

*clever – creative – sustainable – smart*



## **Every component has its own recess**

*Vacuum formed products*

## Component holders: individual and indispensable.

*What are the characteristic features of Utz vacuum formed component holders?*

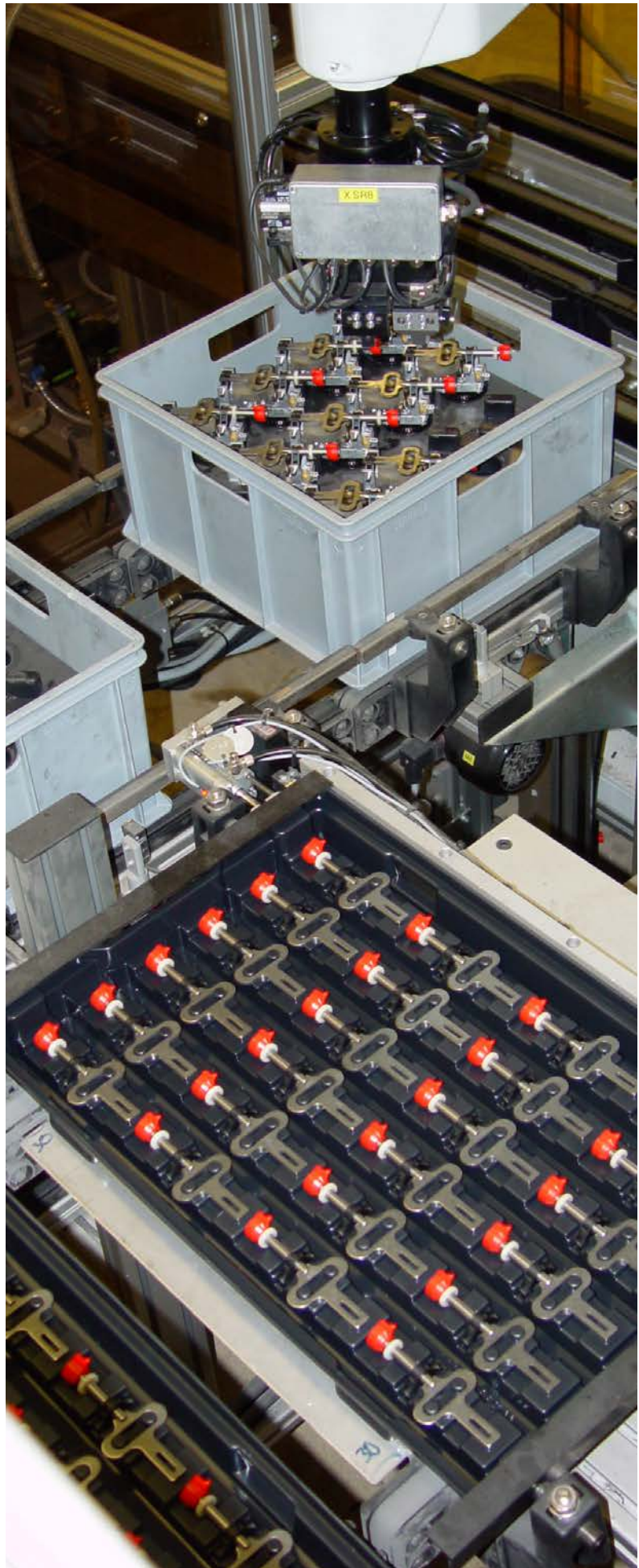
- can be individually shaped
- low manufacturing costs
- short delivery times
- high precision

*Vacuum formed component holders are:*

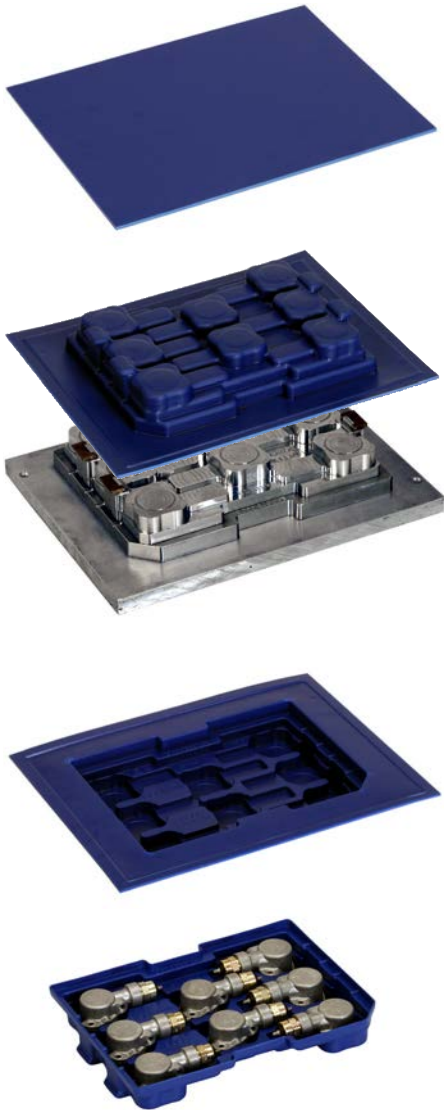
- suitable for use with assembly robots and for robotic handling
- indispensable transport aids in modern logistics
- may be used in all industry sectors
- indispensable for just-in-time manufacturing
- suitable for short production runs and prototypes

No matter whether your products are tiny electronic printed circuits or heavy motor components, they will benefit from being transported individually mounted in component holders rather than as loose items. The holders provide optimum protection for the product being carried and are indispensable for automated assembly. That's because the automated assembly equipment and robots are being continually refined in terms of precision and speed. They demand component holders that present the products accurately positioned for finishing. If the degree of precision is insufficient, the results are plant stoppages, rejects and financial losses.

When it comes to the shape of the component, there is virtually no limit on the adaptability of vacuum formed component holders. The parts are not only accurately placed in the holder to prevent them slipping, they can also be offered up just-in-time in the component holder for finishing. Every effort is made to place the maximum number of recesses in the available area, depending on the size of the individual components.



# Why vacuum forming?



There are various factors which lead to the decision in favour of a vacuum formed component holder from Utz:

## 1. Tool costs

The tools required for the manufacture of vacuum formed parts are inexpensive. This means that for just a low cost, you get a product which is custom-made to suit your needs.

## 2. Delivery

A tool is built, sampled and ready for series production very quickly. Utz is perfectly positioned to carry out small production runs just-in-time.

## 3. Flexibility

- maximum size of component holders 1450 x 1200 mm
- maximum height 600 mm
- thickness of sheet material 1-10 mm
- most commonly used materials: PS, PS electrically conductive, ABS, PC, PP and PET-G
- choice of material colour
- quick and inexpensive alterations to existing vacuum forming tools are possible

## Individual tests and guaranteed quality

How do vacuum formed parts stand up to washing? Will they retain their shape even after a spell in the climate chamber? Is the strength adequate for the drop test and/or stacking test? – Where necessary, individual tests will be agreed on in conjunction with the customer as early as the development phase and carried out prior to go-ahead for series production. It goes without saying that all test results will be documented in full by our experienced quality control inspectors. Utz has been certified in accordance with ISO 9001 and EN 29001 since 1987. Utz operates a comprehensive quality management system throughout the company. This guarantees the consistently high quality of all Utz products.

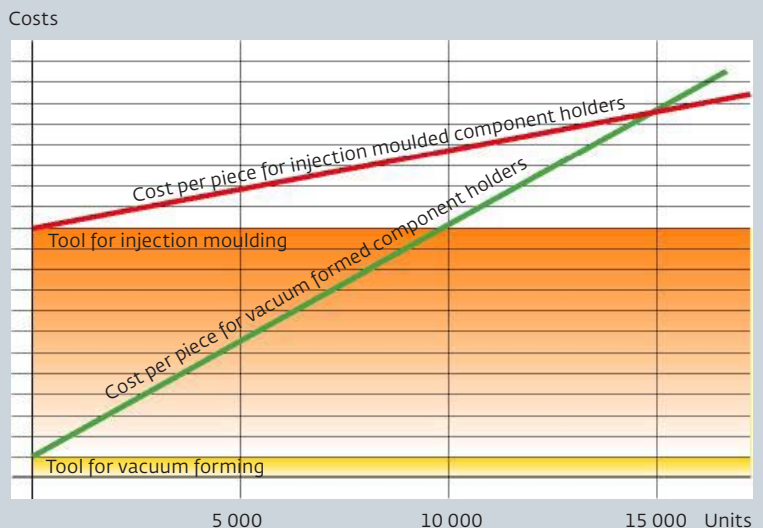
## Vacuum forming and more

No matter how individual each component is in its own right, Utz can still give it a distinctive finishing touch.

Would you like to have it printed with your company logo, handling instructions or consecutive numbering? – Printing applies the desired colour. Does the component holder require a label pocket or a hole? – We can rivet, weld, glue, drill and mill it, until the component holder suits your requirements. Does the component holder have to be identified automatically by means of a transponder? – Utz has the knowhow.

## Cost comparison vacuum forming / injection moulding

The chart shows that vacuum forming is cheaper than injection moulding up to a certain quantity.



## Component holders and multiple-use containers: the profitable symbiosis.

It is often necessary to deliver products in a multiple-use plastic container. That's because sensitive precision components are simply better protected in robust storage and transport containers. If the height of the component permits it, the holders can be stacked in several layers in the container. The big advantage: If the series changes, the containers can be loaded with new component holders and continue in use. This method of use is not only money-saving but also especially environment friendly thanks to the employment of a multiple-use system. The following Euro-Containers from the Utz range are ideally suited as standard containers: RAKO, EUROTEC or the VDA Small Load Carriers.



## Component holders – as individual as their applications.



### *Component holders for alternate stacking*

The principle is simple: First, two component holders filled with products can be stacked on top of one another. In this way the components placed in them can be safely stored, transported or offered up for assembly. And what happens to the component holders when they are empty? The solution is simple: The component holders are turned by 180° and nested inside one another. The saving in volume is up to 80%, depending on the design.



### *Component holders from frame tools*

In order to hold the components, an individual tool with the moulded recesses is constructed and inserted into an existing frame. Only the moulded recesses inset into the base are individually shaped to suit the product concerned. The frames fit all containers with the same base dimensions, handle high stacked loads and protect the components from dust.

Frame tools are available in the normal Euro sizes 400 x 300 mm, 600 x 400 mm and 800 x 600 mm as well as 400 x 400 mm and 600 x 500 mm. The frame height can vary between 35 and 230 mm entirely to suit the customer's wishes.

## Vacuum forming = moulding speciality products.

### *Combi-Component Holder*

The development of an optimum component holder is based on the given problem, the customer's specifications and the innovative thinking of the developers and designers at Utz. New developments are being added to this line-up on a regular basis such as a Combi-Component Holder. These can accept differently shaped moulded parts thanks to their ingeniously designed moulded recesses. Truly an example of killing several birds with one stone.



### *Individually shaped containers and removable boxes*

The dimensions of a Euro standard container do not fit your application? – Do the containers have to be as light as possible? – Do you only need small volumes? Here, too, the vacuum forming process offers possibilities for fulfilling your wishes.

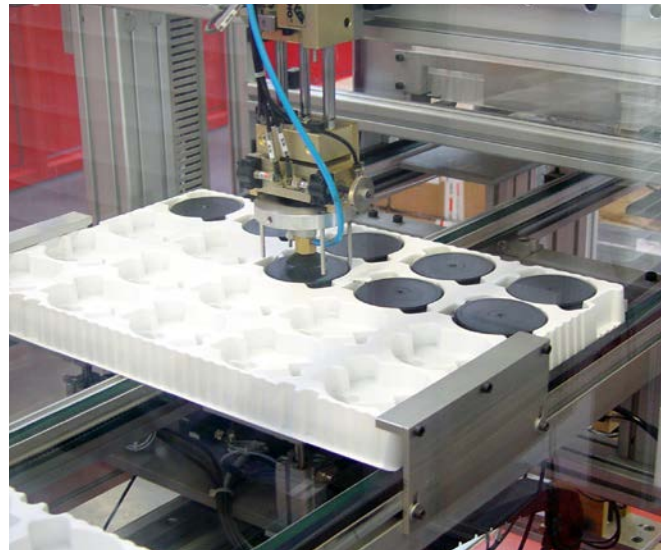
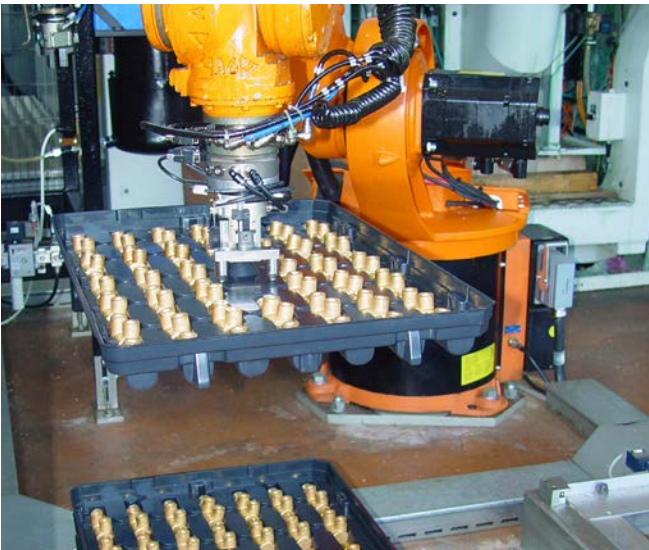
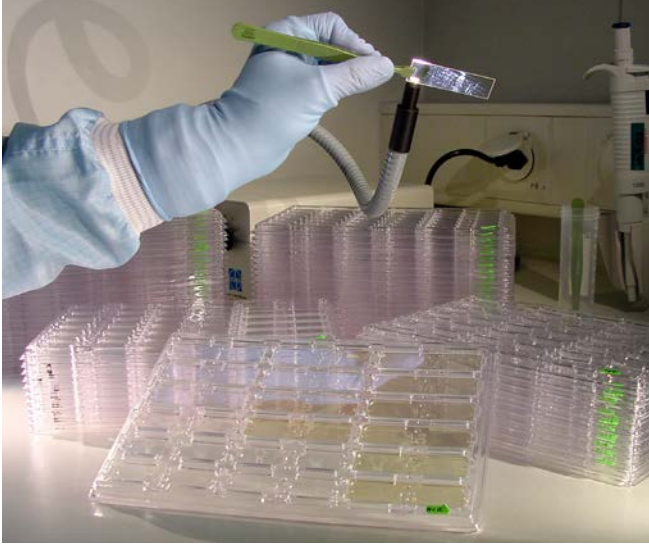


### *Lids, covers and special parts*

At Utz vacuum forming extends beyond the production of containers. Covers, machine casings and specially-shaped custom-made components can be made using the vacuum forming process. They are – like every component holder – individual solutions tailored to fulfil special requirements.



Vacuum formed component holders are indispensable in many business areas.





■ Utz Company  
○ Representative