



SCHÜTZ PE DRUMS | STEEL DRUMS





SCHÜTZ
PACKAGING SYSTEMS

As an international supplier of packaging systems we consistently adapt our product range to meet the needs of our customers. SCHÜTZ supplies both global standard drums as well as customised product solutions for regional requirements and specific applications.

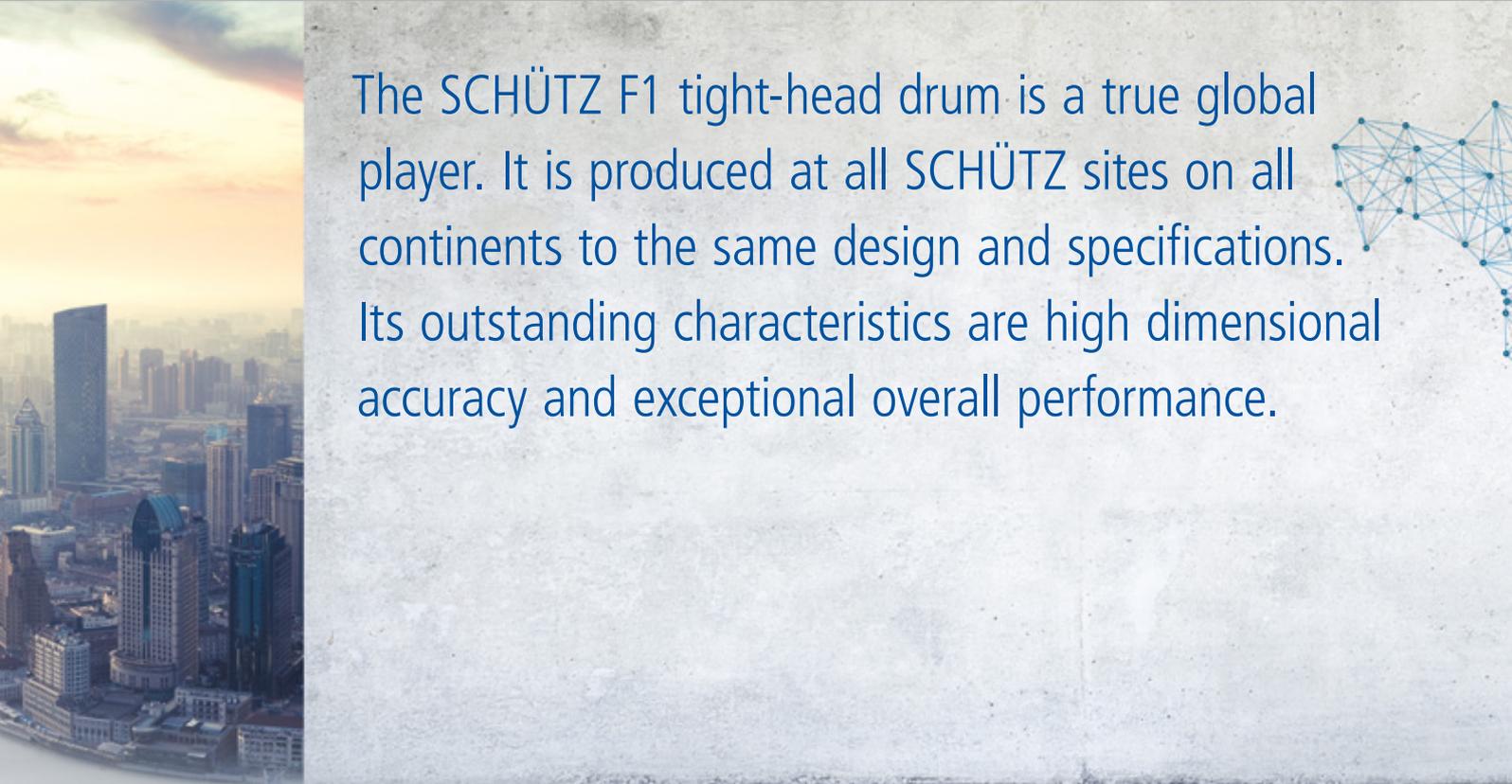


**The global SCHÜTZ
drum portfolio:**



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SCHÜTZ F1 tight-head drums.



The SCHÜTZ F1 tight-head drum is a true global player. It is produced at all SCHÜTZ sites on all continents to the same design and specifications. Its outstanding characteristics are high dimensional accuracy and exceptional overall performance.

These superior characteristics are the result of the patented design and the use of new, highly developed plastics, which further enhance the advantages of the F1 over conventional standard drums:

- Better performance in drop test under cold conditions
- Greater impact strength at low temperatures
- Increased chemical and stress crack resistance
- Significantly increased stacking stability



SCHÜTZ F1 TIGHT-HEAD DRUMS	220 litres	(US) 208 litres
Exterior height	935 mm	882 mm
Exterior diameter	581 mm	592 mm
Type of tight-head opening	S70 x 6/S56 x 4	2"buttress x 2"NPS
Hazardous goods certification (min.)	UN 1H1/Y1.9/200/...	UN 1H1/Y1.9/150/...
Weight	8.1 kg	8.8 kg

The drum types and filling opening models shown here comprise our standard line. We will be glad to answer your enquiries about customised designs and additional technical details regarding our drum types.

SCHÜTZ F2 tight-head drums.

The SCHÜTZ F2 drum is based on the globally established SCHÜTZ F1 drum and offers the same proven properties. In addition to the upper handling ring of the F1 drum, the F2 design has a handling ring at the bottom of the drum.

The F2 geometry was developed with particular attention to optimising manual drum handling characteristics:

- Base ring makes it easier to roll
- Secure hold when using belts, ropes and straps



SCHÜTZ F2 TIGHT-HEAD DRUMS	210 litres	235 litres	250 litres
Exterior height	920 mm	1,020 mm	1,060 mm
Exterior diameter	581 mm	581 mm	581 mm
Type of tight-head opening	S56 x 4 (2x)	S56 x 4 (2x)	S56 x 4 (2x)
Hazardous goods certification (min.)	UN 1H1/Y1.6/200/... UN 1H1/Y1.9/200/...	UN 1H1/Y1.6/200/... UN 1H1/Y1.9/200/...	UN 1H1/Y1.6/200/... UN 1H1/Y1.9/200/...
Weight	9.2 kg 10.2 kg	9.4 kg 10.4 kg	9.8 kg 10.5 kg

The drum types and filling opening models shown here comprise our standard line. We will be glad to answer your enquiries about customised designs and additional technical details regarding our drum types.

The advantages of the SCHÜTZ F1 & F2.

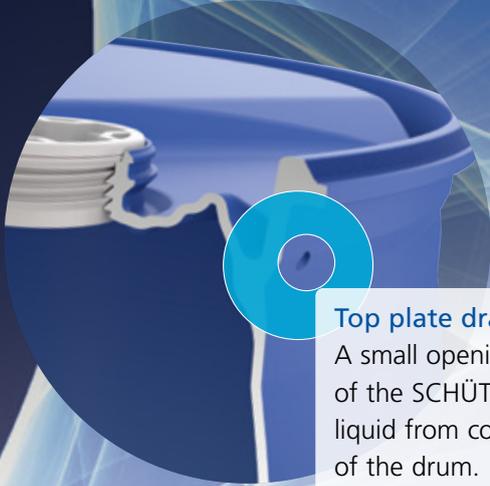
Global availability and universal usability make the SCHÜTZ F1 tight-head drum the perfect all-round product for companies that operate globally. The innovative design and advanced manufacturing methods also characterise the F2 model and offer decisive advantages compared to conventional tight-head drums in the form of new standards in performance and handling.

Suitable for automatic filling lines

The bungs are precisely calibrated and the bottom plate, which is optimised for automatic filling systems, has excellent stability and handling characteristics.

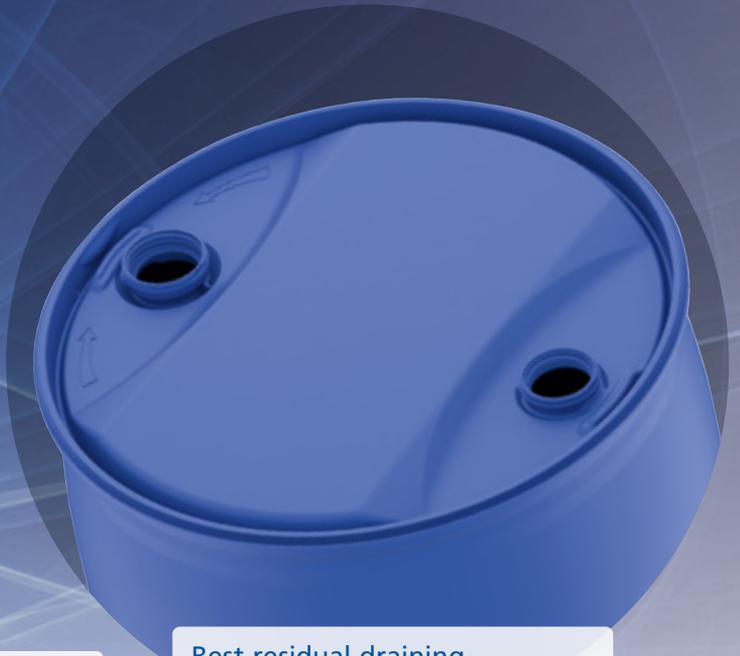
Efficient transport and easy handling

The drum dimensions are optimised for transport in ISO containers. The stable upper ring and the grip hole in the F1 base guarantee easy handling – and can be easily moved with all standard drum grippers. The additional F2 bottom ring makes manual handling easier.



Top plate drainage

A small opening in the handling-ring of the SCHÜTZ F1 & F2 prevents liquid from collecting on top of the drum.



Best residual draining

The optimised geometry of the upper plate with sloping sides enables residual draining to less than 100 ml (in accordance with VPA) through both bung holes.

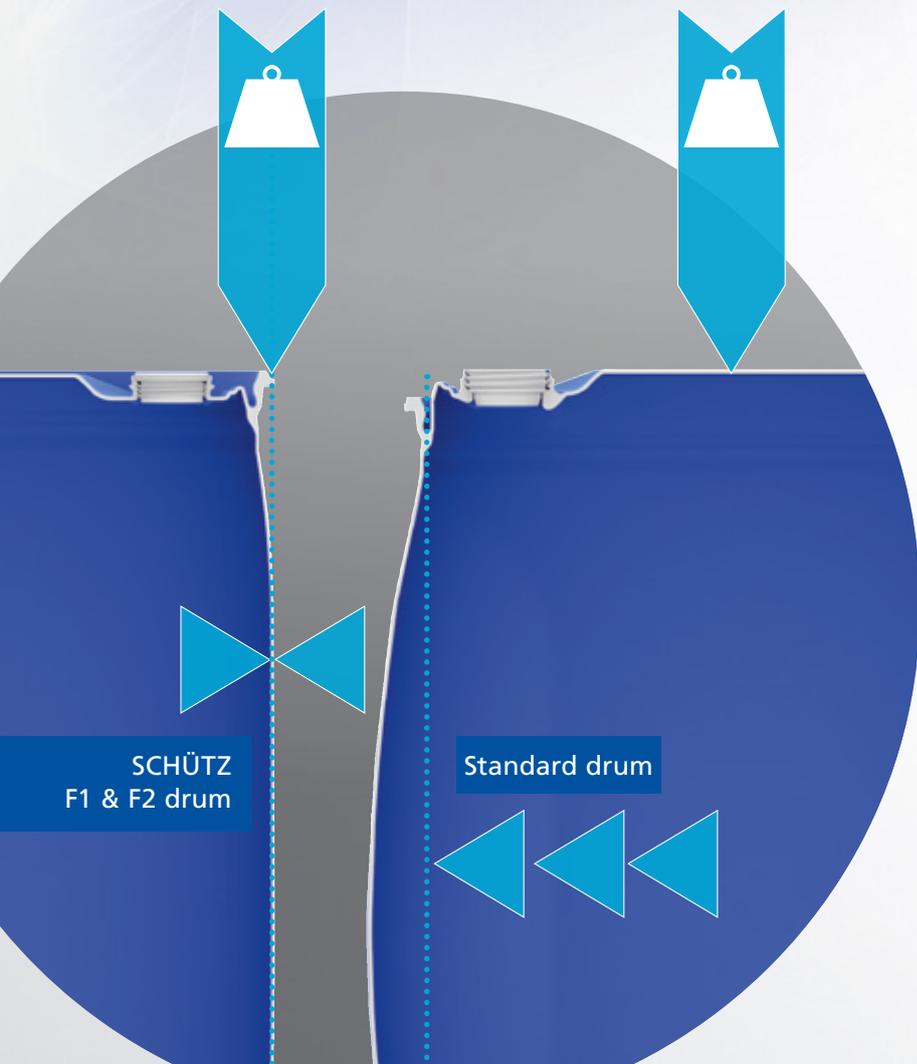
Best stackability

The upper ring is higher than the top plate, meaning that the weight is transmitted to the drum walls and not to the top, like in conventional drums.



Optimum protection of bungs and labels

The bungs and labels are ideally protected during transport and stacking due to the higher upper ring.



SCHÜTZ
F1 & F2 drum

Standard drum

Low tare weight

Reduced material quantity and compliance with the highest safety standards gives the F1 & F2 drum an excellent eco balance.

SCHÜTZ AUTOMATIC LOCK.

The innovative seal cap system with the SCHÜTZ AUTOMATIC LOCK originality seal protects your filling products from tampering or contamination. It is impossible to open the plug without destroying the seal cap. Suitable for manual and automatic fitting.

The system consists of a red or white sealing cap and a corresponding plug with special latching hooks. Two sizes available – suitable for different bung designs.



G2-D78

■ S56x4



G2-D88

■ S70x6

■ G2x5

■ G2x11,5

■ S56x4

■ S71x4



Discover the advantages compared to other sealing caps:

- The cap is held by the plug, not by the bung
- Real seal function, no removal without destroying the cap
- Self-centering system which is suitable for automatic fitting
- Made of hygienic and non-corrosive material
- FOODCERT approval – perfectly suitable for foods
- No tools required for opening
- Easy to open thanks to a pull ring

SCHÜTZ FOODCERT.

Few segments have such complex demands when it comes to packaging as the food industry. To provide our customers in this segment with the comprehensive safety they require, we have introduced a new premium standard for our packaging: the SCHÜTZ FOODCERT.

SCHÜTZ F1 & F2 tight-head drums in the FOODCERT version provide the highest level of food safety with regard to **material, production process and the end product**:

- Fully conforms to the standards of international food laws
- System certification in accordance with FSSC 22000 (Food Safety System Certification)
- Certification recognised by the GFSI (Global Food Safety Initiative)
- Comprehensive preventive measures in accordance with HACCP
- Full traceability back to batch and process level
- Halal and kosher certification
- Regular microbiological controls of the finished packaging
- The drums are individually packed and stored in covered areas prior to shipping



Includes system
certification
to FSSC 22000

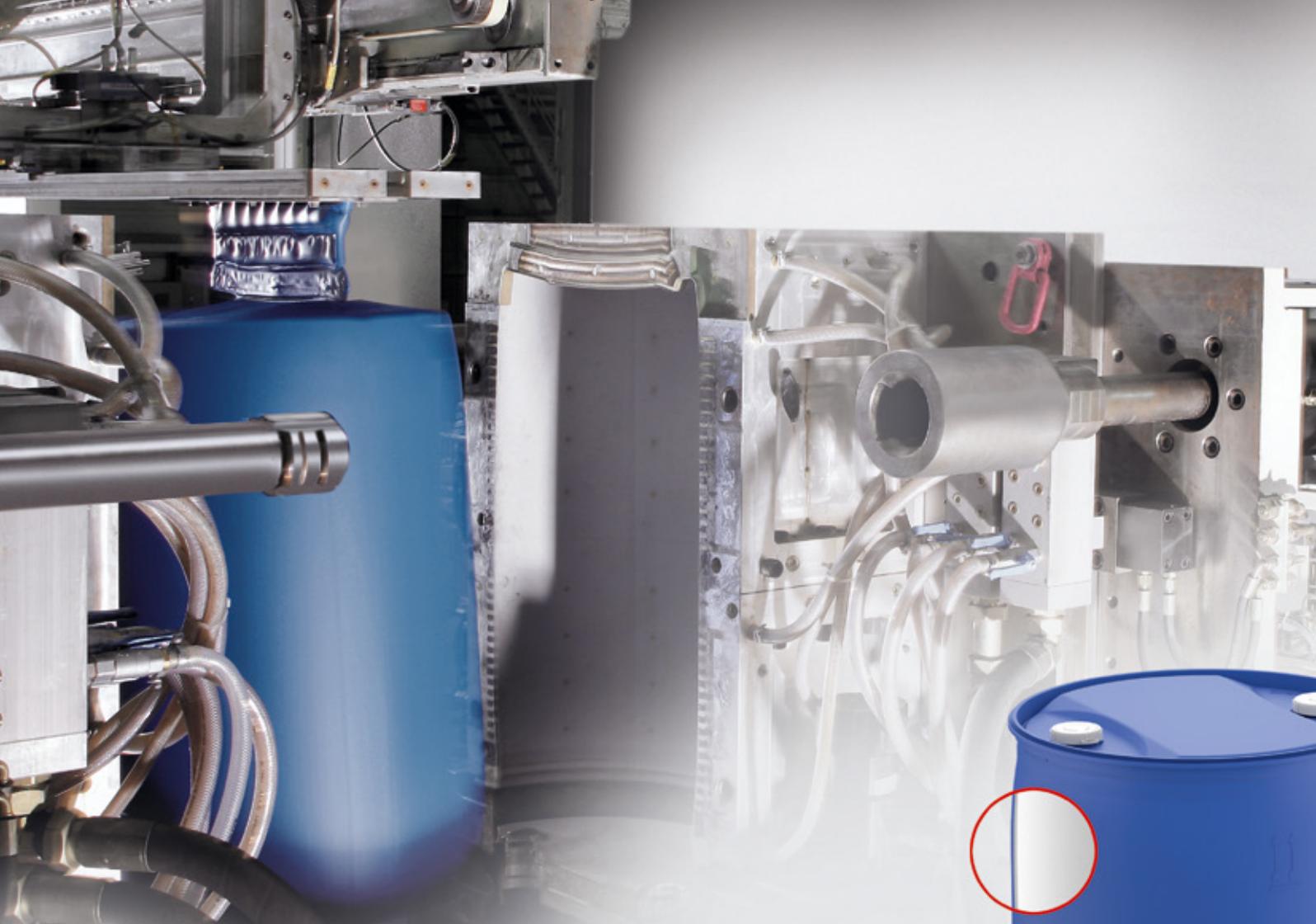


SCHÜTZ CLEANCERT.

Packaging is a key quality factor in an increasing number of industries. SCHÜTZ CLEANCERT is the new packaging standard for applications where safety and technical cleanliness play a key role. Compliance with the highest product purity and complete avoidance of contamination starts with the materials that are used and must be firmly anchored as a principle along the entire production chain.

CLEANCERT is the highest cleanliness and safety standard for product and process that SCHÜTZ offers:

- Comprehensive risk prevention measures in production based on extensive HACCP analyses according to FMEA methodology
- Finished packaging has the highest technical cleanliness
- Full traceability back to batch and process level
- Material of components that come into contact with the filling good free of silicones
- The drums are individually packed and stored in covered areas (optional) prior to shipping



Option: Inside Layer Natural
To ensure the highest material compatibility the drums can optionally be produced with an inner layer made of undyed, high purity HDPE.



SCHÜTZ F1 & F2 tight-head drums in the CLEANCERT version are ideal for use in highly quality sensitive areas, such as:

- Paints and varnish producing and processing industries
- Cosmetics and hygiene products
- Pharmaceuticals industry
- Semi-conductor and electronics industries

AUSTRALIA ONLY!

SCHÜTZ G2 & SQ2 tight-head drums.

The drums are Small Volume Refillable (SVR) containers specifically designed to meet the demanding requirements of the Australian agricultural chemical industry and other sectors handling hazardous or sensitive liquids.

- A reusable drum specifically designed for the agricultural chemical industry
- Suitable for dangerous goods applications
- UV additives to protect the drum from high intensity sunlight
- Rated to hold liquids with a maximum specific gravity of 1.6 or up to 176 kg gross weight
- Excellent environmental stress crack resistance required for herbicides that contain aggressive surfactants

Optional with integrated EVOH Barrier for consistent and reliable prevention of filling good permeation or diffusion.



SCHÜTZ G2 tight-head drum	120 litres
Exterior height	875 mm
Exterior depth	385 mm
Outer diameter top ring	462 mm
Cap	BCS G2 x 5
Hazardous good approval (min.) without EVOH	UN 1H1/Y1.6/150/...
Hazardous good approval (min.) with EVOH	UN 1H1/Y1.4/150/...
Weight	8.20 kg



The SCHÜTZ "dry-break" discharge valve protects against contact with the drum contents and product contamination.

Optional: An integrated EVOH barrier prevents the permeation of gases, solvents and flavouring agents.

The shock-absorbing SCHÜTZ Dip-Tube sits at the lowest point of the drum geometry and guarantees optimum residual emptying.

Thanks to the square cross-section, nine SQ2 tight-head drums will fit on a pallet (1,165 x 1,165 mm). This corresponds to up to 990 litres of filling product and approx. 80 % more transport volume in comparison to conventional drums!



SCHÜTZ SQ2 tight-head drum	100 litres	110 litres
Exterior height	975 mm	1,048 mm
Exterior width/depth	385 mm	
Outer diameter top ring	381 mm	
Cap	BCS G2 x 5	
Hazardous good approval (min.) without EVOH	UN 1H1/Y1.6/100/...	
Hazardous good approval (min.) with EVOH	UN 1H1/Y1.4/100/...	
Weight	7.40 kg	7.85 kg

SCHÜTZ S-DS1 open-head drums.

Whether solid, viscous or liquid hazardous goods – the SCHÜTZ S-DS1 open-head drum has been tested and proven over and over in a wide range of different applications.



- Dimensions compliant with DIN 12714 NC and the VCI Manual
- One hundred percent sealing between the lid and body ensured through lid sealant with high resilience
- Easily closed
- Protected clamp-rings prevent packaging units from climbing during transport
- Can be handled with conventional drum grippers
- Closed lid or filling bung (on request)



	For solid and viscous products					For liquids
SCHÜTZ S-DS1 OPEN-HEAD DRUM	30 litres	60 litres	120 litres	150 litres	220 litres	120 litres
Exterior height	520 mm	620 mm	800 mm	965 mm	978 mm	800 mm
Exterior diameter	315 mm	400 mm	496 mm	503 mm	590 mm	496 mm
Hazardous goods certification (min.)	UN 1H2/X60/S/	UN 1H2/X105/S/	UN 1H2/X225/S/	UN 1H2/X232/S/	UN 1H2/X320/S/	UN 1H2/Y1.5/100/
Weight	2.1 kg	3.5 kg	5.5 kg	6.2 kg	8.8 kg	6.9 kg

The drum types and filling opening models shown here comprise our standard line. We will be glad to answer your enquiries about customised designs and additional technical details regarding our drum types.

NORTH AMERICA AND AUSTRALIA ONLY!

SCHÜTZ OC open-head drums.

The ideal drum system for transporting chemicals. These drums were designed especially for the **North American and Australian market** and comply with regional standard dimensions.

- Standardised production worldwide simplifies reconditioning and multiple usage
- Production in the United States, Mexico and Australia, in Germany on request
- Base ring on bottom provides greater stability, better stacking and easier handling when rolling
- Can be handled with conventional grippers – same handling as plastic/steel and fibre drums
- Container dimensions compliant with ISO specifications
- North America: available with closed lid or filling opening closures (on request)
- Australia: drum body with natural coloured inner layer, FDA approval optional





NORTH AMERICA ONLY



AUSTRALIA ONLY



SCHÜTZ OC OPEN-HEAD DRUM	132 l / 35 gal	208 l / 55 gal	208 l / 55 gal
Exterior height	860 mm / 34 inches	940 mm / 37 inches	939 mm / 37 inches
Exterior diameter	474 mm / 19 inches	578 mm / 23 inches	574 mm / 23 inches
Hazardous goods certification (min.)	UN 1H2/Y125/S/	UN 1H2/Y300/S/	UN 1H2/Y200/S/
Weight	7.5 kg / 17 lbs	11.1 kg / 23 lbs	8.75 kg / 19 lbs

The drum types and filling opening models shown here comprise our standard line. We will be glad to answer your enquiries about customised designs and additional technical details regarding our drum types.

PE drums for special applications.



Requirement: With standard plastic packaging, transport and handling, filling and emptying processes can cause an electrostatic charge, which makes them unsuitable for use in ex-zones.

AN EXAMPLE OF A PRODUCT SOLUTION:

SCHÜTZ F1-EX 220 | tight-head drum

- The conductive outer layer of the drum prevents the plastic building an electrostatic charge
- The filling product is earthed through a contact strip integrated in the drum wall which ensures a conductive connection between the inside of the drum and the outside



YOUR BENEFITS:

- Safe use of PE drums in ex-zones 1 + 2
- Suitable for filling products categorised in Explosives Groups IIA and IIB with a minimum ignition energy > 0.2 mJ
- Suitable for liquids with a flashpoint $\leq 60^\circ\text{C}$



Requirement: Permeation causes gradual changes that pose a threat to packaged filling products. For example, the environment can be contaminated by flammable, toxic or corrosive substances permeating out of the container. This loss of substance can also have a negative impact on the quality of the filling product, as can the uncontrolled permeation into the container of external substances.



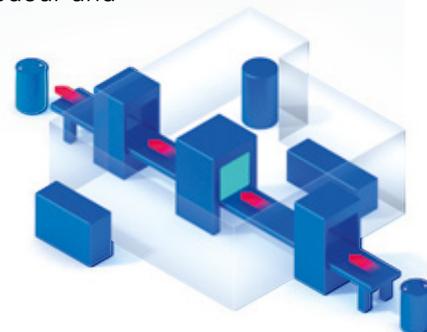
AN EXAMPLE OF A PRODUCT SOLUTION: SMP – Surface Modified Plastics by SCHÜTZ

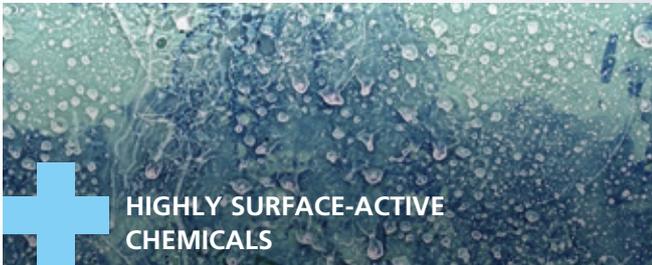
- Using a special fluorination process a highly effective anti-permeation layer is applied to the interior and exterior walls of the drum
- This process is available for the entire range of SCHÜTZ drums



YOUR BENEFITS:

- You profit from better resistance to solvents, perfect transport safety and longer shelf-life for your packaged products
- Better environmental protection due to exceptionally low permeation
- Highly effective odour and aroma barrier





HIGHLY SURFACE-ACTIVE CHEMICALS

Requirement: Surface-active chemicals, such as detergents, can damage the HDPE material of the drum. Under extreme transport conditions, for instance when the drums are exported in shipping containers, this can cause stress cracks.

AN EXAMPLE OF A PRODUCT SOLUTION:
SCHÜTZ S-DS1 open-head drum with an inner layer of polyethylene resistant to stress cracking

- Produced using a multi-layer process
- Available in the sizes 120 l and 150 l and in a choice of weights



YOUR BENEFITS:

- Enhanced transport safety thanks to packaging with increased resistance to chemicals



Competence in steel.

Steel is a material that has a long tradition at SCHÜTZ – our company is one of the biggest processors of steel sheets in Europe. In keeping with our vision of supplying the optimum packaging for every filling product and every application, we produce a wide range of high quality steel drums.



Our own Steel Centers in Europe, North America and Asia allow us to adapt our range swiftly and flexibly to customers' specifications and enable us to guarantee continual availability.





Our own test labs with state-of-the-art equipment and our long-standing business relationships with the world's leading steel manufacturers guarantee consistently high quality.



We develop and build our own production units, which are amongst the most advanced production lines for steel drums. They produce drums in a wide variety of specifications efficiently and with exceptional precision.

After closing a special process prevents rust from forming inside the drum as a result of air moisture condensation.

With an inner surface coating chosen to match the specifications of the filling product, our drums meet the highest standards in corrosion resistance, surface durability and the protection of product purity.



For the exterior design we offer high-quality stove enamelling in any colour and modern screen printing options.

SCHÜTZ SSF corrugated tight-head drums.

Absolute security, tested and proven a million times around the world: SCHÜTZ corrugated tight-head drums are ideally suited for transport of liquid hazardous goods in UN packaging groups I, II and III.

SCHÜTZ SSF CORRUGATED TIGHT-HEAD DRUM

	216.5 litres	216.5 litres SPECIAL
Exterior height	884 mm	884 mm
Exterior diameter	585 mm	585 mm
Hazardous goods certification (min.)	UN 1A1/X/250/	UN 1A2/Y1.8/200/

The drum types and filling opening models shown here comprise our standard line. We will be glad to answer your enquiries about customised designs and additional technical details regarding our drum types.





- Cold-rolled thin sheet
DC01Am compliant with DIN 10130
- Welded shield, flattened welding
seam at both fold and border areas
- Bottom and lid with triple safety seam. Two rolling or
negative hoops, additional reinforced hoops available on request
- Processing of varying material thicknesses: 0.8 – 1.2 mm
- Safety screw fittings G2 and G3/4, on opposite sides of top
- Additional filling hole NW230 (216.5 litres SPECIAL) available
- Inner surface protection: plain steel or lacquer-lined, prepared
for the filling goods by stability test
- Exterior: coating in the colour of your choice, solid or multiple colours,
tops and shells of corrugated tight-head drums can be screen-painted
- Special designs available on request

SCHÜTZ SDF corrugated open-head drums.



The classic form of industrial bulk packaging offers optimum protection for the transport of solid or liquid products in UN packaging groups I, II and III.

- Cold-rolled thin sheet DC01Am compliant with DIN 10130
- Welded shell, flattened welding seam at fold and border area
- Bottom with triple safety seam, two rolling or negative hoops, additional reinforced hoops available on request
- Processing of varying material thicknesses: 0.8 – 1.2 mm
- Completely removable lid, available upon request with safety screw fitting G2 and G3/4, on opposite sides of lid. Gasket ring of cellular rubber. Additional filling hole NW180 available
- Clamp-ring of galvanized hoop with lever lock
- Inner surface protection: plain steel or lacquer-lined, prepared for the filling goods by stability test
- Exterior: coating in the colour of your choice, plain or multiple colours, optional screen printing on top and sides
- Special designs available on request



	For solid and viscous products		For liquids	
SCHÜTZ SDF CORRUGATED OPEN-HEAD DRUMS	210 litres	213 litres	210 litres	213 litres
Exterior height	869 mm	880 mm	871 mm	880 mm
Exterior diameter	585 mm	605 mm	585 mm	605 mm
Hazardous goods certification (min.)	UN 1A2/X300/S	UN 1A2/Y270/S	UN 1A2/Y/120/	UN 1A2/Y/100/

The drum types and filling opening models shown here comprise our standard line. We will be glad to answer your enquiries about customised designs and additional technical details regarding our drum types.



Steel drums for special applications.



Requirement: Tight-head drums are common, medium-sized containers that are used for a wide variety of liquid filling products. However, a standard tight-head drum is unsuitable if the filling product requires stirring prior to discharge or use.

An example of a product solution:

SCHÜTZ SSF 216.5 L SPECIAL

- In addition to the two bung holes, this version has a DN 230-opening on the top
- Standard stirrers with folding wings can be easily inserted



YOUR BENEFITS:

- Fast, convenient stirring processes directly inside the drum
- Greater cleanliness and optimum residual emptying



Requirement: When working with viscous and highly viscous media it is often necessary to use drum pumps that use high pressure to automatically empty the drums.

An example of a product solution:

SCHÜTZ 213 L CYLINDRICAL STEEL OPEN-HEAD DRUM

- Developed specially for automatic emptying
- Stable version without hoops



YOUR BENEFITS:

- Clean and even emptying
- Outstanding residual emptying characteristics



Emphasise your brand with an unmistakable drum design:

- We can produce steel drums with high-quality stove enamelling in any colour according to your exact wishes.
- Additional markings – e.g. your logo – can be printed in a single or multi-colour screen print process.





HIGHEST SAFETY REQUIREMENTS

Requirement: Many hazardous goods require special care when packaging and transporting them. These include very permeable products, aggressive, corrosive substances and those that are harmful for health and the environment. To meet these specifications, the packaging must offer the highest level of safety along the entire supply chain.

An example of a product solution:

SCHÜTZ CSF POLY COMPOSITE DRUM

- Steel drum with a PE inner bottle
- Two types available: 202 l and 206 l nominal volume



YOUR BENEFITS:

- Maximum protection thanks to a double container:
if the inner PE bottle fails, the steel drum provides a safety margin
- Combines the stability, safety and permeation protection of steel containers with the cleanliness, corrosion and chemical resistance of PE packaging
- Can be closed immediately after filling with hot products (unlike standard PE drums)
- Better stackability compared with pure PE drums:
either four or five high or as a pyramid



Quality & dependability.

We aim to supply our customers with optimum drum solutions, and that is why we are continually expanding our range of PE and steel drums and increasing our market coverage. SCHÜTZ's global safety, health protection, environmental and quality management systems ensure that our packaging always meets the very highest standards.

To provide seamless availability of our products and the highest delivery flexibility we are constantly expanding the global SCHÜTZ production network.

Our production system is certified in accordance with international standards.

All QM-relevant processes and parameters are standardised worldwide and compliance is permanently monitored through central guidelines and on-going controls.



ISO 45001

**SAFETY AND HEALTH
PROTECTION**

ISO 14001

**ENVIRONMENTAL
MANAGEMENT**

FSSC 22000

**FOOD SAFETY
PRODUCT AND PROCESS**

ISO 9001

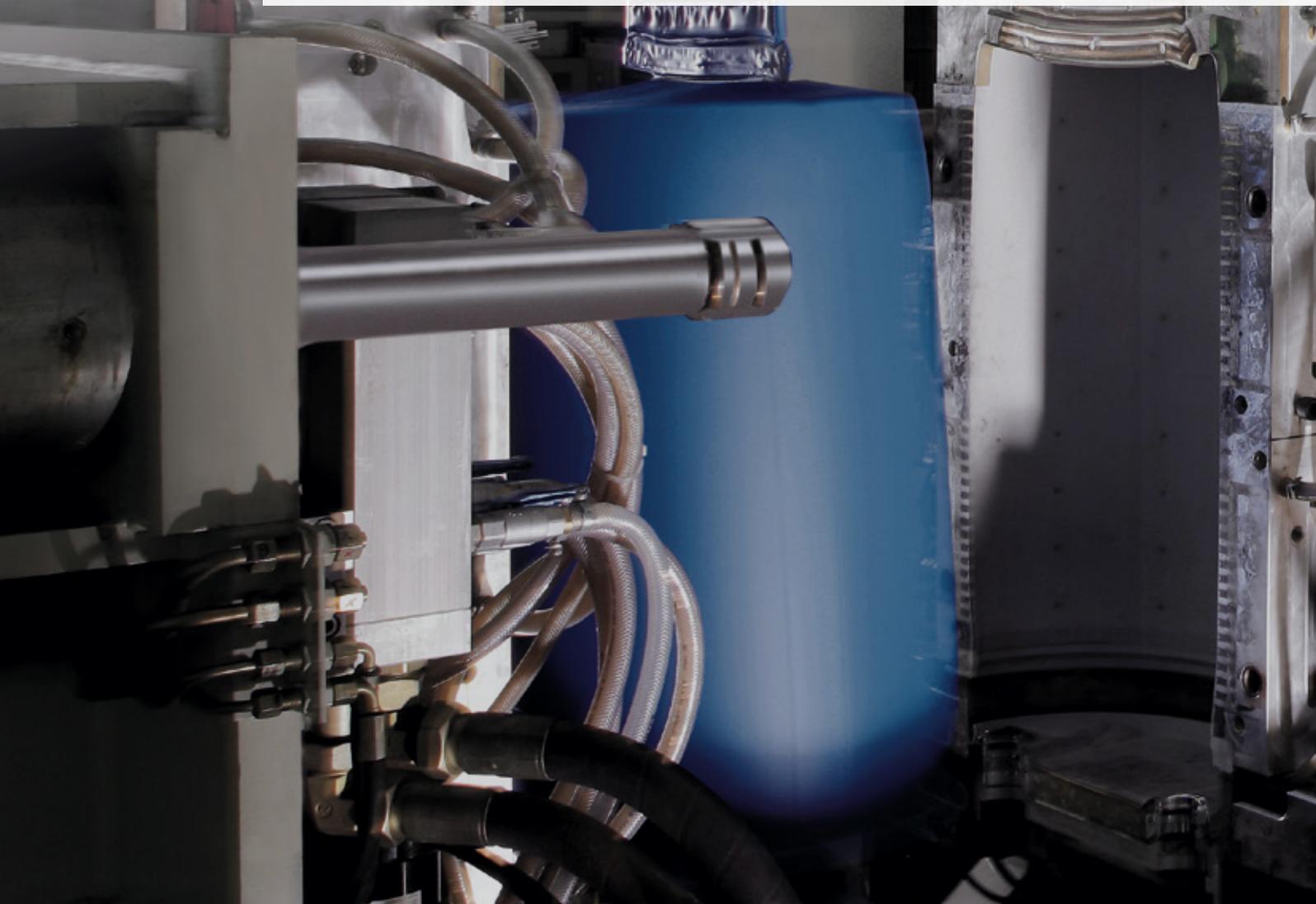
QUALITY MANAGEMENT

Regular audits and monitoring by external experts are backed up by permanent process and laboratory tests in our own testing labs to guarantee permanent quality control.

Our products for special applications (e.g. for hazardous goods or for use with foods) fully comply with all international legislation and have the appropriate certifications.

Innovative technologies.

The global SCHÜTZ production system is based on the core competence in metal and plastics processing we have built over a period of many decades. We not only focus on the development and production of high quality packaging, we also design and build all the equipment, machinery and tools we need for production.





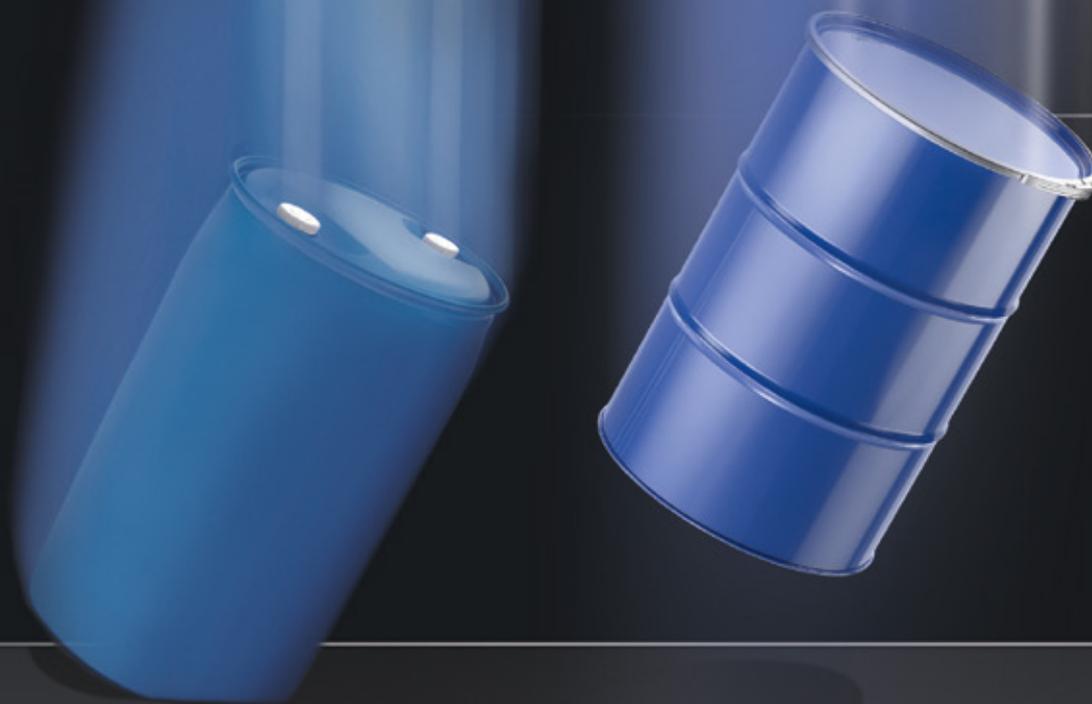
The key technology behind the superior performance of our PE drums is the continuous blow moulding process developed and used by SCHÜTZ:

- It guarantees consistent drum wall thicknesses without deviations, tears or inclusions, thus ensuring exceptional stability and robustness, and optimised material use.
- Multi-layer extrusion allows up to three different materials to be used – to optimally adapt the drum characteristics to highly specific applications.
- Intelligent production layouts and machine solutions, such as the dual blow moulding unit, allows us to further boost production efficiency.
- All processes have been optimised for hygiene, technical cleanliness and risk prevention, thus also allowing us to offer our customers the highest packaging standards such as FOODCERT & CLEANCERT.



Safety & Originality.

The task of our PE and steel drums is the safe transport of filling products while at the same time protecting the original quality until the product is needed. To achieve this we use the highest safety standards and intelligent product and process solutions.



- Our UN-approved drums exceed the standards of the type tests of the BAM (Federal Institute for Materials Research and Testing)
- Regularly conducted tests with production samples confirm this very good safety performance
- We view product safety as a complete system – which is why nearly all bungs and lids, and a large proportion of the seal caps and closures are produced in-house

3.00

2.00

1.00

0.00

Effective product protection needs to be assured across the entire supply chain. In many quality-sensitive areas it is crucial to effectively protect the filling product against tampering or contamination.

SCHÜTZ provides a complete originality protection programme:

Open-head drums

- Locking plates on the clamp ring, with or without lead seals
- Plastic security pins (which break when the drum is opened)
- Steel seals

Steel tight-head drums

- Steel seal caps in varying sizes and colours, with or without printing

PE tight-head drums

- The automatic seal cap system with SCHÜTZ AUTOMATIC LOCK originality seal
- Steel and plastic seal caps in varying sizes and colours, with or without printing



Service & Logistics.

Which drum ideally complies with the precise specifications of your supply chain? We will be happy to advise you and supply the optimum product solution and perfectly coordinated delivery logistics to ensure smooth, continuous processes in your production chain.

Stretch film



Our Technical Customer Service provides broad technical expertise and customer support, including:

- Product choice and optimisation
- Questions about compatibility for filling products / hazardous goods
- Topics such as compatibility with automated lines, hot filling, etc.
- Specification management
- Questions concerning handling, transport and load securing
- Supply chain management

Shrink sleeve





We support your in-house processes with **individual loading plans** and **load securing measures** specially tailored to your requirements. We offer a choice of delivery options for our SCHÜTZ drums:

- Truck trailers
- Truck swap trailers
- Railway cars (selected sites only)



Plastic tape

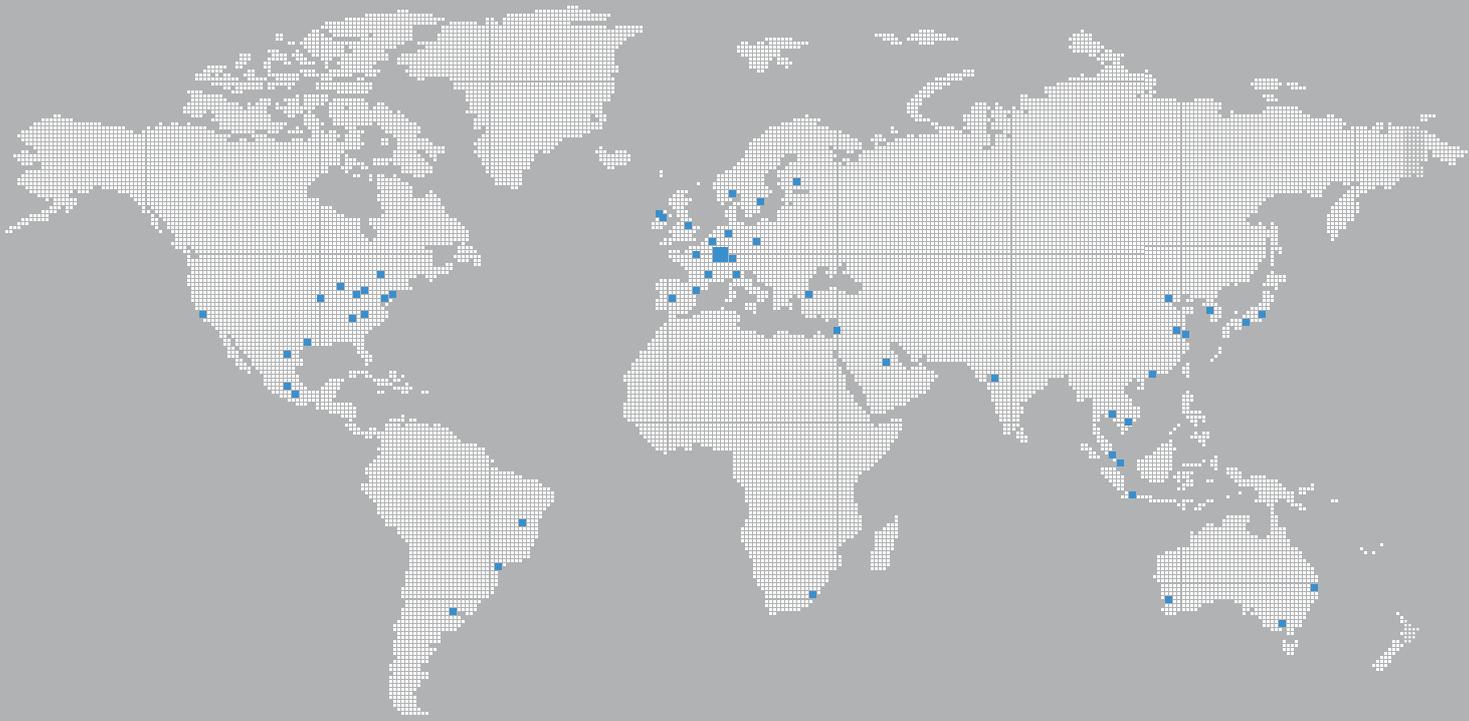
The following **securing options** are available for palletized drums:



With SCHÜTZ DRUMFIX



Plastic banding



With our worldwide production and service network,
we are also close to you.

All SCHÜTZ locations can be found at:
www.schuetz.net/global

