

X-ray Inspection Systems

for ensuring product safety, integrity and quality



X-ray inspection systems from Minebea Intec support compliance with industry standards such as HACCP, IFS and BRC, protect brand reputation and avoid costly product recalls.

We make daily life safer

Minebea Intec, formerly known as Sartorius 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 almost 70 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.



For more information on Minebea Intec, our products and services or for locating our office and partners in your country, please visit www.minebea-intec.com.



The Minebea Group

The Minebea Group is a global precision electromechanical components manufacturer, providing products for various industries. Minebea was founded in 1951 in Japan and today has more than 70,000 employees as well as production and sales & service facilities in 20 countries around the globe. For many products, The Minebea Group is No. 1 in terms of global market share.

Investing in an X-ray system pays off

The use of X-ray inspection systems in the food industry has significantly increased over the last years as they have proven to be a good investment for ensuring product safety, integrity and quality. Their ability to detect products containing foreign bodies and remove these reliably from the production or packaging line, supports compliance with industry standards such as HACCP, IFS and BRC, protects brand reputation and avoids costly product recalls.

While identifying products contaminated with metal, glass, rubber, stone, dense plastics or calcified bone, X-ray inspection systems can simultaneously perform in-line quality checks, including measuring mass, counting components, identifying missing or damaged products, monitoring fill levels and inspecting seal integrity.

Minebea Intec offers a wide range of X-ray inspection systems for different applications. All systems feature:

- Intuitive operator control through an icon based user interface. Products can easily be set up or adjusted by line operators without requiring special training or previous X-ray knowledge and without the involvement of an engineer



Scan the QR code and watch the video to convince yourself of our intuitive user interface

www.minebea-intec.com/en/videos/interface

- Outstanding detection performance while ensuring maximum line speeds
- Multi-lane solutions for up to eight lines through one detector
- Integrated network compatibility, allowing remote access by technicians for quick error diagnosis and support
- Powerful interfaces, including USB and Ethernet, allow an easy integration into data networks



Quick and tool-less belt release for ensuring minimum down time when cleaning or changing belts. Scan the QR code and see how it works

www.minebea-intec.com/en/videos/beltchange

'Minebea Intec X-ray inspection systems help me protect the reputation of our brand and avoid costly product recalls.'



To learn more about X-ray inspection in general, download our White Paper here!



www.x-ray-inspection.info/en

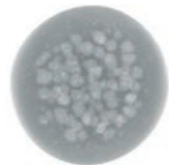
X-ray inspection systems for packaged food products

Minebea Intec offers a complete portfolio of X-ray systems for inspecting packaged products. Typical applications include cartons, boxes, pouches, bags, trays and sachets that can contain a wide variety of dry or liquid food products. The models Dylight and Dymond are specifically designed for these applications and feature:

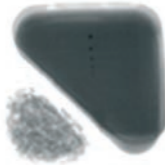
- Hygienic design, following EHEDG principles featuring sloped surfaces and curved edges allowing easy inspection and cleaning, resulting in considerable time and cost savings
- Combining high detection sensitivity with low power consumption
- 15" colour touchscreen display
- Covering belt widths from 200 mm up to 800 mm
- A wide range of standard possibilities for ensuring product integrity and quality, including:



Checking completeness



Determining product mass



Determining compartment mass

Are you looking to check specific quality attributes on your products? Please ask us. Through our Engineering Support services we offer individual software solutions for this.

Dylight

The Dylight X-ray inspection system is a true 'Plug and Play' solution, combining all functions in one compact unit. It is perfectly suited for the inspection of small products such as snacks, energy bars and sweets. Further features include:

- Extremely small width of only 1 metre, allowing you to integrate the unit in your packaging line, even when only very limited floor space is available
- Complete with integrated reject mechanism and collection container for contaminated or faulty products



Dylight

Dymond 80/120/160

The Dymond Series of X-ray inspection systems is extremely versatile. Featuring 3 models it is able to cover the majority of applications for inspecting packaged products. With belt widths up to 800 mm it is ideal for multi-lane applications of up to 8 traces.



Dymond 80



Dymond 120



Dymond 160



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X-ray inspection systems for large packages

With increasing product size and material density, high energy systems are required to ensure a reliable detection of foreign bodies. This is what the Dyxim FB Series offers.

Dyxim FB

- For inspecting large packages such as sacks and boxes up to a size of 700 mm x 360 mm containing dry or liquid food products
- While identifying product contaminations, the FB Series can simultaneously perform in-line quality checks, including measuring mass, counting components and identifying missing or damaged products



Dyxim FB

X-ray inspection systems for tall containers such as bottles, cans and jars

With the Dymond S, Dyxim S and Dyxim D, Minebea Intec offers a comprehensive product portfolio for inspecting tall containers. Next to reliably identifying products contaminated with foreign bodies, these systems can simultaneously perform in-line quality checks, e.g. monitoring of fill-levels.

Dymond S

The Dymond S combines high detection sensitivity with low power consumption. The unit is optionally available with a so-called chicane belt. Ideal for those situations where only very limited space is available.



Dyxim S

The Dyxim S is a high power system for reliably inspecting tall containers at very high speeds.



Dyxim D

The Dyxim D is a dual beam X-ray inspection system that produces two X-ray images at a 90° angle. This improves the ability to detect contaminations in plastic and glass containers, jars and bottles particularly in comparison to single beam systems. Below pictures show some of the situations in which the Dyxim D proves its value.



Raised bottoms



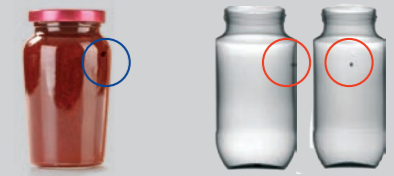
The dual beam X-ray inspection system prevents blind areas when inspecting glass jars.

Large thin foreign bodies



Reliable detection of a thin glass sliver, most likely not detected with a single beam system.

Inspection along the glass wall



Small foreign bodies near the glass are reliably detected with a dual beam system.

Configuration options and complementary products

Rejector systems

As part of our X-ray inspection 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 or a non-compliance of a product attribute. The rejector systems include the following possibilities: pusher, blower, swivel arm, flap/trapdoor, telescopic retract conveyors and multi-lane rejection systems.



Test pieces

Most quality management systems require a regular testing of the detection performance of your X-ray inspection 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 X-ray inspection 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 information via powerful and comprehensive reporting functions, making it possible to react instantly if and when required.

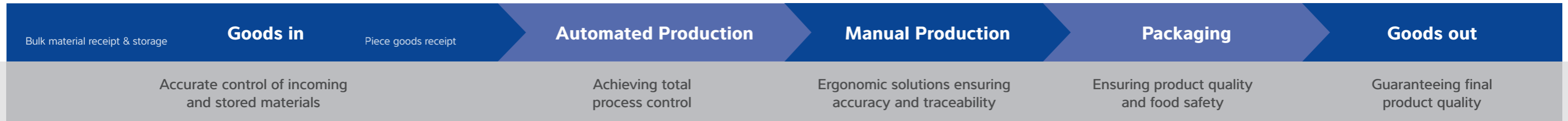
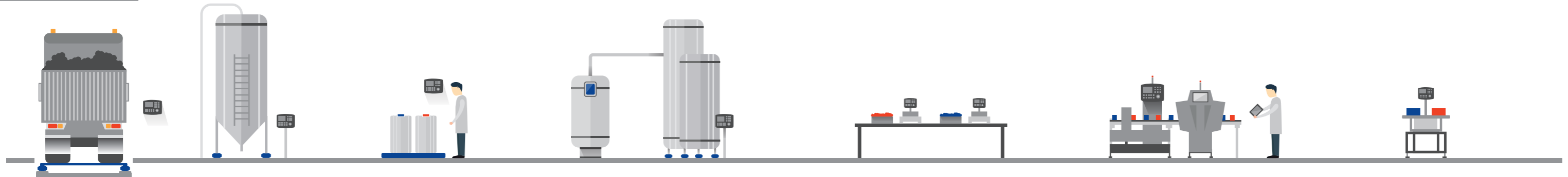
Customer individual solutions

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, contamination detection and the checking of quality attributes.

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



Truck Scale Components and Solutions

Silo Weighing Solutions

Bulk Material Metal Detection Systems

Floor Scales

We provide products, solutions and services to the industry for increasing the reliability, safety and efficiency of production and packaging lines. Our portfolio covers applications from goods-in to goods-out, including automated as well as manual processes and filling and packaging.

Batching Solutions

Process Vessel Weighing (standard/digital solutions)

Process Vessel Weighing (hygienic solutions)

Portioning & Checkweighing

Formulation & Manual Recipe Weighing

Metal Detection

Checkweighing

X-ray Inspection

Filling Solutions

Statistical Process Control

Floor Scales

High Capacity Checkweighing

Our services

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 for selecting the right equipment up to realising upgrades and refurbishments and providing user trainings.

Maintenance and repair – ensuring equipment availability and performance

- Equipment calibration or verification to legal metrology and measurement standards
- Preventative maintenance safeguarding continued availability and performance
- Repair services, including emergency service contracts for a guaranteed response time
- Remote services



Engineering Support – ensuring optimal solutions

- Consultancy assistance for selecting optimal products or solutions in terms of required performance, accuracy and cost
- Design-in support for integrating our products and solutions into your equipment, installation or production line
- Customisation: products or solutions designed to suit your individual needs



Upgrades – prolonging equipment life time and boosting performance

- Hardware and software upgrades
- Equipment refurbishment

Training – enhancing staff capabilities

- User trainings covering daily operation and/or repair
- Seminars providing knowledge on regulations and technologies

engineering support
by Minebea Intec



Start-up – ensuring equipment performance and on time production commencement

- Mechanical and/or electrical installation, commissioning, set-up and user instruction
- Equipment calibration or verification to legal metrology standards
- Equipment qualification (IQ/OQ)

academy
by Minebea Intec





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