

# ibea Visual Inspection Systems

## Inspection - simple and reliable

Ibea provides inspection systems to secure the highest product quality for your lines – built in a modular, future- safe and flexible way. Ibea has always put a strong focus on stable and maintenance-free systems to assure a smooth and reliable around-the-clock production.

As a system integrator we offer a professional full service including consultancy, training and remote support.

We apply the highest quality standards to our systems which assure a well functioning production. To accomplish this we make sure that our components comply with the highest industry standards and secure system stability in harsh production environments for a long-lasting, maintenance-free, around-the-clock performance.

Ibea inspection systems differ in comparison to those of other suppliers in that they are extremely customer and product-oriented in their hardware and software design.

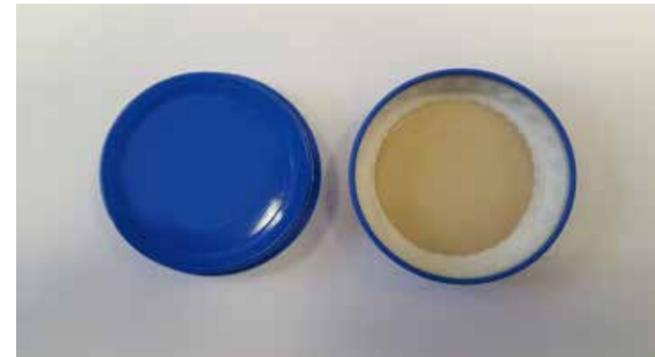


The Cap Master is a measuring system for the measurement of TO caps and PT caps of 32-110 mm diameter. The caps need to be fed to the Cap Master or they can be taken by the optional self-sampling module on a predefined point directly from the production line. In case of the self-sampling system the caps will run as a group into a pre-buffer station and are held in one line to make sure that caps of all toolings are inside the buffer zone. From the pre-buffering zone the product enters the first module, the flip test module. In the flip test module the caps will be tested for the safety button flip (flip in and flip out).



The second module is the visual test module. In the visual test module the caps are tested for compound depth, button dip, curl thickness, curl height, lug height, and lug shape. After all measurements are made the Cap Master drop the caps in the IO or NIO container. The system is able to inspect up to 600 caps per hour. The system is operated by means of the familiar easy-to-use ibea software like any other ibea vision system.

## Parameters and accuracy of measurement

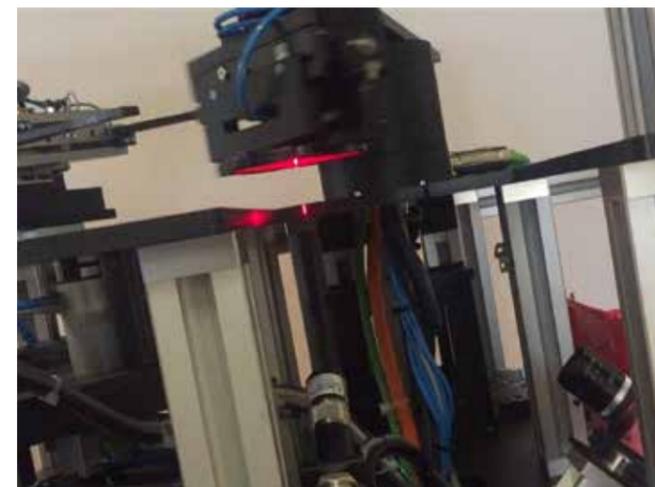


Measurement is made for:

- Button flip
- Compound depth
- Button dip
- Curl thickness
- Curl height
- Lug height
- Lug shape

Accuracy:

- +/- 5 mBar
- +/- 5/100 m



## We are well-known for:

- Highest quality standards
- Easy handling
- Easy setup
- Worldwide remote support
- Free software updates
- Fast spare parts service
- Quick response time and local support

## Quality & Service made in Germany

All ibea components comply with the highest industry standards and secure system stability in harsh production environments for a long-lasting, maintenance-free, around-the-clock performance. Ibea uses only high-quality camera, lens and illumination equipment – a key concept in developing sophisticated image inspection systems. The illumination elements are designed exactly for the product needs by using durable LEDs for the inspection of highly reflective products. By means of remote diagnostics we are capable of checking functions and settings at lightning speed.

## ibea - product quality systems

### Testing methods applied by ibea systems

- Standard image processing applications: inspection by camera of surface, texture, geometry, shape and dimensional accuracy, color, 2D and 3D measurement, holographic imaging, roughness, measurement of position and torsion, leak tightness
- Image processing, special applications: Heat-flow thermography by direct application of heat or ultrasonic initiation for structure checks, crack detection or the detection of other anomalies; UV light for fluxing agents or coating checks — crack detection, X-Ray
- Acoustic inspection: initiation by a hammer system
- Eddy current measurement: castings

### Put our know-how to the test

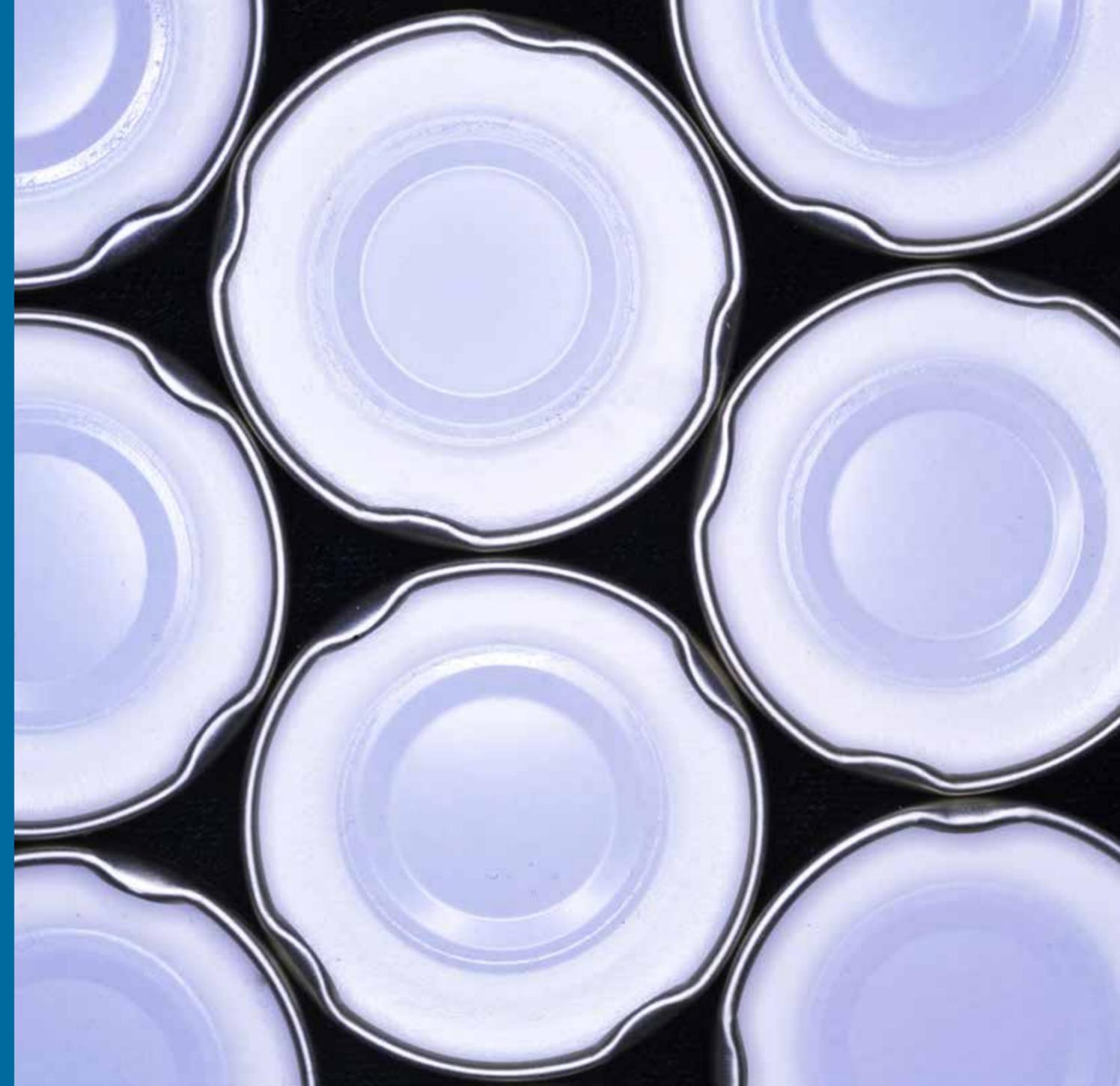
Feel free to send us samples of your faulty products that need inspection. Please give us a short description of your conveying system, possibly including photographs. Please also include conveyor speed and part rate. We will prepare a comprehensive offer specified to your needs including accessories needed — all this at a very attractive price!

### About Ibea

ibea develops and implements inspection systems for a perfect quality check — modular, future-proof, and flexible. It is our aim to ensure a trouble-free production around the clock. Our focus is on producing systems, which are stable and maintenance-free. As a systems integrator we offer you comprehensive professional service from consulting to implementation.

### What ibea systems inspect

- Ceramic tubes, ceramic insulators
- NoX sensors
- Sprinkler glasses, Sprinkler bodies
- Glass ampoules, plastic ampoules
- Syringes, syringe parts
- Laparoscopes, Biopsy forceps
- Catheter, Artery tubes
- Toothpaste caps or shoulders
- Blister packaging, before sealing:
  - Two-sided and for filling
- Tablets - color, cracks, size
- Silicone sealings and plastic sealings
- Metal packaging
- Plastic packaging
- Heavy ceramics and fine ceramics
- Concrete stones and boards
- Endless materials



## We keep an eye on your quality

The Cap Master - Automatic Cap Measuring System

