



We ensure your quality
Bizerba inspection systems

»It is our aim to supply optimized solutions that are easy to use and answer individual business needs.«

Andreas W. Kraut
CEO Bizerba SE & Co. KG



Our experience sets standards

We are a family-owned company guided by a commitment to tradition, sustainability and responsibility. Nowadays, based on our core competence of slicing and weighing technology, we offer our customers the industry's largest and most unique range of products and solutions as hardware, software and services, anywhere in the world.

As a global acting technology company, we allow ourselves to be led by the aim and the requirement to achieve the best possible results in terms of er-

gonomics, hygiene, safety and efficiency. We believe we have a role to play in shaping our markets, and are continually setting new industry standards. In close collaboration with our customers and against a backdrop of technological advancement, we are working to improve our products on a daily basis – resulting in innovations which become new standards.

In order to continue to live up to these requirements, we focus on the highest possible quality standards and internationally recognized technology

standards in our development and manufacturing work. We aim to provide our customers with easy-to-use and optimized purpose-built products and solutions for each individual application. This is how we best support our customers in achieving maximum efficiency and profitable growth.

Our experience sets standards.
That's what matters to us. Bizerba.



Bizerba inspection systems

Perfection creates quality

In the sense of the consumer protection only perfectly produced goods are allowed to reach the market. Our inspection systems meet this requirement. They accomplish highest safety in the production processes of the food industry.

Ensuring safe products due to quality assurance is top priority for manufacturing companies because foreign bodies and contaminants in food constitute enormous risks for consumers and can lead to expensive recalls. This can jeopardize a company's reputation.

We are a full-range supplier for inspection systems ranging from foreign body detection and weight control up to package end control. Our equipment supports the high quality standards required from production processes. They are installed on critical check points in the process for state-of-the-art monitoring. Moreover, they are conform

with leading standards such as IFS (International Featured Standards) and BRC (British Retail Consortium) as well as legal regulations such as FIR (Food Information Regulation).

Installation and application of our inspection systems at the customer are accompanied by our broad service portfolio. With high-end technology, industry knowledge and experience we ensure consumer protection and your company's valuable reputation.

Foreign body detection and inspection

Complete control chain

Ranging from metal detector via X-ray device to the vision system: Our inspection systems fulfill all requirements on quality assurance, are user-friendly and work with a high throughput. Moreover they promote Overall Equipment Effectiveness.



As high performance control instances our inspection systems scrutinize all quality parameters in a production line. This ensures consumer protection and machine safety.

Metal detection

Metal detectors find metal residues which entered a product during production – all types of ferrous and non-ferrous metals in packaged and unpackaged piece goods. Separation systems may be connected in order to

remove contaminated packages from the operator side.

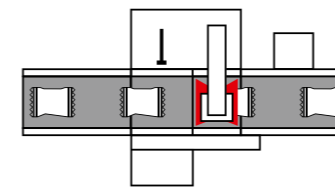
X-ray inspection

X-ray inspection systems detect metal contaminants and other foreign bodies in products such as glass, ceramics, stones or plastic. They also “see” incomplete goods. Within milliseconds they evaluate an image. The devices quickly reject affected packages.

Optical inspection

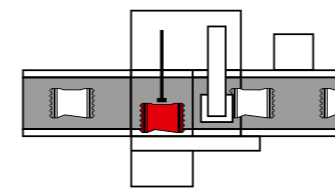
Optical inspection systems (vision systems) ensure perfect packaging and a high-quality appearance of the products. The devices find and quickly sort out packages which were incorrectly labeled, improperly sealed, have the wrong packaging or unreadable bar-codes.

Fault detection with BVS-I[®] maxx



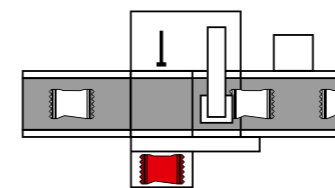
01

The two cameras of the BVS-I[®] maxx screen packages synchronously from top and bottom. They recognize falsely printed and misplaced labels, incorrect packages as well as unreadable bar-codes.



02

The vision system identifies a faulty product and activates the pusher in order to sort it out.



03

The sorted out product lies in the collection container.

Inspection systems and OEE

Processes effectively optimized



The subject of Overall Equipment Effectiveness (OEE) becomes increasingly important in the production.

The OEE measures the added value of a machine or system. It quantifies the total efficiency of a machine or plant based on availability of a production infrastructure, machine output and quality achieved by a company. The OEE default value is currently between 40 and 60 percent. With our inspection systems and further solutions we leverage optimization potentials on the basis of relevant machine data.

And this is how we create synergies: By combining our inspection systems with our BRAIN2 software and by supplementing it by our service we are able to increase the OEE value in your production. Because our solutions analyze production processes and work as some type of early warning system in order to obtain the highest possible effectiveness of the process. On this basis the OEE value will be optimized. Clear advantage: You receive sound solutions which raise the OEE to the best possible level in your company.



VARICON+ C-SCAN GHF

VARICON+

Metal detection at a high standard

This inspection system is extremely meticulous. VARICON+ detects all metal contaminants even when enclosed in the product. For packaged or unpackaged piece goods in dry or wet areas. With the flexibility of the VARICON+ you are on the safe side.

The compact metal detector VARICON+ inspects piece goods of up to 50 kg and detects all metal-containing residues such as steel, stainless steel and aluminum. They are detected even when enclosed in the product. It can be flexibly used for packaged and unpackaged goods. The robust s/s conveyor belt construction of the VARICON+ guarantees highest search sensitivity and stability. A very short metal-free zone (MZ) ensures interference-resistant,

reliable inline metal detection. Top grades also in terms of cleanliness: Thanks to its hygienic design all device parts are easy to clean. The device comes standard in IP65.

Different systems can be configured for individual requirements. The belt control is either fitted with a conveyor belt stop for metal detection or with application-specific separation systems. With the VARICON+, integrated

models are available for our labelers of the GLM-I series and our checkweighers CWF maxx, CWE maxx and CWD maxx.

Highlights

Two metal detectors may be used: GLS or C-SCAN GHF.

Common features:

- Digital signal processing and quartz-stable search frequencies
- Modern microprocessor technology with self-monitoring, self-calibration and temperature compensation
- Product compensation with teach function
- Multiple product memory
- Special EMC combi filter to suppress external interferences
- Password-protected system logbook and menu driven validation system for quality monitoring, in conformance with BRC (British Retail Consortium), IFS (International Featured Standards), HACCP (Hazard Analysis and Critical Control Points)

Additional highlights of C-SCAN GHF:

- Standard: integrated Control Unit GENIUS+ Touch with USB interface
- With HML multi-frequency technology for optimal product compensation and high search sensitivity
- Improved evaluation logic with s/s optimization
- Housing in hygienic design with IP65 protection (optionally IP66/ IP69K)

*Options

- Dry area: Series VARICON+D, models with flat belt
- Wet area: Series VARICON+W, models with linked belt
- Conveyor belts - belt widths: 200 mm, 300 mm, 400 mm or 500 mm
- Product-specific separation systems, pusher or air blow with lockable collecting bin will be available soon.

- More separation systems (swivel arm, retraction belt...) upon request
- External signal lamp, external signal horn (error display, error and metal display)
- External warning device consisting of horn and lamp (error display, error and metal display)
- Lateral guide bars (height = 50 mm)
- Conveyor belt mobile with four lockable guide rollers Ø 125 mm
- Software BRAIN2

Service

- Start-up, initial installation
- Individually configurable service contracts
- 24/7 service contract optional
- Full support
- Hotline
- Care and cleaning products

One system, many possibilities

Model	Conveyor belt width CBW	Available clearance width/ height CH	Tunnel metal detector Type GLS
Size I Belt length 1000/ 1500 mm	200	200/50±25	200/100
	200	200/100±25	200/150
	200	200/150±25	200/200
	200	200/200±25	200/250
	300	300/50±25	300/100
	300	300/100±25	300/150
	300	300/150±25	300/200
	300	300/200±25	300/250
Size II Belt length 1300/2000 mm	400	400/100±25	500/1503
	400	400/150±25	500/150
	400	400/200±25	500/200
	400	400/250±25	500/250
	500	500/100±25	300/100
	500	500/150±25	300/150
	500	500/200±25	300/200
	500	500/250±25	300/250



XRE

Maximum safety and control

Nothing can escape this inspection system. Thanks to its X-ray technology the XRE detects imperfect food: foreign objects, missing or misshaped parts. Even checking of fill levels or reference weights can be standardized.

It shows its strength when there are weaknesses in the production process. Our inspection system XRE ensures complete prevention of foreign bodies and other defects. Due to its fully automatic X-ray technology it localizes defects of any kind: foreign objects, missing or misshaped parts. It even finds over and under-weight packages. The device detects all particles which due to their density, chemical components or mechanical dimensions absorb X-rays

at a higher or lower degree than the surrounding product. Incorrect products are quickly rejected.

The XRE detects metal and more: glass, ceramics, stones, raw bones, plastic, Teflon, rubber and glass fiber reinforced plastics in packaged and unpackaged food. Furthermore, it can perform completeness checks even in closed packages. Other product defects such as cracks or air pockets in tubes

and tins can also be detected while desired foreign bodies such as aluminum clips on sausage ends can be simply faded out. Also impressive is the powerful real-time operating system of the XRE which achieves throughput rates of up to 600 packages/min.

Highlights

- The inspection area is fully covered and without dead angle even in case of tall products.
- Simultaneous inspection of four parallel running production lines
- Chaotic product feed via multi-product software
- Even broken and misshaped products, etc. are detected
- Over and under-weight check of entire product or parts
- In conformance with BRC (British Retail Consortium), IFS (International Featured Standards), HACCP (Hazard Analysis and Critical Control Points)
- Real-time check for "high speed" inspection of up to 600 products/min.

- Precise detection of metal containing and non-metallic foreign bodies
- Compact, open and modular design, easy care and cleaning
- Easy operation due to automated product teaching

*Options

- M&S (Marks & Spencer) compliant system available (Higher Level Compliance)
- Space saving device with integrated rejection unit for smaller products (max. 250 mm x 250 mm)
- Software BRAIN2

Service

- Start-up, initial installation
- Individually configurable service contracts
- 24/7 service contract optional
- Hotline
- Care and cleaning products
- We offer individual services in cooperation with our partner S+S for the XRE product family.

One system, many possibilities

Model	Conveyor belt width CBW	Max. clearance height	Inspection width on conveyor belt	Conveyor belt height	Installation length
XRE 200 / 150	330	150	200	900±50	1400
XRE 300 / 150	330	150	300	900±50	1400
XRE 450 / 200	630	200	450	900±50	1400

Further technical information

Specifications	Facts	Details
Max. load	20 kg	for all type of systems without ejection system
Product temperature Operating conditions	-20 °C to +80 °C -10 °C to +40 °C	other temperatures on request, no direct sunlight, relative humidity 10 – 90 %, non-condensing
Protection class	IP66 IP54 IP34	conveyor belt, monitor, operating elements, etc. fan unit optional air conditioning unit
Conveyor belt speed	0,2 m/sec, 0,3 m/sec, 0,4 m/sec, 0,56 m/sec or 0,8 m/sec (40 – 160 FPM)	Can be set via the integrated FC from -50 % to +30 % of the basic speed (further speeds on request).
X-ray tube	50 kV/2 mA 80 kV/2 mA	The selection of the X-ray tube output depends on the product height and density.



BVS-I® maxx

Unique inspection

The BVS-I® maxx vision system is impressive in terms of its unique inspection performance for various products. Packages can be synchronously checked from top and bottom. Due to its design it easily integrates in any production environment.

The highlight of our inspection system portfolio, the BVS-I® maxx, was developed in our company. This optical inspection system (vision system) is a top performer in the package end control which finds all errors in a package and quickly rejects incorrect packages with a high throughput. It detects incorrectly printed and misplaced labels,

improper packaging and unreadable barcodes.

Particular inspection performance due to dual "vision". The two cameras of the BVS-I® maxx synchronously screen packages from top and bottom. Complete process control is ensured by a statistics report. The device easily

integrates in any production environment and is highly flexible and adjustable together with existing systems. By using our BVS-I® maxx only flawless packages in compliance with the Consumer Protection Act leave the production.

Highlights

- Synchronous package inspection by means of two cameras
- Checking of correct label and label position (twisted, incorrect positioning)
- Belt speed of up to 65 m/min., throughput up to 140 packages/min.
- For each product the right packaging
- Reading of texts (e.g. min. sell-by date)
- Checking and classification of codes
- Easy "teaching" of package criteria
- Automatic rejection of packages not conforming with reference criteria
- Data management via BRAIN2 module Data Maintenance
- Creation of reports in BRAIN2 module Statistics or other statistics programs
- Password-protected user management

*Options

- 910 mm belt length/300 mm belt width
- Software BRAIN2
- A signal (horn and lamp) calls attention to faulty packages.
- Two light barriers safeguard that faulty packages are sorted out and that the container does not exceed a certain filling amount. If these faults occur, the belt stops and has to be restarted by error acknowledgment.

Service

- Start-up, initial installation
- Individually configurable service contracts
- 24/7 service contract optional
- Full support
- Hotline
- Care and cleaning products

View of operator screen



Further technical information

Specifications	Facts	Details
Camera	4096 pixels line frequency: 18 kHz	resolution up to 10 µm pixel size, optional use of color camera possible
Product measures	946 mm x 1392 mm x 1620 – 2000 mm L x W x H	The highest point of the construction at maximal extended camera head amounts to 2000 mm.
Max. belt speed	belt speed up to 65 m/min., throughput up to 140 packages/min.	max. 30 cm package length and 15 cm package interspace
Interfaces	USB Ethernet	USB interface for easy data protection, connection to customer network possible via Ethernet interface (TCP/IP)

BRAIN2

Intelligent data management



Our service

Professional on-site support

The application of our inspection systems is supplemented by an optimal service. Benefit from industry knowledge and experience as well as from highly qualified service experts who are at your service nationwide.

In order to establish a functioning control system, not only efficient hardware but also suitable software is needed. Our solution for the industrial area, BRAIN2, provides comprehensive data management for our inspection systems.

Best partners: With our modular solution you have an ideal software for all Bizerba inspection systems. Transparent and optimized production processes are the result: If damaged or contaminated products are detected during the inspection process, our software saves this data and allows evaluation of the data.

Furthermore, our software logs all performed audits for VARICON+ and the

XRE. The data of these audits is saved and can be evaluated in various reports.

BRAIN2 modules

Statistics

This module collects weight and inspection data, prepares statistics and clearly shows the data. It supports you in terms of fill quantity control, production optimization and to comply with legal requirements.

Data Maintenance

With this master data maintenance tool you can centrally create and manage article data and then forward this data to our devices. By using Quality Gates you ensure that only verified data is loaded for production.

Connect

This module is ideally suitable to make work flows rational since, for the most part, it takes care of the programming of interfaces. Tailor-made, efficient applications are the result.

Capture

With this module, you use the fascinating function, besides data to save also images of contaminated products, for example. This is possible for the XRE and BVS-I® maxx.

In order to obtain the maximum from your investment we are there for you with a multi-level service. This includes advice, start-up and installation of inspection systems as well as other services. Our perfectly matched modules ensure continuous availability.

Service modules:

- Start-up including initial training and initial installation
- Individually agreed service contracts
- 24/7 service contract optional
- Full support (spare parts, technical competence and on-site support) for the BVS-I® product family and the entire Bizerba metal detector portfolio
- Large nationwide network of service experts who are quickly at your service and on-site.
- A broad range of care and cleaning products
- Service hotline
- Customer training

Everything from a single source

You can also finance your inspection system with us. With our colleagues from the Bizerba Leasing GmbH you will find a suitable financial service allowing you to quickly benefit from your system.

Please, contact us to schedule an appointment. Together we will find the right solution for you.

Service hotline: Please, refer to our www.bizerba.com for the hotline contact for your country.

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