

SCHÜTZ

PASSION FOR TECHNOLOGY





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SCHÜTZ – Passion for Technology

Passion is one of the strongest emotions that humans can have. It activates our creativity, it motivates us to pursue aims and gives us the courage to take new, untried paths.

Since 1958, our passion for developing and implementing even better technical solutions has been the engine that drives the successful development of our company. For us, understanding and meeting the challenges and needs of our customers and respecting the environment form the heart of our worldwide activities.

All SCHÜTZ products and services have the same core: **passion.**

Success built on substance and sustainability.

As a technology enterprise, SCHÜTZ's core competence lies in processing metal and plastic. At our headquarters in Selters and all the global sites of the international SCHÜTZ Group over 3,500 people are employed in the development, production and sale of innovative products and patented manufacturing methods. Our strategy is to master the technologies we use ourselves in depth and right down to the finest detail.



The know-how that comes from the close interrelation between product and production competence is what allows us to continually inspire our customers with new solutions made of steel, plastic and innovative materials. For us, "Responsible Care" means optimising processes and products down to the finest detail and combining added value for our customers with a deeply responsible attitude to resources and the environment. As a family-owned company which has grown over decades, we are committed to continuously strengthening our ability to compete and creating enduring value.



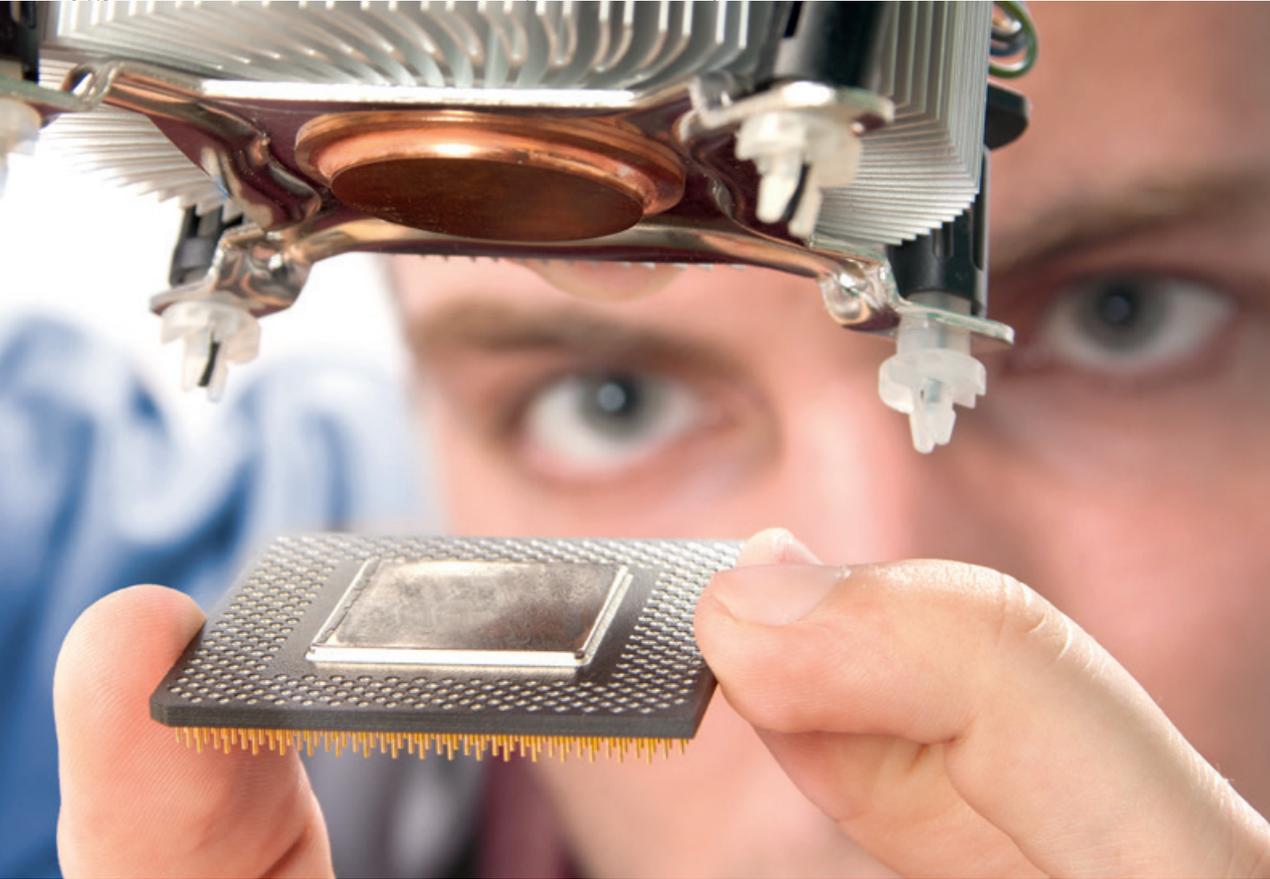
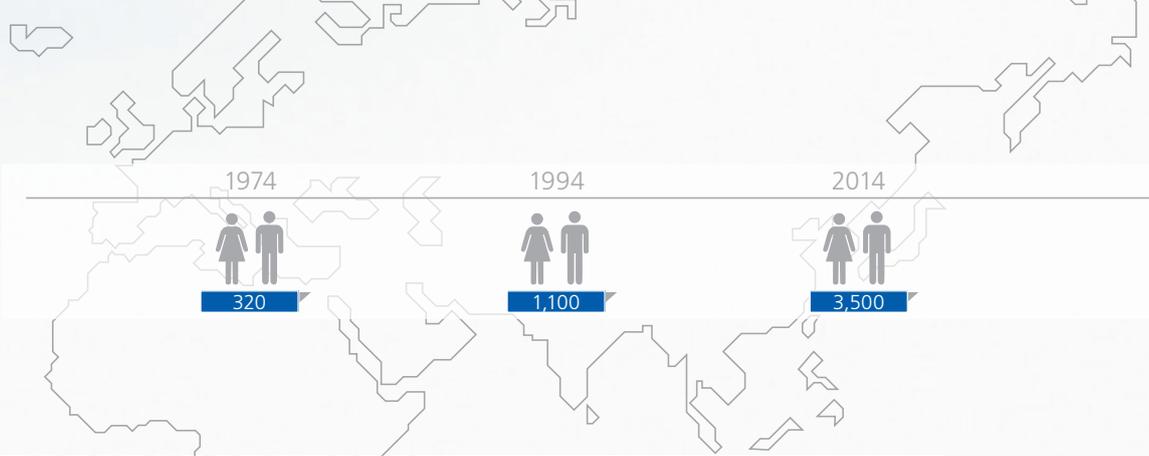


Our greatest asset: competent and motivated employees.



With a choice of sports activities SCHÜTZ helps the company's employees keep fit and healthy.

Employee growth
SCHÜTZ Group:



Despite our passion for technology, we know that it is the SCHÜTZ employees who play a decisive role in the sustainable success and the performance of the company. This is why we invest in providing training in technical and commercial vocations as well as in recruiting and establishing enduring working relationships with skilled staff. We also promote personal and professional development by offering a broad range of education programmes, ranging from in-house training courses to language classes.

As a globally operating enterprise with sites on all continents, we offer a wide choice of career options and a great spectrum of exciting vocational fields. One of our most important concerns is to protect our employees against accidents and health hazards and to provide a safe and modern working environment. To achieve this, in addition to implementing comprehensive occupational health and safety measures, we regularly evaluate individual work situations and workloads and run programmes to optimise the work place.



Deeply anchored in our corporate philosophy: ecological commitment and action.



We firmly believe that a truly great product is also defined by the contribution it makes to the environment. Accordingly, we aim to further reduce the resource and energy requirement of each unit we produce. All our systems, machines and processes are continually monitored and evaluated for their environmental impact, including energy consumption, emission and waste avoidance, and are constantly optimised. Our commitment to the development and use of innovative technologies allows us not only to lower our consumption of primary raw materials but also to increase the proportion of reused and recycled materials in our workflows.



Optimising freight and logistics. Intelligent management of our material flows within and between our factories, and the implementation of multi-modal logistics concepts help to further increase our eco-efficiency. We use the latest, most advanced load planning programmes for maximum efficiency and optimised routing in all inbound and outbound logistics. Wherever possible, we use alternative methods of transport, such as rail and river boats. In Europe our facilities have their own railway sidings, which have enabled us to shift approx. 20,000 truckloads of steel deliveries from road to rail. This is a key step along the pathway to achieving our climate targets, as each trucking kilometre that we manage to avoid reduces our CO₂ emissions by an average of 0.75 kg.

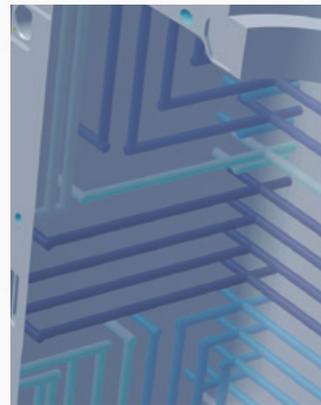


Each SCHÜTZ Reco IBC
saves approx.

100 KG of **CO₂**
compared with a new IBC



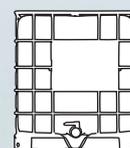
Research and Development – SCHÜTZ'S pioneering spirit.



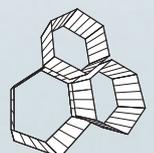
Innovation is what drives us. From the very beginning, the development of our company has been shaped by a readiness to question and critically assess established solutions. Fired by the pleasure we take in new technologies and processes, we succeed in transforming fresh ideas into powerfully efficient products and services which win over our customers in all our different business units with their compelling economic and ecological benefits.



JUST SOME OF
SCHÜTZ'S
INNOVATIONS:



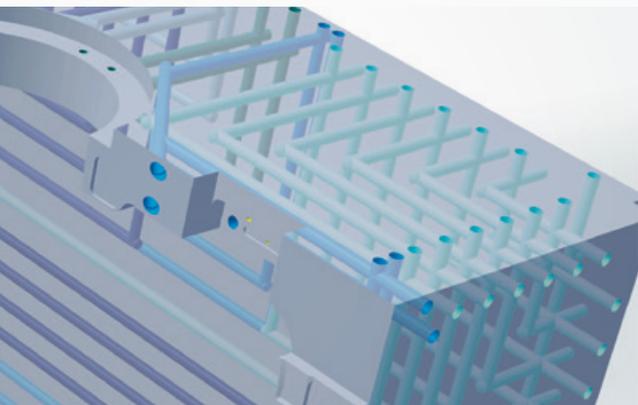
IBC transport
packaging system



CORMASTER light-
weight composite
material

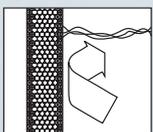


The technology of the future – in use today: new materials and innovative processes.



Our products set new market trends. In our research and development departments, more than 100 engineers, design experts and specialists from a wide range of fields collaborate to continuously improve today's products and processes, and develop the innovations of the future. Our unrivalled seamless integration of product and production development makes us technology leaders in many different fields and enables us to bring about lasting change on the world's markets.

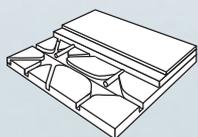
Many of our developments take what is presently technically feasible as their starting point, a benchmark we always approach with the ambition of pushing the boundaries back a little further. A recent example: the wind turbine blades we developed and produce are some of the biggest GRP components that can be manufactured in a single piece.



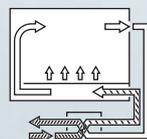
SMP fluorinated heating oil tanks



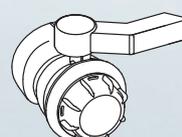
Multi-layer blow moulding



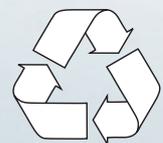
R50 Underfloor Heating System



airConomy® heating and ventilation system



IBC outlet valves with nano technology



SCHÜTZ TICKET SERVICE

Welcome to the World of SCHÜTZ.



We are continually expanding our global production and service network, and are always investing in new sites, systems and technologies. This allows us to set pioneering standards in our business fields as a global quality and innovation leader.



As a leading international producer of industrial packaging we offer a comprehensive portfolio of IBCs and drums. Our smart products and services help our customers to keep their supply chains economic and eco-friendly.



SCHÜTZ
ENERGY SYSTEMS



The SCHÜTZ heating oil and surface heating systems are energy-saving, exceptionally safe and easy to use. With our innovative technology and customised services we offer house builders, architects and planners a wide range of proven and highly economical solutions.

SCHÜTZ
INDUSTRIAL SERVICES



The backbone of our company is our competence in tool, machine and equipment building. Our customers benefit from this comprehensive technological know-how through our Steel Service Centre and CORMASTER lightweight construction material.



SCHÜTZ
PACKAGING SYSTEMS

**Greater economic and
environmental efficiency
in the supply chain.**

UN 3441 / 2100 / 2100 / 2100 / 2100 / 2100
4056 / 2037 / 1060 / 58kg / 100kg



INTERNATIONAL CENTER
NEW YORK

IBC COLLECTION

UNIT
TRUCKS

The ideal packaging for any transport task.

Every day, all around the world industrial packaging by SCHÜTZ is used by millions of people to safely transport and store a broad range of filling products. From simple chemicals to hazardous goods or sensitive goods such as foods, we dependably supply sustainable packaging solutions that fully comply with the specific requirements of each specific supply chain. And not only are they designed to meet all specifications, our products also offer added value, for instance by utilizing space more efficiently, by having a lower tare weight or by simplifying processes along the rest of the chain – all of which benefit both our customers and the environment.



Whether in a tight-head or open-head configuration, SCHÜTZ offers a full range of drums in plastic and steel.



**More safety – layer for layer:
SCHÜTZ Security-Layer Technology.**

Our proprietary process for continual multi-layer extrusion opens up completely new areas of application for plastic packaging. With up to six different layers, our containers are made of a variety of different functional materials which all work together to increase overall performance. For example, thin conductive or anti-static external layers can be included for use in ex-zones, or an integrated permeation and oxygen barrier made of EVOH.

With the supremely versatile intermediate bulk container (IBC) SCHÜTZ has created a new, global packaging standard.



Collection and reconditioning of containers.

For us, Responsible Care doesn't end at our own factory gate. Because we are deeply aware of our responsibility to the environment, many decades ago we started thinking about what happens to used IBCs, and in response developed a unique, global service: as part of a closed loop system, the SCHÜTZ TICKET SERVICE handles the swift collection and eco-friendly reconditioning of empty containers.

In compliance with the very highest environmental and safety standards and using a globally standardised, resource-conserving process, the inner bottles and screw caps are replaced with new, original components. The steel cages and pallets are cleaned and reused. Components that cannot be cleaned or have been damaged are replaced and the materials recycled. All reclaimed plastic recyclate is used for the production of new pallets and corner guards.



Containers that have been reconditioned by SCHÜTZ comply with the same high safety and hygiene standards as new IBCs.

Every year, hundreds of thousands of tons of CO₂ emissions are saved by the SCHÜTZ TICKET SERVICE.



125

SAILOR

VILLE DE





Our concept for
top performance?
Comprehensive
know-how!

SCHÜTZ
INDUSTRIAL SERVICES



We get steel into excellent shape.

Traditionally, the SCHÜTZ Group is one of the biggest processors of steel sheets in Europe. Our state-of-the-art Steel Service Centre shapes several hundred thousand tons of flat-rolled steel annually, producing custom orders and supplying steel-processing companies from a broad range of sectors with high-precision pre-products.

We source our top quality material direct from leading steel manufacturers all over the world. Because we are not contractually bound to a supplier, SCHÜTZ can offer customers the best choice of grades and the very best value for money across the range. The Steel Service Centre has its own railway sidings, and coils of up to 30t can be delivered direct to the plant; these are then registered with the latest warehousing software and processed according to customer orders with our high-precision cutting and splitting units.

Continual quality controls in our in-house laboratory. All incoming materials are checked with advanced technology to ensure they comply with the specific specifications.





Uncompromising quality and flexible solutions for our customers. Custom pieces, standard formats, split strips and coils: our state-of-the-art production facilities guarantee clean cuts, immaculate surfaces and the tightest dimensional tolerances in all of our products. Optimum results are also ensured by our expert technical support, which ranges from development and material selection to individual on-site advice by our field sales team.



We're there to support our customers in all steel-related processes and help them keep their input and costs as low as possible.

With forward-looking material warehousing and continual delivery readiness we offer a large degree of flexibility – including just-in-time deliveries at short notice. High-efficiency logistics with our own rail siding and fast motorway access means that we are in position to fulfil specific customer packaging and transport requirements.

Design and construction of production lines and machinery.

The foundation for the innovative drive and success across all of SCHÜTZ's business units is our company's technological competence – paired with the ambition to stay independent from suppliers by ensuring that our manufacturing depth is as great as possible. This allows us to guarantee uniform quality standards all over the world and gives our customers the peace of mind of knowing that they can depend on the same high SCHÜTZ quality anywhere in the world.





For SCHÜTZ, the time from planning a completely new machine to its delivery – e.g. an extrusion unit for IBCs – is only a few months.

At SCHÜTZ, we develop and build almost all the systems, machinery and tools we need for production ourselves. In order to comply with our own high standards of perfection, our Competence Centre in Selters is equipped with the most modern technical infrastructure. This is where our engineers and technicians implement complex engineering projects – from developing individual machines to planning entire plant layouts and building turn-key production facilities.

The SCHÜTZ factories and licensees all around the world are supported by our experts in Selters throughout the implementation and subsequent maintenance of their machines and plants. Production approval and all QM-relevant processes and parameters are also controlled and monitored centrally from our headquarters.





Impressive: the giant main mould with integrated electric heating for making millimetre-precise wind turbine blades.

High performance tool production. One of the keys to SCHÜTZ's ability to transform innovative ideas into marketable products lies in the in-house production of precise and dependable tools. From die-cutting and forming tools for steel processing to extrusion and injection moulding tools for plastic production, we use the most advanced methods to make our tools, including 3D simulation and computer-aided integrated product development (CIM) and production in compliance with the latest aerospace standards.

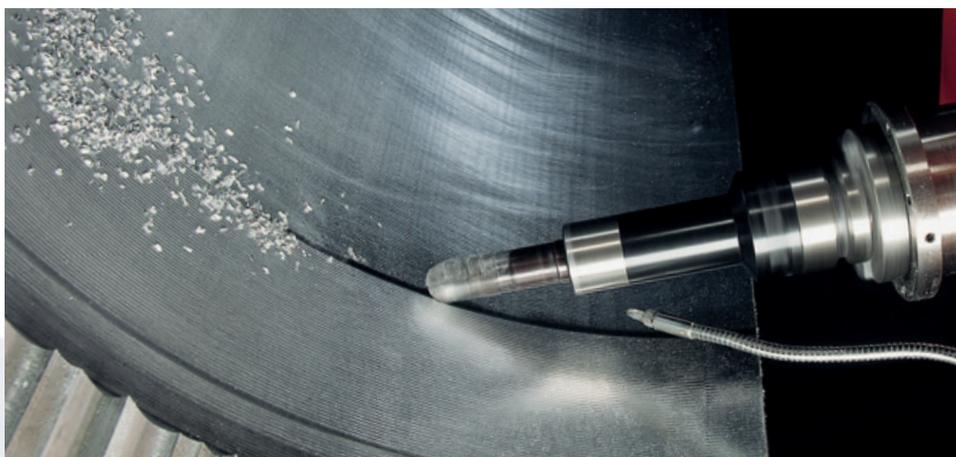
Wind turbine blades with a length of up to 61 m





Perfection – from one-off piece to large production run.

Model and mould construction. Following extensive investment, SCHÜTZ opened up a new business field at the Siershahn site: the construction and production of large components made of fiberglass or carbon-fiber reinforced plastic for use in construction, automotive manufacturing and shipbuilding as well as for building wind turbines. With our advanced, high-performance production facilities, SCHÜTZ handles all necessary working stages in-house: from the engineering of the forms and models to building the prototype models and a range of moulds using the resin infusion process right through to the serial production of GRP and CRFP components.

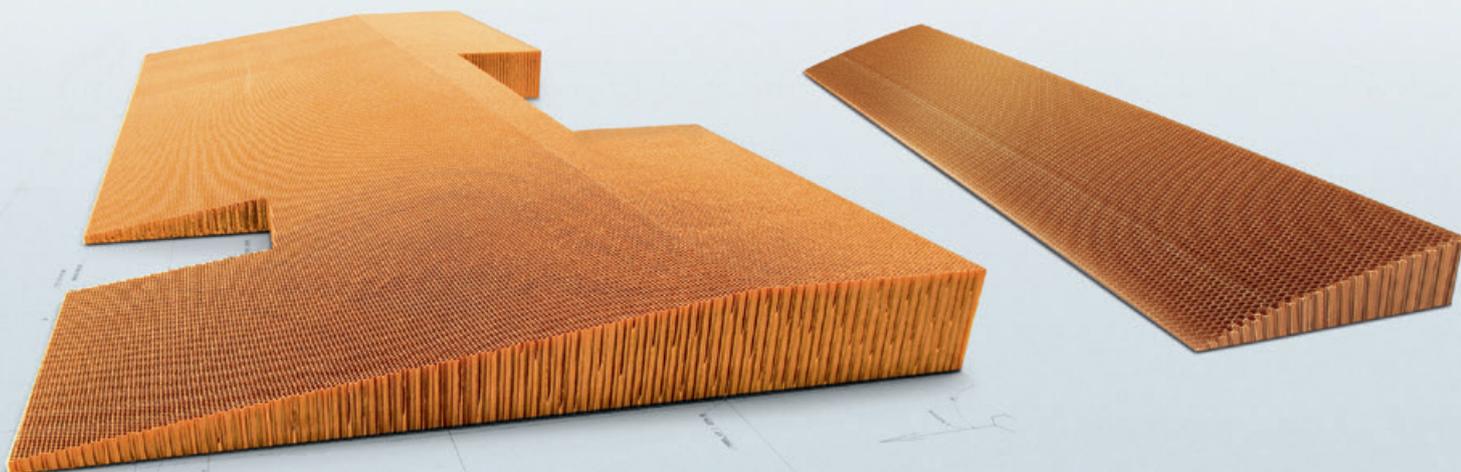




CORMASTER – the high-tech, lightweight construction material.

The use of new, intelligent materials in the aerospace industry, in automotive manufacturing and shipbuilding has emerged as the method of choice for making increasingly efficient and high-performing structures. With CORMASTER, our company offers a lightweight honeycomb composite material which has a high degree of mechanical stability and resistance combined with an exceptionally low weight.

The honeycomb material developed by SCHÜTZ consists of thin layers of Nomex® or Kevlar® which are reinforced with resin using a patented process and expanded into a hexagonal or over-expanded shape. The honeycomb parts can be processed by machining, reshaping or laminating for use in a wide range of applications.





A perfect combination: CORLIGHT sandwich-panels. CORMASTER is combined with pre-impregnated fiber mats in a variety of different materials, which are bonded with the honeycomb core to form sandwich panels that are strong and robust enough to comply even with the exacting standards of the aerospace industry.

CORMASTER products are used in a wide range of applications, including rotor blades, tail units, landing gear doors, floor and wall elements. A specially developed Kevlar honeycomb is used in the Airbus A380; it has the same stability as other honeycomb structures but is 15 % lighter.



A further example for the successful application of the SCHÜTZ honeycomb technology is the racing yacht CONTAINER, which was designed in-house.

**Welcome home to well-being –
modern housing technology
solutions by SCHÜTZ.**

SCHÜTZ
ENERGY SYSTEMS

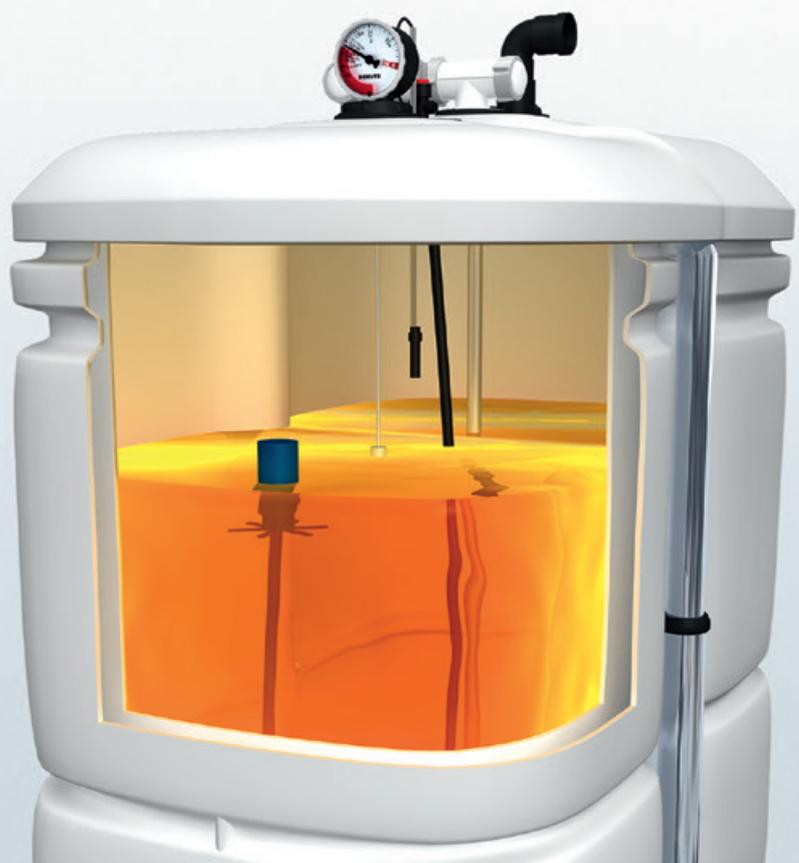




Comfort and energy efficiency in perfect harmony.

SCHÜTZ heating oil storage systems. We develop and produce steel or plastic single and multi-walled storage tanks which are the optimum solution for a wide range of requirements and applications. The intelligent, space-saving design, the use of certified materials and our high-quality production allow us to guarantee maximum safety and durability. Our patented SMP odour barrier protects against the smell of oil and was awarded the PROOFED BARRIER® quality label by the Fraunhofer Institute for its high level of effectiveness.

The SCHÜTZ TANK IN TANK
made of plastic is one of the most
advanced and flexible systems
for storing heating oil.



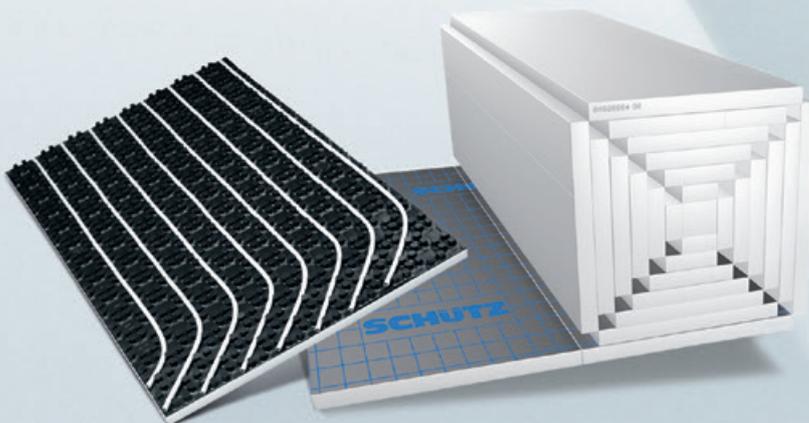
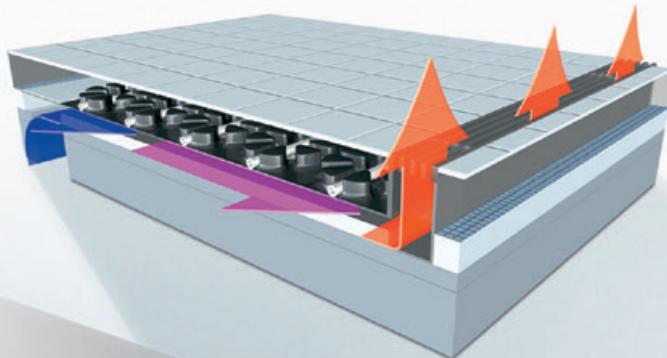


The first choice in homes, offices and industrial environments: our heating systems.

SCHÜTZ underfloor heating systems. Optimum heat output, highly economic to run and a pleasant indoor climate are only three of many reasons why the trend towards underfloor heating in private and public buildings continues as strong as ever. SCHÜTZ supplies innovative full solutions – perfectly designed to meet all requirements. For instance, the R50 system is ideal for renovating old buildings.

Heat recovery ventilation. The unique airConomy® system is a multifunctional system that heats, cools and ventilates buildings. Polluted and used air is constantly replaced. Filtered fresh air prevents damage to the building caused by humidity and black mould.

Operated by easy-to-use control technology and modern boilers and renewables, airConomy® can help achieve substantial energy savings.



The ideal base: profile panels or tacker systems by SCHÜTZ are easy, fast and economic to install, and also offer ideal heat and noise insulation.



For us, success also means assuming social responsibility.

SCHÜTZ is at home in many regions of the world. As a major company we are often one of the key employers in the area and are fully committed to assuming the responsibility that comes with this position. We believe strongly in working together with the relevant national and international associations. For example, as a member of the German Association of Materials Management, Purchasing and Logistic (BME) we document our Code of Conduct, which defines strict rules against any form of discrimination, corruption, child labour or slavery and is committed to observing human rights, environmental and health protection. Additionally, we regularly support a range of different charities and aid projects.



The charities SCHÜTZ supports worldwide.

Nearly 900 million people worldwide do not have constant access to clean water. We regularly donate IBCs as drinking water containers.



Cooperation with Water Missions International. SCHÜTZ supports the Christian US aid organisation WMI, which works to bring clean, safe water to people in need all over the world. All our international sites now contribute to the project. After natural catastrophes, in conflict zones or regions affected by natural crises – we speedily provide WMI with the IBCs they need through the nearest subsidiary.

With the aid of our IBCs, WMI makes mobile drinking water processing plants that are up and running within two hours. The plants filter out contaminations and dependably eliminate microorganisms and germs. A single plant can lastingly supply clean drinking water to between 3,000 and 5,000 people.

