

So it's not just in the field of perforation patterns, but also in its machining service that SCHÄFER Perforated Metal is keen to work together with customers to develop new product design possibilities for realising solutions that are unique on the market.

For SCHÄFER Perforated Metal and EMW, this year's BLECHexpo once again proved to be a great success in terms of making new, relevant contacts, speaking to established customers and opportunities to meet the trade press.



www.schaefer-lochbleche.de

Laser cutting, notching, bending, de-greasing, powder-coating, anodising and a range of other machining services are standard at SCHÄFER Perforated Metal

SCHÄFER 
PERFORATED METAL

- Coil to coil perforation
- Perforated sheets to customer specification
- Perforated sheets straight from stock
- Machining service

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STEEL – a hot topic?

What's the current trend in the automotive industry?

The automobile industry is currently facing enormous challenges. The EU limits for CO₂ emissions in motor vehicles are forcing manufacturers to introduce extensive measures, as further reductions in fuel consumption for all vehicles' are to be achieved by 2020.

A significant factor influencing fuel consumption is vehicle weight. The rule of thumb is simple: less weight leads to lower consumption and consequently to lower CO₂ emissions. There is, however, some controversy about whether car bodies made of carbon fibre and aluminium really do improve vehicle CO₂ emissions. Use of these materials in doors and the passenger compartment only amounts to about a quarter of a car's total weight. And besides, though less weight really does reduce CO₂ emissions, the high energy requirement for producing the low-weight materials needed actually cancels out the benefit.

Steel remains the most important material

There are great hopes linked with the topics of electro-mobility, lightweight construction and autonomous driving, and not just in political circles. In the wake of the diesel scandal, many people would like to see transport policy turn towards completely emission-free cars. The manufacturers are now going down that road and registrations of electric vehicles are steadily increasing. For long-distance HGV traffic and the heavier private cars, however, a more effective replacement for the diesel engine will not be appearing on the horizon any time soon. This highly efficient engine type – in future probably driven by regenerative fuels – and the electric motor are by no means opponents. Both are needed if climate targets are to be achieved. Steel is still relevant for car manufacturing. Important criteria in vehicle development are the safety requirements, as well as recycling considerations and environmental protection. An aluminium body does weigh a few percentage points less

than a steel one and melting down and reusing the material is extremely energy-efficient. For primary production of aluminium, however, much more electricity is required than for steel. Taking the entire life cycle of steel into consideration, from the mine to the car and finally to the recycling plant, 2.6 % less CO₂ is generated compared to aluminium. Overall resource utilization also speaks in steel's favour, as it can be almost 100 % recycled.

The composite material carbon fibre has serious disadvantages. This light, corrosion-resistant, long-lasting and strong material generates the highest production costs, is difficult to process and is therefore largely used in building racing car prototypes. Experts see the greatest potential for lightweight construction in the bodywork, drive units and chassis. Car manufacturers' research is focusing on how each of these materials can be used to conform to their particular strengths. For example, traction forces can be absorbed better by composites; pressure by metals.

The steel industry profits from electro-mobility

The steel industry is expecting stronger demand for battery powered vehicles. A current survey by the Indian steel giant Tata Steel shows demand being significantly boosted by e-mobility. Up to the year 2050, Tata is expecting an increase in orders amounting to 4.2 million tons (+ 25 %) from the European automobile industry alone. It's believed the boost will mainly come from high-tensile, lightweight steels, which are especially hard but nevertheless sufficiently formable. The growing demand for lighter automobiles and the expected increase in battery production

are promising signals for a rise in demand for special steels. Steel's potential as a lightweight construction material is often underestimated.

Increasingly tough steels ensure that cars are not only getting lighter but safer too. A particularly important role here is played by ultra-high strength hot-formed steels.

During manufacturing, the plates of these steels are heated up to around 950° C and given their required shape. Precisely controlled cooling in the tool then results in the material's extreme hardness being achieved. As car components have to achieve certain hardness levels, these steels make it possible to continually reduce material thickness, as higher strengths guarantee thinner steel sheets. Hot-formed steels are used especially for manufacturing safety-relevant components, such as side impact and bumper cross beams. By using these steels, the body shell weight of the VW Passat, for instance, could be reduced by 20 kilos, compared to the use of conventional high-tensile formed steels. An outstanding feature of all steel solutions for





lightweight construction is their high material and energy efficiency. Even after a long service life, these components can be recycled without any loss in quality. Compared to using aluminium or carbon fibre, manufacturing highly efficient components from steel is cheaper. Achieving a weight reduction of 1 kilogramme using steel saves about two Euros, whereas the same weight reduction using aluminium costs around 10 to 12 Euros more, and when using carbon-fibre reinforced plastic, it even costs 50 Euros more.

So, steel is still and will remain en vogue. Current development seems to be moving not towards an either/or situation, but to a multi-material design. The success of the car's "slimming programme" would seem to be best served by removing nonsensical comfort features.

EMW – a strong partner for the automobile industry

For many years, EMW, as one of Europe's largest independent steel service centres, has been a highly efficient and reliable partner for Germany's most important economic factor. The material range EMW can supply to the

car industry is extensive. There's scarcely another steel service centre that can offer such a variety of different sheet metals and steel products. To meet the growing demands, EMW has 5 slitting and 3 multi-blanking lines, designed for processing coils of up to 32 tons and high-tensile steels, automobile and standard grades in widths of up to 1,850 mm, thicknesses of up to 4.50 mm and a hardness of up to 1200 N/mm². In over 32,000 m² of storage space, EMW has around 150,000 tons of thin steel sheet permanently in stock, as well as special automobile grades, high-tensile and ultra-high strength steels, all of which can be delivered at any time. But special grades for other industrial applications, such as enamelling and constructional steels, are also part of EMW's portfolio.

So, in conclusion, it's safe to say that for EMW, electro-mobility is more of an opportunity than a threat, because steel's potential for development is far from exhausted. Weight will not play a decisive role in electric cars, as a weight reduction of 100 kg would achieve a range extension of only 8 km. And quite apart from that, the continual development of new

types of high-strength steel for cold forming shows that the steel industry will always be capable of finding appropriate responses when it comes to low-cost, environmentally friendly lightweight construction.



www.emw-stahlservice.com

Sources:

Steel Information Centre (Stahl-Informations-Zentrum), "Welt" and N24, ZEITonline, Handelsblatt, Automobile Industry



- Coils
- Slit strip
- Cut-to-size blanks
- Circular blanks

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Day one for the new trainees ...

Welcome to the world of steel – thanks to our highly competent training programmes, applicant numbers remain high.

■ On August 1st 2017, a new phase in the lives of 22 motivated young people began on the Pfannenberg in Neunkirchen as trainees or dual-track students. This year, too, SCHÄFER WERKE once again took on a number of career starters: for the first time, this included two dual-track students studying business management and one IT specialist for applications development. In addition, there were seven commercial trainees for industrial management assistant and office management assistant, as well as eleven industrial trainees learning electronics technician for operating technology, industrial technician, cutting and forming technician, tool maker, engineering technician, technician for metals technology and machinery and plant operator. On top of this, there was also one dual-track mechanical engineering student on the so-called "Dual Genial" programme, who, to begin with, was starting an apprenticeship as an industrial technician and then continuing the mechanical engineering course, first on a part time, then on a full time basis.

This is the first year that two dual-track business management students specialising in small business management have started

courses at SCHÄFER WERKE. The course itself is being run in cooperation with the THM University of Applied Sciences in Wetzlar. In total, the university is offering seven dual-track Bachelor and three dual-track Masters degrees in various subjects as part of their "StudiumPlus" programme. This year, 2017, SCHÄFER WERKE have become partners of the THM and can now participate in a large platform for knowledge transfer and research projects.

This new field of vocational training at SCHÄFER WERKE is intended to promote young professionals and train future managers.

The management and the heads of training welcomed the new trainees and students together and immediately signaled their support and assistance, both during the training period and beyond. These new young colleagues, who will play an active role in the company's future from the outset, will receive extensive personal support, company-internal teaching and will participate in training courses and seminars to promote their individual development. We'd like to wish all these young people a good start, every success and all the very best!

From school to career

SCHÄFER supports school-leavers in their career orientation.

In July 2017, 77 year 11 pupils from the Dietrich Bonhoeffer Grammar School in Neunkirchen paid a visit to SCHÄFER WERKE as part of their study and career orientation programme. Dividing the students into three groups meant they could be looked after much more intensively and were able to receive answers to all their questions about career and company.

The school group were given a guided tour of the company by the SCHÄFER WERKE vocational training team, Wolfgang R. Weber, Manfred Piechulek, Dennis Göldner and Nick Neuser, who introduced both the company and the professions that can be learned there, gave talks on application procedures and the characteristics an applicant should have in order to be accepted on a training course. Of course, they also provided useful tips for interviews, job descriptions, structuring applications, CVs and helpful documents such as certificates, which could increase the chances of obtaining trainee places.

"SCHÄFER is very much in favour of cooperation between companies and schools. In the past, we have noticed that young people who have had the opportunity to gain practical experience early are much better prepared for choosing a career and meeting the demands of working life", says Wolfgang Richard Weber, chief training instructor at SCHÄFER WERKE.



From the point of view of the Dietrich-Bonhoeffer Grammar School, the guided tour and the cooperation with SCHÄFER WERKE were given a very positive assessment. "For the students, it is crucially important to be able to get to know regional companies and businesses, so they can actually find out what's on offer 'on their own doorstep'. "SCHÄFER WERKE have given us the opportunity to gain an extremely interesting insight into the world of industry", noted Marco Giehl, a teacher at DBG.

For the company, too, it's increasingly important to present itself to young people as an attractive employer and to get them interested in learning particular trades and professions, especially in view of demographic changes. So, this particular collaboration between school and business looks like a win-win situation for both partners involved.

■ This was the motto for the many SCHÄFER WERKE and EMW employees, who lined up yet again this year for the annual company fun run in Siegen and also in Betzdorf. The SCHÄFER runners were taking part in the event in Siegen for the thirteenth time, but this summer, there was something new.

The entire SCHÄFER Group went to the starting line together. On July 12th, around 300 runners from SSI SCHÄFER, SCHÄFER WERKE and SCHÄFER SHOP set out on the 5.5 kilometre circular course that wound its way from the "Bismarckplatz" square in Siegen-Weidenau, through the city centre and back again. Though the skies were not entirely blue the whole time, the occasional drops of rain that did actually fall could not dampen the motivation and enthusiasm of the 9,000 runners.

Crowds of spectators at the roadsides and a number of music groups played their part in providing additional encouragement for the athletes. The meeting point for all employees was a specially erected pavilion, where, active or otherwise, they could all meet up and have a friendly chat. This SCHÄFER Group joint performance proves

Crossing the line together

On 12th. July 2017 the Siegerland AOK Company Fun Run and the 200-year anniversary of the Siegen-Wittgenstein district were started with the motto "Great Diversity".



once more the team spirit and the strength of these three companies – not just on the market, but in sport as well.

lion, where, active or otherwise, they could all meet up and have a friendly chat. This SCHÄFER Group joint performance proves

Our locations



Head office and production plant in Neunkirchen (D)



Plant in Betzdorf (D)



Plant in Ledec nad Sázavou (CZ)

SCHÄFER WERKE

SCHÄFER WERKE is an owner-led group of companies based in Neunkirchen/Siegerland and consists of four business divisions, SCHÄFER Container Systems, SCHÄFER Perforated Metal, SCHÄFER Interior Systems and the EMW Steel Service Centre. The work of all these divisions is based on high-quality fine steel sheet. The processing of this material is one of the core competencies of this enterprise.

EMW Steel Service Centre

As one of the largest independent steel service centres, EMW supplies coils, slit-strip, cut-to-size blanks and circular blanks to the manufacturing industry. The company, which celebrated its 60th anniversary in 2012, combines decades of experience and expertise in steel services with the very latest in logistics. In over 32,000 m² of storage space, EMW has around 150,000 tons of thin steel sheet in almost all current market grades permanently in stock.

