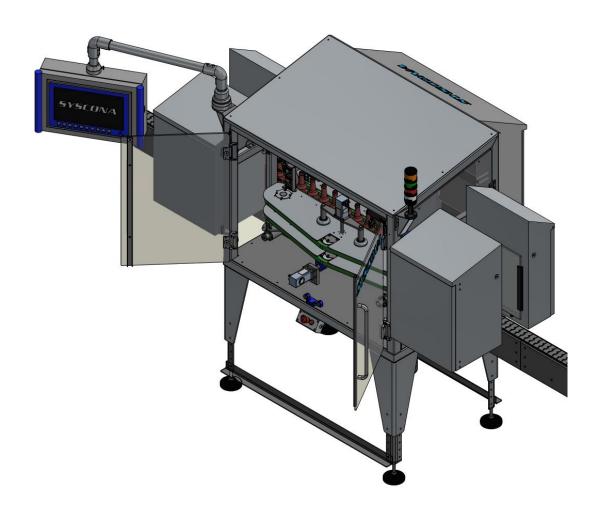


# **Empty Bottle Inspector**



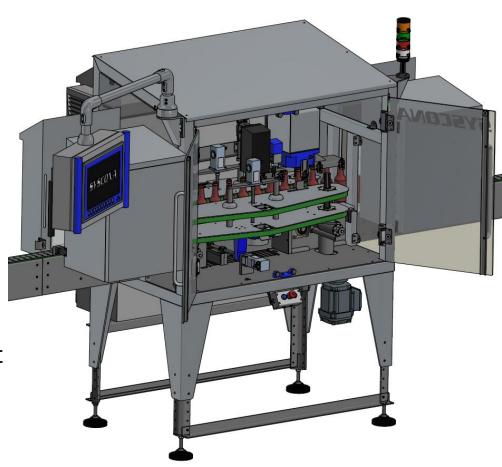
# UNICHECK V





## <u>Unicheck V – front view</u>

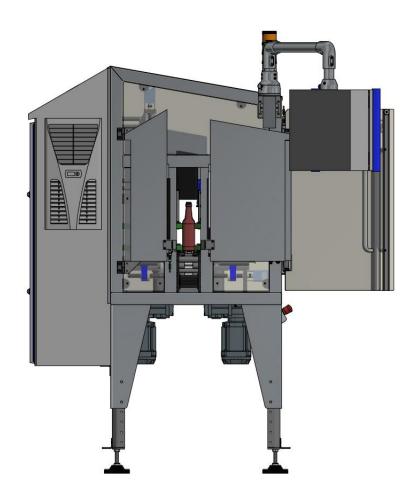
- Compact linear design
- Particularly good accessibility to all assemblies
- Modular and expandable
- Minimal maintenance and changeover effort
- Generously designed shard shaft with bottom blow-off





#### Unicheck V – side view infeed

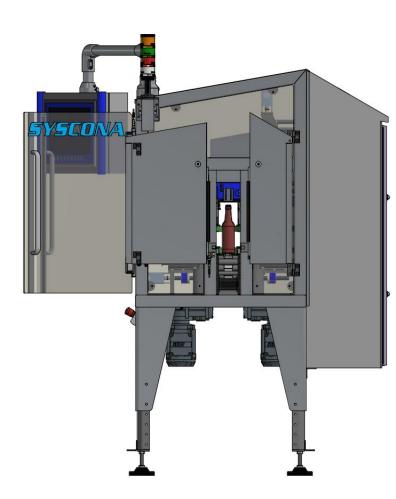
- Easy disassembly of the inspection units
- All inspection units with plug-in connections
- Optics based on hygiene design
- ➤ High quality components for example, drives for height adjustment in stainless steel designIP-68





# <u>Unicheck V – side view outfeed</u>

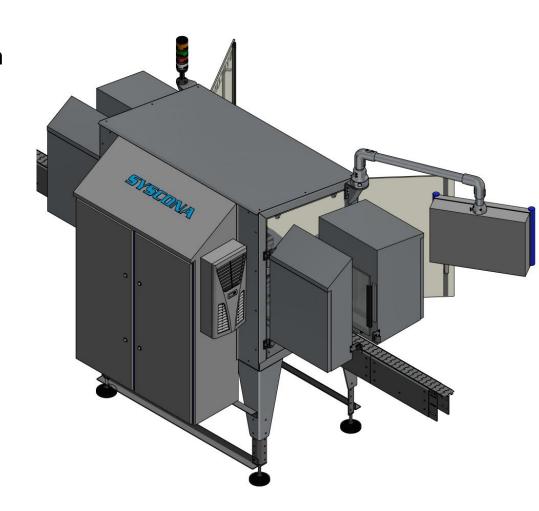
- Automatic adjustment for grade change
- Individual inspection units with separate height adjustment for optimal positioning to the container
- Compact design without compromising the quality of the individual stations
- Automatic belt adjustment, optimal adaptation to the shape of the bottle





# <u>Unicheck V – back view</u>

- Integrated control cabinet on the back
- Excellent accessibility
- No extra control cabinet required
- Multi-axis positionable 18.5" touchscreen for optimal operation





- > In-house developed real-time capable controller Syscona Unicept 5-Control-Unit
- Safe communication via CAN bus with all controllers
- Independent and up-to-date with Windows platform and industrial PC
- High-resolution GigE cameras
- High quality and most modern mirror and special lens systems
- Light optics with pulsing special LED light sources that guarantee a long service life and minimum energy consumption



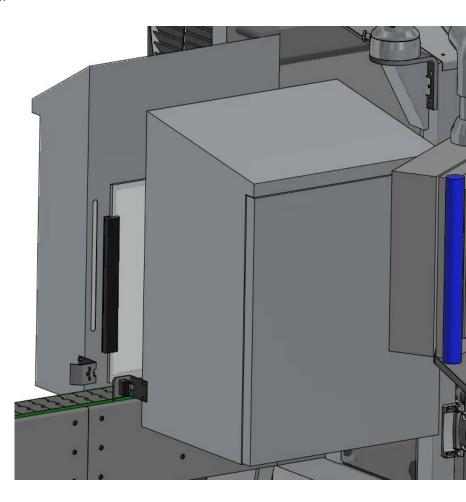
- The latest software and control technology
- In-house developed application software, individually expandable to customer-specific applications and requests
- State-of-the-art, individual and expandable inspection tools
- Extensive and user-friendly diagnostic options
- Different interfaces to higher-level controls or production data acquisition
- Software module for product monitoring and self-tests



## Side wall infeed/outfeed

(Inspection for dirt, defects, cracks or scuffing)

- Side wall housing with one camera and image recording via multiple mirror system
- Scanned area in the transmitted light process of approx. 240° per camera
- 3 sides of the bottle in one camera image
- Empty containers are specifically rotated by 90°
- Also available as a quadruple sidewall inspection

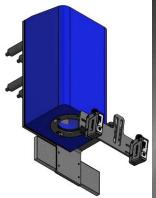


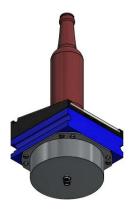


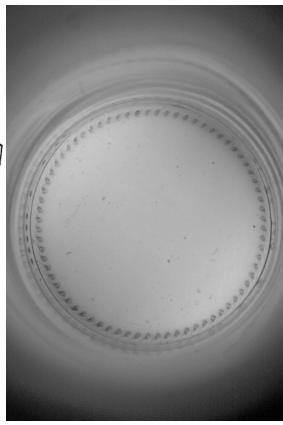
#### **Bottom**

(Inspection for dirt or foreign objects such as foil or cigarette ends)

- New LED light source with sloping protective pane
- Protective pane can be removed individually without tools
- Lens with integrated liquid lens for dynamic autofocus
- Lens focal length is automatically adjusted to container size





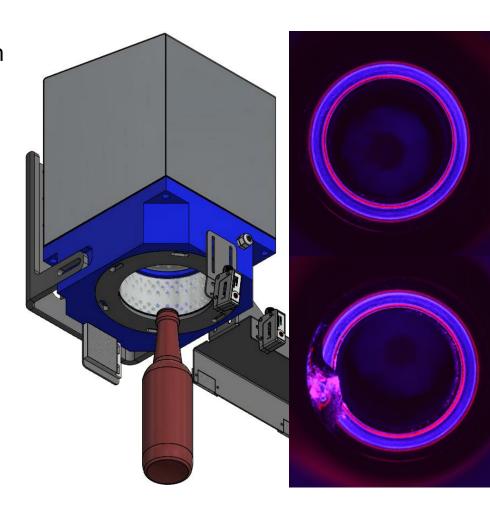




## **Mouth**

(Inspection for defects, dirt or cracks)

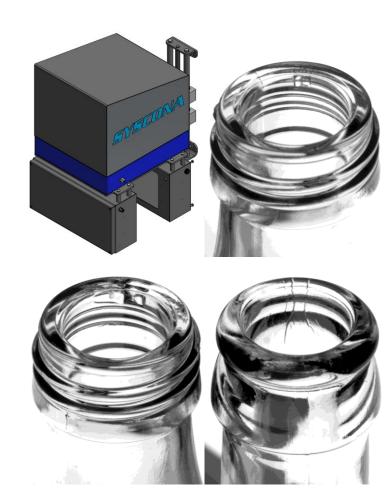
- Optimum positioning to the finish surface with independent height adjustment
- Mouth camera with new special light source
- Multicolor LED ring light source with sequential LED control





## **Thread**

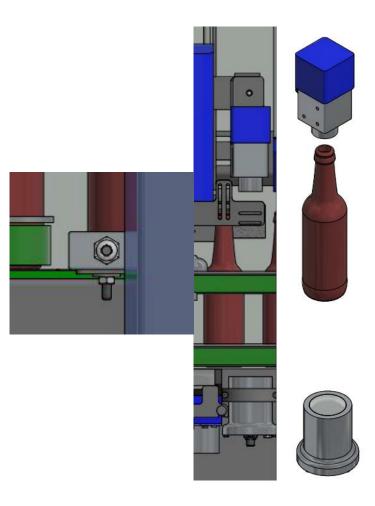
- Quadruple camera system with mirror deflection in a compact design
- Scanned area in the transmitted light process of approx. 360°
- Detection of
  - ✓ defects
  - ✓ cracks
  - ✓ underchip
- Special inspection algorithm for thread processing in an overall picture





# **Residual liquid inspection**

- Infrared technology detects oils and paints
- Motorized adjustment using the height adjustment of the bottom inspection
- High frequency technology detects residual lye
- ➤ HF lye inspection directly above the chain, thanks to the new design of the empty bottle inspector





#### **Bottle sizes in the standard version**

- Height from 100 mm to 400 mm
- Diameter from 20 mm to 105 mm

#### **Performance**

65.000 bottles per hour

#### **Optional infeed detection**

With contour and colour inspection using camera technology or as a more cheaper sensor solution using light barriers

#### Rejection systems for standing rejection

> Including rejection check





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...and helps you with the planning, execution and maintenance of plants.

#### Feel free to contact us at any time!

