

NEWS++++

ALL THE LATEST OF THE WORLD OF SCHÜTZ | ISSUE JUNE 2021



ECOBULK MX 560

EXPANDS THE SCHÜTZ PRODUCT RANGE

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SECURELY SET UP: SCHÜTZ PRODUCTION IN TIMES OF RAW MATERIAL SCARCITY



SCHÜTZ stands for security and reliability. This guiding principle not only defines our IBCs and drums, but is also fundamental to our global production system. The current crisis on the raw material markets, triggered by pandemic-related fluctuations in demand, capricious weather and force majeure events at important raw material manufacturers, however, also means an absolute challenge for our ability to deliver. The resulting reductions in the quantities of steel, plastic and many other raw materials lead to a manifold of problems. These require enormous organizational effort, maximum flexibility and close coordination with our suppliers and customers in order to be able to provide the required packaging quantities on time. This shows that the company's strategic goals of independence and delivery reliability, which have been strategically pursued for decades, are proven daily.

GLOBAL, LONG-TERM AND DIRECT – OUR PROCUREMENT STRATEGY FOR RAW MATERIALS

Of course, SCHÜTZ, as one of the world's largest processors of flat steel and plastic in the packaging industry, is not detached from the dramatic development on the raw materials market. However, with a forward-looking and broad-based purchasing policy, we are able to bolster the disruptions during the current crisis. We work in cooperation with several selected strategic raw material partners, in all regions of the world economy, with whom we have concluded long-term supply contracts for fixed quantities. Therefore, we are less dependent on tariffs, currency fluctuations and import restrictions. On the other hand, the very good local network also allows us to flexibly secure additional contingents, if necessary, in order to largely compensate for peaks in demand or unforeseen disruptions.



In addition to the secured supply of raw materials, our high degree of vertical manufacturing integration is the guarantee for maintaining our performance.



RELIABLE SUPPLY GUARANTEES EFFICIENCY

The availability of steel and plastic is an absolute prerequisite for the production of IBCs and plastic drums. Thanks to our procurement strategy and active risk management that encompasses our entire production chain, we have largely been able to master the crisis so far. While procurement difficulties on the raw material spot markets and bottlenecks at suppliers led to massive production downtimes elsewhere, we were able to ensure a general ability to deliver. In addition to the secured supply of raw materials, our high degree of vertical manufacturing integration is the guarantee for maintaining our performance. We produce all key components for our packaging completely in-house. This affords us



independence from suppliers and the comprehensive competence and flexibility to be able to react quickly to new market situations.

STATE-OF-THE-ART PRODUCTION CENTRES FOR PLASTIC COMPONENTS

All injection moulded components such as screw caps and outlet valves are produced at our headquarters in Selters and in Montlingen, Switzerland. All SCHÜTZ plants worldwide are supplied from here. The two state-of-the-art production centres produce several hundred million injection moulded components per year and have been massively extended in recent years, therefore further mutual back-up capacities have been created as part of our global contingency program. In addition, they each have numerous fully automatic injection moulding and assembly lines that are connected directly to computer-controlled high-rack

warehouse storage systems. The complete warehouse management and dispatch provision system is fully automated. Efficient logistics then take over the reliable and timely land and sea transport.

OUR OWN STEEL SERVICE CENTRES IN ALL REGIONS AROUND THE WORLD

In order to be able to guarantee the greatest possible independence and flexibility for our production, also with preliminary products made of steel, we undertook large investments in our expertise in steel processing early in our company's history: It began in 1958 with the production of steel drums and has since developed into five high-performance centres of excellence worldwide for the machining and processing of flat-rolled

steel grades. The steel sheets and slit strips produced here are the starting products for the production of label plates, bottom plates, grid tubes and other pallet components. Thus, our steel service centres in Europe, America and Asia ensure the continuous supply of the essential raw materials directly from the producer

**The complete warehouse
management and dispatch
provision system is fully
automated.**



in the respective world region. In doing so, we rely on the latest production technologies in order to lay the foundation for the superior quality of SCHÜTZ packaging with the highest precision, starting with the preliminary products. Modern logistics concepts such as the preferred delivery of steel coils by rail also help us to further reduce the ecological footprint of our products.

DECENTRALIZED PRODUCTION OF STEEL COMPONENTS

The grid cages and pallets for our IBCs are usually produced on site at our locations. To do so, they obtain the relevant preliminary products directly from our own steel service centres or receive semi-finished products such as tubes or corner and centre feet from other SCHÜTZ plants in the same region. Through the centrally controlled SCHÜTZ production system our packaging is produced according to exactly the same quality and safety standards worldwide – therefore the individual components or primary products can be exchanged at all times without any difficulties.





the Asian production sites during the days-long closure of the Suez canal.

SECURING LOCAL INNER BOTTLE PRODUCTION

The most important raw material for our IBC inner bottles and PE drums is of course plastic resin. Therefore, we have created generous storage capacities at all production locations as part of our risk minimization program. At any given time, there are several hundred tons of raw materials in large silos on site and thus ensures the production of our inner bottles and plastic drums for several weeks – even in the event of a temporary total failure of raw material deliveries. In the plastics sector, independence from suppliers even extends to the production of raw materials: As part of the SCHÜTZ TICKET SERVICE, we collect millions of emptied containers around the world every year and, in complex recycling processes, obtain high-quality plastic recyclate, 100 % of which flows back into the production of our packaging.

IN AN IMPORTANT BUFFER FUNCTION: ON-SITE COMPONENT STORAGE

In order to additionally secure the production capability of the global SCHÜTZ locations and to prevent the failure to make complete deliveries, as far as possible, the local component storage capacities were

significantly increased in the past. Our individual locations have sufficient stock, depending on the component, to be able to maintain production for weeks – and partially for months. This was a great benefit for us with regards to component deliveries to

At any given time, there are several hundred tons of raw materials in large silos on site.

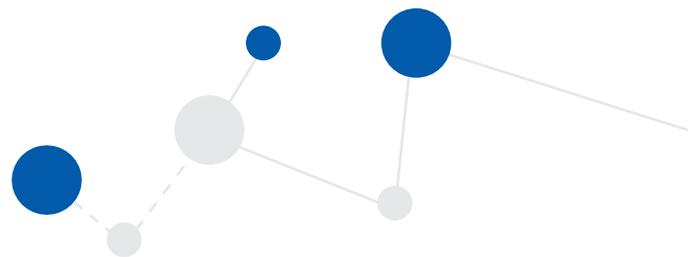




STRONG AND FLEXIBLE PARTNERSHIPS

The reliable supply of IBCs and drums as transport packaging for a wide variety of industries is of broad macroeconomic significance. Should this not be guaranteed, it will lead to enormous negative multiplication effects across the value chain. SCHÜTZ is therefore consistently pursuing the further strategic expansion of its global production network. No matter how well each individual plant is prepared for crisis and bottlenecks – real security can only be achieved through networking.

At the same time, we would like to thank our long-term customers and strategic raw material partners for their trust, their commitment and their flexibility in overcoming the huge challenges of the last few months. The fact is: Crises can only be overcome together.



FOODCERT F1 TIGHT HEAD DRUM: FOOD SAFETY AT ITS HIGHEST LEVEL

Safety and cleanliness are essential when handling food, both for end consumers and for producers. This is the only way to guarantee maximum quality across the entire supply chain, from production to transport to the end product on the supermarket shelf. Industrial bulk packaging for raw materials, concentrates, as well as preliminary and end products play a crucial role as they are mostly used at the beginning of the food chain. With its FOODCERT packaging, based on the FSSC 22000 (Food Safety System Certification) industry standard, SCHÜTZ has set a new standard worldwide. We offer this highest level of safety for filling products in the food industry with the FOODCERT version for our IBCs as well as for our F1 tight head drums. The F1 drum is the only PE drum on the market to be FSSC certified.



It is available worldwide and is produced in a uniform design according to identical standards.

Our F1 tight head drum has proven itself to be a real all-rounder, especially for international companies. It is available worldwide and is produced in a uniform design according to identical standards. The modern manufacturing process ensures high dimensional accuracy: the bungs are precisely calibrated, the dimensions are designed for transport in ISO containers and the bottom is optimized for automatic filling systems. The drum also impresses our customers with its easy handling. The stable upper ring and the recessed grips in the bottom allow handling with all common drum grippers. The outstanding overall performance is also impressive: thanks to the use of highly developed plastic materials, our PE drum has a high cold impact strength and stack pressure resistance as well as enormous resistance to stress cracks and chemicals. It can therefore be used universally for a wide variety of applications. AUTOMATIC LOCK, our bung closure system with a tamper-proof seal,

protects the filling products from unintentional access or contamination. It is not possible to open the bung without destroying the sealing cap. For food industry filling products such as highly sensitive fruit juice concentrates or beverage bases, our F1 tight head drum is also available as a FOODCERT version.

CERTIFIED SAFETY TO PROTECT THE FILLING PRODUCT

The basis of this type of drum is the certification of the SCHÜTZ production facilities in accordance with the FSSC 22000 industrial standard. It was recognized by the GFSI (Global Food Safety Initiative), an international association of leading food producers and retailers. Our internal, well-trained food safety teams regularly analyse and check the processes in our plants. The reason being is that: Every year there is an audit by external experts in order to continuously ensure FSSC conformity. Our FOODCERT packaging thus guarantees full material, product and process security – comprehensively documented and completely traceable. This product line therefore not only meets all the requirements of the US Food and Drug Administration (FDA) and the corresponding European guidelines – they go far beyond the minimum requirements regarding material compatibility. When manufacturing our FOODCERT F1 tight

A FOODCERT embossing on the outer layer of the drum makes the premium quality easily recognizable.

head drum, we take numerous preventive programs into account as part of the HACCP concept (Hazard Analysis and Critical Control Points).

They include additional risk minimization measures that include the buildings, facilities and the entire production environment. These include detailed hygiene regulations for employees and cleaning schedules for the workplaces. All these measures make a significant contribution to significantly reducing the risk of contamination for the packaging – a crucial point. Only sustainable safety at the highest level right from the start guarantees high quality food for the consumer, from the raw material to the end product. Their requirements with regard to food safety are constantly increasing. At the same time, the big global players in the food industry have also vastly increased their own standards – in some cases far beyond the legal requirements. Many are also certified according to the FSSC 22000 industrial standard and expect us as manufacturers to provide appropriate packaging for their products. We cover this requirement with our F1 tight head drum of the premium standard FOODCERT, which is the only PE drum with this system certification.



**FSSC 22000
CERTIFIED**



COMPLETE TRACEABILITY OF ALL COMPONENTS

SCHÜTZ manufactures FOODCERT drums on the basis of customer-specific individual orders – like all packaging in this version. They are closed immediately after the blow moulding process to prevent contamination. Pre-produced components such as bung plugs are packaged separately and hygienically and delivered to the production facility. Production and shipping to customers are usually just-in-time. The FOODCERT drums are loaded and shipped directly in the production area. Alternatively, the drums are temporarily stored separately in closed rooms under special cleanliness conditions.

An order-related identification, which is printed on the drum, guarantees complete traceability. On request, SCHÜTZ also issues individual identification numbers for items or packaging. A FOODCERT embossing on the outer layer of the drum makes the premium quality easily recognizable. Depending on the customer's requirements, we can optionally produce the drums with an inner layer made of uncoloured, natural, high-purity HDPE – for maximum compatibility with the most sensitive filling products. This means that no colour pigments can come into contact with the filled medium.

Our CLEANCERT drums are ideally suited for sensitive products from the non-food sector that require the highest level of technical cleanliness and safety. The production of this line is based on identical process conditions. F1 tight head drums of this design are particularly suitable for coatings in the automotive industry, paints and varnishes, cosmetics and hygiene articles or pharmaceutical products. For our customers, this means even more flexibility in choosing the right packaging.



SCHÜTZ TICKET SERVICE – THE SIMPLEST SOLUTION FOR EMPTIED IBCs



From food concentrates and seed dressing to paints and varnishes, adhesives and pharmaceutical products – IBCs have become an indispensable packaging solution for numerous filling products. Additionally, equipped with innovative components – such as our IMPELLER – there are almost endless application possibilities. Yet what do end users do with the containers when the filling product has been completely removed? Very simple: Let us collect them! Our SCHÜTZ TICKET SERVICE ensures fast, flexible and free collection of empty IBCs worldwide. The big advantage for customers: One service for all quantities and all reusable manufacturer brands – including sustainable reconditioning! You benefit from simple handling and a positive influence on your own CO₂ balance.

Sustainability with tradition: For over 40 years we have been collecting used IBCs from the emptiers, free of charge, as part of our SCHÜTZ TICKET SERVICE. The subsequent reconditioning takes place in an environmentally friendly manner within a closed-circuit system. This corresponds with our ecological self-image, which

already determined our actions before there were legal regulations. After all, as an IBC producer, we also have a great deal of responsibility, especially when customers ask themselves what to do with the packaging after it has been used. Through constant optimization and continuous expansion, the SCHÜTZ TICKET SERVICE quickly

developed into the largest global manufacturer-managed network for the collection and reconditioning of emptied containers. The basis is formed by more than 50 SCHÜTZ production and service locations around the world. This density of locations ensures short transport routes, combined with lower CO₂ emissions.

**The collection of third-party brands
is a service that makes handling
considerably easier for our customers.**

Thanks to our high-performance, freight-optimized logistics, it only takes a few working days after the order has been received until the containers are collected – regardless of the quantity. We undertake the collection of small quantities up to complete truck loads. In many countries and regions, we even collect single IBCs, if they are from SCHÜTZ. Other brands – provided they are reconditionable models – are also accepted free of charge from a quantity of five IBCs. The collection of third-party brands is a service that makes handling much easier for our customers. You benefit from the simple, one order for the IBC collection by SCHÜTZ TICKET SERVICE. That means: one transaction, completely from a single source. This extremely efficient process reduces the effort and guarantees an administration-free process.

ORDER? VERY EASY!

We have made it as easy as possible to request the collection: In addition to a phone call or e-mail, this service can also be requested online or via the app. In addition, all IBCs from SCHÜTZ have a sticker with a QR code on the label. This can be scanned directly at the IBC with an internet-enabled mobile device, which connects the user to the registration portal on the SCHÜTZ website. All relevant information and the current return conditions are available there and in the app. In principle, for example, every IBC must be completely emptied before collection. The set browser language is automatically recognized for maximum ease of use. Language barriers are avoided right from the start. Should a customer number not exist, a one-time registration takes place. The order then goes to the service station responsible for the customer.

UNIFORM PROCESS AROUND THE GLOBE

Reconditioning takes place at all locations around the world in accordance with international guidelines for environmental, safety and quality management in state-of-the-art facilities. With these uniform processes, SCHÜTZ guarantees the same quality and, at the same time, comprehensive safety around the world: All parts of the IBC that touch the filling product are exchanged and replaced with new original components. The inner bottle is removed from the steel cage and shredded. The





resulting material is recycled again in several steps. The water from the washing process also follows a closed cycle within the reconditioning process – including cleaning by means of various mechanical and chemical processes. 100 % of the HDPE recycle flows back into our packaging: This is used to create plastic components such as corner protectors, pallets or acid protection inserts. The SCHÜTZ IBC receives a brand-new inner bottle. Screw caps, outlet valves and label plates are also replaced with new original parts. In this way, a SCHÜTZ ECOBULK becomes a 100 % compatible RECOBULK in the standard specification.

This specially developed fit-optimized inner bottle is technically adapted to the cages of numerous IBC models on the market.

The reconditioning of containers from other manufacturers follows the same process. However, with cross-bottling, the non-recyclable steel cage from the third-party manufacturer is equipped with a new universal inner bottle from SCHÜTZ. This specially developed fit-optimized inner bottle is technically adapted to the cages of numerous IBC models on the market. In addition, the IBCs get a new standard label plate. Because it cannot be completely ruled out

that after cleaning, residual stickers may remain on the existing label plates of the returned IBCs. As a SCHÜTZ RECONTAINER, the IBC is ready to be used.

RECYCLED IBCs IMPROVE THE ECOLOGICAL BALANCE

An extra plus in terms of environmental protection: Each of the reconditioned IBCs – regardless of whether they are from SCHÜTZ or another brand – saves around 100 kilograms of CO₂ during production compared to a new IBC! Accessories – such as the SCHÜTZ IMPELLER for the safe stirring of viscous media – are also completely recyclable. The outer components of this disposable mixer are made entirely of HDPE. In this way,



appropriately equipped IBCs can also be collected via the SCHÜTZ TICKET SERVICE, and the inner bottle and stirrer can be processed into HDPE recycle. Manufacturers, fillers and users all jointly contribute to the responsible use of valuable natural resources and improve the ecological balance of packaging within the supply chain.



SCHÜTZ TICKET SERVICE IN VIDEO

The numerous advantages and comprehensive services that our collection system includes are presented in our new concise and clear video. The clip titled "SCHÜTZ TICKET SERVICE – The simplest solution for empty IBCs" is now available online on the website: www.schuetz.net/ticket-spot



SNAPSHOT

SOMEWHERE OVER THE RAINBOW...

...in the beautiful Westerwald. This colourful spectacle of nature was recently seen at our company headquarters in Selters.



ECOBULK MX 560 EXPANDS THE SCHÜTZ PRODUCT RANGE



NEW!

IDEAL USE
of storage and transport space

Different requirements in the supply chain require the greatest possible flexibility and a diverse range of packaging that is constantly adapted to customer requests. In order to meet this requirement, we are now supplementing our extensive product range with the new ECOBULK MX 560.

This IBC has a particularly flat shape and a nominal volume of 560 litres or 150 gallons. The new container is therefore ideally suited for applications in which smaller containers are advantageous, but where maximum performance and the highest quality are also important. The MX 560 combines optimal filling volume with a low container height, and a bottom group that has already proven itself many times. It corresponds to those of the MX types with a capacity of 820, 1,000

and 1,250 litres. All of these models in the MX line are therefore compatible.

The four horizontal tubes of the flat steel cage provide the necessary stability and security.

The development of the new container based on the globally successful pallet with dimensions 1,200 x 1,000 mm ensures particularly flexible handling. Existing customer infrastructure and machines that are set to these dimensions can therefore also be used with the MX 560. An economic plus point when shipping by sea: This pallet size ensures



LIGHTWEIGHT for better handling

ideal use of storage and transport space in standardized large-capacity containers, even with mixed loads and the larger MX IBC variants. If this model is consistently stacked three high, for example, a total of 30 IBCs fit into a 20' ISO container. The four horizontal tubes of the flat steel cage provide the necessary stability and security. There is also enough space for detailed product labelling on the large metal label plate that covers eight sections of the steel cage.

ECONOMIC ADVANTAGES THROUGH LOW TARE WEIGHT

Compact container sizes are preferred in agriculture and in the agrochemical sector, for example. In North America in particular, IBCs with a smaller volume are used for the targeted application of concentrated pesticides or seed dressings that have a high product value. The user also focuses on the ease of handling the containers during use and storage. Here the ECOBULK MX 560



is convincing: Due to its low weight when filled and unfilled, it is easy to handle in daily use – especially in comparison to stainless steel containers and steel or plastic drums. With its reduced capacity on an optimal footprint, our new IBC allows for lower capital tie-up and reduced storage times for low turnover products. This also reduces the risk of product spoilage due to aging. If required, the IBC can also be equipped with an EVOH permeation barrier. As a barrier layer in the IBC inner bottle, it ensures the product quality, protects the filling product from changes and the environment from environmental pollution by prohibiting the entry and exit of oxygen, nitrogen and other gases.

OPTIONAL DESIGNS OPEN UP A WIDE RANGE OF APPLICATIONS

With further optional features, this compact IBC opens up a number of other fields of application – for example in the FOODCERT version. The corresponding system



OPTIONAL FEATURES

for a number of fields
of application

certification according to the FSSC 22000 industrial standard guarantees conformity with the demanding requirements for materials, processes and products in the food industry. For highly sensitive filling products from the non-food segment, where safety and technical cleanliness are essential, we also produce the ECOBULK MX 560 in the CLEANCERT variant.

Ex-Protection through an earthed outlet valve and pallet, as well as an antistatic inner bottle renders the IBC ready for use in potentially explosive areas, ex-zones 1 and 2 and for the transport of liquids with a flash point of ≤ 60 °C. The additional components that can be selected also include a check valve. This check valve prevents the filling product from flowing back into the container – a function that is often used, especially in the field of pesticides. A breather system consisting of a plug, membrane and valve in the screw cap of the IBC is offered for optimal ventilation during transport, storage and emptying. With these comprehensive equipment variations, depending on the product and application, customers benefit from the highest levels of efficiency and safety.

The ECOBULK MX 560 is, of course, also incorporated in SCHÜTZ TICKET SERVICE. The order for the admin-

istration-free collection of empty IBCs – including subsequent environmentally friendly reconditioning – can easily be done online by scanning the QR code on the IBC sticker. Thus, our smallest IBC also contributes to our overall sustainable concept.

Customers benefit from maximum efficiency and safety through the comprehensive variations in features.



TEMPERED FRESH AIR IN OFFICE COMPLEX

In the newly created Limburg urban district Pallottiner Klostergärten, the consulting company MNT GROUP has built a special building complex: The monk's carpentry, which is protected as a historic monument, has largely been preserved and connected to a new four-storey building. Our AIRCONOMY® system ensures a high level of air exchange and a pleasantly tempered working environment.

The new address of the MNT GROUP in Limburg is reminiscent of the prehistory of the district: Bruder-Kremer Street is part of the former Pallottine monastery grounds. With the restoration of the urban district Klostergärten, old is to be preserved and combined with new. The Pallottines acquired the seven-hectare area in 1895 for the con-

struction of a new German mission house. In 2012, Albert Weil AG and

The new, around 6,600 m², company headquarters in Limburg combines contemporary architecture with historical construction.

its Noll construction company started negotiations with the Association of North German Pallottines and the

City of Limburg. In 2017, the statutes resolution for the development plan and thus building permission followed. Over 50 apartments and 20 single-family houses, a grocery store, a medical centre and the new Limburg location of the MNT GROUP were built on an area of around 35,000 m².



MNT CONSULTING GROUP UNDER A NEW ROOF

The MNT GROUP amalgamated the two Limburg locations in the new office complex. The urban district Klostergärten combines the proximity to the city centre with a good connection to the motorway. The MNT GROUP is an independent, supra regional group of companies with an international network. For over 40 years, the law firm has been offering services in auditing, tax advice, legal advice and business advice. Frankfurt am Main, Montabaur and Wiesbaden are further locations.

The new, around 6,600 m² company headquarters in Limburg combines contemporary architecture with historical construction: The MNT GROUP had the listed carpentry extensively renovated and extended with a modern new building. Both buildings can be easily reached via



The renovated monk's carpentry, built in 1897 is mainly used by the MNT GROUP for meetings and conferences.

a connecting corridor. The construction project was completed in summer 2017 after the laying of the foundation stone in July 2016. The building complex comprises a total of 49 rooms with an office and usable floor space of 3,200 m² and 140 parking spaces.

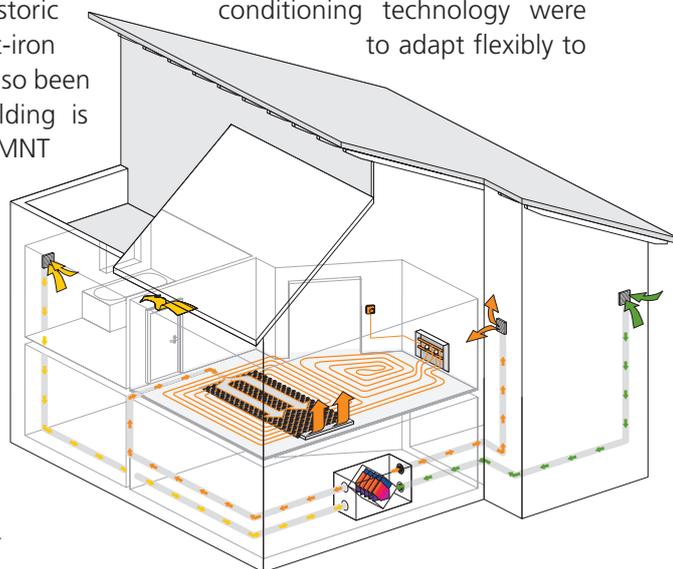
SPECIAL COMBINATION OF OLD AND NEW BUILDINGS

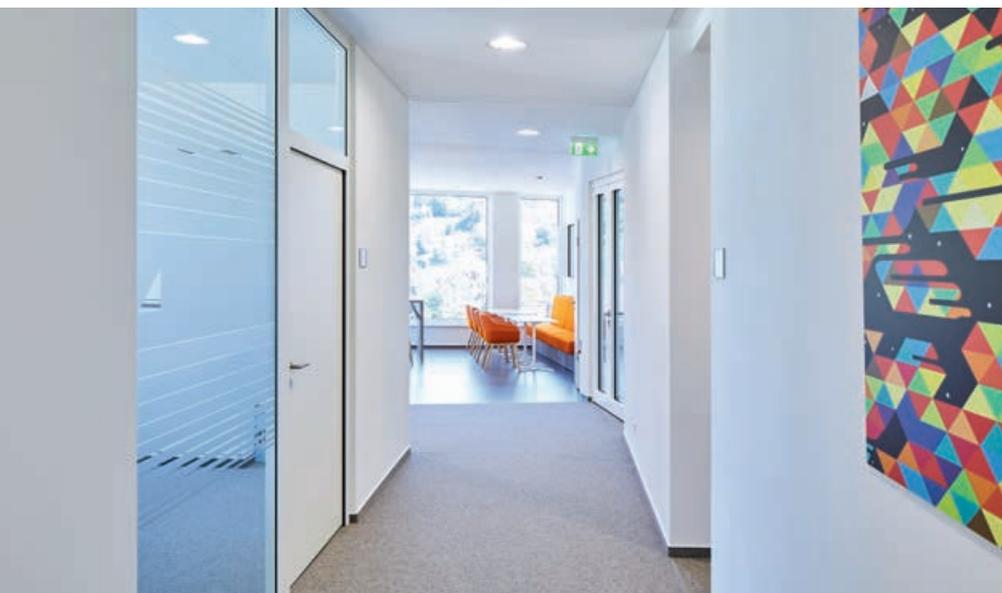
The former three-storey carpentry of the Pallottines, built in 1897, was mostly to be preserved and to be based on the neighbouring buildings which had already been renovated. The Limburg architects André and Erich Kramm built the attic with dormers and left the wooden roof truss visible. The historic staircase and the cast-iron support structure have also been preserved. The old building is primarily used by the MNT GROUP for meetings and conferences. The new building, in turn, was planned as a solid structure with four full

AIRCONOMY® combines controlled residential ventilation with hot water underfloor heating. The centre piece in each room is the AIRCONOMY® system module – the incoming air is preheated or cooled as required.

storeys. The bright facade made of concrete sandwich elements with its clear geometry is an eye-catcher in the new urban district and at the same time blends harmoniously into the historical ensemble. The consulting company mainly set up modern offices with a total of 140 work-places.

In order to provide the employees and clients of the MNT GROUP with a pleasant room climate at all times and to ensure minimum air exchange, the installation of a controlled commercial ventilation system was the best choice. Cooling the interior of the building in summer was also one of the requirements. The heating and air conditioning technology were to adapt flexibly to





Offices were set up in the new building. Our AIRCONOMY® supplies fresh air and creates a comfortable working atmosphere.

FRESH AIR SIMPLY INSTALLED

The choice of a complete-system offered several advantages in planning and installation. All components were individually adapted by us to the respective requirements in the existing as well as in the new building. "As a full-service provider, we were able to react flexibly to the different floor construction heights, for example," explains AIRCONOMY® project manager Qamil Hasaj, who was responsible for the installation of the system in both parts of the building complex, consisting of an area of 2,964 m². The system components for surface heating and air distribution were placed under the screed during the extension phase. Subsequent flexibility in designing the rooms was also retained. The centre piece of every room is the AIRCONOMY® system module, which functions as a heat exchanger. Profiles on the top secure the heating pipes for the underfloor heating, while truncated cones on the underside form a 800 x 20 mm cavity floor through which the supply air can flow freely to the air outlets in front of the windows. The ventilation components are installed on impact sound insulation EPS-T 25-2 with an impact sound absorption of 29 dB. Supply air is heated or cooled as



required. The geometry of the system module also ensures a sound attenuation level of 42,6 dB.

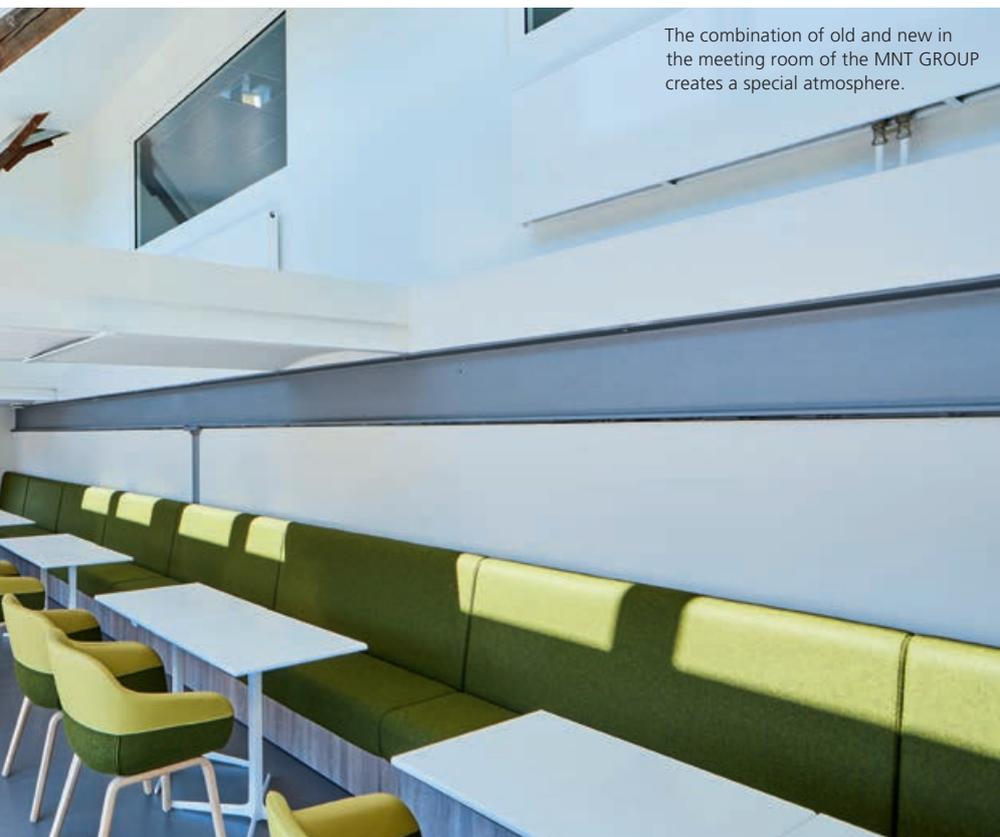
"As a full-service provider, we were able to react flexibly to the different floor construction heights."

"We planned the outside air volume flows according to the then valid standard DIN EN 13779 (IDA3) for office buildings. All in all, a large amount of air was required: around 11,000 m³/h", says Qamil Hasaj. The ventilation system with heat recovery continuously provides fresh air in all office and conference rooms of the MNT GROUP and automatically discharges the used, humid room air to the outside. This prevents moisture damage and mould. The Institute for Environmental Hygiene of the Ruhr Area certifies the hygienic functionality of AIRCONOMY®.



The wooden roof truss of the former carpentry of the Pallotines has largely been preserved.

the different structural conditions in the old and new buildings. The client opted for our tried and tested complete-system. AIRCONOMY® combines the functions of heating, ventilation and cooling and thus met all the requirements of the new company building. AIRCONOMY® is composed of a hot water underfloor heating and a controlled ventilation system with heat recovery. There is also the option of needs-based cooling.



The combination of old and new in the meeting room of the MNT GROUP creates a special atmosphere.



INVISIBLE TECHNOLOGY FOR A HEALTHY WORKING ENVIRONMENT

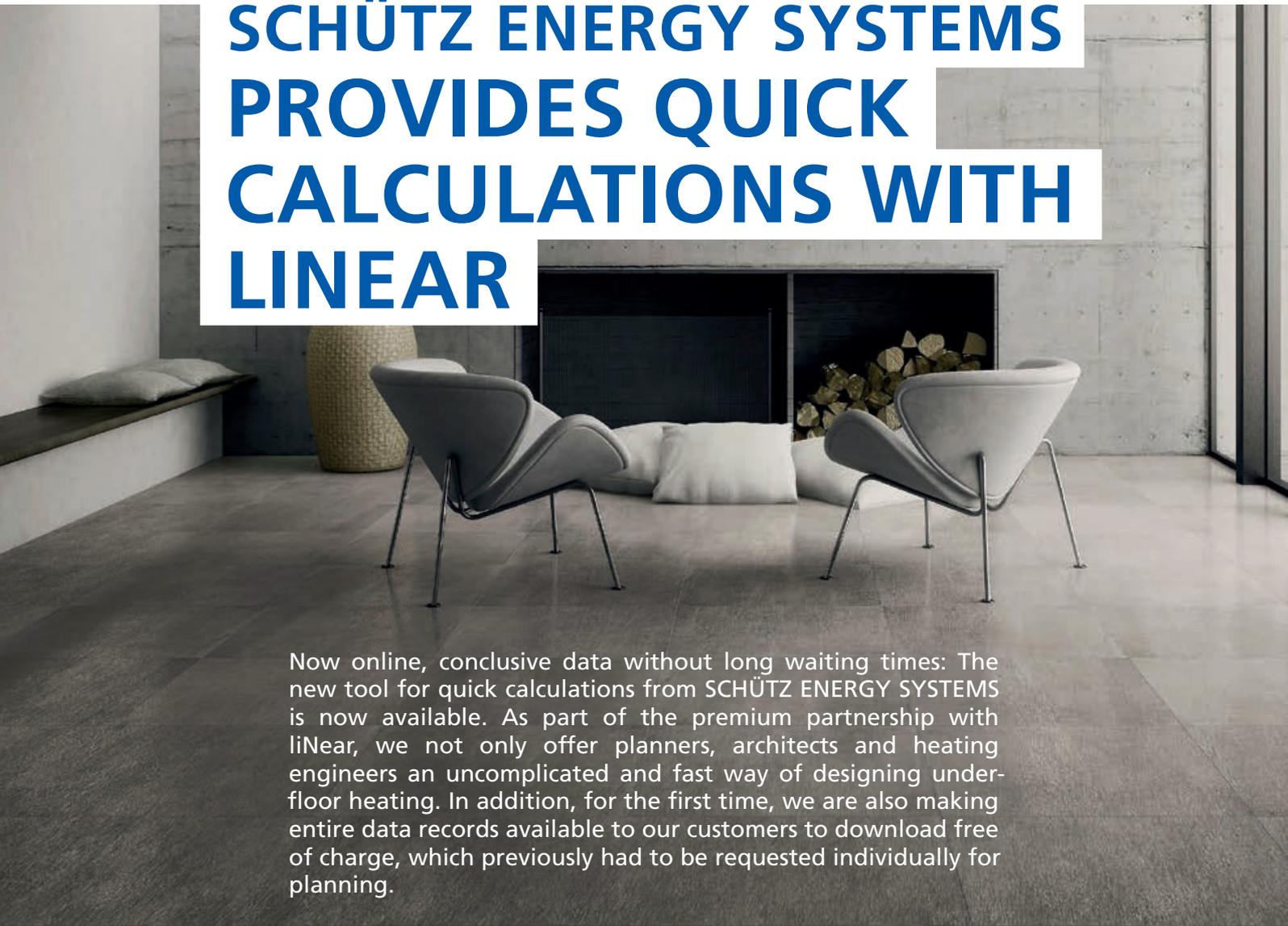
The room temperature can be set individually as required in every office as the fresh air is tempered at the same time by the AIRCONOMY® heating and cooling function. The heat recovery ensures that the building's heating requirements are kept low. The outgoing air system feeds the used air to the heat recovery in order to preheat or cool the incoming outside air. This also creates a pleasant working atmosphere in summer. "When planning, it was important to take a particularly high cooling demand in the old building into account. Approx. 35 KW are achieved in the existing building, and even approx. 73 KW in the new building," says Qamil Hasaj. According to the principle of silent cooling, AIRCONOMY® guides chilled water through the pipe system in the floor when necessary and automatically pre-cools the supply air.

We integrated all technical system components invisibly into the building structure. Only cautiously designed air outlets in the flooring indicate the efficient building technology. "The AIRCONOMY® system works perfectly in our new office complex," concludes Jochen Altbrod, one of the managing partners of the MNT GROUP. "The ventilation system is quiet and the indoor climate is very pleasant. Especially now in times of the corona pandemic, a permanent exchange of air is necessary in order to reduce the risk of infection."

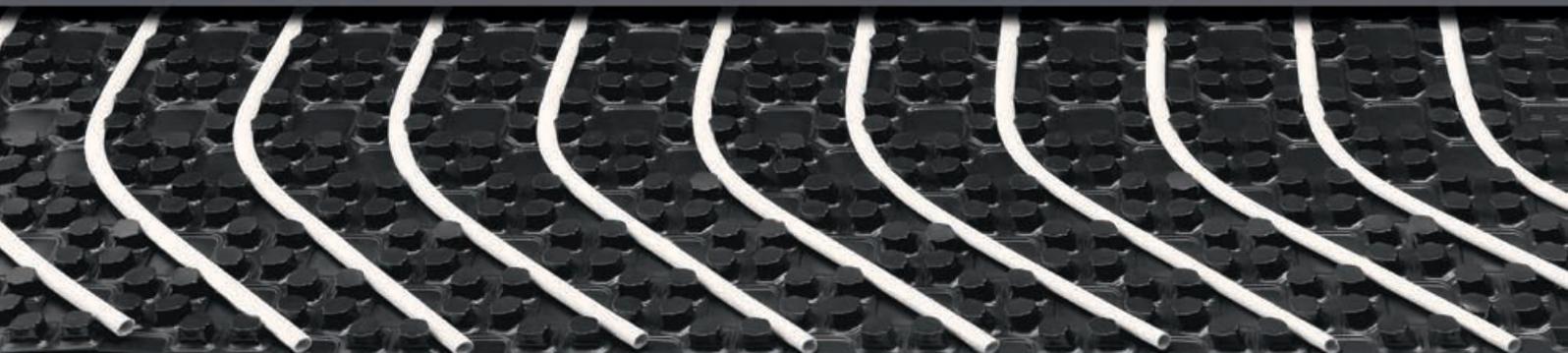
Further information is available at: www.airconomy.net

Heating, ventilation, cooling: Our complete AIRCONOMY® system could be individually adapted to the respective requirements in existing and new buildings.

SCHÜTZ ENERGY SYSTEMS PROVIDES QUICK CALCULATIONS WITH LINEAR



Now online, conclusive data without long waiting times: The new tool for quick calculations from SCHÜTZ ENERGY SYSTEMS is now available. As part of the premium partnership with liNear, we not only offer planners, architects and heating engineers an uncomplicated and fast way of designing under-floor heating. In addition, for the first time, we are also making entire data records available to our customers to download free of charge, which previously had to be requested individually for planning.



As a new premium partner of the liNear Gesellschaft für Konstruktives Design GmbH in Aachen, we provide our customers with enormous advantages when planning surface heating systems. Thanks to the marketing cooperation, all data sets that are used for the comprehensive

design with the liNear planning software are now available to download free of charge. This means that these no longer have to be requested individually from the manufacturer. In addition, we have recently been offering our customers the option of a quick online calculation.

The convenient way to quickly identify materials!



The web-based application “SCHÜTZ quick sizing” makes it even easier for planners to carry out a quick initial assessment of the layout of surface heating systems. With a few simple data entries such as selecting the SCHÜTZ System, specifying the type of building, type of heating and entering room data, the tool calculates an initial cost estimate for the customer: Planners, architects and heating engineers immediately receive a calculation that serves as a qualitative basis for decision-making for further project planning.

This way, the user already knows within a few minutes in which price range the specific planning is and receives a gross offer as well as a calculation with information such as pipe lengths.

In this way, the user already knows within a few minutes in which price range the specific planning is.

After registering free of charge on schnellausstellung.schuetz.net, the planner creates his own project and can then access the data online at any time. For further processing of the project, the planner simply sends the data records to our planning department for detailed heating load calculations or the creation of installation plans: Here the complete project data can be imported and the final planning can be implemented in next to no time.

More information:
schnellauslegung.schuetz.net

EXPANSION OF THE CORMASTER® PRODUCTION AREA

In our COMPOSITES business unit, the relocation of component production for our high-tech lightweight construction material CORMASTER® from Selters to Siershahn is progressing rapidly. Our plant there has now been expanded to include a new clean room, in order for us to also meet the most demanding quality requirements of our customers. In the future, the production of our sandwich panels will meet the highest cleanliness criteria.

These are honeycombs, that have it all: SCHÜTZ has been manufacturing the high-tech lightweight construction material CORMASTER® since the mid-1980s. The product portfolio now includes honeycomb and sandwich panels, milled and formed parts, products produced in autoclaves and engineered panels. The composite material is

extremely resilient and particularly resistant.

It has exceptional mechanical strength – with a low tare weight, defies extreme heat and moisture, and is also corrosion-resistant to water, oils and kerosene. Due to these outstanding properties, CORMASTER® is used worldwide in the aerospace in-

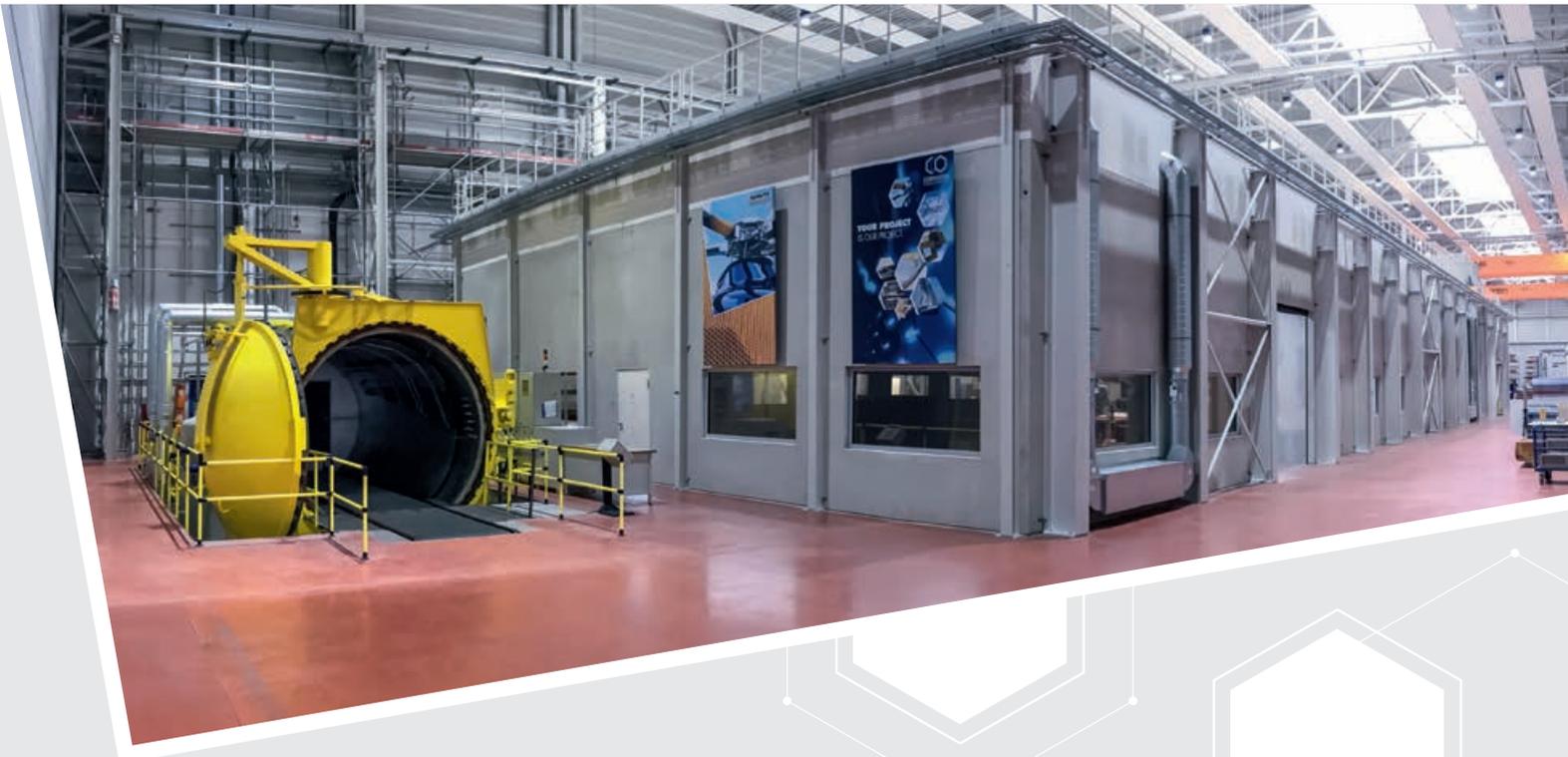
dustry as well as in vehicle and boat construction, for example for partition walls, on-board kitchens and structural parts.

**SCHÜTZ has been manufacturing
the high-tech lightweight
construction material CORMASTER®
since the mid-1980s.**

The material produced in the main plant in Selters consists of aramid paper, printed with a special adhesive. The sheets of paper are placed on top of

one another and glued along the corresponding lines. The hexagonal shape of the honeycomb is finally created when it is subsequently pulled apart. After a resin coating, the block receives its final strength in the oven. In a thermal pressing process, a CORMASTER® honeycomb core is processed into sandwich panels in multi-tier presses with one or more layers of prepreg, pre-impregnated glass or carbon fibre textiles.





THE EXTENSIVE CLEAN ROOM – THE HEART OF THE NEW COMPONENT PRODUCTION

The prerequisite for many original equipment manufacturers and aerospace suppliers is a particularly high standard of quality of the components. Therefore, they have to be produced with maximum air purity. Our new clean room, with a size of more than 1,000 m², at the Siershahn location meets these requirements meticulously. State-of-the-art ventilation and air conditioning technology as well as a staff and material lock ensure constant air quality. Particle concentration, humidity and temperature are permanently recorded and documented, fully automatically. The room thus corresponds to the purity class ISO 7 according to DIN EN ISO 14644-1.

MAXIMUM PURITY FOR SENSITIVE MATERIALS

The clean room in Siershahn is part of our optimized production line for the components business. In the future, it will be used for the production of our standard sandwich panels and for the allocation of autoclave components. The filling of the honeycomb cavities – the so-called "potting" – will also take place here. As part of these processes, sensitive products such as prepregs, resins and potting compounds are processed openly. Contaminants in the air could lead to inclusions in the material, which could impair the mechanical properties.

The clean room in Siershahn is part of our optimized production line for the components business.

A hygienically clean working environment is therefore the top priority. State-of-the-art technology and partly fully automatic systems such as potting robots, floor presses and ceiling cranes including vacuum lifters ensure precision work in perfect quality.

Additional office space, an area for storing production equipment and spacious manual workplaces complete our expansion project in Siershahn. With this investment, SCHÜTZ ensures that in our COMPOSITES business area, composite components can also be manufactured with absolute purity in the future!

SCHÜTZ CRISIS MANAGEMENT TAKES EFFECT WORLDWIDE COLLECTIVELY WE ARE STRONG FOR OUR CUSTOMERS: EMPLOYEES AND PARTNERS STAND OUT IN THE PANDEMIC

Covid-19 affects the whole world – and yet it is different in many places. This is a massive challenge for a global company like SCHÜTZ. Internationally, value chains have collapsed like a house of cards, in many areas the supply chain is still wavering. In order to be a reliable partner for our customers even in the pandemic, we as a system-relevant company focus on proactive, fast and flexible action. More importantly, one factor makes the difference: our hard working and reliable employees.

Whether for their workforce or for their customers – companies like SCHÜTZ have double the responsibility in these times. As one of the world's leading manufacturers of industrial packaging, we supply leading global chemical, pharmaceutical and food companies and many other industries with our IBCs and drums. Our customers rely on their packaging needs being met as usual, even in the pandemic. Under no circumstances should supply chains be interrupted due to packaging required for the products not having been delivered. Therefore, all SCHÜTZ locations worldwide have been classified as systemically relevant since the beginning of the crisis and, aware of this responsibility, we initiated measures at an early stage to give our customers the necessary security.

FIRST AID FOR SEVERELY AFFECTED AREAS

As a global company, we are experiencing the global effects of the pandemic first hand through our employees in various countries. At the beginning of March 2020, we introduced a crisis management system and global measures for mutual support. One example of this is the quick dispatch of protective masks to severely affected areas where these relief supplies initially were not available in sufficient quantities and quality. Due to this quick action, Covid-19 outbreaks in our plants were largely prevented. Production is still running as usual and despi-



te the sometimes dramatically high demand, our customers are being supplied punctually and reliably.

Our production system is decisive for this success: With a high degree of vertical integration, long-term raw material contracts as well as strategic warehousing and capacity reserves, we ensure the supply of packaging even in times of crisis. The system relevance of our products and services enables us to cover demand peaks even during the pandemic. And not only that: We used our production and development skills at a very early stage of the pandemic to support other areas of society as well. From our German headquarters in Selters, for example, we supplied regional hospitals and nursing homes with specially manufactured face shields.

EMPLOYEES HAVE A HIGH SENSE OF RESPONSIBILITY

The high capacity utilization of our production facilities gives our employees the security of being employed by a crisis-proof and systemically relevant employer, even during the corona pandemic. In order to prevent the virus from spreading, numerous protective measures have also been taken within our plants. The hygiene concept, with the mandatory wearing of masks, distance regulations, as well as shift change and break regulations, has been put into practice in an exemplary manner by the employees. In areas where mobile working is not possible, regular temperature checks are carried out with contactless infrared thermometers. In addition, there is a dedicated Corona hotline that is available to advise the workforce on all questions. In a large-scale test campaign, we tested all 2,500 employees at the SCHÜTZ headquarters with PCR tests. One positive test result was determined and all necessary measures were immediately implemented to prevent it from spreading within the workforce. The incident did not have any adverse effects on production.



**Thank
you!**

In this context, we would like to thank our employees once again. Even today, more than 16 months after the outbreak of the pandemic, they ensure reliable processes and maximum worldwide delivery capability with their tireless efforts. They make SCHÜTZ a reliable and system-relevant partner for its customers. Thanks a lot!



SCHÜTZ CONTAINER SYSTEMS RECEIVES “TPSA AWARD”

Environmental protection, sustainability, resource conservation – topics that play a particularly important role in the agricultural sector. The Pesticide Stewardship Alliance (TPSA), founded in 2000 in the USA, is a network and forum for the responsible use of plant protection products in agriculture.

The non-profit organisation provides a platform for the exchange of knowledge between authorities, public offices, educational and research institutions as well as associations, private companies and individuals. Also in focus: packaging solutions for pesticides and their life cycle. Here SCHÜTZ CONTAINER SYSTEMS makes an enormous contribution with its IBCs including collection and environmentally friendly reconditioning. Manufacturers and farmers use the containers, for example, to transport their seed treatments and appreciate the free collection of the emptied IBCs as part of the SCHÜTZ TICKET SERVICE. Our US subsidiary has been active as a member of this national network of experts for eight years now, and contributes its know how as a packaging specialist.

TPSA AWARD RECOGNISES COMMITMENT TO EMPLOYEES

In February, SCHÜTZ CONTAINER SYSTEMS was awarded the 2021 Stewardship award in the Program Innovation category by the TPSA for the support and promotion of its own employees. The decisive factor for the committee: The company regularly trains its existing team. In addition, it launched a number of initiatives to enable the local population to work at the Indianapolis plant. For this, for example, buses were used to bring non-motorised commuters from the region to the company premises. For better communication with non-native speakers, an interpreter was commissioned in order to be able to give

such job-seekers a chance. This comprehensive program contributes significantly to social sustainability. With this special commitment to employees, SCHÜTZ CONTAINER SYSTEMS helps the TPSA to continuously expand the circle of professionally competent members. The award is therefore a sign of recognition.

The economic and ecological advantages convinced the agrochemical specialists.

AGROCHEMISTRY COMPANIES CONVINCED OF COLLECTION SYSTEM

Our US subsidiary was nominated for this award by CORTEVA (formerly Dow Agrosience). Before, representatives of the international chemical company visited our production site for new and reconditioned IBCs in Indianapolis and were very impressed. In state-of-the-art facilities, the containers – including those where pesticides were previously bottled – are reconditioned for re-use and components are 100 % recycled internally. The ecological and economic advantages of using the industrial packaging of SCHÜTZ CONTAINER SYSTEMS convinced the agrochemical specialists. The manufacturer-led return system, including environmentally friendly reconditioning of the IBCs, combined with the promotion of existing and new employees, were decisive for the award.



FUTURE POTENTIAL: MORE AND MORE FEMALE TRAINEES

Promoting young talent is very important to an innovative technology company like SCHÜTZ. The skilled workers of tomorrow who are trained in-house pave the way for future innovations. A wide range of apprenticeships, a modern practical workshop and internal lessons – we offer all of this to our trainees. These include more and more women in the manual trades. We welcome this trend – especially in times of a continuing shortage of skilled workers.

Young people who are looking for a wide range of practical training in a varied field of activity have come to the right place at SCHÜTZ! At our headquarters in Selters, 120 trainees are currently laying the foundations for their future careers. This makes us one of the largest trainers in the Westerwald region. Regardless of whether you have a technical or commercial talent: 21 different job profiles are available, supplemented by seven dual study programs. In a fast-moving industry in particular, the youngsters can look forward to exciting tasks in the context of technical apprenticeships, for example, a plant mechanic or a cutting machine operator. Young people who are enthusiastic about technology and who enjoy working with plastics and metal will find the ideal training company with us – regardless of whether they are male or female. As, we are also attracting more and more female trainees, especially in our skilled trades.

FEMALE POWER IN SKILLED TRADES

In principle, skilled trade professions are still considered a male domain. According to the Central Association of German Crafts (ZDH), only around one fifth of those currently



Eva-Marie Hölzgen,
apprentice tool mechanic



Paulina Weber,
apprentice
industrial mechanic

employed in trades are women. However, the image of women in this field of activity has changed in recent years: Traditional roles and traditional gender stereotypes are slowly being discarded. Nevertheless, women are occasionally confronted with the prejudice that they are physically inferior to their male colleagues in these trades. Paulina Weber, apprentice industrial mechanic, specializing in maintenance at SCHÜTZ, therefore advises: "Anyone who is interested in a 'typical male job' should not listen to negative comments – not even from one's personal environment. I was very well received by the journeymen at SCHÜTZ right from the start. Teamwork is really practised here. If something doesn't work for us as apprentices, there is always a lot of support from all sides." Her colleague Eva-Marie Hölzgen, a tool mechanic apprentice, adds: "Women can also tackle a task! In addition, numerous technical aids such as hydraulic or electrically operated tools make it easier to carry heavy loads."

HOBBIES SET THE COURSE

The affinity for manual work is often based on the hobbies of young women. Cheyenne Wilberg, tool maker in her 1st year of training: "I ride motorcycles and do autocross. That's why I spend many hours with my father and brother working on cars and bikes in our barn." Even as a child, Paulina Weber worked with her grandfather on the car in his garage. Eva-Marie Hölzgen also likes to fix cars and mopeds. She is also a member of the voluntary fire brigade, where manual skills and technical understanding are required. The preference for vehicles and their mechanics quickly sparked an interest in a mechanical apprenticeship, in all three. Recommendations from friends and relatives, some of whom work in our company themselves, did the rest, and soon afterwards the choice was made to join SCHÜTZ as a training company.

TOP KNOW HOW THROUGH TOP EQUIPMENT

Traditionally, the official career entry for the future mechanics as for all our trainees began with an introductory week – the “Welcome Days”. They make the new start easier and encourage a quick familiarization. Thereafter, theory and practice complement each other in an ideal way: The theoretical training in the vocational school is accompanied by well explained in-house lessons that take place once a week. Through this, what has been learned at school is repeated. At the end of 2019, a new, ultra-modern practice workshop was set up on our company premises. The training workplaces there offer the best conditions for comprehensive training in technical professions. We can now convey knowledge more effectively to fulfil the steadily growing requirements, especially around electrical engineering, thanks to new interactive training systems. There, all trainers and lecturers have the opportunity to use interactive boards which, for example, illustrate various mechanical processes. Theoretical knowledge can thus be speedily applied in practice. The areas of practice include, for example, the manufacture of components and tools from different materials, the assembly of assembly groups into complete production systems, their commissioning and the supervision of the production processes. Cheyenne Wilberg appreciates the versatility: “My job is so varied, I find that particularly fascinating! In addition, I can benefit from some of this knowledge in my private crafts.”

Cheyenne Wilberg,
apprentice tool mechanic

**“My job is so varied,
I find that particularly
fascinating!”**



After successfully completing their training, our newly qualified employees are open to a wide range of career prospects. If business conditions allow it, performance and personal attitude are favourable, the trainees are taken on. Additional qualifications and further training in later professional life, for example, to become a master craftsman, technician or industrial specialist, are also funded. With this, we are making our contribution to a new generation of young craftsmen and craftswomen, who are finally dismissing long-lost gender stereotypes in their everyday work as well.

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