

Industrial Metal Detectors

For the protection of consumers and production equipment



All Minebea Intec products and systems feature German Quality combined with 70 years of experience in designing, building and servicing metal detectors.

We make daily life safer

Minebea Intec provides products, solutions and services to the industry for increasing the reliability, safety and efficiency of production and packaging lines. This we give evidence through our promise to our customers and consumers: 'We make daily life safer.'

Our core market position, that of a leading global product and solution provider together with our aim to set strong standards in all areas of our business, are both reflected in our company motto: 'The true measure'.

We have more than 147 years experience in supporting the industry to ensure that manufactured goods have the right quality and do not contain any foreign bodies. Our ability to do this is based on the 'German Quality' of our products and services combined with our continuous investment in developing leading technology. As a result, tens of thousands of customers put their trust in our company, having allowed us to supply them with millions of products and solutions during our long history.

Via our world-wide presence, we stand beside our customers around the globe and through the whole life cycle of our products and solutions; from assistance with selecting the right equipment, design-in support, installation & calibration and maintenance & repair services, up to realising equipment upgrades and refurbishments and providing user trainings.

Our products and solutions make an important contribution in the following industries:





The MinebeaMitsumi group

The MinebeaMitsumi group is a global precision electromechanical components manufacturer, providing products for various industries. Minebea was founded in 1951 in Japan, Mitsumi in 1954 and today has more than 78,000 employees as well as production and sales & service facilities in 16 countries around the globe. For many products, the MinebeaMitsumi group is No. 1 in terms of its global market share.

Minebea Intec metal detectors – a secure investment

Minebea Intec develops and manufactures industrial metal detectors and metal detection systems for the inspection of food and other products. The systems are capable of detecting both ferrous and non-ferrous metals and reliably separating any products contaminated with these metals from the production or packaging line.

All Minebea Intec products and systems feature German Quality combined with 70 years of experience in designing, building and servicing metal detectors. This guarantees you reliable operation over a long time, making the investment in a Minebea Intec solution a secure one.



We offer two types of industrial metal detectors, one for protecting production equipment and production staff and the other for protecting consumers.


The protection of production equipment and staff is typically an application for the chemical, plastics, rubber, recycling and timber industry. In the chemical industry for instance, metal detectors are used for the inspection of recycled plastics with the objective of avoiding damage to expensive moulds.

For the protection of consumers, many applications can be found in the food industry. Here their main purpose is to ensure that products leaving the factory do not contain any metal contaminations. Through this Minebea Intec metal detectors support compliance with industry standards such as HACCP, IFS and BRC, protect brand reputation and avoid costly product recalls.

Always the right solution for each of these applications:



Foreign body detection



'Minebea Intec metal detectors help me comply with industry standards and avoid costly product recalls.'

To learn more about metal detection in general, download our White Paper here!



www.metal-detection.info/en

Vistus® metal detectors for optimum consumer protection

Vistus® metal detectors are capable of detecting both ferrous and non-ferrous metals and are specifically designed for the food industry. They are available with a rectangular opening for use on conveyor belts and with a round opening for use on pipes.

All Vistus® detectors feature:

- Multi-frequency technology offering premium detection performance
- Fast and easy switching between product batches via extensive product memory
- Via the automatic learn-function, products can be set up or adjusted fast and error-free by line operators without requiring special training or knowledge and without the involvement of an engineer
- Access protection via user individual passwords or finger print authentication avoiding unauthorized system changes
- A wide variety of available interfaces allows an easy integration into data networks



Metal detection conveyor Vistus®

Vistus® metal detectors with rectangular openings for use on conveyors

- Available standard coil sizes: 7.5 x 3.0 cm up to 275 x 60 cm (w×h). Other sizes are available on request
- Extremely compact: control unit fully integrated in detection coil
- Standard IP65 protection class, IP69 optionally available for enabling high pressure water cleaning



Metal detector Vistus®

Vistus® metal detection systems

Vistus® metal detectors can be supplied, mounted on a belt or chain conveyor, allowing an easy and fast integration in your processing or packaging line. Our systems feature:

- Sturdy and torsion free construction made of 1.4301/AISI 304 stainless steel
- High quality drives: maintenance free three-phase motor with worm gear or three phase drum motor
- Maximum detection performance through optimum vibration control and metal free zone
- Vistus® metal detection systems can optionally be equipped with the required sensors and devices for full compliance with industry standards such as IFS, BRC and M&S. These options include among others, protective covers, reject monitoring, bin full monitoring, air pressure monitoring and lockable rejection bins



Metal detection conveyor Vistus®

Freefall metal detection system Vistus®

The freefall metal detection system Vistus® ensures the reliable inspection and removal of metallic foreign bodies from any kind of food products in powder or granule form that is transported with the use of gravity through a pipe, e.g. milk powder, wheat, nuts or cornflakes. Vistus® freefall metal detectors feature:

- Minimum installation height for easy integration into any application
- Cost effective control of up to four search coils via one terminal
- True In-Process Validation. This functionality guarantees correct performance testing



Freefall metal detection system Vistus®



To learn more about Vistus® freefall metal detection systems, scan the QR code and watch the video

www.minebea-intec.com/en/videos/vistus-freefall



Test piece opening



Test piece stopper

True In-Process Validation

True In-Process Validation guarantees correct performance testing during running operation. It allows a test piece to be dropped through the centre of the metal detector, the area of any detector with the lowest sensitivity. Any other position than the centre would produce false validation results.

To ensure that the test piece is removed from the material flow if it is not detected, a stopper is installed beneath the separator.

Pipeline configuration system

Vistus® freefall metal detector systems with round openings for use on pipes can be configured to suit your individual requirements by choosing from the following standard components: operator terminal, search coil, pipe, separator and True In-Process Validation.

Search coils



Vistus® R
For maximum detection sensitivity combined with a compact design.



Pipes



PP pipe
Made of heavy-duty polypropylene; it is the universal solution for products that are not susceptible to electrical discharge, such as coffee or spices.



ESD pipe
Continuously neutralises static electricity thus offering maximum reliability when inspecting dusty products. Fully meets EU food safety standards 10/2011 and 1935/2004.



Separators



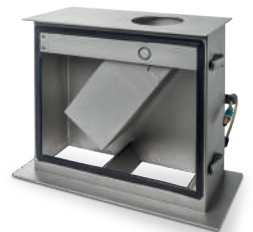
ST separator
Suitable for a wide range of applications featuring minimum product give-away when removing contaminants from the product flow.



FL separator
Features minimum installation height making it ideal for applying it on a Vistus® RMFZ search coil with reduced-metal-free-zone.



EC separator
Featuring hygienic design allowing easy inspection and fast cleaning through tool-free (dis-)assembly.



SW separator
The solution for very high product throughput.

**Operator terminal**

For efficient control of up to 4 search coils. Equipped with colour touch screen display.

Vistus® RMFZ search coil

Features reduced metal-free zone, allowing installation in the immediate vicinity of metal structures.

Ceramic pipe

Extreme wear-proof and heat-resistant. Ideal for highly abrasive products and high temperatures.



Freefall metal detection system Vistus®

Secus[®] metal detectors for protecting production equipment and staff

Minebea Intec offers a full portfolio of metal detectors for the protection of expensive production equipment and production staff in various industries, including: chemical, plastics, recycling, rubber, wood, power plants, mining, tobacco and clay.

Secus[®] features:

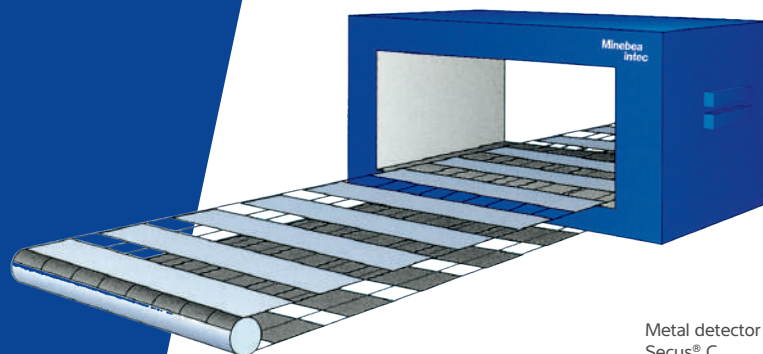
- Robust design combined with optimum detection sensitivity
- Extremely easy operation resulting in optimum user acceptance
- Available as standard with aperture dimensions of up to 2200 x 1200 mm (w×h).
Larger sizes available upon request
- Protection class IP55, IP66 optional



Different coil designs allow for a perfect integration into your production process

Secus® C

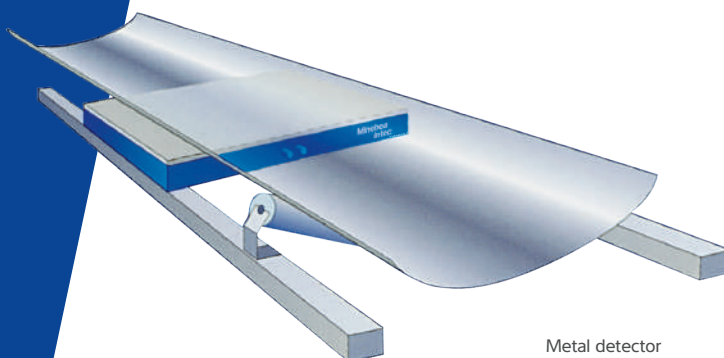
Standard coil for installation on conveyors



Metal detector
Secus® C

Secus® U

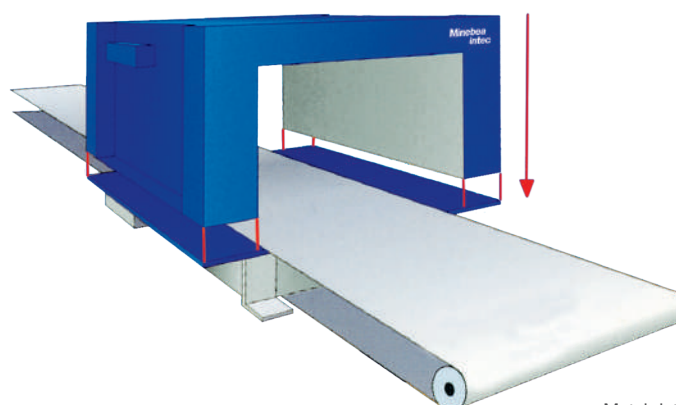
For installation beneath the conveyor



Metal detector
Secus® U

Secus® D

Splittable coil, for convenient installation on existing conveyors



Metal detector
Secus® D

Configuration options and complementary products

Rejector and separator systems

As part of our metal detection solutions we offer a wide range of high-speed rejector systems for guaranteeing a reliable and effective removal from the line in case of a detected contamination. The rejector systems include the following possibilities for conveyor applications: pusher, blower, swivel arm, flap/trap door, telescopic retract conveyor and multilane rejection system. For pipe applications you find an overview of available separators on page 10.

Test pieces

Most quality management systems require a regular testing of the detection performance of your metal detection system.

We can provide you with a comprehensive range of certified test pieces that ensure that you collect accurate and consistent validation data. The test pieces are available in a variety of materials and sizes for use in any metal detection application. All Minebea Intec test pieces are of course made of FDA approved materials.



SPC@Enterprise

The statistical process control software SPC@Enterprise helps you secure product quality, food safety and productivity.

The proven software offers configurable interfaces for recording data from a wide variety of machines, equipment and sensors in the processing or packaging line. It transforms this data into valuable information via powerful and comprehensive reporting functions, making it possible to react instantly if and when required.



For more detailed information, please visit our website or contact
sales.ac@minebea-intec.com

Customer individual solutions

Today's wide variety of different food products are being offered in an even larger variety of packagings, each having individual requirements when it comes to product handling and contamination detection.

Although our standard systems offer extreme flexibility, in some cases bespoke solutions or in depth consultancy are required. Our in-house Engineering Support team offers both. They can also provide you with design-in support for integrating our machines or solutions into your production or packaging line. Specifically for foreign body detection applications they can run tests with your products, advising you of achievable detection sensitivities.

Our product portfolio



Acceptance and storage
of loose materials

Incoming goods

Acceptance of
piece goods

Automated production systems

Precise control of delivered
and stored materials

For complete process control



Components and solutions
for truck scales



Silo weighing solutions



Metal detection systems
for loose materials



Floor scales



Dosing solutions

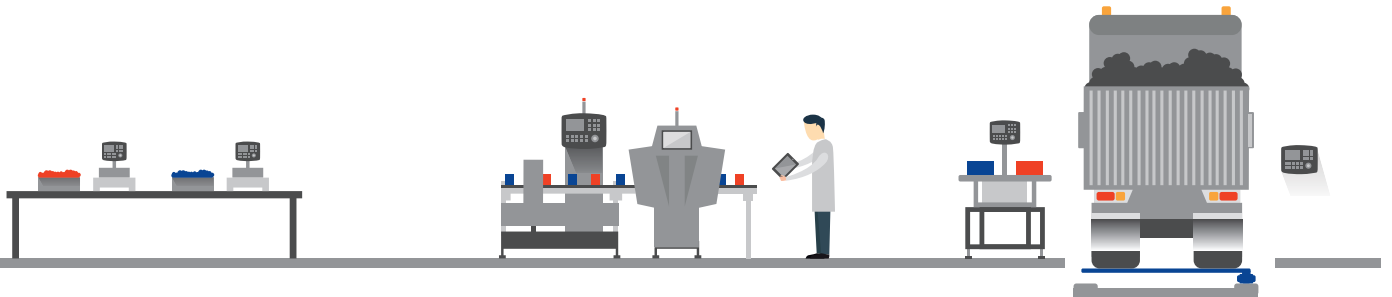


Process container weighing
(standard/digital solutions)



Process container weighing
(hygienic solutions)

We supply industry with products, solutions and services that increase the reliability, safety and efficiency of production and packaging lines. Our portfolio covers all applications from incoming goods inspection right through to goods delivery, including automatic and manual processes as well as filling and packing.



Manual production

Solutions that ensure accuracy and traceability



Portioning and checkweighing



Formulation and manual recipe weighing

Packaging

Guaranteeing product quality and food safety



Metal detection



Checkweighing



X-ray inspection



Filling solutions



Statistical process control

Outgoing goods

Quality assurance of final product



Floor scales



Checkweighers for heavy loads



Components and solutions for truck scales

Our services

Via our world-wide presence, we and our certified partners stand beside our customers across the globe throughout the entire life cycle of our products and solutions, from assisting them in selecting the right equipment and systems to performing upgrades and refurbishment, as well as conducting user training sessions.

Engineering Support – ensuring optimal solutions

- Advice on choosing the best products or solutions with regard to the desired performance, precision and costs
- Design-in support when integrating our products and solutions into existing designs
- Customer-specific products or solutions – adapted to individual needs

engineering support
by Minebea Intec

Commissioning – ensuring that production starts on time

- Mechanical and/or electrical installation, commissioning and instructions on set-up and use
- Calibration or conformity assessment of equipment and systems according to statutory measuring technology requirements
- Equipment qualification (IQ/OQ)



For more detailed information,
please visit our website or contact
info@minebea-intec.com



Maintenance and repair – ensuring equipment availability and performance

- Calibration or preparation for verification of equipment and systems according to measuring technology standards and statutory requirements
- Preventative maintenance safeguarding continued availability and performance
- Repair services, including emergency service contracts for a guaranteed response time
- Professional spare parts service
- Remote services



Upgrades – prolonging equipment life time and boosting performance

- Hardware and software upgrades
- Equipment refurbishment

Training – enhancing staff capabilities

- User training covering daily operation and/or minor repair and maintenance work
- Seminars providing knowledge of regulations and technologies

academy
by Minebea Intec





We make daily life safer

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The true measure