

# How To Find Us

# Part Carriers

- From Stuttgart: Take A8 motorway towards Munich. Driving time: approx. 1.5 hours.
- From Munich: Take A8 motorway towards Stuttgart. Driving time: approx. 1.5 hours.
- Take Günzburg exit.
- Take B 16 in the direction Ichenhausen / Kaufbeuren.
- After reaching Ichenhausen, take a left directly after passing "V-MARKT" supermarket. You will see our plant on the left side at Weiler Weg 5.



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*... The Logical  
Connection*

# Info About AL-KO

Cost efficiency - the watchword of modern manufacturing - is the driving force behind the increasing degree of automation in all production processes.

State-of-the-art handling procedures for industrial components, no exception to this trend, are based on part carrier systems. Thermoformed part carriers create value-enhancing logistics chains for fully automated handling throughout your production process.

Our expertise in **development, design and manufacturing** of part carriers manufactured from all commonly used thermoplastic resins has evolved from 40 years of thermoforming experience.

Our **carrier systems** maintain ordered part placement in transport and storage in your production operations and your customers' plants. The intelligent design of these **returnable transport systems** and their long service life are your assurance of optimum logistics for years to come.

Our carrier systems feature automation-friendly design and interface with all common manufacturing, transport and logistics systems. Leading suppliers of automation systems prefer our systems based on many years of successful use.

## Physical Testing

For testing in response to ever-stricter customer requirements for strength, material and performance properties, we work closely with **SKZ, VDZ** and other major independent test institutions. In-house testing is done on self-developed roller stands which realistically simulate transport conditions.



## Environmental Awareness

To help conserve natural resources, we use large amounts of high-quality recycled plastics in our production processes.

We strive to realize mono-material solutions to facilitate future recycling of our containers.

**We make the most of your time and our natural resources.**

# Contents

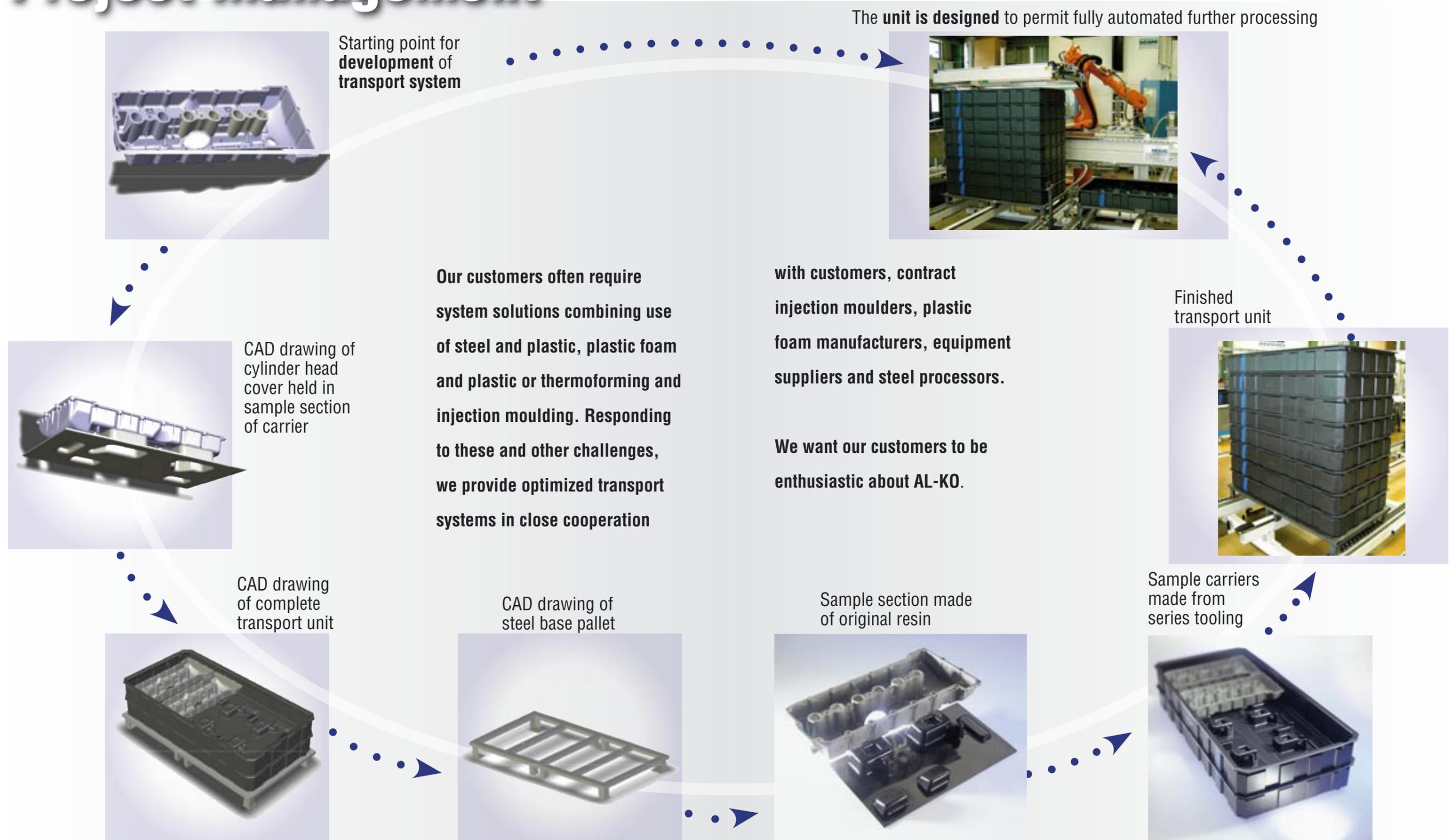
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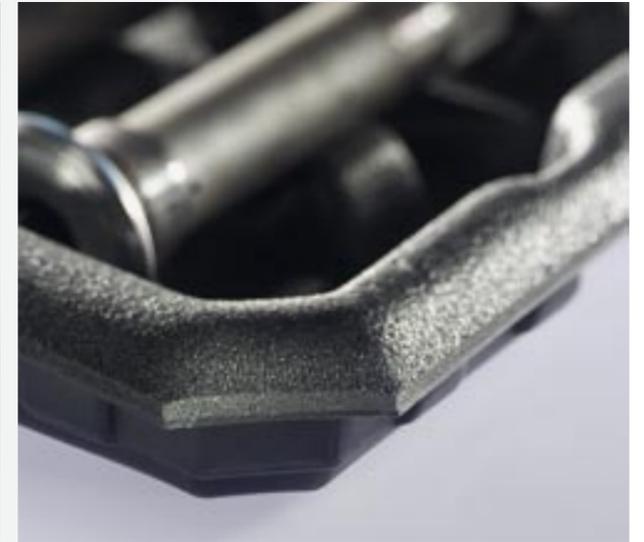
*„...in general the good and open atmosphere in the company should be mentioned. This allowed the auditor to complete the audit quickly and efficiently. Their openness was remarkable...”*

(Excerpt from TÜV Audit Report 2004)

# Project Management



# Resins

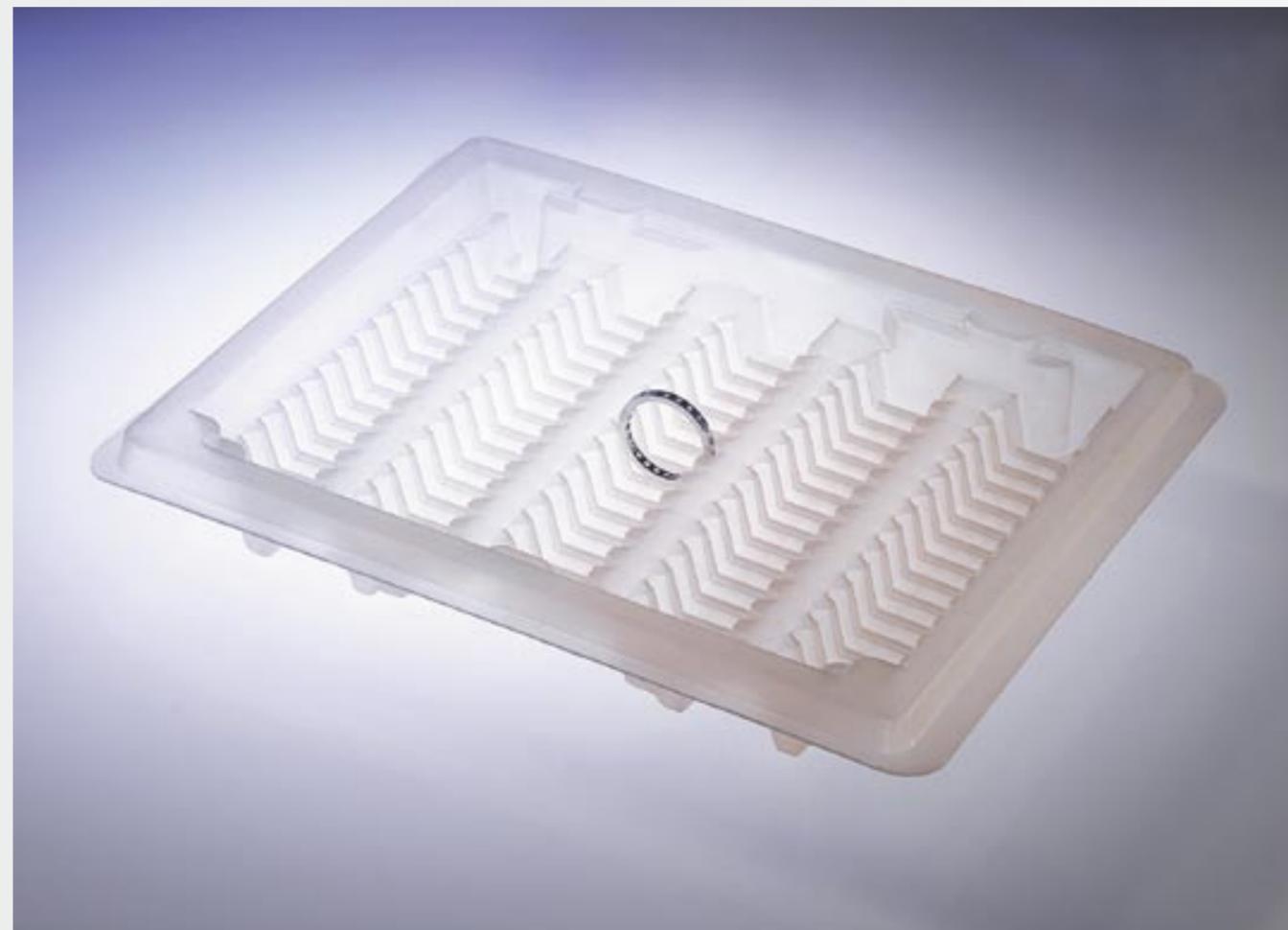


**AL-KO processes all standard thermoplastic resins such as ABS, PS, PP, PE, PC, PVC etc. in thicknesses from 0.2 to 14.0 mm.**

In addition resin blends are used frequently in manufacturing: ABS/PC, ABS/ASA, ABS/PA etc.

**For applications with special technical requirements:**

- **Electrically conductive** resins for protection of static-sensitive electronic components in accordance with DIN EN 61340
- **Reinforced** resins incorporating fillers such as glass, talc or calcium carbonate which bring about significantly improved properties such as increased flexural strength, increased impact strength, increased temperature resistance etc.
- Composite materials with **coextruded surface coatings** providing e.g. improved abrasion resistance. These innovative composites - **ABS/TPU, PE/TPE** and other materials - are also beneficial with regard to chemical resistance.

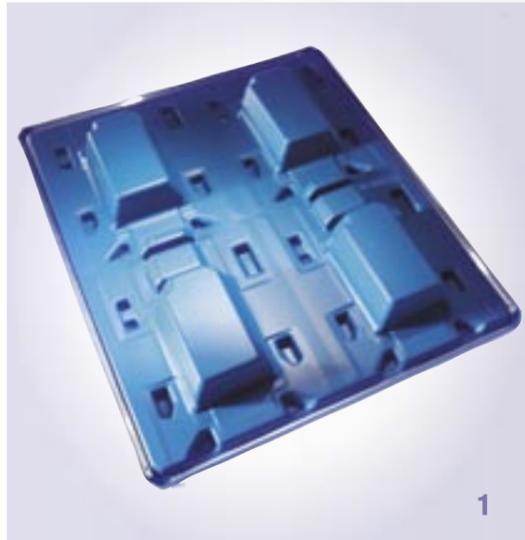


**For applications with special visual appearance requirements:**

- Resins in almost any desired colour tone
- Materials with extruded colour striping
- Coextruded materials (multilayer systems)
- Coloured screen-printing in any location on the component

Almost all of the above options are available in versions made from recycled resins if desired.

# Examples of Applications



1



2



3



4



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## 1. Separator tray for crankcases

- L x W: 1200 x 1000 mm
- Batch-coloured resin
- With riveted aluminium edge strips
- Suitable for use in transport systems

## 2. Typical part carrier unit

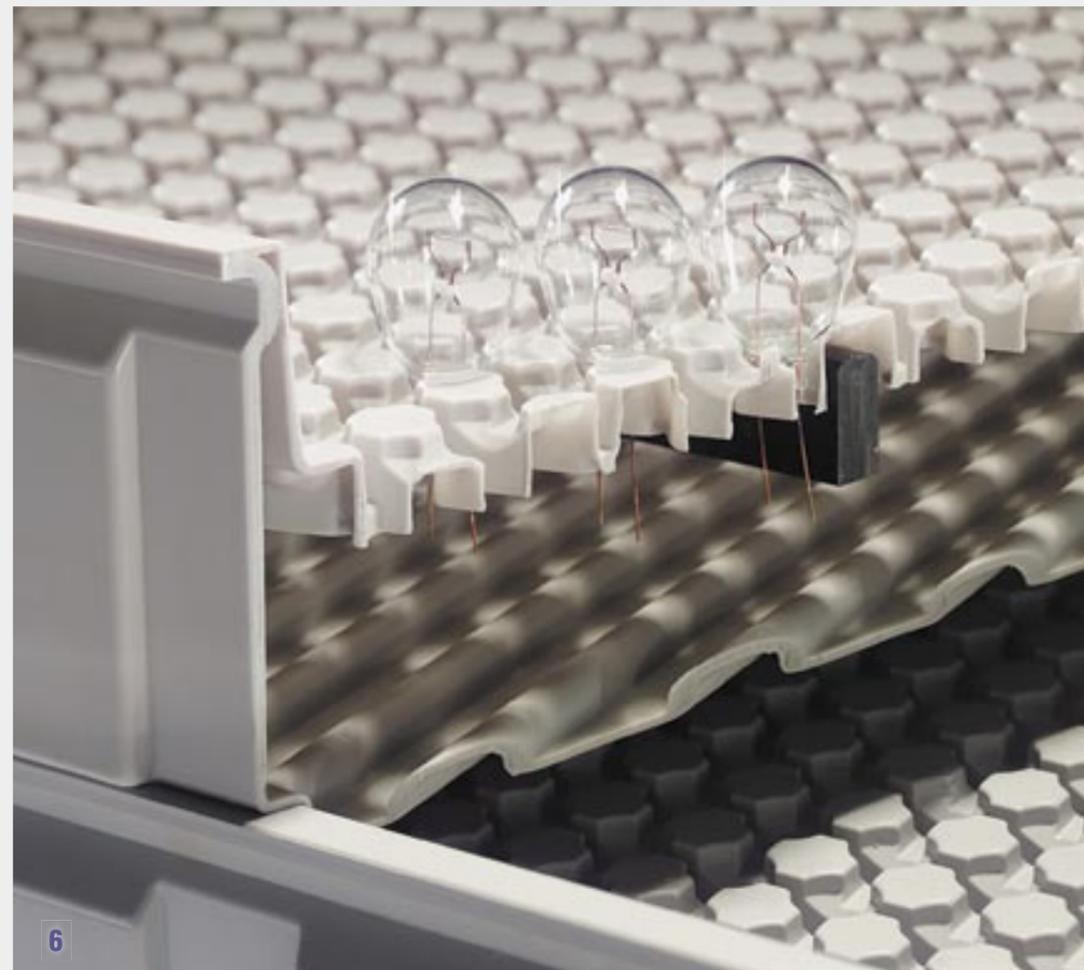
- Made up of stacked part trays
- With top cover
- On Europool pallet base

## 3. Special part carrier design for shafts

- Moulded from customer-specific tooling with special dimensions
- Innovative edge geometry
- Flat edge margin for optimum transport on conveyor belts

## 4. Custom-designed containers for cable harnesses

- L x W: 1200 x 500 mm
- Utilizable height: 450 mm
- Made of ABS with 13.0 mm wall thickness
- With separate mounting recess for transponder



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## 5. Part carrier with separate insert

- L x B 400 x 600 mm
- Holds finished parts
- Can also be used to hold semi-finished parts
- Robot-compatible

## 6. Custom-designed light bulb carrier

- Intricate nesting geometry
- For secure holding of delicate light bulbs
- With cement-bonded thermoformed holder insert
- Robot-compatible
- Two-component system, cement bonded

### Post-Processing Options

- CNC milling
- Fastening holes
- Holders for job documents and identifying labels
- Bar code labelling
- Mounting recesses for transponders
- Adapters for robot grippers
- Cement-bonded base reinforcing elements, etc.

⇒ Give us your problem... We'll find the solution!

# PAROB® - PAllets for ROBotic Systems

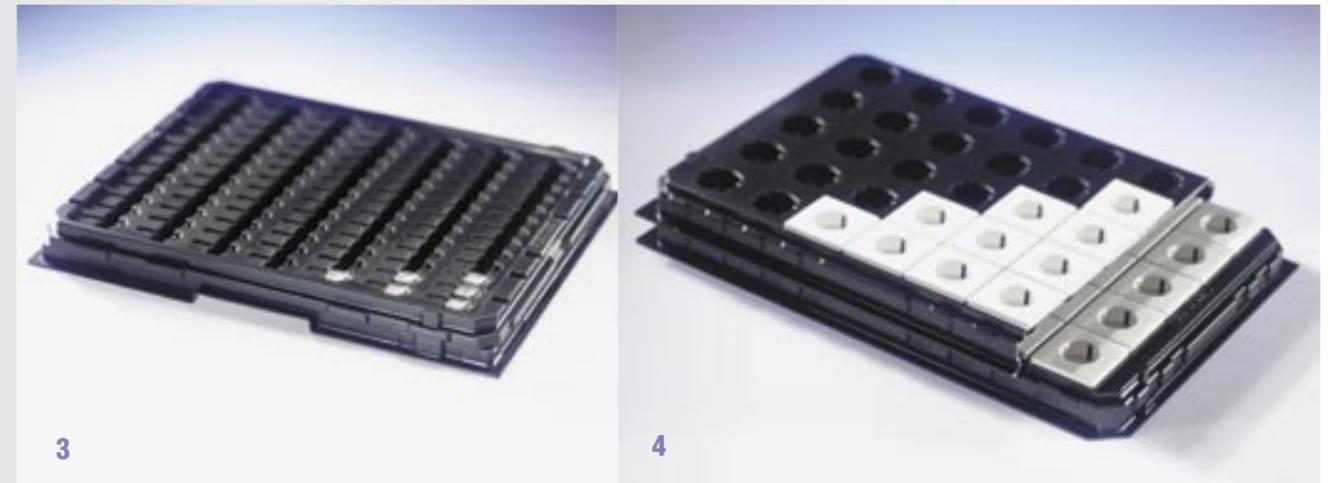


PAROB® systems are stackable containers designed for automatic or manual handling.

They are available in a wide variety of options including:

- PAROB in normal configuration, i.e. with the part receptacles on the non-tooling side - Figure 1
- PAROB in reverse configuration, i.e. with the part receptacles on the tooling side - Figures 3 and 4
- PAROB fabricated in twin-mould process with tooling-side receptacles on both sides - Figure 2

Gripping contours can also be included for manual handling - as shown in Figure 3. Surfaces are available for embossed corporate logos or other identification.



Standard frame tooling is available in the following dimensions:

- 400 x 300 mm
- 600 x 400 mm
- 600 x 500 mm
- 800 x 600 mm
- 1000 x 600 mm
- 1200 x 800 mm

**Our customers benefit** from our cost-efficient and rapid tooling fabrication.

Customer-specific frame tooling can be designed for applications requiring special perimeter geometry.

**Benefit from our expertise!**

# Inserts For Standard Part Carriers



Inserts which fit standard carrier systems such as

- Eurostandard wire-mesh pallets
- Small part carriers
- RAKO Containers
- SCHÄFER boxes
- Post pallets
- RAU boxes
- etc.

- Stackable
- Gripping contours available on request
- For automatic and manual handling
- Customer-specific embossed logo standard
- Available in all common resins
- 180° staggered stacking available for return volume reduction



**ESD**

## ElectroStatic Discharge

ESD refers to the process and effects of static charge transfer between two objects or electronic components. Part carriers for electronic components must protect them against damage due to sudden changes in voltage or current in the environment.

Such part carriers are made of special resins such as **electrically conductive polystyrene**, an advanced material which can be custom-formulated to specific application requirements. The exact conductivity required is achieved by carbon black or graphite additives. Confirmation of the required electrostatic performance is done by routine QC testing on the finished containers.

Working closely together with customers, resin manufacturers and independent test institutes, ALKO finds



the optimum solution for the problem at hand. This intensive cooperation and know-how synergy are your assurance of **RELIABLE** packaging.

Many years of experience in procurement and processing of electrically conductive resins, highly qualified personnel and in-house test capabilities ensure optimum realisation and conformity with certification requirements.

# GIBO TOP

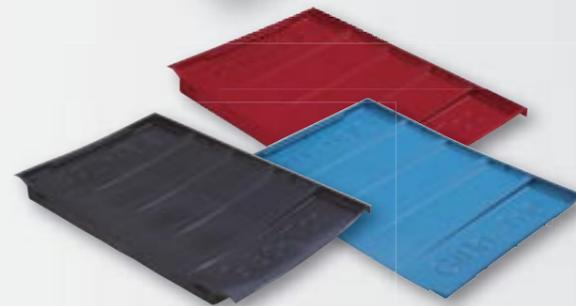


**All good products make it to the top: GIBO TOP perfectly covers your cage pallet.**

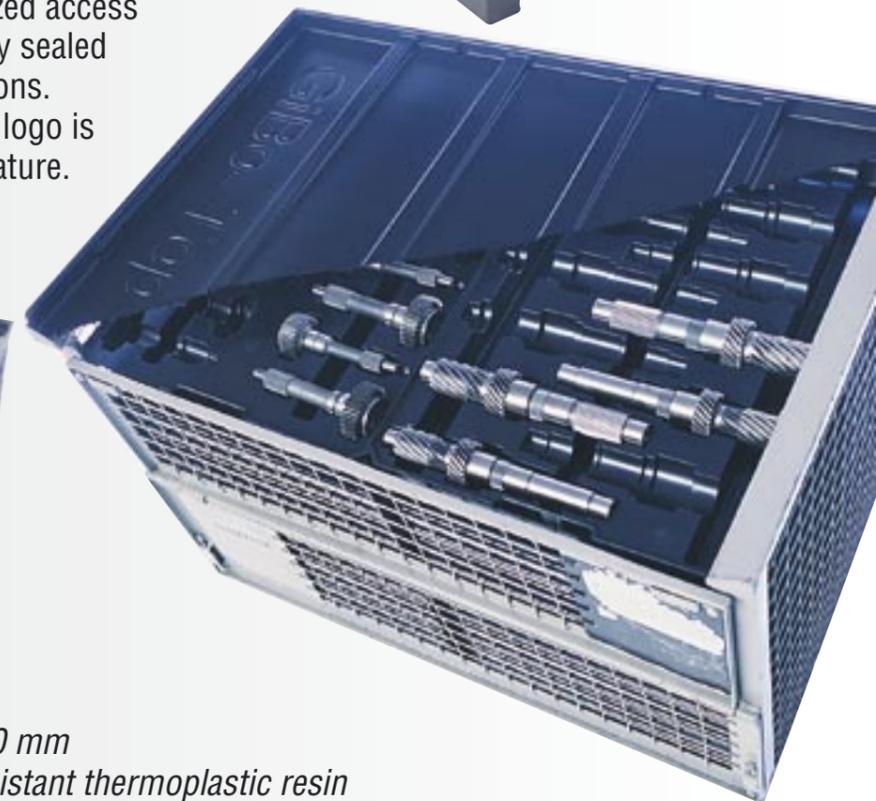
## GIBO TOP

- overlaps on edges and snaps into place (over the stacking rim of the wire-mesh pallet) to shield effectively against soiling and water
- is unaffected by UV radiation
- is unaffected by below-freezing temperatures
- is sturdy and impact-resistant
- can be nest-stacked = low storage volume
- is easy to handle and
- is completely recyclable.

GIBO TOP does not impair stackability of cage pallets. Unauthorized access to contents is prevented by sealed closures, available as options. Your embossed corporate logo is available as an optional feature.



*Colour:* standard black, other colours available as options



*Outer dimensions:* 1200 x 800 mm  
*Material:* impact-resistant thermoplastic resin  
*Base thickness:* 3.0 mm