

SCHÜTZ

news

SPECIAL ISSUE
interpack 2023

PACKAGING SYSTEMS

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PACKAGING INNOVATIONS

and holistic solutions for a sustainable circular economy



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Under the motto "Containing everything that matters", at interpack we present the latest innovations and trends in packaging and logistics, and the current requirements and tasks in the supply chain.

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IMPRINT

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Packaging innovations and holistic solutions for a sustainable circular economy

At last, it's time for interpack again. The leading international trade fair is the world's biggest get-together and source of ideas for the packaging industry. For SCHÜTZ it is one of the most important communication and information platforms. Serving global supply chains and transporting goods both safely and sustainably are the main topics at this year's interpack, and we are examining these issues under our motto "Containing everything that matters". The focus will be on our solutions for the current requirements and tasks in the supply chain. We will be presenting numerous new products and services for a forward-thinking circular economy that allows users to optimise their packaging value chain for maximum economic and environmental benefits.

**CLOSING THE
LOOP MATTERS**

Two of the greatest challenges of our time are protecting the climate and the environment.

In recognition of this, the topics of sustainability and resource conservation have been given prominence at this year's interpack. As a pioneer of the circular economy, for decades we have been committed to holistic packaging concepts: with our products and services, we help customers to become more efficient, save material and energy and, by doing so, to reduce their carbon footprint.



PRODUCT INNOVATION
MATTERS

CIRCULAR ECONOMY MATTERS

APPLICATION
SUPPORT MATTERS

SUPPLY SECURITY
MATTERS

SUPERIOR QUALITY
MATTERS

PROCESS
DIGITALISATION
MATTERS



interpack

PROCESSING & PACKAGING
4th - 10 MAY 2023
DÜSSELDORF
HALL 10 | BOOTH D22 | E34

**CONTAINING
EVERYTHING
THAT MATTERS**

As well as the environmental sustainability of the packaging, other aspects such as maximum safety and economic efficiency, global supply security and helping to optimise the user's processes play a decisive role. This philosophy is summed up in our trade fair motto, "Containing everything that matters" and our commitment to offering comprehensive solutions with our products and services, the underlying production system and our unique worldwide network of locations.

In Düsseldorf we are showcasing how we continuously develop our products, services, processes and production machinery. In the "Advanced Technology Now"

theme world, we will be showing the trade audience how progress in the supply chain can be achieved by using modern technologies and innovations. As well as presenting new products and solutions, we will also be providing insight into our own production processes based on the latest manufacturing and environmental tech-

In Düsseldorf we are showcasing how we continuously develop our products, services, processes and production machinery.

nologies. For example, we continuously invest in the infrastructure and equipment of our worldwide locations, and design and build all the packaging production systems



and machines ourselves. Over the past decades, we have built up comprehensive expertise in a wide range of areas, from the design and development of production facilities to individual manufacturing processes and serial production of components.

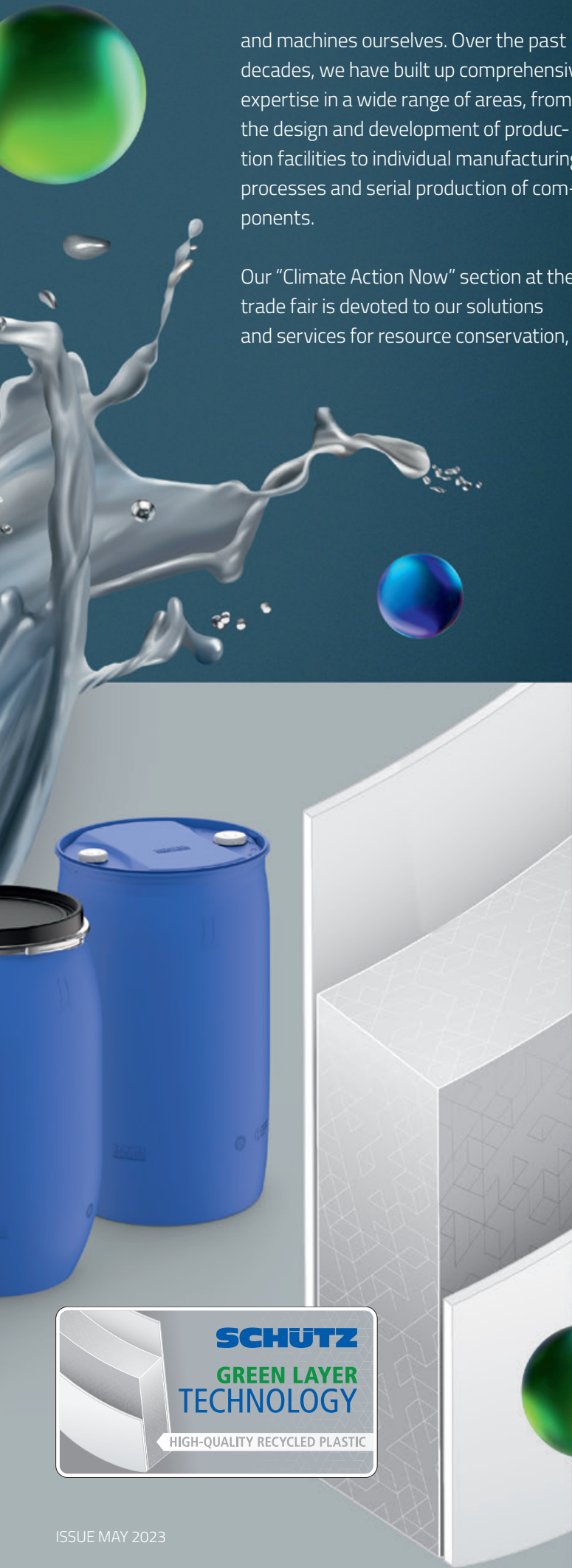
Our "Climate Action Now" section at the trade fair is devoted to our solutions and services for resource conservation,

sustainability and the circular economy, including our GREEN LAYER series of packaging. The IBC inner bottles and drum bodies in this product line include 30% high-quality, natural-coloured recycled material, which we recover in our SCHÜTZ TICKET SERVICE.

Multi-media experience


There are a large number of exhibits at the stand for visitors to experience live; detailed product and 3D animations clearly explain the specific innovations. The special significance that interpack holds for us is reflected in our elaborately designed, multi-storey exhibition stand which is more than 650 m² in size. Large-scale, integrated, advanced LED technology gives the stand an engaging, ever-changing look and plays a key role in the multimedia presentation.

Our international team invites visitors to discover our SCHÜTZ innovations and looks forward to many inspiring conversations and meetings.



Innovative IBC components

for the highest process
security and cleanliness



One of the main purposes of industrial packaging is to ensure the dependable protection of the filling product quality along the entire supply chain. As well as equipping containers with tamper-proof components, a key aspect is the minimisation of contamination risks, such as the introduction of particles during use. Providing components that offer smart, well-designed solutions plays a decisive role in optimising packaging standards.



New Breather System for enhanced food safety

We have introduced a new standard with the CC / FC Breather, which was specially developed for the CLEANCERT (CC) and FOODCERT (FC) product lines. At the beginning of the value chain in particular, safety and risk minimisation have the highest priority, for example in the food industry. The new CC / FC ventilation system is integrated into the bung of the screw cap that closes the IBC filling opening, and it enables the user to proactively avoid contamination risks. It is used to quickly and safely ventilate the container during emptying via the bottom outlet fitting and prevents negative pressure that would cause the inner bottle to become deformed. In previous systems, either the screw cap, which is often sealed,



AVAILABLE VERSIONS



CC / FC Breather closed without continual vent



CC / FC Breather open with D38 continual vent

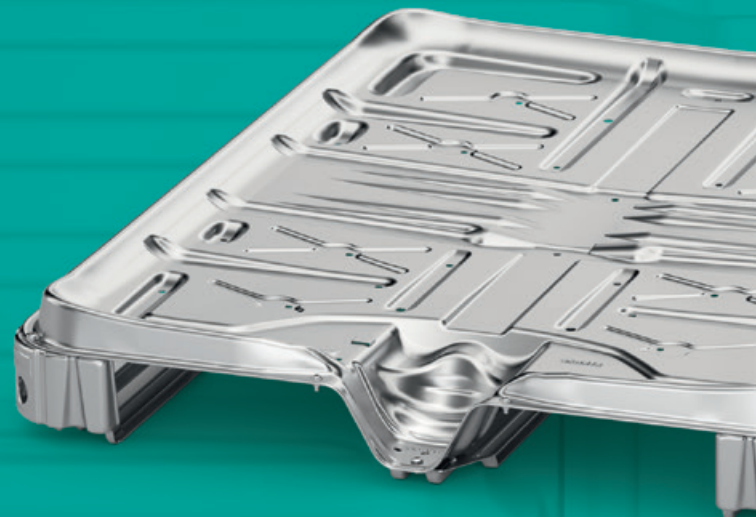


CC / FC Breather open with D15 continual vent and splash guard

had to be opened or the bung plug had to be removed completely with tools in an additional process step.

With the CC / FC Breather, users simply twist a screw part manually to open the small venting paths in the component. This also minimises the risk of contamination during the entire emptying process. Once the container has been completely emptied, it is simply closed

and the packaging is returned safely and in compliance with legal requirements. We offer the system in two versions – with and without continual venting. Optionally, we can install a special membrane for transport, which additionally ensures ventilation and serves as droplet and splash protection.



Maximum protection against tampering and contamination

Another example of the protection of filling products is the AUTOMATIC LOCK bung closure with a tamper-evident seal. This solution, already successfully established in the PE drum sector, is now also available for IBCs and will in future be supplied to IBC customers who use a screw cap with a bung as standard.

The closure system with a tamper-evident seal consists of a sealing cap and a stopper with special latching hooks. The inner sealing ring is firmly connected to the stopper, and the sealing cap is held in place by the plug. After centring, light pressure on the sealing cap makes the locking

the ring is pulled up. The snap-in hook releases the sealing cap. In the case of improper handling, preset breaking points tear, making any tampering instantly visible. Compared to metal caps, the plastic AUTOMATIC LOCK sealing cap is not subject to corrosion. Especially when filling sensitive products, for example in the food or pharmaceutical industry, this supremely safe and hygienic system contributes significantly to the protection of both the contents and the people handling the container. An optional logo print on the sealing caps means that customers also benefit in terms of branding and originality.

Due to the self-centering mechanism, the closure system is suitable for manual and automatic assembly.

ring snap into place under the snap latches. The rigid construction ensures the lock remains securely in place once fitted. Due to the self-centering mechanism, the closure system is suitable for manual and automatic assembly. The plug cannot be opened without destroying the sealing cap. In this way, we ensure that the originality of the filled medium is protected and preserved.

The sealing cap can be removed easily, conveniently and without tools by using the pull ring. The plastic tab connectors on the cap and the inner seal ring tear when



New 3-skid steel pallet

Premiere of the prototype at interpack

SCHÜTZ is debuting another innovation as a prototype at interpack: Compared to standard steel skid pallets, the new 3-skid steel pallet has an additional middle skid, which greatly enlarges the contact area. The solution developed by SCHÜTZ offers optimised weight distribution, it is highly robust and has greatly improved handling properties on conveyor systems. Due to the high stability and minimised sagging even under full loads, the pallet is optimised for use in high-rack warehouses and automatic transport systems.



Double safety

for flammable
hazardous
goods

The transport and storage of flammable hazardous liquids are among the greatest challenges in packaging management. We developed the ECOBULK SX-D specifically to offer maximum protection for these products even under extreme conditions and in critical areas. This model has a closed, fire-resistant steel outer shell.



ECOBULK SX-D



After a rigorous fire test and a comprehensive audit of the SCHÜTZ production facility, the ECOBULK SX-D was the first ever composite IBC to be awarded the “FM Approved” seal by the commercial property insurance group FM Global.



Our engineers are continuously working to develop new solutions that optimise IBCs even more for use with demanding filling goods and applications. One example is the SX-D, which offers increased protection in case of fire with a steel hull that is completely closed, crimped and welded to the steel base plate. The steel hull forms a leakproof additional container that acts as an integrated containment tray in the event of damage to the HDPE inner bottle. For example, if the plastic inner bottle melts in a fire, the steel hull effectively prevents product leakage. This additional degree of protection and safety means that the SX-D can also be used for demanding filling products which in the past have been filled in smaller containers, such as steel drums or stainless steel containers.

The ECOBULK SX-D with a filling volume of 1000 litres can be used in EX Zones 1 + 2 and is also suitable for highly sensitive areas, where protection against fire and leakage, and risk minimisation have top priority. The IBC is approved for densities up to a maximum of 1.9 g/cm³. The safety of the packaging has been confirmed by independent institutions: In addition to the “FM Approved” label, the ECOBULK SX-D also has the “UL listed” test mark according to UL Test 2368 by Underwriters Laboratories Inc. This is an internationally recognised procedure with which the American organisation certifies products with regard to their safety and fire resistance. After passing the appropriate tests, the IBC also complies with the fire protection guideline “NFPA 30: Flammable and Combustible Liquids Code” of the National Fire Protection Association in the USA and has approval for filling products with a flash point of $\geq 37.8\text{ °C} / 100\text{ °F}$.

Integrated SCHÜTZ Dip-Tube discharge system

The contents are removed by means of a pump connection and the SCHÜTZ Dip-Tube, which is integrated into the first of the two bungs on top of the container. This position allows the discharge tube to reach the lowest point of the inner bottle to ensure excellent residual emptying. The closed removal system offers the additional advantage of avoiding contact with the filling product, including any escaping vapours. The steel caps that protect the bungs and the filling opening of the IBC during transport and storage feature a bayonet catch which can be removed and attached quickly without the need for tools.

A wide range of applications

The double hull design and closed discharge system make the SX-D the ideal solution for all filling products or applications that require heightened safety during handling. This means that the new container is suitable for sensitive hazardous Class 6.1 goods, such as toluene diisocyanate (TDI). In addition to meeting the highest fire protection standards, the new SCHÜTZ IBC can also be used for general risk minimisation, for example, when used directly in the production line.

The closed removal system offers the additional advantage of avoiding contact with the filling product, including any escaping vapours.

New version of the ECOBULK SX-D: premiere of the prototype at interpack

As an alternative to the ECOBULK SX-D with discharge from the top, at interpack we are presenting the prototype of a new product version with access to an outlet fitting integrated into the outer hull, thus enabling discharge from below, an emptying option that is commonly requested.





The ECOBULK SX-D ON TOUR

The SCHÜTZ ECOBULK SX-D will be featured in this year's FM Global SimZone Tour. The US insurance group uses this roadshow to educate about potential damage risks and propose efficient solutions to help reduce exposure. FM Global has fitted a 53-foot truck for the SimZone Tour through North America and Europe. Inside, visitors learn all about what can be done to protect against

property hazards, ranging from natural disasters to fires, in simulations and interactive experiments.

We are particularly proud that our ECOBULK SX-D is presented as an example of an FM Approved solution for the transport of flammable and hazardous liquids.

Our new full plastic frame pallet

sets standards for automated
transport in warehouses

Even in ultra-modern, automated warehouses, it is essential that transporting IBCs is a safe and trouble-free process. To address this need, we examined the specific requirements for these applications and developed a completely new frame pallet made entirely of plastic.

The special geometry makes it particularly suitable for horizontal transport on conveyor belts and handling in fully-automatic, high-bay warehouses. The new plastic frame pallet is extremely robust and stable, as well as UN-certified and sustainable when suitably reconditioned and reused.



In many industries, such as the food or electrochemistry industry, pallets with plastic elements are used in preference to wooden and steel pallets. They are easier to clean, water-repellent, maintenance-free and durable. Now, we have redesigned the SCHÜTZ plastic frame pallet. With its single-piece construction and the wide, partially smooth contact surfaces, the pallet is ideal for automated forward and sideways transport. On roller conveyors or chain-driven conveyors, the frame pallet enables a smooth horizontal movement, meaning that IBCs can be transported forwards and sideways safely and without jamming. The

new frame pallet can also be used for vertical conveying, as thanks to the design there is minimal sagging when lifting and lowering filled IBCs. The stable substructure makes it particularly suitable for transporting larger loads. In addition, the pallet can be lifted easily from all sides. It has UN approval and is also available as a full plastic frame pallet, where the bottom plate is also made of plastic.

Eco-friendly full plastic frame pallet manufactured in-house

We manufacture the plastic frame range according to the latest technological standards in our own injection moulding plant. Production takes place in a single piece, including the corner blocks. We use HDPE made from 100% recycled material, which is obtained from reconditioning used industrial packaging in our own recycling centre. For this purpose, we collect emptied packaging worldwide through the SCHÜTZ TICKET SERVICE. **With the full plastic frame pallet, customers not only benefit from a stable, lightweight and easy-to-clean construction, but also improve their carbon footprint. Compared to a conventional steel frame pallet, up to 64.8 kg CO₂ can be saved due to using less steel and an all-plastic frame pallet made from recycled material.**



Innovative monoblock design with minimal sagging even when fully loaded.

We use HDPE made from **100% recycled material,** which is obtained from reconditioning used industrial packaging in our own recycling centre.



Plastic frame pallet



Full plastic frame pallet

WORLD PREMIERE for the fully galvanized SCHÜTZ Laser Drum:

comprehensive corrosion protection
thanks to new production technology



We develop and manufacture both packaging and production equipment in-house. This high level of vertical integration is an ideal basis to ensure high quality products and develop numerous innovations in a wide range of segments. Our extensive steel drum portfolio also profits from our decades of expertise in steel processing. Customers benefit from this know-how – not least through our own Steel Service Centers with two locations in Germany and locations in Asia and the USA. Now, thanks to a revolutionary production process, we can present the latest development in the steel drum sector.



The SCHÜTZ Laser Drum stands out with its comprehensive corrosion protection, high process and supply security, topped with enhanced delivery flexibility for customers.

Material and process innovations for steel drums

With the new Laser Drum, we combine high-quality material with the latest production technology, setting a completely new standard. **The innovation: we use sheet steel that is hot-dip galvanized on both sides to manufacture the steel drums.** By galvanizing the steel sheets in the zinc melting bath before the coil is wound, the base material has a high-quality, comprehensive and uniformly distributed layer of zinc. The drum shell is manufactured in a special laser welding process by butt welding the sheet metal together. The result is a high-quality, smooth and clean weld seam.



The Laser Drum was tested as a prototype in a development project; following substantial investment we have developed the drum to serial-production readiness.

After lid and base assembly, it has comprehensive protection against corrosion on the inside and the outside and is immediately ready for dispatch. The new drum type is a real alternative for complex and sensitive filling products for which conventionally galvanised or lacquer-lined drums are frequently used. Customers benefit especially from optimised manufacturing quality and corrosion protection – as well as the fact that no interior or exterior coating is required.

We produce the Laser Drum in various designs: as a tight-head drum with a volume of 216.5 litres and as an open-head drum with a volume of 213 litres, or alternatively as a necked-in 210-litre version suitable for ISO containers. In addition, this product innovation is also available for particularly demanding filling goods in the form of a composite drum with a plastic liner, which offers optimised corrosion protection, high-quality processing, and an improved eco-balance. We also offer the open-head drum with a plastic inliner that covers the inside of the drum like a second skin, allowing it to be used to transport sensitive liquid and solid filling goods. Key application advantages



LASER TIGHT-HEAD DRUM
216.5 LITRES



LASER OPEN-HEAD DRUM
213 LITRES



include the ability to fully discharge the filling product and the option of using an impeller and suction pump. The simple separation of the material fractions of steel and plastic reduces disposal costs and enables easy reconditioning. All steel drum models are available now. Using the latest logo screen printing technology, we can also add individual branding at the customer's request – thus boosting the recognition value.

Effective production process also reduces the risk of contamination

Overall, the Laser Drum impresses with its high, clean production quality. Thanks to the corrosion-protected and

especially clean material, quality risks are minimised right at the start of production. Conventionally galvanised barrels have to be treated in downstream painting lines and kilns to ensure an adequate level of protection. During this process it is impossible to completely rule out paint drips, inclusions, pitting or remaining residues. These defects not only affect the appearance, but also pose a contamination risk and require downstream treatment steps in production.

Due to the direct corrosion protection of the Laser Drum, no subsequent treatment steps are required, which in turn avoids all the associated internal transport processes. This particularly effective production method saves time, costs and energy and helps to reduce the use of resources, all of which adds up to a positive impact on the environmental balance. Yet another benefit for customers is that we can store large quantities of the hot-dip

galvanised coils for the production of the Laser Drums, which increases delivery flexibility and supply security in comparison with conventionally produced galvanised drums, which take up more space during storage. In addition, the new Laser Drums have a sustainable environmental balance thanks to fewer production steps and the elimination of the time-consuming coating process.



CLF COMBI LASER DRUM
202 / 205 LITRES

Product portfolio expanded by adding **NEW** plastic jerrycans



51

For smaller filling quantities we now offer the SC1 jerrycan series, a new range of plastic containers that combine the highest quality and convenient, clean handling. With their innovative design, these jerrycans offer a high degree of stability, easy and safe stackability and optimum emptying. The jerrycans are available in different sizes and variants and are suitable for a wide range of applications.

Our SC1 jerrycans are available in different configurations and sizes for the filling quantities from 5 l to 30 l.



Our latest product line fits seamlessly into our successful product portfolio of IBCs, plastic and steel drums. Based on years of expertise in multi-layer extrusion blow moulding technology, we have developed a new transport and storage solution for smaller filling quantities. The SC1 jerrycans are produced with a newly developed machine technology at our main factory in Selters, using state-of-the-art automation to ensure maximum efficiency, quality and cleanliness in the production process. The result is a product with superior overall performance.

A wide range of variants

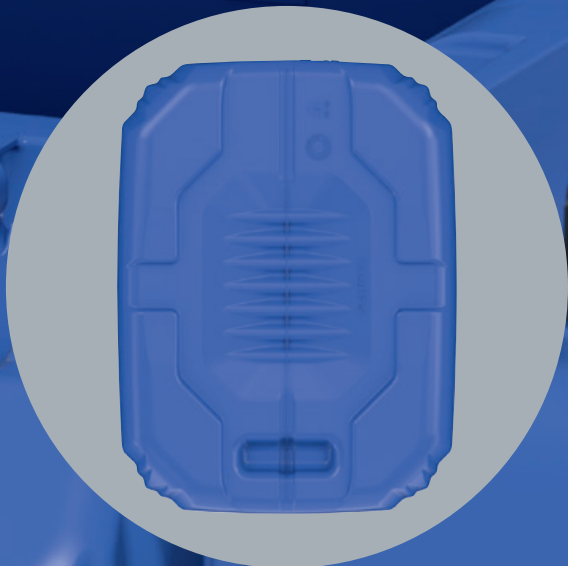
Our SC1 jerrycans are available in different configurations and sizes for the filling quantities 5 l, 10 l, 15 l, 20 l, 25 l and 30 l. Customers have a choice of different sizes and also different colours. Depending on the selected jerrycan colour and the filling product, we recommend an embossed litre gauge, with an additional transparent gauge as required. We offer DN 45, DN 55 and DN 60 caps



in different configurations for the various jerrycan sizes. The jerrycans are designed for different pallet types. The new product line will also be available in a GREEN LAYER variant. In these variants, we use modern 3-layer extrusion machines to incorporate 30% high-quality recycled material into the containers. The recycle is used exclusively for the middle layer, ensuring that the filling product and the environment only come into direct contact with virgin material.

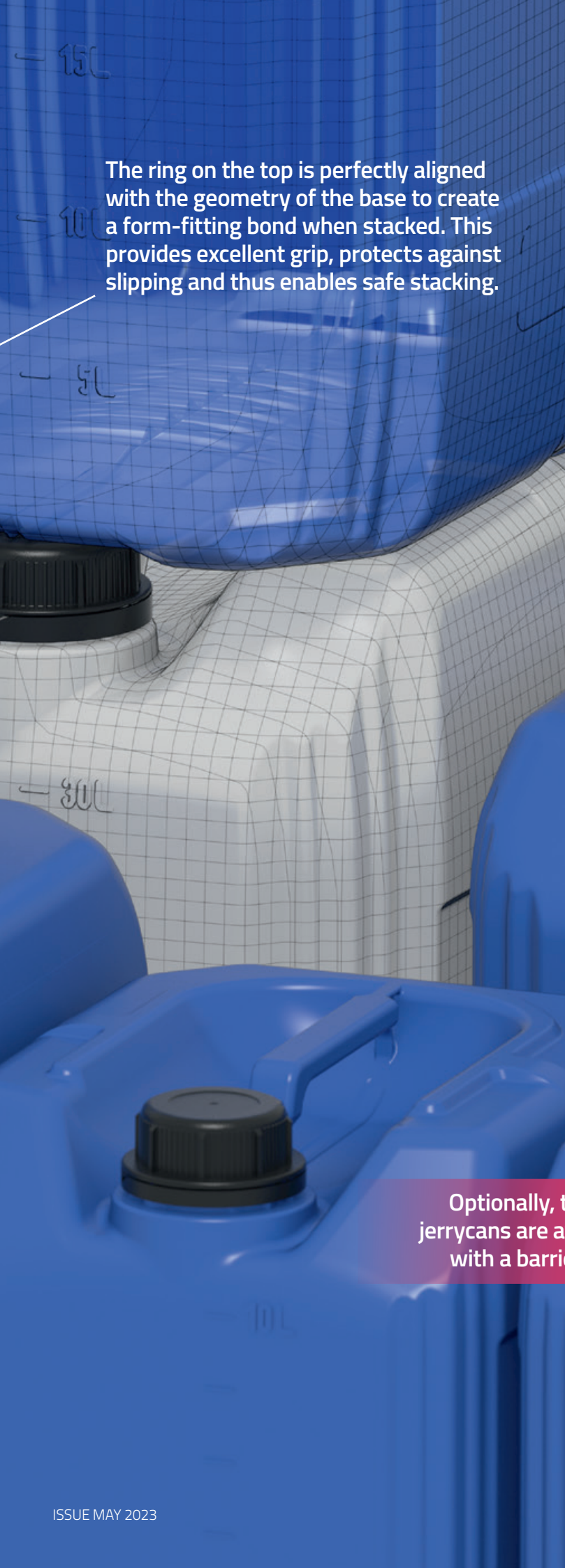
Optimum process support and convenient handling

The distinctive rib geometry of the jerrycan corners and base as well as uniform wall thicknesses with optimum use of material give the SC1 jerrycan range a high degree of dimensional stability and strong crush resistance when filled and stacked. The ring on the top is perfectly aligned with the geometry of the base to create a form-fitting bond when stacked. This provides excellent grip, protects against slipping and thus enables safe stacking. The anatomically shaped handle with a large hand recess and small recess for the handle in the base



The distinctive rib geometry of the jerrycan corners and base as well as uniform wall thicknesses with optimum use of material give the SC1 jerrycan range a high degree of dimensional stability and strong crush resistance when filled and stacked.






The ring on the top is perfectly aligned with the geometry of the base to create a form-fitting bond when stacked. This provides excellent grip, protects against slipping and thus enables safe stacking.

ensures comfortable and safe handling when carrying and emptying – even when wearing gloves. The hand recess and recesses around the closure area are sloped so that liquids can drain away instead of accumulating, and the design ensures optimum emptying. The handle is separate from the filling volume and the corners around the cap are flattened to avoid product residue from accumulating. Large flat areas are provided on both sides for labelling.

Enhanced safety for users and filling products

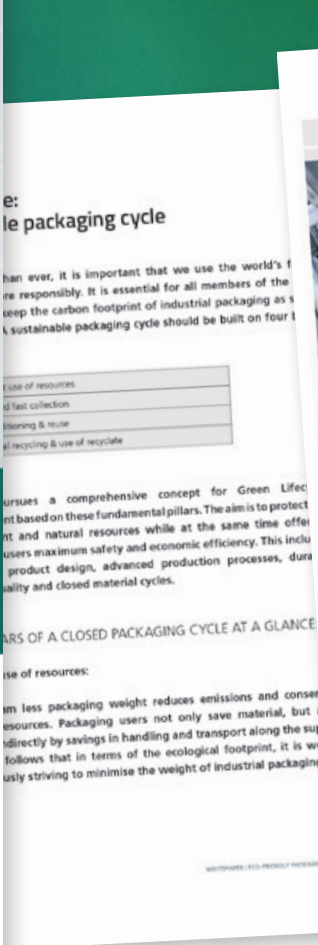
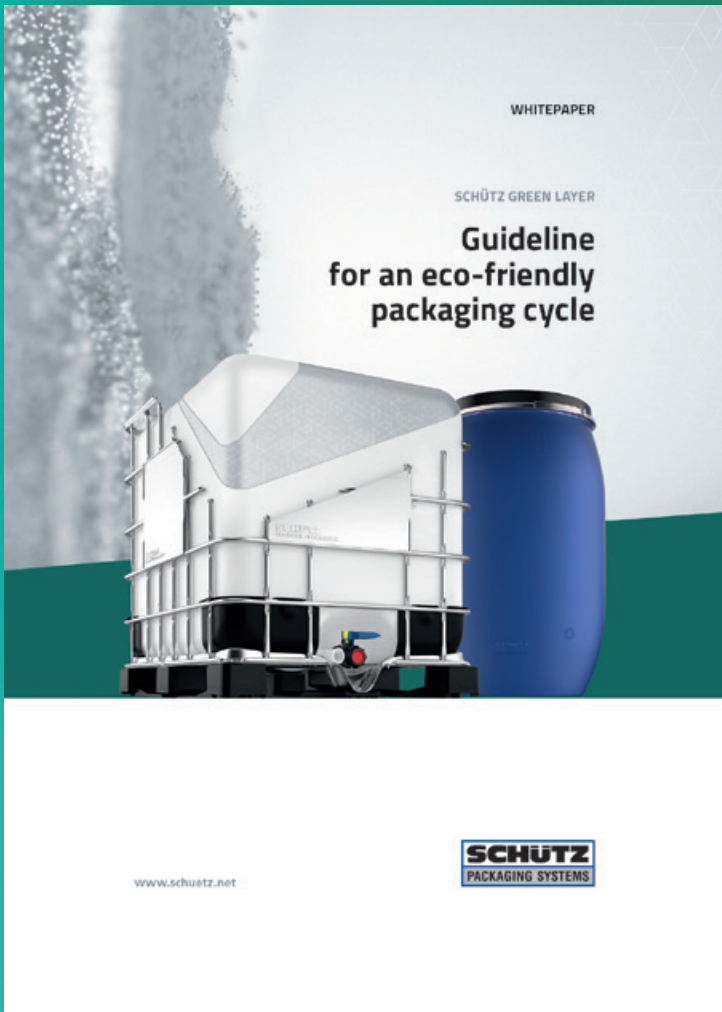
The SC1 jerrycans are available with either X1.9 or Y1.9 hazardous goods approval. They are subject to permanent quality testing and control during production, backed by regular practical and laboratory tests in the in-house test laboratories. Optionally, the new jerrycans are also available with a barrier layer. This layer is applied to the outside and inside of the jerrycans in a special process and ensures increased solvent resistance as well as higher transport safety and longer shelf life of the filling material, depending on the product.



Optionally, the new jerrycans are available with a barrier layer.

GUIDELINE

for an eco-friendly packaging cycle



For the packaging industry the guiding principle along the path to greater sustainability is the circular economy. In a new guide, available to download from our website now, we describe how these rules can be efficiently and effectively applied in practice.

With the European Green Deal and the Action Plan for the Circular Economy, the European Union (EU) has defined the future framework conditions for resource-efficient economic growth. Packaging made of plastic plays an enormously important role in this, as it is often lighter and the production process requires less energy than other materials.

In November 2022, the EU Packaging Regulation also defined ground-breaking targets and requirements for reuse and recycling. One central measure is the use of recycled plastic. This is already evident today in a noticeably growing demand for packaging with a high recyclate and regranulate content, such as the IBCs and drums of our GREEN LAYER series. However, in order to ensure the broadest and most cost-effective supply of eco-friendly packaging, it is crucial that all parties involved in the cycle collaborate. Only if emptied packaging is returned to the cycle by the user will there be sufficient recyclable quantities available to produce new recycled packaging.

In our latest guide, we explain, among other things, how a holistic approach can help to sustainably reduce the carbon footprint – without compromising on the safety and cost-effectiveness of the packaging.

The guide is available for download on our website at:

schuetz-packaging.net/whitepaper-green-lifecycle-management



Reconditioning & Reuse

The reconditioning of emptied packaging is a cornerstone of the closed material cycle. To enable the packaging to be reused safely, it is important that the reconditioning process complies with the highest environmental and safety standards.

EXAMPLE



In a complex reconditioning process, SCHÜTZ cleans and repairs the IBC grid and pallet of the IBC for reuse. By reusing these components, users save approximately 100 kg of CO₂ per cycle compared to a new IBC. All container components that have come into contact with filling contents are completely replaced during reconditioning by SCHÜTZ and its RECOBUX partners.

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Our competent team is available to answer your questions. We will be happy to help you. Just get in touch!

WHITEPAPER: THE GREEN LAYER PACKAGING CYCLE 15

SCHÜTZ GREEN LAYER:

Reduce the carbon footprint of packaging and achieve sustainability goals

6.8 kg
additional
CO₂ saving
per IBC

Saving CO₂ is becoming increasingly important in the packaging industry. With the European Green Deal and the Action Plan for the Circular Economy, the European Union has defined the future framework conditions for this. One central measure is the use of plastic recyclate in packaging. SCHÜTZ is one of the pioneers in this field, and we are demonstrating this at interpack 2023 with our GREEN LAYER product line.

In our Green Lifecycle Management, we support customers in meeting their sustainability goals and further reducing the overall CO₂ footprint of their packaging. We utilise 3- or 6-layer extrusion blow moulding lines in our factories, allowing us to use 30% high-quality, natural-coloured recycled material to produce inner bottles. **What makes this process special is that the recyclate is used exclusively to make the middle layer of the inner bottle. We continue to use new HDPE to make the inner and outer layers, meaning that the filling product and environment only come into direct contact with virgin material.** This design means that users save

virgin plastic as well as CO₂, and at the same time make an important contribution to achieving the goals of the European Green Deal.

The quality of the GREEN LAYER packaging is identical to other product ranges made of 100% new material. Whether IBC or plastic drums – these products are ideally suited as eco-friendly packaging for numerous applica-



SCHÜTZ GREEN LAYER

up to **3.8 kg**
additional CO₂
saving per drum



The quality of the
GREEN LAYER
packaging is identical
to other product
ranges made of
100% new material.

tions. Customers benefit from a high content of recycled material, low weight and maximum safety. Optionally, our drums and IBCs have UN approval. Initially, the new GREEN LAYER series will be successively launched on the European markets. After the successful start, we will be gradually rolling out this environmentally friendly packaging in other regions. In future, GREEN LAYER jerrycans will also be available.

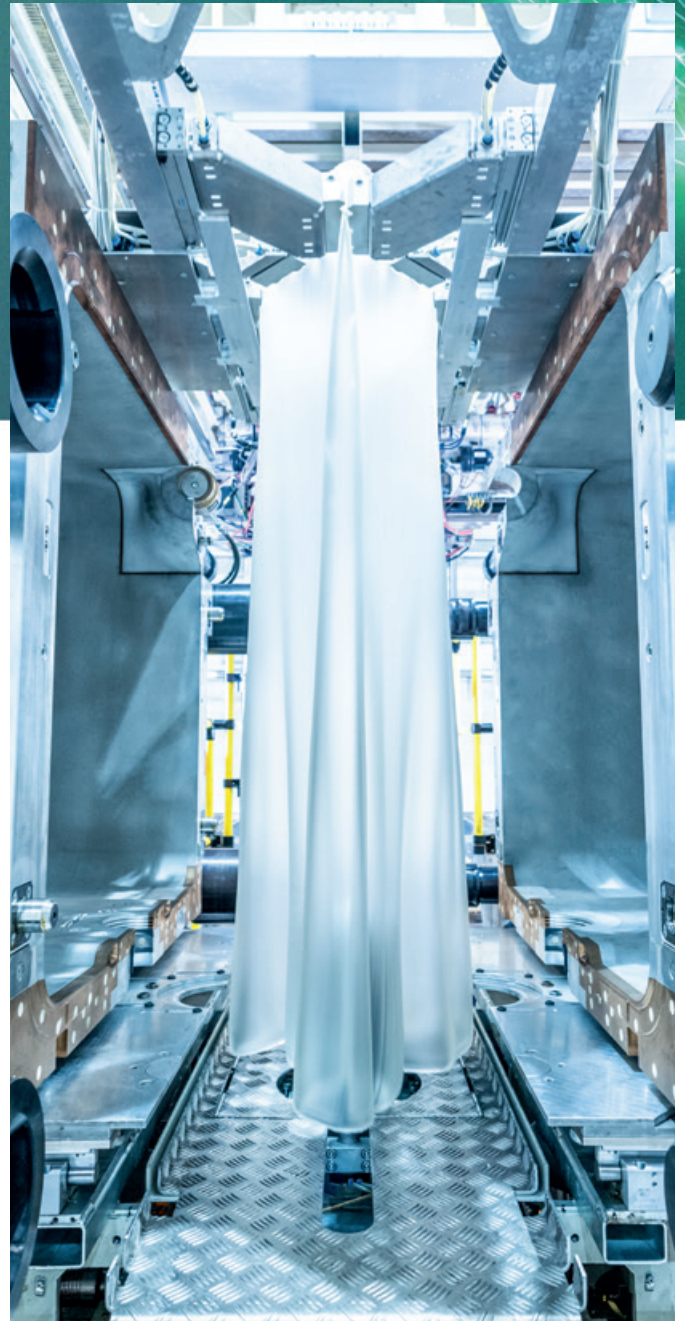
A joint task for all members of the supply chain

At interpack in Düsseldorf, we will be explaining the fundamental goal behind Green Lifecycle Management: to ensure the broadest and most cost-effective possible supply of eco-friendly packaging. Securing the amount of recyclate needed for this is ultimately a joint task for all members of the entire supply chain. Only if emptied packaging is returned to us by users will there be sufficient quantities available for plastic recovery to supply customers with new recycled packaging. We created the necessary infrastructure for this many years ago. With the SCHÜTZ TICKET SERVICE, we collect used packaging worldwide and reprocess it according to the highest environmental and safety standards.



We have always focused on ensuring maximum environmental friendliness in the entire life cycle of our packaging, achieving this with smart product design, advanced production processes, long-lasting product quality and closed material cycles. We continuously invest in state-of-the-art production technology as well as in research and development. For example, we have con-

With the **SCHÜTZ TICKET SERVICE**, we collect used packaging worldwide and reprocess it according to the highest environmental and safety standards.



sistently reduced the weight of our packaging in recent years and have refined the material recycling processes so that even heavily contaminated material can now be reconditioned with the help of special process technology and expertise. We can recycle HDPE in different grades depending on the desired application; the recycled HDPE is used to produce packaging and components.

A pioneer of the circular economy:

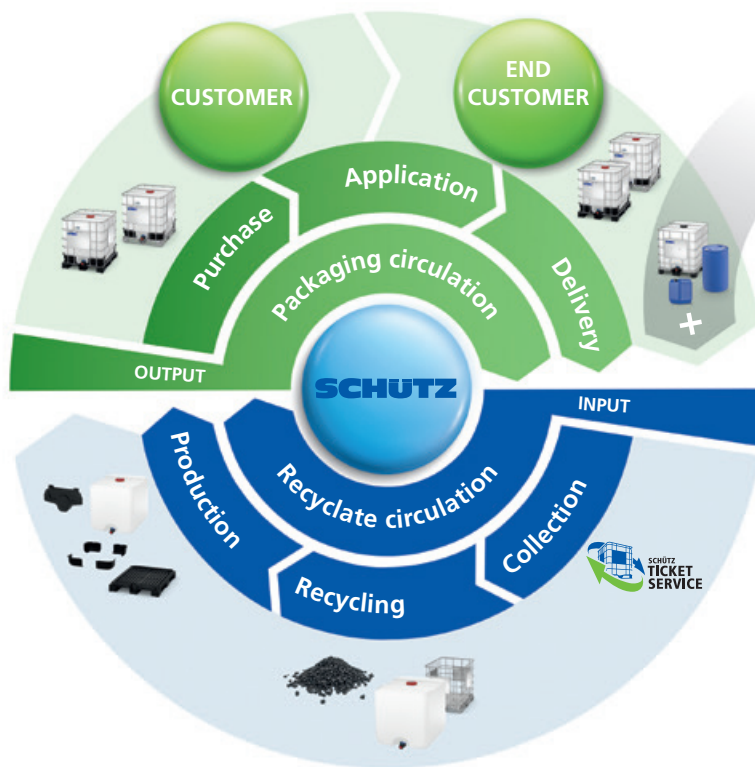
SCHÜTZ speeds up the expansion of its global production and service network

All over the world, SCHÜTZ is known for its customer proximity and high level of service. The ability to continuously supply our customers with the highest quality packaging and offer a dependable collection and reconditioning service for empty IBCs plays an important role in this strong position. Our approach can be summed up as: we want to be where our customers need us.

Delivering on this claim has required a commitment to growth and development over the past decades. Since the 1970s, we have focused on the continuous expansion of our worldwide production and reconditioning network. The reconditioning of used IBCs in particular requires a sophisticated system and seamless processes.

We want to be where our customers need us.

With the production of the first IBC in the 1970s, SCHÜTZ had created an innovative type of packaging that is still used millions of times all over the world. **For us, the global supply of packaging systems also involves a fundamental and meticulously planned concept of multiple use and recycling.** The basis for this concept can be found in our plants all over the world and the SCHÜTZ TICKET SERVICE they offer. Through our numerous sites, we collect used packaging free of charge and even in small quantities directly from the emptier. Customers can easily order the service online via the website, app or email – or, of course, by phone. With this concept, we guarantee, among other things, the uniform, worldwide collection and reconditioning of emptied IBCs according to our high quality standards. We recondition the steel grids of the containers and fit them with a brand-new inner bottle. We completely replace components such as screw caps, outlet valves and labelling panels with new original parts. The old plastic components are recycled internally and 100 percent of the resulting recyclate is used to make new packaging, such as plastic pallets.



Factories with state-of-the-art production and safety standards



Global availability thanks to short distances

The cornerstone in this service is SCHÜTZ's global locations. Over the years, our presence has grown and we now have around 60 locations on all continents, with currently 13 in North America alone. Built according to the latest production and safety standards, all plants worldwide stand for maximum efficiency and reliability. All production facilities are equipped with state-of-the-art lines and machinery to meet our own and our customers' high standards. In this way, we make IBCs, drums or jerrycans globally available to our customers and efficiently reprocess and recondition used SCHÜTZ packaging. We are constantly consolidating our network in order to minimise transport routes and further improve the closed packaging cycle to be even better for the environment. However, maintaining a global network like ours and further developing its quality and efficiency requires additional measures and concepts. One of the greatest



challenges of the last few years – and also against the background of the pandemic, which is now largely under control – is worldwide supply security. Mastering this challenge requires us to react quickly and decisively in the event of failures of any kind. The forward-looking creation of redundancies and comprehensive contingency planning are important pillars which allow us to continue to maintain supply security.

Another important success factor is the ability to react to changing requirements and needs. This requires us to be able to expand our network quickly and smoothly, which is why we build our new plants around the world according to identical requirements and specifications and on the basis of uniform certification measures. We analyse the respective locations down to the smallest detail before we build there. In this context, customer proximity plays

a crucial role. In order to meet needs and requirements optimally, it is important that we act as “problem solvers” for our customers, that we internalise their needs and respond quickly and flexibly.

We create speed and flexibility through the principle of short distances between our SCHÜTZ sites and our customers.

Short transport routes and the elimination of language barriers are essential to boost customer satisfaction and reduce costs. By embracing these principles, we ensure the reliable supply of the required packaging, production resources, key components and finished products to the respective markets.

A holistic concept with sustainable measures

Supply security is one thing; however, it is also important to guarantee that this supply security is underpinned with an environment-focused and climate-friendly approach. As an industrial packaging manufacturer and supplier on all continents, we have always been aware of our great responsibility. For this reason, sustainability is a central principle – and is backed up with all necessary measures. In this context and against the background of the global challenge of climate change, it is important that we sustainably reduce carbon emissions in order to ensure that we can work successfully and in tune with the environment in the long term.

Only by applying a holistic concept can we successfully master all the many requirements.

As part of our sustainable overall concept, we collect used IBCs worldwide and recycle them in eco-friendly processes in our in-house recycling lines. We use software-supported route optimisation in order to save additional transport kilometres. Thanks to these procedures, we have always been able to meet the highest safety and sustainability requirements and protect the environment.



RECOBULK



Alongside all other expansion projects, SCHÜTZ is continuously working on expanding its partner network for the RECOBULK programme. **This allows us to ensure that our IBCs are reconditioned in original brand quality.** With our support, selected and long-standing cooperation partners manufacture the RECOBULK range exclusively using original spare parts and UN approvals, meaning that they are manufactured in the same quality as SCHÜTZ. Collected SCHÜTZ IBCs are fitted exclusively with SCHÜTZ inner bottles and components in a globally standardised, environmentally friendly process.

Our worldwide SCHÜTZ network continues to expand



The latest additions

Our worldwide SCHÜTZ network continues to expand. In recent months, we have gained strong partners and opened new locations. Here are a few examples.



Ako, Japan:

With a high-performance multi-layer extrusion blow-moulding line for the production of IBC inner bottles and a highly automated assembly line, the new site in Japan manufactures SCHÜTZ packaging with maximum quality and efficiency. An ultra-modern reconditioning line rounds off the local portfolio and handles the environmentally friendly reconditioning of used containers collected by the SCHÜTZ TICKET SERVICE.



Yangzhou, China:

In China – in the Yangtse Delta – SCHÜTZ 2023 has commissioned a new site for the production of IBCs and PE drums. In addition, a state-of-the-art, automated reconditioning line is currently being prepared to provide a full range of services to customers in the region.



Remi Tack, Belgium:

SCHÜTZ has been working with the Belgian company Remi Tack for decades. In 2022, SCHÜTZ took over the renowned reconditioner. Together, we are driving the development of the circular economy in the region in the spirit of sustainability and continuously increasing the service level for our customers.



Bayern-Fass, Germany:

SCHÜTZ and Bayern-Fass have also been working together for decades. SCHÜTZ has stepped up the cooperation by acquiring a minority shareholding. The joint goal is to further advance the circular economy and increase the level of service and quality even further – all in line with the philosophy of sustainability – and offer customers even more comprehensive solutions for the reconditioning and recycling of industrial packaging.



Conclusion

SCHÜTZ laid the foundation for a sustainable circular economy 50 years ago. With the introduction of the SCHÜTZ TICKET SERVICE, we were the first manufacturer of bulk industrial packaging to take back used IBCs directly from the emptier. This system has evolved and is now a highly sophisticated service based on close cooperation with selected partners. **Our customers and the companies returning containers know we collect and recycle in accordance with strict environmental standards.** Customers benefit from our exceptional performance and high safety standards, no matter where they are in the world.



New reconditioning and recycling centre at our main factory:

In 2022, we took reconditioning to a completely new level in Selters and built a new hall complex for this purpose. Here, highly automated plant technology is used to handle intake and reconditioning. We have also built a new state-of-the-art recycling centre to obtain high-quality recyclate from the collected plastic industrial packaging. This opens up completely new application options in our commitment to a closed material cycle. All processes comply with the strictest international environmental and safety requirements. These investments impressively underscore our comprehensive sustainability strategy.

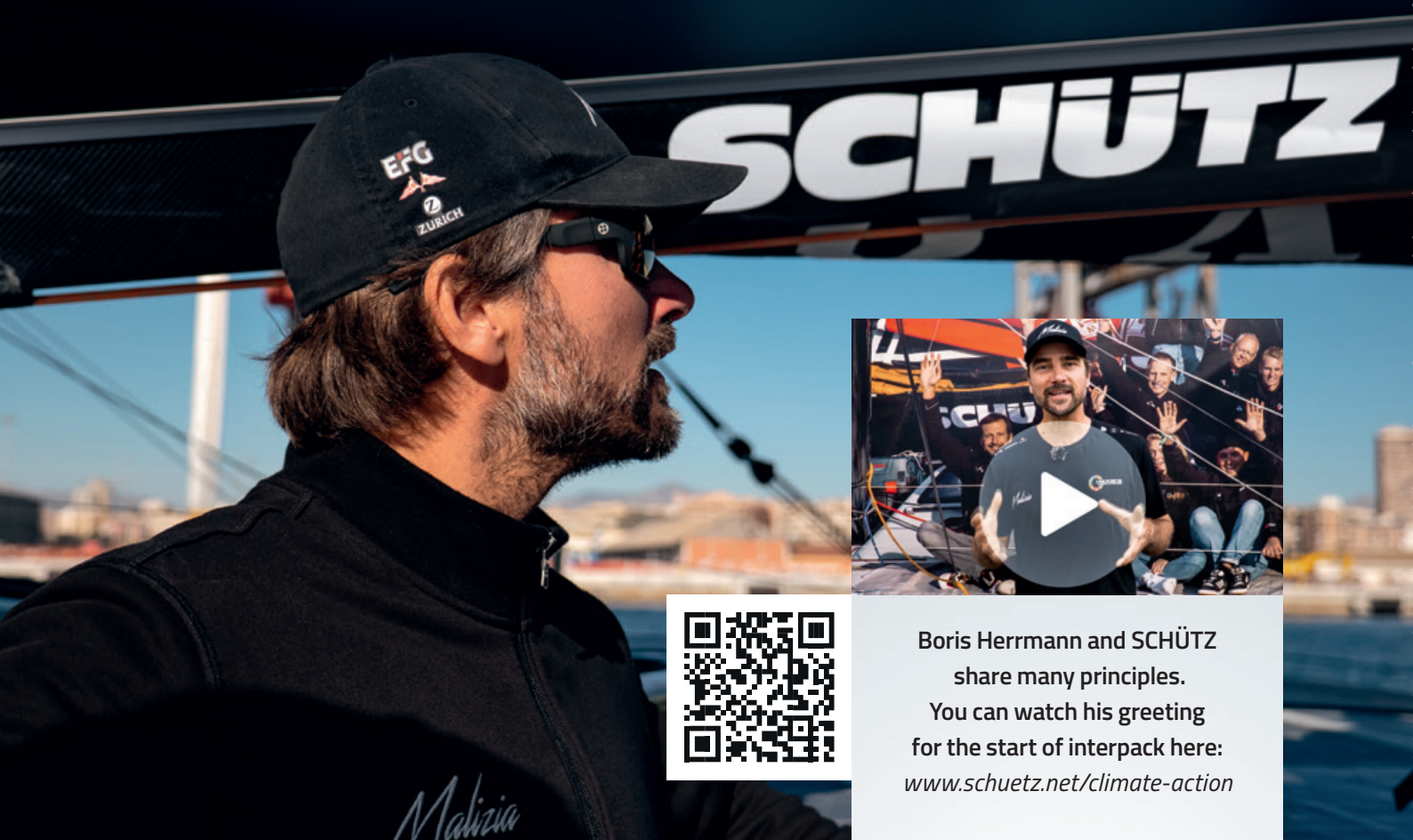


Hazleton, USA:

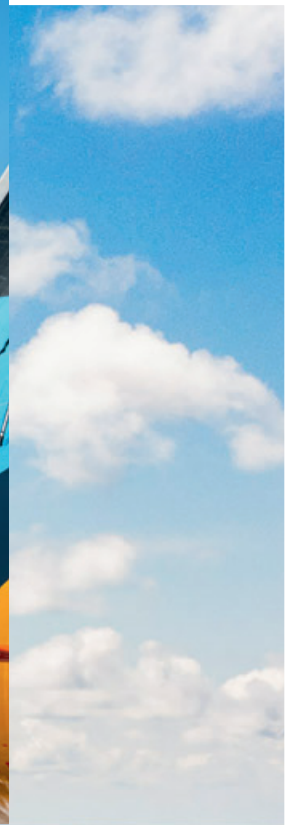
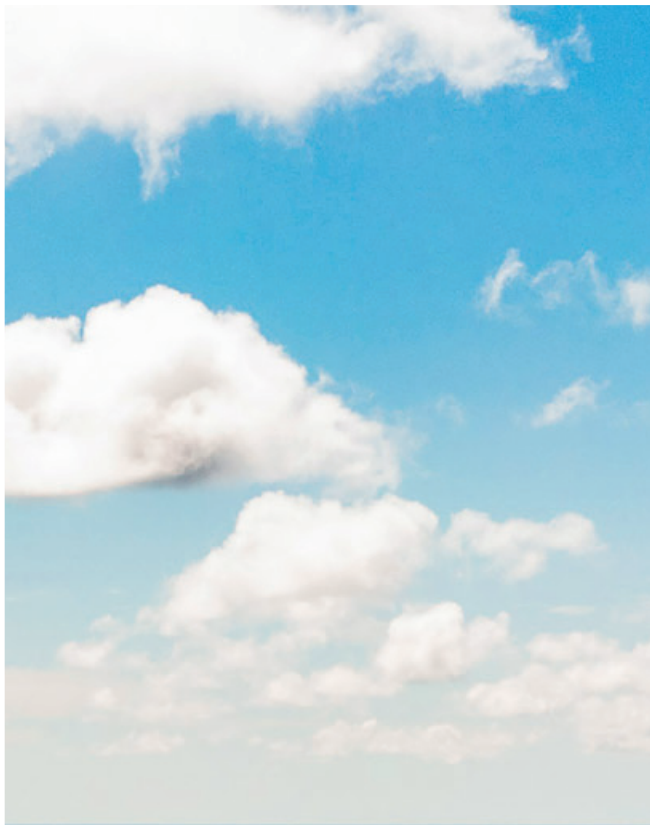
In order to bring us even closer to our customers and minimise transport routes in North America, SCHÜTZ Container Systems is further expanding its production and reconditioning network by adding a new location. In Hazleton, Pennsylvania, we have invested in a new reconditioning facility that will enable us to sustainably recondition and recycle packaging in keeping with our commitment to a modern circular economy. The factory will also be producing high-quality IBCs and plastic drums.

Advanced technologies for greater sustainability:

**OUR SUCCESSFUL PARTNERSHIP WITH
BORIS HERRMANN & TEAM MALIZIA**



Boris Herrmann and SCHÜTZ
share many principles.
You can watch his greeting
for the start of interpack here:
www.schuetz.net/climate-action



For decades, resource conservation and the efficient use of materials have played a central role in our products and services. This is a philosophy we share with the internationally renowned, world-leading yachtsman Boris Herrmann, and they form the basis of our partnership with his Team Malizia. **Under the motto “A Race We Must Win – Climate Action Now!”**, Herrmann and his team are currently competing in the global Ocean Race – to win, of course, but also to draw attention to one of the most pressing challenges of our age.

Protecting the environment and the climate is a true marathon – and it is one that both Team Malizia, as they compete in the world's most gruelling regattas, and SCHÜTZ have the skills to master. The IBC is the perfect example: we are continually perfecting and refining the IBC, the container that revolutionised the transport of liquid filling goods. Our goal is to make the IBC even more efficient – through material savings, sustainable product design, collection and reuse, material recycling and the use of recyclate and regranulate. This is part of the reason why the cooperation with Boris Herrmann is a project that brings together partners who share the same values and goals: Team Malizia and SCHÜTZ, the team's Official Supplier and Official Technical Partner, are united by our shared conviction that the climate crisis can only be combatted through innovation and technical progress. Together, we want to educate about the urgent need to protect our earth.

Team Malizia is currently competing in the Ocean Race, one of the toughest ocean regattas in the world. The participating yachts have to cover 32,000 nautical miles, which is around 60,000 kilometres. The professional sailors spend six months on the high seas. Boris Herrmann is using the race and the media attention it attracts to draw attention to the crucial role that the world's oceans play for the health of our planet.

During the races, the sailors have the privilege of reaching remote places on earth that are difficult to access even for scientists. They experience first-hand how human actions affect the delicately balanced ocean environment. Team Malizia tirelessly promotes education about the current climate situation.



Since 2018, Boris Herrmann and his team have sailed and competed in races with the Ocean Pack mini-lab on board. The crew uses it to take seawater samples at the surface and collects measurements on the CO₂ content, temperature and salinity of the ocean.

This valuable data helps scientists study the role of the ocean in climate change and to monitor its health. During the second and third legs of the Ocean Race, Argo floats were also released into the sea from aboard the Malizia – Seaexplorer racing yacht. These floating robots, weighing about 20 kilograms, drift with the currents and move between the surface and a depth of up to 2,000 metres. They remain in the same part of the ocean for up to five years and automatically transmit ocean data to an international computer centre every ten days. This centre provides the data to all meteorologists, climate researchers and others at no cost.

In addition to the important contribution Team Malizia is making in raising the awareness and understanding of how closely the climate and the ocean are interconnected, it goes without saying that the ambitious sailors competing in the Ocean Race are aiming for sporting success. At the time of going to press for this issue, the first three of seven legs in the race had been completed. The new racing yacht, which features a deck form manufactured by a 20-strong team from SCHÜTZ COMPOSITES in Siershahn, is doing exceptionally well, especially in challenging wind conditions.





SCHÜTZ wishes Team Malizia all the best and every success in this prestigious race!



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We look forward to welcoming you – The SCHÜTZ Team.