

SESOTEC



Food Safety

METAL DETECTION SYSTEMS

# Tunnel Metal Detectors

Detection and separation of metal contaminants  
in piece and bulk goods

# Latest technology for best detection accuracy

## Innovative technology

Secure detection of magnetic and non-magnetic metal contaminants

- Tunnel metal detector GLS with single or dual frequency
- Tunnel Metal Detector GLS MF with multi-frequency
- INTUITY NEX tunnel metal detector with quattro-simultaneous frequency

## Compliance Package

Our compliance software package for seamless and efficient documentation. It helps customers ensure food safety compliance, increase production efficiency, improve product quality, and much more.

## THiNK – Artificial Intelligence

The intelligent AI software was developed specifically for INTUITY NEX and is an add-on option for products with very high product effects. THiNK is able to almost completely mask the product effect, thus increasing detection sensitivity and reducing false rejects to a minimum.

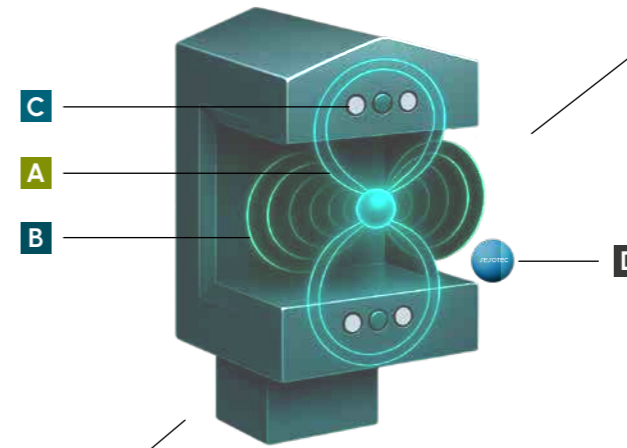
## UL/CSA certified

Our metal detectors are UL/CSA certified.



## Made in Germany

All our metal detectors are developed and produced in Germany.



## Functionality

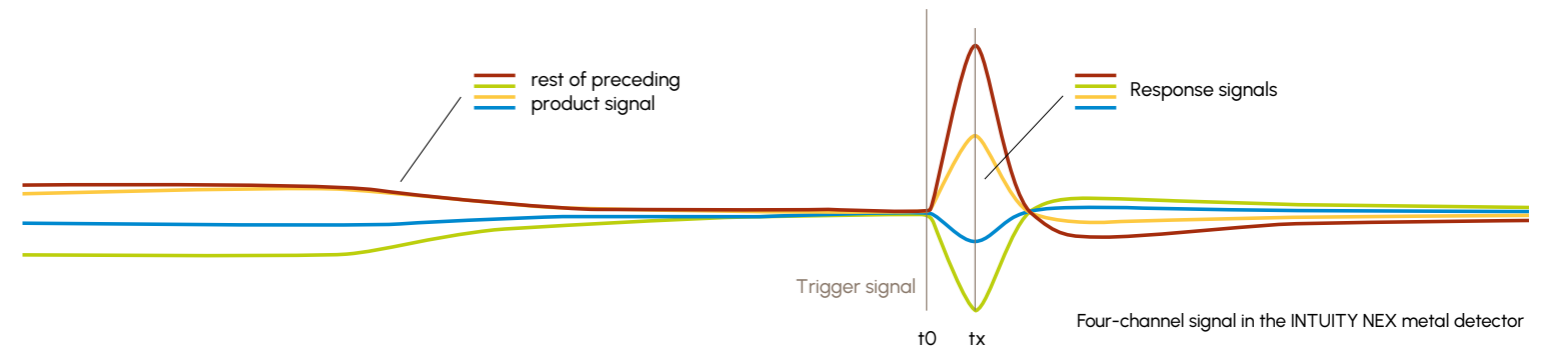
- A** The transmitter winding generates a permanent electromagnetic alternating field.
- B** This is also active in a certain area outside the coil, which is why every metal detector has a zone that must be kept metal-free.
- C** The two receiver windings are connected to each other, and their signals thus cancel each other out („Balanced Coil“ principle).
- D** As soon as a metal particle (as shown here in the example of a Sesotec test piece) passes the detector, a disturbance of the electromagnetic field occurs, which is picked up by the receiver coils. The electronics of the metal detector process the signal, evaluate it and output a metal signal.

## Self-monitoring of the detection unit of metal detectors

The Integrated Compliance Monitoring monitors the detector by feeding a four-channel signal into the signal chain that is specifically tuned to the product under test during the teach-in process. This signal is transmitted at short intervals and thus determines the state of the machine.

Through the use of ICM

- reduced the frequency of testing,
- increased reliability and
- prevent the blocking of goods



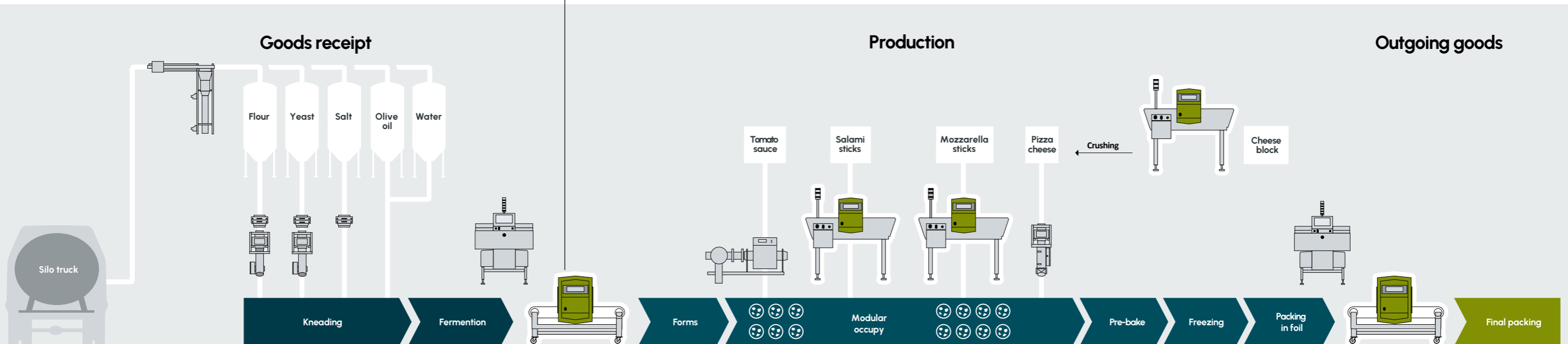
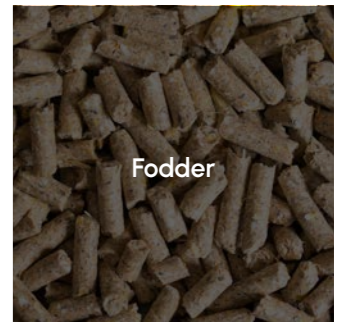
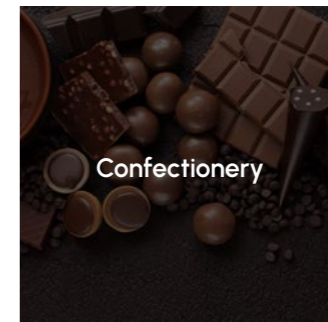
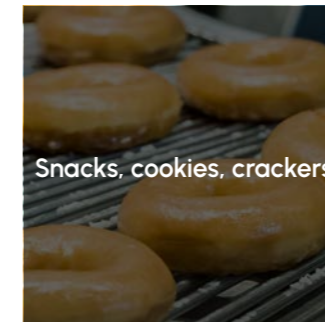
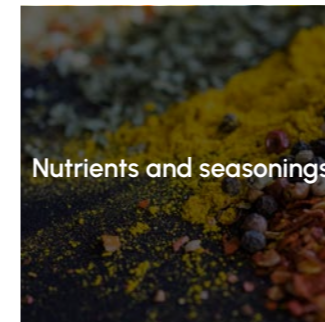
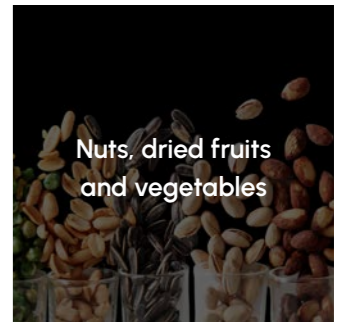
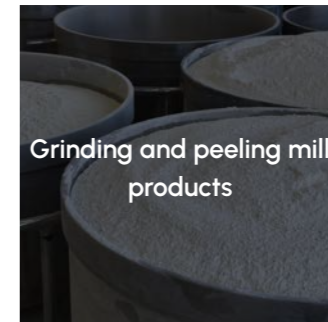
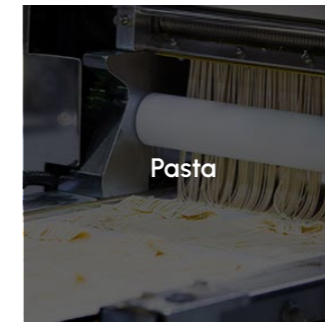
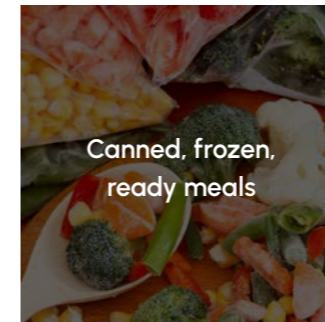
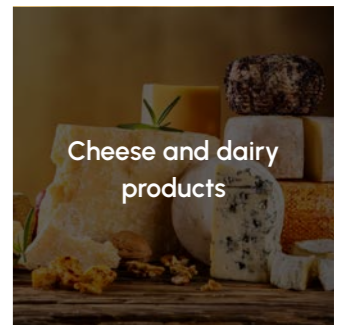
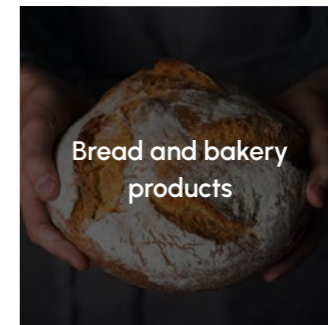
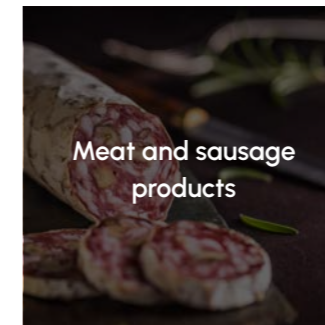
# Metal detection holistically thought through.

Especially in the food industry, the quality of the products has top priority. The delivery of faulty goods can have fatal consequences. It can lead to extremely expensive recalls, recourse claims or, in the worst case, consumer damage. We help you to protect yourself – with the help of high-precision metal detection. Our metal detectors were developed primarily for use in the food industry. They quickly and reliably detect the smallest metal contaminants in both packaged and unpackaged foods - regardless of their size, shape or position. They can be used both in the middle of the production line for the inspection of bulk materials or raw materials and at the end for the final inspection of packaged food.

Whether during an incoming goods inspection, inline inspection during packing, weighing, labeling or end-of-line in the final inspection of packaged food: Our metal detection systems ensure optimum food safety.

## Typical fields of application in food production

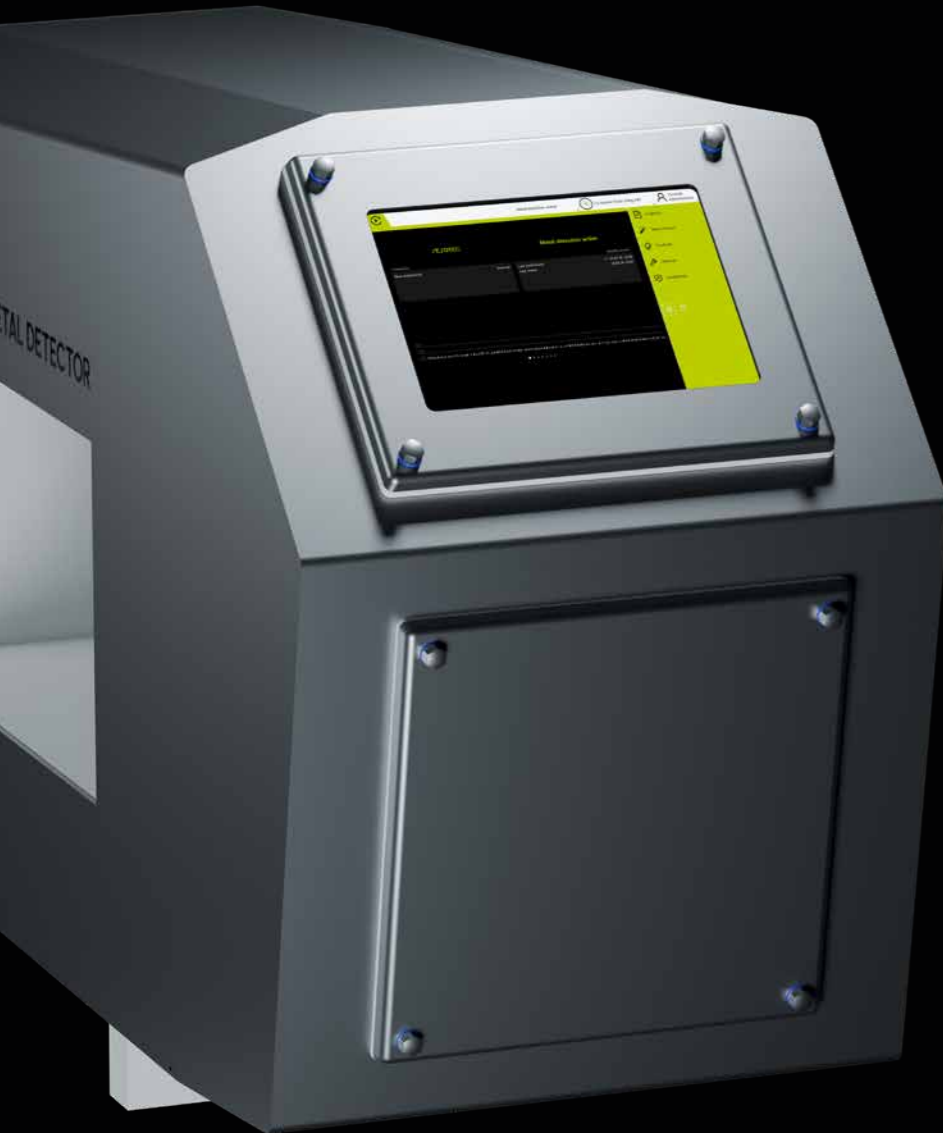
We support food producers in ensuring the best possible food safety. Our tunnel metal detectors are perfect for the following industries:



## NEXT GENERATION OF METAL DETECTION

# Metal Detector INTUITY NEX

Experience the next generation of industrial metal detection: A system that redefines precision, ensures CRA-compliant security, and sets new standards with quattro-simultaneous-frequency technology. With IP69K protection, intelligent connectivity and intuitive operation, it combines maximum durability with efficient process control elevating modern production processes to an entirely new level.



 **Hygiene**

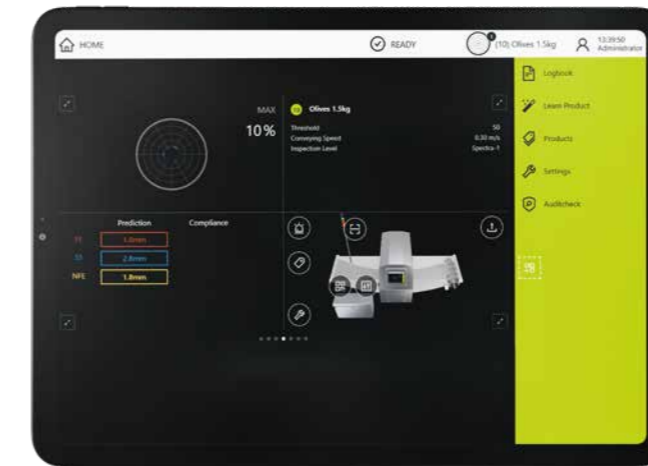
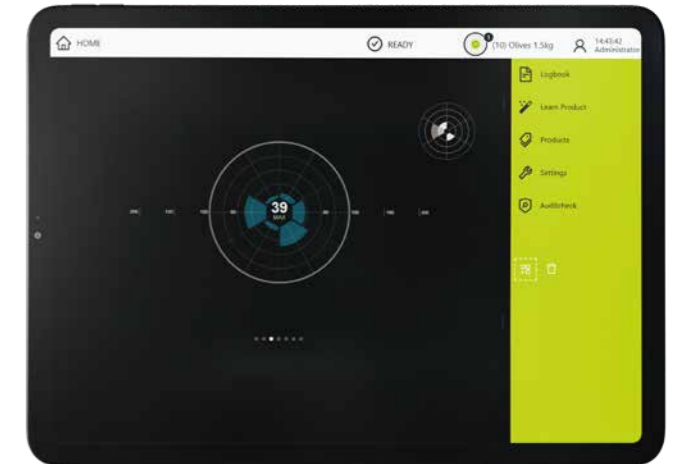
 **Sturdiness**

 **Design**

Thanks to a complete redesign of the coil, the INTUITY NEX even meets the highest hygiene standards in accordance with protection class IP69K. This makes it suitable for high-pressure and hot water cleaning, which reduces downtime. In addition, food-safe materials and an easy-to-clean design ensure maximum hygiene. In combination with our Varicon+L conveyor belt system (washdown version), an optional clean-in-place mode is available, which supports HACCP and IFS. Production in accordance with ISO 9001 guarantees the highest quality and reliability.

## Highest precision

The new technology combines four operating frequencies in parallel with state-of-the-art electronics and AI. This ensures maximum detection accuracy and prevents false detections. An advanced sensor design ensures maximum stability even under extreme conditions. Thanks to its fully digital architecture, all electrical adjustments are software-based – no manual adjustments are required, making the process fast and efficient.

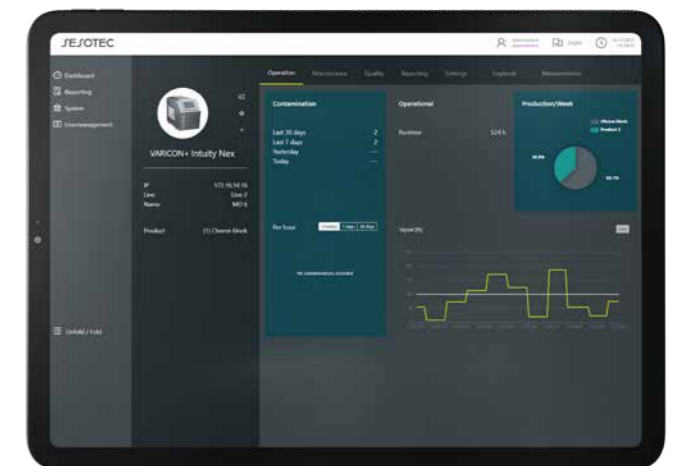


## Next Level User Experience

The new Insight.HMI user interface offers a modern design with flat control elements and capacitive multi-touch for maximum ease of use – even when wearing gloves. Remote control via mobile devices increases flexibility. Up to 20,000 local events can be stored in the event log for complete compliance and seamless traceability (unlimited via Insight.WEB). Modular hardware and regular free updates ensure the long-term availability of the latest functions.

## Connectivity and Integration

The system can be quickly integrated into any production line thanks to plug & play and standardised interfaces. The compact integrated electronics save space and simplify installation. With up to 10,000 product profiles, it offers enough memory capacity to meet the requirements of even the most extensive production lines. Modern protocols such as OPC-UA and Profinet ensure ideal connectivity. Full data transparency and maximum control thanks to full compatibility with the new Sesotec Insight.WEB software.



## Cyber Resilience

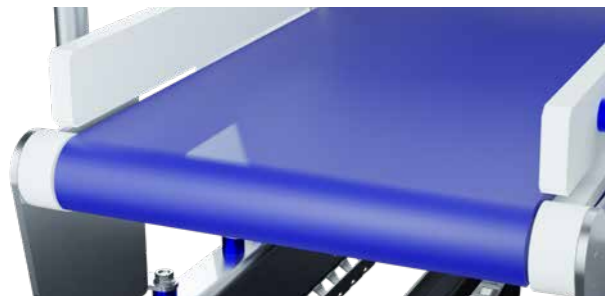
Security – CRA-oriented design. Password policy, audit logs, encrypted protocols (TLS1.2+), signed updates, role-based authentication, audit trails. Secure and audit-proof.

# Next Level Conveyor belt design

For best detection results and maximum efficiency, we offer VARICON+L and UNICON+L, high-performance complete systems for dry and wet areas. Latest technology with extremely short metal-free zone combined with robust and easily accessible stainless steel conveyor belt designs guarantee highest detection sensitivity and stability.

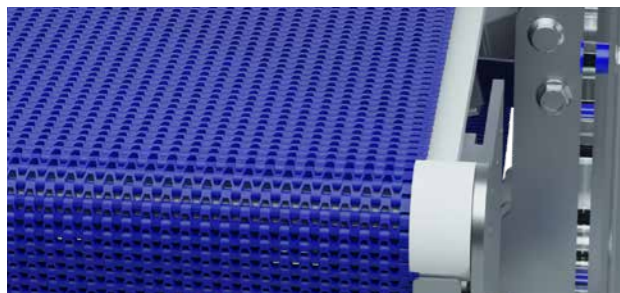
## Guide rails

Tool-less removable of the guide rails is now possible. The benefits are quick access and disassembly of the conveyor belt (linked belt system)



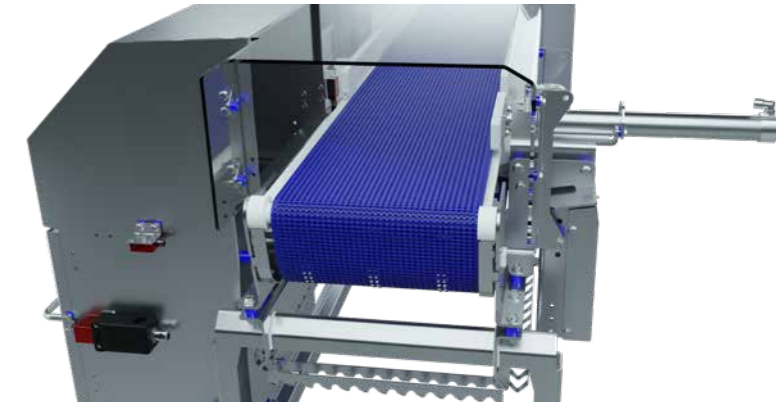
## Easy to clean without tools

The use of a link belt system enables quick and easy dismantling and cleaning of the conveyor belt.



## Protective Cover

- Use of PET-G for more stability
- OSHA Conformity
- Optional: Removable cover for shorter cleaning time. Electric safety switch. Solid stainless steel reinforcements



## Redesigned Frame

The design features no hollow profiles, ensuring a hygienic and easy-to-clean structure. It remains flexible and modular, allowing effortless adaptation to different setups. With minimal straight surfaces, it supports optimal cleanliness and smooth handling.

### Dimensions

- Lengths: As short as possible
- Width: 300 mm, 400 mm, 500 mm and 600 mm
- Height: 840 ± 50 mm and 910 ± 50 mm (790-960 mm)

## Machine feet

- A** Standard Machine feet, cover for top thread
- B** Hygienic fixed feet with all threads covered
- C** Swivel Castor
- D** Hygienic swivel castor

# A holistic system

For best detection results and maximum efficiency, we offer VARICON+ and UNICON+, high-performance complete systems for dry and wet areas. Latest technology with extremely short metal-free zone combined with robust and easily accessible stainless steel conveyor belt designs guarantee highest detection sensitivity and stability.

## VARICON+ for standard configurations

VARICON+ was developed for the inspection of packaged and unpackaged products on conveyor belts. It reliably detects and removes magnetic and non-magnetic metal contaminants from the product flow, ensuring food production in compliance with BRC, IFS, and HACCP standards.

VARICON+ is available with the GLS, GLS MF and INTUITY NEX metal detectors for outstanding detection accuracy and can be used in both dry and wet environments. The extremely short metal-free zone of Sesotec metal detectors allows for the use of very short conveyor belts.

### Available separation systems

#### Air blast

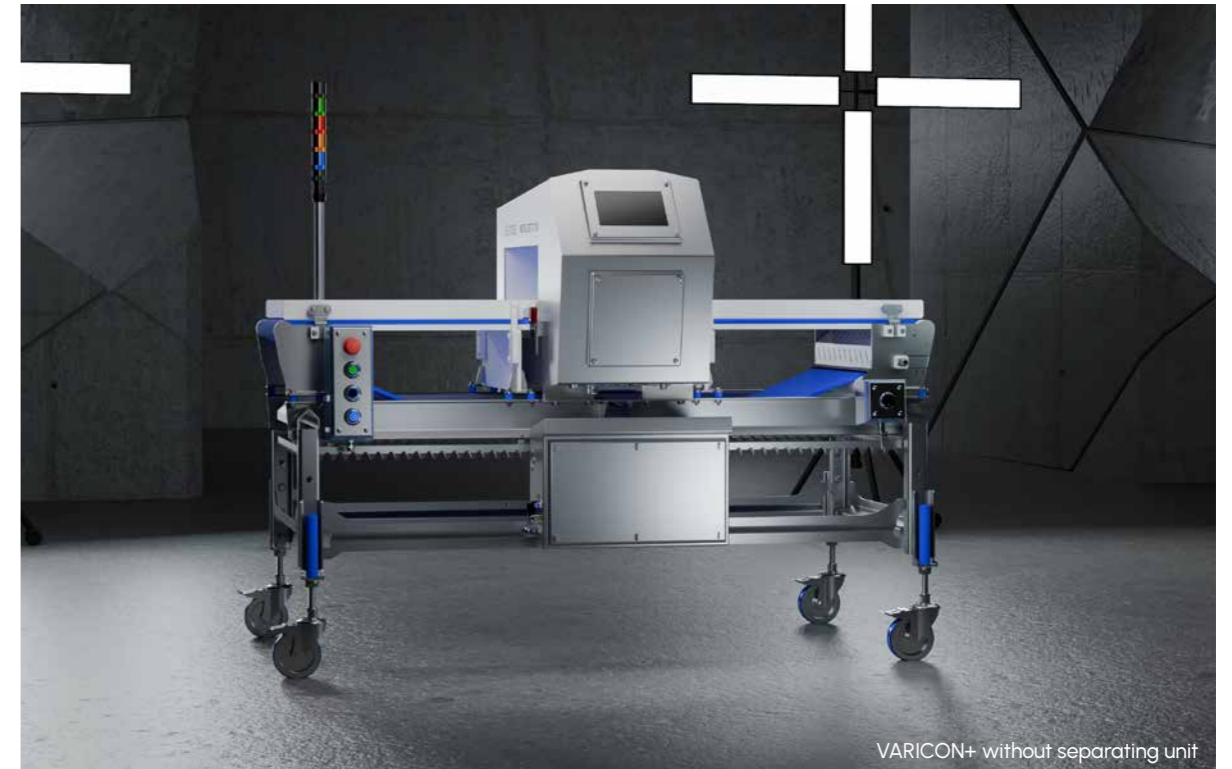
Air blast generate short bursts of air to gently separate lightweight, metal-contaminated products – without mechanical clamping, making them ideal for handling sensitive materials.

#### Pusher

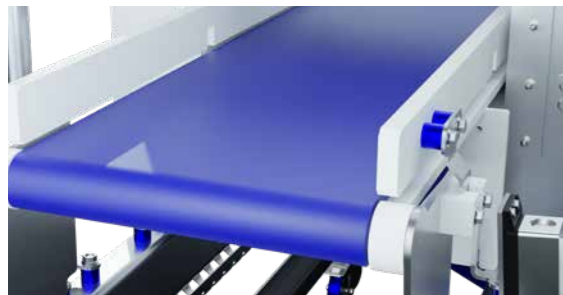
The versatile pusher system automatically separates metal-contaminated products weighing up to 5 kg (or more) – provided proper product spacing is ensured for precise and smooth conveying.



VARICON+ with separating unit



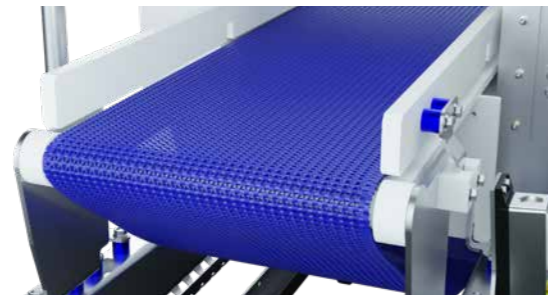
VARICON+ without separating unit



### VARICON+ F

With flat belt for better adhesion of dry and packaged products.

- Idler pulleys with small diameter
- Smooth transition between conveyor belt sections for smaller products



### VARICON+ L

With link belt for easier cleaning and higher production efficiency after wet cleaning.

- Maintenance-free sliding rollers for link belt
- Optional: Separate Varicon version for harsh wash down application with conveyor control cabinet and detection coil as well as hinged cover over display according to protection class IP66/69K and signal device according to protection class IP66
- Special hygienic variants can be realized as UNICON+

## UNICON+ for special solutions

With the UNICON+ conveyor belt series, we offer customized solutions for optimal integration into customer-specific environments. UNICON+ is based on VARICON+ conveyor belt technology.

- Reliable metal detection system with GLS, GLS MF and INTUITY NEX metal detectors
- For the examination of general goods with a maximum load of up to 130 kg
- Modular design allows individual solutions in combination with customized reject systems suitable for the respective customer product
- Process conformity to BRC, IFS and HACCP
- Customized variants available for hygienic requirements



Customized UNICON+ ascending conveyor belt solution

# Your priorities. Our answers.

The development of our metal detection systems was focused on one thing in particular: Your priorities. In-depth analysis and background discussions have revealed the key requirements for foreign object detection. On this basis, we have intensively researched solutions. This has resulted in our Sesotec 6-priorities concept with practical answers to your challenges.



## P1 **Conformity & Accuracy**

Reliable detection of magnetic and non-magnetic foreign objects throughout the inspection area enables compliance with all current specifications and standards.

## P2 **Safety for people & product**

The automatic venting of the pneumatics in the event of an emergency stop and compressed air monitoring, as well as the ejection control, ensure all-round safe operation for people and products.

## P3 **Simple operating concept**

Thanks to a large touchscreen, intuitive user guidance with quick access to the most important system functions, a help function and features such as the Auto-Learn function, our tunnel metal detectors offer particularly easy everyday handling.

## P4 **Comprehensive hygiene concept**

Robust and hygienic housing that can be cleaned quickly and easily without tools (removable protective cover, removable guide bars, modular belt with Sani-Clip)

## P5 **Efficiency in all areas**

Intelligent sensitivity adjustment and high interference immunity prevent false positives and increase profitability.

## P6 **Reliable, fast service**

With warranty services, combined on-site and remote service, and targeted training, you have optimal support for smooth operation.



# Conformity & Accuracy

Our metal detectors support and facilitate compliance with the necessary food safety

## Our systems exceed international standards

With our metal detectors, you are on the safe side when it comes to international food standards.

- BRC, IFS and HACCP compliant (exceeds detection accuracy requirements of current food safety standards)
- Higher Level Security Package (Marks & Spencer quality requirement) is optionally available for all devices with a reject system



## Compliant & secure with Insight.360

Insight.360 offers a wide range of features to help you monitor the manufacturing process. Through optimal traceability, a comprehensive logbook and efficient data management, you are kept informed of the status of your equipment at all times.

Insight.WEB is a web-solution for the operation and monitoring of all metal detectors and X-ray inspection systems from a central control station.

- Our foreign object detection systems record operating data such as contamination detection, product changes, audit checks, and error messages in a log. Each data entry is timestamped and dated.
- Insight.WEB is a central data management software for monitoring and operating all metal detectors and X-ray systems from a central control station (e.g., smartphone or laptop). For you, this means that you can read, save, load, and delete all logged operating data (e.g., system logbook) while simultaneously accessing and remotely controlling all connected systems – anytime and anywhere.

INTERLINK+ is a communication module for the digital integration of Sesotec devices into central company networks. It enables targeted productivity increases through central process analysis, monitoring, and control, as provided for in Industry 4.0.

- Networking via OPC UA or REST-API
- Targeted productivity increase through central process analysis, monitoring, and control
- Enables central control of Sesotec inspection devices as well as remote maintenance and predictive maintenance
- Enables early detection of errors and wear through cross-device data comparison

OPTION FOR INTUITY NEX AND VARICON+ INTUITY NEX:  
INNOVATIVE SOFTWARE FOR SEAMLESS AND EFFICIENT DOCUMENTATION

# Compliance Package

Our compliance software package includes the following features:

1. Audit check: guides through the audit routine with the help of a flow wizard and logs all steps.
2. Sensitivity prediction: enables automatic determination of the detection sensitivity of various foreign bodies.
3. Compliance Mode: can set the sensitivity to factory or audit standards to achieve compliance.
4. Integrated Compliance Monitoring: ensures that current sensitivities are continuously monitored at defined time intervals.



### Step 1: Internal self-check of the detection system

The ICM monitors the detector by feeding a four-channel signal into the signal chain, which is specifically tuned to the product being tested during the teach-in process. This signal is transmitted at short intervals and thus determines the state of the machine.

### Step 2: Compliance Mode

The ICM generates an alarm condition to report non-compliance when the detection prediction exceeds the compliance mode value. In this case, the production line is stopped automatically. All results and incidents are logged in the logbook and time stamped.

5. Integrated Validation Process: The machine includes an integrated multi-step process for simplified validation of products.

The Integrated Validation Process (IVP) is a documentation tool and provides evidence that the desired quality objectives for the respective product are achieved. The goal or result of the Integrated Validation Process is a certificate issued by Sesotec with the validation results.



## Advantages for the customer

- Compliance with food safety standards
- Savings in working time, packaging material and product waste
- Increase in production efficiency
- Increase in product quality
- Reducing the risk of poor quality control and missing records



# Safety for people & product

The system is safe for brand, product, personnel and data

## Higher Level Security Package

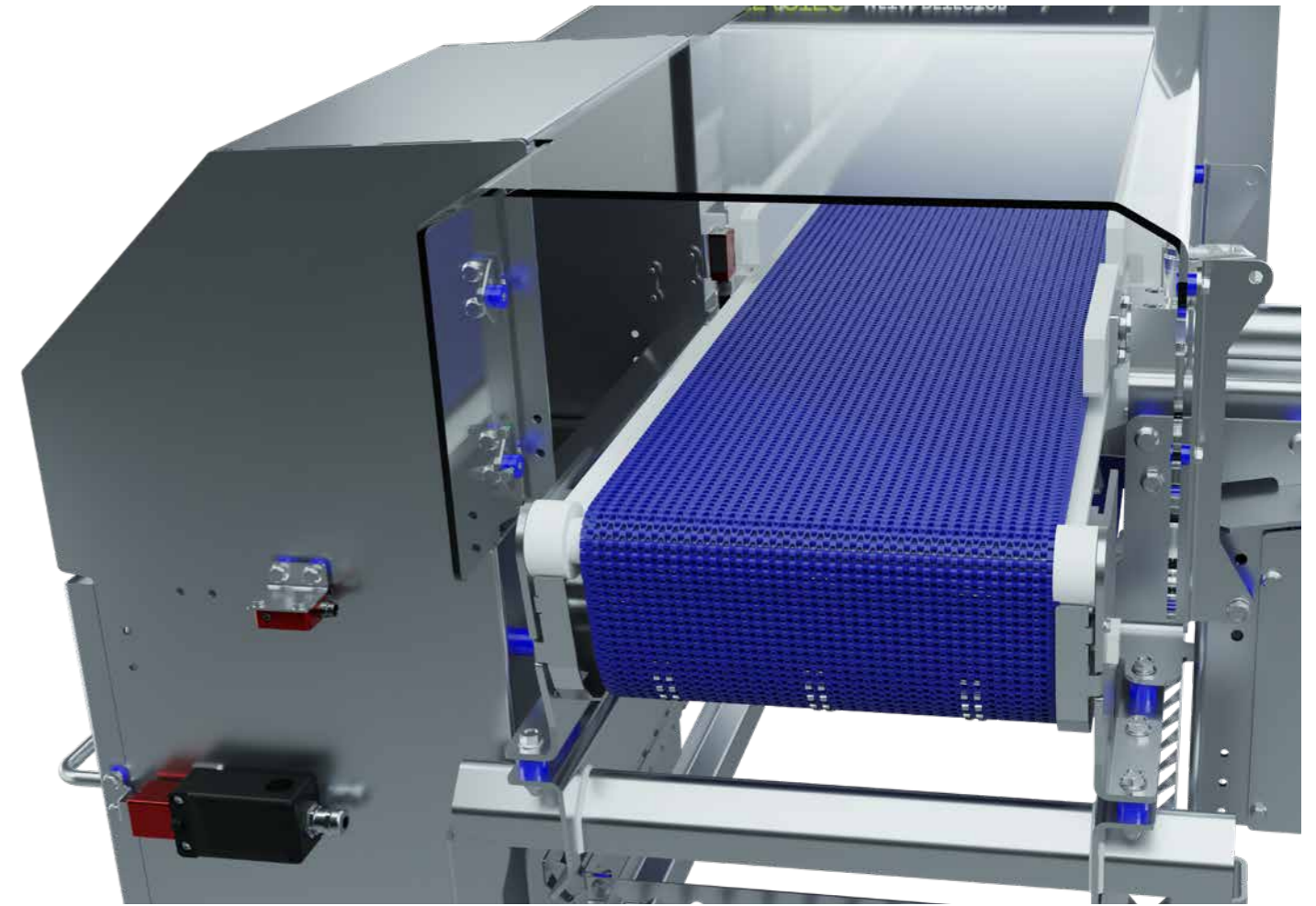
With Sesotec machines you are on the safe side as far as international food standards are concerned. As a result, the devices also meet Marks & Spencer's quality requirements.

## Transparent protective cover

- The protective cover over the ejector unit serves as a mesh guard.
- Additional safety due to automatic release of pneumatics in case of machine failure, which protects the operator.
- Protective polycarbonate cover for full overview of the reject system.

## Rejection monitoring for packaged products

- If contamination is detected, the rejection system is activated.
- The „Reject Confirmation System“ checks whether the contaminated product has been separated. If no signal follows here, an error message is displayed in the software.
- This means that it is not possible for a contaminated product to be overlooked due to problems with the separating unit, for example.



## High data security guaranteed

- The definition of different user groups with specific rights facilitates access protection (e.g. Service, Admin & Operator).
- With the user administration, individual access authorizations can be assigned to an operator.
- The "Login2Go" function saves the data on a USB stick. This saves logging in with password entry.

## Compressed air monitoring

- An error message appears when the pressure drops or is not applied and is noted in the logbook.
- In this way, the operator is warned at an early stage of a drop in compressed air, which would result in impairment of the separating unit.

## Reject bin monitoring and interlocking

- Enables opening/closing the reject bin via the user interface with corresponding user rights.
- Prevents access to the reject bin by unauthorized persons, allowing only authorized persons to remove discharged products from the reject bin.
- Moreover: An error message appears if the reject bin is open for a longer period of time (time window can be set, e.g. 30 seconds).

## Level indicator for reject bin

- An error message appears when the reject bin is two-thirds full (time window until error message can be set, e.g. 5 seconds).
- This prevents a backlog of products in the reject bin up to the conveyor belt.



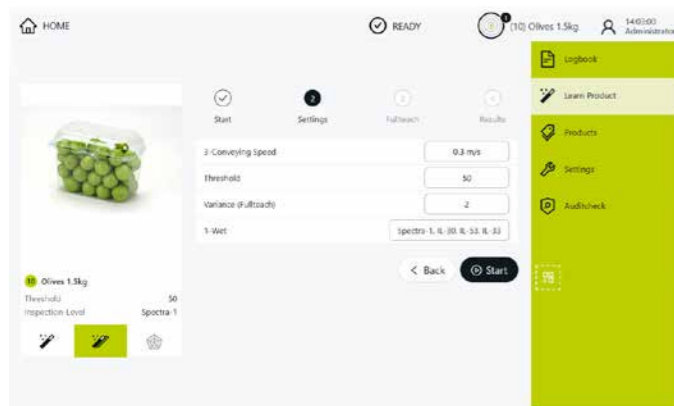
# Simple operating concept

Simple operation boosts user satisfaction, facilitates handling and minimizes the risk of errors

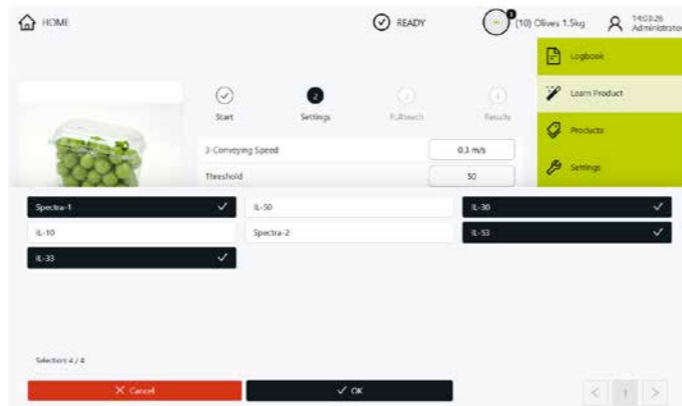
## Clever support through our software

- Multi-product memory: Device settings for 300 or 500 different products can be stored. Product changeover is quick and easy, including the possibility of batch tracing by querying a batch number.
- Auto learn function with product compensation: automates the product-specific device settings. Prevents false triggering due to intrinsic effects of the product (e.g. due to salts, moisture, etc.) by automatically determining the best instrument setting for optimal detection while maintaining high noise immunity.
- Quick teach function: simplified learning process for product compensation, e.g. after changing a product recipe or batch.
- Auto-tracking: enables intelligent, dynamic tracking of the product compensation parameters in the event of changes in the product (formulation, moisture, thawing products), thus guaranteeing optimum detection sensitivity without false alarms.
- Stop-and-go operation: enables reliable metal detection even in stop-and-go operation, such as discontinuous conveying.

## Easy to use menu design



As soon as the operator clicks on a selectable menu field ...



... a new menu opens as pop up .

Ergonomic position of the display

Sequence wizard

Help menu

Quick Access

USB port





# Comprehensive hygiene concept

Depending on the hygienic requirements, the systems offer a corresponding design for simple, effective cleaning and maintenance

# 10%

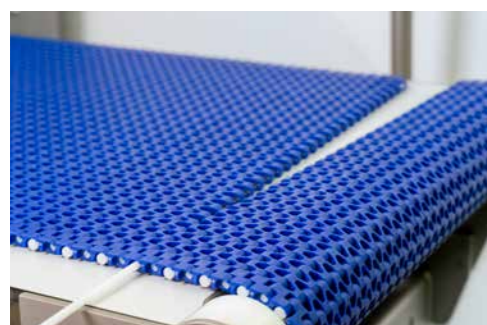
of annual turnover is due to cleaning costs

Did you know that cleaning is one of the most time-consuming and resource-intensive aspects of operating a food manufacturing or processing facility? According to one study, half of companies in the food industry spend at least 10% of their total annual turnover on cleaning.

## High hygiene standards – for food production

The complete stainless steel and plastic construction makes our metal detection systems ideal for the food industry.

- Sloped surfaces on the INTUITY NEX ensure that water runs off/condensation is avoided
- Standard Protection rating for INTUITY NEX is IP69K. Protection rating for GLS and GLS MF is IP65 and optionally IP66 (with display cover)
- Complete structure made of stainless steel and plastics in contact with the product with suitability for the food sector (according to EC 1935/2004)
- Use of materials that can be cleaned repeatedly and intensively without abrasion



Easily removable link belt for cleaning



Hygienic screw connection: Each screw is hygienically sealed



Sealed USB port with high degree of protection and attached protective cap



Tunnel metal detector and display cover according to

# IP66/69K

## Mechanical and technical features

- Hygienic design, easy and effective to clean
- Low installation length and metal-free zone: greatly simplifies integration of the metal detector into existing conveyor belt systems
- Robust construction with open conveyor frame for hygienic cabling
- UNICON+ for particularly high hygienic requirements, for example in the meat sector or for unpacked, raw products

# Efficiency in all areas

Increase output, save work time and avoid food waste



## Compliance Mode

Reduction of the false reject rate (F.R.R.) & minimization of the loss of good material:

The metal detector adjusts the trigger level of the set product to reliably detect the specified test samples.

## Active Compliance Mode

The user can program in the system what should happen in case of non-compliance with the configured sensitivity forecast, be it a warning message or even a stop of the production line.



### Advantages for the customer

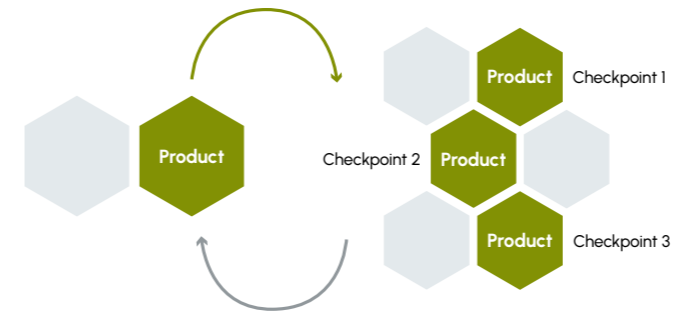
- Compliance with food safety standards
- Savings in working time, packaging material and product waste
- Increase in production efficiency
- Display of predicted performance and compliance values for easy verification

## Auto Tracking

Dynamic Auto Tracking enables intelligent tracking of the product compensation parameters in the event of changing product properties, e.g. if the recipe or temperature changes.

## Checkpoints

Checkpoints are used to restore product parameters. In the course of quality assurance, they allow a comparison between the current and previously saved product settings. This makes it possible to reconstruct individual products and track changes.



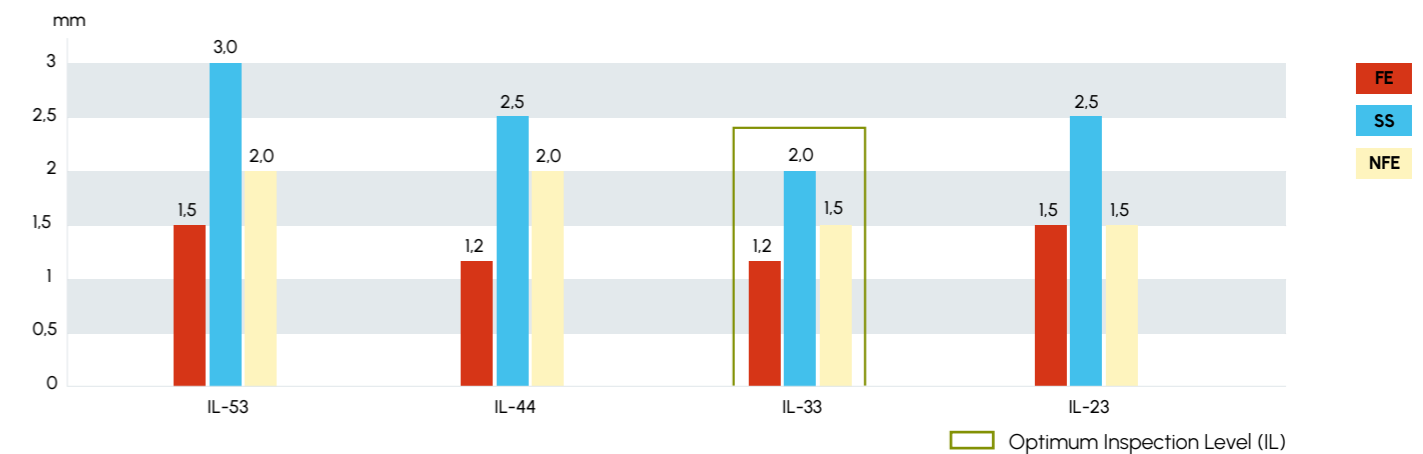
## Statistical evaluations

Provides a comprehensive event history with detailed statistical data.



## Sensitivities prediction

After the teach-in process, the software automatically indicates the most suitable Inspection Level (IL) with associated sensitivities for ferrous, stainless steel and non-ferrous metals. The IL with the predicted sensitivities that most reliably meet customer requirements can then be selected.



### Advantages for the customer

- Instant overview of the sensitivity level
- Simple adjustment with the required detection sensitivity
- Enormous time savings during the teach-in process
- Easy determination of the best inspection level for the product to be inspected

# Reliable, fast service

Ensure and improve performance, provide fast help in case of unexpected failures, prevent problems

- Customer-specific training for operation and service/maintenance
- Annual maintenance and product validation
- Initial commissioning on site by qualified service technicians
- Demo devices available at short notice
- High overall plant efficiency and stable operation

## The Sesotec Service: Global. Competent. Responsive.

In addition to first-class equipment and systems, Sesotec also offers you first-class service for all aspects of foreign object detection. Our winning service convinces includes a variety of features that flexibly adapt to your individual application. Our service offers you long-term investment and planning security.



### Telephone support

Many questions and incidents can be resolved over the phone. Our free telephone support is available daily from 6 am to 8 pm and on weekends from 8 am to 5 pm. Fast, simple, effective.



### Remote Access

Frequently, malfunctions on machines can also be remedied via remote access. Sesotec service technicians have direct access to your machines via Ethernet connection and can perform error analyses, optimizations and parameter settings.



### Remote support with augmented reality

In addition to telephone support and remote access, Sesotec also offers video-based support with augmented reality. This is done via the Team-Viewer Pilot app.

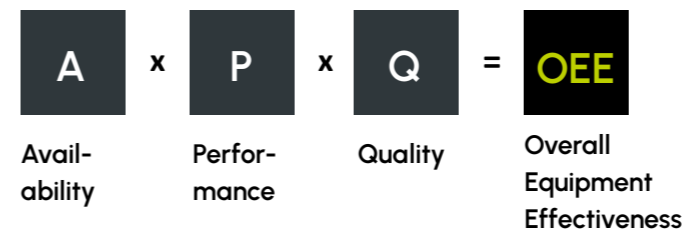


### Sesotec spare and wear parts packages

With the preventive spare and wear parts package for our devices and systems, you have the supplies you need in the event of machine downtime and can quickly and easily replace mechanical components yourself.

## For maximum productivity and profitability

- Maintenance free tunnel metal detectors
- High overall plant efficiency and stable operation
- Wear and spare parts package for fast resumption
- 10 years spare parts availability
- Remote support for shorter downtimes



# NEW

Spare parts online catalog for fast processing of spare parts orders

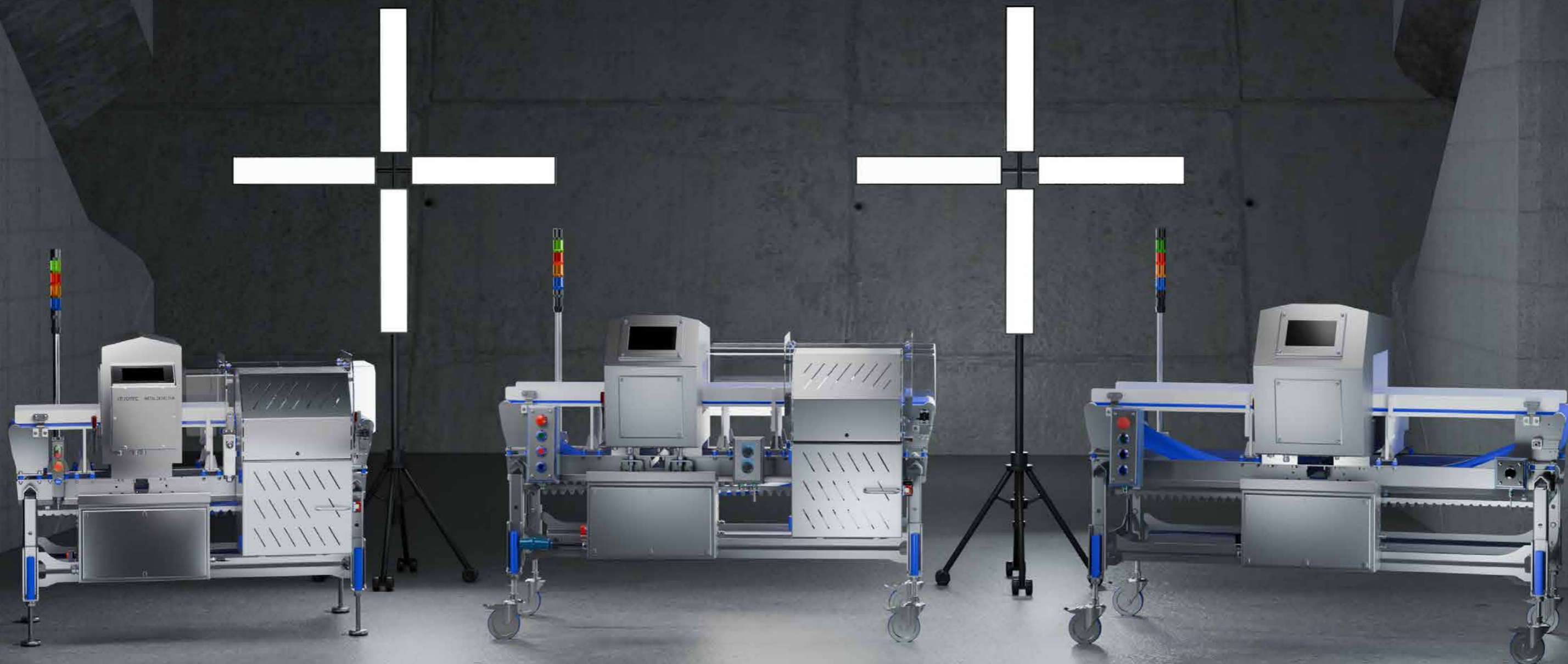
# 365 days

Our service is available to you 365 days a year and guarantees fast response times and thanks to service centers located worldwide.



PLEASED TO MEET YOU

# Metal detection in perfection



# GLS

The entry-level model for inspecting piece and bulk goods on a conveyor belt with good detection accuracy

|                  |                   |                                  |
|------------------|-------------------|----------------------------------|
| <b>1.1</b><br>mm | <b>300</b><br>kHz | Single-<br>or dual-<br>Frequency |
| Detection*       | Frequency         | Technology                       |

## Highest flexibility

Perfect adaptation to customer-specific requirements thanks to a closed coil system with over 200 different coil sizes.

## Audit-Check

The audit check guides you through the audit routine with the help of a process wizard and logs all steps. This continuous quality monitoring is of enormous importance, especially for food producers and processors, to ensure consistently high product quality.

## GENIUS ONE Control Unit

- New user interface with touch display for easiest operation
- Faster teach-in, fewer operating errors and short operating times
- Cost and time savings through effective operating and service functions



For packed and unpacked piece and bulk goods

### Free consultation

<https://www.sesotec.com/emea/en/contact>



## Technical data

|                                 | GLS  | VARICON+ GLS   |
|---------------------------------|--|--|
| Detection accuracy              | from Ø 1.06 mm V2A   | from Ø 1.20 mm V2A (with 350/150)  |
| Frequency bandwidth             | Up to 300 kHz  | Up to 300 kHz  |
| IP protection class             | IP65 (optional with display cover and detector shaft for IP66/69K) | IP65 (optional with conveyor control cabinet to IP66/69K and signaling device to IP66) |
| Display size                    | 5" color touch display   | 5" color touch display   |
| Min./Max. Tunnel size (DB x DH) | 50/25 mm<br>2800/250 mm  | 350/150 mm<br>500/250 mm   |
| Number of available sizes       | 348  | 12   |
| Max. Product size               |  | 450/200 mm   |
| Ambient temperature             | -10 °C to +50 °C   | -10 °C to +40 °C   |
| Product temperature             | -20 °C to +80 °C   | -20 °C to +80 °C (VARICON+ D)<br>-20 °C to +65 °C (VARICON+ W)                         |
| Conveyor belt length            |  | 1000 oder 1300 mm with belt stop<br>1400, 1500 oder 1700 mm with rejection             |
| Conveyor belt speed             | 0.3 to 2.1 m/s best sensitivity<br>0.02 to 3.0 m/s max. possible   | 0.3 to 2.1 m/s best sensitivity<br>0.02 to 3.0 m/s max. possible                       |
| Max. Belt loading               |  | 20 kg (belt width up to 400 mm)<br>50 kg (from belt width 500 mm)                      |
| Rejection systems               |  | Belt stop, Pusher or air blast   |

## Software options

|             |  |
|-------------|--|
| Audit check | <b>Insight.360</b><br>Sesotec memory module for data archiving<br><br><b>Test samples</b><br>In various sizes and configurations |
|-------------|--|

\*Detection of stainless steel on a GLS 250/150-GO

# GLS MF

The standard model for the examination of piece and bulk goods on a conveyor belt with a very good detection accuracy

0.90  
mm

Detection\*

600  
kHz

Frequency

Multi-  
Frequency

Technology

## Compliance Mode

In Compliance Mode, sensitivity can be set to factory or audit standards at the touch of a button to achieve compliance while reducing false rejection rates. Process stability is thus constantly maintained.

## Sensitivity prediction

Sensitivity prediction is automatically calculated after each teach-in process and after changes in sensitivity-dependent parameters, and enables automatic determination of the detection sensitivity of various foreign bodies.

## Metal type optimization

The GLS MF can be programmed for a specific type of metal, e.g. stainless steel, can be programmed and the best frequency for the corresponding type of metal is automatically selected.



For varying product sizes and different products

Free consultation

<https://www.sesotec.com/emea/en/contact>



## Technical data

### GLS MF

### VARICON+ GLS MF

|                                 |  |  |
|---------------------------------|--|--|
| Detection accuracy              | from Ø 0.9 mm V2A  | from Ø 1.10 mm V2A (350/150)   |
| Frequency bandwidth             | Up to 600 kHz  | Up to 600 kHz  |
| IP protection class             | IP65 (optional with display cover and detector shaft for IP66/69K) | IP65 (optional with conveyor control cabinet to IP66/69K and signaling device to IP66) |
| Display size                    | 5" color touch display   | 5" color touch display   |
| Min./Max. Tunnel size (DB x DH) | 250/150 mm<br>700/300 mm   | 350/150 mm<br>500/250 mm   |
| Number of available sizes       | 73   | 12   |
| Max. Product size               |  | 450/200 mm   |
| Ambient temperature             | -10 °C to +50 °C   | -10 °C to +40 °C   |
| Product temperature             | -20 °C to +80 °C   | -20 °C to +80 °C (VARICON+ D)<br>-20 °C to +65 °C (VARICON+ W)                         |
| Conveyor belt length            |  | 1000 oder 1300 mm with belt stop<br>1400, 1500, 1700, 1800 oder 2000 mm with rejection |
| Conveyor belt speed             | 0.1 to 2.1 m/s best sensitivity<br>0.02 to 5.0 m/s max. possible   | 0.1 to 2.1 m/s best sensitivity<br>0.02 to 5.0 m/s max. possible                       |
| Max. Belt loading               |  | 20 kg (belt width up to 400 mm)<br>50 kg (from belt width 500 mm)                      |
| Rejection systems               |  | Belt stop, Pusher or air blast   |

## Software options

|                    |  |
|--------------------|--|
| Compliance Package | Audit check, compliance mode, sensitivity prediction in standard |
|--------------------|--|



## Accessories

**Insight.360**  
Sesotec memory module for data archiving

**Test samples**  
In various sizes and configurations

\*Detection of stainless steel on a GLS MF 250/150-GO

# INTUITY NEX

The Next Generation high-end model for best detection accuracy for products with high product effect



|                              |                             |   |
|------------------------------|-----------------------------|---|
| <b>0.79 mm</b><br>Detection* | <b>900 kHz</b><br>Frequency | <b>Quattro-simultaneous frequency</b><br>Technology |
|------------------------------|-----------------------------|---|



Products with high product effect

**Free consultation**

<https://www.sesotec.com/emea/en/contact>



## Quattro-simultaneous frequency

INTUITY NEX uses a combination of four frequencies applied simultaneously to the product depending on its properties. Each product creates a unique digital fingerprint (product effect). Based on this data, an automatically calculated metal detection threshold distinguishes metal signals from product-specific signals.



## Compliance Package

Our all-in-one solution for food safety ensures compliant production and provides process reliability when introducing new products. The software guarantees flawless machine performance, reduces product waste, and protects effectively against manipulation through paperless documentation.

## NEX Control Unit

- Intuitive user interface with 7" capacitive color touch display
- Quick access to important system functions through configurable start screens
- Permanent self-monitoring of all important system functions
- Simple setup process through menu-guided wizards
- Clear display of all operating messages and system states



| Technical data                  | INTUITY NEX  | VARICON+ INTUITY NEX   |
|---------------------------------|--|--|
| Detection accuracy              | from Ø 0.79 mm V2A   | from Ø 0.79 mm V2A (with 250/150)  |
| Frequency bandwidth             | Up to 900 kHz  | Up to 900 kHz  |
| IP protection class             | IP69K (optional with display cover)                              | IP65 version for packed or dry unpacked products<br>IP66/69K version for unpacked fresh products |
| Display size                    | 7" color capacitive touch display                                | 7" color capacitive touch display  |
| Min./Max. Tunnel size (DB x DH) | 250/150 mm<br>700/400 mm   | 350/150 mm<br>600/400 mm   |
| Number of available sizes       | 56   | 7  |
| Max. Product size               |  | 500/350 mm   |
| Ambient temperature             | -10 °C to +40 °C   | -10 °C to +40 °C   |
| Product temperature             | -20 °C to +80 °C   | -20 °C to +80 °C (VARICON+F)<br>-20 °C to +65 °C (VARICON+L)                                     |
| Conveyor belt length            |  | 1000, 1300 or 1500 mm with belt stop<br>1400, 1700, 1800 or 2000 mm with rejection               |
| Conveyor belt speed             | 0.3 to 1.0 m/s best sensitivity<br>0.02 to 3.0 m/s max. possible | 0.3 to 1.0 m/s best sensitivity<br>0.02 to 3.0 m/s max. possible                                 |
| Max. Belt loading               |  | 20 kg (belt width up to 400 mm)<br>50 kg (from belt width 500 mm)                                |
| Rejection systems               |  | Belt stop, Pusher or air blast   |

## Software options

|                           |  |  |
|---------------------------|--|--|
| <b>Compliance Package</b> | Audit-Check, Compliance Mode, Sensitivity prediction in standard, ICM and IVP optional | <b>Insight.360</b><br>Sesotec memory module for data archiving |
| <b>THiNK</b>              | Artificial intelligence based software with annual or permanent license                | <b>Test samples</b><br>In various sizes and configurations     |



\*Detection of stainless steel on an INTUITY NEX 250/150

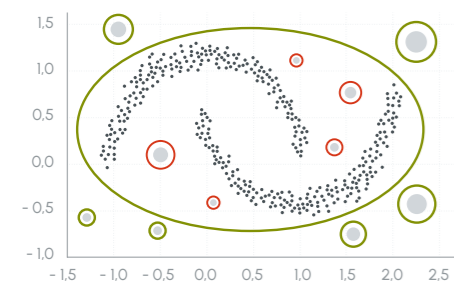
# Driving the AiVOLUTION

OPTIONS FOR INTUITY NEX  
INTELLIGENT AI SOFTWARE FOR MAXIMUM DETECTION ACCURACY

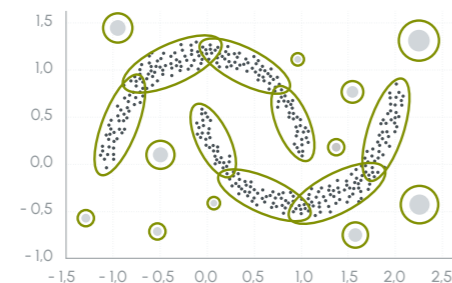
## THiNK – Metal Detection with Artificial Intelligence

The THiNK software is an additional option for products with very high product effects. THiNK is able to almost completely mask the product effect, thus increasing detection sensitivity and reducing false rejects. Your advantage with Sesotec: The software is based on artificial intelligence and independently draws conclusions from large amounts of data.

### Multi-simultaneous frequency



### THiNK Technology



• Product effect    ◯ Detection threshold    ◯ Metal foreign body (detected)    ◯ Metal foreign body (not detected)

- Every product leaves a "digital fingerprint"
- A metal trigger threshold is calculated and stored around these points
- Inside the threshold, the signals are assigned to the product effect, outside detected as metal
- Multidimensional AI algorithms calculate the detection threshold more accurately and stably with each product
- AI models thus create multiple detection thresholds
- Detection sensitivity is thus significantly increased and false triggering reduced

### THiNK about it...

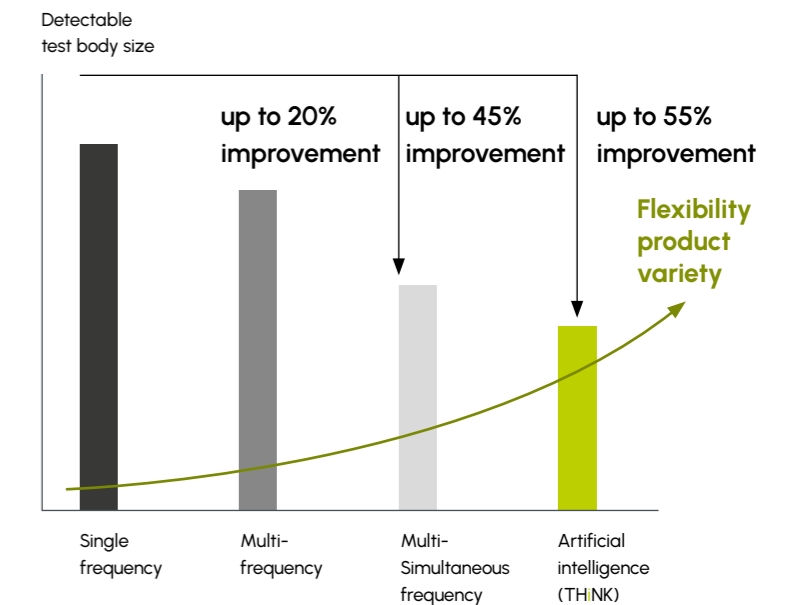
THiNK was developed specifically for our high end metal detector. Please feel free to contact us at any time to get started.

### Typical fields of application for Artificial Intelligence (AI)

- Better, more stable detection of products with high and/or fluctuating product effects (storage in brine or water, metalized packaging, etc.)
- The smallest metal contaminants are reliably detected, whereas they remained undetected with previous systems
- Hiding of RFID tags, for example on E2 containers filled with meat and sausage products



### Innovation leader through Artificial Intelligence



### THiNK Auto-Tracking

Production data and parameters are collected via this function, and used in AI model building. The various AI models are continuously adapted to production. This ensures reliable production with maximum detection performance.

### Advantages for the customer

- More security against product recalls
- Less food waste
- Increase in production efficiency
- Increase in product quality
- Higher profitability
- Reliable detection for products with high product effects



## Imprint

# SESOTEC

Sesotec GmbH  
Regener Strasse 130  
D-94513 Schönberg

Phone: +49 (0) 8554 / 308-0  
Mail: [info@sesotec.com](mailto:info@sesotec.com)  
Website: [www.sesotec.com](http://www.sesotec.com)

Managing Director:  
Joachim Schulz | CEO  
Niklas Burkart | CFO

Register Court: Local Court of Passau  
Commercial register no. HRB 3163  
VAT ID: DE 81 151 25 77

Concept, text, design:  
Sesotec GmbH

Picture credits/Copyright:  
All image rights reserved by  
the company Sesotec GmbH.