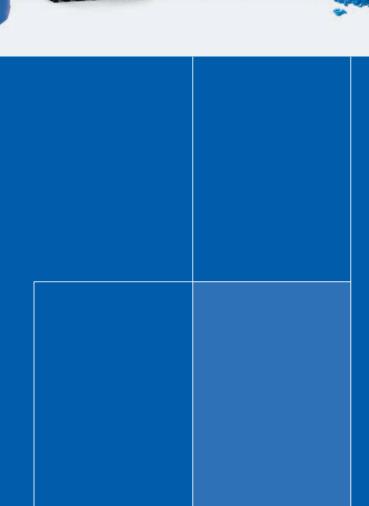


### INTELLIGENT PACKAGING SOLUTIONS







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| SCHÜTZ VASITEX  | 4 5   |
|---|-------|
| Benefit from a perfect combination of competences.                          |       |
| TEGUNALOGY  | 6 7   |
| TECHNOLOGY  Full customer satisfaction through state-of-the-art technology. | 0 7   |
|   |       |
| PORTFOLIO   | 8   9 |
| Our product and service portfolio – a full lifecycle solution.              |       |
| SCHÜTZ ECOBULK  | 10 11 |
|   | 10 11 |
| More than the sum of its parts:   |       |
| new ECOBULK by SCHÜTZ VASITEX.  |       |
| ECOBULK PRODUCTS  | 12 13 |
| You have requirements. We have just the right IBC system.                   |       |
| MULTI-TRIP IBCs   | 14 15 |
| Economical and ecological – multiple  |       |
|   |       |
| usage solutions for IBC containers.   |       |
| IBC RECONDITIONING  | 16 17 |
| For full product safety – standard  | 10/17 |
|   |       |
| procedure for ECOBULK reconditioning  |       |
| IBC RENTAL  | 18 19 |
| Convenient and cost-efficient – our trip-leasing services.                  | ·     |
| contentant and cost emelone out and reasing services.                       |       |
| DRUMS   | 20 21 |
| Whether new or recycled –   |       |
|   |       |
| we offer high-quality plastic drums.  |       |
| JERRYCANS   | 22 23 |
| Easy to handle and environmentally  |       |
| friendly – SCHÜTZ VASITEX jerrycans.  |       |
| LOGISTICS   | 24 25 |
| SCHÜTZ VASITEX fleet management.  |       |
| Full lifecycle support included.  |       |
| DECOLUECTION & DECYCLING  | 26 27 |
| RECOLLECTION & RECYCLING  | 20 21 |
| Closing the loop – providing environmental security.                        |       |
|   |       |

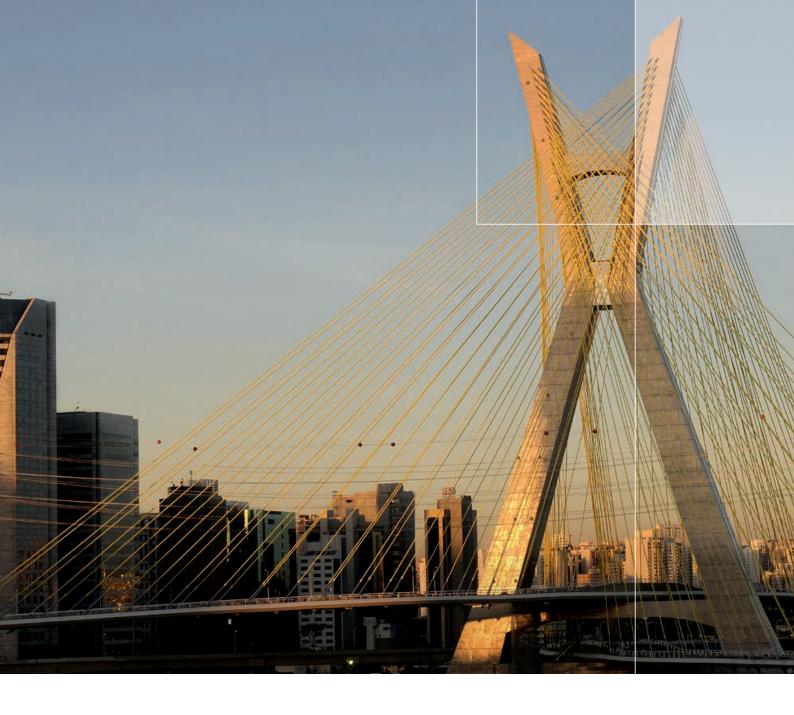
### Benefit from a perfect combination of competences.

Facing today's complex business environment, industrial companies demand from their suppliers comprehensive product and service solutions, which allow them to concentrate on own strategic activities. Simultaneously, ecological performance is becoming a strong competitive factor.



SCHÜTZ VASITEX is a joint venture set up for providing best possible support in industrial packaging to the Brazilian market. The new company combines the unique production and service competence of SCHÜTZ as the global leader in industrial packaging with the expertise and local experience of Vasitex – the leading Brazilian company in manufacturing, reconditioning and recycling of blow-moulded plastic containers with more than 50 years activity in the packaging business.

As part of a worldwide production and service network, SCHÜTZ VASITEX offers standardised, UN approved packaging systems and complete lifecycle solutions – starting with the production of a versatile range of Intermediate Bulk Containers, plastic drums and jerrycans, including value added services such as trip leasing and fleet management systems, and ending with reverse logistics and the ecological reconditioning and recycling of used packaging.



Employing more than 400 people, SCHÜTZ VASITEX operates seven production and service facilities, situated in Bonsucesso – Guarulhos nearby São Paulo and in Camaçari – Bahia. Expanding the total surface area to more than 115,000 m² and using most advanced technology throughout the complete production and assembly process, our newly built production plant for IBCs, drums and jerrycans sets new quality and efficiency standards in the Brazilian market.



### Full customer satisfaction through state-of-the-art technology.

Consequently following the vision to offer best solutions in industrial packaging with environmental commitment through excellence, quality and safety, SCHÜTZ VASITEX has achieved the international certifications for quality (ISO 9001), environment (ISO 14001), food safety system (FSSC 22000) and health and security (OSHAS 18001).

We operate most advanced plastic processing technology and modern service facilities, which allows the continuous and reliable supply of our customers with next-generation plastic packaging solutions.

Being an integrated part of the worldwide SCHÜTZ production and service network guarantees optimal maintenance and consistent further development of our production lines.

All our activities in production, cleaning, reconditioning and recycling of industrial packaging are ecologically sustainable and in full accordance to all legislation of environmental preservation. At SCHÜTZ VASITEX, all effluents and residuals resulting from the processes are treated and reprocessed in-house with most advanced technology according to highest environmental standards.



Utilising patented Security-Layer Technology enables SCHÜTZ VASITEX to produce plastic containers with three functional layers. This allows for the extrusion of an antistatic or conductive outer layer that prevents the plastic container from becoming electrostatically charged – making it suitable for ex-zones 1 and 2 and for the transportation of hazardous goods with a flash point of  $\leq 60^{\circ}$  C. The unique EVOH layer inside an IBC provides a secure permeation barrier against oils, gases, grease and solvents.



# Our product and service portfolio – a full lifecycle solution.





### More than the sum of its parts – new ECOBULK by SCHÜTZ VASITEX.

Based on globally uniform SCHÜTZ design and quality specifications, we produce a wide range of ECOBULK – the leading IBC system of the world. Thanks to its modular design, the lightweight and space-saving ECOBULK can be easily adapted to meet individual requirements.

Deciding which IBC is the right one depends on the customer-specific requirements and on the following factors:

- I Filling good
- Transport regulations, general legal terms and conditions
- Storage
- Type of emptying, place of use, handling
- Collection / disposal, reconditioning

Once we have this information, we will be able to recommend a basic specification to satisfy all requirements. The result is the exact ECOBULK that will provide a maximum degree of safety and economy along the entire supply chain. Without any compromises.

SCHÜTZ ECOBULK have been ideally prepared for global multiple usage and are reconditioned using environmentally friendly procedures. The individual parts are simply replaced during reconditioning and are later used in closed materials cycles as secondary materials or disposed of by environmentally friendly means.

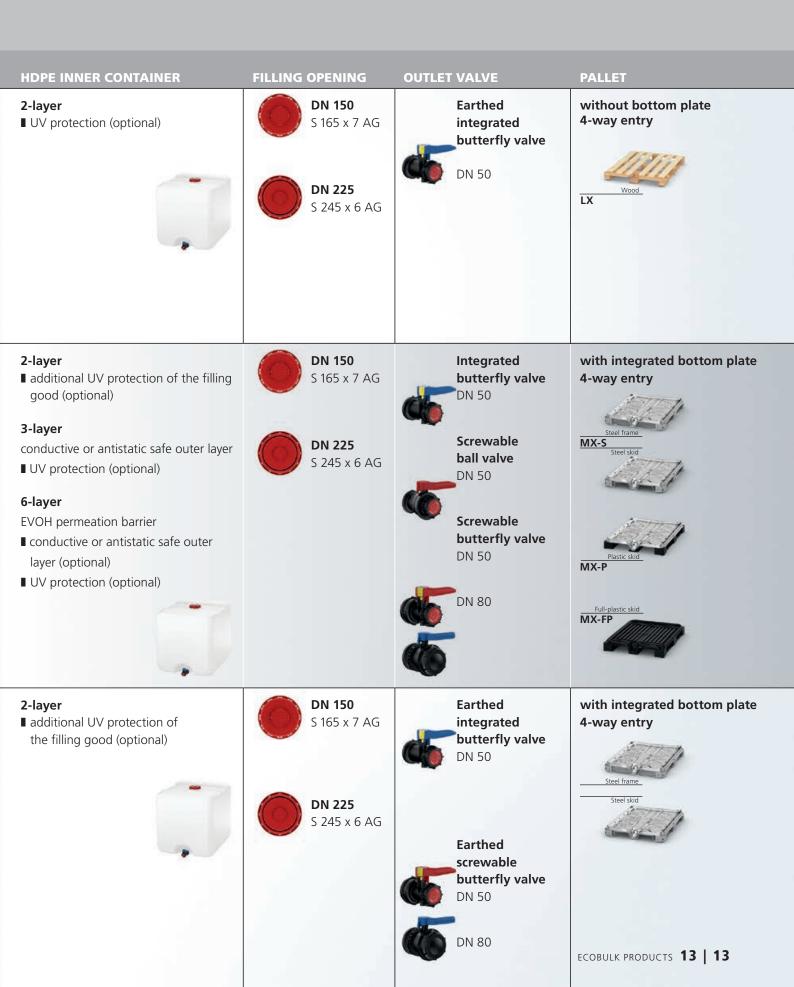


### You have requirements. We have just the right IBC system.

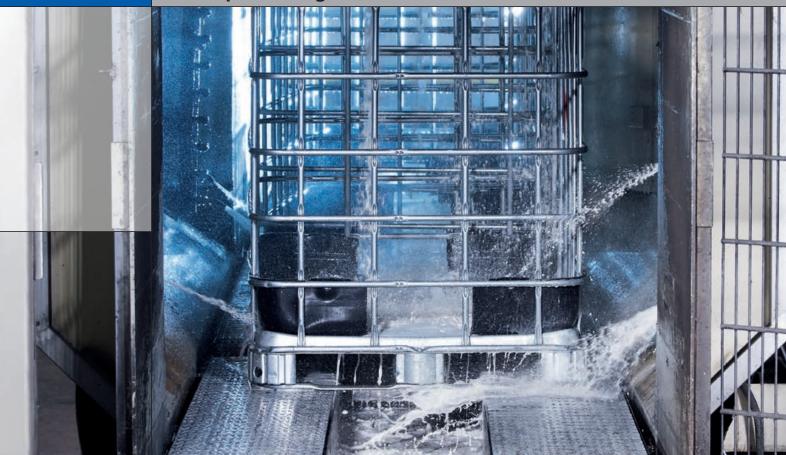
DENSITY | CAPACITY CERTIFICATION (optional) STEEL GRID Maximum density **Hazardous** goods Welded tubular certification steel grid ■ UN 31 HA1/Y ■ Safe for food products LX 1000 1,000 litres (275 gal) 1,200 x 1,000 x 1,160 (LxWxH) **Hazardous** goods MX Maximum density certification 1.9 ■ UN 31 HA1/Y **FDA** ■ Safe for food products **Certification for** ex-zones ■ for zones 1 and 2 MX 1000 1,000 litres (275 gal) 1,200 x 1,000 x 1,160 (LxWxH) **Hazardous goods** Welded tubular steel Maximum density SX-EX certification grid with additional steel jacket ■ UN 31 HA1/Y **FDA** ■ Safe for food products **Certification for** ex-zones ■ for zones 1 and 2 **SX-EX 1000** 

> 1,000 litres (275 gal) 1,200 x 1,000 x 1,160

(LxWxH)



Economical and ecological – multiple usage solutions for IBC containers.



Intermediate Bulk Containers are made of valuable raw materials, which are gained from natural, limited resources.

As largest reconditioning enterprise in Brazil, SCHÜTZ VASITEX has committed itself to environmental preservation and contributes to intelligent resource utilisation by offering cost-effective and secure multi-trip solutions for IBCs.



#### **Re-bottled IBCs**

Within the scheme of a closed loop system, SCHÜTZ VASITEX offers reconditioned ECOBULK containers that were collected via the SCHÜTZ TICKET SERVICE, the worldwide ECOBULK recollection service.

With a reconditioned ECOBULK, all components that have come in contact with the filling product (such as the inner container, the screw cap, and the outlet valve) are replaced with new original components. Using appropriate processes, components that were replaced are decontaminated and recycled as secondary materials. The reconditioned IBC receives a new certification according to UN guidelines on the transport of liquid goods and offers complete product safety.



#### **Washed IBCs**

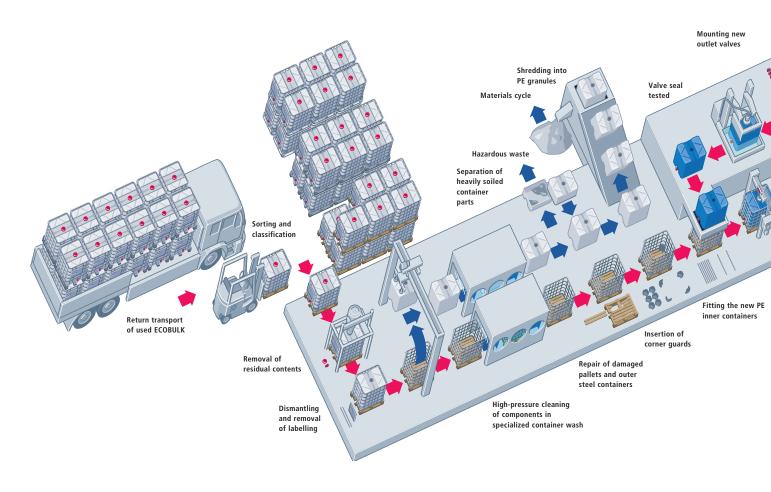
Every washed IBCs by SCHÜTZ VASITEX has undergone a thorough process of cleaning and decontamination internally and externally by the best washing system with temperature and pressure. After drying, final inspection and comprehensive quality controls make sure that the container is ready for its next service as part of a closed loop system or as economic and safe solution for many other applications.



## For full product safety – standard procedure for ECOBULK reconditioning.

ECOBULK containers that were collected and reconditioned within the scheme of SCHÜTZ TICKET SERVICE receive a new certification and offer full product safety.

#### STANDARD PROCEDURE FOR ECOBULK RECONDITIONING



### Collection

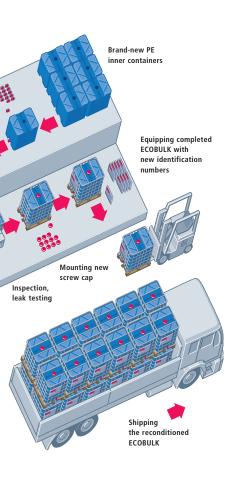
Emptied ECOBULK containers are registered via web and collected by the SCHÜTZ TICKET SERVICE.

### Cleaning

The IBCs are cleaned, the tubular cage jackets and pallets are repaired.

### Replacing the components

The PE inner container, the outlets and screw caps are replaced with factory-new original components. The removed components are processed into granulate and returned to the materials cycle.

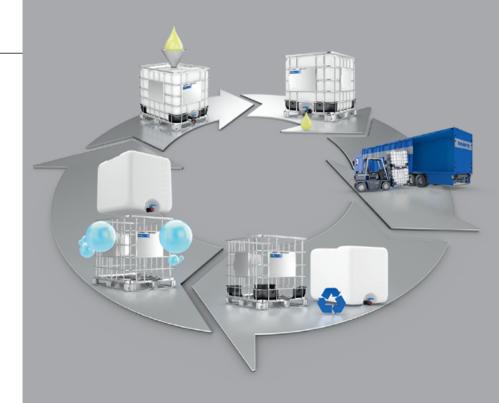


# Completion

Corner guards and documentation plates are attached.

# Certification

The ECOBULK are given a new certification and are returned to the packaging cycle.



#### Benefit from our intelligent recycling system.

By returning your empty IBCs through the SCHÜTZ TICKET SERVICE you are making an active contribution to lower costs, high quality standards, safe recycling material flows and improving the ecobalance of packaging in your supply chain.

Register on our website at www.schuetz.net/ticket and we will send you a customer reference number which identifies you as disposer of empty IBCs. Registration is free of charge and nonbinding. You will also find our current collection and service terms on the website.

### Convenient and cost-efficient – our trip-leasing services.

As economic alternative to buying new or reconditioned IBCs, we offer customised trip-leasing systems.

More than unprecedented savings, these systems provide environmental security by assuring a correct destination of the residuals and allowing a better product tracking which prolongs the lifetime of the containers.

As a result, trip-leasing customers benefit from reduced container losses and are able to calculate with fixed asset costs.





#### AP\

The APV is a logistic system controlled by SCHÜTZ VASITEX proprietary software NTS. In this category of service, the IBCs are identified by tags with barcodes and registered in the NTS software to control and report the IBC logistic flow. Once dispatched, we manage the complete reverse logistic operation in any region of the country. Being recollected after their first cycle, the IBCs are cleaned and decontaminated or rebottled, making them ready for a new cycle.

#### Main advantages (included services)

- Delivery freight
- No fixed assets costs
- Standard IBC configuration
- Collect freight (reverse logistic)
- Cleaning and maintenance
- Residual treatment certified by ISO14001
- Fleet management system via Web (NTS)



#### APD

At the APD System, there are no predefined periods or cycles for the container utilization. In this category of service, the containers can be used many times and the services included at the APV system can be hired separately – the perfect solution for internal warehousing of chemical liquids for a short period.

#### **GPV**

The GPV system is similar at the APV system but applied at the customer's container fleet.

# Whether new or recycled – we offer high-quality plastic drums.

SCHÜTZ VASITEX has installed latest plastic processing technology and operates certificated reconditioning facilities to provide our customers with full range solutions for plastic tight-head drums:

- Made from High Density Polyethylene virgin or recycled
- Blown in one piece avoiding cracks, leaks or infiltration
- Innovative design sturdy and durable
- Best handling properties manually or mechanically

| SCHÜTZ ECODRUM F1                    |                    |                    |  |  |
|--------------------------------------|--------------------|--------------------|--|--|
| Туре                                 | 220 I              | 200 l              |  |  |
| Exterior height                      | 935 mm             | 890 mm             |  |  |
| External diameter                    | 581 mm             | 581 mm             |  |  |
| Nominal capacity                     | 220 litres         | 200 litres         |  |  |
| Brimful capacity                     | 221 litres         | 210 litres         |  |  |
| Hazardous goods certification (min.) | UN-certified – DPC | UN-certified – DPC |  |  |

| 200 Liters F1 RECO drum              |                    |  |  |
|--------------------------------------|--------------------|--|--|
| Colors                               | Blue               |  |  |
| Exterior height                      | 890 mm             |  |  |
| External diameter                    | 581 mm             |  |  |
| Nominal capacity                     | 200 litres         |  |  |
| Brimful capacity                     | 210 litres         |  |  |
| Weight                               | 9.0 kg             |  |  |
| Hazardous goods certification (min.) | UN-certified – DPC |  |  |



## Easy to handle and environmentally friendly - SCHÜTZ VASITEX jerrycans.

Our jerrycans from 20 to 50 litres are perfectly suitable for many smaller or special applications and round out our range of innovative and ecologically sustainable packaging solutions.

The stackable plastic bottles are blown in one piece and are made of High Density Polyethylene.

■ UN-certified – DPC (made from 100% virgin HD-PE)

JERRYCANS



## SCHÜTZ VASITEX fleet management. Full lifecycle support included.

Responding to the worldwide demand for ecological packaging solutions and with a special view to the Brazilian environmental legislation, we combined our activities in packaging production, recollection and reconditioning to a comprehensive fleet management system.

Within this scheme, our logistical department takes full control of the entire customer's fleet of SCHÜTZ VASITEX containers – relieving him from non-strategic responsibilities connected to his packaging.





#### Our fleet management system offers:

- Substantial direct and indirect cost savings
- Just-in-time supply with high-quality packaging
- Logistical tracking and management of individual containers during the whole lifecycle via web-system
- Country-wide active follow up and collection of used packaging
- Environmentally friendly reconditioning/disposal of used packaging and residuals



#### **Network Tracking System by SCHÜTZ VASITEX**

To ensure the most effective management of containers dispatched from our customers, we invested in the development of proprietary software, which controls "on transit" container fleets: NTS SCHÜTZ VASITEX.

Through the web-based NTS system, our reverse logistics analysts keep in contact with the carriers and with the final customers (emptiers) who receive their products in tracked containers – assuring a quick collection and reduced container losses.



### Additionally, our customers benefit from managerial reports with a host of value added information:

- Volume, location and period of on-transit containers
- Identification of liability for losses and damages
- Container consumption per client
- Container consumption per product line

## Closing the loop – providing environmental security.

In order to provide the Brazilian market with a complete solution for industrial packaging, SCHÜTZ VASITEX offers advanced reverse logistical and recycling services – assuring the correct destination of industrial residual and avoiding an inadequate disposal by simultaneously realizing large savings through intelligent resource usage.

### Based on our countrywide recollection network and our state-of-the-art reconditioning facilities, we offer:

- Collection and reconditioning of emptied ECOBULK containers within the scheme of the SCHÜTZ TICKET SERVICE
- Collection of other IBCs and plastic drums to be thoroughly decontaminated and cleaned – making them ready to start a new cycle of use





Damaged industrial packaging, which is unfeasible for reconditioning through the conventional process, and small size packages (less than 100 litres) are recycled and transformed in recycled raw material – ready to be reused in the fabrication of new packages for chemical industry use.

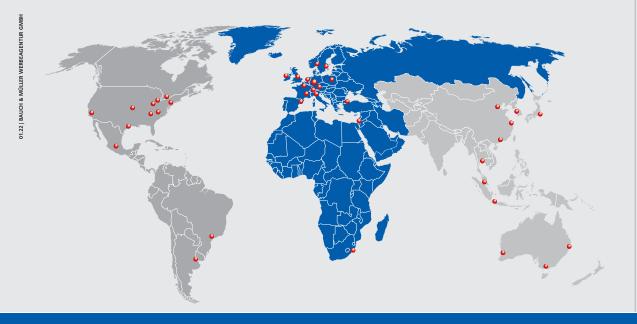
#### Being ISO 14001 certificated, our environmental operations comprise:

- Segregated dry warehouse with rain water impound system to avoid contact with residues
- ETE waste treatment unit for contaminated effluents
- Effluent controlling: oxidation and reuse of 80 % of the effluent treated

#### **Solid residuals:**

- Recyclable: selective collection and destination to homologated recyclers
- Non-recyclable: Class 1 destination to co-processing ovens







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