

Inspection Machine Portfolio

Innovative technologies delivering the
highest standards of safety and quality

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Bucher Emhart Glass has a proud heritage lasting for more than a century. Since creating the industry-standard IS machine, we have delivered leading innovations in gob and container forming, automation, control and inspection. We serve customers worldwide with responsiveness and understanding, while investing in R&D to achieve new milestones in production speed, product quality, testing precision and container strength.

The widest choice and highest standards

Our unrivalled inspection portfolio offers a comprehensive range of intelligent equipment that helps guarantee that the integrity of every glass container is held to the highest quality standard. By integrating technologies with exceptional flexibility and focusing on the ease of operation, we ensure that the performance is optimized and maintainable with minimal operator intervention at production line speeds.

More information

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Inspection Technology

Glass is truly a perfect package representing quality and value in the eyes of the consumer.

To uphold its premium image, the glass container must achieve and be held to the highest standards of excellence. A company's reputation therefore relies heavily on the effectiveness of the container inspection systems. Bucher Emhart Glass inspection solutions verify container quality and integrity at the highest levels, combining vision inspection, software, lighting, and reject systems for optimum system performance at production line speeds.

Bucher Emhart Glass delivers the industry's most comprehensive selection of empty glass inspection solutions. From base, sidewall, finish and stress inspection to mold correlation and check detection for glass containers in all sizes, shapes, colors, and configurations, Bucher Emhart Glass inspection systems perform all of these critical inspection tasks at production line speeds.

Our systems offer exceptional flexibility with quick product changeover, ease of operation and maintenance, while providing concise real-time data generation for production analysis and trending.

FleXinspect is the tool that increases production efficiency and reduces costs by allowing glassmakers to configure only those functions they require on a modular platform. To reduce capital expenditures while maintaining flexibility, the manufacturer can add additional inspections on the existing platform as the need arises. With a large 21.5" touchscreen, the user interface has been enhanced to utilize icon-based command sequences for simplified setup and operation. Container inspection parameters are preprogrammed for easy recall, reducing downtime for job changes.



Inspection Machines

FleXinspect M

The FleXinspect M is a servo-indexing, rotary inspection system designed to be a drop in replacement for many of the well known mechanical machines of the past.

Equipment Details

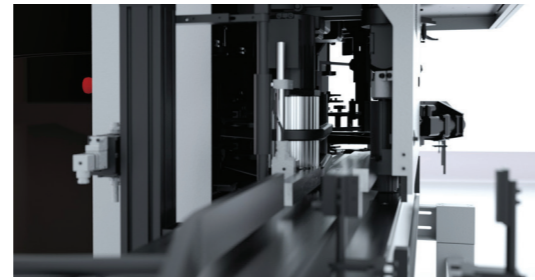
| Pockets | Max. Diameter | Inspection Stations | Available Rotation Stations |
|---------|---------------|---------------------|-----------------------------|
| 9 | 120mm | 5 | 3 |
| 18 | 79mm | 5 | 3 |
| 24 | 66mm | 7 | 5 |
| 12 | 120mm | 7 | 5 |

FleXinspect M in 12/14 pocket configuration

| Type of container | Pockets | Production Speed | Burst Speed |
|-------------------|---------|------------------|-------------|
| Beer | 24 | Up to 330 | 350 |
| Wine | 12 | Up to 240 | 260 |
| Non Round | 12 | Up to 160 | 180 |

FleXinspect M in 9/18 pocket configuration

| Type of container | Pockets | Production Speed | Burst Speed |
|-------------------|---------|------------------|-------------|
| Beer | 18 | Up to 300 | 320 |
| Wine | 9 | Up to 200 | 220 |
| Non Round | 9 | Up to 140 | 160 |



Features

- Active cooling of main electronics, with thermal protection
- 30° Infeed entry angle
- Integrated inspection conveyor
- 680 mm Ø star wheel
- Traceability of changes
- Cavity correlation of all defects
- Servo-driven rotate devices
- Servo-driven infeed screw
- Servo starwheel
- SCOUT technology

Machine configuration (2 configurations offered)

- 9/18 pocket star wheel with 3 servo-driven rotate stations*
- 12/24 pocket star wheel with 5 servo-driven rotate stations

*In this configuration can reuse Veritas iM tooling

Available Inspections

- Modulated check detection
- Mold number reader - Heel code
- Mechanical plug/ring
- Mechanical dip/saddle/height
- Vision plug/ring/dip/saddle
- Wall thickness - 4 elevations
- Vision mold number reader - Alpha numeric/ bottom dot
- Sealing surface/Wire edge
- Base/Base stress
- Vision check
- ID read



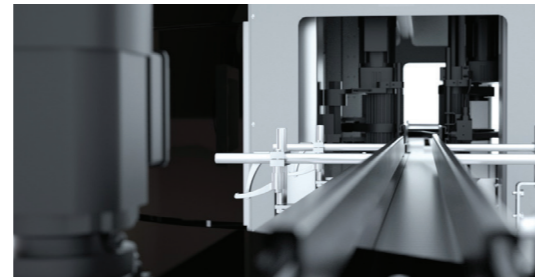
Information on the products you will find in our product brochure.



Inspection Machines

FleXinspect T

The Flexinspect T gives glass manufacturers a total inspection solution, as the fully equipped system is capable of providing all necessary cold end inspections. The unique design of the servo-driven handling devices allows inspections that in the past were not possible with rotary inspection machines.



Features

- All inspections in one machine
- Modular / Expandable inspection systems
- Cavity correlation of all defects
- Non-contact gauging for the finish
- Integrated inspection conveyors
- Brushless non-round container handling
- Traceability of change (who, what, when)
- 840mm servo driven starwheel
- 5 modular servo driven rotation devices
- Servo-driven infeed screws
- Servo-driven starwheel
- Live belt outfeed handling system

Ware Range

- Height: 35mm-381mm
- Body Diameter: 16mm - 170mm

Available Inspections

- Modulated Check Detection
- Mold Number Reader - Heel codes
- Vision Plug / Ring / Dip / Saddle / Height
- Wall Thickness - 4 elevation
- 2 point Out of Round (2 positions)
- Mechanical Plug / Ring
- Mechanical Dip / Saddle / Height
- Vision Mold Number Reader - Alpha Numeric / Bottom Dots
- Sidewall / Sidewall Stress
- Base / Base Stress
- Sealing Surface / Wire Edge
- Dimensional (height, diameter, lean)
- Tramp Glass
- Vision Check

Equipment Details

| Pockets | Max. Diameter | Inspection Stations | Available Rotation Stations |
|---------|---------------|---------------------|-----------------------------|
| 9 | 170mm | 5 | 3 |
| 12 | 152mm | 7 | 5 |
| 18 | 107mm | 10 | 6 |
| 24 | 79mm | 13 | 9 |
| 30 | 66mm | 16 | 9 |
| 36 | 53mm | 19 | 9 |

Typical Production Speeds

| Type of container | Pockets | Production Speed | Burst Speed |
|-------------------|---------|------------------|-------------|
| Large Ware | 9 | Up to 120 | 140 |
| Wine | 12 | Up to 250 | 270 |
| | 18 | Up to 300 | 320 |
| Beer | 24 | Up to 350 | 370 |
| | 30 | Up to 370 | 400 |
| Pharma | 36 | Up to 350 | 370 |
| Non Round | 9 | Up to 90 | 100 |
| | 12 | Up to 165 | 180 |
| | 24 | Up to 200 | 220 |



Information on the products you will find in our product brochure.



Inspection Machines

FleXinspect B Generation III

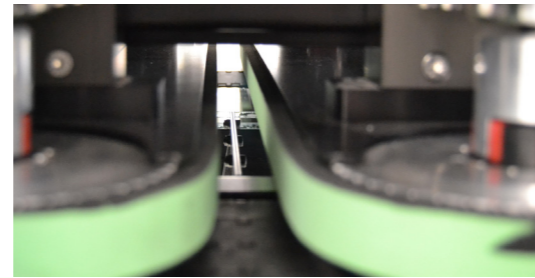
The FleXinspect B Generation III is a reliable and uniquely configurable platform that easily allows inspection functionality to be added as required. All adjustments are fully motorized providing unmatched repeatability and shortest job change times giving glassmakers flexibility and value.

High-resolution cameras and special optics allow inspection of the complete bottom area with advanced algorithms including stipple and baffle filters (also for non-round). When equipped with a mold reading option, the FleXinspect B Generation III mold correlates results from all installed inspections.

Typical Production Speeds

| Type of container | Production Speed | Burst Speed |
|-------------------|------------------|-------------|
| Beer | 300-500 | 600 |
| Wine | 250-400 | 450 |
| Baby Food | 300-500 | 600 |
| Non Round | 100-300 | N/A |

Conveyor Speed: Max 1m/s



Features

- Quick and fully automatic job change, no manual adjustments
- Dust-proof encapsulation and airconditioned optical and electrical cabinets
- Cavity correlation of all defects
- Traceability of change (who, what, when)
- Independent belt position for tapered ware
- 4 - Servo driven carry belts
- Integrated 21.5" touch display

Ware Range

- Height: 40mm-440mm
- Body Diameter: 15mm-160mm
- Finish Diameter: 4.5mm-120mm

Available Inspections

- Base Inspection
- Base Stress
- Sealing Surface Finish 1 (reflective light / light field)
- Sealing Surface Finish 1 (reflective light / light field) with Wire Edge
- Sealing Surface Finish 2 (incident light / dark field)
- Vision mold number reader in base station (heel codes and base codes – top down)
- Smart vision mold number reader (seven segment base code – top down)
- U-VMNR Universal Vision Mold Number Reader (heel codes – bottom up)



Information on the products you will find in our product brochure.



Inspection Machines

FleXinspect C Generation III

The FleXinspect C Generation III is a Sidewall inspection machine with 6 IntelliLED (programmable LED) light sources and high-resolution cameras. Dedicated light sources for each of the symmetrical views allow the highest level of inspection available including dimensional.

When combined with a FleXinspect B Generation III equipped with a mold reading option, the FleXinspect B Generation III and C mold-correlate results from all installed inspections.

Typical Production Speeds

| Type of container | Production Speed | Burst Speed |
|-------------------|------------------|-------------|
| Beer | 300-500 | 600 |
| Wine | 250-400 | 450 |
| Baby Food | 300-500 | 600 |
| Non Round | 100-300 | N/A |

Conveyor Speed: Max 1m/s



Features

- Quick and fully automatic job change, no manual adjustments
- Dust-proof encapsulation and airconditioned optical and electrical cabinets
- Cavity correlation of all defects
- Traceability of change (who, what, when)
- Integrated 21.5" touch display

Ware Range

- Height: max 350 mm – tall ware 440 mm
- Diameter: max 160 mm

Available Inspections

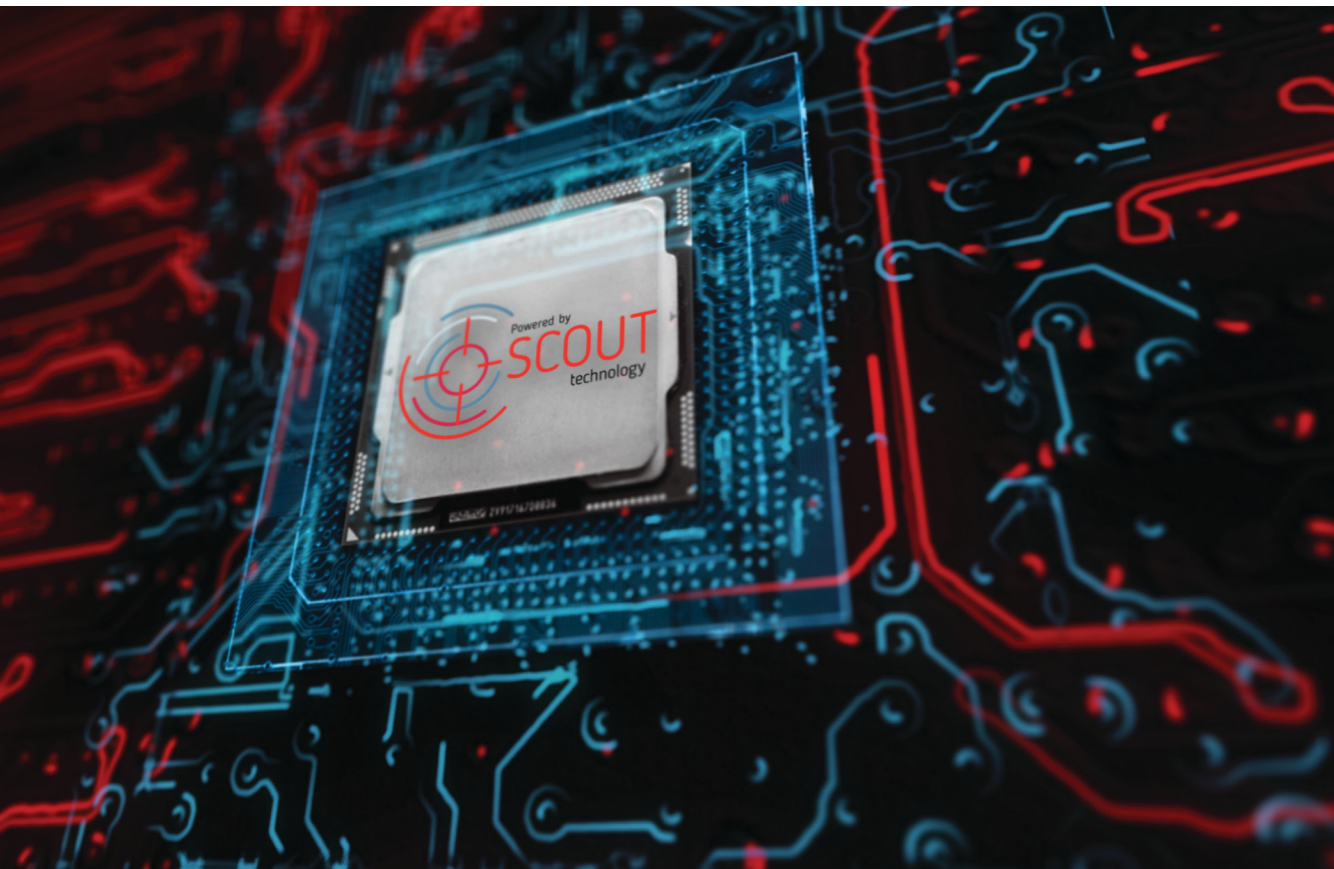
- Sidewall 6 views
- Dimensional 6 views
- Sidewall low contrast / transparent (cosmetic) 6 views
- Sidewall stress 6 views
- Sidewall shoulder 6 views
- Tall ware Sidewall shoulder 6 views
- Tall ware Sidewall shoulder stress 6 views
- Dip / thread for wide mouth (an option for all jar lines)
- Multi Article



Information on the products you will find in our product brochure.



SCOUT Overview



SCOUT is the hardware and software technology that powers the inspection equipment produced by Bucher Emhart Glass. Developed to take the FlexInspect products to new levels of automation, performance and simplicity, the SCOUT technology platform has proven itself to be the foundation that will support all of the new features and advancements in the hollow glass inspection processes.

SCOUT saves you money

- Advanced defect classification allows factories to pack more commercially acceptable ware.
- Advanced defect classification informs factories what defects are being produced for better feedback and correction.
- Advanced defect classification allows all machines to operate with the same sensitivities and limits.

SCOUT saves you time

- Intelligent automation in the inspection setups reduce the time required for job changes and fine tuning.
- Predefined defect classes and size limits reduce the time required for job changes and fine tuning.
- Simplified multi touch user interface and logical layout reduce the time required for job changes and fine tuning.

SCOUT provides you security

- With accurate defect classification, factories can now react faster and reduce the potential for held and returned ware.
- Using the automated setups and predefined defect classifications means all machines are set the same, reducing the potential for held and returned ware.
- Providing the correct information to the forming department ensures that the process is maintained reducing the potential for held and returned ware.

FlexInspect machine upgrades

- All FlexInspect products can be equipped with the SCOUT technology.
- Upgrades are performed in place and are completed within a few hours.
- All features and benefits including new developments for the End to End will be available as they are released.

Veritas machine upgrades

- Veritas iB and Veritas iC machines can be upgraded to SCOUT technology.
- All inspection features and benefits from the FlexInspect machine family are included in the upgrade.
- All features and benefits including new developments for the End to End will be available as they are released.